

Environment Bay of Plenty  
5 Quay Street  
Whakatane

May 2009

Resource Policy Publication 2009/01  
ISSN: 1175 8546



## **Profile 2009**

# **A Socio-economic Profile of the People of the Bay of Plenty region**

**Prepared by Nick Everitt, Summer Student  
Maps by Environment Bay of Plenty Cartography Section**

**Environment Bay of Plenty  
Bay of Plenty Regional Council  
May 2009**



## Executive summary

### Population change

The Bay of Plenty is New Zealand's fifth most populated region. With around 257,379 inhabitants, the region comprises over 6% of the national population. The land area of the region is 12,254 km<sup>2</sup> with a population density of 21 people per square kilometre.

Between 1996 and 2006 there was a 15% increase in the Bay of Plenty resident population. The Tauranga City and Western Bay of Plenty Districts experienced the largest population increases (33% and 20% respectively) over the ten year period. The Kawerau and Opotiki Districts experienced population declines (-12% and -4% respectively) over the same period of time.

The Bay of Plenty region is expected to remain the second fastest growing region in New Zealand with a projected population increase of 23% between 2006 and 2031. A 45% projected growth in the Tauranga City District between 2006 and 2031 accounts for much of the region's projected growth.

### Population characteristics

In 2006 27% of the Bay of Plenty resident population identified themselves as being Maori compared to 14% for New Zealand as a whole<sup>1</sup>. Five percent of the population identified with an ethnic group other than NZ European or Maori. In 2006, NZ European comprised 75% of the region's resident population.

As with the national trend the age composition of the Bay of Plenty region from 2001-2006 has shown an increase in the percentage of older persons (65 years plus). The 14% figure is slightly higher than the corresponding 10% increase for the nation as a whole. This is representative of our ageing population.

### Households and families

In 2006, 50% of household occupiers in the region owned or partly owned their homes. This is a marked decrease from the 2001 figure of 65%.

While the most common family type in New Zealand is the Two-Parent, this is not the case in the Bay of Plenty. The most common family type in the Bay of Plenty is the Couple Only (42%), slightly higher than the New Zealand proportion of 40%. The percentage of One-Parent families was also slightly higher in the Bay of Plenty (20%), than New Zealand overall (18%).

Within the Bay of Plenty, 12% of Kawerau households indicated being without a motor vehicle for private use compared with 4% of the Western Bay of Plenty.

Around 3% of households in the region were without access to telecommunications in 2006. The highest percentage without access was the 9% of Opotiki residents who had no access to telephone, cellphone, internet or fax.

---

<sup>1</sup> Because people can identify with more than one ethnic group, the total adds up to more than 100%.

## Employment and unemployment

In 2006, 118,470 people aged 15 years and over were engaged in either full-time or part-time paid employment. This is an 18% increase from the 2001 figure of 100,746. The two industry groups employing the highest percentage (11%) of residents aged 15 years and over within the Bay of Plenty region were the retail trade industries and manufacturing industries.

Unemployment rates in the Bay of Plenty in 2006 (4%) have mirrored the nation wide decrease over the last decade and are just slightly higher than the New Zealand figure of 3%. The highest unemployment rates in the Bay of Plenty region are located in the Kawerau District (8%).

## Education

The region has a higher proportion of people with no formal qualifications (26%) when compared with New Zealand (22%). In addition to this, the proportion of people leaving school in 2006 with University Entrance or a Level 3 qualification (33%) was lower than the nationwide figure (39%).

## Income

The median personal income of Bay of Plenty residents aged 15 years and over in 2006 was \$22,600 per annum, compared with \$24,400 for New Zealand overall. In 2006 23% of families in the region earned under \$30,000 per annum compared to 19% of families within New Zealand as a whole.

Sixteen per cent of the Bay of Plenty resident population aged 15 years and over received some form of income support during the twelve months preceding the 2006 census. There was considerable variation in the proportion of the population aged 15 years and over who had received income support, varying between 11% in the Western Bay of Plenty district and 28% in the Kawerau district.

## 2006 key statistics

Key statistics from the 2006 census for the Bay of Plenty region and districts are summarised in the following tables.

## Bay of Plenty region 2006 key statistics

<b>Usually Resident Population</b>		
	<b>Number</b>	<b>Percent Increase</b>
1996	224,367	2001 - 2006 = 8%
2001	239,424	
2006	257,379	
<b>Area and Population Density</b>		
Total Land Area	12,254km <sup>2</sup>	
People per Square Kilometre	21.0/km <sup>2</sup>	
<b>Total Number of Private Dwellings</b>		
	<b>Number</b>	<b>Percent Increase</b>
2001	87,894	2001-2006 = 9%
2006	96,168	
<b>Tenure (Home Ownership)</b>		
	<b>Number</b>	<b>Percent</b>
Dwelling Owned or Partly Owned	47,031	50%
Dwelling Not Owned By Usual Resident	28,974	31%
<b>Age Composition</b>		
	<b>Number</b>	<b>Percent</b>
0-4	18,267	7%
5-14	41,004	16%
15-24	30,717	12%
25-44	65,751	26%
45-64	63,582	25%
65 and over	38,058	15%
<b>Ethnic Composition</b>		
	<b>Number</b>	<b>Percent</b>
Māori	67,662	26%
NZ European	165,012	64%
Other	45,192	18%
<b>Labour Force Status (15 Years and Over)</b>		
	<b>Number</b>	<b>Percent</b>
Labour Force (full-time and part-time)	118,470	59%
Non Labour Force	64,953	33%
Unemployed	7,725	4%
<b>Incomes (15 Years and Over)</b>		
	<b>Number</b>	<b>Percent</b>
Personal Income: \$30,001 and over	66,780	35%
Family Income: \$30,001 and over	44,502	77%
<b>Highest Qualification (15 Years and Over)</b>		
	<b>Number</b>	<b>Percent</b>
University or Other Tertiary	35,421	18%
Secondary School	88,959	45%
No Qualifications	50,685	26%
<b>Family Type</b>		
	<b>Number</b>	<b>Percent</b>
One-Parent Family	14,298	20%
Two-Parent Family	26,517	38%
Couple Only	29,820	42%

Source: Statistics New Zealand website and customised tables

## Western Bay of Plenty 2006 key statistics

<b>Usually Resident Population</b>	<b>Number</b>	<b>Percent Increase</b>
1996	34,962	2001 - 2006 = 10%
2001	38,226	
2006	42,075	
<b>Area and Population Density</b>		
Total Land Area	2,121km <sup>2</sup>	
People per Square Kilometre	19.8/km <sup>2</sup>	
<b>Total Number of Private Dwellings</b>	<b>Number</b>	<b>Percent Increase</b>
2001	14,040	2001-2006 = 12%
2006	15,690	
<b>Tenure (Home Ownership)</b>	<b>Number</b>	<b>Percent</b>
Dwelling Owned or Partly Owned	7,539	49%
Dwelling Not Owned By Usual Resident	3,816	25%
<b>Age Composition</b>	<b>Number</b>	<b>Percent</b>
0-4	2,526	-4%
5-14	6,585	-1%
15-24	4,323	17%
25-44	9,945	1%
45-64	12,165	22%
65 and over	6,540	20%
<b>Ethnic Composition</b>	<b>Number</b>	<b>Percent</b>
Māori	6,924	16%
NZ European	29,031	69%
Other	7,734	18%
<b>Labour Force Status (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
Labour Force (full-time and part-time)	20,400	62%
Non Labour Force	10,059	31%
Unemployed	978	3%
<b>Incomes (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
Personal Income: \$30,001 and over	11,226	34%
Family Income: \$30,001 and over	7,845	66%
<b>Highest Qualification (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
University or Other Tertiary	5,928	18%
Secondary School	14,742	45%
No Qualifications	8,394	25%
<b>Family Type</b>	<b>Number</b>	<b>Percent</b>
One-Parent Family	1,656	14%
Two-Parent Family	4,698	40%
Couple Only	5,517	46%

Source: Statistics New Zealand website and customised table

## Tauranga City 2006 key statistics

<b>Usually Resident Population</b>		
	<b>Number</b>	<b>Percent Increase</b>
1996	77,781	2001 - 2006 = 14%
2001	90,912	
2006	103,632	
<b>Area and Population Density</b>		
Total Land Area	168km <sup>2</sup>	
People per Square Kilometre	616.9/km <sup>2</sup>	
<b>Total Number of Private Dwellings</b>		
	<b>Number</b>	<b>Percent Increase</b>
2001	35,319	2001-2006 = 15%
2006	40,494	
<b>Tenure (Home Ownership)</b>		
	<b>Number</b>	<b>Percent</b>
Dwelling Owned or Partly Owned	19,269	48%
Dwelling Not Owned By Usual Resident	12,471	31%
<b>Age Composition</b>		
	<b>Number</b>	<b>Percent</b>
0-4	6,906	8%
5-14	14,676	10%
15-24	12,468	20%
25-44	26,829	8%
45-64	24,696	21%
65 and over	18,057	15%
<b>Ethnic Composition</b>		
	<b>Number</b>	<b>Percent</b>
Māori	16,569	16%
NZ European	74,916	72%
Other	19,422	19%
<b>Labour Force Status (15 Years and Over)</b>		
	<b>Number</b>	<b>Percent</b>
Labour Force (full-time and part-time)	48,954	60%
Non Labour Force	28,575	35%
Unemployed	2,625	3%
<b>Incomes (15 Years and Over)</b>		
	<b>Number</b>	<b>Percent</b>
Personal Income: \$30,001 and over	29,082	35%
Family Income: \$30,001 and over	19,119	66%
<b>Highest Qualification (15 Years and Over)</b>		
	<b>Number</b>	<b>Percent</b>
University or Other Tertiary	16,038	20%
Secondary School	38,325	47%
No Qualifications	19,644	24%
<b>Family Type</b>		
	<b>Number</b>	<b>Percent</b>
One-Parent Family	5,310	18%
Two-Parent Family	10,410	36%
Couple Only	13,326	46%

Source: Statistics New Zealand website and customised table

## Rotorua district (part) 2006 key statistics

<b>Usually Resident Population</b>	<b>Number</b>	<b>Percent Increase</b>
1996	61,032	2001 - 2006 = 2%
2001	61,041	
2006	62,289	
<b>Area and Population Density</b>		
Total Land Area	1,609km <sup>2</sup>	
People per Square Kilometre	38.7/km <sup>2</sup>	
<b>Total Number of Private Dwellings</b>	<b>Number</b>	<b>Percent Increase</b>
2001	22,554	2001-2006 = 5%
2006	23,580	
<b>Tenure (Home Ownership)</b>	<b>Number</b>	<b>Percent</b>
Dwelling Owned or Partly Owned	11,808	51%
Dwelling Not Owned By Usual Resident	7,653	33%
<b>Age Composition</b>	<b>Number</b>	<b>Percent</b>
0-4	4,935	-3%
5-14	10,686	2%
15-24	8,070	-1%
25-44	16,860	-5%
45-64	14,586	13%
65 and over	7,161	7%
<b>Ethnic Composition</b>	<b>Number</b>	<b>Percent</b>
Māori	21,990	35%
NZ European	35,574	57%
Other	11,817	19%
<b>Labour Force Status (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
Labour Force (full-time and part-time)	28,806	62%
Non Labour Force	13,785	30%
Unemployed	2,112	5%
<b>Incomes (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
Personal Income: \$30,001 and over	17,067	35%
Family Income: \$30,001 and over	10,998	63%
<b>Highest Qualification (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
University or Other Tertiary	8,706	18%
Secondary School	22,047	45%
No Qualifications	12,267	25%
<b>Family Type</b>	<b>Number</b>	<b>Percent</b>
One-Parent Family	4,116	24%
Two-Parent Family	6,921	40%
Couple Only	6,333	36%

Source: Statistics New Zealand website and customised table

## Whakatane district 2006 key statistics

Usually Resident Population	Number	Percent Increase
1996	33,177	2001 - 2006 = 1%
2001	32,865	
2006	33,300	
Area and Population Density		
Total Land Area	4,457km <sup>2</sup>	
People per Square Kilometre	7.5/km <sup>2</sup>	
Total Number of Private Dwellings	Number	Percent Increase
2001	11,487	2001-2006 = 3%
2006	11,886	
Tenure (Home Ownership)	Number	Percent
Dwelling Owned or Partly Owned	6,021	51%
Dwelling Not Owned By Usual Resident	3,636	31%
Age Composition	Number	Percent
0-4	2,562	-7%
5-14	5,937	-4%
15-24	3,999	1%
25-44	8,337	-8%
45-64	8,262	15%
65 and over	4,200	12%
Ethnic Composition	Number	Percent
Māori	13,203	40%
NZ European	18,282	55%
Other	4,479	13%
Labour Force Status (15 Years and Over)	Number	Percent
Labour Force (full-time and part-time)	14,427	58%
Non Labour Force	8,115	33%
Unemployed	1,248	5%
Incomes (15 Years and Over)	Number	Percent
Personal Income: \$30,001 and over	7,881	32%
Family Income: \$30,001 and over	5,265	58%
Highest Qualification (15 Years and Over)	Number	Percent
University or Other Tertiary	3,990	16%
Secondary School	10,560	43%
No Qualifications	6,888	28%
Family Type	Number	Percent
One-Parent Family	2,097	23%
Two-Parent Family	3,528	39%
Couple Only	3,447	38%

Source: Statistics New Zealand website and customised table

## Kawerau district 2006 key statistics

<b>Usually Resident Population</b>	<b>Number</b>	<b>Percent Increase</b>
1996	7,827	2001 - 2006 = -1%
2001	6,975	
2006	6,924	
<b>Area and Population Density</b>		
Total Land Area	22km <sup>2</sup>	
People per Square Kilometre	314.7/km <sup>2</sup>	
<b>Total Number of Private Dwellings</b>	<b>Number</b>	<b>Percent Increase</b>
2001	2,337	2001-2006 = 3%
2006	2,418	
<b>Tenure (Home Ownership)</b>	<b>Number</b>	<b>Percent</b>
Dwelling Owned or Partly Owned	1,389	58%
Dwelling Not Owned By Usual Resident	759	32%
<b>Age Composition</b>	<b>Number</b>	<b>Percent</b>
0-4	609	-8%
5-14	1,341	-12%
15-24	825	-2%
25-44	1,716	-9%
45-64	1,569	11%
65 and over	858	33%
<b>Ethnic Composition</b>	<b>Number</b>	<b>Percent</b>
Māori	4,050	59%
NZ European	3,144	45%
Other	735	11%
<b>Labour Force Status (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
Labour Force (full-time and part-time)	2,412	49%
Non Labour Force	2,004	40%
Unemployed	381	8%
<b>Incomes (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
Personal Income: \$30,001 and over	1,251	25%
Family Income: \$30,001 and over	897	49%
<b>Highest Qualification (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
University or Other Tertiary	417	8%
Secondary School	2,028	41%
No Qualifications	1,827	37%
<b>Family Type</b>	<b>Number</b>	<b>Percent</b>
One-Parent Family	558	30%
Two-Parent Family	636	34%
Couple Only	648	35%

Source: Statistics New Zealand website and customised table

## Opotiki district 2006 key statistics

<b>Usually Resident Population</b>	<b>Number</b>	<b>Percent Increase</b>
1996	9,321	2001 - 2006 = -2%
2001	9,150	
2006	8,976	
<b>Area and Population Density</b>	<b>Number</b>	<b>Percent Increase</b>
Total Land Area	3,090km <sup>2</sup>	
People per Square Kilometre	2.9/km <sup>2</sup>	
<b>Total Number of Private Dwellings</b>	<b>Number</b>	<b>Percent Increase</b>
2001	3,189	2001-2006 = 2%
2006	3,246	
<b>Tenure (Home Ownership)</b>	<b>Number</b>	<b>Percent</b>
Dwelling Owned or Partly Owned	1,518	48%
Dwelling Not Owned By Usual Resident	1,083	34%
<b>Age Composition</b>	<b>Number</b>	<b>Percent</b>
0-4	723	-4%
5-14	1,749	-6%
15-24	993	-2%
25-44	2,013	-14%
45-64	2,256	10%
65 and over	1,245	9%
<b>Ethnic Composition</b>	<b>Number</b>	<b>Percent</b>
Māori	4,884	54%
NZ European	3,945	44%
Other	984	11%
<b>Labour Force Status (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
Labour Force (full-time and part-time)	3,375	52%
Non Labour Force	2,394	37%
Unemployed	366	6%
<b>Incomes (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
Personal Income: \$30,001 and over	1,461	22%
Family Income: \$30,001 and over	1,080	46%
<b>Highest Qualification (15 Years and Over)</b>	<b>Number</b>	<b>Percent</b>
University or Other Tertiary	786	12%
Secondary School	2,454	38%
No Qualifications	2,235	34%
<b>Family Type</b>	<b>Number</b>	<b>Percent</b>
One-Parent Family	648	28%
Two-Parent Family	834	36%
Couple Only	849	36%

Source: Statistics New Zealand website and customised table



## Contents

<b>Part 1: Introduction</b> .....	1
1.1 Purpose and scope.....	1
1.1.1 <i>Basis for Profile</i> .....	1
1.2 Profile structure .....	2
1.3 Data presentation .....	2
1.4 Data sources .....	2
1.5 Regional overview .....	3
<b>Part 2: Demographic characteristics</b> .....	13
2.1 Population change.....	13
2.2 Population characteristics.....	26
<b>Part 3: Socio-economic characteristics</b> .....	39
3.1 Households and families.....	39
3.2 Employment and unemployment .....	49
3.3 Education.....	55
3.4 Personal, family and household income .....	59
<b>Part 4: Index of deprivation</b> .....	69
4.1 Index of deprivation: district analysis .....	69
4.1.1 <i>Introduction</i> .....	69
4.2 Methods.....	69
<b>Part 5: References</b> .....	87

<b>Appendices</b> .....	89
<i>Appendix 1 – Tables</i> .....	91
<i>Appendix 2 – Glossary of Terms</i> .....	103
<i>Appendix 3 – Technical notes about population projections</i> .....	107
<i>Appendix 4 – NZDep06 Variables</i> .....	109

## Part 1: Introduction

---

### 1.1 Purpose and scope

#### 1.1.1 Basis for Profile

Regional councils such as Environment Bay of Plenty are responsible for the sustainable development of the region including the promotion of social, economic, environmental, and cultural well-being of communities, in the present and for the future. Sustainable development is the ability to progress in order to meet the needs of the present without compromising the capability of future generations to meet their own needs.

Profile 2009 provides an important link for the development of other policies by Environment Bay of Plenty such as the Ten Year Plan, Community Outcomes Monitoring Report and the Regional Land Transport Strategy. The collation of a wide range of socio-economic information into one document provides a base of data for various local and central government agencies to work with and at the same time is a valuable resource for community groups.

To be effective in the development of community well-beings for the present and future, regional councils need to have a clear understanding of the region's social and economic environment. This profile up-dates the report, *Profile 2001: A Socio-economic Profile of the People of the Bay of Plenty Region*. It presents an overview of the demographic and social characteristics, and economics of the Bay of Plenty region and districts and their populations. Information contained in this profile will be used to inform the development of policy by Environment Bay of Plenty and other government agencies. This document will also be useful to those individuals and community groups seeking an overview of the region and its people.

The statutory basis for this profile comes from section 14(c) of the Local Government Act 2002, which requires that local authorities when making a decision should take account of:

*...the diversity of the community, and the community's interests, within its district or region; and the interests of the future as well as current communities; and the likely impact of any of these decisions.*

## 1.2 Profile structure

This Profile is divided into four main parts:

**Part One** is divided into two sections. Section One presents the scope and purpose of the profile and data sources. Section Two gives an introductory overview of the Bay of Plenty region.

**Part Two** examines the demographic characteristics of the Bay of Plenty resident population. This part of the profile is divided into two sections outlining population change between 1996 and 2006, population projections to the year 2031, and the age and ethnic composition of regional and sub-regional populations.

**Part Three** presents information on the socio-economic characteristics of the region's population. The four sections that make up this part of the profile describe various aspects relating to families and **households, employment and unemployment, education, and sources of income.**

**Part Four** presents information based on the 2006 Index of Deprivation. This section includes a series of charts and maps of the Bay of Plenty region detailing the areas deprivation scores.

## 1.3 Data presentation

To aid in interpretation, most of the numerical data are presented in graphical form. In some instances actual numbers relating to tables and figures are included in Appendix 1 of the report. In most instances, the numerical data presented in the figures and tables has been rounded to the nearest whole number.

Where appropriate, information is given for the region, as well as for the territorial authorities (district councils) that fall wholly or partly within the Bay of Plenty regional boundary. Time-series analyses are undertaken in some instances to gain a better understanding of trends over time. Geographical comparisons are also made to see how the Bay of Plenty compares with other regions and New Zealand overall.

In most instances figures for the Rotorua District are given only for the area that resides within the Bay of Plenty region. However in some cases the information was not available at this lower level and so figures for the whole district have been used. The use of these different areas is identified using the terms (part) and (whole) in all tables and figures.

A very small part of the Taupo District also lies within the Bay of Plenty region with a population of only 162 usual residents. Information for this area is included in regional figures but has not been presented at any lower level.

## 1.4 Data sources

Data for this report comes primarily from Census 2006, accessed from the Statistics New Zealand website ([www.stats.govt.nz](http://www.stats.govt.nz)). Information was gathered from Meshblock Datasets and by using the Table Builder function provided on this website.

Figures relating to school leavers were obtained from the Ministry of Education ([www.educationcounts.org.nz](http://www.educationcounts.org.nz)) and median house prices for the region were accessed from the Real Estate Institute of New Zealand Inc. through their website ([www.reinz.org.nz](http://www.reinz.org.nz)).

Information pertaining to the Index of Deprivation comes from the Ministry of Health in the form of the *Atlas of Socioeconomic Deprivation in New Zealand NZDep2006*.

Historical information has been attained from the Tauranga City Council website ([www.tauranga.govt.nz](http://www.tauranga.govt.nz)).

## 1.5 Regional overview

The Bay of Plenty is located on the east coast of the North Island of New Zealand (refer to Map 1). The region takes in the full sweep of the coastline from Lottin Point in the east, to Waihi Beach in the west. The area of the region is 21,837 square kilometres, comprising 12,254 square kilometres of land and 9,583 square kilometres of coastal marine area.

On the landward side, the region is mostly bounded by the watersheds of the catchments that flow into the Bay of Plenty; this includes the lakes in the Rotorua district. On the ocean side, the region includes 18 offshore islands and the sea extending out to the 12-nautical-mile boundary.

The prominent features of the region include islands such as Matakana, Tuhua (Mayor), and an active volcano being Whakaari (White Island). Other distinctive landmarks include Mauao (Mount Maunganui), Mountains Tarawera and Putauaki (Mount Edgecumbe), the Tauranga and Ohiwa Harbours and the lakes of the Rotorua district.

There are also five large estuaries – the Maketu, Little Waihi, Whakatane, Waiotahi and Waioeka/Otara. The region extends inland, generally to the ridge of the catchments that drain into the Bay of Plenty. The most distant point from the coast is the top of the Rangitaiki River catchment, which is 139 kilometres from the sea.

Eight major rivers empty into the region – these are the Wairoa, Kaituna, Tarawera, Rangitaiki, Whakatane, Waioeka, Motu and Raukokore rivers. The Taupo Volcanic Zone crosses the region from Lake Taupo to Whakaari (White Island). Two major features of this zone are the extensive geothermal areas and the number of earthquake fault lines that run parallel with the zone.

The Bay of Plenty has one of the sunniest climates in the country, especially in coastal areas, and dry spells are common. Daily variations of weather depend largely on wind direction and speed. Annual rainfall follows variations in topography and varies from 1100 mm near the coast to 4400 mm on the highest parts of the Raukumara Ranges.

There have only been subtle changes to the region's land cover when comparing 1996 to 2001. In 2001, 46% of land in the Bay of Plenty was indigenous forest, 23% exotic forest, 23% farmland and slightly more than 1% was urban. However, most of the region's native forests are in hilly terrain, suitable only for inland plants and animals.

