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The Population Growth of Riyadh City in Saudi Arabia

by

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Thesis submitted for the Degree of Doctor of Philosophy in Social Science in the Faculty of Social Sciences, Department of Geography, University of Durham, U.K.

April 1990

1 0 FEB 1992

Abstract

This study is concerned with the growth of population in Riyadh City in the period between 1962 and 1988, using not only published data but also the results of an intensive questionnaire survey. The striking feature in that growth is the fact that the population of the capital has increased nine times in a quarter of a century. The rate of growth here is evidently higher than the national average. The reasons which enhanced and assisted this growth lie in economic, administrative and cultural stimuli.

Part One examines the distribution, and factors that influence the density of population concentration in Saudi Arabia; the historical development and factors that reflected the mutual effect between the growth of the population and the development of Riyadh City as the axis of Saudi Arabia and a centre of the Arab and Muslim worlds; housing, as the inevitable issue which would arise in such a situation, has also been surveyed.

Part Two concentrates on the demographic components of population growth; the absence of family planning and religious factors as well as the traditional and social ties which led to an exceptionally high rate of fertility. Due to modern medical services, good nutrition and high living standards, there was a sharp decline in the rate of mortality, especially among infants. Migration was a leading factor in boosting the population in the sixties and seventies, although the eighties witnessed a sudden decrease in the number of immigrants, which means that the growth was a direct result of the difference between the other two factors.

Part Three is concerned with the population structure from the point of view of age and sex, as well as marriage in the city community, and the level of education. Finally, this part examines the economically active population in Riyadh City as well as in Saudi Arabia as a whole.

Riyadh City is likely to grow from its population in 1988 of 1.3 million to approximately 1.9 million by the end of the century, but its primacy is unlikely to increase and consequently Saudi Arabia should keep its binary city-size distribution.

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Declaration

I declare that the contents of this thesis have not previously been submitted at this or any other university.

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May 1990

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Chapter One

Introduction

Between 1900 and 1980, the number of people living in cities and towns increased ten times, and the number of cities whose population is estimated to be more than 100,000 inhabitants rose to more than 2000 accommodating more than one-third of the total urban population (Al-Said, 1981, p.176). In the developing world, levels of urban population vary substantially within and between the different provinces and countries but by the late 1980s about a third of the total population were defined as urban, and this proportion is growing steadily. Indeed, between 1950 and 1975 the total urban population of the Third World grew by 400 million and by AD 2000 will have increased by a further 1,000 million. An undeniable feature consequent on this unprecedented scale of growth has been the way in which the largest cities appear to be growing at the most rapid rates. This phenomenon has given rise to the concept of urban primacy, which is the demographic, economic, social and political dominance of one city over all others within an urban system (Drakakis-Smith, D.1987, p.5), and which Riyadh exemplifies.

Riyadh City, located at the heart of the country, is Saudi Arabia's capital and largest city. Its position is unique amongst other cities, not only because of being situated in the centre of the Arabian Peninsula, but also because it plays the leading role in the political, administrative, economic and cultural life of the country. In addition, in recent years, it has come to play a leading role and

serve as a centre of the Arab and to some extent Muslim world as well. The city has changed dramatically.

Riyadh City has experienced tremendous growth, both in population and in area, especially over the last few decades. There are several important factors which have led to the growth of Riyadh City. These are as follows:

1. Modification of municipal and administrative boundaries to include surrounding villages, classifying as urban areas places such as Manfuha, Meakal and Otaiga.

2. The natural increase in the city population.

3. Migration into the city, which accelerated through the second half of this century.

4. The railway to Dammam city on the Eastern Province.

5. The construction of new highways which connect the city with the other major centres in Saudi Arabia.

6. The transfer of government ministries and other government offices in 1953 from Jedda to Riyadh City.

7. Job opportunities concentrated in the city.

The city of Riyadh is looked upon as a centre for all sorts of jobs, industrial, commercial, services and administrative. Also it has a many development projects and much investment so that it has become a magnet for in-migration currents, which have continually increased its population. The rapid development and growth of the Saudi economy has allowed Riyadh City to grow and prosper beyond earlier expectations.

1.1 Statement of the Problem.

During the past three decades, Saudi Arabia has witnessed a rapid population growth which has a direct reflection on its cities, some of which have significant growth rates in excess of the national average. The population growth of the cities has not taken place at the same rate for several reasons, the differences in geographical location, the regional population distribution and differences in the volume of migration flow.

In recent years planners and researchers have devoted insufficient attention to the subject of the population geography in Saudi Arabian cities since most of their studies have focused on the information available from the population census carried out in September 1974 and on a number of studies and research projects aimed to provide the essential statistical indicators needed for socio-economic development plans.

The prime purpose of this research is fourfold: to undertake a geographic and demographic analysis of the population growth of Riyadh City; to analyse the factors affecting it since 1962, especially migration and natural increase; to examine patterns and trends in that growth; and to examine the population structure of the city under such an unusually rapid growth.

Considering the above-mentioned aim of this research, there are some other aims in studying the population growth of Riyadh City in Saudi Arabia, such as:-

(a) to fill a gap in the literature. During the past fifteen years research has been carried out and several studies have been made in university

departments and in academic research centres such as The Committee of Riyadh Research and Saudi Geographical Society at the King Saud University, about various aspects of Riyadh City in particular and Saudi Arabian cities in general. But there are still some aspects that have not been analysed completely. For instance, most of the studies which analyze the population of Riyadh City (such as those of Al-Sheikh, 1981; Malik, 1973; Khraif, 1984; Al- Oteiby, 1988) are concerned with one aspect which is migration in Riyadh City. Other studies, such as the one by Al-Obeidy, 1985 deal with the incidence of infant mortality in Riyadh City.

(b) to provide a clear picture about housing conditions and public services in Riyadh City.

(c) to investigate the broad pattern of contemporary population distribution in Saudi Arabia in which the growth of Riyadh has taken place, and the major changes which have occurred in this pattern between 1930 and 1988; and to analyse those causative factors which have brought variation in distribution and density.

(d) to analyse the level and trends of fertility, mortality and migration in Riyadh City and compare them with Saudi Arabia as a whole, and the factors affecting the elements of population growth.

(e) to analyse the population structure (age, sex, marital status, education and economic structure) of Saudi Arabia as a whole and Riyadh City in particular, and to find out to what extent these elements affect Riyadh City population growth.

The thesis also attempts to answer the following questions:

1. Is there a significant trend in the levels of fertility, mortality and in-migration in Riyadh City, and to what extent do the levels of fertility,

mortality and in-migration in the city differ from those in Saudi Arabia as a whole?

2. What are the important demographic and socio-economic factors which affect the mean age of first marriage?

3. To what extent is the population structure affected by recent growth trends and how far does the population structure in Riyadh City differ from that of the Saudi Arabian population as a whole?

4. To what extent has the expansion of education, especially for girls and women, affected the growth of Riyadh City?

5. Has Riyadh City's population been provided with adequate public services?

1.2 Demographic Setting

The population of the Middle East is not dense - indeed the whole region has far fewer people than China, India or other major concentrations of mankind. This is a reflection of the difficult environments, dominated by deserts and to a lesser extent mountains, in which sparse nomadic populations traditionally prevailed. The population is low in spite of the fact that the region saw the emergence of some of the earliest civilisations, the spread of empires, and the growth of major monotheistic religions (Islam, Christianity, Judaism).

However, the population of the Middle East has been highly fragmented by political boundaries into more than twenty states, differing greatly in population and size, economic wealth, ethnic and social composition. At one end of the scale is a group of micro-states including Bahrain, Qatar, U.A.E. and

Kuwait, and at the other a number of meso-states, such as Turkey, Iran and Egypt. In between, Saudi Arabia is quite large in area but moderate in population. Perhaps more striking from all viewpoints are the differences between the oil-rich and oil-poor states, which affect not only economic development but social and demographic evolution, notably population growth, migration, mortality and fertility.

Consequently, the Middle East has considerable demographic diversity. Some countries have a high fertility rate (e.g. Saudi Arabia, Democratic Yemen, Oman, Syria and Iraq), while others a much lower one (e.g. Cyprus, Tunisia and Lebanon). Some have high mortality (e.g. Sudan, Democratic Yemen, Oman and Yemen A.R.), and some have low mortality (e.g. Kuwait, Cyprus, United Arab Emirates and Qatar). Moreover, some countries receive migrants (e.g. Saudi Arabia, Libya, Kuwait and Oman) while others are sources of migrants (e.g. Egypt, Sudan, Tunisia, Algeria). Indeed, some are both sources and receivers of migrants (e.g. Jordan, Oman and Iraq). As a result, the proportion of foreigners within countries varies immensely. For example it is well over 50% of the population of Qatar and Kuwait, but only a small fraction in Iran and Turkey.

Population data are always difficult to obtain in populations which are changing rapidly. This is particularly difficult in the highly transitional populations of the Middle East, and in Saudi Arabia in particular. It is even more difficult in a city like Riyadh, which is one of the most rapidly growing cities in the Middle East, with 82,000 inhabitants in 1950 but probably 1.4 million in 1990.

Information for demographic analysis generally comes from three sources: censuses, compulsory registration and sample surveys. It is generally agreed that compulsory registration statistics are more accurate and reliable than census returns because census statistics are subject to many errors and limitations as a result of omissions and double entries, either as an outcome of genuine error, illiteracy or with purpose to mislead for financial or political motives. Compulsory registers, while generally more reliable, also suffer from inaccuracies, for example in remote rural areas infants who die before registration may not be enumerated. Apparently death registrations are less complete than births in Asia also, and in most cases the coverage in tropical Africa is even more deficient than that of Asia. Uncertainty has occurred in all developing nations with respect to the completeness of their registration systems. There are two major problems in the developing countries relating to compulsory registration statistics: 1) a considerable number of births and deaths are never reported, and 2) whole sections or areas of countries are not part of the data collecting.

It is well known that demographic information, including statistical data, is very difficult to obtain in south west Asia, especially most of the Arab states, as some countries have only a little information to offer to the student of demography. This particularly applies in Saudi Arabia, Lebanon, Qatar, Yemen, Democratic Yemen, and Oman. For these countries estimated population totals are little more than guesses. A number of factors account for this shortage of census data. The social structure is particularly important, for census enumerations are very difficult among populations which are nomadic,

illiterate or have fear or suspicion of the motives of the enumerators. For many parts of the Arabian peninsula there are few population data. Saudi Arabia actually held a population census in 1962-63, but found the total enumerated unsatisfactorily small (3,000,000) and so for political reasons has neither accepted nor published the results (Clarke, J.I., 1971, p.141). In Lebanon it has been a matter of social and political structure which has impeded census taking, as the relations between the Christian and Muslim communities, which have a delicate numerical balance, would probably have been worsened by any attempt to determine more accurate numbers. However in recent years civil war has prevented census taking.

The consequence is that some countries, like Cyprus, Kuwait and Egypt, have reasonably reliable population data; some have fairly adequate data (e.g. Turkey, Iran, Syria, Jordan, Iraq and Bahrain); while some have very little (e.g. Oman and Democratic Yemen).

Saudi Arabia may be classified among those Arab countries which still lack adequate demographic data on population growth, births, deaths and migration. Clarke (1969, p.46) stated that it is never easy for the government of a developing country to have a precise knowledge of the rate and volume of its population growth. Decennial censuses are costly and often inaccurate, vital registration of births, marriages and deaths is incomplete, and statistics of international migration are insufficiently detailed to calculate accurately the balance of immigration and emigration. These problems are demonstrable in Saudi Arabia. It has conducted two national population and housing censuses.

The first was conducted in 1962-63, but the government did not approve the result officially and it has only published some of its results for certain cities. Al-Shuaiby (1979) stated several problems which were in the first census:

1. About half the population lives in settlement units of between 7 and 1,000 inhabitants in size, distributed over a land with an area of 2.3 million square kilometres, mostly desert.

2. The nomads were difficult to enumerate in any particular area because they usually roam, each tribe within its territory, looking for places of recent rainfall, good grazing and water resources.

3. There were no accurate administrative boundaries within the country to delimit areas of enumeration.

4. There were no complete vital statistics of births and deaths which could be used to estimate the natural increase rate of the population, because many people did not register for such a purpose (Al-Shuaiby, A.M., 1979, p.65).

In addition, we can note the following problems:

5. Transportation is difficult in most of Saudi Arabia especially in the deserts and mountains.

6. Postal services to housing units are non-existent, so people receive their mail at their place of work or they have post boxes in the post offices.

7. There is cultural variation between the different regions of the country.

8. Mass media have to make some explanation to the public about the benefit of the national surveys.

It must also be remembered that the speed of change in a country like Saudi Arabia is difficult to control. Government departments have only limited information upon all aspects of phenomena within their remit.

Saudi Arabia conducted its second census in September 1974. It is considered by the government to be the first complete national enumeration of the population, but there are indications of defects in the accuracy and reliability of the data (UNECWA, 1979). For instance, there are serious problems with the reported age-sex distribution of the population. Men outnumber women in the age groups 50 and over in Saudi Arabia. In the age group 55- 59, for example, there is slightly more than one and a half times as many men as women among the national population. This is a result of under-registration of women as well as of non-Saudi males who reported themselves to be Saudi (UNECWA 1979, p.11-12).

The vital registration system for the recording of vital events such as birth and death was established in 1962. Unfortunately, due to incomplete coverage, data on vital statistics are very difficult to obtain in Saudi Arabia. If one has access to such data it is of very limited assistance in calculation of demographic estimates. In general registration of births approaches nearly half of all the live births among the settled population, and the number of registered deaths is far below this proportion.

Obviously, this thesis made reference to numerous other surveys and studies, most of which are found in the basic journals of demography and population studies (e.g. *People*, *Population Bulletin of the ECWA*, *Population Studies*, *Demographic Year Book*, *Population Index*, *Population and Development Review*, *Studies in Family Planning*, International Conferences of IUSSP) and other doctoral theses.

This thesis depended on an extensive survey, because of the absence of new complete data covering the population of Riyadh City. A sample survey was conducted in February 1988 in order to cover the scope of the thesis. The sampling unit for this research was the household, and the files of the Saudi Consolidated Electric Company (SCECO) were used to select the sampling frame. A random sample of 1,533 households was selected from the city. Three formats or questionnaires were utilised in the survey, the first of them concerned with the housing structure in the city, while the other two dealt with the socio- economic characteristics and components of the population growth.

Surveys in Saudi Arabia are more difficult than in western countries and even in other parts of the Arab world, because of the interaction of cultural, social, economic and religious factors. Thus, carrying our a survey in Saudi Arabia presents various problems which may be summarised as follows:

1. The low understanding of the statistical operation among the Saudi population.

2. The 'hear-says' and fears of conscription: even though since the foundation of the state up to this time there has been no conscription, fear of it prevents people giving correct information about themselves or their families.

3. The illiteracy of the people.

4. The reluctance to participate in the answering of survey questionnaires.

5. The fabrication of information in order to receive a government benefit, such as an elementary school in the neighbourhood.

6. The counterfeiting of information in order to obtain one of the government subsidies such as social security.

7. The reluctance to give information about females.

8. The lack of organisation among the different departments in recording the information from the public.

9. The decentralisation among the departments in recording the events from the public.

10. The confidentiality of the work.

Despite these difficulties, the survey conducted by the author proved remarkably successful, and added to an understanding of the population growth of Riyadh.

Although, like many cities in the Middle East, Riyadh has an ancient foundation, this bears little relation to its twentieth century growth which has swamped the original nucleus. It is only in this century that the country has

been transformed from one dominated by pastoral nomadism to one in which four fifths of its population live in towns and cities, of which Riyadh is now the largest.

Moreover, the growth of a city like Riyadh is influenced by policies of all government departments, and all social and economic changes within the country. Consequently, its evolution is even more difficult to control. It is of course set within a network of other cities, and is also influenced by their development. Although the biggest in Saudi Arabia, it is not overwhelmingly bigger than Jedda and Mecca. Because it is the capital and in the heart of the country, it does appear that it will remain the primate city, but not by a great margin.

1.3 Significance of the problem.

The significance of this research is fourfold. First, during the past three decades, Saudi Arabia has witnessed a rapid population growth which has had a direct influence on its cities, some of which reveal growth rates several times the national average. The increased rate has not been the same in all cities due to differences in the regional population distribution, and also to various factors influencing the growth of cities which are different from one time to another.

Second, although Saudi Arabia is suffering from a dearth of precise demographic data on population growth, fertility, mortality, migration and composition etc., a number of analyses have been carried out of various aspects of

population subsequent to the publication of the 1974 census. However, there are still some aspects such as population increase in Saudi Arabian cities which have not received sufficient attention from researchers. Most of their studies and investigations have focused on one aspect of the component of the population growth such as migration, and mortality for an individual city and also on the demographic characteristics of the population and, in particular, on population growth at the national level.

Third, there is no single study in which a complete set of variables on demographic and socio-economic factors that influence the population growth has been considered. For this reason, analysis of effects of these factors is as important or possibly more important in explaining population change in Riyadh City than any other single consideration. This idea embodies the basis of the research analysis. Consequently, this study constitutes a modest attempt to examine these factors regarding population growth in the light of the changes observed in Riyadh City from 1962 to 1988, to analyse the patterns and trends in that growth, and at the same time to explain its component factors.

Finally, Riyadh City is the capital and the largest city in Saudi Arabia both in population and area. In recent years, it has been the most rapidly growing city in terms of growth and development. It is considered to be one of the most distinguished cities and capitals in the Muslim world, in respect of development and growth in various fields. The world as a whole has rarely witnessed the scale of upswing and large-scale advancement as experienced by Saudi

cities in general, and by Riyadh City in particular. It is a remarkable phenomenon which deserves investigation and research.

1.4 Source of Data.

The demographic aspects of Saudi Arabia have been neglected for many years, due to the lack of official published census reports. The population figures of the country as a whole or even individual cities prior to 1963 were the result of guesswork by foreign or local sources.

Nowadays, a good deal of attention has been devoted to the implications and consequences of demographic changes which the country experiences. Similarly, much attention has been given to rapid city growth which, especially since the 1950s, has assumed high proportions and importance.

However, by contrasting data from different sources the analyst may check for inconsistencies so as to increase the scientific reliability of the information. It is for this reason that in the present study, all the available official data pertaining to population in Saudi Arabia (population census of the Department of Statistics of Saudi Arabia, documents from various ministries, Finance and National Economy, Labour and Social Affairs, Municipal and Rural Affairs, Public Works and Housing, Information, Planning and Interior, etc.) will be used. The other data source used in this study is field work data (questionnaires), examined in section 1.5. These two sources provide information on the demographic and socio-economic characteristics of the Saudi Arabia as a whole and Riyadh City in particular.

1.5 Organization of the thesis.

The present study is divided into three main parts. Following this introductory chapter, Part One examines the growth of Riyadh City in Saudi Arabia, and comprises three chapters. Chapter Two deals with the changing population distribution and population density of Saudi Arabia, and the factors influencing them. Chapter Three provides a background study of the physical development of Riyadh City, covering location, historical evolution, the factors influencing its urban expansion, centrality and the land use pattern of the city. Chapter Four examines the present housing patterns in Riyadh City; it covers housing types, the materials used, age of housing units, ownership, public services, area of housing units, occupancy, housing density and household facilities and equipment.

Part Two is concerned with the components and size of population growth and attempts to compare the situation in Riyadh City with that of Saudi Arabia as a whole and to identify significant differences between them. Chapter Five deals with high and stable fertility in Riyadh City and the lack of family planning. Chapter Six examines the declining mortality in both Riyadh City and Saudi Arabia as a whole, the main causes of death, together with the natural increase. Chapter Seven is concerned with migration to Riyadh City and its growth of population. The first section of this chapter provides a brief history of migration in Saudi Arabia, trends in migration and distribution of immigrant population in the different parts of the country. The second section

is concerned with migration to Riyadh City and origin of migrant households, concluding with an assessment of growth of Riyadh City's population.

Part Three deals with the population composition of Riyadh City as well as Saudi Arabia. Chapter Eight analyses the age-sex structure and the dependency ratios. Chapter Nine examines marriage in Saudi Arabia and Riyadh City, covering the mean age of first marriage and forms of marriage. Chapter Ten examines the role of education in the growth at Riyadh City, literacy and educational levels, and school enrolment of the population. Chapter Eleven deals with the economically active population in Saudi Arabia and Riyadh City.

Finally, the above analyses are drawn together in the conclusion in Chapter Twelve, which synthesises growth and population in Riyadh City in Saudi Arabia, including a consideration of the population in Riyadh City in the near future.

1.6 Survey Methods

It is important to get accurate information about changes which are occurring in the size, structure, composition and socio- economic characteristics of the population of Riyadh City, and to determine the factors and probabilities of these changes. The acquisition of the information on which decision-making can be based is a continuous requirement for planning departments and for other sections of local government such as education and social services.

The purpose of sampling is to economise, usually on money or on some other factor that is in short supply, such as manpower or time. Thus, as it is not practical to ask every household in Riyadh City, a representative group is selected from the city.

1.6.1 Study Area.

The findings of the survey presented in this chapter are confined to the built-up area which surrounds the C.B.D. of Riyadh City. This area covers approximately 1,600 sq.km. but is not completely built-up; there are many void spaces throughout the built-up area, some of which are empty by design, whilst others are not. The road network and most of the public utilities have been constructed throughout the city, even to parts not yet built upon.

1.6.2 Pilot survey.

A pilot survey was carried out from 25 April 1987 to 6 May 1987. It was conducted by the author with the assistance of one student who was trained in data collection.

Whilst the opinion of the possible users of the results of the survey are important, the questionnaire must be tested in the field on a limited number for the following reasons:

1. To enable the researcher to develop a more appropriate and detailed survey.

2. To determine the questionnaire's suitability and whether it covers all the elements involved in the research.

3. To give an indication of the questionnaire's length, the number of interviews needed and an estimated time needed to complete the field work.

4. To give a clear idea of the time required for the collection of the data from each household.

5. To fill in any gaps and modify or omit questions which were not accepted or understood by the respondents.

6. To adjust the questionnaire in the light of the test so that it does not conflict with the research values and objectives.

7. To measure the extent of the respondents' opinions, suggestions, observations and their comments on the questionnaire.

8. To benefit from the respondents' opinions, suggestions, observations and their comments on the questionnaire.

9. To detect any difficulty hindering the obtaining of some data and any errors in data collection procedures.

10. To stress the confidentiality of the data collected from the household.

11. To take all the necessary decisions for the subsequent stages of planning the main survey.

The sample size was 20 households. It was selected from different locations in Riyadh City. Five households were selected from the city centre, five from within a one-kilometre distance outside the city centre, five from a 2-3 kilometre radius of the city centre and the last five from a 3-4 kilometre radius from the city centre.

The result of this study revealed some observations and indicated corrections to be made in the questionnaire structure. One question about migration to the city was deleted because it was not understood by most of the respondents. Two questions on educational status were combined in one question. The questions about fertility were modified to check the accuracy of the responses. The time needed to complete one questionnaire ranged from 45 minutes to two hours, depending on the distance between the selected households.

1.6.3 Fieldwork

The fieldwork was launched between the 12th of Rajab and the 25th of Sha'ban 1408 in the Islamic lunar calendar (29 February - 12 April 1988). The survey was financed by King Saud University and directed by the author. More than 10 per cent of the work was undertaken by the author. It was very important for the author to interview a large number of the sample in order to be in touch with the real situation and to gain insight into the difficulties facing the survey.

1.6.4 Sample Frame.

To select a sample, one must have some kind of list of all units which contained all the study sampling units. This may already exist or the surveyor may have to create it. The latter is very expensive, since the surveyor has to create special mapping or listing operations.

The sampling unit for this research is the household. Up to the time of writing, there is a lack of information concerning the total number of households, not only in each neighbourhood but also in Riyadh City as a whole. Therefore the files of the Saudi Consolidated Electric Company (SCECO) were used to

select the sampling frame. SCECO have classified the subscribers in their files as commercial, residential, industrial, agricultural, V.I.P.s, government offices, mosques, hospitals and others. The sample was drawn from the residential section. In January 1988, information about the total number of electricity subscribers in the residential section was obtained from SCECO and used as a substitute for the number of households in Riyadh City.

Despite the fact that several researchers have used the files of SCECO as the sampling frame for their research, it introduced a methodological problem. First, although industrial, agricultural and other types of units could be excluded beforehand, the residential type included households which were residential for commercial purposes such as clinics, solicitors or business offices. All these were listed indiscriminately. The solution for this kind of problem in the field of residential for commercial purposes was to eliminate them. The second problem was that every house in Riyadh City has electricity but possibly a housing unit may have more than one electric meter, such as the residential complex of some companies. This represents only a small percentage and the sampling frame is therefore not seriously biased for the purpose of this research.

1.6.5 Sampling procedure.

According to the Saudi Consolidated Electric Company map, Riyadh City is spatially divided into four districts consisting of 112 neighbourhoods and they vary in area and population density. For the purpose of our sampling, it was

necessary to accept this division in order to obtain the precise number of electric meters in each district.

Conducting a sample survey in a rapidly expanding city such as Riyadh was not an easy task, especially when time and money were limited. Therefore, a random sampling procedure was used to select the total number of households for interviews, using the files of SCECO as the sampling frame. The total number of subscribers in the residential category obtained from the company was used to demarcate the sample size which was then selected by means of random numbers. A total of 1600 electric meters within a survey area of 1,600 square kilometres were selected at random.

All the 1,600 households selected were to be interviewed. In all cases, the interviews were conducted with the head of the household. The survey did not include those households where, for various reasons, no adult member was present at home to be interviewed. Fortunately, the number of such households was very small. The timing of the fieldwork during the school day was designed to ensure that as many as possible of the heads of households and their spouses would be available for interview, thereby including in the survey questionnaire some questions which should be answered by the wives of the households. A total of 1,533 households were interviewed in Riyadh City, or 0.5 per cent of all the households in Riyadh City (1988 sample survey). Table 1.1 reveals some variations according to district, but they are not of real significance.

Table 1.1

Proportion of sample households interviewed to total number of residential units by district

District	Number of residential units	Sample households interviewed	%of residential units	%of total sample
North	72,510	328	0.5	21.4
East	74,988	429	0.6	28.0
South	129,448	369	0.3	24.1
Khuras	55,930	407	0.7	26.5
Total	332,876	1,533	0.5	100.0

Source: Saudi Consolidated Electric Company in Riyadh City

The household was defined as a group of persons, usually bound by ties of kinship, who normally resided together and shared meals from a common kitchen. It normally consisted of two or, in some cases, three generations comprising a husband and his wife, their unmarried children, and sometimes one or more of their aged parents and some of their grandchildren. Often, recently married sons who had not yet established their own separate households, as well as divorced or widowed daughters and their own children, may reside as part of the household.

The survey questionnaire comprised a total of 79 questions (see Appendix A). Simplicity, clarity and brevity were followed in the design of the questionnaire, and it was subjected to a test and modification before the final draft was drawn

up. It was divided into the following four sections to get detailed information about the characteristics of housing and household members:

1) Housing characteristics: district number, age of housing unit, building material, type of housing, housing condition, housing ownership, area of housing unit, number of persons in each housing unit, number of rooms in each housing unit, water supply, sewage system and number of storeys.

2) Socio-economic characteristics of all household members: relation to head of household, sex, age, place of birth, previous residence, present residence, length of residence in Riyadh City, reasons for living in Riyadh City, educational, marital and employment status.

3) Fertility of all married, divorced and widowed persons: date of most recent birth, sex, whether the child was still alive, date of death, number of children living in the household, number of children living outside the household, number of children dead and the total number of children ever born to the woman.

4) Mortality: whether in the last twelve months there have been any deaths in the family, sex of deceased, age at death, occupation of deceased, cause of death and marital status.

The advantages of sampling are considerable in terms of time, cost and potential for greater accuracy and control. To obtain these advantages, however, the sampling procedure chosen must be very well prepared to suit the survey needs. For this type of survey all kinds of financial and administrative problems should be dealt with before the survey begins.

The procedures used for this survey were as follows:

1. Arranging transportation facilities and accommodation from the King Saud University.

2. Obtaining financial support and letters of recommendation.

3. Designing and printing the required number of questionnaire forms.

4. Selecting interviewers to be employed in data collection.

5. Training the interviewers.

6. Obtaining the list of the total number of electricity subscribers in Riyadh City.

7. Preparing a map of Riyadh City with the four districts similar to the SCECO division.

8. Data collection.

9. Reviewing all the questionnaires collected.

10. Cross-checking 1600 questionnaires in the field.

11. Coding all questionnaires.

12. Discharging the financial support and returning the University car and giving up the accommodation.

13. Entering the data in the University of Durham main computer.

1.6.6 Training the data collectors.

The process of data collection in the fieldwork requires special selection and training of interviewers to participate in the survey. The interviewers form the most important part of the survey organization, and its success therefore largely depended on the availability of proper collectors. The survey was

conducted by male interviewers, essential in a society like Riyadh City. Sixteen interviewers were selected to carry out the survey. The principal aim of training the interviewers was to give them proper skills and knowledge to enable them to conduct the field work. The training comprised a detailed briefing on the background of the study, including its aim, the significance of the study, the data collecting techniques and the importance of the information sought from this survey. Instructions were prepared in writing and given to the interviewers to study and refer back to whenever necessary. The interviewer was directed to pay a visit to the household, and after briefly introducing himself to the head of the family to inform him of the purpose of his visit.

Upon arriving in Riyadh City early contact was made with the University officials to obtain University approval to carry out this research. The author wrote a letter to the general administration for staff and personnel affairs asking for transportation facilities and accommodation from the University. A research grant of 24,000 S.R., equivalent to £4,000 sterling, was collected sixteen days prior to the survey, and an updated city map (1:40,000) was obtained from the Riyadh Municipality to be used as the reference map.

The questionnaire was written in Arabic (one year prior to the survey) and was revised in the pilot survey. It was examined by different staff members in the geography department and social studies department in the College of Arts at King Saud University. After it was finalised and improved, two thousand copies of four pages each were printed at King Saud University press. An

English version of the questionnaire was developed later in case non-Arabic speakers were found among our sample.

It was found that selecting university students to carry out the survey was inappropriate because they could not work full time on this task and would be prevented by their studies from taking on responsibilities which might affect the reliability and accuracy of the data, so sixteen data collectors were selected from different places in Riyadh City such as local graduate students who were not yet working. The data collectors met daily at the author's flat for the following reasons:

(i) to solve any shortages or inadequacies in the field work;

(ii) to check the completed questionnaires;

(iii) to determine the problems which the data collector could solve by himself and those which he should refer to the author to discuss at the meeting;

(iv) to give the data collectors instructions to contact the author without delay when unforeseen problems emerged on any particular day;

(v) to distribute the responsibilities among the data collectors;

(vi) to evaluate the data collectors' work;

(vii) to collect the finished questionnaires; and

(viii) to discuss and solve any fieldwork problems.

The data collectors were asked to interview at least five households daily as the approximate estimated time to conduct this number of interviews was six

hours. All the collected questionnaires were checked daily between 10 pm and midnight and the interviewers informed about any incorrect or missing information. The following day the interviewers would pay a second visit at a later specified time to complete the questionnaire. Their transportation costs were paid by the author.

The interviewing was scheduled to start after Asr prayer, about 3.20 pm because most of the heads of the household would be at home, and continued until nine o'clock on weekdays but at the weekend, which is Thursday and Friday, the interviews were conducted from 9 am to 9 pm. The data collectors faced many problems while interviewing the heads of household. A sizeable proportion of the heads of household in the older age groups in Riyadh City are illiterate and did not realise the value of the survey, giving irrelevant information. Some considered the survey to be an interference in their private affairs and some even feared that the information they revealed might be used to their detriment in government subsidies. In many cases the head of the household was absent at the time when the data collectors called. In March there was a golf tournament which slowed down the work considerably, because getting responses from the younger generation, and even from elderly people, was very difficult and they asked for the interview to be postponed until the end of the match.

It was not easy to find a group of young men willing to accept temporary work for three or four weeks as interviewers in a closed society and yet carry out their task with absolute integrity, attention to accuracy and detail when the

interviewers are humiliated. Seven of the interviewers withdrew from the survey, and therefore, the author made personal contact with friends in Riyadh City who gave their cooperation and encouraged their relatives to participate in the survey.

Twenty seven householders refused to be interviewed and in 46 cases the head of the household was absent even after the second visit. If the householders would not cooperate or the house was vacant, the next household was selected. Of the 1,600 households which were interviewed, sixty seven households (4.2 per cent) were withdrawn from the sample due to the lack of co-operation even after the second visit.

1.6.7 Data-analysis and coding.

Using computer sheets 1533 questionnaires were coded by six females. They were chosen to do this kind of work because they were more patient and would work for long hours. After finishing all the coding an extra copy was made. The original copy was held by the author and the extra copy was sent by air-mail to the United Kingdom. These were entered later in Durham's University main computer for statistical analysis. Two statistical packages were used to analyse the data. The first was SPSSX used to determine the cross-tabulations. The second package used in the analysis was GIMMS to generate the graphs.

It will be seen that the questionnaire survey was vital to the analysis and understanding of population growth in Riyadh, especially as other data from censuses and registration are far from perfect. Without the survey, this work could not have been satisfactorily completed.

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PART 1

THE GROWTH OF RIYADH CITY

IN SAUDI ARABIA

Chapter Two

The Changing Population Distribution of Saudi Arabia

Introduction

One of the most striking features of Saudi Arabia's population is its highly unbalanced and uneven distribution. Saudi Arabia is mostly desert. The whole of the south-eastern area, about one- third of the country, is the Rub-Al-Khali, the most forbidding desert in the world. The overwhelming majority of the Saudi population is concentrated in the south-west of the country. The uneven population distribution reflects not only the topographical and climatic environment and historical pattern of settlement, but also the economic development.

This chapter analyses the changing pattern of population distribution among Saudi Arabia's regions during the period 1930 to 1988. The aim of this chapter is to analyse and explain the broad pattern of contemporary population distribution in Saudi Arabia, the major changes which have occurred in this pattern between 1930 and 1988 and introduce for the analysis of those causative factors which have brought the detailed distribution and variation in density. It thus explains the pattern of population in which the city of Riyadh is set.

2.1 General Background

Saudi Arabia takes up a large majority of the area of the Arabian Peninsula, which is located in south-western Asia. Its total area is approximately 2.3 million square kilometres, nearly 900,000 square miles, which is about ten times the size of Great Britain. From east to west it covers a distance of about 1500 km., and 1900 km. from north to south. It shares borders with Jordan, Iraq and Kuwait in the north, North and South Yemen in the south, Oman, Qatar, the United Arab Emirates and the Arabian Gulf in the east, and the Red Sea and the Gulf of Aqaba in the west (Figure 2.1).

Saudi Arabia is divided into five regions and these in turn into districts and sub-districts. Al-Riyadh, the state capital, is located in the Central region. In the north and east there are several oases with a sedentary agricultural population. The Western region includes Hijaz. It has some of the most important cities in the country, including Mecca and Medina, the two most sacred towns in the Muslim World. The Southern region consists of the Asir area. The rainfall is more than 500mm annually. A number of fertile wadis (valleys), of which the most important are Bisha, Abha, and Baha, make possible oasis agriculture on a relatively large scale. The Eastern region contains the relatively new oil cities, such as Ras-Tanura, the petroleum port, Dhahran and Abqaiq, besides Qatif and Al-Hasa, the largest oases in the country. The Northern region has the highest percentage of Bedouin population in Saudi Arabia. A few urban centres exist in the province, like Al-Jawf, Qurayyat, Skaka and Tabuk, the centre of administration (Figure 2.2).

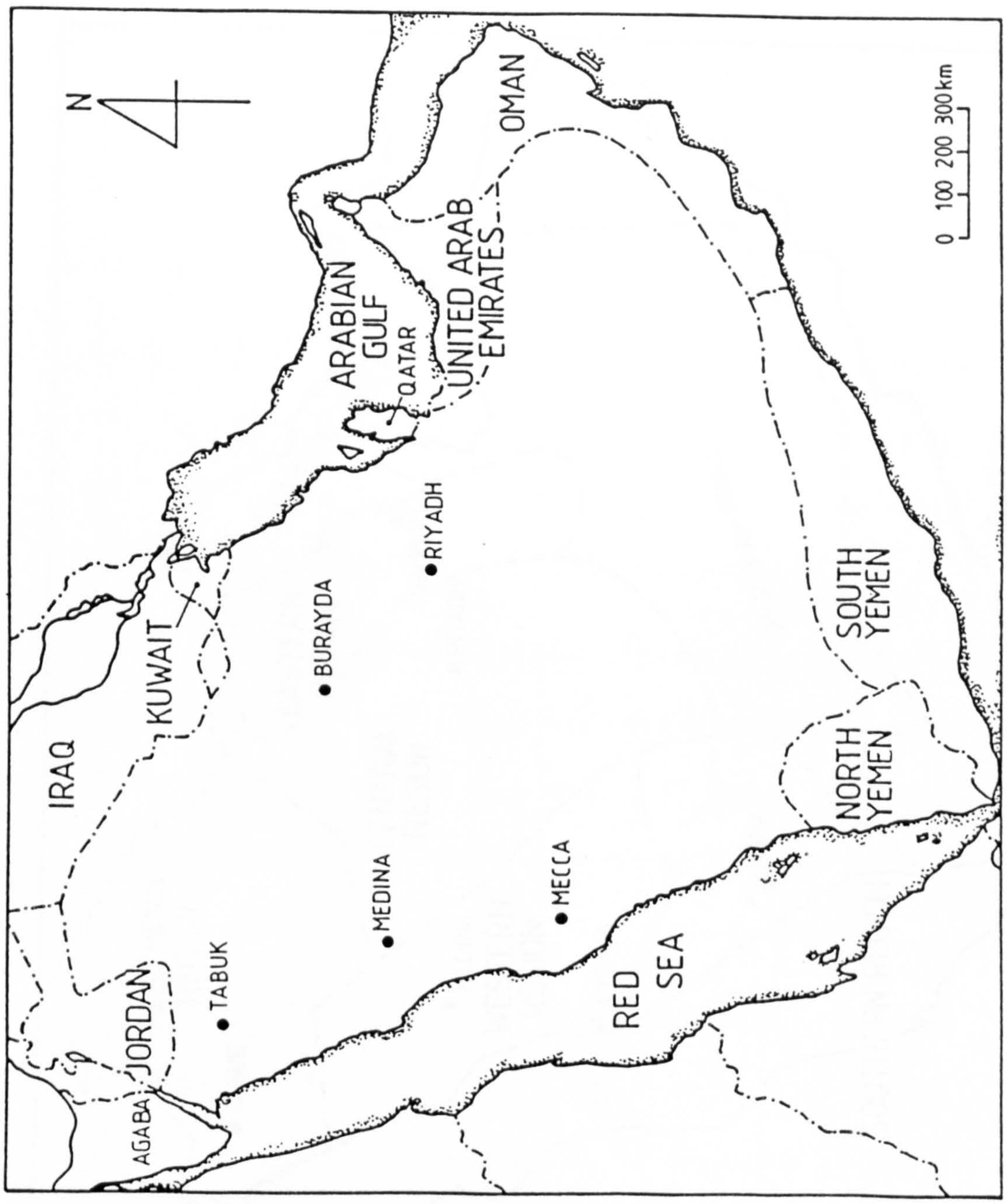
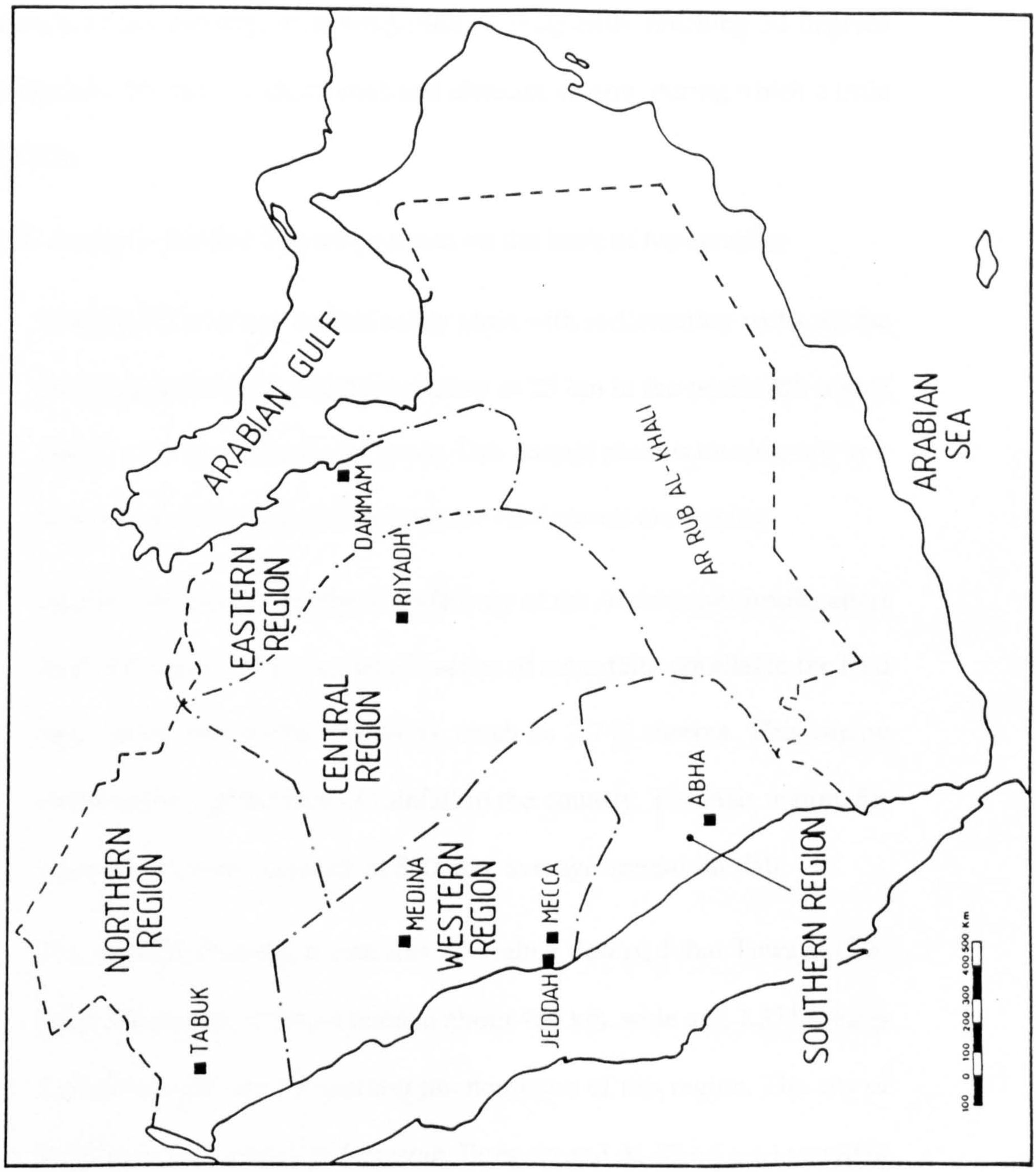


Figure 2.1 Saudi Arabia

Source: Presley, J. 1984

Figure 2.2 Administrative Regions of Saudi Arabia



Source: Hajrah, H. 1982

Aridity is the dominant feature of climate in Saudi Arabia. The harshness of the weather is of critical importance and has had tremendous effects on all aspects of the society, despite the fact that the country is surrounded by the sea on three sides. During the summer the weather is hot and virtually dry throughout the country, with temperatures frequently reaching 50 degrees Centigrade. Winter is a short, cool and pleasant season, during which a little rain falls.

Saudi Arabia is divided into seven zones on the basis of topography:

1. Tihama Plain: a low coastal sandy plain with sedimentary rocks on the Red Sea, variable in width; as narrow as 25 km in the north and centre and as wide as 45 km in the south. This coastal plain is interrupted by a number of valleys extending from the Al-Sarawat mountains.

2. Al-Sarawat mountains: the main feature of the Arabian peninsula, apart from the deserts; they consist of a series of mountains parallel to the Red Sea. Some mountains rise to as much as 2,743 metres. This region receives the highest rate of rainfall in the country. The Asir region, for example, receives as much as 500 mm. average annual rainfall.

3. The Central Plateau: it contains Al-Dahna desert; Jabal Tuwayq (Tuwayq Mountain), a broad plateau about 480 km. wide and 1,371 metres high, forms the most important phenomenon of this region. The city of Riyadh and oases such as Unayzah, Burayda and Al-Kharj are located in this zone, which has an average annual rainfall of less than 100 mm.

4. The Northern Plateau: extends from the Sarhan Valley in the north to Kuwait frontier in the east. A number of plateaux such as Al-Hammad, Al-Hijrah and Al-Dibdibah constitute the main feature of this zone.

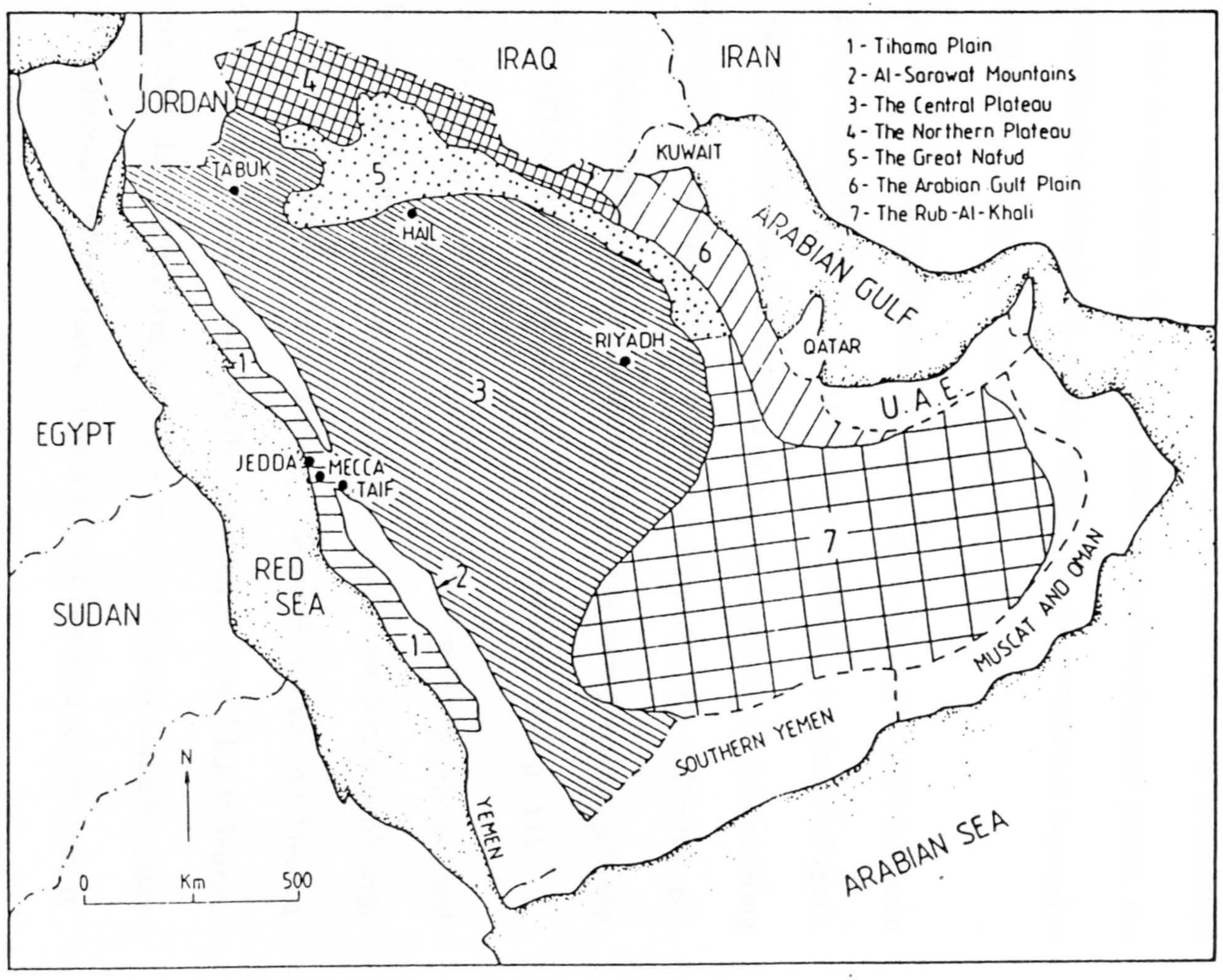
5. The Great Nafud: is an extensive triangle of sand (56,320 square km). Its two sides, approximately 250 km long, are bordered in the west by the Hijaz Plateau and in the south by the Najd plateau. Several elevated sand dune areas are its main feature. A dry desert with burning heat in the summer, and in winter, when the rains fall, shepherds wander through it with their herds.

6. The Arabian Gulf Plain: is low-lying, with salt and mud flats. Ground-water in the zone is sufficient to support the agriculture in Al-Hasa and Al-Qatif oases.

7. The Rub-Al-Khali (The Empty Quarter): extends from the inner margins of the Yemen highlands to the mountain chains of Oman. This is a vast area of 402,500 square kilometres. With the exception of the edge of the desert, it is virtually uninhabited (see Figure 2.3).

Water is one of Saudi Arabia's biggest problems, which combines with the difficulty of the terrain of the country and the scarcity of good soil to control the ways of life within the country. There are no lakes or permanent rivers. People formerly depended on the use of wells which trapped water tables at moderate or shallow depths. Today, with the advent of planned irrigation and the exploitation of underground water resources, four or five times the former population is supported (Looney, 1983, p.12).

Figure 2.3 Topographical zones of Saudi Arabia



Source: Al-Fiar, M. 1977

Of Saudi Arabia's area of 2.3 million square kilometres, only 0.2 per cent of the total is cultivated, and of this less than 20 per cent can be worked under rain-fed agriculture (Looney, 1983, p.12). Except for the Asir region, agriculture is carried out in irrigated areas or wadi basins and coastal plains, and in scattered oases, where sub-surface water supplies can be raised at economical cost for use in cultivation. Deep-lying aquifers and desalination plants, the other sources of water in Saudi Arabia, tend to produce water too expensive to be used except by high technology irrigation units.

Despite the water problem, there is ample evidence that agriculture has been a part of economic activity in the Arabian peninsula for hundreds of years. Aerial surveys have revealed the outline of fields and gardens abandoned long ago in the Hijaz, Najd, Hasa and Asir. In the vicinity of Taif and Khaibar, the remains of dams and irrigation ditches have been discovered, testifying to the existence of agricultural activity in time past (Knaverhase, 1975, p.111).

In the first decade of the twentieth century, the country was largely isolated and undeveloped. In the cities of Hijaz there were a few modern schools with a secular curriculum, while the pilgrimage centres of Mecca and Medina attracted devout Muslims and scholars from throughout the Islamic World. Apart from this, the country was the home of the bedouin nomads, oases farmers and fishermen. No centralised authority controlled the region (Nyrop, 1984, p.59).

Tribal loyalties were paramount; political organisations were a shifting pattern of alliances among the various tribes, towns and nomadic groups. They were

frequently at war with each other and the capture of another tribe's livestock was a constant aim. Warfare and feuding served to keep the total number of livestock within the limits imposed by the physical environment (Stevens, 1973, p.140). Life in the desert was short and harsh, and the threat of starvation was ever present. In the 1950s there was a severe drought in the Arabian Peninsula, which forced many families and Bedouin groups to settle. The nomad was supreme in the country. Tribal groupings had their clearly-defined grazing lands and, within the prescribed limits, the nomad moved from one area to another depending upon the quality of the range. The nomad's existence was very much related to the pattern of rainfall and availability of drinking supplies (Stevens, 1973, p.136).

Normally the inhabitants of Saudi Arabia were strictly dominated by old traditions. The limited economic conditions under which they lived did not allow any significant change in the inherited patterns of life; but physical and social revolution, which has been the result of the oil revenue and the connection of Saudi Arabia with the Arab and Islamic countries as well as with the western countries, helped to develop Saudi Arabia into a modern country, and the richest country in the Middle East.

2.2 Demographic Data

It is well known that in almost every publication on the population of the Middle East there is criticism regarding the scarcity and inaccuracy of data in most of its countries (El- Badry, 1965, p.140), but gradually improved data are becoming available, not least in Saudi Arabia.

Saudi Arabia is classified among those Middle East countries with limited demographic data on population numbers and vital statistics. Since its creation, the information on the country's demographic situation was scanty and relatively unreliable until the mid 1960s, when the Central Department of Statistics in the Ministry of Finance and National Economy began publishing serious documentation. Statistical and other data were available for the first time to study the part played by human resources in the growth of the state or, in other words, the interrelation between demography and development (McGregor, 1972, p.224).

The Government of Saudi Arabia conducted two censuses. The first official population census had been undertaken during 1962 and 1963, but its results were never published officially, mainly because the Government considered the enumeration to have been largely incomplete. Nevertheless, the Central Department of Statistics published some of its results for certain cities such as Jedda, Mecca, Medina, Al-Taif and Riyadh City, for limited planning purposes. Government statisticians, using the output of this survey and of later investigations, arrived at an estimated total population figure of 3.3 million inhabitants, which the Government subsequently found unacceptable. The second population census was carried out in September 1974. Detailed information is obtainable about the age-sex structure of the Saudi population, as well as for the non-Saudi population, and permits the calculation of average family size by district, but other pertinent information such as fertility and mortality in Saudi Arabia in general, and urban centres in particular, is almost

entirely lacking. From the preliminary results of the 1974 census, it appears that the population of the country was 7,012,642 inhabitants.

In addition to the national censuses, Saudi Arabia maintains a registration system for the recording of vital events such as births and deaths. Unfortunately, due to incomplete coverage, its data are of limited assistance in the calculation of demographic estimates. For example, registration is limited to cases of births occurring in hospitals and a certain number of other maternity cases in the main towns, where the population is aware of the importance of birth registration in facilitating the admission of their children to schools or to add their children to the family registry.

The proportion of deaths actually registered is very small, since there are no formalities requiring the issue of a death certificate prior to interment, except in certain of the principal towns. Nowadays, the Ministry of Health is looking after the registration of births and deaths. The Ministry of Health set up an office of the Deputy Minister of the Interior for Passports and Civil Status, with the co-operation of the Ministry of the Interior, to record or register all civil events such as births, marriages and divorces (Al-Madani and Al-Fayez, 1976, p.188).

Other data on population and housing characteristics, although it may have been gathered by various government agencies at various times, has not been released to the public. Nonetheless, in spite of the discouraging dearth of data, it was felt that this research will analyse two demographic issues, both of which may have far-reaching effects in Saudi Arabia, and neither of which is well-

understood. The first is fertility, which has not received attention but often under considered in many researches. The second issue is mortality, which has so far received little attention but is also likely to have far-reaching consequences because demographic change has altered the factor of the population growth of some Saudi cities such as Riyadh City. It was felt also that the data gathered by the author could be analysed to produce useful information to city planners and health personnel. In addition, the techniques used to elicit information could prove of value to other researchers faced with similar problems in other places.

It should be mentioned that, until recently, there is no detailed study across the urban places in Saudi Arabia to analyse the natural population growth. The reasons are as follows:

1. The statistical information about vital registration is substantially unavailable for the country as a whole or for the individual cities.

2. Some researches were dealing with one aspect of the population and neglected the others, for instance, there were three studies about migration in Riyadh City.

3. There is some information available at the General Directorate of Health in the Riyadh region. Unfortunately, due to incomplete coverage, its data was of limited assistance in the calculation of demographic estimates. The validity and the reliability of the data is not constant. The information suffers from the exaggeration and under-estimation of births and deaths. This is because of the differences among the agents in

their standards of recording the information, besides which, some people do not realise the significance of having valid information for planning purposes.

Saudi Arabia has large economic resources and a vast territorial area, which means that the country is far from facing the problems of over-population which are being faced by most of the developing countries. The Government considers that family planning or birth control is a matter for personal discretion, which it neither forbids nor encourages. Means of contraception are available on request in all pharmacies and drugstores. Population control policy is rather relaxed as a result (Al- Madani and Al-Fayez, 1976, p.189).

This does not mean that Saudi Arabia is free from facing any demographic problems whatsoever. However, like all developing countries, Saudi Arabia has experienced problems of rural-to- urban migration, especially in the 1970s. The rapid internal migration from the countryside to the city has caused the depopulation of the rural areas and has created all but one of the problems which usually accompany rapid urbanisation; housing shortages, pressure on the social infrastructure, inflation and the like. The single exception is that unemployment is not yet a problem in the urban centres (El-Mallakh, 1982, p.24).

Saudi Arabia in recent years has witnessed a number of studies and research projects especially in the areas of the economy, agriculture, education and history. However, the country needs more research in population study to provide the fundamental statistical indicators required for socio-economic

development plans. There were a few studies done on the population of Saudi Arabia (e.g. Al-Ruwaithy, M. 1980 and Rajab, O. 1981); however, most of these studies are found in university theses, historical books and in a variety of reports. We are all hoping that further efforts will be made in the field of population geography of Saudi Arabia, because there are some aspects of the population, as mentioned earlier, that have not received enough research.

2.3 Influences on Population Distribution

Before we start the discussion on the evolution of population distribution, it will be helpful to state a brief examination of the important factors which have had an impact on population distribution in the past and present.

The analysis of any population distribution, whether on economically advanced nations or less developed nations of the world, must surely take into consideration a wide variety of factors. Clarke (1972) stated that physical factors alone will not explain population distribution; their influence is greater in some places than in others, but everywhere man exercises some control over his habitat. Numerous social, demographic, economic, political and historical factors must be considered, not in isolation, but ás interrelated influences upon population distribution (Clarke, 1972, p.14). Thus, it has been suggested that the role of physical factors in the spatial distribution of population declines in direct importance as man has progressively extended his control over nature.

Physical features previously had a very significant influence on the population distribution in Saudi Arabia, but recently, besides the natural factors, various economic, social, religious and political factors also play a significant role in determining the population distribution.

Population distribution varies greatly among the shores of the Red Sea and Arabian Gulf, the densely populated interior oases, the watered mountain regions in Asir and the vast, almost empty deserts.

Climatologically, Saudi Arabia can be described as one of the driest places in the world; most of the area of the country is dry, hot desert with a few small spots of cultivated area. Rainfall is scanty, unpredictable, irregular and, above all, unevenly distributed. Precipitation varies from almost zero in the greater part of the country to about 100mm on average per annum in the eastern coastal areas. Only the Asir highlands along the Red Sea receive enough rain to permit a degree of non irrigated cultivation.

Different types of soil in Saudi Arabia have a significant influence on the population distribution. Saline soils are found in Hijaz and the Eastern Province, and permit only limited agricultural production with salt-resistant crops such as date palms. A heavy sand-gravel soil is not suitable for cultivation, but produces an ephemeral vegetation after the desert rains which is excellent for grazing. It is found mainly in Najd and Eastern Province. Loam soils are highly productive when mixed with sand and properly irrigated - they are found predominantly on the Najd plateau. Alluvial soils are the best soils for intensive cultivation, but are limited to dry stream beds (Wadi) where wells

tap subsurface water-bearing gravels. In Saudi Arabia sand- covered areas are suitable for cultivation if sufficiently irrigated. The most serious limiting factors in their use are improper irrigation and the shifting dunes.

The climate and soil combine to permit some scattered cultivatable agricultural lands. Areas where such natural conditions intersect to create arable lands include Medina, Taif, Wadi Fatima in Hijaz, Jizan, Tihama, Abha, and Bisha in Asir, Al- Kharj, Burayda, Unayzah and Aflaj in Najd and Al-Hasa and Qatif in the Eastern Province. In addition there exists a substantial area of land with fertile soil which can be brought under cultivation when adequately irrigated.

Coastal settlements based on fishing, trade and pearl diving occur along the east and west coasts. Jedda was the major port because of its service function to Mecca, but it developed rapidly only with the opening of the Suez Canal and the growth of the Saudi economy. Dammam and Al-Khobar on the eastern coast were small fishing villages which have grown into rapidly expanding industrial cities, and since 1953 Dammam has been the capital of Eastern Province.

Historically, the course of caravan routes and the location of commercial centres largely determined the distribution of settlement development in the interior. Trade centres like Afif, Khayber, Tabuk, and market centres like Riyadh, Burayda, Bisha, Dumet Al Jandal and various others of smaller size were scattered throughout the country where bedouins and rural dwellers exchanged their surplus produce. The importance of these centres depended

on accessibility (e.g. pilgrimage routes), grazing hinterland, water availability and tribal identity (Mughal, M., Craglia, M., and Suhaibani, A. 1987, p.2).

The religious factor also played a major role in determining the human settlement in the Arabian peninsula, particularly in the Western Province where Mecca and Medina, the religious centres of the Muslim world, attract enormous numbers of pilgrims and thus greatly influence the growth of many other towns and cities.

The aforementioned various factors have had a fundamental influence upon the pattern of spatial distribution of settlement and the nature of human occupancy of land in Saudi Arabia, but since the beginning of oil exploitation, and especially since the late 1940s and the influx of immense oil revenues, economic and political factors began to assume the most important role in the distribution of the Saudi population.

The Arabian American Oil Company (ARAMCO) has created several settlements such as Ras Tanura, Dhahran, Abqaiq and Safaniya. Also ARAMCO fostered the expansion of several towns and cities in the Eastern Province as spontaneous migration occurred, of both bedouins and villagers towards Dammam, Dhahran, Hofuf and Al- Khobar. A pipeline was constructed to connect the oilfields in the Eastern Province to the Mediterranean port of Sidon, Lebanon, altering the traditional bedouin routes, and changing the importance of some market centres by establishing new settlements like Hafr Al Batin, Qaisuma, Rafha, Badana and Turayf where new wells were dug in connection with the oil pumping stations.

Political factors introduced a further change in the pattern of the population distribution. The government made two efforts to settle the bedouins. The first effort began in 1912 by establishing 122 settlements in Najd, but these projects were not very successful owing to lack of adequate water, services and job opportunities, as well as lack of investment and technology to overcome the harsh climate. In the 1970s a special department was established in various government ministries to oversee several settlement programmes such as Wadi Sarhan and Tabuk in the North, Wadi Sahba in the Dahna desert and the King Faisal project in Harad.

The direction in which the government allocates its expenditures also plays a large part in the determination of the distribution of income and the allocation of resources, thus greatly influencing two migrational patterns. The first of these was the wave of migration of both villagers and nomadic people towards Riyadh, Jedda, Dhahran, and Damman causing them to become metropolitan cities and creating a severe burden on their facilities and utilities. The second pattern evolved after the government instituted policy to reduce the growth and pressures in the large cities by increasing job opportunities and public facilities throughout the country, especially by developing the medium sized towns like Tabuk, Abha, Taif, Hail and Burayda, as a result of the migration away from rural areas.

The availability of the administrative functions in large cities, especially in Riyadh, the capital, creates some problems at a national level, especially because of the advantages of the location such as the existence of higher ranking authority, higher income, health and educational services, entertain-

ment, and so on. For example educated people who should work in rural areas because of the lack of their services there prefer to stay in the capital or other large cities of the country and get jobs in fields other than their specialisation.

2.4 Pre-Census Population Distribution

A complete picture of Saudi Arabia's population before the last census, which was conducted in September 1974, is not available. There are only independent estimates which have put the country's population size at very varying figures. Among these estimates was the enumeration of the Hijaz population in 1931 by Hamza (Table 2.1).

Table 2.1

Population estimates of Saudi Arabia by region,

after Hamza 1933

Region	Bedouin	Settled population	Urban (%)	Total
Hijaz	700,000	400,000	36.4	1,100,000
Asir	250,000	650,000	72.2	900,000
Tihama	200,000	100,000	33.3	300,000
Najd	1,300,000	800,000	38.1	2,100,000
Al-Hasa	200,000	100,000	33.3	300,000
Other areas	350,000	150,000	30.0	500,000
TOTAL	3,000,000	2,200,000	42.3	5,200,000

Source: Hamza F, 1933, p.78

It can be seen from the table that the total population of Saudi Arabia in 1933 was estimated at 5.2 million inhabitants. The settled people comprised 42.3 per cent of the total population, while the bedouin were about 57.7 of the total population. The estimation was very simple and was criticised by Birks and Sinclair, as it was based upon hearsay evidence rather than detailed survey and there are obvious shortcomings, such as ill- defined regions and acceptance of estimates by sheikhs, whose figures were almost certain to have been both unintentionally and deliberately exaggerated (Birks and Sinclair, 1978, p.7).

While the actual size of Saudi Arabia's total population was difficult to accept from the Hamza estimation, the major patterns of its distribution can be established. Najd has the highest population concentration in Saudi Arabia. About 40 per cent of the population settled in this region. The second highest concentration was in the Hijaz region, which had about 21 per cent of the total population. The third concentration was in the Asir region, which was about 17 per cent of the population. Tihama and Al-Hasa regions had about 6 per cent each of the total population, while the remaining ten per cent were settled throughout the other parts of the country.

Asir was the only region which had a minority nomadic population because there was sufficient rainfall for agricultural activity. The proportion of settled population was about 72 per cent of the total population in this region. About two-thirds of the population of the Hijaz region were nomadic, since the rest of the inhabitants were concentrated in the holy cities of Mecca and Medina. Moreover, the proportion of nomads in Najd also reached 62 per cent, while the settled people scattered throughout the region around the oases, which

was about 38 per cent of the total population. In Al-Hasa and Tihama, the nomadic population also accounted for two-thirds of the total population, but these regions were facing economic and demographic depression. They were the least populated regions in the country because many people had migrated to other areas for a better life as the deterioration of the environment had reached the point where extensive areas went out of cultivation due to the salinity of the water and drifting of sand dunes.

The distribution of the Saudi Arabian population in the early 1930s experienced moderate changes in response to one factor, which was the unification of Saudi Arabia, which led to security. Because the tribe was the most important social and political unit and because of the difficulties of existence in such a harsh environment, their survival depended upon their flocks of sheep and their ability to find water and food. This involved moving from one place to another in search of an oasis or pastures for their herds, which led to frequent disputes and clashes between the tribes. An effort was made by the government to settle the bedouins in the early days of the country's unity but these efforts were not very successful due to several factors, such as:

1. the areas which were selected did not have enough water nor suitable soil for development;
2. the job opportunities and services were inadequate;
3. there was not any technology to overcome the natural constraints, such as automobiles.

Later beneficial lessons were learnt from these attempts and the government established special authorities in the various ministries to speed up the effectiveness of the settlement programme (Mughal, Craglia and Suhaibani, 1987, p.3).

By the 1950s there was a major change in the distribution of the population in Saudi Arabia because of the following factors:

1. a spontaneous movement of settled people from small towns and villages, and bedouins, to the major towns of the Eastern Province, such as Ras Tanura, Abqaiq, Dhahran and Dammam;

2. a tremendous effort by the government to increase the resources which performed the bedouin population settlement programmes;

3. the establishment of the Tapline road which connects the oilfields in the Eastern Province to the Mediterranean Sea, which changed the importance of some market centres by creating new settlements, like Hafr Al-Batin, along with other settlements which were established in connection with the oil pumping stations.

2.5 The 1962-63 Population Census

The total population according to the 1962-63 Census was 3,302,330 inhabitants, which was nearly as little as a half of Hamza's estimate of thirty years earlier; a period of time over which the population had in reality increased, although only at a slow rate (see Table 2.2).

It was the small size of this recorded population that led to the repudiation of the census result by the Government of Saudi Arabia. The United Nations was given an estimation of Saudi Arabia's population, based on a guess, of 6.53 and 6.99 million for the total population in 1963 and 1967 respectively, with an annual rate of increase of about 1.7 per cent, and the overall population density about three persons per square kilometre (United Nations, 1967, p.109).

Table 2.2

Saudi Arabian population by size and nature of place of residence, 1962/63

Size of place	Number of places	Population		
		Settled	Nomads	Total
20,000 +	11	828,503	1,583	830,086
10,000-19,999	11	119,870	19,860	139,730
5,000-9,999	23	146,039	7,735	153,774
2,000-4,999	100	249,549	48,825	298,374
1,000-1,999	201	227,534	43,871	271,405
500-999	495	227,194	61,829	339,023
<500	5,274	759,628	88,330	847,958
water holes	2,090	-	421,980	421,980
TOTAL	8,205	2,608,317	694,013	3,302,330

Source: Central Department of Statistics, 1963

The population of Saudi Arabia was distributed very unevenly between the regions (Figure 2.4), being strongly influenced by such natural features as

rainfall, underground water, mineral resources and large sand formations. The overall population density was only 1.4 persons per square kilometre, and it concealed a lot of variations in the spatial distribution of the population, as illustrated by the wide gap between the south-western region of the country, with 29 persons per square kilometre, and the three great sand deserts, which are unpopulated.

On a broad basis, the distributional patterns can be divided into three:

1. the highest density was recorded in Jizan, Asir and Mecca districts.

2. the intermediate density was recorded in the central region and the eastern part of Saudi Arabia, in Al-Hasa, Qatif, Hail, Al-Kharj, Burayda, Unayzah.

3. the lowest density was recorded in the three deserts, Rub Al-Khali, Nafud and Dahna.

Many of Saudi Arabia's inhabitants still lived in oases which are separated by wide, scantily-populated ranges. The settlements were mainly small in size because the largest settlements in Saudi Arabia were only 11 places with more than 20,000 inhabitants in the 1962-63 Census (see Table 2.2).

There are some figures published unofficially from the 1962-63 Census, which distinguished between settled and nomadic populations (Table 2.3).

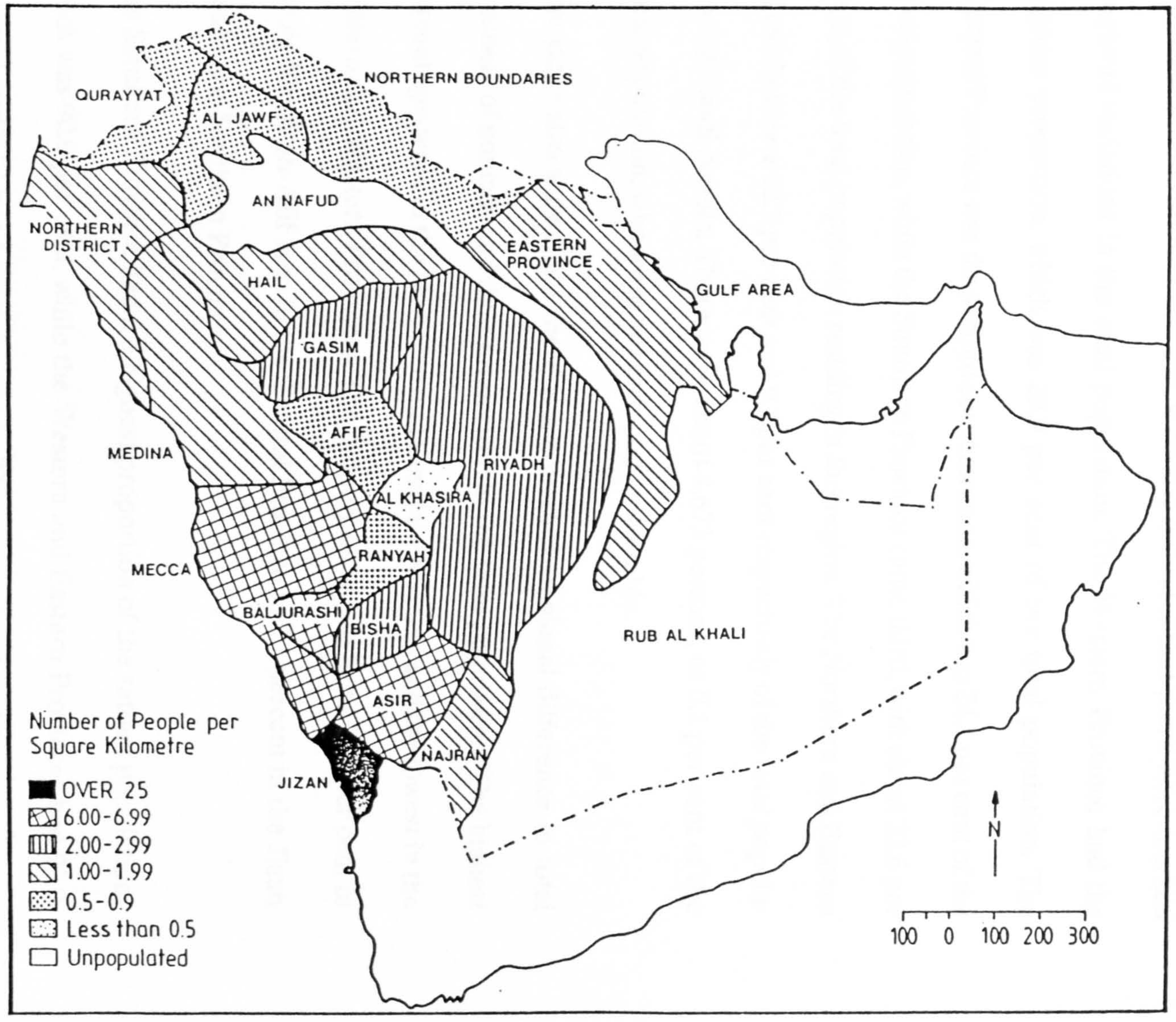
Table 2.3

Saudi Arabian Population by Provinces, 1962-63 Census

Province and Area	Population				
	Total	Settled	%	Nomad	%
NORTHERN	406,386	128,672	31.8	277,714	68.2
Qurayyat	20,933	5,799	27.7	15,134	72.3
Jawf	43,989	17,918	40.7	26,071	59.3
Hail	187,804	62,289	33.2	125,515	66.8
Northern Boundaries	77,801	17,551	22.6	60,250	77.4
Northern	75,859	25,115	33.1	50,744	66.9
EASTERN	306,605	267,603	87.3	39,002	12.7
Qatif	67,703	67,703	100.0	0	0
Al-Hasa	158,023	126,763	80.3	31,260	19.7
Ras Tanura	80,879	73,137	90.5	7,742	9.5
CENTRAL	797,946	621,219	78.0	176,727	22.0
Riyadh	539,692	442,896	82.1	96,794	17.9
Qasim	222,761	170,578	76.6	52,183	23.4
Khasirah-Afif	35,493	7,743	21.8	27,750	78.2
WESTERN	986,118	892,733	90.0	93,385	10.0
Mecca	627,447	593,924	94.7	33,523	5.3
Medina	159,695	120,577	75.5	39,118	24.5
Biljershi-Ranyah	198,976	178,232	89.5	30,744	10.5
SOUTHERN	746,355	667,399	90.6	79,056	9.4
Asir	324,709	271,407	83.6	53,802	16.4
Jizan	365,063	357,337	97.9	7,726	2.1
Najran	56,583	38,555	68.1	18,028	31.9
TOTAL	3,297,657	2,611,459	79.2	686,198	20.8

Source: Shamekh, 1975, p.39.

