DEMOGRAPHIC PROFILE OF
NORTH WEST FRONTIER PROVINCE OF PAKISTAN

by

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for the degree of Master of Arts in Demography
in The Australian National University

March, 1983
DEDICATED TO

MY PARENTS
DECLARATION

Except where otherwise indicated, this thesis is my own work.

March, 1983       Jehan Zaib
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ABSTRACT

This study attempts to provide a perspective on the dimensions and changes in the population of North West Frontier Province (NWFP) of Pakistan. It also describes the demographic parameters and vital rates on the basis of latest censuses and survey data. It is an effort to bridge the existing gaps in the knowledge of the demography of the Province.

Population growth pattern revealed that the population of the Province has increased more than five fold during the last 80 years (1901-1981). The last census, 1981, recorded an unprecedented annual growth rate of 3.1 percent for the 1972-1981 inter-censal period.

Mortality has shown a more rapid decline than fertility in the Province. The PGS, 1976 data suggests that mortality level is still very high in NWFP as compared to other provinces in Pakistan, while the level of fertility as estimated by PGS, 1976 data is equal to the national average.

The Province was gaining population through lifetime net-migration prior to independence. Migration estimates for the post-independence period indicate that NWFP is losing population to other provinces through lifetime net-migration. Recent migration estimates for the period 1965-1973 based on the HED survey, 1973 data suggest a decline in the loss of population through net-migration.

Population projections for the Province have also been attempted. They suggest that by 1992 the population of NWFP will be between 15.5 and 16 million, which is almost double the 1972 figure.
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CHAPTER ONE

1. INTRODUCTION

1.1 IMPORTANCE OF THE STUDY

The study of the demographic situation of North West Frontier Province (NWFP) of Pakistan is important for many reasons. This province has a special place due to its geographic, historic and economic position in the country. Secondly, the unprecedented increase in the population of NWFP, like other provinces of Pakistan, has received serious consideration in recent years. The total population of NWFP in 1901 was recorded as 2,041,534 (excluding Malakand division). The last Census, 1981, enumerated 10,885,000 persons in the province. The annual growth rate during the intercensal period 1972-81 was 3.1 percent, which was higher than the national level (3.0). Lastly, the study of population characteristics of an area is important due to their vital role in socio-economic development. They are considered to be one of the main determinants of overall policy formulation.

The study of demographic variables in the absence of accurate and reliable data is a challenging task. However, the present work is an attempt to fill the gap in knowledge about the past, present and future trends and changes in the demographic situation of NWFP.

1.2 OBJECTIVES AND SCOPE OF THE STUDY

The objectives and scope of this study are:

1. to measure and describe various aspects of population growth, distribution and composition on the basis of census data with a comparison to other provinces of Pakistan;
2. to estimate past and present levels and trends in mortality, fertility and migration for NWFP by using census and survey data; and
3. to prepare population projections for the Province for the period 1972-92.

The scope of the study will be limited to the administered districts of the Province. Federally Administered Tribal Areas (FATA) will be excluded from its scope, while the population of the Provincially Administered Tribal Areas (PATA) will be included in the study.

1.3 BACKGROUND OF THE AREA

1.3.1 GEOGRAPHICAL BACKGROUND

NWFP as its name denotes is situated in the north west of Pakistan. It lies between the parallels of 31° 4' and 37° 8' north latitude and 69° 16' and 74° 7' east longitude. The maximum distance from east to west across the Province is 723 kilometres and from north to south is 1,057 kilometres.

To the north the Province is bounded by the mountains of Hindukush; to the east by Gilgit, Kashmir and Punjab; to the south by Balchistan and the Dera Ghazi Khan district of Punjab and to the west lies Afghanistan (see Figure 1.1).

The Province covers 101,740 square kilometres of which 27,219 square kilometres come under FATA. Among the four Provinces of Pakistan NWFP is the smallest in size, occupying only 12.8 percent of the total area of the country.

Geographically the province has three main divisions:

1. The CIS-Indus division of Hazara is generally mountainous, with small plains in its southern part.
2. The plains between the Indus and the north-west mountains, which contains
Source: Adapted from Khan, M.A., 1981; "Spatial Analysis of Demographic Patterns and Trends in NWFP", p. 13 (Figure 3).
the most fertile part of the Province - the Valley of Peshawar.

3. The mountainous region towards the north and west of these plains.

The climate of the Province is highly diversified. Hazara division has a climate nearly matching the European climate, whereas Dera Ismail Khan district is one of the hottest areas in Pakistan with a temperature often rising to 120 degrees in the shade. The mountainous areas are very cold and even covered with snow in some places during the winter. The annual average rainfall in Peshawar, Hazara and D.I. Khan divisions as a whole is about 15" and occurs mostly in the winter.

1.3.2 HISTORICAL BACKGROUND

Historically the Province has served as a gateway to the invaders from the west. It was the first meeting ground of the east and the west in the sub-continent.

Iranians were ruling the whole Indus valley during 500 B.C. and the valley of Peshawar was called Gandhara. Alexander invaded the Province in 327 B.C. and at that time it was inhabited by Hindus. After the death of Alexander (323 B.C.) Porus, the Hindu King of Punjab, obtained possession of the lower Indus valley. After his murder in 317 B.C. Endemos, a Greek succeeded him but he soon left the country. Chandragupta made himself the master of the Province and his grandson Asoka made Buddhism the dominant religion in Gandhara. After the death of Asoka in 231 B.C. the Province was ruled for two centuries by the Greek Prince Bactria. After the Greeks, Aptholites or White Huns extended their empire from Persia.

Subuktagin invaded India in 986 A.D. and his son Mahmud included the Valley of Peshawar as a province of Ghazni. The Indian races who inhabited the Province were replaced and the Pathans began settling in the area. The spirit of independence which has always distinguished them soon brought them into collision with the Mughul Empire.
Nadir Shah included the province in the Durrani Empire in 1798. The
Sikh invasion began in 1818 and they were succeeded by the British. In 1849
the Province was annexed by the British Government with the Indian Empire.
The settled districts remained part of the Punjab and in 1901 they were
constituted a separate province. After independence in 1947 the Province
became part of Pakistan. In 1955, it was merged into one unit of West Pakistan.
After the dissolution of the Unit in 1970 it was again restored as a separate
Province.

1.3.3 ADMINISTRATIVE SETUP

At the time of the 1972 Population Census the Province was divided into
three administrative divisions containing ten districts (including Malakand
protected area). In 1976 Hazara was declared as a separate administrative
division and was divided into three districts. Thus in the 1981 Census, there
were four administrative divisions containing 12 districts in the Province
(including Malakand protected area).

1.3.4 THE ECONOMY

The economy of the Province is mainly agricultural and about 80 percent of
the population depends on it. Agriculture contributes about 40 percent of the
total "Gross Provincial Product" (P & D Deptt; NWFP, 1971: 43).

The total cultivated area in the Province in 1978-79 was 1,902,000 hectares
out of which only 677,000 hectares was irrigated (Bureau of Statistics; NWFP,
1981: 2). Wheat and maize are the principal food crops, while among the cash
crops sugar cane and tobacco are produced in large quantities. Forest resources
also occupy a special place in the economy of the Province. In 1978-79 the
area under forest was 666,000 hectares which is 23.7 percent of the area under
forest in the whole country (Bureau of Statistics; NWFP, 1981: 2).

In the field of industry the Province is lagging behind. In 1970 there
were only 126 recognised industrial units in NWFP employing only 30,000 workers
or less than 2 percent of the Province's labour force (P & D Deptt; NWFP, 1971:
Since then many fiscal and administrative measures have been taken by the
government to encourage industrialisation in the less developed areas (Finance

1.4 HISTORY OF DATA COLLECTION

The first census in the Province was undertaken on the night between 31st
December 1854 and 1st January 1855. It was followed by the enumeration of
the 10th January 1868. These two censuses were taken cursorily and because of
that their accuracy cannot be asserted with confidence. The 1881 census was
the first one in which each person of a household was recorded by name in the
schedule (Census of India, 1921: 1). Since then Censuses have been carried
out regularly every ten years in the Province and so far thirteen censuses
have been conducted, the last being in 1981.

The first five censuses were conducted in the Province as a part of Punjab,
while in the census of 1911 NWFP was enumerated as a separate Province. After
independence the first census in the Province was conducted in 1951, while in
1961 it was enumerated as a part of West Pakistan Province. The last two
censuses (1972 and 1981) were carried out in NWFP as a separate province after
the breakup of one unit of West Pakistan in 1970.

The unique feature of the last two censuses was that they were followed by
the Census Evaluation Survey (CES) and the Housing, Economic and Demographic
(HED) survey.

Apart from decennial censuses some demographic surveys like the Population
Growth Estimation (PGE) Project, 1962-65, the Population Growth Survey (PGS),
1968-71, the National Impact Survey (NIS), 1968-69 and the Pakistan Fertility
Survey (PFS), 1975 have been conducted, but separate results for NWFP were
never made available. Only the results of the HED survey, 1973 and the PGS,
1976 have been published separately for the provinces.

The HED survey, 1973 was carried out as a part of the 1972 Census and
consisted of a 2 percent rural and 5 percent urban sample of the census
households. It collected information on housing and population characteristics, e.g. labour force, education, birthplace, children everborn and children still living.

The PGS, 1976 which is the most recent in its series, primarily collected data on vital events. It also provided information on age, sex, marital status and literacy of the population. About 26,000 households were included in the sample which contained approximately 155,000 persons from the whole country.

The labour force survey, 1974-75, which is a part of a series of labour force surveys started in 1963, also provided information for the first time on a provincial basis. Its results are based on 35,306 sample households from the entire country. In addition, data were also collected on age, sex, marital status, literacy and internal migration.

Excluded from the sample of these surveys were FATA and Malakand division of NWFP, which represented approximately 7 percent of the total population of the country.

1.5 QUALITY AND ACCURACY OF DATA

The quality of the Censuses varied from one Census to another. It is generally agreed that the 1931 Census enumeration suffered from civil disobedience (Krotki and Parveen, 1976: 290-318). Compared to the previous Censuses, which lacked sophisticated methodology, the 1941 Census was the first which allowed analysts to pay closer attention to regional variations and fluctuations in the fertility and mortality rates (Nyrop, et al, 1971: 49). But it is believed that population numbers in the 1941 Census were inflated by communal and political considerations. In view of this, adjusted population figures have been estimated by Davis (1951: 27).

Post-independence Censuses suffered from under enumeration and other errors. The 1951 Census data were not evaluated in sufficient detail. The Census Commissioner concluded that the data on the total population of the various provinces were reasonably accurate but that the count for the larger cities
was probably somewhat incomplete (Census of Pakistan, 1951: 2).

After the 1961 Census, a post-enumeration quality check (PEQC) was undertaken which found that the coverage of the Census was essentially complete (Ishaque, n.d.: 1-5). Subsequent analysis by several researchers (Bean et al, 1968; Haq, 1964; Krotki, 1963; US Bureau of the Census, 1965 and 1970) estimated that the 1961 Census was under enumerated by 7 to 12 percent at national level.

The Census Evaluation Survey, 1972, determined the overall rate of under enumeration in the 1972 Census which was 6.3 percent (Statistics Division, 1974: 14). In the absence of other information, the overall estimate of under enumeration based on data from the Census Evaluation Survey, 1972 was accepted (US Bureau of the Census, 1980: 30).

However, Khan (1972: 5) observed that every Census saw an improvement in the quality of census taking. The area covered was greatly widened and the quality improved.

The quality of age reporting in censuses and demographic surveys is also very poor. Numerous studies (Krotki, 1963; Yusuf, 1967; Hashmi and Alam, 1971; Krotki and Parveen, 1976; Zaki and Zaki, 1981) assessed the quality of age data. Some of the common irregularities are:

1. Deficiency in the number of infants and young children;
2. Heaping at ages ending in '0' and '5' and to a lesser extent in even numbers;
3. The concentration around age 50;

Zaki and Zaki (1981: 33-34) have observed that the UN Secretariat index has declined from 42.4 in 1951 to 46.4 in 1961. They also observed a slight decline in the value of this index for NWFP between 1961 and 1972.

The primary sources of data on which the current study is based are the 1961 and 1972 Censuses. Data from pre-independence censuses will also be used
to examine the growth of population in retrospect. Information from the HED survey will also be used to supplement the analysis.

1.6 REVIEW OF THE EXISTING STUDIES

Although there are some studies on the socio-economic aspect, studies on the demographic characteristics of the population of NWFP are inadequate. This inadequacy may be due to the defective nature of the Census data or non-availability of demographic survey data for the areas of NWFP.

Ashraf (1962) in his study based on a research project conducted in the tribal areas of NWFP has provided some information on demographic and other aspects of the tribal people. The study was only a part of a comprehensive economic survey and therefore, its demographic scope was very limited. The unfavourable conditions prevailing in the tribal areas were also responsible for restricting its demographic scope (Ashraf, 1962: 77).

Khan (1971) using the Census data conducted a study on urbanisation in NWFP. His aim was to bring to the notice of the urban planners the socio-economic problems which were developing due to the faster growth of the urban centres. He observed that there was a positive correlation between urbanisation and economic development. As a result, some urban centres in Peshawar and Mardan districts experienced faster growth compared to other districts of NWFP.

A study dealing with spatial analysis of demographic patterns and trends in NWFP has been done by Khan (1981). He has tried to analyse the Census data to present an overview of the population growth, distribution, composition and migration within and outside the province. He made no attempt to estimate the vital rates, probably due to the defective registration system in the Province and non-availability of survey data. He observed that during the post-independence period the out-migration from NWFP exceeded the in-migration mainly due to economic reasons.

Jan (1981), while describing the demographic situation in NWFP observed that
the sex ratio is lower in NWFP compared to other provinces and the country as a whole. He found the main cause to be the excessive out-migration of males from NWFP to other provinces for employment reasons.

1.7 ORGANISATION OF THE STUDY

The study consists of five chapters. First, the introduction, which describes the importance, objectives and scope of the study, the background of the area, the history of data collection, the quality and accuracy of the data and a brief review of the existing studies.

The second chapter deals with population growth in the Province since 1855, inter-regional and inter-district population distribution by area (urban-rural), its density and population composition by sex and age. The socio-economic characteristics of the people of the Province, which includes ethnicity, race and religion, literacy, education, employment and labour force will also be discussed.

Chapter Three is concerned with the levels and trends in mortality, fertility and migration estimates with an historical overview.

Chapter Four is devoted to population projections of the Province for the period 1972-92. Policy implications of the results will also be highlighted.

Chapter Five will attempt to summarise the analytical results of the study and draw some conclusions.
CHAPTER TWO

2. POPULATION GROWTH, DISTRIBUTION AND COMPOSITION

2.1 POPULATION GROWTH

2.1.1 HISTORICAL GROWTH TRENDS (UP TO 1901)

It is evident from the archaeological remains that the NWFP was once the centre of civilisation. When Alexander of Macedon invaded the Province in 327 B.C. he found its northern portion occupied by a dense population of Indian races. The Chinese pilgrims, Fa-Hien and Hiven Tsang, who visited the Province at the beginning of the 5th and 7th centuries also found it inhabited by a dense and settled population. These Indian races were largely replaced by the Pathan tribes who came from the west during the 15th and 16th centuries.

The area was the scene of conflicts between rival claimants for centuries. The population was largely semi-nomadic and took refuge periodically in the hills when danger threatened. Life and property was not secure in the Province. The establishment of an organised government and the growth of public security was followed by a large increase in the population of NWFP. The results of the population censuses undertaken in the Province since 1855 are evidence of this (Table 2.1).

Nothing is known about the size of the population during the long history of the Province prior to the census era. Some estimates of population for the Indian subcontinent have been prepared by Davis (1951: 25) but for the Province no separate estimates are available.

The first census which was undertaken in 1855 in the settled districts of the Province recorded the population as 1,144,047. The second census which was conducted thirteen years later in 1868 showed a 17 percent growth during the inter-censal period (Table 2.1).
The growth rate recorded during 1855-1868 was not only maintained during 1868-1881 and 1881-1891 but further increased. During the same period the growth rate in the Punjab (excluding NWFP) never exceeded 11 percent in a decade (Table 2.1). There were many reasons for the high growth rate in NWFP as recorded by the first four censuses:

1. The anarchy of Sikh rule prior to 1849 was followed by the establishment of peace and order. Therefore, the high rate of population growth was a response to the changed conditions in the Province.

2. The extension of agriculture, establishment of means of communication including railways, the location of military cantonments, trade with Afghanistan, creation of employment opportunities, both civil and military, added to its population. The remarkable increase in the population of the Province was not only due to a high birth rate but also due to immigration from the surrounding tribal areas and other provinces of the subcontinent.

3. The addition of territory at each new census is also responsible for the high growth rate shown by the earlier censuses (Davis, 1951: 26).

4. The high rate of population increase in the Province up to 1891 and a significant fall thereafter, which seems to defy historical explanation to some extent is also attributed to the inaccuracy of the enumerations prior to 1901 (Census of India, 1921: 20; Davis, 1951: 26).

5. Davies (1932: 179-180) mentioned that a lot of seasonal migrants from the tribal areas in the cold weather, from November to April, enter the settled areas and return to their hills in April. This may also have some effects on the census results due to the fact that census enumerations are usually carried out during the same period.

2.1.2 GROWTH TRENDS (AFTER 1901)

The growth rate has shown a sharp decline from 17.9 percent in 1881-91 to
Table 2.1
Population Growth, NWFP and Punjab
1855-1901

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Population (number)</th>
<th>NWFP Inter-Censal Percent Growth</th>
<th>NWFP Per year Percent Growth</th>
<th>NWFP Inter-Censal Percent Growth</th>
<th>NWFP Per year Percent Growth</th>
<th>PUNJAB Inter-Censal Percent Growth</th>
<th>PUNJAB Per year Percent Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1855</td>
<td>1,144,047</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1868</td>
<td>1,339,566</td>
<td>17.1</td>
<td>1.3</td>
<td>14.1</td>
<td>1.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1881</td>
<td>1,575,943</td>
<td>17.6</td>
<td>1.4</td>
<td>7.0</td>
<td>0.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1891</td>
<td>1,857,519</td>
<td>17.9</td>
<td>1.8</td>
<td>10.0</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1901</td>
<td>2,041,534</td>
<td>9.9</td>
<td>1.0</td>
<td>7.4</td>
<td>0.7</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Census of India, 1931 (Vol. XV)

9.9 percent in 1891-1901 and then to 7.6 percent in the first decade of this century (Table 2.2). It is argued that the opportunities for immigrants from the surrounding areas since 1849 were exhausted and the Province became less attractive to them in terms of business, agriculture and employment.

The establishment of means of communication has facilitated the movement of the people of this Province to other parts of the sub-continent. Afzal (1974: 64) has observed that the lifetime migrants to Baluchistan and Sind during 1901-11 were predominantly from Punjab and NWFP. Khan (1972: 164) estimated that in 1901 Punjab and NWFP lost 21,478 persons, while the loss for NWFP alone in 1911 was 25,324 persons through net lifetime migration. Davis (1951: 26) observed that improvements in enumeration occurred in each census up to 1901, which provided better and more accurate results. The annual growth rate of 0.7 in the Province during 1901-11 was equal to the national average (excluding the tribal areas).
## Table 2.2
Population Growth, NWFP and Pakistan, 1901-1981

<table>
<thead>
<tr>
<th>NWFP</th>
<th>Population Growth, NWFP and Pakistan, 1901-1981</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Census Year</strong></td>
<td><strong>Population (thousands)</strong></td>
</tr>
<tr>
<td>1901</td>
<td>2,042</td>
</tr>
<tr>
<td>1911</td>
<td>2,197</td>
</tr>
<tr>
<td>1921</td>
<td>2,251</td>
</tr>
<tr>
<td>1931</td>
<td>2,425</td>
</tr>
<tr>
<td>1941</td>
<td>3,788</td>
</tr>
<tr>
<td>1951</td>
<td>4,557</td>
</tr>
<tr>
<td>1961</td>
<td>5,731</td>
</tr>
<tr>
<td>1972(c)</td>
<td>8,389</td>
</tr>
<tr>
<td>1981(d)</td>
<td>10,885 (e)</td>
</tr>
</tbody>
</table>

* The growth rate relates to 1891-1901 intercensal period.

**NOTES:**
(a) Excluding population of Frontier regions.
(b) Based on population excluding 1,922,000 persons of Frontier regions in 1911.
(c) 1961-72 Intercensal period was 11.7 years.
(d) 1972-81 Intercensal period was 8.5 years.
(e) Census, 1981 figures are provisional.

**Sources:**
(1) Census of India, 1931 (vol. XV)
(2) Population Census of Pakistan, 1961 (Vol. 3), 1972 and 1981 (Bulletin No. 1 and 2)
(3) Afzal, 1974 (p. 2)
The growth rate during 1911-21 reached the level of 2.5 percent, the lowest in the recent history of the Province. The years 1916 and 1917 brought a marked decline in public health due to the exceptional virulence of malaria. It was followed by the Influenza Epidemic of 1918. These epidemics eliminated a great portion of the Province's population. In addition to this the third Afghan War in 1919 and the Mahsuds and Wazirs revolts in 1920, broke the peace of the Province. During the same period several thousand people migrated to Afghanistan as a protest against the "Rowlatt Act" of 1919 which severely restricted political activity in India.

These events deeply affected the population of the Province and the rate of increase dropped from 7.6 percent during 1901-11 to 2.5 percent in 1911-21. Among the aforementioned events the most powerful influence on the birth rate for many years afterwards was the Influenza Epidemic of 1918.

The next decade 1921-31 showed an increase of 7.7 percent, which is in close conformity with the growth rate achieved during 1901-11 but lower than 1891-1901. It is also lower compared to the national growth of 11.5 percent during the corresponding decade.

The abnormal increase during 1931-41 is due to the inclusion of the areas of Dir, Swat, Chitral and Malakand in the census coverage which added 749,783 persons to the Provincial total. The growth rate (excluding the new areas) comes to 25.3 percent, which is still 17.6 percent higher than it was in the previous decade. The main reasons for this increase were the elimination of famines and considerable control over epidemics which lowered the death rate and increased life expectancy (Robinson, 1967: 25). "During the 1941 Census political tension was acute and all communities endeavoured to cause an artificial increase in their reported strength (Census of Pakistan, 1951: 26).

The major decrease, about 36 percent during 1941-51, was due to a great shift of population on account of partition in the sub-continent in 1947. The outmigration to India from NWFP was more than the immigration of refugees.
Therefore, the Province lost a great portion of its population through net migration (Afzal, 1974: 69).

The high growth rate experienced during 1951-61 is largely attributed to a substantial decline in mortality due to improvements in medical facilities, while fertility continued to remain at high levels (Robinson, 1967: 25; Afzal, 1974: 2). The exorbitantly higher growth rate during 1961-72 may be due in part to an underenumeration in the 1961 census by 7 to 12 percent estimated by several researchers (see Chapter One). It has also been argued that an overcount in the 1972 census has taken place in some provinces but no estimate of the extent is available (Bean, 1974: 178). The improvement in the 1972 census coverage as compared with previous censuses might also have some effect on the growth rate (Afzal, 1973: 123-134).

The provisional results of the 1981 census indicate that the population of the Province has recorded a growth rate of 29.8 percent during 1972-81 (Population Census Organisation, 1981: 1). The annual growth rate of 3.1 percent for the Province during 1972-81 was higher than the national average of 3.0 percent. In the absence of the results of the Census Evaluation Survey (CES), 1981, it is difficult to assign any reasons to the relatively higher growth rate in the Province. It might be partly due to the enumeration of the Afghan refugees who were living with their friends and relatives or in rented houses in the settled districts of NWFP, while those who were living in the refugee camps were excluded from the scope of the census.

2.2 POPULATION DISTRIBUTION

2.2.1 INTER-REGIONAL POPULATION DISTRIBUTION AND DENSITY

Inter-regional population distribution is the outcome of internal migration, differences in the rate of natural increase and imbalances in the gain or loss
from international migration among the regions (Farooq, 1975(a): 134). The influence of the first two factors is significant in the inter-regional distribution of population in Pakistan, while the effects of international migration are negligible.

The inter-regional distribution of population, its growth and density in Pakistan for 1961-81 is presented in Table 2.3. According to the 1981 census, NWFP which covers 9.4 percent of the total land area of the country, contained about 13 percent of the total population. Among the provinces NWFP ranked third in the distribution of population and fourth in its share in the total land area of the country. The proportion of NWFP's population has declined from 13.4 percent in 1961 to 12.8 percent in 1972 but during 1972-81 it has shown an increase of 0.2 percent. The 1981 census showed the highest proportion of population, about 56 percent, living in the Punjab which covers 26 percent of the total land area. Baluchistan's share in the land area is 43.6 percent, while it contains only 5 percent of the country's total population. During the last two decades (1961-81), Baluchistan's population has shown the highest increase (218 percent) followed by Sind (127 percent). NWFP has recorded an increase of 90 percent during the same period.