The Bay of Plenty region encompasses seven local government districts – Western Bay of Plenty, Tauranga, Whakatane, Kawerau, Opotiki, Rotorua and Taupo. Five of these are entirely within the region's boundaries. The remaining two, Taupo and Rotorua, are only partially within the Bay of Plenty region. District boundaries for all seven districts are shown in Map 2. In addition, the region has a significant number of offshore islands. These islands are currently administered by the Department of Internal Affairs on behalf of the Minister of Local Government.

The Western Bay of Plenty District is the region's northern-most district. It encompasses an area of 2,121 km<sup>2</sup> from the Ohinemuri River watershed to the Whakatane district boundary, and is bounded to the west by the Kaimai Ranges and to the east by the Pacific Ocean. Land use within the district is varied and includes horticulture, grazing, dairying and exotic and plantation forestry. Horticulture, especially kiwifruit and meat processing, are important primary industries in the district.

The Tauranga City district is located predominantly on low-lying coastal plains and provides a junction point for a variety of transport links, including road, rail, air and sea, most notably the Port of Tauranga. The District has a land area of 168 km<sup>2</sup> and is the region's largest residential and commercial area.

The Whakatane district has a central location in the Bay of Plenty region, covering the coast from Otamarakau in the west to Ohiwa Harbour in the east. It also extends inland over part of the volcanic plateau and covers 4,442 km<sup>2</sup>. The predominant land uses are plantation forestry, sheep and cattle grazing and dairying.

The Kawerau District is situated at the foot of Putauaki (Mount Edgecumbe) in the south west of the Rangitaiki Plains. The district is largely flat, although there is some hilly land to the south, and contains a significant geothermal resource. Kawerau itself is one of the youngest towns in New Zealand having been built in 1953 to create a centre for the production of forest products from the nearby Tarawera, Matahina and Kaingaroa forests. It has an area of 22 km<sup>2</sup>.

The Opotiki District extends approximately 160 km along the eastern coastline of the Bay of Plenty region, from Ohiwa Harbour to Potikirua, and covers 3,090 km<sup>2</sup>. The landforms of the district fall into three basic physical units: coastal terraces and alluvial plains, rugged hill country and rolling hill country. The district also has an extensive coastline and significant tracts of native forest.

The Rotorua district is landlocked and lies partly within the Bay of Plenty region and the Waikato region. The whole district covers approximately 2,614 km<sup>2</sup> but only 1609 km<sup>2</sup> of that lies within the Bay of Plenty region. The area is renowned for its spectacular geothermal sites. Forestry and tourism are important industries to this district.

The section of the Taupo District that falls within the Bay of Plenty has no urban areas and a population of only 162 (less than 1% of the region's total). Taupo District covers 6,954 km<sup>2</sup> of which 994 km<sup>2</sup> is in the Bay of Plenty region and comprises the southern most part of the region. This land is on the volcanic plateau and predominantly consists of ash soils. Much of the land is currently in plantation forestry, although sheep and beef grazing and some dairying are also present in this area.

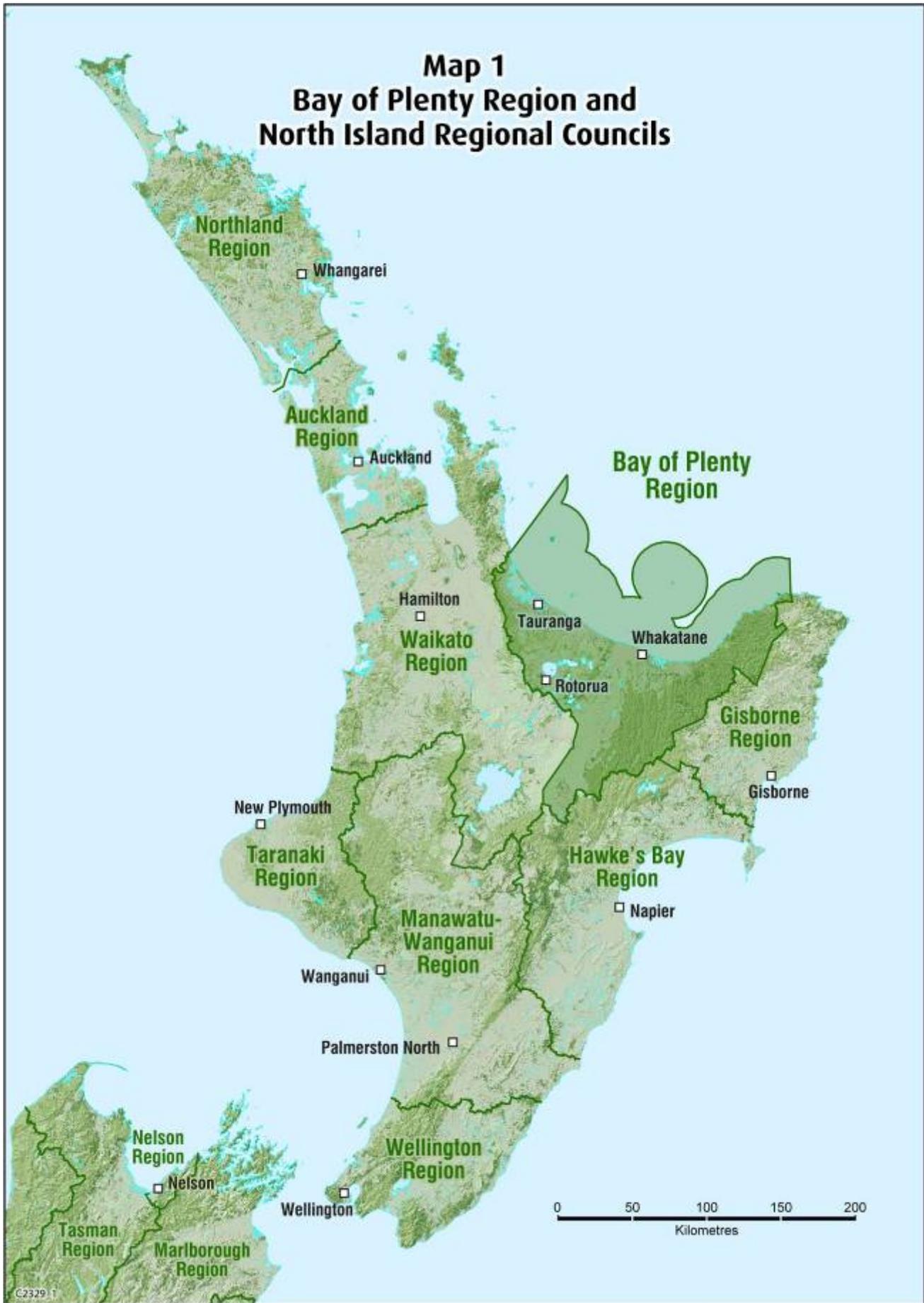
The Bay of Plenty has many islands, some of which are inhabited. The main islands and their physical size are listed in Table 2.1 below.

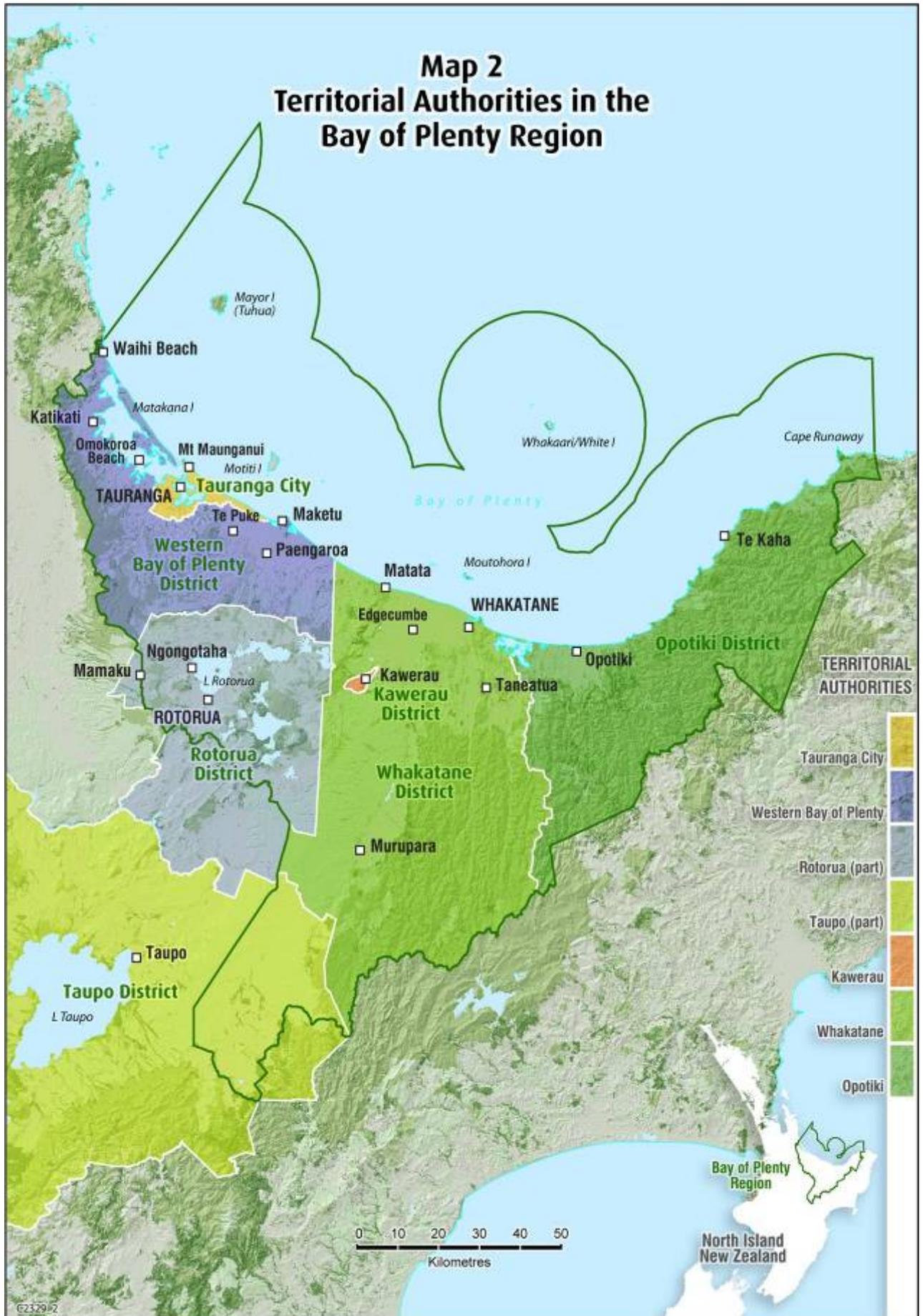
Table 2.1 *Islands in the Oceanic Bay of Plenty region*

<b>Island</b>	<b>Area</b>
Tuhua(Mayor)	13.1km <sup>2</sup>
Motiti	6.8 km <sup>2</sup>
Whakaari/White	3.2 km <sup>2</sup>
Moutohora (Whale)	1.7 km <sup>2</sup>
Matakana	64.5 km <sup>2</sup>

Other islands include Karewa, Rangiwaea, Motuhoa, Moturiki, Motuotau, Motunau, Mokoia, Rurima, Tokata, Moutoki, Ohakana, Uretara Islands and Paepae o Aotea (Volkner Rocks).

Moturiki and Motuotau Islands are within the Tauranga districts; Matakana, Rangiwaea and Motuhoa Islands are within the Western Bay of Plenty district; Ohakana Island is within Whakatane district; and Uretara Island is within Opotiki district. Mokoia Island, in Lake Rotorua, is within the Rotorua District. For those islands and islets that are not part of a district, the Minister of Local Government is the territorial authority.

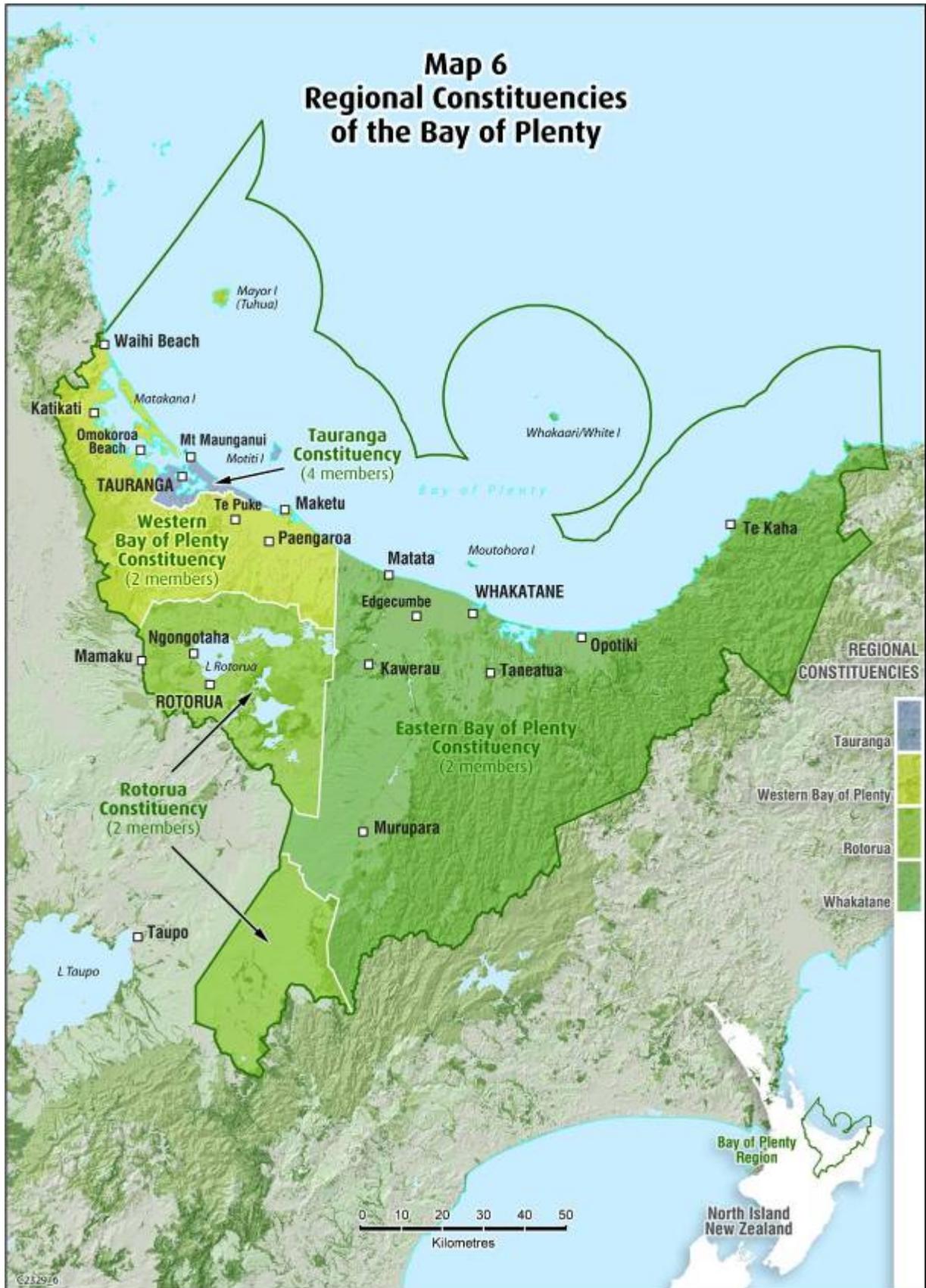














## Part 2: Demographic characteristics

### 2.1 Population change

This section on population change is focused on variations from the past to the present, and projections for the future. The initial tables and figures show resident populations and densities. The middle highlights changes that have occurred over the last 10 years. And the final part of this section looks forward to what possible changes could occur 25 years from now.

Table 3.1 shows resident populations as does Figure 3.1.

*Table 3.1 Resident Populations, Bay of Plenty districts, 2006*

	<b>Resident Population</b>	<b>Percentage</b>
Western Bay of Plenty District	42075	16%
Tauranga City	103632	40%
Rotorua District (part)	62286	24%
Whakatane District	33300	13%
Kawerau District	6924	3%
Opotiki District	8976	3%
Taupo District (part)	162	<1%
Non-district Islands	24	<1%
Bay of Plenty	257379	

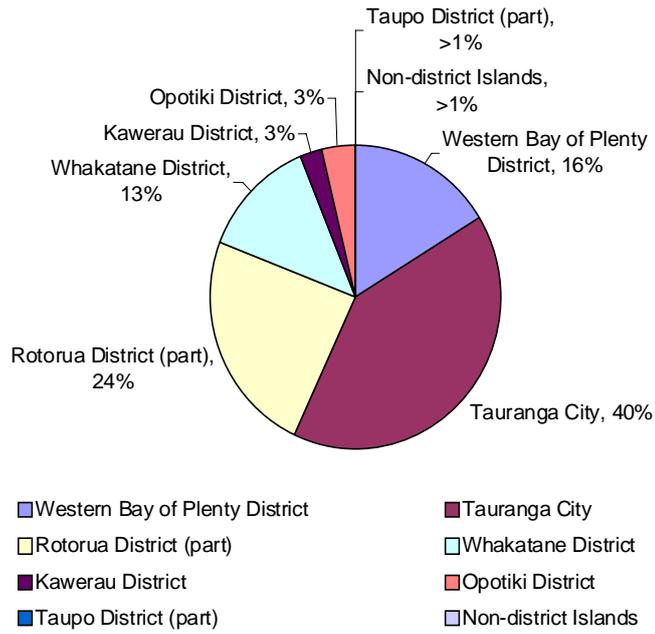


Figure 3.1 Resident populations, Bay of Plenty districts, 2006

The following table contains information on regional areas, populations and population densities. Table 3.2 shows the figures for the whole of New Zealand and its regional councils.

Table 3.2 Population Densities<sup>2</sup>, New Zealand and Regional Councils, 2006

	Area (square kilometres)	% of Total New Zealand	Total Population	% of Total New Zealand	People per square kilometre
Auckland	5026km <sup>2</sup>	2%	1303068	32%	259.3
Nelson	423km <sup>2</sup>	0.2%	42888	1%	101.4
Wellington	8126km <sup>2</sup>	3%	448956	11%	55.2
Bay of Plenty	12254km <sup>2</sup>	5%	257379	6%	21.0
Waikato	24480km <sup>2</sup>	9%	382716	10%	15.6
Taranaki	7258km <sup>2</sup>	3%	104124	3%	14.3
Northland	12542km <sup>2</sup>	5%	148470	4%	11.8
Canterbury	45228km <sup>2</sup>	17%	521832	13%	11.5
Hawke's Bay	14175km <sup>2</sup>	5%	147783	4%	10.4
Manawatu-Wanganui	22211km <sup>2</sup>	8%	222423	6%	10.0
Otago	31873km <sup>2</sup>	12%	193803	5%	6.1
Gisborne	8362km <sup>2</sup>	3%	44499	1%	5.3
Tasman	9656km <sup>2</sup>	4%	44625	1%	4.6
Marlborough	10496km <sup>2</sup>	4%	42558	1%	4.1
Southland	31833km <sup>2</sup>	12%	90876	2%	2.9
West Coast	23357km <sup>2</sup>	9%	31326	1%	1.3
New Zealand	267304km <sup>2</sup>		4027947		15.1

<sup>2</sup> Areas were formulated from Level 1 Digital Area Unit Information 2004 published by Statistics New Zealand and include harbours, estuaries, and islands situated within regional authority boundaries but exclude oceanic area units. The population figures were calculated from area unit data of the usually resident population from the 2006 census provided by Statistics New Zealand.

Table 3.3 focuses on area, population and population densities for the Bay of Plenty region and districts.

Table 3.3 Population Densities<sup>3</sup>, New Zealand, Bay of Plenty region and districts, 2006

	Area (square kilometres)	% of Total Bay of Plenty Region	Total Population	% of Total Bay of Plenty Region	People per square kilometre
Western Bay of Plenty District	2121km <sup>2</sup>	17%	42075	16%	19.8
Tauranga City	168km <sup>2</sup>	1%	103632	40%	616.9
Rotorua District (part)	1609km <sup>2</sup>	13%	62286	24%	38.7
Whakatane District	4457km <sup>2</sup>	36%	33300	13%	7.5
Kawerau District	22km <sup>2</sup>	0.2%	6924	3%	314.7
Opotiki District	3090km <sup>2</sup>	25%	8976	3%	2.9
Taupo District (part)	994km <sup>2</sup>	8%	162	0.1%	0.2
Non-district Islands <sup>4</sup>	25km <sup>2</sup>	0.2%	24	0.01%	1.0
Bay of Plenty	12254km <sup>2</sup>		257379		21.0
New Zealand	267304km <sup>2</sup>		4027947		15.1

<sup>3</sup> View previous reference.

<sup>4</sup> Includes Mayor (Tuhuna), Motiti, White (Whakaari) and Whale (Moutohora) Islands.

Table 3.4 shows the urban populations of the Bay of Plenty region and Table 3.5 highlights the population changes in percentages that these areas have experienced over the last 10 years.

*Table 3.4 Populations of Urban Areas, Bay of Plenty region, 1996, 2001, 2006*

Urban area	Resident Populations		
	1996	2001	2006
Tauranga	82125	95673	108870
Rotorua	52980	52626	53814
Whakatane	17529	17784	18231
Waihi Beach & Athenree	2988	3027	2949
Te Puke	6516	6789	7074
Katikati	2661	2916	3573
Edgecumbe	1770	1674	1632
Kawerau	7842	6975	6921
Murupara	2208	1962	1842
Opotiki	4260	4158	4191

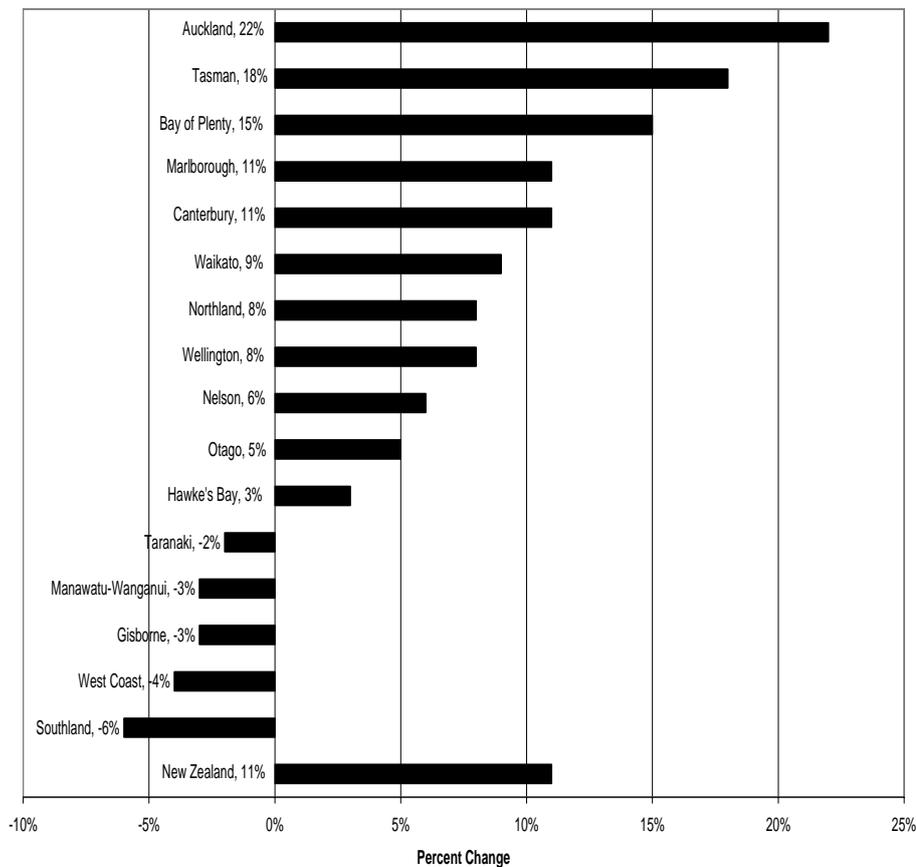
*Table 3.5 Changes in Populations of Urban Areas, Bay of Plenty region, 1996-2006*

Urban Area	1996-2001	2001-2006	1996-2006
Tauranga	16%	13%	32%
Rotorua	-1%	2%	1%
Whakatane	1%	2%	4%
Waihi Beach & Athenree	1%	-2%	-1%
Te Puke	4%	4%	8%
Katikati	9%	22%	34%
Edgecumbe	-5%	-2%	-7%
Kawerau	-11%	0%	-11%
Murupara	-11%	-6%	-16%
Opotiki	-2%	1%	-1%

Regional population change from 1996-2006 is charted in Table 3.6 and Figure 3.2.