Figure 2.4 Density of population in Saudi Arabia 1962-63



Source: Abdo, A. 1969

Although the data should be considered as estimates, they reveal that 2,611,459 (79.2 per cent) were listed as sedentary and 686,198 (20.8 per cent) were classified as nomads. The data show proportional regional variations in population and ratios of nomads. It clearly indicates that there were marked regional variations in the total population. The Western Province had the highest proportion, which was 29.9 per cent of the total population. The Central Province was the second concentration, which was 24.1 per cent of the total population, while the Southern Province came third, with about 22.6 per cent of the total population residing in this region. The Northern and Eastern Provinces have 12.3 per cent and 9.3 per cent respectively of the total population of Saudi Arabia. There were about 4,673 persons, or 0.1 per cent of the total population, who were not included in the table.

The table also shows that there is a noticeable regional difference in total numbers of nomads and their proportion to the total population. The highest percentages were in the Northern and Central Provinces and the lowest in the Eastern and Western Provinces. The proportion varied from 78.2 per cent in the Al-Khasirah-Afif area in the Central Province to 2.1 percent in the Jizan area in the Southern Province.

The Southern Province had the highest proportion of the settled population, which was 90.6 per cent, while the Western and Eastern Provinces had 90.0 per cent and 87.3 per cent respectively. The reason for the high percentages of the settled people in the Southern Province was that the area has sufficient land and water suitable for agricultural development, while the Western province has Mecca city, which has more than half a million people, besides

Medina and Jedda cities located in this region. Eastern Province had also a high proportion of settled people due to the fact that it has a number of cities evolved as a result of the oil discovery and industry, which attracted many of the nomads to work in the oilfield and to settle in cities like Ras Tanura and Dhahran. In addition to this, there is the Qatif Oasis, where the proportion of settled population reached one hundred per cent because it has abundant water from the wellsprings, which promote agricultural activities.

Although the general picture of the regional distribution of the population was clearly associated with the dominant environmental factors, other factors which influenced the distribution included the growing oil wealth of the country. The effect of these factors appeared slowly between 1945 and 1955, but the main effects were seen between 1955 and 1965. After that they became the most important factors influencing the population distribution of the country, and the factors which caused the redistribution of the population of Saudi Arabia.

In comparison with the 1933 estimate, the following results were observed:

1. The high percentage of the settled people in the 1962-63 Census, which was 79.2 per cent; it was 42.3 per cent in the 1933 estimate;

2. The proportion of the nomad population declined from 57.7 per cent in 1933 to 20.8 per cent in the 1962-63 Census as a result of the oil industry and other industry associated with the oilfield, which attracted a large proportion of the economically active population from across the country and stimulated the nomad population to work in the oilfield.

3. The proportion of the nomad population declined in all regions and the proportion of the settled people increased, except in the Northern Province, which was distinguished with a rain scarcity and lacked the cities with a high population concentration which led to a higher proportion of settled people over nomad population.

4. If the figures are accepted, the total population of Saudi Arabia declined from 5.2 million people in 1933 to 3.29 million persons, which is about 63.3 per cent. This means the population of Saudi Arabia in 31 years declined by 1.9 million people, with an average of 61,000 persons annually, although the country had not been exposed to wars, epidemics or catastrophes which would cause such a decline. Instead, the unification of the country and the discovery of the oilfield in the Eastern Province, the law and order, stability and large socio- economic projects carried out, were all factors that led to the growth, not to the decline, of the population. The phenomenal decrease, which has created controversy, has been attributed to either an inflation of the earlier estimation or a deficiency in the latter census.

McGregor, in 1972, estimated the urban, rural settled and nomadic population in 1962-63 and 1969-70 (Table 2.4).

Table 2.4

Estimated Urban and Rural Population of Saudi Arabia

1962-3 and 1969-70

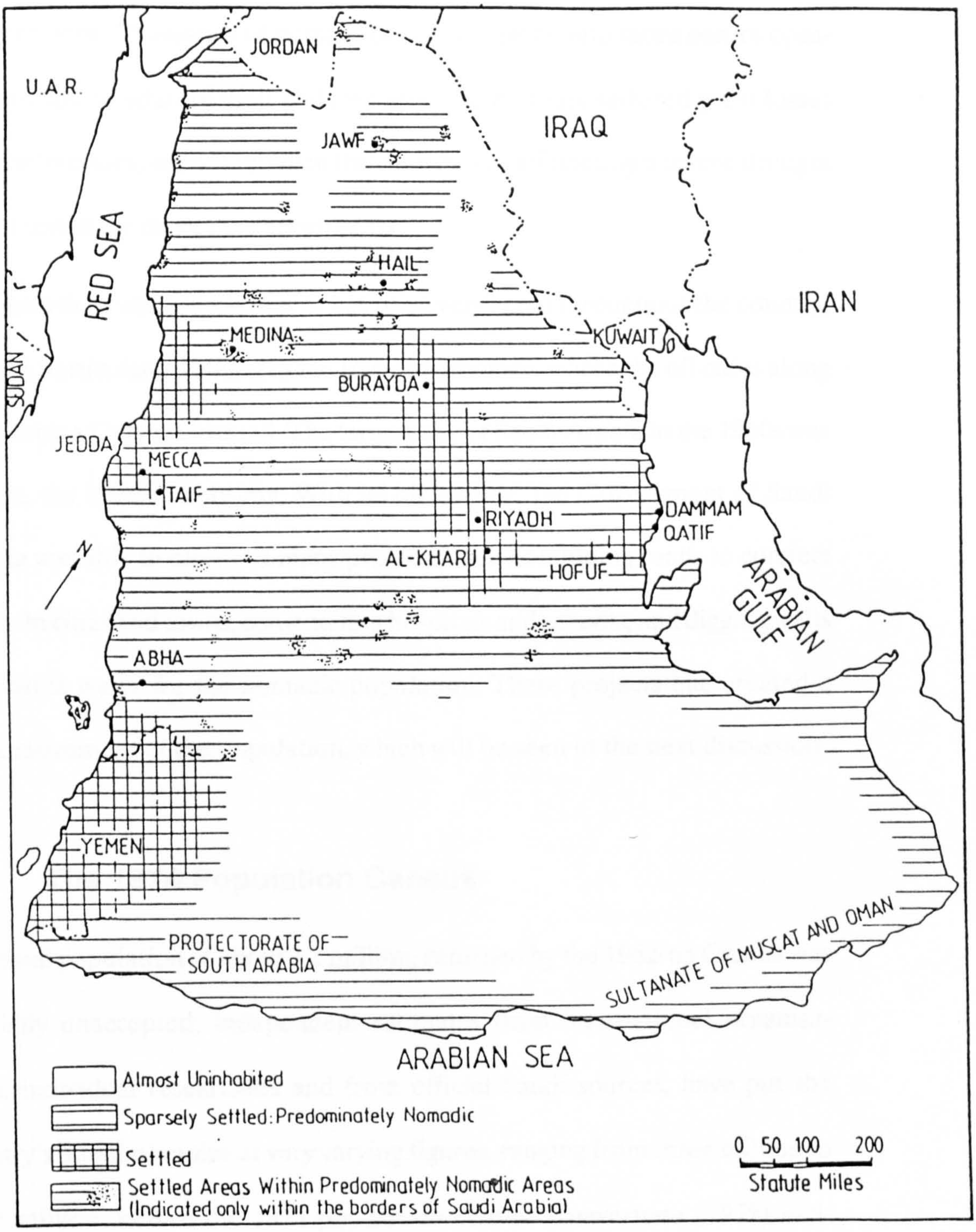
Population	1962-63		1969-70	
	Numbers	%	Numbers	%
Urban	800,000	24	1,300,000	33
Nomadic	700,000	21	700,000	17
Rural Settled	1,800,000	55	2,000,000	50
TOTAL	3,300,000	100	4,000,000	100

Source: McGregor, 1972, p.237

Table 2.4 shows that the urban population increased from 24 per cent in 1962 to 33 per cent in 1969-70. The nomadic and rural settled populations declined from 21 per cent and 55 per cent in 1962-63 to 17 per cent and 50 per cent in 1969-70 respectively. This was to some extent due to the movement of nomads and agricultural labourers to the cities; the job opportunities, higher earnings and urban services such as hospitals, schools and entertainment, would be the main factor for movement of people from the rural to urban centres.

Walpole (1971) in the Area Handbook for Saudi Arabia described the distribution of the population as concentrated in three parallel north-south bands across the middle of Saudi Arabia (see Figure 2.5). The first settlement concentration included scattered oases and the cities of Hijaz and Asir. The second settlement belt consisted of several oases and wadis in the central region of the country, where spring water is available. The third settlement

Figure 2.5 Population distribution of Saudi Arabian population in 1960



Source: Walpole, N.C. (ed) 1971

belt ran along the Arabian Gulf in the eastern part of the country, which has the largest oasis in Saudi Arabia.In short, the distribution of the population has changed in response to the many projects which were carried out by the Government. Thousands of nomads decided to settle into more secure occupations and to educate their children after the Bedouin suffered great losses of their livestock, especially when the country was affected by a severe drought which lasted for more than seven years.

The growth of villages and towns has been very rapid throughout the country, but was particularly striking in the Eastern province, where the oil cities along the Arabian Gulf are located. The largest city of Saudi Arabia in the 1960s was Mecca, the Muslim holy city. With its oil income, the Government of Saudi Arabia was able to carry out many projects, such as building roads to connect the main cities and towns, constructing hospitals and schools, and digging wells to provide water for the nomadic population. These projects had created a great movement of the population, which will be seen in the next discussion.

2.6 The 1974 Population Census

The total population of about 3.2 million, returned by the 1962-63 Census was officially unaccepted; independent estimates from international organisations, individual researchers and from official Saudi sources, have put the country's population size at very varying figures, ranging from three million to eight million, before the 1974 population census. Knaverhase (1975) estimated 3.75 to 4 million, with an absolute upper limit of 4.5 million persons in 1974. Other sources suggested 1.5 million were foreigners (Nyrop, 1984, p.73).

Table 2.5 shows some figures given by other sources for the years 1960-86 (Looney, 1985, p.94).

Table 2.5

Population Estimates 1960-86 (Population in thousands)

Year	Official Census	IMF ILO	United Nations	US Census	UNECWA
1960		5,980			
1961		6,120			
1962		6,260			
1963		6,420	5,139		
1964		6,580			
1965		6,750			
1966		6,930			
1967		7,120			
1968		7,330	5,859		
1969		7,530			
1970		7,740			
1971		7,970			
1972		8,210			
1973		8,450	6,600		
1974	7,013	8,710	6,920	6,200	
1975		8,970	7,250		
1976		9,240	7,580		
1977		9,520	7,920		
1978			8,260		
1979			8,610		
1980			8,960		9,229
1981			9,320		
1982			9,680		
1983			10,421		
1984			10,824		10,920
1985			11,542		
1986			12,006		10,163

Source:

(1) Looney, 1985, p.94

(2) Johany, Berne, Mixon, 1986, p.5

(3) UNECWA, 1987

In 1974 the Government conducted its second census, but it was a large sample, not a complete enumeration. Results of the census put the population at some 7,012,642 (Saudi Arabian Monetary Agency, 1975-76, p.18).

The 1974 population census showed the breakdown between urban, rural settled and nomadic population, and offered for the first time detailed data which was not known earlier. The significance of this census was that it revealed some population changes which had occurred in Saudi Arabia since the oil discovery. These changes brought about a redistribution of population between the various regions of the country, the new growth of the old urban centres, the building of new urban centres and the decline of the percentage of nomads because of the population movement from the desert to the urban centres.

The main features of the population of Saudi Arabia which can be observed from the 1974 census are as follows:

1. The population density rose to 3.13 persons per square kilometre, with the physical environment still dominating the population distribution, although there had been some recent changes.

2. Saudi Arabia had 14 administrative areas which consisted of about 561 population units: towns, villages, settlements, farms, water wells and nomad agglomerations.

3. The 1974 census determined to some extent the division between the urban and rural settled population and the mobile Bedouins who represented 26 per cent of the total population.

The map of population distribution in Saudi Arabia in 1974 continued to reveal striking contrasts between (a) a number of widely separate populous areas, and (b) the quite large empty spaces. The spatial distribution of population seems to be very uneven (Table 2.6 and Figure 2.6).

Table 2.6

Saudi Arabia: population distribution and density by provinces, 1974 Census

Province	Total Population	% Population	Area (sq km)	Density per sq km
Riyadh	1,259,145	18.8	354,444	3.6
Mecca	1,760,216	26.1	135,708	12.9
E. Province	762,037	11.3	778,479	0.9
Asir	678,679	10.2	78,437	8.5
Medina	516,636	7.7	140,868	3.7
Qasim	324,543	4.9	53,922	4.3
Hail	265,216	3.8	118,332	2.2
Tabuk	194,539	2.9	95,202	2.0
Jawf	66,738	1.0	64;758	1.0
Jizan	408,334	6.2	15,517	26.3
Najran	144,097	2.2	139,858	1.0
Baha	185,851	2.5	10,690	17.4
N. Frontier	127,582	1.9	120,744	1.0
Qurayyat	32,853	0.5	49,794	0.6
TOTAL*	6,727,466	100.0	2,159,829	3.1

*Does not include 210,000 bedouins living along the northern border, and 73,000 Saudis living outside the country (together constituting four per cent).

Source: Al-Laithy and El-Farra, 1981, p.10

Table 2.6 shows the distribution of the population among the fourteen provinces into which the country is divided. The population distribution in the country is concentrated at certain places and dispersed in other places but, on

the whole, the population is concentrated in three broad bands which contain the large cities in the country. The first band, which is located in the west section of Saudi Arabia, contained more than half of the total population. Even greater variations in the population distribution occurs within the bands, for example, in this first band, Mecca province had the highest population concentration, consisting of 1.8 million inhabitants, which is about 26 per cent of the total population of Saudi Arabia. The heavy concentration of people in these areas is associated with the fact that it contains the cities of Mecca, Jedda and Taif. In the north of this band is located Medina province, which accommodated about half a million people, about 7.7 per cent of the total population. In the south, there are the Asir and Jizan provinces; they contained 1.1 million persons, which is about 16.4 per cent of the total population.

The second band, which is located in the centre of Saudi Arabia (Figure 2.6), includes the provinces of Riyadh and Qasim. The Riyadh province, which contained 1.3 million people, about 18.8 per cent of the total population, while Qasim province had over 300,000 inhabitants, which is about 4.9 per cent. This band contained nearly one quarter of the total population of Saudi Arabia.

The third band is located in the Eastern Province, where about 0.8 million people, or 11.3 per cent of the total population, lived, while the rest of the population, less then 15 per cent, were scattered in the rest of the territory.

The population density of Saudi Arabia had increased from 1.4 persons per square kilometre in 1962-63 Census to 3.1 persons per square kilometre in the 1974 Census, which means that there was still a low numerical density. Great variations

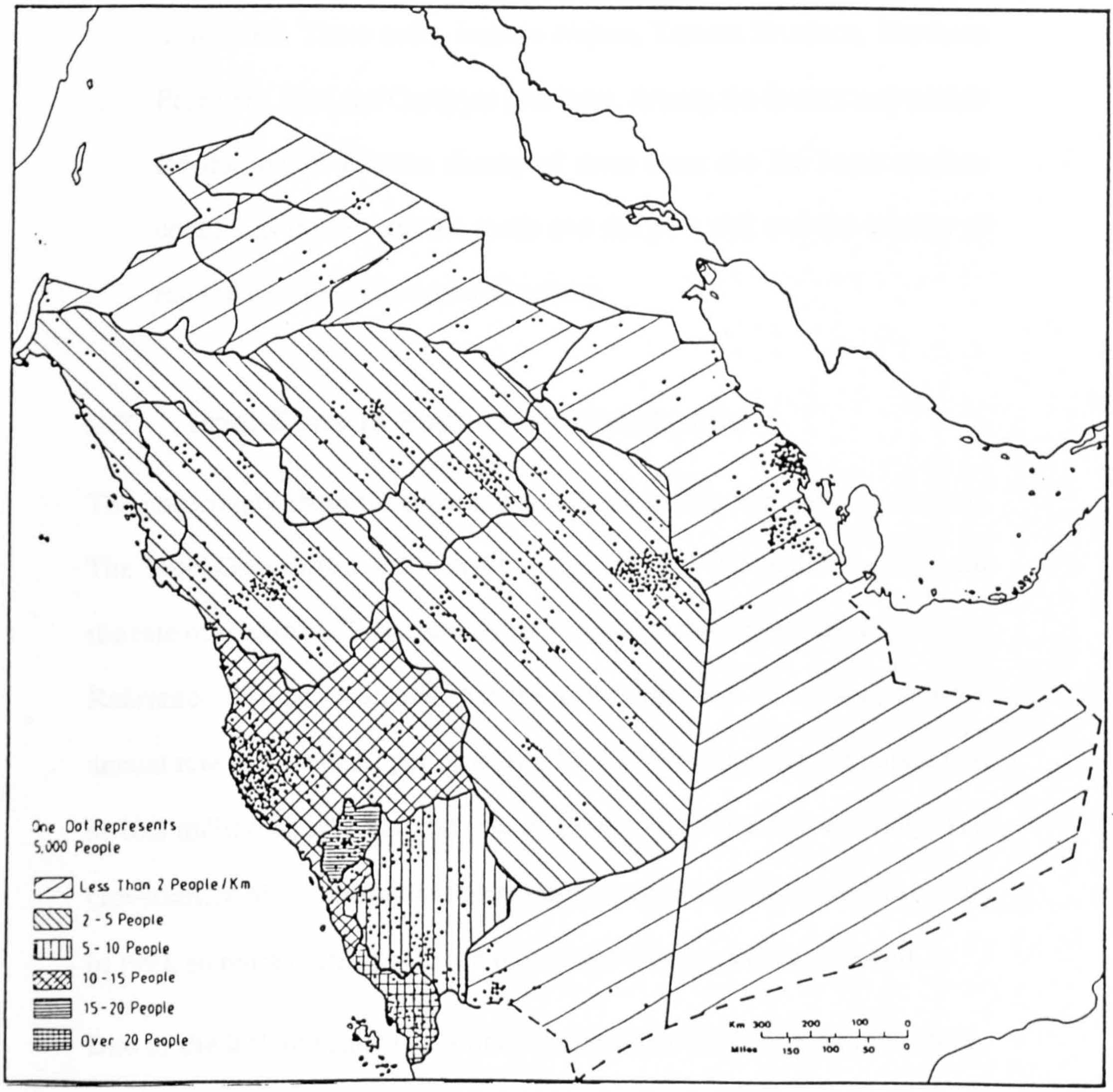
in the density of population between the different regions persisted, as exemplified by the wide gap between Jizan Province, with 26.3 persons per square kilometre and Qurayyat Province, with less than one person per square kilometre. Figure 2.6 and Table 2.6 clarify these variations, which are the result of the physical, economic, political and historical influences upon the distribution.

On a broad basis, the population density in Saudi Arabia can be divided into three:

1. Areas with densities that range from five to over twenty- five persons per square kilometre. These include Jizan, Al- Baha, Mecca and Asir provinces. All of these densely populated areas (relatively speaking) are in the southern part of Saudi Arabia. Figure 2.6 gives a better picture of the gradual falling off of the density to the north and to the east of this band of highly populated areas. Favourable climatic, soil and ecological conditions have, without doubt, contributed to the success of agricultural activities in these areas for centuries.

2. Areas with densities between two and five people per square kilometre. The general pattern here is close to sparse distribution. The only distinction is that the population concentration in these places is mainly in the urban centres. Some of these centres are Riyadh, Medina, Hail, Tabuk, Unayzah, Burayda and Al-Kharj in Qasim, Riyadh, Medina, Hail and Tabuk provinces.

Figure 2.6 Population distribution of Saudi Arabian population in 1974 census



Source: Al-Laithy and El-Farra, 1981

3. Areas with less than two people per square kilometre. This sparse population density has its widest extent in the northern and south-eastern parts of the country, which encompass entirely the three large deserts in the country. Parts of these sparsely populated areas are virtually uninhabited, and the centres of appreciable population size are very few in number. These areas include Najran, Eastern Province, Northern Frontiers, Jawf and Qurayyat provinces. Among the factors responsible for the low population density of these areas are the harsh climatic conditions in the extreme south and the poor soil and the scarcity of rainfall to support agricultural activity.

2.7 Post-Census Population Distribution

The uncertainty about the population of Saudi Arabia remained unresolved. The Saudi Government estimated the population at 10.6 million in 1983 and the rate of growth at 2.9 per cent a year, while in the same year the Population Reference Bureau estimated that the population was 10 million, and the annual rate of growth 3.1 per cent. The UNECWA estimated the population at 10.2 million in 1986 and the rate of growth at 3.8 per cent annually. The Government of Saudi Arabia is planning to conduct a third population census in 1991, so more details about the population changes will be revealed.

Due to the lack of valuable regional demographic information in the 1980s, such as migration rate and growth rate, and the difficulty of knowing precisely the number of immigrants in each region, the changes in the population

distribution since 1974 census will be difficult to demonstrate. However, some recent studies indicate that the regional distribution of the population has changed substantially, due to the economic development of the country and the massive influx of expatriates in the early 1970s. Al-Ibrahim (1982) suggested that the populations of Western, Central and Eastern regions has increased, while those of the Northern and Southern provinces has decreased, due to the influx of labour and population into the first three regions, in contrast to the increasing out-migration of the active population in the latter two, indicating the growing concentration of population in certain regions. The increasing concentration of population in the main urban centres of the Western, Central, and Eastern regions reflects in fact the growing concentration of economic activities in these regions. Also Presley, (1984) confirms the above statement when he states that Central, Eastern and Western regions have witnessed the main share of development in Saudi Arabia and the Southern and Northern regions have remained mainly agricultural areas and part of their labour force has flowed out to the other regions. Table 2.7 shows estimated changes in the regional distribution of the population since 1974.

Table 2.7

Estimated percentage regional distribution of Saudi Population 1974, 1984, 1985

Region	1974	1984	1985
Central	23	24	33.0
Eastern	11	12	27.5
Northern	10	10	6.2
Western	32	34	27.6
Southern	20	20	5.7
TOTAL	96*	100.0	100.0

* Four per cent of the population was not included because some were living near the northern border and others were living abroad.

Source:

(1) Al-Ibrahim, 1982

(2) Presley, 1984

(3) HRD Base, 1987

The Central region is the most populated region, its proportion has increased from 23 per cent in 1974 to 33 per cent of the total population in 1985. The Eastern and Western regions come next with 27.5 per cent and 27.6 per cent respectively. The Eastern region's proportion has increased from 11 per cent in 1974 to 27.5 per cent of the total population while Western region's proportion of the total population has declined from 32 per cent in 1974 to 27.6 per cent in 1985. This is because the distribution of finance and capital projects has not followed any obvious regional policy, particularly in the first two development plans. Certainly, expenditure has not been distributed between the regions in accordance with population distribution. The proportion of the total population in the Northern and Southern regions has declined

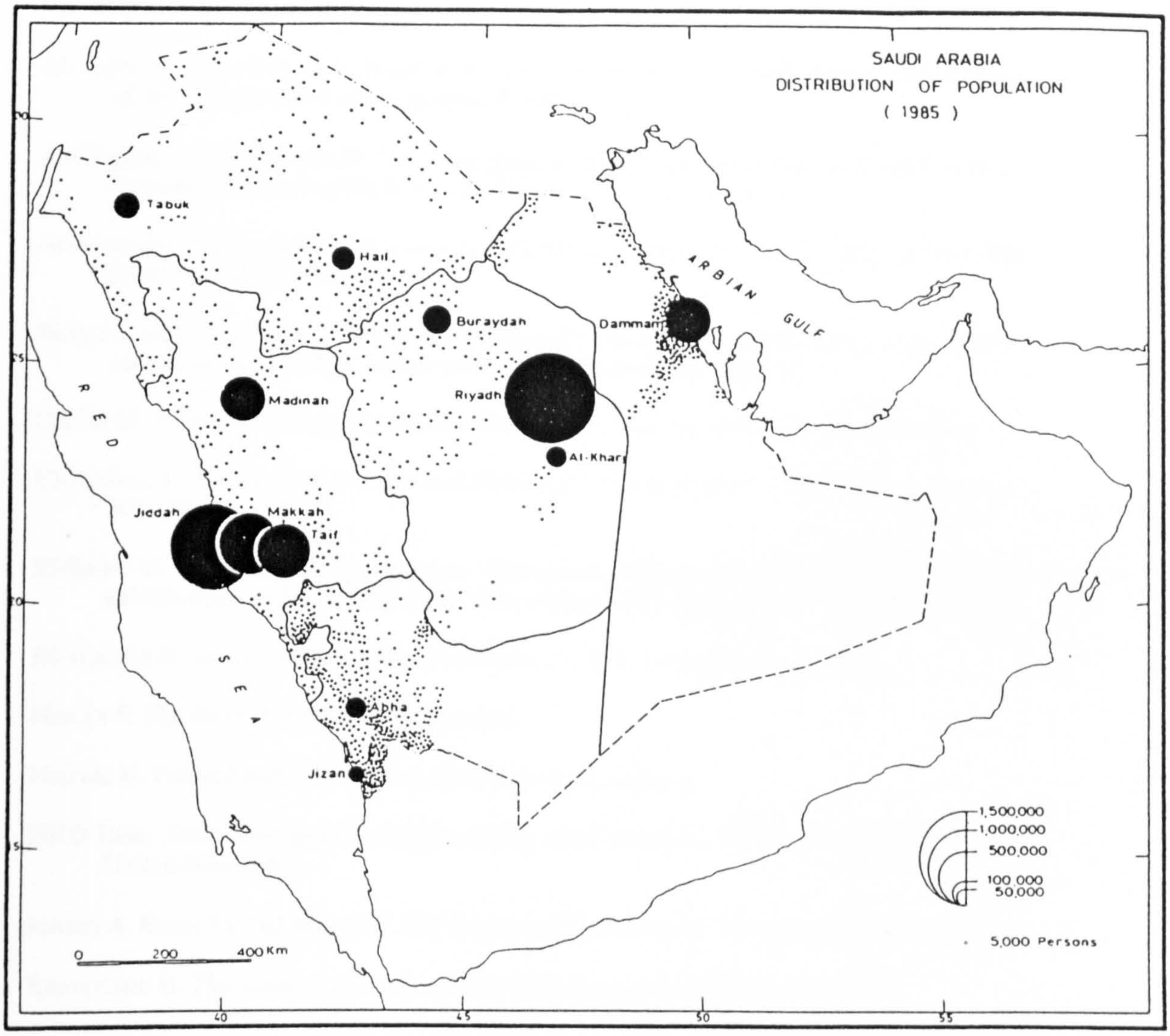
from 10 per cent and 20 per cent in 1974 to 6.2 per cent and 5.7 per cent of the total population in 1985, because they have been drained of a number of their people by other regions.

Figure 2.7, a population distribution map for 1985 by El-Sayed El Bushra (1989) based upon estimates projected from the 1974 census data, presents the overall pattern for the country, indicating the massive concentration in the major cities and the centrality of Riyadh. Although these projected estimates differ in detail from those of the HRD Base (1987), the pattern does not differ substantially.

2.8 Summary

The foregoing analysis reveals that the pattern of population distribution in Saudi Arabia is an interplay of many factors rather than one single factor. The picture of population distribution revealed extensive changes due to the various development projects, which have created a massive population movement into cities and towns from the rural areas, including both settled and nomadic peoples. The oil industry in the Eastern province, the Government administration and service activities in Riyadh City and in Mecca and Medina cities in the Western Region, attract people from all over the country, mainly from agricultural and nomad areas, as well as from overseas countries. Consequently, population distributioln is increasingly uneven and concentrated. The major concentration is particularly in Riyadh.

Figure 2.7 Population distribution of Saudi Arabian population in 1985



Source: El-Bushra, S. 1989

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Chapter Three

The Development of Riyadh City

Introduction

The challenge of development, and the changes which are taking form in Saudi Arabia, are particularly marked in cities both large and small. Riyadh City, moreover, is considered unmatched among Saudi cities in its tremendous growth, both in population and area. In less than half a century it has been transformed from a small fortified settlement of fewer than 25,000 inhabitants into an active metropolis. It is now inhabited by more than 1,300,000 people of almost every nationality.

Although much of Riyadh City has been built and developed in recent years, the city is not a new capital without a past. It has been a site of human activity for centuries. As the capital, Riyadh City became an important national centre. This constituted a pull factor which attracted urban activities from across the country, and created a connecting link between other urban centres in Saudia Arabia.

Riyadh City is situated at the axis centre of urban concentration which runs through the country from Jedda in the west to Dammam in the east, and which accounts for most of the population. This axis comprises the principal concentration of the country's economic, social, cultural and political activities.

The purpose of this Chapter is to analyse the city's historical development. This leads to an explanation of some of the many and varied factors which have

been responsible for the origin, growth and development of Riyadh City, and for its particular place in the pattern of Saudi cities which nowadays often serve as a centre of the Arab and to some extent Muslim world as well.

3.1 Location

Riyadh City is situated at almost the geographical centre of Saudi Arabia, in the eastern central part of the Arabian Peninsula (Figure 3.1). The city lies on Najd Hill which consists of sedimentary rocks (predominantly Jurassic lime-stone, thus distinguishing Riyadh City from other Saudi cities). It is located at latitude 27° 38' north and longitude 46° 43' east, at a height of 600 metres above sea level at the confluence of Wadi Hanifah and its tributaries Wadi Aysan and Wadi Batha (Figure 3.2) (Abul-Ela, M. 1965, p.31)

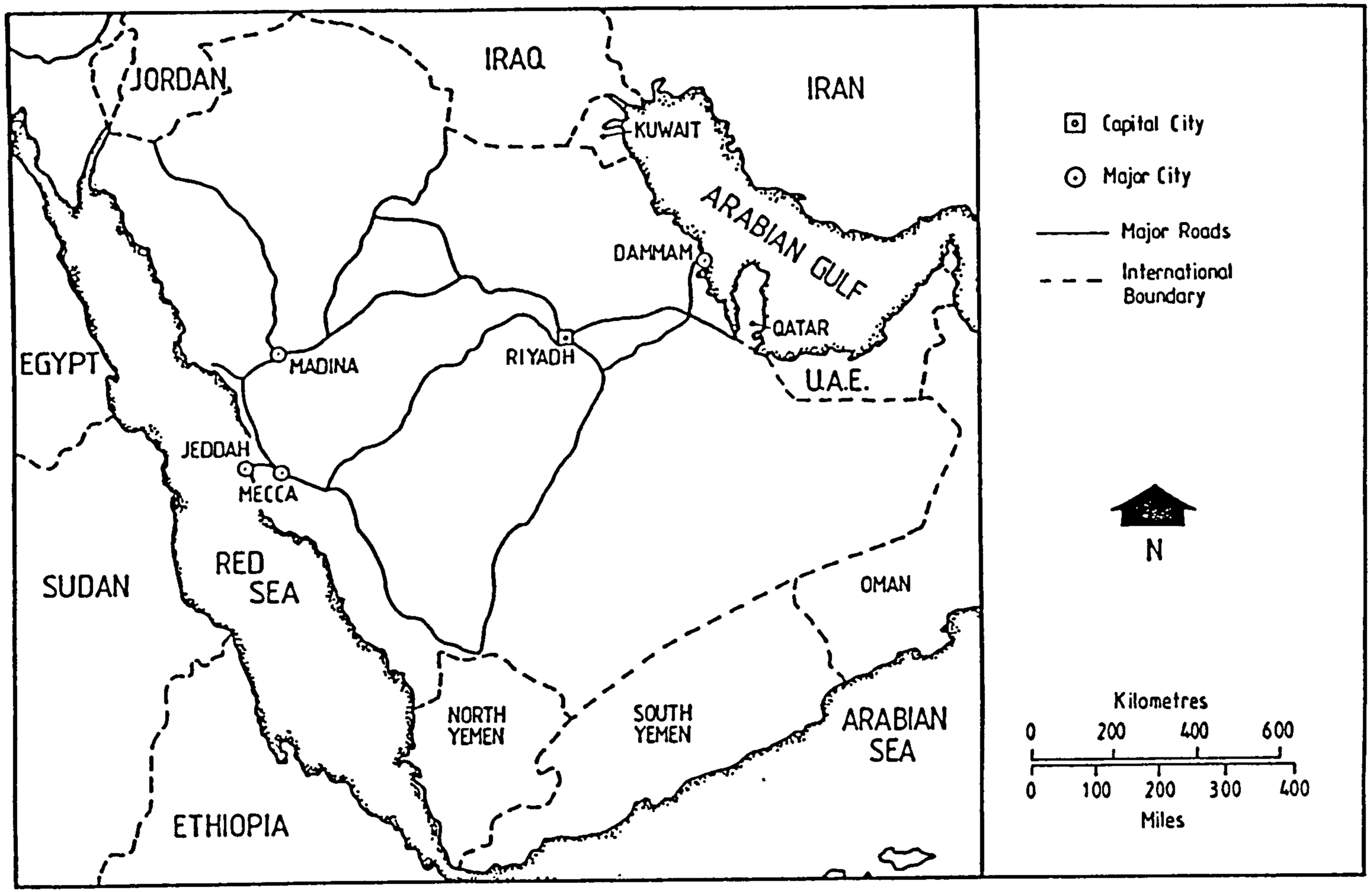
Much use has been made of the strategic location of the city on the Wadi Hanifah. Further, the city has made good use of the water from the Wadi Hanifah and its tributaries, thus giving Riyadh City its name. Riyadh means 'garden'. The name was adopted because green strips of farmland penetrate into the city from the outskirts (Bulchion, W, 1956, 28). These green strips participate in the city setting as well as its form. Unfortunately, due to water shortage, most of the strips which were used for cultivation are now open spaces for recreation and public facilities (Rajab, 0., 1985, p.100).

3.2 Historical Evolution of Riyadh City.

Riyadh City evolved from the ruins of Hajr, once the principal town in Najd.

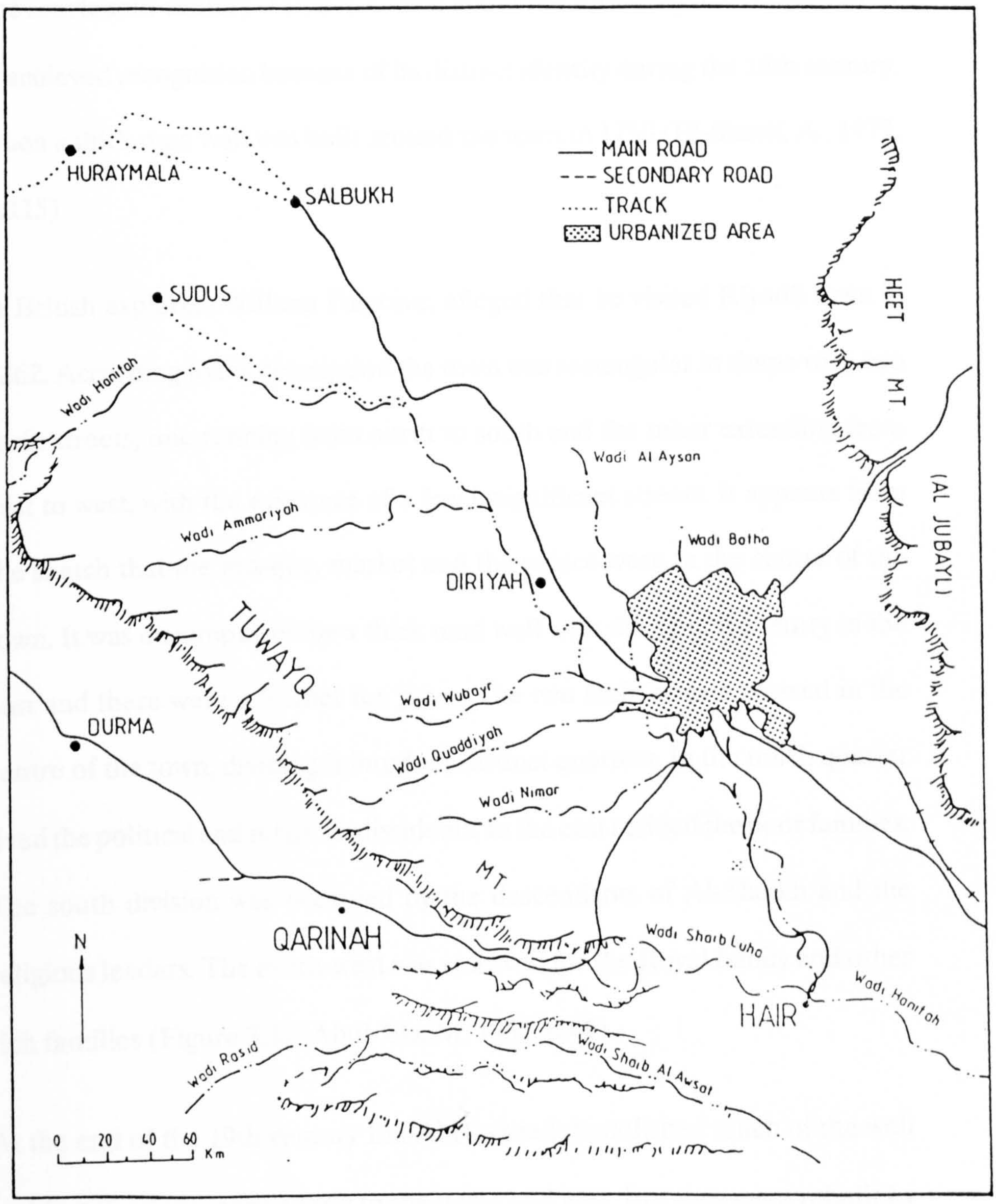
The Bani Hanifah were the earliest people to rule the town. Between 420-

Figure 3.1 Location of Riyadh city within Saudi Arabia



Source: Bindgji, H. 1980

Figure 3.2 Riyadh city and its environs



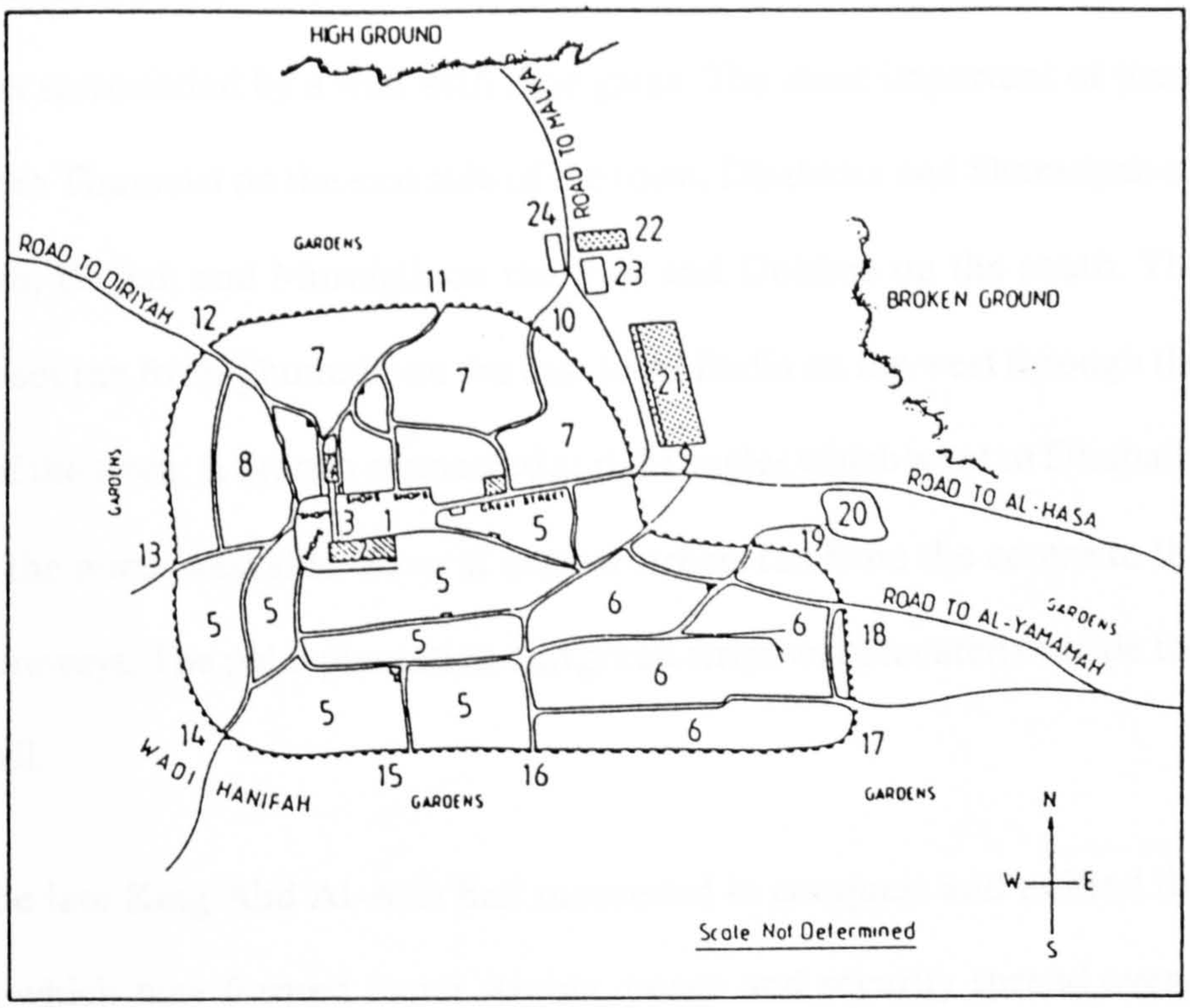
Source: Al-Sheikh, A. 1981

1726 Hajr was ruled by several groups (Al-Jassir, 1966, p.18) Hajr was the capital of contiguous settlements around it during the eighth and ninth centuries. The town's influence steadily diminished, and it eventually vanished in the fourteenth century. Little is known about the following few centuries but it achieved recognition because of its distinct identity during the 18th century, when a thick mud wall was built around the town in 1750 (El-Sharif, A., 1973, p.115)

A British explorer, William Palgrave, alleged that he visited Riyadh town in 1862. According to his description the town was rectangular in shape with two main streets, one running from north to south and the other extending from east to west, with the existence of a few insignificant streets. It appears from the sketch that the mosque, market and the palace were in the centre of the town. It was encompassed by a thick mud wall with the principal entry in the east and there were a further ten gates. The two main streets crossed in the centre of the town, dividing it into four distinct quarters. In the north quarter lived the political and religious dissidents. In the east resided the poor families. The south division was occupied by the descendants of Al-Sheikh and the religious leaders. The north-west was reserved for the Royal family and other rich families (Figure 3.3) (Abul-Ela, M. 1965, p.43).

At the end of the 19th century Ibn Al Rasheed demolished much of the wall and fortifications, particularly to the north and east. But they were rebuilt by King Abd Al-Aziz when he re-acquired Riyadh town in 1902.

Figure 3.3 Plan of Riyadh in 1862



1 - Market Place
2 - Place
3 - Covered Gallery
4 - Mosque
5 - Al - Shick Religous Leader Quarter
6 - Poor Families Quarter
7 - Political and Religous Dissident
8 - Royal Quarter
9 - Principal Gate
10 - 19 - Other Gates
20 - Garden
21 - Cemetery
22 - Royal Stables
23, 24 - Gardens

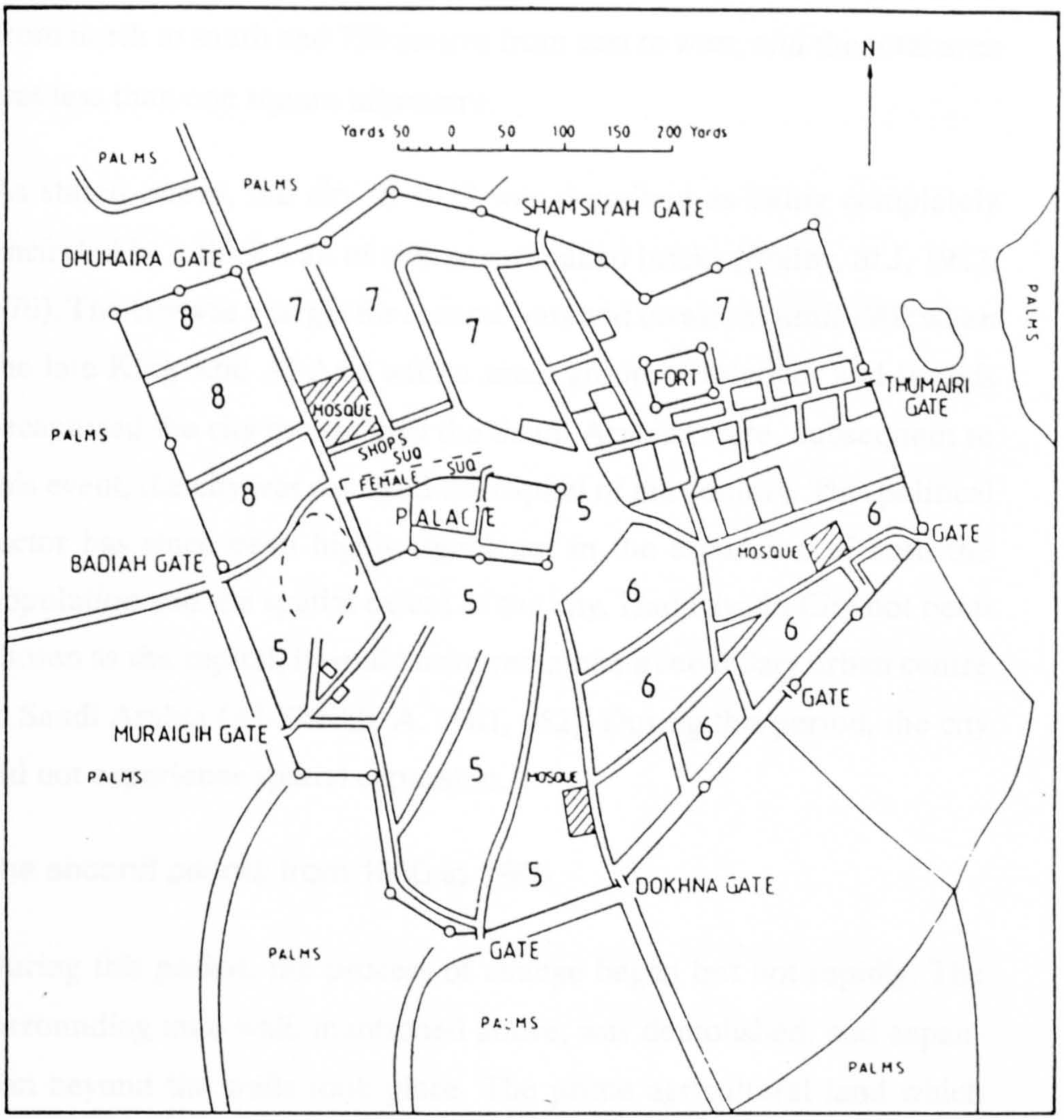
Source: Daghistani, A. 1985

St. John Philby, who visited Riyadh town in 1919 as an official British representative, gave the following description (Figure 3.4). Riyadh town was estimated to be less than one square kilometre. From the figure, it appears that the mosque, market and palace were in the centre of the town and that the town was surrounded by a wall with nine gates. The most important of these gates were Thumairi on the east side of the town, Dhuhaira and Shamsiyah on the north, Badiah and Muraigib on the west and Dokhna on the south. The main street ran from Thumairi on the east to Al Badia on the west through the centre of the town. A branch connected at right angles which went to Dhuhaira gate on the north west side. Several narrow streets ran from the centre to the other gateways. The palm plantation and green strips were located outside the town wall.

After the late King Abd Al-Aziz had succeeded in conquest and unified the regions which now formed Saudi Arabia, peace and security spread everywhere in the country. As a result of the security they had obtained, the inhabitants of Riyadh City felt no need for the walls. They also feared that they would suffer from disease due to lack of sanitation and that the numbers inside the fortified wall would rise from natural increase. Accordingly, the walls were levelled to the ground (Abul-Ela, 1965, p.47).

The following discussion of the spatial expansion of Riyadh City will be divided into five main time periods.

Figure 3.4 Plan of Riyadh in 1919



5 - Al - Sheikh Quarter
6 - Poor Families Quarter
7 - Political Religious Dissidents Quarter
8 - Royal Quarter

Source: Philby, J. 1919

a) First period: prior to 1930:

This period is considered as the evolutionary and formatory phase of the city. The outline of the city was rectangular; its length was 1125 metres from north to south and 750 metres from east to west, and the total area was less than one square kilometre.

As stated above, the city in 1919 was described as being completely encircled by a thick wall of coarse sun-baked bricks (Philby, St.J, 1922, p70). The city was a target for several wars and invasions until 1902 when the late King Abd Al-Aziz with a small group of relatives and friends recaptured the city to establish the Saudi Arabian state. Subsequent to this event, the city was declared the capital of the country. This political factor has since been highly significant in the expansion of both the population and the spatial extent of the city. Had Riyadh City not been chosen as the capital, it would have remained a secondary urban centre in Saudi Arabia (Al-Sheikh, A. 1981, p52). During this period, the city did not experience spatial expansion.

b) The second period: from 1930 to 1955.

During this period, the process of change began but not rapidly. The surrounding mud wall, mentioned above, was demolished, and expansion beyond the walls took place. The prime agricultural land which encompassed the town gave way to planned as well as unplanned urban development.

In 1938 the late King Abd Al-Aziz moved to a new palace built north of the town. A new large suburb was built on the east bank of Wadi Al-Batha to accommodate newcomers. A majority of the new inhabitants were drivers and mechanics from different Muslim countries to maintain the cars and lorries in the town (Abul-Ela, 1965, p.47).

In 1944 the town witnessed its first relatively organized attempt by the city municipality to provide a plot of residential land designated as a settlement for migrants to the city from the desert and the surrounding areas. This Manfuha area was located south of the city, with plots of residential land 8 by 8 metres (Riyadh Municipality, 1986).

By the end of this period, the wealth derived from oil, especially after 1952, played a major factor in the growth of the city. A number of development projects and construction activities were undertaken, so the city expanded in all directions. New paved roads were under construction during this period in order to connect Riyadh City with the other important parts of the country, such as the Eastern Province with its oilfield, and the Western Province, where the holy places of Islam and the government ministries were located. In 1953 the railway which connects Riyadh City with Dammam city in the East Coast was built. In the same year, an airport was opened about 10 kilometres to the north of the city centre, in order to link Riyadh City with other cities inside and beyond Saudi Arabia.

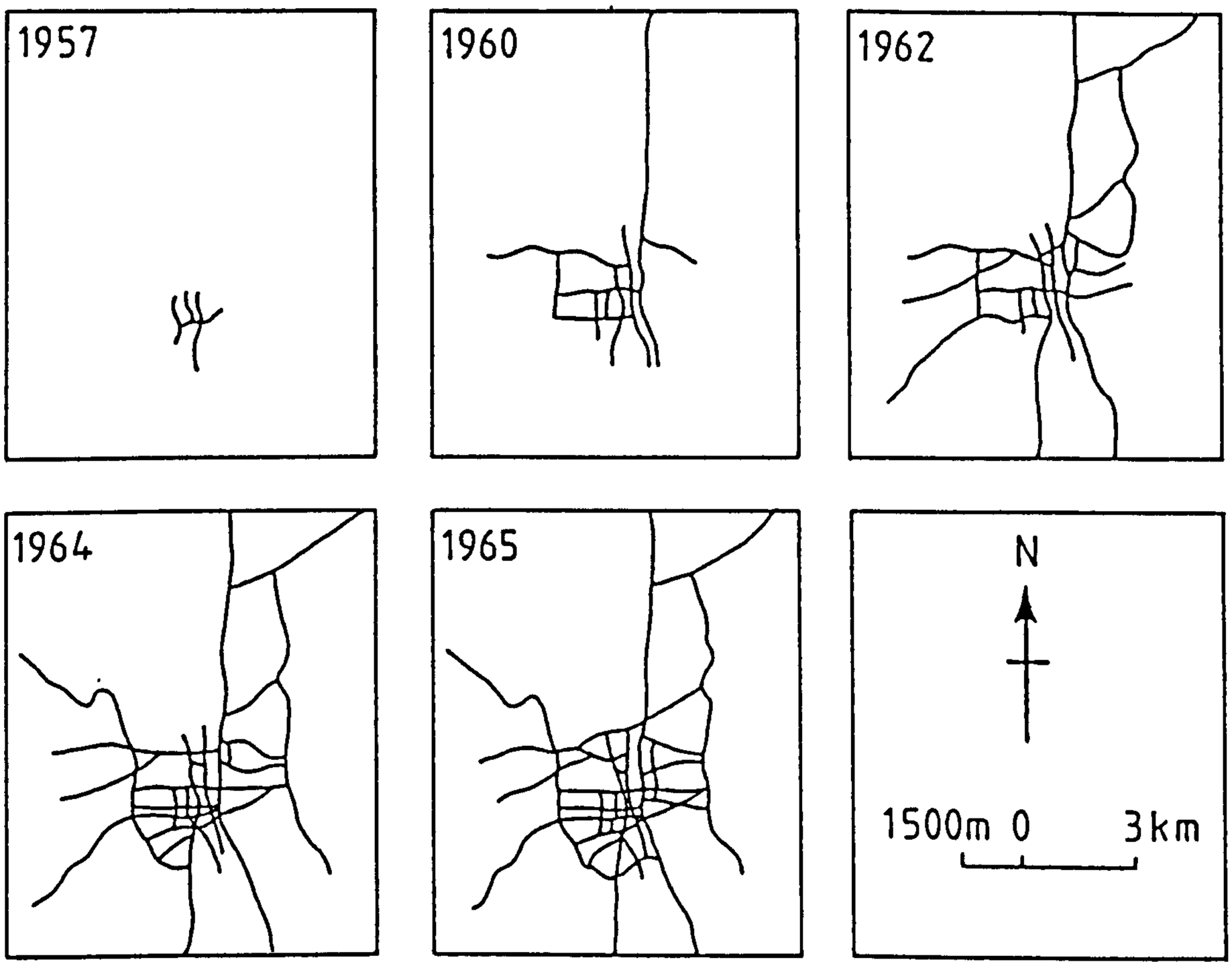
c) The third period: from 1955 to 1968

This period is regarded as the early stage of the true spatial expansion of the city. Riyadh City was growing and expand at a rate higher than during previous periods. (Figure 3.5)

From 1953 many buildings were constructed in the north section of the city on both sides of the airport road to accommodate the new incoming people. In 1957, when various ministries were moved from Jedda on the west coast to Riyadh City, new government offices were built, and the city was able to function fully as the capital of the country.

Rapid expansion occurred outside the central area of the city which was congested by people. New quarters were constructed which were designed in a better way than the central area of the city. Planners took into

Figure 3.5 Street patterns' development in Riyadh city 1957-1965



Source: Al-Sheikh, A. 1981

consideration the size of the each plot of land which was not less than 500 square metres. The wide streets were not less than fifteen metres, in order to be accessible for the public services such as fire engines, ambulances, police and refuse vehicles. Also in the new quarters special areas were devoted to public utilities such as schools, public gardens, clinics and mosques etc. In those new quarters the traditional houses built of mud had been modelled after the western pattern where the villas were built of cement and bricks with a garden encompassing the villa. The most important of these quarters during this period were Malaz, Muraba, and Badiah. The spatial expansion of the city was not limited to those quarters only, for there were also quarters in the east and the west of the city such as Hillet Al-Qussman and Al-Dawasir which were not designed properly and development was unplanned (Riyadh Municipality, 1986).

d) The fourth period: 1968 to 1976

Since 1970 and particularly since 1976, the factors and the directions of the city growth have multiplied in numbers and become much less controllable. Urban uses and activities sprawled in all directions, the total built-up area jumped to 45 square kilometres before 1970. As a direct result of this huge expansion, Riyadh municipality officials started to work out a guide master plan to instruct the spatial expansion and its directions, and also to define the land use areas and to assure the availability of the basic utilities and the public services such as hospitals, schools, recreation areas, mosques and others.

The guide master plan was prepared for the city development up to the year 2000 and covering an area of about 304 square kilometres. It contained the following:

1. Linear expansion toward the north and the north-west containing a central area to enclose commercial activities and central administration.

2. Recommendation of an advance road network to connect Riyadh City with the other urban areas and to restrict the passage of heavily-laden carriers through the city centre.

3. Maintaining hierarchical communities and determining the population density to provide the basic utilities according to their size.

4. Development of the industrial activities in the south-eastern section of the city and allocating these areas for industrial use only.

5. The construction of a six-lane ring road around the city, about 94 kilometres in length, to control the traffic passing from east to the west and from the north to the south of the city, and also to ease the traffic movement between the city's districts.

e). The most recent period: post-1976

Riyadh City witnessed radical change both in population and area expansion which exceeded all the plans and expectations made by the city's planners and officials. Construction in the city has been at a rate probably not existing in any comparable city around the world, not least due to the fact that the city's municipality issued one hundred building licenses daily. These were licenses for residential buildings such as villas, multiple storey buildings such as apartments, offices and commercial stores, as well as for decorating and fencing. In the mid-1980s construction slowed a little, but it is still active (Riyadh Municipality, 1986).

In this period there has been a self-sufficiency in construction, and building design has improved tremendously especially in the architecture. Asphalt roads have been laid in existing residential districts as well

as in districts under construction. A number of bridges and tunnels have been built to ease traffic flow on the city streets. The two-way ring road around the city, 94 kilometres long with three lanes in each direction, was completed. Also there was the construction of a large number of public gardens, and children's playgrounds in all city districts especially districts with a high population density.

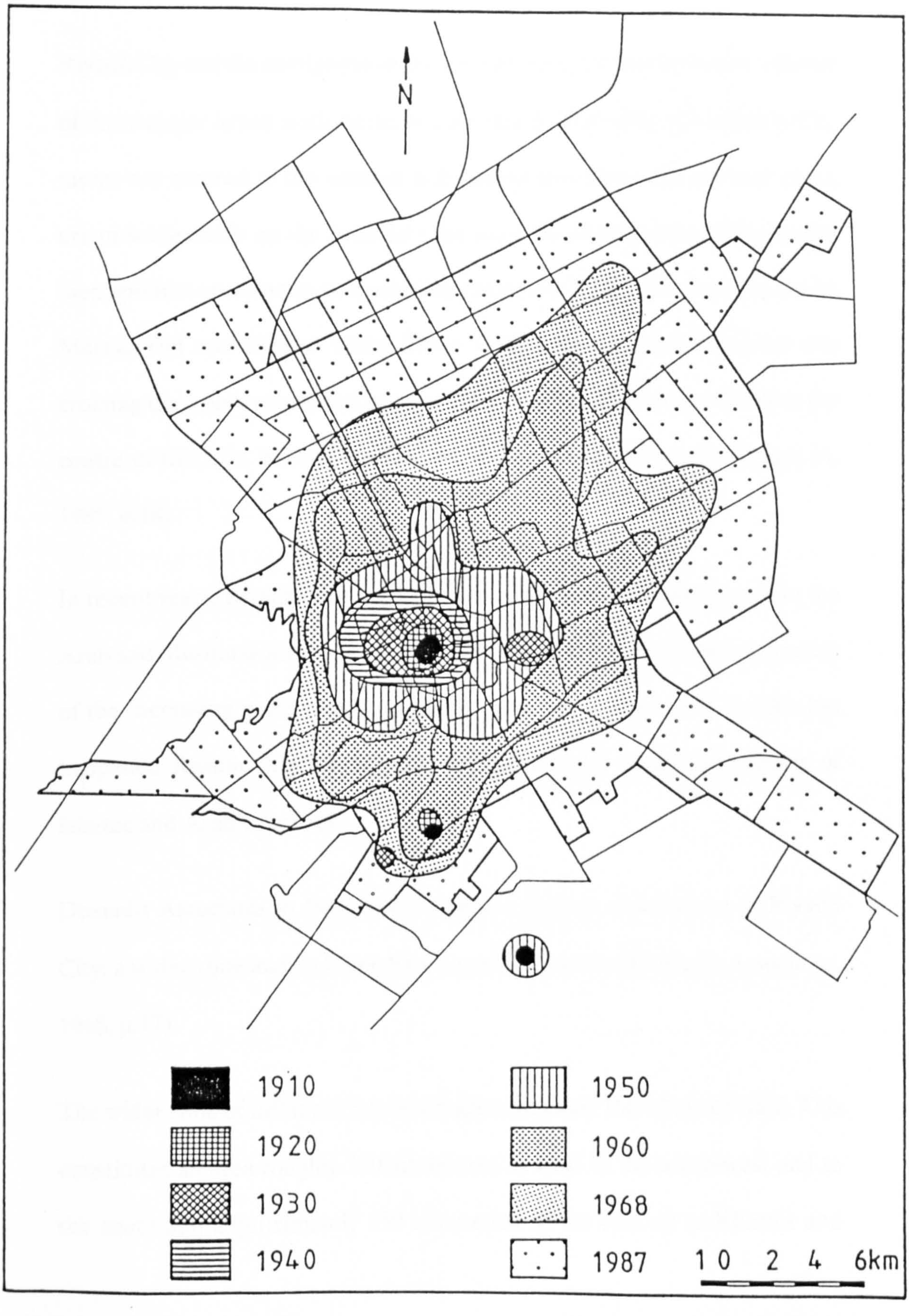
Riyadh City's built-up area covers more than 1600 square kilometres, although this area is not completely built over, void spaces being spread throughout the city. Some of these spaces were planned, others were not. The main road network and most of the basic utilities have been constructed in all areas (planned and unplanned) of the city (Figure 3.6).

The rapid spatial expansion, especially during this period, is associated with the following factors: first, a strong wave of immigration from inside and outside the country due to the increasing economic opportunities and the abundance of high paying jobs; second, the huge government expenditure on residential and development projects as well as private developments; third, as a result of the above factors there were increases in trade, commercial and transportation activities; fourth, the establishment of the Real Eastate Development Fund has played a major role in the city's spatial expansion; and finally, the translation of the diplomatic bodies from Jedda on the west coast to Riyadh City, which began in 1983. Due to the high land values on the perimeter of the city centre much of the city's population were forced out, and bought cheap land in order to build their homes. As a result of this dispersion, new suburbs evolved around the city.

3.3 Centrality of Riyadh City.

The geographical location of Riyadh City is significant in the sense that, apart from being a central pole of urban concentration in Saudi Arabia, it is also a major transportation centre which links the Arabian Gulf to the Red Sea and

Figure 3.6 Urban expansion of Riyadh city



Source: 1. Makky, G. 1985

2. Al-Harra, A. 1987

leads to all the other sections of the country, enhancing its position as the capital of the country.

Riyadh City and the contiguous settlements around it comprise one of a cluster of three major urban settlements in the country. The other two urban settlements are centred in the western and eastern provinces. On the east coast, urban settlements on the Arabian Gulf are concentrated around Dammam metropolitan area; in the west province the urban cluster is centred on Jedda, Mecca, Taif and Medina cities. These three urban regions lie on an axis crossing the country from east to west. The city of Riyadh lies absolutely at the centre of this axis, in both function and geographical terms (Daghistani, A, 1985, p.18).

In recent years, Riyadh City has achieved an international significance in the Arab and Muslim worlds, due to the active role played by its leaders as a result of the increasing political and economic influence in the world. As this has happened Riyadh City has become an international centre particularly of Islamic and Arab countries.

Doxiadis Associates in 1968 recognised two regions of influence of Riyadh City: a wider zone and an immediate zone of influence (Doxiadis Associates, 1968, p.17).

The wider zone of influence has taken approximately the whole of Najd. This constitutes an area roughly 350 kilometres by road to the north-west and to the south and approximately 150 kilometres to the east up to Khurais and

about 500 kilometres by road to the west to Afif. In this zone is contained a number of important urban centres such as Unayzah, Burayda, Hail, Al-Kharj and Al- Aflaj.

The immediate zone of influence of Riyadh City was considered as extending roughly to Salbukh, Jubaylah, and Al-Mahmal to the north, and As-Salamiyah and Al-Yamamah to the south. This zone also includes most of the depression from Al-Muzahimiyah to Marat and the higher plateau on the road to Khurais (Doxiadis Associates, 1968, p.18).

3.3.1 Road Network

In the early stages of establishing Saudi Arabia, King Abd Al-Aziz focused his attention on developing the nation. The first development projects were constructing a road network linking the different parts of the country, because he realized the significance of the road network in upholding the various parts of the new state and keeping it as one united invulnerable force; since then the road network has been a vital plank in the Saudi Arabian development policy.

Local means of transportation between Riyadh City and the rest of the country were for a long time neither developed nor well arranged. It was not until 1955, when the 53 mile road was constructed to connect Riyadh City with the city of Al Kharj. Since then more roads have been built to connect the capital with the rest of the country.

Since 1970, emphasis has been given to developing the road network in Saudi Arabia, due to the important role it plays in the economic and social growth of the country. Today, a great part of the road network has been completed and upgraded according to international standards. Thus, cities and villages throughout the country are connected by an efficient road network (Ministry of Information, 1986).

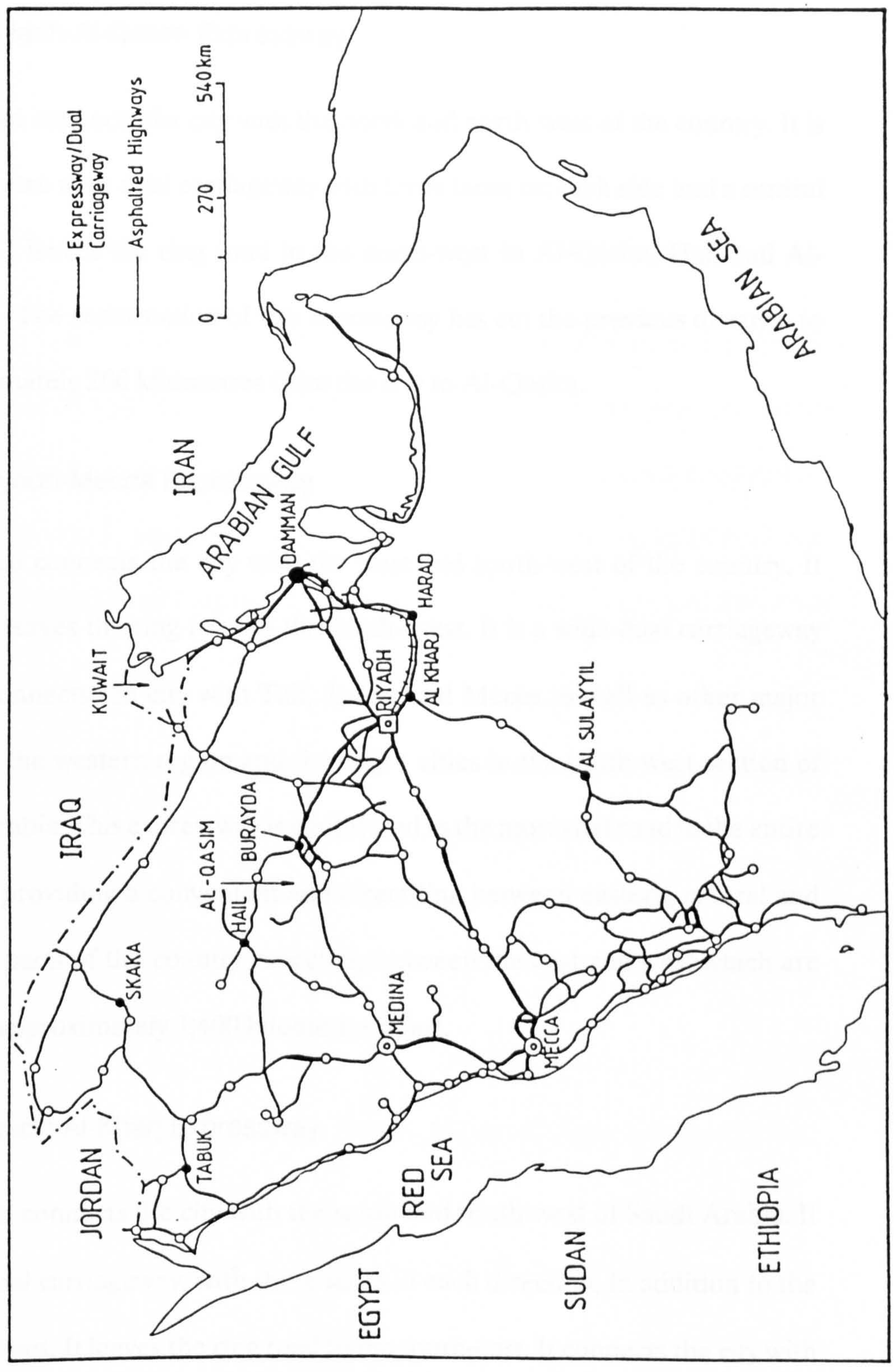
Riyadh City became the most accessible centre on the road network of Saudi Arabia. It is centrally located in the heart of the country. Due to its strategic location, it has five routes, which are highly advanced and efficient express-ways, passing through the city, leading to various cities across the country. (Figure 3.7)

These expressways which connect Riyadh City with various destinations issue from the Riyadh ring road which encircles the entire city and serves to ease the growing traffic flow and provide suitable access to the different parts of the city.

1: Riyadh-Dammam Expressway

This road connects the city with the eastern section of Saudi Arabia. It leaves the built-up area to the north-east. It is a hundred metres wide dual carriage-way with three lanes in each direction (and a central island) providing fast access from Riyadh City to Dammam, Dhahran and other cities of the Eastern Province as well as extending to the north to connect the country with Kuwait and Jordan. This new expressway had reduced the Riyadh-Dammam distance

Figure 3.7 Main-road network in Saudi Arabia 1988



Source: Ministry of Communication 1986

from approximately 500 kilometres on the old road to 400 kilometres and has increased road capacity.

2. Riyadh-Al-Qasim Expressway

This road connects the city with the north and north-west of the country. It is an 84 metre wide dual carriageway with three lanes on each side and a central island. It leaves the ring road to the north-west to Al-Qasim, Hail and Al-Medina. The construction of this expressway has cut the previous distance to approximately 200 kilometres from the city to Al-Qasim.

3. Riyadh-Mecca Expressway

This road connects the city with the west and south-west of the country. It initially leaves the ring road to the south- west. It is a wide dual carriageway which connects the city with Taif, Jedda, and Mecca as well as other major cities of the western region and the major cities in the south-west section of Saudi Arabia. This expressway is considered as the most vital road in the entire country providing a convenient and direct link between eastern, central and western parts of the country especially between the east and west which are located approximately 1,400 kilometres apart.

4. Riyadh-Al-Kharj Expressway

This road connects the city with the south and south-west of Saudi Arabia. It is also dual carriageway, with three lanes in each direction, in addition to the service lanes. It leaves the ring road to the south-east. It connects the city with southern cities such as Al-Kharj, which is about 80 kilometres south of Riyadh

City, Al-Hutah and Al-Sulayyil. It also serves the industrial development along its side. It has been constructed to replace the old Al-Kharj road and to control the traffic caused by the fast growing developments along its sides.

5. Riyadh-Al-Hair Road

This road is 60 metres wide, and it is an extension of King Abd Al-Aziz road which links Riyadh City with Al-Hair town 40 kilometres to the south.

Motor car use is among the main factors which have generated the spatial expansion of Riyadh City, promoted by such factors as cheap petrol. Citizens of Saudi Arabia want to live in separate houses and to raise their standard of living, and this is associated with the expanding interest in individual car ownership which is taking place in the newly constructed quarters of the city's outskirts.

This phenomenon stimulated the attention of planning authorities for upgrading the road network to provide rapid and easy access to the various parts of the city and to control the growing traffic in the city. Today, there exists an excellent hierarchy of road networks in view of the standard and operations in Riyadh City. These roads are as follows:

1. 100 metres wide roads. The total length including the ring road is 149 kilometres .

2. 80 metres wide roads. The total length is 90 kilometres.

3. 60 metres wide roads. The total length is 232 kilometres.

4. 30-40 metres wide roads. The total length is approximately 650 kilometres.

5. Local streets. Includes all the streets less than 30 metres wide and provides access to individual units or residential, industrial and commercial areas.

On the whole, Riyadh City road network has a high quality of road design and meets the traffic safety requirements. The roads are wide, well-landscaped and well-equipped with street furniture. There are a large number of tunnels, bridges and interchanges constructed to ease the traffic movement at the road junctions and to confirm a rapid and safe traffic flow within the city. In addition to this, good attention has been given to the pedestrian. Many pedestrian tunnels and viaducts have been constructed along various busy city streets to ensure pedestrian safety and convenient access in spite of the growing traffic in Riyadh City (Riyadh Municipality, 1986, p.4).

3.3.2 Railway

During its first stages of development, Riyadh City relied exclusively on the railway. The railway between Riyadh City and Dammam City on the eastern coast began to operate in late 1951, before the paving of the motor road between the two centres. The railway transports people and goods from the east coast to the city. It brought about a decline in the cost of all essential materials. Hundreds of thousands of tons of building materials had to be transported to the city which generated the process of change in the modern city.