The rapid increase in population is associated with a high population density in Pakistan. In 1981 the density in NWFP was 146 persons per square kilometre. This was almost double the figure for 1961 (77/sq. km). NWFP was second to the Punjab with a density of 229/sq. km. in 1981, while Sind was third (134/sq. km.). As expected, the lowest density in 1981 was shown by Baluchistan (12/sq. km.). Due to continuous out-migration from FATA to NWFP and other parts of Pakistan its density has increased only from 68/sq. km. in 1961 to 80/sq. km. in 1981. Federal Capital Territory, Islamabad being the national capital, has recorded a rapid increase in density from 259/sq. km. in 1972 to 369/sq. km. in 1981. All of the regions except Baluchistan and FATA have shown a higher density than the national average.
Table 2.3
(Population in Thousands)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Square Kilometres</td>
<td>Percent</td>
<td>Population</td>
<td>Percent</td>
<td>Density</td>
</tr>
<tr>
<td>NWFP</td>
<td>74,521</td>
<td>9.4</td>
<td>5,731</td>
<td>13.4</td>
<td>77</td>
</tr>
<tr>
<td>FATA</td>
<td>27,221</td>
<td>3.4</td>
<td>1,847</td>
<td>4.3</td>
<td>68</td>
</tr>
<tr>
<td>Punjab</td>
<td>205,344</td>
<td>25.8</td>
<td>25,488</td>
<td>59.4</td>
<td>124</td>
</tr>
<tr>
<td>Sind</td>
<td>140,914</td>
<td>17.7</td>
<td>8,367</td>
<td>19.5</td>
<td>59</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>347,188</td>
<td>43.6</td>
<td>1,353</td>
<td>3.2</td>
<td>4</td>
</tr>
<tr>
<td>Islamabad  (FCT)</td>
<td>907</td>
<td>0.1</td>
<td>94</td>
<td>0.2</td>
<td>104</td>
</tr>
<tr>
<td>Pakistan</td>
<td>796,095</td>
<td>100.0</td>
<td>42,880</td>
<td>100.0</td>
<td>54</td>
</tr>
</tbody>
</table>

Note: (1) Area as given in Pakistan Statistical Yearbook, 1979 (Statistics Division, 1980: 6)
(2) Census, 1981 figures are provisional
* Due to rounding, the total does not add to 100.

Source: Population Census of Pakistan, 1961, 1972 and 1981 (Bulletin No. 1)
2.2.2 INTER-DISTRICT POPULATION DISTRIBUTION AND DENSITY

The inter-district differences in population distribution and density in NWFP indicate a pattern which is generally associated with geographical conditions and economic opportunities. It is clear from Table 2.4 that according to the 1981 census 33.7 percent of the total NWFP population was living in the Peshawar and Mardan districts (the most fertile plain and irrigated area), covering only 9.6 percent of the land area of the Province. In contrast, the largest district of the Province - Chitral (a mountainous and glacial area) - which covers about 20 percent of the total land area contains only 2 percent of the population of NWFP. Similarly the extreme southern district of D.I. Khan (Plain but unirrigated) covers 12 percent of the area of the Province and contains only 6 percent of the population. Hazara where almost every fourth person of NWFP is living (24.5 percent) is second only to Chitral in size (18.3 percent). Malakand (Protected Area) which is the smallest administrative unit of the Province covers 1.3 percent of the area and contains 2.4 percent of the population.

It is evident from Table 2.4 that Peshawar district has the highest density of 561 persons per square kilometre followed by Mardan (454/sq. km.), while Malakand (271/sq. km.) and Hazara (195/sq. km.) rank third and fourth respectively. These districts maintained their ranks during the last three censuses. Out of 10 districts 4 had a lower density than the provincial average (146/sq. km.) in 1981. As expected Chitral has the lowest density with an average of 14 persons per square kilometre. The density of Dir district is equal to the provincial average.

2.2.3 INTER-REGIONAL URBAN-RURAL POPULATION DISTRIBUTION

In the last two decades the urban population in Pakistan has increased at a higher rate than the rural population.
<table>
<thead>
<tr>
<th>Area</th>
<th>Census 1961</th>
<th>Census 1972</th>
<th>Census 1981</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peshawar</td>
<td>4,002</td>
<td>5.4</td>
<td>1,170,183</td>
</tr>
<tr>
<td>Mardan</td>
<td>3,136</td>
<td>4.2</td>
<td>813,840</td>
</tr>
<tr>
<td>Hazara (2)</td>
<td>13,680</td>
<td>18.3</td>
<td>1,384,552</td>
</tr>
<tr>
<td>Kohat</td>
<td>7,011</td>
<td>9.4</td>
<td>378,304</td>
</tr>
<tr>
<td>Bannu</td>
<td>4,390</td>
<td>5.9</td>
<td>375,299</td>
</tr>
<tr>
<td>D.I. Khan</td>
<td>9,005</td>
<td>12.1</td>
<td>352,247</td>
</tr>
<tr>
<td>Dir</td>
<td>5,281</td>
<td>7.1</td>
<td>385,183</td>
</tr>
<tr>
<td>Swat</td>
<td>12,212</td>
<td>16.4</td>
<td>624,699</td>
</tr>
<tr>
<td>Chitral</td>
<td>14,851</td>
<td>19.9</td>
<td>113,057</td>
</tr>
<tr>
<td>Malakand (PA)</td>
<td>953</td>
<td>1.3</td>
<td>133,627</td>
</tr>
<tr>
<td>NWFP</td>
<td>74,521</td>
<td>100.0</td>
<td>5,730,991</td>
</tr>
</tbody>
</table>

Note: (1) Census 1981 figures are provisional.
(2) Area figures for three new districts of Hazara Division are not available, therefore, it has been treated according to the old administrative arrangements.
* Due to rounding, the total does not add to 100.

The 1961 and 1972 censuses defined urban areas as having a municipal corporation, municipal committee, cantonment board and town committee. In general, places containing at least 5,000 population living in a continuous collection of houses and having distinct urban characteristics were designated as urban. In some cases, areas with less than 5,000 population but conforming to the urban characteristics were also treated as urban (Census of Pakistan, 1961: 24 and 1972 Census District Reports). In the 1981 census, only government notified areas were defined as urban, irrespective of the other characteristics.

The percentage distribution of population by urban-rural residence in Pakistan and Provinces for 1961-81 is given in Table 2.5. In spite of an increase from 13.2 percent in 1961 to 15.2 percent in 1981, the proportion of urban population in NWFP remained lower than the other regions of the country. Being predominantly an agricultural region, the Province has a high proportion of rural population. In contrast, Sind was more urbanised with only 43.3 percent of the population living in rural areas. The rapid urban growth of Islamabad is closely associated with its importance as a national capital. In FATA more than 99 percent of the population is still living in rural areas.

It is interesting to note that in NWFP the rate of urban growth during 1961-72 and 1972-81 remained constant (0.9 percent). A change in the definition of urban localities might be one of the reasons for this.

2.2.4 INTER-DISTRICT URBAN-RURAL POPULATION DISTRIBUTION

The urban-rural distribution of population also varies from district to district within the Province, as evident from Table 2.6. In all years, the proportion of urban population in the Peshawar district remained higher, which is to be expected since it contains a large number of urban areas, including the provincial capital. The urban proportions of the Mardan, Kohat and D.I. Khan districts were also higher than the provincial average.
### Table 2.5

Urban-Rural Distribution of Population (Percent) NWFP and Other Regions of Pakistan, 1961-1981

<table>
<thead>
<tr>
<th>Region</th>
<th>Census 1961</th>
<th>Census 1972</th>
<th>Census 1981(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>NWFP</td>
<td>13.2</td>
<td>86.8</td>
<td>14.3</td>
</tr>
<tr>
<td>FATA</td>
<td>1.4</td>
<td>98.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Punjab</td>
<td>21.5</td>
<td>78.5</td>
<td>24.4</td>
</tr>
<tr>
<td>Sind</td>
<td>37.9</td>
<td>62.1</td>
<td>40.4</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>16.9</td>
<td>83.1</td>
<td>16.4</td>
</tr>
<tr>
<td>Islamabad (FCT)</td>
<td>-</td>
<td>-</td>
<td>32.8</td>
</tr>
<tr>
<td>Pakistan</td>
<td>22.5</td>
<td>77.5</td>
<td>25.4</td>
</tr>
</tbody>
</table>

Note: (1) Census 1981 figures are provisional.
(2) Census 1961 figures for Islamabad (FCT) are included in Punjab.

Source: (a) Population Census of Pakistan, 1961 and 1972.
(b) Statistical Pocket Book of Pakistan, 1982.

### Table 2.6

Urban-Rural Distribution of Population (Percent) by District, NWFP, 1961-1981

<table>
<thead>
<tr>
<th>District</th>
<th>Census 1961</th>
<th>Census 1972</th>
<th>Census 1981 (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>Peshawar</td>
<td>32.6</td>
<td>67.4</td>
<td>27.8</td>
</tr>
<tr>
<td>Mardan</td>
<td>13.0</td>
<td>87.0</td>
<td>16.2</td>
</tr>
<tr>
<td>Hazara (1)</td>
<td>5.3</td>
<td>94.7</td>
<td>7.0</td>
</tr>
<tr>
<td>Kohat</td>
<td>18.9</td>
<td>81.1</td>
<td>16.0</td>
</tr>
<tr>
<td>Bannu</td>
<td>10.9</td>
<td>89.1</td>
<td>10.2</td>
</tr>
<tr>
<td>D.I. Khan</td>
<td>19.6</td>
<td>80.4</td>
<td>18.8</td>
</tr>
<tr>
<td>Dir</td>
<td>0.0</td>
<td>100.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Swat</td>
<td>2.6</td>
<td>97.4</td>
<td>5.5</td>
</tr>
<tr>
<td>Chitral</td>
<td>0.0</td>
<td>100.0</td>
<td>12.2</td>
</tr>
<tr>
<td>Malakand (PA)</td>
<td>0.0</td>
<td>100.0</td>
<td>36.1</td>
</tr>
<tr>
<td>NWFP</td>
<td>13.2</td>
<td>86.8</td>
<td>14.3</td>
</tr>
</tbody>
</table>

Notes: (1) Census 1981 figures of three newly created districts of Hazara Division are presented against Hazara.
(2) Census 1981 figures are provisional.

As a result of changes in the definition of urban areas in 1981, the areas of Chitral and Malakand districts recorded in the 1972 census as urban were changed to rural. Dir is the only district where no urban area was reported in all the censuses while Hazara, Bannu and Swat districts contain more than 90 percent rural population.

2.3 POPULATION COMPOSITION

2.3.1 SEX AND AGE COMPOSITION

The information released in the census bulletins from the 1981 census of Pakistan is limited to population totals by sex for the country and its provinces. In the absence of details about age distribution, the scope of this discussion will be restricted to the 1972 census. However, the analysis of the sex ratio will also include the 1981 census provisional results.

2.3.1.1 SEX RATIO

The sex ratio of the total population of Pakistan and its provinces in the censuses from 1901-1981 are presented in Table 2.7. It is clear from the Table that the sex ratio of NWFP has declined from 119 in 1941 to 108 in 1972, while the 1981 census indicated no change. It is also evident that the sex ratio is lower in NWFP as compared to Pakistan and other provinces. This pattern of sex ratios is consistent since 1911.

The lower sex ratio in the Province can be attributed to a number of factors:

1. It might be due to over-reporting of females in the census enumeration.

2. The decline in sex ratio is also indicative of a better coverage of females with the improvement in the efficiency of census enumeration as compared to the previous censuses;

3. The decline in maternal mortality as well as female infant mortality is also responsible for lower sex ratio. Ashraf (1962: 31) observed a
Table 2.7

Sex Ratios in Censuses, Pakistan and Provinces

1901-1981

(Males per Hundred Females)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>119</td>
<td>117</td>
<td>120</td>
<td>119</td>
<td>119</td>
<td>112</td>
<td>109</td>
<td>108</td>
<td>108</td>
</tr>
<tr>
<td>Punjab</td>
<td>116</td>
<td>122</td>
<td>120</td>
<td>121</td>
<td>119</td>
<td>115</td>
<td>114</td>
<td>116</td>
<td>111</td>
</tr>
<tr>
<td>Sind</td>
<td>121</td>
<td>123</td>
<td>127</td>
<td>128</td>
<td>122</td>
<td>124</td>
<td>123</td>
<td>115</td>
<td>110</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>123</td>
<td>127</td>
<td>137</td>
<td>130</td>
<td>131</td>
<td>122</td>
<td>123</td>
<td>113</td>
<td>112</td>
</tr>
<tr>
<td>Pakistan</td>
<td>118</td>
<td>121</td>
<td>122</td>
<td>122</td>
<td>119</td>
<td>116</td>
<td>115</td>
<td>114</td>
<td>111</td>
</tr>
</tbody>
</table>

Source: (1) Khan, M.R. "Migration Within and Across the Boundaries of East and West Pakistan", 1972 (Table 2.1: 47).

(2) Population Census of Pakistan, 1981 (Bulletin No. 1).
lower female infant and child mortality as compared to males amongst 0-9 age group;

4. Another factor which might be the main cause of a lower sex ratio in NWFP is the excessive out-migration of males of working age to other provinces for economic reasons. Ashraf (1962: 102) observed that out-migration of individuals was highly in favour of males. Burki (1973: 1-36) noted that due to out-migration NWFP lost population at an average annual rate of 0.7 percent during 1961-72.

The numerical impact of these reasons cannot be ascertained due to lack of data.

The age-specific sex ratios for Pakistan and its Provinces (Table 2.8) show that NWFP's sex ratios are similar to Pakistan except for the age groups 25-34 in 1961 which have sex ratios below 100. The sex ratio for the age group 0-4 of NWFP was also below 100 in 1972 as were those of Sind and Baluchistan.

The age-specific sex ratios indicate a great variation in both the Censuses at national as well as provincial levels. A small decline is observed in the overall sex ratios of NWFP in 1972 as compared with Sind and Baluchistan, which may be partly due to better enumeration or over-reporting of females.

The high sex ratio in the age groups 10-19 is largely due to religious and cultural prohibitions which restrict the access of interviewers to households to record accurately the ages of females (Bean, 1974: 177-184). The decline in the sex ratios of age group 15-39 is mainly due to out-migration of males to other provinces for employment. The excess of males over females at the older ages in both the censuses reveals great anomalies in age reporting which have ultimately affected the age-specific sex ratios in NWFP and in the country as a whole. Usually persons in their late forties tend to report their ages higher because socially and culturally greater respect is accorded to older people.
<table>
<thead>
<tr>
<th>Age Group</th>
<th>NWFP</th>
<th>Punjab</th>
<th>Sind</th>
<th>Baluchistan</th>
<th>Pakistan</th>
<th>NWFP</th>
<th>Punjab</th>
<th>Sind</th>
<th>Baluchistan</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>101</td>
<td>106</td>
<td>104</td>
<td>96</td>
<td>105</td>
<td>94</td>
<td>109</td>
<td>90</td>
<td>80</td>
<td>101</td>
</tr>
<tr>
<td>5-9</td>
<td>112</td>
<td>113</td>
<td>119</td>
<td>122</td>
<td>115</td>
<td>107</td>
<td>111</td>
<td>111</td>
<td>106</td>
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<tr>
<td>10-14</td>
<td>123</td>
<td>120</td>
<td>128</td>
<td>142</td>
<td>123</td>
<td>124</td>
<td>126</td>
<td>130</td>
<td>137</td>
<td>127</td>
</tr>
<tr>
<td>15-19</td>
<td>114</td>
<td>116</td>
<td>128</td>
<td>129</td>
<td>118</td>
<td>118</td>
<td>118</td>
<td>124</td>
<td>145</td>
<td>120</td>
</tr>
<tr>
<td>20-24</td>
<td>108</td>
<td>110</td>
<td>123</td>
<td>121</td>
<td>113</td>
<td>99</td>
<td>106</td>
<td>109</td>
<td>115</td>
<td>107</td>
</tr>
<tr>
<td>25-29</td>
<td>98</td>
<td>105</td>
<td>125</td>
<td>119</td>
<td>109</td>
<td>102</td>
<td>111</td>
<td>118</td>
<td>117</td>
<td>112</td>
</tr>
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<td>30-34</td>
<td>96</td>
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<td>35-39</td>
<td>102</td>
<td>113</td>
<td>140</td>
<td>124</td>
<td>117</td>
<td>107</td>
<td>115</td>
<td>126</td>
<td>114</td>
<td>116</td>
</tr>
<tr>
<td>40-44</td>
<td>109</td>
<td>117</td>
<td>130</td>
<td>129</td>
<td>119</td>
<td>107</td>
<td>115</td>
<td>124</td>
<td>119</td>
<td>116</td>
</tr>
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<td>45-49</td>
<td>114</td>
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<td>135</td>
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<td>117</td>
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<td>136</td>
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<td>50-54</td>
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<td>135</td>
<td>137</td>
<td>128</td>
<td>133</td>
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<td>55-59</td>
<td>118</td>
<td>122</td>
<td>138</td>
<td>146</td>
<td>126</td>
<td>117</td>
<td>116</td>
<td>126</td>
<td>115</td>
<td>118</td>
</tr>
<tr>
<td>60+</td>
<td>126</td>
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<td>124</td>
<td>134</td>
<td>133</td>
<td>133</td>
<td>141</td>
<td>127</td>
<td>125</td>
<td>137</td>
</tr>
</tbody>
</table>

2.3.1.2 AGE COMPOSITION

In the absence of an efficient civil registration system and because of the high rate of illiteracy in Pakistan, errors in age data are expected to be present. Like that of other provinces of Pakistan, the census data on age in NWFP are also subject to errors caused by inaccurate reporting or mis-statement of age, failure to report age, and incomplete or underenumeration at particular ages (see Chapter One).

Age was recorded in 1961 and 1972 censuses in completed years and for infants in completed months as on the census reference date. The single year age curves for males and females based on 1972 census data for NWFP are presented in Figure 2.1, which demonstrates the typical shape of a developing area. The shape of the curves, both for males and females, indicates an over-reporting of ages ending with zeros and fives. Both the curves behave similarly showing an understatement and overstatement in the reporting of ages in the census.

A comparison of age curves (by five year age groups) in Pakistan and NWFP has been given in Figure 2.2. The curves show that population in the age group 0-4 comprises a smaller proportion than in the age group 5-9 which has also been observed in the previous censuses. Krotki and Parveen (1976: 290-318) argued that with an accompanying population increase census after census, it seems to be an enumeration and reporting phenomenon and not a demographic reality. The sharp rise in the age group 5-9 which is more significant in the male population is due to over-reporting of ages. The curve falls rapidly at ages 10-19 and then gently at the middle and older ages. The peculiarities at ages above 50 are due in part to the well known phenomenon of over-statement of old ages.

Comparing the age curves of NWFP with Pakistan (Figure 2.2) it was found
Figure 2.1
Population of NWFP by Sex and Single Year Age Group, 1977

Population (in thousands)

MALE

FEMALE

Age (YEARS)
Figure 2.2
Age Distributions, Pakistan and NWFP (Five Year Age Group)
Based on 1972 Census
that the curves for both sexes behave almost identically. The only exception is the first age group, where in NWFP the females outnumbered the males. Krotki and Parveen (1976: 290-318) using the age ratios index for 1961 and 1972 censuses observed that NWFP is mainly responsible for the sharper age heaping in Pakistan.

The age-sex distribution of the 1961 and 1972 censuses (Table 2.9) show some changes during the intercensal period. The changes in the younger ages are more conspicuous. The maximum negative decrease, about 2.1 percent, has been observed in the first age group. Census Evaluation Survey (Statistics Division, 1974) results show that more persons were missed in the first age group in the 1972 census. The decrease in the second age group is relatively small. The increase by 2.7 percent in the age group 10-14 in the 1972 census is conspicuous. It is also evident from the Table that 45 percent of the population is under 15 years of age. In the rest of the age groups no major changes have occurred between the two censuses.

The age-sex pyramids (Figure 2.3) for the two censuses are similar in appearance and are typical of those regions characterised by high birth and death rates, with an extremely broad base and consistently diminishing proportions through the remaining portion of the age structure. There are some deviations, especially in the first age group, which appear slightly shrunken in comparison with the next highest age group. This would suggest that children under 5 years of age were underenumerated in the two censuses. The underenumeration in the case of male children is more conspicuous than in the case of females. The effects of male out-migration are noticeable especially in the age groups 20-34.

2.3.1.3 **DEPENDENCY RATIO**

The dependency ratio (the ratio of population under 15 years and above 60 years to the population aged 15-59 years) gives an indication of the population depending on the working age population. The child dependency ratio (Table 2.10) appears to be highest for NWFP in 1961 and 1972 as
Table 2.9
Population and Percentage Distribution by Age and Sex, NWFP, 1961-1972

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Population</th>
<th>Percentage Distribution</th>
<th>Population</th>
<th>Percentage Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Both Sexes</td>
<td>Male</td>
<td>Female</td>
<td>Both Sexes</td>
</tr>
<tr>
<td>0-4</td>
<td>725,930</td>
<td>364,539</td>
<td>361,391</td>
<td>17.5</td>
</tr>
<tr>
<td>1-5</td>
<td>732,669</td>
<td>386,881</td>
<td>345,788</td>
<td>17.7</td>
</tr>
<tr>
<td>10-14</td>
<td>419,676</td>
<td>232,110</td>
<td>187,566</td>
<td>10.1</td>
</tr>
<tr>
<td>15-19</td>
<td>332,141</td>
<td>177,053</td>
<td>155,088</td>
<td>8.0</td>
</tr>
<tr>
<td>20-24</td>
<td>292,546</td>
<td>151,883</td>
<td>140,663</td>
<td>7.1</td>
</tr>
<tr>
<td>25-29</td>
<td>295,581</td>
<td>146,306</td>
<td>149,275</td>
<td>7.1</td>
</tr>
<tr>
<td>30-34</td>
<td>263,342</td>
<td>129,452</td>
<td>133,890</td>
<td>6.4</td>
</tr>
<tr>
<td>35-39</td>
<td>200,590</td>
<td>101,294</td>
<td>99,296</td>
<td>4.9</td>
</tr>
<tr>
<td>40-44</td>
<td>198,801</td>
<td>103,695</td>
<td>95,106</td>
<td>4.8</td>
</tr>
<tr>
<td>45-49</td>
<td>147,758</td>
<td>78,859</td>
<td>68,899</td>
<td>3.6</td>
</tr>
<tr>
<td>50-54</td>
<td>164,124</td>
<td>87,874</td>
<td>76,250</td>
<td>4.0</td>
</tr>
<tr>
<td>55-59</td>
<td>87,912</td>
<td>47,655</td>
<td>40,257</td>
<td>2.1</td>
</tr>
<tr>
<td>60+</td>
<td>279,177</td>
<td>155,891</td>
<td>123,286</td>
<td>6.7</td>
</tr>
<tr>
<td>All Ages</td>
<td>4,140,247</td>
<td>2,163,492</td>
<td>1,976,755</td>
<td>99.8*</td>
</tr>
</tbody>
</table>

Note: (1) 1961 census excludes population of Malakand division.
(2) 1972 Census excludes population of Kohistan and PATA of Hazara division.
* Due to rounding total does not add to 100.

Figure 2.3
Population Pyramid NWFP, 1961 and 1972

1961

AGE

1972

PERCENTAGE
compared to other provinces. The aged dependency ratio shows that NWFP is second to the Punjab in both years. As compared to 1961, the overall dependency ratio in Pakistan and the provinces has increased.

An increase in the child dependency ratio in 1972, especially in Sind Province, as compared to other provinces, reveals that in-migrants to Karachi have started taking their families with them. Hashmi (1965: 56) and Afzal (1973: 123-124) have also observed this phenomenon. However, the changes in the dependency ratio may be related to the accuracy in age reporting.

Table 2.10
Dependency Ratio, Pakistan and Provinces,
1961-1972

<table>
<thead>
<tr>
<th>Dependency Ratio 1961</th>
<th>Dependency Ratio 1972</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>Aged</td>
</tr>
<tr>
<td>NWFP</td>
<td>94.7</td>
</tr>
<tr>
<td>Punjab</td>
<td>84.2</td>
</tr>
<tr>
<td>Sind</td>
<td>77.8</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>84.8</td>
</tr>
<tr>
<td>Pakistan</td>
<td>83.8</td>
</tr>
</tbody>
</table>

Source: Population Census of Pakistan 1961 (Vol. 3) and 1972 (District Census reports).

2.3.2 MARITAL STATUS

Marriage is considered an important religious, as well as social institution and is almost universal in Pakistan. In Islam, which is the predominant religion of Pakistan, marriage is considered not only a physical necessity but also a religious duty. It therefore encourages marriages of young people and condemns the life of celibacy. In the Holy Quran Allah says: "Marry those among you who are single or the virtuous ones among yourselves, male or female; if they are in poverty, Allah will give them means out of His Grace" (Surrah Al-Nisa, 24: 32). The Holy Prophet Muhammad (Peace be upon him)
has said, "When a Muslim marries he perfects half of his religion, and he should practice righteousness to secure the remaining half" (Rahman, 1980: 384).

The marriage rates at each age and the proportion of the population in each marital status category has important consequences for fertility analysis. Prior to 1961, when the "Muslim Family Laws Ordinance" came into effect, formal registration of marriages was not required. Muslim marriages since this Ordinance are to be registered with the local Union Councils or Town Committees in rural and urban areas respectively. The Ordinance sets the minimum age at marriage at 18 years for males and 16 years for females. This registration system does not fulfil the requirements of demographers due to the under-registration of marriages and misreporting of age, especially in the rural areas, where most of the people marry at ages less than the minimum age set in the Ordinance.