**Table 3.6** *New Zealand Regional Population Change, 1996-2006*

	1996	2006	Percent Change
Auckland	1068645	1303068	22%
Bay of Plenty	224367	257379	15%
Canterbury	468042	521832	11%
Gisborne	45786	44499	-3%
Hawke's Bay	142788	147783	3%
Manawatu-Wanganui	228768	222423	-3%
Marlborough	38397	42558	11%
Nelson	40278	42888	6%
Northland	137052	148470	8%
Otago	185085	193800	5%
Southland	97101	90873	-6%
Taranaki	106587	104127	-2%
Tasman	37974	44625	18%
Waikato	350124	382716	9%
Wellington	414048	448956	8%
West Coast	32511	31326	-4%
New Zealand	3618303	4027947	11%



**Figure 3.2** *New Zealand Regional Population Change, 1996-2006*

Table 3.7 highlights the change in population for the Bay of Plenty districts over the last ten years and this is then shown in Figure 3.3. Table 3.8 demonstrates this population change as percentages and includes figures for New Zealand and the Bay of Plenty region.

Table 3.7 Population Change, Bay of Plenty districts, 1996-2006

	1996	2001	2006
Western Bay of Plenty District	34962	38226	42075
Tauranga City	77781	90912	103632
Rotorua District (part)	61032	61041	62289
Whakatane District	33177	32865	33300
Kawerau District	7827	6975	6924
Opotiki District	9321	9150	8976

Table 3.8 Population Change, New Zealand, Bay of Plenty region and districts, 1996-2001, 2001-2006, 1996-2006

	1996-2001	2001-2006	1996-2006
Western Bay of Plenty District	9%	10%	20%
Tauranga City	17%	14%	33%
Rotorua District (part)	0%	2%	2%
Whakatane District	-1%	1%	0%
Kawerau District	-11%	-1%	-12%
Opotiki District	-2%	-2%	-4%
Bay of Plenty	7%	8%	15%
New Zealand	3%	8%	11%

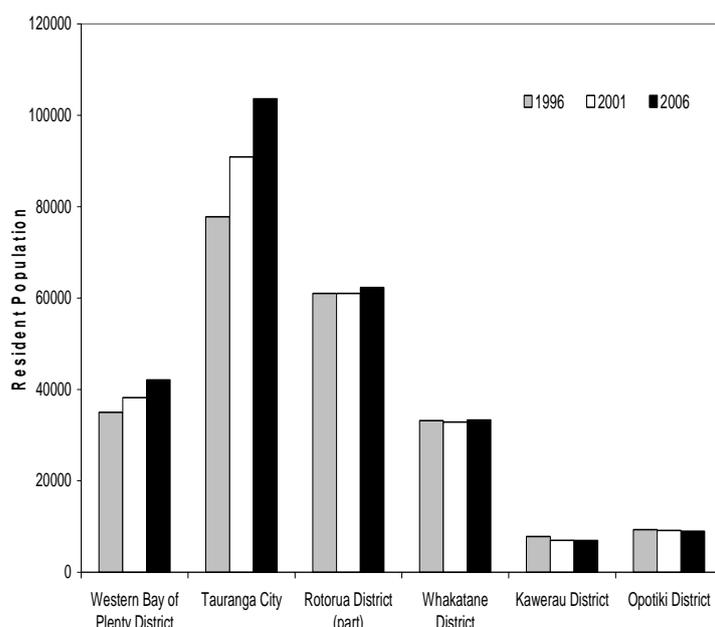


Figure 3.3 Population Change, Bay of Plenty districts, 1996-2006

Table 3.9 illustrates internal migration occurring in New Zealand involving the Bay of Plenty region. The top five contributing and receiving regions to the Bay of Plenty are then shown in Tables 3.10 and 3.11.

Table 3.9 Internal Migration, Bay of Plenty region, 1996-2006

	1996-2001	2001-2006
In-migrants	37785	38016
Out-migrants	28131	31311
Net Migration	4.0%	2.6%

Table 3.10 Top Five Contributing Regions to the Bay of Plenty region, 2001-2006

Number of People	
Waikato	10800
Auckland	10446
Wellington	2751
Manawatu-Wanganui	2640
Northland	1494

Table 3.11 Top Five Receiving Regions from the Bay of Plenty region, 2001-2006

Number of People	
Waikato	9126
Auckland	7026
Wellington	2622
Manawatu-Wanganui	1989
Canterbury	1791

Table 3.12 and Figure 3.4 are generated using Statistics New Zealand population projections. They show the projected population change for New Zealand and the North Island regions. The method projects the base population forward by calculating the effects of births, deaths, and migration within each age and sex group according to specified fertility, mortality, and net migration assumptions.

Table 3.12 Projected Population Change<sup>5</sup>, New Zealand and North Island regions, 2006-2031<sup>6</sup>

Percent Change	
Auckland	41%
Bay of Plenty	23%
Waikato	16%
Wellington	13%
Northland	13%
Hawke's Bay	4%
Manawatu-Wanganui	3%
Taranaki	-3%
Gisborne	0%
New Zealand	22%

<sup>5</sup> Population at 30 June.

<sup>6</sup> Within the tables, individual figures may not sum to stated totals due to rounding. The rounding of population figures is determined by the total population size of the geographic area.

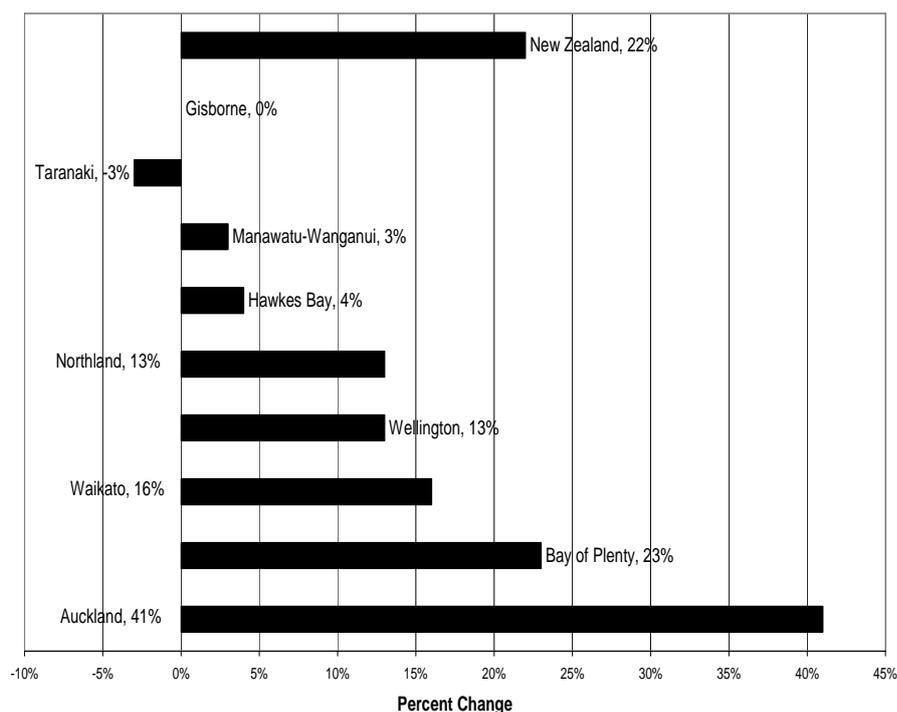


Figure 3.4 Projected Population change, New Zealand and North Island regions, 2006-2031

Table 3.13 contains the population projections for the Bay of Plenty districts.

Table 3.13 Population Projections, Bay of Plenty districts, 2006-2031

	2006	2011	2016	2021	2026	2031
Western Bay of Plenty District	43300	46200	49000	51500	53800	55800
Tauranga City	106700	116800	126500	136100	145500	154800
Rotorua District (part)	68100	69500	70400	71000	71300	71300
Whakatane District	34500	35000	35200	35100	34800	34200
Kawerau District	7150	6960	6680	6320	5910	5390
Opotiki District	9200	9170	9100	9010	8860	8630

Figure 3.5 illustrates the population projections for the Bay of Plenty districts.

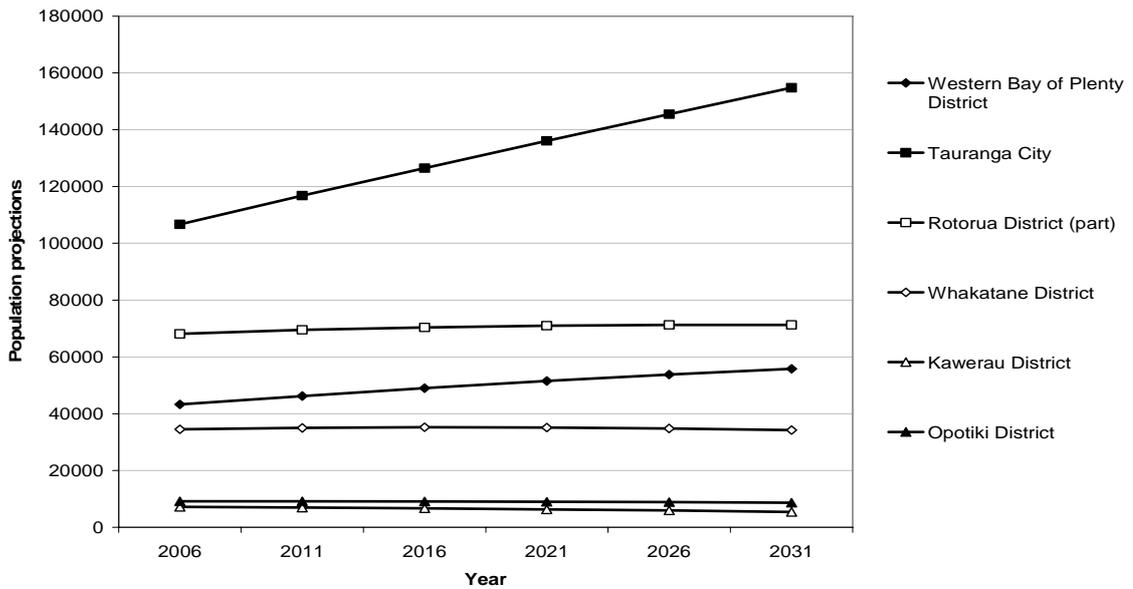


Figure 3.5 Projected Populations, Bay of Plenty districts, 2006-2031

The tables and figures on this page represent the projected change in population age structure for New Zealand and the Bay of Plenty region. This information is presented for 2006, 2016 and 2031.

Table 3.14 Projected Change in Age Structure, New Zealand and Bay of Plenty region, 2006, 2016, 2031

	Bay of Plenty			New Zealand		
	2006	2016	2031	2006	2016	2031
0-4 Years	7%	7%	6%	7%	7%	6%
5-14 Years	16%	14%	13%	14%	13%	12%
15-24 Years	12%	12%	11%	14%	14%	13%
25-44 Years	26%	23%	23%	28%	26%	25%
45-64 Years	25%	26%	23%	24%	26%	23%
65 Years plus	15%	18%	25%	12%	15%	21%

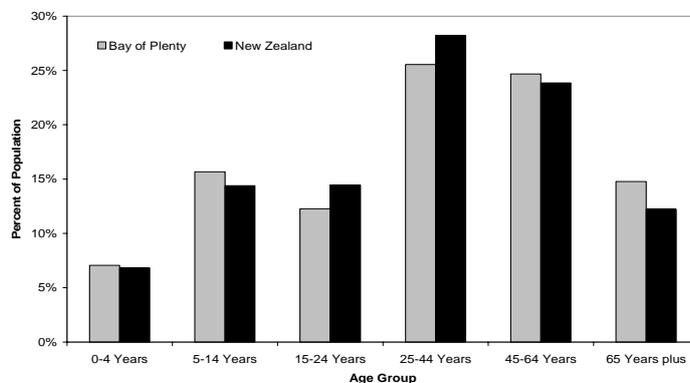


Figure 3.6 Projected Change in Age Structure, New Zealand and Bay of Plenty region, 2006

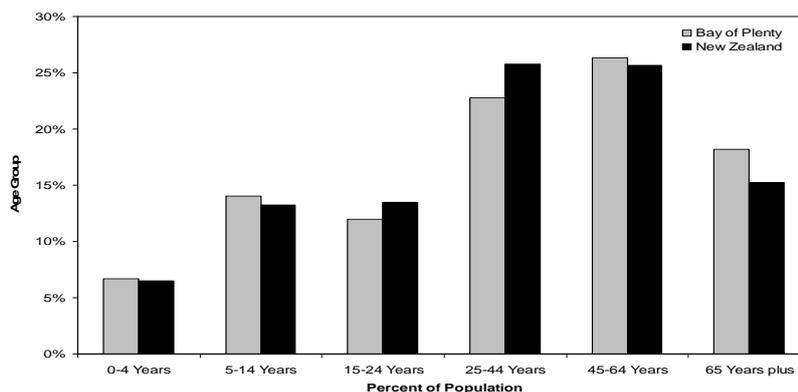


Figure 3.7 Projected Change in Age Structure, New Zealand and Bay of Plenty region, 2016

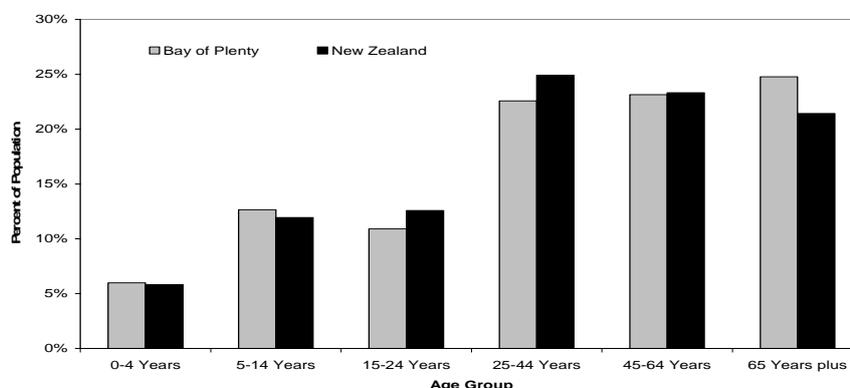


Figure 3.8 Projected Change in Age Structure, New Zealand and Bay of Plenty region, 2031

The following tables and figures represent the projected change in age structure for each of the Bay of Plenty districts. The tables and their corresponding figures show statistics for 2006 (Table 3.15, Figure 3.9), 2016 (Table 3.16, Figure 3.10) and 2031 (Table 3.16, Figure 3.11).

Table 3.15 Projected change in Age Structure, Bay of Plenty districts, 2006

	Western Bay of Plenty District	Tauranga City	Rotorua District (whole)	Whakatane District	Kawerau District	Opotiki District
0-4 Years	6%	7%	8%	8%	9%	8%
5-14 Years	15%	14%	17%	18%	19%	19%
15-24 Years	11%	12%	13%	12%	12%	12%
25-44 Years	23%	26%	27%	25%	25%	23%
45-64 Years	29%	24%	23%	25%	23%	25%
65+ Years	16%	17%	11%	12%	12%	14%

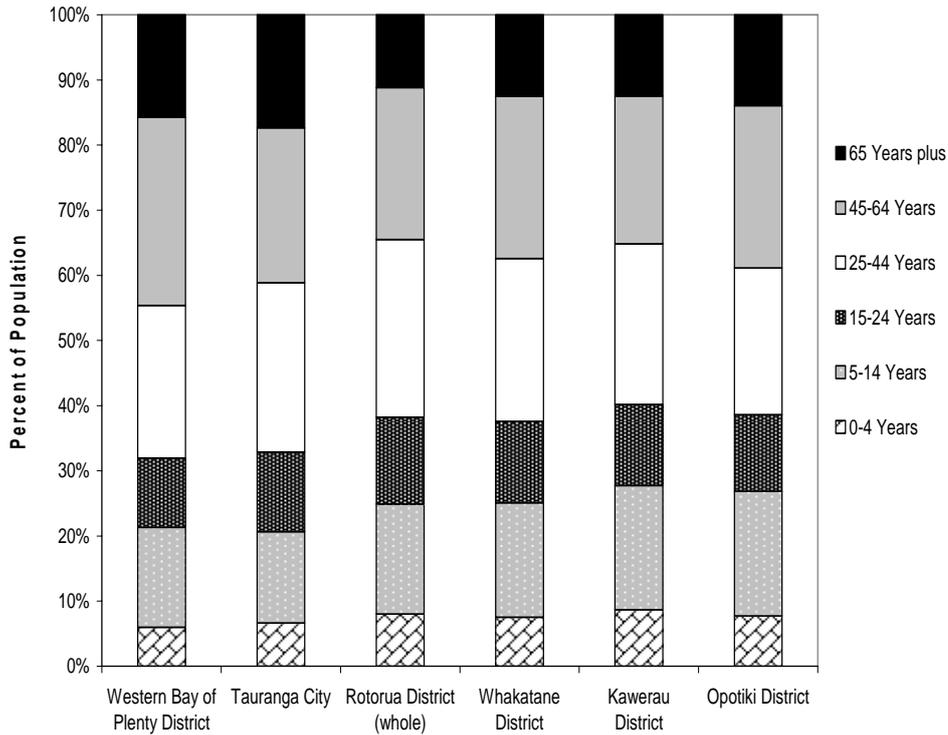


Figure 3.9 Projected Change in Age Structure, Bay of Plenty districts, 2006

Table 3.16 Projected Change in Age Structure, Bay of Plenty districts, 2016

	Western Bay of Plenty District	Tauranga City	Rotorua District (whole)	Whakatane District	Kawerau District	Opotiki District
0-4 Years	6%	6%	8%	7%	8%	7%
5-14 Years	13%	13%	16%	15%	16%	16%
15-24 Years	10%	12%	13%	12%	13%	13%
25-44 Years	20%	24%	24%	21%	21%	19%
45-64 Years	31%	25%	26%	27%	23%	27%
65+ Years	20%	19%	14%	17%	19%	18%

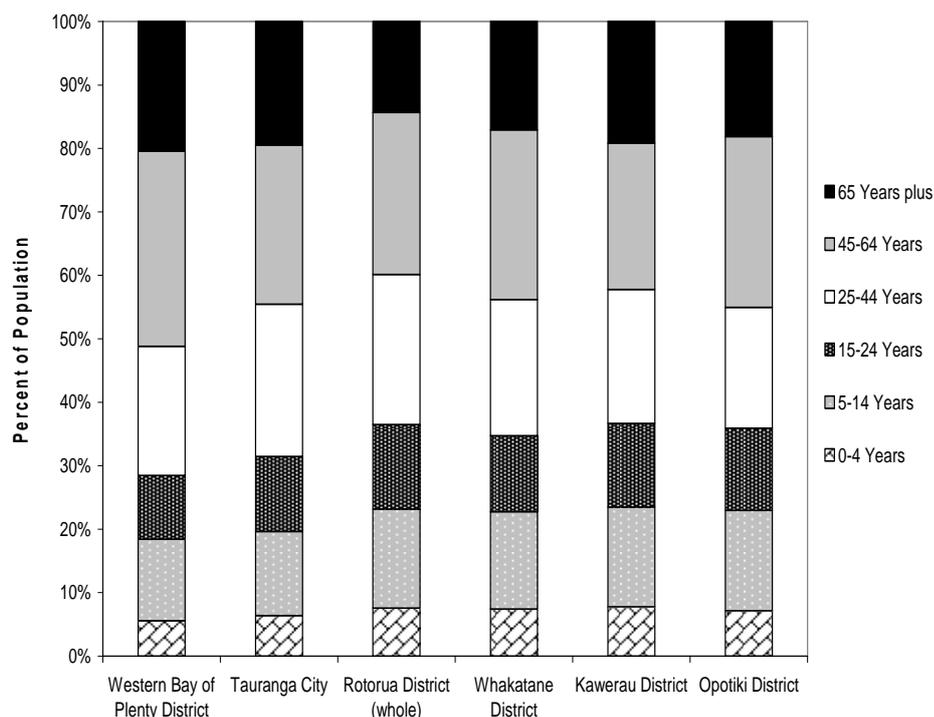


Figure 3.10 Projected Change in Age Structure, Bay of Plenty districts, 2016

Table 3.16 Projected Change in Age Structure, Bay of Plenty districts, 2031

	Western Bay of Plenty District	Tauranga City	Rotorua District (whole)	Whakatane District	Kawerau District	Opotiki District
0-4 Years	5%	6%	7%	6%	6%	6%
5-14 Years	12%	12%	14%	14%	14%	15%
15-24 Years	8%	11%	12%	10%	9%	9%
25-44 Years	20%	24%	23%	21%	23%	21%
45-64 Years	26%	23%	22%	22%	19%	21%
65+ Years	29%	24%	22%	27%	29%	27%

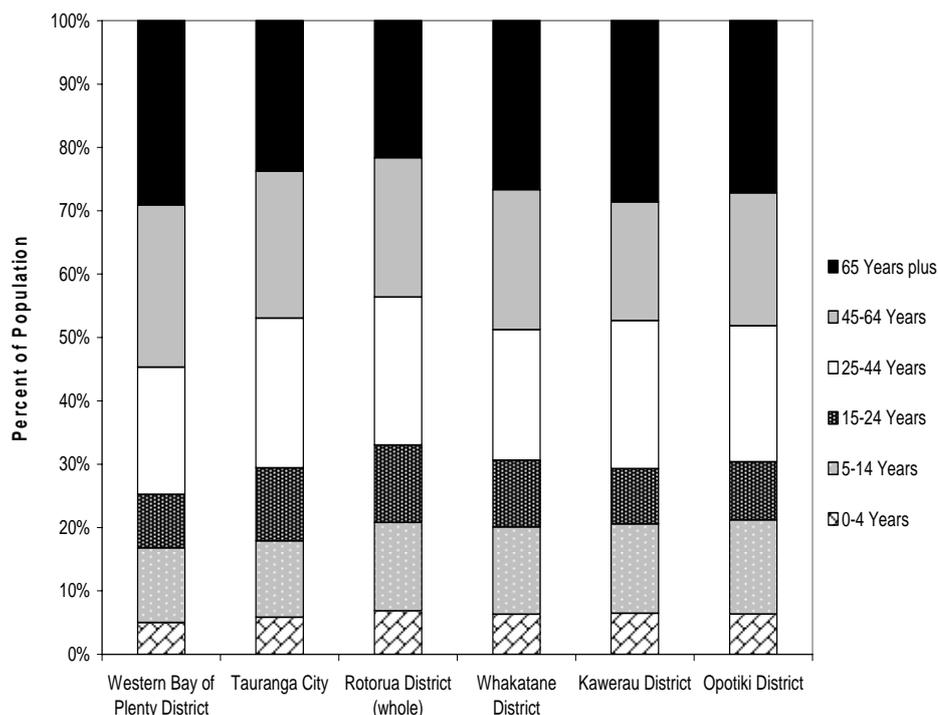


Figure 3.11 Projected Change in Age Structure, Bay of Plenty districts, 2031

## 2.2 Population characteristics

This section examines the characteristics of the Bay of Plenty region and includes information on ethnicity, age and sex.

Table 4.1 and Figure 4.1 highlight the ethnic composition of New Zealand, Bay of Plenty region and districts.

Table 4.1 Ethnic Composition, New Zealand, Bay of Plenty region and districts, 2006

	European	Maori	Other <sup>7</sup>
Western Bay of Plenty District	69%	16%	18%
Tauranga City	72%	16%	19%
Rotorua District (part)	57%	35%	19%
Whakatane District	55%	40%	13%
Kawerau District	45%	59%	11%
Opotiki District	44%	54%	11%
Bay of Plenty	64%	26%	18%
New Zealand	65%	14%	27%

<sup>7</sup> The high numbers of people who selected 'Other' as their ethnicity in 2006 is partly due to a change which placed 'New Zealander' as an option under the category of 'Other' rather than under its 2001 category of 'European'.

