

FIJI ISLANDS Population Profile

Based on 1996 Census



A GUIDE FOR PLANNERS AND POLICY MAKERS

51
304.1

**FIJI ISLANDS POPULATION PROFILE
BASED ON 1996 CENSUS**

A guide for planners and policy-makers

LIBRARY
Secretariat of the Pacific Community

**Demography/Population Programme
Secretariat of the Pacific Community**

Published with financial assistance from AusAID

**SPC Library
(301707)**

**301707
Bibliothèque CPS**

Secretariat of the Pacific Community
Noumea, New Caledonia
1999

© Copyright Secretariat of the Pacific Community 1999

All rights for commercial / for profit reproduction or translation, in any form, reserved. The SPC authorises the partial reproduction or translation of this material for scientific, educational or research purposes, provided that SPC and the source document are properly acknowledged. Permission to reproduce the document and/or translate in whole, in any form, whether for commercial / for profit or non-profit purposes, must be requested in writing. Original SPC artwork may not be altered or separately published without permission.

Original text: English

Secretariat of the Pacific Community Cataloguing-in-publication data

Rakaseta, Vilimaina

Fiji Islands population profile based on 1996 Census: a guide for planners and policy-makers (Population Profiles / Secretariat of the Pacific Community; Fiji Islands 2)

1. Fiji–Population–Statistics 2. Fiji–Demography 3. Population–Handbooks, manuals, etc.
I. Title II. Secretariat of the Pacific Community. Demography/Population Programme III. Series

304.6099611

AACR2

ISBN 982-203-715-5

Secretariat of the Pacific Community

BP D5, 98848 Noumea Cedex

New Caledonia

Tel.: +687 26 20 00

Fax.: +687 26 38 18

E-mail: spc@spc.org.nc

<http://www.spc.org.nc>

Prepared for publication and printed at
the Secretariat of the Pacific Community
Noumea, New Caledonia, 1999

CONTENTS

Foreword	ix
Summary	xi
1. Introduction	1
2. Population structure	
2.1 1996 Population Census of Fiji Islands	3
2.2 Size and distribution	5
2.3 Age and sex structure	9
3. Social profile of the population	
3.1 Ethnicity	15
3.2 Religion	16
3.3 Marital status	17
3.4 Educational characteristics	18
3.4.1 <i>School enrolment</i>	18
3.4.2 <i>Educational attainment</i>	19
3.4.3 <i>Literacy rates</i>	19
4. Household characteristics	
4.1 Household size	21
4.2 Household type	21
4.3 Housing tenure	22
4.4 Land tenure	22
4.5 Main water supply	23
4.6 Toilet facilities	24
4.7 Lighting	24
4.8 Cooking fuel	25
5. Economic activity	
5.1 Economic activity of population aged 15 years and over	27
5.2 Economic activity by ethnicity	28
5.3 Economic activity by educational attainment	29
5.4 Employment levels by province and sex	30
5.5 Occupation of employed persons	31
6. Population dynamics	
6.1 Population growth	33
6.2 Fertility	35

6.3 Mortality	38
6.4 Migration	41
6.4.1 <i>Internal migration</i>	41
6.4.2 <i>International migration</i>	45
7. Likely future developments	
7.1 The importance of population projections	49
7.2 Projection assumptions	50
7.3 Projection results	52
7.3.1 <i>Summary of results</i>	52
8. Overall implications for planners and policy-makers	55
References	59
Appendix tables	61
Glossary	81
Endnotes	86

LIST OF TABLES

Table 1:	Population density by province 1976–1996	6
Table 2:	Population by economic activity, 1996	27
Table 3:	Economic activity by educational attainment	29
Table 4:	Growth rates for the census years 1966–1996	34
Table 5:	Infant and child mortality by sex and ethnicity, 1986 & 1996	38
Table 6:	Fiji citizen emigration by ethnicity, sex and occupation, 1991–1996	46
Table 7:	Population projections and assumptions	51
Table 8:	Comparison of base year (1996) and 2011 population projections, Fiji	52



LIST OF FIGURES

Figure 1:	Population by ethnicity, 1901–1996	3
Figure 2:	Percentage distribution by division, 1996	5
Figure 3:	Growth rates by division and ethnic group, 1996	5
Figure 4:	Population growth rates by division and by urban–rural residence, 1996	7
Figure 5:	Percentage distribution of the population by broad age-groups, 1996	9
Figure 6a:	Population pyramid, total population, 1996 Census (per cent of total population)	11
Figure 6b:	Population pyramid, Fijians, 1996 Census (per cent of total Fijian population)	11
Figure 6c:	Population pyramid, Indo-Fijians, 1996 Census (per cent of total Indo-Fijian population)	11

Figure 7:	Sex ratios by age and ethnicity, 1996	12
Figure 8:	Population distribution by ethnic group, 1996	15
Figure 9:	Population by ethnicity and by division, 1996	16
Figure 10:	Major religious groups, 1996	16
Figure 11a:	Males by marital status and by age-groups, 1996 (per cent)	17
Figure 11b:	Females by marital status and by age-groups, 1996 (per cent)	17
Figure 12:	Percentage attending school at ages 6–16 by urban–rural residence, 1996	18
Figure 13:	Educational attainment for persons aged 15 years and over, 1996	19
Figure 14:	Type of households by ethnicity of household head, 1996	21
Figure 15:	Tenure of living quarters by ethnicity, 1996	22
Figure 16:	Land tenure by ethnicity, 1996	23
Figure 17:	Main water supply by ethnicity, 1996	23
Figure 18:	Toilet facilities by ethnicity, 1996	24
Figure 19:	Main source of lighting by ethnicity, 1996	24
Figure 20:	Main source of cooking fuel by ethnicity, 1996	25
Figure 21:	Economically active persons by economic activity, 1996	28
Figure 22:	Economic activity by ethnicity, 1996	28
Figure 23:	Percentage employed by age and by ethnicity, 1996	29
Figure 24:	Persons working for money by province and sex, 1996	30
Figure 25:	Employed persons by major occupational groups, 1996	31
Figure 26:	ASFR by ethnicity and urban–rural residence, 1996	36
Figure 27:	Lifetime migration streams by division, 1996	43
Figure 28:	Population projections under three varying assumptions, 1996–2011	53

LIST OF APPENDIX TABLES

Appendix Table 1:	Size and growth rates of Fiji's population at various censuses, 1881–1996	62
Appendix Table 2:	Population by division and density, 1996	62
Appendix Table 3:	Growth rate by division and ethnic group, 1986–1996	62
Appendix Table 4:	Population distribution and growth rates by division and sectors	63
Appendix Table 5:	Age and sex distribution, 1996	63
Appendix Table 6:	Per cent distribution of the population by broad age-groups and by ethnicity, 1996	64
Appendix Table 7:	Median age by ethnicity, 1976–1996	64
Appendix Table 8:	Age-dependency ratios by ethnicity, 1976–1996	64
Appendix Table 9:	Population distribution by ethnic group	65
Appendix Table 10:	Religious denominations	65
Appendix Table 11:	Population aged 15 years and over by marital status, 1996 (per cent)	66
Appendix Table 12:	6–16-year-olds attending school, 1976–1996 (per cent)	66
Appendix Table 13:	6–16-year-olds attending school by urban/rural residence and ethnicity, 1996 (per cent)	67
Appendix Table 14:	Educational attainment for persons aged 15 years and over, 1996 (per cent)	67
Appendix Table 15:	Literacy rates by urban/rural residence and ethnicity, 1996 (per cent)	68
Appendix Table 16:	Average number of persons per household by urban/rural residence and ethnicity, 1996	68
Appendix Table 17:	Household types by ethnicity of head of household, 1986 & 1996 (per cent)	68

Appendix Table 18: Household type by sex and urban/rural residence of head of household, 1996 (per cent)	69
Appendix Table 19: Housing and land tenure, Fijians & Indo-Fijians, 1996	69
Appendix Table 20: Living quarters and household services, Fijians and Indo-Fijians, 1996	70
Appendix Table 21: Employment by age, ethnicity and residence, 1996 (per cent)	71
Appendix Table 22: Employed persons by province and sex, 1996	71
Appendix Table 23: Occupation of employed persons by sex and residence, 1996	72
Appendix Table 24: Crude Birth Rates and Crude Death Rates, 1991–1996	72
Appendix Table 25: Age Specific Fertility Rates by ethnicity and by residence, 1996	72
Appendix Table 26: Abridged Life Table – Males	73
Appendix Table 27: Abridged Life Table – Females	74
Appendix Table 28: Health professional wastage by profession, 1991–1996	75
Appendix Table 29: Lifetime migration of population by ethnicity and by province, 1996	76
Appendix Table 30: Lifetime migration by division, 1996	77
Appendix Table 31: Recent migration of population aged 5 and over by sex and ethnicity, 1996	78
Appendix Table 32: Urban population by per cent rural born by gender, 1996	79
Appendix Table 33: Population projections by age-groups, 1996 & 2011, under 3 varying scenarios	79

FOREWORD

For more than 20 years, the SPC's Demography/Population Programme has assisted Pacific Island countries and territories in the population sector. With generous support from UNFPA until the end of 1992, SPC was able to provide assistance over a broad range of demographic issues and activities to its 22 Pacific Island members. Most of its activities concentrated on population censuses and surveys, covering all aspects from design, data collection and processing, to analysis, including training and institutional capacity building in these areas. The SPC Demography/Population Programme established a tradition of providing quality advisory services throughout the region, in a technical discipline which most Pacific Island governments still find difficult to address due to a lack of suitably-qualified national staff.

From 1993 onwards, the main emphasis of the SPC Demography/Population Programme has shifted from data collection, processing and demographic analysis to data utilisation, paying greater attention to the interrelationship between population and development. This new and more applied emphasis is in response to demands from our member countries and territories, acknowledging that most planners have had no formal or first-hand experience with population matters; therefore they were neither in a position to incorporate population considerations into development planning processes, nor to appropriately digest highly technical demographic analyses.

To redress this situation was the main objective of the SPC *Integration of Population Issues into Development Planning* project (1994–1997), which was supported through a generous multi-year financial assistance arrangement with the Australian Agency for International Development (AusAID). One of the two key objectives of the project was to undertake more policy- and planning-relevant demographic analyses to assist member countries and territories in the formulation of their national development plans and strategy frameworks.

The continued importance of providing planning- and policy-relevant population information is acknowledged in our programme's current project focussed on *Population and Governance* (1998–2000), which is again funded by AusAID. The Fiji Population Profile is the sixth report published in 1999, and the fourteenth since the inception of this series which was instigated by the previous Demographer, Dr Gerald Haberkorn. Unlike more traditional demographic analyses, this profile is written for a non-technical audience, and pays more attention to specific implications for planners. Key points are summarised in 'boxes' at the end of each section to provide a basis for further discussion and utilisation of the data.

This profile is mainly based on the results of the 1996 Fiji Census of Population and Housing. Unless otherwise stated, all tables and figures are derived from the 1996 Fiji Census data.

This volume was prepared by Ms Vilimaina L. Rakaseta and Mrs Vasemaca Lewai, Acting Principal Statistician, Bureau of Statistics, Fiji. Mrs Lewai spent 2 weeks in Noumea

putting together some of the sections on Population Structure, Social Profile of the Population and Economic Activity.

Contributions were also made by other members of the SPC's Population/Demography Programme: Ms Gladys Beccalossi, Mr Andreas Demmke, Ms Christelle Lepers and Dr Chris M^cMurray.

We would also like to thank Mr Jim Thompson, Mr Jipé Le-Bars and Ms Patricia Martin, for their skills and contributions in editing, artwork, and layout respectively.

Chris M^cMurray
Demographer
Secretariat of the Pacific Community

SUMMARY

1996 Census of Population (Average annual growth rate, 1986–1996)

Total Fiji	775,077	(0.8%)
Fijians	393,575	(1.8%)
Indo-Fijians	338,818	(-0.3%)
Others	42,684	(1.3%)
Population density		
Total Fiji	42	per km²
Central Division	69	per km ²
Western Division	47	per km ²
Northern Division	23	per km ²
Eastern Division	29	per km ²
Proportion urban		
	46	%
Average annual urban growth rate (1986–1996)		
	2.6	%
Average annual rural growth rate (1986–1996)		
	-5.2	%
Percentage younger than 15 years		
	35.4	%
Percentage 15–59 years		
	59.5	%
Percentage 60+ years		
	5.1	%
Median age		
	21.2	years
Sex ratio		
	103.4	males/females
Age-dependency ratio (15–59)		
	68.1	
Age-dependency ratio (15–64)		
	62.6	
Crude Birth Rate (1991–1996)		
	24.8	‰
Crude Death Rate (1991–1996)		
	5.6	‰
Net migration rate		
	-11.0	‰
Total Fertility Rate		
	3.3	
Infant Mortality Rate		
	20	‰
Life expectancy at birth, Males		
	64.5	years
Life expectancy at birth, Females		
	68.7	years
Average household size		
Total Fiji	5.3	persons
Urban	5.2	persons
Rural	5.4	persons

This profile provides an overview of Fiji's population at its latest census held on 25th August 1996. The emphasis of the profile is on identifying key implications of the observed demographic levels and trends, for planners and policy-makers.

Fiji's population at the 1996 Census stood at 775,077. The average annual growth rate was 0.8% between 1986 and 1996. The rate for the period 1976–86 was 2.0%. It is estimated that the rate in 1999 is a little over 1%.

The growth rate of 0.8% recorded in the intercensal period 1986–96 was the lowest recorded for Fiji in the 20th century. This low growth rate is due to an increase in international migration after the political events of 1987, mainly of Indo-Fijians, who recorded a negative growth rate of -0.3% in the period 1986–96. Natural increase on the other hand, is still high at 1.9%. This shows the importance of international migration in Fiji's population dynamics.

The population of Fiji is unevenly distributed. More than three quarters (77%) of the population reside in the Central and Western Divisions, a slight increase from 76% in 1986. The Northern and Eastern Divisions accounted for 18% and 5% respectively.

Fijians surpassed Indo-Fijians during the decade 1986–96 as the most populous group, comprising 51% and 44% respectively.

The median age of 21.2 years for the total population is considered to be young. The Fijian median age is lower than that of Indo-Fijians: 20.1 years compared to 22.4 years.

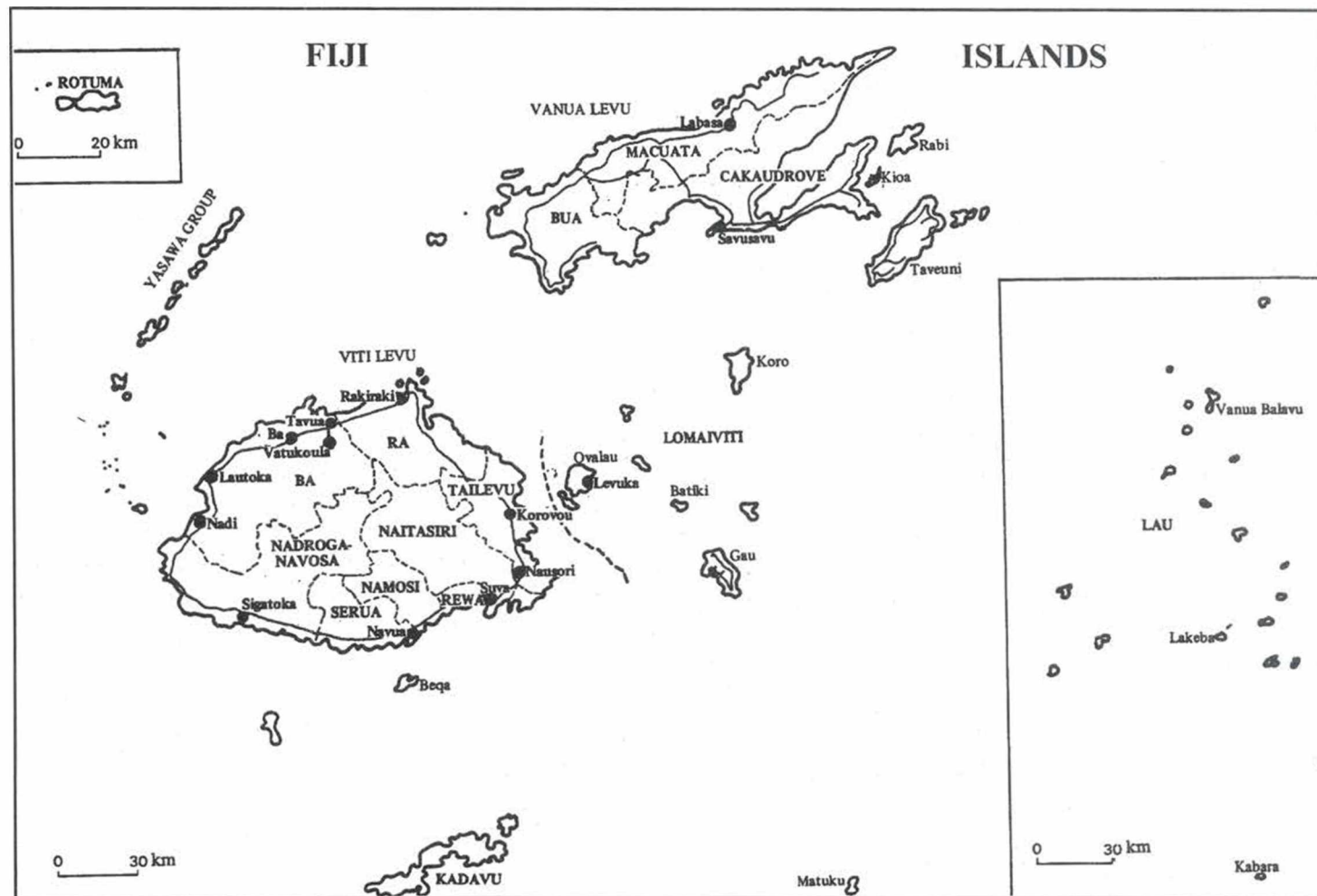
The total fertility rate has remained constant at 3.3 in the decade 1986–1996. This means that women are still having between 3 and 4 children during their entire reproductive period.

The infant mortality rate is 20 which means that out of every 1,000 births, 20 die before they reach their first birthday. Life expectancy at birth derived from the 1996 Census stands at 64.5 for males and 68.7 for females, which is almost the same as that for 1986.

The economically active population comprises 59.5% of the population aged 15 years and over, increasing from 55% in 1986. Of these, almost three-quarters (74%) were engaged in monetary activity.

The level of education is high in Fiji with around 70% of the population attaining secondary education. The percentage attending school is very high with almost universal enrolment at ages 6-8 whilst at ages 9–13 the number is still high but decreasing from 98% at age 9 to 93% at age 13.

The average household size was 5.3 persons, a decline from 5.7 in 1986. Nuclear families and one-person households have increased, while the proportion of extended family households has declined over the period 1986–1996.



1. INTRODUCTION

‘Recognising the longer term realities and implications of current actions, the development challenge is to meet the needs of present generations and improve their quality of life without compromising the ability of future generations to meet their own needs’. (United Nations, 1994).

Population changes affect everyone in one way or another. Population change affects every facet of life whether we are talking about the number of people living in a village or the price of food. The prevalence of poverty as well as social and gender inequities have influences on, and are in turn influenced by population growth, structure and distribution. Unsustainable consumption and production patterns contribute to the unsustainable use of natural resources and environmental degradation as well as reinforcing social inequities and poverty.

Different people have different needs and these are closely related to population change, the state of the environment and the pace and quality of economic and social development. For governments to effectively provide for the specific needs of their population, and different population sub-groups, it is important that planners and policy-makers have a clear picture of the demographic composition of the population.

Effective development planning depends upon reliable knowledge of the composition, growth and movement of population. In other words: planners need reliable information on their country’s population structure and population processes.

Population structure refers to population size, geographic distribution, age–sex structure and socio-economic characteristics (economic activity and educational and other social attributes of the population).

Population processes refer to population growth, fertility, mortality and migration (including urbanisation).

Apart from playing an important role in shaping a country’s economic and social development, population structures and processes can also be the direct result of development. This is quite evident in situations where policies are incorporated into development plans with the aim of altering specific population variables:

- greater budget allocation to a country’s ministry or department of health to expand its maternal and child health and family planning services can lead to fewer deaths of infants, children and women;
- promotion, provision and easy access to family planning services may lead, through a reduced fertility rate, to a lowering of the population’s growth rate;
- the establishment of rural industries to create rural employment may slow down rural–urban drift.