The impact of the railway was not confined to Riyadh City alone, but contributed to supplying the oilfield with modern machines, spare parts and much other equipment from Dammam port. The railway linked the city with Dammam via Abqaiq, Al-Hasa, Harad and Al-Kharj and it contributed to the economic prosperity in these areas and the emergence of many of the agricultural and construction activities. (El-Sharif, A, 1973, p.308)

The importance of the railway has diminished subsequent to the construction of the Dammam-Riyadh highway in 1961, due to the lower transportation cost of goods by trucks. The amount of freight transported by train to and from Riyadh City has been decreasing steadily since the opening of the road. (Doxiadis Associates, 1968, p.14).

Considerable effort has been made to improve the capacity of the railway rolling stock, to extend the range of the service, and to meet the continuous increase in the rates of services. Despite its efforts, its significance as the major transport between Riyadh and Dammam has declined due to competition from other transportation means. Among the new projects are the construction of a new track parallel to the old one. The new track started from Dammam to Al-Hasa and it extended from Al- Hasa to Riyadh City directly to reduce the distance from 562 kilometres to 450 kilometres, also to reduce the travel time from seven to four hours. There is also a project to replace the exhausted parts of the old track, to assemble new traffic systems and to change the communication network which exists along the rail track. In addition, there are future projects which are still under consideration:

1. Riyadh - Jedda Railway

2. Jedda - Mecca Railway

3. Jedda - Medina Railway

4. Dammam - Al-Jubail-Kuwait Railway

The first attention will be given to Riyadh-Jedda, Jedda-Mecca, and Mecca-Medina railways, while the Dammam-Al-Jubail railway will be constructed by Royal Commission for Jubail and Yanbu (Arabic Institute for City Development, 1983, p457)

3.3.3 Air Transport

Air transport connects Riyadh City with other urban centres and regions. It has increased significantly since the opening of the old airport in 1949 in the north of the city. Due to its central location, Riyadh City plays an important role in domestic air travel. Table 3.1 reveals that out of a total of 6,891,991 passengers transported in 1987 by Saudi Airlines in its domestic scheduled services, 4,317,822 were passengers to or from Riyadh City. The most heavily travelled connections were those to Jedda, Qasim, Dhahran, Abha and Taif.

The old airport facilities were unable to cope with rapidly growing international and domestic air traffic demands to and from Riyadh City. It was, therefore, replaced by a new airport, named King Khaled International Airport in honour of the late ruler of Saudi Arabia. The new airport was opened in late 1983. It is located 35 kilometres north of the city and being developed on a 225 square

kilometre site. The airport is furnished with the basic utilities and is capable of serving more than 15 million passengers annually (Daghistani, A, 1985, p.213).

Table 3.1

Air passengers on Domestic Flights to and from Riyadh City in 1987.

Serial Number	City of Origin or Destination	Total Number of Passengers	Riyadh City Passengers		
			To	From	Total
1	Abha	418,364	186,904	191,242	378,146
2	Arar	37,375	26,501	27,702	54,203
3	Bishah	61,125	36,922	34,942	71,864
4	Tabuk	204,994	73,330	73,069	146,399
5	Jedda	1,772,688	685,998	681,489	1,367,487
6	Jawf	41,132	28,755	29,266	58,021
7	Jizan	227,200	96,482	105,535	202,017
8	Hail	101,139	69,589	72,241	141,830
9	Riyadh	2,174,032	-	-	-
10	Taif	189,306	144,600	152,448	297,048
11	Hafr Al-Baten	5,868	4,981	5,460	10,441
12	Dhahran	753,919	420,845	431,934	852,779
13	Qurayyat	24,872	15,690	14,878	30,568
14	Qasim	159,553	91,020	100,540	191,560
15	Medina	419,922	127,705	125,321	253,026
16	Najran	78,532	41,664	37,325	78,989
17	Qaisoumah	19,179	18,525	21,088	39,613
18	Wajh	12,128	1,512	1,078	2,590
19	Rafha	6,348	4,704	4,174	8,878
20	Sharoura	21,849	4,467	4,294	8,761
21	Yanbu	89,220	9,026	9,120	18,146
22	Hofuf	25,624	23,798	21,638	45,436
23	Baha	47,622	30,772	29,248	60,020
	Total	6,891,991	2,143,790	2,174,032	4,317,822

Source:

Ministry of Finance and National Economy, statistical year book, 1988

Until recently, Riyadh City airport has been serving domestic air traffic, and providing international flights mainly via Jedda or Dhahran international airports. Since mid-1989, however, international flights direct from Riyadh City have been operating.

On the whole, Riyadh City's central location among the urban centres within Saudi Arabia and the Arab and Muslim countries has grown over the last decade with the improved transport facilities.

3.4 Land use pattern.

Riyadh City has witnessed a gigantic growth both in population and area. As a result of this the land use of the city has experienced continuous and massive changes. Up to the early 1970s land use over the whole city followed no fixed or organized pattern. The form taken by land use has been the result of spontaneous, undirected growth and consists of a fairly big proportion of mixed uses. This pattern of city land use was an outcome of a collection of choices and decisions about location which were made by individuals, planners, companies, and by both local and central governments.

Since mid-1970, however, the Municipality of Riyadh City has played a key part in determining patterns of urban land use in the city. In addition, there is a Higher Commission for developing Riyadh City which was established in 1974. It is entrusted to design the higher policy for the development of the city, to endorse its development plans, and to co-ordinate the projects among the various ministries, authorities and institutions which have any connection with the city projects. In 1982 a new department was established in the Higher

Commission, called the Centre of Substantial Projects and Planning. Its job is to assist the Higher Commission in the planning of matters and to supervise the projects and public utilities.

Riyadh city is spatially divided into four districts embodying 112 neighbourhoods, varying in area and land use. There are differences among the city districts and their respective populations. Consequently persons with high socio-economic status will live in the most developed districts, while lower class people will choose other districts which are characterised by the availability of cheap housing and inexpensive living costs. It follows that people choose to live close to other people of the same class and sharing the same level of income, housing conditions and life style.

Before we discuss the correlation between the population characteristics and land use in the four districts it might be useful to provide a brief and general description of these four contrasting districts of Riyadh city.

The South district constitutes the southern and south-western sides of Riyadh city. This district is characterised by a mixed population and the highest population density. Most of the people living in this district are native of Riyadh, rural migrants who had been in Riyadh for a long time, and foreign people.

The East district includes the eastern side of the city. It contains a small section of the old section of the city. It has a mixed population and has the second highest population density of the four districts. Most of the residents are

Saudis from rural areas or bedouins who settled in Riyadh city in the last three decades.

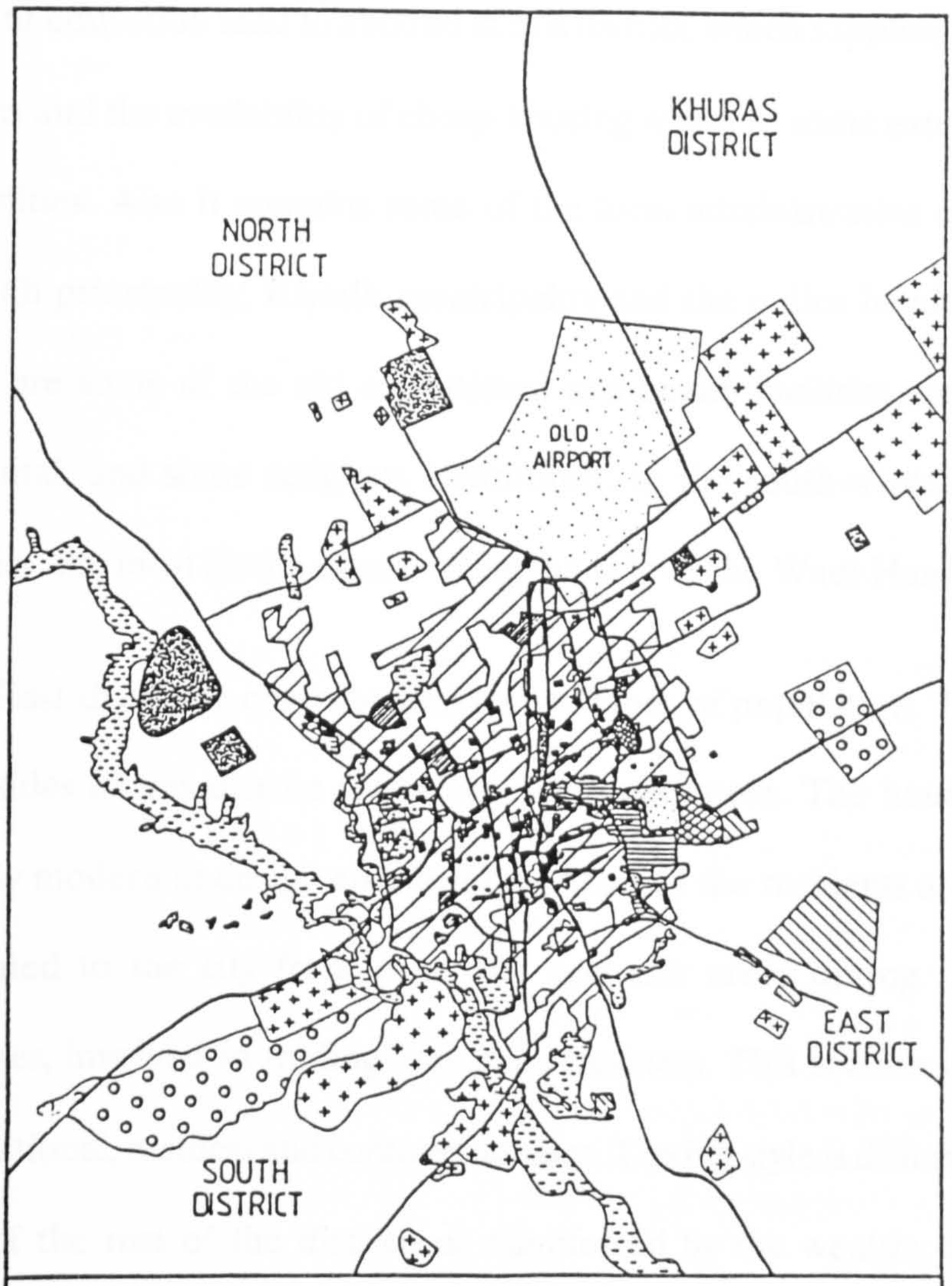
The Khuras district is the north-eastern part of the city. Most of the people living in this district are either native of Riyadh who moved to this district from the old section of the city due to factors such as their dwellings being demolished, their financial ability to afford more desirable housing, and an increase in family size. There are also recent migrants who came to Riyadh city from different parts of the country, most of them being young families.

The North district is the northern side of the city. It is characterised by a mixed population of Saudi and non-Saudi people. In addition, people living in this district are of a higher socio-economic status than those living in the other districts. This district turned out to be the most developed one, and the one which is richest in educational, medical and recreational institutions.

The land use pattern of Riyadh city in a broad form is shown in Figure 3.8. It is a general guide to reveal how the extent of correlation between land used for functional activities such as commerce or industry and land used for residential purposes, varies from one district to another. In general it is far greater in the city quarters: some are entirely 'functional', some are entirely residential, some are mixed.

The South district contains the old section of the city as well as the central business district. It is characterised by the least developed quarters which consist of the high proportion of the traditional mud housing units, which are

Figure 3.8 Land use pattern of Riyadh city



Source: SCET-International-SEDES, 1982

occupied mostly by low-income people who migrated from rural areas or from other developing countries. The main commercial activities are concentrated in the centre of this district. It should be noted that the new migrants with no skill or education tend to abound in this district, which supplies them with low wages and the availability of cheap housing which to some extend lack urban amenities. Also it contains some of the local administrative offices such as Riyadh principality, Riyadh municipality and the police headquarters. Also here are some of the old educational and health facilities such as Shmessi Hospital, and some religious institutions. In the south-western side of the district, the most fertile area is along the side of the Wadi Hanifa.

The East district is characterised by two types of population. The north and east sides of this district are newly developed areas. The housing units are mostly modern in design and facilities. Most of the residents are Saudis who migrated to the city from rural and nomadic areas during the last three decades, involved in trading and small business. This section is also rich in recreational, medical and commercial uses. The life style is different here from that of the rest of the district, as manifested by the wealthy families. The southern section of the district, in contrast, is characterised by industrial and transportational facilities. Manufacturing is highly concentrated in this district, known as 'the industrial area'. The separation of large scale industry from other land uses reflects the existence of strong municipal planning power in organising the city's urban growth. Most of the people who live in this section are either Saudis who came to Riyadh city from other urban areas, or foreign

people who have been in Riyadh for a long time, or recent migrants who tend to settle near relatives or friends who have been in Riyadh for a long time.

The Khuras district happens to be the most developed district in Riyadh city, and the one which consists mostly of residential areas and government defence facilities, and the majority of its inhabitants are educated Saudis working as professionals or semi- professionals who have moved from the old quarters or people who have migrated from urban areas and from other developed countries.

The North district also consists of the most developed quarters in the city. In this district, many modern buildings for residential and commercial purposes have been constructed along the main streets during the last 15 years. This district also has the main administrative buildings in the city, as well as the residence of the royal family, along with the upper- and middle- class people. The life style in this district is different from that of the rest of the city, as revealed by the high proportion of educated people who work as professionals or semi- professionals in the various ministerial departments and large companies.

Table 3.2 shows the comparison of the total areas of land used for different activities in Riyadh City within the built-up area in 1972 and 1980. No recent figures are available to indicate the recent picture of the land use pattern in the city and to observe the changes. It can be seen from the table the growth of the different land uses between the two periods. Before the establishment of the Real Estate Development Fund in the mid 1970s and the introduction

of the rest of the development schemes' development plans participate in stimulating rapid construction in all land use activities. The most interesting point of the table is that the huge expansion of the city has created proportional diversity between land used for functional activities as a result of the rapid growth and the variation of its motive (El-Sharif, A, p.26).

Table 3.2

Land use in Riyadh City in 1972 and 1980 (in hectares)

Type of use	1972	%	1980	%
Residential	32,250	46.6	90,000	52.9
Governmental	350	0.5	1,500	0.9
Commercial	1,200	1.7	1,900	1.1
Industrial	2,050	3.0	2,500	1.5
Religious	250	0.4	600	0.4
Warehousing	1,000	1.4	2,000	1.2
Educational	1,750	2.5	2,300	1.4
Recreational	900	1.3	1,400	0.8
Health	360	0.5	2,500	1.5
Cemeteries	660	1.0	800	0.5
Transportation (air and rail)	2,000	2.9	32,000	18.8
Road and street network	26,400	38.2	31,000	18.2
Defence	30	0.0	1,500	0.9
Total	69,200	100.0	170.0	100.0

Source:

El-Sharif, A, 1988.

The residential function generally accounts for the largest single land use in Riyadh City, increasing from 46.6 per cent in 1972 to 52.9 per cent in 1980. The large scale suburban growth is essentially a product of the 1980s. The

development of this urban periphery, which is predominantly residential in character, may be attributed to several factors. Clearly, it must be related to the Real Estate Development Fund and also as a direct result of the massive increase of Riyadh population (analysed in Chapter 7). The impact of this population growth has also been enhanced by social changes, notably the tendency for family and household units to become smaller so that more dwellings are required to house the new families.

Health and government activities have increased slightly over the period: the land use percentages were 1 per cent and 1.5 per cent respectively of the total area in 1980. This was a result of the increasing share of other lands.

Transportation land use shares of the total area have increased tremendously whereas the area has increased 16 times between the two periods due to the annexation of the area of the old airport and the railroad zone to the built-up area of the city. The rest of the land uses had enormous increases in absolute numbers, their increases varying between 25 to 100 per cent but their proportion of the total built-up area did not keep up with the city expansion. Therefore their proportions were reduced from the first period.

Whilst commercial land use is concentrated in the city centre, its area has expanded simultaneously with the expansion of the central area and spread to a large number of the adjacent quarters. It has extended along radial and circumferential routes and especially at their intersections. A recent development in Riyadh City has been the opening of carefully planned shopping centres in which a wide range of goods and services is available in a single

gigantic complex. These shopping centres have spread rapidly in Riyadh City as a result of the economic and social changes, their numbers increasing from 32 centres in 1979 to 248 centres in 1985 (Makki, M. 1986, p.29).

The expansion of Riyadh City has reached a massive proportions, and its administration attained 1,600 square kilometres in 1985, although not all of this was built up. This indicates that there is a changing character of the land use pattern in the city. These new areas which have been developed need proper infrastructure and community services. In general terms, this expansion has changed the map of the land use pattern. There are a number of void spaces within the built-up area which could be utilized and further expansion of the city is sure to occur.

3.5 Summary

In this chapter attention has been drawn to the spatial expansion of Riyadh City, which itself is the product of a number of factors. Between 1977 and 1983 the built-up area of Riyadh City in area increased seven times. Attention was given to the location of Riyadh City in relation to the other urban centres in Saudi Arabia. We have seen that the city has a central location among the other settlements in the region, and also the increasing nodality of Riyadh City as it has developed as the centre of the road and air transportation networks.

Also in this study we have seen the underlying importance of the urban land surface, which itself is the product of competition among different land users for the most accessible sites in the city. Residential land use accounts for a large part of the built-up area of the city. On the whole, Riyadh City is, in a

sense, unique, its particular structure is determined in large part by the configuration of its site and the special historical processes to which it has been subjected.

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Chapter Four

Present Housing Patterns in Riyadh

In 1988 the author undertook a sample survey based on a random sample of 1533 dwellings chosen from the files of the Saudi Consolidated Electric Company. During the fieldwork detailed information was gathered on the type of dwelling, occupancy and tenure status, type of facilities, number of rooms and bedrooms etc.

A comprehensive picture of Riyadh City housing can only be gained by considering characteristics such as the housing pattern, age of the housing units, and the household density. In this chapter a variety of information will be presented in order to build up an appreciation of the housing character of the city, which reflects closely its population growth.

4.1 Type of Housing

The data in Table 4.1 and Figure 4.1 show the distribution of the 4 different housing units among the districts of Riyadh City:

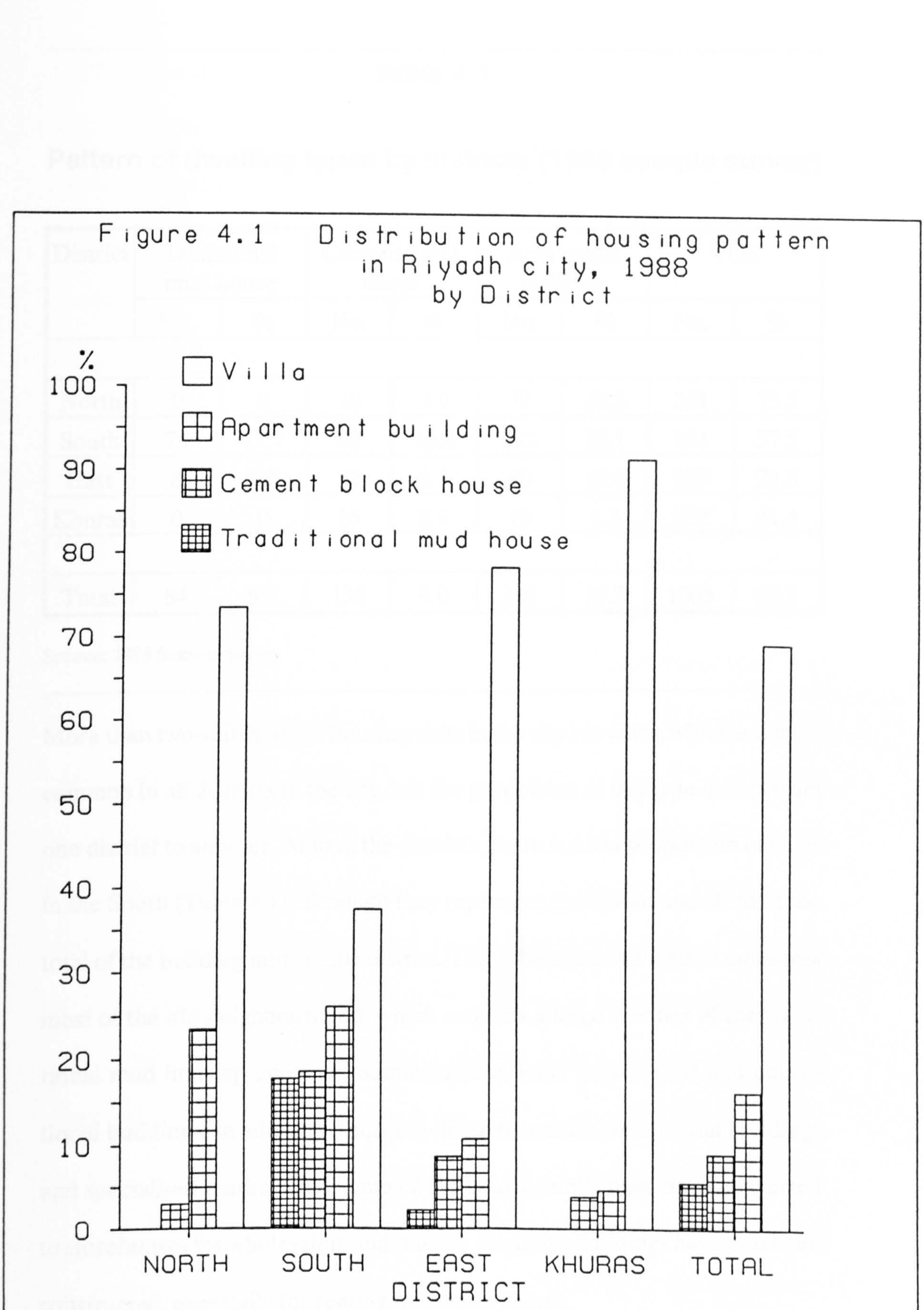
1 Traditional mud house

2 Cement block house

3 Apartment building

4 Villa.

Figure 4.1 Distribution of housing pattern in Riyadh city, 1988 by District



SOURCE: The 1988 sample survey

Table 4.1

Pattern of dwelling types by districts (1988 sample survey)

District	Traditional mud house		Cement block house		Apartment building		Villa	
	No.	%	No.	%	No.	%	No.	%
North	0	0	10	3.0	77	23.5	241	73.5
South	76	17.7	80	18.6	112	26.1	161	37.5
East	8	2.2	32	8.7	40	10.8	289	78.3
Khuras	0	0	16	3.9	19	4.7	372	91.4
Total	84	5.5	138	9.0	248	16.2	1063	69.3

Source: 1988 Sample Survey

More than two-thirds of the housing units in the city are villas, which are most common in all districts in the city, but the proportion of this type differs from one district to another. Among the districts, there is a low proportion of villas in the South (Table 4.1), although they represent more than one-third of the total of the building units in the district. This is because this district embraces most of the old neighbourhood, which contains a large number of the traditional mud housing units and administrative, local government and educational buildings. In addition, southern districts contain commercial buildings and specialised markets and some of the housing units have been converted to storehouses for wholesalers and traders. High rise buildings have also been constructed, especially for renting to foreign people.

In 1957 after the new paved roads were constructed to connect Riyadh City with the most important centres in the country, the growth of the town accelerated as these roads attracted the indigenous elements from across the country, as well as foreigners from all parts of the world in such massive numbers that the town could not provide accommodation for them. Apartment buildings and other facilities have therefore been constructed to accommodate these new elements of the population. They have been built in void spaces around the town centre to form a continuity of built-up area, and nowadays apartment building units exist in districts especially along the thoroughfares.

The figures in Table 4.1 indicate that apartment buildings are the second most common form of housing unit in all districts. However, some differences exist with respect to the proportion of this type of housing among the districts. As expected, the proportion of apartment buildings is significantly higher in the South district, forming 26.1 per cent, owing to the city centre and the area around it (a part of the South district) containing a large number of multi-storey buildings. The ground floor is designated mostly for commercial shops, while the other floors are divided into a number of small apartments, some of which are occupied by government offices, establishment offices and commercial companies. The others are mostly let to aliens who come to work with private companies or with the government agencies and who must not own real estate. The lowest percentage of apartment buildings (Table 4.1) among the districts is in the Khuras district, probably because most of this neighbourhood was planned by the Riyadh Municipality as a residential area of one or

two storeys except in the main street which may have buildings of more than three storeys.

Cement block houses, which account for about 9.0 per cent of all dwellings in Riyadh, are mostly concentrated in South district where there are nearly 60.0 per cent of all the cement block houses in the city. This type of housing was established in the city after 1953, when the city was connected to the Eastern province by rail and with some important parts of the Kingdom by paved road. It was the first time that cement and bricks had been used for the construction of Riyadh dwellings. Many of these housing units were built with cement and bricks after the traditional design.

The remaining type of housing unit is the traditional mud house which represents 5.5 per cent of all the housing units in Riyadh City . This type is found only in the old part of the city in South and East districts, with 17.7 and 2.2 per cent respectively of all the housing units in these districts. The North and Khuras districts have no traditional mud houses due to the fact that this type of housing unit is not allowed to be built in such districts (Al-Sheikh, 1977). Recently, many of the inhabitants have left these traditional mud houses and are living now in modern housing units which have modern facilities and are easy to maintain. The traditional mud houses in the city centre and the adjacent neighbourhoods are diminishing in number and importance. Many of these houses have been demolished to give place to modern buildings of Western structure on wide roads with dual carriageways, suitable for all traffic. In spite of the fact that many of them have been demolished, the old

mud houses with the narrow lanes are still the dominant feature of some neighbourhoods in the old sector of the city.

The average number of storeys of the housing units in Riyadh City is 2.0 and most of the villas in the city consist of two storeys because the municipal authorities do not allow residents to build more than three storeys in most of the residential areas.

It is very difficult to determine housing unit quality because each housing unit may contain both good and poor dwellings, on account of the extent of the availability of housing facilities and the extent of the improvements which some of the dwellings have undergone, especially the traditional mud houses and cement block houses.

In 1968 and 1974 two studies revealed largely similar trends in the housing conditions in Riyadh City. They showed that the majority of housing units, over 90.0 per cent, were either in good or fair condition. Only less than 9.0 per cent of Riyadh City housing units were in poor condition in 1974, but in 1968 the figure was nearly double for poor housing. This was due to the fact that in 1968 the household sample survey conducted by Doxiadis Associates included a large number of huts and tents, which were counted as poor housing (Table 4.2).

Table 4.2

Housing conditions in Riyadh City in 1968 and 1974

Housing Condition	1968 (%)	1974 (%)
Good	41.7	44.7
Fair	40.7	46.2
Poor	17.5	9.3
Total	100.0	100.0

Source:

1. Doxiadis Associates, Household Sample Survey, 1970

2. Al-Sheikh, A., 1981

Generally speaking, we considered the villas and apartment buildings to be good quality units, while a small number of the cement block houses were of fair quality and many of the traditional mud houses were in poor condition, especially when they were difficult to maintain.

4.2 Building Materials

Table 4.3 shows how the proportions of housing units have changed over the last 25 years. A number of surveys preceding the 1988 sample survey revealed a general decline of mud houses in Riyadh City, but there is a small increase in the 1974 survey. This is due to the fact that the frame from which the sample for the study was drawn was one and a half kilometre radius from the city

centre, which contained most of the old sector of the city. The 1988 survey revealed a major decline in mud houses.

Table 4.3

Type of Building Materials, Riyadh 1963 - 1988

Building Materials	1963		1966		1968		1974		1988	
	No.	%	No.	%	No.	%	No.	%	No.	%
Mud	25,320	78.1	25,133	67.3	29.240	57.1	33,715	58.8	76	5.0
Cement	4,505	13.9	9,292	24.9	13,140	26.0	16,060	28.1	1,410	92.0
Stone and Bricks	674	2.1	-	-	5,080	9.7	7,478	13.1	47	3.0
Tents and huts	1,900	5.9	3,915	7.8	3,700	7.2	-	-	-	-
Total	32,419	100.0	37,340	100.0	51,160	100.0	57,253	100.0	1,533	100.0

Source:

1. Ministry of Finance and National Economy, 1963

2. Town Planning Office, 1966

3. Doxiadis Associates, 1970

4. Al-Sheikh, A., 1981

5. 1988 Sample Survey

Housing units of stone and bricks have been on the increase since 1963, but there is a considerable decrease for the findings in the 1988 sample survey. This might be due to these materials being replaced by higher technology techniques and equipment such as prefabricated panels and other components of steel structure.

In the period 1963 to 1988 there was an increase in cement housing units. Cement represents 92.0 per cent as opposed to only 13.9 per cent in 1963, or more than 8 times in absolute figures.

By comparison, among the districts in Riyadh City in the 1988 sample survey (Table 4.4, Figure 4.2) cement is by far the most common building material. The lowest proportion where cement was used as a building material was found in South district. Thus we found that the proportions where mud was used as a building material increased to 15.9 per cent of all buildings in this district due to the fact that this district is the old one in Riyadh City and most of its buildings are old.

Table 4.4

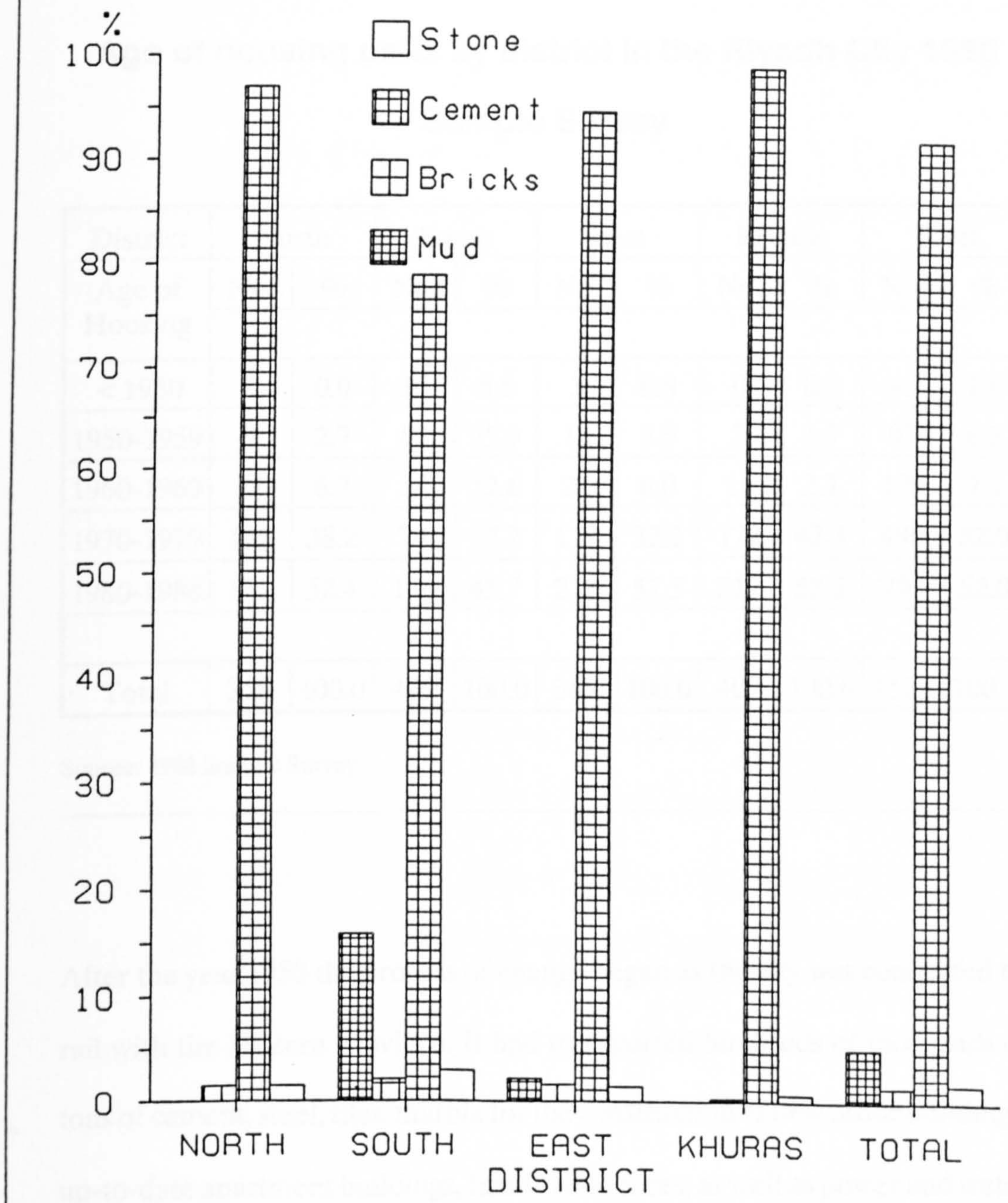
Types of Building Material by District in Riyadh City 1988

Sample Survey

Building Material	Mud		Bricks		Cement		Stone	
	No.	%	No.	%	No.	%	No.	%
District								
North	0	0.0	5	1.5	318	97.0	5	1.5
South	68	15.9	9	2.1	339	79.0	13	3.0
East	8	2.2	6	1.6	350	94.8	5	1.4
Khuras	0	0.0	1	0.3	403	99.0	3	0.7
Total	26	5.0	21	1.4	1410	92.0	26	1.7

Source: 1988 Sample Survey

Figure 4.2 Distribution of building materials of the housing units in Riyadh city, 1988 by District



Source: The 1988 sample survey

4.3 Age of housing units

The 1988 Sample survey shows that the majority of the housing units in Riyadh City did not exceed 40 years of age (Table 4.5).

Table 4.5

Age of housing units by district in the Riyadh City 1988 Sample Survey

District	North		South		East		Khuras		Total	
Age of Housing	No.	%	No.	%	No.	%	No.	%	No.	%
< 1950	0	0.0	37	8.6	3	0.8	0	0.0	40	2.6
1950-1959	9	2.7	68	15.9	13	3.5	7	1.7	97	6.3
1960-1969	22	6.7	54	12.6	22	6.0	11	2.7	109	7.1
1970-1979	125	38.2	74	17.2	119	32.2	172	42.3	490	32.0
1980-1988	172	52.4	196	45.7	212	57.5	217	53.3	797	52.0
Total	328	100.0	429	100.0	369	100.0	407	100.0	1533	100.0

Source: 1988 Sample Survey

After the year 1950 the process of change began as the city was connected by rail with the Eastern province. It had transported hundreds of thousands of tons of cement, steel, tiles, marble for the construction of new office buildings, up-to-date apartment buildings, family residences, as well as power and water plants (Abul-Ela, 1965, p.49).

In the North and Khuras districts no housing units in the sample were built before 1950 because these two districts are the new ones in Riyadh City, while in the South and East districts the proportions of housing units built before 1950 is 8.6 and 0.8 per cent respectively. On the other hand, we found that more than half of the housing units in Riyadh City were built during the period 1980 - 1988. The high development of the building sector in Riyadh City is due to the establishment of the Real Estate Development Fund in the mid-1970s which gave a long term loan free of interest. Another factor is that the government and Riyadh City municipality distributed free land to low income families to encourage them to build their own housing units.

There is a notable significance between the date when the housing units were built and the type of housing units. While before 1950 85.0 per cent of the housing units in this period were traditional mud houses, this proportion during 1950-1969 changed to cement block houses as the common housing unit in Riyadh City, which represented 60.8 per cent of the housing units built during the period 1950 - 1969. During the period 1970 - 1988 villas became the common ones, since 73.3 per cent and 84.2 per cent of the housing units built during the periods 1970 - 1979 and 1980 - 1988 respectively were villas. On the other hand most of the apartment buildings were built after 1970.

Also, there is a high relation between the time or the date when the housing units were built and the building materials. While 77.5 per cent of the housing units built before 1950 were made of mud, 60.8 per cent were built of cement during 1950 - 1959, increasing to 98.6 per cent during 1980 - 1988. The housing

units built during 1980 - 1988 were built of cement, due to local building materials such as mud being replaced by imported building materials such as reinforced concrete frames filled in with concrete blocks cast on site, and the availability of cement in Saudi Arabia. Cement was imported in 1957 via Jeddah Port and in 1959 via Damman and Yanbu ports and its production in Saudi Arabia began in 1958 in the Jeddah plant, in 1961 in the Hofuf plant and the Riyadh plant in 1966.

4.4 Housing Ownership

Table 4.6 indicates the distribution of the 4 types of housing ownership patterns for the different districts in Riyadh City. Nearly two-thirds of all the housing units in Riyadh City are owned by the occupants. This is due to government encouragement to the people to build their own houses, and the improvement in the income of the Kingdom's population in general and the Riyadh population in particular which has enabled them to own their houses.

By comparison, the proportion of housing ownership has changed over the last two decades. Table 4.7 shows that three surveys prior to the present study revealed a slight increase in the percentage of housing owned by the occupant, with a continuous decrease in rented units.

Table 4.6

Percentage distribution of housing ownership by district, Riyadh, 1988 (Sample Survey)

Type of ownership	District									
	North		South		East		Khuras		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Owned	221	64.3	287	66.9	264	71.5	246	60.4	1008	65.8
Rented	89	27.2	1134	31.3	95	25.7	133	32.7	451	29.4
Occupied free of charge	28	8.5	6	1.4	10	2.7	28	6.9	72	4.7
Endowment	0	0	2	0.5	0	0	0	0	2	0.1

Source: 1988 Sample Survey

Table 4.7

Housing ownership, Riyadh, in 1968, 1974, 1977 and 1988

Type of ownership	1968[1]		1974[2]		1977[3]		1988[4]	
	No.	%	No.	%	No.	%	No.	%
Owned	18,180	35.5	28,689	50.1	38,426	40.3	1,008	65.8
Rented	26,400	51.6	27,831	48.6	42,159	44.2	451	29.4
Occupied free of charge	6,580	12.9	*	*	17,707	15.5	72	4.7
Endowment	*	*	735	1.3	*	*	2	0.1

Sources:

1. Doxiadis Associates, 1970
2. Al-Sheikh, A., 1981
3. Ministry of Municipal and Rural Affairs, 1977
4. 1988 Sample Survey

* Data not available

The rented housing units in the city represent 29.4 per cent of the total. Most of the tenants of these houses are foreigners or indigenous people from different parts of the Kingdom who have come to work in Riyadh City and are not able to buy or build their own houses. The cost of renting a house in Riyadh City in the 1988 sample survey was 4169.9 Riyals (£595.70) per month. This high amount may be because the respondents gave a high estimation of the rent of their housing units for different reasons. For example, they may have liked to show that they spent more money than they received from their work and needed help to own their houses, or that the researcher may have had a connection with the government and may have been able to help them.

The third kind of ownership is the 'occupied free of charge' which represents 4.7 per cent. The tenants of this kind of housing units might be servants to the Royal Family, or people working with companies and some ministries which have provided them with accommodation free of charge.

The last type of ownership is the endowment which represents 0.1 per cent. These properties belong to the government, or some other body, who offer accommodation to the needy free of charge. Similarly, people working with religious authorities get free accommodation from these authorities.

On the other hand, we found that in more than two-thirds of housing units the construction cost was paid by the owner. Because of the improvement in the economic situation for the residents in Riyadh City, the majority of the residents in most cases prefer to use their investment to build their own housing units, either to live in themselves or for renting. Another factor is that

in the old district of the city the government demolished most of the old housing units and gave the tenants a high amount of compensation for their houses. Most of these residents used the money to build a new housing unit in the new suburbs of Riyadh City.

The percentage of housing units built by a loan from the Real Estate Development Fund is 18.6 per cent. This loan is free of interest and many residents have a loan and use some of their savings to build a housing unit. On the other hand, the percentage of housing units built by the government and occupied free of charge is 48.6 per cent, due to the fact that most of the tenants in these housing units work with the government.

4.5 Housing Services

The availability of housing services in each housing unit is a reflection of the socio-economic conditions for the inhabitants who live in these housing units. The types of housing services are divided into two major parts: (a) the basic services which must be available in each housing unit, such as drinking water, electricity and a sewage system, and (b) subordinate services such as T.V., video, telephone, washing machine, etc., the availability and extent of these services in each housing unit depending on the economic ability of the residents of the housing unit and their wish to have them.

The extent of the public utilities and the essential equipment available in housing units in Riyadh City are shown in Tables 4.8 and 4.9, which give a general picture about conditions in housing units and household economic

status in Riyadh City, and reveal how the city is in great contrast with so many of the cities of the so-called 'Third World'.

Table 4.8

Distribution of housing units by type of facility in Riyadh City 1988 Sample Survey

District	Water supply				Sewage system			
	Piped water		Tanker		Piped network		Cesspit	
	No.	%	No.	%	No.	%	No.	%
North	321	97.9	7	2.1	270	82.3	58	17.7
South	423	98.6	6	1.4	319	74.4	110	25.6
East	368	99.7	1	0.3	257	69.6	112	30.4
Khuras	406	99.8	1	0.2	320	78.6	87	21.4
Total	1518	99.0	15	1.0	1166	76.1	367	23.9

Source: 1988 Sample Survey

Table 4.8 indicates that 99.0 per cent of the households surveyed lived in housing units provided with piped water, while only 1.0 per cent were provided with water by tanker. This remarkable percentage is due to the tremendous work done by the Municipality of Riyadh City which has connected most parts of the city with piped water. The housing units which have their water supplied by tanker are those outside the built-up area which are not yet connected with the municipality piped water. The proportions of housing units connected with piped water are nearly equal in all the districts of Riyadh City.

Housing units with a public network sewage system constitute 76.1 per cent of the total housing units surveyed while the remaining 23.9 per cent of the

housing units had a cesspit. This could possibly be explained by a large proportion of our sample being situated in newly developed areas which were not provided with a sewage system. The highest percentage of housing units not connected with the sewage system (30.4 per cent) is found in East district, while we found that 25.6 per cent in South district were not connected with a sewage system. This could be either because this area is the oldest in Riyadh and is not yet connected with the sewage system because of replanning difficulties, or conversely because some parts are very new and are likewise not yet connected with the municipal system.

Table 4.9

Distribution of types of equipment in housing units by district in Riyadh City 1988 Sample Survey

District:	North		South		East		Khuras		Total average	
Equipment	No.	%	No.	%	No.	%	No.	%	No.	%
Telephone	318	97.0	357	83.2	328	88.9	358	88.0	1361	88.8
Television	324	98.8	414	96.5	361	97.8	394	96.8	1493	97.4
Video	309	94.2	336	78.3	291	78.9	341	83.8	1277	83.3
Garden	177	54.0	195	45.5	230	62.3	227	55.8	829	54.1
Pool	24	7.3	14	3.3	12	3.3	18	4.4	68	4.4
Kitchen	328	100.0	429	100.0	369	100.0	407	100.0	1533	100.0
Radio	328	100.0	427	99.5	368	99.7	406	99.8	1529	99.7
Tape recorder	328	100.0	425	99.1	368	99.7	406	99.8	1527	99.6
Washing machine	328	100.0	429	100.0	369	100.0	407	100.0	1533	100.0
Refrigerator	328	100.0	429	100.0	369	100.0	406	99.8	1532	99.9
Oven	327	99.7	427	99.5	369	100.0	406	99.8	1529	99.7

Source: 1988 Sample Survey

The bath and toilet combined in one room is common in housing units in Riyadh City, especially in new housing units. The average number of rooms of this type per housing unit is 3.9. This is higher than in older dwellings where housing units have separate but fewer bathrooms and toilets. Only 6.0 per cent of housing units have a separate bathroom without a toilet, while on average there are 1.8 separate toilets per housing unit.

Housing units are generally very well endowed with equipment (Table 4.9). Housing units with telephones constitute 88.8 per cent of the total sampled - a remarkably high percentage by world standards. However, slight differences in telephone distribution exist between districts. The highest is in North district, about 97.0 per cent, and the lowest proportion is in South district, with only 83.2 per cent, where a large percentage of non-Saudis do not have a telephone. In comparison, data from previous research showed that in 1977 less than 30.0 per cent of households in Riyadh City had a telephone (Ministry& Municipal and Rural Affairs, 1977, p.53).

All of the housing units in every district have a kitchen, washing machine and about 99.9 per cent of the households have refrigerators. Less than 1.0 per cent of the households were without a radio, tape recorder, or oven, while a television set was found in 97.4 per cent of all households. Less than 20.0 per cent of the households were without a video. In contrast, only 4.4 per cent of all households had a pool in their housing units, and they were either non-Saudis or Saudis adjusted to Western life.

On the other hand, a large number of households in Riyadh City owned cars, with about 2.5 for each household. Air conditioning was common and used in most of the housing units in Riyadh City representing 8.5 air conditioners for each housing unit. This high average is due to the large number of rooms in the housing units in Riyadh City and to the hot weather of the region.

This high availability of equipment in housing units in Riyadh City obviously reflects the high standard of living of its residents, as well as the relatively harsh environment of the location of the city in the middle of a hot desert.

4.6 Area of Housing Units

The average plot area of housing units in Riyadh City is 554.5 m^2, but this differs from one district to another (Table 4.10). North and Khuras districts have the highest average plot areas, 597.3 and 590.8 respectively, because these districts are new areas far away from the city centre and contain the highest percentage of villas, the type of housing unit occupying the largest plot area, namely 605.5 m^2. On the other hand, South and East districts have lower average plot areas, 479.9 and 563.1 respectively, because these districts are the oldest in Riyadh City and the traditional mud houses are found only in these town districts, the average plot area of the traditional mud houses being 296.4m^2. By comparison, the SCET International study conducted in 1977 found that the city centre and the area to the South were mainly characterised by small plot areas in the range of 70.0 m^2 to 200 m^2, again associated with traditional mud houses. The newer developments in areas far away from the

city centre contained detached villas on much larger sites ranging in size from about 400.0 m^2 to 2500.0 m^2 (Daghistani, A., 1985, p.102).

The average house area in Riyadh City, according to the 1988 sample survey, is 371.8 m^2 (Table 4.10) which represents 67.1 per cent of the total area of the plot, because a large portion of the land is used as a private garden and many dwellings have courtyards. In addition, the roof is used as a private open space, allowing a high degree of family privacy. Psychological and social factors require making more space between neighbours. Plot and house areas differ substantially from one housing unit to another and from one district to another in Riyadh City.

Table 4.10

Average house area and plot area in housing units by district in Riyadh City: 1988 Sample Survey

	House area (m^2)	Plot area (m^2)	House/Plot area (%)
District			
North	400.6	597.3	67.1
South	336.4	479.9	70.1
East	370.8	563.1	65.8
Khuras	386.9	590.8	65.5
Total	371.8	554.5	67.1

Source: 1988 Sample Survey

4.7 Occupancy

The average number of rooms per dwelling in Riyadh City, as a result of the processing of the data collected by the 1988 sample survey carried out by the author in March 1988, is shown to be 7.8 rooms. The number of rooms is equal in North, South and Khuras districts, about 7.7 rooms, while it is 8.1 rooms per dwelling in the East district (Table 4.11).

Table 4.11

Average number of rooms, bedrooms and density per dwelling in Riyadh City by district: 1988 Sample Survey

	Number of rooms in household		Room per person		Density	
District	Room	Bedroom	Room	Bedroom	Person/m^2	m^2/person
North	7.7	4.3	1.0	1.8	0.02	50.0
South	7.7	4.8	1.2	1.9	0.03	37.2
East	8.1	4.9	1.0	1.7	0.02	44.1
Khuras	7.7	4.5	1.0	1.7	0.02	50.7
Total	7.8	4.6	1.1	1.8	0.02	44.8

Source: 1988 Sample Survey

By contrast, the 1977 survey which was conducted by SCET International, showed the average number of rooms per dwelling to be 4.3 and that 25.0 per cent of the households had 6 rooms and over (Ministry of Municipal and Rural Affairs, 1977). Another study, conducted in 1968 by Doxiadis Associates,

found that the average number of rooms per dwelling was 3.9, and that 14.5 per cent of households had 6 rooms and over (Doxiadis Associates, 1970).

The average number of bedrooms per dwelling in Riyadh City is 4.6 (Table 4.11), so over half of the rooms in the housing units are used as bedrooms, a reflection of the high standard of living in the city. Thus each member of the household has his or her private bedroom, the other half of the rooms in the housing units being used as sitting rooms and guest rooms. In most cases, these rooms are separated into rooms for men and rooms for women.

The data in Table 4.12 show that 24.1 per cent of the households in Riyadh City have 10.0 rooms and over, a proportion which is similar in all districts. On the other hand, only 3.7 per cent of the households in Riyadh City have 3.0 rooms or less, as most of the inhabitants of Riyadh City prefer, and can afford, to have a large number of rooms.

As mentioned before, most of the dwellings in Riyadh City are characterised by a large number of rooms. We found that there were 1.1 persons per room and 1.8 persons per bedroom (Table 4.11). This occupancy ratio differs only slightly from one district to another, partly due to the difference in types of housing units in each district and partly because of the number of rooms per dwelling in each district.

Table 4.12

Number of rooms in Riyadh City by district: 1988 Sample Survey

	North		South		East		Khuras		Total	
	Number & % of households									
Number of rooms	No.	%	No.	%	No.	%	No.	%	No.	%
<4	12	3.7	12	2.8	14	3.8	19	4.7	57	3.7
4	34	10.4	35	8.2	17	4.6	44	10.8	130	8.5
5	32	9.8	73	17.0	37	10.0	33	8.1	175	11.4
6	50	15.2	56	13.1	43	11.7	57	14.0	206	13.4
7	27	8.2	47	11.0	31	8.4	38	9.3	143	9.3
8	51	15.5	38	8.9	50	13.6	64	15.7	203	13.2
9	49	14.9	59	13.8	81	22.0	61	15.0	250	16.3
10+	73	22.3	109	25.4	96	26.0	91	22.4	369	24.1

Source: 1988 Sample Survey

The same thing is found if we look at the density of the housing units, which is extremely low - 0.02 persons per m^2 or, in other words, each person in Riyadh City has 44.8 m^2 of dwelling space (Table 4.11).

By comparison, the Doxiadis Associates study in 1968 showed the average number of persons per room to be 1.4 (Doxiadis Associates, 1970). While the SCET International study in 1977 found that the average number of persons per room was 1.5 (Ministry of Municipal and Rural Affairs, 1977). From these figures, we found that the average number of persons per room in Riyadh City had fallen as a result of the improvement in the economic situation.

4.8 Household Structure

The average size of household in Riyadh City according to the 1988 sample survey, is 8.3 persons. In comparison, the average size of family (husband, wife and children) in Riyadh City is 6.6, which means that on average 1.7 persons (Table 4.13) in each household consisted of other relatives, indicating that the extended family is common in Riyadh City. In addition 19.6 per cent of households in the 1988 sample survey contained 2 families or more.

Table 4.13

Average size of household and average size of family in Riyadh City by district: 1988 Sample Survey

District	Average household	Average family	Households with >2 families (%)
North	8.0	6.8	13.7
South	9.1	7.0	21.2
East	8.4	6.3	26.8
Khuras	7.6	6.1	16.0
Total	8.3	6.6	19.6

Source: 1988 Sample Survey

Comparing the districts in Riyadh City (Table 4.13), we found that South district has a larger average household and family than other districts in the city, because the district is the oldest one in the city and contains traditional families who are characterised by the extended family, high fertility and their custom of living close together. Thus, in many cases, when one of the sons from these families gets married, he and his wife often live with his family and often

there is another married brother living in the same house. This pattern of the extended family is common in Saudi society and urban life does not affect this pattern because of the strong relationship between the members of the family, and also because of the traditional and religious factors which encourage the individual to be a part of the extended family.

Table 4.14

Average size of household in Riyadh City in selected studies

Source	Year	Average Size of Household
Doxiadis Associates	1970	5.4
Central Department of Statistics	1974	6.2
Ministry of Municipal and Rural Affairs	1977	6.3
M. Al-Gabbani	1984	6.6

Source:

1) Doxiadis Associates, 1970

2) 1974 Census. Central Department of Statistics, 1974

3) Ministry of Municipal and Rural Affairs, 1977

4) Al-Gabbani, M., 1984

A comparison with other studies on the average size of household in Riyadh City in different years, as shown in Table 4.14, indicates that the average size of household increased from 5.4 in 1968 to 6.6 persons in 1984, while it has been shown to be 8.3 persons in the 1988 sample survey. This tendency towards an increase in the size of the household perhaps results from the rise in the

standard of living, the increase in the size of dwelling and a general improvement in conditions, along with an increase in the fertility rate and a decrease in the mortality rate as a result of improvements in health. It is the converse of the increase in nuclear families in many other parts of the world.

4.9 Summary

This chapter outlines the housing situation in Riyadh City. Many components are involved, but the variations among them differ from one district to another. The traditional mud house, the common housing unit in Riyadh City until the mid 1950's has been demolished or renewed, since when stone and brick have been used by Riyadh City to construct their housing units. Since the 1960's the use of cement has increased as a building material and represents 92.0 per cent in the 1988 sample survey.

Villas are the most common form of housing in all districts in the city, but the percentage of this type differs from one part of the city to another. Apartment buildings are the second most common, with this type also varying in proportion in different districts. Cement block houses exist in all districts, but are concentrated mainly in South district. Traditional mud houses are located only in the old sector of Riyadh City in both South and East districts. There has been a general decline of mud as a building material as use of cement has become more popular.

South and East districts are the oldest in the city, and thus contain a high proportion of the old housing units in the city. As mentioned in the text, the

majority of housing units do not exceed 40 years of age, and more than half were built in the 1980's, due to the establishment of the Real Estate Development Fund in the mid 1970's.

In Saudi Arabia most households occupy housing units which belong either to them or to their extended families, they or their forefathers having built the houses on family land.

As a result of improvements in the economic status of the population in Riyadh City and the improved availability of equipment, there has been a rapid increase in the range of public utilities and equipment available in housing units. In particular, almost all housing units now have piped water and three-quarters are on the public network sewage system. Newly built villas and apartment buildings are very well equipped, and have telephone, television, video, and air conditioners as standard fittings.

The housing units characteristically have both a large plot area and a large housing area. This further reduces the density of the housing units, in spite of the large size of the households, which in general consist not only of husband, wife and children but of other relatives as well, an indication of the continuation of the extended family system.

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PART II

THE COMPONENTS AND SIZE OF POPULATION GROWTH

Chapter Five

High and Stable Fertility

In this part of the thesis, we will examine the three demographic components of population growth - fertility, mortality and migration - and their impact upon the growth of Riyadh. Each component will be examined separately, with an introductory section looking at Saudi Arabia as a whole. There is a scarcity of demographic data in Saudi Arabia in general and of information about fertility in particular. Questions about fertility, number of children ever born to a woman and contraceptive use are very difficult to ask in a conservative society such as the Saudi society.

Despite these difficulties, the 1988 sample survey which the author conducted concerning the Riyadh population consisted of questions about surviving children, such as the number presently living with the household, those living away from home and the number who had died. It is noticeable that many heads of households were willing to participate in the questionnaire until they reached the last part of it concerning fertility, when they hesitated or refused to answer because of social or religious reasons. For this reason, the author decided to omit the questions concerning family planning from the questionnaire due to the fact that most of the population would refuse to answer it.

Saudi Arabia is considered as one of the richest countries in the world, but demographic characteristics of its population are similar to a large extent to those which are found in the developing countries. This is because the development of Saudi Arabia occurred immediately after the discovery of oil and

thus an economic boom occurred there which increased the incomes and standards of living. These factors will encourage early marriage among the population and high fertility, resulting in large families and polygamy as a marital union which has become more common in the Saudi communities. There is a tendency twoards having more children for social and economic reasons, such as a source of personal pleasure to the parents; as a potential source of security, for instance, in the parents' old age; as a productive agent with the children being expected eventually to work and contribute to the family income; a fear of divorce; the fact that women have very little status and respect until they have produced a large number of boys; and norms of value which encourage the existence of large families.

5.1 Crude Birth and Fertility Rates in Saudi Arabia

The crude birth rate in Saudi Arabia has been variously estimated by different sources in different years (Table 5.1). Omran (1972) estimated the crude birth rate at 45.50 per 1,000 in 1962-63, increasing to 50 per 1,000 during the period 1965-69. Until 1974 all the estimations of crude birth rate were around 49 per 1,000, but a higher crude birth rate at 54.2 per 1,000 in 1977 was estimated by Rashid and Casady (1977). In the 1980s nearly all the estimations were around 46 per 1,000. On the other hand, the UN Demographic Yearbooks estimated the crude birth rate to be around 48 per 1,000 in the 1960s, 50 per 1,000 in 1970 declining to 45.9 in 1979, 42.1 in 1983, and 41.0 in 1985.

Table 5.1

Estimated Crude Birth Rate in Saudi Arabia for Selected Years

Date and source of estimation	Crude birth rate (per thousand)
A.R. Omran, 1962-63	45.50
A.R. Omran, 1965-69	50.0
H. Azzam, 1970	49.50
ECWA, 1970	49.7
ECWA, 1974	49.5
ECWA, 1974	50.0
Rashid and Casady, 1977	54.2
ECWA, 1980	46.9
R. Tabbarah, 1980	46.0
ECWA, 1984	46.6
ECWA, 1986	46.0

Sources:

1. Omran, A., 1972

2. Azzam, H., 1979

3. UNECWA, 1978

4. UNECWA, 1979

5. Rashid, A. and Casady, R., 1977

6. UNECWA, 1982

7. Tabbarah, R., 1981

8. UNECWA, 1985

9. UNECWA, 1987.

These different sources agree that there was a high crude birth rate in Saudi Arabia and that there was a tendency toward increasing the crude birth rate as a result of the beginning of the economic development in Saudi Arabia

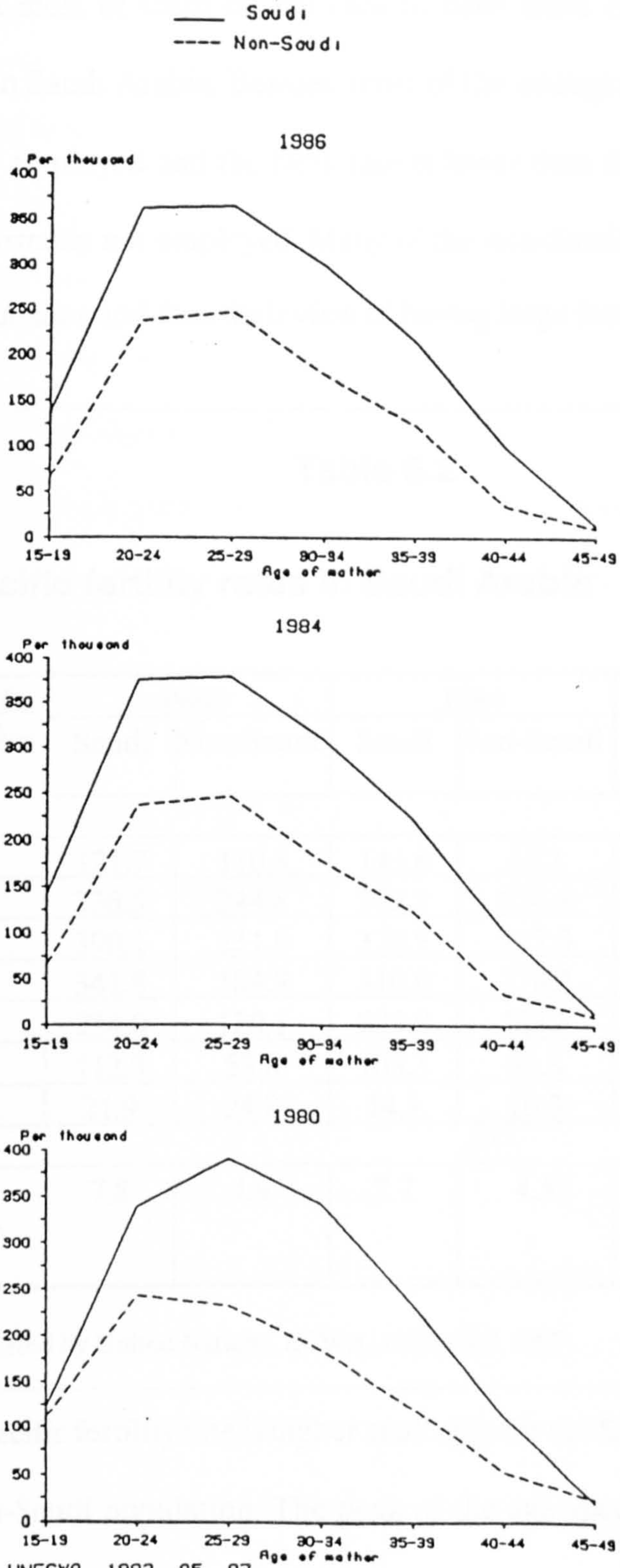
which was reflected in the spreading of the health services to most of the inhabited areas in the country. The Saudi Arabian government is interested in larger populations and has consequently been endorsing indirect policies such as maternity benefits for salaried workers, child allowance for low income families, maternal-child health, and services to support this high level of child bearing and rearing which encourage the Saudi people to have large families.

In the 1970s and 1980s the small decline in the crude birth rate was probably due to the increase in the educational level among the population. On the other hand, the continuous high level of crude birth rate may be partly attributed to the fact that people wished to have a large family because in this type of society when the man has more children his social status increases and he has more power and respect in society.

The general fertility rate in Saudi Arabia declined modestly from 233.6 per 1,000 in 1953 to 222.4 per 1,000 in 1963 and to 220.9 in 1968 and remained similar until 1973 when it was 220.8 per 1,000 and 1978 when it was 223.9 per 1,000 (United Nations Demographic Yearbooks). In the mid 1980s the general fertility rate had declined to 210 and the total fertility rate was 6.87.

There was a small decline in the total fertility rate from 7.8 in 1980 to 7.5 in 1986 for the Saudi population and from 4.9 to 4.5 for the non-Saudi population (Table 5.2 and Figure 5.1). This differential between Saudi and non- Saudi in the total fertility rate is because most of the immigrants in Saudi Arabia were single or had left their wives in their home country and also because most of them have a higher level of education than the Saudis. The tendency to have

Figure 5.1 Age specific fertility rate in Saudia Arabia



Source: Estimated by UNECWA, 1982, 85, 87.

more children among the Saudi population is higher than among the non-Saudi population also because non-Saudis stay in Saudi Arabia for a limited period and most of them do not care to have more children during their residence in Saudi Arabia. Besides, most of the immigrant families in Saudi Arabia are employed and the birth rate is lower than that of Saudi women, who are normally not employed. Many of the non-Saudi females come from different cultures and thus their view of having large families is different.

Table 5.2

Age-specific fertility rates in Saudi Arabia

Age-specific fertility rates	1980		1984		1986	
	Saudi	Non-Saudi	Saudi	Non-Saudi	Saudi	Non-Saudi
15 - 19	121.7	110.5	141.8	65.3	136.7	65.3
20 - 24	338.5	244.8	375.3	236.9	361.8	236.9
25 - 29	390.1	231.8	378.5	247.0	364.9	247.0
30 - 34	341.8	184.9	310.0	178.2	298.9	178.2
35 - 39	234.0	120.1	223.0	123.5	215.0	123.5
40 - 44	112.3	53.8	103.3	34.3	99.6	34.3
45 - 49	21.9	24.8	14.1	10.3	13.6	10.3
Total Fertility Rate	7.8	4.9	7.7	4.5	7.5	4.5

Source: Estimated by United Nations, ECWA, 1982, 1985, 1987

The age-specific fertility rate is higher at all ages for the Saudi population than for the non-Saudi population. The peak of the age-specific fertility rate for non-Saudis in 1980 was found in the age group 20-24 but changed to the next

age group 25-29 in 1984 and 1986 which means that there was a slight lowering of fertility which was probably due to the trends in their society towards later marriage and not having children in the first year of marriage.

The peak of fertility of the Saudi population was found in the age group 25-29 in 1980, 1984, and 1986, but it was lowering progressively so that there was not much difference in the age-specific fertility rate at the age groups 20-24 and 25-29 and sustained high rates until the late 30's. Couples like to have their children directly after marriage due to social pressure, and they continue in many cases to have a child every year or every alternate year throughout the child-bearing years.

5.2 Fertility Levels in Riyadh City

According to the 1988 sample survey, the crude birth rate in Riyadh City was 35.8 per 1,000 which was lower than any other estimations of the crude birth rate in Saudi Arabia as a whole. It is also lower than the estimation reported by Rashid and Casady from the multipurpose survey conducted by the Saudi Arabian Central Department of Statistics during 1976 and 1977, which was about 41 per 1,000 in the six largest municipalities, 54 per 1,000 in the smaller municipalities, and 61 per 1,000 in villages and other rural areas (Looney, 1985). This low level of the crude birth rate in Riyadh City is becuase it is the largest urban centre in the country and its population is influenced by the high standard of living and the urbanization process. Many of the immigrants to Riyadh City have a higher level of education than others and most of them are working at a high wage level. In addition, a high percentage of the population

in Riyadh City are non-Saudi, and their level of fertility differs from the Saudi population because of the differential in their socio-economic and demographic structure.

The East and Khuras districts have the highest crude birth rate in Riyadh City at 38.7 and 37.6 per 1,000 respectively, because these two districts contain a high proportion of Saudis and many extended families which encourage fertility. These areas also contain many wealthy families who encourage early marriage and having more children. On the other hand, the North and South districts have the lowest crude birth rates in Riyadh City at 35.4 and 32.2 per 1,000 respectively, due to the concentration of non-Saudis in these districts and because the South district is the oldest one in Riyadh City containing the commercial centre, multi-storey buildings and a large number of mud housing units which have been converted to warehouses. Many non-Saudis, especially unmarried persons, prefer to live in the South district. Many of the Saudis who live in this district are old couples living alone, because in most cases when a family living in this district has many children, or if one of the sons gets married, they move to other districts. On the other hand, the North district is characterized by a mixed population of Saudis and non-Saudis and, in addition, those living in the North district have higher socio-economic status than those living in other districts.

The general fertility rate in Riyadh City, according to the 1988 sample survey, was 154.3 per 1,000 women aged 15-49. This rate varied between the districts, being 146.9 in the South, 152.2 in the North, 153.9 in Khuras, and 165.3 in the

East district. This means that the general fertility rate in Riyadh City is lower than that in Saudi Arabia as a whole. This variation between the districts is due to the differential of the age structure of the women and the proportions of married women in each district.

The total fertility rate of 5.9 in Riyadh City was lower than that in Saudi Arabia in general because of urbanization and, being the capital of the country, attracting many young people with a high education. On the other hand, the variation between the districts is due to the differential in the type of population living in each district, being 5.5 in the South district, and 6.7 in the East district (Table 5.3 and Figure 5.2).

Table 5.3

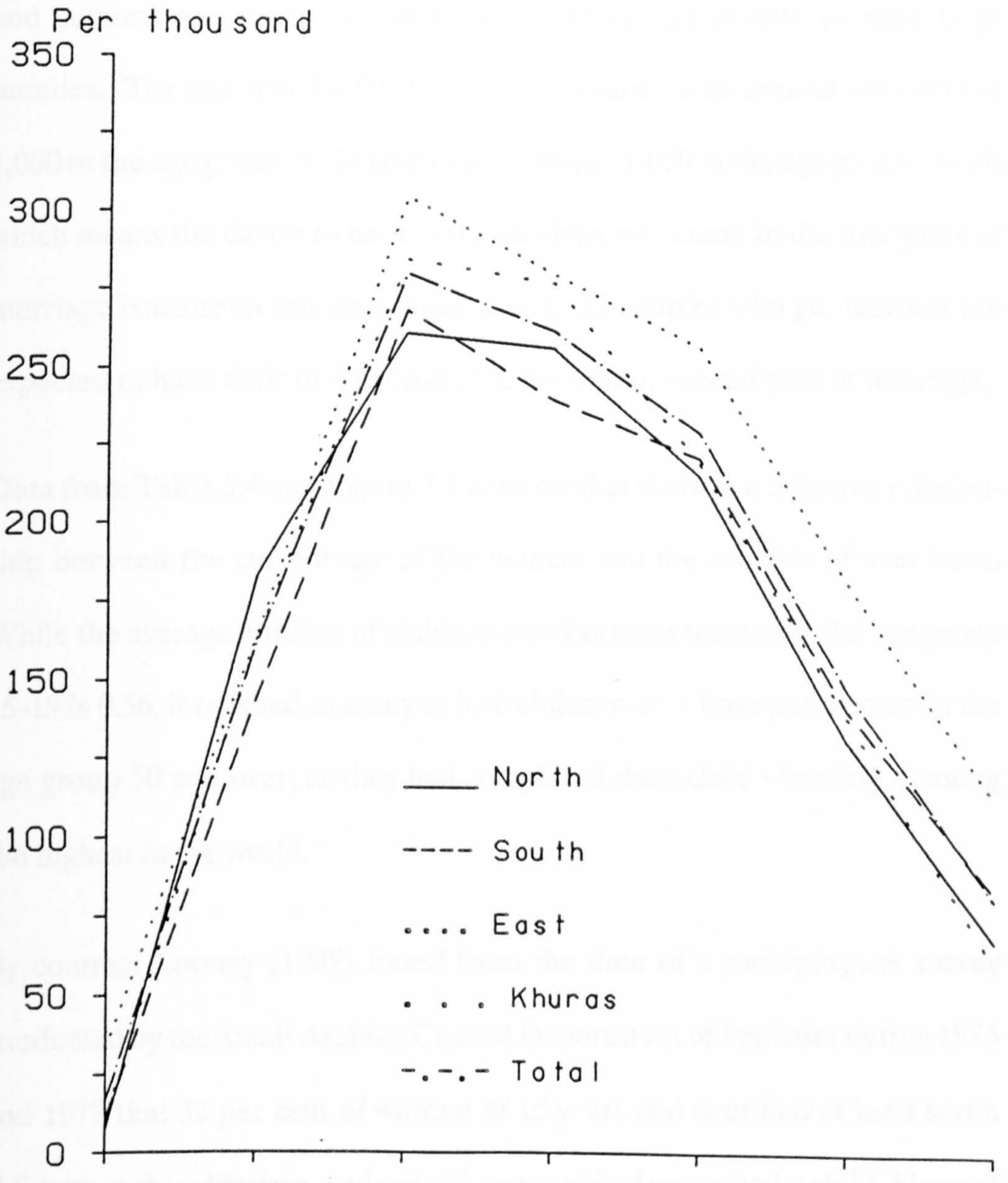
Age Specific Fertility Rate in Riyadh City:

1988 Sample Survey

Age group	Age specific fertility rate				
	North	South	East	Khuras	Total
15 - 19	.00725	.01087	.03333	.01105	.01683
20 -24	.18333	.14451	.16418	.16340	.16207
25 - 29	.26087	.26829	.30476	.28455	.27991
30 -34	.25641	.24000	.28000	.27711	.26190
35 - 39	.21538	.22105	.25676	.21951	.22930
44 - 44	.13115	.14130	.18182	.13889	.14777
45 - 49	.06780	.08333	.11290	.06061	.08118
Total Fertility Rate	5.6	5.5	6.7	5.8	5.9

Source: 1988 Sample Survey

Figure 5.2 Age-specific fertility rate in Riyadh City by District



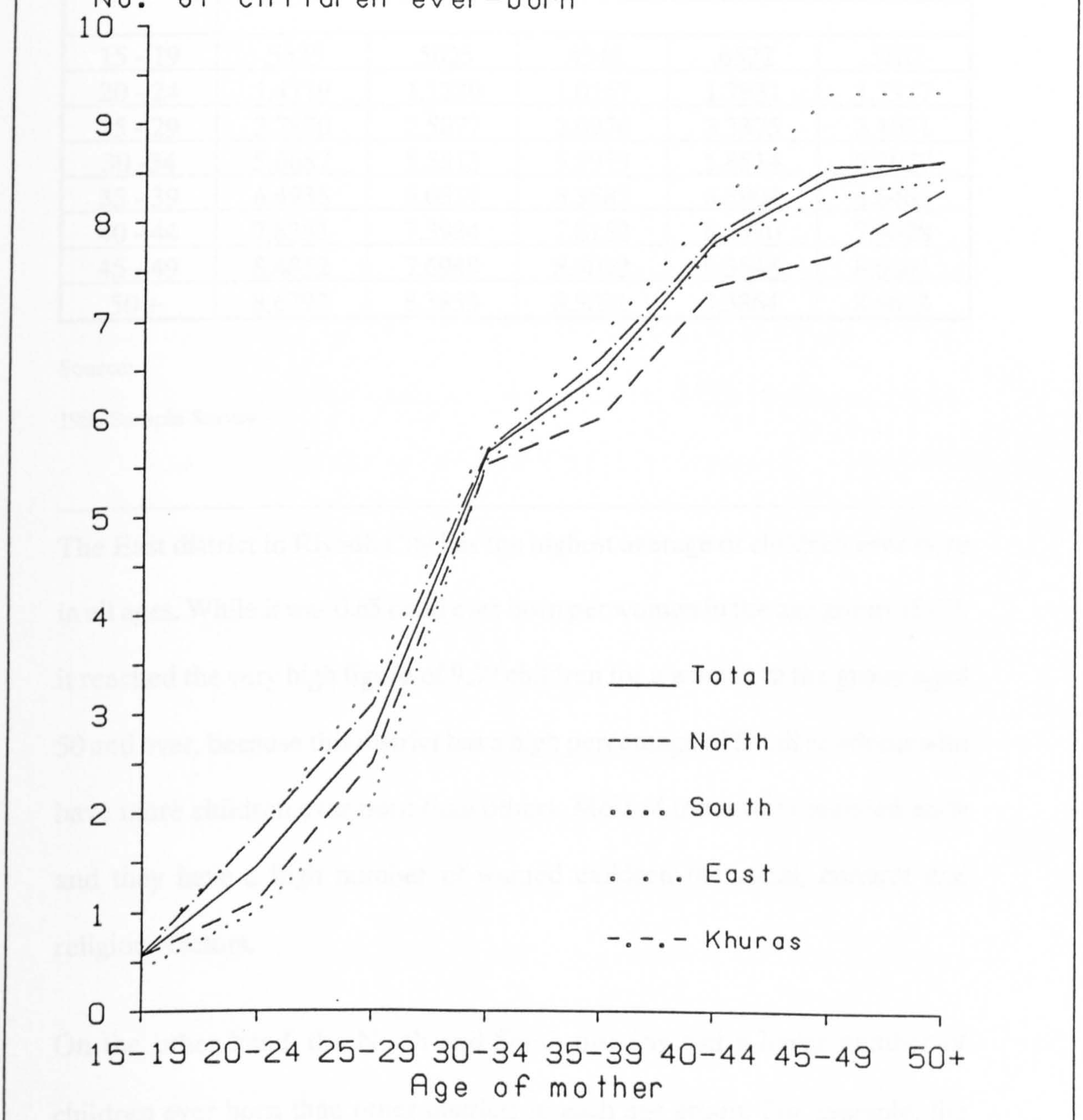
Source: The 1988 sample survey

The peak of the age-specific fertility rate was found in the age group 25-29 years in Riyadh City as a whole and also in each district. The age-specific fertility rate remained over 200 per 1,000 in each district until the age of forty years, which means that fertility and the number of children desired by couples remained high throughout the child-bearing years due to the socio-economic and cultural conditions in society which encourage people to have large families. The age-specific fertility rate was found to be around 140-180 per 1,000 in the age group 20-24 (but only 7 - 33 per 1,000 in the age group 15-19) which means the desire to have many children was found in the first years of marriage because in this traditional society all couples who get married are expected to have their first child during the first or second year of marriage.