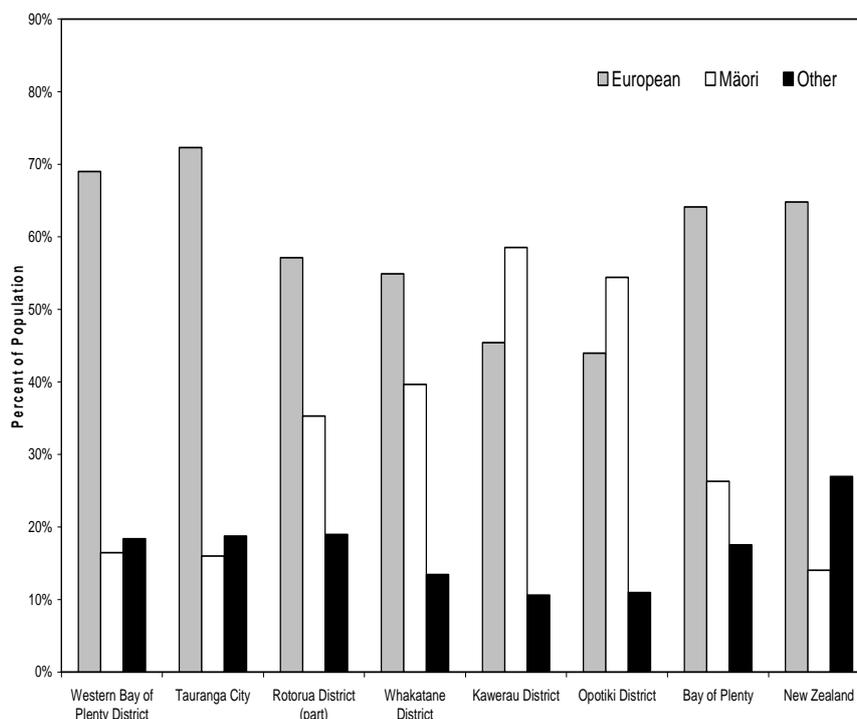


Figure 4.1 Ethnic Composition, New Zealand, Bay of Plenty region and districts, 2006

The languages spoken in the Bay of Plenty reflect its bi-cultural characteristics; this is shown in Table 4.2.

Table 4.2 Languages Spoken, New Zealand and Bay of Plenty region, 2006

	New Zealand	Bay of Plenty
Maori Only	1%	1.5%
English Only	75%	69%
Maori and English	18%	24%

The 2006 Census sought information relating to Maori ancestry and iwi affiliation. Depending on definition there are over 36 iwi in the Bay of Plenty (including the rohe that straddle the regional boundary). The figures in Table 4.3 include all of the people who stated each iwi, whether as their only iwi or as one of several. Where a person reported more than one iwi, they have been counted in each applicable group.

Table 4.3 Iwi Populations in the Bay of Plenty region, 2006

Iwi	Population with Maori Ancestry	% of Population with Maori Ancestry
Te Arawa <sup>8</sup>	13503	18%
Tuhoe	10860	15%
Ngati Awa	6780	9%
Ngati Tuwharetoa	5151	7%
Ngaiterangi	5079	7%
Whakatohea	5049	7%
Te Whanau-a-Apanui	4257	6%
Ngati Ranginui	4071	6%
Ngati Manawa	963	1%
Ngai Tai	900	1%
Ngati Pukenga	726	1%
Ngati Whare	654	1%
Other Bay of Plenty Iwi (not specified)	45	0.1%
Non-Bay of Plenty Iwi	43101	59%
Don't Know	7989	11%
Not Elsewhere Included <sup>9</sup>	3003	4%
Total People identifying as having Maori Ancestry	73542	29%

Age structure is represented in Table 4.4 and Figure 4.2, and Table 4.5 and Figure 4.3. An ageing population is reflected across national, regional and district statistics.

Table 4.4 Age Structure, New Zealand and Bay of Plenty region, 2006

	0-4 Years	5-14 Years	15-24 Years	25-44 Years	45-64 Years	65 Years plus
Bay of Plenty	7%	16%	12%	26%	25%	15%
New Zealand	7%	15%	14%	28%	24%	12%

<sup>8</sup> Includes Te Arawa/Taupo (Rotorua/Taupo) region, not further defined, Ngati Pikiako, Ngati Rangiteaorere, Ngati Rangitahi, Ngati Rangiwewehi, Tapuika, Tarawhai, Tuhourangi, Uenuku-Kopaka, Waitaha, Ngati Whakaue, Ngati Tahu-Ngati Whaoa.

<sup>9</sup> Includes "Refused to Answer", Response Unidentifiable" and "Not Stated".

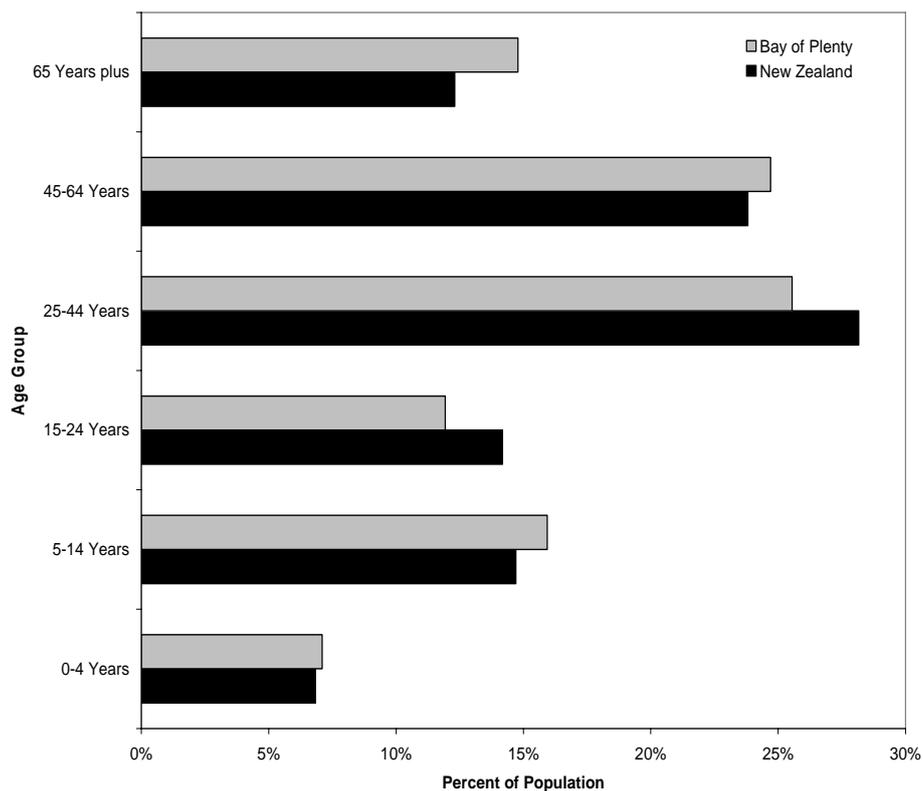


Figure 4.2 Age Structure, New Zealand and Bay of Plenty region, 2006

Table 4.5 Age Structure, Bay of Plenty districts, 2006

	0-4 Years	5-14 Years	15-24 Years	25-44 Years	45-64 Years	65 Years plus
Western Bay of Plenty District	6%	16%	10%	24%	29%	16%
Tauranga City	7%	14%	12%	26%	24%	17%
Rotorua District (part)	8%	17%	13%	27%	23%	11%
Whakatane District	8%	18%	12%	25%	25%	13%
Kawerau District	9%	19%	12%	25%	23%	12%
Opotiki District	8%	19%	11%	22%	25%	14%

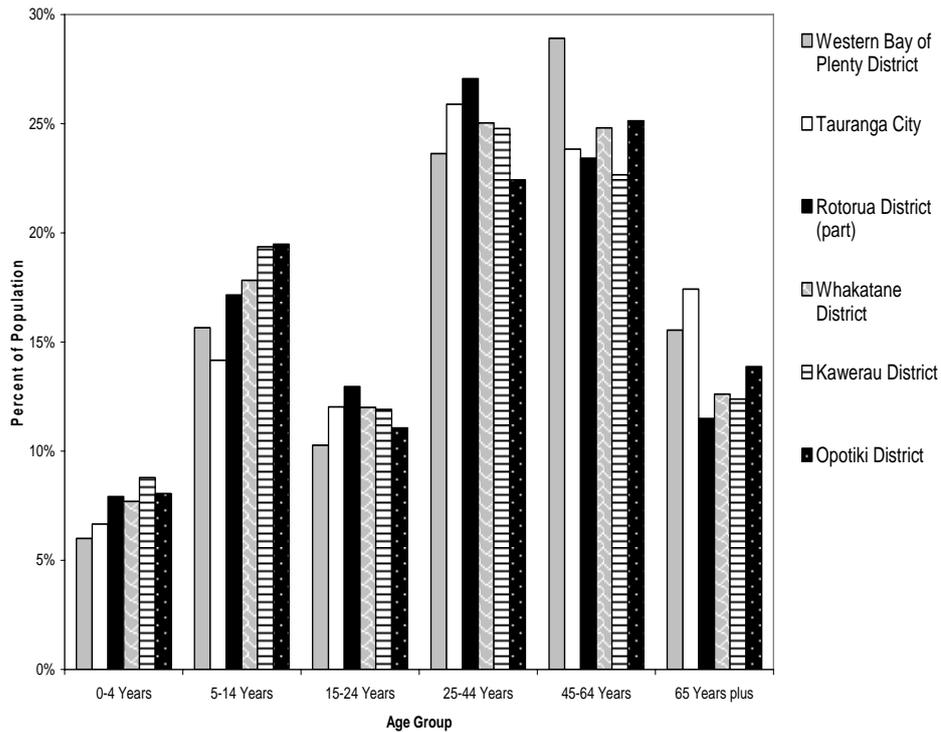


Figure 4.3 Age Structure, Bay of Plenty districts, 2006

Age and ethnicity is represented on this page in Table 4.7 and Figure 4.4.

Table 4.7 Ethnic Age Composition, Bay of Plenty region, 2006

	0-9 Years	10-19 Years	20-29 Years	30-49 Years	50-69 Years	70+ Years
European	14%	15%	9%	27%	23%	13%
Maori	23%	22%	13%	26%	13%	3%
Other	16%	14%	10%	31%	24%	6%

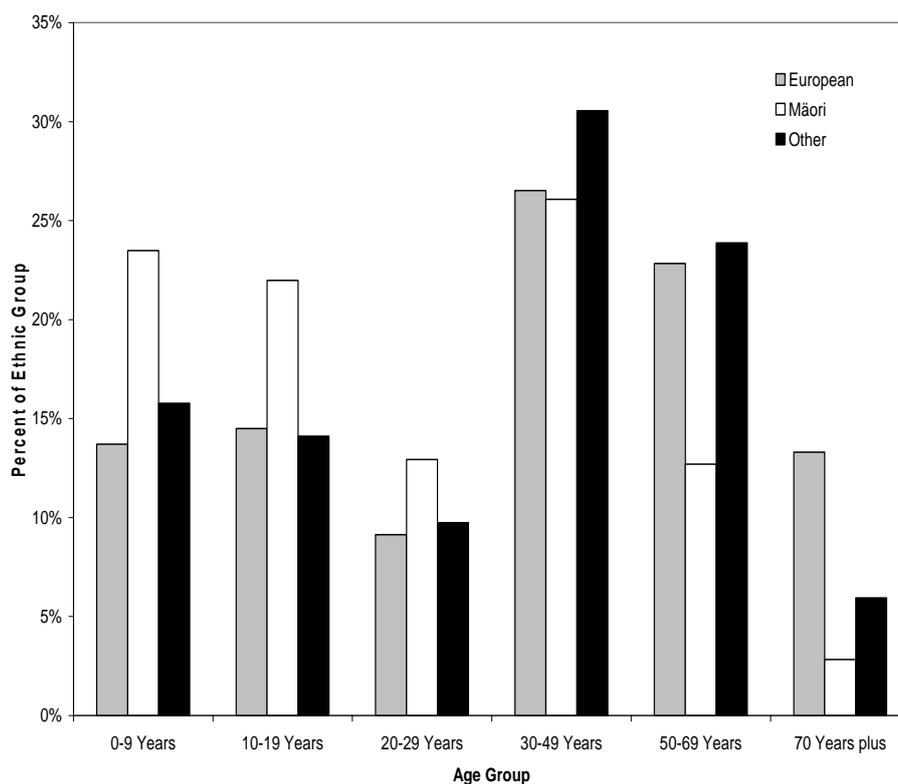


Figure 4.4 Ethnic Age Composition, Bay of Plenty region, 2006

This page contains information relating to median ages, Table 4.6, which is a useful summary measure of age-composition.

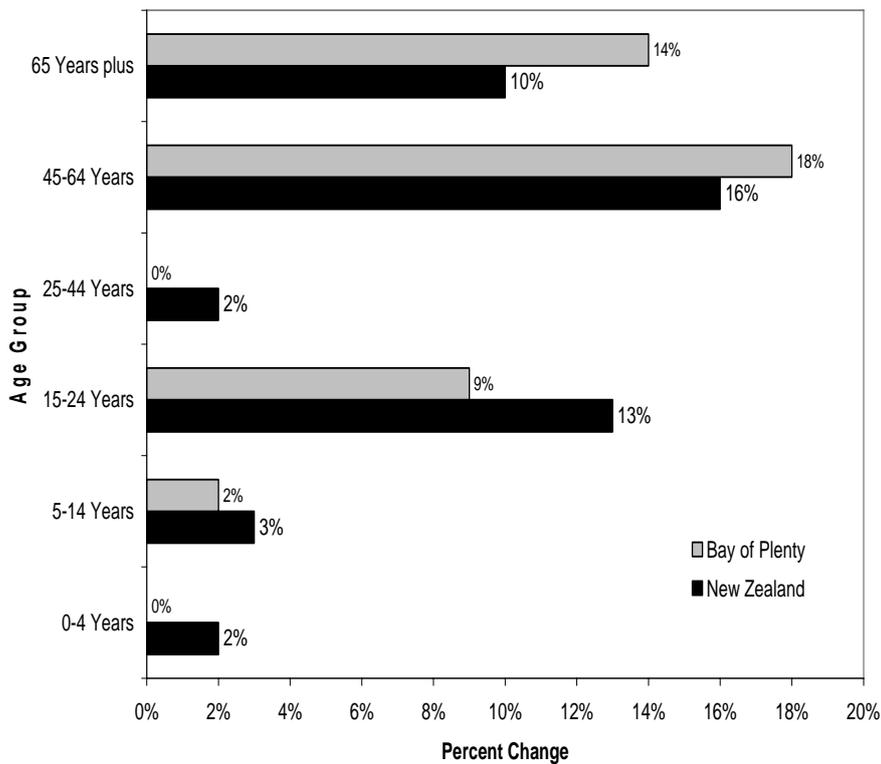
Changes in age composition for New Zealand and the Bay of Plenty region are also shown in Table 4.8 and Figure 4.5.

Table 4.6 Median Age, New Zealand, Bay of Plenty region and districts, 2006

	Median Age
Western Bay of Plenty District	42
Tauranga City	39
Rotorua District (whole)	35
Whakatane District	36
Kawerau District	34
Opotiki District	37
Bay of Plenty	38
New Zealand	36

**Table 4.8** Changes in Age Composition, New Zealand and Bay of Plenty region, 2001-2006

	New Zealand	Bay of Plenty
0-4 Years	2%	0%
5-14 Years	3%	2%
15-24 Years	13%	9%
25-44 Years	2%	0%
45-64 Years	16%	18%
65 Years plus	10%	14%



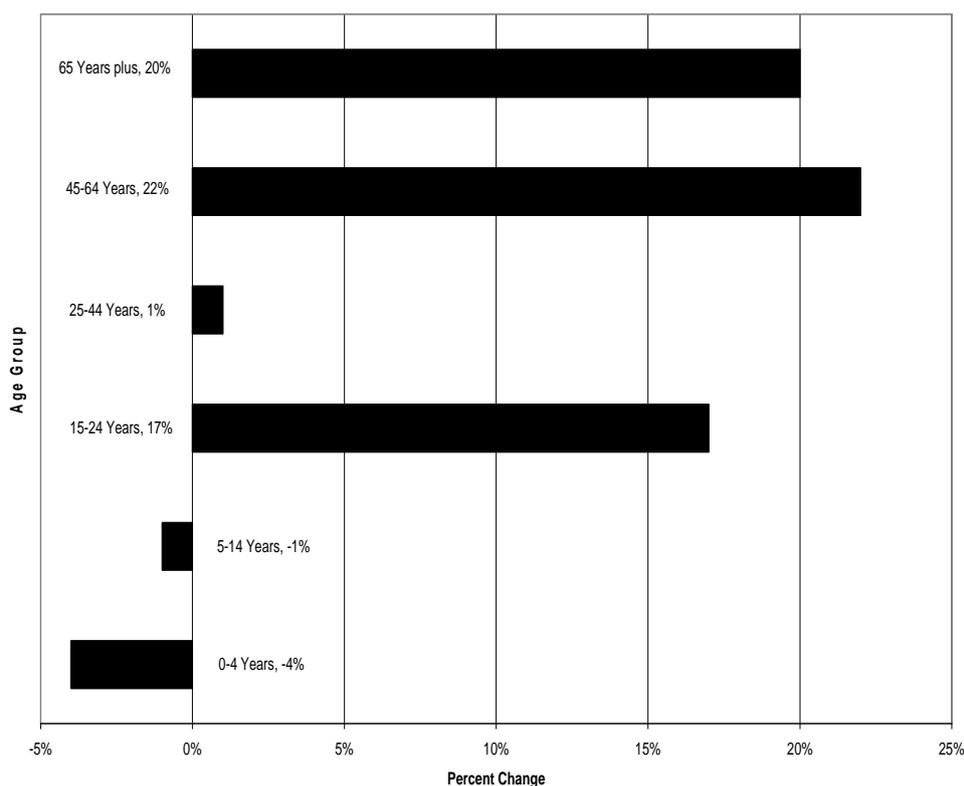
**Figure 4.5** Changes in Age Composition, New Zealand and Bay of Plenty region, 2001-2006

The following table and figures highlight the change in age composition for the Bay of Plenty districts.

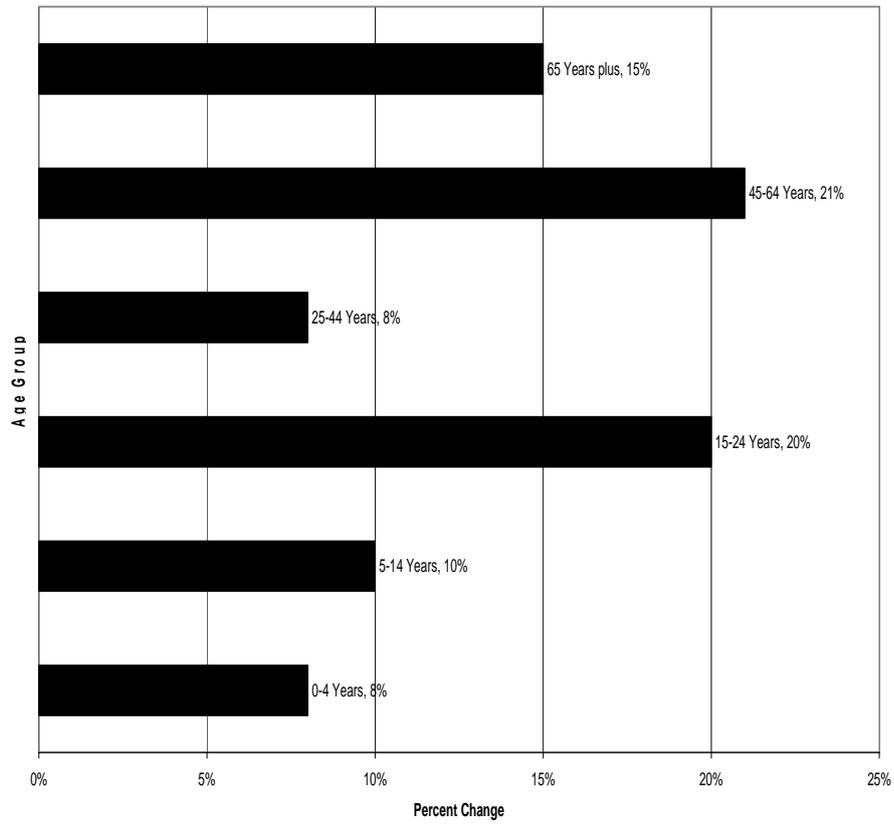
Table 4.9 Changes in Age Composition, Bay of Plenty districts, 2001-2006

	Western Bay of Plenty District	Tauranga City	Rotorua District (part)	Whakatane District	Kawerau District	Opotiki District
0-4 Years	-4%	8%	-3%	-7%	-8%	-4%
5-14 Years	-1%	10%	2%	-4%	-12%	-6%
15-24 Years	17%	20%	-1%	1%	-2%	-2%
25-44 Years	1%	8%	-5%	-8%	-9%	-14%
45-64 Years	22%	21%	13%	15%	11%	10%
65+ Years	20%	15%	7%	12%	33%	9%