As population factors are important components of development, and as development is ultimately about people (specifically, about improving people's lives), it will be clear to everyone involved in planning and policy-making that incorporating population considerations into the planning process is at the very heart of planning and development.

The aim of this profile is twofold:

- 1) to familiarise planners and policy-makers with some of the key features of the demography of Fiji; and
- 2) to discuss some of the key implications for development planning and policy.

More detailed analyses can be undertaken on any other specific sectoral issue or subject, subject to the availability of data.

This analysis mainly draws on the following source materials:

- 1996 Fiji Census of Population and Housing: General Tables, 1998
- 1996 Fiji Census of Population and Housing: Analytical Report, 1999 (forthcoming) and
- other unpublished information derived from the census.

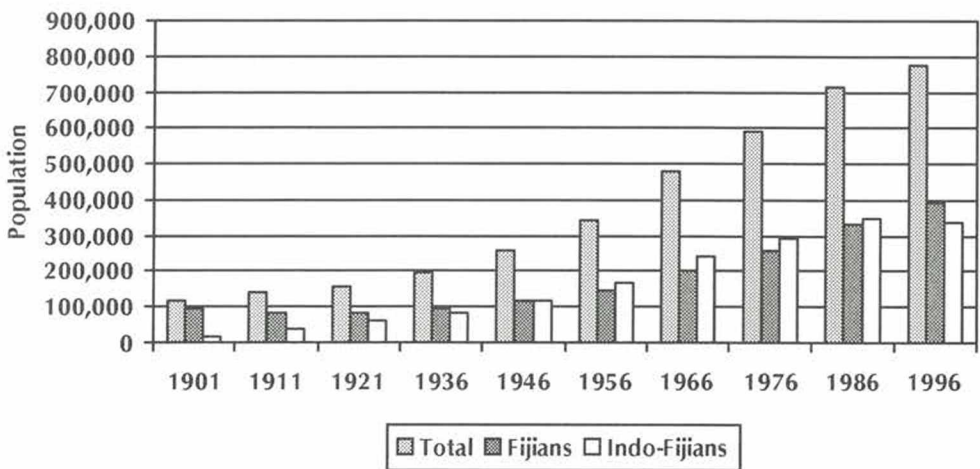
2. POPULATION STRUCTURE

The ultimate objective of any development plan is to improve the living standard of its people. These people or the population have major implications for planning decisions since they both consume and produce goods and services. Population factors such as size, growth and distribution have a significant role in determining the overall development objectives. Therefore plans concerning production, consumption, investment, education, health and housing and other needs should be closely associated with population factors.

2.1 1996 Population Census of Fiji Islands

In the Census of Population and Housing held on the 25th of August 1996, 775,077 persons were enumerated. The census was the 12th in a series going back to 1881 (Appendix Table 1).

Figure 1: Population by ethnicity, 1901–1996



This census asked more questions than any previously taken, and therefore contains more information. Listed below are some of the main points relevant to this report:

- Fiji has never attempted to conduct a post-enumeration survey for any of its censuses. It has therefore been impossible to place a precise figure on the extent of under-enumeration, but circumstantial evidence suggests that under-enumeration was probably not more than 5% and possibly even less, in the 1996 Census (Government of Fiji, 1998b, p.5).
- The growth rate of 0.8% recorded in the intercensal period 1986–1996 is the lowest in the 20th century. The enormous decrease from 2.1% in the decade 1976–86 is not due to slower natural increase but almost entirely due to the increase in international

migration after the coups of 1987, mainly of Indo-Fijians. The Indo-Fijians recorded an annual population growth of -0.3% between 1986 and 1996.

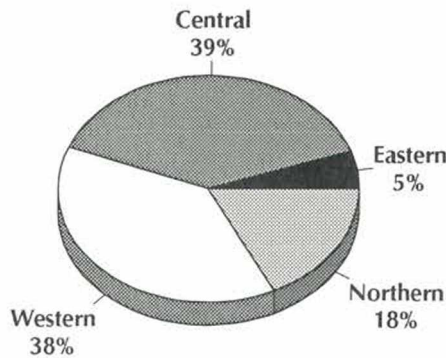
- Fijians surpassed the Indo-Fijians as the largest component of the population in the 1940s. The percentages are 50.8% for Fijians and 43.7% for Indo-Fijians compared to 46% and 48.7% for 1996 and 1986 respectively. The Fijians grew by 1.8% per annum between the census years.
- The proportion of the population below 15 years has decreased but still remains high. The population is still young with a median age of 21.2 years.

The percentage of the population in urban areas has significantly increased from 39 to 46% between 1986 and 1996. The increase is mainly due to the extension of several urban areas in 1996. The urban growth rate has remained at a moderate level of 2.6% .

2.2 Size and distribution

The population of Fiji as enumerated on the 25th of August 1996 was 775,077 persons, 393,931 males and 381,146 females. For administrative purposes and for planning purposes the Fiji group of more than 300 islands is divided into four major divisions. Appendix Table 2 and Figure 2 below show the distribution of population and density by division. The Central Division recorded the highest population followed by the Western, Northern and Eastern Divisions (Figure 2).

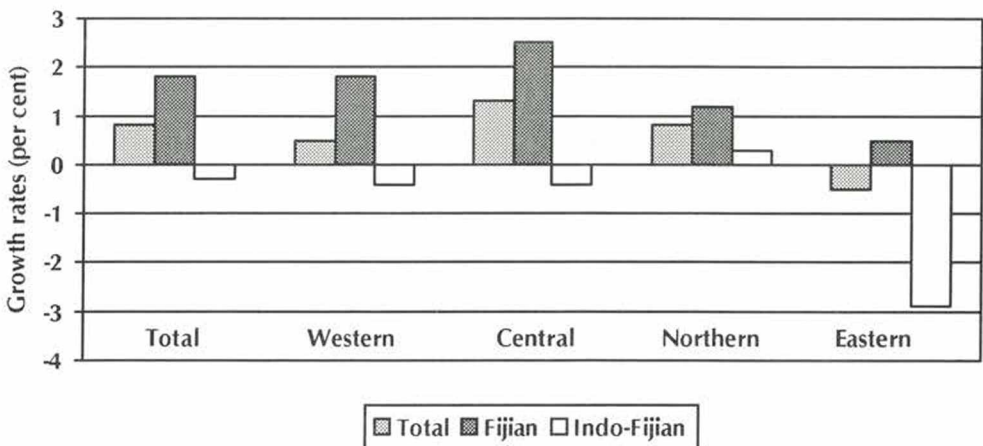
Figure 2: Percentage distribution by division, 1996



Growth rates by region will have implications as to where redistribution of wealth needs to be concentrated. All divisions except the Eastern experienced positive growth (Figure 3 and Appendix Table 3). The Central Division recorded the highest rate of 1.3% whilst a negative growth of 0.5% was recorded for the Eastern Division.

Ethnic growth rates were highest for Fijians at 2.5% in the Central Division whilst Indo-Fijians had a negative growth of 0.4% in both the Western and the Central Divisions and negative growth of 2.9% in the Eastern Division.

Figure 3: Growth rates by division and ethnic group, 1996



The Central Division is the most densely populated region of the country with 69 persons per square km (Appendix Table 2). The Central Division is where Suva, the capital city is located, plus four other urban areas: Lami, Nausori, Korovou and Deuba. Central government offices and the bulk of the manufacturing activities are located in this region. The sugarcane industry and the bulk of the country's hotels are located in the West, hence the Western Division has the second highest density of 47 persons per square kilometre.

The lower concentration of people in the other divisions is of great concern. The Islands of the Eastern Division are suffering decreases of their people due to lack of resources and the attraction of the activities and brighter lights of the Central Division.

Table 1: Population density by province 1976–1996

Province	Land area (sq. km)	1976 (persons/ sq. km)	1986 (persons/ sq. km)	1996 (persons/ sq. km)
Rewa	272	321	358	373
Ba	2,634	63	75	81
Naitasiri	1,666	39	60	76
Rotuma	46	61	58	61
Tailevu	955	42	46	51
Macuata	2,004	29	37	40
Lomaiviti	411	33	39	40
Lau	487	30	29	25
Ra	1,341	19	23	23
Nadroga/Navosa	2,385	19	23	23
Kadavu	478	18	21	20
Serua	830	14	16	19
Cakaudrove	2,816	12	14	16
Bua	1,378	8	10	11
Namosi	570	6	9	10
Total	18,272	32	39	42

Sources: Reports on Fiji Population Census 1976, 1986, 1996

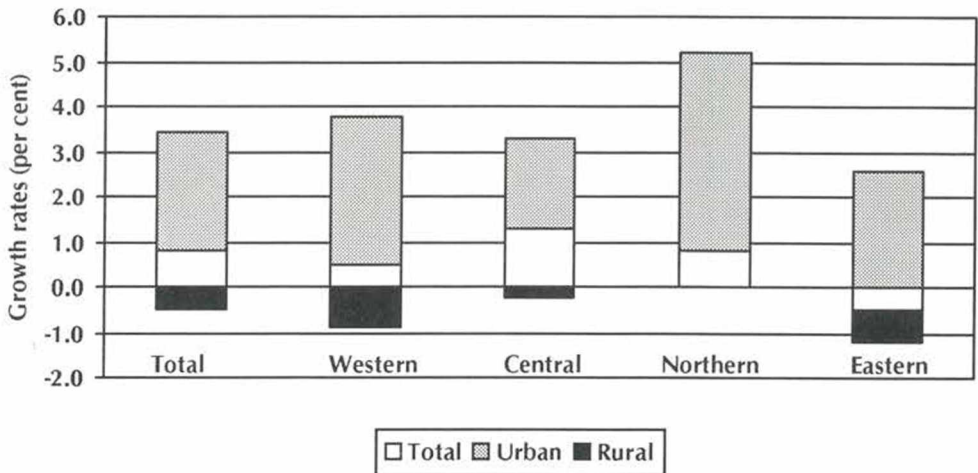
The density by provinces shows wide variation (Table 1). Whilst the overall density of the country is 42 persons per sq. km the range by province is from 10 to 373 persons per sq. km. Rewa province, which has the smallest area after Rotuma, records the highest population density of 373 persons per square kilometre. The capital city of Suva is located in this province. Ba province has the second highest density. This high density is due to the location of 5 urban centres in the province: Ba, Lautoka, Nadi, Tavua and Vatukoula. The lowest density province of Namosi is predominantly rural and a large proportion of the province lies in the interior of the island of Viti Levu.

Lau province has been continuously losing its people since the 1976 Census. Provinces with no change in density since 1986 are Kadavu, Lomaiviti, Nadroga/Navosa and Ra.

Appendix Table 4 and Figure 4 show the growth rates and distribution of the population by urban/rural residence within division. The rural population in all four divisions has decreased. Western Division recorded the highest decrease, accounting for 77% of the total rural decrease.

The urban population in all four divisions recorded increases. The overall rate of growth was 2.6%. 'The relatively high rates of growth experienced in several urban areas, Nadi, Savusavu, Sigatoka, Nausori and Navua are due to extensions of urban boundaries prior to the 1996 Census of population' (Government of Fiji, 1998b). Deuba, Nabouwalu and Seaqaqa were allocated urban status during the census and have increased to 18 the total number of urban centres.

Figure 4: Population growth rates by division and by urban–rural residence, 1996



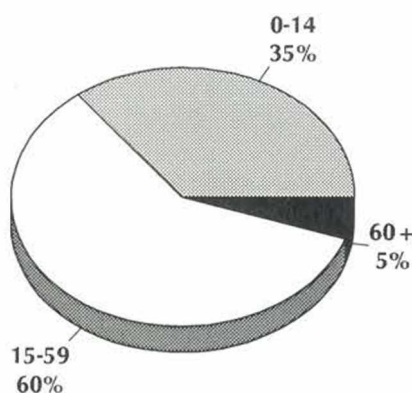
IMPLICATIONS FOR PLANNING

- The geographical distribution of the population and its pattern of settlement have a direct bearing on delivery of services.
- A high concentration of people usually means much better services, as population numbers justify the placement of medical, educational and financial institutions, communication and entertainment facilities. The concentration of people in the urban areas of the Central, Western and Northern Divisions demands and attracts the attention of planners and decision-makers. The provision of better services and facilities of various kinds in the urban centres is seen by many people as a major advantage of living there, and by the same token, lack of these facilities is a disadvantage in rural areas and outer islands and may be the main reason for relocation to the population centres.
- The lower concentration of people in the Eastern Division is of concern as it makes the establishment of services of any kind expensive and cost-ineffective. Only basic health services are delivered, which are not the same quality as those in the main urban centres. Provisions need to be in place to allow transport to the main hospitals for all emergencies.
- High concentrations of people may also mean more stress on the environment, and consequently there is a need to prioritise environmental health services such as water connection, sewage systems and garbage disposal.
- Food security becomes an important issue in view of the variation in population density across the country. The agricultural sector should take into account the varying number of consumers by division, both current and future, so that enough food can be produced to feed the projected numbers of consumers.
- Non-availability of land can be one of the main causes of people migrating to other areas in the country or to overseas destinations in search of better opportunities.

2.3 Age and sex structure

Age and sex structure is an important consideration in planning. Needs vary with age. Younger children, school leavers, workers, women and the aged all require different services and amenities. Therefore the age structure of the population, as well as distribution, is very important in development planning.

Figure 5: Percentage distribution of the population by broad age-groups, 1996



Appendix Table 5 shows the distribution of Fiji's total population by age and sex. The proportion under 15 years is still large, even though it varies for the two major ethnic groups with 37.9% and 32.6% for Fijians and Indo-Fijians respectively (Appendix Table 6 and Figure 5).

The median age of 21.2 years for the total population is also considered to be young. Appendix Table 7 shows the median ages for Fijians and Indo-Fijians recorded during the censuses of 1976–1996. The Fijian median age increased by 2 years from 18 to 20 years between 1976 and 1986 but has remained static at 20 years since 1986. The Indo-Fijian median age, on the other hand, increased by more than three years from 17.5 to 20.9 years between 1976 and 1986 and by 1.5 years from 20.9 to 22.4 years between 1986 and 1996.

The age-dependency ratio, defined as the sum of the young (ages 0–14) and the old (65+) as a proportion of the working age-groups of 15–64 is also an important indicator of the changes in the age structure. Appendix Table 8 shows that age-dependency ratios have been continuously decreasing since the 1976 Census. The decrease is more marked for Indo-Fijians than for Fijians.

The population pyramid best depicts the overall picture of age and sex structure of a population. The 1996 pyramids for the total population, Fijians and Indo-Fijians are presented as Figures 6a, 6b and 6c respectively. The main features of the total population (Figure 6a) are:

- The relatively shorter age bands of the 5–9 year-olds. This is most probably attributed to the high net out-migration prevalent in Fiji between 1987 and 1991;

- Age-groups 0–4 and 10–14 having the same percentages which indicates that fertility levels in the five years prior to the 1996 Census were equal to fertility levels 10 to 14 years prior to the 1996 Census;
- The drastic shortening of the age bands from 20 years and above indicating net out-migration in these ages.

The most outstanding feature of the Fijian population pyramid (Figure 6b) is its triangular shape:

- This indicates high birth rates;
- There are large numbers of people in the younger ages;
- Each cohort is larger than the cohort before it;
- The age band of the 0–4 year-old is much longer. This is not caused by increased fertility as there is no evidence to support that. Rather it is because of the relatively shorter 5–9 age band which would have been longer under 'normal' circumstances. The high migration rates during the period 1987 to 1991 have resulted in the shortening of the 5–9 age band.

The Indo-Fijian population pyramid, on the other hand, is the result of declining fertility levels as well as high emigration levels. The main features are:

- The shorter bands for the two youngest age-groups – 0–4 and 5–9 – most probably caused by declining fertility as well as children migrating with their parents;
- The much longer 10–14 and 15–19 age bands, reflecting either high fertility in the 10 to 20 years prior to the 1996 Census, or lower migration rates among high school students, or both;
- The drastic shortening of the age bands from 20 to 39 years, indicating relatively high rates of migration in these ages.

Age–sex ratios as shown in Figure 7 below also show the combined effect of fertility, mortality and migration on the age structure. In the absence of migration, sex ratios are expected to decline as age increases. This is because although there are more male babies born, higher male mortality means more females surviving at each age. However, migration plays an important role in Fiji especially among Indo-Fijians.

All three components show that from age 50 onwards, there are more females than males in Fiji's population. Among the Fijians, except for a dip in the 20–24, 25–29 and 30–34 age-groups, there is a general decline in the age–sex ratios. The dip is probably caused by male migration at these ages. The Indo-Fijians show high ratios at ages 20–24 and 25–29, and relatively low ratios at ages 45–49, 55–59 and 65–69. The high ratios among the young adults probably indicate women migrating for education or marriage reasons. The low ratios among the older adults indicate high male migration. There is however, an interesting trend in that low ratios are alternating with high ratios. This suggests family migration because females are usually younger than their spouses.

Figure 6a: Population pyramid, total population, 1996 Census
(per cent of total population)

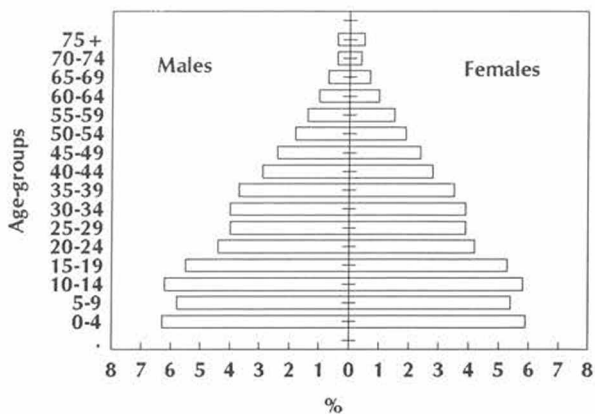


Figure 6b: Population pyramid, Fijians, 1996 Census
(per cent of total Fijian population)

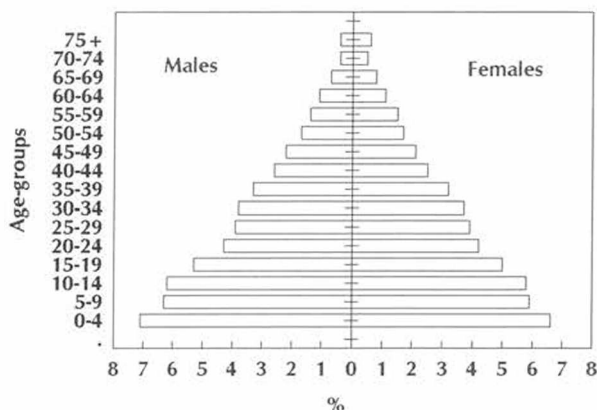
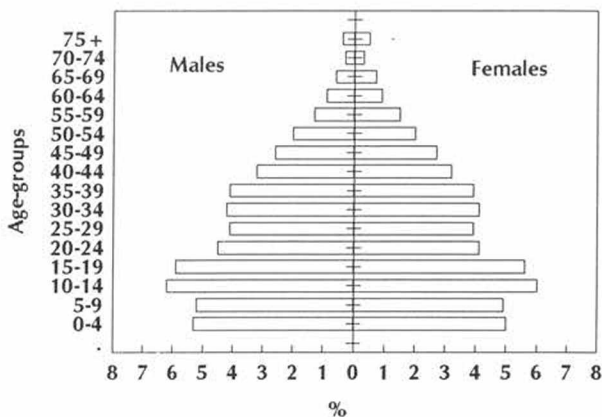


Figure 6c: Population pyramid, Indo-Fijians, 1996 Census
(per cent of total Indo-Fijian population)