Data from Table 5.4 and Figure 5.3 confirm that there is a negative relationship between the current age of the woman and the number of ever born. While the average number of children ever born per woman in the age group 15-19 is 0.56, it reached as many as 8.68 children ever born per woman in the age group 50 and over, as they had completed their child - bearing - among the highest in the world.

By contrast Looney (1985) found from the data of a multipurpose survey conducted by the Saudi Arabian Central Department of Statistics during 1976 and 1977 that 32 per cent of women of 15 years and over had at least seven children in their lifetime, and only 12 per cent had never had a child. Many of these childless women (37 per cent) were under 20. The survey also indicated that the average size of a completed family was 7.2.

Figure 5.3 Average parity in Riyadh City
by age of mother
by District



Source: The 1988 sample survey

Table 5.4

Average Number of Children ever-Born per ever-Married Woman by Age in Riyadh City's Districts.

Age Group	Total Average	North Average	South Average	East Average	Khuras Average
15 - 19	.5625	.5625	.4348	.6522	.5882
20 - 24	1.4719	1.1220	1.0167	1.7931	1.7917
25 - 29	2.7870	2.5077	2.0976	3.3375	3.1031
30 -34	5.6687	5.5513	5.5979	5.8514	5.7027
35 - 39	6.4935	6.0317	6.3587	6.8904	6.6463
40 - 44	7.8351	7.3934	7.8152	8.1970	7.9028
45 - 49	8.4852	7.6949	8.3012	9.3548	8.6061
50+	8.6792	8.3853	8.5031	9.3864	8.6613

Source:

1988 Sample Survey

The East district in Riyadh City has the highest average of children ever born in all ages. While it was 0.65 child ever born per woman in the age group 15-19, it reached the very high figure of 9.39 children for a woman in the group aged 50 and over, because this district has a high percentage of Saudi residents who have more children ever born than others. Most of them were married early and they have a high number of wanted children for social, cultural and religious factors.

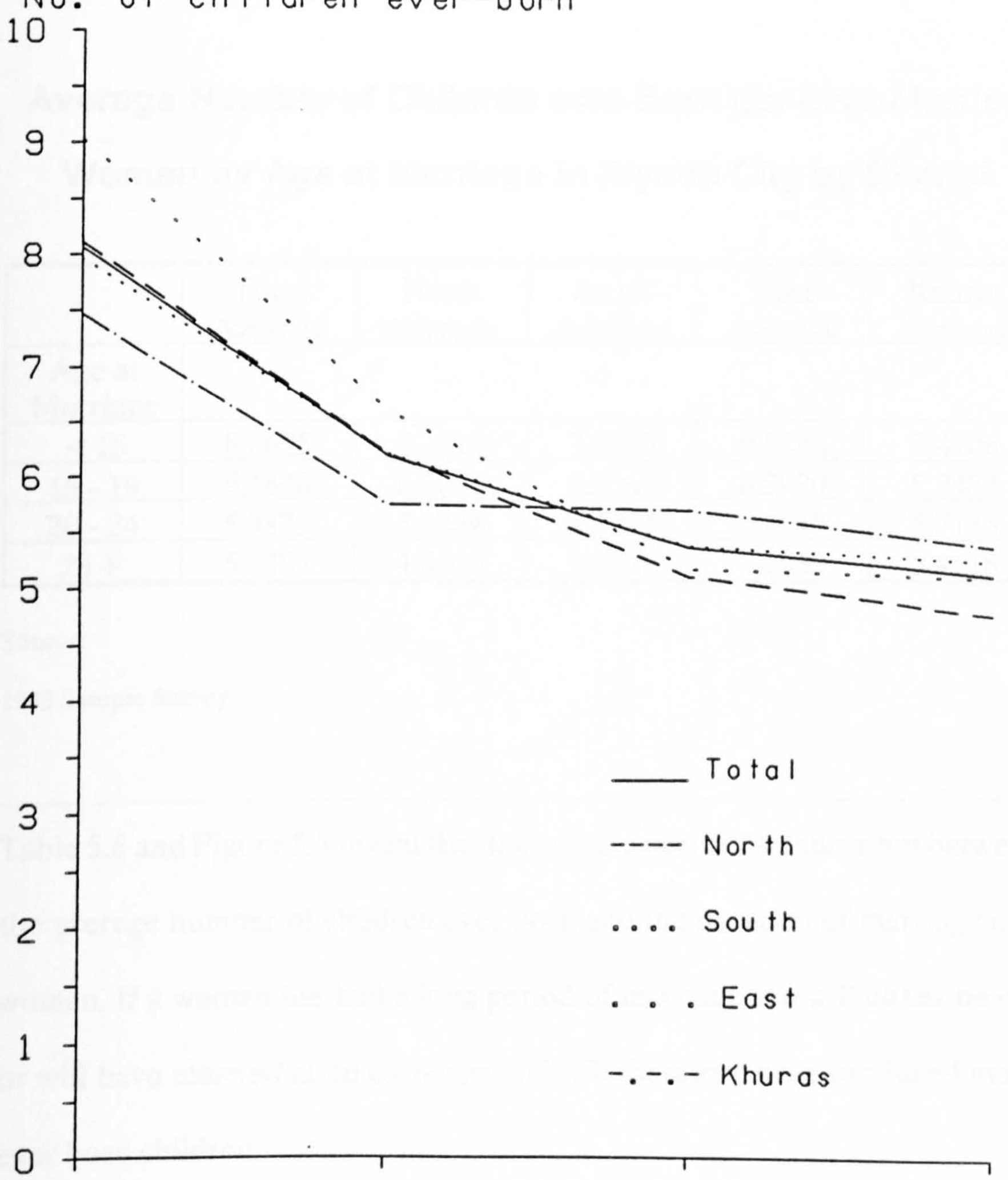
On the other hand, the North and South districts had a lower number of children ever born than other districts in each age group. For example, the completed fertility for women in the age group 50 and over was 8.39 in the

North district and 8.50 in the South district, which revealed that there was little differential between the districts for a woman of older years because most of those women shared the same socio-economic characteristics. However, under the age of 30 the differential was obvious between the South and the North districts where the number of non-Saudi residents is high, and the East and Khuras districts which contained most of the Saudi residents. Thus, we found in the age group 25-29 that the average children ever born in the North and South districts was about 2, while it was more than three in the East and Khuras districts.

The average age at first marriage of the ever married woman in Riyadh City is 19.03 years, but this age varies from one district to another: it was 19.71 years in the North, 18.94 in the South, 18.60 in the East and 18.97 in Khuras district. The age at first marriage differs according to a woman's socio-economic position, which will be discussed later.

It can be seen from Table 5.5 and Figure 5.4 that there was an inverse relationship between the age of first marriage and the number of children ever born to a woman. While it was 8.66 children ever born to a women when she married before the age of 15, it reduced to 5.15 children ever born to a woman when she married at age 25 years and over. This is mainly due to the fact that educated women marry at relatively older ages and terminate their fertility in a shorter period and also because they work before or after their marriage. These factors reduce the desired number of children ever born to a woman. Moreover, when the woman's marriage occurs at a late age, the childbearing

Figure 5.4 Average parity in Riyadh City by age at first marriage by District



Source: The 1988 sample survey

period for the woman becomes shorter because she will have spent many years of her life outside of marriage. In this society women have children only through marriage as it is the only recognized form of union, and pre-marital relationships are not recognized for social, cultural and religious reasons.

Table 5.5

Average Number of Children ever-Born per ever-Married Woman by Age at Marriage in Riyadh City by District

	Total Average	North Average	South Average	East Average	Khuras Average
Age at Marriage					
< 15	8.6625	8.1111	7.9630	9.0286	7.4706
15 - 19	6.1846	6.2061	6.2067	6.5980	5.7484
20 - 24	5.3835	5.1284	5.3947	5.1959	5.7135
25 +	5.1505	4.8000	5.2791	5.1333	5.4118

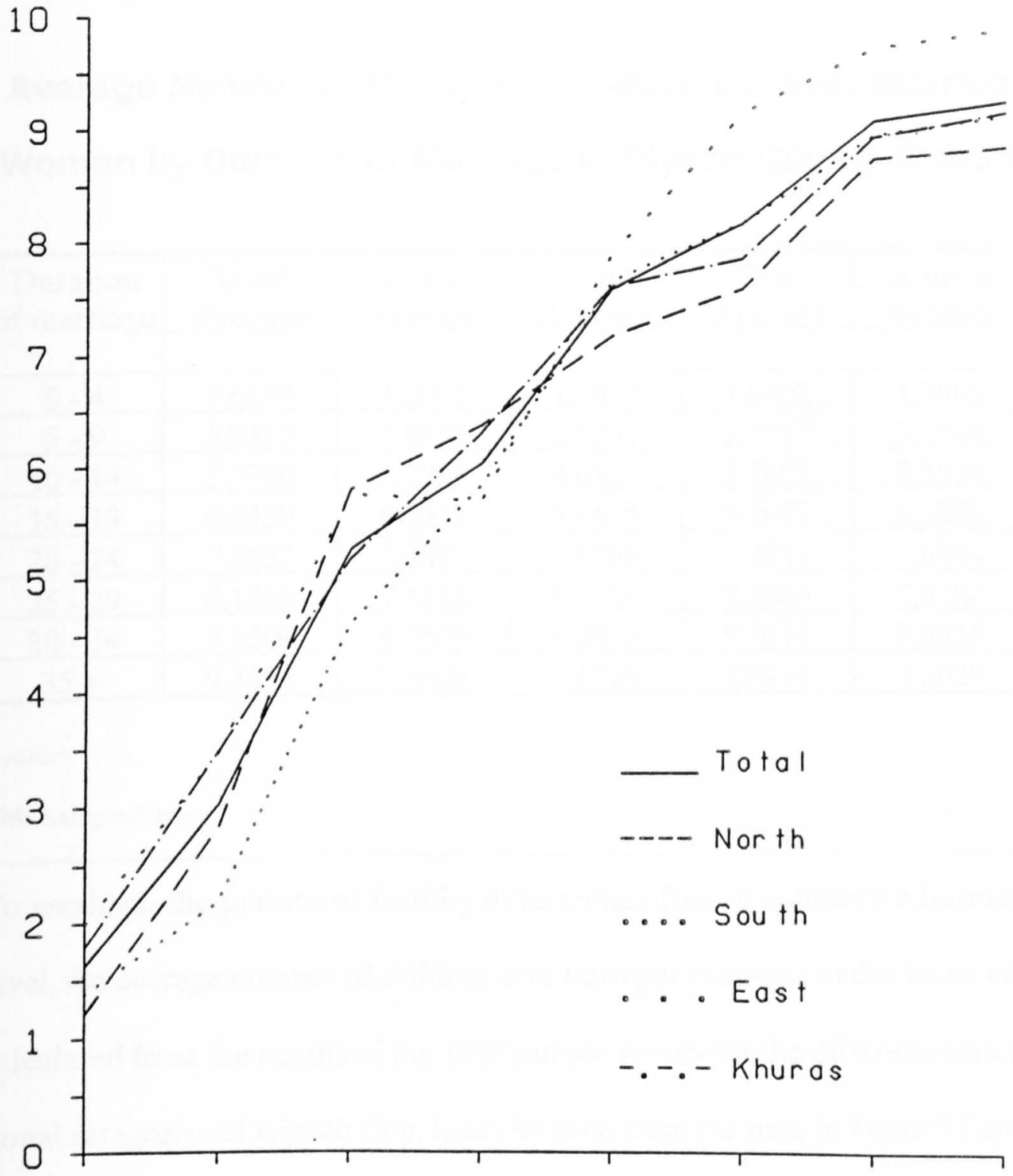
Source:

1988 Sample Survey

Table 5.6 and Figure 5.5 reveal that there was a positive relationship between the average number of children ever born and the duration of marriage of a woman. If a woman has had a long period of marriage she will either be old or will have married at an early age and will therefore have produced more ever born children.

In Riyadh City while a woman who had less than 5 years' duration of marriage had 1.62 children ever born, a woman with 35 years' duration of marriage and

Figure 5.5 Average parity in Riyadh City by duration of marriage by District



Source: The 1988 sample survey

over had 9.30 children ever born. Similar results were found in all districts. While the average number of children ever born was less than 2 for a woman with less than 5 years of marriage, it rose to around 9 children ever born to a woman with 35 years' duration of marriage and over.

Table 5.6

Average Number of Children ever-Born per ever-Married Woman by Duration of Marriage in Riyadh City by District

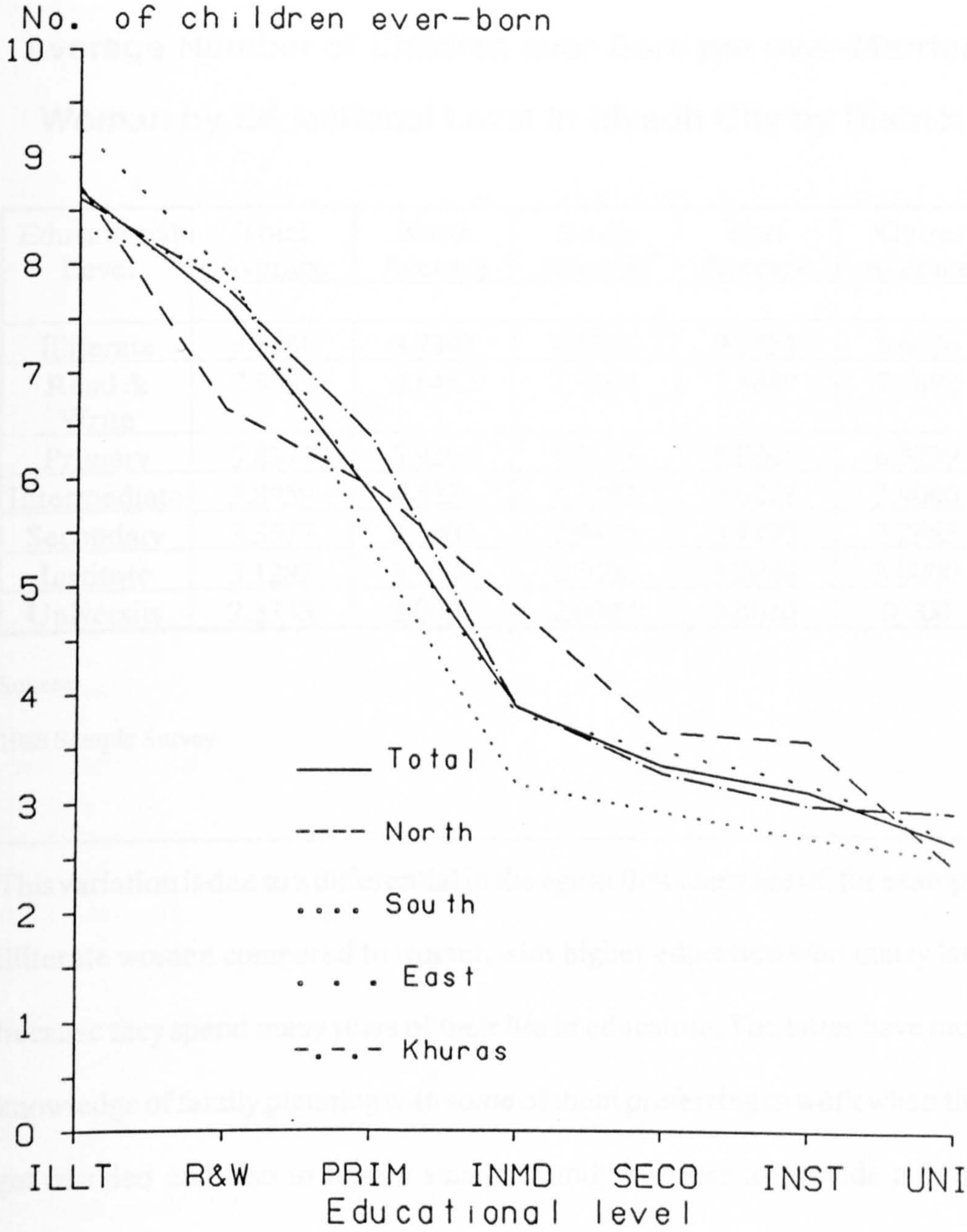
Duration of marriage	Total Average	North Average	South Average	East Average	Khuras Average
0 - 4	1.6184	1.2093	1.3824	1.9902	1.7903
5 - 9	3.0315	2.8333	2.1781	3.4857	3.4944
10 - 14	5.2780	5.8095	4.6167	5.7609	5.1930
15 - 19	6.0439	6.3913	5.8515	5.7077	6.3279
20 - 24	7.6067	7.2024	7.6796	7.9211	7.6344
25 - 29	8,1981	7.6143	8.2019	9.1846	7.8784
30 - 34	9.1206	8.7895	9.0000	9.7674	8.9815
35 +	9.3008	8.8980	9.1728	9.9474	9.2029

Source:

1988 Sample Survey

To establish the pattern of fertility differentials from a woman's education level, the average number of children ever born per ever-married woman was calculated from the results of the 1988 sample survey for the different educational categories of Riyadh City. It can be seen from the data in Table 5.7 and Figure 5.6 that there is an inverse relationship between educational level and fertility in Riyadh City. In all districts, the less educated women have a higher average number of children ever born than those with more education. For

Figure 5.6 Average parity in Riyadh City by educational level of mother by District



Source: The 1988 sample survey

instance, it can be observed that for those ever-married women, the average number of children ever born declines from 8.69 for an illiterate woman to 2.33 children if the woman has had university level education.

Table 5.7

Average Number of Children ever-Born per ever-Married Woman by Educational Level in Riyadh City by District

Educational Level	Total Average	North Average	South Average	East Average	Khuras Average
Illiterate	8.6886	8.7347	8.3263	9.2551	8.6126
Read & Write	7.5852	6.6452	7.9362	7.8889	7.7692
Primary	5.8371	5.9205	5.3546	5.8265	6.3739
Intermediate	3.8959	4.8226	3.1892	3.8272	3.9000
Secondary	3.3577	3.6602	2.9425	3.4896	3.2883
Institute	3.1282	3.0000	2.7000	3.2000	3.0000
University	2.3333	2.0000	2.0000	3.0010	0.000

Source:

1988 Sample Survey

This variation is due to a differential in the age at first marriage of, for example, illiterate women compared to women with higher education who marry later because they spend many years of their life in education. The latter have more knowledge of family planning with some of them preferring to work when they get married and also to have a smaller family in order to provide a better environment for their children. The less educated women prefer to have more children as a social norm to protect themselves from divorce and polygamy.

In the South district the educated woman has a lower average number of children than other districts because this district, as mentioned earlier in the chapter on housing, contains the business district and a large proportion of non-Saudis, most of whom have a different culture and viewpoint towards children ever born than Saudi people. Also most of these non-Saudi women are young and came to the country in order to work.

According to the 1988 sample survey, the employed women in Riyadh City had only 3.19 children ever born, compared with women not employed, who had 6.25 children ever born on average. This was because the employed women were younger and more educated and had not had time to have a number of children, whereas housewives were not working and devoted all their time to raising children. Most of these housewives were older women, married at an early age, and from traditional families which in most cases do not allow women to work outside the home. There was a small number of ever married women who were still students since many of them married during their education and continued while others returned to study for one or two years after marriage. Thus we found that they had a small number of children ever born, viz. 1.16 on average.

5.3 Family Planning

It is a fallacy that Islam, as a religion, is against the widespread espousal of family planning. Islam is not against contraception, abortion may take place in most Muslim countries where there is a risk to the woman's life, and in an

increasing number of countries contraceptive services and supplies are available in a variety of ways (Clarke, 1985, p.122).

The Saudi Arabian government has not actively encouraged the introduction of any contraceptive measures into the kingdom to check the increase in population and considers that family planning or birth control is a matter for personal discretion (Al Madani and Al-Fayez, 1976, p.189).

The Saudi Arabian government, in its development plans, has allocated increasingly large sums of money to improve the facilities for maternal and child health care, but these do not include family planning services. Furthermore, there are no co-operatives or women's and community groups that are active in this area. For married couples the pill is available easily and freely on doctor's prescription. Thus, it would be a fallacy to assume that all contraceptives are banned in Saudi Arabia. Family planning services will be made available to married women. A positive step has been taken recently to improve children's health; in an effort to vaccinate all children in the country, proof of vaccination must be provided to obtain a birth certificate and for admission to any primary school (Abedin, 1982, p.24).

In my opinion there is no change in the attitude towards family planning in Saudi Arabia because of the need for population as a result of its large size and resources. In spite of these factors there is one method of contraception readily available to the public at pharmacies without prescription and that is the condom.

5.4 Summary

The level of fertility in Saudi Arabia is very high and this applied to Riyadh City as well. The average children ever born for ever married women who completed their fertility (50 and over) was 8.68 children in Riyadh City and while there was a positive relationship between the children ever born and the age and duration of marriage, there was a negative relationship with the age at first marriage and the educational level.

In spite of the very high level of fertility the government accepts this, and does not deal with the problem of family planning because it interferes with the Islamic religion, and may cause resistance among many traditional quarters within society. In addition, such moves would be inconsistent with the government's need to increase the population of the country in order to augment the size of the national labour force.

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Chapter Six

Declining Mortality

Introduction

Mortality is an essential factor determining population growth rates. Saudi Arabia, along with other Middle Eastern countries, is a country where fertility has remained largely constant and changes in mortality have brought varying growth rates over time. The health problems and the pattern of disease have undergone dramatic changes, creating demands on health services and their quality. Consequently, the Saudi Arabian government has made, and continues to make, tremendous efforts to translate the income gains into social and health programmes.

Saudi Arabia, like many other developing countries in the region, had suffered considerably from serious diseases, and health problems such as malnutrition, tuberculosis, and malaria were endemic, while trachoma and bilharzia were just as serious problems. In addition, inadequate public services such as sewage and garbage disposal, water supplies, and insanitary living conditions led to a high rate of prenatal and infant mortality (Financial Times, 1969). In the 1950s a Royal decree was issued to set up free medical care to all citizens and residents of the country, and social and health programmes were undertaken. The Ministry of Health was established in 1953 to supervise the programme and was also asked to provide the government, private organisations, and individuals with statistics about the health care and the health situation in the Kingdom.

Radical change came about when the production of crude oil assumed significant size, especially in the 1970s. The government was able to utilise oil revenues to provide everything possible to improve public health and standards of living in the country.

Mortality reduction in Saudi Arabia was achieved through free medical services, free education up to the postgraduate level and a fast expanding health system. For example, until 1950 there were few hospitals in the country and medical care was limited to major cities, but even in the capital, Riyadh City, there was only one hospital in a mud-walled house with twenty mattresses on the floor for patients (Horniblow, 1966). By 1963 there were 41 hospitals, 119 health centres, 73 clinics, 4,236 beds, 395 doctors, 336 male nurses and 444 midwives (Central Department of Statistics, 1967). In 1984 there were 105 well-equipped modern hospitals with almost 20,796 beds belonging to the Ministry of Health and the private sector. By 1988 there were 162 well-equipped modern hospitals, 1,477 primary health centres, 26,315 beds, 11,940 doctors, 660 nursing staff (Ministry of Finance and National Economy, 1988). Of these, 14.8 per cent of the hospitals were in Riyadh and 7.9 per cent of the primary health centres, but 32.7 per cent of the beds, so the concentration of beds indicates the major size of many of the hospitals in the capital.

Elsewhere, there is no settled community in the country without some kind of medical care. The urban areas are served by major general and specialist hospitals. Elsewhere across the country there are dispensaries and primary health centres and even the smallest and most remote community has access

to mobile clinics and dispensaries, the flying doctor and other emergency services (The Kingdom of Saudi Arabia, 1983, p.224).

Saudi Arabia, like most of the developing countries, is in need of detailed and up-to-date information on the country's mortality levels and trends for comprehensive national planning, identifying the current demographic situation and anticipating its immediate demographic future. Unfortunately, demographic information is handicapped by a lack of complete, reliable and detailed time series data. Despite the fact that a vital statistics system was established in 1962, it seems that death registration was not performed with much care and hence the data are subject to errors of under reporting.

The census of 1974 did not provide any direct mortality information. In this chapter an attempt is made to analyse the trends in levels of infant and general mortality and the differentials by age, sex and nationality in Saudi Arabia using recent estimations from different sources. The levels and changes of mortality and causes of death in Riyadh City were also studied using the data from the 1988 sample survey.

6.1 Crude death rate in Saudi Arabia

All the estimations of the crude death rate from various sources were over 20 per thousand in the 1960s and 1970s and dropped to less than 15 per thousand in the 1980s. ECWA, for example, estimated the crude death rate in the early 1950s to be about 30 per thousand. The World Health Organisation estimated the crude death rate in 1963 (Table 6.1) to be about 24 per thousand, while

Omran estimated the crude death rate in 1962-63 to be about 25 per thousand and in 1965-69 about 23 per thousand. The Central Department of Statistics estimated it in 1972-73 to be about 18 - 20 per thousand. In the 1980s the United Nations estimated the crude death rate in 1980 to be about 14.4 per thousand, declining to 8.9 per thousand in 1983 and 7.4 in 1985. Tabbarah estimated it to be about 11 per thousand in 1980. These varying estimations of the crude death rate in Saudi Arabia are due to the deficiency of data concerning mortality since many deaths were not registered, especially in the case of old people and infants in the rural areas and in the nomadic population. The registration of birth has greater priority with parents because they need a birth certificate for certain benefits and for school registration. According to Saudi law, any father who does not register his child within a certain time will pay a fine to the government. The same does not apply to death registration, so that when someone dies their family will bury them immediately without reporting the death to the authorities.

Table 6.1

Estimated crude death rates in Saudi Arabia for selected years

Date and source of estimation	Crude death rate (per thousand)
ECWA, early 1950s	30
World Health Organisation, 1963	24
A.R. Omran, 1962-63	25
A.R. Omran, 1965-69	23

Al-Madani, A., and Al-Fayez, M. 1972-73	18-20
United Nations, 1980	14.4
R. Tabbarah, 1980	11
United Nations, 1983	8.9
UNFPA, 1985	7.4

Sources:

1. ECWA, 1979
2. World Health Organisation, 1963
3. Omran, A., 1972
4. Al-Madani, A., and Al-Fayez, M., 1976
5. United Nations, Demographic Yearbook, 1983
6. Tabbarah, R., 1981
7. United Nations, Demographic Yearbook, 1986
8. UNFPA, 1988

The decline in mortality in Saudi Arabia is due to various factors. For example, the improvement in health services spread to all major cities and was also available in remote areas across the country. There was also an increase in the budget of the Ministry of Health, the number of hospitals and primary health care centres for pregnant women and their babies, the number of physicians and skilled technicians and the number of health- improvement projects. The health service is free of charge to everyone in the Kingdom, and the improvement in the population's income led to an improvement in the standard of living and in housing conditions. The health authority put an end to most of the epidemic diseases which were responsible in the past for most of the deaths in the country. In consequence, life expectancy (1985-90) is 63.7

years - 65.6 for females and 61.9 for males - well above the average for developing countries.

The ECWA went further and estimated the crude death rate of the Saudis and non- Saudis as 14.9 per thousand for the former and 5.6 per thousand for the latter in 1986 with a total crude death rate of 12.8 per thousand, higher than estimated by UNFPA for the previous year. This variation between Saudis and non-Saudis is due to the differential in the age and sex structure and the educational level between these two groups of the population.

In comparison, the multipurpose survey previously conducted by the Saudi Arabian Central Department of Statistics during 1976 and 1977 showed that the crude death rate for the Saudi population was 14.1 per thousand, and that it was inversely related to the degree of urbanisation, increasing from 6 per thousand in the Kingdom's six largest municipalities, to 16 per thousand in the smaller municipalities, and finally to 18 per thousand in the country's villages and other rural areas (Looney, 1985, p.102).

6.2 Infant Mortality rate in Saudi Arabia

There is no complete record of infant mortality in Saudi Arabia except for those that have occurred in hospitals or have been handled by government agencies. Despite this fact, some organisations have estimated the infant mortality rate in Saudi Arabia. For example, the World Health Organisation estimated it in 1963 to be about 260 per thousand (W.H.O., 1963). Another estimation made by Sebai for 1967 for Turbaha (a small town in Saudi Arabia)

found it to be about 134 per thousand (Sebai, 1985). The United Nations estimation for the infant mortality rate shows that it declined from 121 per thousand during the period 1975-80 to 66.1 per thousand in 1983 (U.N. 1983, 1986), while UNFPA (1988) gives the average for 1985-90 as 71.

6.3 Mortality levels in Riyadh City

The crude death rate for Riyadh City as a whole in the 1988 sample survey was 7.4 per thousand, which is roughly the same as for the country as a whole in 1985. This similarity may be due to the fact that there were many seriously ill people transferred from across the country to Riyadh City for better treatment, who then died and were counted as Riyadh residents. Moreover, there is probably more under-registration in other areas than in Riyadh, which raises the relative rate of Riyadh. In Riyadh City, according to the 1988 sample survey, the crude death rate differs from one district to another. While it was 9.5 and 9.0 per thousand in the North and the East districts respectively, it was as low as 5.7 and 6.1 in the South and Khuras districts respectively. This is because most of the immigrants, especially those from outside Saudi Arabia, are concentrated in the South district. The Khuras district contains most of the newly constructed buildings in the city which means better conditions. Most of its residents have a high income and many of them are young families. On the other hand, the East and North districts contain mostly Saudi residents, most of whom come from the rural areas or are bedouins who have settled in the city. Thus those two groups of the population have low levels of education.

6.4 Infant Mortality rate in Riyadh City; levels and changes

The earliest estimation of infant mortality rate in Riyadh City came from the study of the Manfuha Environmental Sanitation Demonstration Centre, which estimated the infant mortality rate to be 266.7 per thousand in 1961. According to a WHO Study, the infant mortality rate in Riyadh City in 1963 was 250.8 per thousand. This estimate was based on a study of the pregnancy histories of 137 mothers visiting the Shumeissy Hospital (Al- Obeidy, 1985, p.12).

The infant mortality rate in Riyadh City was 59.3 per thousand according to the 1988 sample survey which is a little lower than that for the country as a whole. This decline in the infant mortality rate in Saudi Arabia as a whole and in Riyadh City in particular is due to several factors: the improvement in general living standards are the dominant source of mortality decline; the improvement in health which is a result of the growing number of hospitals, clinics and general physicians; the wide use of antibiotics and the improvement of nutritional programmes; the improvement in housing conditions; the provision of the proper care of mothers during pregnancy and childbirth, correct feeding and hygiene of the baby; the increased levels of literacy among the population and especially among women during reproductive years.

6.5 Age and sex mortality rate in Riyadh City

The infant mortality rate for males according to the 1988 sample survey (Table 6.2 and Figure 6.1) was 55.3 per thousand, lower than that of females, which

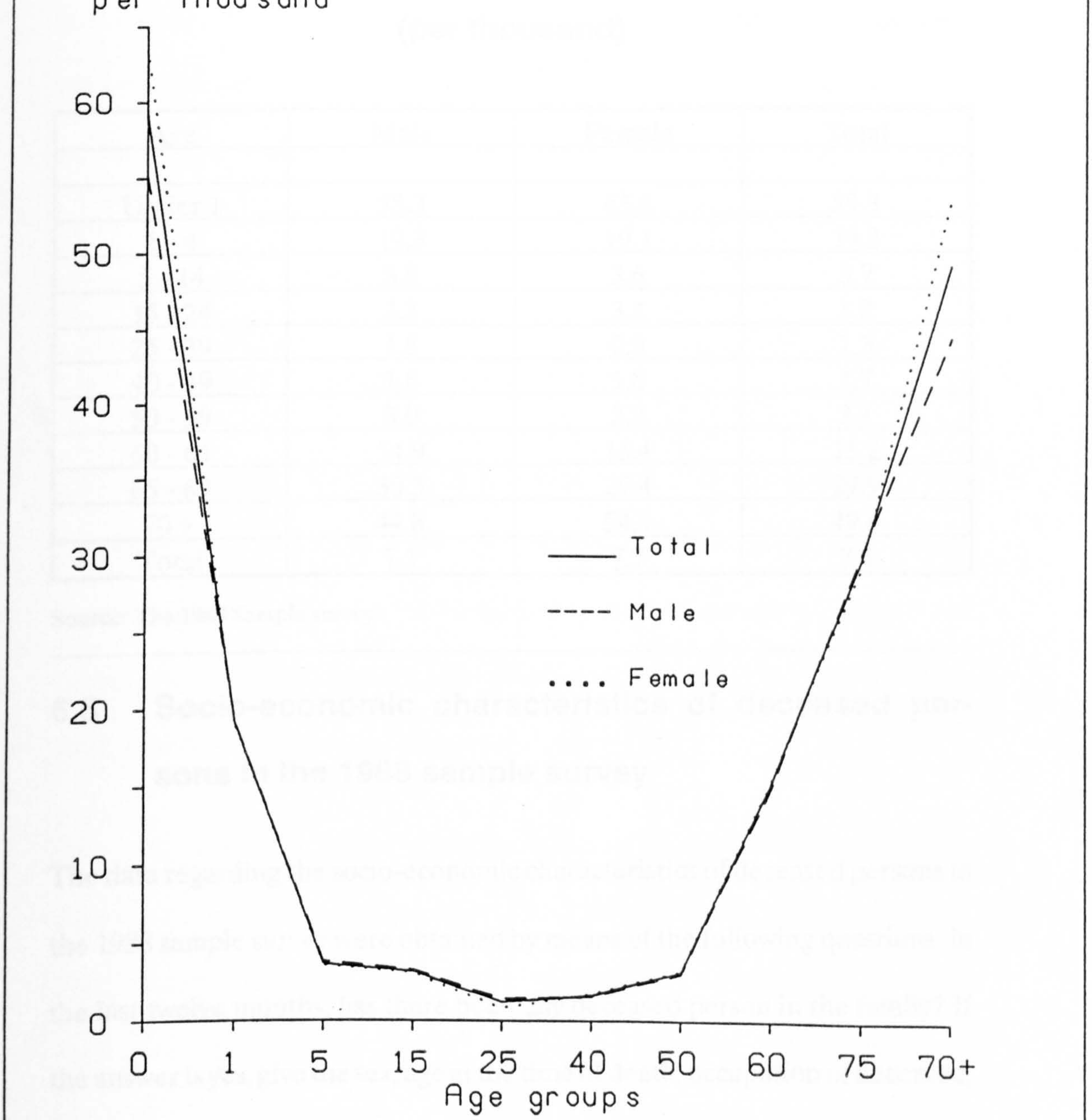
was 63.6 per thousand. This is because of son preference and of the higher social status of the male baby than the female, with most families preferring males. More care is taken of the male baby than the female, in the belief that the male baby carries the family name and brings more respect to the family and that when he grows up he will be the main source of family income and considered as social security for his parents in their old age. The female baby on the other hand will grow up, get married, live with her husband and become his dependant.

In the age group 1-4 the mortality rate declines to 19.2 per thousand (Table 6.2 and Figure 6.1) because by this age the child becomes stronger and adapted to the environment, and in the next age group, 5-14, the mortality rate declines sharply to 3.7 per thousand and then to the even lower level of 1.3 for the age group 25-39. From the age group 1-4 up to the 25-39 age group the mortality rate for males is higher than that of females, but only slightly.

In the age group 40-49 (Table 6.2 and Figure 6.1) the mortality rate increases to 1.7 per thousand and continuously throughout the older age groups, reaching 49.6 per thousand in the age group 70 and over. This is due to the increased probability of dying in the older age groups. From the 40-49 age group and above the mortality rate of females is unusually higher than that of males except in the age group 65-69.

In general the crude death rate of the female population according to the 1988 sample survey was 7.7 per thousand, higher than that of males at 7.1 per

Figure 6.1 Age-specific death rate in Riyadh city, 1988



Source: The 1988 sample survey

thousand, because of the different socio-economic situations of the male and female populations, as mentioned above.

Table 6.2

Age and sex specific mortality rate in Riyadh City, 1988 (per thousand)

Age	Male	Female	Total
Under 1	55.3	63.6	59.3
1 - 4	19.3	19.1	19.2
5 - 14	3.9	3.6	3.7
15 - 24	3.3	3.1	3.2
25 - 39	1.5	0.9	1.3
40 - 49	1.6	1.8	1.7
50 - 59	3.0	3.2	3.1
60 - 64	14.9	15.4	15.2
65 - 69	30.3	29.4	29.9
70 +	44.8	54.1	49.6
Total	7.1	7.7	7.4

Source: The 1988 Sample survey

6.6 Socio-economic characteristics of deceased persons in the 1988 sample survey

The data regarding the socio-economic characteristics of deceased persons in the 1988 sample survey were obtained by means of the following questions: in the last twelve months, has there been any deceased person in the family? If the answer is yes, give the sex, age at the time of death, occupation of deceased, cause of death and the marital status of the deceased. The 1988 sample survey showed that a remarkably high percentage, 80.9 per cent, (76 persons), were

under the age of marriage; this was due to high infant and child mortality rates compared with other age groups. The percentage of single adults was 1.1 (1 person); married individuals, most of them elderly, constituted 12.8 per cent (12 persons), while 5.3 per cent (5 persons) were recorded as widows.

The survey also showed that 75.5 per cent (71 persons) were under working age, 7.4 per cent (7 persons) were housewives, 3.2 per cent (3 persons) were students, 5.3 per cent (5 persons) were either old people or unable to work, and only 8.5 per cent (8 persons) of the deceased were in employment. Of these, 1 person was in clerical work, 4 were salesmen, 2 were in service industries and 1 was in transportation.

6.7 Causes of death in Riyadh City

Classifying causes of death in Saudi Arabia was a difficult and time-consuming task, since under-reporting of death is almost certain; these unrecorded deaths occurred in the city as well as in the rural areas of the country. Although these figures may have been gathered by various government agencies on a regular basis, they have not been released to the public.

There are no specific causes of death mentioned in the 1988 sample survey. Thus we found that in 84.0 per cent of the cases (79 persons) the causes of death were reported as sickness with no specific cause, 4.3 per cent (4 persons) were reported as senility and 8.5 per cent (8 persons) were reported as accidents. A high percentage of accidents were due to driving at high speed, carelessness at traffic lights, unauthorised overtaking and unauthorised stop-

ping and turning. The remaining 3.2 per cent (3 persons) were reported as being of other causes.

6.8 Natural Increase

The natural increase rate estimated in Saudi Arabia by the United Nations Demographic Yearbook was around 27.3 per thousand during the period 1965-70, increasing after that to reach 31.5 per thousand during the period 1975-80 and 33.2 per thousand during the period 1980-85. This is due to the continuous decline in the mortality rate as a result of the improvement in the health services, and to the stability of the higher crude birth rate.

According to the 1988 sample survey the natural increase rate in Riyadh City was estimated to be 28.4 per thousand, lower than that of the Kingdom as a whole on account of the crude birth rate being lower in Riyadh City, but still a high rate of growth, apart from the influences of net migration. On the other hand, the natural increase rate varies among the districts in the city according to the differential levels of the crude birth and death rates in each district; while it was 25.9 per thousand in the North district, it was 26.5 in the South, 29.7 in the East and 31.5 per thousand in the Khuras district.

6.9 Summary

The crude death rate in Saudi Arabia has declined over the years and was estimated to be about 7.4 per thousand in 1985. This rate is considered high in the region compared with the Kuwait crude death rate which was 3.0 per thousand in 1983 and is among the lowest crude death rates in the world (Kohli

and Al-Omaim, 1986, p.122). Analysis by nationality showed a higher crude death rate for Saudis than non-Saudis. This variation could be due to the fact that the two groups differ in age composition.

Based on data from a 1977 multipurpose survey in Saudi Arabia, the crude death rate was estimated at 6 per thousand for urban residents, dramatically lower than that for rural residents which was 18 per thousand. The infant mortality rate in Saudi has changed dramatically over the last two decades dropping to about 70 per thousand in the mid 1980s. It appears that a further reduction in mortality will have to be achieved but there is still some scope for reducing infant mortality, especially in rural areas and particularly among Saudis.

Riyadh, like many other cities in the Arabian Peninsula and developing countries, has experienced a considerable decline in mortality over the last two decades. Analysis of time trends in mortality for the years from 1961 to 1988 indicate a substantial decline in the crude death rate, infant mortality rate, and age and sex specific mortality rates. The crude death rate and infant mortality rate are estimated to be about 7.4 and 59.3 per thousand respectively.

Most of the deceased surveyed were infants and young children who had not reached the age of marriage. The lowest age-specific mortality rates occur between ages 25-39. The reduction in death rates has been for children 5 years and over and young adults which is attributable to mortality decline from infectious and parasitic diseases and respiratory diseases. Higher death rates are found in infants and at age 60 years and over. The sex-specific mortality

rate was found to be higher in the female population in Riyadh City than the male, a reflection of a male-dominant society.

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Chapter Seven

Migration To Riyadh And Its Growth Of Population

Introduction

Migration plays a significant role in the dynamics of population change within a country. According to Newman and Matzke (1984), migration has played a major role in shaping the map of world population as we know it today. Migration often outweighs births and deaths as a determinant of local population change. It can increase or decrease the size of a place suddenly, whereas changes in the vital rates take time to exert their influences, and it can alter the characteristics of a given population in many important ways (Newman, J., and Matzke, G., 1984, p.156).

The study of immigration in any country is important not only on account of the numbers involved but also because of the considerable demographic, social and economic effects upon the total population of the receiving countries. Saudi Arabia has been a country with a considerable international migration, so as to affect population growth and its structure. The number of immigrants entering the country has been larger absolutely if not relatively than that of other countries in the region. It should be mentioned that controlling immigrant movement into Saudi Arabia in earlier periods was difficult and required great effort as the country has long land and sea frontiers and many of the people who came to perform Haj stayed permanently while those in more recent decades came mainly on a temporary basis as required

by the government policy on immigration. These immigrants are yet another area needing detailed investigation. Unfortunately, there is no adequate data covering migration in Saudi Arabia. Therefore only a general picture will be given concerning international immigrations, which in the Saudi Arabian context is largely labour migration.

With regard to internal migration, it is impossible to assess its contribution to the gain or loss of the population in places of in-migration and out-migration in Saudi Arabia because no work has been done on the detailed measurements of internal migration. On motivations, there is enough evidence to indicate that the internal migration has had great impact on the contemporary population structure of Saudi Arabia. Rapid industrialisation in large cities has created a demand for an industrial labour force, and stimulated migration from rural population and village population toward the urban areas in search of work and a higher standard of living.

As already mentioned above, lack of relevant data on migration in Saudi Arabia would therefore make it impossible to write a detailed study of migration, thus only a general picture will be given concerning internal and external migration and should be taken as an approximation.

7.1 A Brief History of Migration in Saudi Arabia

The Arabian Peninsula has witnessed various migration patterns since the middle of the fourth millennium B.C., either because of population pressures caused by inadequate food and resources or because they were following wild

herds. A detailed study of the early migration would need a whole thesis. Therefore only an outline will be given concerning early migration, which was connected with the annual Haj pilgrimage. Fourteen centuries ago, in A.D. 622, the Arabian Peninsula witnessed a certain form of migration for religious reasons when the Prophet Muhammad (Peace upon him) migrated from Mecca to Medina, formerly Yathrib, along with his early followers. It was a well-planned migration of 116 people who departed quietly in small groups.

Since then Saudi Arabia has witnessed 2 forms of population movement. The first form is international movement where waves of pilgrims move from their country of usual residence to the Arabian Peninsula. The second form is internal movement where Saudi citizens and foreigners move from their place of usual residence within the country to Mecca and Medina. The purpose of these movements is religious and spiritual.

Accordingly, the religious motivations have their effect on the international movement patterns in Saudi Arabia. Frequently, the main reason for the movements would seem to be an economic one, although the hidden religious motive is the real motive of the movement. This is because sometimes the motivations of the movement interlock and the international movement would not come about as a result of one reason only due to a number of factors collaborating to generate this movement.

The oil discovery in Saudi Arabia and the speedy growth of the general economic structure of the country were among the most important factors which caused the increase in the stream of external and internal migration in

general in Saudi Arabia (Research Centre and Economic Development, 1978, p.9). Oil was discovered in Saudi Arabia in the 1930s but the major expansion of production facilities did not take place until after the Second World War. This situation resulted in the urgent need of Saudi Arabia for a massive skilled labour force from other countries. Outside workers were required, first for the process of exploration, then for the drilling of wells and the construction of pipelines and terminals as well as for all the necessary roads, port facilities and housing which the government was unable to provide. All this was accompanied by an associated expansion of the Saudi government administration which was necessary to control both the foreign oil companies and their workers, in addition to 'schools, clinics, hospitals, public works and financial and legal departments, all of which were extremely intensive.

There has also been a certain amount of internal migration from one part of Saudi Arabia to another. For example, as the result of the oil discovery in the Eastern Province, a large number of the rural and desert population migrated to the cities. This phenomenon caused essential changes in population redistribution and the emergence of some of the new cities such as Dhahran and Al-Khobar (Al-Banyan, A. and Lutfee, A., 1980 p.57).

7.2 Trends in Migration

Saudi Arabia has been experiencing a substantial level of immigration since the 1970s and this has significantly altered the population composition of some cities of the country. Figures are not precise. Thus according to the 1962 - 1963 census, the non-indigenous population was less than 2.0 per cent of the total

population. Since then, however, their proportion has increased steadily from only 5.0 per cent in 1966 to 11.8 per cent in the 1974 census and 29.5 per cent in 1980. According to the United Nations estimate of 1986, their proportion has decreased to 22.8 per cent. But according to the HRD base estimate of 1985, the non-national migrant population was 32.0 per cent of the total population.

Until 1975 the immigrant population, or rather the labour migrants in Saudi Arabia, were predominantly of Arab origin. The figures in Table 7.1, calculated by Birks and Sinclair (1979), revealed that the largest group of foreigners were Arabs, who constituted 90.6 per cent of the total migrant workforce in Saudi Arabia.Within this group North Yemenis accounted for 36.3 per cent of the total, Jordanians and Palestinians 22.7 per cent and Egyptians 12.3 per cent. Among the non-Arab nationals, the largest group were Asian and Far Eastern communities, accounting for 4.8 per cent, with Europeans and Americans at 1.9 per cent while Iranians and Africans accounted for 2.7 per cent of the total non-Saudi Arabian population.

Subsequently, the pattern has changed noticeably. The origin of labour migrants seems to be more diverse, from Pakistan, India, Sri Lanka, Japan, the Philippines, Thailand, Turkey, Afghanistan, Malaysia, Indonesia and South Korea.

Table 7.1

Non-Saudi Employees in Saudi Arabia in 1975 by Nationality

Nationality	Number	%
Yemeni (North)	280,400	36.3
Jordanian (including Palestinians)	175,000	22.7
Egyptian	95,000	12.3
Yemeni (South)	55,000	7.1
Sudanese	35,000	4.5
Lebanese	20,000	2.6
Omani	17,000	2.3
Syrian	15,000	1.9
Somali	5,000	0.6
Iraqi	2,000	0.3
Sub-total: Arabs	699,400	90.6
Pakistani	15,000	1.9
Indian	15,000	1.9
Other Asian	8,000	1.0
Sub-total: Asian	38,000	4.8
European & American	15,000	1.9
African and other	10,000	1.3
Iranian	10,000	1.3
Turkish	500	0.1
Grand Total	773,900	100.0

Source: Birks and Sinclair, 1979

The growth of the Saudi population prior to 1967 had been smaller than between 1963 - 1967 when the annual rate of increase was estimated by the

United Nations to be about 1.7. This increase was probably mainly the result of natural increase, the effects of immigration being almost non-existent. But during the last 14 years (1974 - 1988), when immigration has been very strong, the population of Saudi Arabia has doubled, and during that period the annual growth rate was about 3.0 per cent and thereafter increased to 3.8 per cent in 1986.

The analysis of immigration trends into the country is based on the year of arrival. As shown in Table 7.2 the number of migrants into Saudi Arabia who have stayed behind has increased somewhat irregularly since 1964. However, according to the records at the Passport Department for the period between 1964 and 1988, there was a balance of 2,143,978 arrivals over departures. The major growth in numbers has been since the mid-1970s, and the numbers entering and leaving are still rising, and approached 5 million entries in 1988 and 4.8 million departures. Since 1975 the balance has greatly varied annually, from a net departure of 765,730 in 1981 to a net arrival of 532,189 in 1984, but generally there has been a strong net balance in the 1980s. Therefore the doubling of the population between 1962 and the 1980s was greatly influenced by immigration. The majority of labour migrants was recruited to work in the various government infrastructural development projects such as road construction, airports, hospitals, water supply and sewerage disposal schemes and the petrochemical industry. In addition, private employers also often recruit labour from abroad, notably the neighbouring Arab countries.

The increase in labour immigration in the seventies and eighties was for the implementation of the four quinquennial National Development Plans, 1970 - 1975, 1975 - 1980, 1980 - 1985 and 1985 - 1990. Indeed, an increasing number of migrant workers, skilled and unskilled, as well as professionals were needed to work in priority projects for further development and improvement such as the building of more schools, clinics, hospitals, mosques and housing. In addition, labour was also needed for the telecommunication industry, both internally and in the outside world and for the supply of electricity and water by the beginning of the Fourth Plan (1985 - 1990).

Table 7.2

Immigrant Population by Year of Arrival and Departure 1959-88 (According to Passport Department Statistics)

Year	Number of non-Saudis entering & leaving the country		
	Entered	Left	Balance
1959	47,229	88,498	-41,269
1960	63,607	81,816	-18,209
1961	70,186	91,983	-21,797
1962	56,717	97,323	-40,606
1963	77,064	91,763	-14,699
1964	123,357	89,446	33,911
1965	150,945	91,156	59,789
1966	161,651	149,733	11,918
1967	202,450	190,410	12,040
1968	273.557	238,015	35,542
1969	260,248	262,889	-2,641
1970	299,242	276,188	23,054
1971	396,631	356,352	40,279

1972	450,378	422,782	27,596
1973	570,135	524,014	46,121
1974	811,364	776,391	34,973
1975	1,254,874	1,089,117	165,757
1976	1,597,740	1,337,654	260,086
1977	2,218,821	1,882,577	336,244
1978	2,381,403	2,294,221	87,182
1979	2,484,762	2,024,937	459,825
1980	2,370,655	2,782,944	-412,289
1981	2,844,356	3,610,086	-765,730
1982	3,318,002	3,022,054	295,948
1983	3,792,590	3,374,481	418,109
1984	4,658,004	4,125,815	532,189
1985	4,232,194	4,114,725	117,469
1986	4,093,192	3,829,400	263,792
1987	4,482,271	4,655,673	26,598
1988	4,990,471	4,817,675	172,796
Total	48,734,096	46,790,118	1,943,978

Ministry of Finance and National Economy, Statistical Year Books, 1965-1988

7.3 Distribution of immigrant population

Due to lack of pertinent data on the distribution of the immigrant population in Saudi Arabia, except for 1974, it is not possible to show the changes in the concentration of the immigrant population in the country.

From Table 7.3 it can be derived easily that the highest concentration of all immigrants was in Mecca principality, which contained 46.2 per cent of immigrants, and most probably they were localised in the cities of Mecca, the Holy City which attracts Moslems from all over the world, and Jeddah, which

hosted the diplomatic communities before they transferred to Riyadh City in 1983.

The next highest immigrant concentration was in Riyadh district which in 1974 had 18.2 per cent of the immigrant population. The high proportion of immigrants in this district was due to the fact that it contained the capital, Riyadh City, which was a pull factor particularly for immigrants because of the availability of jobs in the various government departments and in the building and construction mainly associated with government projects. In addition, private companies and commercial activities in the capital also attracted immigrants and indigenous workers from other principalities. Eastern Province comes in third place with 11.3 per cent of the immigrant population and most probably they were localised in cities such as Dhahran which is the oil city of Saudi Arabia.

Table 7.3

The distribution of immigrant population, 1974

	Population (Numbers)			Population (%)		
	Total	Male	Female	Total	Male	Female
Principality						
Mecca	365,282	230,120	135,162	46.2	29.1	17.1
Riyadh	143,893	109,852	34,041	18.2	13.9	4.3
Eastern Province	88,924	66,945	21,979	11.3	8.5	2.8
Asir	31,611	22,728	8,883	4.0	2.9	1.1
Medina	41,179	25,916	15,263	5.2	3.3	1.9
Jizan	62,628	33,218	29,410	7.9	4.2	3.7
Qasim	13,313	9,911	3,402	1.7	1.3	0.4
Hail	5,089	3,744	1,345	0.6	0.4	0.2
Tabuk	9,427	7,191	2,236	1.2	0.9	0.3
Baha	5,027	3,488	1,539	0.6	0.4	0.2
Najran	13,992	8,296	5,696	1.8	1.1	0.7
Northern Frontiers	5,585	3,568	2,017	0.7	0.4	0.3
Jawf	2,622	1,941	681	0.3	0.2	0.1
Qurayyat	2,533	1,753	780	0.3	0.2	0.1
Total	791,105	528,671	262,434	100.0	66.8	33.2

Source: Central Department of Statistics, 1974 Census

The rest of the immigrants were distributed in smaller numbers among the remaining principalities. The proportion of the immigrant population ranged between 7.9 per cent in the Jizan district and 0.3 per cent in the Jawf and Quarayyat districts. Such a small proportion of immigrants in these parts of the country was hardly surprising in 1974 because these regions remained rural and jobs associated with agriculture were scanty and therefore less likely to

attract immigrants. It was more the case that some of the population in these areas migrated to regions or cities which had more development priorities, such as Jeddah, Riyadh City, Mecca and the Eastern Province area.

Between the sexes, it can be seen clearly that in all the principalities males outnumbered females, reflecting the predominance of male immigrants in the country as a whole.

According to the results of one of the statistical studies of internal migration in Saudi Arabia in 1973, there were 38,123 Saudis who migrated internally while the number of non-Saudi internal migrants was 76,521, which means that there were twice as many immigrant internal migrants as Saudi internal migrants to other parts of the country (Ministry of Labour and Social Affairs, 1973, p.17).

The study shows that the main reason for internal and external migration was the search for work. The number of Saudi migrants who were looking for jobs was 35,835 persons which was about 94.0 per cent of the total Saudi migrants. The immigrants who were looking for jobs in Saudi Arabia was 64,913 persons which was about 84.8 per cent of the total immigrant population (Table 7.4).

Table 7.4

Distribution of Internal and External Migration according to the Causes of Movement in 1973

	National		Non-national		Total	
Causes of movement	Number	%	Number	%	Number	%
Looking for work	35,835	94.0	64,913	84.8	100,748	87.9
Better job opportunities	61	0.2	305	0.4	366	0.3
Job transfer	67	0.2	220	0.3	287	0.2
Mostagdam*	-	-	9,709	12.7	9,709	8.5
Education	237	0.6	115	0.2	352	0.3
Family relations	1,757	4.6	957	1.2	2,714	2.4
Other reasons	166	0.4	302	0.4	468	0.4
Total	38,123	100.0	76,521	100.0	114,644	100.0

* Foreign people who work as servants in private households and employees who work in private sectors. In other words employees who work for any institution other than the government.

Source: Ministry of Labour and Social Affairs

Table 7.5 reveals the age structure of Saudi and foreign migrants in Saudi Arabia according to the same study. As can be seen from the table, there was a small proportion, 1.1 per cent, of the total number of migrants who were less than 15 years old and had not reached working age. The reason for their inclusion was most probably not that they were looking for work, but rather for other reasons such as family unity or education. It can also be seen that there is a low proportion of migrants in the 45 - 60 and 60 and over age groups.

These proportions were 12.8 per cent and 2.1 per cent respectively. Most of the migrants were concentrated in the 15 - 44 age group, particularly in the 25 - 34 age group. For both Saudi and non-Saudi migrants they were predominantly in the 25 - 34 age group. The dominance of younger adults is in fact not exclusive to Saudi Arabia, but is common in receiving countries and in Saudi Arabia it perhaps reflected government policy of temporary labour immigration, whereby on completion of contract migrant workers cannot stay on but have to leave the country.

Table 7.5

Distribution of Internal and External Migration by Age Group in 1973

Age group	National		Non-national		Total	
	Number	%	Number	%	Number	%
10 - 14	178	0.5	1,128	1.5	1,306	1.1
15 - 19	3,486	9.1	9,606	12.6	13,092	11.4
20 - 24	5,756	15.1	16,008	20.9	21,764	19.0
25 - 34	10,359	27.2	28,662	37.5	39,021	34.1
35 - 44	8,542	22.4	13,811	18.0	22,353	19.5
45 - 60	8,101	21.2	6,615	8.6	14,716	12.8
60+	1,701	4.5	691	0.9	2,392	2.1
Total	38,123	100.0	76,521	100.0	114,644	100.0

Source: Ministry of Labour and Social Affairs, 1973

From the above discussion it can be deduced easily that the various job opportunities in Saudi Arabia were regarded as the most essential factors contributing to the incidence of the pattern of internal and external migration in Saudi Arabia. The study showed that there was a variation among the Saudi cities regarding the force of their attraction. Riyadh City was considered as the most important city in Saudi Arabia, attracting a large volume of internal migration. In 1973 there were about 9,659 migrants in Riyadh City which is about 25.3 per cent of the total Saudi migrants (Table 7.6), slightly higher than Jedda with 21.3 per cent.

After them, the following cities were a major pull factor of internal migration in Saudi Arabia, Dammam 15.2 per cent, Al-Khobar 7.6 per cent, Mecca 6.7 per cent, Taif 5.1 per cent, Medina 3.0 per cent, and the rest of the country about 15.4 per cent.

The high proportion of migrants in Riyadh City is because it is the seat of the government and it is the headquarters of the various ministries and government institutions. As a result, it has an abundance of job opportunities. Riyadh City is also the cultural city of the country and there are a number of educational institutions such as King Saud University, Imam Mohammed Bin Saud Islamic University, and a number of science institutes and public libraries. In addition, its geographic position is in the centre of the Arabian Peninsula and it is linked with the rest of the country by a network of paved roads. The construction of the Dammam-Riyadh City railway in October 1951 which connects the city with the East coast, is also another reason. Also the King

Khalid Airport links the city with different parts of the country, as well as with the rest of the world.

As for the volume of immigrants, Riyadh City again came in second place after Jeddah City as a major pull factor for immigrants. The number of immigrants in Jeddah was 22,553 persons according to the 1973 survey, which was about 29.5 per cent of the total immigrant population of 76,520.

Table 7.6

Distribution of National and Non-National Migrants in the Main Cities in 1973

City	National		Non-national		Total	
	Number	%	Number	%	Number	%
Riyadh	9,659	25.3	18,057	23.6	27,716	24.2
Jeddah	8,122	21.3	22,553	29.5	30,657	26.7
Dammam	5,793	15.2	5,879	7.7	11,672	10.2
Al-Khobar	2,886	7.6	3,135	4.1	6,021	5.3
Mecca	2,561	6.7	7,556	9.9	10,117	8.8
Taif	1,926	5.1	4,552	5.9	6,478	5.6
Medina	1,152	3.0	3,189	4.2	4,341	3.8
Other	6,024	15.8	11,600	15.1	17,624	15.4
Total	38,123	100.0	76,520	100.0	114,644	100.0

Source: Ministry of Labour and Social Affairs

Riyadh City followed Jeddah with 23.6 per cent of the total immigrant population in the country. Next was Mecca with 9.9 per cent, Dammam 7.7 per cent,

Taif 5.9 per cent, Medina 4.2 per cent and Al-Khobar 4.1 per cent and the rest of the country 15.4 per cent.

In the early 1970s, it was natural that Jeddah City had the highest proportion of immigrants among Saudi Arabian cities. As a result, the city is more international than any other city, with an International Airport, the main port in Saudi Arabia located on the Red Sea and the main gateway to the holy places of Mecca and Medina.

Between 1980 and 1988 the value of the oil exports from Saudi Arabia dropped by almost two-thirds, from $105,813 million to $20,500 million (Table 7.7). By 1984 there were increasing signs of recession such as reduced governmental expenditure, empty offices and apartment buildings, unused work camps which had been constructed to house Asian and Far Eastern workforces, falling rents and declining wages and salaries for many nationals and foreigners alike. In addition, Saudi Arabia was also suffering from the effects of the Iraq/Iran war in terms of loss of trade and the need to pay large subventions in support of the Iraqi war effort. As a result, the proportion of the total foreign population living in Saudi Arabia began to decline. Again it is not possible to show its distribution in Saudi Arabia nor its actual size, but estimates have been made by many different sources such as ECWA which in 1986 estimated that more than 2 million non-nationals were living in Saudi Arabia (United Nations, 1987, p.182).

Table 7.7

Oil Revenues of Selected Countries

	1980	1984	1988
Country	(in million dollars)		
Iraq	26,296	9,354	10,952*
Kuwait	17,678	10,740	6,295
Libya	21,378	10,631	5,169*
Qatar	5,406	4,386	1,709*
Saudi Arabia	105,813	34,243	20,500*
UAE	19,558	12,978	7,352*

*Provisional or estimated figures

Source: OPEC Statistical Bulletin, 1988

7.4 Migration to Riyadh City

Undoubtedly, the population growth of Riyadh City is attributable to a considerable extent to migration. Riyadh City's position in Saudi Arabia as the headquarters of the government, and a commercial centre, offering numerous job opportunities in comparison with all other cities in the country, has resulted in influxes of migrants from different parts of the country as well as from other countries around the world. This movement of people from inside the country to urban areas, particularly to Riyadh City did not begin until the 1940s (Malik, S., 1973, p.1).

Before the 1940s, Riyadh City was growing very slowly because in those times, city growth depended totally on natural growth which was very slow due to the

fact that the birth and death rates were very high. There are several factors which were responsible for the abnormal growth of the population of Riyadh City which will be discussed later in this chapter. The 1958 drought in Saudi Arabia and the subsequent 7 years created severe damage for farmers in the rural areas and the nomads and semi-nomads in the desert, who were forced to evacuate their land and move to urban areas.

This chapter will illustrate the major features of migration in Riyadh City in terms of size, place of origin, and date of movement. These headings will be examined by utilising the data collected in the 1988 sample survey as well as by several sample surveys conducted by different sources which covers the period between 1968 and 1988.

7.5 Size of Migration to Riyadh City

There have been no formal censuses taken at regular periods for Riyadh City which would yield reliable records on migratory movement, nor have there been vital statistics complete enough to assess the volume of migration by subtracting from the total population increase the balance of births over deaths. As a result, there was no choice for the author but to rely on a few surveys.

The figures on the size of migration estimated by different sources reveal how huge the influx of migrants to Riyadh City was and the influential role of migration on population growth. According to the Household Survey of 1968, the total population of Riyadh City was 281,000, consisting of 130,000 people born in the city and 151,000 people born outside and referred to as migrants.

Thus, over half the population of Riyadh City, namely 54.0 per cent, consisted of migrants (Doxiadis Associates, 1968, p.96). In the 1977 sample survey, 255,281 persons or 43.0 per cent of the sample population were born in Riyadh City and about 342,958 persons or 57.0 per cent of the total sample were born outside the city (SCET - International - SEDES, 1977, p.110).

7.6 Origin of Migrants

Although the 1968 sample survey produced figures for the volume of migrants, it did not classify their origins according to the heads of household. Rather, the survey classified the origins according to individuals. According to the same survey 5 categories of migrants have been distinguished by the household sample survey: Saudis coming from a city, Saudis from villages, Saudis coming from the desert, Arabs coming from outside Saudi Arabia and non-Arabs (Table 7.8).

Table 7.8

The Origin of Migrants to Riyadh City, 1968

Origin	Number of persons	Total %
Saudis from cities	39,220	25.9
Saudis from villages	61,320	40.6
Saudis from desert	7,580	5.0
Other Arabs	40,820	27.0
Non-Arabs	2,220	1.5
Total	151,160	100.0

Source: Doxiadis Associates, Household Sample Survey, 1970

Table 7.8 revealed that the highest proportion of migrants came from villages (40.6 per cent) followed by migrants from other Arab countries and from cities

within Saudi Arabia with 27.0 per cent and 25.9 per cent respectively. Non-Arab migrants comprised less than 2 per cent of the total migrant population.

According to the 1977 survey by SCET-International-SEDES, it was found that about 12.7 per cent of the heads of household were born in Riyadh City, about 46.5 per cent were born in different places within Saudi Arabia, about 4.8 per cent were Saudis born outside Saudi Arabia, about 0.9 per cent were Saudis classified as temporary residents because their main dwelling was outside Riyadh City and 35.1 per cent were temporary foreign residents, including 11.4 per cent from Yemen and Hadhramaut, 9.8 per cent from Egypt and Sudan, 7.5 per cent from other Arab countries and 6.4 per cent from non-Arab countries. Americans and Europeans accounted for only 1.4 per cent of the total Riyadh City population.

Al-Sheikh's study of residential mobility in Riyadh City, using 1974 data, found that only 15.5 per cent of all Saudi heads of household were born in Riyadh City, 36.8 per cent were from urban places and 47.7 per cent were from rural areas (Al-Sheikh, A., 1981, p.115). More recently, Al-Oteiby found in his study of internal migration to Riyadh City in 1987 that a slightly higher proportion, 22.8 per cent, of the Saudi heads of household surveyed were born in Riyadh, 6.0 per cent were born in another Saudi City, 38.8 per cent in Saudi towns, 24.3 per cent in Saudi villages, 6.7 per cent in the desert and 1.5 per cent were from outside Saudi Arabia (Al-Oteiby, M., 1988, p.99).

The household was considered in the 1988 sample survey as a base for examining migration in Riyadh City and like the 1977 survey both Saudis and

foreigners were surveyed. From data collected in 1988 on the place of birth, 32.1 per cent of the total population surveyed in the sample were born in Riyadh City. In comparison with all the previous surveys this was considered a high percentage. This is because almost all the people who were born 30 years ago were married at the time of the survey and owned houses. It also indicates that during the 1980s there has been a growing proportion of people born within the city, and that the direct role of migration in the overall growth of the city is gradually diminishing. The remaining 67.9 per cent of those surveyed were born outside Riyadh City. The largest group among all the heads of household who were born outside Riyadh City consisted of Saudis coming from villages, 36.6 per cent, followed by Saudis coming from cities, 33.3 per cent, foreigners 15.5 per cent and Saudis coming from the desert 14.6 per cent.

The 1988 sample survey showed that out of 1,533 households enumerated 1,041, or 67.9 per cent, arrived in Riyadh City between 1930 and 1988, about 17.2 per cent of the migrant households arriving between 1930 - 1949, and 44.8 per cent between 1950 - 1969. These migrants came to Riyadh City largely as the result of the drought that hit Saudi Arabia in the mid 1950s which demolished agricultural land and the livestock of a large proportion of the Saudi Arabian population and the remaining 38.0 per cent arrived between 1970 and 1988. These migrants were influenced by the effects of 3 different factors which contributed significantly in attracting people from inside and outside the country. The first factor was the economic growth as a result of very rapid increases in oil revenues. This could not fail to affect very deeply

all aspects of economic life in Riyadh City in view of its size in relation to the other important cities in the country. Second, Riyadh City had begun to play a major role as a cultural centre, with the creation by the government of the National University in 1953. Finally, from 1957 the city acquired its total role and importance from its position as the capital city of the country which was responsible by the relocation of the ministries, directorates, and other large bureaucratic government offices from the Western Province to the city which in turn created a high rate of employment and better economic conditions in the city.

In terms of motivation and reasons for migration, the 1988 sample survey gives us evidence that nearly three-quarters (73.9 per cent) of all movements were for economic reasons: those sought a better job constituted the highest proportion of migrants with 40.6 per cent of the total migrant households, those looking for a job formed 22.6 per cent, while job transfer accounted for 10.7 per cent. However, the people who migrated for the sake of education made up 15.8 per cent of all migrants, a sizeable and important proportion. Finally, people who joined their family members comprised 8.5 per cent, and those who came because of marriage 0.3 per cent, while 1.5 per cent stated no reason.

The interesting aspect of this study was finding that 73.9 per cent of all the heads of migrant household had migrated for economic reasons. Because of the differentials in income and social services between Riyadh City and the rest of the country, these migrants came to Riyadh City to search for investment and for better conditions of work to raise their living standard. It is no

surprise that the economic boom which began in 1973 and led to an increase in oil prices enhanced the rate of economic growth of Riyadh City and the result of this was that job opportunities dominated the economic structure of Riyadh City, offering generally the type of work the majority of migrants were particularly looking for to improve their social and economic status. This suggests that job opportunities are comparatively better than elsewhere and explains why so many people came to Riyadh City.

7.7 The Growth of Riyadh City's Population

There has been a great need for estimates of future population. Such information is considered necessary and useful for government and other organisations concerned with social and economic planning. It is very difficult to predict or project future population size or structure with any degree of certainty or precision. A visible similarity is with the predictive capacity of the meteorologist (Knowles, R., and Wareing, J., 1983, p.90).

Population projection extends further into the future and is based on certain assumptions about fertility, mortality and migration. The calculation of future population is mathematically complicated and it should be mentioned that the validity of the projection depends on the reliability of the assumptions made about the demographic processes that will affect population growth over the time period. The major difficulty with assumptions about future population of countries is the estimation of future trends in fertility because it is the predominant force in determining population growth, but, as we have seen, in the case of cities migration also plays a very important role.

In addition, the projection cannot take into consideration direct influences of disasters, catastrophes or major discontinuities, such as war, famine, disease or significant developments in the medical field, nor indirect influences such as economic change within a country.

In the previous discussion on the fertility and mortality (Chapters 5 and 6) of the sample survey in Riyadh City, it is clearly revealed that there is a high growth rate. The main trend is towards the stability of a higher birth rate and this rate will continue in the near future while there is a continuous decline in the mortality rate which produces a natural increase of about 2.8 per cent. We assume that this natural increase, although not rising, will maintain at least the present level due to the improvement in the health services and reduction of mortality to the lowest level possible, especially infant mortality. Besides, there is no indication that the fertility rate will decline substantially from the present level.

In regard to migration, it was the main factor which contributed to the high population growth in Riyadh City during the 1960s and 1970s. In the 1960s migration contributed as much as 75.0 per cent of the total population. The position of Riyadh City as the political, administrative and business centre of the country inevitably attracted a massive number of in-migrants to work in development projects. In addition, its significance as the centre of the country made the city attract immigration from many countries as was noted in the previous discussion.

Table 7.9 contains population estimations for Riyadh City for 1900 - 1990 which have been published by different sources, and are presented in Figure 7.1. Annual growth rates have been calculated for the intervening periods, to give some idea of average growth of population, although the reliability of the estimates is certainly very questionable (see Figure 7.2).