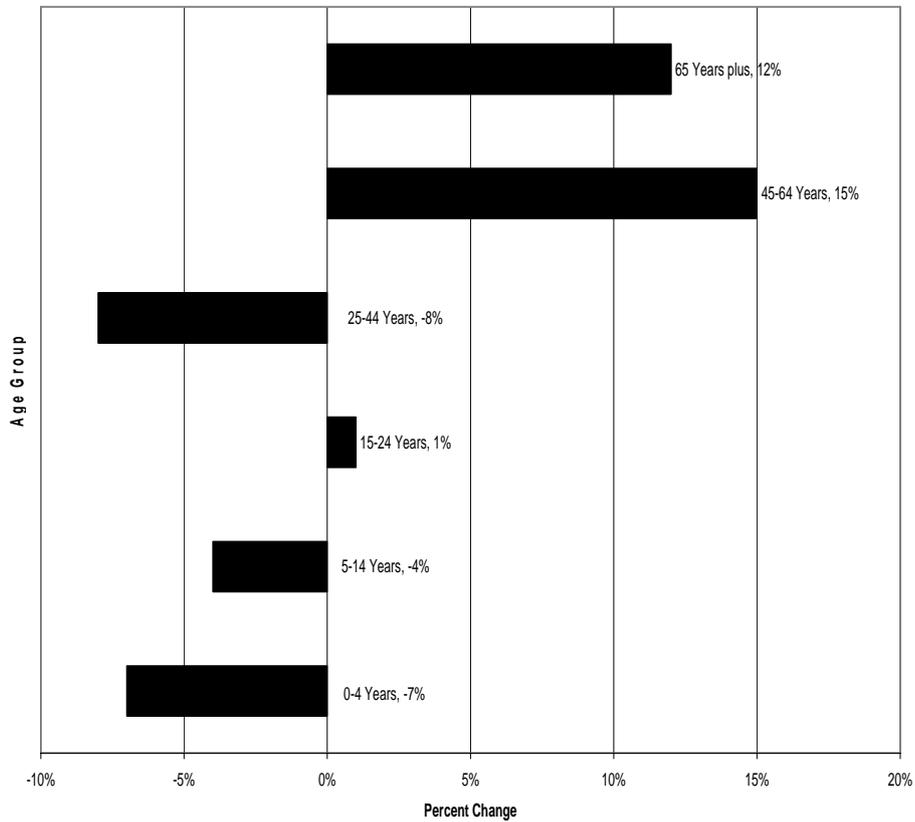
### Western Bay of Plenty



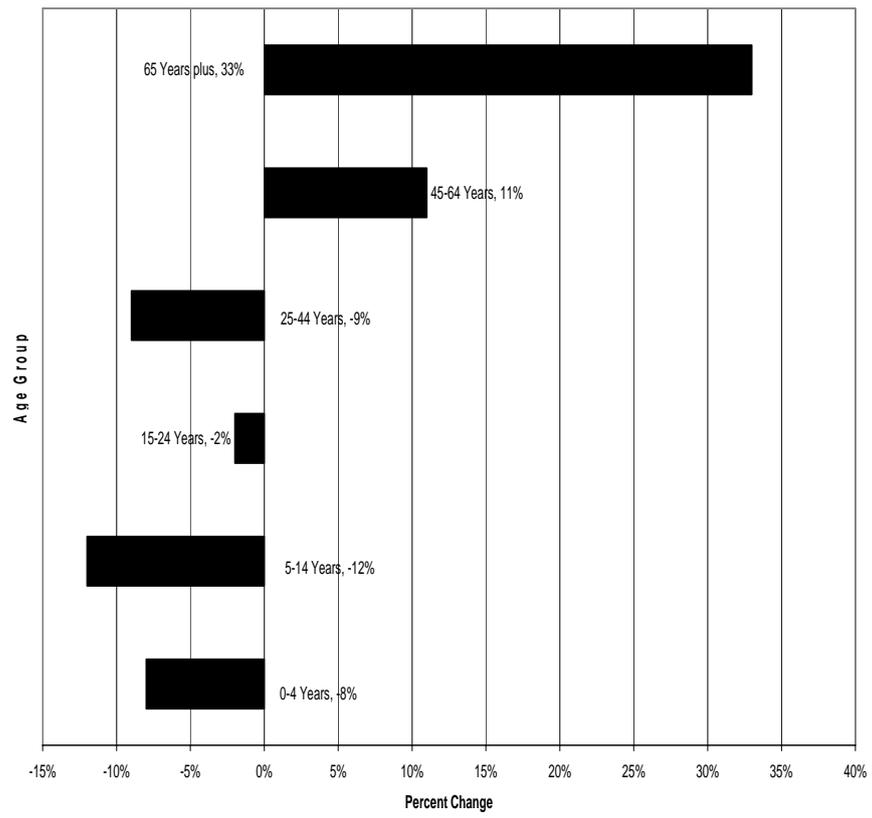
### Tauranga City



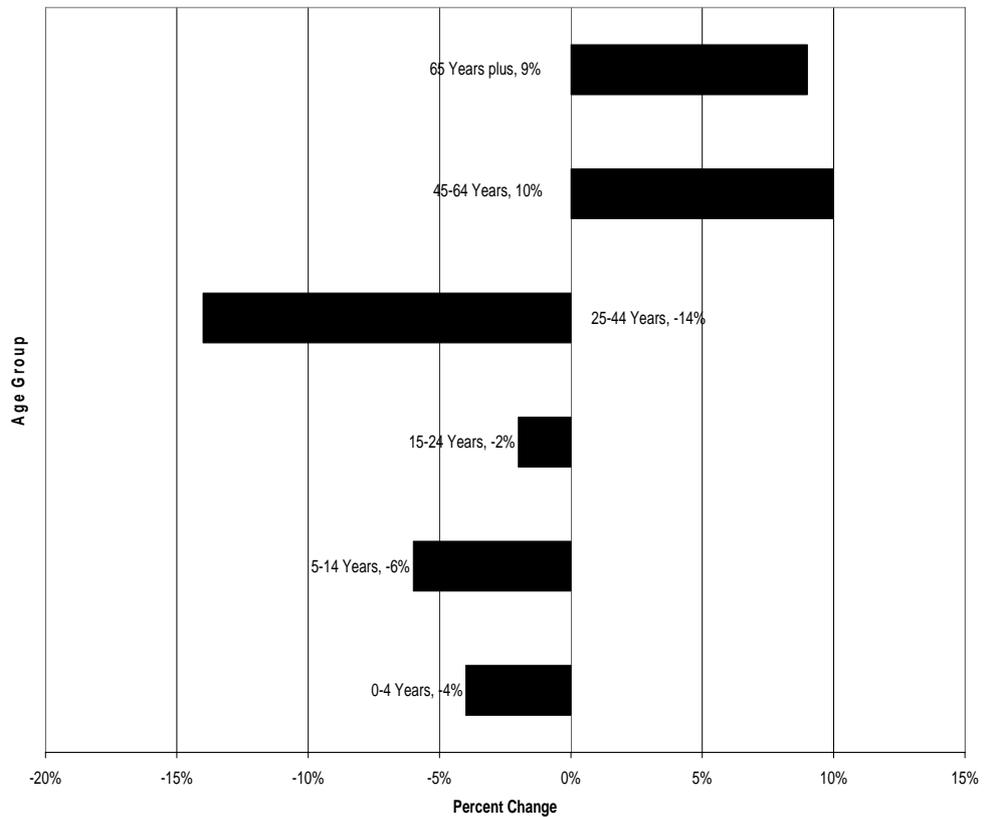
### Whakatane district



### Kawerau district



### Opotiki district



## Rotorua district (part)

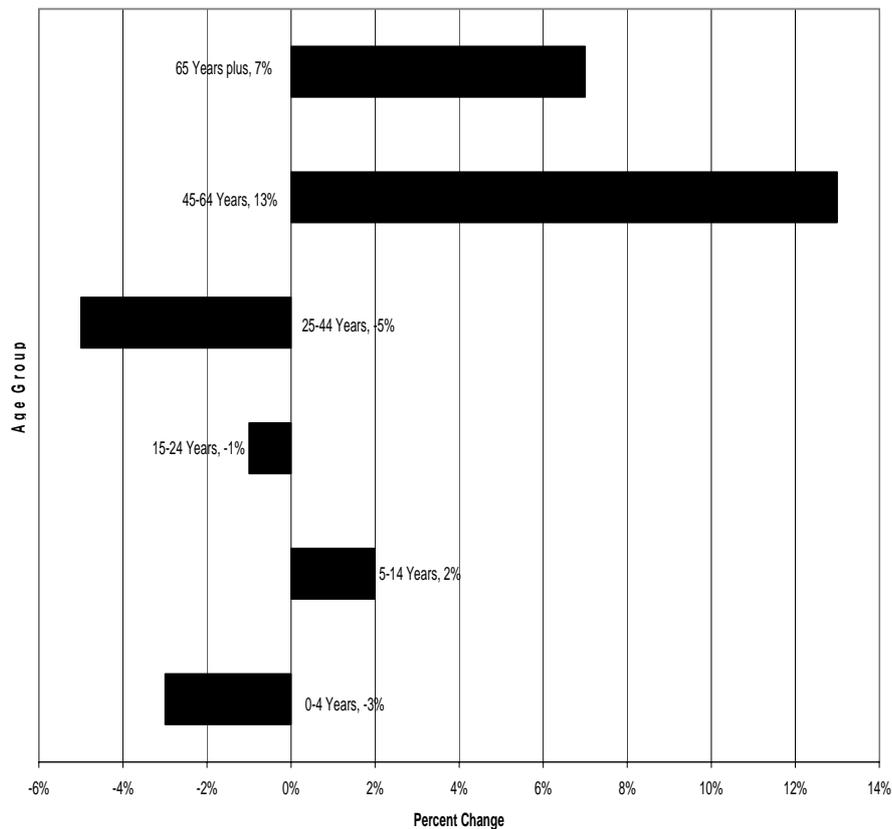


Figure 4.6 Changes in Age Composition, Bay of Plenty districts, 2001-2006

Table 4.10 shows the distribution of males and females in the Bay of Plenty region and districts, as well as New Zealand, in 1996, 2001 and 2006. Age by sex is demonstrated for the Bay of Plenty region over these same years in Table 4.11 and Figure 4.7.

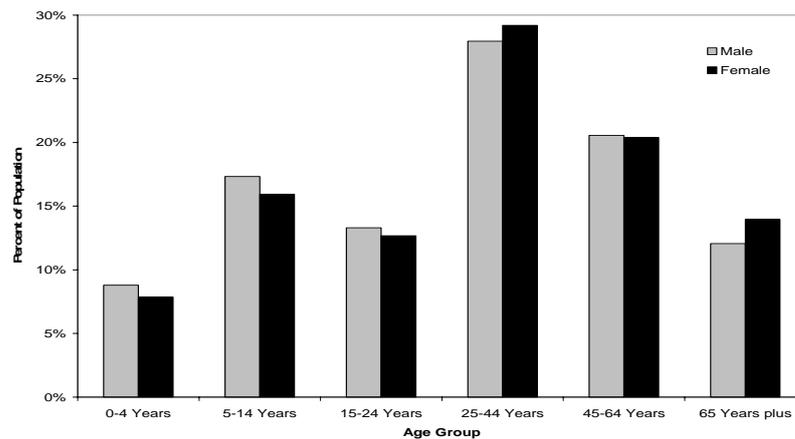
Table 4.10 Sex Distribution, New Zealand and Bay of Plenty region and districts, 1996-2006

	1996		2001		2006	
	Male	Female	Male	Female	Male	Female
Western Bay of Plenty District	50%	50%	50%	50%	49%	51%
Tauranga City	48%	52%	48%	52%	48%	52%
Rotorua District (part)	49%	51%	48%	52%	48%	52%
Whakatane District	50%	50%	49%	51%	49%	51%
Kawerau District	50%	50%	50%	50%	50%	50%
Opotiki District	50%	50%	49%	51%	50%	50%
Bay of Plenty	49%	51%	48%	52%	48%	52%
New Zealand	49%	51%	49%	51%	49%	51%

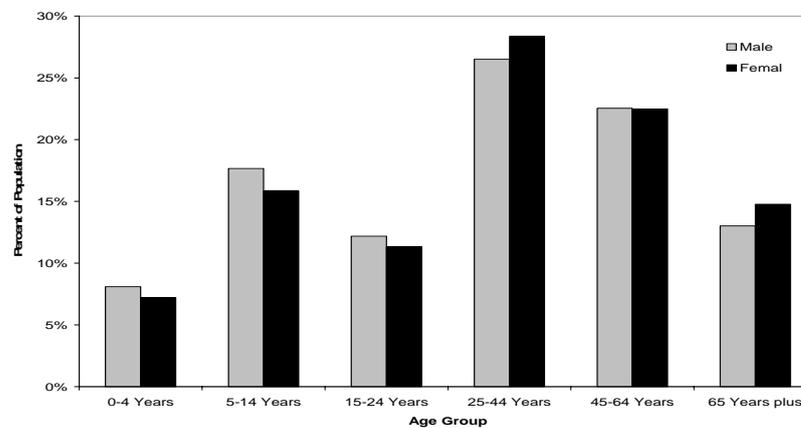
Table 4.11 Age by Sex, Bay of Plenty region, 1996-2006

		0-4 Years	5-14 Years	15-24 Years	25-44 Years	45-64 Years	65 Years plus
1996	Male	9%	17%	13%	28%	21%	12%
	Female	8%	16%	13%	29%	20%	14%
2001	Male	8%	18%	12%	27%	23%	13%
	Female	7%	16%	11%	28%	22%	15%
2006	Male	8%	17%	12%	25%	25%	14%
	Female	7%	15%	11%	26%	25%	16%

1996



2001



2006

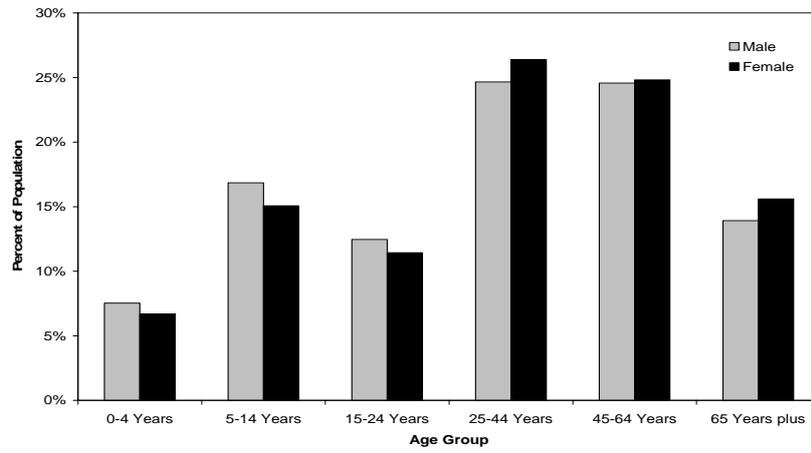


Figure 4.7 Age by Sex, Bay of Plenty region, 1996-2006

## Part 3: Socio-economic characteristics

### 3.1 Households and families

This section looks at information surrounding dwellings, households and families. Table 5.1 and Figure 5.1 show the total number of private dwellings for the districts within the Bay of Plenty region on the last three Census nights. Private dwellings include separate and joined houses and flats, baches, cribs or huts, caravans, cabins or tents in a motor camp and others, such as yachts. Table 5.2 shows the increase of private dwellings as percentages for New Zealand and the Bay of Plenty region and districts.

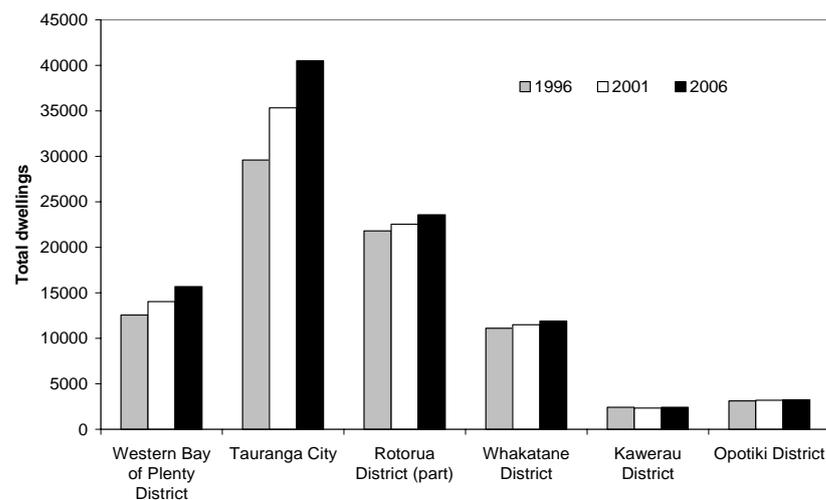


Figure 5.1 Total number of Private Dwellings, Bay of Plenty districts, 1996, 2001, 2006

Table 5.1 Total number of Private Dwellings, Bay of Plenty districts, 1996, 2001, 2006

	1996	2001	2006
Western Bay of Plenty District	12558	14040	15690
Tauranga City	29583	35319	40494
Rotorua District (part)	21810	22554	23580
Whakatane District	11115	11487	11886
Kawerau District	2430	2337	2418
Opotiki District	3129	3189	3246

**Table 5.2** Increase in Private Dwellings, New Zealand and Bay of Plenty region and districts, 1996-2006

	1996-2001	2001-2006	1996-2006
Western Bay of Plenty District	12%	12%	25%
Tauranga City	19%	15%	37%
Rotorua District (part)	3%	5%	8%
Whakatane District	3%	3%	7%
Kawerau District	-4%	3%	-1%
Opotiki District	2%	2%	4%
Bay of Plenty	10%	9%	21%
New Zealand	7%	8%	15%

Table 5.3 examines the percentages of occupied dwellings which includes private dwellings (as described previously) and non-private dwellings. Non-private dwellings include hotels, motels or guest houses, boarding houses, homes for the elderly and others such as hostels, motor camps or hospitals. Table 5.4 depicts the tenure of private dwellings and Table 5.5 illustrates the average weekly rent for private dwellings and its marked increase as a percentage since 1996.

**Table 5.3** Occupies Dwellings, New Zealand, Bay of Plenty region and districts 2006

	Separate House	Other Private Dwelling	Occupied Private Dwelling	Occupied Non-private Dwelling	Total Occupied Dwellings
Western Bay of Plenty District	85%	15%	99.7%	0.3%	15741
Tauranga City	77%	23%	99.7%	0.3%	40635
Rotorua District (part)	78%	22%	99.2%	0.8%	23763
Whakatane District	81%	19%	99.6%	0.4%	11931
Kawerau District	86%	13%	99.8%	0.1%	2424
Opotiki District	81%	20%	99.3%	0.6%	3270
Bay of Plenty	79%	21%	99.5%	0.5%	96615
New Zealand	77%	23%	99.5%	0.5%	1478709

**Table 5.4** Tenure of Private Dwellings, New Zealand, Bay of Plenty region and districts, 2006

	Dwelling Owned or Partly Owned	Dwelling Not Owned by Usual Resident(s)	Not Specified
Western Bay of Plenty District	49%	25%	7%
Tauranga City	48%	31%	6%
Rotorua District (part)	51%	33%	7%
Whakatane District	51%	31%	7%
Kawerau District	58%	32%	6%
Opotiki District	48%	34%	9%
Bay of Plenty	50%	31%	7%
New Zealand	51%	31%	6%

**Table 5.5** Average Weekly Rent for Private Dwellings, New Zealand, Bay of Plenty region and districts, 2006

	1996	2001	2006	% change 1996-2001	%change 2001-2006
Western Bay of Plenty District	\$123	\$144	\$186	15%	23%
Tauranga City	\$161	\$175	\$231	8%	24%
Rotorua District (part)	\$141	\$151	\$184	7%	18%
Whakatane District	\$123	\$133	\$179	8%	26%
Kawerau District	\$128	\$119	\$138	-8%	14%
Opotiki District	\$110	\$115	\$131	4%	12%
Bay of Plenty	\$143	\$156	\$202	8%	23%
New Zealand	\$161	\$174	\$225	7%	23%

Table 5.7 shows the distribution of households across the districts.

Table 5.7 Housing Distribution, New Zealand, Bay of Plenty region and district, 2006

	Total Number of Households	Percentage of Households
Western Bay of Plenty District	15438	16%
Tauranga City	39951	42%
Rotorua District (part)	23223	25%
Whakatane District	11706	12%
Kawerau District	2397	3%
Opotiki District	3189	3%
Bay of Plenty	94773	7%
New Zealand	1454175	

Table 5.8 portrays the size of the households and compares the figures as percentages of the two most recent Census counts.

Table 5.8 Household Size, New Zealand, Bay of Plenty region and districts, 2001, 2006

	2001					2006				
	One Resident	Two Residents	Three Residents	Four Residents	Five or More	One Resident	Two Residents	Three Residents	Four Residents	Five or More
Western Bay of Plenty District	20%	39%	15%	14%	12%	20%	40%	15%	14%	11%
Tauranga City	24%	39%	15%	13%	9%	24%	38%	16%	14%	9%
Rotorua District (part)	21%	33%	18%	15%	13%	22%	33%	17%	15%	13%
Whakatane District	21%	33%	17%	14%	15%	21%	35%	16%	14%	14%
Kawerau District	20%	31%	17%	16%	16%	23%	33%	16%	13%	15%
Opotiki District	24%	33%	15%	13%	16%	24%	34%	16%	12%	14%
Bay of Plenty	22%	36%	16%	14%	12%	22%	37%	16%	14%	11%
New Zealand	23%	34%	17%	15%	12%	23%	34%	17%	15%	12%

Table 5.9 contains the figures for the number of bedrooms within each household.

*Table 5.9 Number of Bedrooms, New Zealand, Bay of Plenty region and districts, 2006*

	<b>One Bedroom</b>	<b>Two Bedrooms</b>	<b>Three Bedrooms</b>	<b>Four Bedrooms</b>	<b>Five or More</b>
Western Bay of Plenty District	6%	14%	43%	24%	8%
Tauranga City	4%	18%	50%	20%	4%
Rotorua District (part)	5%	16%	47%	20%	6%
Whakatane District	5%	16%	47%	21%	5%
Kawerau District	3%	9%	65%	17%	3%
Opotiki District	7%	19%	44%	17%	5%
Bay of Plenty	5%	17%	48%	20%	5%
New Zealand	6%	19%	44%	21%	6%

Table 5.10 and Figure 5.3 highlight family types. When constructing the family type categories, Statistics New Zealand extracts the One-Parent, Two-Parent and Couple-Only family types from data relating to households. As a result, information on the complex living arrangements of multiple family households is lost. For this reason it is also important to examine the household composition data that is provided in Table 5.11 and Figure 5.4

*Table 5.10 Family Type, New Zealand, Bay of Plenty region and districts, 2006*

	<b>Couple Only</b>	<b>Two Parent Family</b>	<b>One Parent Family</b>
Western Bay of Plenty District	46%	40%	14%
Tauranga City	46%	36%	18%
Rotorua District (part)	36%	40%	24%
Whakatane District	38%	39%	23%
Kawerau District	35%	34%	30%
Opotiki District	36%	36%	28%
Bay of Plenty	42%	38%	20%
New Zealand	40%	42%	18%

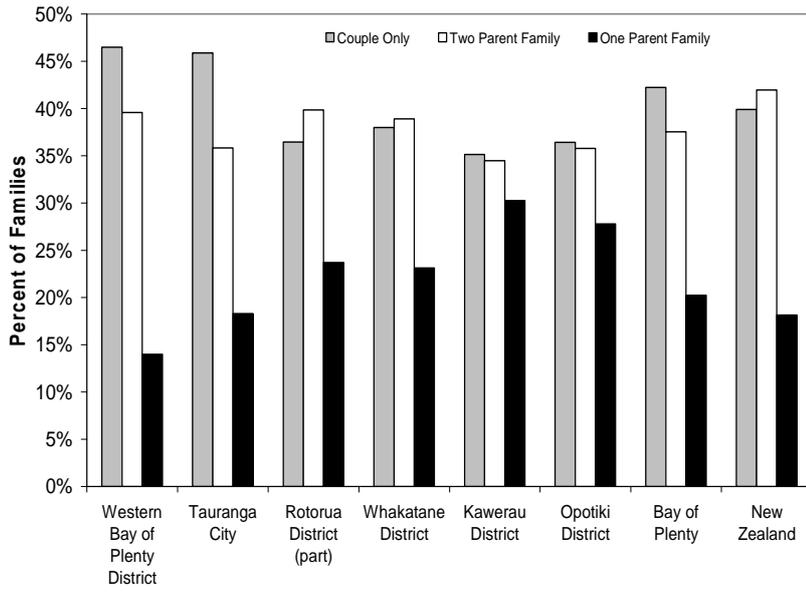


Figure 5.3 Family Type, New Zealand, Bay of Plenty region and districts, 2006

Table 5.11 and Figure 5.4 include information on household composition and use the broad categories as determined by Statistics New Zealand: One-family household (includes both the One-Parent and Two-Parent family types); Two or more families; Non-family household (e.g. flatting); and the One-person household.