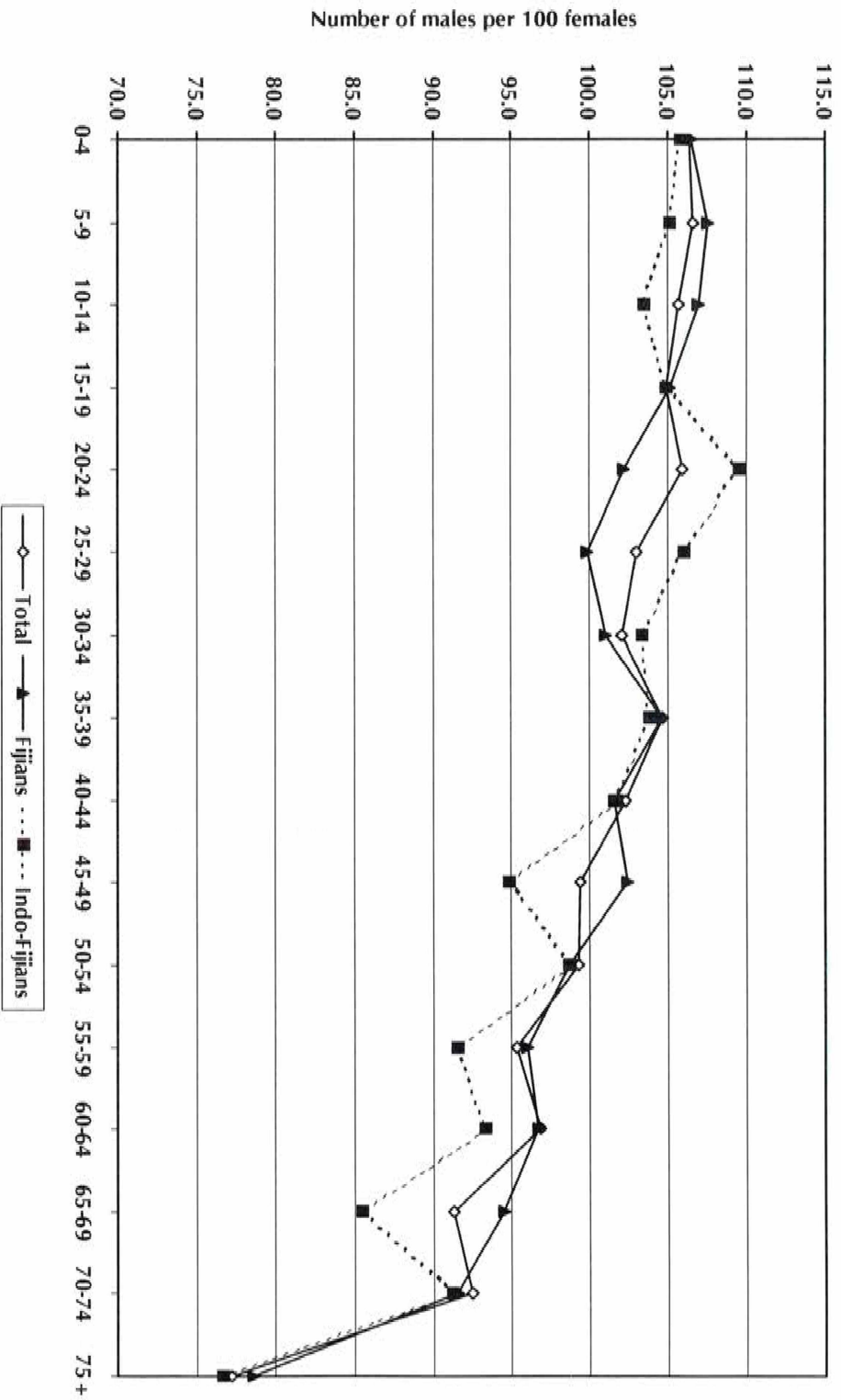


Figure 7: Sex ratios by age and by ethnicity, 1996

IMPLICATIONS FOR PLANNING

- A country's age structure has important implications for all its development policies and programmes, as people make different demands on different services throughout their lives. For example:
 - * the number of young children and infants affects the need for immunisation and child health programmes;
 - * the size of the primary school-age population (usually 6- to 12-year-olds) determines the demand for primary education (schools, classrooms, teachers, materials, etc.);
 - * manpower planning depends on the size of the working-age population;
 - * budgeting pension entitlements depend on the number of eligible elderly people.
- Fiji's young age structure, especially among the Fijian component, means that a large proportion of its resources need to be invested in children, for example, their education and training, and health services. These investments obviously also need to be accompanied by economic development activities, preferably of the type not merely geared towards economic growth *per se*, but primarily towards employment creation.
- Population projections (Appendix Table 33) show that the elderly will increase both in number and as a percentage of the total population in the future. Women make up a higher percentage of the elderly. All medium and long-term socio-economic planning should take this into account. Social security systems that ensure greater inter-generational and intra-generational equity and solidarity should be developed. These systems should encourage families to take care of their elderly in their homes.

3. SOCIAL PROFILE OF THE POPULATION

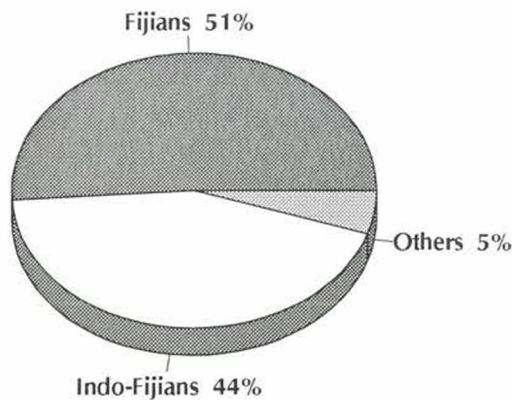
Ethnic, cultural and social differences of people often explain differences in levels of fertility, mortality, social status, the distribution of wealth and the accessibility of economic resources. This social profile provides information on specific groups of the population.

3.1 Ethnicity

Fiji's population is multi-ethnic in culture. There are eight main ethnic groups altogether, with Fijians and Indo-Fijians making up nearly 95 per cent of the total population.

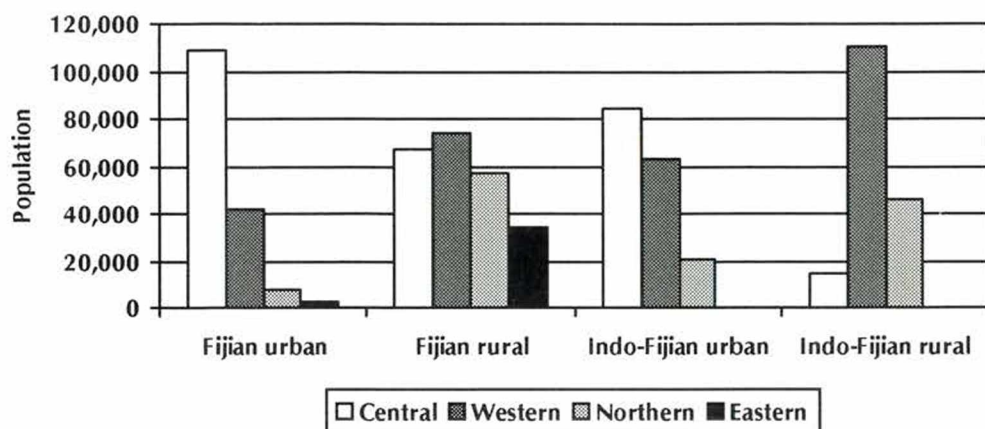
Appendix Table 9 shows the distribution of the population by ethnic group as recorded during the 1996 Census. Fijians were the dominant ethnic group in 1996, accounting for more than half (50.8%) of the total population (Figure 8). Their share of the total population has grown from more than 44% in 1976 to 50.8% in 1996. The Indo-Fijian component, however, decreased from 49.8% to 43.7% between 1976 and 1996. Of the remaining 5%, around three-quarters were either Part Europeans (27%), Rotumans (23%), or Other Pacific Islanders (25%). The three ethnic groups grew at very high rates between 1986 and 1996.

Figure 8: Population distribution by ethnic group, 1996



Fijians are spread out throughout the Fiji Islands but mainly concentrated in the Central Division urban areas (Figure 9). Indo-Fijians, on the other hand, are mainly concentrated in the sugar cane growing areas of the Western and Northern Divisions and in the Central and Western Division urban areas.

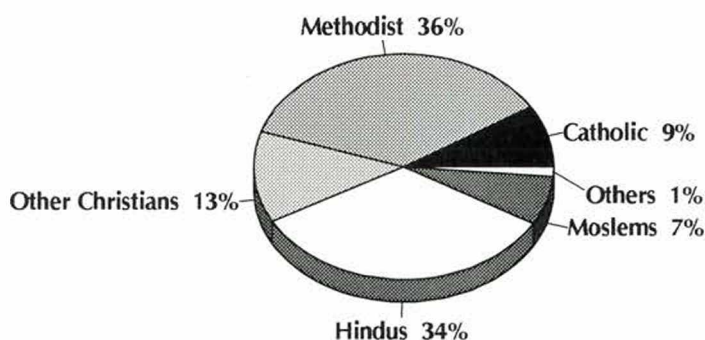
Figure 9: Population by ethnicity and by division, 1996



3.2 Religion

The multi-racial population of Fiji claims widespread adherence to a variety of faiths. More than half (58%) of the population professed to be Christians while 33.7% were Hindus and 7% Moslems (Appendix Table 10 and Figure 10).

Figure 10: Major religious groups, 1996



IMPLICATIONS FOR PLANNING

- The preponderance of many religious groups points to the need to protect and promote awareness of human rights so that people can live together peacefully.
- The Government should respect the autonomy of religious groups and should integrate them in their decision-making and facilitate the contribution that non-governmental organisations such as church organisations can make at all levels to finding solutions to population and development concerns.

3.3 Marital status

Marriage is an important determinant of fertility. The proportion of the population who are married, together with frequencies of widowhood and divorce, all have an impact on the number of children born. The marriage question in the census was not limited to legally married; it included those living in de-facto relationships. Therefore people described as 'married' may be living in de-facto relationships.

Figure 11a: Males by marital status and by age-groups, 1996 (per cent)

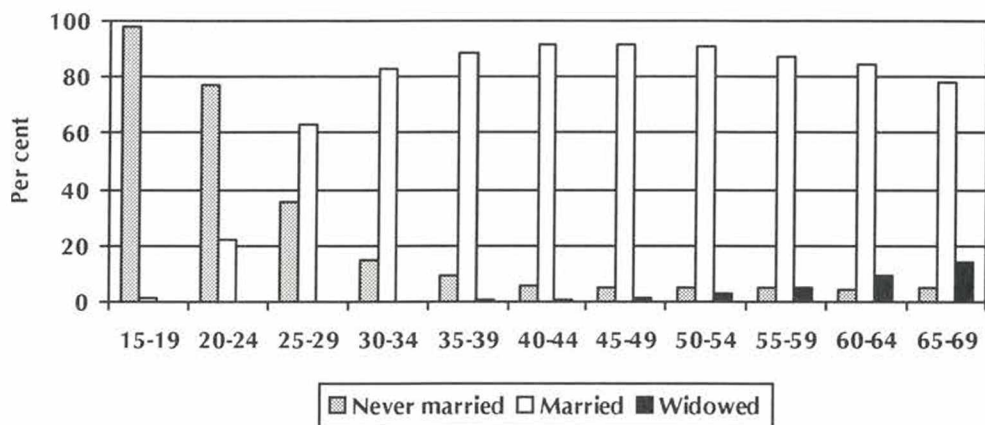
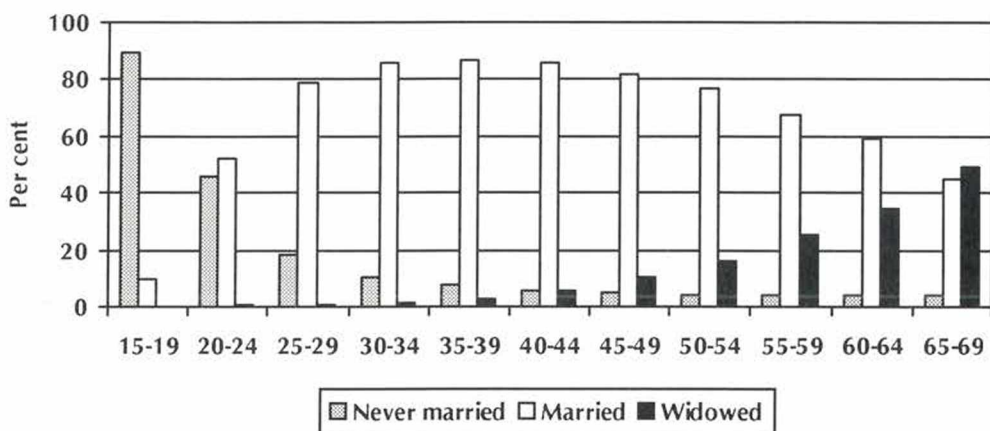


Figure 11b: Females by marital status and by age-groups, 1996 (per cent)



It is evident from Appendix Table 11 and Figures 11a and 11b that, as expected, the percentage never married is highest among the youngest age-groups and decreases as age increases. The percentage married, however, shows the opposite trend. The percentage of women married peaks earlier than that for men, at 35–39 years compared to 40–49 for men. The overall proportion widowed and divorced was higher for females, simply because women tend not to remarry immediately after the death of a spouse or after a divorce settlement.

IMPLICATIONS FOR PLANNING

- The high rate of widowhood among women calls for special attention to their needs – economic, social, health and other needs.
- Early marriages, especially among girls, points to a need for government to ensure those girls complete at least high school education.

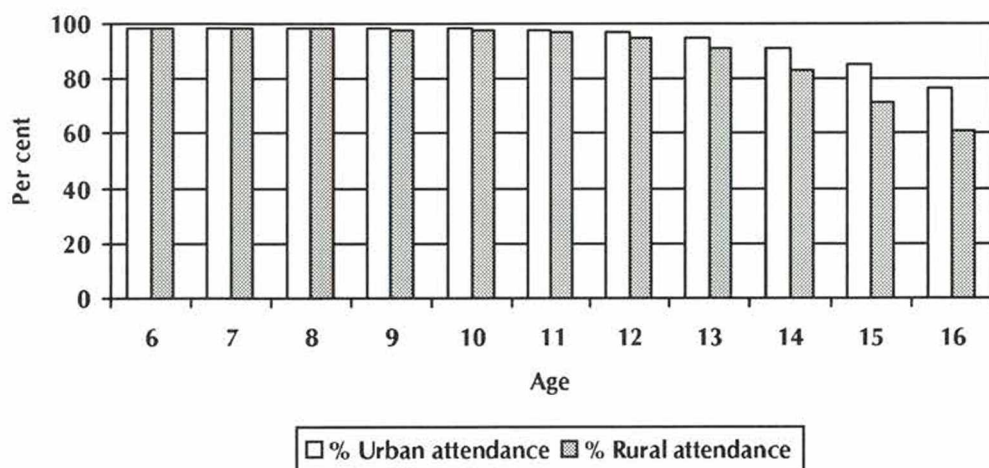
3.4 Educational characteristics

Formal education is a very important indicator for the development and quality of life. Education is considered to have a close relationship with fertility, mortality and morbidity. Higher levels of education for females tend to result in fewer children, and also tend to be reflected in improved overall well being of the children of educated women, including lower infant and child mortality.

3.4.1 School enrolment

The percentage attending school is very high. For ages 6, 7 and 8 years, 99% were at school whilst for ages 9–13 years the number was still high, although decreasing from 98% for age 9 to 93% for age 13, at the 1996 Census (Appendix Table 12). The corresponding figures for 1986 and 1976 are 93% and 91.7% respectively for ages 6–9 years. Figure 12 below shows the school enrolment rates by urban and rural residence.

Figure 12: Percentage attending school at ages 6–16, by urban–rural residence, 1996



Appendix Table 13 presents enrolment by urban and rural residence and by ethnicity. Total enrolment is 92%, which is universal by region and also by ethnicity. There is generally little variation in enrolment as indicated on the table either between regions or

between Fijians and Indo-Fijians. However, as shown in Figure 12 above, there is variation in the enrolment of older children. Rural enrolment starts to lag behind urban enrolment from age 9 onwards, and the gap increases as age increases. Also Fijian enrolment is a bit behind Indo-Fijian from age 11 on.

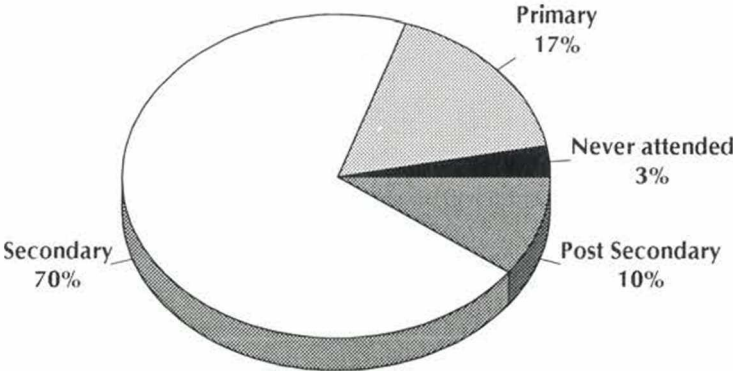
3.4.2 Educational attainment

The level of education is high in Fiji, with nearly 70% of the population attaining secondary educations. Only 3.1% never attended school, 17.4% had primary educations and 9.9% progressed to post secondary educations (Appendix Table 14 and Figure 13).

There is little variation at both primary and secondary levels for males and females. However more females never attended school whilst more males than females had post secondary educations.

Appendix Table 14 also shows educational attainment for Fijians and Indo-Fijians at the time of the census in 1996. There is variation at different levels of attainment, particularly for those who never attended, which was 0.8% for Fijians and 5.7% for Indo-Fijians. Marked differences were also observed at secondary level, with nearly 74% Fijians but only 66% Indo-Fijians attaining this level. The post secondary level was dominated by the Indo-Fijian component, with 10% (22,859) of those aged 15 years and over completing this level. The corresponding figure for Fijians is 8.0% (19,683).

Figure 13: Educational attainment for persons aged 15 years and over, 1996



3.4.3 Literacy rates

The literacy rate is widely used as an important development indicator for planners and policy-makers. It is defined as the population 15 years and over who have completed four years of schooling.

The literacy rate for Fiji was 92.9% at the 1996 Census (Appendix Table 15). This is considered high. It was noted to be higher for urban (94%) than rural (92%), higher for Fijian (96%) than Indo-Fijian (89%) and also higher for males (94%) than females (91%).

IMPLICATIONS FOR PLANNING

- Changes in a country's population structure affect educational needs. The higher a country's level of fertility, at given levels of mortality, the larger is its school-age population relative to the rest of the population.
- In view of Fiji's stagnating birth rates, the school-age population will inevitably increase in the future and, unless birth rates decline, this trend will be maintained or even increase in the long term. This means more public funding will be required for educational purposes, both recurrent and capital expenditures, to meet increased demand in the future. Depending on future levels of fertility and migration, there will be between 11,168 and 35,053 more pupils in 2011 than in 1996 (Appendix Table 33).
- School leavers are more qualified than their predecessors, hence the implications for Fiji's economy are:
 - * The profile of the labour force will change in favour of more qualified applicants who will be chasing fewer employment opportunities. A more educated workforce increases a country's comparative advantages, and greatly facilitates direct foreign investments.
 - * In anticipation of the growing numbers of unemployed youths, vocational training could be stepped up to teach school leavers skills that they could use at home to generate income (carpentry, tailoring, animal husbandry, etc.), if they cannot find jobs in the formal sector.
- The education and training of young people should go hand-in-hand with economic and social development policies. This should take care of discrepancies between the educational system and the production system which can lead to unemployment and underemployment, a devaluing of qualifications and, in some cases, the exodus of qualified people from rural to urban areas and to 'brain drain'.
- Gender balance in educational attainment at all levels should be promoted. The gender discrepancy is widest at post-secondary level, in favour of males. Training teachers to be more gender-sensitive, providing scholarships and other appropriate incentives, and sensitising parents to the value of educating girls would help to keep girls and adolescents in school. Pregnant adolescents should be permitted and helped to continue their education.
- Post-secondary education among Fijians is lagging behind other ethnic groups. To promote equity among all groups, Government should promote higher education among Fijians in order to bring them to the level of those groups.
- In view of the lower enrolment rates at secondary levels among the rural population, Government needs to strengthen efforts to improve the education levels in rural areas.

4. HOUSEHOLD CHARACTERISTICS

Information about household and family characteristics is important for planning and policy purposes because it reflects the demand for houses and other accompanying services. The demand for houses and other services is closely linked to the demand for water, power, waste disposal, sewerage connections and other overall infrastructure.