In NWFP, where the civil registration system is inadequate, as in other provinces of Pakistan, data on marital status are derived from decennial censuses and sample surveys. In Islamic Shari'ah (Jurisprudence) and the Pakistan civil law, four marital statuses, i.e. single (never married), married, widowed and divorced are recognised. Data in censuses and demographic sample surveys are collected according to these statuses.

The percentage of population (10 years and above) by marital status and sex for Pakistan and provinces for the 1961 and 1972 censuses are presented in Table 2.11. These proportions could not be standardised due to the non-availability of compiled data by both age and marital status for all the province. According to the 1961 census, 55 percent of males and 64 percent of females had reported married as their marital status in NWFP. As compared to other provinces and the country as a whole the proportion married among males and females was low. In 1972, the proportion married decreased to 51.4 percent for males and 60.3 percent for females.
Table 2.11
Percentage Distribution of Population (10 years and above) by Marital Status and Sex, Pakistan and Provinces, 1961-1972

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>Male</td>
<td>40.1</td>
<td>45.7</td>
<td>55.1</td>
<td>51.4</td>
<td>4.6</td>
<td>2.8</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>23.5</td>
<td>30.1</td>
<td>64.0</td>
<td>60.3</td>
<td>12.2</td>
<td>9.4</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Punjab</td>
<td>Male</td>
<td>37.5</td>
<td>44.3</td>
<td>55.8</td>
<td>50.9</td>
<td>6.4</td>
<td>4.5</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>22.6</td>
<td>30.9</td>
<td>66.4</td>
<td>60.5</td>
<td>10.6</td>
<td>8.3</td>
<td>0.4</td>
<td>0.3</td>
</tr>
<tr>
<td>Sind</td>
<td>Male</td>
<td>36.7</td>
<td>43.3</td>
<td>56.8</td>
<td>53.2</td>
<td>6.3</td>
<td>3.4</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>19.6</td>
<td>26.2</td>
<td>68.8</td>
<td>64.5</td>
<td>11.2</td>
<td>9.2</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>Male</td>
<td>37.9</td>
<td>46.9</td>
<td>57.5</td>
<td>50.3</td>
<td>4.5</td>
<td>2.7</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>16.4</td>
<td>27.7</td>
<td>71.8</td>
<td>63.1</td>
<td>11.6</td>
<td>9.0</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Male</td>
<td>37.5</td>
<td>44.4</td>
<td>56.0</td>
<td>51.4</td>
<td>6.2</td>
<td>4.0</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>22.2</td>
<td>29.7</td>
<td>67.5</td>
<td>61.4</td>
<td>9.9</td>
<td>8.6</td>
<td>0.4</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Source: Population Census of Pakistan, 1961 (Vol. 3) and 1972 (District Census Reports).

The proportion never married among males (40.1 percent) and females (23.5 percent) in 1961 was higher in NWFP than any other province and higher than the national average. In 1972 the never married male population in the Province had increased to 45.7 percent and females to 30.1 percent.

The proportion of married persons in the population in each age group shows marked variations as is evident from Table 2.12. It will be observed that the proportion married for both males and females increases with age up to a peak in the middle ages and declines gradually thereafter. A decrease has occurred in the proportion married in the younger age groups in 1972. The decrease of 15.6 percent for males in the age group 20-24 and 16.2 percent for females in the age group 15-19 is prominent. The absolute number of married males was smaller than of married females which may be a reflection of the practice of polygamy as admissible in Islam or it may be due to temporary outmigration of married males.
Table 2.12

Percentage Distribution of Population by Marital Status, Age and Sex, 1961-1972 and Standardised Percentages by Marital Status and Sex, 1961 for NWFP

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Never Married</th>
<th>Married</th>
<th>Widowed</th>
<th>Divorced</th>
<th>Population in 000s</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male Female</td>
<td>Male Female</td>
<td>Male Female</td>
<td>Male Female</td>
<td></td>
</tr>
<tr>
<td>10-14</td>
<td>97.3 92.4</td>
<td>2.7 7.5</td>
<td>0.0 0.1</td>
<td>0.0 0.0</td>
<td>232 188</td>
</tr>
<tr>
<td>15-19</td>
<td>88.6 48.5</td>
<td>11.2 51.2</td>
<td>0.2 0.2</td>
<td>0.0 0.1</td>
<td>177 155</td>
</tr>
<tr>
<td>20-24</td>
<td>56.0 13.9</td>
<td>42.8 84.2</td>
<td>1.0 1.6</td>
<td>0.2 0.3</td>
<td>152 141</td>
</tr>
<tr>
<td>25-29</td>
<td>31.6 6.9</td>
<td>66.4 90.2</td>
<td>1.7 2.5</td>
<td>0.3 0.3</td>
<td>146 149</td>
</tr>
<tr>
<td>30-34</td>
<td>16.4 4.8</td>
<td>80.9 90.6</td>
<td>2.4 4.3</td>
<td>0.3 0.3</td>
<td>129 134</td>
</tr>
<tr>
<td>35-39</td>
<td>10.8 4.6</td>
<td>95.1 88.7</td>
<td>3.5 6.4</td>
<td>0.3 0.3</td>
<td>92 99</td>
</tr>
<tr>
<td>40-44</td>
<td>6.5 3.0</td>
<td>87.9 82.1</td>
<td>5.3 14.6</td>
<td>0.3 0.3</td>
<td>104 95</td>
</tr>
<tr>
<td>45-49</td>
<td>5.0 2.9</td>
<td>88.0 77.5</td>
<td>6.7 19.3</td>
<td>0.3 0.3</td>
<td>79 69</td>
</tr>
<tr>
<td>50-54</td>
<td>4.3 2.2</td>
<td>87.5 67.9</td>
<td>7.9 29.6</td>
<td>0.3 0.3</td>
<td>88 76</td>
</tr>
<tr>
<td>55-59</td>
<td>4.0 2.6</td>
<td>84.7 63.6</td>
<td>10.9 33.4</td>
<td>0.4 0.4</td>
<td>48 40</td>
</tr>
<tr>
<td>TOTAL</td>
<td>45.0 25.9</td>
<td>52.1 66.7</td>
<td>2.7 7.1</td>
<td>0.2 0.3</td>
<td>1,247 1,146</td>
</tr>
</tbody>
</table>

Standardised Percentages 47.2 28.8 50.1 64.2 2.5 6.7 0.2 0.3 100.0 100.0

<table>
<thead>
<tr>
<th>Age Group</th>
<th>1972</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male Female</td>
</tr>
<tr>
<td>10-14</td>
<td>99.5 97.8</td>
</tr>
<tr>
<td>15-19</td>
<td>94.6 64.6</td>
</tr>
<tr>
<td>20-24</td>
<td>72.4 21.7</td>
</tr>
<tr>
<td>25-29</td>
<td>38.5 8.6</td>
</tr>
<tr>
<td>30-34</td>
<td>17.2 4.9</td>
</tr>
<tr>
<td>35-39</td>
<td>8.4 3.1</td>
</tr>
<tr>
<td>40-44</td>
<td>6.0 2.9</td>
</tr>
<tr>
<td>45-49</td>
<td>4.0 2.3</td>
</tr>
<tr>
<td>50-54</td>
<td>3.3 2.2</td>
</tr>
<tr>
<td>55-59</td>
<td>2.9 1.9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>50.9 33.0</td>
</tr>
</tbody>
</table>

Source: Population Census of Pakistan 1961 (Vol. 3) and 1972 (District Census Reports.
Changes in marital status can also be examined through standardised proportion (Table 2.12). Standardisation eliminates variations in the age composition which may affect the analysis (Shryock and Siegel, 1976: 164). The percentage distribution of population by marital status in 1961 for males and females has been standardised with the population in 1972 as the standard. The results indicate that the proportion of never married males and females would have been larger by 2.2 and 2.9 percent respectively in 1961 if the population in each age group in 1961 had been the same as in 1972. On the other hand, the proportion of married males and females would have been smaller by 2 and 2.5 percent respectively in 1961.

An increase in the proportion never married between 1961 and 1972 in NWFP is evident from Figure 2.4. The male population has shown a higher increase for ages 15-29, while for females it was more for the 10-24 age groups.

2.3.2.1 AGE AT MARRIAGE

The mean age at marriage calculated from the 1961 and 1972 censuses and the HED survey, 1973 data using Hajnal's method (Hajnal, 1953: 111-136) indicates an increase in the singulate mean age at marriage for both sexes in NWFP and in the country as a whole (Table 2.13). Sadiq (1965: 227-248) in his comprehensive study based on Hajnal's technique and using the census data, has also observed a rising trend in age at marriage for Pakistan and its various regions in the last few decades.

The mean age at marriage for males increased from 24.6 years in 1961 to 26.3 years in 1972 in NWFP. The increase in the female age at marriage was 1.7 years during the same period. The HED survey, 1973, reported that the mean age at first marriage for males and females was 27.3 and 20.3 years respectively (Table 2.13). The PGS, 1976, has also recorded an increase in age at first marriage at a national level (Federal Bureau of Statistics, 1981: 36).
Figure 2.4

Population (Percent) Never Married by Sex, NWFP, 1961 and 1972

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>100</td>
</tr>
<tr>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>25</td>
<td>60</td>
</tr>
<tr>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>35</td>
<td>20</td>
</tr>
<tr>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>45</td>
<td>5</td>
</tr>
<tr>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>55</td>
<td>1</td>
</tr>
<tr>
<td>60</td>
<td>0</td>
</tr>
</tbody>
</table>

**MALE**

- 1961
- 1972

**FEMALE**

- 1961
- 1972
Table 2.13
Mean Age at Marriage NWFP and Pakistan, 1961-1973

<table>
<thead>
<tr>
<th>Census/Survey Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1961</td>
<td>24.6</td>
<td>18.0</td>
</tr>
<tr>
<td>1972</td>
<td>26.3</td>
<td>19.7</td>
</tr>
<tr>
<td>1973</td>
<td>27.3</td>
<td>20.3</td>
</tr>
<tr>
<td>Pakistan**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1961</td>
<td>23.3</td>
<td>16.7</td>
</tr>
<tr>
<td>1972</td>
<td>25.7</td>
<td>19.7</td>
</tr>
<tr>
<td>1973</td>
<td>25.7</td>
<td>19.9</td>
</tr>
</tbody>
</table>


The gain in age at first marriage in NWFP during 1961-73 for males was 2.7 years while females gained 2.3 years. The relatively high gain in favour of males might be due to the fact that young males are delaying marriage until they have gained economic independence. As compared to the national average, the mean age at marriage in the Province was also higher.

2.3.2.2 MARRIAGE DISSOLUTION

The dissolution of marriage occurs due to the death of one of the spouses or divorce. The proportion of population widowed and divorced by age for the 1961 and 1972 censuses is given in Table 2.12. The proportion remaining widowed or divorced is relatively lower among males than females, which might be due to remarriage. The imbalance in the proportion widowed is also caused by mortality differentials among the sexes. The highest proportions of widowed persons are found in the older age groups and show a gradual rise with the
increase in age. It will also be observed that the proportion of widows is larger than widowers, especially in the advanced age groups. This may be due in part to the fact that men usually marry women younger than themselves and this means that husbands in general will die earlier than their wives. However, the proportions remaining widowed declined for both the sexes between 1961 and 1972.

A negligible proportion, 0.2 percent for males and 0.3 percent for females, were reported as divorced in 1961. This proportion has further declined in 1972 to 0.1 and 0.2 percent for males and females respectively.

2.3.3 HOUSEHOLD COMPOSITION

The first housing census in Pakistan was conducted in 1960 as a part of the 1961 population census which provided information about household and family composition. For the purpose of the census a household was defined as "a collection of persons living and eating in one mess with their dependents, relatives, servants and lodgers who normally reside together" (Housing Census of Pakistan, 1960: 10).

A comparison of the data from the 1960 and 1972 censuses (Table 2.14) shows that the total number of households in NWFP has increased by 40.5 percent (excluding Malakand Division) during the 12-year period. The percentage increase (46.8) in urban households was greater than the corresponding increase (39.2) for rural households.

Table 2.14 also reveals that the rate of household formation has not kept pace with the rate of population growth. The total population of NWFP (excluding Malakand Division) increased by 58.9 percent during 1961-72 while the increase in households was only 40.5 percent. The rate of households formulation in the rural areas was slower compared with population growth than the rate in urban areas. This indicates that individuals and families in the rural areas of NWFP
Table 2.14
Growth of Population and Households by Urban and Rural Areas, NWFP, 1960-1972

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>TOTAL</td>
<td>736,004</td>
<td>100.0</td>
<td>1,033,811</td>
<td>100.0</td>
<td>4,140,247</td>
<td>100.0</td>
</tr>
<tr>
<td>URBAN</td>
<td>120,290</td>
<td>16.3</td>
<td>176,645</td>
<td>17.1</td>
<td>742,596</td>
<td>17.9</td>
</tr>
<tr>
<td>RURAL</td>
<td>615,714</td>
<td>83.7</td>
<td>857,166</td>
<td>82.9</td>
<td>3,397,651</td>
<td>82.1</td>
</tr>
</tbody>
</table>

Note: Excluding Malakand division.

Source: Population and Housing Census of Pakistan, 1960-61 (Vol 10, Table 3 and Vol. 3, Table 2) and 1972 Census (District reports).
tend to live together because of stronger family ties or inability to form separate households due to unfavourable economic conditions.

The pattern of household distribution by size in 1960 and 1972 is presented in Table 2.15. It shows that in 1960 of all households 53.6 percent had five members or less. In 1972 this proportion had declined to 46 percent. The proportion of households with six members or more had increased from 46 percent in 1960 to 52 percent in 1972. This change has been observed in both areas. The average number of persons per household in rural and urban areas in 1961 was 6.2 and 5.5 respectively (Table 2.16). This figure increased in the rural areas to 6.4 in 1972. This might be due to a rapid growth in population without a corresponding increase in the number of households.

According to the 1960 Housing Census, the family was defined as "two or more persons mutually related who live together and share the same household" (1960: 11). The percentage distribution of families in NWFP and Pakistan by type and area for 1960 is given in Table 2.17, while published data from the 1972 census is not available.

Table 2.15
Distribution of Households (Percent) by Number of Persons and Area, NWFP, 1960-1972

<table>
<thead>
<tr>
<th>YEAR</th>
<th>AREA</th>
<th>5 persons or less</th>
<th>6 persons or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>All areas</td>
<td>53.6</td>
<td>46.4</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>52.6</td>
<td>47.4</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>53.8</td>
<td>46.2</td>
</tr>
<tr>
<td>1972</td>
<td>All areas</td>
<td>47.8</td>
<td>52.2</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>48.4</td>
<td>51.6</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>47.7</td>
<td>52.3</td>
</tr>
</tbody>
</table>

Source: Computed from Table 2.16.
<table>
<thead>
<tr>
<th>Area</th>
<th>Number of Persons</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Areas</td>
<td>1960</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Areas</td>
<td>1972</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural Areas</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Calculated from Housing Census of Pakistan, 1960 (Vol. 10, Table 3) and 1972 (Districts Census Reports, NWFP, Table 9).
Table 2.17 shows that in NWFP in all areas 57.5 percent of families (7.2 + 50.3) are comprised of nuclear families and 42.5 percent are joint families. The proportion of joint families in rural areas is higher than in urban areas. Compared to all areas of Pakistan, the percentage of nuclear families (56.5) is lower than in NWFP. The average number of persons per family in the urban areas of NWFP is 7.2 which is higher than in rural areas. The modal size of the family in NWFP is 6 which is high compared to 5 for Pakistan as a whole.

2.3.4 SOCIO-ECONOMIC CHARACTERISTICS

2.3.4.1 ETHNICITY, RACE AND RELIGION

The study of ethnicity, race and religion is essential because these factors have a great influence on the demographic processes of a population. These aspects will be discussed in this sub-section.

2.3.4.1.1 RACE

The inhabitants of NWFP are predominantly Pathans. The term Pathan, which was adopted by the British from the Indian vernaculars, is usually used for the people who speak the "Pushtu or Pukhtu" language. They are of Afghan origin and are sometimes called "Afghans", although this term is used for the people living in Afghanistan. The main tribes are Yusufzai, Akozai, Muhammadzai, Ghoriakhel, Khattaks, Bangash, Banuchis, Marwats, Kundi, Gandapur, Swatis and Jaduns. They are divided into sub-tribes (Figure 2.5). The rest of the tribes, mostly settled in Chitral and D.I. Khan districts and Hazara division, are Khos, Jats, Gujars and Awans.

2.3.4.1.2 CITIZENSHIP

The 1961 census shows that there were only 0.4 percent foreign nationals in NWFP and all of them were from Afghanistan. The majority were "Powindhas" (nomads). These people come from the Afghan highlands in early winter and return in the spring. Most of them (about 2 percent) were found in Baluchistan.
Table 2.17
Percentage of Families by Type and Area, NWFP and Pakistan, 1960

<table>
<thead>
<tr>
<th>Region</th>
<th>Area</th>
<th>Total</th>
<th>Husband and Wife Without Sons or Daughters Only</th>
<th>Husband and Wife With Sons and/or Daughters Only</th>
<th>Husband and/or Wife With or Without Own Sons and/or Daughters but Having Parents and/or daughters-in-law</th>
<th>Average Number of Persons Per Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>All Areas</td>
<td>100</td>
<td>7.2</td>
<td>50.3</td>
<td>42.5</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td>Urban Areas</td>
<td>100</td>
<td>7.4</td>
<td>52.1</td>
<td>40.5</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>Rural Areas</td>
<td>100</td>
<td>7.1</td>
<td>50.0</td>
<td>42.9</td>
<td>5.9</td>
</tr>
<tr>
<td>Pakistan</td>
<td>All Areas</td>
<td>100</td>
<td>7.9</td>
<td>48.6</td>
<td>43.4</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Urban Areas</td>
<td>100</td>
<td>8.2</td>
<td>49.3</td>
<td>42.5</td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td>Rural Areas</td>
<td>100</td>
<td>7.8</td>
<td>48.4</td>
<td>43.7</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Note: Excluding Malakand Division (NWFP).

Source: Housing Census of Pakistan, 1960 (Vol. 10, Table 8).
THE NORTH-WEST FRONTIER PROVINCE
(APPROXIMATE TRIBAL DISTRIBUTION)

Source: Davies, C. Collin, 1932 (Map No. 3).
while in the Punjab their proportion was only 0.1 percent (Table 2.18). The percentage of nationals from other countries in NWFP was negligible. The 1972 census did not provide countrywise data on foreign nationals. Their proportion was only 0.05 percent for the whole country and most of them (0.2 percent) were found in Baluchistan.

2.3.4.1.3 PLACE OF BIRTH

The population of NWFP is mainly of an indigenous origin. It is evident from Table 2.19 that in the 1961 census 94.5 percent of the population reported their birth place as NWFP. Among those who reported their birth place as other than NWFP, 2.4 percent were from FATA and 1.7 percent from the Punjab. The share of Indian born population in the Province was only 0.7 percent.

In the 1972 census the question on birthplace was not included but was asked in the HED survey, 1973. The proportion of NWFP born population in 1973 was 95.6 percent. Of the 4.6 percent of persons who reported their birthplace as other than NWFP, 1.6 percent were from the Punjab and 1.2 percent from FATA. A high proportion of the population (1.7 percent) who were born in NWFP but enumerated in other provinces were found in Sind. The major reason for their outmigration is the lack of employment opportunities in NWFP. On the other hand 0.8 percent of NWFP population reported their place of birth as Sind. This may probably be due to the migration of their parents. The proportion of foreign born persons in 1973 in NWFP was only 0.6 percent. Of them, 0.3 percent were from India and only 0.2 percent from Afghanistan.

2.3.4.1.4 RELIGION

According to the 1961 and 1972 censuses more than 99 percent of the population of NWFP reported their religion as Islam (Table 2.20). It is not surprising because Islam came to NWFP earlier than to any other part of the sub-continent except Sind, where it was introduced by the Arabs in the eighth century A.D. In all provinces Muslims are in the absolute majority and they constitute 97 percent of Pakistan's population.
## Table 2.18
Population (Percent) of Foreign Nationals, Pakistan and Provinces, 1961-1972
(Population in Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>1961</th>
<th>1972</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Citizenship</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Afghanistan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pakistan</td>
<td>Powindahs</td>
</tr>
<tr>
<td>NWFP</td>
<td>99.6</td>
<td>0.3</td>
</tr>
<tr>
<td>Punjab</td>
<td>99.9</td>
<td>0.1</td>
</tr>
<tr>
<td>Sind</td>
<td>99.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>97.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Pakistan</td>
<td>99.8</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Note:  
(1) Excluding FATA from 1961 and 1972 census totals.  
(2) Islamabad's (FCT) population figures are included in the Punjab.  
(3) "Powindahs" are the nomadic population of Afghanistan.  
(4) Data of foreign nationals by country of citizenship for 1972 census not available.

Source: Population Census of Pakistan, 1961 (Vol. 3, Table 10) and 1972 Census (District reports, Table 10).
Table 2.19
Distribution of Population (Percent) by Place of Birth and Enumeration, NWFP, 1961 - 1973, Pakistan and Provinces, 1973

<table>
<thead>
<tr>
<th>Place of Enumeration</th>
<th>NWFP</th>
<th>Punjab</th>
<th>Sind</th>
<th>Baluchistan</th>
<th>FATA</th>
<th>Kashmir</th>
<th>Bangladesh</th>
<th>India</th>
<th>Afghanistan</th>
<th>Other Countries</th>
<th>Total Population (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>94.5</td>
<td>1.7</td>
<td>0.1</td>
<td>0.1</td>
<td>2.4</td>
<td>0.2</td>
<td>0.1</td>
<td>0.7</td>
<td>0.2</td>
<td>0.0</td>
<td>3,764,948</td>
</tr>
</tbody>
</table>

1973

<table>
<thead>
<tr>
<th>Place of Enumeration</th>
<th>NWFP</th>
<th>Punjab</th>
<th>Sind</th>
<th>Baluchistan</th>
<th>FATA</th>
<th>Kashmir</th>
<th>Bangladesh</th>
<th>India</th>
<th>Afghanistan</th>
<th>Other Countries</th>
<th>Total Population (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>95.6</td>
<td>1.6</td>
<td>0.8</td>
<td>0.1</td>
<td>1.2</td>
<td>0.1</td>
<td>0.0</td>
<td>0.3</td>
<td>0.2</td>
<td>0.1</td>
<td>6,127,517</td>
</tr>
<tr>
<td>Punjab</td>
<td>0.5</td>
<td>87.2</td>
<td>0.3</td>
<td>1.0</td>
<td>0.1</td>
<td>0.4</td>
<td>10.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>37,517,820</td>
</tr>
<tr>
<td>Sind</td>
<td>1.7</td>
<td>3.2</td>
<td>83.2</td>
<td>0.9</td>
<td>0.2</td>
<td>0.2</td>
<td>9.9</td>
<td>0.0</td>
<td>0.3</td>
<td>0.3</td>
<td>14,168,164</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>0.5</td>
<td>1.2</td>
<td>0.7</td>
<td>96.5</td>
<td>0.3</td>
<td>0.1</td>
<td>0.0</td>
<td>0.5</td>
<td>0.1</td>
<td>0.1</td>
<td>2,696,034</td>
</tr>
<tr>
<td>Pakistan</td>
<td>10.4</td>
<td>55.0</td>
<td>19.8</td>
<td>5.2</td>
<td>0.2</td>
<td>0.3</td>
<td>8.7</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>60,509,535</td>
</tr>
</tbody>
</table>

Note: Excluding FATA and Malakand Division (NWFP).

Among the religious groups Christians were enumerated as 1.5 percent of the total population in 1972, while in the Punjab they constituted 2.1 percent of the population. Scheduled casts were recorded as 1 percent of the total population. In Sind they constituted 4 percent, while Hindus were reported as 1.8 percent in the same province.

2.3.4.1.5 LANGUAGE

In the 1981 census a question on mother tongue was asked besides two other questions on language, but in the 1972 census it was not included.

Table 2.20

Distribution of Population (Percent) by Religion,
NWFP 1961 - 1972, Pakistan and Provinces 1972

<table>
<thead>
<tr>
<th>Region</th>
<th>Muslims</th>
<th>Cast</th>
<th>Scheduled Cast</th>
<th>Christians</th>
<th>Others</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP 1961</td>
<td>99.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
<td>5,730,991</td>
</tr>
<tr>
<td>NWFP 1972</td>
<td>99.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.2</td>
<td>0.2</td>
<td>8,032,324</td>
</tr>
<tr>
<td>Punjab</td>
<td>97.4</td>
<td>0.0</td>
<td>0.1</td>
<td>2.1</td>
<td>0.4</td>
<td>37,844,972</td>
</tr>
<tr>
<td>Sind</td>
<td>93.3</td>
<td>1.8</td>
<td>4.0</td>
<td>0.7</td>
<td>0.2</td>
<td>14,155,909</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>98.1</td>
<td>0.7</td>
<td>0.1</td>
<td>0.4</td>
<td>0.7</td>
<td>2,428,678</td>
</tr>
<tr>
<td>Pakistan</td>
<td>96.8</td>
<td>0.4</td>
<td>1.0</td>
<td>1.5</td>
<td>0.3</td>
<td>60,434,659</td>
</tr>
</tbody>
</table>

Note: Excluding FATA from population totals.