Table 5.11 Household Composition, New Zealand, Bay of Plenty region and districts, 2006

	One-Person Household	One-Family Household	Two or More Families	Other Multiperson Household	Household Not Classified
Western Bay of Plenty District	20%	73%	2%	3%	3%
Tauranga City	24%	69%	2%	4%	1%
Rotorua District (part)	22%	68%	3%	4%	2%
Whakatane District	21%	70%	3%	3%	2%
Kawerau District	23%	69%	4%	3%	1%
Opotiki District	24%	67%	3%	3%	3%
Bay of Plenty	22%	69%	3%	4%	2%
New Zealand	23%	68%	3%	5%	2%

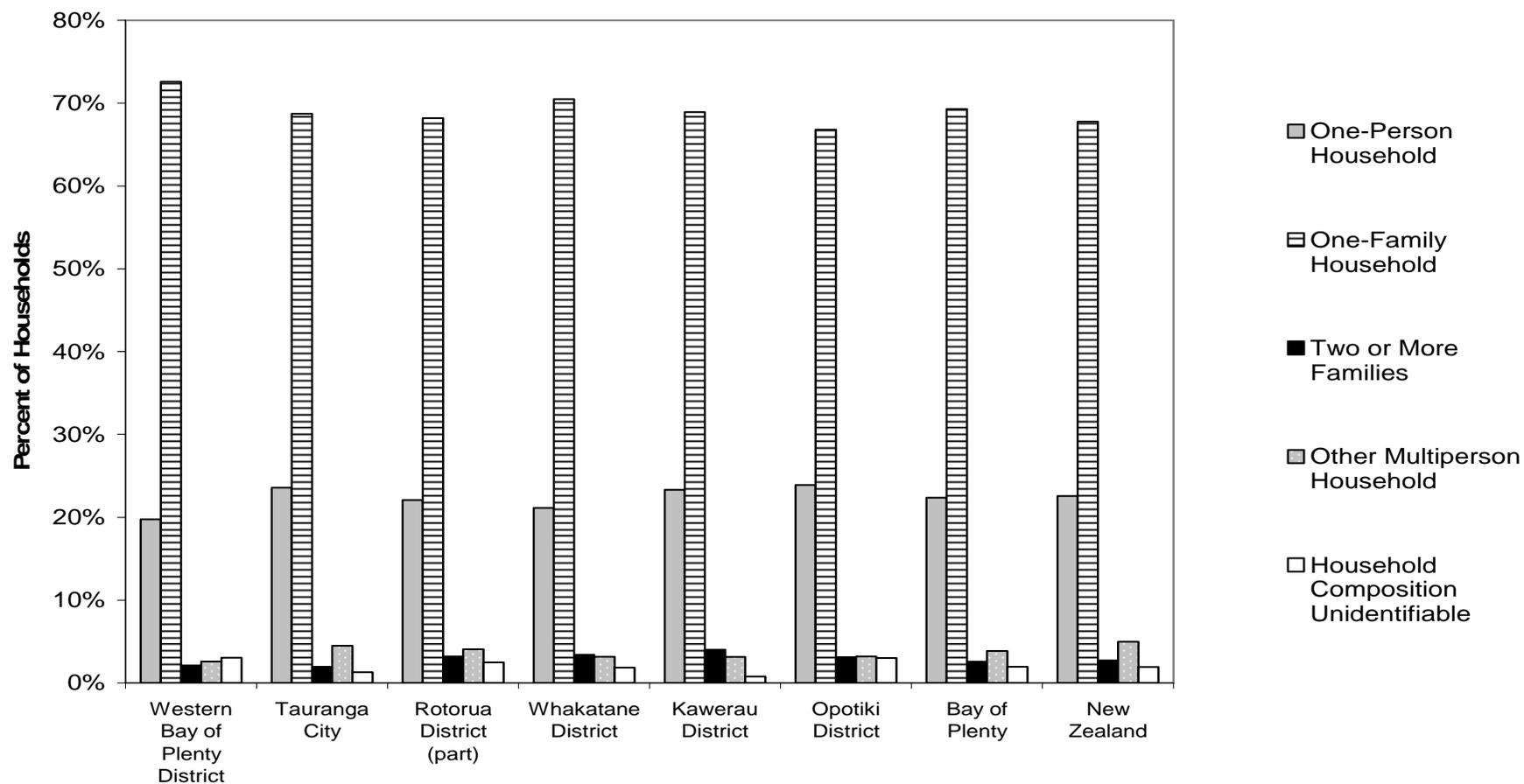


Figure 5.4 Household Composition, New Zealand, Bay of Plenty region and districts, 2006

Tables 5.12 to 5.14 are concerned with the accessibility of certain objects which often determine ideas surrounding standards of living (being availability of motor vehicles; access to telecommunications, and main means of home heating).

Table 5.12 Proportion of Households without a Motor Vehicle for Private Use, New Zealand, Bay of Plenty region and districts, 2001, 2006

	No Access to Private Motor Vehicle	
	2001	2006
Western Bay of Plenty District	5%	4%
Tauranga City	8%	6%
Rotorua District (part)	10%	8%
Whakatane District	11%	8%
Kawerau District	13%	12%
Opotiki District	14%	10%
Bay of Plenty	9%	7%
New Zealand	10%	8%

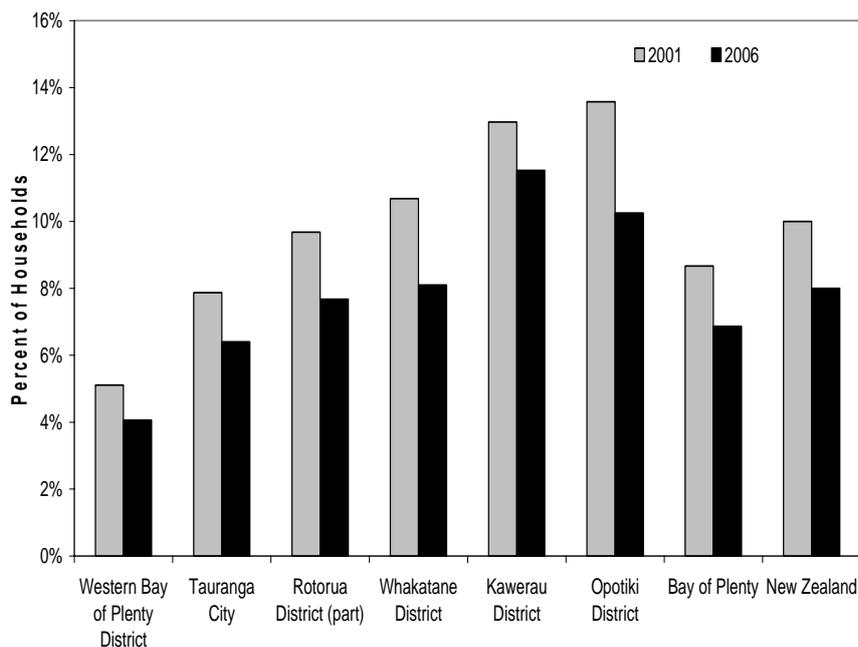


Figure 5.5 Proportion of Households without a Motor Vehicle for Private Use, New Zealand, Bay of Plenty regions and districts, 2001, 2006

Table 5.13 Access to Telecommunications, New Zealand, Bay of Plenty region and districts, 2006

	No Access to Telecommunications	Access to Telephone	Access to Cellphone	Access to Fax	Access to Internet
Western Bay of Plenty District	2%	86%	73%	37%	57%
Tauranga City	2%	89%	73%	26%	58%
Rotorua District (part)	3%	82%	71%	22%	51%
Whakatane District	5%	83%	65%	24%	50%
Kawerau District	7%	77%	69%	16%	42%
Opotiki District	9%	73%	51%	22%	36%
Bay of Plenty	3%	85%	71%	26%	54%
New Zealand	2%	88%	71%	25%	58%

Table 5.14 Main Means of Home Heating, New Zealand, Bay of Plenty region and districts, 2006

	Electricity	Mains Gas	Bottled Gas	Wood	Coal	Solar Power	No Fuels Used	Other Fuel(s)	Not Specified
Western Bay of Plenty District	56%	4%	35%	52%	3%	3%	2%	2%	5%
Tauranga City	64%	13%	38%	25%	2%	1%	3%	1%	3%
Rotorua District (part)	58%	13%	29%	52%	4%	1%	1%	5%	5%
Whakatane District	59%	3%	33%	53%	3%	2%	2%	1%	5%
Kawerau District	54%	9%	31%	63%	3%	1%	1%	2%	3%
Opotiki District	49%	3%	35%	54%	3%	2%	4%	2%	7%
Bay of Plenty	60%	10%	35%	41%	3%	2%	2%	2%	5%
New Zealand	71%	13%	26%	39%	7%	1%	2%	2%	4%

### 3.2 Employment and unemployment

This section focuses on the Bay of Plenty labour force, employment and industry. The labour force consists of people aged 15 years and over who regularly work for one or more hours per week for financial gain, or as an unpaid worker in a family business. Also included are people who are unemployed and actively seeking either full-time or part-time work. Table 6.1 details the status of this labour force. Table 6.2 shows whether people in the labour force were employers, employees, self employed or unpaid workers. The total weekly hours worked by the labour force are demonstrated in Table 6.3.

*Table 6.1 Labour Force Status, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006*

	Employed Full-time	Employed Part-time	Unemployed	Not in Labour Force	Data not available
Western Bay of Plenty District	46%	15%	3%	31%	5%
Tauranga City	45%	14%	3%	35%	2%
Rotorua District (part)	48%	14%	5%	30%	4%
Whakatane District	44%	14%	5%	33%	4%
Kawerau District	36%	12%	8%	40%	4%
Opotiki District	38%	14%	6%	37%	6%
Bay of Plenty	45%	14%	4%	33%	4%
New Zealand	48%	14%	3%	30%	3%

*Table 6.2 Gainfully Employed Labour Force Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006*

	Paid Employee	Employer	Self-Employed	Unpaid Worker	Not Specified
Western Bay of Plenty District	61%	12%	19%	5%	3%
Tauranga City	75%	8%	13%	1%	2%
Rotorua District (whole)	77%	8%	10%	2%	3%
Whakatane District	73%	9%	11%	3%	4%
Kawerau District	86%	3%	4%	1%	5%
Opotiki District	65%	10%	14%	6%	6%
Bay of Plenty	73%	9%	13%	2%	3%
New Zealand	76%	7%	12%	2%	3%

**Table 6.3** Total Weekly Hours Worked, Labour Force Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

	Less than 20 Hours	20-29 Hours	30-39 Hours	40-49 Hours	50-59 Hours	60 Hours or More
Western Bay of Plenty District	12%	10%	12%	32%	13%	13%
Tauranga City	13%	9%	13%	39%	11%	8%
Rotorua District (whole)	11%	9%	12%	38%	11%	11%
Whakatane District	13%	9%	12%	37%	9%	11%
Kawerau District	13%	8%	11%	42%	7%	7%
Opotiki District	13%	8%	11%	32%	10%	13%
Bay of Plenty	12%	9%	12%	37%	11%	10%
New Zealand	12%	8%	12%	39%	11%	9%

For the analysis in Table 6.4 and Figure 6.1, industry has been categorised into seventeen main groups. Census data on industry refers to the type of activity undertaken by the organisation, enterprise or business within which a person is employed. An individual business is assigned an appropriate industry category on the basis of its predominant income producing activity.

Table 6.4 Employment by Industry Group, Labour Force Aged 15 Years and Over, New Zealand and Bay of Plenty region, 2006

Major Industry	Western Bay of Plenty District	Tauranga City	Rotorua District (whole)	Whakatane District	Kawerau District	Opotiki District	Bay of Plenty	New Zealand
Agriculture, Forestry and Fishing	21%	3%	8%	14%	5%	25%	9%	7%
Mining	0.4%	0.1%	0.1%	0.1%	0.1%	0%	0.1%	0.2%
Manufacturing	9.6%	11%	11%	11%	24%	4%	11%	11%
Electricity, Gas, Water and Waste Services	0.2%	0.4%	1%	1%	1%	0.3%	0.5%	0.5%
Construction	9%	11%	7%	8%	7%	7%	9%	8%
Wholesale Trade	3%	5%	4%	2%	2%	2%	4%	5%
Retail Trade	8%	12%	10%	11%	9%	9%	11%	10%
Accommodation and Food Services	3%	5%	9%	4%	4%	5%	6%	6%
Transport, Postal and Warehousing	4%	5%	4%	3%	4%	2%	4%	4%
Information Media and Telecommunications	1%	1%	1%	1%	0.5%	1%	1%	2%
Financial and Insurance Services	2%	3%	2%	2%	2%	1%	2%	3%
Rental, Hiring and Real Estate Services	4%	3%	2%	2%	1%	2%	3%	3%
Professional, Scientific and Technical Services	5%	7%	6%	5%	2%	3%	6%	8%
Administrative and Support Services	4%	3%	3%	2%	3%	3%	3%	3%
Public Administration and Safety	2%	3%	3%	4%	2%	3%	3%	4%
Education and Training	5%	6%	8%	10%	10%	10%	7%	7%
Health Care and Social Assistance	8%	10%	9%	9%	7%	7%	9%	8%
Arts and Recreation Services	1%	1%	3%	1%	1%	1%	2%	2%
Other Services	4%	4%	4%	4%	5%	3%	4%	4%
Not Elsewhere Included	7%	5%	6%	7%	9%	11%	6%	6%

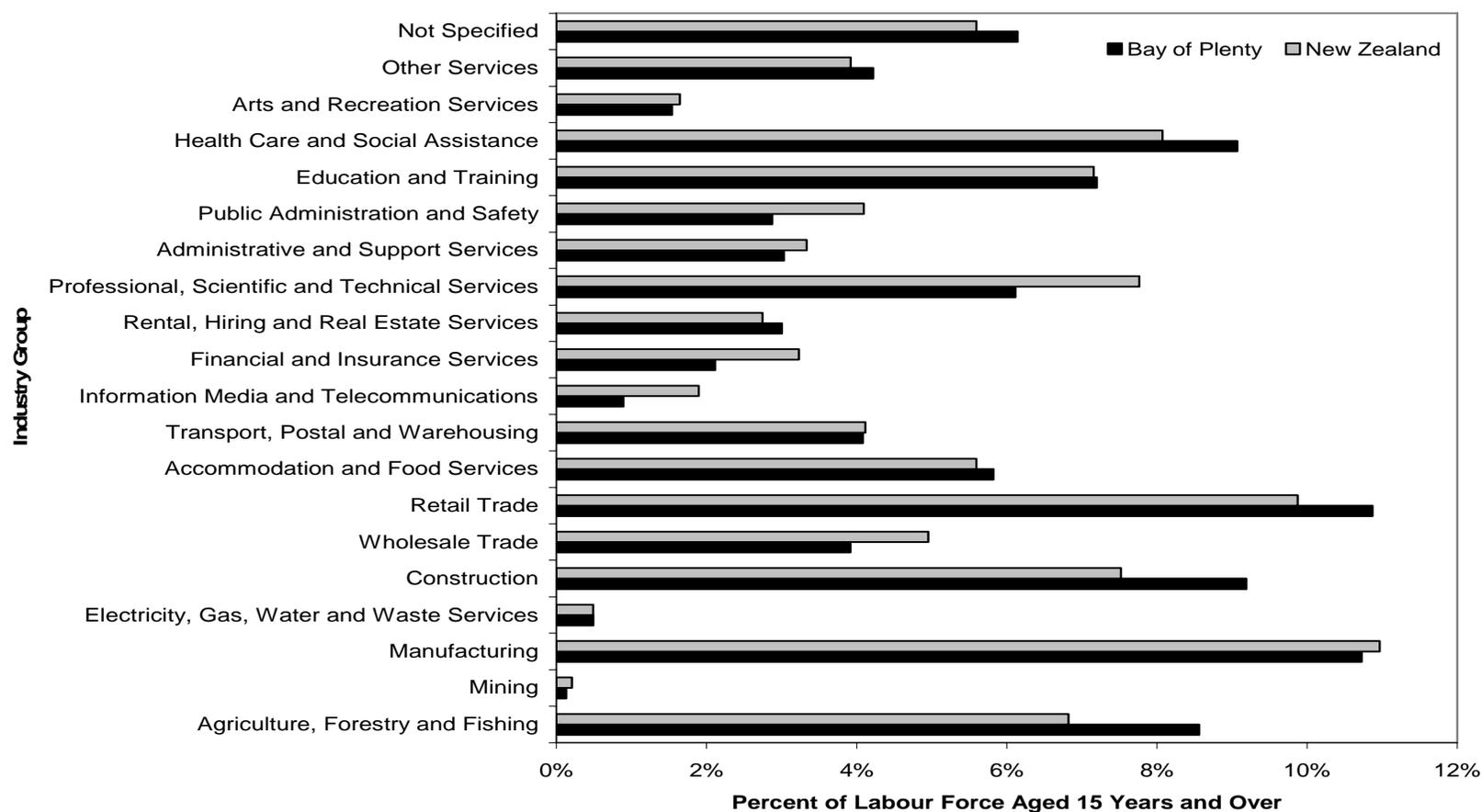
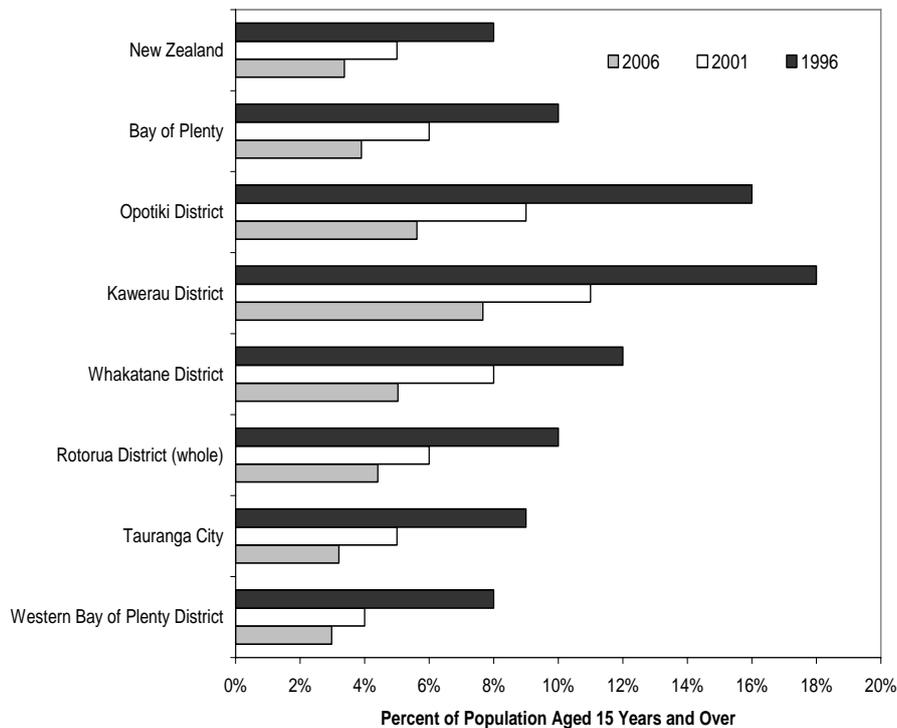


Figure 6.4 Employment by Industry Group, Labour Force Aged 15 Years and Over, New Zealand and Bay of Plenty region, 2006

Table 6.5 and Figure 6.2 show unemployment levels which are often used as an indicator for gauging social and economic wellbeing. Unemployment levels are defined here as the number of persons who are unemployed and actively seeking work as a percentage of the total labour force aged 15 years and over. Table 6.6 summarises information on how people travel to work.

*Table 6.5 Unemployment Rates, Labour Force Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 1996-2006*

	1996	2001	2006
Western Bay of Plenty District	8%	4%	3%
Tauranga City	9%	5%	3%
Rotorua District (whole)	10%	6%	4%
Whakatane District	12%	8%	5%
Kawerau District	18%	11%	8%
Opotiki District	16%	9%	6%
Bay of Plenty	10%	6%	4%
New Zealand	8%	5%	3%



*Figure 6.2 Unemployment Rates, Labour Force Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 1996-2006*

Table 6.6 Means of Travel to Work by Labour Force Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

Means of Travel	Western Bay of Plenty District	Tauranga City	Rotorua District (whole)	Whakatane District	Kawerau District	Opotiki District	Bay of Plenty	New Zealand
Worked at Home	18%	7%	8%	11%	3%	16%	9%	8%
Did Not Go To Work Today	11%	11%	10%	11%	10%	9%	11%	10%
Drove a Private Car, Truck or Van	45%	52%	50%	46%	53%	43%	50%	48%
Drove a Company Car, Truck or Van	12%	14%	13%	11%	8%	9%	12%	11%
Passenger in a Car, Truck, Van or Company Bus	3%	4%	6%	5%	6%	5%	5%	5%
Public Bus	0.2%	1%	1%	0.1%	0%	0.4%	1%	3%
Train	0.03%	0.03%	0.02%	0.04%	0.1%	0%	0.03%	1%
Motor Cycle or Power Cycle	1%	1%	1%	2%	1%	2%	1%	1%
Bicycle	1%	2%	2%	2%	3%	1%	2%	2%
Walked or Jogged	3%	3%	4%	5%	7%	5%	4%	5%
Other	0.4%	0.4%	0.5%	0.4%	0.4%	0.4%	0.4%	1%

### 3.3 Education

The highest level of education attained by Bay of Plenty regional and district residents aged 15 years and over is shown in Table 7.1 and Figure 7.1. Highest qualifications have been grouped into three categories: No Qualification (attained at school and since leaving school); School Qualifications (achieved from secondary schools including those outside of New Zealand); University or Other Tertiary (including graduate and undergraduate degrees and trade, teaching/nursing, technicians and other vocational certificates or diplomas).

Table 7.1 Highest Qualification Attained, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

	No Qualification	School Qualification	University or Other Tertiary	Not Elsewhere Included
Western Bay of Plenty District	25%	45%	18%	12%
Tauranga City	24%	47%	20%	10%
Rotorua District (whole)	25%	45%	18%	13%
Whakatane District	28%	43%	16%	14%
Kawerau District	37%	41%	8%	14%
Opotiki District	34%	38%	12%	16%
Bay of Plenty	26%	45%	18%	12%
New Zealand	22%	45%	23%	10%

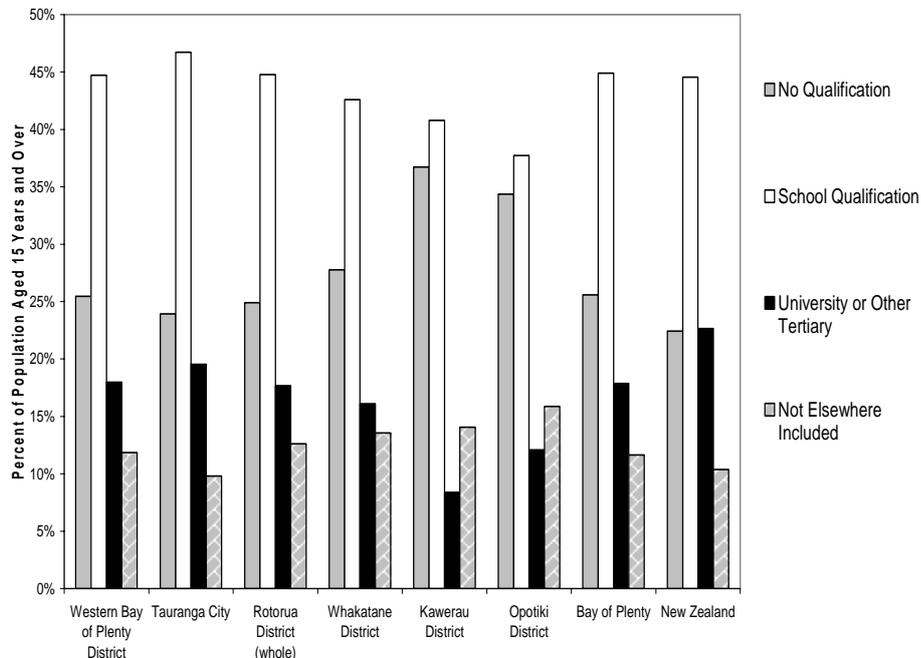
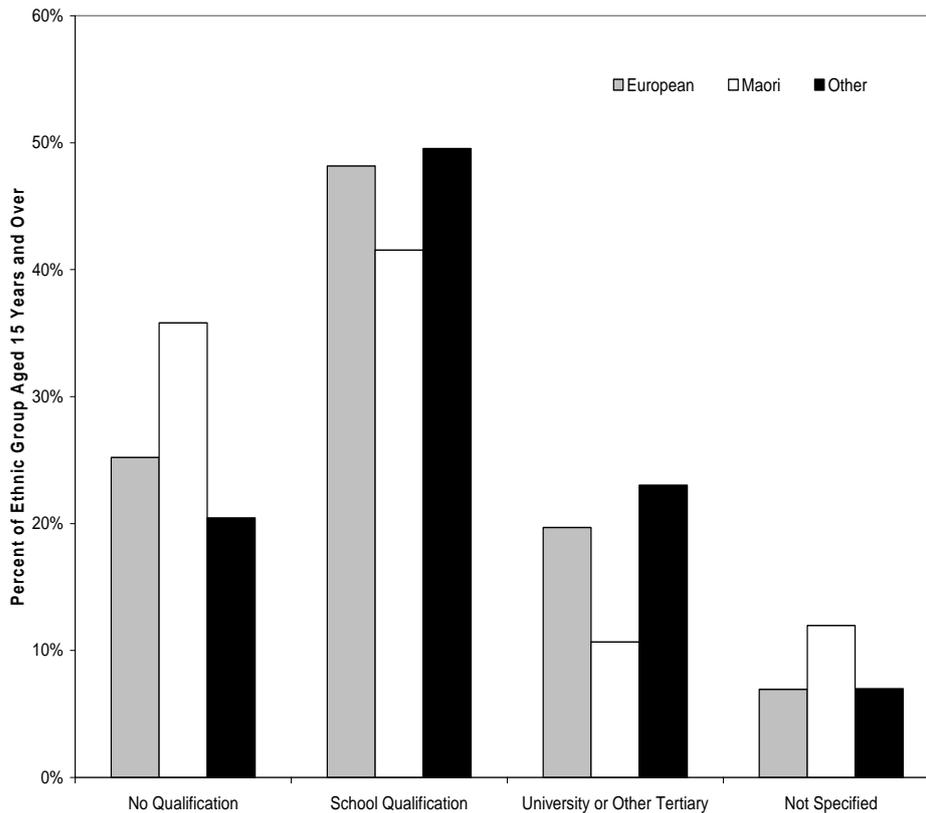


Figure 7.1 Highest Qualification Attained, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

Table 7.2 and Figure 7.2 show highest qualification gained by ethnicity.