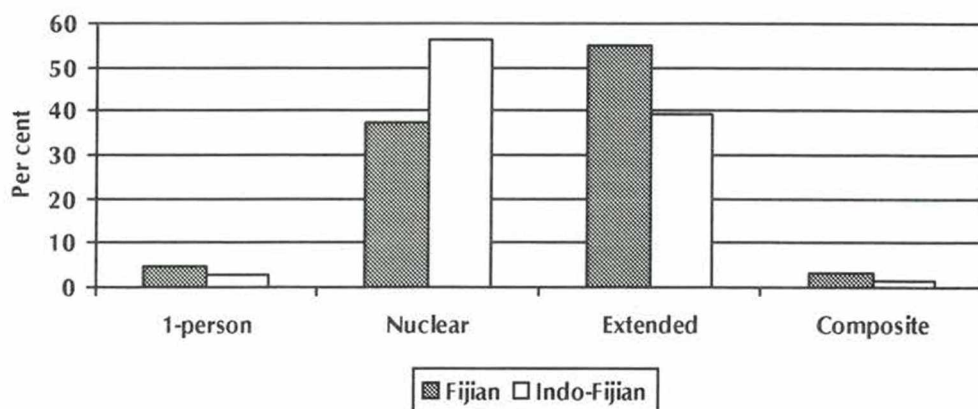
4.1 Household size

During the 1996 Census there were 144,617 households in Fiji with an average size of 5.3 persons per household. This has declined from 5.8 persons in 1986. There are differentials by ethnicity as shown in Appendix Table 16. Fijians have larger households compared to Indo-Fijians. Fijians have larger households in urban areas compared to rural areas. The reverse is true among Indo-Fijians. In rural areas the average household size is almost the same among both groups but in urban areas the average Fijian household size is larger than that of Indo-Fijians by more than 1 person.

4.2 Household type

The percentage of 1-person and nuclear family households has increased while the percentage of extended family households has declined over the decade 1986 to 1996 (Appendix Table 17). However, there are differentials in the pattern of the two major groups. The majority of Fijian households are of the extended-family type (Figure 14) but the percentage has declined in the decade 1986 to 1996. On the other hand, the majority of Indo-Fijian households are nuclear-family households and the proportion has been increasing over the same period. Among both ethnic groups, the direction of change is identical: the percentage living in 1-person and nuclear family households has increased while the percentage living in extended-family households has declined. There is therefore a definite shift to nuclear family households.

Figure 14: Type of households by ethnicity of household head, 1996

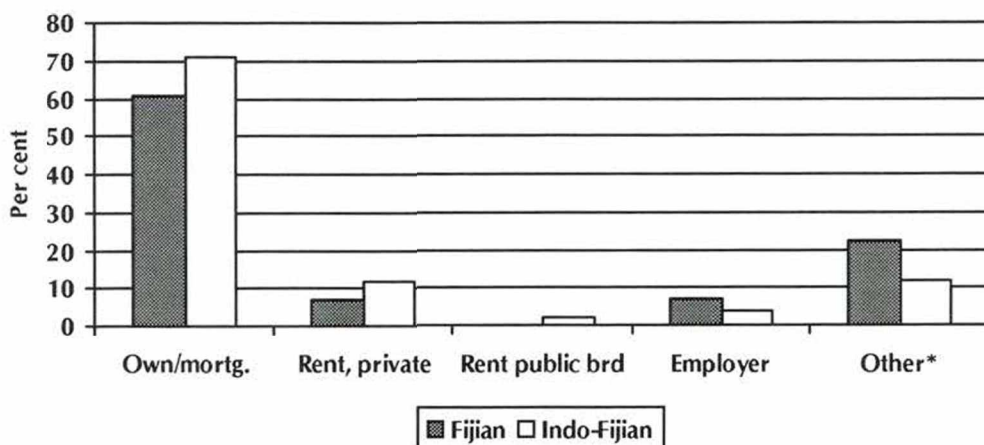


The proportion of female-headed households has increased over the last decade as shown by the last two censuses: 12% in 1986 compared to 13.5% in 1996. Fijian female-headed households accounted for 14.7% of all Fijian households in 1996 compared to 12.2% for Indo-Fijians (Appendix Table 18). By residence, extended-family households are common among Fijians irrespective of where they live. This is also true among both Fijian male- and female-headed households. For Indo-Fijians, however, nuclear-family households are common in households headed by males while extended family households are common in households headed by females.

4.3 Housing tenure

A higher percentage of Indo-Fijians (71.0%) compared to Fijians (60.6%) owned or owned with mortgage the houses they lived in at the time of the 1996 Census (Appendix Table 19 and Figure 15). Similarly, a higher percentage of Indo-Fijians (11.7%) compared to Fijians (7.0%) rented from private landlords. However, almost twice as many Fijians (22.5%) as Indo-Fijians (11.7%) either live in government housing, or where there is no formal arrangement, and as 'squatters'.

Figure 15: Tenure of living quarters by ethnicity, 1996

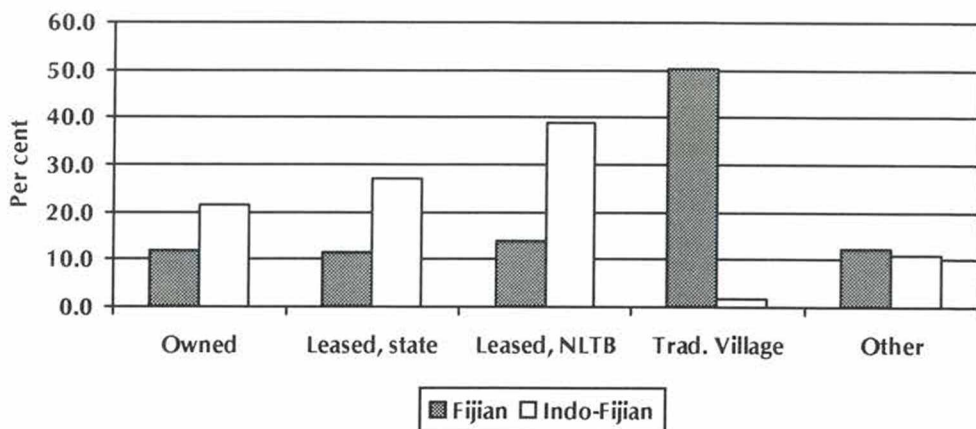


* Other includes 'Govt/institutional housing', 'No rent, informal' and 'Others'.

4.4 Land tenure

One half of Fijian households lived on traditional village land (Appendix Table 19 and Figure 16). Among the Indo-Fijians, however, the majority (39%) lived on land leased by the Native Land Trust Board, and 27% on state-leased land. Almost twice as many Indo-Fijians (22%) as Fijians (12%) own the land they live on.

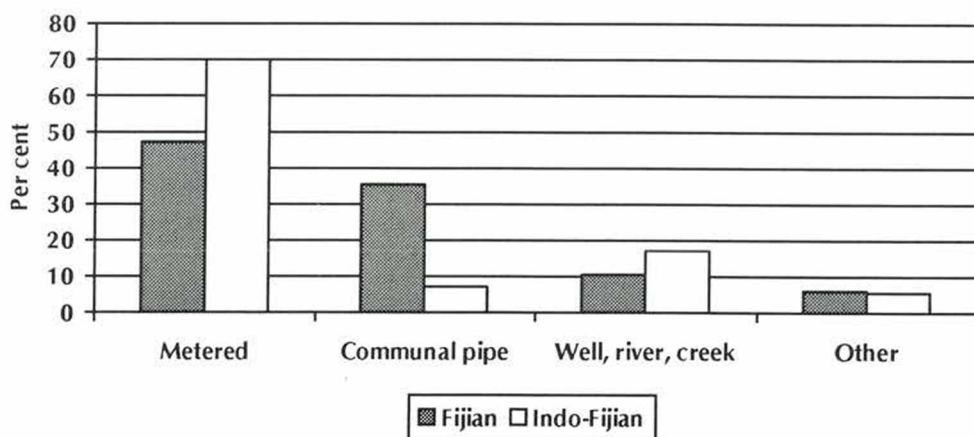
Figure 16: Land tenure by ethnicity, 1996



4.5 Main water supply

Although more than half of Fiji's households have a metered water supply, there are differentials by ethnicity. More than two thirds of Indo-Fijian households compared to just under half of Fijian households have a metered water supply (Appendix Table 20 and Figure 17). Communal standpipe is the second most popular source of water supply among Fijian households. Around one-tenth of both Fijian and Indo-Fijian households still use well, river or creek as their main source of water.

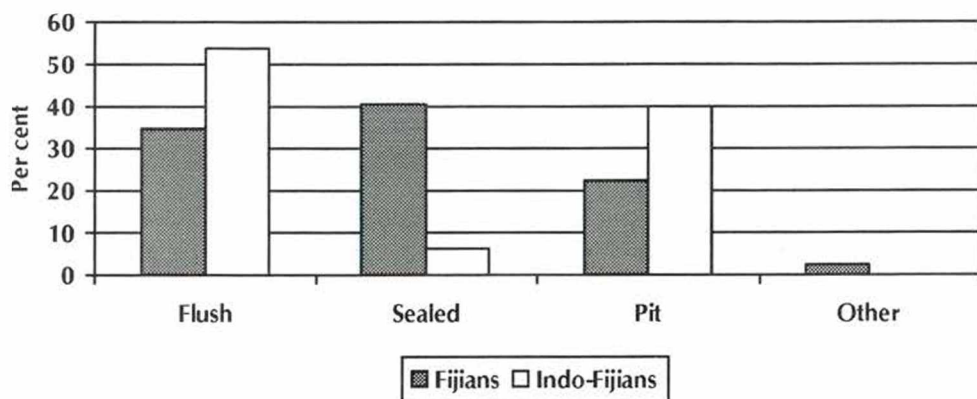
Figure 17: Main water supply by ethnicity, 1996



4.6 Toilet facilities

Just under half (46%) of all households in Fiji had flush toilets in 1996 (Appendix Table 20). Pit latrine was the second most popular type of toilet with 30%. By ethnicity, more than half (54%) of Indo-Fijians compared to just over one third (35%) of Fijian households had flush toilets (Appendix Table 20 and Figure 18). Sealed toilets were the most popular in Fijian households with 40% while pit toilets were the second most popular in Indo-Fijian households also with 40%.

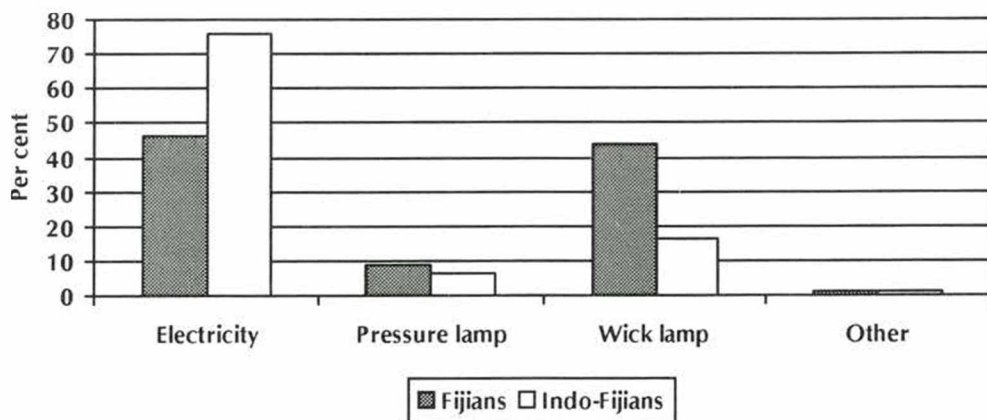
Figure 18: Toilet facilities by ethnicity, 1996



4.7 Lighting

Electricity is the main source of lighting in Fiji households with 62%, followed by wick lamp with 29% (Appendix Table 20). Three-quarters of Indo-Fijian households compared to less than half (46%) of Fijian households use electricity as their main source of lighting (Figure 19). The figures for wick lamp are 44% and 17% for Fijians and Indo-Fijians respectively.

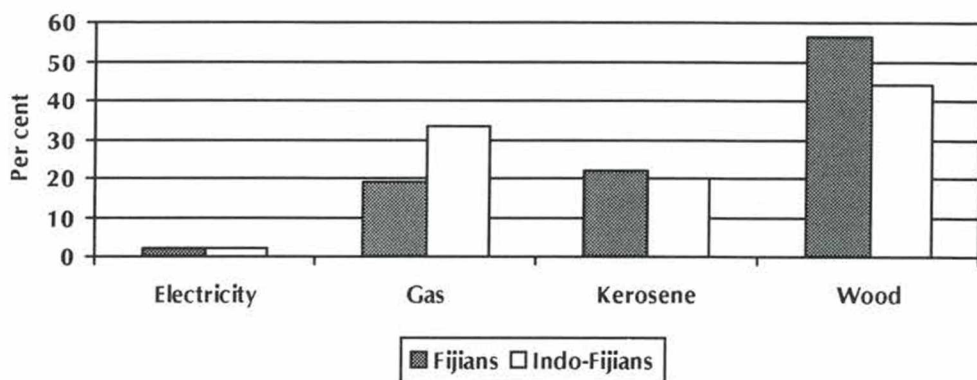
Figure 19: Main source of lighting by ethnicity, 1996



4.8 Cooking fuel

Wood is still the main source of cooking fuel in almost half of all households (Appendix Table 20). Over one quarter and one fifth of households use gas and kerosene respectively. Gas is the second most popular type of cooking fuel among Indo-Fijians while kerosene is the second most popular among Fijians (Figure 20). The majority of Fijians live in rural areas where they can easily obtain kerosene while the majority of Indo-Fijians live in and around urban centres where gas is readily available.

Figure 20: Main source of cooking fuel by ethnicity, 1996



IMPLICATIONS FOR PLANNING

- Given the importance of family units, the Government should formulate family-sensitive policies in the fields of housing, work, health, social security and education in order to create an environment supportive of the family, taking into account its various forms and functions.
 - * Planners should be aware of changes in household size and composition, and their impact on different demands for housing and dwellings in order to be able to supply the appropriate quality and quantity of housing units.
 - * Different demands for housing are closely linked to demands for:
 - land allocation;
 - energy and water consumption;
 - waste disposal and sewage connections, and
 - general infrastructure.
- Increases in one-person and nuclear family type households point to the need to strengthen traditional family networks with a view to providing social security services for the elderly.
- Increasing female-headed households creates a demand for low-cost housing as women are usually in the lower income brackets.
- Provision of a safe and reliable water supply for all people in Fiji should be a priority for the Government in view of the large proportion of households that still rely on communal standpipes, well, river or creek for their main sources of water. This will have positive implications for social and economic development. For example, health problems caused by unsafe drinking water and inadequate sanitation will be minimised.
- In view of the importance of wood-fuel in Fiji households, the Government should promote environmentally friendly and sustainable wood-fuel sources.

5. ECONOMIC ACTIVITY

The everyday activities of all people whether they are in villages, towns or other communities are interrelated with population change and, among other things, the pace and quality of economic and social development. The size and structure of the working-age population, the skill level of the population and the economic climate prevailing in the country shape economic activity and employment. Integrating population concerns into development planning is essential if the goal is to meet the needs, and improve the quality of life, of present and future generations.

5.1 Economic activity of population aged 15 years and over

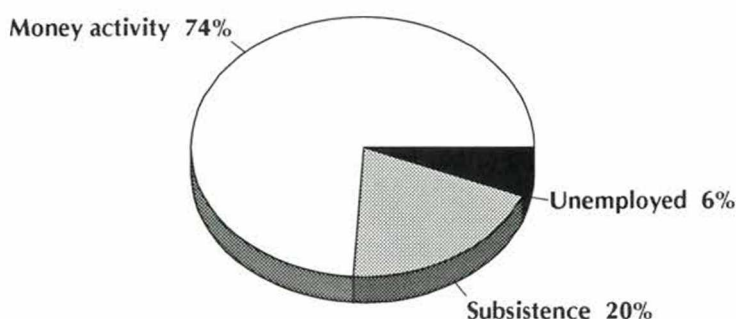
Fiji's economically active population in 1996 accounted for 59.4% of the total population aged 15 years and over. This is an increase from 55% as recorded in 1986. The term economically active here refers to persons who were either working for money, engaged in subsistence activities, and actively looking for work or the unemployed, in the one week before census night on 25th August, 1996 (Table 2).

Table 2: Population by economic activity, 1996

Economic activity	Number	Percentage
Pop. 15 yrs and over	500,913	100.0
Economically inactive	203,143	40.6
Economically active	297,770	59.4
Monetary activity	219,314	73.7
Subsistence	61,191	20.5
Unemployed	17,265	5.8

Almost 74% of the labour force (the economically active) were engaged in all kinds of monetary activity with 20% in subsistence activities while the remaining 6% were recorded as unemployed (Figure 21).

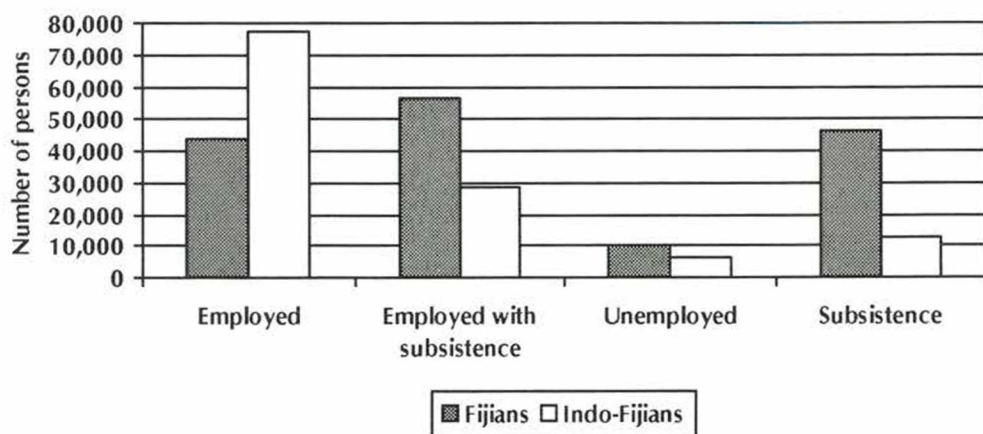
Figure 21: Economically active persons by economic activity, 1996



5.2 Economic activity by ethnicity

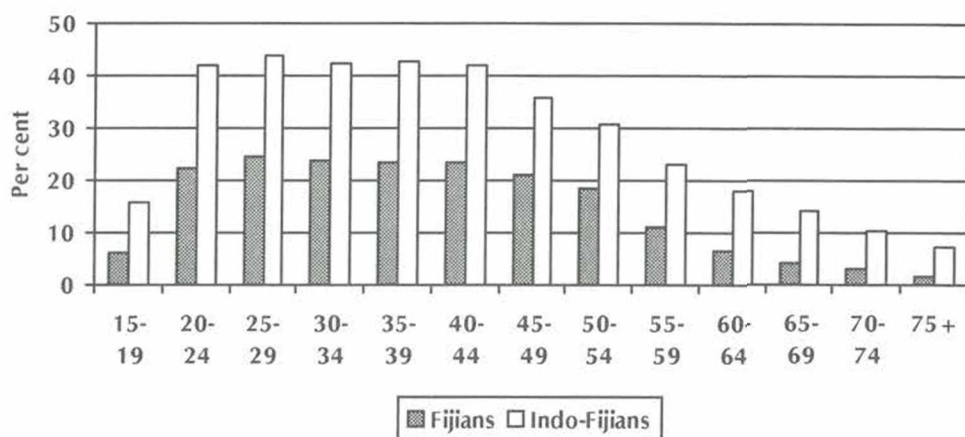
Indo-Fijians were more likely to be employed while Fijians were more likely to be engaged in subsistence activities (Figure 22). There were almost twice as many Indo-Fijians as Fijians in paid employment while there were almost four times more Fijians than Indo-Fijians engaged solely in subsistence activities. This shows that the majority of Fijians still rely on subsistence activities for their livelihood.

Figure 22: Economic activity by ethnicity, 1996



The differentials in the levels of employment among Fijians and Indo-Fijians are also evident at each age and also by urban and rural residence (Appendix Table 21 and Figure 23). Indo-Fijians show much higher levels than Fijians with the differences ranging from 5.6% at age 75+ to 19.6% at age 20–24 years. The patterns of employment are similar with both groups peaking at ages 20 to 44 years. As expected, urban rates are higher for both groups, except in the very old ages (60+), where the reverse is true among the Indo-Fijians.

Figure 23: Percentage employed by age and by ethnicity, 1996



5.3 Economic activity by educational attainment

Around 70% of the economically active population over 15 years in 1996 had completed secondary education (Table 3). There seems to be little variation in the level of education for all activities except for the unemployed where it is notable that 77.9% of the unemployed have completed some secondary education. About 13.9% of those in the monetary sector have completed post-secondary education, (Fiji Government, 1998b).