Source: Population Census of Pakistan, 1961 and 1972 (District census reports, Table 6).

It is clear from Table 2.21 that 68 percent of the NWFP population reported their mother tongue as Pushtu or Pukhtu (which relates to the eastern branch of the Iranian language group). At the national level 8.5 percent of the population speak Pushtu as their mother tongue. The speakers of the Punjabi language in NWFP were reported as 26.7 percent and most of them were enumerated
in Hazara and D.I. Khan districts. Actually, the language spoken in Hazara is "Hindku" which is slightly different from the Punjabi language (Pakistan Census, 1961: IV-42). The speakers of the Khowar (Chitrali) and Kohistani languages (which relate to the Dardic branch) constitute 1.9 and 1.3 percent respectively in the Province. They are mostly found in Chitral and other mountainous areas of Malakand and Hazara divisions. The speakers of Urdu as their mother tongue in NWFP constitute only 1.8 percent, but the proportion of persons speaking Urdu as an additional language in the Province was about 10 percent in 1961. Urdu, beside being a national language, is also a medium for literacy and education. English comes next as a medium of education and is also used in official correspondence. According to the 1961 census about 7 percent of the NWFP population were able to read and write English.

**Table 2.21**

**Distribution of Population (Percent) by Mother Tongue, NWFP (by District) and Pakistan, 1961 (Population in Thousands)**

<table>
<thead>
<tr>
<th>District</th>
<th>Pushtu</th>
<th>Punjabi</th>
<th>Urdu</th>
<th>Khowar</th>
<th>Kohistani</th>
<th>Others</th>
<th>Total Population (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peshawar</td>
<td>86.3</td>
<td>11.2</td>
<td>2.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.5</td>
<td>1,170</td>
</tr>
<tr>
<td>Mardan</td>
<td>97.3</td>
<td>2.0</td>
<td>0.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.3</td>
<td>814</td>
</tr>
<tr>
<td>Hazara</td>
<td>9.2</td>
<td>86.3</td>
<td>4.4</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
<td>1,050</td>
</tr>
<tr>
<td>Kohat</td>
<td>90.5</td>
<td>7.5</td>
<td>1.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>378</td>
</tr>
<tr>
<td>Bannu</td>
<td>96.5</td>
<td>2.8</td>
<td>0.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>375</td>
</tr>
<tr>
<td>D.I. Khan</td>
<td>23.5</td>
<td>73.9</td>
<td>2.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>352</td>
</tr>
<tr>
<td>Dir</td>
<td>96.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.1</td>
<td>0.5</td>
<td>75</td>
</tr>
<tr>
<td>Swat</td>
<td>90.4</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>9.3</td>
<td>0.1</td>
<td>625</td>
</tr>
<tr>
<td>Chitral</td>
<td>7.4</td>
<td>0.0</td>
<td>0.1</td>
<td>85.4</td>
<td>3.5</td>
<td>3.6</td>
<td>113</td>
</tr>
<tr>
<td>Malakand</td>
<td>94.8</td>
<td>4.5</td>
<td>0.2</td>
<td>0.0</td>
<td>0.3</td>
<td>0.2</td>
<td>134</td>
</tr>
<tr>
<td>NWFP</td>
<td>68.0</td>
<td>26.7</td>
<td>1.8</td>
<td>1.9</td>
<td>1.3</td>
<td>0.3</td>
<td>5,087</td>
</tr>
<tr>
<td>Pakistan</td>
<td>8.5</td>
<td>66.4</td>
<td>7.6</td>
<td>0.0</td>
<td>0.0</td>
<td>17.5</td>
<td>42,880</td>
</tr>
</tbody>
</table>

**Note:** All other regional languages spoken in Pakistan are included in "others" shown against the country's total.

**Source:** Population Census of Pakistan, 1961 (Vol. 3).
2.3.4.2 LITERACY AND EDUCATION

In the 1961 census those persons were considered to be literate if they were able to read and write or able only to read a short statement without understanding. A departure was made in the 1972 census and literacy was defined as ability to read and write with understanding in any language. According to the 1961 census the percentage of literate persons aged 5 years and above was 10.3 for both sexes in NWFP (Table 2.22). Literacy among males was 17.3 percent, whereas for females it was lower (2.7 percent). An increase in the literacy level was observed in 1972 for the population aged 10 years and above. Literacy for males was 23.1 percent and 4.7 percent for females. Urban areas show higher literacy rates than rural areas. This is a reflection of the lack of education facilities in the rural areas. The level of female literacy in rural areas (2.2 percent) was very low as compared to urban areas (16.7 percent).

Table 2.22 also reveals that the proportion of literates in the younger age groups is higher than in the older age groups. It also indicates that educational facilities have improved especially in the urban areas. According to government policy, education has always been free up to primary level. In 1972, education at the secondary level (classes VI-X) was also made free.

Table 2.23 shows that in 1973 out of the total number of literates in the NWFP only 7.5 percent had completed their primary education. The proportion of matriculates was 3.4 percent, while the percentage of persons who have attended up to intermediate and degree levels was 1.7 and 0.4 respectively. It may also be noted that the majority of students leave school to seek employment after completing grade ten due to unfavourable economic conditions. The attainment of special education is negligible. Compared to other provinces and the country as a whole the proportion of educated persons in NWFP is low except in Baluchistan. The educational attainment of females is also very low in the Province. The highest proportion of educated females was found in Sind,
Table 2.22

Literacy (Percent) by Sex, 1961 and by Age, Sex and Area, 1972, NWFP

<table>
<thead>
<tr>
<th>Age Group</th>
<th>All Areas</th>
<th>Urban Areas</th>
<th>Rural Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Both Sexes</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1961</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 5 years and</td>
<td>10.3</td>
<td>17.3</td>
<td>2.7</td>
</tr>
<tr>
<td>above</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 10 years and</td>
<td>14.5</td>
<td>23.1</td>
<td>4.7</td>
</tr>
<tr>
<td>above</td>
<td>17.0</td>
<td>25.0</td>
<td>7.2</td>
</tr>
<tr>
<td>10-14</td>
<td>23.2</td>
<td>35.0</td>
<td>9.1</td>
</tr>
<tr>
<td>15-19</td>
<td>19.8</td>
<td>33.2</td>
<td>6.6</td>
</tr>
<tr>
<td>20-24</td>
<td>15.0</td>
<td>25.6</td>
<td>4.0</td>
</tr>
<tr>
<td>25-34</td>
<td>11.2</td>
<td>19.0</td>
<td>2.9</td>
</tr>
<tr>
<td>35-44</td>
<td>8.9</td>
<td>14.8</td>
<td>1.9</td>
</tr>
<tr>
<td>45-54</td>
<td>6.1</td>
<td>10.0</td>
<td>1.2</td>
</tr>
<tr>
<td>55+</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Excluding Malakand Division from 1961 Census and PATA areas. (Rural) adjoining Hazara Division from 1972 census.
... denotes not available.
Source: Population Census of Pakistan, 1961 (Vol. 3) and 1972 (District census reports, Table 7).
### Table 2.23
Percentage Distribution of Population (10 years and above) by Educational Attainment Pakistan and Provinces, 1973

<table>
<thead>
<tr>
<th>Province</th>
<th>Sex</th>
<th>Illiterates</th>
<th>Literates Without Formal Education</th>
<th>General Education</th>
<th>Special Education</th>
<th>Population (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Below Primary</td>
<td>Primary</td>
<td>Middle Matric</td>
</tr>
<tr>
<td>NWFP</td>
<td>Both Sexes</td>
<td>78.3</td>
<td>21.7</td>
<td>0.1</td>
<td>3.9</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>65.4</td>
<td>34.6</td>
<td>0.2</td>
<td>6.3</td>
<td>12.1</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>92.9</td>
<td>7.1</td>
<td>0.1</td>
<td>1.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Punjab</td>
<td>Both Sexes</td>
<td>72.5</td>
<td>27.5</td>
<td>0.3</td>
<td>5.2</td>
<td>9.4</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>61.1</td>
<td>38.9</td>
<td>0.3</td>
<td>7.1</td>
<td>13.1</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>86.3</td>
<td>13.7</td>
<td>0.3</td>
<td>2.9</td>
<td>4.9</td>
</tr>
<tr>
<td>Sind</td>
<td>Both Sexes</td>
<td>70.3</td>
<td>29.7</td>
<td>0.8</td>
<td>5.4</td>
<td>10.8</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>60.1</td>
<td>39.9</td>
<td>0.8</td>
<td>7.1</td>
<td>14.9</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>83.0</td>
<td>17.0</td>
<td>0.8</td>
<td>3.2</td>
<td>5.6</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>Both Sexes</td>
<td>87.7</td>
<td>12.3</td>
<td>0.4</td>
<td>2.1</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>81.9</td>
<td>18.1</td>
<td>0.6</td>
<td>3.1</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>95.0</td>
<td>5.0</td>
<td>0.1</td>
<td>0.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Both Sexes</td>
<td>73.3</td>
<td>26.7</td>
<td>0.4</td>
<td>5.0</td>
<td>9.3</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>62.2</td>
<td>37.8</td>
<td>0.4</td>
<td>6.9</td>
<td>13.2</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>86.6</td>
<td>13.4</td>
<td>0.4</td>
<td>2.7</td>
<td>4.7</td>
</tr>
</tbody>
</table>

*Note: Excluding Malakand Division (NWFP) and FATA.*

*Source: HED survey, 1973 (Vol. II, Table 3).*
followed by the Punjab.

2.3.4.3 EMPLOYMENT AND LABOUR FORCE

Major determinants of the size or supply of labour force are the demographic forces of fertility, mortality and migration (Farooq, 1975: 45-68). Since there is a strong relationship between the demographic factors and labour inputs, it is important to know its size and composition. The main sources of data on labour force in Pakistan are decennial censuses and periodic labour force surveys. This study is based on data from the 1961 census and the HED survey, 1973.

Information on the socio-economic characteristics of the population was not collected in the 1972 census but was supplemented by the post-censal HED survey, 1973. Therefore, the results obtained might be subject to sampling and non-sampling errors. Data from the Labour Force Survey, 1974-75 have also been used to augment the above sources.

In the 1961 census all persons aged 10 years and above who were working for profit or earning wages or a salary, helping any member of their family, or were not working but looking for work during the previous week were included in the labour force. However, no specific reference period was applied to agricultural workers. The HED survey excluded unpaid family helpers who had worked less than 15 hours from the economically active population. The Labour Force Survey, 1974-75, used the 1961 census definition with the HED survey amendments.

2.3.4.3.1 LABOUR FORCE PARTICIPATION RATE

It is evident from Table 2.24 that the labour force participation rate in NWFP is low compared to other provinces and the country as a whole. This may be partly due to the outmigration of the work force to other parts of the country for employment reasons. The labour force participation rate has shown a decrease in 1973 in all the provinces except Baluchistan where an increase has been observed.
The economic activity rate in Baluchistan is probably affected by both errors in the enumeration and the number of seasonal migrants from Afghanistan (known as Powindahs) who come to earn their livelihood. The decrease in the male participation rate in 1973 was paralleled by the female rate but remained lower in NWFP than in other provinces except Baluchistan. The influence of cultural traditions on the reporting of female labour force participation might be one of the reasons. The low level of female education in NWFP and Baluchistan may also be one of the factors which tends to limit the size of the female labour force.

The distribution of population (percentage) by sex and civilian labour force status in NWFP, 1961 and 1973 and Pakistan and provinces, 1973 is presented in Table 2.25. The predominance of agricultural activity in Pakistan and provinces is evident from the Table. In 1961 the ratio of agricultural to non-agricultural workers (both sexes) in NWFP was two to one. In 1973 the increase in the size of the non-agricultural labour force (5.4 percent for both sexes) occurred at the expense of the agricultural labour force (3 percent). The increase for males (19.4 percent) was more pronounced than for females.

Table 2.24

Labour Force Participation Rate of Population (10 years and above)

Pakistan and Provinces, 1961-1973

<table>
<thead>
<tr>
<th>Region</th>
<th>Both Sexes</th>
<th>Male</th>
<th>Female</th>
<th>Both Sexes</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>46.8</td>
<td>80.6</td>
<td>9.2</td>
<td>43.7</td>
<td>74.4</td>
<td>8.7</td>
</tr>
<tr>
<td>Punjab</td>
<td>47.5</td>
<td>80.7</td>
<td>8.7</td>
<td>46.5</td>
<td>77.5</td>
<td>9.2</td>
</tr>
<tr>
<td>Sind</td>
<td>50.7</td>
<td>81.0</td>
<td>11.8</td>
<td>47.6</td>
<td>78.3</td>
<td>9.3</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>47.1</td>
<td>81.0</td>
<td>3.0</td>
<td>49.3</td>
<td>82.1</td>
<td>8.1</td>
</tr>
<tr>
<td>Pakistan</td>
<td>48.1</td>
<td>80.8</td>
<td>9.3</td>
<td>46.6</td>
<td>77.6</td>
<td>9.1</td>
</tr>
</tbody>
</table>

Note: Excluding Malakand Division (NWFP) and FATA

Source: Population Census of Pakistan, 1961 (Vol. 3, Table 41) and HED survey, 1973 (Vol. II, Table 16).
Table 2.25
Distribution of Population (Percent) by Sex and Civilian Labour Force Status,

<table>
<thead>
<tr>
<th>Region</th>
<th>Sex</th>
<th>Total Civilian Labour Force</th>
<th>Total Employed</th>
<th>Unemployed</th>
<th>Employed in Agriculture</th>
<th>Employed in Other Occupations</th>
<th>Not in Civilian Labour Force</th>
<th>Population (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>Both Sexes</td>
<td>30.3</td>
<td>29.5</td>
<td>0.8</td>
<td>19.8</td>
<td>9.7</td>
<td>69.7</td>
<td>4,140,247</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>52.6</td>
<td>41.3</td>
<td>11.3</td>
<td>33.7</td>
<td>7.6</td>
<td>47.4</td>
<td>2,163,492</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5.9</td>
<td>5.7</td>
<td>0.2</td>
<td>4.6</td>
<td>1.1</td>
<td>94.1</td>
<td>1,976,755</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punjab</td>
<td>Both Sexes</td>
<td>43.7</td>
<td>37.9</td>
<td>5.8</td>
<td>22.8</td>
<td>15.1</td>
<td>56.3</td>
<td>4,215,640</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>74.4</td>
<td>67.4</td>
<td>7.0</td>
<td>40.4</td>
<td>27.0</td>
<td>25.6</td>
<td>2,242,889</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>8.7</td>
<td>4.4</td>
<td>4.3</td>
<td>2.8</td>
<td>1.6</td>
<td>91.3</td>
<td>1,972,751</td>
</tr>
<tr>
<td>Sind</td>
<td>Both Sexes</td>
<td>46.5</td>
<td>39.5</td>
<td>7.0</td>
<td>21.8</td>
<td>17.7</td>
<td>53.5</td>
<td>26,414,686</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>77.5</td>
<td>69.2</td>
<td>8.3</td>
<td>38.0</td>
<td>31.3</td>
<td>22.5</td>
<td>14,434,191</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>9.2</td>
<td>3.8</td>
<td>5.4</td>
<td>2.3</td>
<td>1.5</td>
<td>90.8</td>
<td>11,980,495</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>Both Sexes</td>
<td>49.3</td>
<td>41.9</td>
<td>7.4</td>
<td>26.4</td>
<td>15.5</td>
<td>50.7</td>
<td>1,926,985</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>82.1</td>
<td>73.8</td>
<td>8.3</td>
<td>46.8</td>
<td>27.0</td>
<td>17.9</td>
<td>1,073,696</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>8.1</td>
<td>1.8</td>
<td>6.3</td>
<td>0.7</td>
<td>1.1</td>
<td>91.9</td>
<td>853,289</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Both Sexes</td>
<td>46.6</td>
<td>40.5</td>
<td>6.1</td>
<td>22.8</td>
<td>17.7</td>
<td>53.4</td>
<td>42,379,279</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>77.6</td>
<td>70.4</td>
<td>7.2</td>
<td>39.3</td>
<td>31.1</td>
<td>22.4</td>
<td>23,209,831</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>9.1</td>
<td>4.4</td>
<td>4.7</td>
<td>2.8</td>
<td>1.6</td>
<td>90.9</td>
<td>19,169,448</td>
</tr>
</tbody>
</table>

Note: Excluding Malakand Division (NWFP) and FATA.

Source: Population Census of Pakistan, 1961 (Vol. 3, Table 41) and HED survey, 1973 (Vol. II, Table 16).
(0.5 percent) because of the great predominance of males in the labour force. The participation of females in agriculture declined from 4.6 percent in 1961 to 2.8 percent in 1973, while the corresponding increase in the non-agricultural labour force was only 0.5 percent. A decline of 1.3 percent was also observed in 1973 in the status of employed females with a significant increase of 4.1 percent in the unemployed female labour force. It seems that the change of definition regarding unpaid family helpers was responsible for this increase. Among the provinces the highest percentage (6.3) of unemployed females was found in Baluchistan, where the female participation rate in agriculture was the lowest (0.7 percent). This further supports the previous observation.

2.3.4.3.2 Age Specific Activity Rate

The labour force participation rate (or economic activity rate) is also influenced by age, among other factors. The age specific activity rates for males and females on the basis of the HED survey, 1973, for Pakistan and the provinces are presented in Figure 2.6. The male activity rate increases from the first age group to age 30, remains constant at a high level where almost every male is in the labour force, until the age of 55 and then decline. The low male activity rate, especially in the middle ages, in NWFP compared to other provinces is evident from the Figure. Male selective outmigration from NWFP to other regions of Pakistan might be responsible for a low activity rate in the Province. High age specific activity rates in Baluchistan are partly explained by the larger proportion of the labour force (46.8 percent) engaged in agriculture (Table 2.25). It is easy to become an agricultural worker at a young age and to continue until old age; there are no educational preconditions or age limits. The large size of the agricultural labour force indicates inadequate educational facilities and industrial backwardness.

The female age specific activity rate (Figure 2.6) demonstrates very low contribution to the labour force at all ages. The shapes of the curves partially reveal the problem of enumeration and reporting of female economic
Figure 2.6

Age-Specific Activity Rates for Pakistan and NWFP, 1973

Percentage

NWFP
PUNJAB
SIND
BALUCHISTAN
PAKISTAN

MALE

FEMALE

Age (Years)
activity. Compared to the male activity curves the shape of the curves for females is irregular and nearly flat. This pattern is different from that observed in industrialised countries where there is a peak before the age of marriage and also at the end of the childbearing period (Bean, 1968: 391-410).

2.3.4.3.3 THE ECONOMICALLY INACTIVE POPULATION

The 1961 census and the HED survey, 1973, did not provide much detail about the economically inactive population (10 years and above). The Pakistan Labour Force Survey, 1974-75 contained the first published data on a provincial basis which will restrict our comparison with previous years.

Table 2.26 shows that the largest component, which constitutes almost four-fifths of the economically inactive group in Pakistan, was found to be the housekeeping category and particularly the female population. Among the provinces Baluchistan had the highest proportion (81 percent) followed by NWFP (76.6 percent). The influence of social and cultural factors in addition to very low educational levels, especially among the females, are the main causes determining the size of this group. The highest percentage of "going to school" population, the next largest category after "Housekeepers" was found in Sind (26.6 percent), while in NWFP 17.3 percent were reported in this category. The lowest proportion of female population attending school (1.3 percent) was observed in Baluchistan. In NWFP 2.6 percent of females were recorded in this category.

Among the income recipients a relatively high percentage (1.4) in the category of landlords was reported in Baluchistan followed by NWFP with a proportion of 1.2 percent. The residual category "others" which largely constitutes the dependent population was more significant in the Punjab (4.7 percent). In NWFP only 2.9 percent of the economically inactive population is classified in this group.
Table 2.26
Percentage Distribution of Population (10 years and above) Economically In-active
by Reasons and Sex, Pakistan and Provinces, 1974-1975

<table>
<thead>
<tr>
<th>Reasons</th>
<th>NWFP Both Sexes</th>
<th>NWFP Male</th>
<th>NWFP Female</th>
<th>Punjab Both Sexes</th>
<th>Punjab Male</th>
<th>Punjab Female</th>
<th>Sind Both Sexes</th>
<th>Sind Male</th>
<th>Sind Female</th>
<th>Baluchistan Both Sexes</th>
<th>Baluchistan Male</th>
<th>Baluchistan Female</th>
<th>Pakistan Both Sexes</th>
<th>Pakistan Male</th>
<th>Pakistan Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>100.0</td>
<td>20.96</td>
<td>79.04</td>
<td>100.0</td>
<td>22.05</td>
<td>77.95</td>
<td>100.0</td>
<td>23.24</td>
<td>76.76</td>
<td>100.0</td>
<td>16.84</td>
<td>83.16</td>
<td>100.0</td>
<td>22.02</td>
<td>77.98</td>
</tr>
<tr>
<td>Unpaid Family Helpers</td>
<td>0.02</td>
<td>0.02</td>
<td>-</td>
<td>0.03</td>
<td>0.01</td>
<td>0.02</td>
<td>0.01</td>
<td>-</td>
<td>-</td>
<td>0.01</td>
<td>-</td>
<td>-</td>
<td>0.03</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>Retired</td>
<td>0.40</td>
<td>0.40</td>
<td>-</td>
<td>0.37</td>
<td>0.37</td>
<td>0.01</td>
<td>1.20</td>
<td>1.16</td>
<td>0.04</td>
<td>0.11</td>
<td>0.11</td>
<td>-</td>
<td>0.55</td>
<td>0.54</td>
<td>0.01</td>
</tr>
<tr>
<td>Unable to Work</td>
<td>1.57</td>
<td>1.23</td>
<td>0.34</td>
<td>1.27</td>
<td>1.00</td>
<td>0.27</td>
<td>0.73</td>
<td>0.59</td>
<td>0.14</td>
<td>1.05</td>
<td>0.52</td>
<td>0.53</td>
<td>1.17</td>
<td>0.92</td>
<td>0.25</td>
</tr>
<tr>
<td>Agricultural Landlord</td>
<td>1.20</td>
<td>0.99</td>
<td>0.22</td>
<td>0.94</td>
<td>0.89</td>
<td>0.05</td>
<td>1.06</td>
<td>1.04</td>
<td>0.02</td>
<td>1.36</td>
<td>1.20</td>
<td>0.16</td>
<td>1.01</td>
<td>0.94</td>
<td>0.06</td>
</tr>
<tr>
<td>Property Owners</td>
<td>0.03</td>
<td>0.03</td>
<td>-</td>
<td>0.06</td>
<td>0.03</td>
<td>0.03</td>
<td>0.12</td>
<td>0.08</td>
<td>0.04</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.07</td>
<td>0.04</td>
<td>0.03</td>
</tr>
<tr>
<td>Keeping House</td>
<td>76.61</td>
<td>1.43</td>
<td>75.19</td>
<td>72.26</td>
<td>0.73</td>
<td>71.53</td>
<td>68.07</td>
<td>0.89</td>
<td>67.18</td>
<td>82.06</td>
<td>1.01</td>
<td>81.05</td>
<td>72.12</td>
<td>0.85</td>
<td>71.27</td>
</tr>
<tr>
<td>Going to School</td>
<td>17.26</td>
<td>14.61</td>
<td>2.64</td>
<td>20.39</td>
<td>15.44</td>
<td>4.95</td>
<td>26.61</td>
<td>17.78</td>
<td>8.83</td>
<td>14.55</td>
<td>13.24</td>
<td>1.31</td>
<td>21.25</td>
<td>15.80</td>
<td>5.45</td>
</tr>
<tr>
<td>Others</td>
<td>2.91</td>
<td>2.25</td>
<td>0.65</td>
<td>4.67</td>
<td>3.57</td>
<td>1.10</td>
<td>2.19</td>
<td>1.69</td>
<td>0.50</td>
<td>0.87</td>
<td>0.77</td>
<td>0.10</td>
<td>3.81</td>
<td>2.92</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Note: Excluding Malakand Division (NWFP) and FATA.
- Denotes nil.
.. Denotes negligible

Source: Pakistan Labour Force Survey, 1974-75 (Table 17).
2.3.4.3.4 Employment Status of the Economically Active Population

Due to the difference in the classification of occupational data, our discussion will be limited to the HED survey, 1973. Table 2.27 shows the distribution of the labour force by employment status for Pakistan and provinces. Data on employment status was classified into four categories, i.e. employer, employee, self-employed and unpaid family helper. The smaller proportion of employees as compared to self employed and unpaid family helpers indicates the larger share of agriculture in Pakistan's economy. In Sind the proportion of employees is relatively larger than in other provinces, which reflects a higher degree of industrialisation. However, a high proportion of employees is not a sufficient condition for industrialisation.