**Table 7.2** *Highest Qualification by Ethnicity, Population Aged 15 Years and Over, Bay of Plenty region, 2006*

<b>Ethnicity</b>	<b>No Qualification</b>	<b>School Qualification</b>	<b>University or Other Tertiary</b>	<b>Not Specified</b>
European	25%	48%	20%	7%
Maori	36%	42%	11%	12%
Other	20%	50%	23%	7%

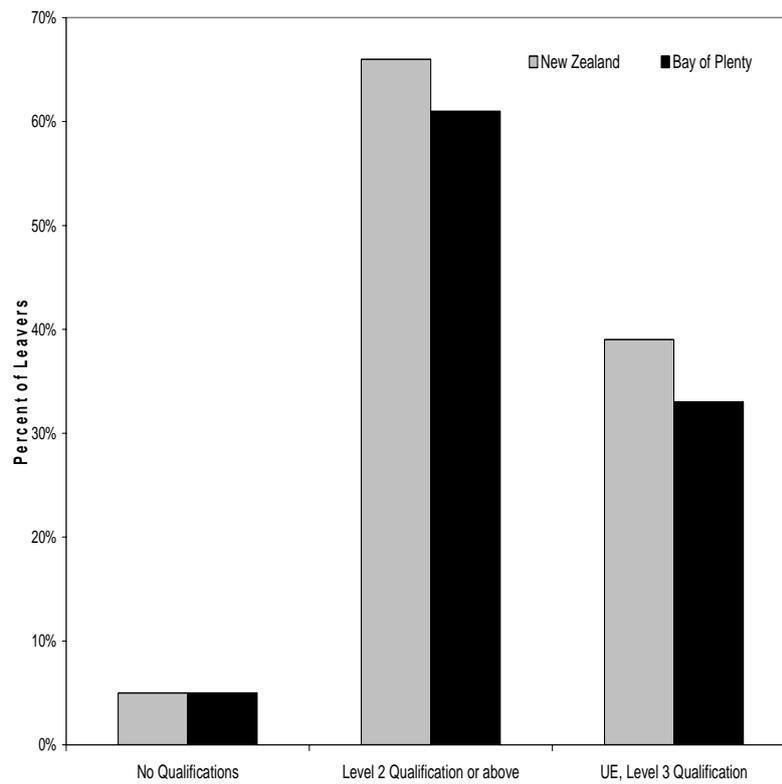


**Figure 7.2** *Highest Qualification by Ethnicity, Population Aged 15 Years and Over, Bay of Plenty region, 2006*

The highest qualification of school leavers is depicted in Table 7.3 and Figure 7.3. The categories that have been determined by the Ministry of Education are: No Qualifications; Level 2 Qualifications or above; University Entrance, Level 3 Qualification.

**Table 7.3** *Highest Qualification of School Leavers, New Zealand and Bay of Plenty region, 2007'*

Type of Qualification	New Zealand	Bay of Plenty
No Qualifications	5%	5%
Level 2 Qualification or above	66%	61%
UE, Level 3 Qualification	39%	33%



**Figure 7.3** *Highest Qualification of School Leavers, New Zealand and Bay of Plenty region, 2007*

Table 7.4 provides information about income levels and highest qualifications gained for New Zealand and Bay of Plenty populations.

*Table 7.4 Income by Highest Qualification, Population Aged 15 Years and Over, New Zealand and Bay of Plenty region, 2006*

	Bay of Plenty			New Zealand		
	No Qualification	School Qualification	University or Other Tertiary	No Qualification	School Qualification	University or Other Tertiary
Loss	32%	46%	13%	28%	46%	19%
\$0-\$15,000	35%	46%	11%	31%	48%	14%
\$15,001-\$30,000	29%	49%	16%	28%	48%	18%
\$30,001-\$40,000	21%	54%	21%	20%	51%	25%
\$40,001 - \$50,000	17%	52%	29%	15%	50%	33%
\$50,001 - \$70,000	13%	46%	38%	10%	44%	44%
\$70,001 plus	11%	41%	46%	7%	36%	56%

### 3.4 Personal, family and household income

The personal and family income received by Bay of Plenty residents are examined in this section. Personal income refers to the gross total personal income received by an individual aged 15 years and over. Family<sup>10</sup> income is the combined, gross total income that persons aged 15 years and over in a family receive. Household income is defined as the total income, including income support, before tax that members of a household aged 15 and over receive from all sources.

The median personal incomes for New Zealand, Bay of Plenty region and districts are shown in Table 8.1. Total personal incomes are then given in Table 8.2 and Figure 8.1.

*Table 8.1 Median Personal Income, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006*

Median Personal Income	
Western Bay of Plenty District	\$22,600
Tauranga City	\$23,200
Rotorua District (whole)	\$23,900
Whakatane District	\$21,700
Kawerau District	\$17,100
Opotiki District	\$17,400
Bay of Plenty	\$22,600
New Zealand	\$24,400

<sup>10</sup> Family refers to two or more people, who are members of the same household, and who comprise either a couple, or at least one parent/child relationship or both.

Table 8.2 Total Personal Income, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

	Loss	0\$-\$15,000	\$15,001-\$30,000	\$30,001-\$40,000	\$40,001-\$50,000	\$50,001-\$70,000	\$70,001 plus	Not Stated
Western Bay of Plenty District	0.9%	30%	24%	13%	8%	8%	6%	11%
Tauranga City	0.4%	30%	26%	13%	8%	9%	6%	9%
Rotorua District (whole)	0.5%	29%	24%	13%	8%	8%	5%	12%
Whakatane District	0.6%	31%	23%	11%	7%	8%	6%	13%
Kawerau District	0.4%	38%	22%	8%	5%	6%	5%	14%
Opotiki District	0.7%	36%	25%	9%	5%	5%	3%	16%
Bay of Plenty	0.6%	30%	25%	13%	8%	8%	6%	11%
New Zealand	0.5%	30%	22%	13%	8%	9%	7%	10%

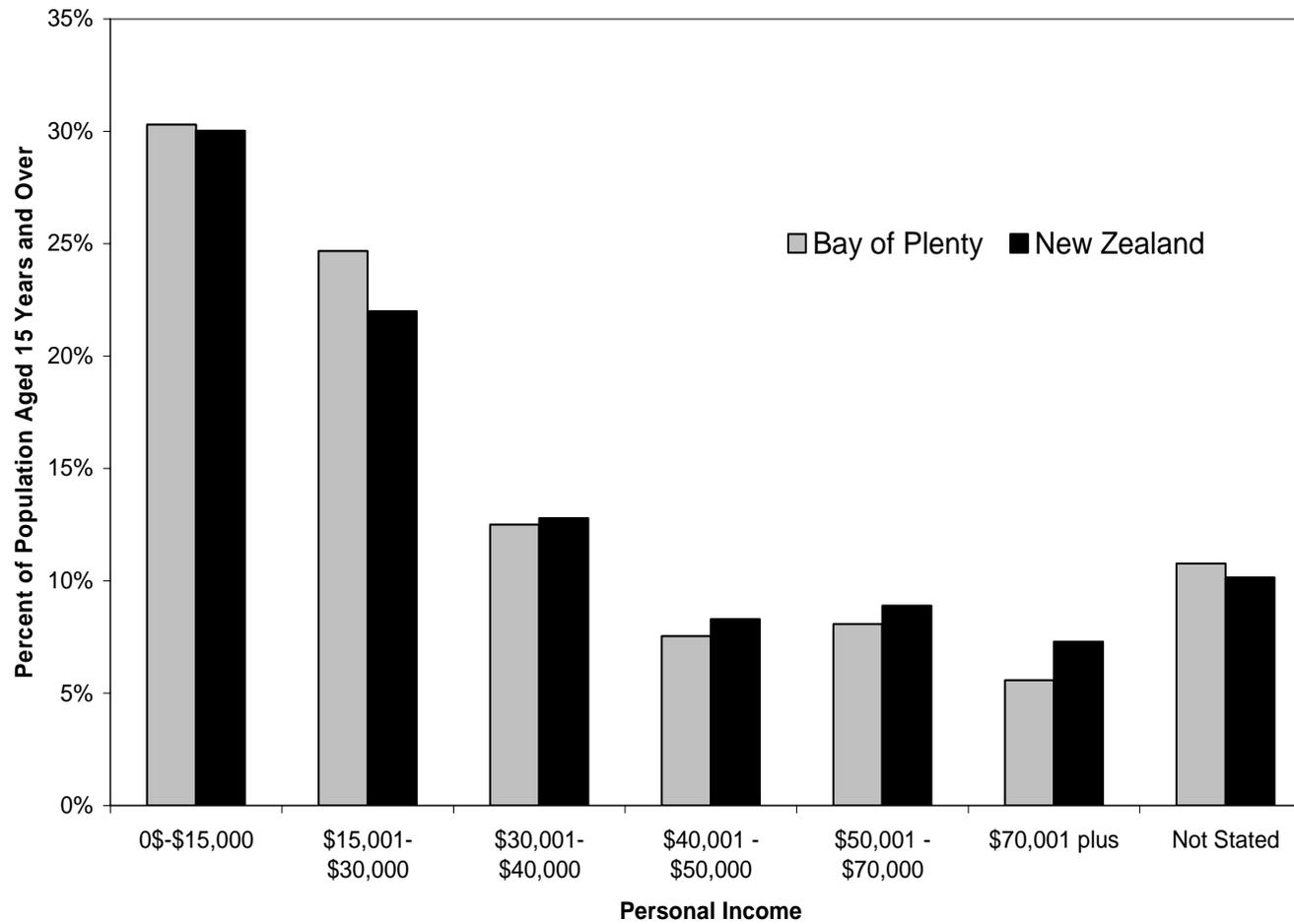
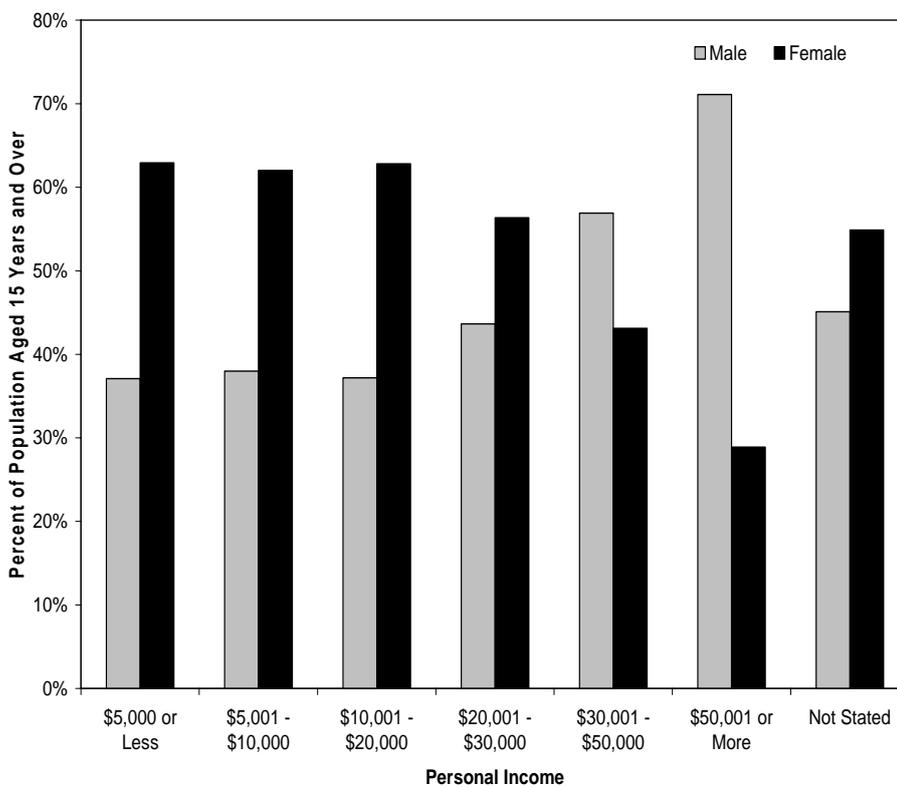


Figure 8.1 Total Personal Income, Population Aged 15 Years and Over, New Zealand and Bay of Plenty region, 2006

Table 8.3 and Figure 8.2 are concerned with personal income by sex.

**Table 8.3** *Proportion of Males and Females in Each Income Bracket, Bay of Plenty region, 2006*

Personal Income	Male	Female
\$5,000 or Less	37%	63%
\$5,001 - \$10,000	38%	62%
\$10,001 - \$20,000	37%	63%
\$20,001 - \$30,000	44%	56%
\$30,001 - \$50,000	57%	43%
\$50,001 or More	71%	29%
Not Stated	45%	55%



**Figure 8.2** *Proportion of Males and Females in Each Income Bracket, Bay of Plenty region, 2006*

Personal income by ethnicity is shown in Table 8.4 and Figure 8.3.

**Table 8.4** *Personal Income by Ethnicity, Population Aged 15 Years and Over, Bay of Plenty region, 2006*

Ethnicity	Loss	\$0 - \$15,000	\$15,001 - \$30,000	\$30,001 - \$40,000	\$40,001 - \$50,000	\$50,001 - \$70,000	\$70,001 plus	Not Stated
European	0.5%	31%	26%	13%	8%	9%	6%	6%
Maori	0.6%	35%	26%	12%	6%	5%	3%	13%
Other	0.8%	29%	24%	14%	9%	10%	7%	7%

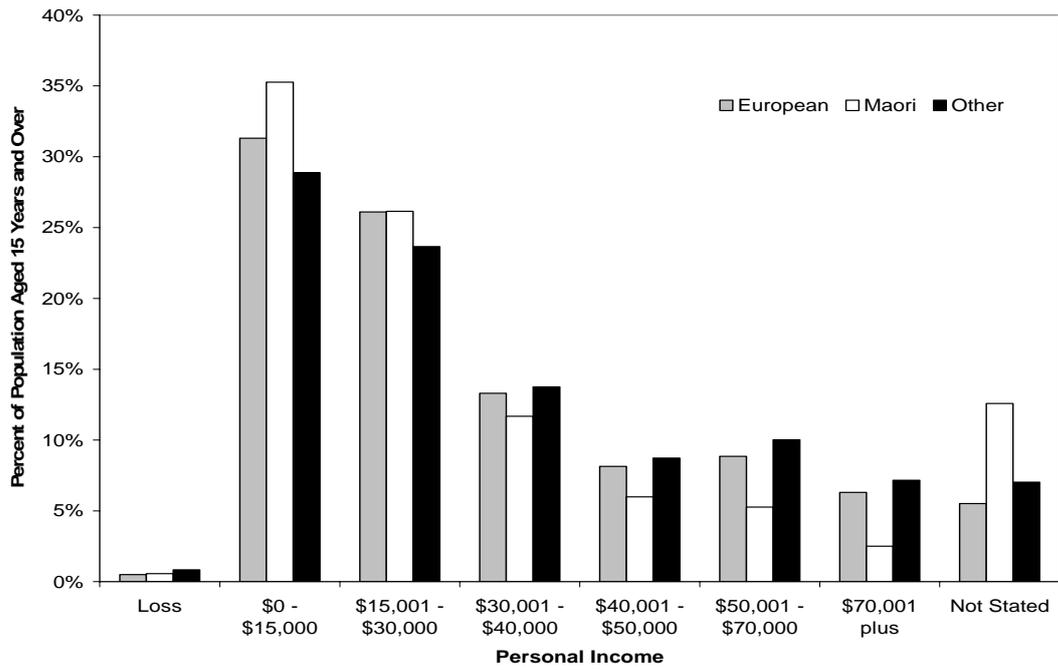


Figure 8.3 Personal Income by Ethnicity, Bay of Plenty region, 2006

Table 8.5 reflects the source of personal income for the New Zealand, Bay of Plenty region and district populations.

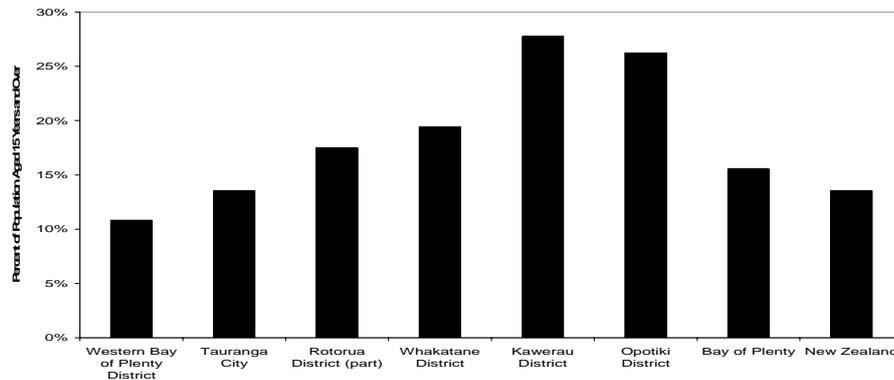
*Table 8.5 Source of Personal Income, New Zealand, Bay of Plenty region and districts, 2006*

Source of Income	Western Bay of Plenty District	Tauranga City	Rotorua District (part)	Whakatane District	Kawerau District	Opotiki District	Bay of Plenty	New Zealand
Wages, Salary, Commissions, Bonuses etc Paid by Employer	48%	53%	56%	50%	48%	43%	52%	56%
Self-employment or Business	26%	16%	13%	15%	5%	16%	17%	16%
Interest, Dividends, Rent, Other Investments	28%	27%	19%	20%	12%	15%	24%	23%
Regular Payments from ACC or a Private Work Accident Insurer	2%	2%	2%	2%	2%	2%	2%	1%
NZ Superannuation or Veterans Pension	18%	20%	14%	15%	17%	17%	18%	14%
Other Superannuation, Pensions or Annuities	3%	4%	2%	2%	2%	2%	3%	3%
Unemployment Benefit	1%	2%	4%	6%	10%	9%	3%	3%
Sickness Benefit	2%	2%	3%	3%	3%	4%	3%	2%
Domestic Purposes Benefit	3%	4%	5%	5%	7%	6%	4%	3%
Invalids Benefit	2%	2%	2%	2%	5%	3%	2%	2%
Student Allowance	1%	2%	2%	1%	1%	1%	1%	2%
Other Government Benefits, Government Income Support Payments, War Pensions or Paid Parental Leave	3%	4%	3%	3%	3%	3%	3%	3%
Other Sources of Income, Including Support Payments from People Living in Other Households	1%	2%	2%	2%	2%	1%	2%	2%
No Source of Income	4%	4%	5%	5%	7%	5%	5%	6%

Income support refers to government funded income supplements received from Work and Income. Table 8.6 and Figure 8.4 illustrate the percentage of residents who received income support during the 12 months prior to the 2006 census. The types of benefits received are then illustrated in Table 8.7.

**Table 8.6** *Proportion of Population Aged 15 Years and Over Receiving Income Support, New Zealand, Bay of Plenty region and districts, 2006*

Percent Receiving Income Support	
Western Bay of Plenty District	11%
Tauranga City	14%
Rotorua District (part)	17%
Whakatane District	19%
Kawerau District	28%
Opotiki District	26%
Bay of Plenty	16%
New Zealand	14%



**Figure 8.4** *Proportion of Population Aged 15 Years and Over Receiving Income Support, New Zealand, Bay of Plenty region and districts, 2006*

**Table 8.7** *Types of Benefits Received by Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006*

	Unemployment Benefit	Sickness Benefit	Domestic Purposes Benefit	Invalids Benefit	Other Benefits
Western Bay of Plenty District	13%	19%	26%	17%	26%
Tauranga City	13%	17%	26%	17%	27%
Rotorua District (part)	23%	15%	30%	14%	19%
Whakatane District	32%	15%	24%	13%	16%
Kawerau District	35%	10%	25%	18%	12%
Opotiki District	36%	16%	23%	12%	13%
Bay of Plenty	21%	16%	27%	15%	21%
New Zealand	22%	17%	22%	18%	23%

Family income is often considered to be more useful than personal income for measuring social and economic well-being. This is because individual income does not show differences between one and two income families. Family income refers to the total combined income that all persons aged fifteen and over in a family receive. Table 8.8 and Figure 8.5 depict these incomes.

Table 8.8 Family Income, New Zealand and Bay of Plenty region, 2006

	New Zealand	Bay of Plenty
\$0 - \$15,000	4%	5%
\$15,001 - \$30,000	15%	18%
\$30,001 - \$40,000	9%	10%
\$40,001 - \$50,000	8%	8%
\$50,001 - \$70,000	16%	17%
\$70,001 plus	34%	28%
Not Specified	14%	14%

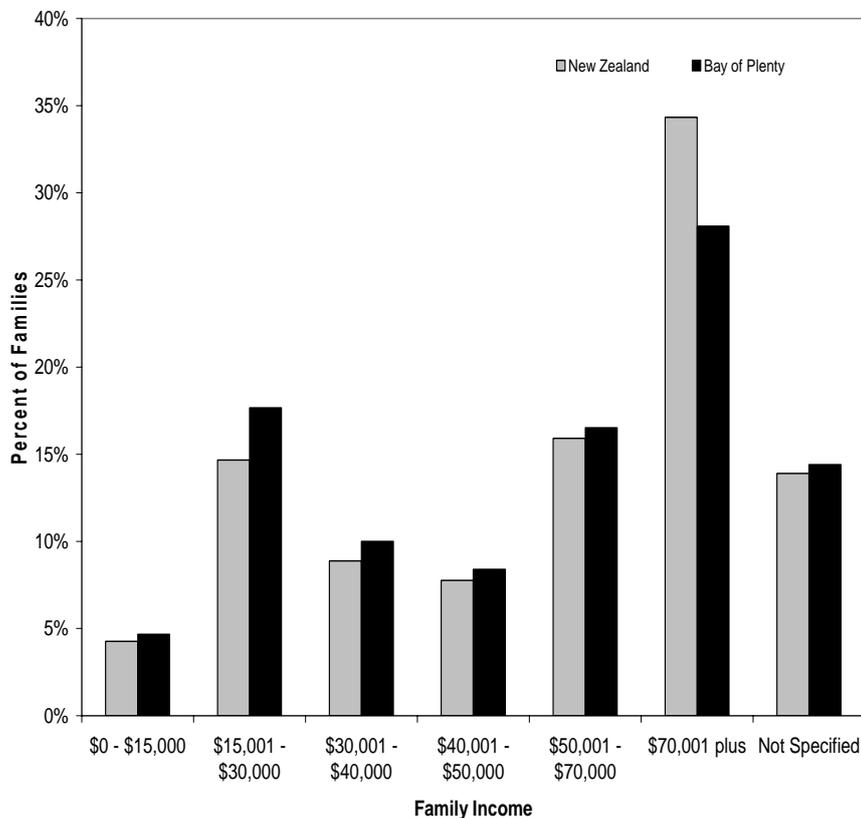


Figure 8.5 Family Income, New Zealand and Bay of Plenty region, 2006

Table 8.9 comprises the median income for both family and household figures. Percentages for the household income groupings of New Zealand, Bay of Plenty region and districts are then represented in Table 8.10. Household source of income is shown in Table 8.11.