Table 7.9

Growth of the Population of Riyadh City: 1900 - 1990

Year (AD)	Year (AM)	Population	Growth rate for each 10yr period*	Sources
1900	1317	8,000	-	Historical documents
1910	1327	10,000	25	Historical documents
1920	1338	19,000	90	Philby, St.J.
1930	1348	27,000	42	Historical documents
1940	1359	46,000	70	Town Planning Office
1950	1369	82,000	78	Twitchell
1960	1379	155,000	89	Town Planning Office
1970	1390	350,000	125	El-Sharif, A.
(1974	1394	666,840)	-	1974 Census
1980	1400	910,000	160	Town Planning Office
(1985	1405	1,200,000)	-	Makki, G.
(1988	1408	1,345,406)	-	1988 Sample Survey
1990	1410	1,442,344	58	1988 Sample Survey

*Calculated by the author

Source: El-Sharif, A. 1988

Two things are immediately apparent from Table 7.9. First, the first 30 years of the twentieth century saw the foundation of Saudi Arabia which resulted in

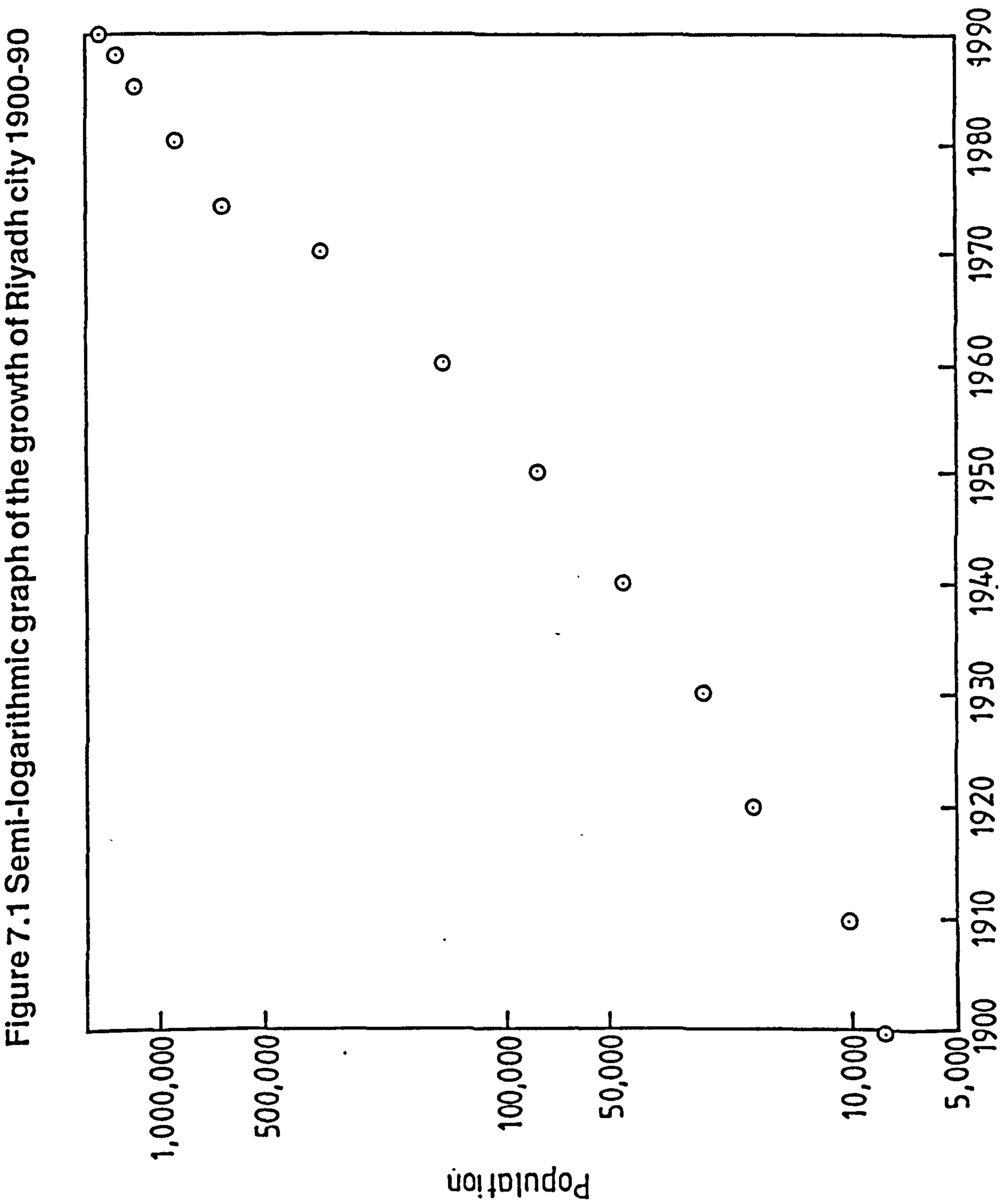
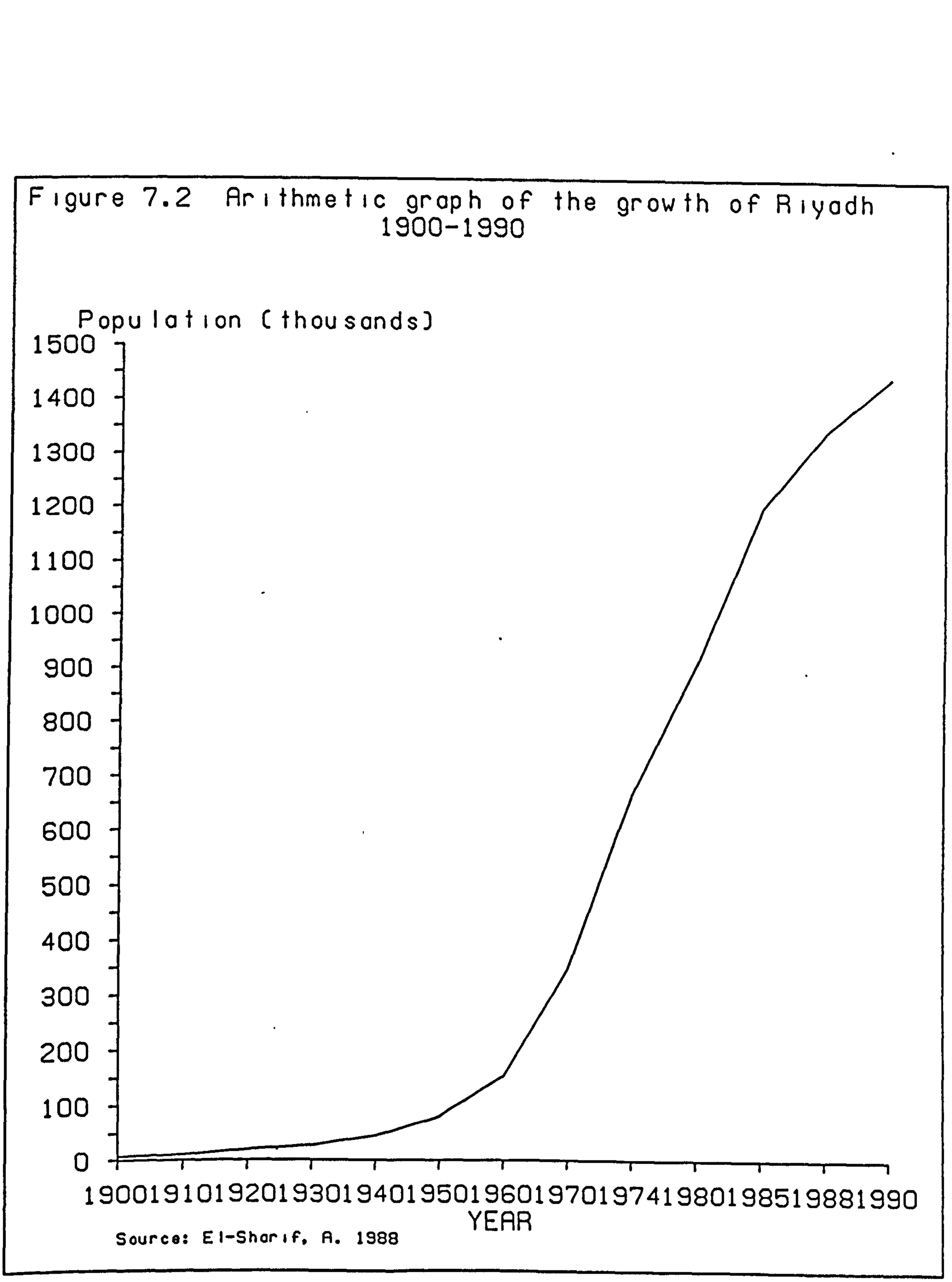


Figure 7.1 Semi-logarithmic graph of the growth of Riyadh city 1900-90
Population
1,000,000
500,000
100,000
50,000
10,000
5,000
1900
1910
1920
1930
1940
1950
1960
1970
1980
Year
Source: El-Sharif, A. 1988

Figure 7.2 Arithmetic graph of the growth of Riyadh 1900-1990



Source: El-Sharif, A. 1988

the stability of its social and political status. This led to population congregation and continuous increase in their number in the capital city but by 1930 the population was still small, about 27,000. Second, during the next 30 years of the twentieth century, Saudi Arabia witnessed economic, social and administrative progress because of the discovery of oil and utilisation of oil wealth which generated the city population in a pattern that Riyadh City had not experienced before, and by 1960 the population had grown by almost six times to over 150,000. Subsequently, growth increased even more rapidly, especially after 1974 when there was a huge influx of migration from inside and outside Saudi Arabia. As a result, there were many job opportunities in the city, fulfilling the 5 development plans. Undoubtedly, this population growth rate was more the outcome of in-migration than the difference between birth and death rates. The population growth of Riyadh City between 1960 - 1980 was higher than the growth in the previous periods, multiplying by nearly six times during 20 years, which was due to external migration producing large numbers to participate in the development projects in Riyadh City. But by the beginning of the late 1970s the government had adopted some procedure to alleviate the huge influx of rural migrants to urban places in the country, such as the distribution of free land and free interest loans to Saudi citizens to build their houses anywhere in the country. The government also created job opportunities in rural areas and small towns by formulating development projects in these areas, and supplying water and electricity. For these reasons, the rapidity of growth of the 1970s was to diminish to some extent, so that the population growth rate in the 1980s was around 6.0 per cent annually.

The Saudi Arabian Central Planning Organisation in 1965 found that the Riyadh City population increased from 169,000 to 198,000 between the summer of 1962 and the autumn of 1963 with a growth of 12.6 per cent annually. After almost a year and a half the population reached 231,000 with an 11.7 per cent annual growth rate from 1963 figures (Al-Sheikh, A., 1981, p.33).

According to the Doxiadis 1968 Survey, there were about 10,000 estimated migrants and 180,000 people in private households in Riyadh City in 1962, so the migration rate was 5.5 per cent and the overall growth rate 7.5 per cent. At this stage of the growth of the city, Doxiadis Associates analysed the components of growth, and found that between 1960 and 1968 the population of Riyadh City increased by 88.0 per cent or by 140,000 persons. The survey found that 100,000 migrants in private households in the city indicated that they came to the city in 1961 or later. After the adjustment for the collective households not covered by the survey, it was estimated that there were 105,000 net migrants. Doxiadis found that as much as 75.0 per cent of the total population increase between 1960 and 1968 was due to net immigration and only 25.0 per cent or 35,000 persons was attributed to natural increase. In 1967 alone, 19,860 migrants of private households were in the city. If there was a 1.0 per cent average death rate, the actual number of migrants that came to Riyadh City during 1967 would have been 20,000. The total population of the city was established to be about 250,000 in 1967, so the migration growth was 8.0 per cent. Therefore, if one adds the 2.0 per cent natural increase the overall increase for that year was 10.0 per cent (Doxiadis Associates, 1970, p.86).

In addition to what we have said earlier, the projection for the size of the Riyadh City population at some future date is based on a set of various factors such as knowledge of the past population growth, the availability of the potential resources in Riyadh City and the general plan of the government towards the development of the capital city. There have been endeavours of population projection for Riyadh City.

SCET-International-SEDES made a series of population projections for Riyadh City for 1977 - 1990. The 1974 census population figures were taken as base of these projections which have been prepared for the Saudi population and foreign population as well as for the total population the city. These factors were taken into consideration in projecting the future Saudi population in Riyadh City, the total population of Saudi Arabia, the natural growth rate, the attraction of large cities and Riyadh City's share among the large cities (Table 7.10).

Table 7.10

Projection of Saudi Population in Riyadh City to 1990, with both High and Low Forecasts (in thousands)

Saudi	Forecast	1977	1978	1970	1980	1985	1990
Saudi Arabia in general	H	4,901	5,048	5,190	5,356	6,209	7,198
	L		5,024	5,150	5,279	5,973	6,758
Large cities	H	1,681	1,828	1,979	2,136	2,989	3,978
	L		1,804	1,930	2,059	2,753	3,538
Riyadh City's share of large city population: %		28.9	29.3	29.7	30	32	33
Riyadh City	H	485	536	588	641	956	1,313
	L		529	573	618	881	1,168

Source: SCET-International-SEDES, Riyadh Action Master Plan, 1977

In projecting Saudi population, there were 2 alternative natural rates, first a high forecast was based on a 3.0 per cent increase, assuming that the birth rate would remain unchanged during the period. Second, a low forecast was based on a 2.5 per cent increase and it was speculated that the increasing urbanisation in Saudi Arabia would reduce the fertility rate. As for the migration and the city's share of the Saudi population, it was assumed that the Riyadh City share among the large cities in the country would be gradually increased from 28.9 per cent in 1977 to 33.0 per cent in 1990 as the city dominates the political, administrative and business activities in Saudi Arabia. It also assumed that the large cities in the country would continue to attract rural migrants as the country industrialises and manpower is needed in these cities.

Table 7.11 shows the projection of the foreign population in Riyadh City for the year 1990 which was based on 2 hypotheses. The first (high forecast) assumed a moderate decline in the growth rate of the immigrants as a direct outcome of the government's desire to train a Saudi labour force. The rate of growth of the foreign population was 17.0 per cent per annum in 1977 declining to about 10.0 per cent in 1980, to 5.0 per cent in 1985 and to 0.0 per cent by 1990. According to this projection, the foreign population of Riyadh City would be sustained at a maximum of 668,000 from 1990 onwards. The second low forecast assumed an extreme decrease in foreign population growth. It would decline from 15.0 per cent in 1977 to minus 3.0 per cent by 1985. It was assumed that this might happen if the Saudi government decided to reduce foreign labour at the risk of slowing the economic growth rate and provide a rapid increase in Saudi labourers in the maintenance and service sectors. The total number of immigrants was expected to be around 317,000 by 1990.

Table 7.11

Projection of Total Foreign Population in Riyadh City

1977 - 1990 (in thousands)

		1977	1978	1979	1980	1985	1990
High forecast	% growth rate p.a.	17	17	17	10	5	-
	Total	205	241	280	325	520	668
Low forecast	% growth rate p.a.	15	12	10	3	-3	-
	Total	205	237	265	290	345	317

Source: SCET-International-SEDES, Riyadh Action Master Plan, 1977

The projection of the total population for 1990 was calculated as follows - the 2 high forecasts of the Saudi and immigrants' population were added together to provide a high forecast for the total population. Likewise, the 2 low forecasts were added together to produce a low forecast for the total population. The total population of Riyadh in 1990 was estimated by SCET in 1977 to be 1,750,000. However, it was estimated that 10 per cent of these would be temporary residents, about the same as in 1977. The total resident population is thus estimated at 1,600,000 in 1990 of whom 1,150,000 will be Saudis and 450,000 will be foreigners (Table 7.12). From what we know about the present population of Riyadh, those projections made in the 1970s are well above reality, because growth during the 1980s was slower than expected.

What light does the the 1988 sample survey throw on the annual growth rate of the city? The result of the 1988 sample survey indicated that 45 migrants of

the heads of households had been in Riyadh City for only the last 12 months before the survey. This meant that during 1988 the annual rates of the 2 components of growth implied by this situation would be 2.9 per cent and 2.8 per cent for the migration and natural increase respectively, with an overall growth rate of 5.7 per cent.

Table 7.12

Total Population Projection for Riyadh City 1977 - 1990 (in thousands)

	Forecast	1977	1980	1985	1990
Population					
Saudis	H	485	641	956	1,313
	L		618	881	1,168
Foreigners	H	205	325	520	668
	L		290	345	317
Average total population	H	690	966	1,476	1,981
	L		908	1,226	1,485
	Mean	690	935	1,350	1,750
Saudi residents		446	585	850	1,150
Foreigner residents		174	265	365	450
Total resident population		620	850	1,215	1,600

Source: SCET-International-SEDES, Riyadh Action Master Plan, 1977

In projecting the future population of Riyadh City the following factors must be taken into consideration: 1) The effect of the government decision to reduce rural-urban migration by creating agricultural, human and social, and physical infrastructure development projects in rural areas. 2) Migration as the major factor of the city population growth will decline due to the completion of most of the basic infrastructure in the city. 3) A large number of young

people will occupy their position in the labour force. 4) The natural increase will decline slightly as a result of the efforts by part of the population to reduce their family size to less than the size of the family today, through birth control and a rise in the age of marriage, especially among females, as the result of increasing education.

The 1974 census population figures of 666,840 will be taken as the base population figure for the future population growth production of Riyadh City because it was the only official statistic and all other figures are estimations. If we take into consideration the earlier factors, the future population growth can be projected from the past and present rates. The last estimation of the Riyadh City population was 1,200,000 in 1985 and from 1974 to 1985 the population increased by 48,469 annually which produced an increase rate of 7.2 per cent annually. This will be used as the past rate and the 5.7 per cent of the 1988 sample survey will be used as the present rate. We assume 2 alternative annual population growth rates. The first one (high rate) is 7.2 per cent. The second one (low rate) is 5.7 per cent for the next 20 years. Thus, if the low rate continues, the population of Riyadh City will reach 1,579,077 in the year 2008. If, on the other hand, the high rate continues, the population might reach 1,442,344 in 1990 and 2,314,786 in the year 2008 (Table 7.13).

Table 7.13

Population Projection for Riyadh City, 2008

Year	High Projection	Low Projection
1974	666,840	666,840
1980	957,654	894,899
1990	1,442,344	1,274,998
2008	2,314,786	1,579,077

Source: Projected by the author

7.8 Summary

In Saudi Arabia, migration on a significant level began following the oil price explosion of 1973 - 1974 and the huge increase in revenues which followed. Immigration during the early days of oil exploration was related to the demand for skilled and unskilled labourers, chiefly for the oil industry, and they were small in number. During more recent decades, particularly the 1970s and 1980s, increased immigration was largely the result of various government projects which inevitably required the recruitment of both skilled and semi-skilled workers from abroad.

Before 1975 immigrants were predominantly Arabs by nationality and origin, coming mainly from the Arabian Peninsula, then increasingly Asian workers came from the Indian sub-continent and from Oriental countries.

Certainly, the demographic effects of immigration were mainly changes in the age-sex structure of individual cities as well as the structure of the total population.

With regard to internal migration, some evidence was obtainable to explain certain movements. For instance, the substantial increase in the Eastern Province before 1970 was associated with increased activities in the oilfields, and the increase in Riyadh City since 1955 was a consequence of increased commercial activities and government infrastructural projects. Some other parts of the country such as the south-western region experienced population declines simultaneously thus indicating a drift of out-migration from the cities and villages to Riyadh City, Jeddah City or Eastern Province cities.

Indubitably, the amount of migration into Riyadh City was enormous in the period 1968 to 1988. The analysis on the relation between size, origin and date of movement revealed that Riyadh City has attracted migrants from all over the country since 1930 when the fortified walls were levelled to the ground. In this regard the rural area is considered the main supplier of the migratory movement to Riyadh City, since it supplied the city with 51.0 per cent of all heads of household in 1988. Moreover, the development of a recent trend of in-migration and immigration to Riyadh City appears to indicate that the influence of the city has extended to attract numerous migrants from outside Saudi Arabia.

The progress of migration to Riyadh City has evolved as direct result of its position as the capital of the country, the centre of activities and from its

geographical location in the centre of the Arabian Peninsula and the Islamic world. It was also affected by the influx of migration from rural and urban places and to a great extent after transferring the diplomatic bodies from Jeddah to Riyadh City in early 1983. These events have greatly affected the present situation regarding the Riyadh City population. The city's strength dominates various socio-economic aspects in Saudi Arabia. As a result, its influence has been extended far beyond the country's borders in attracting immigrants.

The peculiar patterns of movement to Riyadh City have emerged from a variety of forces, the strongest of which are as follows:

1. The construction of the road network, the railway and the airport connect the city with other important centres in the country and the outside world.

2. The discovery of water which became very important during the drought years of 1957 - 1964 as nomadic and rural migrants were attracted to the city.

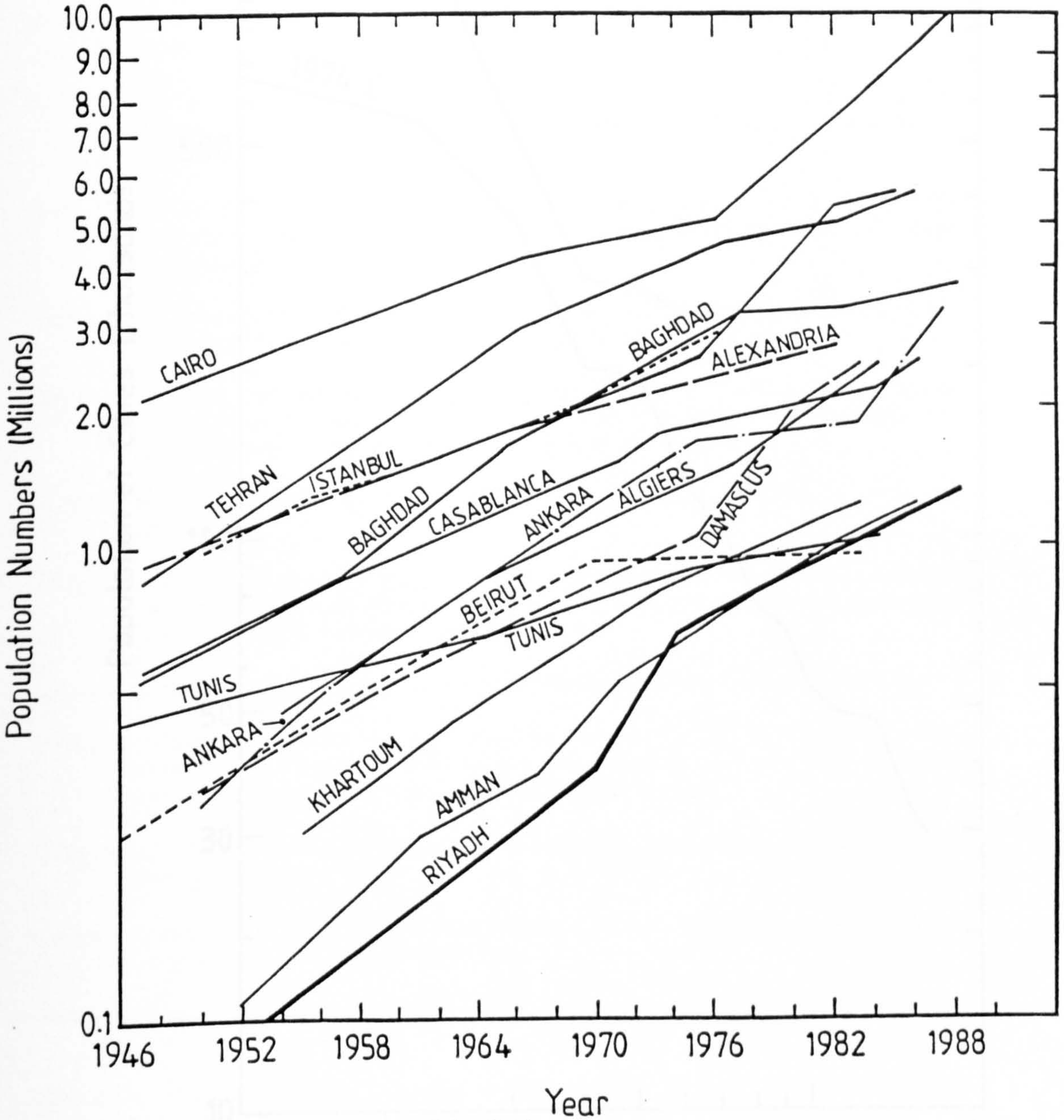
3. From the year 1957, government offices were transferred from Jeddah to Riyadh City which resulted in the dominance of the city due to the concentration of economic activities, governmental offices and services, the availability of educational, social and cultural service and the availability of jobs and communications. This is an overwhelming factor influencing in-migration to the city.

4. The variation in the socio-economic conditions between Riyadh City and other parts of the country has changed rapidly in favour of the city, which in turn has accelerated migration into the capital.

The above factors have exerted a great influence on the migration process to Riyadh City resulting in the increasing centrality of the city, so direct movement into the city has been predominant which may weaken the effect of distance and the intervening obstacles as factors in the migration process.

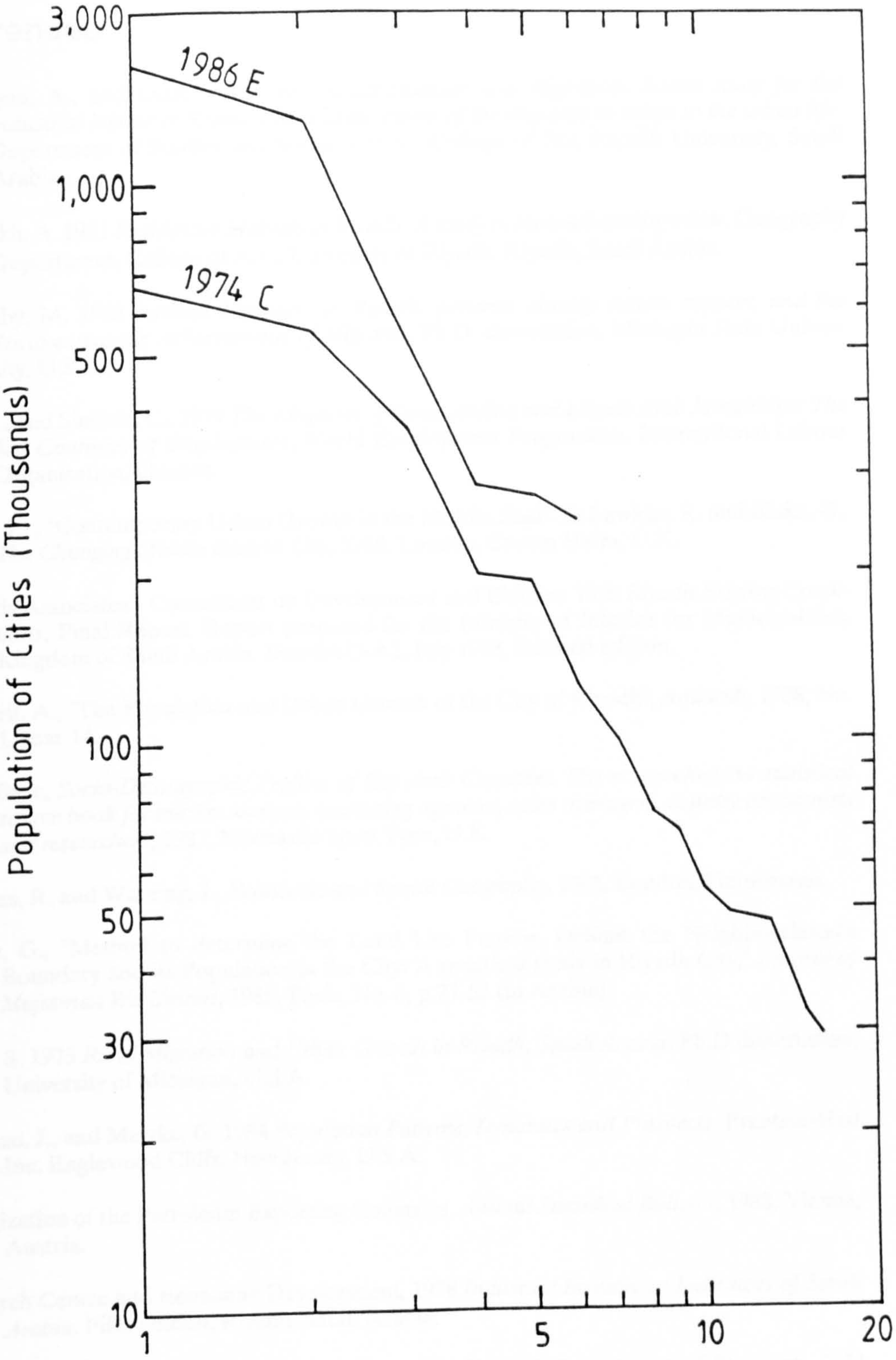
The study projects that the Riyadh City population will rise from 1,274,998 to 1,579,077 between 1990 and 2008 according to the low projection which is 5.7 per cent annually, and it will rise from 1,442,344 in 1990 to reach 2,314,786 at the end of the year 2008 according to the high projection which is 7.2 annually. Obviously, from humble and small beginnings earlier this century, Riyadh is rapidly becoming one of the major cities in the Middle East, although it is, of course, still much smaller than Cairo, Tehran, Baghdad, Istanbul, Alexandria and Ankara, but its recent relative growth has been more rapid than many of these cities (Figure 7.3). On the other hand, other Saudi cities are also growing rapidly, so Riyadh, though the primate city, is not so primate as many other major capitals, like Tehran and Baghdad. Saudi Arabia still has a rather binary city size distribution, as Jedda is not very much smaller than Riyadh, having an estimated 1,300,000 inhabitants in 1986 (Figure 7.4).

Figure 7.3 Recent growth of some large cities of the Middle East



Source: (updated from Clarke, J.I. 1980)

Figure 7.4 City-size distribution of Saudi Arabia, 1974 and 1986



E = Estimate

C = Census

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PART III

POPULATION COMPOSITION

Chapter Eight

Age And Sex Structure

Introduction

The developing countries of the world have youthful pyramids; those under 20 years of age, for instance, comprise more than half of the total population. This situation leads to a high dependency ratio and a high number of people entering the labour source annually which can bring severe economic and social complications. Saudi Arabia in this matter does not differ markedly from the rest of the developing nations.

The study of the age and sex structure of a population is very important in identifying the factors which influence the population composition, in recognising the relationship between those factors and other demographic variables and in explaining the demographic characteristic of the population and what kind of human resources it contains. The knowledge of the size of population in each age group according to each sex is very crucial in development planning and awareness of population needs.

Factors affecting population growth of any nation are fertility, mortality, and migration. A population with a high birth rate will have a large proportion of young people, whereas one with a low birth rate will have a smaller proportion of young people. Mortality affects the population composition much less than fertility, but its reduction usually leads to a more youthful population. Selective migration has an influence on the age and sex composition of the original

and destination societies, especially for part of the national population, for instance in provinces, cities, villages, or even particular districts within cities, migration has a great effect on age- structure, and mostly affects a specified age group. Nearly all types of migrations include a large percentage of young people. For instance, any area encountering a great deal of out-migration generally has fewer young people in the age group 20 - 45, while a place or an area with a large volume of in-migration may show an excess of young adults. Disasters such as wars and tribal conflicts which might affect the age-composition of an area, have not been relevant since unification.

These factors are not all entirely independent but any modification of one of those variables inevitably affects the remaining factors. However, the analysis of those factors assists us to perceive their effects on the level and the change of growth, and also the connection with other aspects such as marital status, economic activities and the educational status.

The analysis of the age and sex structure of Riyadh City is a very important demographic matter, first because the population has benefited from numerous projects and developments which provide better living and health services resulting in a very low mortality rate at the same time as a high birth rate, giving a high natural growth. Secondly, the job opportunities in the city encourage migrants from other cities, rural and nomadic areas, resulting in a population increase of greater dimensions than any other city in the country. Finally, growth has affected the economically active population, or the labour force, in Riyadh City, which comprises mainly of men.

8.1 Age Structure

Age distribution is an essential factor in the structure of any population since it can serve as an index of the labour force and can clarify the productive capacity of the population group concerned. In the developed countries, with high standards of living and literacy, population pyramids assume a more or less cylindrical shape with an even distribution of population in all age groups. In those societies the number of old people in the age group of 65 and over may be of the same proportion as children of less than 10 years of age. On the other hand, in the less developed countries, the population pyramids seem to be quite conical, which indicates that there is a large proportion of young persons at the bottom of the scale and only a small number of old people at the top.

8.1.1 Age-structure in 1962 - 1963

The 1962 - 1963 census age-structure of the Saudi Arabian population followed the general pattern of Arab countries in the Middle East. The distribution by age group clearly revealed the extreme youth of the population while the proportion of old people was very low. The fact was attributable mostly to the high fertility level coupled with a steady decline in mortality similar to other developing countries reflecting a high natality, a very young age structure and growth potential.

Table 8.1

Percentage Age Groups in Saudi Arabia in 1962 - 1963, Jordan in 1961 and France in 1963

Country	Year	Age Groups		
		0 -14	15-65	65 +
Saudi Arabia [1]	1962-63	44.2	53.1	2.7
Jordan [2]	1961	45.4	50.1	4.5
France [3]	1962	24.8	62.6	12.6

Sources:

1. Department of Statistics, 1963

2. Department of Statistics, 1964

3. Demographic Yearbook, 1963

Table 8.1 reveals the general pattern of the age structure of the Saudi Arabian population in the 1962 - 1963 census, along with the Jordanian population age structure in the 1961 census which were different from a developed country such as France which had a low level of natality and mortality. The Saudi Arabian and Jordanian age structures were weighted at the base of the pyramid with 44.2 and 45.4 per cent of the total population being under 15 years in 1962 - 1963 and 1961 respectively. In contrast, in France the proportion of under 15's in 1962 was only 24.8.

The high percentage of children in Saudi Arabia led to circumstances which the Saudi government had to face in providing different underlying services, extra nourishment and a variety of consumption commodities. For example, in the 1970's there was a shortage of school buildings which urged the govern-

ment to hire private buildings and to modify schools, especially elementary and intermediate schools.

The adult age group (15 - 64) were 53.1 and 50.1 per cent of the total population in Saudi Arabia and Jordan, much lower than in France because in developed countries with low fertility and mortality, there has been a diminishing proportion of children.

The age group of 65 and over was found to be only 2.7 and 4.5 per cent of the total population in Saudi Arabia and Jordan respectively. This proportion was very low like most of the Arab countries. By comparison, the 65 + age group in France was almost 5 times more than in Saudi Arabia. The low proportion of old people to the total population in Saudi Arabia was an indicator that life was short and that malnutrition, low awareness of hygiene and the spread of epidemic diseases to some extent reduced the proportion of old people in Saudi Arabia as well as in other Arab countries.

8.1.2 Age-Structure in Selected Cities and Towns, 1962 - 1963

The 1962 - 1963 age structure for cities and main towns is presented in Table 8.2. Several important points may be drawn from these data. First, it is interesting to find similarities in the age groups 10 - 29 and 30 - 49 in cities such as Riyadh, Mecca, Jedda, Medina, and Dhahran because these cities were considered centres of migration for young adults in the late 1950s and the early 1960s and produced a high proportion of people in those two age groups in the cities, compared with percentages for the total population of the Kingdom

as well as the main towns such as Unayzah, Qatif and Hofuf. It is worth mentioning that the 10 - 29 age group contained a high percentage (42.6) of young children aged 10 - 14.

Secondly, the proportion of children under 10 years in Taif, Unayzah, Qatif and Hofuf was higher than that found in the major cities as well as for the whole country, due to their smaller size and their lower attractiveness to young people of working age. This meant that young people of working age left to search for work and education in the adjacent large cities.

Thirdly, the highest proportion of the age group 30 - 49 and the lowest proportion of children under 10 years of age among these cities were found in Dhahran. This is due to the fact that the city contained new residential settlements and was populated almost entirely by the employees of ARAM-CO, whose ages mostly range from 20 to 50.

Fourthly, the people aged over 50 years of age were more strongly represented in the towns such as Unayzah, Qatif and Hofuf which lost a high percentage of people aged between 20 to 40.

Table 8.2

Percentage of Age Groups and Sexes in Some Cities in Saudi Arabia 1962-1963

City	Age Group (Percentage)				Sex	
	< 10	10-29	30-49	50 +	Male	Female
Riyadh	35.5	38	19.5	7	57	43
Mecca	35	36	22	7	53	47
Jedda	34	35	23	8	57	43
Madina	36	35	21	8	52	48
Taif	42	37	17	4	54	46
Unayzah	43.3	29	19.2	8.5	44	56
Dhahran	14.7	35.7	42.8	5.9	53	47
Qatif	41.0	30.5	20.2	8.3	46	54
Hofuf	38.5	29.4	22.0	10.1	48	52
Kingdom	37.8	30.8	21.4	10.0	-	-

Sources:

Al-Ruwaithy, M., 1980

Central Department of Statistics, 1963

El-Sharif, A., 1969

Al-Jassem, M., 1972

Finally, the patterns of sex composition in the major cities and main towns reflected to some extent the socio-economic conditions in the different areas in the country, and the variation of the proportion between the cities and the main towns in Saudi Arabia reflected the volume of migration in each area. The 1962 - 1963 census data shows a predominance of males in cities like Riyadh, Mecca, Medina, Jedda, Taif and Dhahran because many men came to these cities without wives or children, especially men from distant parts of

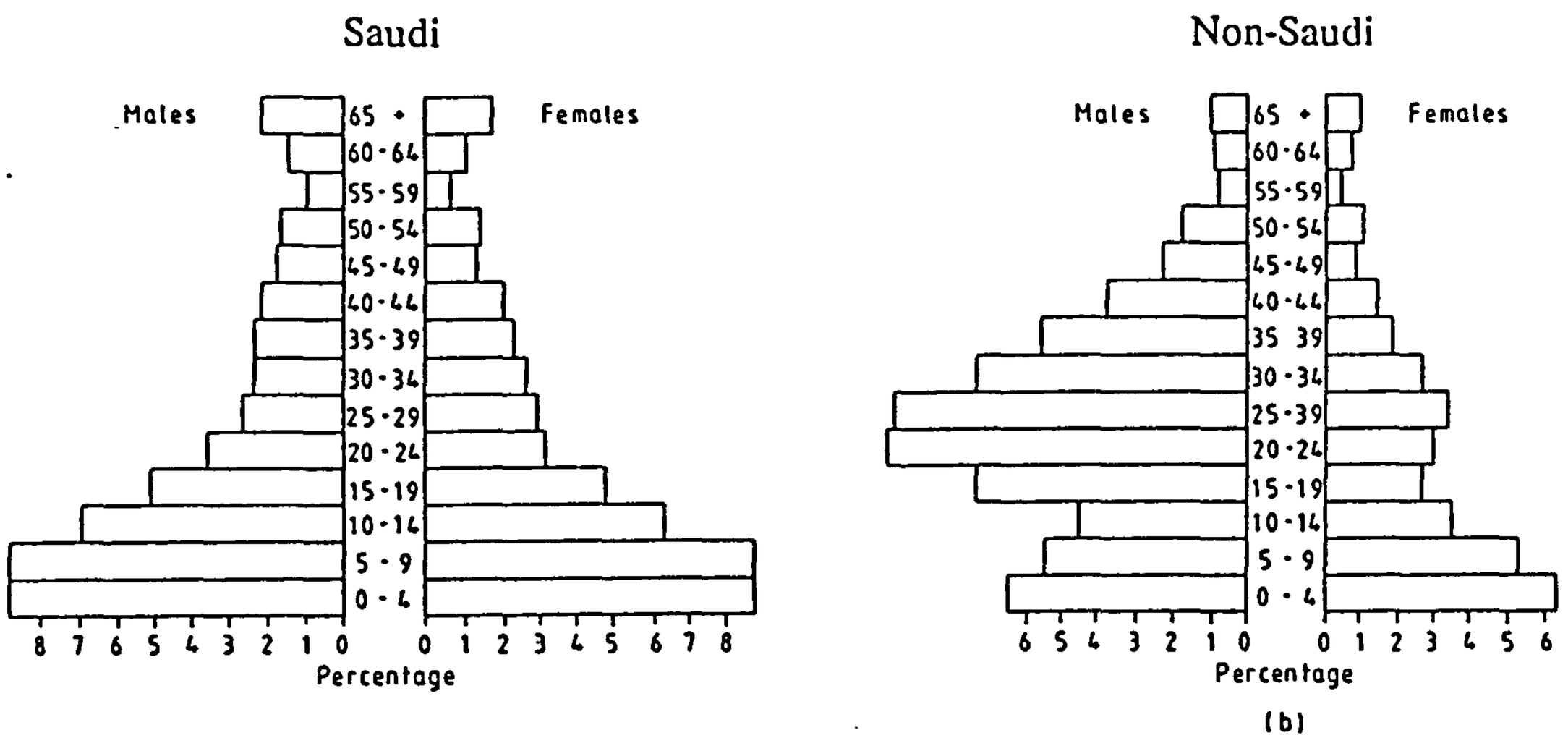
the country or from abroad, e.g. Yemenis, Hadhramis, and other foreigners who work for the government or other private companies. The preponderance of young adult males among out-migrants greatly affected the sex structures of the main towns such as Unayzah, Qatif and Hofuf, where the proportion of females was higher than in the major cities. The rural areas and small towns lost vast percentages of working adult males which resulted in the degrading of the labour force and the economy of these places. This in turn resulted in still more people leaving their areas to look for better jobs, leaving wives and children in the villages or in their original homes.

8.1.3 Age Structure 1974

By 1974 the proportion of the under 15 age group had risen to nearly one half or 48.7 per cent of the Saudi population (Table 8.3 and Figure 8.1a). By comparison, some of the developing countries with high proportions of persons under 15 were Ghana (47 per cent), Tanzania (47 per cent), Syria (49 per cent), Libya (49 per cent) and Algeria (48 per cent). On the other hand, in developed countries like Japan, Switzerland and Sweden the figures for the same age group were 24 per cent, 23 per cent and 21 per cent respectively.

The proportion of Saudi adults (15 - 64) had declined from 53.1 to 47.3 per cent of the total population, while the proportion of old people (65 years and over) still comprised only 4.0 per cent, in contrast to the advanced countries where the proportion of persons 65 years and over were already Sweden (15 per cent), Norway (14 per cent), United Kingdom (14 per cent), West Germany (14 per cent), Austria (15 per cent), Denmark (13 per cent) (Peters, L.,

Figure 8.1 Saudi and non-Saudi population by sex and age structure, 1974 census



Source: 1974 census

and Larkin, R., 1979, p.40). This fact was most attributable to the high fertility level that has persisted in the past as well as the steady decline of mortality in the early 1970's. As mortality decline affects mainly the younger age groups, their share had gradually grown inside the total population.

Table 8.3

Saudi and Non-Saudi Population by Age and Sex 1974 Census

Age Group	Saudi			Non-Saudi			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<1	87,148	82,826	169,974	9,914	9,225	19,139	97,062	92,051	189,113
1-4	438,206	441,592	879,798	41,342	39,613	80,955	479,548	481,205	960,753
5-9	529,451	519,954	1,049,405	43,739	41,035	84,774	573,190	560,989	1,134,179
10-14	409,349	381,811	791,160	36,307	26,526	62,833	445,656	408,377	853,993
15-19	305,458	285,995	591,453	57,788	20,566	78,354	363,246	306,246	669,807
20-24	211,081	190,771	401,852	77,759	23,081	100,840	288,840	213,852	502,692
25-29	160,744	175,369	336,113	75,655	26,168	101,823	236,399	201,537	437,936
30-34	145,260	157,651	302,911	57,817	20,807	78,624	203,077	178,458	381,535
35-39	143,764	140,791	284,555	44,030	14,600	58,630	187,794	155,391	343,185
40-44	130-091	127,051	257,142	30,338	11,455	41,793	160,429	138,506	298,935
45-49	104,148	80,412	184,560	18,079	6,622	24,701	122,227	87,034	209,261
50-54	99,763	88,922	188,685	14,577	7,603	22,180	114,340	96,525	210,865
55-59	60,851	38,881	99,732	6,095	3,039	9,134	66,946	41,920	108,866
60-64	90,155	66,679	156,834	6,941	5,249	12,190	97,096	71,928	169,024
65+	132,157	108,368	240,525	7,674	6,738	14,412	139,831	115,106	254,937
Not Stated	456	206	662	616	107	723	1,072	313	1,385
Total	3,048,082	2,887,279	5,935,361	528,671	262,434	791,105	3,576,753	3,149,713	6,726,446

Source:

Saudi Arabia, Ministry of Finance and National Economy, General Statistical Office, 1977

In 1974, the non-Saudi population totalled 791,105, that is to say they comprised 11.8 per cent of the total population and according to the population

census, the male proportion was 66.8 per cent, giving a general sex ratio of 201.4. It is very obvious from Table 8.3 and Figure 8.1b that the total male population outnumbered the female by almost 3 to 1 between the ages of 15 and 40, giving an average sex ratio of 295.8.

Figure 8.1b also shows that the non-Saudi population aged between 15 - 64 was 528,269, 66.8 per cent of the total, whilst the population under 15 years of age was 24,771, 31.3 per cent of the total population. The non-Saudi population was therefore dominantly composed of young adult males for the following reasons:

(a) Employers generally chose members of the economically active age group; especially aged 20 - 39.

(b) Most immigrant workers usually came along without their families, and bachelors did not get married until they had spent a long period of time working and were financially capable of raising a family.

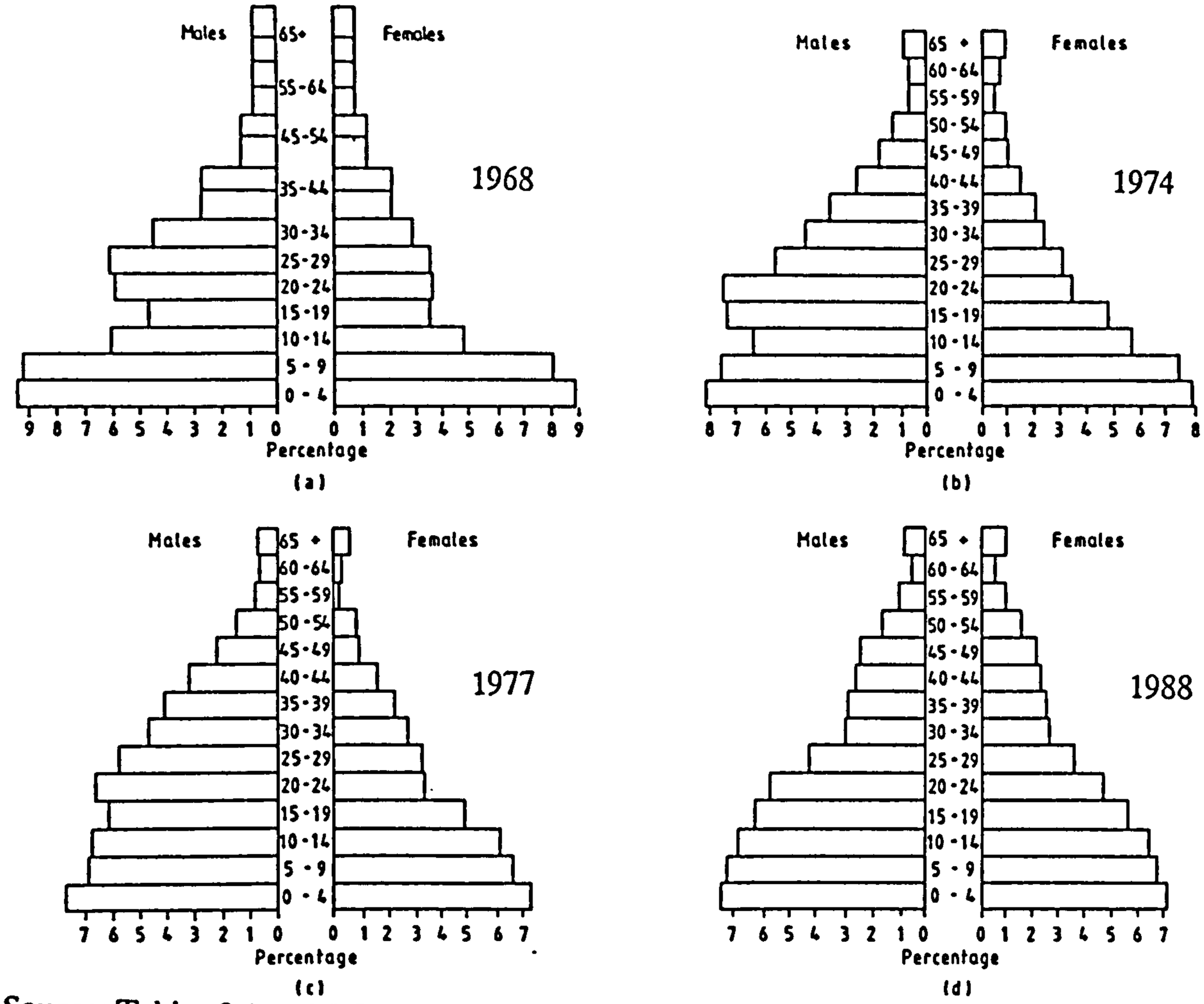
(c) Most of the employers preferred single males to work for them in order to reduce expenses and enable the employees to work for as long hours as necessary without the intervention of family matters.

(d) The government has issued instructions not to permit every foreigner to bring his wife, but to confine permission to specific groups such as teachers, physicians, and engineers. As for the rest of the labour force, they are not allowed to bring their wives (Al-Fakeer, 1980, p.165).

8.1.4 Age Structure in Riyadh City

Using the age-sex pyramid approach, Tables 8.4 and 8.5 and Figure 8.2 illustrate graphically the changes in the age-sex structure of the total popula-

Figure 8.2 Riyadh city age-sex population pyramids 1968 - 1988



Source: Tables 8.4 and 8.5

tion of Riyadh City from 1968 until 1988. The 1968 age pyramid (Figure 8.2a) demonstrates an irregular shape which reflects rapid in-migration. Although Riyadh City in the sixties encountered a high fertility rate as well as high mortality, it was found to have a young population, with a high percentage in the lower age groups. In addition, according to the 1968 sample survey conducted by Doxiadis Associates, 85.0 per cent of the household heads of Riyadh City's population were born outside the city and well over half of the population of the city, namely 65.0 per cent, consisted of migrants. Moreover, 75.0 per cent of its annual growth rate was ascribed to migration alone and only 25.0 per cent to the natural increase (Doxiadis, 1970, p.86). The increase of migrants, the majority of whom were single males of prime adult age and who only subsequently set up households and families in the city, was indicated in the bulge of 20 - 44 male age group. Increased mortality rates in the older age groups of both sexes caused a narrowing at the top of the population pyramid. The proportion of the total population who were males was greater than that of females from infancy to 65 years and over. The influx of migrants changes the sex structure, as a result of: (a) the inflated categories among them either of single males coming to Riyadh City in search of jobs or married ones who first arrived alone and brought their families later on having found employment and accommodation, and (b) by possible under-reporting of girls (Doxiadis, 1968, p.88).

Table 8.4

Percentage of Riyadh City Population by Age and Sex in 1968, 1974 and 1977

Age Group	1968			1974			1977		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	9.4	8.9	18.2	8.2	7.9	16.1	7.7	7.4	15.1
5-9	9.2	8.1	17.3	7.6	7.4	15.0	6.9	6.7	13.6
10-14	6.0	4.8	10.8	6.4	5.6	11.9	6.8	6.2	13.0
15-19	4.7	3.5	8.2	7.4	4.7	12.1	6.2	4.9	11.1
20-24	5.9	3.6	9.4	7.5	3.4	10.9	6.7	3.4	10.1
25-29	6.1	3.5	9.6	5.6	3.0	8.7	5.8	3.3	9.1
30-34	4.5	2.9	7.4	4.5	2.3	6.8	4.7	2.8	7.5
35-39	5.9	3.7	9.7	3.6	2.0	5.6	4.1	2.3	6.3
40-44				2.6	1.4	4.1	3.2	1.7	4.8
45-49	2.8	2.1	4.9	1.8	0.9	2.6	2.2	1.0	3.2
50-54				1.3	0.8	2.1	1.5	0.9	2.4
55-59	1.4	1.0	2.4	0.7	0.4	1.1	0.8	0.3	1.2
60-64				0.7	0.6	1.2	0.6	0.4	1.1
65+	1.1	0.9	2.1	0.9	0.8	1.8	0.7	0.7	1.5
Total %	57.0	43.0	100.0	58.8	41.2	100.0	57.9	42.1	100.0
Total pop.	160,420	120,800	281,260	389,267	272,660	661,927	346,348	251,891	598,239

Sources:

1. Doxiadis Associates, Household Sample Survey, 1970

2. Central Department of Statistics, 1974

3. SCET - International - SEDES, Riyadh Action Master Plan, 1977

Table 8.5

Age-Sex Composition of the 1988 Sample Survey of Riyadh City Population

Age Group	Male		Female		Total	
	No.	%	No.	%	No.	%
0-4	960	7.5	900	7.1	1860	14.6
5-9	928	7.3	861	6.7	1789	14.1
10-14	881	6.9	812	6.4	1693	13.3
15-19	805	6.3	713	5.6	1518	11.9
20-24	708	5.7	580	4.6	1288	10.2
25-29	551	4.3	443	3.5	994	7.8
30-34	378	3.0	336	2.6	714	5.6
35-39	365	2.9	314	2.5	679	5.3
40-44	336	2.6	291	2.3	627	4.9
45-49	309	2.4	271	2.1	580	4.6
50-54	206	1.6	189	1.5	395	3.2
55-59	128	1.0	120	0.9	248	1.9
60-64	67	0.5	65	0.5	132	1.0
65+	100	0.8	108	0.9	208	1.6
Total %		52.8		47.2		100.0
Total pop.	6722		6003		12725	

Source: 1988 Sample Survey

In 1974, an almost analogous shape was still apparent (Figure 8.2b). The most important thing to notice, however, was that the male side was characterised by maturity and the female side by youthfulness, as compared to 1968. Those groups from the ages of 15 and above rise smoothly toward the top of the pyramid with no sudden indentation except for females in the 55 - 59 age group. As mentioned above, the male side represented a maturity phase with an increase in the 15 - 44 age group. This was a result of immigration, including the availability of King Saud University and the Imam Mohammad Ibn Saud Islamic University, a large number of secondary schools and institutions such

as the Institute of Public Administration, the Vocational School, and the Sport Teachers Institute, which attracted a large number of male students from the adjacent areas and cities as well as from the distant parts of the country. There was also a large number of foreigners who worked in government service activities, private sector offices and industrial establishments, etc. Comparing the sexes, the proportion of males was higher in all age groups, because of the selective in-migration of the male population.

The 1977 age-sex pyramid of Riyadh City revealed a similar shape (Figure 8.2c). It had a broad base, indicating on the one hand that birth rates were still high, while the narrow top, on the other hand, reflected high mortality. In this pyramid also, the male side was distinguished by maturity and the female side characterised by youthfulness. Both sides from the ages of 10 and above progress regularly towards the top with no sharp indentation except for females in the 20 - 24 and 55 - 59 age groups and a slight bulge in males in the 20 - 24 age group. Its general irregular shape reflects the effect of migration. Migrants are concentrated in the 20 - 24 age groups, with a high proportion of males. Furthermore, a part of the difference between males and females in the lower age groups is perhaps accounted for by possible under-enumeration of girls. Comparing both sexes together, the proportion of males was greater than those of females at all ages except for 65 years and over which was equal in proportion for both sexes.

The 1988 sample survey age-sex pyramid revealed more of a progressive population composition (Figure 8.2d). It still maintained a broader base,

indicating high birth rates and lowering child mortality. The high fertility and the relatively large proportion of children under 10 years of age in the last 2 decades were demonstrated by the gradual progression of the 10 - 20 age group in the 1988 pyramid. The higher proportion of population at the top of the pyramid is due to the grouping together of all those aged 65 years and over. Comparing the sexes (Table 8.5), there was a higher proportion of males than females in the total population and in all age groups except those over 60 where there was a slight majority of females. The influence of in-migration was still noticeable in adult males, but the higher proportion of both sexes, especially for females in the older age groups, reflects the effect of the improvement in medical and public health facilities in Riyadh City which in this respect surpass the rest of the country. In addition, there is the effect of differential longevity between the sexes.

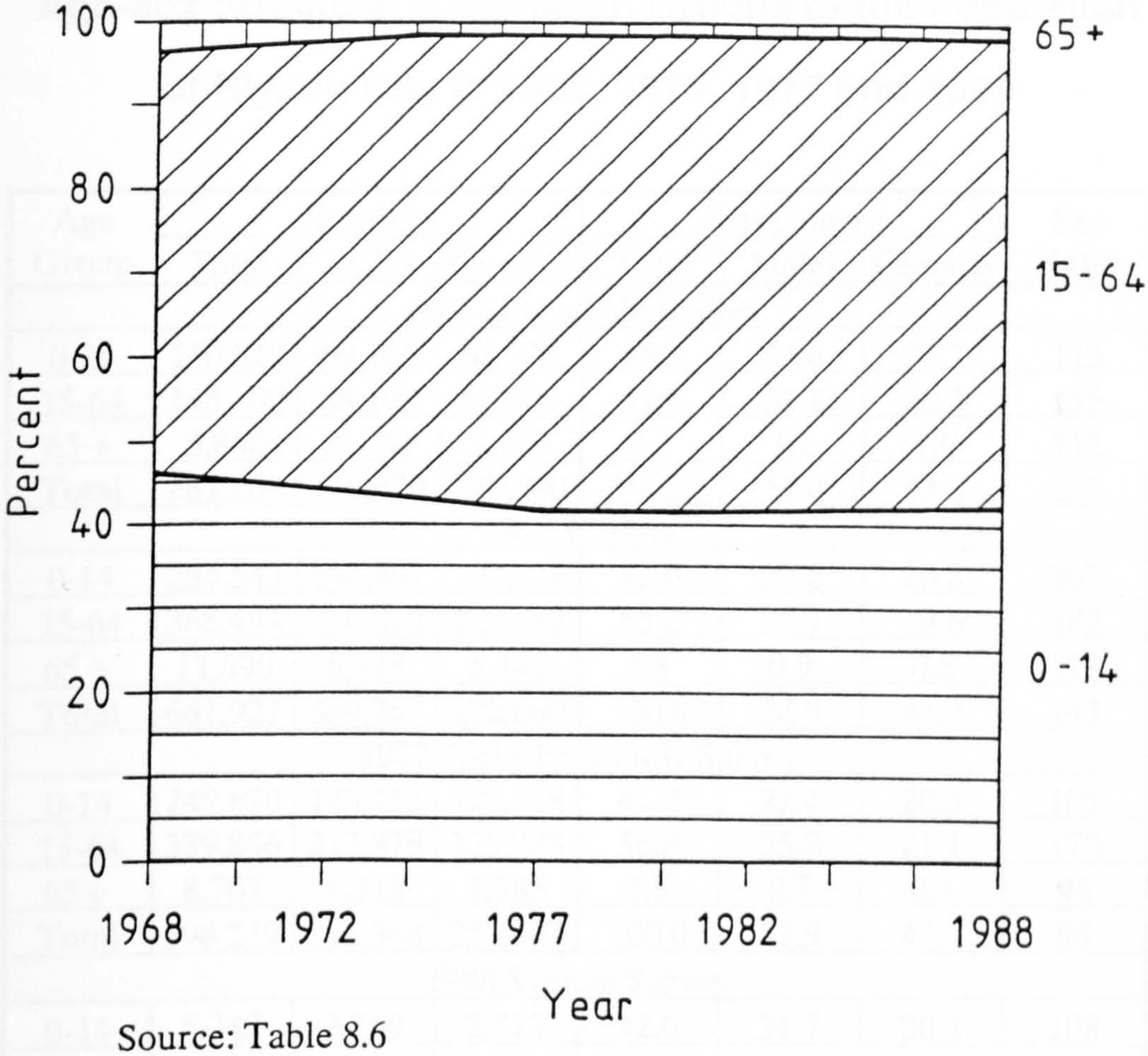
In 1988 the birth rate in Riyadh City was still high and will remain largely uncontrolled because Islam is the backbone of the community and emphasises the blessings of a large family, and because of a general decline in mortality for all age groups. If this trend continues, and the immigration of labourers continues to decrease, then a growing rate of natural increase will predominate for years to come. Thus, the population of Riyadh City will continue to increase rapidly even if migration recedes, and the age-sex pyramid of Riyadh City in the next few decades will continue to maintain the broad base and have a progressive shape.

The age distribution indicates that the Riyadh City population, like that of many capital cities of the developing nations, is largely characterised by a noticeable youthfulness. However, as illustrated by Table 8.4, the percentage of infant age groups 0 - 4 and child age groups 5 - 9, had declined from 1968 to 1977 for both sexes, possibly indicating a trend towards a decline in fertility rate. On the other hand, the percentage of the total population in the age group 10 - 14 rose from 10.8 per cent in 1968 to 11.0 in 1974 and 13.0 in 1977. If this decline of younger age groups continues, the productive age groups will accordingly increase in the future.

In the age groups 15 - 59, the percentage of each 5-year age group fluctuated between declining and increasing due to a number of factors among which are the effects of migration, the result of females being under-estimated, and errors in the data. The proportion in the older age groups, 60 and over, declined in total and in both sexes from 1968, because of the increased proportion in the other age groups, but the absolute numbers have increased from 1968.

Table 8.6 and Figure 8.3 reveal the age-sex structure of the 3 main age groups (0 - 14, 15 - 64, and 65 and over) of the population of Riyadh City in 1968, 1974, 1977 and 1988. The significant feature during this period is the overall decline in the high proportion of children from 46.3 per cent in 1968 to 43.0 and 41.7 per cent in 1974 and 1977 respectively, rising slightly to 42.0 per cent in the 1988 sample survey. The falling trend in the percentage of this group of the

Figure 8.3 The changing proportion of three age-groups of Riyadh city 1968 - 1988



Source: Table 8.6

city population since 1968 is mainly because of the effects of in-migration among the adult age groups.

Table 8.6

Age-sex Structure of the Mean Groups of the Population of Riyadh City in 1968, 1974, 1977 and 1988

Age Group	Numbers			Percentages			Sex Ratio
	Total	Males	Females	Total	Males	Females	
1968 Household Survey							
0-14	130,320	69,200	61,120	46.3	24.6	21.7	113
15-64	145,100	88,100	57,000	51.6	31.1	20.3	155
65+	5,840	3,120	2,720	2.1	1.1	1.0	115
Total	281,260	160,420	120,840	100.0	57.0	43.0	133
1974 Census							
0-14	284,543	146,807	137,736	43.0	22.2	20.8	107
15-64	365,494	236,012	129,482	55.2	35.7	19.6	182
65+	11,890	6,448	5,442	1.8	0.9	0.8	118
Total	661,927	389,267	272,660	100.0	58.8	41.2	143
1977 Socio-Economic Survey							
0-14	249,670	128,152	121,518	41.7	21.4	20.3	105
15-64	339,866	213,878	125,988	56.8	35.8	21.1	170
65+	8,703	4,318	4,385	1.5	0.7	0.7	98
Total	598,239	346,348	251,891	100.0	57.9	42.1	98
1988 Sample Survey							
0-14	5,342	2,769	2,573	42.0	21.7	20.2	108
15-64	7,175	3,853	3,322	56.4	30.3	26.1	116
65+	208	100	108	1.6	0.8	0.9	93
Total	12,725	6,722	6,003	100.0	52.8	47.2	112

Sources:

1. Doxiadis Associates, Household Sample Survey, 1970

2. Central Department of Statistics, 1974 Census•

3. SCET - International SEDES, Riyadh Action Master Plan, 1977

1988 Sample Survey

The age groups 15 - 64 comprise the largest proportion of the total population in all these surveys, increasing from 51.6 per cent in 1968 to 55.2 and 56.8 per cent in 1974 and 1977 respectively, but declining slightly to 56.4 per cent in the 1988 sample survey.

The proportion of the old age group (65 and over) was low and declined from only 2.1 per cent in 1968 to 1.8 and 1.5 per cent in 1974 and 1977 respectively, increasing slightly to 1.6 per cent in 1988. This is similar to trends in most cities of developing countries which have a young population, low average age, and a small proportion of old people. In other words, they have a high birth rate and declining mortality rate especially infant mortality, creating increased proportions of young people, in addition to a high net in-migration in the working age category.

8.1.5 District Variations in Age Structures

The sustained increase in the birth rate in Riyadh City has some advantages and has also created some problems. Some of the advantages are that it has economic and social implications which are immediately beneficial. The Saudi labour force has been expanding rapidly, at least in some sectors, and less migrant labour has been necessary. Among the problems created by the high birth rate are a large demand for (a) school places for both sexes and consequently increasing pressures for expansion of the educated system, (b) health facilities and (c)housing, all of which were widely recognised and have been tackled by the government and the private sector in recent years.

The sustained impact of fertility increase is readily apparent for each district in the age pyramids depicted in Figure 8.4. Gradual progressions were recorded by all age groups for North, South and Khuras districts in the 1988 sample survey, except for East district which has a slight bulge in the 15 - 19 age group for both sexes.

Table 8.7

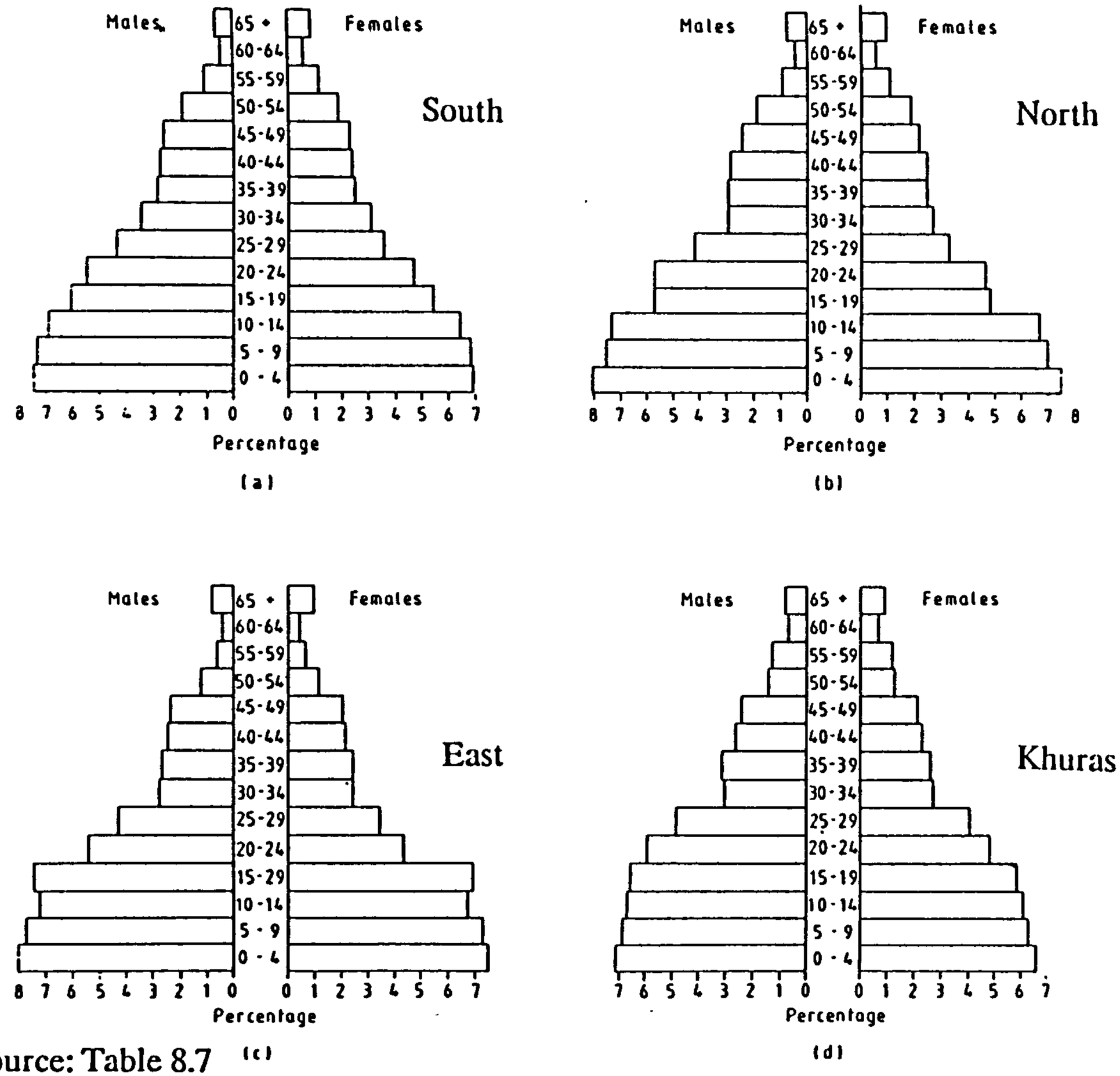
Percentages of Population by Age and Sex for Districts of Riyadh City in the 1988 Sample Survey

Age Groups	South			North			East			Khuras			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
0-4	7.9	7.4	15.3	7.3	6.8	14.1	7.9	7.4	15.4	7.0	6.5	13.5	7.5	7.1	14.6
5-9	7.4	6.9	14.1	7.2	6.7	13.8	7.6	7.2	14.8	6.8	6.2	13.0	7.3	6.7	14.1
10-14	7.2	6.6	13.7	6.8	6.3	13.1	7.1	6.6	13.7	6.6	6.0	12.5	6.9	6.4	13.3
15-19	5.6	4.7	10.3	6.0	5.3	11.3	7.3	6.8	14.1	6.5	5.8	12.3	6.3	5.6	11.9
20-24	5.6	4.5	10.0	5.4	4.6	10.0	5.3	4.3	9.6	5.9	4.8	10.8	5.7	4.6	10.2
25-29	4.1	3.2	7.3	4.3	3.5	7.8	4.2	3.4	7.5	4.8	4.0	8.8	4.3	3.5	7.8
30-34	2.9	2.6	5.5	3.4	3.0	6.4	2.7	2.4	5.2	3.0	2.7	5.7	3.0	2.6	5.6
35-39	2.9	2.4	5.4	2.8	2.4	5.2	2.6	2.4	5.0	3.1	2.6	5.7	2.9	2.5	5.3
40-44	2.8	2.4	5.1	2.7	2.3	5.0	2.4	2.1	4.6	2.6	2.3	5.0	2.6	2.3	4.9
45-49	2.4	2.1	4.6	2.6	2.2	4.8	2.3	2.0	4.3	2.4	2.1	4.5	2.4	2.1	4.6
50-54	1.9	1.8	3.7	1.9	1.8	3.7	1.2	1.1	2.3	1.4	1.3	2.7	1.6	1.5	3.2
55-59	1.0	1.0	2.0	1.1	1.1	2.2	0.6	0.6	1.2	1.3	1.2	2.4	1.0	0.9	1.9
60-64	0.5	0.5	1.0	0.5	0.5	1.1	0.4	0.4	0.7	0.7	0.7	1.4	0.5	0.5	1.0
65+	0.8	0.9	1.7	0.7	0.8	1.5	0.8	0.9	1.6	0.8	0.9	1.7	0.8	0.9	1.0
Total %	53.0	47.0	100.0	52.7	47.3	100.0	52.4	47.6	100.0	52.9	47.1	100.0	52.8	47.3	100.0
Total pop.	2060	1825	3885	1389	1240	2629	1629	1474	3103	1644	1464	3108	6722	6003	12725

Source: 1988 Sample Survey

The age distribution in Table 8.7 indicates the youthful population of each district of the city with percentages of 41.1, 43.3, 43.9 and 39.0 being under 15 years of age for North, South, East and Khuras districts respectively. For ages 15 - 64, the percentages are 57.4, 55.0, 54.5 and 59.3 and for ages 65 and above, very small percentages of 1.5, 1.7, 1.6 and 1.7 for North, South, East and Khuras districts respectively. Generally, therefore, the East district population is

Figure 8.4 Riyadh city's districts age-sex population pyramids in the 1988 sample survey



Source: Table 8.7

youngest and Khuras the oldest. The significant features of the age distribution of the two sexes in this survey is that males consistently outnumber females in each 5-year age group.

8.2 Sex Structure

Statistics on sex are usually accurate and easy to obtain. There is no vagueness about the meaning of male and female, but in some societies like Saudi Arabia statistical data may not be completely reliable, as in some communities the giving of information about females is unbecoming.

The data of the 1974 census revealed that there were 4,543,926 males and 3,064,566 females in Saudi Arabia, so that the sex ratio was 115.6 males per 100 females. The reason for the high percentage of males in the country is because it attracted overseas immigrants intending to work, especially after the introduction of the development projects. Migration to Saudi Arabia induced young males of working age. Most came without their families, or, if they were bachelors, they spent a period of time establishing themselves in their work in order to save some money to get married. Until this happened, more young single males came to work in Saudi Arabia, and the predominance of males continues to increase as long as the country was in the development stage and needed more skilled workers.

8.2.1 Regional Variations in Sex Structure

There were variations in the development programmes throughout the country. Consequently, the attraction of the labour force varied between

regions and rural and urban areas, which resulted in a variation of the internal movement of people and of those from overseas. Some regions and cities attracted workers, while other places did not. Thus, in Saudi Arabia the sex structure has varied from region to region and from urban areas to rural areas. In addition, there were variations between the different age groups, and between the Saudi population and foreigners.

The proportions of males and females have varied greatly from one principality to another in Saudi Arabia. Table 8.8 shows sex ratios for each principality in 1974, for Saudi and non-Saudi population together. The sex ratio for all people living in Saudi Arabia in 1974 was 115.5. A principality by principality analysis reveals that high sex ratios were found in what were then considered to be urban areas, while the lower sex ratios were found in the remote or rural areas.

We can classify the data in Table 8.8 into 3 groups according to sex ratio. The first group has the lowest sex ratio in Saudi Arabia, varying between 89 - 99 males per 100 females. These principalities were Asir, Baha, Hail and Jizan. Baha had the lowest sex ratio at 89.2, followed by Hail, Asir and Jizan which had 97.2, 97.6 and 98.5 respectively. These 4 areas had a large number of out-migrants, primarily males, who went to different areas across the country. In 1974 these areas were considered rural areas where the people depended on agriculture and pastoralism, which did not have great value in the early 1970's when compared with prosperous economic expansion in other areas. Those areas, therefore, continuously lost a large proportion of their young

males when they left their homelands to search for better work in different areas across the country with good job opportunities.

Table 8.8

Sex Structure in the Principalities of Saudi Arabia in 1974

	Male (%)	Female (%)	Sex Ratio
Principality			
Mecca	54.1	45.9	118.0
Riyadh	55.5	44.5	124.9
Eastern Province	56.2	43.8	128.5
Asir	49.4	50.6	97.6
Medina	51.8	48.2	107.3
Jizan	49.6	50.4	98.5
Qasim	51.4	48.6	106.0
Hail	49.3	50.7	97.2
Tabuk	56.5	43.5	130.0
Baha	47.1	52.9	89.2
Najran	52.2	47.8	109.2
Northern Frontiers	53.4	46.6	114.6
Jawf	51.8	48.2	107.6
Qurayyat	54.6	45.4	120.5
Total	53.6	46.4	115.5

Source:

Central Department of Statistics, 1974 Census

The second group has more males than females, with sex ratios between 101 to 109. This pattern corresponds with the world average which is between 106 - 109, and is found in Medina, Qasim, Najran and Jawf principalities. The development schemes in these areas were better than those of the first group, so more young people were encouraged to settle and search for a better job.