Table 3: Economic activity by educational attainment

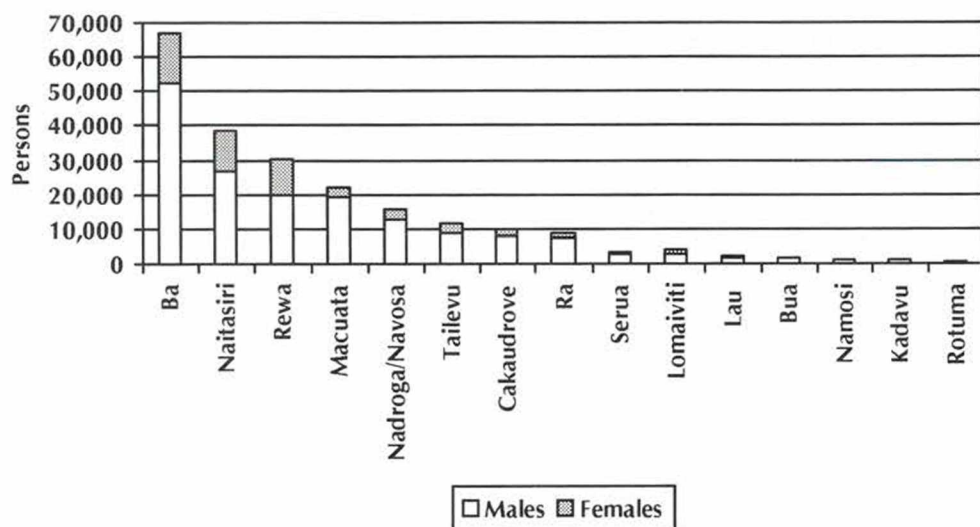
Activity	Total	Never attended	Primary	Secondary	Post secondary	Others
Population aged 15+	100.0	3.0	17.4	69.6	9.9	0.1
Economically active	100.0	1.6	17.5	69.6	11.3	0.0
Monetary work	100.0	1.3	15.5	69.2	13.9	0.0
Subsistence	100.0	2.7	26.2	68.5	2.5	0.1
Unemployed	100.0	1.1	12.4	77.9	8.6	0.0
Economically inactive	100.0	5.2	17.1	69.7	7.8	0.2

5.4 Employment levels by province and sex

The dominance of the Western and Central Divisions in employment levels is evident from Figure 24 and Appendix Table 22. Ba, in the Western Division, is by far the most prominent province although if Naitasiri and Rewa, in the Central Division, were combined (because Suva spans both provinces), then together they would make up the highest area of employment.

The highest percentages of employees who are females are found in Naitasiri and Rewa with around one third of total employment (Appendix Table 22 and Figure 24). Lomaiviti is next with almost 30% female employment. Ra and Macuata have the lowest levels of female employment in the country, both having only 13%. Suva, which is partly situated in Rewa and partly in Naitasiri, is the seat of government and the main economic centre in the country, hence the higher female employment levels. Ra and Macuata on the other hand, have large numbers of Indo-Fijians who are known to have low female employment levels (Rakaseta, 1995).

Figure 24: Persons working for money by province and sex, 1996

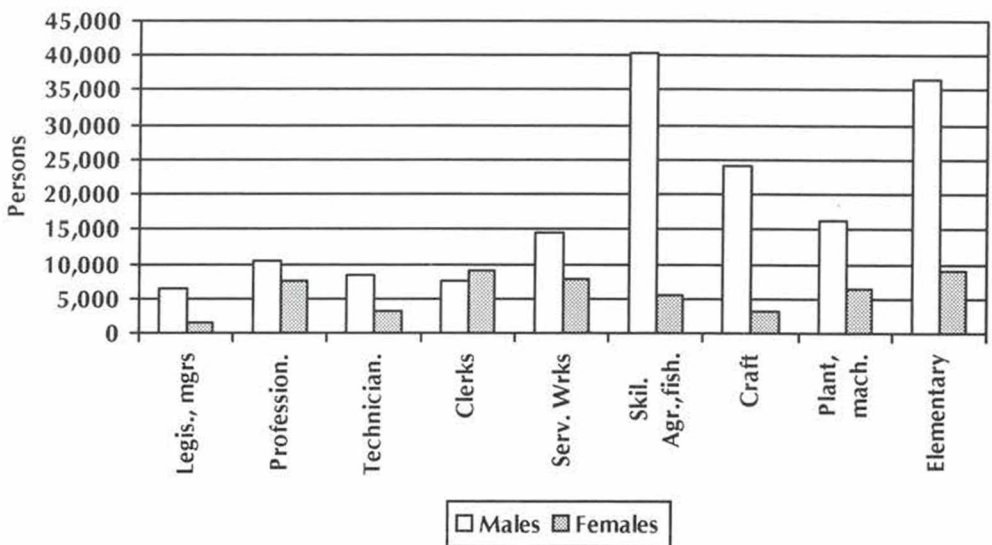


5.5 Occupation of employed persons

Around one third of employed persons in Fiji were agricultural and fisheries workers, either skilled or elementary workers (Appendix Table 23). In addition, 17% of full-time workers participated in subsistence activities, a significant proportion of which involve agriculture and fisheries. These statistics show the importance of agriculture and fisheries in the lives of the people of Fiji, especially among the rural population.

Decision-making positions were still predominantly held by men, as shown by the ratio of men to women among the Legislators, Senior Officials and Managers: 5 to 1 (Figure 25). Although there was relatively little difference between the number of professional women and men, the majority of these women were employed in the 'traditional' women's jobs such as nurses and primary school teachers. However, in the hard core sciences such as physics and chemistry, women still lag behind men (Government of Fiji, 1998b). This was also true for technicians. This is fairly true of most of the world.

Figure 25: Employed persons by major occupational groups, 1996



IMPLICATIONS FOR PLANNING

- Investment in human resource development should be given priority in budgets at all levels. In view of the low levels of Fijian paid employment, special human resource development programmes should be developed to cater for their needs. Programmes should be specifically directed at increasing access to information, education, skill development, and employment opportunities, both formal and informal.
- Regional growth centres should be developed in order to share out the benefits of development to people in other areas of Fiji, especially in the Northern and Eastern Divisions and in the rural areas of the Central and Western Divisions. Consequently, there would be less reliance on subsistence activities in these areas and their standard of living would improve.
- Existing inequities and barriers to women in the workforce should be eliminated. Women should be encouraged to participate in all policy-making and implementation by appointing them to legislative and managerial positions. Their access to productive resources, ownership of land, and their right to inherit property should be promoted and strengthened.
- Training of women in hard core science and other disciplines where they still lag behind males should be encouraged at all levels of education.
- Job creation in the industrial and service sectors, and especially the agricultural sector should be facilitated by Government and the private sector through the establishment of more favourable climates for expanded trade and investment. Care needs to be taken that this is carried out on an environmentally sound basis, with greater investment in human resource development and the development of democratic institutions and good governance.

6. POPULATION DYNAMICS

6.1 Population growth

Population growth can be described in two ways. *Natural increase* describes population growth as the result of births and deaths only. Growth occurs when the number of births in a given time period (such as a calendar year) exceeds the number of deaths. Negative growth occurs when the number of deaths exceeds the number of births. In other words:

$$\text{Natural increase} = \text{births} - \text{deaths}.$$

However, much of the growth of populations throughout the world is and has been shaped by a further component: migration. This is particularly so in many island countries of the Pacific. Migration is a major contributing factor to population dynamics in many Pacific Island countries.

In such circumstances we cannot only look at natural increase. We need to define growth as the overall change in a country's population as a result of births, deaths and migration. Migrants are those people who come into a country in order to settle or seek residency, whether or not permanent, the *immigrants*, and those who leave the country to seek residency, permanent or not, in a foreign country, the *emigrants*.

The term 'net migration' refers to the sum of the immigrants minus the emigrants.

This relationship is readily summarised in what is commonly referred to as the 'balancing equation':

$$\text{Population growth} = \text{natural increase} + \text{net migration (immigration} - \text{emigration)}$$

The most basic demographic measures referring to births and deaths are the Crude Birth Rate (CBR) and Crude Death Rate (CDR). They refer to the number of births and deaths in a given year for each 1,000 people. An average CBR of 24.8 for Fiji for the years 1991–96 (Appendix Table 24) means that during those years, there were on average about 25 births for every 1,000 people. An average CDR of 5.6 for the same period means that there were on average about 6 deaths per 1,000 people.

By subtracting the CDR from the CBR, we obtain the rate of natural increase, as follows: $\text{CBR (24.8)} - \text{CDR (5.6)} = 19.2$ (per thousand), expressed in more frequently used percentage terms: 1.9%.

Despite this relatively high rate of natural increase, the average annual population growth rate for Fiji between 1986 and 1996 was calculated at only around 0.8%. The difference between the average annual growth rate (0.8%) and the natural increase (1.9%) indicates the magnitude of net migration:

$$\text{Overall growth (0.8)} - \text{natural growth rate (1.9)} = -1.1 \text{ (net migration)}$$

This means that each year, for every 1,000 people, 11 are leaving the country. With a population of 745,000 $[(715,375 [1986 \text{ Census}] + 775,077)/2]$ this translates into around 8,195 (11×745) people per year. However, this rate is very much influenced by the high net migration rate that was prevailing in the years 1987–89. Figures released by the Bureau of Statistics for the years 1996–97 show –6,000 annually. Of the 6,000, between 4,700 and 5,200 are emigrants (Fiji Government, 1998c). Fiji residents visiting relatives or on vacation overseas make up the difference.

The population of Fiji increased by 59,702 persons or 8.3% when compared to the population of the previous census of 1986 of 715,375 persons.

Table 4: Growth rates for the census years 1966–1996

Year	1966–1976	1976–1986	1986–1996
Fijian	2.5	2.4	1.8
Indo-Fijian	2.0	1.8	–0.3
Total	2.1	2.0	0.8

Source: 1996 Fiji Census of Population and Housing

It is evident from Table 4 above that the growth rates had started declining during the inter-censal period 1976–86 but at a much faster rate between 1986 and 1996. It is also observed that the main contributor to the low total growth rate was from the Indo-Fijian component, which recorded a –0.3% average annual growth rate between 1986 and 1996. As discussed in more detail in Section 6.4 this negative growth is due to the very high migration rate prevailing since the late eighties.

As shown above, there are wide differences in the growth rates of the two major groups. Fijians showed a growth rate of 1.8% compared to a negative growth of –0.3% for Indo-Fijians.

IMPLICATIONS FOR PLANNING

- The low population growth rate of 0.8% per annum was brought about by a high net migration rate of –1.1% which countered the relatively high natural increase of 1.9%. However, the high rate of natural increase could lead to high population growth should net migration reverse its current trend. Efforts should therefore continue to be directed at reducing the fertility level, especially of the Fijians.
- In order to cater for the large number of young people, especially young Fijians, mechanisms should be in place to meet their health, education, employment and housing and related needs, to ensure that they enjoy a good quality of life, and to increase their contribution to sustainable development.

6.2 Fertility

Fertility refers to reproductive performance. The number of live births in a population measures it. The fertility of a population depends on various factors:

- The demographic composition of the population, particularly the number and age of women. For example, populations with fewer women, particularly women in the childbearing ages, will have fewer births than a population with a large number of women in the childbearing ages.
- Fecundity, which is the physiological capacity to reproduce.
- Age at marriage or cohabitation. As childbearing, in most countries, is usually closely linked to marriage or cohabitation, the age when men and women begin to live together has an obvious bearing on fertility.
- Availability and use of family planning. Populations which have access to, and effectively use, family planning methods have lower fertility rates than those with limited access or where access is denied.
- The psychosocial and cultural context. This includes practices such as post-partum abstinence and breastfeeding, as well as cultural norms on 'ideal family size'.
- Economic development. The higher the level of development, the more likely that women will work outside the home. The conflicting roles of 'mother' and 'worker' tend to result in lower fertility.
- Status of women. The ability to make her own decisions, including that of reproduction, will play a crucial role on a woman's fertility behaviour. For instance, if her status is high she is more likely to be free to make her own decisions, including the number of children she wants to have.

Fertility has impacts on a country's age–sex composition, as the composition and size of different age-groups depend largely on birth rates. Populations become older with falling birth rates, since these reduce the proportion of children. The indicator most commonly used to describe a country's fertility situation is called the Total Fertility Rate (TFR). This measure basically tells us how many children a woman would give birth to, on average, during her reproductive life (15–49 years) if she were to pass through all her childbearing years conforming to the age specific fertility rates (ASFR) of a given year. ASFRs are calculated from the number of live births to women in that age-group in a given year.

The ASFRs¹ derived from the 1996 Census show not only ethnic differentials but also residential differentials in the patterns of fertility (Figure 26 and Appendix Table 25). Generally Fijians have higher levels of fertility among older women, while Indo-Fijians have marginally higher fertility among younger women. This is true in both urban and rural areas. The differences are especially evident when women within rural or urban areas are compared.

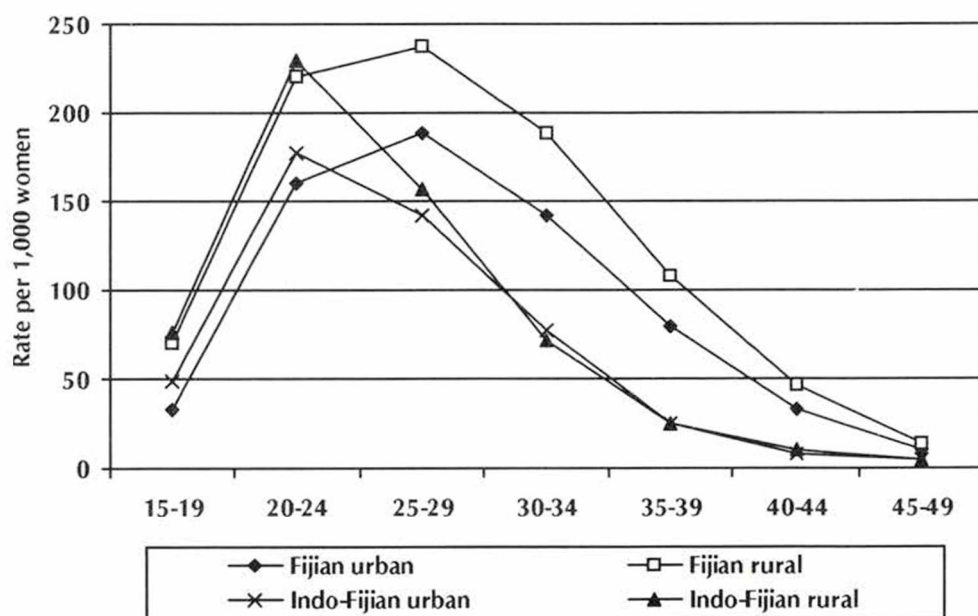
Indo-Fijian fertility peaks earlier (20–24 years) compared to Fijians (25–29 years).

The declines thereafter differ markedly. The rate of decline is much faster in the case of Indo-Fijians, especially from age 30 onwards in both urban and rural areas. Fijians showed much more gradual declines in both urban and rural areas. It can be concluded therefore, that although Indo-Fijian women have higher fertility at young ages, when women in rural and urban areas are compared, their fertility reduces very drastically after age 30, while Fijian fertility declines much more gradually.

The TFR¹ derived from the 1996 Census was 3.3 for the total population. Fijians had a higher TFR (3.9) than Indo-Fijians (2.6). In line with ASFRs, TFRs also show that fertility in urban areas is lower than in rural areas. This is true among both Fijians and Indo-Fijians (Appendix Table 25). The difference between urban and rural residents is around 1 child for the total population. However, among Indo-Fijian women, there is not much difference between urban and rural residents (0.5) whereas among Fijians, rural women have an average of more than 1 child more than urban women. Ethnic differentials are also apparent when urban and rural residents are compared. Rural Fijian women have, on average, between 4 and 5 children compared to between 2 and 3 for rural Indo-Fijian women. Urban Fijian women average between 3 and 4 children compared to between 2 and 3 for Indo-Fijian women. Among the reasons for the ethnic differences is the difference in contraceptive prevalence rates as discussed below.

Contraceptive prevalence, defined as the percentage of women aged 15–49 practising family planning, is higher for Indo-Fijian than for Fijians. Ministry of Health figures show that the average contraceptive prevalence rate for the years 1994–96 was 33% and 44% for Fijians and Indo-Fijians respectively. However, it needs to be mentioned that, over the years, the gap between Fijians and Indo-Fijians has been reducing. Hopefully this will lead to a reduction in the gap in the fertility levels between Fijians and Indo-Fijians.

Figure 26: ASFR by ethnicity and urban–rural residence, 1996



IMPLICATIONS FOR PLANNING

- Declining fertility or a reduction in the average number of children per woman, as is assumed in the population projections for Fiji (Section 7.2) would have the following impact on the population:
 - * A slowing of Fiji's growth rate;
 - * Fiji's population becoming older, as the proportion of children reduces;
 - * Fewer school children;
- The higher fertility among Fijian women, especially rural women, shows the need for more efforts to reduce their fertility. Such efforts could include:
 - * preventing unwanted pregnancies and reducing the incidence of high-risk pregnancies;
 - * improving the quality of family planning advice, information, education, communication, counselling and services;
 - * making quality family planning services affordable, acceptable and accessible to all who need and want them, while maintaining confidentiality;
 - * increasing the participation and sharing of responsibility of men in the actual practice of family planning.

6.3 Mortality

Mortality refers to deaths as a component of population change. The rate at which deaths occur depends on various factors including:

- Age and sex distribution (certain age-groups and genders are prone to certain diseases);
- Environmental conditions and the availability of services such as water supply, sanitation, waste disposal and health services;
- Exposure to risk factors such as substance abuse (alcohol, tobacco, etc.);
- Occupational hazards (work related stress and danger);
- Exposure to events outside individual control (natural disasters, war);
- Social class.

The incidence of death reveals a lot about a population's standard of living and its general state of health. Indicators such as the *Infant Mortality Rate (IMR)* and *life expectancy at birth* are widely used to describe the overall development status of a country.

Table 5: Infant and child mortality by sex and ethnicity, 1986 & 1996

Index	Sex	Total Fiji		Fijians		Indo-Fijians	
		1986	1996	1986	1996	1986	1996
Infant Mortality Rate	Both	22	20	26	24	19	15
	M	25	21	27	26	22	17
	F	20	19	25	22	16	14
Child Mortality Rate	Both	5	4	6	5	4	3
	M	6	5	7	6	4	3
	F	5	4	6	5	4	3

Source: 1996 Census Analytical Report

Infant mortality, already low by developing countries' standards in 1986, declined further during the intercensal period 1986 to 1996 (Table 5). The decrease, however, is rather small and slightly more for Indo-Fijian than for Fijian children. Males have higher rates than females, and rates are higher for Fijian than for Indo-Fijian children. Child mortality (1–4 years) has decreased slightly over the same period.

Life expectancy is the most commonly used mortality measure. It is an estimate of the average number of years a person can expect to live at birth. Life expectancy is derived from the life table. Life tables for Fiji are shown as Appendix Tables 26 and 27 for males and females respectively. The expectation of life at birth based on the 1996 Census is 64.5 years for males and 68.7 years for females compared to 64.8 and 69.0 for males and females respectively in 1986. According to the 1996 Census analysis '... the figures suggest that the level of overall mortality remained virtually unchanged during the intercensal period. This implies that ... the slight gains which have been made with regard to infant and child mortality must have been cancelled out by a slight increase in adult mortality'. This is contradictory to the trend discussed in the previous profile (based on the 1986 Census), which assumed that the trend would follow the United Nations model of mortality improvement with life expectancy at birth reaching 72 years and 75 years for males and females respectively by 1996. The current analysis has clearly shown that Fiji deviates from that trend.

Among the reasons for stagnating mortality levels is the mass exodus of professionals and technicians, including health professionals, since the early 1980s which has adversely affected the delivery of services, including health services, in the country. During the period 1991–96, 1,568 health professionals left government service for various reasons (Appendix Table 28). The vast majority (79%) were doctors and nurses who are the main health care givers in the country. The situation is especially critical because these professionals cannot be replaced overnight. The loss or attrition of health professionals must be one, if not the main, reason for the stagnating mortality levels in Fiji.

Apart from health professional wastage, another factor that contributes to the stagnating mortality level in Fiji is the increasing trend in deaths caused by changing lifestyles. Examples are heart diseases, cancer and accidents caused by drugs. Data from the Ministry of Health show that three of the five major causes of death during the period 1992–96, were lifestyle-related diseases: diseases of the circulatory system (heart diseases), cancer, and injury and poisoning (including motor vehicle accidents).