Table 2.27
Percentage Distribution of Employed Persons (10 years and above)
by Employment Status, Pakistan and Provinces, 1973

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Region</th>
<th>Employers</th>
<th>Employees</th>
<th>Self-Employed</th>
<th>Unpaid Family Helpers</th>
<th>All Employed (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NWFP</td>
<td>4.9</td>
<td>20.8</td>
<td>49.7</td>
<td>24.6</td>
<td>1,598,839</td>
</tr>
<tr>
<td></td>
<td>Punjab</td>
<td>4.8</td>
<td>17.6</td>
<td>52.0</td>
<td>25.6</td>
<td>10,445,945</td>
</tr>
<tr>
<td></td>
<td>Sind</td>
<td>4.3</td>
<td>33.7</td>
<td>40.5</td>
<td>21.5</td>
<td>4,329,150</td>
</tr>
<tr>
<td></td>
<td>Baluchistan</td>
<td>7.5</td>
<td>17.2</td>
<td>57.5</td>
<td>17.8</td>
<td>807,124</td>
</tr>
<tr>
<td></td>
<td>Pakistan</td>
<td>4.8</td>
<td>21.9</td>
<td>49.1</td>
<td>24.1</td>
<td>17,181,058</td>
</tr>
</tbody>
</table>

Note: Excluding Malakand Division (NWFP) and FATA.
Source: HED survey, 1973 (Part II, Table 17).

The high proportion of self-employed and unpaid family helpers who constitute 74 percent of all employed persons in NWFP are evidence of an extra degree of pressure on agriculture as a source of livelihood. A comparatively low proportion (62 percent) in this category was found in Sind, while in the Punjab they constitute a substantial proportion of the non-agricultural labour force who are involved in the commerce and retail trade. Almost one-fourth of
the employed persons were reported as unpaid family helpers. The highest percentage (25.6) in this category was found in the Punjab followed by NWFP (24.6 Percent). Afzal (1974: 82) also observed a high proportion of females working as unpaid family helpers in Pakistan.
CHAPTER THREE

3. COMPONENTS OF POPULATION GROWTH

3.1 MORTALITY

3.1.1 HISTORICAL OVERVIEW

Among the components of population change, historically there have been fluctuations in the death rate rather than in the birth rate that have played an important role in determining the growth and size of population in Pakistan (Davis, 1951: 33). These fluctuations in the death rate were mainly caused by famines, food shortages and epidemics. These events were happening almost regularly for generations, which kept the population size and growth within the limits of subsistence (Ahmad, 1966: 44-60).

Nothing is known about the loss of human life in the Province due to these events prior to the turn of the present century. During the decade 1901-11 there was no serious outbreak of plague in the Province but cholera and smallpox have caused considerable mortality. In 1908 alone about three thousand deaths were reported from smallpox (Census of India, 1911: 31). Malaria has always been prevalent in the autumn and winter seasons, especially in the trans-Indus districts of the Province and levies a heavy annual toll of human lives.

In the decade 1911-21 the Province experienced the highest mortality of its history, where the growth rate reached the lowest level (2.5 percent). The unprecedented Influenza Epidemic of 1918 which destroyed a great portion of the population and the unusual ravages of malaria, which wrought similar havoc in the two preceding years were the chief causes of the high death rate. The after effects of these epidemics were so severe that the health conditions in the Province did not improve for many years.
The Province has not experienced any major calamity since 1921 but the incidence of disease remained very high. Only smallpox has been eradicated since December 1976 (Planning Commission, 1978: 360), while malaria has not been controlled fully. In addition, with the growth of population and dietary malnutrition some other diseases, such as tuberculosis, have developed, while typhoid and gastro-enteritis diseases are still far from controlled (Ahmad, 1966: 44-60).

3.1.2 MORTALITY ESTIMATES BASED ON VITAL REGISTRATION DATA

The study of the mortality situation in NWFP as in other regions of Pakistan, is greatly hampered by the lack of adequate and reliable statistics. The only source of information since the turn of the century is the crude death rate based on the primitive vital registration system (Table 3.1). These statistics are extremely meagre and highly understated (Blunt, 1946: 31). In rural areas the village "chowkidars" (watchmen), mostly illiterate, were mainly responsible for reporting the vital events to the local police authorities. In urban areas the uninterested municipal authorities maintained the record of these events (Ibid, 1946: 31). In addition to the defective registration system some areas of the Province were also excluded from its coverage (Census of India, 1911: 33). Therefore, the low crude death rate and infant mortality rate in NWFP as compared to British India for the period 1901-41 cannot be relied upon with confidence.

In the absence of reliable statistics on mortality some indirect methods were employed to derive the mortality estimates for British India (Davis, 1951: 33-36), but such estimates are not available for NWFP separately. For the post-partition period, Khan and Zia (1968: 415) using registration data, estimated the crude death rate for the Province as 9.4 (Table 3.1). But due to the extensive under-registration of vital events these estimates do not indicate the true mortality situation.

During 1962-65 and 1968-71 demographic surveys (PGE and PGS) were conducted but their results are not available on a provincial basis. However, the
<table>
<thead>
<tr>
<th>Period</th>
<th>CDR</th>
<th>IMR</th>
<th>Note/Source</th>
<th>Period*</th>
<th>CDR</th>
<th>IMR</th>
<th>Note/Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901-1911</td>
<td>22.5</td>
<td>...</td>
<td>Census of India, 1931</td>
<td>1901-1911</td>
<td>...</td>
<td>43.7</td>
<td>...</td>
</tr>
<tr>
<td>1911-1921</td>
<td>28.2</td>
<td>178</td>
<td>(Vol. XV, p. 12 and 70)</td>
<td>1911-1921</td>
<td>34.3</td>
<td>49.8</td>
<td>212</td>
</tr>
<tr>
<td>1921-1931</td>
<td>22.6</td>
<td>148</td>
<td>Official estimates from 1901 to 1941</td>
<td>1921-1931</td>
<td>25.4</td>
<td>37.3</td>
<td>176</td>
</tr>
<tr>
<td>1931-1941</td>
<td>20.2</td>
<td>...</td>
<td>Census of India, 1941 (Vol. X, p. 11)</td>
<td>1931-1941</td>
<td>23.0</td>
<td>31.5</td>
<td>168</td>
</tr>
<tr>
<td>1941-1945</td>
<td>...</td>
<td>...</td>
<td>Khan and Ziauddin, 1968, p. 415</td>
<td>1941-1945</td>
<td>22.5</td>
<td>...</td>
<td>161</td>
</tr>
<tr>
<td>1949-1954</td>
<td>9.4</td>
<td>...</td>
<td>Khan and Ziauddin, 1968, p. 415</td>
<td>1949-1954</td>
<td>13.8</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>1962-1965</td>
<td>...</td>
<td>...</td>
<td></td>
<td>1962-1965</td>
<td>15.0</td>
<td>...</td>
<td>135.0</td>
</tr>
<tr>
<td>1968-1971</td>
<td>...</td>
<td>...</td>
<td></td>
<td>1968-1971</td>
<td>12.0</td>
<td>...</td>
<td>109.4</td>
</tr>
<tr>
<td>1976</td>
<td>12.7</td>
<td>133.6</td>
<td>PGS, 1976</td>
<td>1976</td>
<td>12.0</td>
<td>...</td>
<td>87.0</td>
</tr>
<tr>
<td>1976</td>
<td>13.9</td>
<td>...</td>
<td>Adjusted - Based on level 15 (WMLT)</td>
<td>1979</td>
<td>16.0</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>1976</td>
<td>13.3</td>
<td>...</td>
<td>Unadjusted - suggested by q(5) estimates</td>
<td>1979-1980</td>
<td>13.0</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

Note: * Mortality estimates from 1901-1945 relate to British India and from 1949 onwards relate to Pakistan.

... Not available.
available estimates (Table 3.1) suggest that the mortality rate has declined in Pakistan since 1920. To what extent this decline has occurred in NWFP is a difficult question to answer in a situation where no reliable and accurate data are available. The only source of information which provides us with recent mortality estimates for the Province is the Population Growth Survey, 1976.

3.1.3 RECENT MORTALITY ESTIMATES

The Population Growth Survey, 1976 was conducted only in Peshawar and D.I. Khan Divisions of NWFP as a part of the national programme, while Malakand Division was excluded from the sample. The population of the excluded areas comes to 26.6 percent of the total population of the Province as enumerated in the 1972 census. Therefore, the results of this survey may not represent the true mortality situation on a provincial basis. Secondly, no deaths were reported against some age groups, therefore, our discussion will be restricted to only crude death rates.

The CDR of 12.7 and IMR of 133.6 (Table 3.1) based on PGS, 1976 data indicate that mortality in NWFP as compared to national mortality is still very high. Jalil (1982: 32) employing Trussell's method on CEB and CSL data from the HED survey, 1973 has also observed a high mortality rate in NWFP. Taking level 15 (West Model Life Table) as suggested by \( q_{(5)} \) estimates (Ibid, 1982: 32), the CDR was estimated as 13.9 (for adjusted age data) and 13.3 (for unadjusted age data) for both sexes (Table 3.2). The age data from PGS, 1976 was adjusted by using a computer program HILL.FOR (based on a technique given by Hill et al: 1982). Males were found to suffer higher mortality than females.

Stable population analysis suggests a mortality level for females of 13.0 with a corresponding CDR of 15.1 for adjusted age data, while a level of 15.1 was observed for unadjusted female age data with a suggested CDR of 11.7. The male population is not considered to be stable due to male selective outmigration from the Province. These analysis indicate that the CDR for the Province lies
between 13 and 14 per thousand.

Table 3.2
Mortality Levels and Crude Death Rates by Sex, NWFP, 1976

<table>
<thead>
<tr>
<th></th>
<th>Mortality Levels and Crude Death Rates Based on</th>
<th>Stable Population Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimates (5) Adjusted</td>
<td>Unadjusted</td>
</tr>
<tr>
<td>Sex</td>
<td>Level</td>
<td>CDR</td>
</tr>
<tr>
<td>Male</td>
<td>15</td>
<td>15.5</td>
</tr>
<tr>
<td>Female</td>
<td>15</td>
<td>12.3</td>
</tr>
<tr>
<td>Both Sexes</td>
<td>-</td>
<td>13.9</td>
</tr>
</tbody>
</table>

Note: (1) \( q(5) \) estimates were derived by employing Trussell's Method on CEB and CSL data from HED survey, 1973 (Jalil, 1982: 32).
(2) All estimates are based on West Family of Life Tables (Coale and Demeny, 1966).
(3)* Male population is not considered to be stable due to outmigration.
(4) The age data from PGS, 1976 were adjusted by using a computer program, HILL.FOR (based on a technique given by Hill et al, 1982).


3.1.4 MORTALITY DIFFERENTIALS

3.1.4.1 MORTALITY DIFFERENTIALS BY SEX

The sex pattern of mortality in NWFP as presented in Table 3.3 reveals that high mortality exists among the adult and infant males compared to females. Ashraf (1962: 95) has also observed a high mortality in favour of males in the tribal areas of NWFP. The excess of male mortality is also confirmed in almost all countries of the world with the exception of a few south east Asian countries including Pakistan (UN, 1953: 48 and 1973: 115). Mortality was also found higher among males in Sind and Baluchistan provinces, while in Punjab the mortality differentials were found less favourable to females. At national level female population is subject to higher mortality as compared to males.
### Table 3.3
Crude Death Rates and Infant Mortality Rates by Sex and Area, Pakistan and Provinces, 1976

<table>
<thead>
<tr>
<th>Region</th>
<th>Area</th>
<th>Both Sexes</th>
<th>Male</th>
<th>Female</th>
<th>Both Sexes</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>All</td>
<td>12.7</td>
<td>13.3</td>
<td>12.1</td>
<td>133.6</td>
<td>163.0</td>
<td>99.7</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>9.2</td>
<td>7.8</td>
<td>10.7</td>
<td>105.2</td>
<td>95.8</td>
<td>117.8</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>13.3</td>
<td>14.3</td>
<td>12.3</td>
<td>138.7</td>
<td>176.1</td>
<td>96.7</td>
</tr>
<tr>
<td>Punjab</td>
<td>All</td>
<td>12.2</td>
<td>11.7</td>
<td>12.7</td>
<td>89.2</td>
<td>92.4</td>
<td>85.9</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>10.7</td>
<td>11.3</td>
<td>9.9</td>
<td>84.5</td>
<td>97.7</td>
<td>70.3</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>12.7</td>
<td>11.8</td>
<td>13.7</td>
<td>90.9</td>
<td>90.5</td>
<td>91.3</td>
</tr>
<tr>
<td>Sind</td>
<td>All</td>
<td>9.7</td>
<td>9.9</td>
<td>9.4</td>
<td>59.6</td>
<td>58.2</td>
<td>61.2</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>6.0</td>
<td>6.5</td>
<td>5.4</td>
<td>42.3</td>
<td>48.2</td>
<td>36.5</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>12.4</td>
<td>12.4</td>
<td>12.4</td>
<td>69.3</td>
<td>63.5</td>
<td>75.7</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>All</td>
<td>8.6</td>
<td>10.8</td>
<td>6.3</td>
<td>65.5</td>
<td>96.5</td>
<td>34.6</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>5.4</td>
<td>4.1</td>
<td>6.7</td>
<td>50.1</td>
<td>37.9</td>
<td>65.4</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>9.2</td>
<td>11.9</td>
<td>6.2</td>
<td>67.5</td>
<td>104.8</td>
<td>31.2</td>
</tr>
<tr>
<td>Pakistan</td>
<td>All</td>
<td>12.2</td>
<td>11.7</td>
<td>12.7</td>
<td>87.0</td>
<td>93.9</td>
<td>79.9</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>8.8</td>
<td>9.3</td>
<td>8.3</td>
<td>72.8</td>
<td>82.3</td>
<td>62.7</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>12.6</td>
<td>12.2</td>
<td>12.9</td>
<td>92.2</td>
<td>98.1</td>
<td>86.0</td>
</tr>
</tbody>
</table>

Note: Data on deaths were collected through quarterly visits with a sex months' reference period.


3.1.4.2 MORTALITY DIFFERENTIALS BY AREA

Another important aspect of mortality differentials evident from Table 3.3 is that rural areas of the Province are characterised by a higher death rate (13.3) than urban areas (9.2). This differential was also found in other provinces of Pakistan. Hussain and Choudhry (n.d.: 473-483) and Jalil (1982: 46-51) have observed a high mortality in the rural areas of Pakistan. The availability of better medical facilities and the concentration of public health services coupled with higher levels of education and income in the cities in most of the developing countries tend to keep the mortality level lower in urban areas (UN, 1973: 135).

It is evident from Table 3.4 that the scale on which health facilities are available to the population of the rural areas has been comparatively
lower than for urban areas. Even if all allowances are made for the fact that health institutions located in the urban areas also serve people who live in the rural areas, nearly 100 percent of the urban population compared to 32 percent of the rural population falls within a two-mile radius of a health unit. Moreover, 21 percent of the rural population has no access to any health facility even within five miles.

Table 3.4

Percent of Population Falling Within Two and Five Miles Radius of Public and Semi-Public Health Institutions by Area, Pakistan and Provinces, 1977-78

<table>
<thead>
<tr>
<th>Region</th>
<th>Percent of Population on Two-Miles Radius</th>
<th>Percent of Population on Five-Mile Radius</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>NWFP</td>
<td>100.0</td>
<td>41.2</td>
</tr>
<tr>
<td>Punjab</td>
<td>99.6</td>
<td>32.1</td>
</tr>
<tr>
<td>Sind</td>
<td>100.0</td>
<td>24.2</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>100.0</td>
<td>28.7</td>
</tr>
<tr>
<td>Pakistan</td>
<td>99.8</td>
<td>32.1</td>
</tr>
</tbody>
</table>


The majority of the hospitals are located in cities and most of the medical personnel, particularly graduate doctors are not willing to serve in the villages. Consequently the rural population has a much lower standard of health facilities. In fact "the bulk of the population never see a doctor from birth to their life's end, medicine being an aspect of modern life quite beyond their purse, and in any case often so remote as to be inaccessible when needed by the seriously affected" (Johnson, 1979: 28).

To achieve a better balance between the facilities available in the urban areas and those provided in the rural areas, a principal element of the fifth plan was the evolution of a new strategy for the expansion of modern health cover in rural areas (Planning Commission, 1978: 365).
3.1.4.3 MORTALITY DIFFERENTIALS BY REGION

Mortality differentials by region (Table 3.3) reveal that NWFP has the highest death rates compared to the other provinces. The lowest death rate was recorded for Baluchistan but due to a small number of observations it may not be truly representative (Federal Bureau of Statistics, 1981: 48). Among the rest of the provinces, Sind has recorded the lowest death rate. The difference in crude death rate between Sind and NWFP is about 7 percent, while the range in the infant mortality rate is wider (21.5 percent).

Mortality differentials between the regions are normally associated with differences in the economic and social conditions (UN, 1973: 136). Sind is one of the economically advanced provinces of Pakistan (Kureshy, 1977: 161). In contrast the economic conditions of the people of NWFP are not so favourable.

Urbanisation (as we have observed in sub-section 3.1.4.2) has an inverse relationship with mortality. In this respect the Province of Sind was found more urbanised as according to the 1981 Census, 57 percent of its population is living in urban areas. On the other hand only 15 percent of NWFP population is living in urban areas. The literacy level in Sind is also higher (30 percent) as compared to NWFP (22 percent).

The distribution of medical facilities which have a direct influence on the health situation of a region (as given in Table 3.5) indicates that Sind is better off than other provinces. To correct the imbalances in the distribution of health care facilities among the provinces, which was recognised by the government, NWFP has now a greater share in health care facilities.

Table 3.5
Distribution of Health Care Facilities by Province, 1978

<table>
<thead>
<tr>
<th>Province</th>
<th>Population per Facility</th>
<th>Development Expenditure in Health Per Person(R)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hospital Beds</td>
<td>Doctors/Dental Surgeons</td>
</tr>
<tr>
<td>NWFP</td>
<td>2,238</td>
<td>13,953</td>
</tr>
<tr>
<td>Punjab</td>
<td>2,088</td>
<td>7,208</td>
</tr>
<tr>
<td>Sind</td>
<td>1,548</td>
<td>3,184</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>1,943</td>
<td>17,083</td>
</tr>
</tbody>
</table>

Source: Finance Division, 1980.
3.1.5 REASONS FOR HIGH MORTALITY

3.1.5.1 REASONS FOR HIGH MORTALITY

In NWFP where 85 percent of the population are living in rural areas, very few people can afford to take any scientific medical help, since modern medical facilities have hardly reached the traditional villages. A great majority of the population is poverty stricken, and cannot afford modern medicines. Due to a high rate of illiteracy most of the people are also ignorant of modern scientific treatment and still believe in the indigenous medical practitioners. Low literacy levels also frustrate the government's efforts to educate the people in sound hygiene and health practices.

Housing conditions are deplorable and excreta disposal services are very poor, especially in the rural areas of the Province (Zaki, 1981: 215-246). The majority of the population have no access to a safe water supply and in some parts of the Province the condition is so bad that men and cattle drink water from the same ponds. Washing in those areas is an impossible luxury.

The means of communication are not properly developed especially in the mountainous areas of the Province and hence a major portion of the population cannot utilise the medical facilities available in the urban areas.

The nomadic population, frequently lice ridden, coming every year from the areas across the border also spread some diseases like typhus which create a health problem for the local population (Spain, 1963: 219).

3.1.5.2 REASONS FOR HIGH INFANT MORTALITY

According to the available data from PGS, 1976, the contribution of neonatal deaths to infant mortality is about 73 percent in NWFP. Deaths during the neonatal period are primarily due to endogenous factors and are basically a result of prenatal conditions and are also influenced by the circumstances prevailing at the time of delivery (UN, 1973: 122-128). Therefore, most of the reasons discussed in the previous sub-section are also responsible for high infant mortality.
In addition to the aforementioned reasons, high infant mortality is attributed to primitive and insanitary methods of midwifery. The PGS, 1976 data reveal that out of the total births in the urban areas of NWFP only 5 percent were born in hospitals, while in rural areas it is about 1 percent. Besides the lack of maternity centres in the Province, strict local customs and traditions also place restrictions on the females, who do not expose themselves to scientific medical treatment at the time of childbirth even at the cost of their lives (Ahmad, 1962: 165).

Extreme weather conditions are also responsible for high infant mortality in NWFP. The PGS, 1976 data suggests that more than 50 percent of infant deaths occur during the extreme hot and cold seasons.

Poverty also constitutes a menace to pregnant women and infant health in many ways, particularly in the form of malnutrition (Chandrasekher, 1959: 119). Direct evidence on the subject for NWFP is lacking. The results of the Nutrition Survey, 1976-66 (Planning and Development Division, 1978) reveal that, "the incidence of anaemia is almost twice as common among pregnant and lactating women as among the rest of the female population" (Rukanuddin, 1981: 1-35).

3.1.6 **CAUSES OF DEATH**

Reliable data on the causes of death pattern for NWFP are not available. PGS, 1971 collected data on a national basis (Table 3.6). It is difficult to draw any definite conclusion from the available data because there exists considerable misreporting and inaccurate categorisation in the data on the causes of death (Robinson, 1967: 16). However, it is clear from Table 3.6 that the major causes of death in Pakistan are infectious and parasitic diseases.

Smallpox has been eradicated since December, 1976 (Planning Commission, 1978: 360) but malaria is still there. Spain (1963: 219) observed that 25 percent of deaths in NWFP are attributed to pneumonia and tuberculosis, due to low resistance caused by malaria. Hospital statistics for 1979 show that the
leading causes of death in NWFP were found to be gastroenteritis followed by tuberculosis (Health and Social Welfare Division, 1981: 6).

Table 3.6
Main Causes of Deaths by Area, Pakistan, 1971

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Name of Disease</th>
<th>Pakistan</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Infective and Parasitic Diseases</td>
<td>63.8</td>
<td>67.6</td>
<td>63.1</td>
</tr>
<tr>
<td>2</td>
<td>Malaria</td>
<td>10.4</td>
<td>7.9</td>
<td>11.0</td>
</tr>
<tr>
<td>3</td>
<td>Congenital Anomolies, Birth Injury and Causes of Prenatal Mortality</td>
<td>7.4</td>
<td>5.6</td>
<td>7.7</td>
</tr>
<tr>
<td>4</td>
<td>Tuberculosis of all Forms</td>
<td>5.6</td>
<td>2.9</td>
<td>6.1</td>
</tr>
<tr>
<td>5</td>
<td>Bacillary Dysentary and Amoebiasis</td>
<td>2.5</td>
<td>2.9</td>
<td>2.4</td>
</tr>
<tr>
<td>6</td>
<td>Accidents, Poisoning and Violence</td>
<td>1.9</td>
<td>1.1</td>
<td>2.0</td>
</tr>
<tr>
<td>7</td>
<td>Diseases of Heart and Circulatory System</td>
<td>1.8</td>
<td>3.9</td>
<td>1.4</td>
</tr>
<tr>
<td>8</td>
<td>Peptic Ulcer, Appendicitis, Intestinal Obstruction and Hernia</td>
<td>1.2</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>9</td>
<td>Diabetes Mellitus</td>
<td>1.1</td>
<td>0.7</td>
<td>1.2</td>
</tr>
<tr>
<td>10</td>
<td>Complications of Pregnancy and Childbirth</td>
<td>1.1</td>
<td>1.4</td>
<td>1.1</td>
</tr>
<tr>
<td>11</td>
<td>Tumours</td>
<td>0.3</td>
<td>0.0</td>
<td>0.4</td>
</tr>
<tr>
<td>12</td>
<td>Unknown Causes</td>
<td>2.9</td>
<td>4.9</td>
<td>2.4</td>
</tr>
</tbody>
</table>


3.2 FERTILITY

3.2.1 HISTORICAL OVERVIEW

The registration of births in NWFP has always been more deficient than the collection of death statistics. As mentioned in Section 3.1, the vital events are reported by the illiterate village "chowkidars" (watchmen) to the local police in the rural areas. But in fact, the police were most interested in knowing the number of persons who leave the world than of those who enter it (Census of India, 1911: 34). Secondly, the registration of male births was found more regular than females. This is mainly due to local social and economic values attached to the birth of a son and the old prejudices...
against publishing the births of females (Ibid, 1911: 34). Thirdly, most of the births occur in remote villages with the help of unskilled midwives under primitive and unhygienic conditions rather than in modern maternity homes located in the cities (Ahmad, 1966: 44-60). In urban areas also births mainly take place at home without any medical help. Under these circumstances, it is certain that a large number of births go unregistered.

Therefore, the low crude birth rates for the period 1901-41 for NWFP (Table 3.7) give rise to doubts as to their accuracy when compared with those of British India. In the absence of reliable and accurate birth statistics some indirect estimates were prepared for British India (Davis, 1951: 69) but no such attempt has been made for NWFP. However, these rates indicate a fall in crude birth rate from 33.3 in 1901-11 to 23.8 in 1931-41. These statistics may reflect the effects of cholera, malaria and influenza epidemics which caused heavy human mortality during 1911-21 and also weakened the normal vitality of the people. The birth rate fell to its lowest ebb and its recovery was probably impeded by ill-health during the following decades.

During 1941-49 no attempt was made to estimate the birth rate due to the disturbed political conditions in the sub-continent. After partition (1947) some estimates based on vital registration data were prepared by Khan and Zia (1968: 415) for the period 1949-54 for the various administrative units of West Pakistan (Table 3.7). Their estimates suggest a CBR of 16.6 for NWFP which is highly underestimated as compared to the country's average. The low rates can largely be explained by the incompleteness of birth registration (Ibid, 1968: 415).