The third group had a higher proportion of males than is usually found in Saudi Arabia, with sex ratios of 110 and over. Tabuk and Eastern Province came in first place in this group with a sex ratio of 130.0 and 128.5 respectively. It is followed by Riyadh, Qurayyat, and Mecca principalities and Northern Frontier whose sex ratios were 124.9, 120.5, 118.0 and 114.6 respectively. The main reason for high sex ratios in the Eastern Province, and in Riyadh and Mecca principalities was that job opportunities in these areas were abundant after the Saudi Arabian government embarked on the first 5-year development plan. These principalities contained the major cities such as Riyadh, Dammam, Mecca, Jedda and Taif which tended to attract a large number of migrants, mainly males from small cities and rural areas and from other countries around the world.

Despite the relatively small size of the Tabuk, Qurayyat and Northern Frontiers principalities and their great distance from major urban centres, it appeared that a high proportion of males existed in these areas. These high sex ratios were primarily due to the fact that these areas were situated at the Saudi Arabian borders which attracted large numbers of immigrants, mainly males, from neighbouring countries who came to these areas looking for jobs. In addition, these areas had patrol stations and military encampments which contained large numbers of single males.

8.2.2 Principality Variations in Sex Structure by Age Group of the Total Population (Saudi and Non-Saudi)

The purpose of this section is to examine the variation in the sex ratio between the different age groups for all peoples who lived in Saudi Arabia for indigenous persons and for foreigners according to principalities. It is obvious that migration, by its 2 broad divisions of internal and external, affects the sex composition, resulting in large differences in the sex ratio.

Data for sex ratios by age groups and principalities of the total population in Saudi Arabia (Saudi and Non-Saudi) in 1974 are provided in Table 8.9. It reveals that external migration had raised the male proportion among the active age groups for the country as a whole and in different principalities.

In the age group of less than 1 year old, the sex ratio was 104.8 of the total population in Saudi Arabia. Indeed, this ratio is equivalent to the general average of the sex ratio of less than 1 year old children in most countries, which is usually between 105 and 106. We can determine 3 patterns in Saudi Arabian principalities according to the sex ratio of this group. The first is distinguished by a high number of males as found in Jawf, Qasim and Northern Frontiers principalities. The second is categorised by a high number of females, as in Tabuk, Qurayyat and Hail. The third is characterised by a sex ratio equal with the world average, as found in the remaining Saudi Arabian principalities. However, it should be mentioned here that there were inaccuracies, showing a high number of males and under- enumeration of females. This problem was possibly found in those principalities described as having a high sex ratio. In a

rural environment, as was explained in the second pattern, it was unreasonable that females should outnumber males.

In the age group 1 - 4 years old there were low sex ratios throughout all Saudi Arabian principalities. The sex ratio of the total population of Saudi Arabia was 99.7 males per 100 females. In other words the number of males was equal to the number of females, but the majority of the principalities had low sex ratios and it is rather difficult to put forward an explanation for them. If we assume that the high mortality rate in this age group was very high, the incidence of diseases obviously afflicted males more than females, resulting in low sex ratios in that age group.

It is well known world wide that the sex ratios of males is higher than females at birth, as we mentioned before, but generally this proportion declines with age until parity is achieved, with both sexes equal in proportion. Females are subsequently preponderant in the older age groups, because mortality among males generally exceeds that of females throughout life. Nevertheless, Table 8.9 shows that the overall sex ratio of the total population of Saudi Arabia was extremely different. The male sex ratio had a remarkably high proportion in the different age groups. It went up and down indiscriminately. The sex ratio was 114.4 males per 100 females in the age group 15 - 19, 135.1 in the age group 20 - 24, 117.3 in the age group 25 - 29, and reached 159.7 in the age group 55 - 59. This high proportion of males may be explained by the assumption that there were active foreign elements in the different age groups in the country which were the cause of the discrepancy in the sex ratio. Immigrants come to

Saudi Arabia from Arab and non-Arab countries around the world. They raise the proportion of males and lower the female proportion because most of these foreign people who come from other countries are male immigrant workers.

Table 8.9

Sex Ratios for the Age Groups of the Total Population by Principalities in Saudi Arabia in 1974 Census

Princi-pality	Mecca	Riyadh	E. Prov	Asir	Medina	Jizan	Qasim	Hail	Tabuk	Baha	Najran	N. Front.	Jawf	Quray-yat	Total
Age Group															
<1	106.6	106.5	104.5	104.5	106.1	103.3	110.4	97.4	99.6	106.1	101.6	109.6	116.7	94.1	104.8
1-4	102.3	100.6	101.3	97.5	99.3	100.3	98.1	91.6	100.7	98.1	91.5	99.6	94.0	95.4	99.7
5-9	104.2	102.5	101.9	101.6	103.7	106.6	100.9	92.2	102.4	97.7	100.9	96.6	100.0	109.7	102.2
10-14	112.1	112.5	104.5	103.6	110.3	113.7	111.6	104.9	104.4	99.6	111.8	100.0	109.9	101.0	109.1
15-19	123.8	137.9	131.9	92.4	113.6	93.5	111.3	97.2	128.1	97.2	119.8	102.3	100.0	121.7	114.4
20-24	136.0	175.5	188.8	85.6	105.4	77.3	102.4	83.5	233.7	66.6	135.8	131.1	113.8	160.0	135.1
25-29	128.0	143.6	157.8	81.8	86.4	72.3	86.4	72.0	177.4	62.2	118.8	118.9	104.7	146.7	117.3
30-34	122.0	138.6	149.2	89.6	87.6	82.7	80.3	70.9	168.1	63.9	111.1	118.4	97.1	127.2	113.8
35-39	133.6	136.9	144.4	105.8	95.8	107.6	87.7	72.4	157.2	71.8	137.0	131.1	102.6	130.0	120.9
40-44	129.6	132.2	151.7	103.3	85.9	101.8	97.5	73.0	128.6	67.3	110.9	125.4	94.2	123.6	115.8
45-49	151.4	160.8	178.2	116.1	118.0	123.1	140.6	112.4	136.5	84.9	134.8	143.5	130.6	142.4	140.4
50-54	124.1	134.2	148.1	97.9	116.1	105.9	123.4	104.6	112.9	69.0	101.3	125.2	124.5	107.1	118.5
55-59	155.1	182.7	187.1	125.6	195.5	129.5	166.5	183.0	175.0	120.3	136.9	169.8	135.0	232.0	159.7
60-64	124.7	151.5	166.0	99.0	181.4	91.3	166.0	209.5	144.2	102.2	118.6	189.4	151.5	152.3	135.0
65+	111.0	140.3	152.5	86.3	143.1	87.6	156.4	151.5	119.8	98.1	98.1	180.7	164.9	169.4	121.5
Total	118.0	124.9	128.5	97.6	107.3	98.5	106.0	97.2	130.0	89.2	109.2	114.6	107.6	120.5	115.5

Source

Central Department of Statistics, 1974 Census

8.2.3 Principality Variations in Sex Structure by Age Groups for the Saudi Population

To evaluate the importance of external migration on the sex ratio of the Saudi Arabian population, foreign population may be excluded. Data in Table 8.10 reveal the sex structure of the Saudi population by age group and principality.

By comparing Tables 8.9 and 8.10 we can notice that sex ratios in general are lower among the indigenous population after excluding other nationalities. The sex ratio of the indigenous population was 105.6 males per 100 females compared to 115.5 males per 100 females for Saudi and non-Saudi. It can be noticed also that the sex ratio is lower in all principalities, after eliminating aliens.

Table 8.10

Sex Ratios of Saudi Population for Age Groups by Principalities in the 1974 Census

Princi-pality	Mecca	Riyadh	E. Prov	Asir	Medina	Jizan	Qasim	Hail	Tabuk	Baha	Najran	N. Front.	Jawf	Quray-yat	Total
Age Group															
<1	106.5	105.8	104.4	104.5	105.8	103.2	110.5	97.7	99.4	106.3	101.9	108.0	118.4	91.8	105.2
1-4	101.9	100.0	101.1	97.4	99.1	100.4	98.0	91.4	100.4	98.0	90.4	99.8	93.2	94.6	99.2
5-9	104.2	102.1	101.6	101.4	103.4	106.0	100.6	92.0	102.0	97.5	100.3	95.6	100.3	110.6	101.8
1-14	108.7	109.8	103.1	102.7	109.3	114.6	111.0	104.7	103.3	99.3	108.4	99.6	109.3	100.3	107.2
15-19	109.1	116.7	115.6	87.1	107.9	92.0	105.9	94.8	120.1	94.8	115.2	100.4	95.8	115.2	106.8
20-24	106.9	136.1	152.1	72.5	90.5	70.8	85.9	75.0	219.6	58.0	129.4	126.1	100.8	142.8	110.7
25-29	96.3	104.3	121.4	67.5	70.2	63.3	68.1	63.0	164.2	53.1	110.7	112.2	90.5	132.1	91.7
30-34	96.1	106.0	113.7	77.2	74.4	75.2	67.9	64.6	152.6	56.6	104.1	110.8	81.7	107.0	92.1
35-39	109.2	107.8	116.4	96.0	96.0	100.3	79.0	67.9	146.8	65.8	126.2	124.0	90.9	115.2	102.1
40-44	111.7	111.7	128.0	96.9	79.2	95.7	91.0	70.7	119.2	63.9	107.3	122.1	86.9	113.7	102.4
45-49	136.5	144.2	158.2	110.7	113.6	118.6	136.3	110.0	128.7	81.9	149.7	139.8	125.7	130.4	129.5
50-54	114.9	124.5	134.8	95.0	115.0	104.1	121.1	103.7	108.7	67.3	97.3	122.7	121.4	101.4	112.2
55-59	150.1	175.3	175.8	122.4	200.9	130.8	165.1	182.8	172.8	118.6	137.4	167.8	133.8	230.9	156.9
60-64	124.1	147.8	162.5	98.0	189.7	93.0	165.1	209.2	143.5	102.0	117.5	189.6	151.1	151.2	135.2
65+	111.5	140.1	151.8	85.9	146.6	85.0	156.3	151.3	119.3	97.8	97.1	181.7	164.8	163.1	122.0
Total	107.5	112.1	116.1	93.4	103.2	96.1	101.9	95.3	124.8	87.0	106.0	112.4	103.8	114.7	105.6

Source:

Central Department of Statistics, 1974 Census

The sex ratio of the Saudi population was lower in the different age groups. The variation between the sex ratio of the total population and the Saudi population was very narrow in the age groups for the under 15's and the 55

and over because of the very low effect of external migration on those percentages.

The high proportion of male migrants to Saudi Arabia was clearly evidenced in the excess of males with regard to females in the age group 20 - 24 through 50 - 54 years of age. This gives a real indication that migratory movements usually involve males in the age groups 20 - 44 years.

Table 8.10 shows the effects of the internal migration between Saudi Arabian regions. The regions which had the lowest sex ratio in some of the different age groups give us an approximate indication of early movement from these regions:

1. Asir had a low sex ratio in the age groups 15 - 54 years.
2. Qasim and Medina had the lowest sex ratios in the age groups 20 - 44 years.
3. Jizan and Jawf had low sex ratios in the age group 15 - 44 years.
4. Hail had a low sex ratio in the age groups 0 - 44 years.
5. Baha had a very low sex ratio in nearly all age groups.

Out-migration from Asir and Baha started earlier than other regions because these regions have remained rural, even to the present day. A combination of the rise in world oil prices increased the Kingdom's financial resources in the early 1970's and increased commercial activity in most cities especially in the capital, and the main attraction of males aged 15 - 54 must have been to get employment in the prosperous regions.

Migration from other regions started at least 10 years after Asir and Baha, so that there was a high sex ratio in the age group 45 - 54. Later out-migration was also a result of these areas being relatively distant from the regions which had early economic development.

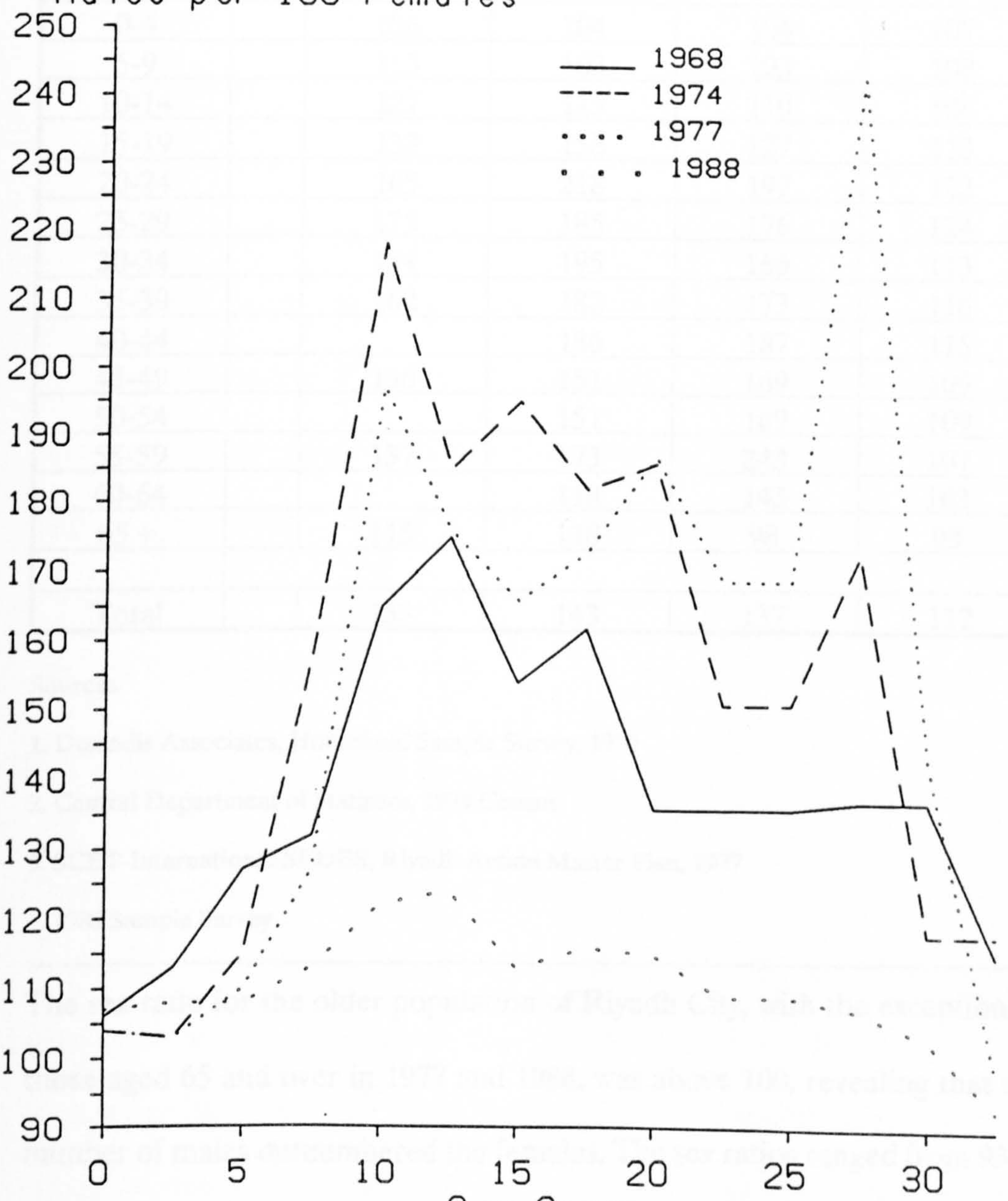
8.2.4 Sex Structure in Riyadh City

The sex structure of Riyadh has long been rather unbalanced and there have been no great changes during the years since 1968, when there was a marked preponderance of males. Many different population features directly affect the sex ratio, of which the immigration factor is one that has mainly caused the predominance of males. Evidence of this can be seen explicitly later when comparisons of sex ratio are made by district.

Table 8.11 and Figure 8.5 depict the changes in sex ratio of the Riyadh City population from 1968 to 1988. The sex ratios of the age groups under 15 years ranged from 103 to 127. This may be attributed to the undercounting of females and high female mortality due to poor parental health care.

In the 15 - 59 age groups male preponderance was even more striking, reaching as high as 243 in the 55 - 59 age group in 1977. This abnormally high excess of males was the result of a high number of male immigrants at least in 1968, 1974 and 1977.

Figure 8.5 Sex ratios for age groups of the total population 1968 - 1988



Source: Table 8.11

Table 8.11

Age-Specific Sex Ratio of the Total Population of Riyadh City for 1968, 1974, 1977 and 1988

Age Group		1968 (%)	1974 (%)	1977 (%)	1988 (%)
0-4		106	104	104	107
5-9		113	103	103	108
10-14		127	115	110	108
15-19		132	158	127	113
20-24		165	218	197	122
25-29		175	185	176	124
30-34		154	195	166	113
35-39		162	182	173	116
40-44			186	187	115
45-49		136	151	169	109
50-54			151	169	109
55-59		137	173	243	107
60-64			118	143	103
65 +		115	118	98	93
Total		133	143	137	112

Sources

1. Doxiadis Associates, Household Sample Survey, 1970

2. Central Department of Statistics, 1974 Census

3. SCET-International-SEDES, Riyadh Action Master Plan, 1977

4. 1988 Sample Survey

The sex ratio for the older population of Riyadh City, with the exception of those aged 65 and over in 1977 and 1988, was above 100, revealing that the number of males outnumbered the females. The sex ratios ranged from 93 in the 65 and over age group in 1988 to 143 in the 60 - 64 age group in 1977. The reasons for these high sex ratios include such variables as migration of males

(most of the older people came to live in Riyadh City with their children because of the availability of various facilities, especially when they reached retirement age), undercounts of females, and high female mortality. Generally, the Riyadh City sex ratio increased with age until 25 - 30, then varied until 60, after which it declined rapidly.

The sex ratio in the 1988 sample survey, especially in the working age groups, was significantly lower than in the previous period, as a result of the relative decline in male immigrants in the adult age group, correct counts of females and improving mortality among females in the older age groups. In addition, it should be stated that the 1988 sample survey is not very appropriate for detailed examination of sex ratios as the number of the sample is too small, so no great reliance should be placed on the results. The sex ratio for the total population in Riyadh City as a whole in the 1988 sample survey was 112 males for every 100 females. In the past surveys of the city population in 1968, 1974, and 1977, these imbalanced ratios were 133, 143 and 137 respectively.

8.2.5 District Variations in Sex Structure

District analysis of the sex ratio of the city (Table 8.12) reveals that there was only a slight variation in spatial patterns. The sex ratio of 111 in Khuras district was lower than the city's ratio, while the sex ratio of 113 in South district was higher than the city's. North and East districts had the same ratio as the city. This outcome may be attributed to the fact that the number of immigrants in South district was higher than in other districts, evidenced particularly by the relatively high sex ratios in the age groups 20 - 24, 25 - 29 and 35 - 39.

Table 8.12

Age-Specific Sex Ratios of the Total Population and by District of Riyadh City in the 1988 Sample Survey

District	North (%)	South (%)	East (%)	Khuras(%)	Total (%)
Age Group					
<4	107	106	106	107	107
5-9	108	107	107	110	108
10-14	108	109	107	110	108
15-19	115	117	109	112	113
20-24	119	125	122	120	122
25-29	122	131	123	121	124
30-34	115	112	111	112	113
35-39	117	120	111	116	116
40-44	116	116	115	114	115
45-49	115	113	116	112	114
50-54	109	107	109	113	109
55-59	104	105	111	108	107
60-64	100	105	100	105	103
65+	90	91	92	96	93
Total	112	113	112	111	112

Source:

1988 Sample Survey

8.3 Dependency Ratio

In general, dependency ratios are not favourable in developing nations, due to their relatively high fertility levels, and large population proportions under 15 years of age (Peters and Larkin, 1979, p.39). One feature of the population of Saudi Arabia in the last 3 decades was the very high dependency burden. The trend of dependency ratio did not vary greatly between 1974 and 1986 in Saudi Arabia because of the high fertility level and over 40.0 per cent of the

population is in the under 15 age group. The total dependency ratio has increased from 111.7 in 1974 to 112.6 in 1986, reflecting mainly the differences and change in the proportions of the population of 65 years and over rather than in the proportion of the population under 15 years of age (Table 8.13).

Table 8.13

Crude Dependency Ratio for the Saudi Population in the 1974 Census and in 1986 and the Sample Population of Riyadh City, 1988, by Districts

Community	Dependency Ratio		
	Children	Aged	Total
Saudi Arabia in 1974	103	8.7	111.7
Saudi Arabia in 1986	102.8	9.8	112.6
Riyadh City in 1968	89.8	4.0	93.8
Riyadh City in 1974	77.8	3.3	81.8
Riyadh City in 1977	73.5	2.6	76.1
Riyadh City in 1988	74.5	2.9	77.4
North District	71.6	2.7	74.3
South District	79.1	3.0	82.1
East District	80.5	3.0	83.5
Khuras District	65.9	2.9	68.8

Sources:

1. Doxiadis Associates, Household Sample Survey, 1970

2. Central Department of Statistics, 1974 Census

3. SCET-International-SEDES, Riyadh Action Master Plan, 1977

4. ECWA, 1987

5. 1988 Sample Survey

In spite of the fact that the population between 15 and 64 years of age in Riyadh City comprised 51.6 per cent in 1968, 55.2 per cent in 1974, 56.8 per cent in 1977, and 56.4 per cent of the total population in the 1988 sample survey,

Riyadh City's dependency ratio is high due to the youthfulness of the population and the high fertility rate.

In fact, in Saudi Arabia not everyone between 15 - 64 years is economically productive, particularly among females. For instance, in 1974 only 5.0 per cent of the women in Saudi Arabia were economically active. On the other hand, a sizable fraction of the population aged 12 - 14 and 65 years and over is economically active. In the next chapter this matter will be discussed.

The crude dependency ratio of Riyadh City from 1968 to 1988 and for each district in the 1988 sample survey is demonstrated in Table 8.13. It reveals variations in the proportion of children and aged people which influence the total dependency ratio. The aged dependency ratio did not vary considerably from 1968 to 1988 as did the child dependency ratios. On the whole, both these dependency ratios were declining, causing a decline in the total dependency ratios. This decline in the crude dependency ratio was as a result of the decline in the general fertility rate and the increase of immigrants in the young age groups. Also, this high dependency ratio has placed an enormous burden on the heads of the households and the government.

In the 1988 sample survey there was about 77.4 persons of 'dependent age' for each 100 persons of 'working age' in Riyadh City as a whole, 74.5 of those being children and young people and 2.9 in the old age group. The less youthful districts, Khuras and North, have a lower dependency load than the youthful districts, East and South. The total dependency ratio varies from 68.8 in

Khuras district to 83.5 in East District. These variations are directly related to the youth proportion of the dependency ratio.

Furthermore, in Khuras and North districts the youth dependency proportions of the entire dependency ratios were 65.9 and 71.6 respectively. Against this, East and South districts accounted for the highest youth dependency percentages of their total dependency ratios, 80.5 and 79.1 respectively. The productive population in the latter 2 districts have to sustain a heavier burden of dependent youth than those in the other districts in the city due to the high fertility rates.

With regard to the percentage of the aged dependency, there was very little variation at the district level of analysis. The population of South and East districts had a similar load, which was 3 persons per working male, and Khuras district had the same old-age dependency as Riyadh City, while the lowest was found in North district.

However, the dependency ratio for the population of Riyadh City implies that a substantial load of dependency has to be supported by the economically active population. This load appears to be increasing, due to the high fertility rate.

8.4 Summary and Conclusion

The preceding discussion of the age-sex structure and the dependency ratio of the population in Saudi Arabia in general and Riyadh City in particular, confirms that the population is still young. The massive in-migration caused

by the huge transfer of government employees from Jedda in 1957, and the massive number of students and businessmen arriving in the city seeking education or opportunities of founding profitable firms, have modified the age-sex structure of Riyadh City population to a huge extent. But in the 1980's the high natural increase forms a major factor of Riyadh City's growth because of the high fertility rate and a continuous decline in mortality rates in general and infant and childhood mortality rates in particular. This, and the negative involvement of the Saudi Arabian government in the provision of family planning services in order to reduce the fertility trends are all significant factors which have led to the general youthfulness of the population.

However, the age structure's spatial distribution shows little variation between the city's districts. High fertility rates, high percentages of children of less than 15 years, low infant and childhood mortality rates, high impact of the selective in- migration on age and sex, and high dependency ratios are the characteristics of the population of all Riyadh City districts.

With regard to sex ratio, the number of males greatly exceeded females throughout the period under study. This is the effect of the role which the city is undertaking as the seat of government, so many infrastructural developments being carried out which attract many commercial activities and lead to a significant excess of males over females. Internal and external migration play a prominent part in the high sex ratios in all principalities and for all the age groups.

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Chapter Nine

Marriage in Saudi And Riyadh Society

Introduction

Marriage in Saudi Arabia is early, it is universal and has a very strong impact upon the fertility of the population. This is applicable to all sections of the population, even in large cities such as Riyadh, although, there are some signs that urbanisation is beginning to change the pattern of marriage among the more educated section of the population. Analysis of the marital status of the population of Riyadh City in particular will throw light on the changes taking place within the country.

Marriage in Saudi Arabia has always been a religious obligation and desirous for a full-grown person. Tradition, society and religion are the main factors in the high incidence of marriage in Saudi Arabia and other Arab countries. Marriage still holds a premium position in the life of Arab people, sanctioned by religion and sustained by the prevailing social environment. The traditional Arab way of life centred around farming or tribal settlements in the lonely desert, and accordingly places a high emphasis on the establishment of homes. Within the primitive or agrarian existence, the joys and comforts of family life are further strengthened by its communal role as a social, economic and mutual protection unit (Hassan, S., 1980, p.129).

Islam regards celibacy as the worst of all states. Marriage bears immeasurable value. Almost everyone gets married, and it is, as a matter of fact, impossible to be considered a fully mature person without marrying and raising children.

Marriage in Saudi Arabia is conducted according to the Islamic shariah and corresponds to customs prevalent in the Arabian Peninsula. Marriage is the only recognised form of union, because Islamic shariah forbids and denounces any form of sexual intercourse outside marriage.

Islam motivates Moslems to get married, procreate and multiply at an early age. The Holy Quran states that

> "Wealth and sons are allurements of the life of this world" (Sura XVIII, Verse 46).

It is said in the Hadith:

> "Marry and multiply, and I will be proud of you on the Day of Resurrection."

And in another Hadith:

> "O young people, whoever among you is able to marry, should marry, and whoever is not able to marry is recommended to fast, as fasting diminishes his sexual power."

Also Islam encourages people to have more children regardless of the potential of the family income. The Holy Quran states:

> "Kill not your children on a plea of want; we provide sustenance for you and for them" (Sura VI, verse 151).

The marital status of a population refers to the proportions of single, married, widowed and divorced persons. Both the age-structure and the sex ratio directly influence these proportions, but so do social institutions and economic conditions. Therefore the marital status of a population is never constant. Unfortunately, there have been few studies of geographical variations in marital status (Clarke, J., 1972, p.80).

The study of the marriage and divorce rates have an immense importance in demographic analysis. Also important is the relative distribution of the marital status according to age because it has a firm correlation with the annual number of births and what results from it is directly linked with the population growth and the economic burden which society must carry for its people. Additional to that the divorce phenomenon is considered as an important

social event which must be defined and enumerated as much as possible because it has an effect on the population status.

The absolute number of marriage contracts which are made annually expresses an indication about the effect upon housing every year. New families contribute to the increasing birth rate and as a result of this high pressure builds up on different service sectors such as health, education, transportation and supplies.

Mortality rates vary according to marital status. It is well known that these rates are less for married people than those for the single, divorced and widowed. Also, marital status has a link with migration, in view of the fact that its incentive for married people is less than among others. Marriage therefore has a correlation with three essential variables: fertility, mortality, and migration. Some researchers consider the marital status as the fourth variable among population elements which must be dealt with in the same way as the other three variables (Sadik, D. and Al-Shernubi M., 1969, p.84).

Marriage and divorce rates vary from one society to another in accordance with socio-economic standards, rural and urban population distribution and the age composition. They also vary within a single community according to the variables which are usually associated with animation, depression and the economic seasons. Customs, traditions and social values which rule in society are also involved (Al-Sadi, A., 1980, p. 238).

It is not possible to construct an up-to-date picture of the recent trend in the marital status of the total population of Saudi Arabia aged 12 years and over. The 1974 census is the only source which has acquired the most modest information about Saudi marital status. Unfortunately, the available data

about marital status does not include the number of bonds of marriage of each man, in order to estimate the proportion of polygamy. Furthermore, government statistical information does not contain the number of marriage contracts or divorces which occur per year, thus making it impossible to analyse them in order to know the population trend in forming new families. Also it does not include the age at first marriage and the amount of time spent in the union, in order to draw a picture of the mean age of marriage.

9.1 Marital status of the Saudi and non-Saudi Population in the 1974 Census

Table 9.1 presents the differences in marital status among the Saudi, non-Saudi and total population aged 12 and over by sex. Although the differences are quite small, some significant contrasts may be observed. As shown in the Table, the total percentage of the indigenous married population of both sexes in Saudi Arabia was 56.2, while for the foreign population, the corresponding percentage was 61.2. The reason behind the high proportion of married people among the non-Saudi was that most of the foreign workers were married but had left their families at home. Among Saudis, 53.0 per cent of men and 59.7 per cent of women were married, while for non-Saudis, the corresponding percentages were 58.6 for males and 67.9 for females. This differential proportion between the two sexes in the non-Saudi population was more drastic than for the indigenous population. This was due to the fact that a large number of immigrant men were married and came to Saudi Arabia without their families, and most of the working non-Saudi females came to the country with their husbands, fathers or brothers, which led to a high percentage of married people, especially among non-Saudis, and to the differential in the age structure between Saudi and non-Saudi (see Chapter 8).

The percentage of unmarried people for both sexes was slightly higher for the indigenous people than for foreigners. For Saudi unmarried males it was 43.0 per cent, while for females it was 26.1 per cent. Comparable percentages for the non-Saudi population were 38.3 per cent for males and 19.2 per cent for females. The low percentage of unmarried non-Saudi females in Saudi Arabia was due to there being little work, other than maidservants or nurses. This means that few women are able to come to the country without husbands, and this accounts for the differential in age structure between Saudi and non-Saudi.

Table 9.1

Percentage Population 12 years and over, by sex and marital status for Saudi and non-Saudi in the 1974 census

Sex and Nationality	Never married	Married	Divorced	Widowed	Not stated	Total
Saudi						
Both sexes	34.9	56.2	2.0	6.5	0.4	3,504,283
Male	43.0	53.0	1.2	2.4	0.4	1,820,445
Female	26.1	59.7	2.8	10.9	0.5	1,683,838
Non-Saudi						
Both sexes	33.0	61.2	1.6	3.7	0.5	581,240
Male	38.3	58.6	1.2	1.3	0.6	420,046
Female	19.2	67.9	2.5	9.9	0.5	161,194
Total						
Both sexes	34.6	56.9	1.9	6.1	0.5	4,085,523
Male	42.1	54.0	1.2	2.2	0.5	2,240,491
Female	25.5	60.4	2.8	10.9	0.4	1,845,032

Source: Central Department of Statistics, 1974 Census

The percentage of divorced persons was the lowest for both Saudi and non-Saudi. The proportion of divorced persons among the Saudi population was about 1.25 times higher than that of the divorced among the non-Saudi population. The percentage of divorced among both Saudi and non-Saudi females was higher than among the males. The reason for the lowest percentage being amongst the Saudi population is because Islam considers divorce as the most hateful matter in the sight of God. Thus, it is not encouraged.

The percentage of the widowed was higher than the percentage of the divorced among both Saudis and non-Saudis. Figures in Table 9.1 indicate that the percentage of widowed among the Saudi population was about 1.76 times higher than that for the widowed among the non-Saudi population. Generally, the proportion of females widowed was higher than for males for both the Saudi and non-Saudi population. This was because many non-Saudi people leave the country when they become elderly, and there is therefore a small number of non-Saudis in the older age groups and possibly there is a slight age gap between husband and wife of non-Saudis.

9.2 Age-Sex Differential in Marital Status

The study of marital status by age and sex reveals a clearer picture of the extent to which people of a given age are single, married or have become widowed or divorced.

Table 9.2 and Figure 9.1 illustrate the percentage distribution of the marital status of the population aged 12 years and over by age and sex in the 1974 census. As the table and figure show, the percentage of single males was higher than that of females in all age groups, the differences being greatest between the sexes in the 15-24 age group and to a lesser extent the 25-34 age group. Because the mean age at marriage was higher among men than women, there was a gradual decline of the single male population as age advanced, but this decreased sharply after the 25-34 age group. It declined after the 15-24 age group for females which indicated that a high proportion of females married before they reached the age of twenty or so. Evidence of this was that the highest single female population, 95.2 per cent, was in the less than 15 age group, the percentage decreasing to 41.6, 4.4, 1.6, 1.4 and 1.5 in the age groups 15-24, 25-34, 35-44, 45-54 and 55-64 respectively. These data reflect that the spinsters who had reached over 50 years of age were only about 3.2 per cent of the total single female population of that age, which implied that most women had the chance of marrying and procreating before reaching the age of 50. Society views single women over 30 years of age with doubt, and their only chance of marriage is to a widower or divorced man, or to a married man who already has a wife or wives. On the other hand, the proportion of single males in the total population aged 12 years and over was higher than that of single females in the 1974 census. This is due to the fact that men assume all responsibility when they marry, and are more involved in continuing their education than women, which means that they tend to marry later.

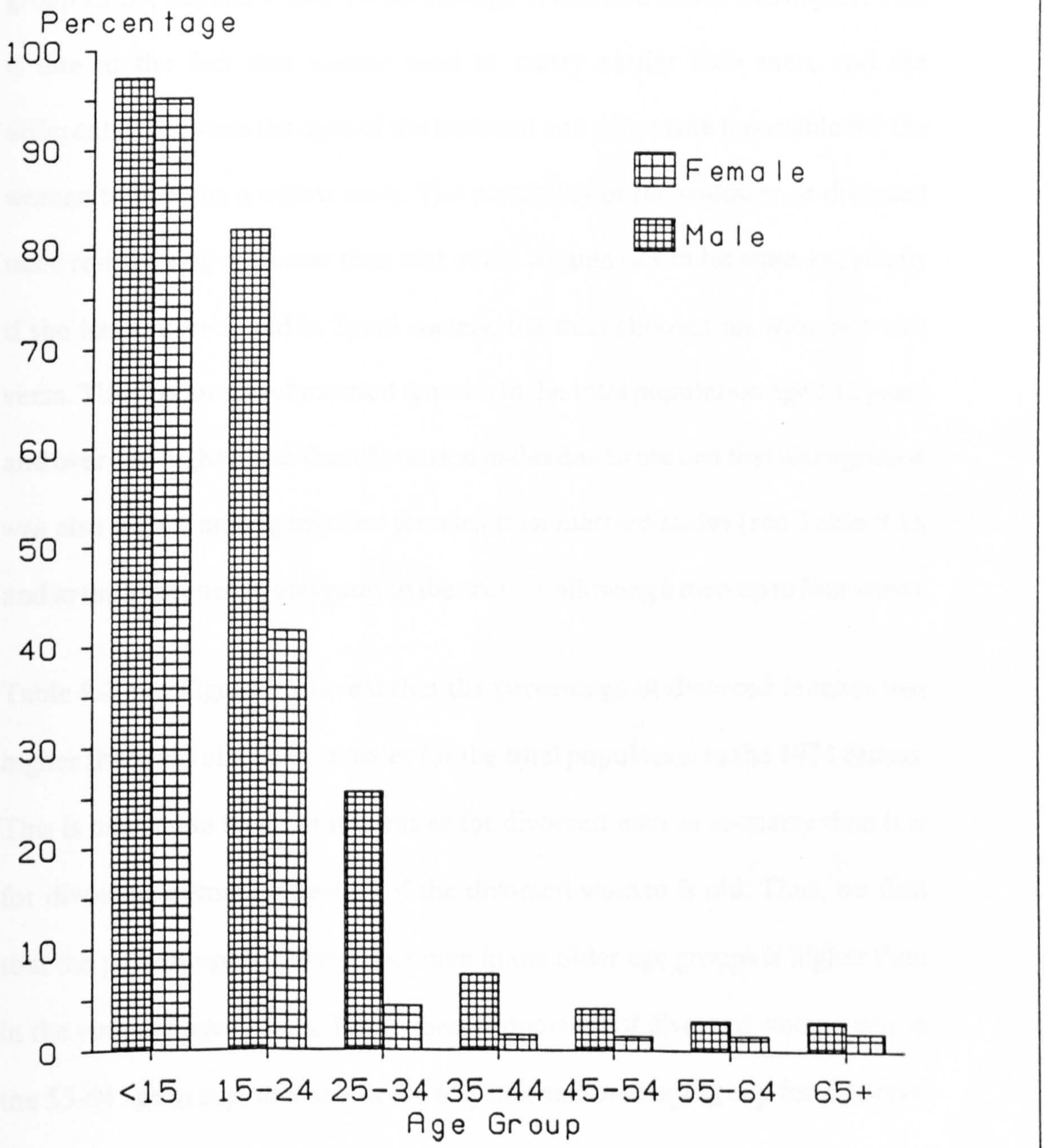
Table 9.2

Percentage distribution of the Marital Status of the Population aged 12 years and over by age and sex in the 1974 census

Age group	Never Married	Married	Divorced	Widowed	Not stated	Total
<15						
Both sexes	96.2	2.6	-	-	1.2	497,098
Male	97.2	1.0	-	-	1.8	259,195
Female	95.2	4.3	-	-	0.5	237,903
15-24						
Both sexes	64.1	34.0	1.1	0.3	0.5	1,172,499
Male	81.9	17.1	0.3	0.2	0.5	652,086
Female	41.6	55.5	2.0	0.5	0.4	520,413
25-34						
Both sexes	15.7	80.6	2.1	1.3	0.3	819,471
Male	25.6	71.9	1.4	0.9	0.2	439,476
Female	4.4	90.7	2.7	1.9	0.3	379,905
35-44						
Both sexes	4.8	88.8	2.3	3.9	0.2	642,110
Male	7.5	89.0	1.6	1.7	0.2	348,223
Female	1.6	88.6	2.9	6.7	0.2	293,887
45-54						
Both sexes	2.9	83.1	3.1	10.5	0.4	420,126
Male	4.0	91.4	1.8	2.7	0.1	235,567
Female	1.4	72.8	4.7	20.7	0.4	183,559
55-64						
Both sexes	2.3	71.7	3.8	21.7	0.5	277,940
Male	2.9	89.0	2.2	5.8	0.1	164,042
Female	1.5	46.7	6.3	44.6	0.9	113,898
65+						
Both sexes	2.3	52.5	4.5	40.2	0.5	254,937
Male	2.9	78.6	3.3	15.1	0.1	139,831
Female	1.7	20.8	5.9	70.7	0.9	115,106
Unknown						
Both sexes	17.5	44.5	1.8	35.1	1.1	1,375
Male	17.1	43.1	1.1	37.8	0.9	1,071
Female	19.1	48.7	4.3	25.3	1.6	304
Total						
Both sexes	34.6	56.9	1.9	6.1	0.5	4,085,523
Male	42.1	54.0	1.2	2.2	0.5	2,240,491
Female	25.5	60.4	2.8	10.9	0.4	1,845,032

Source: Central Department of Statistics, 1974 Census

Figure 9.1 Percentage of the single population by age and sex in Saudi Arabia in the 1974 Census

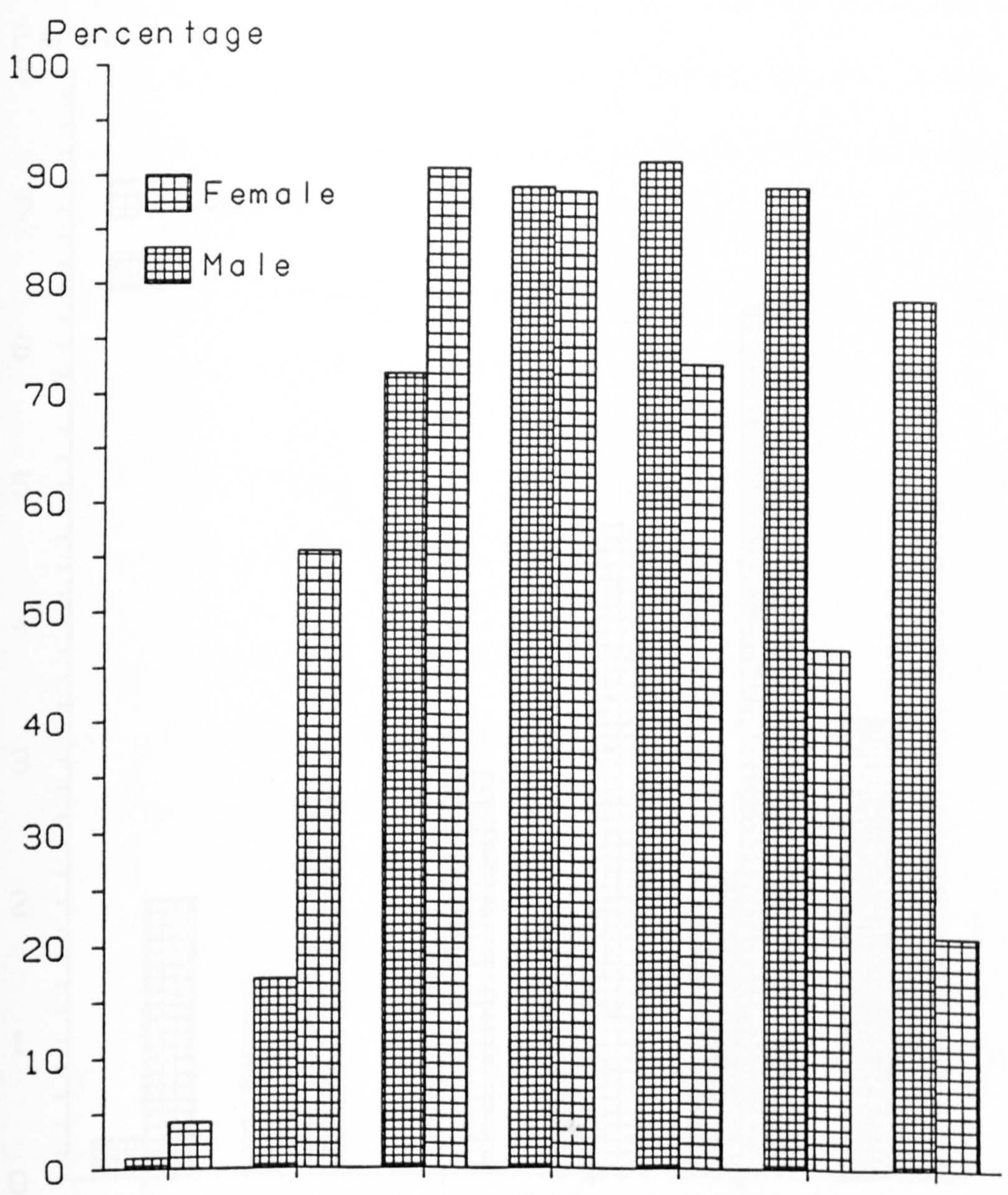


SOURCE: Table 9.2

Table 9.2 and Figure 9.2 show that the percentage of married persons rises rapidly with age until the age group 45-54 among the male population, and 25-34 among the females. Beyond these age groups the percentages of married persons declined, due to increases in the proportion of widowed people. The proportion of married females was higher than that of males until the age group 25-34, beyond which the percentage of married males was higher. This is due to the fact that women tend to marry earlier than men, and the differential between the ages of the husband and wife make it possible for the woman to become a widow early. The possibility of the widower or divorced male re-marrying is greater than that of the woman of similar state, especially if she has children, and in Saudi society, the man chooses his wife, not vice versa. The proportion of married females in the total population aged 12 years and over was higher than that of married males due to the fact that immigration was also higher among married females than married males (see Table 9.1), and to the existence of polygamy in the society, allowing a man up to four wives.

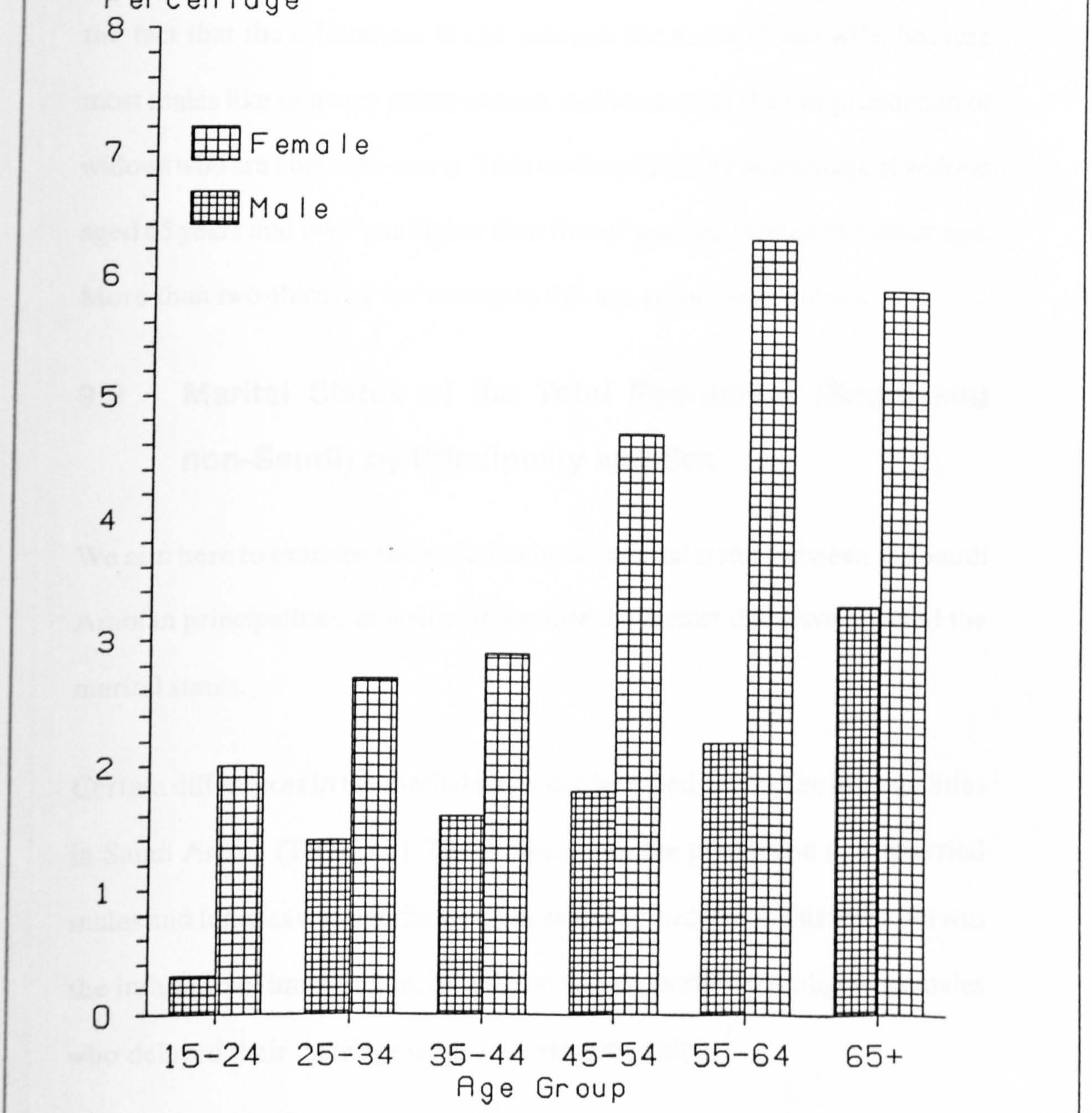
Table 9.2 and Figure 9.3 reveal that the percentage of divorced females was higher than that of divorced males for the total population in the 1974 census. This is due to the fact that it is easier for divorced men to re-marry than it is for divorced woman, especially if the divorced woman is old. Thus, we find that the percentage of divorced women in the older age groups is higher than in the younger age groups. The highest proportion of divorced women was in the 55-64 age group, and was in the 65 years and over age group for divorced men. This was probably due to the fact that both sexes had reached an age where they did not think about re-marriage and in most cases, the divorced

Figure 9.2 Percentage of the married population by age and sex in Saudi Arabia in the 1974 Census



SOURCE: Table 9.2

Figure 9.3 Percentage of the divorced population by age and sex in Saudi Arabia in the 1974 Census



SOURCE: Table 9.2

males or females lived with their sons or relatives because family ties in Saudi Arabian society are still very strong.

Table 9.2 and Figure 9.4 show that the percentage of widowed people increases with age, and the percentage of widows in the total population was higher at all ages than the percentage of widowers. This was probably due to the fact that the differences in age between the husband and wife, because most males like to marry young women, and because of the low proportion of widows who are able to re-marry. Thus we found that the percentage of widows aged 65 years and over was higher than that of married women of similar age. More than two-thirds of the women in this age group were widows.

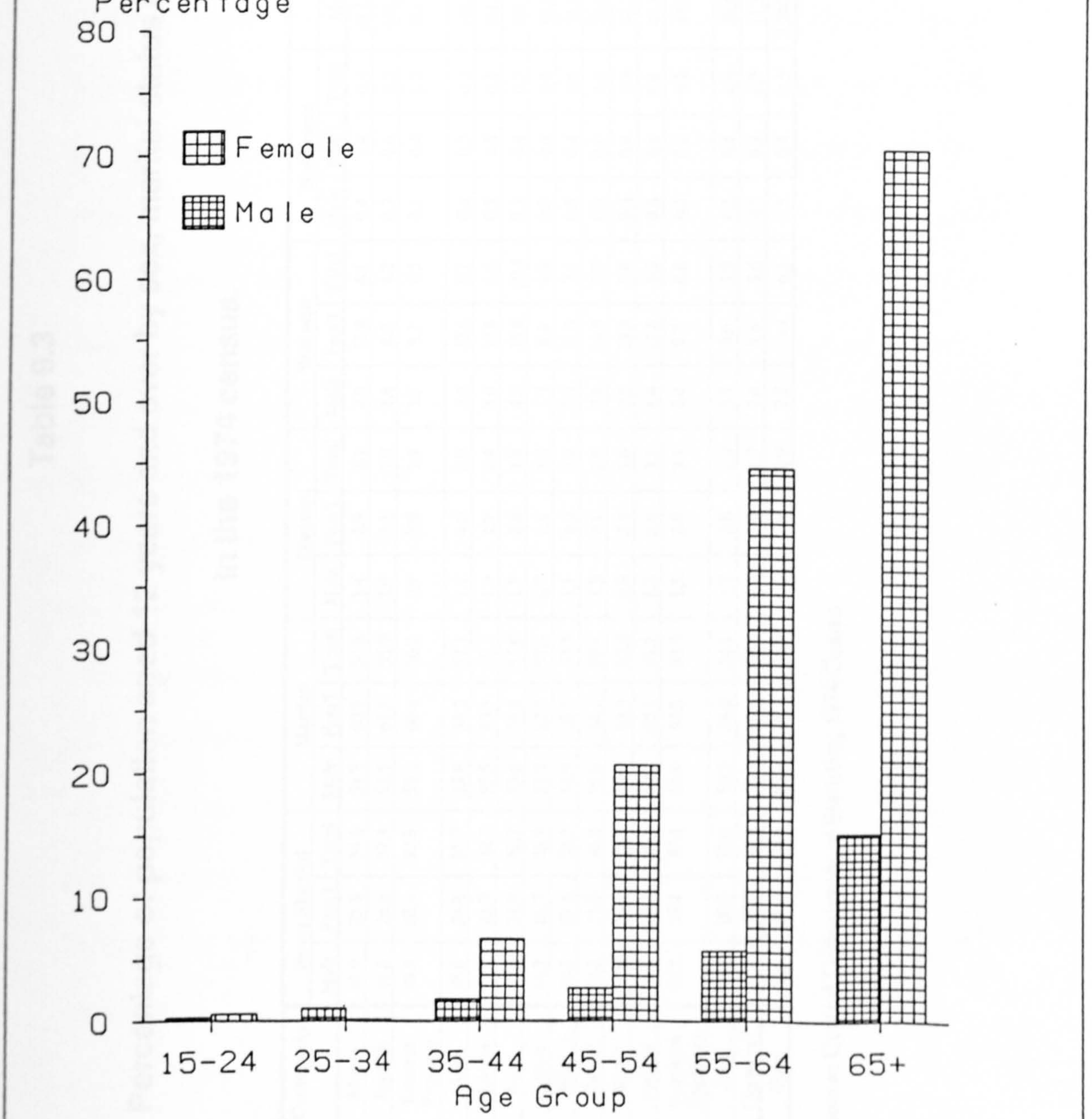
9.3 Marital Status of the Total Population (Saudi and non-Saudi) by Principality and Sex

We aim here to examine the variation in the marital status between the Saudi Arabian principalities, as well as to explore the factors that have affected the marital status.

Certain differences in the marital status can be noted among the principalities in Saudi Arabia (Table 9.3). The difference in the proportion of unmarried males and females was significant. The reasoning underlying this variation was the influence of immigration, in addition to a proportion of indigenous males who delayed their marriage while receiving education.

A higher percentage of married females than married males was found in all principalities in the country. This was due to the fact that females married

Figure 9.4 Percentage of the widowed population by age and sex in Saudi Arabia in the 1974 Census



SOURCE: Table 9.2

Table 9.3

Percentage of population aged 12 years and over by sex, marital status and principality in the 1974 census.

Community	Never Married			Married			Divorced			Widowed			Not Stated			Total		
	Male	Fem'l	Total	Male	Fem'l	Total	Male	Fem'l	Total	Male	Fem'l	Total	Male	Fem'l	Total	Male	Female	Total
Mecca	41.9	25.3	34.6	54.3	60.0	56.8	1.4	2.9	2.1	2.0	11.4	6.1	0.4	0.4	0.4	617,153	486,508	1,103,661
Riyadh	44.8	26.6	37.3	52.1	61.5	55.9	1.0	3.1	1.9	1.4	8.2	4.2	0.7	0.6	0.7	448,752	316,890	765,642
Eastern Province	43.9	28.9	37.8	53.2	60.4	56.2	0.9	2.0	1.4	1.5	8.3	4.3	0.5	0.4	0.3	285,075	193,863	478,938
Asir	38.8	24.8	31.7	55.8	58.3	57.1	1.7	4.0	2.8	3.4	12.6	8.1	0.3	0.3	0.3	196,901	206,433	403,334
Medina	40.4	23.3	32.3	55.5	63.5	59.3	1.0	1.9	1.4	2.6	10.8	6.6	0.5	0.5	0.5	161,360	146,782	308,142
Jizan	40.0	24.9	32.2	53.6	56.3	55.0	1.3	2.6	1.9	4.8	15.8	10.4	0.3	0.4	0.5	120,402	127,440	247,842
Qasim	44.3	26.7	35.9	52.8	62.1	57.3	0.7	2.4	1.5	1.7	8.4	4.9	0.5	0.4	0.4	96,532	88,567	185,099
Hail	40.5	25.6	33.2	54.9	59.7	57.3	1.1	3.0	2.0	3.0	11.3	7.1	0.5	0.4	0.4	74,052	74,196	148,248
Tabuk	40.2	21.8	32.8	56.0	64.6	59.4	1.3	2.1	1.6	2.1	11.0	5.7	0.4	0.6	0.5	73,038	48,390	121,428
Baha	36.0	20.9	27.7	60.3	63.3	62.0	0.9	2.1	1.6	2.5	13.3	8.4	0.3	0.4	0.3	47,785	57,779	108,564
Najran	36.7	20.2	29.2	60.1	62.2	61.1	1.2	5.4	3.1	1.4	11.6	6.0	0.6	0.6	0.6	44,168	37,113	81,281
Northern Frontiers	44.1	29.4	37.6	50.8	57.8	53.9	1.5	2.9	2.1	3.4	9.7	6.2	0.2	0.2	0.2	43,270	34,468	77,738
Jawf	44.8	29.0	37.4	50.5	58.2	54.1	1.7	2.8	2.2	2.7	9.6	5.9	0.3	0.4	0.4	20,663	18,273	38,936
Qurayyat	41.2	21.7	32.8	54.8	66.1	59.6	1.1	2.4	1.7	2.6	9.6	5.6	0.3	0.2	0.3	11,340	8,330	19,670
Total	42.1	25.5	34.6	54.0	60.4	56.9	1.2	2.8	1.9	2.2	10.9	6.1	0.5	0.4	0.5	2,240,491	1,845,032	4,085,523

Source: Central Department of Statistics, 1974 Census

earlier than males, and to the differential in the number of immigrants in each principality, most of whom came with their families.

The proportion of the divorced people was very small in comparison with other types of marital status, the break up of marriage also having different consequences for the two sexes in all principalities. Figures in Table 9.3 indicate that Najran principality had a higher percentage of the total divorced population aged 12 years and over in the 1974 census than other principalities in Saudi Arabia. It was followed by Jawf, Asir, Mecca, Northern Frontiers and Hail principalities. The percentage of divorced men in the 1974 census was 1.2 of the total male population aged 12 years and over, while the percentage of divorced women was 2.8 of the total female population aged 12 years and over. This is most probably because of the traditional social view of divorced males which requires them to re-marry as quickly as possible. The highest percentage of the total widowed population was found in Jizan principality, while the lowest was found in Riyadh principality, probably because most of the population in Jizan district was in the old age group, most of the younger people having migrated to other principalities such as Riyadh and Eastern Province, where they constitute a majority. The percentage of widows was higher than that of widowers due to the higher mortality rate among males than females in the older age group, which left quite a significant number of widowed females.

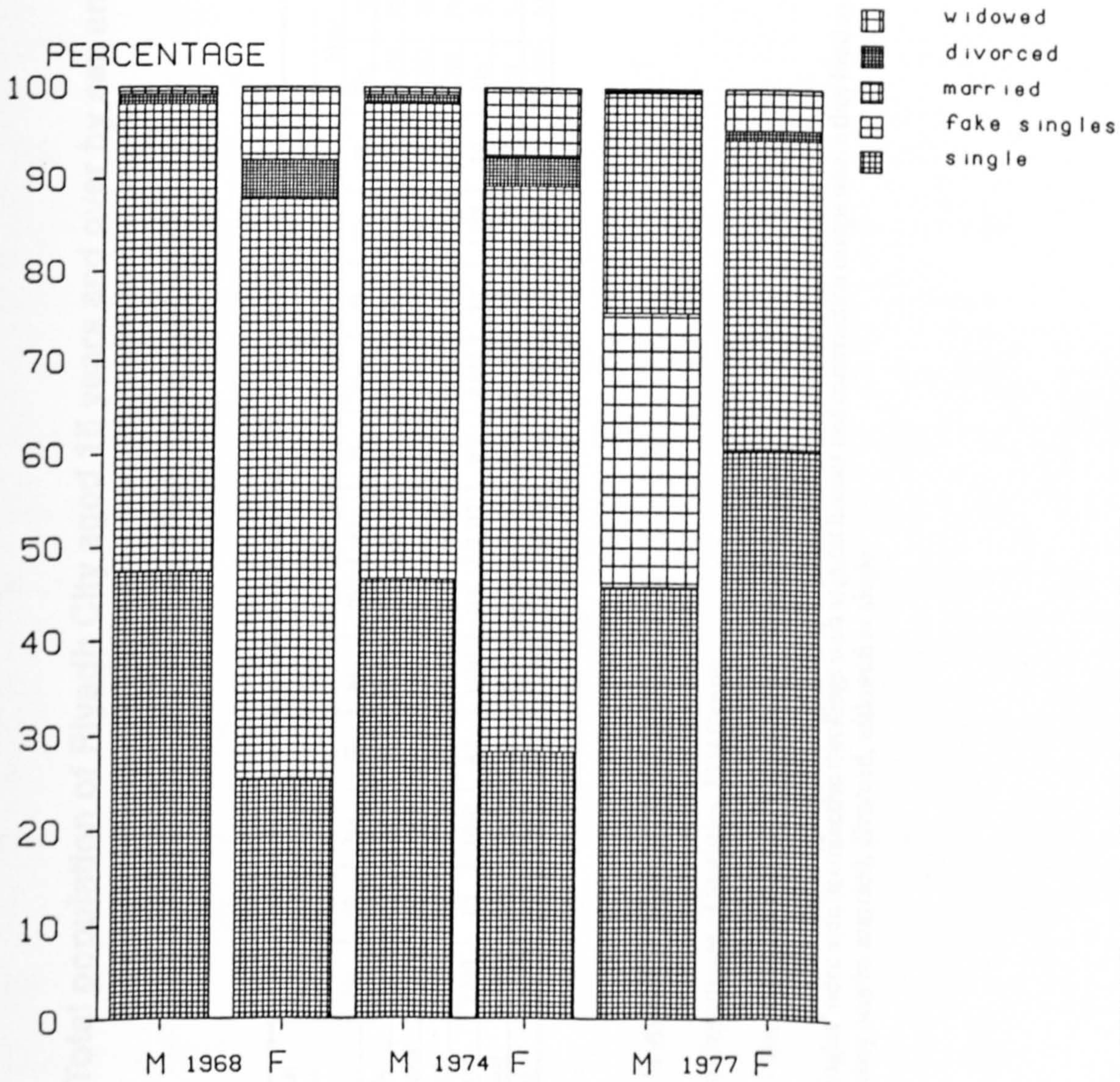
9.4 Marital Status in Riyadh City

A certain amount of information is available regarding marital status in Riyadh City from different sources such as the household sample survey in 1968, the population census in 1974, the Riyadh Action Master Plan in 1977 and in the survey that has already been conducted in 1988. By putting together the information supplied by these different sources, it is possible to throw some light on the recent trend in the marital status of the total population of Riyadh City aged 15 years and over.

The marital status of the total population for the years 1968, 1974 and 1977 is presented in Table 9.4 and graphically in Figure 9.5. As indicated in the table, the first two surveys showed that the married population represented the highest proportion in Riyadh City followed by the single population, but the situation was reversed at the 1977 survey. The reason for the lower percentage of the married population in the 1977 survey than in other studies was because 29.4 per cent (176,102 persons) of the 1977 sample survey were temporary residents and of those 102,925 persons (58.4 per cent) were classified as "fake singles".

Table 9.4 and Figure 9.5 reveal the change in the proportion of the single population from 1968 to 1977, when it appeared that the percentage of the single population had increased from 38.4 per cent in 1968, to 39.8 per cent in 1974 and to 52.0 per cent in 1977 for both sexes. Single males accounted for 47.3, 46.5 and 45.7 per cent of the total population in 1963, 1974 and 1977 respectively, while the equivalent proportion for females was 25.3, 28.3 and

Figure 9.5 Marital proportion of the Riyadh City population aged 15 years and over in 1968, 1974 and 1977



Source: Table 9.4

F=Female M=Male

Table 9.4

Total population of Riyadh City aged 15 years and over by sex and marital status in 1968, 1974 and 1977

Marital Status	1968						1974						1977					
	Male		Female		Total		Male		Female		Total		Male		Female		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Single	51,220	47.3	18,480	25.3	69,700	38.4	123,929	46.5	44,097	28.3	168,097	39.8	158,313	45.7	152,614	60.6	310,927	52.0
Fake singles*	-	-	-	-	-	-	-	-	-	-	-	-	102,925	29.7	-	-	102,925	17.2
Married	54,960	50.8	45,760	62.5	100,720	55.5	137,589	51.8	95,044	61.0	232,633	55.1	83,361	24.1	84,916	33.7	168,277	28.1
Divorced	1,240	1.1	3,040	4.2	4,280	2.4	2,512	0.9	4,847	3.1	7,359	1.8	816	0.2	2,763	1.1	3,579	0.6
Widowed	820	0.8	5,840	8.0	6,660	3.7	2,237	0.8	11,856	7.6	14,093	3.3	933	0.3	11,598	4.6	12,531	2.1
Total	108,240	100	73,120	100	181,360	100	266,267	100	155,844	100	422,111	100	346,348	100	251,891	100	598,239	100

Sources:

1. Doxiadis Associates, Household Sample Survey, 1970

2. Central Department of Statistics, 1974 Census

3. SCET - International - SEDES, Riyadh Action Master Plan, 1977

* "Fake singles" were men in collective dwellings such as guest houses and construction camps where they lived as batchelors, though in their country of origin they may be married, divorced, widowed or single.

60.6 per cent. The reasons for the continual increase in the proportion of the single population in Riyadh City is the social change which the city witnessed because of the rising standard of education among the population of school age which increased the age of marriage. This in turn led to a high proportion of single males and females. It was also due to the increase in the number of immigrants to the city, most of whom were single or had left their wives in their home country and were sometimes classified as "fake singles" as in the 1977 survey.

For the married population in Riyadh City, there was a very significant decrease, so that the total percentage of married for both sexes declined slightly from 55.5 per cent in 1968 to 55.1 per cent in 1974 but decreased sharply to 28.1 per cent in 1977. Again this was probably due to a high percentage of men being reported as "fake singles" when they might be married. The proportion of married males declined from 50.8 per cent in 1968 to 24.1 per cent in 1977, and from 62.5 per cent in 1968 to 33.7 per cent in 1977 for married females. As mentioned earlier, this was related to the delay in marriage as a result of the increase in education.

For the divorced population, the data in Table 9.4 show that there was a decline in the total divorced population in Riyadh City from 2.4 per cent in 1968 to 1.8 per cent in 1974 and 0.6 per cent in 1977 for both sexes. The differences between the two sexes were reversed here with males revealing many fewer cases than females. The proportion of divorced males declined from 1.1 per cent in 1968 to 0.9 per cent in 1974 and to 0.2 per cent in 1977,

while the proportion of divorced females declined from 4.2 per cent in 1968 to 3.1 per cent in 1974 and to 1.1 per cent in 1977. The explanation for this decline might be that a larger proportion of males, having been divorced, married again because it was easier for the divorced male to marry again in this type of conservative society than it was for divorced females. In most cases it was the practice for a man to divorce his wife only if she could not bear children or there was something wrong in her conduct.

As for the widowed population, the percentage in Riyadh City had declined from 3.7 per cent in 1968 to 3.3 per cent in 1974 and 2.1 per cent in the 1977 census for both sexes. Again the differences between the two sexes were reversed with males exhibiting many fewer cases than females. The percentage of widowed males declined from 0.8 per cent in 1968 and 1974 to 0.3 per cent in 1977, while the proportion of widowed females declined from 8.0 per cent in 1968 to 4.6 per cent in 1977. There were at least three reasons: (a) among married couples the husband tended to be older than his wife and was thus exposed to a higher death rate; (b) when a man died, he might leave more than one widow (these two reasons possibly increased the number of widowed females) and (c) widowed males had less difficulty in marrying again than widowed females, so that they lower the number of widowed men.

Table 9.5 reveals the marital status in Riyadh City in the 1988 sample survey. As shown in the table more than half the population aged 15 years and over consisted of married people. The proportion of the single population for both sexes was 37.8 per cent, and the divorced population was 1.0 per cent while

the widowed was 2.7 per cent. The great difference in the marital status between the two sexes was in the single population, reflecting the effect of migration, given that young migrants have disproportionately increased the single male population; 32.2 per cent of Riyadh City women were unmarried while for men this percentage was as high as 42.7. The large difference in the number of married males and females must be attributed to married male migrants who have come to Riyadh City without their families; 56.6 per cent of Riyadh City females are married while the equivalent proportion for males is 60.7 per cent. The proportion of the divorced population in Riyadh City seems very low for both sexes, but the number of divorced females is four times higher than that of males. The percentage of the widowed is also very low for both males and females, although the proportion of widowed females is higher than that of males because of what has already been mentioned.

Table 9.5

Population aged 15 years and over by sex and marital status in the 1988 sample survey in Riyadh City

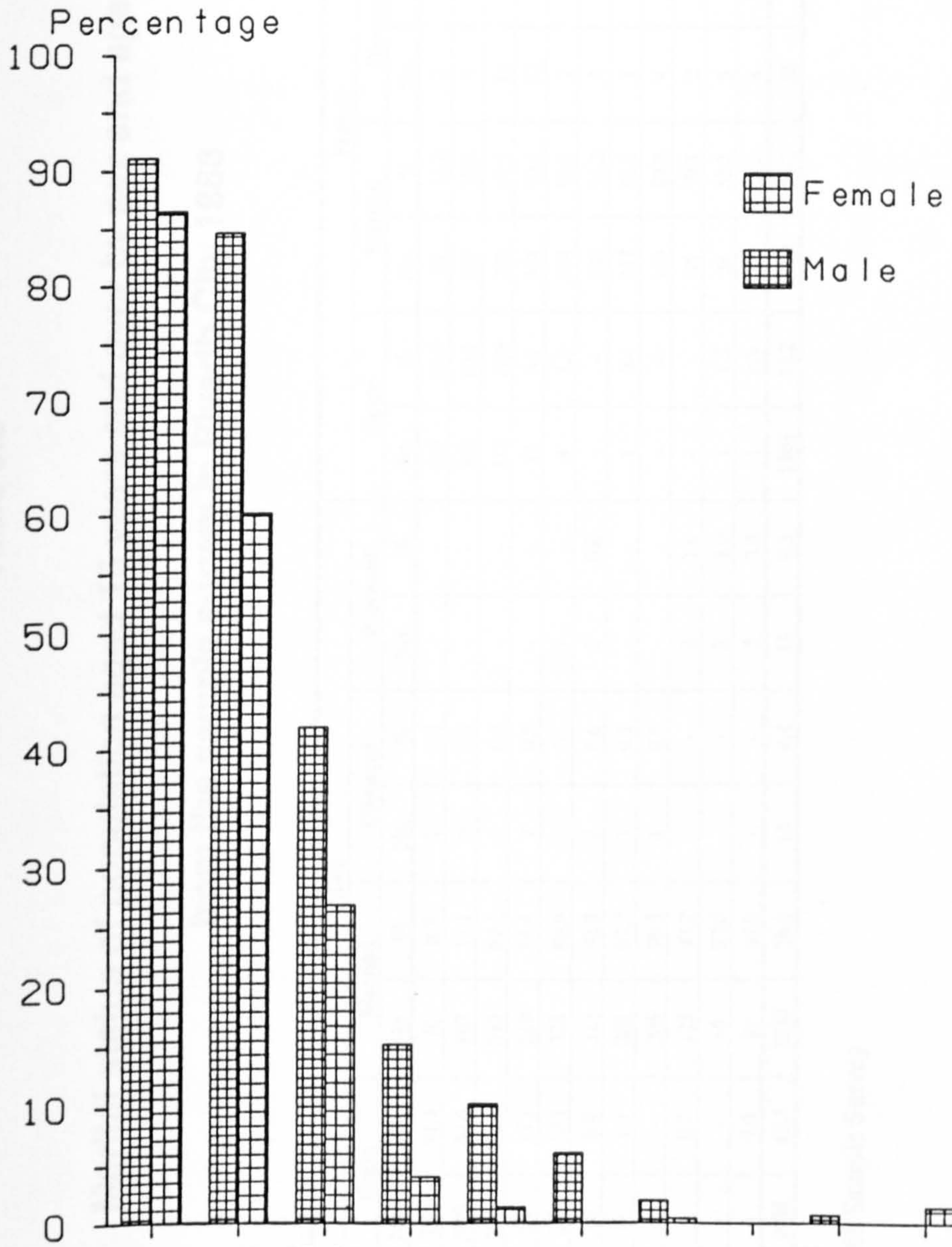
Marital Status	Male		Female		Total	
	Number	%	Number	%	Number	%
Single	1,688	42.7	1,105	32.2	2,793	37.8
Married	2,237	56.6	2,082	60.7	4,319	58.5
Divorced	15	0.4	58	1.7	73	1.0
Widowed	13	0.3	185	5.4	198	2.7
Total	3,953	100.0	3,430	100.0	7,383	100.0

Source: 1988 Sample Survey

More detailed data for the marital status of population aged 15 years and over by sex and age groups are provided in Table 9.6 and Figures 9.6 and 9.7, tabulated from the 1988 sample survey for the total population of Riyadh City.

Table 9.6 and Figure 9.6 reveal that the single status among men is generally greater than among women and the variations within them increase in the early ages, because the mean age at marriage is higher among males than among females. This leads to the gradual decrease in the proportion of single males as age advances with a reduction in the decline after the age of 35. The proportion of single females declined greatly after the age of 25 which indicates that a high percentage of females marry before this age. 86.5 per cent of females in the 15-19 age group were single, after which the percentages declined to 60.1, 26.8 and 3.9 in the age groups 20-24, 25-29 and 30-34 respectively. The proportion of spinsters reaching 50 years and over is only 2.4 per cent of the total single female population in Riyadh City. This proportion of unmarried women in a society like Saudi Arabia is considered high. Hill (1981) stated that in the Arab countries of West Asia, as a result of the expansion of work opportunities for women, coupled with the shift of people from rural to urban areas, new sources of income and power have begun to be created for women, sources previously available only to a minority of well-educated upper-class women. As a result, the proportion of women never marrying is rising steadily and even those who do marry are marrying at older ages than before. This is well evidenced in Riyadh.