IMPLICATIONS FOR PLANNING

- With mortality levels stagnating during the last 10 years or so, there is a need to prolong the healthy life span and improve the quality of life of all people. Actions should include:
 - * making access to basic health care and health promotion the central strategies for reducing mortality and morbidity. Sufficient resources should be assigned so that primary health services attain full coverage of the population. Government should strengthen health and nutrition information, education and communication activities so as to enable people to increase their control over and improve their health;
 - * the role of women as primary custodians of family health should be recognised and supported and at the same time, men should be encouraged to share this responsibility;
 - * Government should ensure community participation in health policy planning, especially with respect to the long-term care of the elderly and those infected with HIV/AIDS and other endemic diseases;
 - * Government should re-examine training curricula and the delegation of responsibilities within the health-care delivery system in order to reduce the frequent, unnecessary and costly reliance on physicians and on secondary- and tertiary-care facilities, while maintaining effective referral services;
 - * through technology transfer, Government can seek assistance in building its capacity to produce generic drugs for the domestic market and to ensure the wide availability and accessibility of such drugs;
 - * priority should be given to measures that improve the quality of life and health by ensuring a safe and sanitary living environment for all population groups through measures aimed at avoiding crowded housing conditions, reducing air pollution, ensuring access to clean water and sanitation, improving waste management, and increasing the safety of the workplace;
 - * reform of the health sector and health policy, including the rational allocation of resources, should be promoted in order to achieve the stated objectives;
 - * there is a need for inter-sectoral coordination because health is a crosscutting issue and not merely the concern of the health sector.

6.4 Migration

Migration is the movement of people across a certain boundary. When this boundary is a national border, we speak of international migration; otherwise it is internal migration. We speak of immigrants if people are moving into a country and emigrants if they are moving out of a country. When the movement is within a country (between province and division), we speak of in-migrants and out-migrants.

Apart from this spatial consideration, time plays a major role, as someone coming for a short visit can hardly be termed a migrant – he or she is a visitor. Apart from time, intent is also of crucial importance, as a visitor can become a migrant if presented with sudden job opportunities. Similarly, a migrant may become a visitor if expected job opportunities do not materialise.

This highlights one of the key problems with migration: whether a person qualifies as a migrant or not can only be established *post facto* (after the fact). The best that planners can do is to base their decisions on past and projected movements of people.

6.4.1 Internal migration

There is a high level of mobility among Fiji's population, as shown in Appendix Tables 29 and 30. At least one quarter of Fiji's population had moved at least once in their lifetime. While there is a lot of movement between divisions, only Central Division gained more people than it lost while the reverse was true in the case of the three other divisions (Appendix Table 30 and Figure 27). The provinces that contributed to Central Division's gain were Naitasiri, Rewa and Serua (Appendix Table 29). The only other province showing gains was Ba in the Western Division. As mentioned in the 1996 Census Analytical Report '... much of this growth must be attributed to "incorporation" of formerly rural areas into the urban sector'. All other provinces showed losses. It is evident from these figures that people are attracted to the main urban centres on Viti Levu.

The other side of the coin is movement from the rural or outlying provinces. As in the past, these provinces showed the highest rates of out-migration.

The highest number of in- and out-migrants is found in the Central Division, notably Naitasiri and Rewa provinces and in the Western division, especially in Ba province. Most of the in-migrants are going to Naitasiri province. This simply means that people are migrating to Greater Suva and the surrounding areas of Lami and Nausori.

Fijians showed higher levels of internal mobility than Indo-Fijians. Thirty-five per cent of Fijians compared to 24% of Indo-Fijians moved at least once during their lifetime. Most of the Fijians who moved out of their province of birth were from Tailevu, Bua, Cakaudrove, Kadavu, Lau and Lomaiviti. Most of these people have probably moved to either Naitasiri, or Ba provinces as shown by the high number of net in-migrants in these two provinces. Most of the Indo-Fijians, however, moved from Tailevu, Ba, Ra and Macuata to Naitasiri.

Appendix Table 31 shows the level of recent² internal migration. The trends in recent

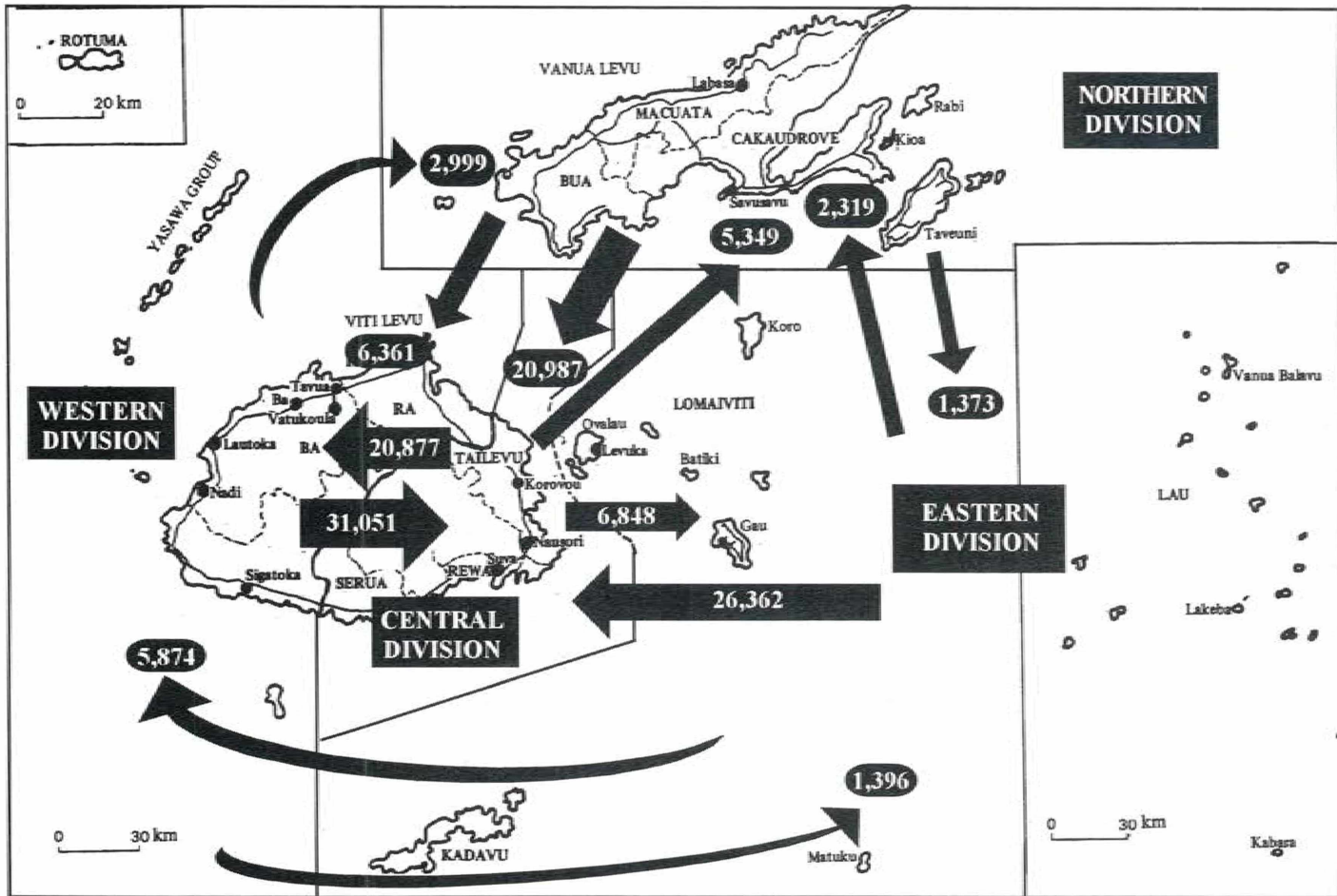
migration mirrored those of lifetime migration. The highest number of net in-migrants was in Central Division. There was significant in-migration and out-migration from the same provinces. For example, Rewa accounted for 21% of both in-migrants and out-migrants. Fijians showed higher levels of mobility compared to Indo-Fijians.

Rural to urban migration is higher among Fijians (41%) compared to Indo-Fijians (35%), as shown by the percentage of urban population born in rural areas (Appendix Table 32). There is a higher level of rural to urban migration among females compared to males as shown by the higher percentage of rural-born females enumerated in urban areas. This is true among both groups and in all divisions, except Indo-Fijians in the Eastern Division, where the number involved is very small. Northern Division showed the highest percentage of rural born population among the four divisions for both Fijians and Indo-Fijians. However, while Central Division was the second highest for Fijians, Western Division was the second highest for Indo-Fijians.

The main characteristics of internal migration in Fiji were:

- There is a high level of mobility among Fiji's population.
- Most of the migrants moved to the Central Division (Suva and surrounding areas).
- The main urban areas on Viti Levu are the main attraction for migrants.
- There is a lot of movement, whether lifetime or recent, in and out of the same provinces. For instance, Rewa accounted for 21% of both recent in- and recent out-migrants.
- Rural or outlying provinces are losing as much as three times as many people as they gained.
- Fijians are more mobile than Indo-Fijians, mainly due to the concentration of Fijians in their own villages, which are spread throughout the country. They tend to migrate in search of better education and job opportunities, which are mainly concentrated in the main urban areas on Viti Levu. Indo-Fijians, on the other hand, were originally concentrated in a few places in or around urban areas and the sugar cane farming areas; hence the lower level of internal mobility.

Figure 27: Lifetime migration streams by division, 1996



IMPLICATIONS FOR PLANNING

- When formulating population distribution policies, Government should ensure that the objectives and goals of those policies are consistent with other development goals, policies and basic human rights. With the assistance of interested local, divisional and intergovernmental agencies, Government should assess on a regular basis how the consequences of their economic and environmental policies, sectoral priorities, infrastructural investment and balance of resources among divisional, central, provincial and local authorities influence population distribution and internal migration. This applies to both permanent and temporary migration.
- In order to achieve a balanced spatial distribution of production employment and population, Government should adopt sustainable regional development strategies and strategies for the encouragement of urban consolidation, the growth of small or medium sized urban centres and the sustainable development of rural areas. This includes the adoption of labour-intensive projects, training for non-farming jobs for youth and effective transport and communication systems.
- To reduce urban bias and isolated rural development, Government should examine the feasibility of providing incentives to encourage the redistribution and relocation of industries and businesses from urban to rural areas. Government should also encourage the establishment of new businesses, industrial units and income-generating projects in rural areas.
- In order to create alternatives to out-migration from rural areas, Government should establish the preconditions for development in rural areas. These include actively supporting access to ownership or use of land and access to water resources, making and encouraging investments to enhance rural productivity, improving rural infrastructure and social services and facilitating the establishment of credit, production and marketing of cooperatives and other grassroots organisations that give people greater control over resources and improve their livelihoods.
- Government should pursue development strategies offering tangible benefits to investors in rural areas and to rural producers. Government should also seek to reduce restrictions on international trade in agricultural products.
- Government should strengthen its capacity to respond to pressures caused by mass movement of people to Greater Suva and the main urban centres in the Western Division, by revising and reorienting the agencies and mechanisms for urban management as necessary and ensuring the wide participation of all population groups in planning and decision-making relating to local development.

6.4.2 International migration

International migration has played an important role in the growth of Fiji's population as highlighted in the section on population growth (Section 6.1). International migration is affected to a great extent by the often-unpredictable political, economic and social circumstances in Fiji as well as in destination countries. Consequently, international migration can change dramatically, even reversing direction, in comparatively short spans of time.

Emigration has reduced the population growth rate to less than one per cent (0.8%) for Fiji during the period 1986–96. Although all groups of the population have been affected by international migration, the impact on Indo-Fijians has been the most dramatic. Their population declined from 348,704 in 1986 to 338,818 in 1996, representing an inter-censal growth rate of –0.3%. During the period 1991–96 the net migration among Fiji residents totalled around –6,000 annually. This figure has been taken as the net migration for the projections in Section 7. Table 6 refers only to emigrants. The table shows:

- Each year some 4,700 Fiji residents emigrated during 1991–96 (28,276/6).
- Almost equal numbers of males and females.
- 90% are Indo-Fijians.
- Professional, technical and related workers make up 10% of all emigrants. A gender breakdown for these occupation groups shows 3 males for every 2 females.
- Administrative and managerial workers comprise 5%. A gender breakdown shows 5 males for every female.
- More than 50% are 'workers not classifiable', mostly housewives, students and young children.

Current trends may continue due to several factors:

1. family members joining relatives who have already emigrated;
2. economic opportunities available in the developed Pacific Rim countries have become magnets for economic migrants;
3. A sense of 'insecurity' whether economically, politically, or socially is one, if not the main, 'push' factors for people leaving Fiji;
4. The economic climate in Fiji is not conducive to investor confidence, and consequently limits job opportunities.

Table 6: Fiji citizen emigration by ethnicity, sex and occupation, 1991–1996

Occupation	Fijians			Indo-Fijians			Total		
	M	F	T	M	F	T	M	F	T
Professional, technical and related workers	110	102	212	1,597	971	2,568	1,783	1,138	2,921
Administrative and managerial workers	32	20	52	1,092	180	1,272	1,178	231	1,409
Clerical & related workers	58	85	143	830	1,405	2,235	916	1,579	2,495
Sales and service workers	70	79	149	778	394	1,172	879	514	1,393
Agriculture, animal husbandry, forest workers & fishermen	32	0	32	598	8	606	636	8	644
Production workers, transport, equip. operators & labourers	173	25	198	2,478	495	2,973	2,715	532	3,247
Workers not classifiable	302	564	866	4,755	9,964	14,719	5,275	10,892	16,167
Total number (1991–1996)	777	875	1,652	12,128	13,417	25,545	13,382	14,894	28,276

IMPLICATIONS FOR PLANNING

- Population growth during the period 1986–96 was reduced by the high migration rate. However, if migration trends were to reverse, this would result in a high growth rate because of the high rate of natural increase. To illustrate the point:
 - * A population growth of 0.8% means that Fiji's population would double in 87 years' time;
 - * A rate of natural increase of 1.9% means that Fiji's population would double in only 36 years' time.
- Government should develop policies aimed at filling the gaps created by the 'brain drain' now, and that anticipated in the future. Examples are:
 - * more opportunities for training in professional, technical and managerial positions, keeping in mind past trends when awarding scholarships;
 - * expanded training programmes in both public and private sectors in the professional and technical areas, and management at all levels to meet current and anticipated demands in the future;
 - * More opportunities to be given to women to be appointed to managerial positions at all levels, in view of the high rate of emigration of male managers.
- Government should strengthen efforts to achieve sustainable economic and social development to reduce economic disparities between destination countries and Fiji.

7. LIKELY FUTURE DEVELOPMENTS

7.1 The importance of population projections

There is growing consensus among national governments of the importance of population variables in development planning. Traditionally development plans were geared towards improving the standard of living by maximising economic growth. Recognising that this approach did not deal adequately with unemployment and with widespread deprivation of food, education and health services, it was suggested that development plans should pay more attention to 'standard-of-living-oriented' development strategies. Population projections are an essential tool of this approach. The appropriate method of doing this is to provide a series of future population scenarios, pictures of what Fiji's population would look like under various specific conditions.

Scenario building is based on population projections. The starting point for any projections is a reliable age–sex distribution of a population and information on fertility, mortality and migration.

There are various mathematical methods available for computing future population scenarios. Most of these methods are based on the cohort-component method as was taught at the workshop conducted by SPC in Suva in November 1994.

The key to making meaningful projections lies in the choice of assumptions regarding our views of future population developments. These assumptions concern in the first place possible future birth, death and migration rates. The main objective of providing future population scenarios is to give various outcomes given certain conditions – they are not meant to predict what will happen in the future; they are merely giving 'what-if' scenarios.

Given the ability to specify future demographic developments, we are in a position to evaluate likely outcomes of specific policy interventions without actually having to implement the policy first. For example:

The Government of Fiji wants to evaluate the impact of international migration on the growth of the population. In other words: what would Fiji's population look like if there were zero net migration for a period of, for example, 15 years? Population projections allow us to examine this scenario.

Hence, scenario building based on population projections should be treated as an essential tool, equivalent in importance to other, more traditional social, economic and financial analyses undertaken by planners worldwide.

7.2 Projection assumptions

In order to have a clearer understanding of Fiji's population situation in the future; several projections have been prepared using the age and sex distribution of the 1996 Census. The projections were carried out on the basis of the following assumptions:

- Three fertility assumptions of constant, moderate and rapid fertility declines between 1996 and 2011 are made.
 - * Constant fertility – the TFR remains constant at the 1996 level of 3.3 (Total Fertility Rate).
 - * Moderate fertility decline – the TFR declines from 3.3 in 1996 to 2.7 in 2011.
 - * Rapid fertility decline – the TFR declines from 3.3 in 1996 to reach replacement level fertility (2.1) in 2011.
- Mortality is also expected to decline. All scenarios assume the same rising trend in life expectancy, based on the 'slow rise' trend of the United Nations working model for mortality improvement (United Nations, 1995b). An increase in life expectancy for males from 64.5 years in 1996 to 69.1 in 2011 and for females from 68.7 years in 1996 to 72.5 in 2011 has been assumed.

The reason for this is that assumed differences in mortality usually produce only slight and insignificant differences in total population growth rates and, on the other hand, require the production of many different scenarios which may be confusing. Furthermore, the level of mortality stagnated during the decade 1986–96, it is expected that improvements in health services will result in reduced lifestyle related diseases.

Making assumptions about migration provides the greatest difficulty because of the potential fluctuations in the level and pattern of international migration. Hence it is imperative to specify several different migration scenarios in order to show the impact of migration on the population dynamic of Fiji. In order to do this, the fertility and mortality assumptions were combined with three different migration assumptions (see Table 7):

Assumption 1: A constant net migration of –6,300 people per annum, based on the migration statistics released by the Bureau of Statistics for the years 1991–96 (Section 6.4.2);

Assumption 2: Fewer people will leave Fiji in the future. The number of annual net migrants decreases to –3,000;

Assumption 3: Zero net migration – this assumption, although unrealistic, is useful to show the impact of migration on Fiji's population in the future.

A summary of the assumptions and the projected populations they produce is shown in Table 7 below.

Table 7: Population projections and assumptions

Population in the year 2011			
Total Fertility Rate	Migration		
	Zero (zero net migration from 1996 to 2011)	Moderate (-3,000 people p.a. from 1996 to 2011)	High (-6,300 people p.a. from 1996 to 2011)
Constant (3.3 from 1996 to 2011)	1,050,537 (HIGH variant)	993,932	931,662
Slow decline (from 3.3 in 1996 to 2.7 in 2011)	1,018,697	963,546 (MEDIUM variant)	902,873
Fast decline (from 3.3 in 1996 to 2.1 in 2011)	981,804	928,309	869,459 (LOW variant)

7.3 Projection results

Table 8 and Figure 28 compares the base year of the projections, 1996, and the end year for the three projection scenarios, 2011. The results are given in more detail in Appendix Table 33.

Table 8: Comparison of base year (1996) and 2011 population projections, Fiji

Scenarios	Year	Total population	Percentage under 15 years	Percentage 15–59	Percentage 60+	Median age (years)	Annual growth rate (%)
Base year	1996	775,077	35.4	59.5	5.1	21.2	0.8 *
Projection outcomes, 2011							
HIGH	2011	1,050,537	32.8	59.7	7.5	25.1	2.0
MEDIUM	2011	963,546	30.6	61.4	7.9	26.0	1.5
LOW	2011	869,459	27.9	63.7	8.4	27.0	0.8
Changes compared to base year 1996							
HIGH	2011	275,460	-2.6	0.2	2.4	3.9	1.2
MEDIUM	2011	188,469	-4.8	1.9	2.8	4.8	0.7
LOW	2011	94,382	-7.5	4.2	3.3	5.8	0.0

*Refers to the inter-censal period 1986–1996.

These projection scenarios highlight the impact of the different levels of fertility and increasing longevity on the age-structure of the population, and the impact of international migration on the size and growth of the population.

7.3.1 Summary of results

Scenario 1 (High Variant)

As can be seen from Table 8 and Appendix Table 33, under the assumptions of constant fertility and zero net migration for the entire projection period, Fiji's population would grow by an average of 2.0% annually between 1996 and 2011. The total population in 2011 would be 1,050,537. At 2.0% the population would double in 35 years' time.