The first housing census of Pakistan which was conducted in 1960, also collected data on vital events. The estimates based on this information suggests the CBRs as 22 and 24 for NWFP and Pakistan respectively (Table 3.7). As compared to Krotki's(1963: 302) estimates (a CBR of 51 for the country) the
Table 3.7
Past and Present Crude Birth Rates, NWFP, 1901-1976, British India, 1901-1941 and Pakistan, 1949-81

<table>
<thead>
<tr>
<th>Period</th>
<th>CBR</th>
<th>Note/Source</th>
<th>Period</th>
<th>CBR</th>
<th>Note/Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901-1911</td>
<td>33.3</td>
<td>Census of India, 1931</td>
<td>1901-1911</td>
<td>37.0*</td>
<td>48**</td>
</tr>
<tr>
<td>1911-1921</td>
<td>30.5</td>
<td>Vol. XV (NWFP), p. 12</td>
<td>1911-1921</td>
<td>37.0*</td>
<td>49**</td>
</tr>
<tr>
<td>1921-1931</td>
<td>26.8</td>
<td></td>
<td>1921-1931</td>
<td>33.0*</td>
<td>46**</td>
</tr>
<tr>
<td>1931-1941</td>
<td>23.8</td>
<td>Census of India, 1941, Vol. X (NWFP)</td>
<td>1931-1941</td>
<td>34.0*</td>
<td>45**</td>
</tr>
<tr>
<td>1962-1965</td>
<td>...</td>
<td></td>
<td>1962-1965</td>
<td>42.0(L.R.)</td>
<td>38.0(C.S.)</td>
</tr>
<tr>
<td>1968-1969</td>
<td>...</td>
<td></td>
<td>1968-1969</td>
<td>39.0</td>
<td></td>
</tr>
<tr>
<td>1968-1971</td>
<td>...</td>
<td></td>
<td>1968-1971</td>
<td>37.0</td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>...</td>
<td></td>
<td>1972</td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>...</td>
<td></td>
<td>1974</td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>44.3</td>
<td>PGS, 1976</td>
<td>1976</td>
<td>40.5</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>47.9</td>
<td>Level 13 (adjusted)</td>
<td>1976</td>
<td>42.8</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>44.6</td>
<td>Level 15 (unadjusted)</td>
<td>1980-1981</td>
<td>41.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Note/Source</th>
<th>Note/Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on stable population analysis</td>
<td>Finance Division, 1981, p. 1</td>
</tr>
<tr>
<td>West Model Life. Table (Coale &amp; Demney)</td>
<td></td>
</tr>
</tbody>
</table>

Note: ... Denotes not available

---

Nil.

* Reported

** Estimated
rate for the Province seems to be highly underestimated.

Demographic surveys (PGE, 1962-65; PGS, 1968-71 and PFS, 1975) were conducted in the country but published data for NWFP are not available. The CBRs based on various estimates for the whole country for the period 1962-74 (ranging between 37 and 45) suggest a high level of fertility, but for the same period for NWFP there is no information.

3.2.2 RECENT FERTILITY LEVELS AND TRENDS

The latest available data from PGS, 1976 suggests a CBR of 44.3 for the Province (Table 3.7) which is higher than the national level (42.8). The stable population analysis applied to adjusted female age data from PGS, 1976 suggested level 13 (WMLT), while for unadjusted age data level 15 was applicable. On the basis of level 13 and 15 CBR (for both sexes) was computed as 47.9 and 44.6 respectively for NWFP. The rate suggested by level 15 (unadjusted age data) is in close conformity with that derived directly from PGS birth data, while the CBR suggested by level 13 (adjusted age data) is on the higher side. The PGS data on births were collected through quarterly visits with a six-month reference period. In the absence of any previous evidence it is not possible to derive any concrete conclusion about the trend of fertility behaviour in the Province from the CBRs suggested by these analyses. The CBRs for the whole country do not suggest a definite decline in the level of fertility during 1965-76 (Table 3.7).

The CBR as a measure of fertility patterns has limited value as it is greatly affected by age and marital status. The age-specific fertility rates, on the other hand, represent a better measure of the reproductive behaviour of a population.

The age-specific fertility rates as presented in Table 3.8 for NWFP indicate a low level of childbearing at ages under 20. This rises sharply to the next age group and reaches its peak at ages 25-29, where most of the women are married. After age 30, there is a gradual decline in fertility rate
reaching its lowest level in the 45-49 age group. A reasonably similar pattern of fertility rates has been observed for other provinces, with the exception of Baluchistan. There the fertility reaches its peak at ages 30-34 and then declines until age group 40-44 but again rises in the last age group.

Table 3.8
Age-Specific Fertility Rates and Total Fertility Rates, Pakistan and Provinces, 1976

<table>
<thead>
<tr>
<th>Age Group</th>
<th>NWFP</th>
<th>Punjab</th>
<th>Sind</th>
<th>Baluchistan</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19*</td>
<td>70.7</td>
<td>50.5</td>
<td>61.7</td>
<td>79.9</td>
<td>56.3</td>
</tr>
<tr>
<td>20-24</td>
<td>304.6</td>
<td>279.6</td>
<td>234.3</td>
<td>251.1</td>
<td>271.2</td>
</tr>
<tr>
<td>25-29</td>
<td>327.1</td>
<td>365.9</td>
<td>327.9</td>
<td>283.9</td>
<td>348.2</td>
</tr>
<tr>
<td>30-34</td>
<td>306.2</td>
<td>327.0</td>
<td>254.1</td>
<td>298.9</td>
<td>305.4</td>
</tr>
<tr>
<td>35-39</td>
<td>178.9</td>
<td>236.7</td>
<td>225.7</td>
<td>196.5</td>
<td>225.7</td>
</tr>
<tr>
<td>40-44</td>
<td>117.5</td>
<td>122.1</td>
<td>136.2</td>
<td>191.4</td>
<td>127.6</td>
</tr>
<tr>
<td>45-49**</td>
<td>93.0</td>
<td>58.0</td>
<td>74.2</td>
<td>261.1</td>
<td>72.5</td>
</tr>
<tr>
<td>TFR</td>
<td>7.0</td>
<td>7.2</td>
<td>6.6</td>
<td>7.8</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Note: * Includes Births to females in the age group 10-14.
** Includes births to females age 50 years and above.


As compared to the national level, the fertility rate in NWFP is higher for the first two age groups and lower at ages 25-29, while the middle age group (30-34) demonstrates an identical pattern. The level of fertility in the Province is much lower than the country as a whole between ages 35 and 44, but is higher in the last age group, 45-49.

The fertility pattern for the provinces and the whole country is that about 50 percent women in the age groups 20-35 contribute almost 70 percent of the total fertility. This phenomenon is similar to most developing countries which have a high level of fertility (UN, 1973: 71-73). The unusually low contribution to the total fertility by the 15-19 age group as compared to the 45-49 group which is common among all the provinces may be
due to the errors in the data (FBS, 1981: 41). Age misreporting, which is expected to be present in the data for Pakistan as in most developing countries, also influences the ASFRs depending on the number of women shifted from one age group to another (Karim and Alam, 1975: 100-119).

The TFR suggested for NWFP (7.0) is equal to the national level. The highest TFR (7.8) was observed for Baluchistan but it may not reflect the true fertility level due to the small number of observations (FBS, 1981: 46). The lowest TFR was observed for Sind (6.6) which is consistent with the high degree of urbanisation, education and other socio-economic factors prevalent in that province.

The age-specific marital fertility rates (Table 3.9) represent a more refined pattern of fertility, especially where marriage is almost universal. The differences in marital fertility between the provinces is mainly attributed to the differences in marital status. In NWFP the peak marital fertility occurs at ages 20-24, compared with 25-29 in Punjab and Sind, while in Baluchistan it occurs at ages 30-34 which may be due to the local traditions of late marriage. As expected the lowest TMFR was found for Sind (7.7) and the highest for Baluchistan, while NWFP and Punjab display the same pattern, much closer to the national level.

An attempt has also been made to estimate the level and trend of fertility by employing different techniques on children everborn data from the HED survey, 1973 (for Pakistan and Provinces) and the PFS, 1975 (Pakistan only) as shown in Table 3.10. A comparison of HED survey estimates with those of the PFS as suggested by the $P_3^2/P_2$ method shows considerable agreement, while the estimates suggested by other methods are not consistent. The TFR of 6.3 for NWFP (based on HED survey data) suggested by the $P_3^2/P_2$ method seems to be on the low side as compared to the PGS, 1976 estimates (7.0). $P_1$ denotes average parity of women 15-19, $P_2$ denotes average parity of women 20-24 and so on.
### Table 3.9

**Age-Specific Marital Fertility Rates and Total Marital Fertility Rates, Pakistan and Provinces, 1976**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>NWFP</th>
<th>Punjab</th>
<th>Sind</th>
<th>Baluchistan</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>212.2</td>
<td>188.9</td>
<td>148.3</td>
<td>224.4</td>
<td>182.0</td>
</tr>
<tr>
<td>20-24</td>
<td>386.2</td>
<td>367.3</td>
<td>305.8</td>
<td>305.6</td>
<td>353.2</td>
</tr>
<tr>
<td>25-29</td>
<td>375.6</td>
<td>397.0</td>
<td>356.7</td>
<td>301.2</td>
<td>380.1</td>
</tr>
<tr>
<td>30-34</td>
<td>328.5</td>
<td>347.1</td>
<td>265.0</td>
<td>314.9</td>
<td>322.9</td>
</tr>
<tr>
<td>35-39</td>
<td>193.7</td>
<td>251.2</td>
<td>237.0</td>
<td>202.8</td>
<td>239.2</td>
</tr>
<tr>
<td>40-44</td>
<td>130.2</td>
<td>133.1</td>
<td>150.3</td>
<td>207.3</td>
<td>139.7</td>
</tr>
<tr>
<td>45-49</td>
<td>110.0</td>
<td>64.8</td>
<td>84.5</td>
<td>311.1</td>
<td>82.0</td>
</tr>
<tr>
<td>TMFR</td>
<td>8.7</td>
<td>8.7</td>
<td>7.7</td>
<td>9.4</td>
<td>8.5</td>
</tr>
</tbody>
</table>

**Note:** Only currently married females are included.

**Source:** Population Growth Survey, 1976.

### Table 3.10

**Total Fertility Rates (by Different Methods) Pakistan and Provinces, 1973 and Pakistan, 1975**

<table>
<thead>
<tr>
<th>Region</th>
<th>Source of Data</th>
<th>$P_2^2/P_3$ (a)</th>
<th>$P_2P_4^2/P_3$ (b)</th>
<th>Arretx(c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>HED survey, 1973</td>
<td>6.3</td>
<td>4.9</td>
<td>5.8</td>
</tr>
<tr>
<td>Punjab</td>
<td>HED survey, 1973</td>
<td>6.3</td>
<td>5.4</td>
<td>5.8</td>
</tr>
<tr>
<td>Sind</td>
<td>HED survey, 1973</td>
<td>5.6</td>
<td>5.1</td>
<td>5.2</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>HED survey, 1973</td>
<td>6.1</td>
<td>3.5</td>
<td>5.1</td>
</tr>
<tr>
<td>Pakistan</td>
<td>HED survey, 1973</td>
<td>6.1</td>
<td>5.2</td>
<td>5.6</td>
</tr>
<tr>
<td>Pakistan</td>
<td>PFS, 1975</td>
<td>6.2</td>
<td>8.2</td>
<td>6.9</td>
</tr>
</tbody>
</table>

**Source**

(a) UN Manual IV (1967: 33-34)
(b) Brass (1979: 15-36)
(c) Arretx (1975: 5-12).

**Source**

(data): HED survey, 1973

(PFS, 1975).
Retherford and Mirza (1982: 257-270) have observed a large deficit of children especially under age two, in the HED survey data. Besides sampling and non-sampling errors difficult flood conditions, has greatly affected the quality of its data. Therefore, the estimates based on these data cannot be relied upon with confidence.

A large variation has been observed in the fertility levels and trends so far estimated on a national level. The PGE, 1962-65 suggested the TFR as 7.0 which is considered the best available estimate for the 1960-70 period (Booth and Alam, 1980: 2). Yusuf and Retherford (1981: 491-499) using PFS, 1975 data have also estimated the TFR as 7.0. The PGS, 1976 suggested TFR (7.0) compared to the PGE, 1962-65 and PFS, 1975 estimates indicates no change in the level of fertility during 1965-76 in Pakistan.

It is difficult to establish the tempo of the fertility trend in NWFP in the absence of any other past evidence. It may be ascertained from the PGS, 1976 estimates (7.0) for the Province which exactly follows the national pattern that the fertility level in NWFP is still very high.

3.2.3 **FERTILITY DIFFERENTIALS**

Fertility differentials exist in many populations and are related to various demographic and non-demographic variables. In the absence of detailed data on the subject on provincial basis, this discussion will be limited only to urban-rural and regional differences in fertility.

3.2.3.1 **URBAN-RURAL FERTILITY DIFFERENTIALS**

A comparison of urban and rural marital fertility rates for Pakistan and Provinces, based on PGS, 1976 data is shown in Table 3.11. These TMRs indicate that the difference between urban and rural fertility in NWFP is almost insignificant. The urban fertility (8.8) is slightly higher than the rural fertility (8.7). In Punjab the difference was more in favour of urban areas, while in Sind and Baluchistan rural areas display a higher fertility. At the national level, urban fertility (8.8) is slightly higher than rural
fertility (8.5). Sattar (1979: 231-251) using PFS, 1975 data on marital fertility rates has also observed an insignificant difference in urban-rural fertility, slightly in favour of urban areas in Pakistan. Her findings were further supported by Yusuf and Retherford (1981: 491-499).

Table 3.11
Age-Specific and Total Marital Fertility Rates by Area, Pakistan and Provinces, 1976

<table>
<thead>
<tr>
<th>Group</th>
<th>NWFP</th>
<th>Punjab</th>
<th>Sind</th>
<th>Baluchistan</th>
<th>Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
<td>Urban</td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>15-19*</td>
<td>166.4</td>
<td>230.7</td>
<td>234.6</td>
<td>186.8</td>
<td>197.9</td>
</tr>
<tr>
<td>20-24</td>
<td>393.0</td>
<td>385.1</td>
<td>430.9</td>
<td>346.9</td>
<td>362.9</td>
</tr>
<tr>
<td>25-29</td>
<td>424.0</td>
<td>366.4</td>
<td>473.8</td>
<td>372.1</td>
<td>369.7</td>
</tr>
<tr>
<td>30-34</td>
<td>263.2</td>
<td>341.1</td>
<td>346.9</td>
<td>347.2</td>
<td>348.8</td>
</tr>
<tr>
<td>35-39</td>
<td>303.5</td>
<td>176.6</td>
<td>265.8</td>
<td>246.5</td>
<td>168.6</td>
</tr>
<tr>
<td>40-44</td>
<td>81.4</td>
<td>139.6</td>
<td>102.0</td>
<td>142.9</td>
<td>87.0</td>
</tr>
<tr>
<td>45-49</td>
<td>135.3</td>
<td>105.9</td>
<td>53.5</td>
<td>68.6</td>
<td>34.3</td>
</tr>
<tr>
<td>TMFR</td>
<td>8.8</td>
<td>8.7</td>
<td>9.5</td>
<td>8.5</td>
<td>7.5</td>
</tr>
</tbody>
</table>

*Note: Includes births to females in the age group 10-14.

Robinson (1967: 124) observed that urbanisation in Pakistan had not been accompanied by "urbanism", unlike the experience of developed countries. He put forward the reasons that at present the groups whose fertility had begun falling were not large enough for their behaviour to have affected the general levels of urban fertility.

It is evident from Table 3.11 that urban fertility in NWFP is lower than rural in the 15-19 age group. Fertility between ages 20-39 was higher in urban areas and lower for ages 40-44 but again higher in the 45-49 age group compared to the rural areas of NWFP. These rates may also be affected by the poor quality of age data due to the misreporting of ages.
In all provinces fertility at the younger reproductive ages was higher in urban areas than rural areas. Sattar (1979: 231-251) has presented the evidence from the PFS, 1975 data that shorter breastfeeding in urban areas, resulting in shorter birth intervals, provides the principal explanation for higher urban fertility than rural at the younger reproductive ages. Her findings were also confirmed by Yusuf and Retherford (1981: 491-499).

3.2.3.2 INTER-REGIONAL FERTILITY DIFFERENTIALS

Urban and rural differences in fertility constitute only one aspect of fertility differentials by place of residence. On the other hand, regional differentials in fertility reflect the effects of many demographic, economic and social factors.

As evident from Tables 3.8 and 3.9, the lowest levels of fertility (TFR and TMFR) among the provinces was observed for Sind, while NWFP and the Punjab exhibited a similar pattern. The unusually high fertility rate for Baluchistan may not be treated as truly representative, which seems to be the outcome of sampling fluctuations due to a small number of observations (FBS, 1981: 46).

Among the factors responsible for a low level of fertility in Sind, one is the high degree of urbanisation (57 percent of the population is living in the urban areas). Sind also shows the lowest urban fertility rate of all the provinces (Table 3.11). In the long run urbanisation is considered an important factor conditioning human reproductive behaviour, and human fertility is generally lower in highly urbanised areas (Saunders, 1958: 14-36).

Secondly, the level of literacy is also higher in Sind (30 percent) than other provinces, which is considered to be one of the most important factors contributing to the reduction of fertility (UN, 1973: 90).

Lastly, Sind is a highly industrialised province of Pakistan and industrialisation is believed to be closely related to the economic and social factors responsible for fertility decline (Freedman, 1963).
Migration as a component of population change has played an important role in the transfer and redistribution of population within and across the provincial boundaries of NWFP. For centuries the Province has served as the gateway to the invading hordes of armies into the sub-continent from the west. Numerically, there is no basis for an analysis of the movement of population during the long period prior to the census era. Although the first census was conducted in 1855 the present discussion will be restricted to the period 1901 onwards when the Province was constituted as a separate administrative unit.

Movement of population between NWFP and the rest of the British India during the pre-partition period will be treated as internal migration, while during the post-partition period the discussion will be limited to the present national boundaries of Pakistan. The pattern of immigration from Afghanistan during 1901-31 and the exchange of population between Pakistan and India due to the partition of the sub-continent will also be discussed.

The present study will be mainly based on place of birth data which were obtained in all the censuses with the exception of the 1972 census for which the said data were collected through the HED survey, 1973. Every person was asked during the enumeration to record the district in which he was born and those who were born outside the province of enumeration, were supposed to report their province or country of birth. The study will also be supplemented with information from the HED survey, 1973 on recent migration, direction and sex ratios of migrants.

Some reporting errors in place of birth data may arise but according to Davis (1951: 107) who estimated internal migration in the sub-continent, the data were reasonably accurate. Censuses were conducted on a defacto basis which might have also exaggerated place of birth data especially due to seasonal migration which is applicable to NWFP.
It is important to define some of the terms which will be used, in order to avoid confusion:

1. **Life-time migrant** - one whose district/province of residence at the enumeration date is different from his/her province of birth regardless of intervening moves.

2. **Recent migrant** - one whose district/province of origin is different from his/her district/province of residence at the enumeration date with a fixed time reference.

3. **Immigrant/Emigrant** - when a person moves into a sovereign state from across its national borders, he/she is called an immigrant in the place of destination and an emigrant from the place of origin.

4. **In-migrant/out-migrant** - when a person within a national boundary leaves a district/province to enter another district/province he is called an in-migrant at the place of destination and an out-migrant from the place of origin.

It is also important to mention that the relevant data for Malakand division is not available, therefore, it will be excluded from the scope of our study and migrants from that area will be treated as migrants from the tribal areas.

### 3.3.1 LIFETIME MIGRATION

Lifetime migration estimates as a measure of migration are useful because they provide information about in-migrants, out-migrants, non-migrants and also permit inferences about the distance and flow of migration. On the other hand, such data cannot differentiate migrants with respect to time.

Table 3.12 presents lifetime migration estimates for NWFP and the rest of British India for the census years, 1901, 1911, 1921 and 1931, while data for the census 1941 is incomplete. The pattern of lifetime migration during 1901-31 indicates that the Province was gaining through net migration. A major contribution to this gain was made by the contiguous regions - on the east the
Punjab and on the west the Tribal Territory. The proportion of in-migrants from these two regions during the said period was almost 55 and 30 percent (on average) respectively. Besides contiguity of the two provinces the Punjab was the main contributor to the Indian army. Secondly, a great number of Hindu and Sikh traders who were born in the Punjab migrated to NWFP (Khan, 1981: 184). A high proportion of these in-migrants were males and their movement was semi-permanent (Census of India, 1911: 48). Davis (1951: 113) also observed a high sex ratio (226) of in-migrants to NWFP from the contiguous districts. He (Davis) further observed that it was due, in part, to the number of cantonments especially in the Peshawar district.

Table 3.12

Lifetime Migration for NWFP, 1901-1931

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Population* (NWFP)</th>
<th>In Number</th>
<th>In %</th>
<th>Out Number</th>
<th>Out %</th>
<th>Net Number</th>
<th>Net %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>2,041,534</td>
<td>154,235</td>
<td>7.5</td>
<td>54,858</td>
<td>2.7</td>
<td>99,377</td>
<td>4.8</td>
</tr>
<tr>
<td>1911</td>
<td>2,196,933</td>
<td>142,305</td>
<td>6.4</td>
<td>66,717</td>
<td>3.0</td>
<td>75,588</td>
<td>2.4</td>
</tr>
<tr>
<td>1921</td>
<td>2,251,340</td>
<td>156,994</td>
<td>7.0</td>
<td>67,970</td>
<td>3.0</td>
<td>89,024</td>
<td>4.0</td>
</tr>
<tr>
<td>1931</td>
<td>2,425,076</td>
<td>139,720</td>
<td>5.7</td>
<td>90,618</td>
<td>3.7</td>
<td>49,102</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Note: * Excluding Malakand Division.

Source: Population Censuses of India, 1901 (Vol XVII); 1911 (Vol. XIII); 1921 (Vol. XIV) and 1931 (Vol. XVII).

The stream of migration from the west was almost periodic type. The significant pull factors for the migrants from the Tribal Territory were to "graze, trade and labour" (Zachariah, 1964: 217). The development of an irrigation network in the Province also attracted a considerable number of in-migrants from the trans-frontier areas on a permanent basis (Census of India, 1911: 45).

A decrease in the proportion of in-migrants from 7.5 to 5.7 (percent) during 1901-31 is evident (Table 3.12) which was mainly due to:

1. a reduction in the number of troops stationed in the Province;
2. the spread of education among the local people who replaced outsiders in the services;

3. persons recorded in the previous censuses as born outside were supplemented or replaced by their children born in the Province (Census of India, 1931: 55).

The flow of out-migration from the Province is small as compared to the in-migration because the local population is mainly non-migratory. Among the reasons for immobility of population in the sub-continent prior to partition as stated by Davis (1951: 108) some of them are applicable in this case, such as, illiteracy, conservatism and predominance of agriculture. On the other hand, the spread of education and the development of the means of communication facilitated their mobility as is evident from the increase in the number of out-migrants from 54,858 to 90,618 during 1901-31. These out-migrants also include persons born in the tribal territory for which no separate figures were available. The direction of out-migration was mainly towards the contiguous provinces of the Punjab and Baluchistan. Most of the out-migrants were serving in the army.

3.3.2 IMMIGRATION FROM AFGHANISTAN

The history of tribal migration proves, and all the available evidence points to a series of immigrations from the west, that is, from Afghanistan (Davies, 1932: 70). A large proportion of the population of eastern Afghanistan is essentially nomadic in character. The cold climate forces certain tribes to migrate periodically from winter to summer quarters.

As evident in Table 3.13, the proportion of immigrants from Afghanistan during 1901-31 is more significant as compared to the rest of the world. Immigrants from Afghanistan were mostly the periodic type and can be divided into three groups:

1. Labourers - they were found throughout the Province and were recorded in large numbers;
2. "Powindahis" (nomads) - they were mostly found in the southern districts of the Province. They were mainly engaged in trade between British India and Afghanistan and the northern states of central Asia. Even Australia was not beyond their horizons;

3. Graziers - they would migrate every year in the cold weather to the plains along with their cattle in search of pastures.

Table 3.13

<table>
<thead>
<tr>
<th>Census Year</th>
<th>NWFP* Population</th>
<th>Immigration from Afghanistan</th>
<th></th>
<th></th>
<th>Immigration from Rest of the World</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number</td>
<td>%</td>
<td></td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>1901</td>
<td>2,041,534</td>
<td>63,035</td>
<td>3.1</td>
<td>12,467</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>1911</td>
<td>2,196,933</td>
<td>42,480</td>
<td>1.9</td>
<td>10,723</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>1921</td>
<td>2,251,340</td>
<td>22,098</td>
<td>1.0</td>
<td>17,069</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>1931</td>
<td>2,425,076</td>
<td>28,324</td>
<td>1.2</td>
<td>8,288</td>
<td>0.3</td>
<td></td>
</tr>
</tbody>
</table>

Note: * Excluding Malakand Division.

Source: Population Censuses of India, 1901 (Vol. XVII); 1911 (Vol. XIII); 1921 (Vol. XIV) and 1931 (Vol. XVII).

A considerable decrease in their number during 1901-31 is observed from Table 3.13. The main reasons responsible for the decrease are:

1. Difficulty of obtaining permission to leave the "Amir's" (king) territories.

2. Extension of the railway line to the Province which facilitated their mobility towards various parts of British India.