Figure 9.6 Percentage of the single population by age and sex group from the sample population in Riyadh city, 1988



SOURCE: Table 9.6

Table 9.6

Marital status of population aged 15 years and over by sex and age group

from the sample survey in Riyadh City 1988

Age Group	Male								Female							
	Single		Married		Divorced		Widowed		Single		Married		Divorced		Widowed	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
15-19	733	91.1	70	8.7	2	0.2	-	-	617	86.5	94	13.2	2	0.3	-	-
20-24	599	84.6	107	15.1	2	0.3	-	-	349	60.1	222	38.3	9	1.6	-	-
25-29	231	41.9	315	57.2	5	0.9	-	-	119	26.8	306	69.1	14	3.2	4	0.9
30-34	57	15.1	319	84.4	2	0.5	-	-	13	3.9	304	90.4	12	3.6	7	2.1
35-39	37	10.1	328	89.9	-	-	-	-	4	1.3	304	96.8	2	0.6	4	1.3
40-44	20	6.0	312	92.8	2	0.6	2	0.6	-	-	280	96.2	3	1.0	8	2.8
45-49	6	1.9	302	97.7	1	0.4	-	-	1	0.4	247	91.1	1	0.4	22	8.1
50-54	-	-	205	99.5	1	0.5	-	-	-	-	165	87.3	4	2.1	20	10.6
55-59	1	0.7	125	97.7	-	-	2	1.6	-	-	95	79.1	2	1.7	23	19.2
60-64	-	-	65	97.0	-	-	2	3.0	1	1.5	38	58.5	5	7.7	21	32.3
65+	4	4.0	89	89.0	-	-	7	7.0	1	0.9	27	25.0	4	3.7	76	70.4
Total	1688	42.7	2237	56.6	15	0.4	13	0.3	1105	32.2	2082	60.7	58	1.7	185	5.4

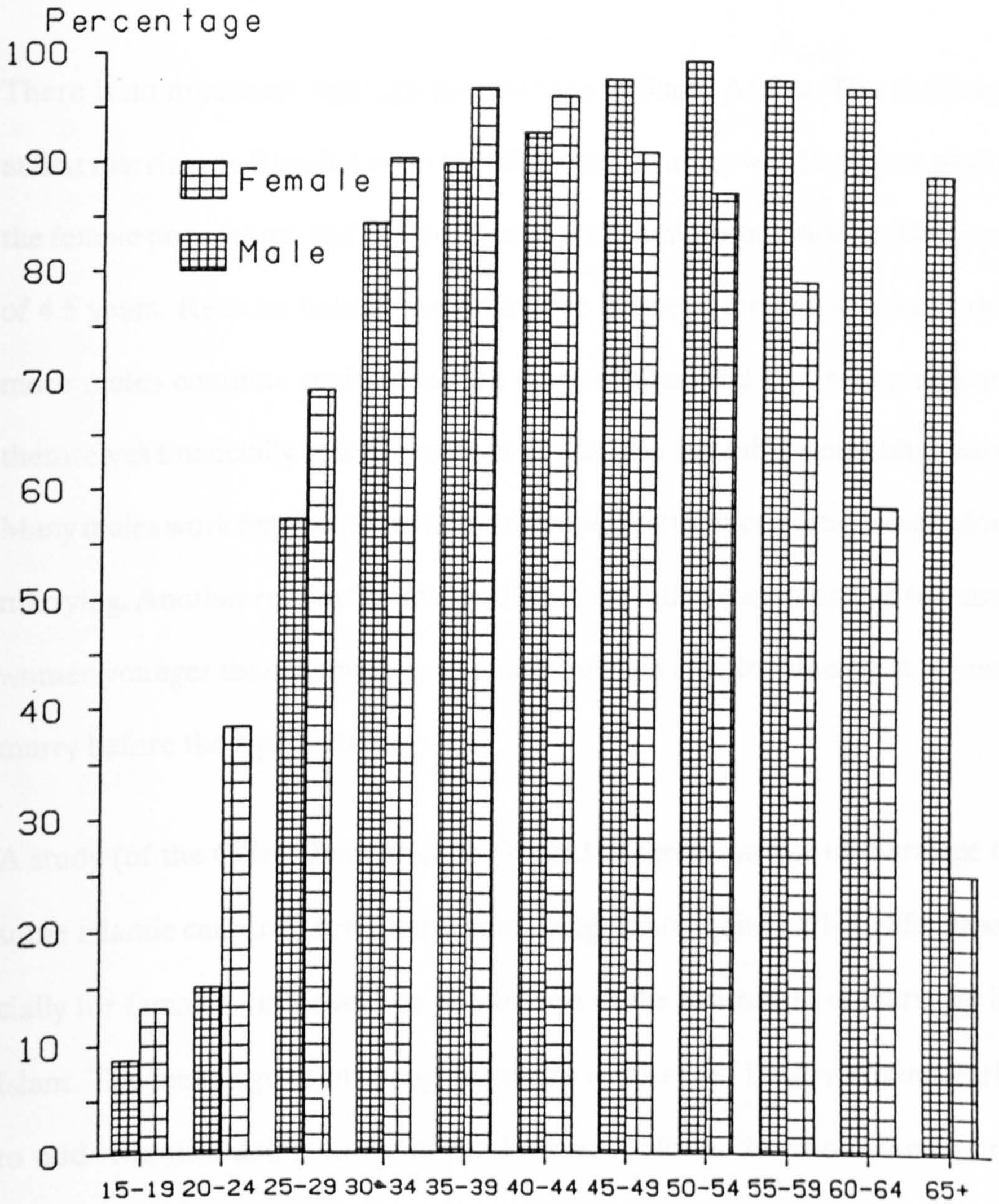
Source: 1988 Sample Survey

It is very obvious from Table 9.6 and Figure 9.7 that there is a low proportion of married population in the 15-19 age group in Riyadh City and it is clear that the percentage of married males in the 1988 sample survey was lower than that of females, but only just. In younger adults, the proportion of married females in the 20-24 age group was higher than married males, because they married earlier, but the proportion is not as high as formerly and is reversed from the age of 45 years and over. This, however, might be associated with the fact that opportunities for getting married were higher among males than among females.

In general, the proportion of the divorced population in Riyadh City in all age groups is very low. The percentage of divorced males is lower than that of divorced females. The higher proportion of divorced females is obviously largely attributable to a large number of women living with their sons or relatives because they prefer to raise and look after their children. If a woman does remarry before her children reach seven years of age she probably loses the right of child care. The proportion of divorced males is always less than 1.0, while the highest proportions of divorced females tend to be among women aged 25-34 or over 60.

Undoubtedly, the percentage of widowed increases with age for both sexes. The proportion is higher among females than males because at the time of marriage men are usually older than women.

Figure 9.7 Percentage of the married population by age and sex group from the sample population in Riyadh city, 1988



SOURCE: Table 9.6

9.5 Mean Age at First Marriage

Due to lack of data on marriages in Saudi Arabia in general and Riyadh City in particular, except for Riyadh City for 1988, it is not possible to provide an up-to-date picture of the recent trend in the mean age of marriage for all males and females for Riyadh City nor for the country as a whole.

There is no minimum legal age for marriage in Saudi Arabia. The mean age at first marriage in Riyadh City in the 1988 sample survey was 17.5 years among the female population, and 22.0 years among the male population, a difference of 4.5 years. Reasons behind the difference between the two sexes are that more males continue their education than females, and that males prepare themselves financially before marriage so that they can fulfil their obligations. Many males work for several years after completing their education and before marrying. Another reason for this age difference is that most men like to marry women younger than themselves or nearly equal in age, and thus most women marry before the age of 20 years.

A study (of the Cairo Demographic Centre) of the mean age of marriage in some Islamic countries revealed that marriage starts quite early in life, especially for females, reflecting the importance of the institution of marriage in Islam. The mean age of marriage for males is observed to vary around early to mid- twenties and is lower in rural areas, while the female mean age of marriage is particularly low (15-20) in the urban area and is 15-17 in rural areas. For example, Ghallab (1984) revealed that while the mean ages at

marriage in Cairo and Damascus in 1982 were 19.9 and 18.5 for females, the equivalent ages for males were 27.2 and 26.2 respectively.

The shift into a later age of marriage is observed in many developing countries especially Muslim countries. The key factors in the shift to later marriage for Muslims are education (increasing literacy and level of education), urbanisation, religion, income and participation of females in the labour force, but for females specifically it is more attributable to their changing social status. A growing number of females seek employment after leaving school either to support their parents or to be financially independent from the family, which delays marriage.

9.6 Forms of Marriage

Saudi Arabia does not include any questions about polygamy in the population census or in national demographic surveys. The registration of marriage contracts is the responsibility of religious organisations or bodies such as religious courts, mayors, or of religious officials assigned by the court who are not directly related to the statistical department.

During the pre-Islamic period of the Arabs, there was no limit to the number of wives a man could take. But Islam limited the number to one, with permission to marry, if necessary, two or three or even four, provided that one can treat them with justice and equality in one's relation with them as husband, which is extremely difficult (Galwash, A., 1973, p.52).

Polygamy was a way of accumulating wealth and is still widespread among rural and nomadic people in Muslim countries. It was considered as an easy way to obtain labour in nomadic life, but in urban areas, as a result of the high cost of living and the progress achieved by females in the fields of education and entry to the labour force, there has been a considerable decrease in polygamy.

Islam encourages early marriage and progeny. Thus polygamy is a blessing to childless couples, because sometimes the first wife may be sterile or ill and a second marriage becomes a necessity for the husband so that he may have children while remaining married to his sterile wife. Instead of being divorced she retains her home, receives good attention and is maintained in her status as a wife. Also, Islam forbids casual unions so polygamy will enable Muslims to avoid concubinage with its consequent problems of natural children, as seen in modern Western societies (Haddad, W., 1977, p.30).

Islam allowed men to marry up to four wives, but polygamy is nowadays a rare occurrence in Muslim countries, except perhaps in the Sudan which is affected by the more common African type of polygamy. A number of studies of tropical Africa during the last two decades have indicated that the proportion of polygamously married men varied from less than 20 per cent in Sudan and part of Cameroun, to between 20 and 35 per cent in the Central African Republic, Mali, Niger, Senegal and Tanzania, and to around 40 per cent in Guinea. One of these previous studies showed also that small sub-populations in remote societies contain higher percentages of polygamously married men, sometimes exceeding 50 per cent (Chamie, J. 1986, p.56).

Table 9.7

Percentage of married Muslim men polygamous by country and year

Country	Year	%
Algeria	1948	3.0
	1954	2.0
	1966	1.8
Bahrain (Nationals)	1981	5.4
Egypt	1947	3.4
	1960	3.8
Iraq	1957	7.5
Jordan (East Bank only)	1979	3.8
Kuwait (Nationals)	1965	6.7
	1970	8.8
	1975	11.7
Lebanon	1971	3.7
Libya	1954	3.2
	1964	2.9
	1973	3.3
Morocco	1952	6.6
Syria	1960	4.3
	1970	3.6
	1976	1.9
Tunisia	1946	4.5
United Arab Emirates (Nationals)	1975	6.0
Yemen	1975	4.5

Source: Chamie, J., 1986.

In contrast, the percentage of polygamously married men among Arab nations is comparatively low. Table 9.7 indicates that during the 1960s and 1970s the proportion of polygamously married men varied from about 2 to 12 per cent. For example, the proportion was 1.9 per cent in Syria in 1976, 5.4 per cent in Bahrain in 1981 (nationals only) and 11.7 per cent in Kuwait in 1975 (nationals

only). From the data in Table 9.7 it could be concluded that levels and trends in polygamy have varied in those Arab Muslim countries from which data have been obtained. In some, the practice has declined, in others increased, and in yet others has remained relatively unchanged (Chamie, J. 1986, p.56).

In Riyadh, the proportion of polygamously married men, according to the 1988 sample survey, was 4.3 per cent, lower than in Bahrain or Kuwait and some other countries. The reason for the low percentage in Riyadh City is probably because marriage expenses have become very high since the increase in the rate of inflation over the past two decades. This has caused the dowry to rise sharply and the costs of the ceremonies as a result of the increase of wealth in Saudi Arabia in general. In fact, the size of dowry asked by fathers for their daughters has become a handicap for many married men desiring to have a second wife. The increase in education, especially among women, has had the effect of decreasing polygamy. Besides, the shift of decisions concerning marriage from parents to children has to some extent enabled females to have more time to think about choosing partners.

Table 9.8 reveals that 95.7 per cent of married men in Riyadh City have one wife only. Less than 4 per cent have two wives, and about half per cent have three and four wives, while two wives is the most common number of wives per Arab man in the case of polygamy. Table 9.9 shows the distribution of the number of wives for polygamous Arab men and indicates that more than 90 per cent have two wives, between five and seven per cent have three wives, and about one per cent four. In Kuwait, the distribution by number of wives

remained virtually unchanged between 1965 and 1975; around 93 per cent of the polygamous Kuwaitis have two wives, between six and seven per cent have three and slightly fewer than one per cent have four (Chamie, J. 1986, p.57).

Table 9.8

Number of wives per married male in Riyadh City in the 1988 sample survey

Number of wives	Number of persons	%
1	2,167	95.7
2	87	3.8
3	10	0.4
4	1	0.1
Total	2,265	100.00

Source: 1988 Sample Survey

Table 9.9

Percentage distribution of polygamously married Muslim men by number of wives and year in Arab countries

Country		Number of wives			
	Year	Two	Three	Four	Total
Algeria	1966	97.4	2.5	0.1	100.0
Bahrain (Nationals)	1981	92.6	6.5	0.9	100.0
Egypt	1960	92.0	6.8	1.2	100.0
Iraq	1957	88.8	9.2	1.9	100.0
Jordan (East Bank only)	1979	95.3	4.2	0.5	100.0
Kuwait (Nationals)	1965	93.1	6.0	0.9	100.0
	1970	92.2	6.4	0.7	100.0
	1975	92.2	7.1	0.7	100.0
Libya	1964	94.7	4.5	0.7	100.0
	1973	95.2	4.2	0.6	100.0
Syria	1960	93.0	6.1	0.8	100.0
	1970	93.7	6.2	1.2	100.0
United Arab Emirates (Nationals)	1975	92.7	6.2	1.2	100.0
Yemen Arab Republic	1975	91.7	7.0	1.3	100.0

Source: Chamie, J., 1986.

Table 9.10 shows the distribution of the number of marriages by sex in Riyadh City in the 1988 sample survey. It indicates that the great majority of Riyadh City males and females have been married only once but the proportion of the females is higher than males. Multiple marriages are less frequent among females than males: 10.0 per cent of males have been married twice, equivalent to 5.4 per cent of females; less than 4 per cent of males have married for a third time, while for females it is less than one per cent. The percentage of males who have married more than three times was reported to be about 1.7.

Comparing the multiple marriages of the population of Riyadh City with those of other urban areas in the region such as Cairo and Damascus, the proportion of male and female multiple marriages in Riyadh City is higher. The number of Riyadh City male multiple marriages is about 15.5 per cent, compared to 10.5 and 7.2 per cent in Cairo and Damascus respectively. Females multiple marriages in Riyadh City number about 6.3 per cent compared to 5.5 and 3.8 per cent in Cairo and Damascus respectively (Ghallab, 1984) (see Table 9.11).

Table 9.10

Number of marriages by sex in Riyadh City in the 1988 sample survey

Number of marriages	Male		Female	
	Number	%	Number	%
1	1,914	84.5	2,179	93.7
2	227	10.0	125	5.4
3	85	3.8	21	0.9
4	23	1.0	-	-
5	16	0.7	-	-
Total	2,265	100.0	2,325	100.0

Source: 1988 Sample Survey

Table 9.11

Percentage of multiple marriages by sex for Riyadh City, Cairo and Damascus

Number of marriages	Riyadh City		Cairo		Damascus	
	Male	Female	Male	Female	Male	Female
1	84.5	93.7	89.5	92.8	92.8	96.2
2	10.0	5.4	8.7	3.8	6.1	2.8
3+	5.5	0.9	1.8	1.7	1.1	1.0
2+	15.5	6.3	10.5	5.5	7.2	3.8

Source: 1. 1988 Sample Survey; 2. Chamie, J., 1986.

The explanation for the exceptionally high proportion of multiple marriages among both males and females in Riyadh City, compared with urban areas such as Cairo and Damascus is because Saudi society is more traditional than Egyptian and Syrian societies and the standard of living in Saudi Arabia is higher than in others, which makes it easier for Saudi men to have multiple marriages and to support more than one wife.

9.7 Summary

From the above discussion of the marital status of the population of Riyadh City, as well as that of the rest of Saudi Arabia, we can see that the majority of the population aged 15 years and over is married, due to the practice of early marriage.

First marriage is relatively early and virtually a universal experience among women in Saudi Arabia. The 1988 sample survey indicated that the mean age of marriage for both sexes in Riyadh City was very much lower than in urban areas in some other Islamic countries such as Egypt and Syria. These variations in the mean age at first marriage are due to changes in society, such as higher levels of education among both sexes, changing patterns of work, and the entrance of women into the job market in areas not familiar to them 15 years ago, as well as increases in the cost of marriage and of living generally.

Polygamy among Riyadh City married men is not widespread and is in fact relatively low by Arab standards. The predominant majority of the male population is Riyadh City is reported as having one wife and the incidence of marriage beyond a second time is rather rare. Multiple marriage is considerably less frequent among Riyadh City females compared to males, because female remarriage in some urban societies is not a very common phenomenon.

Divorce has been extremely rare, not only among the people of Riyadh City but the total population as a whole. Certainly, the probability of male remarriage after divorce of the first wife or her death is much more noticeable than for women, especially for those who have had children. The proportion of widowed persons was found to be higher in Saudi Arabia than in Riyadh City. It should be noted that most of the divorced and widowed persons in Riyadh City are living either with their married sons, or with their relatives, which is very common in Saudi Arabia as a whole.

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Chapter Ten

Education in the Growth of Riyadh

Introduction

This chapter deals specifically with the educational characteristics of the population of Riyadh city in particular, and Saudi Arabia in general. Although this aspect of population composition is not exactly demographic in nature, it has important indirect influences on demographic characteristics, particularly those relating to nuptiality, fertility and mortality.

In chapters five and six, analyses revealed that fertility in Riyadh is high and stable, and that mortality has been undergoing substantial decline. As far as mortality is concerned, factors responsible for this decline undoubtedly include the achievement of modern medical and public health services on the one hand, and the socio-economic progress on the other. Indeed, the eradication of fatal diseases such as malaria, tuberculosis and bilharzia, the reduction of other diseases such as cholera, trachoma and diseases of infants and children, along with improved maternal and child care, must have contributed immensely to the decline of the mortality rate in Riyadh city.

However, increasingly it has been shown that the contributions of socio-economic factors, particularly of education, are very significant to both high fertility and the decline of the mortality rate, because education in general can change the life style, attitudes, with an improved knowledge of better nutrition and personal hygiene. It is hypothesised that education is related to favourable

attitudes towards birth control, improved knowledge of birth control, and better communication between husband and wife. Therefore it is also feasible to assert that to some extent, education must have played a role in the mortality decline experienced during the last few decades.

With regard to fertility, although Riyadh city still has high birth rates, analysis has shown that they are declining slightly. In many developing countries, fertility decline has been associated with active government intervention with measures like family planning programmes and easy access to contraception which contributes greatly to maintain low fertility. For Saudi Arabia, as mentioned in chapter five, there is no policy of direct government intervention with respect to fertility. Perhaps it is proper to claim, however, that the exposure of the Saudi population to education has facilitated the acquisition of information on modern contraception devices and their use. Therefore the slight decline in fertility must have been to some extent associated with the rising educational levels.

Moreover, education has played a very important role in the growth of Riyadh City because most of the Saudi population is migrant (see Chapter Seven) from different parts of the country, especially rural areas, who were suddenly within reach of the available and attractive urban educational facilities and opportunities. Traditional Saudi Arabia offered only limited modern education, but with its induction in the post-oil era, Riyadh City has become an important educational centre attracting enormous numbers of migrants. In

addition, the growth of education, especially for women, will have a long-term impact upon fertility, mortality and population growth.

Prior to the unification of the Kingdom of Saudi Arabia, education was entirely in the Islamic tradition of religious learning. It was carried out by religious men and women in the form of school and was known as the kuttab from the Arabic root "to write". Education in the kuttab was limited to instruction in recitation of the Koran and rudiments of reading and writing of some Islamic knowledge, Arabic language and a small amount of arithmetic principles.

An unofficial organisation of intellectual lecturers was willing to teach any student wishing to advance their studies beyond the kuttab level. The education centres of this sort were known as madrasah, offering more advanced aspects of Quranic and legal scholarship.

In the 1940s the government undertook the organisation of educational facilities into a new system. In 1953 the Ministry of Education was established to spread education, schooling, knowledge and vocation to maintain Islamic principles.

The government has sought to provide free education to all school-age Saudis, both boys and girls, and to eradicate adult illiteracy. Boys' education was started ahead of girls' but since the establishment of the first girls' school in Saudi Arabia in 1959 female education has become one of its fastest growing areas of social development.

Education of both sexes is carried out in separate schools and institutions. It is organised into the three school stages followed by university, which were adopted by the League of Arab States in 1958. The first stage is primary, which children enter at six years old. This stage consists of six different levels, followed by a three-year intermediate level, taking three years to complete, and another three years of secondary schooling. Official examinations govern the progression from one level to another.

School attendance in Saudi Arabia is not compulsory and pupils can leave school at any level they or their parents/guardians want, but there is a variety of formal and informal incentives. The formal incentives consist of monthly stipends paid to all students who enter university, which encourages parents to educate their children. In addition, students are extensively subsidised by receiving free accommodation, board and 75 per cent of the cost of books. Those studying abroad fly home yearly to visit their families. Dormitory accommodation is also provided at the University for girl students while they are away from their families, which encourages their parents to send their daughters to enrol in the universities because they will have confidence that their daughters will be in good hands.

As for the informal incentives which enable parents to educate their children, they consist of the high level of economic earning which encourages families to educate their children. In addition, there is the relative change in the view towards the indicators of the family social status in which education is embodied. Finally, social opinion expects the same level of education for boys and

girls especially in the under- developed communities such as rural and desert areas which have direct informal interaction, while in an urban area such as Riyadh City there is formal interaction through mass media which stimulates people to pay attention to education in an organised manner.

Saudi Arabia, like all Arab nations, has long acknowledged education as a necessary condition for raising the economic and social standards, and for enhancing the welfare of the country. In order for the government to achieve that, education and literacy have to spread among the whole population to permit them to contribute more efficiently in the development process. Education has explicit influence on people's performance, points of view and inducements, and on the main demographic variables, fertility and mortality, both of which tend to decline with more education, especially female education.

In attempting to survey the educational status of Saudi Arabia in general and Riyadh in particular, the following measures are used a) illiteracy, b) level of education of population and c) school enrolment.

10.1 Illiteracy

Because of considerable efforts in the field of education, illiteracy is rapidly diminishing in practically every country of the ECWA region. The proportion of illiteracy among the male population 15 years and over varies from 14 to 61 per cent, except in Lebanon where it is about 10 per cent. The corresponding proportion of illiterates in the female population is almost everywhere above 30 per cent, except in Lebanon where it is about 18 per cent (ECWA, 1987).

Illiteracy is still widespread among the Saudi population, especially among older age groups because they missed out on educational opportunities. Moreover, sex differences are very striking. The dramatic decline of illiteracy in Saudi Arabia began during the 1970s, particularly after 1974, as the result of a dramatic expansion in facilities at all levels throughout the Kingdom during that period. At this time, opposition to education, coupled with a lack of funds preventing the new Directorate of Education (under the Ministry of the Interior) from making much progress, had vanished and the value of education was given a high acknowledgement in the attitude of society as a whole. The available information gives a clear picture of the extent of illiteracy problems in Saudi society and of the significant efforts made by the Saudi government to decrease the proportion of illiteracy and to increase the proportion of the population who could read and write. As Table 10.1 shows, of the total population 10 years old and over in 1962-63, 96 per cent, or 4,348,000 persons, were illiterate. The proportion for males was as high as 93 per cent, and for females 99 per cent.

The 1974 census and the 1986 estimation reveal a major decline in illiteracy. The proportion of illiteracy of the total population decreased to about 75 per cent by 1974, and to 43 per cent by 1986. The decline in illiteracy over those twelve years has been due to the growing confidence among the population of Saudi Arabia that education is the only means of improving the standard of living and of securing well-paid work.

This degree of achievement to lower illiteracy in Saudi Arabia could not be accomplished alone from the acceptance by the government that the development of human resources plays an essential part and is a necessary step towards the social and economic development of the nation. There are some unfortunate countries in the world who have the ambition to increase literacy among their population but are prevented from achieving it by a lack of funds. On the other hand, Saudi Arabia and some of the other oil- rich states have managed to use the wealth derived from oil, which has evidently assisted the Saudi government greatly in its effort to eradicate illiteracy and raise the standard of education of the population.

In order to eliminate the effect of immigration on the illiteracy percentages of the population of Saudi Arabia, it is worthwhile to differentiate between the illiteracy proportion of nationals and non- nationals. It can be said that the illiteracy percentage of the total national population aged 12 years and over in the 1986 estimation was higher than among non-Saudi citizens. The total for nationals was 46.40 per cent, while for non-nationals it was 34.59 per cent. Illiteracy among national males was 26.80 per cent, while for non-national males it was 34.48 per cent. The higher proportion of illiteracy among non-national males might be due to a large number of migrants, the majority of whom were illiterate, and non-skilled manual workers from neighbouring countries who came to Saudi Arabia to seek employment, mostly in the construction industry. The lower proportion of illiteracy among national males might be due to the age differential because the proportion of the older age groups of the national population was higher than among non- national males. The

illiteracy proportion of non- national females was 36.11 per cent which was much lower than that for the proportion of national females which was 66.62 per cent, which is not surprising as the majority of these non- nationals had been recruited for employment in Saudi Arabia because they were in possession of various qualifications and skills. In addition, the high proportion of illiteracy among Saudi females was most likely related to cultural factors, particularly in matters relating to female status in Saudi Arabia.

Table 10.1

Percentage of illiteracy of the Saudi population aged 10 years and over by sex

	Male		Female		Total	
	No.	%	No.	%	No.	%
1962-63	2,084,000	93	2,264,000	99	4,348,000	96
1974	1,261,798	65.18	1,597,488	85.67	2,859,286	75.23
1986*	1,304,116	30.26	1,581,647	64.88	2,885,763	42.76

Source: (* Population 12 years and over)

1. Shata, A., 1985

2. Central Department of Statistics 1974 Census

3. ECWA, 1987.

In 1974, the variation between country principalities, with regard to illiteracy of the population aged 10 years and over, is illustrated in Table 10.2. The illiteracy percentages were not less than 50 in all principalities. We can classify the data in Table 10.2 into four groups according to illiteracy. In the first group, the illiteracy proportion was less than 60 per cent. These principalities were Eastern Province, Riyadh and Mecca where more educational development had taken place. The second group, whose illiteracy proportion varied from

60 to 70 per cent included Qasim and Quarayyat, while the third varied from 70 per cent to 80 per cent and included Tabuk, Medina, Jawf, Najran, Baha and Asir. The fourth group, higher than 80 per cent, were Northern Frontier, Hail and Jizan, where there was less educational development because educational opportunity in the past had been biased towards urbanised centres, of which there were fewer in these principalities.

Table 10.2

Percentage of illiteracy of the population of Saudi Arabia aged 10 years and over by principality in the 1974 census

Principality	Illiteracy percentages
Mecca	57.62
Riyadh	54.89
Eastern Province	51.07
Asir	79.77
Medina	71.81
Jizan	82.68
Qasim	66.53
Hail	82.62
Tabuk	70.00
Baha	76.29
Najran	76.19
Northern Frontiers	81.79
Jawf	75.17
Qurayyat	67.64
Total	64.36

Source: Al-Sheikh, A., 1981.

Illiteracy among the older age groups has decreased since the government introduced the Adult Education Programme in the late 1950s with evening classes in primary schools and mosques. The programme was reorganised and upgraded in the 1970s, becoming the Accelerated Literacy Programme under the Supreme Council for Teaching Literacy and Adult Education. The class-

room material was redesigned to reflect adult interests and was given a strong functional orientation and geared toward the specific occupational groups seeking literacy training. In the mid-1970s only 4 per cent of adult illiterates benefited from the programme. In 1980 the literacy rate was just over 50 per cent and was steadily increasing (Nyrop, R.F. 1984, p.126).

In 1987, the total number of centres which were responsible for eliminating illiteracy at the national level was 2,845, of which 1,383 were for males (48.6 per cent), and 1,462 for females (51.4 per cent). The total number of classes in these centres was 8,721, of which 3,520 were for males, and 5,201 classes for females. The total number of students in these centres was 150,729, of whom 76,842 were males and 73,887 females. The total number of lecturers in these centres was 6,341, of whom 4,220 were males and 2,121 females.

The bodies which are accountable for adult education and eradicating illiteracy in Saudi Arabia are manifold and include the Ministry of Education, the General Presidency of Girls' Education, the Ministry of Defence and Aviation, the Ministry of the Interior, the National Guard, and also private institutions supervised by the Ministry of Education and Ministry of Labour and Social Affairs.

The percentage of nationals who enrolled at these adult education centres was 84.5 so that the total number of national students was 127,314 for both sexes, while the total number of all students was 150,729.

Table 10.3 shows a comparison between number of centres, classrooms and students in 1982-83 and 1987. As for males we found the following: 1) the number of centres had decreased by 417 which was about 23.2 per cent of the total in male adult education; 2) the number of classrooms for males had decreased by 590; and 3) the number of male students had decreased by 7,373 which was about 8.8 per cent of the total male students. The decline in the number of male centres, classrooms and students did not mean that there had been a decline in government efforts, but rather was a reference to the fact that a very large number of illiterates had enrolled in the adult education programme in the early years, with a gradual decline in enrolment in the following years. Thus the decrease in their number by 1987 was logical when compared with the decrease in illiterates.

As for females, 1) the number of centres had increased by 35 which was 2.4 per cent of the total female centres; 2) the number of classrooms had increased by 933 which was about 21.9 per cent of the total; and 3) the number of female students had increased by 18,901 which was about 34.4 per cent of the total. It is worth mentioning that all of the adult education centres for eradicating illiteracy operate in the regular school buildings and the staff are the same staff as those of the regular school.

Table 10.3

Number of centres, classrooms and students in adult education between 1982-83 and 1987

School	Centres		Classrooms		Students	
	Male	Female	Male	Female	Male	Female
1982-83	1800	1427	4110	4268	84,215	54,986
1987	1383	1462	3520	5201	76,842	73,887

Source: Educational Documentation, 1988

10.2 Level of Education for the Population aged 10 years and over

The aim of the Saudi government is not only to eliminate illiteracy but also to raise the level of education which will lead to better educational attainments in the population which it views as an essential base for social development, which will have an impact upon the country's general development.

The data presented in Table 10.4 shows the levels of education for the population aged 10 years and over in Saudi Arabia in 1974. In this connection it is to be noted that the periods spent at the main educational levels in Saudi Arabia are 6 years at elementary, 3 years at intermediate, 3 years at secondary and 4 years at university. At the secondary level, there is a choice between agricultural, commercial and industrial studies and teacher training for elementary schools.

Table 10.4

Percentage educational level of the total population by sex, aged 10 years and over, in Saudi Arabia, 1974

Level of Education	Male	Female	Total
Elementary	49.27	54.18	50.43
Intermediate	22.37	23.32	22.59
Secondary	17.49	16.33	17.22
University	8.48	4.07	7.44
Not stated	2.39	2.10	2.32
Total	100.00	100.00	100.00

Source: Al-Sheikh, A., 1981

The percentages in Table 10.4 represent those who had either completed that level or were still attending school. It can be seen that more than 50 per cent of the total population 10 years and over in Saudi Arabia had elementary certificates, almost 23 per cent had completed three years of intermediate school, but only 17 per cent had completed three years of secondary school and only 7 per cent had graduated from colleges and universities. There were some differences in male and female educational levels. The proportion of females who had completed elementary level was about 54 per cent while it did not exceed 49 per cent of the total males. Also the proportion of females who had intermediate certificates was 23 per cent, which was higher than the 22 per cent of males who had completed the same level. The proportions of students who obtained secondary certificates were 17 per cent for males and 16 per cent for females. The sex difference was very striking (of the order of 1:2) for university degrees. The proportion of males who had a university degree was 8 per cent which was twice that of females at 4 per cent.

A study of education levels according to principalities can reveal in general the different degree of educational developments in these areas at that time. Data for educational levels by principalities provided in Table 10.5 reveal that the level of education varies greatly among these areas. It shows that there were three principalities where the proportion of those gaining certificates ranged from less than 16 per cent to almost 40 per cent. These areas were Mecca, Riyadh, and Eastern Province. The reasons why these areas were well ahead in educational development was probably due to the fact that the earliest educational institutions influencing modern Saudi Arabia had been established in Mecca from the seventh century A.D. onward to teach Islam, and Mecca was a natural magnet for dedicated Muslims, many of whom remained to study after completing their haj. As for the Riyadh region, it contained the capital city which became the home of thousands of government officials and became a centre of commerce, industry and education which influenced the entire Riyadh region. In the Eastern province, the Arabian-American Oil Company (ARAMCO) was largely responsible for launching an education programme in the region by offering training for its Saudi employees in company-built or financed schools and also established free public schools for males and females at various levels.

Table 10.5

Percentage educational level of the total population by principality, aged 10 years and over, in Saudi Arabia, 1974

	Educational Level					
Principality	Elementary	Intermediate	Secondary	University	Not stated	Total
Mecca	33.08	35.79	32.04	29.75	25.37	33.09
Riyadh	25.28	25.80	38.19	33.00	27.20	26.52
Eastern Province	15.32	15.46	19.62	19.37	24.68	16.61
Asir	5.23	3.92	3.93	3.93	5.00	4.61
Medina	6.1	5.82	4.72	4.21	4.86	5.58
Jizan	1.95	1.74	1.90	1.58	2.40	1.88
Qasim	4.08	4.15	3.20	3.12	1.84	3.82
Hail	1.43	1.36	1.20	0.84	1.17	1.32
Tabuk	2.87	1.70	1.66	1.16	3.24	2.28
Baha	1.90	2.00	1.29	1.00	1.23	0.17
Najran	0.82	0.53	0.66	0.57	1.25	0.72
Northern Frontiers	0.60	0.69	0.66	0.59	0.85	0.78
Jawf	0.69	0.67	0.57	0.47	0.58	0.65
Qurayyat	0.45	0.36	0.36	0.30	0.38	0.40
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Al-Sheikh, A., 1981

In the second group, the proportion of population who acquired certificates ranged from 2 per cent to 16 per cent. These regions were Medina, Asir, Qasim and Tabuk. In the last group, the proportion of population acquiring certificates was less than 2 per cent. These areas were Jizan, Hail, Najran, Northern Frontiers, Jawf, Qurayyat and Baha. The reason why these areas had a low level of education was because they covered a vast area which the educational services had not reached.

10.3 School Enrolment

Undoubtedly, the increasing number of students enrolling at all educational levels annually and associated factors such as an increase in school building, equipment, and the number of teachers, are regarded as essential indicators that the government is seriously concerned about education. They are also considered as indicators for the continuous growth in the magnitude of the educational services. The continual increase in the number of students also serves as an indicator, as does the rise in the amount of funds allocated for educational spending, which is crucial to the social and economic development of the whole country.

Tables 10.6 and 10.7 show the enrolment in schools in Saudi Arabia at all levels from 1960 to 1988 for males and females and the effect of the government's efforts to recruit adults to educate themselves and to send their children to school at all levels. The data indicate that there was approximately an explicit continuous increase in the number of students enrolling at all educational levels, and the growth rate for both sexes was extremely high between 1960 and 1965. Also, the data indicate that school enrolment rose from 39,896 in 1960 to 2,571,855 in 1988. Specifically, elementary education is being expanded and increasing numbers of both boys and girls are being enrolled. For example, the rates of growth in the number of males and females enrolling at elementary level between 1960 and 1965 were 1718.6 and 689.5 per cent respectively. These rates of growth declined continuously thereafter. The numbers of female students at the secondary and university levels between 1970 and 1988 increased from 700 to 94,124 and from 240 to 45,425 students

Table 10.6

Male enrolment by level of education and rate of growth in Saudi Arabia during 1960-1988

Level of Education	Number of students							Growth Rate					
	1960	1965	1970	1975	1980	1985	1988	1960-65	1965-70	1970-75	1975-80	1980-85	1985-88+
Elementary	9596	174,514	267,500	439,502	527,769	720,245	867,664	1718.6	53.3	64.3	20.1	36.5	20.5
Intermediate	5649	14,832	37,389	80,190	126,215	235,552	278,843	162.6	152.1	114.5	57.4	86.6	18.4
Secondary	798	2484	8242	18,324	50,489	96,931	123,454	211.3	231.3	122.3	175.5	92.0	27.4
Higher education	541	1452	13,976	21,127	35,325	58,124	59,345	168.4	862.5	51.2	67.2	64.5	2.1
Technical education	1964	2713	3314	4063	7192	11,159	22,742	38.1	22.2	22.6	77.0	55.2	103.8
Special education*	-	652	1238	1550	1432	1695	2262	-	89.9	25.2	- 7.6	18.4	33.5
Adult education**	7168	32,739	40,726	68,082	75,700	81,822	73,996	356.7	24.4	67.2	11.2	8.1	-9.6
Teacher training	-	-	1410	3853	9594	10,127	10,843	-	-	173.3	149.0	5.6	7.1
Total	25,716	229,386	499,586	636,691	833,718	1,215,655	1,439,149	792.0	117.8	27.4	30.9	45.8	18.4

Sources: (* specially designed for deaf and blind; ** refer to anti-illiteracy schools; + this is a three year period and therefore the results are not comparable with the remaining columns.)

1. Statistical Year Book, 1968

2. Statistical Year Book, 1988

3. Ministry of Planning, 1970

4. Ministry of Planning, 1975

5. Ministry of Planning, 1980

Table 10.7

Female enrolment by level of education and rate of growth in Saudi Arabia during 1960-1988

Level of Education	Number of students							Growth Rate					
	1960	1965	1970	1975	1980	1985	1988	1960-65	1965-70	1970-75	1975-80	1980-85	1985-88+
Elementary	5180	40,896	115,000	214,641	360,030	542,708	710,623	689.5	181.2	86.6	67.7	50.7	30.9
Intermediate	-	544	10,800	34,061	70,200	137,489	187,000	-	1,885.3	215.4	106.1	95.9	36.0
Secondary	-	32	700	7616	17,571	67,255	94,124	-	2,087.5	988.0	130.7	282.8	40.0
Higher education	-	80	240	5,310	12,665	34,585	45,425	-	200.0	2,112.5	138.5	173.1	31.3
Technical education	-	-	-	550	1200	-	-	-	-	-	118.2	-	-
Special education	-	74	350	354	488	869	1,264	-	373.0	1.1	37.9	78.1	45.5
Adult education	-	-	-	28,893	38,976	70,317	82,000	-	-	-	34.9	80.4	16.6
Teacher training	-	-	6,492	3,586	12,911	7,054	12,270	-	-	44.8	260.0	-45.4	73.9
Total	5,180	41,626	133,582	295,011	514,041	860,277	1,132,706	703.6	220.9	120.8	74.2	67.4	31.7

Sources: (+ this is a three year period and therefore the results are not comparable with the remaining columns.)

1. Statistical Year Book, 1968

2. Statistical Year Book, 1988

3. Ministry of Planning, 1970

4. Ministry of Planning, 1975

5. Ministry of Planning, 1980

respectively, while the growth rate of female students at university level decreased from a high point between 1970 and 1975, but was still 31.3 per cent between 1985 and 1988. The growth rate of male students at university level declined from more than 168.4 per cent between 1960 and 1965 to only 2.1 per cent between 1985 and 1988.

To perceive the total effect of education on Saudi Arabian society, as well as its growth in significance over the years, we should include with the millions of students enrolled the number of teachers and consider the growth in the annual amount required to fund all aspects of education. In 1988, for example, the number of teachers in various levels of education increased from 27,194 in the 1971/72 academic year to 57,422 in the 1976/77 academic year and to 177,826 in the 1987/88 academic year.

The government has spared education no expense. Annual growth of government appropriations for education rose more than 35 times between 1969-70 and 1980-81. The Second Development Plan, 1975-80, budgeted SR 122.5 billion, 16 per cent of non-military spending, for education; the Third Development Plan, 1980-85, raised spending to SR 130 billion, 18.5 per cent of non-military spending. Two-thirds of the budget was earmarked for recurrent expenses, the rest for new projects (Nyrop, R., 1984 p.121).

In the 1985/86 academic year the government appropriation for education reached SR 23.54 billion, 11.8 of the total budget, which was SR 200 billion, so that approximately one Riyal was allocated for educational spending from 8.5 Riyals of the total government budget (Educational Documentation, 1988, p.56).

10.4 Higher Education

Higher education has a short history in Saudi Arabia. The oldest known university of Saudi Arabia is King Saud University, formerly the University of Riyadh. King Saud University, as the corner-stone for university development in modern Saudi Arabia, was established in 1957, with 18 colleges, and continues to have the largest student body, 25 per cent of the students enrolled in all institutions of higher education. In the last three decades a great expansion has been witnessed of the universities of the country (see Table 10.8).

Table 10.8

Universities in Saudi Arabia in 1987

University	Students		Faculty Staff	Admin-istrative Staff	Number of Colleges	Date Founded	Location
	No	%					
University of King Saud	26,008	24.6	2,698	6,718	18	1957	Riyadh City
Islamic University	2,419	2.3	271	435	6	1961	Medina
King Fahad University for Petroleum and Minerals	4,418	4.2	595	877	7	1963	Dhahran
University of King Abdul-Aziz	22,995	21.7	1,572	1,734	9	1967	Jedda
Imam Mohammad Islamic University	11,651	11.0	1,028	788	13	1974	Riyadh City
King Faisal University	4,166	3.9	772	1,682	6	1975	Dammam and Al-Hasa
University of Umm Al-Qura	15,095	14.2	1,226	703	8	1981	Mecca
Girls' Colleges	19,144	18.1	1,111	429	11	1975	Dammam Jedda and Riyadh City

* Percentage of the students enrolled in all institutions of higher education.

Source: Educational Documentation, 1988

At present, the higher education of Saudi Arabia comprises 7 universities, 12 colleges and post-secondary institutions. In 1987, of the total 2,468,437 literate population, 105,896 persons or 4.3 per cent, with a sex ratio of 145.6, were attending Saudi Arabian higher education institutions which are located mostly in Riyadh City, the capital. More than 35.6 per cent of the university students were in Riyadh City, about 24.6 per cent in King Saud University alone and 11.0 per cent in Imam Mohammad Bin Saud Islamic University. As Table 10.9 shows, in 1987 the main body of the advanced learning students had been at the level of bachelor's degree, being 96.0 per cent of the total population attending institutions of higher education in Saudi Arabia. Male students comprised 59 per cent of the students enrolled at bachelor level, while female students were 41 per cent of the total. The proportion of male students at the postgraduate level reached more than two-thirds, and was 28 per cent for female postgraduate students.

Table 10.9

Population attending institutions of higher education, by sex and levels of education in Saudi Arabia, 1987

	Educational Level		
Sex	Total	Bachelor	Master and Doctoral
Both sexes	105,896	96.0	4.0
Male	62,785	59.0	72.0
Female	4,311	41.0	28.0

Source: Educational Documentation, 1988

10.5 Educational Characteristics in Riyadh City

Until 1930, male education depended on a number of kuttabs which were scattered in Riyadh City and in some mosques. Later on these kuttabs were converted to regular schools. National school was established in 1947 and subsequently schools increased in number. Girls' education in Riyadh City before 1959 was confined to private schools. The Saudi government approved girls' education in the same year and opened some of the first state primary schools before dealing with intermediate school.

10.6 Literacy in Riyadh City

As a result of considerable efforts in the field of education in Riyadh City, there has been a large improvement in the literacy standard of the population during the past two decades (see Table 10.10). The literates include all those who read and write but did not finish high school. It can be seen from the table that the percentage of literacy increased from 47 per cent in 1968 to 65.5 per cent in 1977 and to 68.0 per cent in 1988 which decreased the percentages of illiterates to 53.0, 34.5 and 32.0 per cent in the same period.

Table 10.10

Literacy in Riyadh City of population aged 12 years and over in 1968, 1977 and 1988 sample survey

Educational level	1968		1977		1988	
	Number of persons	%	Number of persons	%	Number of persons	%
Illiterate	85,800	53.0	130,053	34.5	2,879	32.0
Literate	53,560	33.1	154,777	40.9	4,761	52.2
High school or more	22,420	13.9	92,749	24.6	1,436	15.8
Total	161,780	100.0	377,584	100.0	9,076	100.0

Sources:

1. Doxiadis Associates, Household Sample Survey, 1970

2. SCET - International - SEDES, Riyadh Action Master Plan, 1977

3. 1988 Sample Survey.

The proportion of literacy was higher among males than females. The cause of this can be traced back about forty years when school attendance and education in general was not yet a necessity, especially among the female population. In fact it was only in the late sixties and early seventies that school attendance and girls' education became accepted by parents and the government took the responsibility of providing education for the Saudi population at large, regardless of sex.

Table 10.11

Riyadh City population aged 12 years and over by sex and literacy in the 1968 and 1988 sample surveys

Educational level	Male		Female		Total	
	No.	%	No.	%	No.	%
1968						
Illiterate	37,000	38.0	48,800	75.9	85,800	53.0
Literate	41,620	42.7	11,940	18.6	53,560	33.1
High school or more	18,860	19.3	3,560	5.5	22,420	13.9
Total		100.0		100.0		100.0
1988						
Illiterate	1,108	22.9	1,771	41.7	2,879	32.0
Literate	2,645	54.7	2,116	49.9	4,761	52.2
High school or more	1,081	22.4	355	8.4	1,436	15.8
Total	4,834	100.0	4,242	100.0	9,076	100.0

Sources:

1. Doxiadis Associates, Household Sample Survey, 1970

2. 1988 Sample Survey

Table 10.11 presents the literacy of the Riyadh City population aged 12 years and over in the 1968 and 1988 sample surveys according to sex. It is evident from the table that the educational structure of the two sexes is rather different. In 1968 almost 76 per cent of the females and 38 per cent of the males aged 12 years and over were illiterate. The difference in the percentage of male and female illiterates, however, was 37.9 per cent in 1968, decreasing to 18.8 per cent in 1988. Between 1968 and 1988 the literacy proportion increased for both sexes but it was even greater among females than males, 34.2 per cent against 15.1 per cent. This significant increase has been attributable to equal opportunities for school attendance given to both young boys

and girls. Thirty years ago, it was considered by many to be unusual and also unnecessary for girls to go to school because in those days it was still considered that the appropriate place for girls was at home and their eventual roles would be merely as wives and mothers. The last two decades have brought far- reaching changes in the educational and employment opportunities that women enjoy. These changes have been conducted within an Islamic framework.

In the 1988 Sample Survey, 68.3 per cent of the population of Riyadh City 10 years and over was literate which was higher than that of the country as a whole in 1986. Table 10.12 and Figure 10.1 reveal the literacy of the Riyadh City population aged 10 years and over according to sex and age groups. It is evident from the table that in all age groups the proportion of literacy was higher among males than females. The percentages were higher among the age groups 10-14 and 15-19 in both sexes, where the proportion of literacy was higher than 90 per cent, but declined with age and among those aged 70 years and over about 3.0 per cent of the male population were literate and all the female population illiterate. The differences varied greatly with age groups. Between the ages of 10 and 19, the variation was relatively small, the maximum being only 4.6 per cent, in the 20-24 age group the difference was moderate, at 13.9 per cent, but from the age of 25 years and above, the difference was very significant with a maximum disparity of 34.5 per cent. The reasons behind the low literacy among females in the older age groups is the fact mentioned earlier that in the early fifties it was not common for girls to go to school and therefore school attendance during that period was very much male domi-

Table 10.12

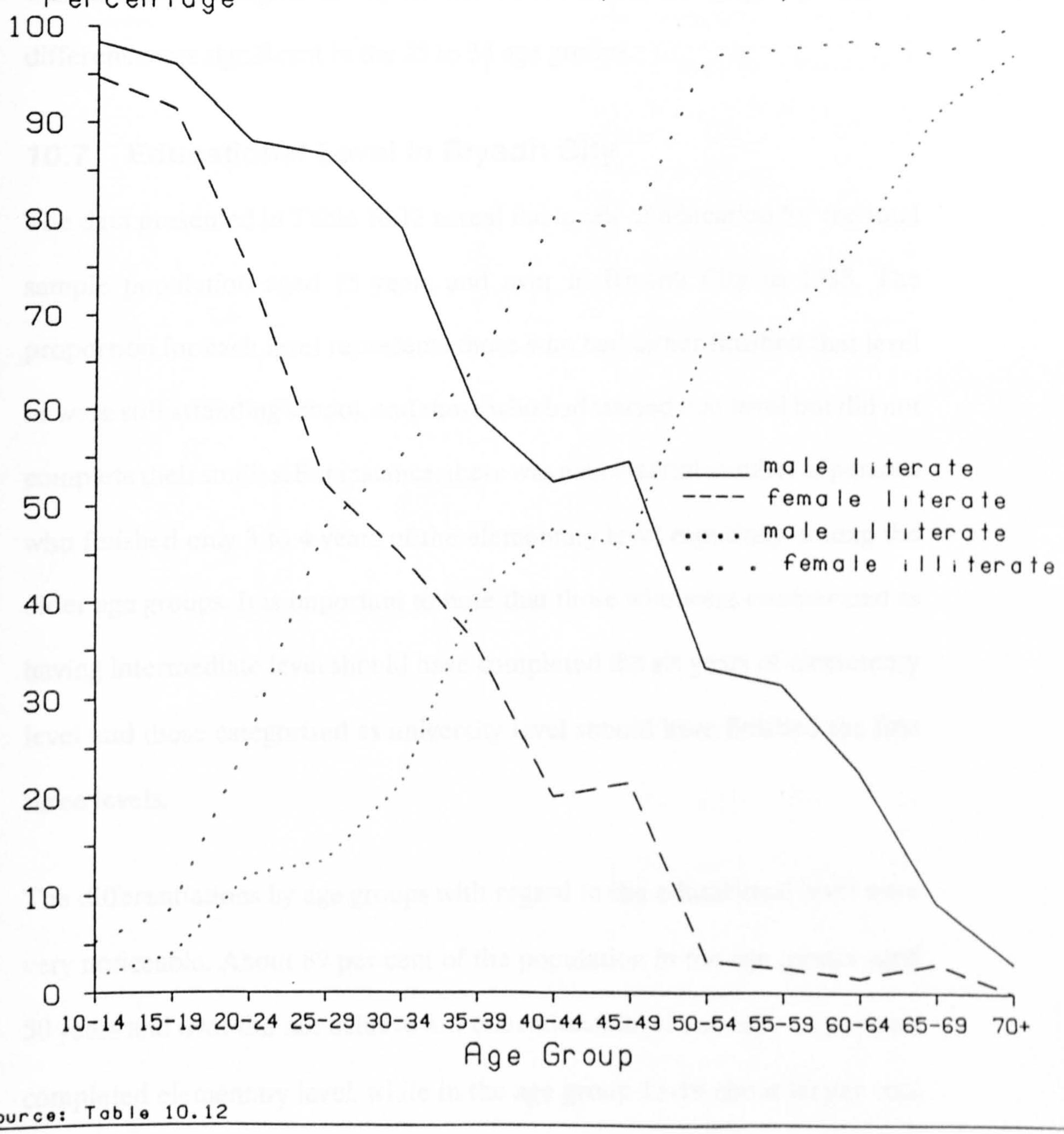
Number and percentages of literates and illiterates in the total population of Riyadh City aged 10 years and over, by sex and age groups in the 1988 sample survey

Age group	Male					Female				
	Total	Literate		Illiterate		Total	Literate		Illiterate	
		No.	%	No.	%		No.	%	No.	%
10-14	881	886	98.3	15	1.7	812	769	94.7	43	5.3
15-19	805	773	96.0	32	4.0	713	652	91.4	61	8.6
20-24	708	623	88.0	85	12.0	580	430	74.1	150	25.9
25-29	551	477	86.6	74	13.4	443	231	52.1	212	47.9
30-34	378	298	78.8	80	21.2	336	151	44.9	185	55.1
35-39	365	217	59.5	148	40.5	314	111	35.4	203	64.6
40-44	336	176	52.4	160	47.6	291	58	19.9	233	80.1
45-49	309	168	54.4	141	45.6	271	58	21.4	213	78.6
50-54	206	68	33.0	138	67.0	189	6	3.2	183	96.8
55-59	128	40	31.3	88	68.8	120	3	2.5	117	97.5
60-64	67	15	22.4	52	77.6	65	1	1.5	64	98.5
65-69	33	3	9.1	30	90.9	34	1	2.9	33	97.1
70+	67	2	3.0	65	97.0	74	-	-	74	100.0
Total	4,834	3,726	77.1	1,108	22.9	4,242	2,471	58.3	1,771	41.7

Source:

1988 Sample survey

Figure 10.1 percentage literate and illiterate of total population of Riyadh city aged 10 years and over by sex and age group in the 1988 sample survey



Source: Table 10.12

nated. Also, a large number of females did not benefit from school attendance when it was first emphasised during the late fifties and early sixties because they were then already above school age. However, over the years a very small number of them may improve in literacy through the Adult Education Programme. The Table and the Figure also reveal that the number of illiterates was, as expected, higher among females than males in all age groups and the difference was significant in the 25 to 34 age groups.

10.7 Educational Level in Riyadh City

The data presented in Table 10.13 reveal the levels of education for the total sample population aged 15 years and over in Riyadh City in 1988. The proportion for each level represents those who had either finished that level or were still attending school, and those who had started that level but did not complete their studies. For instance, there was a substantial number of persons who finished only 3 to 4 years of the elementary level especially among the older age groups. It is important to note that those who were enumerated as having intermediate level should have completed the six years of elementary level and those categorised as university level should have finished the first three levels.

The differentiations by age groups with regard to the educational level were very noticeable. About 89 per cent of the population in the age groups aged 50 years and over did not achieve any educational level and only 11 per cent completed elementary level, while in the age group 15-19 about 90 per cent

of the population had either started or passed the intermediate level, while about 6 per cent had not achieved any level.

Table 10.13

Percentage educational level of the sample population aged 15 years and over in Riyadh City 1988

Age	Educational Level					
	Illiterate	Elementary	Intermediate	Secondary	Institute	University
15-19	6.1	3.8	57.3	31.8	0.3	0.7
20-24	18.2	23.1	19.0	35.1	1.9	2.6
25-29	28.8	29.3	19.2	19.3	1.5	1.9
30-34	37.1	33.3	12.0	15.1	0.8	1.5
35-39	51.7	36.2	6.0	4.9	0.7	14.3
40-44	62.7	30.5	4.0	2.6	0.3	-
45-49	61.0	31.4	4.3	3.3	-	-
50 and over	88.9	11.1	-	-	-	-

Source: 1988 Sample Survey

Tables 10.14(1) and (2) reveals that the educational level differs between males and females in Riyadh City in the 1988 Sample Survey. Even though the variations were enormous among the older age groups they were also marked among the youngest age groups. In the age group 15-19 a greater number of both sexes went to school. In the same age group 4.2 per cent of the females either left after elementary school or did not finish that level, while 3.5 per cent of the males in the same age group fell into the same category. The females dropped out from school earlier than the males, probably because of marriage and the responsibility of raising children which would prevent most of them from continuing their education. On the other hand 59.5 per cent of the females in the same age group passed from elementary level to intermedi-

Table 10.14(1)

Education level of the sample population aged 15 years and over in Riyadh City, 1988

Male												
Age group	Illiterate		Elementary		Intermediate		Secondary		Institute		University	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
15-19	32	4.0	28	3.5	446	55.4	292	36.3	2	0.2	5	0.6
20-24	85	12.0	100	14.2	144	20.3	345	48.7	10	1.4	24	3.4
25-29	74	13.4	117	21.2	160	29.0	172	31.3	10	1.8	18	3.3
30-34	80	21.2	106	28.0	67	17.7	108	28.6	6	1.6	11	2.9
35-39	148	40.5	135	37.0	41	11.3	33	9.0	5	1.4	3	0.8
40-44	160	47.6	133	39.6	25	7.4	16	4.8	2	0.6	-	-
45-49	141	45.7	124	40.1	25	8.1	19	6.1	-	-	-	-
50 and over	373	80.3	128	19.7	-	-	-	-	-	-	-	-

Source:

1998 Sample survey

Table 10.14(2)

Education level of the sample population aged 15 years and over in Riyadh City, 1988

Female												
Age group	Illiterate		Elementary		Intermediate		Secondary		Institute		University	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
15-19	61	8.6	30	4.2	424	59.5	191	26.7	2	0.3	5	0.7
20-24	150	25.9	198	34.1	101	17.5	107	18.4	14	2.4	10	1.7
25-29	212	47.9	174	39.3	31	7.0	20	4.5	5	1.1	1	0.2
30-34	185	55.1	132	39.3	19	5.6	-	-	-	-	-	-
35-39	203	64.6	111	35.4	-	-	-	-	-	-	-	-
40-44	233	80.1	58	19.9	-	-	-	-	-	-	-	-
45-49	213	78.6	58	21.4	-	-	-	-	-	-	-	-
50 and over	94	98.0	11	2.0	-	-	-	-	-	-	-	-

Source:

1998 Sample survey

ate, in comparison with 55.4 per cent of the males. The same pattern seems to be found in the age groups 20-34 for the first two levels of education. In fact, the older the age groups the lower the educational level of females and in the age group 50 years and over only l2.0 per cent were educated compared with 19.7 per cent of the males.

With respect to the secondary level, a very sharp difference between males and females was reported in the age group 15-29. The most significant figure was that for the age group 20-24 where 48.7 per cent and 18.4 per cent of the males and females respectively were reported to have completed the secondary level.

Significant recent efforts in education in Saudi Arabia in general and in Riyadh City in particular lead to two inferences. First, it is expected in the next few years that the proportion of those who will enter higher education will increase to more than 15 per cent for both sexes in the age group 20-24. Secondly, the growing pool of educated women and their increasing role in the social and economic life of the country will have probable effects upon fertility. Much will depend upon the relationship between education of women and their labour force participation and age of marriage.

10.8 School Enrolment in Riyadh City

Of the total population aged 5-29 years 55.1 per cent were reported as attending school, either as full time or part time students, in the 1988 sample survey. More than two-thirds of those students were less than 15 years of age and the remainder were between 15 and 29 years old.

Table 10.15 and Figure 10.2 reveal the six variations in school enrolment. School attendance was higher among males than among females, 61.3 per cent against 47.0 per cent. The proportion of females declined from 88.3 per cent in the age group 10-14 to 18.0 per cent in the age group 15-19, so that 70.3 per cent of girls dropped out from school by 14 years of age, while only 22.8 per cent of males did. The variation between males and females becomes larger in the age group 20-24, where 26.8 per cent of males continued their education in contrast with only 1.6 per cent of females.

Table 10.15

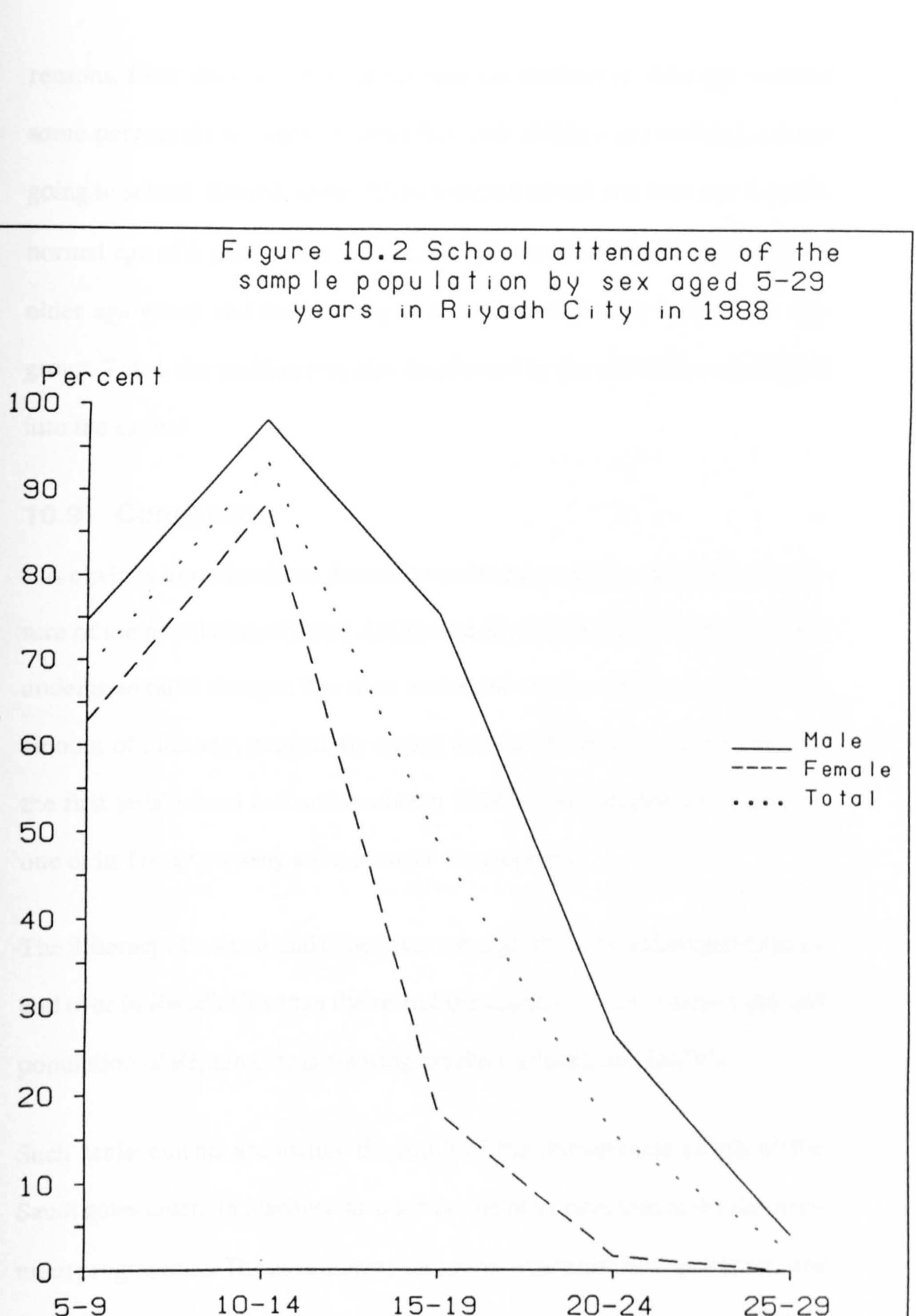
School attendance of the sample population, by sex and aged 5-29 years in Riyadh City, 1988

	Male		Female		Total	
Age groups	No.	%	No.	%	No.	%
5-9	693	74.7	540	62.7	1,233	68.9
10-14	864	98.1	717	88.3	1,581	93.4
15-19	606	75.3	128	18.0	734	48.4
20-24	190	26.8	9	1.6	199	15.5
25-29	22	4.0	-	-	22	2.2
5-29	2,375	61.3	1,394	47.0	3,769	55.1

Source: 1988 Sample Survey

An unusual characteristic of the relative school enrolment in Riyadh City was the increased proportion between the 5-9 age group and the 10-14 age group. It was 68.9 per cent in the 5-9 age group compared with 93.4 in the 10-14 age group. The same trend happened for both sexes. In theory the two proportions should be equal, but in practice the 10-14 age group proportion nationally was somewhat lower than the proportion of pupils in the 5-9 age group as a result of the pupil drop-out from schools. The inverse exists in Riyadh City for two

Figure 10.2 School attendance of the sample population by sex aged 5-29 years in Riyadh City in 1988



Source: Table 10.15

reasons. First was over- reporting among the children of older age because some parents do not want to admit that their children are working and not going to school. Second, some children started school at a later age than the normal age of 6 years which led to the higher proportion of children in the older age group and the lowering of school enrolment in the younger age group. Third, the position may also be affected by the movement of children into the capital.

10.9 Conclusion

It is obvious from the above discussion on literacy and the educational structure of the population of Saudi Arabia and Riyadh City that conditions have undergone rapid changes. The most noticeable change was the decline in the amount of illiteracy, particularly among females. Since the establishment of the first girls' school in Saudi Arabia in 1959 female education has become one of its fastest growing areas of social development.

The illiteracy rate was found to be lower amongst the population aged 15 years and over in Riyadh City than the rest of the country, which indicates that the population of Riyadh City is enjoying excellent educational facilities.

Such achievements are mainly the result of the considerable efforts of the Saudi government in placing education as one of its priorities in the development programmes. The government has spared education no expense and has provided free education for its citizens with the aim of raising the level of education and eliminating adult illiteracy. The effort to wipe out illiteracy and

raise the level of education was not only limited to the younger section of the population but also to older adults through the Adult Education Programmes.

In spite of sex variations between males and females with regard to literacy and educational level in Riyadh City, it seems that female education has increased more over the last 14 years, which may influence the mean age at first marriage in future, raising it to a higher level than at present; such an increase could subsequently lead to a decline in the present level of fertility. The increasing proportion of educated females may also lead to a rise in their rate of economic participation in the city; this could also have a significant effect on the levels of fertility, mortality, and population growth.

With respect to school attendance, the study reveals that most children aged 5-14 years were attending school, which demonstrates that the government should make school attendance compulsory for children between 5- 14 years old. Although the proportion of attendance at higher levels of education in the country as a whole, or in Riyadh City, was extremely small, the number in the near future will increase. Education has expanded at every educational level and in every programme.

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Chapter Eleven

The Economically Active Population in Saudi Arabia and Riyadh City

Introduction

In this chapter, an attempt is made to discuss the economic characteristics of the Saudi population in general and Riyadh city in particular. Although these characteristics are not a demographic variable, numerous socio-economic development indicators are found to some extent associated with changes in fertility and mortality rates. Some studies in Arab countries have suggested that occupational variables appear to have contributed to fertility and mortality decline. Kohli and Al- Omaim (1986) claimed for Kuwait that persons who are not in the labour force experienced twice the mortality rate than those who are in the labour force, and also confirmed that mortality is lower among persons in non-manual occupations than among persons in manual occupations.

With regard to fertility, a study by Abou Gamrah (1980) in Egypt confirmed the relative importance of a mother's occupation as an influencing factor. He confirmed that women who work as technicians, professionals, directors, managers and clerks have significantly lower marital fertility than other groups. It is also stated that women working in sales and commerce have the highest fertility rate among the economically active women. In addition, he affirmed that economically active women in Cairo in 1976 generally had lower fertility than inactive women. These results indicate an inverse relationship between female economic activity and family size. In short, the relationship between demographic characteristics and economic activity are very significant.

Prior to the unification of Saudi Arabia in 1932, the main economic activities of the population were confined to primitive agriculture concentrated around sources of water, small-scale fishing along the west and east coasts, nomadic herding of livestock, commerce and production of simple tools by craftsmen living in small towns. The pilgrim industry was probably the most important source of foreign exchange and the one really monetised sector of the country's economy.

Oil prospecting and exploration had already begun in 1923, but successful discovery, hence production, began only in 1938 and was interrupted by World War II. Oil production was resumed after the war and oil revenues began growing rapidly. This soon superseded the pilgrim and agricultural industries as the mainstay of the economy.

Until 1975, the main emphasis in economic development in Saudi Arabia focused on building the infrastructure, which had to precede the development of industries. Today it has become clear that the development of roads, office construction and housing no longer receive the government's greatest attention. Government emphasis has been shifted to the development of skilled and semi-skilled Saudi workers. Availability of high revenue from oil must be supported with human skills in order to achieve accelerated economic development of the country. Saudi Arabia has been too dependent upon imported skills. Thus, the scarcity of the skilled Saudi labour force threatened to compromise the execution of the development plan which led the Saudi government to rely upon the skilled and semi-skilled foreign workforce.

11.1 The Economically Active Population in Saudi Arabia

The total dependency indicator mentioned earlier in Chapter Eight indicated a very high rate of dependency in Saudi Arabia. This gives us some idea of the heavy burden being borne by the productive classes in Saudi Arabia due to their having to support other extensive population groups consisting essentially of young mouths to feed. In 1986, the total dependency ratio was estimated at 112.6 dependents for every 100 persons in the productive age groups. Therefore it is necessary to examine the economically active population and the effects of the youthfulness of the population of Saudi Arabia on the labour force. On the other hand, so far as education is concerned we have seen in Chapter Ten that the female educational level has improved since 1973. Thus an investigation into their participation in the labour force is important. Furthermore, how far has migration affected the labour force and employment? These factors, as well as the occupational structure of the population of Saudi Arabia in general and Riyadh City in particular will be analysed in this Chapter.

The concept of manpower refers to that section of the population whose work, energy and talent are, or can be, used in economic activity. Thus, eliminated from the manpower statistics are children of under 15 years who are not working, those over 65 years and those permanently disabled because of physical defect or chronic disease.

Manpower is divided into two classes:

1. The active labour force who furnish the supply of labour for the production of goods and services, whether as employees, unpaid family labour, employers or self-employed, and the unemployed who are able, willing, and searching for work.

2. The non-labour force, mainly those who are able to work, but are neither working nor looking for work. This group includes full-time students, housewives, persons in complete dependence on subsidies and those not looking for work because they have private means of support.

In 1963, the total labour force in Saudi Arabia was 722,050 of which 672,050 (93.0 per cent) were Saudis. The remaining 50,000 (7.0 per cent) were foreigners (Baksheikh, A., 1985, p.42). In 1966 the total labour force totalled 1,006,854 persons of whom 851,000 persons or 84.5 per cent were Saudis and 155,845 persons or 15.5 per cent were foreigners (Industrial Studies and Development Centre, 1976, p.15). When the price of oil increased in 1973/74 the government increased its expenditure by establishing new projects and expanding and developing other projects, which changed this situation, particularly non-national labour. During 1963 to 1975 the non-national force increased by 44.4 per cent but most of this increase occurred during 1974 and 1975. The greatest increase in the size of the non-national labour force, due to a shortage of national labour, was during the years 1975 to 1980 when the numbers increased from 391,213 to 1,059,000, an increase of 270 per cent. According to the 1974 census, the actual size of the labour force was 1,717,294, of whom 1,326,081 persons or 77.2 per cent were Saudis and 391,213 persons or 22.8 per cent were foreigners (Central Department of Statistics, 1977.) In 1980, the total labour force reached 2,471,200 persons of whom 1,411,400 were

Saudis, forming about 57 per cent, and 1,059,800 were foreigners, or 43 per cent of the total labour force. During the second development plan, 1975-1980, the average annual growth rate of Saudi labour was 2.4 per cent and 16.5 per cent for non-Saudis (Ministry of Planning, 1980, p.35). According to an estimation made by HRD base in 1985, the total labour force in Saudi Arabia was 4,913,617 persons of whom 1,390,925, or 28.3 per cent, were Saudis and the remainder, 3,522,692 persons or 71.7 per cent were non-Saudis. Therefore, as revealed by Table 11.1, the proportion of Saudis in the total labour force has decreased considerably from 93.0 per cent in 1963 to 28.3 per cent in 1985. This revealed that the country would increasingly rely upon foreign manpower due to the small size of its labour force. Furthermore, there was some sign that the absolute size of the non-national labour force was higher than the reported figures. For instance, some researchers estimated that there were between 1 and 1.5 million foreign workers in 1975 (Nyrop, R., 1977, p.236).

Table 11.1

Labour force 12 years and over by nationality in Saudi Arabia in 1963, 1966, 1974 amd 1985

Nationality	1963		1966		1974		1985	
	No.	%	No.	%	No.	%	No.	%
Saudi Arabia	672,050	93.0	951,000	84.5	1,326,081	77.2	1,390,925	28.3
Non-Saudi Arabia	50,000	7.0	155,845	15.5	391,213	22.8	3,522,692	71.7

Sources:

1. Baksheikh, A., 1985.
2. Industrial Studies and Development Centre, 1976.
3. Central Department of Statisitics, 1977.
4. HRD base, 1987.

11.2 Labour Force Participation Rates

The participation rate of Saudis aged 12 years and over was about 22.3 per cent in 1974 (Central Department of Statistics, 1977). But the sex differential was very significant. Saudi females constituted only 5.8 per cent of the total indigenous labour force and only 4.5 per cent of all the Saudi females in the age group 12 years and over were economically active, in contrast to 72.7 per cent of the Saudi males.

Table 11.2 reveals that the proportion of Saudis economically active to the total indigenous population is quite low. In 1974, it was 22.3 per cent, lower than in many other Arab countries such as Kuwait, Bahrain, Libya and Syria (Industrial Studies and Development Centre, 1976, p.16). Al-Ibrahim, 1982, stated several factors which contributed to the low participation rate of the indigenous labour force as follows:

Table 11.2

Participation rate of Saudis in the labour force 1966, 1974, 1985

	1966	1974	1985
Total Population	4,600,000	6,726,466	11,010,539
Non-Saudis	300,000	791,105	4,563,049
Saudis	4,300,000	5,935,361	6,447,490
Indigenous labour force	851,000	1,326,081	1,390,925
Participation rate (%)	19.8	22.3	21.6

Sources:

1. Industrial Studies and Development Centre, 1976.
2. Central Department of Statistics, 1974.
3. HRD base, 1987.

1. The very low participation rate is largely due to the severe restrictions (caused by social and religious factors) on the participation of females in the labour force. In fact, as was shown above only 4.5 per cent of the potentially active female population was in the labour force.

2. The young age structure of the Saudi population is a contributing factor. The percentage of persons aged 15 years and under in the total population in 1974 was about 48.7 per cent (see Chapter Eight). This high percentage increases the dependency ratio (as was shown above) and lowers the proportion of the current labour force.

3. The rapid expansion of the educational sector delays in the short run the participation of the school-age group (15-22) in the labour force (see Chapter Ten).

4. A number of social and cultural factors have induced unfavourable attitudes towards certain types of occupations which are considered socially inferior or shameful, such as manual work.

5. The low level of educational and technical attainment of the majority of the population has created a large gap in the skilled labour market. The increasing demand for technicians and skilled labourers cannot be met locally, and therefore the heavy reliance on foreign labour will continue for several years to come.

6. There is a new factor which may reduce the activity rate of some social groups in society and that is the effect of having become rich quickly without participating in productive employment. This factor may make wealthy people reluctant to work.

Totally, all these factors, with some no doubt contributing more than others, have combined to inhibit and reduce the Saudi active labour force.