The school age population, 6–16, would increase considerably from 197,424 in 1996 to 232,477 in 2011 and the working-age population (15–59 years) would increase by 36% from 461,106 in 1996 to 627,120 in the year 2011. The age-dependency ratio

would decrease from 68.1 to 67.5 during the same period because of the relative increase in the working-age population and the relative decrease of the population younger than 15 years.

Scenario 2 (Medium Variant)

Based on the assumptions of declining fertility, and net migration decreasing to -3,000 annually throughout the projection period, in 2011 the population would have grown annually by 1.5% to a total of 963,546 people in the year 2011.

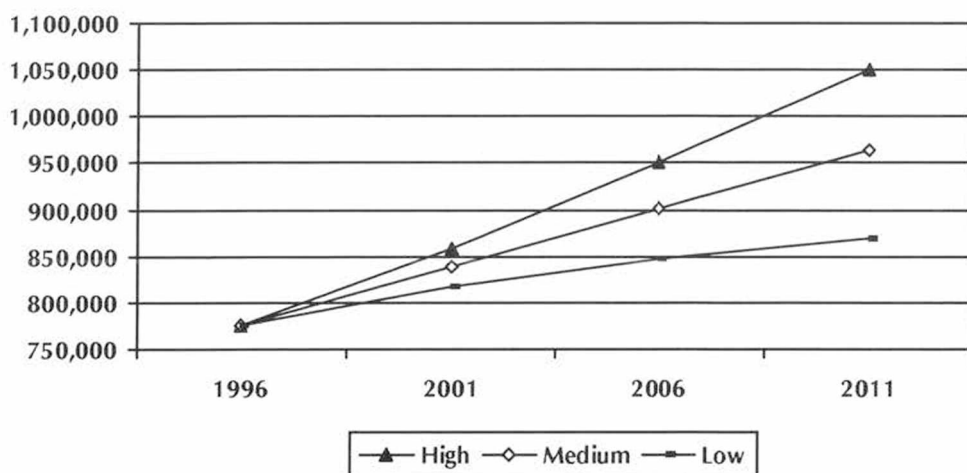
The school-age population (6–16) would grow to 210,823. The working-age population would increase from its current level of 461,106 people to 591,960 people in the year 2011 and the age-dependency ratio would decrease to 62.8.

Scenario 3 (Low Variant)

If fertility were to decline rapidly and net migration were to remain at 1991–96 levels, the population would grow by 0.8% per annum to a total of 869,459 in the year 2011.

The school-age population would decrease to 186,256. The working-age population would be 553,282, which represents an increase of about 92,176 people over 1996. The age-dependency ratio would decrease from 68.1 in 1996 to 57.1 in 2011.

Figure 28: Population projections under three varying assumptions, 1996–2011



8. OVERALL IMPLICATIONS FOR PLANNERS AND POLICY-MAKERS

1. Population projections for Fiji in 2011 range from 869,459 to 1,050,537 depending on future levels of fertility and migration assumed. Considering the Medium Variant as the most likely scenario, the population could reach 963,546 people in the year 2011, an increase of 188,469 people compared to the 1996 Census population, representing an annual growth rate of 1.5%.
2. Fiji's population is likely to have undergone some changes by the year 2011 (Table 8 and Appendix Table 33). The proportion aged less than 15 years is likely to be lower, while the working ages, 15–59, and elderly, 60+ are likely to be higher. This would mean that there would be a change in the age-dependency ratio, with a decrease in the ratio of young dependents and an increase in the ratio of elderly dependents. This change would result in a shift in the demand for services from the young to the elderly. For example an increased percentage of old people would demand more health and social services.
3. The higher proportion of adults would lead to an increase in the median ages of between 4 and 6 years between 1996 and 2011.
4. The proportion of the population in the working ages would increase in all scenarios, although the magnitude differs markedly. The High Variant shows the largest increase compared to the other two scenarios. The increases range from 8% for the Low Variant to 36% for the High Variant.
5. International migration has and will continue to be a major force in Fiji's population growth. However, given the vulnerability of international migration to external forces, the Government should be aware of the far-reaching effects of fluctuations in migration trends. For example, what if net migration was zero – that is, arrivals equal departures; or if net migration were to double?
6. The concentration of people in the urban areas of the Central and Western Divisions justifies the provision of good services in these areas. Care needs to be taken to provide similar services in other areas, especially rural areas.
7. Fiji's young age structure demands that a large proportion of its resources be invested in children – their education and training, employment and health services.
8. The education and training of young people should go hand-in-hand with economic and social development policies. Government should encourage higher education, especially tertiary education among the Fijian component who still lag behind other ethnic groups.
9. Increases in 1-person and nuclear family households point to the need to strengthen traditional family networks in anticipation of an increased elderly population in the future.

10. Increasing numbers of female-headed households creates a demand for low-cost housing for women, who are usually in the lower income brackets. Mechanisms need to be in place to take care of problems associated with changing family roles as more and more women join the workforce and become the main breadwinners.
11. In the interest of equity, women should be encouraged to share in decision-making at all levels, by promoting them to legislative and managerial positions.
12. The provision of a safe and reliable water supply for all households in Fiji should be one of Government's priorities.
13. Investment in human resource development must be given priority in budgets at all levels.
14. Regional growth centres should be developed further to share out the benefits of development to areas such as the Northern and Eastern Divisions and the rural areas of the Central and Western Divisions .
15. Job creation in the industrial and service sectors and the agricultural sectors should be facilitated by Government and the private sector through the establishment of more favourable climates for expanded trade and investment.
16. Government should ensure community participation in health policy planning, especially with respect to the long-term care of the elderly.
17. With mortality levels stagnating during the last 10 years or so, there is a need to prolong the healthy life span and improve the quality of life of all people.
18. When formulating population distribution policies Government should ensure that the objectives and goals of those policies are consistent with other development goals, policies and basic human rights.
19. Reliable statistics on births, deaths and migration provide the basis for sensible development planning. They are indispensable for keeping data on population size, growth and indicators up-to-date, and form the basis for sensible population projections. The impact and success of any policies, programmes and projects designed to influence fertility, mortality and migration, could be readily evaluated with the help of a complete, reliable vital registration system.

In recognition of the fact that civil registration is the ideal source of vital statistics, it is recommended that an evaluation of the registration system in Fiji is carried out. It is understood that birth registration is almost complete, while death registration is lagging behind. The extent to which these events are under-registered can only be confirmed by a proper evaluation of the system.

20. Although availability of good data is one pre-condition for responsible development planning, data analysis, interpretation and utilisation are of equal importance. This requires adequately trained staff. Population projections are an essential planning tool, and an improved knowledge of the interrelationship between population and development is

essential to provide a firm basis for undertaking demographic projections and scenario-building. Sector-specific projections in such important sectors as education, health and manpower planning are also needed, and require close cooperation between all stakeholders. This population profile presents some of the basic building blocks which planners can use to plan for future population needs.

REFERENCES

- Government of Fiji. (1988). Report on Fiji Population Census 1986. Vol. 1, General Tables. Parliamentary Paper No. 4, Suva, Fiji.
- Government of Fiji. (1989). Report on Fiji Population Census 1986. Analytical report on the demographic, social and economic characteristics of the population. Bureau of Statistics, Suva, Fiji.
- Government of Fiji. (1997). Fiji Net Migration by Age and Sex, 1991–96. Statistical Table released by the Bureau of Statistics, Suva, Fiji.
- Government of Fiji. (1998a). 1996 Fiji Census of Population and Housing: General Tables. Parliamentary Paper No. 43, Suva, Fiji.
- Government of Fiji. (1998b). 1996 Fiji Census of Population and Housing: Analytical Report Part I – Demographic Characteristics. Parliamentary Paper No. 49, Suva, Fiji.
- Government of Fiji. (1998c). Statistical News, No. 18. Bureau of Statistics, Suva, Fiji.
- Haupt, A. & Kane, T. T.. (1991). The Population Reference Bureau's Population Handbook, International Edition, 3rd Edition. The Population Reference Bureau, Inc. Washington, D.C.
- Overseas Development Administration, United Kingdom, and Economic Planning Unit, Kuala Lumpur, Malaysia. (1992). PEOPLE, Version 3.01.
- Rakaseta, V. L. (1995). Women's work and fertility in Fiji. Pacific Public Health Dialog, Vol. 2, No. 1 (March 1995). South Pacific Commission, Noumea, New Caledonia.
- South Pacific Commission. (1996). Fiji Population Profile: A guide for planners and policy-makers. Population/Demography Programme, South Pacific Commission, Noumea, New Caledonia.
- United Nations. (1995a). Population and Development: Programme for action adopted at the International Conference on Population and Development, Cairo, 5–13 September 1994, Vol. 1.
- United Nations. (1995b). World Population Prospects. The 1994 Revision, New York.

APPENDIX TABLES

Appendix Table 1: Size and growth rates of Fiji's population at various censuses, 1881–1996

Census year	Total population	Intercensal growth rate
1881	127,486	–
1891	121,180	–0.5
1901	120,124	–0.1
1911	139,541	1.5
1921	157,266	1.2
1936	198,379	1.6
1946	259,638	2.6
1956	345,737	2.9
1966	476,727	3.2
1976	588,068	2.1
1986	715,375	2.0
1996	775,077	0.8

Appendix Table 2: Population by division and density, 1996

Division	Population	Percentage	Land area*	Density
Western	297,184	38.3	6,360	47
Central	297,607	38.4	4,293	69
Northern	139,516	18.0	6,198	23
Eastern	40,770	5.3	1,422	29
Total	775,077	100.0	18,272	42

* Due to rounding of figures

Appendix Table 3: Growth rate by division and ethnic group, 1986–1996

Division	Total	Fijian	Indo-Fijian	Others
Western	0.5	1.8	–0.4	2.1
Central	1.3	2.5	–0.4	1.3
Northern	0.8	1.2	0.3	1.3
Eastern	–0.5	–0.5	–2.9	0.4
Total	0.8	1.8	–0.3	1.3

Appendix Table 4: Population distribution and growth rates by division and sectors

Division	Sectors	1986 Census	1996 Census	Growth rate
Western	ALL	283,349	297,184	0.5
	Rural	203,705	186,114	-0.9
	Urban	79,644	111,070	3.3
Central	ALL	260,110	297,607	1.3
	Rural	85,033	82,979	-0.2
	Urban	175,077	214,628	2.0
Northern	ALL	129,154	139,516	0.8
	Rural	109,745	109,465	0.0
	Urban	19,409	30,051	4.4
Eastern	ALL	42,762	40,770	-0.5
	Rural	39,867	37,024	-0.7
	Urban	2,895	3,746	2.6
Total	All	715,375	775,077	0.8
	Rural	438,350	415,582	-0.53
	Urban	277,025	359,495	2.6

Appendix Table 5: Age and sex distribution, 1996

Age	Males	Females	Both sexes	Sex ratio
0-4	48,563	45,651	94,214	106.4
5-9	44,937	42,158	87,095	106.6
10-14	47,709	45,146	92,855	105.7
15-19	42,829	40,853	83,682	104.8
20-24	34,444	32,511	66,955	105.9
25-29	31,283	30,377	61,660	103.0
30-34	30,727	30,114	60,841	102.0
35-39	28,525	27,254	55,779	104.7
40-44	22,341	21,839	44,180	102.3
45-49	18,482	18,599	37,081	99.4
50-54	14,286	14,397	28,683	99.2
55-59	10,857	11,388	22,245	95.3
60-64	7,605	7,854	15,459	96.8
65-69	5,138	5,623	10,761	91.4
70-74	3,054	3,303	6,357	92.5
75+	3,151	4,079	7,230	77.2
Total	393,931	381,146	775,077	103.4

Appendix Table 6: Per cent distribution of the population by broad age-groups and by ethnicity, 1996

Age-group	Total	Fijian	Indo-Fijian
0–14	35.4	37.9	32.6
15–59	59.5	56.5	62.9
60+	5.1	5.6	4.5
Total	100.0	100.0	100.0

Appendix Table 7: Median age by ethnicity, 1976–1996

Census year	Fijian	Indo-Fijian	Total
1976	18.2	17.5	17.8
1986	20.2	20.9	20.6
1996	20.1	22.4	21.2

Appendix Table 8: Age-dependency ratios by ethnicity, 1976–1996

Census year	Fijian	Indo-Fijian	Total
1976	87.6	78.4	82.6
1986	81.7	71.0	76.0
1996	76.9	59.0	68.1

Appendix Table 9: Population distribution by ethnic group

Ethnic group	1996		% change 1986–1996	% change 1976–1986
	Number	Percentage		
Fijians	393,575	50.8	19.5	26.7
Indo-Fijians	338,818	43.7	–2.8	19.1
Chinese	4,939	0.6	3.2	2.8
Europeans	3,103	0.4	–26.0	–14.9
Part Europeans	11,685	1.5	13.5	0.2
Rotumans	9,727	1.2	12.4	18.7
Other Pacific Is.	10,463	1.3	21.3	26.5
Others	2,767	0.4	241.6	–36.2
Total	775,077	100.0	8.3	21.6

Appendix Table 10: Religious denominations

Religious groups	Number	Percentage
Christians	449,482	58.0
Anglican	6,325	0.8
Assembly of God	31,072	4.0
Catholics	69,320	8.9
Methodist	280,628	36.2
Seventh Day Adventist	22,187	2.9
Other Christians	39,950	5.2
Non-Christians	325,595	42.0
Hindu	261,097	33.7
Sikh	3,076	0.4
Moslem	54,323	7.0
Other Religion	1,967	0.2
No Religion	5,132	0.7
Total	775,077	100.0

**Appendix Table 11: Population aged 15 years and over by marital status, 1996
(per cent)**

Age-Group	Never married		Married		Widowed		Divorced	
	M	F	M	F	M	F	M	F
15-19	98.2	89.7	1.7	10.0	0.0	0.1	0.0	0.2
20-24	77.3	45.9	22.1	52.4	0.1	0.4	0.4	1.3
25-29	35.2	18.4	63.4	78.8	0.2	0.7	1.1	2.2
30-34	15.0	10.5	83.3	85.6	0.3	1.3	1.3	2.6
35-39	9.1	7.6	88.8	86.7	0.4	2.7	1.6	3.0
40-44	6.0	5.6	91.5	85.6	0.7	5.3	1.7	3.3
45-49	5.1	4.6	91.4	81.8	1.4	10.3	1.9	3.2
50-54	4.8	4.4	90.6	76.5	2.5	15.9	2.1	3.2
55-59	5.0	4.2	87.4	67.8	5.1	25.6	2.1	2.5
60-64	4.4	3.9	84.1	59.2	9.2	34.7	2.2	2.2
65-69	4.8	4.4	78.3	44.9	14.4	49.1	2.3	1.5
70-74	5.7	4.9	63.5	27.2	14.1	58.3	2.0	1.6
75+	6.5	5.6	54.8	20.2	35.5	73.1	1.4	1.1
Total	36.1	26.8	60.8	63.0	1.9	8.1	1.2	2.1

Appendix Table 12: 6-16-year-olds attending school, 1976-1996 (per cent)

Age	1976	1986	1996
6	82	84	99
7	96	97	99
8	97	98	99
9	97	97	98
10	97	97	98
11	96	96	97
12	93	93	96
13	88	85	93
14	78	73	87
15	65	60	78
16	51	47	69

Appendix Table 13: 6–16-year-olds attending school by urban/rural residence and ethnicity, 1996 (per cent)

Age	Total	Rural	Urban	Fijian	Indo-Fijian
6	99	99	99	99	99
7	99	99	99	99	98
8	99	99	99	98	99
9	98	98	99	98	99
10	98	98	98	98	98
11	97	97	98	97	98
12	96	95	97	95	96
13	93	91	95	92	93
14	87	83	91	87	87
15	78	72	85	77	78
16	69	61	77	67	69
Total**	92	90	94	92	92

Note: Figures have been rounded

**Total for ages 6–16 years

Appendix Table 14: Educational attainment for persons aged 15 years and over, 1996 (per cent)

Educational attainment	Total	Males	Females	Fijians	Indo-Fijians
Never attended	3.1	1.7	4.4	0.8	5.7
Primary	17.4	17.3	17.4	17.5	18.1
Secondary	69.6	69.8	69.5	73.7	66.2
Post Secondary	9.9	11.1	8.6	8.0	10.0
Others	0.0	0.1	0.1	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0

**Appendix Table 15: Literacy rates by urban/rural residence and ethnicity, 1996
(per cent)**

	Fijian	Indo-Fijian	Rural	Urban	Total
Males	96.9	91.6	93.4	95.7	94.5
Females	96.1	85.8	90.1	92.8	91.4
Total	96.5	88.7	91.8	94.2	92.9

Appendix Table 16: Average number of persons per household by urban/rural residence and ethnicity, 1996

Ethnic group	No. of households	Total	Rural	Urban
Fijian	66,773	5.8	5.6	6.2
Indo-Fijian	68,978	4.9	5.2	4.7
Others	8,482	4.8	5.4	4.6
Total	144,233	5.3	5.4	5.2

**Appendix Table 17: Household types by ethnicity of head of household, 1986 & 1996
(per cent)**

Household type	1986				1996			
	Total	Fijian	Indo-Fijian	Other	Total	Fijian	Indo-Fijian	Other
1-person	3.1	3.5	2.4	6.8	3.8	4.4	2.7	7.9
Nuclear	45.5	35.2	55.1	36.3	46.6	37.4	56.4	39.8
Extended	49.1	58.9	40.9	50.3	46.8	54.8	39.3	45.6
Composite	2.3	2.5	1.7	6.6	2.8	3.4	1.6	6.7
Total	100.0	42.7	51.6	5.7	100.0	46.3	47.8	5.9

Appendix Table 18: Household type by sex and urban/rural residence of head of household, 1996 (per cent)

Household type	FIJIANS				INDO-FIJIANS			
	Urban		Rural		Urban		Rural	
	Males	Females	Males	Females	Males	Females	Males	Females
1-person	2.8	11.6	3.4	11.1	2.3	10.6	1.4	6.6
Nuclear	34.3	20.8	43.1	25.5	59.2	37.3	59.6	31.0
Extended	59.6	61.8	50.3	60.1	36.9	49.7	37.5	60.7
Composite	3.4	5.8	3.2	3.3	1.7	2.4	1.5	1.7
Total (no.)	21,357	4,207	35,624	5,585	31,106	4,785	29,490	3,597

Appendix Table 19: Housing and land tenure, Fijians & Indo-Fijians, 1996

Tenure	Total	Fijians	Indo-Fijians
Tenure	100.0	100.0	100.0
Own / with mortgage	65.2	60.6	71.0
Rent, private	10.3	7.0	11.7
Rent, public board	2.4	2.7	2.0
Employer	5.7	7.2	3.6
Other	16.4	22.5	11.7
Land tenure	100.0	100.0	100.0
Owned	18.4	12.0	21.7
Leased, state	19.3	11.4	27.0
Leased, NLTB	26.1	13.9	38.9
Trad. village	24.6	50.4	1.5
Other	11.6	12.3	10.9

Appendix Table 20: Living quarters and household services, Fijians & Indo-Fijians, 1996

Tenure	Fijians	Indo-Fijians	Total
Walls	100.0	100.0	100.0
Concrete, brick	31.0	32.6	33.7
Wood	20.0	23.4	24.9
Tin/corrugated	30.7	41.8	34.8
Other	18.3	2.2	6.6
Main water supply	100.0	100.0	100.0
Metered	47.4	69.8	60.0
Communal standpipe	35.8	7.2	20.7
Well, river or creek	10.5	17.2	13.3
Other	6.3	5.8	6.0
Toilet facilities	100.0	100.0	100.0
Flush	34.8	53.9	46.5
Sealed	40.5	6.0	22.5
Pit	22.4	39.9	29.8
Other	2.3	0.2	1.2
Cooking fuel	100.0	100.0	100.0
Electricity	2.3	2.2	2.6
LPG	19.0	33.4	28.2
Kerosene	22.2	20.0	20.7
Wood	56.2	43.9	48.1
Other	0.3	0.5	0.4
Lighting	100.0	100.0	100.0
Electricity	46.0	75.8	62.1
Pressure lamp	8.6	6.4	7.5
Wick lamp	44	16.6	29.1
Other	1.4	1.2	1.3

Appendix Table 21: Employment by age, ethnicity and residence, 1996 (per cent)