3. The contraction of the available grazing area due to the extension of cultivation in the Province.

4. An increase in the grazing fee and its strict collection.

The immigrants from the rest of the world were mainly the Gurkha regiments from Nepal and from the United Kingdom, army and civil officers, along with
3.3.3 EXCHANGE OF POPULATION BETWEEN PAKISTAN AND INDIA

The partition of the sub-continent in 1947 led to a large exchange of population between Pakistan and India. In 1951 Census of Pakistan "muhajirs" were defined as those persons who came to Pakistan from India due to the partition of the sub-continent in 1947 and were recorded separately (Population Census of Pakistan, 1951: 31). The 1951 Census of India also provided some special tabulations for the displaced persons from Pakistan to India (Khan, 1972: 232).

The estimates based on these data (Table 3.14) show that NWFP lost 144,000 persons through net-migration, while the Punjab gained the maximum number (1,679,000) followed by Sind (346,000). The loss in the case of Baluchistan was only 10,000 persons. As a whole the country gained 1,828,000 persons.

Table 3.14
Exchange of Population Between Pakistan and India due to Partition of the Sub-Continent, 1951 (Based on Place of Birth Data)

<table>
<thead>
<tr>
<th>Region</th>
<th>Population (000)</th>
<th>Immigrants Number (000)</th>
<th>Immigrants %</th>
<th>Emigrants Number (000)</th>
<th>Emigrants %</th>
<th>Net Number (000)</th>
<th>Net %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWFP</td>
<td>3,222</td>
<td>51</td>
<td>1.6</td>
<td>195</td>
<td>6.1</td>
<td>-144</td>
<td>-4.5</td>
</tr>
<tr>
<td>Punjab</td>
<td>20,636</td>
<td>5,281</td>
<td>25.6</td>
<td>3,602</td>
<td>17.5</td>
<td>1,679</td>
<td>8.1</td>
</tr>
<tr>
<td>Sind</td>
<td>6,106</td>
<td>1,167</td>
<td>19.1</td>
<td>822</td>
<td>13.5</td>
<td>346</td>
<td>5.7</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>1,154</td>
<td>28</td>
<td>2.4</td>
<td>38</td>
<td>3.3</td>
<td>-10</td>
<td>-0.9</td>
</tr>
<tr>
<td>Origin not Specified</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>42</td>
<td>-</td>
<td>-42</td>
<td>-</td>
</tr>
<tr>
<td>Pakistan</td>
<td>33,740*</td>
<td>6,527</td>
<td>19.3</td>
<td>4,699</td>
<td>13.9</td>
<td>1,828</td>
<td>5.4</td>
</tr>
</tbody>
</table>

Note: * Includes population of Frontier Regions.
Source: (1) Pakistan - Population Census, 1951 (Vol. 1)
        (2) Khan, M.R. (Table 5.6).

3.3.4 INTER-PROVINCIAL LIFETIME MIGRATION

The post-independence period indicated a different pattern of migration.

Table 3.15 reveals that NWFP is now losing through net-migration to other
provinces of Pakistan. During 1951, 1961 and 1973, the maximum gain from net-migration was in favour of Sind. The gain in 1951 is more significant, it was partly due to the return of NWFP-born persons who were previously working in various parts of India. In 1951, the second gaining province was Baluchistan, while during 1961 and 1973 the Punjab received more in-migrants from NWFP as compared to Baluchistan.

Table 3.15

Inter-Provincial Lifetime Migration for NWFP, 1951-1973

<table>
<thead>
<tr>
<th>Place of Origin or Destination</th>
<th>In 1951</th>
<th></th>
<th>Out 1951</th>
<th></th>
<th>Net 1951</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Punjab</td>
<td>67,550</td>
<td>95.2</td>
<td>70,580</td>
<td>50.3</td>
<td>-3,030</td>
<td>-4.4</td>
</tr>
<tr>
<td>Sind</td>
<td>1,142</td>
<td>1.6</td>
<td>57,290</td>
<td>40.8</td>
<td>-56,148</td>
<td>-81.0</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>2,241</td>
<td>3.2</td>
<td>12,398</td>
<td>8.9</td>
<td>-10,157</td>
<td>-14.6</td>
</tr>
<tr>
<td>Pakistan</td>
<td>70,933</td>
<td>100.0</td>
<td>140,268</td>
<td>100.0</td>
<td>-69,335</td>
<td>-100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place of Origin or Destination</th>
<th>In 1961</th>
<th></th>
<th>Out 1961</th>
<th></th>
<th>Net 1961</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Punjab</td>
<td>67,645</td>
<td>93.0</td>
<td>116,392</td>
<td>43.7</td>
<td>-48,747</td>
<td>-25.2</td>
</tr>
<tr>
<td>Sind</td>
<td>2,583</td>
<td>3.6</td>
<td>132,352</td>
<td>49.8</td>
<td>-129,769</td>
<td>-67.1</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>2,477</td>
<td>3.4</td>
<td>17,249</td>
<td>6.5</td>
<td>-14,772</td>
<td>-7.7</td>
</tr>
<tr>
<td>Pakistan</td>
<td>72,705</td>
<td>100.0</td>
<td>265,993</td>
<td>100.0</td>
<td>-193,288</td>
<td>-100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place of Origin or Destination</th>
<th>In 1973</th>
<th></th>
<th>Out 1973</th>
<th></th>
<th>Net 1973</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Punjab</td>
<td>94,787</td>
<td>62.8</td>
<td>194,033</td>
<td>43.8</td>
<td>-99,246</td>
<td>-34.0</td>
</tr>
<tr>
<td>Sind</td>
<td>51,238</td>
<td>34.0</td>
<td>234,357</td>
<td>52.9</td>
<td>-183,119</td>
<td>-62.6</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>4,884</td>
<td>3.2</td>
<td>14,723</td>
<td>3.3</td>
<td>-9,839</td>
<td>-3.4</td>
</tr>
<tr>
<td>Pakistan</td>
<td>150,909</td>
<td>100.0</td>
<td>443,113</td>
<td>100.0</td>
<td>-292,204</td>
<td>-100.0</td>
</tr>
</tbody>
</table>

Source: Population Census of Pakistan, 1951 (Vol. 4); 1961 (Vol. 3) and HED survey, 1973 (Vol. II).

As a contiguous province the bulk of in-migrants during 1951-73 were from the Punjab, ranging from 68-95 thousands while proportionately a decrease of 32 percent has been observed during the said period. The number of in-migrants from Sind during 1951 and 1961 was negligible but an increase of 30 percent is
evident in 1973. It is difficult to assign any reason to this increase because apparently the socio-economic environment of NWFP offers no attraction to the in-migrants of Sind. But it might be due in part to the return migration of those persons who were born in Sind.

The flow of out-migration from NWFP towards Sind and Punjab is mainly due to the high rate of industrialisation coupled with urbanisation in these provinces. The metropolitan city of Karachi in Sind especially attracts much manpower from northern parts of the country. It is also clear from Table 3.16 that the direction of migrants from NWFP is mainly towards urban areas of the country, particularly Sind Province (97 percent). Contrary to that the direction of in-migrants from Sind is mainly towards rural areas of NWFP (81 percent). This shows an almost circular flow of migration between NWFP rural areas and Sind urban areas. Most of the migrants from NWFP do not take their families with them as the sex ratio of in and out-migrants is greatly in favour of males, particularly in the case of Sind (Table 3.17). Ashraf (1962: 102) also observed that migration from the Tribal Areas of NWFP is highly male selective.

It is important to mention that the number of out-migrants from NWFP also contains to some extent persons from the Tribal Territory, which does not come under the scope of our study. This happens due to the ignorance of the respondents because they consider themselves residents of NWFP and as such, for them tribal or settled area makes no difference.

In fact, the tribal people are more mobile as compared to their counterparts living in the settled districts of the Province. The unfavourable economic conditions prevailing in the mountainous tribal region compel them to move in search of better economic fortunes in the vast plains of the country. On the other hand, the predominant dependence on agriculture of the people living in the settled districts of the Province (excluding Malakand division) restricts their mobility. Lieberman (1982: 85-120) observed that the flow of migrants to Pakistan's cities from NWFP and the northern district of the Punjab is mainly from "Barani" districts (areas of limited and irregular rainfall).
Table 3.16
Lifetime Migration for NWFP by Area, 1973

<table>
<thead>
<tr>
<th>In-Migrants from</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Punjab</td>
<td>49,082</td>
<td>51.8</td>
</tr>
<tr>
<td>Sind</td>
<td>9,768</td>
<td>19.1</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>2,134</td>
<td>43.7</td>
</tr>
<tr>
<td>Pakistan</td>
<td>60,984</td>
<td>40.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Out-Migrants to</th>
<th>Number</th>
<th>%</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>133,193</td>
<td>68.6</td>
<td>60,840</td>
<td>31.4</td>
</tr>
<tr>
<td>Sind</td>
<td>226,297</td>
<td>96.6</td>
<td>8,060</td>
<td>3.4</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>10,373</td>
<td>70.5</td>
<td>4,350</td>
<td>29.5</td>
</tr>
<tr>
<td>Pakistan</td>
<td>369,863</td>
<td>83.5</td>
<td>73,250</td>
<td>16.5</td>
</tr>
</tbody>
</table>

Source: HED Survey, 1973 (Part II, Table 12).

Table 3.17
Sex Ratios of Lifetime Migrants for NWFP, 1973

<table>
<thead>
<tr>
<th>In-Migrants from</th>
<th>Out-Migrants to</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sex Ratio</td>
</tr>
<tr>
<td>Punjab</td>
<td>123</td>
</tr>
<tr>
<td>Sind</td>
<td>218</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>183</td>
</tr>
<tr>
<td>Pakistan</td>
<td>150</td>
</tr>
</tbody>
</table>


3.3.5 RECENT INTER-PROVINCIAL MIGRATION (1965-1973)

The study of migration based on data relating to usual place of residence at a fixed date is one of the most effective means of measuring movement of population because it counts the migrants over a definite period of time. The HED survey, 1973 for the first time collected data on recent internal migration.
During enumeration the respondents were asked to report their previous place of residence with a fixed time reference (September, 1965).

The pattern of recent inter-provincial migration during 1965-73 (Table 3.18) shows that NWFP is still losing its population through net migration. As expected, the major gain (59 percent) was in Sind, followed by the Punjab which gained 38 percent, while Baluchistan got a small share of 3 percent from NWFP.

The proportion of in-migrants was the highest from the Punjab (78 percent), while from Sind and Baluchistan it was 18 and 4 percent respectively. Considering the contiguity of the two provinces, the proportion of out-migrants from NWFP to the Punjab was 56 percent, while Sind and Baluchistan received 41 and 3 percent respectively.

The direction of recent inter-provincial migration (Table 3.19) displays slightly different pattern than is revealed by life time migration (Table 3.16). The flow of out-migrants from NWFP is more in favour of rural areas (55 percent) of the country, while in-migrants from other provinces were found more in the urban areas of the Province (57 percent). Sex ratios of the recent migrants were also found to be highly in favour of males (Table 3.20).

Table 3.18

Recent Migration for NWFP by Place of Residence in September, 1965 and Place of Enumeration In, 1973

<table>
<thead>
<tr>
<th>Place of Origin of Destination</th>
<th>Recent Migrants 1965-1973</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In</td>
</tr>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Punjab</td>
<td>71,885</td>
</tr>
<tr>
<td>Sind</td>
<td>16,753</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>3,432</td>
</tr>
<tr>
<td>Pakistan</td>
<td>92,070</td>
</tr>
</tbody>
</table>

Source: HED Survey, 1973 (Vol II, Table 13).
Table 3.19
Recent Migration for NWFP by Area, 1965-1973

<table>
<thead>
<tr>
<th>In-Migrants From</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Punjab</td>
<td>35,112</td>
<td>48.8</td>
</tr>
<tr>
<td>Sind</td>
<td>14,960</td>
<td>89.3</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>2,783</td>
<td>81.1</td>
</tr>
<tr>
<td>Pakistan</td>
<td>52,855</td>
<td>57.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Out-Migrants To</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Punjab</td>
<td>48,833</td>
<td>42.7</td>
</tr>
<tr>
<td>Sind</td>
<td>39,074</td>
<td>47.0</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>4,349</td>
<td>65.1</td>
</tr>
<tr>
<td>Pakistan</td>
<td>92,256</td>
<td>45.2</td>
</tr>
</tbody>
</table>


Table 3.20
Sex Ratios of Recent Migrants for NWFP, 1973

<table>
<thead>
<tr>
<th>In-Migrants From</th>
<th>Sex Ratio</th>
<th>Out-Migrants To</th>
<th>Sex Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>143</td>
<td>Punjab</td>
<td>166</td>
</tr>
<tr>
<td>Sind</td>
<td>253</td>
<td>Sind</td>
<td>193</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>232</td>
<td>Baluchistan</td>
<td>298</td>
</tr>
<tr>
<td>Pakistan</td>
<td>160</td>
<td>Pakistan</td>
<td>179</td>
</tr>
</tbody>
</table>


3.3.6 PATTERN OF MIGRATION DURING POST-INDEPENDENCE PERIOD

The pattern of lifetime and recent internal migration (proportionate to the base population of the Province) during the post-independence period is given in Table 3.21. The net-migration estimates shows an increase of 3.2 percent in the loss of population during 1951-61. The increase is partly due
to the outmigration of children of the refugees who came from India after 1947. Between 1951-61 the refugees migrated with their children to other provinces, particularly to Sind. Afzal (1974: 70) also observed that most of the refugees who came from India between 1947 and 1951 started redistributing themselves to other areas during 1951-61. A high rate of population growth during 1951-61 (26 percent) in relation to the limited economic resources of the Province also acted as a push factor for the increase in the number of the out-migrants. During 1961-73 a small decrease (0.3 percent) was recorded in the net loss through lifetime migration. Data on recent migration suggests that NWFP lost only 1.8 percent of its population during 1965-73 through net-migration (Table 3.21).

Table 3.21
Pattern of Lifetime and Recent Migration for NWFP, 1951-1973

<table>
<thead>
<tr>
<th>Year</th>
<th>Population*</th>
<th>In</th>
<th>Out</th>
<th>Net</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td>Lifetime Migrants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1951</td>
<td>3,684,176</td>
<td>70,933</td>
<td>1.9</td>
<td>140,268</td>
</tr>
<tr>
<td>1961</td>
<td>3,764,948</td>
<td>72,705</td>
<td>1.9</td>
<td>265,993</td>
</tr>
<tr>
<td>1973</td>
<td>6,127,517</td>
<td>150,909</td>
<td>2.4</td>
<td>443,113</td>
</tr>
<tr>
<td></td>
<td>Recent Migrants (1965-1973)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>6,127,517</td>
<td>92,070</td>
<td>1.5</td>
<td>204,269</td>
</tr>
</tbody>
</table>

Note: * Excluding Malakand Division.
Source: Computed from Tables 3.15 and 3.18.

3.3.7 INTER-DISTRICT LIFETIME MIGRATION

The inter-district lifetime migration based on place of birth data from 1951 and 1961 censuses shows that the movement of the population within the Province is insignificant (Table 3.22). Both the censuses enumerated 97 to
99 percent of the population within their district of birth. The only exception in 1961 was district Peshawar, which gained 27 percent of its population from other districts. A major contribution to this gain was made by district Bannu. Peshawar district is highly urbanised and contains the capital city of the Province, where all major educational institutions and government offices are located, which attract in-migrants from other districts of the Province.

The last line of Table 3.22 also indicates the number of in-migrants from Federally Administered Tribal Areas. The highest number of in-migrants from FATA (50 percent) were received by district Peshawar, while Mardan district received the second major share (41 percent). In 1951, they contributed 1.4 percent to the population of the Province, while in 1961 it increased to 2.3 percent.
### Table 3.22
Inter-District Lifetime Migration, NWFP, 1951-1961

<table>
<thead>
<tr>
<th>Place of Birth</th>
<th>Place of Enumeration</th>
<th>Peshawar</th>
<th>Mardan</th>
<th>Hazara</th>
<th>Kohat</th>
<th>Bannu</th>
<th>D.I. Khan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1951</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peshawar</td>
<td>97.3</td>
<td>0.8</td>
<td>0.3</td>
<td>0.8</td>
<td>0.4</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Mardan</td>
<td>0.8</td>
<td>98.5</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Hazara</td>
<td>0.9</td>
<td>0.1</td>
<td>99.1</td>
<td>0.4</td>
<td>0.2</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Kohat</td>
<td>0.6</td>
<td>0.3</td>
<td>0.2</td>
<td>98.3</td>
<td>0.6</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Bannu</td>
<td>0.3</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>98.4</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>D.I. Khan</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
<td>97.2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>802,940</strong></td>
<td><strong>572,058</strong></td>
<td><strong>836,020</strong></td>
<td><strong>284,685</strong></td>
<td><strong>291,919</strong></td>
<td><strong>250,261</strong></td>
<td></td>
</tr>
<tr>
<td><strong>FATA</strong></td>
<td><strong>26,936</strong></td>
<td><strong>8,563</strong></td>
<td><strong>1,721</strong></td>
<td><strong>3,629</strong></td>
<td><strong>628</strong></td>
<td><strong>2,462</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1961</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peshawar</td>
<td>72.9</td>
<td>0.8</td>
<td>0.1</td>
<td>0.5</td>
<td>0.2</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Mardan</td>
<td>1.5</td>
<td>98.8</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Hazara</td>
<td>0.7</td>
<td>0.3</td>
<td>99.6</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Kohat</td>
<td>0.6</td>
<td>0.1</td>
<td>0.1</td>
<td>98.7</td>
<td>0.6</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Bannu</td>
<td>24.1</td>
<td>..</td>
<td>..</td>
<td>0.3</td>
<td>98.7</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>D.I. Khan</td>
<td>0.2</td>
<td>..</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
<td>98.3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,057,629</strong></td>
<td><strong>767,532</strong></td>
<td><strong>1,033,029</strong></td>
<td><strong>361,698</strong></td>
<td><strong>367,967</strong></td>
<td><strong>338,559</strong></td>
<td></td>
</tr>
<tr>
<td><strong>FATA</strong></td>
<td><strong>45,440</strong></td>
<td><strong>37,204</strong></td>
<td><strong>973</strong></td>
<td><strong>2,760</strong></td>
<td><strong>595</strong></td>
<td><strong>3,714</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** .. Negligible

**Source:** Population Census of Pakistan, 1961 (Vol. 3, Table 8).
CHAPTER FOUR

4. POPULATION PROJECTIONS OF NWFP

4. POPULATION PROJECTIONS

The focus of this chapter is on population projections, which illustrate future growth patterns on the basis of assumed trends in fertility, mortality and migration. These projections are most commonly needed for planning, policy making and also to predict possible demographic changes in the future. It is important to mention that these projections do not indicate precisely the future size of a population of a country or region but only provide a formal assessment of future demographic change. The results present the net outcome of the interaction among the components of population growth. As such, the accuracy of these calculations largely depends on the assumptions regarding the future behaviour of various components of population growth.

4.1 ESTIMATION OF BASE POPULATION BY SEX AND AGE

Base year data for population projections were obtained from the 1972 census (so far detailed data for the 1981 census are not available here). The 1972 Census was the first for which single-year age data were published but like previous censuses also suffered from extensive age misreporting (see first chapter). Therefore, the data were adjusted for inaccuracies before use.

Two computer programs, osculatory smoothed and SKJ.FOR were used for smoothing the base year data. The results of SKJ.FOR (1982 revised) were found more consistent and were accepted. This program (SKJ.FOR) first evaluated the data. It then graduated the population aged 0-9 as obtained by the reverse survival technique from 0-4 and 5-9 age groups in the raw data. Secondly, graduated data for ages 10-62 were obtained through 11 term-moving averages. Thirdly, graduated data for ages 63-64 and 65+ were obtained by using various
statistical procedures (see SKJ.FOR, 1982). The sex ratio at birth was
assumed as 105.

The population of Provincially Administered Tribal Areas (PATA) and Kohistan
Areas adjoining Hazara district (173,658 males and 182,569 females) for which
the age distribution was not available was included in the total and distributed
according to the obtained age distribution. Finally, data for ages 70+ were
split up into age groups 70-74 and 75+ according to stable population age
distribution, as a prerequisite of the projection program. The adjusted and
unadjusted age data (percentage distribution) are presented in Table 4.1.

4.2 ASSUMPTIONS AND METHOD ADOPTED

4.2.1 ASSUMPTIONS

Population projections for NWFP for the period 1972-92 have been prepared
under two sets of assumptions (high and low). Mortality has been assumed to be
decreasing in both series, with constant and declining fertility, while net
migration has been treated as nil.

(1) Mortality Assumptions

Mortality in Pakistan is decreasing at a faster rate than fertility. According
to PGE, 1962-65, estimates, the expectation of life at birth was 48 years for
males and 45 years for females (Afzal, 1974: 22). The PGS, 1968-71 data
suggested 53 and 52 years for males and females respectively (Farooqui and Alam,
1974: 335-352). The gain in female life expectancy was more (7 years) than
male (5 years).

In the absence of any lifetable for NWFP life expectancy at birth was
assumed as 51.8 and 55 years for males and females respectively for 1972-77,
corresponding to level 15 (West family of life tables) as suggested by \( q_{(5)} \)
estimates (see Chapter Three, Table 3.2). According to the health policy of
the government, as envisaged in the fifth five year plan 1978-83, it appears
that the mortality situation in the Province will improve rapidly (Planning
Table 4.1
Percentage Distribution of Unadjusted and Adjusted Population by Sex and Age, NWFP, 1972

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Males Unadjusted</th>
<th>Males Adjusted</th>
<th>Females Unadjusted</th>
<th>Females Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>14.3</td>
<td>17.7</td>
<td>16.6</td>
<td>18.3</td>
</tr>
<tr>
<td>5-9</td>
<td>17.1</td>
<td>14.4</td>
<td>17.4</td>
<td>14.7</td>
</tr>
<tr>
<td>10-14</td>
<td>13.5</td>
<td>12.7</td>
<td>11.9</td>
<td>12.4</td>
</tr>
<tr>
<td>15-19</td>
<td>8.6</td>
<td>9.7</td>
<td>7.9</td>
<td>9.5</td>
</tr>
<tr>
<td>20-24</td>
<td>6.5</td>
<td>7.6</td>
<td>7.2</td>
<td>7.9</td>
</tr>
<tr>
<td>25-29</td>
<td>7.1</td>
<td>6.7</td>
<td>7.6</td>
<td>7.2</td>
</tr>
<tr>
<td>30-34</td>
<td>6.3</td>
<td>5.9</td>
<td>6.6</td>
<td>6.3</td>
</tr>
<tr>
<td>35-39</td>
<td>4.8</td>
<td>5.1</td>
<td>4.8</td>
<td>5.2</td>
</tr>
<tr>
<td>40-44</td>
<td>4.9</td>
<td>4.4</td>
<td>5.0</td>
<td>4.4</td>
</tr>
<tr>
<td>45-49</td>
<td>3.6</td>
<td>3.8</td>
<td>3.4</td>
<td>3.6</td>
</tr>
<tr>
<td>50-54</td>
<td>4.1</td>
<td>3.2</td>
<td>3.8</td>
<td>3.0</td>
</tr>
<tr>
<td>55-59</td>
<td>1.8</td>
<td>2.6</td>
<td>1.7</td>
<td>2.3</td>
</tr>
<tr>
<td>60-64</td>
<td>3.2</td>
<td>2.1</td>
<td>2.7</td>
<td>1.8</td>
</tr>
<tr>
<td>65-69</td>
<td>1.1</td>
<td>1.9</td>
<td>0.9</td>
<td>1.5</td>
</tr>
<tr>
<td>70-74</td>
<td>1.5</td>
<td>1.2</td>
<td>1.3</td>
<td>1.0</td>
</tr>
<tr>
<td>75+</td>
<td>1.6</td>
<td>1.0</td>
<td>1.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Total (%)</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Number</td>
<td>4,363,075</td>
<td></td>
<td>4,025,476</td>
<td></td>
</tr>
</tbody>
</table>
### Table 4.2
Life Expectancy (at Birth) Values Used in Projections for NWFP, 1972-1992

<table>
<thead>
<tr>
<th>Period</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972-77</td>
<td>51.8*</td>
<td>55.0*</td>
</tr>
<tr>
<td>1977-82</td>
<td>54.3</td>
<td>57.5</td>
</tr>
<tr>
<td>1982-87</td>
<td>56.8</td>
<td>60.0</td>
</tr>
<tr>
<td>1987-92</td>
<td>59.3</td>
<td>62.5</td>
</tr>
</tbody>
</table>

Note: *Based on level-15 (WMLT) suggested by q(5) estimates (see Chapter Three, Table 3.2).

constant during 1965-76 in Pakistan (see Chapter Three, Section 3.2). The PGS, 1976 suggested the TFR as 7 for NWFP, which is equal to the national level. Therefore, in the high series of projections it has been assumed that fertility will remain constant at the 1976 level throughout the projection period. In the low series of projections it has been assumed that the TFR will remain constant at the 1976 level up to 1982 and then will decline linearly from 7.0 to 6.3 during 1982-92 (a drop of 10 percent). The decline in the level of fertility is subject to the success of the development programmes as laid down by the government in the fifth five year plan (1978-83). A socio-economic strategy has been evolved in the plan which will induce a greater desire to limit family size. The impact of this strategy is expected to come in the post fifth plan period (Planning Commission, 1978: 396). The total fertility rates used in the assumptions are presented in Table 4.3.