11.3 Levels of Education and Occupation

Economic development in Saudi Arabia has been suffering largely from shortage of labour, particularly in the case of educated personnel with adequate experience and training. Tables 11.3 and 11.4 show more details of where the shortages of skilled workers have been. Table 11.3 reveals that 38 per cent of the total labour force in Saudi Arabia in 1977 were illiterate and about 23 per cent more had no educational qualification. About 25.6 per cent of the remaining labour force had acquired elementary education certificates, about 17.1 per cent the intermediate certificate, and about 24.1 per cent the secondary school certificate. About 25.6 per cent of the qualified labour force were University graduates and about 7.6 per cent of the qualified labour force were technical and others. Table 11.4 illustrates the shortage of the skilled labour force among the indigenous population. About 6.0 per cent were skilled workers and less than 7 per cent were professionals, while 37 per cent were semi- skilled or unskilled workers and about 25 per cent were engaged in the agricultural sector.

Table 11.3

Distribution of the active labour force by education attainment aged 12 and over in 1977

Educational attainment	Number	%
Illiterate	756,652	38
Read & Write only	464,911	23
Elementary	197,443	10
Intermediate	132,165	7
Secondary	186,426	9
University	197,508	10
Technical & others	58,505	3
Total*	1,993,610	100

* includes Saudis and non-Saudis.

Source: Central Department of Sataistics, 1977.

Table 11.4

Estimated national labour force by occupation in 1980

Occupation	Number (000s)	%
Managers	8.7	0.6
Professions	52.9	3.5
Technicians and sub-professionals	33.4	2.2
Clerical workers	99.6	6.6
Sales workers	97.2	6.4
Service workers	134.5	8.9
Operatives	57.1	3.8
Skilled workers	93.5	6.0
Semi-skilled workers	265.0	17.5
Unskilled workers	296.4	19.5
Farmers	281.0	18.5
Bedouins	98.7	6.5
Total	1,518.0	100.0

Source: Ministry of Planning, 1980.

The above discussion clearly reveals the deficiencies in the quality of the Saudi labour force. The severe shortage of technicians, skilled workers and others has been and still is one of the major forces which is slowing down the economic development process. Thus, the Saudi government depends on foreign technicians and skilled labour. There are two reasons for the low percentage of the Saudi population engaged in technician work. First, many Saudis attach low prestige to technical education or work. They more or less identify higher education with the pursuance of a university degree which has become the single symbol of intellectual aptitude in Saudi Arabia. Secondly, because of pay and prestige, most secondary school leavers who qualify for higher education prefer to enter the universities rather than intermediate technical institutes. The tendency has been for students to pursue vocational education only if they were unable to begin or complete their university studies. The total number of graduates from the seven universities is growing ahead of target. Indeed, some graduates in the arts, humanities, social sciences are already beginning to have difficulty in finding appropriate jobs. Increasingly they must accept technical education rather than the administrative level of government service. In the near future, the production of non-technical university graduates may exceed the economy's capacity to absorb them productively. But there is a real shortage of technical graduates which is likely to continue for a long time. The shortage has been aggravated by serious deficiencies in the bridging between educational institutions such as the universities and the employing institutions, such as the private sector. Greater integration of teaching, research and service activities could result in better

utilisation of deficient personnel and better training of university students. Although there has been some progress in this matter, technical education still needs to move closer towards the mainstream of development activities. Thus, the government recognised that investment and improvement of human capital is a necessary condition to increasing the productive capacity of the labour force, especially those technically or scientifically trained. There were a variety of vocational education and technical training programmes designed to provide skilled workers. They were divided into three general fields - industrial, commercial and agricultural training and could be pursued at both secondary and advanced levels. Generous financial incentives for students in technical training were introduced. They received SR 450 to SR 800 as a monthly allowance and the necessary clothes, tools and equipment for their training. Room and board were provided as was money for family visits for those living away from home. The students were also offered inducements to complete their studies and bring their skills into the market. Students received SR 2,000 on completion of their training along with a SR 1,000 bonus for excellent grades. Another SR 3,000 was awarded on successfully finishing six months of work in one's specialisation. Graduates of advanced programmes were eligible for low-interest loans up to SR 100,000 to begin their own businesses.

11.4 Employment by Economic Activity

Before the discovery of oil and the massive oil revenues and extensive petroleum reserves brought undreamed of wealth to Saudi Arabia, it depended almost entirely on its agriculture. Table 11.5 demonstrates the proportional

distribution and the changes of the total population of the Saudi Arabian labour force by economic activity. The table shows that up to 1985 agriculture was a leading sector of employment in Saudi Arabia, although its proportion had already declined over the period 1970-1985. There was a striking decline in the labour force in the agricultural sector from 1975 to 1980 when the annual decline was about 2.8 per cent, and from 1980 to 1985 there was a further decline of about 2.4 per cent per year. The proportion of the total labour force in the agricultural sector declined from 46.2 per cent in 1970 to 20.1 per cent in 1985 and is anticipated to decline to 15.7 per cent in 1990.

Decreasing agricultural employment is a global phenomenon associated positively with improvement in agricultural technology and negatively with rural-urban migration. In Saudi Arabia most of the labour force in the agricultural sector are national citizens. The government encourages farmers to increase agricultural production until the country could be potentially self-sufficient in the most important products such as vegetables, wheat and poultry by giving subsidies and loans without interest (see Table 11.6). Farmers are encouraged to apply new technology, equipment and improved methods of irrigation, and other practices help to increase labour productivity and thus release workers from this sector. The government encourages the surplus labour force in the agricultural sector to move to the industrial sectors. On the other hand, the construction industry's share of total employment declined from 13.4 per cent in 1980 to 9.3 per cent in 1985 but should increase to 13.8 per cent in 1990.

Table 11.5

Distribution of employed persons by economic activity in Saudi Arabia during 1970-1990

Economic Activity	Number in thousands		% Distribution		% Change 1970-1975
	1970	1975	1970	1975	
Production Sectors					
Agriculture	464.8	695	46.2	39.8	49.5
Mining	2.3	3.4	0.2	0.2	47.8
Manufacturing	41.1	74.4	4.1	4.2	81.0
Utilities	8.3	16.1	0.8	0.9	94.0
Construction	104.0	172.3	10.3	9.9	65.7
(a) subtotal	620.5	691.2	61.6	55.0	54.9
Service Sector					
Trade	95.8	153.6	9.5	8.8	60.3
Transport	44.0	114.5	4.4	6.5	160.3
Finance	-	13.1	-	0.8	-
Other services	223.4	230.0	22.2	13.2	-
Government(1)	-	246.7	-	14.1	-
(b) subtotal	363.2	757.9	36.1	43.4	108.7
(a) + (b) non-oil economy	983.7	1719.1	97.7	98.4	74.8
(c) oil sector	22.9	27.4	2.3	1.6	19.7
Total (a) + (b) + (c)	1006.6	1746.5	100.0	100.0	73.5

Economic Activity	Number in thousands		% Distribution		% Change 1975-1980
	1975	1980	1975	1980	
Production Sectors					
Agriculture	695.0	598.8	39.8	24.2	-13.9
Mining	3.4	7.3	0.2	0.2	114.7
Manufacturing	74.4	104.2	4.2	4.2	40.1
Utilities	16.1	31.5	0.9	1.3	95.1
Construction	172.3	330.1	9.9	13.4	91.6

(a) subtotal	961.2	1071.9	55.0	43.4	11.5
Service Sector					
Trade	153.6	310.0	8.8	12.6	101.8
Transport	114.6	214.6	6.5	8.7	87.4
Finance	13.1	34.8	0.8	1.4	165.6
Other services	230.0	480.3	13.2	19.2	109.7
Government(1)	246.7	321.0*	14.1	13.0	30.1
(b) subtotal	757.9	136.3	43.4	55.2	79.9
(a) + (b) non-oil economy	1719.1	2435.2	98.4	98.6	41.7
(c) oil sector	27.4	36.0	1.6	1.4	31.4
Total (a) + (b) + (c)	1746.5	2471.2	100.0	100.0	41.5

Economic Activity	Number in thousands		% Distribution		% Change 1980-85
	1980	1985	1980	1985	
Production Sectors					
Agriculture	598.8	528.8	24.2	20.1	-11.7
Mining	7.3	9.8	0.3	0.4	34.2
Manufacturing	104.2	164.2	4.2	6.3	57.6
Utilities	31.5	47.0	1.3	1.8	49.2
Construction	330.1	245.1	13.4	9.3	-25.7
(a) subtotal	1071.9	994.9	43.4	39.9	-7.2
Service Sectors					
Trade	310.6	339.6	12.6	12.9	9.3
Transport	214.6	274.6	8.7	10.5	28.0
Finance	34.8	44.8	1.4	1.7	28.7
Other services	482.3	505.3	19.5	19.5	4.8
Government(1)	321.0	421.0*	13.0	16.0	31.2
(b) subtotal	1363.3	1585.3	55.2	60.3	16.2
(a) + (b) non-oil economy	2435.2	2580.2	98.6	98.2	6.0
(c) oil sector	36.0	46.0	1.4	1.8	27.8
Total (a) + (b) + (c)	2471.2	2626.2	100.0	100.0	6.3

Economic Activity	Number in thousands		% Distribution		% Change 1985-90
	1985	1990	1985	1990	
Production Sectors					
Agriculture	528.8	663.0	20.1	15.7	25.4
Mining	9.8	5.2	0.4	0.2	-46.9
Manufacturing	164.2	538.2	6.3	12.8	227.8
Utilities	47.0	147.4	1.8	3.5	213.6
Construction	245.1	580.9	9.3	13.8	137.0
(a) subtotal	994.9	1934.7	39.9	45.8	94.5
Service Sector					
Trade	339.6	493.0	12.9	11.7	45.2
Transport	274.6	310.7	10.5	7.4	13.1
Finance	44.8	140.7	1.7	3.3	214.1
Other services	505.3	829.1	19.5	19.6	64.1
Government(1)	421.0*	446.3*	16.0	10.6	6.0
(b) subtotal	1585.3	2219.8	60.3	52.6	40.0
(a) + (b) non-oil economy	2580.2	4154.5	98.2	98.4	61.0
(c) oil sector	46.0	66.0	1.8	1.6	43.5
Total (a) + (b) + (c)	2626.2	4220.5	100.0	100.0	60.7

(1) Excludes non-civilian employment.

* Includes an estimated 49,600 wage workers, not classified as civil servants.

Sources:

1. Ministry of Planning, 1970.

2. Ministry of Planning, 1975.

3. Ministry of Planning, 1980.

4. Ministry of Planning, 1985.

Table 11.6

Government inducements for agricultural production in Saudi Arabia

Type	Amount	Source
Production Input		
Fertiliser	50% of cost	Ministry of Agriculture & Water
Animal feed	50% of cost	Saudi Arabian Agriculture Bank
Potato seed	5 tons free, then SR.1,000/ton up to 15 tons.	Ministry of Agriculture & Water
Machinery & Equipment		
Poultry equipment	30 % of cost	Saudi Arabian Agriculture Bank
Dairy equipment	30 % of cost	Saudi Arabian Agriculture Bank
Engines and pumps	50% of the cost	Saudi Arabian Agriculture Bank
Fish trawlers	Variable	Saudi Arabian Agriculture Bank
Transportation		
Air transport of cattle	100% of costs	Saudi Arabian Agriculture Bank
Output		
Wheat	SR.3.50/kg	Grain Silos and Flour Mills Organisation
Rice	SR.0.30/kg	Ministry of Agriculture & Water
Corn	SR.0.25/kg	Ministry of Agriculture & Water
Millet/barley	SR.0.15/kg	Ministry of Agriculture & Water
Dates	SR.0.25/kg	Ministry of Agriculture & Water
Date palms planted	SR.50.000/tree	Ministry of Agriculture & Water
Agricultural credit		
All types	Variable conditions	Saudi Arabian Agriculture Bank
Agro-industrial credit		
All types	Variable conditions	Saudi Arabian Development Fund
Land acquisition		
Land distribution	Free	Ministry of Agriculture & Water

Source: Ministry of Planning, 1980

With regard to the other sectors, total employment will increase, especially in manufacturing, trade, government and transport. There was a striking increase in the number and percentage employed in the manufacturing sector during the years 1970-85 when the number increased more than twice and in consequence accounted for the rising proportion of the total labour force from 4.1 per cent to 6.3 per cent. By 1990 it will probably account for 12.8 per cent of the total labour force. In the trade sector the labour force increased from 95,800 workers in 1970 to 339,600 workers in 1985 and is expected to increase to 493,000 workers by 1990, which shows an annual growth rate of about 7.5 per cent.

Despite the important role of the mining sector in the economy of the country, its employment of manpower has been surprisingly low. Although its share of total employment increased by approximately 75,000 workers from 1970 to 1985, its proportion of the labour force did not exceed half per cent. This was, of course, due to the nature of this capital intensive industry which offered relatively few employment opportunities to local workers.

As we mentioned earlier, the participation of foreign workers increased substantially from 1975 to 1985. The major increase occurred in the manufacturing and construction sectors, 60-80 per cent of whose labour force consisted of non-citizens. The government was in urgent need of a large number of skilled and semi-skilled foreign workers for the first three development plans in order to achieve their objectives. It is anticipated that the total number of foreign workers will decline in the future in the fourth and subsequent

development plans because of the increase of the national labour force and because the government wants to reduce or to eradicate the negative effect which the foreign labour force causes to Saudi society. This can be observed by the difficulties facing foreigners to acquire or renew their work or residence permits.

11.5 Distribution of Working Population by Sex, Nationality and Economic Activity in Saudi Arabia, 1974

The 1974 census is the only source of data which enables us to examine the distribution of the male and female labour force by economic activity in Saudi Arabia. Table 11.7 reveals that a large proportion of both sexes were employed in agriculture, forestry and fishing in relation to other sectors. More than three quarters of all female workers were engaged in this type of employment, in comparison with about half of the national male workers. The next most important activity was in the community, social and personal services sector, where the percentage participation of males and females was 23.8 per cent and 19.2 per cent respectively. The proportion of female workers in manufacturing was higher than male, 2.8 per cent in comparison with 2.1 per cent. On the other hand, in the remaining sectors the proportion of males was higher than females. Trade and transport represented less than 8 per cent each of the total working population and the remaining sectors represented less than 5 per cent of the total labour force.

Table 11.7

Percentage distribution of the national and non-national labour force by sex and economic activity, 1974

Economic Activity	National		Non-national		Total	
	M	F	M	F	M	F
Agriculture forestry and fishing	50.1	75.2	7.3	3.0	40.3	60.3
Mining and quarrying	1.6	0.1	1.5	1.8	1.6	0.5
Manufacturing	2.1	2.8	12.4	8.5	4.4	4.0
Electricity gas and water	0.7	0.2	1.7	1.0	1.0	0.3
Construction	3.7	-	27.7	-	9.2	-
Wholesale and retail trade restaurants and hotels	6.2	1.2	17.3	11.3	8.7	3.2
Transport storage and communications	7.5	0.3	4.2	1.0	6.8	0.5
Finance insurance real estate and business services	0.6	-	1.0	-	0.7	-
Community social and personal services	23.8	19.2	23.6	72.4	23.8	30.2
Unspecified	3.7	1.0	3.3	1.0	3.5	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,249,181	76,900	371,250	19,963	1,620,431	96,863

Source: Central Department of Statisitics, 1977

As mentioned before, as Saudi Arabia relies fully upon foreign manpower to implement its development plans, inequality in the sexes in the foreign labour force of Saudi Arabia was not unusual. Table 11.7 reveals that in all sectors non-national male workers were considerably higher in number than female workers because Saudi society is regarded as male dominant where only men were to be found in positions of responsibility and the nature of work involved was not considered suitable for females. A large proportion of non-national male workers was employed in four main sectors: 27.7 per cent in construction, 23.6 per cent in community, social and personal services, 17.3 per cent in trade and hotels and 12.4 per cent in the manufacturing sector. With regard to non-national female workers, they were mainly concentrated in community,

social and personal services totalling 72.4 per cent. Two other sectors had high percentages of non- national females: trade and manufacturing, with 11.3 per cent and 8.5 per cent respectively.

HRD base had in 1985 estimated national and non-national employment by economic sector (Table 11.8). According to this estimation the highest proportion of the national labour force was no longer in agriculture (22.7 per cent) but was, as can be seen from the table, engaged in services (27.8 per cent of the labour force). Then comes the public sector, representing 16.4 per cent, the trade and hotels sector 11.6 per cent and transport 10.2 per cent. The oil sector, represented by the major divisions of mining and quarrying, occupied only 2.2 per cent of the national labour force. The remaining four sectors, namely, manufacturing, utilities, construction and finance represent 9.3 per cent of the total national labour force.

Table 11.8

Distribution of national and non-national employment by economic sector, 1985

Economic Sector	National		Non-national		Total	
	No.	%	No.	%	No.	%
Agriculture	315,516	22.7	395,481	11.2	710,997	14.5
Mining and quarrying	30,168	2.2	34,004	1.0	64,172	1.3
Manufacturing	51,364	3.7	357,565	10.2	408,929	8.3
Utilities	25,817	1.9	143,161	4.1	168,979	3.4
Construction	36,494	2.6	1,026,788	29.1	1,063,282	21.6
Trade and hotels	159,649	11.6	468,027	13.3	627,676	12.8
Transport	142,568	10.2	175,359	5.0	317,928	6.5
Finance	15,175	1.1	63,382	1.8	78.557	1.6
Services	386,716	27.8	711,797	20.2	1,098,513	22.4
Public sector	227,459	16.4	147,127	4.2	374,586	7.6
Total	1,390,925	100.0	3,522,692	100.0	4,913,617	100.0

Source: Estimated by HRD base, 1985

As regards the non-national labour force the highest proportion was still engaged in the construction sector, 29.1 per cent, thirty times more workers than in the national labour force. Next, services occupied 20.2 per cent of the total. Trade and hotels represented 13.3 per cent, while the agriculture sector absorbed 11.2 per cent. The proportion engaged in manufacturing was 10.2 per cent which was almost three times the proportion of the national labour force. The proportion engaged in the utilities and public sector represent 4.1 per cent each while the transport sector was higher than oil and finance combined.

11.6 Occupational Status

The 1974 census contained the specification of the 323 different occupations which the population aged 12 years and over were engaged in. The number of people engaged in these occupations was around 1.7 million, about 26 per cent of the total population in Saudi Arabia. These occupations were classified into six main groups as follows: professional and technical, clerical, sales, services, agriculture, production, operating and transportation (Table 11.9).

Table 11.9 shows the percentage distribution of the labour force engaged in the six main occupations by principality. It can be seen from the table that sales had the highest proportion of the labour force at national level, 30.2 per cent. Production, operating and transportation came in second place with 27.3 per cent of the total, while agriculture came third with 18.5 per cent. In fourth

position was services with 9.4 per cent of the total, clerical with 8.1 per cent, while professional and technical had the lowest proportion, 6.5 per cent.

Table 11.9

Percentage distribution of total population aged 12 years and over by occupation and principality in 1974

	Professional and Technical	Clerical	Sales	Services	Agriculture	Production Operating and Transport
Mecca	7.20	9.15	9.36	12.87	27.86	33.56
Riyadh	9.61	12.44	5.78	12.71	27.80	31.66
Eastern Province	8.78	10.48	6.00	10.86	21.30	42.58
Asir	3.46	4.42	2.61	4.09	71.75	13.67
Medina	5.05	4.26	6.28	6.96	53.63	23.82
Jizan	3.41	2.36	7.89	6.07	64.97	15.30
Qasim	8.00	4.53	6.32	6.51	53.20	21.44
Hail	3.24	2.07	2.39	3.15	77.07	12.09
Tabuk	2.84	14.02	3.39	5.31	54.37	20.07
Baha	7.48	3.60	2.44	5.94	64.54	16.00
Najran	2.43	7.11	3.86	6.38	63.88	16.34
Northern Frontiers	3.00	4.00	3.00	3.50	66.50	20.00
Jawf	6.97	4.11	1.86	6.42	59.61	21.03
Qurayyat	5.78	10.31	2.27	11.97	39.12	30.55
Total Number	116,800	144,332	538,794	167,389	330,546	487,031
Total %	6.5	8.1	30.2	9.4	18.5	27.3

Source: El-Farra, T., 1981.

In examining the distribution of the total labour force by occupational groups in the 14 principalities, the table displays significant contrast in the proportion employed in these six main occupations. The proportions employed as profes-

sional and technical were highest in Riyadh, Eastern Province, Qasim and Baha where the percentages were 9.6, 8.8, 8.0, and 7.5 per cent respectively. The proportion for the same occupations was below 4.0 per cent in Asir, Jizan, Hail and Northern Frontiers and lowest in Najran at 2.4 per cent.

The proportion of people employed as clerical workers was low in most of the areas except in Riyadh, Eastern Province, Qurayyat and Mecca, where it was 12.4, 10.5, 10.3 and 9.2 per cent respectively. The many government and private services, departments and establishments in these areas led to such high percentages being engaged in clerical occupations.

With regard to the proportion of the labour force employed in sales, it was higher in Mecca, Jizan, Qasim, Eastern Province, Medina and Riyadh, where the proportions were 9.4, 7.9, 6.3, 6.0, 6.3 and 5.8 per cent respectively, and below 4 per cent in the remaining principalities.

As far as service workers are concerned, the proportion was highest in Mecca, 12.9 per cent, Riyadh, 12.7 per cent, Qurayyat, 12.0 per cent, and Eastern Province, 10.9 per cent, all of which had low proportions employed in agriculture.

With regard to the number of people employed in agriculture, there was a high proportion in most areas, with the highest in Hail, 77.1 per cent, Asir 71.8 per cent, Northern Province 66.5 per cent and Baha 64.5 per cent. The highest proportion of persons employed in production operating and transport were in Eastern Province, 42.6 per cent, Mecca 33.6 per cent, Riyadh 31.2 per cent and Qurayyat 30.6 per cent.

HRD base in 1985 gave an estimation of the distribution of the national and non-national labour force by occupational groups. Table 11.10 shows significant contrast in the proportion employed as production operatives and construction workers. For national workers the percentage was 19.6, while for non-nationals the figure was 53.7. The proportion of the national labour force employed as service workers was higher than the non-national labour force. The same was applicable for the clerical, administrative and sales categories, as well as agricultural workers. On the other hand, the proportions of the national and non-national labour force employed as professional and technical workers were similar, 14.1 and 14.9 per cent respectively.

Table 11.11 shows the distribution of the total labour force by employment status, sex and nationality in 1974. There was a significant contrast in the employment status between sex and nationality. The proportion of male national employees was about twice that of the females. Self-employed among national males was about three times that of national females. The percentage of national female unpaid workers, on the other hand, was more than four times higher than for national males, while the proportion of national male employers was five times higher than that of national female employers. In contrast, about 80 per cent of the non-national males and females were employees. The percentage of self-employed among non-national females was higher than among non-national males. Employers among non-national males and females were few, but the percentage of the former was more than three times that of non-national females.

Table 11.10

Number and percentage distribution of the national and non-national labour force by occupation in 1985

Occupation	National		Non-national		Total	
	No.	%	No.	%	No.	%
Professional and technical	196,120	14.1	524,880	14.9	721,001	14.7
Administrative	51,464	3.7	52,840	1.5	104,305	2.1
Clerical	233,675	16.8	197,271	5.6	430,946	8.8
Sales	153,002	11.0	218,407	6.2	371,409	7.6
Agriculture	315,740	22.7	394,542	11.2	710,282	14.5
Services	168,302	12.7	243,066	6.9	411,368	8.4
Production operatives and construction	272,621	19.6	1,891,686	53.7	2,164,307	44.0
Total	1,390,925	100.0	3,522,692	100.0	4,913,617	100.0

Source: Estimated by HRD base, 1985

Table 11.11

Percentage distribution of labour force (nationals, non-nationals and total) by sex and employment status in 1974

Employment Status	Nationals		Non-Nationals		Total	
	Male	Female	Male	Female	Male	Female
Employers	2.5	0.5	2.2	0.6	2.4	0.5
Employees	46.5	21.5	80.5	79.2	54.3	33.4
Self-employed	36.5	12..2	16.1	18.6	31.8	13.5
Unpaid workers	14.4	65.5	1.1	1.4	11.3	52.3
Unstated	0.1	0.3	0.1	0.2	0.2	0.3
Total %	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	1,249,181	76,900	371,250	19,963	1,620,931	96,863

Source: Central Department of Statistics, 1977.

11.7 The Economically Active Population in Riyadh City

As mentioned earlier in Chapter Eight, Riyadh City has a large percentage of people aged below 15 according to the 1988 sample survey. The dependency ratio was 77.4, lower than that of the country as a whole,but still in the city a large percentage of the population is economically dependent on a relatively small size of working group, meaning that a large percentage of the population is economically dependent on a relatively small size of working group.

Consequently, this study aims to investigate in depth the economically active population and the effects of the youthfulness of the population on the labour force in Riyadh City. In addition, it will focus on underlining the features of occupational status as well as the degree of workforce absorption in various branches of economic activity. For a long time there was limited information about the economic activities in Riyadh City, because government economic activities were excluded. In addition to that, it is well known that in Riyadh City men dominated economic activities and women were not allowed to work outside the family home. Males who carried out economic activities excluding governmental business numbered about 34,504 or 35 per cent of the total males (Abul-Ela, M., 1965, p.68). In examining the distribution of the total working in non- governmental economic activities in the 1960's by economic sectors, it was found that commercial business had the highest proportion, 45 per cent of the total. The industrial sector came in second with 23 per cent of the total. The services sector employed 15 per cent of the total and this percentage revealed that the government paid much attention to developing

the services sectors in order to keep pace with the growing population of the city. The construction sector came fourth with about 9 per cent of the total, showing that the city was continually expanding and both the government and the private sectors were constantly engaged in building. Agricultural production had a modest share of 4 per cent of the total. Those who worked in water and electrical plants represented 3 per cent of the total working population, while the transport and mining sectors accounted for 1 per cent of the total number of workers.

According to the 1968 household sample survey carried out by Doxiadis Associates, the total population in Riyadh City was enumerated at 281,260 persons, of whom 78,600 were classified as economically active. Thus the crude activity rate for Riyadh City was 27.9 per cent, considered a high percentage in view of the fact that the participation of females in the economically active population was very low and a high birth rate was presumed.

The considerably high crude activity rate of the non-national population, about 57 per cent, accounts for the comparatively high rate for the total population. On the other hand, the equivalent crude rate of the national population was only about 21 per cent. The difference in the crude activity rates between national and non-national was a result of the sex differential. As mentioned in Chapter Eight, the male ratio of the national population was 57.0 per cent while the equivalent figure for the non-national population was far higher at 70.3 per cent.

The total number of those in employment in Riyadh City was 75,420, or 96 per cent of the total labour force. From this figure we can conclude that there were 3,180 unemployed, or 4 per cent of the total labour force.

The 1977 household sample survey which was carried out by SCET International/SEDES had limited information about economic activities in Riyadh City. It revealed that the Riyadh City population was characterised by a high crude activity rate as a result of a large number of non-national workers who came to work in the city, comprising males aged between 15-48 and forming about 85 per cent of the total foreign labour force. They were mainly concentrated in the 20 to 29 age group (Al-Nadwa, 1986, p.8). The total population of the city was 598,239, of whom 184,427 were categorised as economically active. Therefore the crude activity rate was 30.8 per cent and the number of unemployed persons looking for work was insignificant (2,405 or 1.3 per cent). Although the size of the economically active population has more than doubled since 1968, the proportion of the population gainfully employed has increased only by 3 per cent (Table 11.12).

Table 11.12

The economically active population in Riyadh City in 1968 and 1977

	1968	1977
Population	281,260	598,239
Active persons	78,600	184,427
Percentage	27.9	30.8

Sources:

1. Doxiadis Associates, Household Sample Survey, 1970.

2. SCET - International - SEDES, Riyadh Action Master Plan, 1977.

The 1988 sample survey revealed that in Riyadh City 43 per cent of those aged fifteen years and over were classified as economically active which was higher than the economically active proportion in 1968 and 1977. The high rate of the economically active population was a result of increasing employment opportunities in both public and private sectors. In addition, the participation of females in the economically active population was higher than in previous surveys. Since the last decade women, especially in the large urban areas such as Riyadh City, have been given equal opportunities in education and more opportunities in the labour force. Today, Saudi women are clearly on the move, asking for and playing an increasing role in the social and economic life of their country. There are now Saudi women doctors, University professors, mathematicians, scientists, social workers, bank directors, journalists, college dons and radio announcers, to mention just a few of the new occupations into which they have moved. And the ranks of those working women are constantly

being replenished from a growing pool of educated women (Bahry, L., 1982, p.502).

By studying the economically active population by age group, it can be seen in Table 11.13 that the economically active in the 15-19 age group was 16 per cent, but rose sharply to about 45 per cent for those in the age group 20-24. The maximum percentage of the economically active reached about 56 per cent among those aged 25-29 with the rate dropping gradually until the 55-59 age group, after which it dropped rapidly to 26 per cent in the 60 and over age group. The age groups which contributed least to economic activities were the 15-19 and the 60 and over. This can be explained by the fact that gainful employment starts late, most probably due to an increasing number of youths staying longer at school thus delaying their entrance to the labour force and also to adults retiring early. The main reason for the low figure in the older age groups may be that children should be able to give their parents financial support in old age, hence staying in employment for economic reasons was no longer absolutely necessary. The proportion of unemployed persons aged 15 years and over was 3.2 per cent of the total population with a higher proportion in the 20-29 age groups, because most of those people were students who had graduated from high school and university and who could not find the right job.

Table 11.13

Percentage of economically active and inactive population aged 15 years and over in Riyadh City, 1988

Age Group	Economically Active		Economically Inactive			
	Employed	Unemployed	Students	Housewives	Private income	Unable to work
15-19	13.4	2.9	48.5	35.2	-	-
20-24	37.4	7.7	15.5	39.4	-	-
25-29	49.9	6.2	2.3	41.5	0.1	-
30-34	51.5	2.3	-	45.9	0.3	-
35-39	52.6	1.4	-	45.8	0.1	-
40-44	52.5	0.6	-	46.4	0.5	-
45-49	52.9	-	-	46.6	0.5	-
50-54	49.9	-	-	46.3	1.5	2.3
55-59	44.4	-	-	44.0	5.6	6.0
60+	26.1	-	-	29.2	20.3	24.4
15-59	40.5	3.3	13.6	41.8	0.4	0.4
15+	39.8	3.2	13.0	41.3	1.3	1.4

Source: 1988 Sample Survey.

The proportion of the economically inactive population aged 15 years and over was 57 per cent, but the majority of these were students and housewives. Students form 13 per cent of the total population aged 15 years and over. The highest proportion were in the 15-24 age group and had disappeared after the 25-29 age group. Housewives comprised 41.3 per cent of the total population aged 15 years and over, and their proportion was relatively high in all the age groups except the 60 and over age group. The proportion of the people who had a private income or were unable to work formed 2.7 per cent of the total population age 15 years and over in the city. The proportion of these people

increased with age until it reached the highest proportion in the 60 and over age group.

Table 11.14 reveals the distribution of the economic status of the Riyadh City population aged 15 years and over by sex. As indicated in the table, of the male population (3,953) 15 years old and over in Riyadh City, 76.4 per cent (3,021) were economically active and 23.6 per cent were economically inactive. The economically active males consisted of employed, 71.9 per cent, and unemployed, 4.5 per cent, while the economically inactive males consisted of students, 20.7 per cent, persons with a private income, 2.0 per cent, and persons who were unable to work, 0.9 per cent.

Of the female population (3,430) 15 years old and over, 4.4 per cent (151) were economically active, including employed, 2.7 per cent, and unemployed, 1.7 per cent. The economically inactive females consisted of housewives, 89.0 per cent, students, 4.1 per cent, and persons who were income recipients or inactive for other reasons, 2.5 per cent.

Table 11.14

Number and percentage distribution of economic status of persons aged 15 years and over in Riyadh City in the 1988 sample survey

Employment Status	Male		Female		Total	
	Number	%	Number	%	Number	%
Employed	2,844	71.9	94	2.7	2,938	39.8
Unemployed	177	4.5	57	1.7	234	3.2
Housewives	-	-	3,051	89.0	3,051	41.3
Students	818	20.7	140	4.1	958	13.0
Private income	80	2.0	18	0.5	98	1.3
Unable to work	34	0.9	70	2.0	104	1.4
Total	3,953	100.0	3,430	100.0	7,383	100.0

Source: 1988 Sample Survey.

Table 11.15 reveals that the labour force in Riyadh City constitutes a small proportion of the total population amounting to only 24.2 per cent. The low percentage can be attributed to the fact that 42 per cent of the total population were under 15 years of age in 1988. The female participation rate was very low. As mentioned earlier, 4.4 per cent of the total number of females were economically active. The reason for the low female participation in the labour force is because multiple factors of traditional constraints have been playing a negative role in pushing females away from the labour force. Most families do not allow their female members to work, since doing so will bring social shame to the family, particularly if they misbehave themselves. Also, because

of Islamic law, women do not have to work by necessity and men have been responsible for all their female dependants.

Table 11.15

Percentage active population of the total sample survey in Riyadh City, 1988

Age Groups	< 15 years	60 years & over		15-59 years		Total population
		Inactive	Active	Inactive	Active	
Numbers	5,342	250	90	3,960	3,083	12,725
%	42.0	2.0	0.7	31.1	24.2	100.0

Source: 1988 Sample Survey

Other significant factors concerning the low participation of working women were economic ones, such as restrictions in employment opportunities for women because there are certain limits beyond which they cannot expect to go in the labour force, and social integration of the sexes, at least in public, still being non-existent and veiling being enforced.

On the whole, the character of the Riyadh City labour force is still male-dominated. The male population of the city enters the labour market at an older age and leaves it earlier. The combined effects of the rapid natural increase, and the many migrants to the city have resulted in a remarkable population growth, with an increase of job opportunities as a result of moving the diplomatic communities from Jeddah to Riyadh City. Females on the other hand, were still under-represented at all ages compared to males.

11.8 Occupational Status in Riyadh City

Table 11.16 shows the distribution of occupational status of the economically active population in Riyadh City for those aged 15 years and over in the 1968 and 1977 sample surveys. In examining the distribution of workers by occupational status, the table displays significant contrast in the proportion employed as salesmen where the percentage was 12.5 per cent in 1968 and only 5.3 per cent in 1977. The same was applicable for service employees. The proportion of the total population employed as service employees was 15.8 per cent in 1968 and only 9.9 per cent in 1977. In contrast, the proportion of persons employed as craftsmen (27.4 per cent in 1968) was less than in 1977 when it was 41.4 per cent. The proportion of professionals, executives, farmers and miners, transport workers and other workers appeared to be fairly comparable and the proportion of all jobs had increased in 1977. The proportion of people employed as clerks was higher in 1968 than in 1977.

Table 11.16

Occupation of the economically active population in Riyadh City, 1968 and 1977

Occupational Category	1968		1977	
	Number	%	Number	%
Professionals	8,040	10.7	20,738	11.5
Executives	3,980	5.3	10,900	5.9
Clerks	10,720	14.2	22,559	12.4
Retail trade	9,400	12.5	9,688	5.3
Farmers & miners	840	1.1	2,268	1.3
Transport workers	5,800	7.7	14,027	7.7
Craftsmen	20,680	27.4	75,451	41.4
Service employees	11,940	15.8	17,968	9.9
Others	4,020	5.3	8,423	4.6
Total	75,420	100.0	182,022	100.0

Source:

1. Doxiadis Associates, Household Sample Survey, 1970.
2. SCET - International - SEDES, Riyadh Action Master Plan, 1977.

In the light of what has been derived from the 1988 sample survey, the occupational status of the economically active population in Riyadh City for those aged 15 years and over is illustrated in Table 11.17. About 20.8 per cent of the workforce were classified as service workers. The higher proportion of the Riyadh labour force employed as service workers is mainly because Riyadh City is the capital of the country and can offer government and other services to the country in general and to its own population. Clerical occupations absorb about 14.5 per cent of the active population, slightly higher than in

previous surveys. The higher proportion in the retail trade (13.3 per cent) in Riyadh City is because work as a merchant or shop-keeper is considered desirable by the city population, and consequently there may be more shops than are actually necessary and more persons work in them than would be normal. The proportion of transport and communication workers was higher in the city than formerly, partly because of the central geographical location of Riyadh, which lies at the crossroads of land communication within Saudi Arabia. About 9.2 per cent of the active population were construction workers and a large proportion of these were non- nationals. By contrast about 5 per cent are in technical work, which indicates that Riyadh City has suffered severely from a labour shortage in this vital economic sector. The remaining occupations absorb less than 8 per cent each.

The occupational status of the economically active population in Riyadh City has been affected by the result of rapid socio- economic infrastructural developments, particularly those initiated by the government. Saudi Arabia has been experiencing manpower shortages and this situation has inevitably forced the government to rely increasingly upon foreign workers and the participation of females in the labour force. Unfortunately it is not possible to analyse this matter accurately because official sources of information have released nothing on the employment of migrant labour in Riyadh City. As regards female participation in the labour force, marked variation in occupation between males and females can be found. Table 11.17 indicates that about 18.9 per cent of the active males were classified as service workers, while 77.7 per cent of the active females were within this category, as the majority of

females were engaged in teaching and health care. On the other hand, about 18.1 per cent of the active females were in clerical work, while 14.4 per cent of the active males were in the same category. Technical work absorbed only 4 per cent of the active female workers, while 5 per cent of the active male workers came under the same occupation. The rest of the occupations were male dominant.

Table 11.17

Number and percentage distribution of gainfully employed population by sex and occupation in Riyadh City, 1988 sample survey

Occupation	Male		Female		Total	
	Number	%	Number	%	Number	%
Technical work	142	5.0	4	4.3	146	5.0
Administrative	228	8.0	-	-	228	7.8
Clerical	409	14.4	17	18.1	426	14.5
Retail trade	391	13.7	-	-	391	13.3
Services	537	18.9	73	77.7	610	20.8
Construction	269	9.5	-	-	269	9.2
Transport & communications	313	11.0	-	-	313	10.6
Manufacturing	226	7.9	-	-	226	7.7
Agriculture	176	6.2	-	-	176	6.0
Others	153	5.4	-	-	153	5.2

Source: 1988 Sample Survey.

11.9 Employment Status

Two categories of employment status, employers and employees, increased during the nine years 1968 to 1977, though employers were of course only a

small minority (Table 11.18). Their increase perhaps resulted from government laws in 1961 and 1978 to promote development in the private sector and at the same time increase the number of indigenous entrepreneurs and businesses and sought to attract foreign capital to participate in industrial development.

Table 11.18 shows that the majority of the labour force in Riyadh City was in the category of employee, which during 1968-77 increased from 77.9 to 83.4 per cent of the total workforce, partly because of the marked decline in the proportion of independent workers.

In the light of the 1988 sample survey, 80.2 per cent of the total workforce in Riyadh City were reported as employees (Table 11.19). The reason for the high proportion in this category was partly because of the role and importance of the city's position in providing employees for the city and the whole country and the fact that the construction industry was in the hands of a small number of big firms with a high proportion of employees. There were large numbers of self-employed, 15.8 per cent. This could be explained by the fact that business in the sectors of trade and commerce was organised on a small scale in the capital with a great number of independent shopkeepers and tradesmen. Employers, therefore, had the smallest share of the total workforce in Riyadh City.

Table 11.18

Number and percentage of gainfully employed population by employment status in Riyadh City, 1968 and 1977

Status	1968		1977	
	Number	%	Number	%
Employers	1,380	1.8	6,667	3.7
Employees	61,220	77.9	151,794	83.4
Independent*	16,000	20.3	23,561	12.9
Total	78,600	100.0	182,022	100.0

* Refers to self-employed and family workers

Source:

1. Doxiadis Associates, Household Sample Survey, 1970.

2. SCET - International - SEDES, Riyadh Action Master Plan, 1977.

Table 11.19

Number and percentage distribution of total population in Riyadh City aged 15 years and over by employment status and sex in the 1988 sample survey

Status	Male		Female		Total	
	Number	%	Number	%	Number	%
Employers	112	3.9	2	2.1	114	3.9
Employees	2,272	79.9	85	89.5	2,357	80.2
Self-employed	457	16.1	8	8.4	465	15.8
Family workers	3	0.1	-	-	3	0.1
Total	2,844	100.0	95	100.0	2,939	100.0

Source: 1988 Sample Survey.

With regard to sex differentials in employment status, the percentage of female employees was higher than that of males because, as mentioned earlier,

a large number of females were employed in teaching and health care. The percentage of male employers was almost twice that of females. The percentage of female self-employed was half that of males because the authorities encouraged women to establish businesses for women only.

11.10 Summary

Saudi Arabia is still short, very short, of educated workers and is particularly under-represented in technical and professional occupations. This problem of skilled manpower shortage in Saudi Arabia overall will remain a major concern of the government at least for the next few decades.

Similar to many oil-producing countries in the Arab states, a large proportion of the Saudi Arabian labour force is still made up of foreign workers who are needed not only in occupations requiring professional and technical expertise, but also in less skilled jobs such as construction or cleaning.

Unemployment does exist in the country and the proportion is greater among females. This appears to be caused by religion and cultural constraints. Unemployment among males appears to be caused by incompatibility between qualifications and skills of applicants and those required by employers. Private sectors prefer to employ cheap skilled and semi-skilled labourers and foreign workers because national workers will not accept these lower wages.

The analysis of the economic characteristics revealed that Riyadh City, as well as the whole country, is typified by a low labour participation rate. This is a result of, first, the large proportion of young people in the population created

by the high fertility rate which in turn led to a heavy burden imposed upon the productive workers, and secondly, the low labour participation rate among Saudi women, which also adds more pressure on the productive workers.

The analysis shows that the occupational structure of the whole country is different from that of Riyadh City. In Saudi Arabia as a whole production operating and construction are the largest employment branches, while services are the largest employment branch for Riyadh City. Additionally, Saudi women are capable of working in different sectors other than education and social services if they have suitable opportunities.

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Chapter Twelve

Conclusion

Introduction

Historically, Riyadh City is an old settlement. It has been a site of human activity for centuries, but both the population and area of Riyadh City have increased in recent years, as a result of political and economic factors. In 1920 Riyadh City became the capital and major administrative centre of Saudi Arabia and as such its influence extends to the national frontiers and even beyond, over all of the Arab countries and the Islamic world. The resumption of oil activities during the post-war years brought in tremendous wealth which became instrumental in financing the government's programmes of infrastructure development in Saudi Arabia in general, and in Riyadh City in particular, which expanded the employment opportunities in the city. These are the major factors which have stimulated the population growth in Riyadh City.

The characteristics of Riyadh's population have been dramatically affected by the socio-economic developments that have taken place simultaneously. These effects can be directly related to the components of population growth - deaths, births, and migration - population structure, as well as housing conditions and public services.

Due to the lack of complete data on Riyadh population by a census, data have been obtained through an extensive survey. The sampling unit for the research

was the household, in the form of housing from the files of the Saudi Consolidated Electric Company (SCECO). It was focused especially on population growth in Riyadh city, the demographic components of population growth, and on population structure and housing, in order to determine some of the changes in these variables within the city's growth.

SCECO divides Riyadh into four administrative districts: the South district, North district, East district and Khuras district. These districts usually vary in their socio-economic and physical characteristics, and in the lifestyles of their populations.

In this concluding chapter, we will briefly summarise the essential findings with especial reference to the four districts of this study. We will then consider the year 2,000: what is likely to happen to Riyadh city's population in general and non-Saudi population in particular, one decade from now?

12.1 The growth of Riyadh City in Saudi Arabia

This study reveals that the old picture of population distribution has broadly changed as a result of the economic boom which the country has experienced since the early 1970s. But such changes are more evident in the increasing concentration of population in the main urban centres of the five provinces. This reflects, in fact, the various development projects, which have created a substantial population movement into cities like Riyadh City and towns, from the rural areas and the deserts.

The study also shows that Riyadh City, now with over 1.3 million inhabitants, has a significant position both internally and internationally. It is a central axis of urban concentration in Saudi Arabia and also a major transportation centre which leads to all the other parts of the country, strengthening its position as the capital of the country. It became an international centre, especially for Arab and Islamic countries, due to the increasing political and economic influence of Saudi Arabia.

In this study particular attention is concentrated on analysing the present housing conditions in Riyadh city. The findings can be summarised as follows: the improvement in the income of Saudi Arabia's population in general, and the Riyadh population in particular; the government's encouragement to Saudi citizens to build their own houses, by establishing the Real Estate Development Fund in the mid 1970s which gave a long-term loan free of interest; the vast area available for housing units, and the presence of the Riyadh City municipality to guide and plan the development of the city; the distribution of free land to low income citizens to enable them to own their houses; these have all contributed to the introduction of superb housing conditions in Riyadh City. Housing units in Riyadh are generally very well fitted with public utilities and the essential equipment which gives some indication of the conditions in housing and household economic status in the city; this is in great contrast with so many of the cities of the so-called 'third world'.

In this study a comprehensive picture of Riyadh city housing was revealed by analysing many components, such as housing patterns, age of housing, and household density. The study shows that there were variations among the four districts in regard to the city's housing. Most of the housing units in the city were villas, which were most common in all districts, but the percentage differs from one district to another. The highest proportion of these was in the Khuras district (91.4%), because this district embraces most of the newly developed area which has been constructed by people who moved here from the old neighbourhood. The South district has the lowest proportion of villas, having a large proportion of more traditional housing units. The North and East districts had 73.5% and 78.3% of villas respectively. The building materials also vary between the districts: cement was the most common building material, the highest proportion being in the Khuras district (99%), followed by the North district (97%), then the East district (94.8%), with the lowest proportion (79%) being evident in the South district. Housing units in Riyadh city are generally very well fitted with public utilities and the essential equipment, which gives some indication of the conditions in housing and household economic status in the city. The study showed that 99% of the housing units in Riyadh city were provided with piped water, while only 1% were provided with water from a tank. The proportion of housing units connected with piped water is nearly equal in all of the four districts. The proportion of housing units connected with the public network sewage system was 76.1%, while the remaining 23.9% had a cess pit. The highest proportion of housing units using a cess pit sewage system was found in the East and South districts, partially

because these are the oldest areas, where re-planning difficulties may be encountered, and partially because some parts are new and not yet connected with the sewage system. The houses in Riyadh city were characterised by having both a large plot and a large housing area, but this differs from one area to another. Khuras and North districts have the highest average plot areas, because they are new areas and contain the highest percentage of villas which occupy the largest plot areas. East and South districts have lower average plot areas, the South because being the oldest district in the city it has a large percentage of the traditional mud houses, the East because it contains the second highest proportion of these traditional houses. Housing units in the city are also characterised by having a large number of rooms. The average number of rooms per dwelling was 7.8. The occupancy ratio was 1.1 persons per room and 1.8 persons per bedroom, but this differs slightly from district to district because of the differing types of housing units and the number of rooms per dwelling in each district. The extended family was common in Riyadh city, about 19% of households in the 1988 sample survey containing two or more families. The average size of a household was 8.3 persons. This high figure per household was due to the high fertility rates and the fact that many traditional families retain the custom of living close together. This, in many cases, when one of the sons of a family gets married, he and his wife often live with his family and often there is another married brother living in the same house.

12.2 The Components and Size of Population Growth

This study reveals that the crude birth rate in Riyadh was 35.8 per 1,000 which was lower than the crude birth rate in Saudi Arabia, because it is the largest urban centre in the country and its population is influenced by the high standard of living and the urbanisation process. Also, the study shows that there was a variation between the four districts with regard to crude birth rates. Khuras and the East districts had the highest rates while the South and North districts had the lowest rates, because the former contains a high proportion of Saudis and many extended families encouraging fertility, early marriage and having more children, for social, cultural and religious reasons, whilst the latter were characterised by a mixed population of Saudis and non-Saudis. In addition, a high percentage of non-Saudi population live in these districts whose level of fertility differs from the Saudi population because of differences in their socio-economic and demographic structures. The general fertility rate in Riyadh city was 154.3 per 1,000 women aged 15-49. There were variations between the districts due to the differential of the age structure of the women and the proportions of married women in each district. Also, the study revealed that the total fertility rate of 5.9 was lower than that of Saudi Arabia, because of urbanisation, and it is the capital of the country attracting many young people with a high level of education. The total fertility rate variations between the districts were due to differences in the type of population living in each district. It was higher in Khuras and the East districts because of the high concentration of Saudi people, who encourage fertility, in these areas; while the mixed populations of the North and South districts

meant a large proportion of non-Saudis living here, who would have a different socio-economic structure.

The 1988 survey concluded that there was a negative relationship between the current age of women and the number of children born. In the age group 15-19, the average number of children ever born per woman was 0.56. This reached about 8.68 in the age group 50 and over. The East and Khuras districts in Riyadh had the highest average number of children born at all ages, because of the high proportion of Saudi families, as discussed earlier.

First marriage is a relatively early and virtually universal experience among women in Riyadh city. The average age at first marriage for females was 19.03 years, and this varies among the socio-economic strata of the women as well as among the city districts. The North district had the highest average age at first marriage due to its population having a higher socio-economic status on average than those living in the other districts. The South district had the lowest average age at first marriage, due to the concentration of non-Saudis and their differing socio-economic structures.

The study indicates that there was an inverse relationship between level of education and fertility in Riyadh city. The less educated women had a higher average number of children ever born than those with more education, in all of the city's districts. The South and North districts' educated women had a lower average number of children ever born than those in the East and Khuras districts, because these districts, as mentioned earlier, had a large proportion

of non-Saudis, most of whom have a different culture and viewpoint towards the number of children they have to that of the Saudis.

The study reveals that Riyadh city is now distinguished by a low mortality rate (CDR of 7.4 per 1,000 in 1988), which is roughly the same as for the country as a whole in 1985. The crude death rate differs from one district to another. It was low in the South district because of the concentration of immigrants in this area, while the East district had the highest proportion because of its high proportion of Saudi residents, most of whom come from the rural areas or are bedouins who have settled in the city. The crude death rate also varied according to sex. The crude death rate of females was 7.7 per 1,000, higher than for males (7.1 per 1,000) because of son preference. The infant mortality rate in the city was lower than that of the country as a whole because of improvement in living standards and improvements in health in general.

The study reveals that the population growth of Riyadh city was attributed to a large extent to migration. The influx of migrants to Riyadh has developed as a result of political and socio-economic factors. The study showed that out of 1,533 households enumerated 492, or 32.1%, were born in the city while 1,041 (67.9%) arrived in the city between 1930 and 1988. The survey results indicate that nearly three quarters of all the heads of migrant households had migrated for economic reasons, because of the differences in income and social services between Riyadh and the rest of the country.

The immigrants exist in all quarters of the city, but their proportions differ from district to district because of their land use. They are more concentrated

in the South, North and East districts. The South contains the central business district in which the commercial activities are concentrated. The East district contains the industrial area, while many private economic enterprises are based in the North.

The study reveals that Riyadh is now distinguished by a high fertility rate (CBR of 35.8 per 1,000) and low mortality rate (CDR of 7.4 per 1,000), raising the rate of natural increase in the city to 28.4 per 1,000. It is worth noting here that with high fertility there was no immediate indication that there is a transition towards lower rates of natural increase in the city. At the same time, the significant findings of the thesis indicate that the growth of education, especially for females, will have a long-term impact upon fertility and mortality rates, and population growth. However, the outstanding demographic achievement in the city is the radical reduction in mortality in general, and infant and child mortality in particular.

From 1980 onwards, Riyadh city has experienced lower rates of annual population growth, which was 6% annually, because several economic factors have diminished, to some extent, the immigration to Riyadh city. These factors include the creation of job opportunities in rural areas and small towns and the decline of the economy of the country.

12.3 Population Composition

The analysis of the age and sex composition of the survey population shows a very young population for Riyadh city as well as for Saudi Arabia as a whole,

and conforms to the pattern observed in most developing countries. Thus, about 42% of the population enumerated in the household survey in Riyadh were less than 15 years old. Over 56% were in the age group 15-64, and 1.6% were over 65 years old. The analysis exhibits variations in the age structure of the four districts of the city. The age-sex pyramid of Khuras district shows quite different characteristics, notably in age, from the rest of the districts. One obvious feature was the proportion of males being higher in the South, North and East districts, mainly due to immigration. The sex ratio in Riyadh city has long been rather uneven and there has been no great change during the years since 1968, when there was a marked preponderance of males. The study shows a slight variation in the sex ratio from one district to another. Khuras had the lowest sex ratio, while the South district had the highest due to this region having the highest number of in-migration, evidenced particularly by the high sex ratios in the age groups 20-24, 25-29 and 35-39.

The survey results indicate that more than half of Riyadh's population aged 15 years and over are married. The number of married men is higher than the number of married women, and this must be attributed to married male immigrants who have come to Riyadh city without their families. The mean age at first marriage in Riyadh, according to the 1988 sample survey, was 17.5 years for females and 22 years for males, a difference of 4.5 years. The level of education has a positive relation with age at first marriage for both sexes. The study also shows that monogamy is the prevailing pattern of marriage in the city; 95.7% of currently married males have one wife, and only about 1% of the ever-married population in the 1988 sample survey was divorced.

Marriage is relatively early and virtually universal, and has a very high impact upon fertility rates, although this may change through the education of the young population who are now delaying their marriage age, and because of the abundance of job opportunities for women, together with the general rise in the cost of living.

In this study particular attention was concentrated on analysing the educational structure of the population of the city. The findings summarised that the literacy and school enrolment of both sexes in the city had undergone rapid changes. The proportion of literacy was higher among males than females, but the difference varied greatly with age groups. The most noticeable change was the decline in the amount of illiteracy, especially among females.

The analysis of the economically active population in Riyadh city revealed that the overall participation rates in the labour force were very low. This was due to the youthful population structure and to the low activity rate, especially among the female population, because of a number of factors such as traditional constraints playing a negative role in pushing females away from the labour force. The economically active rate in Riyadh increased after 1968 as a result of greater employment opportunities in both public and private sectors.

12.4 The near future

The population of Riyadh City, like the population of most of the capitals of developing countries, has grown very rapidly in the last two decades. This

growth is due to both the high rates of natural increase, and immigration of both the indigenous and foreign populations. The high natural increase results primarily from the rapid decline in mortality rates, and the almost unchanging level of fertility. Unpredicted was the gradual decline in immigration.

Prediction of the future is uncertain, because it involves consideration of a variety of variables, which may be constants, trends, cycles and shifts, the last of which are quite unknown.

Constants are items such as the importance Riyadh City gained due to its location at the crossroads of Saudi Arabia, and its status as capital. It is almost exactly in the centre of the country, at 24°42' latitude and 46°44' longitude and is situated at the confluence of three major wadis, whose waters have given the city its name, 'the gardens'.

Trends, such as the reduction of oil revenue, will affect the growth of Riyadh City as a result of slowing down of development projects, which will, in turn, reduce the rate of immigration to Riyadh City.

Shifts, such as an Islamic awakening among the Saudi population will have an effect upon the fertility rate and the planning of a family because the people will reject family planning and will hold on very strongly to religious and social ties, traditions and customs. Another shift occurred with the process of transferring all government agencies and the diplomatic quarter for all foreign embassies and their appurtenant facilities from Western Province to Riyadh which generated major growth in the city. However, it is conceivable that at

some point in the development of national government function, there will be a growth in pressure of detailed day-to-day management in Riyadh City which will, in turn, lead to a new structure of government management, based on the principle of decentralisation. This will affect the growth of Riyadh. In addition, industrial establishments and most medium-sized and large businesses in the private sector have established their headquarters or a large branch office in Riyadh City. These flourish in a joint relationship with the government as the concentration of financial and economic decision-making is located in the city. The shift of the focus of the financial and economic institutions from Riyadh City to major urban centres in Saudi Arabia is another element which will affect the widening sphere of influence of Riyadh City.

At the time of writing, another major shift is in progress - the threat of invasion from Iraq - which will have striking effects upon patterns of population growth in Saudi Arabia.

Migration was the main factor which contributed to the massive population growth in Riyadh during the last two decades. The city's position as the political, administrative and commercial centre in Saudi Arabia, offering numerous job opportunities, has resulted in influxes of in-migration from inside and outside the country. But by the beginning of the late 1970s the government had adopted some procedures to alleviate the huge influx of rural migrants to large cities, including the metropolitan area of Riyadh, such as the distribution of free land and free interest loans to Saudis to build their houses, creation of job opportunities in rural areas and small towns, and the supply of

water and electricity. For these reasons, the share of the internal migration has been diminished to some extent, so what is the future of non-Saudi population in the growth of Riyadh city? This future will relate directly to the rate of economic growth of Saudi Arabia and to the rate at which the labour force can be Saudi-ised. The acute shortage of technicians, professionals and skilled labourers has been and still is one of the major constraints in the country's development process. The experience of the last two decades has revealed to the government that investment in and improvement of human capital is a necessary condition to increasing the productive capacity of labour and accelerating the structural transformation of the Saudi economy. Thus, one of the major themes of the Third Development Plan (1980-1985) was the development of Saudi labour, with the ultimate objective of decreasing the growth rate of foreign manpower. There are two hypotheses which determined the number of non-Saudi inhabitants of Riyadh city. The first is a high projection which assumed a moderate decline in the growth rate of foreign population as an outcome of the government's policy of training Saudi citizens. According to this projection, the non-Saudi population in Riyadh would be sustained at a maximum of 668,000 from 1990 onwards. The second is a low projection which assumed a substantial decrease in foreign population. This will happen if the government reduces foreign manpower at the risk of slowing the economic growth rate, coupled with a rapid increase in Saudi labourers in the maintenance and service sectors. The percentage of the non-Saudi population in the total population will not be less than 10% because there are many occupational needs which at present have to be filled by foreigners due to

Saudi labourers not being willing to work in these fields, such as street sweeping and garbage collection. In addition to this, foreign skilled workers in highly professional occupations may be still needed for many years to come.

The extended family system is likely to continue rather than an introduction of the nuclear family system because of the preference of the Saudis for large families, which seems unlikely to change very quickly. However, there will perhaps be a slight slowing down of natural increase as educated women want less children and will want to work. This will affect Riyadh more than many other parts of Saudi Arabia. Mortality rates will continue to decline and may offset any fertility rate decline. Riyadh City mortality rate is still high compared to other oil-exporting countries in the Gulf.

Riyadh City is unlikely to grow much more rapidly than other major cities such as Jedda, Mecca, Taif, and Dammam, and by the end of the century should have about 1.9 million inhabitants. Therefore, the binary (or intermediate) city-size distribution is likely to remain as at present, rather than Riyadh City becoming a primate city. Consequently, it is unlikely to rival in size other major cities of the Middle East countries such as Cairo, Tehran and Ankara, but in view of the wealth of Saudi Arabia, it will retain a major economic significance in the region.

Finally, the growth of Riyadh City will depend totally on the national resources, especially those of the government which will be dedicated to the city. There are sufficient indications from the last two decades, when there was an

overall increase in oil revenues, that the government will continue to have a substantial economic surplus which would be devoted to Riyadh City.

Appendix A

English version of the Questionnaire for the population growth survey of Riyadh City, Saudi Arabia

Kingdom of Saudi Arabia

King Saud University

College of Arts

Geography Department

Data of this Questionnaire is confidential and will be used only for the aim of the research.

A Questionnaire to investigate population growth in Riyadh City in 1988.

Date of interview:.....

Serial number of household: .....

District number: .....

Neighbourhood number: .....

Block number: .....

Interviewer name: .....

Controller name: .....

A Questionnaire form to investigate population growth in Riyadh City in 1988.

This questionnaire is designed to obtain information about the socio-economic characteristics of Riyadh City's population, in order to determine the growth of both population and area which the city recently witnessed.

I should be most grateful for assistance in completing this questionnaire with appropriate and candid responses, which will play an effective role in defining the changing population and area in Riyadh City over the past 26 years.

Respected brother, I should draw to your attention that the information you supply will be treated confidentially and will be used only for the aim of the study. Therefore, it is absolutely not necessary to write your name or any thing which could lead to your identification.

Therefore, would you please try to answer all the questions with accuracy and care, in order to further the aims of the research, to produce better solutions and decisions which service Riyadh City, to provide better services for the city's population as a result of the rapid growth of the city in terms both of population and area in recent years.

I offer my gratitude, respect and appreciation to you all for your helpful mutual assistance in the service of this dear nation to the benefit of us all, and for success granted by God.

Researcher: Majed Sultan Ashwan.

Part I: Housing Characteristics (i)

District No.	Date House Built	Construction Material	Type of House	Plot Area	House Area	Service of Sewerage System	Supply of Electricity
1	2	3	4	5	6	7	8
	1 9						
		1. Mud	1. Villa	Square metres	Square metres	1. Public network	1. Public network
		2. Blocks	2. Appartment			2. Cesspit	2. Private engine
		3. Cement	3. Mud				
		4. Stone	4. Cement block				

Remarks: Check (tick off) or write the number in the appropriate box(es).

Part I: Housing Characteristics (ii)

Tenure	Annual Rent (if rented)	Water Supply	Monthly Household Income	Possession of:		Building Expenses Paid By:	How Many Of:		
9	10	11	12	13		14	15		
				1. Yes	2. No				
1. Owned	In Saudi Riyals	1. Public network	In Saudi Riyals	Garden		1. The Owner	1. Rooms		
2. Rented		2. Carried by a water carrier or other		Kitchen		2. Government	2. Cars owned		
3. Occupied free of charge				Stove		3. R.E.D.F.	3. Bedrooms		
				Television		4. Company	4. Bathrooms		
				Telephone		5. Other (specify)	5. Toilet		
				Radio			6. Air conditioners		
				Tape recorder			7. Families		
				Washing machine			8. Stories		
				Refrigerator					
				Video					

Remarks: Check (tick off) or write the number in the appropriate box(es).

Part II: Socio-Economic Characteristics of Riyadh City Population (i)

Serial number	Relation to head of household	Sex	Age (in whole years)	Place of birth	Place of previous residence	Place of actual residence	Length of residence in Riyadh City	Reasons of movement	Educational level (for people aged six years and over)			Marital status (for people aged 12 years and over)					
									Do you attend school?	Number of years	Educational level	Marital status	Age at first marriage (in whole years)	Number of marriages	Number of wives	Length of marriage (women)	Relation to husband
1.																	
2.																	
3.																	
4.																	
5.																	
•																	
•																	
20.																	

Part II: Socio-Economic Characteristics of Riyadh City Population (ii)

Serial number	Employment status (for people aged 12 years and over)				Fertility (for married, divorced and widowed women)															
	Employ-ment status	Occupation	Relation to the employer	Monthly salary	Date of last living baby		Sex		Is s/he still alive?		Date of death (if s/he died)		Number of children living with you		Number of children living away		Number of children who have died		Total of living birth	
					Month	Year	Male	Female	Yes	No	Month	Year	Male	Female	Male	Female	Male	Female	Male	Female
1.																				
2.																				
3.																				
4.																				
5.																				
•																				
•																				
20.																				

Part III: Mortality

Serial number	Mortality							
	Any death in the household in the past 12 months?		Sex of the dead person		Age of the dead person	Occupation of the dead person	Causes of death	Marital status of the dead person
	Yes	No	Male	Female				
1.								
2.								
3.								
4.								
5.								
6.								
7.								

Appendix B

Arabic version of the Questionnaire for the population growth survey of Riyadh City, Saudi Arabia

المملكة العربية السعودية

جامعة الملك سعود

كلية الآداب - قسم الجغرافيا

بيانات هذه الاستمارة سرية

ولا تستخدم إلا لأغراض البحث العلمي

إستمارة لبحث النمو السكاني في مدينة الرياض ١٤٠٧هـ

التاريخ: .....

الرقم المسلسل: .....

إسم المنطقة: .....

إسم الحي: .....

رقم البلوك: .....

إسم جامع البيانات: .....

إسم ضابط الاستمارات: .....

استمارة استبيان لبحث النمو السكاني في مدينة الرياض

صمم هذا الاستبيان للحصـول على بيانـات عن الخصـائص الاجتـماعية والاقتصـادية لسكـان مدينة الرياض للتعرف على النمو العمراني والسكاني الذي تشهده مدينة الرياض حاليًا.

أرجوك شاكرا مساعدتي على تعبئة هذا الاستبيان بالإجابة المناسبة والصريحة حيث سيكـون لها دور فعال في معرفة التغيرات السكانية والعمرانية لمدينة الرياض منذ عشرين عاما تقريبًا.

أود أن ألفت انتباهك ياأخي الكريم أن المعلومات التي تدلي بها ستكون سرية وسوف تستخدم لأغراض البحث فقط. لهذا ليس من الضروري إطلاقا أن تكتب إسمك ولا أي شيء يدل على شخصيتك نهائيا.

لذلك أرجو الإجابة على جميع الأسئلة بدقة وعناية لأنها تحقق هدف البحث لإيجاد أفضل الحلول والقرارات التي تخدم مدينة الرياض لتقدم الخدمات الأفضل لسكانها من أثر النمو العمراني والسكاني السريع الذي تواجهه مدينة الرياض حاليًا.

أقدم شكري واحترامي وتقديري لكم جميعا لحسن تعاونكم لخدمة هذا الوطن العزيز علينا جميعا والله ولي التوفيق.

الباحث

ماجد سلطان عشوان

جدول رقم (١)

خصائص المسكن

* ملاحظة: ضع علامة / أو اكتب الرقم المناسب في المربعات.

رقم المنطقة	تاريخ بناء المسكن	مادة البناء	نمط المسكن	مساحة المسكن المبنية	مساحة الأرض المقام عليها المسكن	طريق تصريف المياه في المسكن	طريقة تزويد الكهرباء في المسكن
١	٢	٣	٤	٥	٦	٧	٨
		١ ـ طين ٢ ـ طوب ٣ ـ أسمنت ٤ ـ حجر ٥ ـ أخرى (تذكر)	١ ـ عشة ٢ ـ بيت شعبي ٣ ـ شقة ٤ ـ بيت مسلح ٥ ـ فيلا ٦ ـ غير ذلك			١ ـ مجاري عامة ٢ ـ حفرة امتصاص (بيارة) ٣ ـ أخرى (تذكر)	١ ـ شبكة عامة ٢ ـ ماطور خاص ٣ ـ طاقة شمسية ٤ ـ أخرى (تذكر)

ملكية المسكن	الإيجار السنوي بالريال (إذا كان مستأجرا)	مصدر مياه الشرب في المسكن	دخل الأسرة الشهري بالريال	هل يوجد لديكم الخدمات التالية بالمسكن	من الذي دفع تكاليف بناء المسكن	كم عدد الموجودات التالية بالمسكن	
٩	١٠	١١	١٢	١٣	١٤	١٥	
١ ـ ملك ٢ ـ مستأجر ٣ ـ ساكن بدون أجرة ٤ ـ وقف ٥ ـ غير ذلك		١ ـ شبكة عامة ٢ ـ سيارات مياه ٣ ـ أخرى (تذكر)		١ ـ نعم ٢ ـ لا ١ ـ بركة سباحة ٢ ـ حديقة ٣ ـ مطبخ ٤ ـ تليفون ٥ ـ راديو ٦ ـ مسجل ٧ ـ غسالة ٨ ـ ثلاجة ٩ ـ فرن ١٠ ـ فيديو ١١ ـ تليفزيون	١ ـ صاحب الملك ٢ ـ الحكومة ٣ ـ البنك العقاري ٤ ـ شركة ٥ ـ أخرى	١ ـ الغرف السكنية في المسكن ٢ ـ غرف النوم في المسكن ٣ ـ أسرة (عائلة) في المسكن ٤ ـ السيارات في المسكن للأسرة ٥ ـ المكيفات في السكن ٦ ـ حمامات ٧ ـ مراحيض ٨ ـ مشترك ٩ ـ أدوار المسكن

جدول رقم ٢
الخصائص الاجتماعية والاقتصادية لسكان مدينة الرياض

	العلاقة برب الأسرة	النوع (الجنس)	العمر بالسنوات الكاملة	مكان الميلاد	مكان الاقامة السابق	مكان الاقامة الحالي	مدة الإقامة في الرياض	سبب الهجرة	الحالة التعليمية للأشخاص في سن السادسة فأكثر			الحالة الزواجية للذين هم في سن ١٢ فأكثر						الحالة العملية للذين هم في سن ١٢ فأكثر				الخصوبة للنساء المتزوجات والمطلقات والأرامل											
									هل أنت ملتحق بالتعليم	في حالة عدم ذكر سنوات الدراسة	المستوى التعليمي	الحالة الزواجية	العمر عند الزواج الأول بالسنوات الكاملة	عدد مرات الزواج	للذكور المتزوجين عدد الزوجات في العصمة	للنساء المتزوجات مدة الحياة الزوجية	علاقة القرابة بين الزوج والزوجة	الحالة العملية	المهنة	العلاقة بصاحب العمل	الدخل الشهري بالريال	تاريخ ميلاد ولادة حية		طفل ميت		تاريخ الزواج		عدد الأبناء الذين يعيشون معك بالمنزل		عدد الأبناء الذين لا يعيشون معك بالمنزل		عدد الأبناء الذين ولدوا من قبل		حالة الولادات الأخيرة	
	٢	٣	٤	٥	٦	٧	٨	٩	١٠	١١	١٢	١٣	١٤	١٥	١٦	١٧	١٨	١٩	٢٠	٢١	٢٢	الشهر ٢٣	السنة ٢٤	ذكر ٢٥	أنثى ٢٦	نعم ٢٧	لا ٢٨	الشهر ٢٩	السنة ٣٠	ذكر ٣١	أنثى ٣٢	ذكر ٣٣	أنثى ٣٤	ذكر ٣٥	أنثى ٣٦	ذكر ٣٧	أنثى ٣٨
١																																				
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١٨																																				
١٩																																				
٢٠																																				

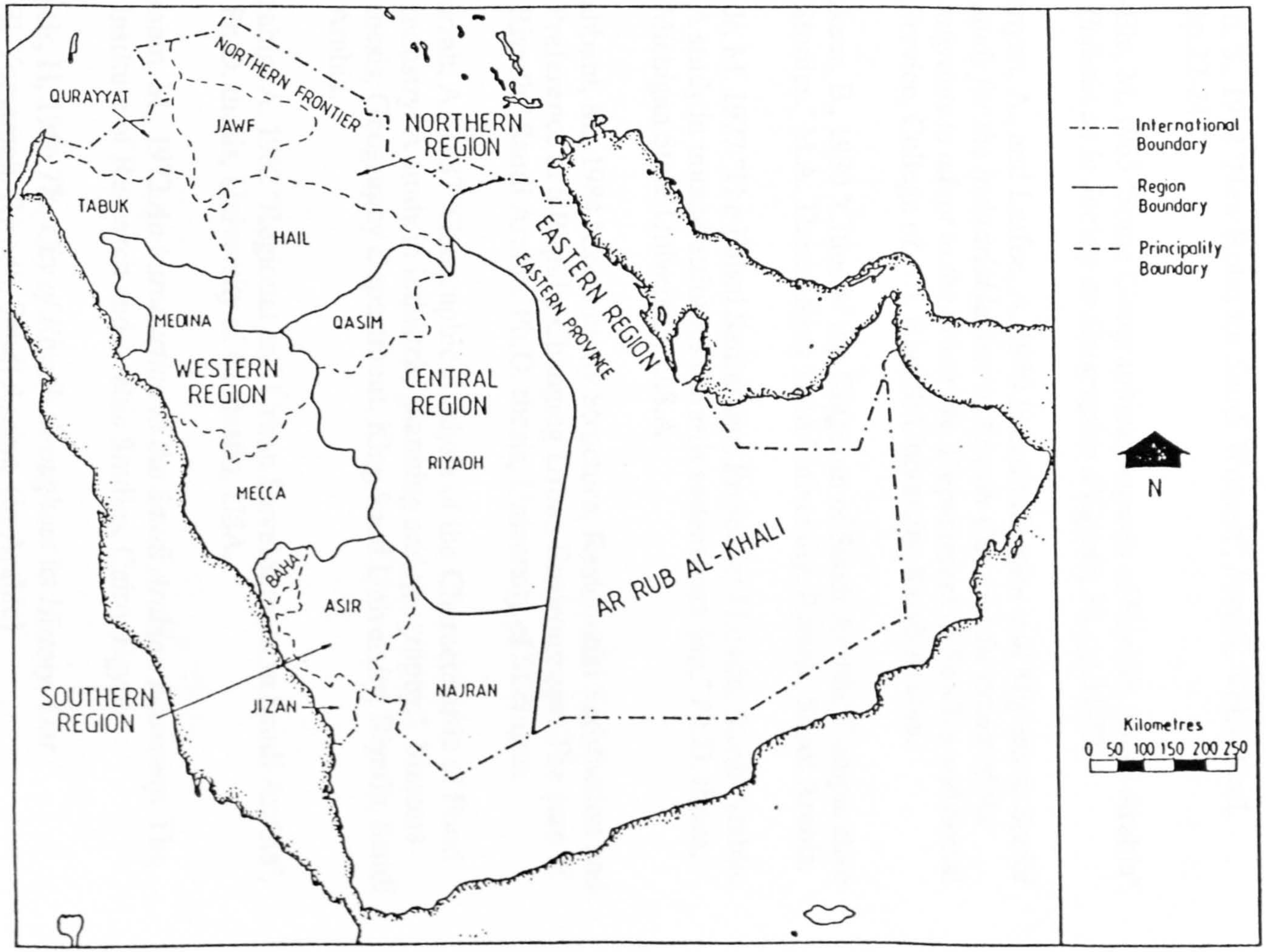
جدول رقم (٣)

الرقم المسلسل	الوفيـــــــات							
	خلال الأثني عشر شهرا الأخيرة هل توفى شخص من الأسرة		النوع (الجنس)		العمـر عند الوفاة	المهنة	أسباب الوفاة	الحالة الزواجية للمتوفي
	نعم	لا	ذكر	أنثى	٤٣	٤٤	٤٥	٤٦
	٣٩	٤٠	٤١	٤٢				
١								
٢								
٣								
٤								
٥								

Appendix C

Regional and principality boundaries of Saudi Arabia

Regional and principality boundaries of Saudi Arabia



Source: Adapted from Bindgji, H. 1980

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