Age-group	Fijians		Indo-Fijians	
	Rural	Urban	Rural	Urban
15-19	4.9	7.8	15.3	16.3
20-24	12.1	32.7	35.2	47.5
25-29	11.3	40.4	34.1	53.3
30-34	10.9	41.1	33.2	51.4
35-39	10.2	41.5	32.8	51.7
40-44	9.9	41.6	32.4	50.2
45-49	8.5	38.2	27.6	43.2
50-54	7.3	34.9	25.6	36.2
55-59	5.3	21.6	21.2	24.9
60-64	3.0	13.0	19.1	17.1
65-69	2.6	7.6	15.8	12.7
70-74	1.9	5.5	13.5	7.3
75+	1.0	2.9	9.4	4.6

Appendix Table 22: Employed persons by province and sex, 1996

Province	Total	Males	Females	Per cent Female
Ba	67,343	52,622	14,721	21.9
Bua	1,811	1,463	348	19.2
Cakaudrove	10,045	8,230	1,815	18.1
Kadavu	1,113	928	185	16.6
Lau	2,328	1,680	648	27.8
Lomaiviti	3,965	2,786	1,179	29.7
Macuata	22,063	19,186	2,877	13.0
Nadroga/Navosa	15,976	12,643	3,333	20.9
Naitasiri	38,298	26,637	11,661	30.4
Namosi	1,216	1,018	198	16.3
Ra	8,465	7,385	1,080	12.8
Rewa	30,615	19,701	10,914	35.6
Serua	3,672	2,818	854	23.3
Tailevu	11,913	8,833	3,080	25.9
Rotuma	491	369	122	24.8
Total	219,314	166,299	53,015	24.2

Appendix Table 23: Occupation of employed persons by sex and residence, 1996

Occupation	Males	Females	Urban	Rural	Total
Legislators, Senior Officials & Managers	6,477	1,403	6,481	1,399	7,880
Professionals	10,398	7,586	13,019	4,965	17,984
Technicians	8,350	3,228	9,096	2,482	11,578
Clerks	7,440	9,061	12,977	3,524	16,501
Service Workers	14,405	7,734	14,709	7,430	22,139
Skilled Agric. & Fisheries	40,231	5,414	4,295	41,350	45,645
Craft and Related Trades	23,997	3,218	18,057	9,158	27,215
Plant and Machine Operators	16,190	6,289	14,658	7,821	22,479
Elementary Occupations	36,712	9,045	16,329	29,428	45,757
Unallocated Occup. Codes	2,099	37	1,840	296	2,136
Total	166,299	53,015	111,461	107,853	219,314

Appendix Table 24: Crude Birth Rates and Crude Death Rates, 1991–1996

Year	Bureau of Statistics		Ministry of Health	
	CBR	CDR	CBR	CDR
1991	25.4	5.3	24.0	5.0
1992	26.0	5.3	N.A.	N.A.
1993	25.5	5.9	24.9	5.9
1994	24.2	5.6	24.3	5.6
1995	25.0	5.6	24.4	5.4
1996	22.5	5.9	24.0	6.0

Appendix Table 25: Age Specific Fertility Rates by ethnicity and by residence, 1996

Age-group	Age Specific Fertility Rates (per 1,000 women)								
	Fijian			Indo-Fijian			Total		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
15–19	71	33	46	76	49	62	69	40	54
20–24	221	160	189	230	177	202	225	168	195
25–29	238	189	216	157	142	149	204	165	185
30–34	189	142	173	72	77	75	138	109	124
35–39	108	80	100	25	25	25	71	50	61
40–44	47	33	44	10	8	9	31	20	25
45–49	14	10	12	5	4	5	10	7	8
TFR*	4.44	3.23	3.90	2.87	2.41	2.63	3.74	2.79	3.26

Appendix Table 26: Abridged Life Table – Males

Age	nmx	nqx	lx	ndx	nLx	npx	Tx	ex
0	0.02297	0.02251	100,000	2,251	97,990	0.97574 *	6,447,013	64.5
1	0.00119	0.00473	97,749	462	389,879	0.99513 +	6,349,023	65.0
5	0.00078	0.00387	97,287	376	485,492	0.99615	5,959,144	61.3
10	0.00077	0.00382	96,910	370	483,625	0.99486	5,473,652	56.5
15	0.00140	0.00696	96,540	672	481,138	0.99192	4,990,026	51.7
20	0.00181	0.00900	95,868	863	477,249	0.99039	4,508,888	47.0
25	0.00205	0.01018	95,005	967	472,661	0.98908	4,031,639	42.4
30	0.00240	0.01193	94,038	1,122	467,499	0.98591	3,558,978	37.8
35	0.00341	0.01690	92,916	1,570	460,914	0.97850	3,091,479	33.3
40	0.00548	0.02705	91,346	2,471	451,005	0.96594	2,630,565	28.8
45	0.00867	0.04248	88,875	3,775	435,645	0.94430	2,179,560	24.5
50	0.01471	0.07113	85,100	6,053	411,379	0.91248	1,743,915	20.5
55	0.02243	0.10650	79,046	8,418	375,376	0.86575	1,332,536	16.9
60	0.03629	0.16697	70,628	11,793	324,981	0.79756	957,160	13.6
65	0.05524	0.24334	58,835	14,317	259,192	0.71125	632,179	10.7
70	0.08267	0.34232	44,518	15,239	184,349	0.60487	372,987	8.4
75	0.12068	0.45961	29,279	13,457	111,508	0.47915	188,638	6.4
80	0.17733	0.59883	15,822	9,475	53,429	0.30728 **	77,130	4.9
85	0.26782	.....	6,347	6,347	23,700	.....	23,700	3.7

Note: * Survivorship of five birth cohorts to age 0–4 (5L0/500,000)

+ This is 5L5/5L0

** This is T85/T80

Source: 1996 Fiji Census of Population and Housing: Analytical Report - Part 1: Demographic Characteristics.

Appendix Table 27: Abridged Life Table – Females

Age	nm _x	nq _x	l _x	nd _x	nL _x	np _x	T _x	ex
0	0.02383	0.02334	100,000	2,334	97,946	0.97474 *	6,865,534	68.7
1	0.00127	0.00505	97,666	493	389,424	0.99553 +	6,767,588	69.3
5	0.00055	0.00276	97,173	268	485,193	0.99757	6,378,164	65.6
10	0.00042	0.00209	96,905	203	484,017	0.99729	5,892,971	60.8
15	0.00072	0.00360	96,702	348	482,703	0.99570	5,408,954	55.9
20	0.00100	0.00501	96,354	483	480,628	0.99404	4,926,251	51.1
25	0.00140	0.00696	95,871	667	477,762	0.99225	4,445,623	46.4
30	0.00173	0.00863	95,204	822	474,058	0.98982	3,967,861	41.7
35	0.00244	0.01213	94,382	1,145	469,231	0.98483	3,493,803	37.0
40	0.00380	0.01885	93,237	1,758	462,114	0.97604	3,024,572	32.4
45	0.00608	0.03000	91,480	2,744	451,043	0.96182	2,562,457	28.0
50	0.00976	0.04773	88,736	4,235	433,823	0.93990	2,111,415	23.8
55	0.01541	0.07436	84,500	6,283	407,752	0.90819	1,677,591	19.9
60	0.02371	0.11227	78,217	8,781	370,318	0.86054	1,269,839	16.2
65	0.03739	0.17161	69,435	11,916	318,674	0.79061	899,521	13.0
70	0.05788	0.25353	57,520	14,583	251,946	0.70049	580,846	10.1
75	0.08695	0.35740	42,937	15,346	176,486	0.56649	328,901	7.7
80	0.14548	0.52715	27,591	14,545	99,978	0.34404 **	152,415	5.5
85	0.24880	.....	13,046	13,046	52,436	.....	52,436	4.0

Notes: *Survivorship of five birth cohorts to age 0–4 (5L0/500,000)

+ This is 5L5/5L0

**This is T85/T80.

Source: 1996 Fiji Census of Population and Housing: Analytical Report - Part 1: Demographic Characteristics.

Appendix Table 28: Health professional wastage* by profession, 1991–1996

	1991–1996	1991	1992	1993	1994	1995	1996
Doctors	290	36	43	34	43	41	93
Nurses	954	150	92	85	224	207	196
Paramedics	104	9	22	10	19	21	23
Administrators	165	22	28	25	36	25	29
Pharmacists	17	2	1	2	5	2	5
Dentists	38	5	5	5	3	8	12
Total	1,568	224	191	161	330	304	358

* Wastage due to resignations, retirement or termination

Source: Management Information System, Public Service Commission

Appendix Table 29: Lifetime* migration of population by ethnicity and by province, 1996

Province	Fijian			Indo-Fijian			Total		
	Lifetime in-migr.	Lifetime out-migr.	Lifetime net-migr.	Lifetime in-migr.	Lifetime out-migr.	Lifetime net-migr.	Lifetime in-migr.	Lifetime out-migr.	Lifetime net-migr.
All Fiji	136,221	136,221	0	80,729	80,729	0	229,822	229,822	0
Central Division	79,378	55,256	24,122	46,297	27,970	18,327	133,633	88,210	45,423
Naitasiri	39,021	10,141	28,880	26,200	4,777	21,423	68,844	15,758	53,086
Namosi	1,045	1,882	-837	247	427	-180	1,360	2,387	-1,027
Rewa	27,252	26,464	788	12,803	13,293	-490	43,537	43,301	236
Serua	3,300	2,653	647	2,101	2,244	-143	5,795	5,044	751
Tailevu	8,760	14,116	-5,356	4,946	7,229	-2,283	14,097	21,720	-7,623
Western Division	31,825	26,314	5,511	26,319	34,881	-8,562	60,836	63,170	-2,334
Ba	20,707	14,943	5,764	15,332	19,187	-3,855	38,301	35,703	2,598
Nadroga	6,534	5,694	840	7,430	9,183	-1,753	14,231	15,127	-896
Ra	4,584	5,677	-1,093	3,557	6,511	-2,954	8,304	12,340	-4,036
Northern Division	15,352	23,161	-7,809	7,776	16,777	-9,001	24,475	42,626	-18,151
Bua	2,147	4,188	-2,041	832	2,513	-1,681	3,113	6,947	-3,834
Cakaudrove	6,337	12,123	-5,786	2,189	3,251	-1,062	9,234	17,131	-7,897
Macuata	6,868	6,850	18	4,755	11,013	-6,258	12,128	18,548	-6,420
Eastern Division	9,666	31,490	-21,824	337	1,101	-764	10,878	35,816	-24,938
Kadavu	2,017	7,097	-5,080	29	160	-131	2,072	7,410	-5,338
Lau	2,898	15,311	-12,413	39	381	-342	2,958	15,904	-12,946
Lomaiviti	4,600	8,940	-4,340	254	532	-278	5,174	10,027	-4,853
Rotuma	151	142	9	15	28	-13	674	2,475	-1,801

Note: *Lifetime migrants are defined as people enumerated in a place different from their birthplace

Source: 1996 Census Analytical Report

Appendix Table 30: Lifetime migration by division, 1996

Born in: Division	In-migration to:			
	Central Division	Western Division	Northern Division	Eastern Division
Central	55,238 *	20,877	5,247	6,848
Western	31,051	27,724 *	2,999	1,396
Northern	20,982	6,361	13,910 *	1,373
Eastern	26,362	5,874	2,319	1,261 *
Total	133,633	60,836	24,475	10,878

Note: *Persons moving between provinces within a division

Appendix Table 31: Recent migration of population aged 5 and over by sex and ethnicity, 1996

Province				Fijian			Indo-Fijian		
	Recent in-migr.	Total Recent out-migr.	Recent net-migr.	Recent in-migr.	Recent out-migr.	Recent net-migr.	Recent in-migr.	Recent out-migr.	Recent net-migr.
All Fiji	98,152	98,152	0	63,111	63,111	0	28,660	28,660	0
Central Division	58,167	44,435	13,732	37,231	29,885	7,346	17,202	11,175	6,027
Naitasiri	28,192	11,895	16,297	16,972	8,241	8,731	9,539	2,769	6,770
Namosi	683	1,222	-539	558	1,036	-478	90	142	-52
Rewa	20,542	21,048	-506	13,755	13,108	647	5,162	5,782	-620
Serua	2,543	2,253	290	1,672	1,508	164	692	640	52
Tailevu	6,207	8,017	-1,810	4,274	5,992	-1,718	1,719	1,842	-123
Western Division	23,938	25,204	-1,266	14,613	13,501	1,112	8,043	10,554	-2,511
Ba	15,970	14,638	1,332	9,496	7,991	1,505	5,404	5,796	-392
Nadroga	4,971	6,021	-1,050	3,111	2,917	194	1,737	2,917	-1,180
Ra	2,997	4,545	-1,548	2,006	2,593	-587	902	1,841	-939
Northern Division	11,208	17,749	-6,541	7,226	10,025	-2,799	3,237	6,526	-3,289
Bua	1,202	2,938	-1,736	878	1,803	-925	250	1,064	-814
Cakaudrove	3,998	6,554	-2,556	2,776	4,814	-2,038	840	953	-113
Macuata	6,008	8,257	-2,249	3,572	3,408	164	2,147	4,509	-2,362
Eastern Division	4,839	10,764	-5,925	4,041	9,700	-5,659	178	405	-227
Kadavu	1,021	2,390	-1,369	967	2,231	-1,264	30	90	-60
Lau	1,502	3,567	-2,065	1,473	3,417	-1,944	18	98	-80
Lomaiviti	1,722	4,402	-2,680	1,490	4,011	-2,521	118	214	-96
Rotuma	594	405	189	111	41	70	12	3	9

Note: Recent migrants are defined as people migrating during the 5-year period prior to the census

Source: 1996 Census Analytical Report

Appendix Table 32: Urban population by per cent rural born and by gender, 1996

Division	Enum. pop.	Urban Fijians			Enum. pop.	Urban Indo-Fijians		
		% of males rural born	% of fem. rural born	% of total rural born		% of males rural born	% of fem. rural born	% of total rural born
All Fiji	161,335	39.3	41.7	40.5	168,035	32.7	36.9	34.8
Central	108,671	39.5	41.6	40.6	84,475	24.4	26.7	25.5
Western	42,045	36.5	39.8	38.1	62,583	37.8	43.7	40.7
Northern	7,946	52.7	54.2	53.5	20,572	52.0	57.9	55.0
Eastern	2,673	34.4	36.1	35.3	405	19.0	17.0	18.0

Source: 1996 Census Analytical Report

Appendix Table 33: Population projections by age-groups, 1996 & 2011, under 3 varying scenarios*

Indices	1996 (base year)	HIGH	2011 MEDIUM	LOW
Population size	775,077	1,050,537	963,546	869,459
of which are				
< 15	274,164	344,505	295,319	242,825
60+	39,807	78,913	76,267	73,352
School ages (6–16)	197,424	232,477	210,823	186,256
Working ages (15–59)	461,106	627,120	591,960	553,282
Population structure				
% < 15	35.4	32.8	30.6	27.9
% 60+	5.1	7.5	7.9	8.4
School ages (6–16)	25.5	22.1	21.9	21.4
% Working ages (15–59)	59.5	59.7	61.4	63.7
Median age (years)	21.2	25.1	26.0	27.0
Age-dependency ratio (15–59)	68.1	67.5	62.8	57.1
Annual growth rate (%)	0.8	2.0	1.5	0.8
Sex ratio	103.4	103.2	104.0	105.0

*As discussed in text

GLOSSARY

Term	Definition/description
Age-dependency ratio	The ratio of persons in the ages defined as dependent (under 15 and over 60 years) to persons in the ages defined as economically productive (15–59 years)
Age–sex composition	Distribution of population by age and sex
Age-Specific Fertility Rates (ASFRs)	Relates the number of births to women of a particular age-group, in a specific calendar year, to the mid-year population of women in that same age-group
Average household size	Total population living in private households divided by total number of private households
Balancing equation	Population growth = births – deaths + net migration
Birth cohorts	A group of people born in the same reference period
Child mortality	Mortality of children between 1 and 4 years of age
Child mortality rate	Total number of deaths of children aged 1– 4 during a year x, divided by the mid-year population of children aged 1–4
Child-bearing age (for women)	Ages 15–49 (the reproductive age-span of women)
Children	Population under 15 years
Crude Birth Rate (CBR)	The total number of live births per 1,000 population in a given year
Crude Death Rate (CDR)	The total number of deaths in a given year per 1,000 population
Direction of migration	Destination of migrants
Economically active population	Persons 15 years and older who were employed or looking for work; also referred to as the 'labour force'

Term	Definition/description
Educational attainment	Proportion of the population 15 or 25 years and over by age-groups and level of education
Elderly persons	Persons aged 60 years and over
Emigrants	Persons who move out of a country for the purpose of establishing a new residence
Extended-family household	Household consisting of couples living with their children and others related by blood or through marriage
Family	A group of two or more persons related by birth, marriage or adoption and living together
Fecundity	The biological/physiological ability to reproduce
Fertility	Actual reproductive performance of a population; the number of live births occurring in a population
Household	A single person living alone or a group voluntarily living together, having common housekeeping arrangements for supplying basic living needs, such as principal meals; the group may consist of related or unrelated persons
Immigrants	Persons who move into a country for the purpose of establishing a new residence
Infant mortality	Mortality of children under one year
Infant Mortality Rate (IMR)	Total number of deaths of children under one year per 1,000 live births in a year
In-migrants	Persons who move into a different area of a country for the purpose of establishing a new residence
Internal migration	The movement of people within a country for the purpose of establishing a new residence
International migration	The movement of people between countries for the purpose of establishing a new residence
Labour force	Persons employed and unemployed; excludes those not seeking employment, housewives and students

Term	Definition/description
Labour force participation rate	The number of persons in the labour force divided by the corresponding total number of persons (usually those 15 years and older)
Life expectancy at birth (E(o))	The average number of years a new-born child would live if current mortality trends were to continue
Marital status	Married status of a person: includes not-married (single), currently married, divorced/separated, de facto, widowed
Median age	The age that divides a population into two numerically equal groups; that is, half the people are younger than this age, and half are older
Migrant	A person who moves for the purpose of establishing a new residence
Migration	Movement of people across a specified boundary for the purpose of establishing a new residence
Mortality	Deaths as a component of population change
Natural increase	Population increase that is the result of births and deaths; growth occurs when the number of births in a given time period (e.g. a calendar year) exceeds the number of deaths; negative growth, or population decline, occurs when the number of deaths exceeds the number of births
Net migration rate	The net effect of immigration and emigration on a country's population, expressed as increase/decrease per 1,000 population in a given year
Nuclear family	A couple and their unmarried children residing together
Out-migrants	Persons who move out of an area within a country for the purpose of establishing a new residence in a different area of the country
Population census	The total count of a population. Usually taken at 5- or 10-year intervals
Population density	Number of persons per square mile or square kilometre of land area

Term	Definition/description
Population dynamics	Development of population through time
Population momentum	Continued population growth even after birth rates have fallen due to a large number of women of child-bearing age because of past high fertility
Population policies	Measures devised by governments to influence population size, growth or distribution
Population processes	Vital events or migratory movements: fertility, mortality and migration (including urbanisation)
Population projections	Scenarios of what future populations may look like under given assumptions
Population structure	Refers to population size, geographic distribution, age–sex structure and socio-economic characteristics
Rate of natural increase	Rate at which population grows (increase/decrease) during a given year, as the result of a surplus/deficit of births over deaths; expressed as a percentage of the base population
Rate of population growth	Rate at which population grows (increase/decrease) during a given year, as the result of natural increase plus net migration; expressed as a percentage of the base population
School-age population	Depends on the education systems of various countries, but usually ages 6–16
School enrolment	Proportion of population, by age-groups or single years of age, currently enrolled in school
Sex ratio	Number of men per 100 women. Sex ratios over 100 indicate that there are more males than females, and sex ratios under 100 indicate more females than males
Socio-economic characteristics of population	Ethnicity, marital status, religious denomination, economic activity and educational attainment of population
Total Fertility Rate (TFR)	The average number of children a woman would give birth to, during her lifetime, if she were to pass through her childbearing years conforming to the Age-Specific Fertility Rates of a given year

Term**Definition/description**

Vital events

Births, deaths, marriages and divorces

Vital processes

Population processes: fertility, mortality and migration (including urbanisation)

Vital statistics

Information on vital events

Volume of migration

Number of migrants

Working-age population

Normally defined as population aged 15–59 (or 15–64)

ENDNOTES

¹ Indirectly derived from information on children ever born and births in the 12 months prior to the census.

² Recent migrants are defined as people migrating during the 5 years prior to the census.