### Table 4.3
Total Fertility Rates Used in Projections for NWFP, 1972-1992

<table>
<thead>
<tr>
<th>Period</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td>1972-77</td>
<td>7.0*</td>
</tr>
<tr>
<td>1977-82</td>
<td>7.0</td>
</tr>
<tr>
<td>1982-87</td>
<td>7.0</td>
</tr>
<tr>
<td>1987-92</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Note: *Based on PGS, 1976 (see Chapter Three, Table 3.8)
(3) Migration Assumptions

Prior to 1972 there was a significant movement of population between NWFP and other provinces of Pakistan. The HED survey, 1973 recorded a 1.8 percent loss in net migration for NWFP during 1965-73 (see Chapter Three, Section 3.3). We have observed (Section 3.3) that out-migrants from NWFP also include persons from the Tribal Territory, which is excluded from the scope of our study. Secondly, necessary data on the age distribution of the out-migrants are not available. Therefore, the net migration has been assumed as nil during the period of projection.

4.2.2 METHOD OF PROJECTION

Projections in this study are made through the cohort component method. In this method numbers of each sex in five year age groups are estimated separately and the total population is obtained by adding the results (UN, 1956: 2-3).

In the first stage the adjusted 1972 census population was taken as the base population and it was assumed that the enumeration was complete for both sexes. Survival ratios were selected from the West family of life tables according to the assumed values of life expectancy at birth. The population in each age group who will survive to the next age group, five years later is calculated through survival ratios applicable to that age group as in the life table. Finally, estimation of the number of births in the future and the proportion of survivors to each age among them is required. The projected total births are divided by six, assuming the sex ratio as 105 at birth.

The adjusted base year population data and the assumed values of mortality and fertility were processed with a computer program "Fivfiv" (Shorter and Pasta, 1974), and two sets of projected population data were obtained. The projected population data by sex and age for two types of projections are presented in the Appendix (Tables A.1 and A.2). The total population and male and female populations are given in Table 4.4.
Table 4.4
Projected Total, Male and Female Population, NWFP, 1972-1992

<table>
<thead>
<tr>
<th>Year</th>
<th>Type</th>
<th>1972</th>
<th>1977</th>
<th>1982</th>
<th>1987</th>
<th>1992</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>8,388,551</td>
<td>9,717,165</td>
<td>11,347,174</td>
<td>13,388,157</td>
<td>15,954,243</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>8,388,551</td>
<td>9,717,165</td>
<td>11,347,174</td>
<td>13,247,079</td>
<td>15,515,472</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Type</th>
<th>1972</th>
<th>1977</th>
<th>1982</th>
<th>1987</th>
<th>1992</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>4,363,075</td>
<td>5,012,375</td>
<td>5,818,060</td>
<td>6,835,844</td>
<td>8,124,386</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>4,363,075</td>
<td>5,012,375</td>
<td>5,818,060</td>
<td>6,764,088</td>
<td>7,901,119</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Type</th>
<th>1972</th>
<th>1977</th>
<th>1982</th>
<th>1987</th>
<th>1992</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>4,025,476</td>
<td>4,704,790</td>
<td>5,529,114</td>
<td>6,552,313</td>
<td>7,829,857</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>4,025,476</td>
<td>4,704,790</td>
<td>5,529,114</td>
<td>6,482,991</td>
<td>7,614,353</td>
</tr>
</tbody>
</table>

4.3 THE PROJECTED POPULATION

4.3.1 TOTAL POPULATION

The results of the high series projections (Table 4.4) indicate that the population of the Province will double within 20 years (1972-92), while under the low series it will reach 15.5 million by 1992 (about half a million less than the high series). The period of projection is only 20 years, in which the first ten years give the same results for both projections but the last ten years clearly indicate the difference between the high and low series of projections.

The projected figures are close to the 1981 census count. The annual growth rate between the 1972-82 projected period, 3.1, is equal to the 1972-81 intercensal annual growth rate.

It should be recognised that the projected population data are only tentative estimates based on the available information and new observations may lead to different conclusions.

The female population shows a higher increase than males under both series of projections due to a higher expectancy of life at birth as compared to males. Consequently, the sex ratio would decline from 108 to 104 during 1972-92.
4.3.2 POPULATION GROWTH

The pattern of population change can also be examined by studying the growth rates as shown in Table 4.5. The population growth rate would increase from 2.9 percent in 1972-77 to 3.5 percent in 1987-92 under the high series of projections and to 3.1 percent according to the low series.

The crude birth rate will increase from 43.6 to 44.5 during 1972-92 under high series of projections, while it would decline to 40.2 by 1992 under the low series. The death rate is expected to decrease from 14.2 in 1972 to 9.4 and 9.1 by 1992 under high and low series respectively.

The GFR would slightly increase from 223.6 to 224.4 and NRR from 2.6 to 2.9 during 1972-92, while the GRR would remain constant at 3.4 during the projection period under the high series. The low series suggested that the GFR will decline from 223.6 to 202 and GRR from 3.4 to 3.1 during 1972-92, while the NRR will increase from 2.6 to 2.7 during 1972-82 and will remain constant until 1987, but will again decline to 2.6 by 1992.

4.3.3 AGE COMPOSITION

The study of the age structure of a population is important due to its social and economic implications. The percentage age distribution of the projected population by three age categories is given in Table 4.6. The high level of fertility with declining mortality has resulted in an age structure which is heavily weighted in favour of the younger age group. In 1972 45 percent of the population was under 15 years of age. This proportion will further increase to 46.4 percent by 1992, with a decline in infant and child mortality, while the fertility level will remain the same. The increase in the proportion of the population less than 15 years creates policy implications for future development planning such as providing school education. The increasing proportion of population in the age groups (0-14 and 65+) always results in a high dependency ratio and intensifies pressure on economic resources.

The low series of projections show an increase of 1 percent in the working
Table 4.5

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I High Projection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth Rate</td>
<td>43.6</td>
<td>43.5</td>
<td>44.0</td>
<td>44.5</td>
</tr>
<tr>
<td>Death Rate</td>
<td>14.2</td>
<td>12.4</td>
<td>10.9</td>
<td>9.4</td>
</tr>
<tr>
<td>Population Increase (Percent)</td>
<td>2.9</td>
<td>3.1</td>
<td>3.3</td>
<td>3.5</td>
</tr>
<tr>
<td>GFR**</td>
<td>223.6</td>
<td>221.2</td>
<td>222.5</td>
<td>224.4</td>
</tr>
<tr>
<td>GRR*</td>
<td>3.4</td>
<td>3.4</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>NRR*</td>
<td>2.6</td>
<td>2.7</td>
<td>2.8</td>
<td>2.9</td>
</tr>
<tr>
<td>II Low Projection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth Rate</td>
<td>43.6</td>
<td>43.5</td>
<td>41.7</td>
<td>40.2</td>
</tr>
<tr>
<td>Death Rate</td>
<td>14.2</td>
<td>12.4</td>
<td>10.7</td>
<td>9.1</td>
</tr>
<tr>
<td>Population Increase (Percent)</td>
<td>2.9</td>
<td>3.1</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>GFR**</td>
<td>223.6</td>
<td>221.2</td>
<td>209.7</td>
<td>198.8</td>
</tr>
<tr>
<td>GRR*</td>
<td>3.4</td>
<td>3.4</td>
<td>3.2</td>
<td>3.0</td>
</tr>
<tr>
<td>NRR*</td>
<td>2.6</td>
<td>2.7</td>
<td>2.7</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Note: * GRR and NRR = Per women  
** GFR = Birth per 1000 females 15-44 years of age.

Table 4.6
Percentage Distribution of the Projected Population (Both Sexes)  
by Three Age Categories, NWFP, 1972-1992

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High Projection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-14</td>
<td>45.1</td>
<td>45.1</td>
<td>45.4</td>
<td>45.7</td>
<td>46.4</td>
</tr>
<tr>
<td>15-64</td>
<td>51.1</td>
<td>51.4</td>
<td>51.3</td>
<td>51.2</td>
<td>50.6</td>
</tr>
<tr>
<td>65+</td>
<td>3.8</td>
<td>3.5</td>
<td>3.3</td>
<td>3.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Low Projection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-14</td>
<td>45.1</td>
<td>45.1</td>
<td>45.4</td>
<td>45.1</td>
<td>44.8</td>
</tr>
<tr>
<td>15-64</td>
<td>51.1</td>
<td>51.4</td>
<td>51.3</td>
<td>51.8</td>
<td>52.1</td>
</tr>
<tr>
<td>65+</td>
<td>3.8</td>
<td>3.5</td>
<td>3.3</td>
<td>3.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>
The knowledge of urban and rural future population estimates are important from the demographic, socio-economic and administrative points of view. The development of various urban centres in the Province continuously attract population from rural areas. As compared to other provinces, the rate of urbanisation in NWFP remained low (see Chapter Two, Section 2.2). During the last three censuses (1961, 1972 and 1981) the increase in the urban proportion in the Province was recorded as 0.1 percent per year on average (see Table 2.4). It has been assumed that this rate will remain constant and the boundaries and number of urban areas will also remain the same until 1992. The urban population was estimated accordingly and then the total projected population was divided into urban and rural, as presented in Table 4.7.

### Table 4.7
Projected Urban and Rural Population NWFP, 1972-1992

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Projected Population</th>
<th>Percent Urban</th>
<th>Projected Urban Population</th>
<th>Projected Rural Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Projection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>8,388,551</td>
<td>14.3</td>
<td>1,195,655</td>
<td>7,192,896</td>
</tr>
<tr>
<td>1977</td>
<td>9,717,165</td>
<td>14.8</td>
<td>1,438,140</td>
<td>8,279,025</td>
</tr>
<tr>
<td>1982</td>
<td>11,347,174</td>
<td>15.3</td>
<td>1,736,117</td>
<td>9,611,057</td>
</tr>
<tr>
<td>1987</td>
<td>13,388,157</td>
<td>15.8</td>
<td>2,115,329</td>
<td>11,272,828</td>
</tr>
<tr>
<td>1992</td>
<td>15,954,243</td>
<td>16.3</td>
<td>2,600,542</td>
<td>13,353,701</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Projection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td>8,388,551</td>
<td>14.3</td>
<td>1,195,655</td>
<td>7,192,896</td>
</tr>
<tr>
<td>1977</td>
<td>9,717,165</td>
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<td>1,438,140</td>
<td>8,279,025</td>
</tr>
<tr>
<td>1982</td>
<td>11,347,174</td>
<td>15.3</td>
<td>1,736,117</td>
<td>9,611,057</td>
</tr>
<tr>
<td>1987</td>
<td>13,247,079</td>
<td>15.8</td>
<td>2,093,038</td>
<td>11,154,041</td>
</tr>
<tr>
<td>1992</td>
<td>15,515,472</td>
<td>16.3</td>
<td>2,529,023</td>
<td>12,986,449</td>
</tr>
</tbody>
</table>
During the period of projection under the high series the urban population of the Province will increase from 1.2 million to 2.6 million, while under low series it will reach 2.5 million. As expected, the rural population will grow at a higher rate than the urban areas. The number of population living in the rural areas will increase from 7.2 million in 1972 to 13.3 and 13 million under the high and low series respectively by 1992.

The high rate of economic development in the urban areas and the concentration of industries in some big cities in the Province will attract more population from rural areas. This redistribution of population from predominantly rural areas to the increasing urban population has far-reaching implications of a demographic, socio-economic and political character for the Province.

4.5 IMPLICATIONS OF THE POPULATION PROJECTIONS

The implications of the population projections which play an important role in policy formulation will be discussed in this section under three headings:

1. The school age population;
2. Working age population;
3. The dependency ratio.

4.5.1 THE SCHOOL AGE POPULATION

The population under 15 years of age is divided into:

1. Pre-school age population (0-4);
2. Primary school age population (5-9); and
3. Secondary school age population (10-14).

Projected figures for the three categories of school age population are presented in the Appendix, Table A.3.

(1) Pre-school Age Population

The size of the pre-school age population under the high and low series of projections will be as follows:
The size of the pre-school age population by 1992 will be 20 percent less under the low series of projections as compared to the high series. Proportionate to the total population its size will be reduced by 0.3 million (1.4 percent) by 1992. The impact of government expenditure in terms of providing better and adequate child health care and pre-school education facilities will be less as compared to the high series of projections.

(2) The Primary School Age Population

In Pakistan the minimum age of entry into primary school is five years. Normally a child needs five years for the successful completion of primary school education. The projected population of 5-9 years of age group comes under this category as shown below:

The projected figures indicate that by 1992 there will be an addition of 98 percent to the size of the primary school age population under the high series, while under the low series the increase will be 87 percent (11 percent less).

During the 1971-72 (academic year) the proportion of enrolled children (primary level) in the Province was 48 percent as compared to the total primary
school age population (Bureau of Statistics, NWFP, 1981: 360). If we assume that this rate will remain constant until 1992, then the population of primary school children will increase from 586,000 to 1,160,000 under the high series of projections, while the number under the low series will reach 1,094,000 by 1992.

(3) The Secondary School Age Population

The projected secondary school age population (middle and high school level) which includes persons of ages 10-14 is as follows:

<table>
<thead>
<tr>
<th>Series of Projections</th>
<th>Population (thousands)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1972-82</td>
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</tr>
<tr>
<td>High</td>
<td>1,434</td>
<td>1,975</td>
</tr>
<tr>
<td>Low</td>
<td>1,434</td>
<td>1,975</td>
</tr>
</tbody>
</table>

It should be noted that the population aged 10-14 in 1992 is the same for the two series of projections. This is so because the population in this age group in the low series of projections were born before the onset of the assumed fertility decline, while mortality is declining at the same rate in both projections. Therefore, the size of this age group indicates no change.

The projected figures show that there will be an increase of 88 percent by 1992 in the secondary school age population. In 1971-72 the number of students enrolled in middle and high schools in the Province was 143,756 (Bureau of Statistics NWFP, 1981: 363-367). Proportionately 13.7 (percent) persons were attending middle and high schools as compared to the total population aged 10-14 years. If we assume an increase of 50 percent in the secondary school enrolment ratio in this age group, then the expected number of students will be 407,000 by 1992. On the other hand if the enrolment ratio remains constant then the number will increase to only 271,000 by 1992.
In the field of education, besides expansion and development one of the objectives of the government is to improve the quality of education, especially at the secondary level, as a terminal stage of education for the majority of students. The increase in the number of students at the assumed rate will definitely hamper government efforts to achieve this objective.

4.5.2 THE WORKING AGE POPULATION

The size of the working age population is an important determinant of national socio-economic policies. As a factor of production, the workforce population affects the performance of the economy and influences its prospects in the future. This sub-section will deal with the projected working age population.

The Census, 1972, recorded 5,657,000 persons in the working age group (10+). The projected population of this age group will be 10,530,000 by 1992 (see Appendix, Table A.4).

It is important to note that the size of the projected working age population is the same for both types of projection. This is because the population for aged 10+ for the low series would have been born before the onset of assumed fertility decline. Secondly, the declining trend of mortality as assumed is the same for both series of projections. As a result, both series yield the same figures.

According to the HED survey, 1973, the proportion of economically active population (age 10 years and above) in NWFP was 43.7 percent (see Chapter Two, Table 2.24). On the basis of this rate the number of persons in the active labour force in 1972 comes to 2,472,419. If this rate remains constant until 1992, the size of the active labour force will be 4,601,610 (i.e. an addition of 8.6 percent per year). On the other hand, if there is an increase in the activity rate the size of the active labour force will increase proportionately.

The HED survey also enumerated 13.3 percent of the total economically active labour force as unemployed in 1973. If the manpower absorption capacity is not expanding fast enough to offset the increasing labour force then the
unemployment situation will be further aggravated.

4.5.3 DEPENDENCY RATIO

The total dependency ratio as recorded in the 1961 and 1972 censuses for NWFP was 107.6 and 109.1 respectively (see Chapter Two, Table 2.10). As compared to other provinces this ratio was the highest. The high projection series indicates that even with a slight increase of 0.5 percent in the unproductive population (ages 0-14 and 65+) the dependency ratio will rise from 95.6 to 97.5 during 1972-92 (Table 4.8). According to the low series, the dependency ratio will decline to 92.6 by 1992. The decrease in the dependency ratio will lessen the economic burden on the working age population. Consequently, it will enhance the efficiency of human capital and lead to an increase in productivity.

Table 4.8

<table>
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<th>Year</th>
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<td>1977</td>
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<tr>
<td></td>
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<td>95.2</td>
<td>94.8</td>
</tr>
<tr>
<td></td>
<td>1992</td>
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<tr>
<td></td>
<td>97.5</td>
<td>92.6</td>
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CHAPTER FIVE

5. SUMMARY AND CONCLUSION

This study provides not only an historical perspective on dimension and change in the population of NWFP but also describes the demographic parameters and vital rates for future study. It is an attempt to bridge the existing gaps in the knowledge of the demography of the Province and to help the planners to formulate future policy.

The analysis and description of various aspects of NWFP population growth since 1855, distribution, composition and the comparison with other provinces was a laborious task. This study is the first attempt to analyse the fertility and mortality of NWFP and to measure and describe the past and present variations in the components of population change.

Despite obvious limitation in the available data, the study attempts to evaluate and highlight the demographic characteristics of the Province.

The pattern of population growth (Chapter Two) revealed that the Province has experienced rapid growth, especially since 1941. During the last 80 years (1901-81) its population has increased from 2,041,534 to 10,885,000 (more than five fold). The annual growth rate has increased from 1.9 percent in 1941-51 to 3.1 percent in 1972-81. The continuous growth at an accelerated pace, particularly during the post-independence period is mainly attributed to the increase in life expectancy. The improvement in health conditions as a result of control of famines and epidemics has reduced the risk of death.

The distribution of population in relation to land area reveals that NWFP is one of the most densely populated province of Pakistan. It ranks second to the Punjab with a per square kilometre density of 146 persons in 1981. The population of the Province is overwhelmingly rural. NWFP was found to be the least
113.

urbanised province in the country. In 1981, only 15.2 percent of the population was living in urban areas.

The sex ratio of 108 males per 100 females observed in 1972 and 1981 is low as compared to other provinces in Pakistan. The excess of males over females has shown a declining trend since 1941. According to the HED survey, 1973, age at marriage was 27.3 years for males and 20.3 years for females. This was higher than the national level. A rising trend in age at marriage was observed since 1961 (see Table 2.12).

The percentage of literacy was relatively lower than the national average. In 1973 only 21.7 percent of the population was reported literate. Among males and females the proportion of literates was 35 and 7 percent respectively.

The proportion of population in the labour force was comparatively small (44 percent) and was primarily engaged in agriculture.

A declining trend in mortality in the Province since 1921 partly accounts for the increase in the rate of population growth. But the reported death rate based on the official estimates was too low and over estimates the actual decline in mortality. The latest estimates of mortality based on PGS, 1976 data suggests a high death rate of 12.7 in NWFP as compared to other provinces. The sex differentials in mortality favoured females. Due to inadequate and poor health facilities the population living in rural areas was subject to higher mortality (13.3 deaths per 1000 persons) than the proportion in urban areas (9.2).

On the basis of level 15 (WMLT) as suggested by \( q_{(5)} \) estimates (see Table 3.2) the CDR for unadjusted and adjusted age data (PGS, 1976) was derived as 13.9 and 13.3 (both sexes) respectively.

The inadequate data from PGS, 1976 did not permit the examination of the expectancy of life at birth from life table estimate. But the prevalence of a very high infant mortality rate of 133 per thousand live births shows that very high mortality is still the outstanding demographic characteristic of the population of the Province.
Among the causes of death, smallpox has been eradicated since December, 1976 (Planning Commission, 1978: 360) but malaria has not been eliminated fully. Moreover, tuberculosis has increased due to dietary malnutrition, while gastroenteritis diseases and typhoid are still far from controlled.

The CBRs based on official reports for pre- and post-independence period were found to be highly underestimated. The latest available estimates from the PGS, 1976 data suggested a CBR of 44.3 for the Province, which was higher than the national level (42.8). The estimated CBR as 44.6 suggested by level 15 (WMLT) on the basis of stable population analysis applied to the unadjusted age data (PGS, 1976) was in close conformity with the CBR derived from the PGS birth data (Table 3.7).

The estimated TFR of 7.0 suggested by the PGS, 1976 data for the Province was slightly lower than the level of the Punjab (7.2) but equal to the national level (see Table 3.8). The TMFR of 8.7 was equal to the Punjab level but slightly higher than the national level, i.e. 8.5 (see Table 3.9).

An attempt was also made to estimate fertility levels on the basis of children everborn data from the HED survey, 1973 by applying various techniques but the results were inconsistent (see Table 3.10).

The differential fertility estimates by area on the basis of PGS, 1976 data suggested an insignificant difference in urban and rural fertility levels. The TMFR of 8.8 for the urban areas of the Province was higher by a small fraction than for the rural areas, i.e. 8.7 (see Table 3.11).

Regional fertility differentials suggested the lowest level of fertility (TFR and TMFR) for Sind, while NWFP and Punjab displayed a similar pattern (see Tables 3.8 and 3.9).

In the absence of any past evidence it was not possible to draw any definite conclusion about the trends of fertility but the present estimates suggest that the level of fertility in NWFP is still very high.
The findings on migration revealed that the movement of population from
the west had played an important role as a component of population change in
the long history of the Province (see Chapter Two). Numerically, we have no
knowledge of the transfer and redistribution of population prior to the beginning
of the current century.

The analysis on the basis of place of birth data from the censuses revealed
that during the pre-independence period the Province was gaining through net
migration (see Table 3.12). The gain in 1901 was 99,000 persons, which declined
to 49,000 in 1931. The in-migrants were predominantly from the contiguous
regions - the Punjab and the Tribal Territory.

Immigration from Afghanistan during 1901-31 was found to be the periodic
type. Proportionately in 1901 they were 3.1 percent of the total population of
NWFP. In 1931 this decreased to 1.2 percent (see Table 3.13). Their movement
was subject to the political relations between the government of British India
and the King of Afghanistan.

The estimates of the exchange of population between India and Pakistan shows
that NWFP lost 4.5 percent of its population through net migration due to
partition of the sub-continent (see Table 3.14).

The inter-provincial lifetime migration estimates for the post-independence
period suggested that NWFP was losing its population through net migration. The
loss in 1951 was 69,000 but increased to 193,000 and 292,000 in 1961 and 1973
respectively (see Table 3.15).

The recent inter-provincial migration estimates, based on the HED survey,
1973 data, suggested a loss of 112,000 through net migration during 1965-73
(see Table 3.18).

The Punjab and Sind provinces gained from NWFP through net migration, both
lifetime and recent. The direction of out-migrants was to the urban areas of
these provinces, particularly the highly industrialised and commercialised
metropolitan city of Karachi in Sind. The sex ratios of lifetime and recent migrants were found to highly favour males (see Tables 3.17 and 3.20). Their obvious reason for migration was economic.

Inter-district movement of population within NWFP was insignificant. Only Peshawar district attracted more population from other districts of the Province (see Table 3.22).

The future population estimates revealed that by 1992 the population of the Province would be nearly 16 million, under the high series of projections, while under the low series it would be 15.5 million. The results of these projections are subject to the future course of the underlying assumptions of the components of population change. These assumptions were made on the basis of the available information, therefore, these results should not be considered as final. They are subject to review and revision with the availability of additional data.

Apart from understanding the future demographic phenomena the results of these projections illustrate some policy implications:

1. The expected size of the urban population under the high and low series of projections by 1992 would be 2.6 and 2.5 million respectively. Rural population, as expected, would show a higher increase. As a result the pressure on the agricultural sector would increase in the rural areas and push more people to migrate to the urban areas. It would create unemployment, mass poverty and slums in the urban areas, if proper perspective planning has not been done.

2. The high series of projections indicate that by 1992 out of the total population of the Province 46.4 percent would be pre-school, primary school and secondary school age children, 50.6 working age and 3 percent would be old age population.

3. Under the low series of projections 44.8 percent of the population would be under 15 years of age, 52.1 percent of working age and 3.1 percent old
age population by 1992.

4. The absolute number of students enrolled in primary, middle and high schools and the size of the labour force could be estimated on the basis of the school enrolment ratio and the labour force participation rate. It depends upon the future socio-economic conditions of the people of the Province and the resources of the government.

5. If educational developments are not linked with job creation, the employment problems of the educated would be a matter of great concern to the planners.

These analyses suggest that close coordination of demographic, educational and manpower policies is essential.

In conclusion, it may be said that the aim of this study was to fill the vacuum in the demography of NWFP. It was the first attempt to comprehensively analyse various aspects of the population of the Province but still many of them remain unexplained. This may be the subject matter for further research. This study has limitations, due to the poor quality of the data and its limited availability. Therefore, intensified efforts are needed to improve the quality of data. It is suggested that the scope of demographic and socio-economic surveys should be extended to cover all parts of the Province and data should be collected and published on district or divisional level to provide a base for regional planning.
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### Appendix A.1


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### Appendix A.3

**Projected Pre-School, Primary School and Secondary School-Age Population, NWFP, 1972-1992**

(Thousands)

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### Appendix A.4

**Projected Working Age Population (aged 10 years and above), 1972-1992**

(Thousands)

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<td>Total</td>
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