**Table 8.9** Median Family and Household Income, New Zealand, Bay of Plenty region and districts, 2006

	Median Family Income	Median Household Income
Western Bay of Plenty District	\$53,500	\$46,800
Tauranga City	\$53,100	\$45,500
Rotorua District (whole)	\$54,000	\$47,600
Whakatane District	\$51,900	\$46,200
Kawerau District	\$38,700	\$35,700
Opotiki District	\$37,100	\$32,500
Bay of Plenty	\$52,200	\$45,400
New Zealand	\$59,000	\$51,400

**Table 8.10** Household Income, New Zealand, Bay of Plenty region and districts, 2006

	\$20,000 or Less	\$20,001 - \$30,000	\$30,001 - \$50,000	\$50,001 - \$70,000	\$70,001 plus	Not Stated
Western Bay of Plenty District	14%	13%	18%	15%	24%	16%
Tauranga City	15%	13%	18%	15%	25%	14%
Rotorua District (part)	14%	11%	17%	14%	25%	18%
Whakatane District	15%	12%	15%	13%	24%	21%
Kawerau District	19%	15%	16%	11%	18%	21%
Opotiki District	20%	15%	16%	10%	14%	25%
Bay of Plenty	15%	13%	17%	14%	24%	17%
New Zealand	14%	11%	16%	14%	29%	16%

Table 8.11 Household Source of Income, Bay of Plenty region and districts, 2006

Source of Income	Western Bay of Plenty District	Tauranga City	Rotorua District (part)	Whakatane District	Kawerau District	Opotiki District	Bay of Plenty
Wages, Salary, Commissions, Bonuses etc Paid by Employer	60%	62%	67%	61%	60%	53%	62%
Self-employment or Business	36%	23%	21%	22%	8%	22%	24%
Interest, Dividends, Rent, Other Investments	37%	36%	26%	28%	17%	20%	32%
Regular Payments from ACC or a Private Work Accident Insurer	4%	3%	3%	3%	3%	3%	3%
NZ Superannuation or Veterans Pension	25%	27%	20%	22%	22%	24%	24%
Other Superannuation, Pensions or Annuities	5%	6%	4%	4%	4%	4%	5%
Unemployment Benefit	2%	3%	6%	9%	15%	14%	5%
Sickness Benefit	3%	4%	4%	5%	5%	7%	4%
Domestic Purposes Benefit	5%	7%	10%	9%	13%	12%	8%
Invalids Benefit	3%	4%	4%	4%	8%	5%	4%
Student Allowance	2%	3%	3%	2%	2%	2%	2%
Other Government Benefits, Government Income Support Payments, War Pensions or Paid Parental Leave	5%	6%	6%	6%	6%	5%	6%
Other Sources of Income, Including Support Payments from People Living in Other Households	3%	3%	3%	3%	3%	2%	3%
No Sources of Income	1%	0.4%	0.4%	0.4%	1%	1%	0.5%

## Part 4: Index of Deprivation

---

### 4.1 Index of Deprivation: district analysis

#### 4.1.1 Introduction

This section of the report is based on the Index of Deprivation, NZDep06, which is an academically rigorous integration of nine variables from the 2006 census; reflecting eight dimensions of deprivation (see Appendix 4 for details). The index was developed by researchers at the Health Services Research Centre, a joint venture between the Wellington School of Medicine, University of Otago, and the Institute of Political Studies, Victoria University of Wellington.

While *NZDep06* was developed from a health sector perspective for three principle purposes, resource allocation, research and advocacy, it does have application in other sectors. For example, it can be used as a basis for development of funding formulae and community advocacy. In environmental resource management, the index can assist the assessment of the social and economic well-being of people and communities, an element of sustainable management under the Resource Management Act 1991.

The information is presented in this section as a series of charts and maps.

### 4.2 Methods

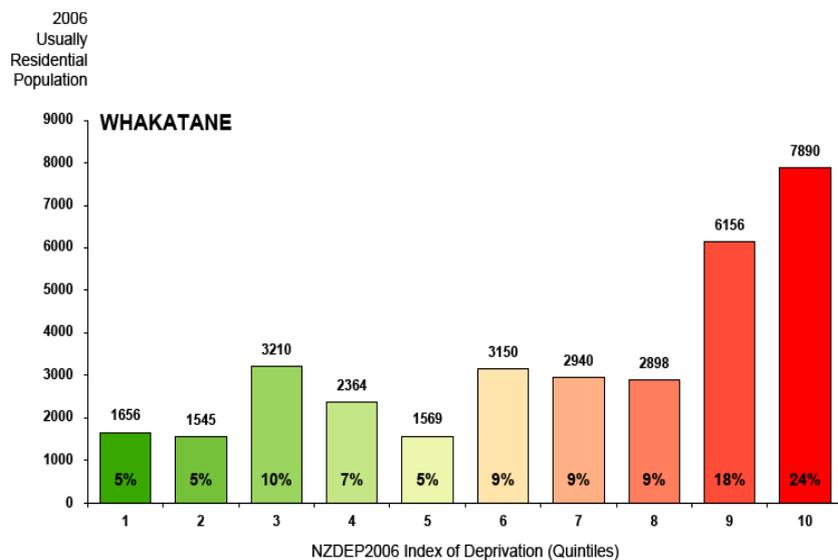
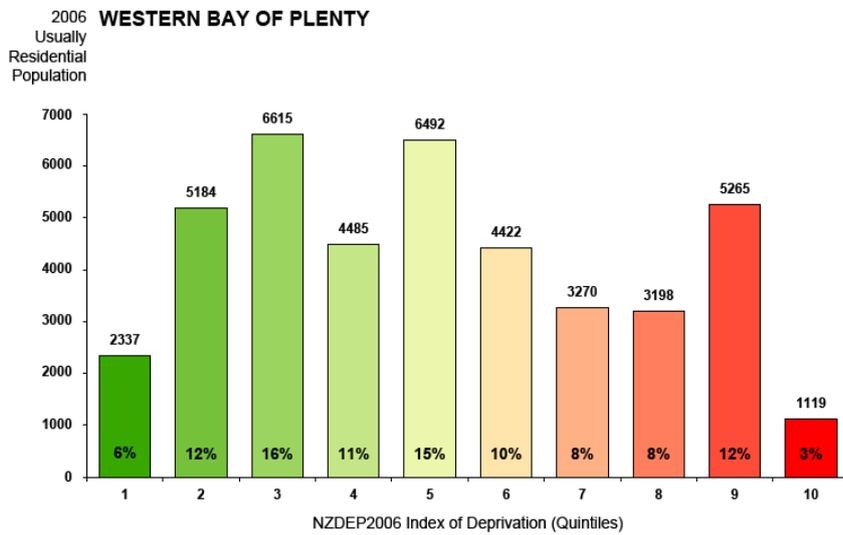
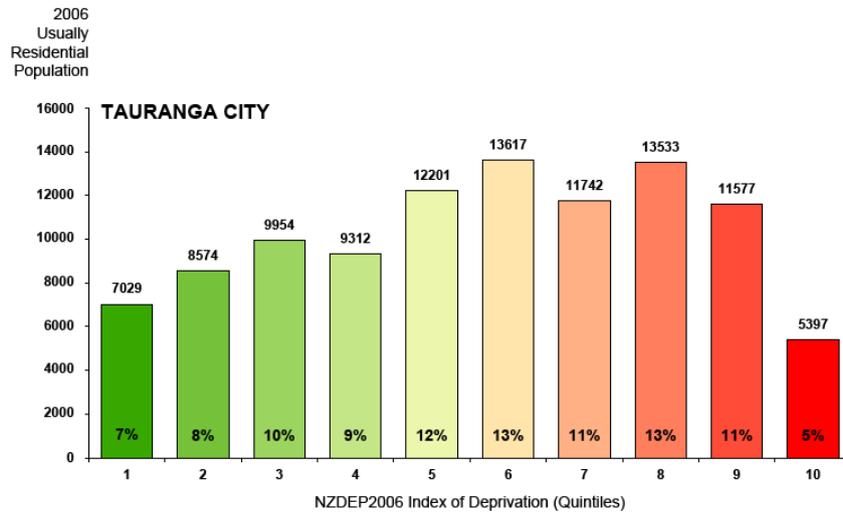
It is important to understand the following points regarding the Deprivation Index.

- NZDep2006 deprivation scores apply to areas rather than individual people.
- To create NZDep2006 for small areas with a population of at least 100 usually resident people, meshblocks have been combined where necessary (and where possible). In general, the NZDep2006 small areas consist of one of two meshblocks. Some meshblocks have been omitted from the index (no data) as they contain very few people. Most of these meshblocks are sea or estuary located.
- At the meshblock level, *area comparisons* over time should not be attempted. The reasons for this are: small areas definitions are not always identical, NZDep distributions are not identical, at least one of the nine component variables is inevitably not identical and variables considered for the calculation of the index can be deliberately changed.

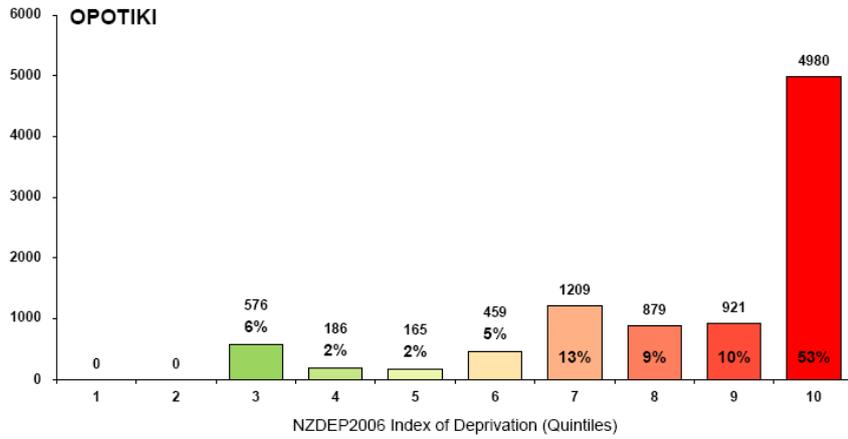
- Comparing *relationships* between deprivation and other variables, over time, may be less flawed, but we still urge caution regarding data interpretation.
- The profiles should refer to “areas that have the most deprived NZDep scores” rather than “the most deprived areas”.
- 10% of the areas will always fall into the most deprived decile of NZDep scores as NZDep is designed to measure relative socio-economic deprivation, not absolute socio-economic deprivation or affluence.
- There are a number of statistical limitations of the index of deprivation as a whole.

All charts and maps are provided by the Ministry of Health and are available in the *Atlas of Socioeconomic Deprivation in New Zealand NZDep2006*. Documents related to the use and calculation of the Index can be found on the Ministry of Health website ([www.moh.govt.nz](http://www.moh.govt.nz)).

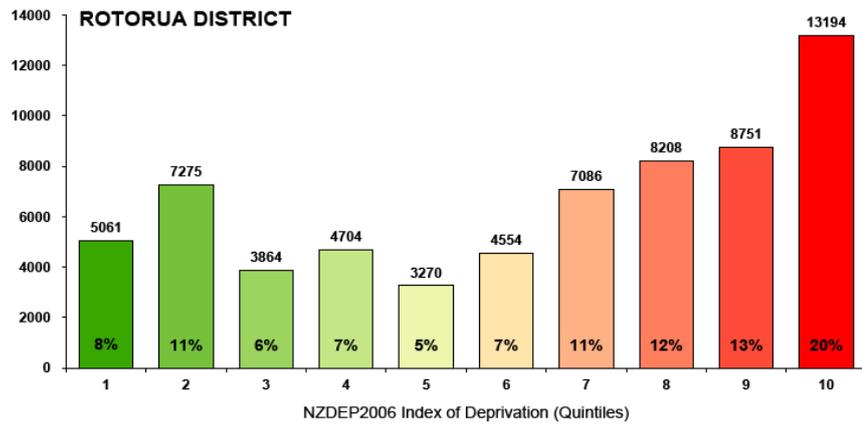
### Index of Deprivation charts



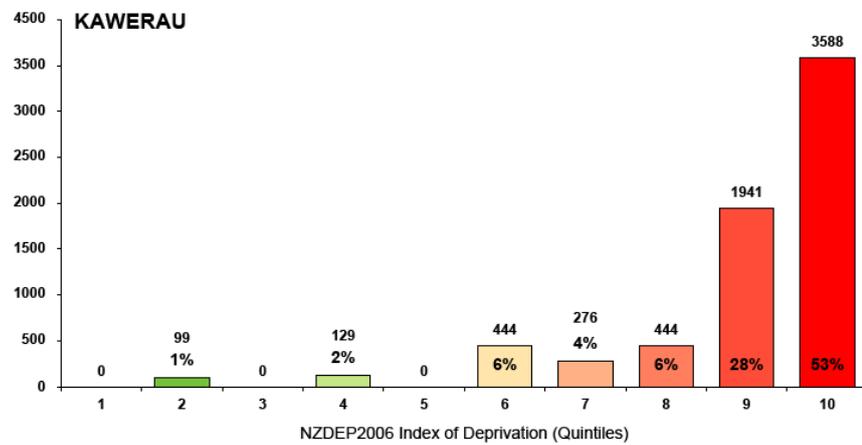
2006  
Usually  
Residential  
Population



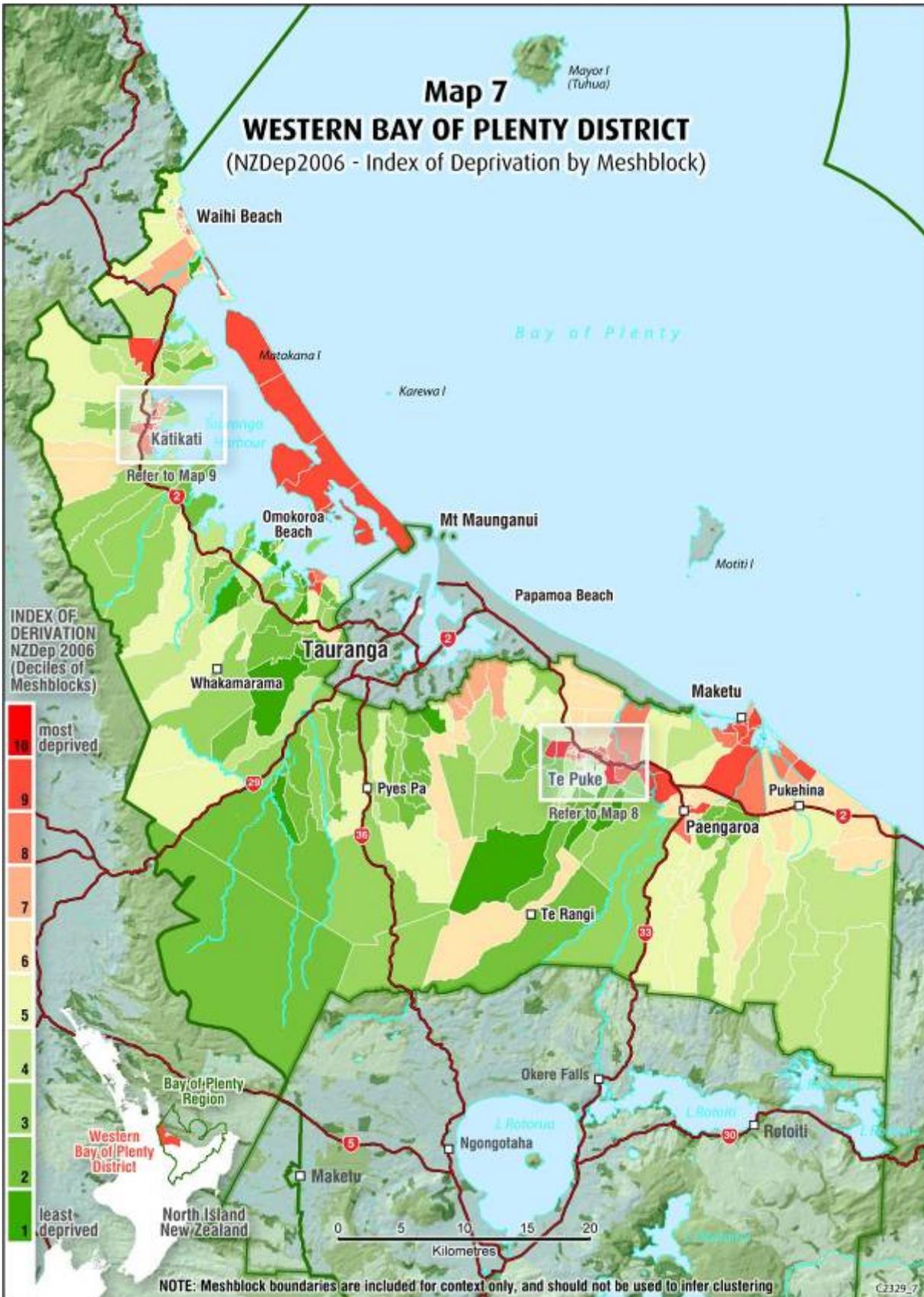
2006  
Usually  
Residential  
Population

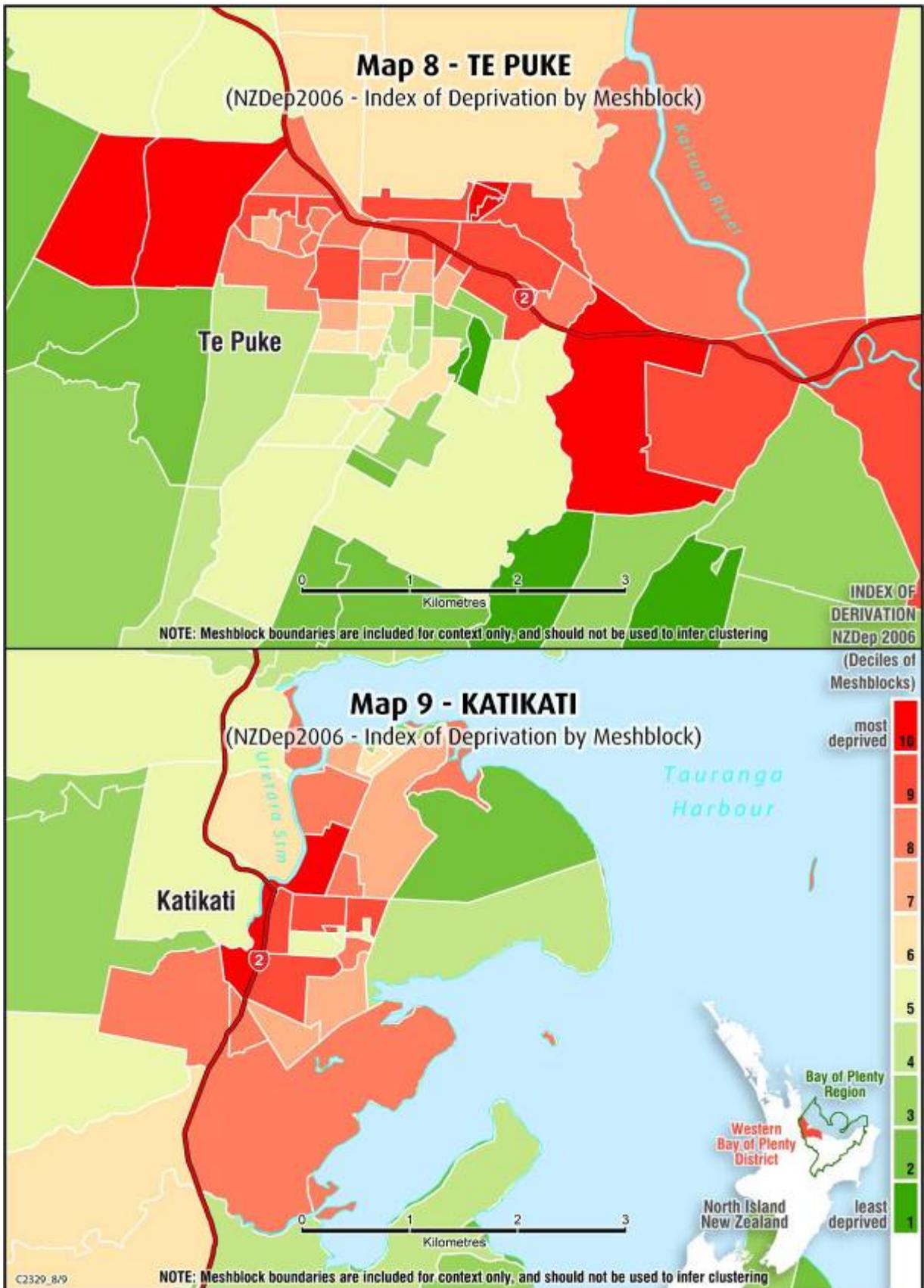


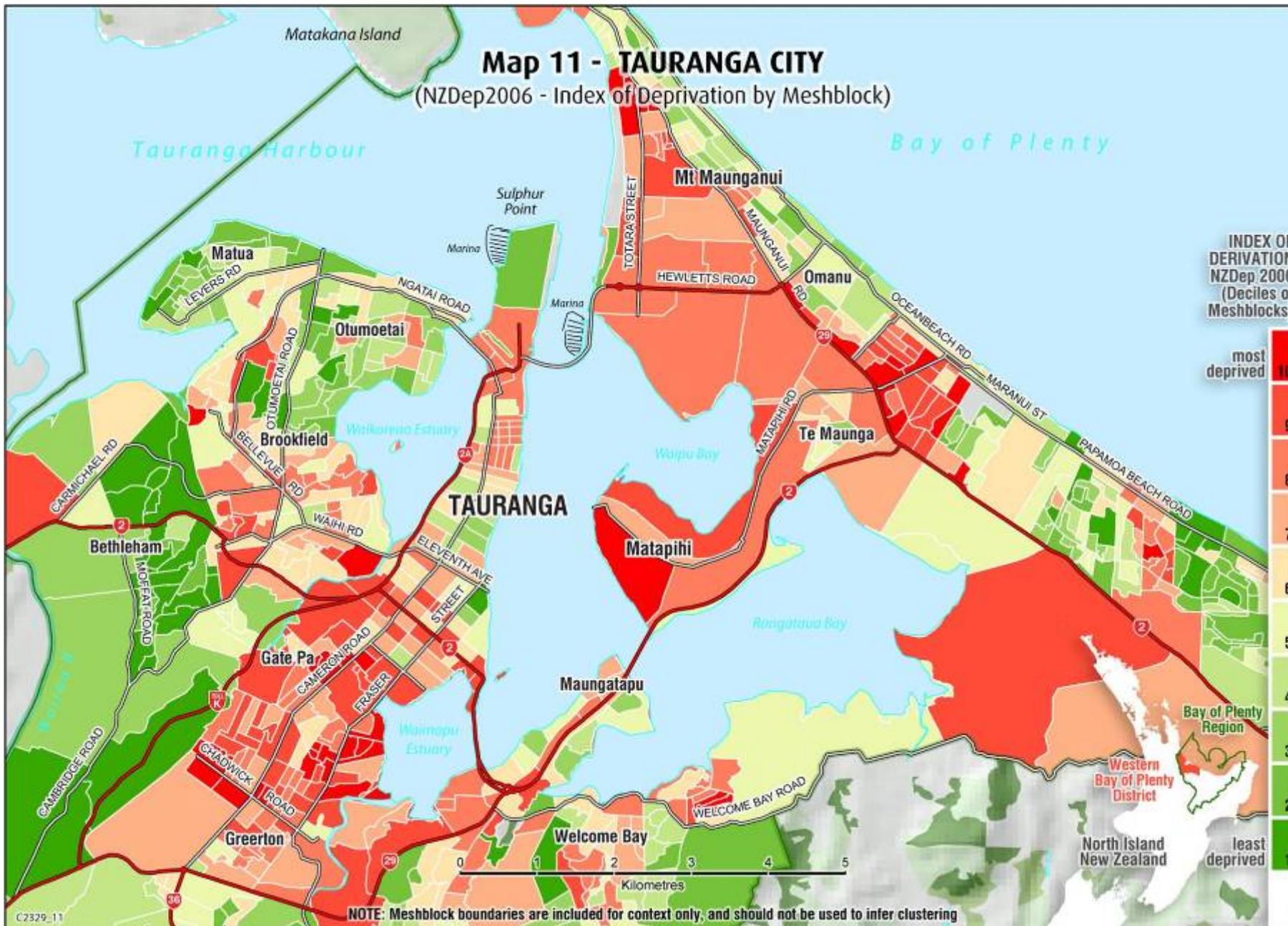
2006  
Usually  
Residential  
Population

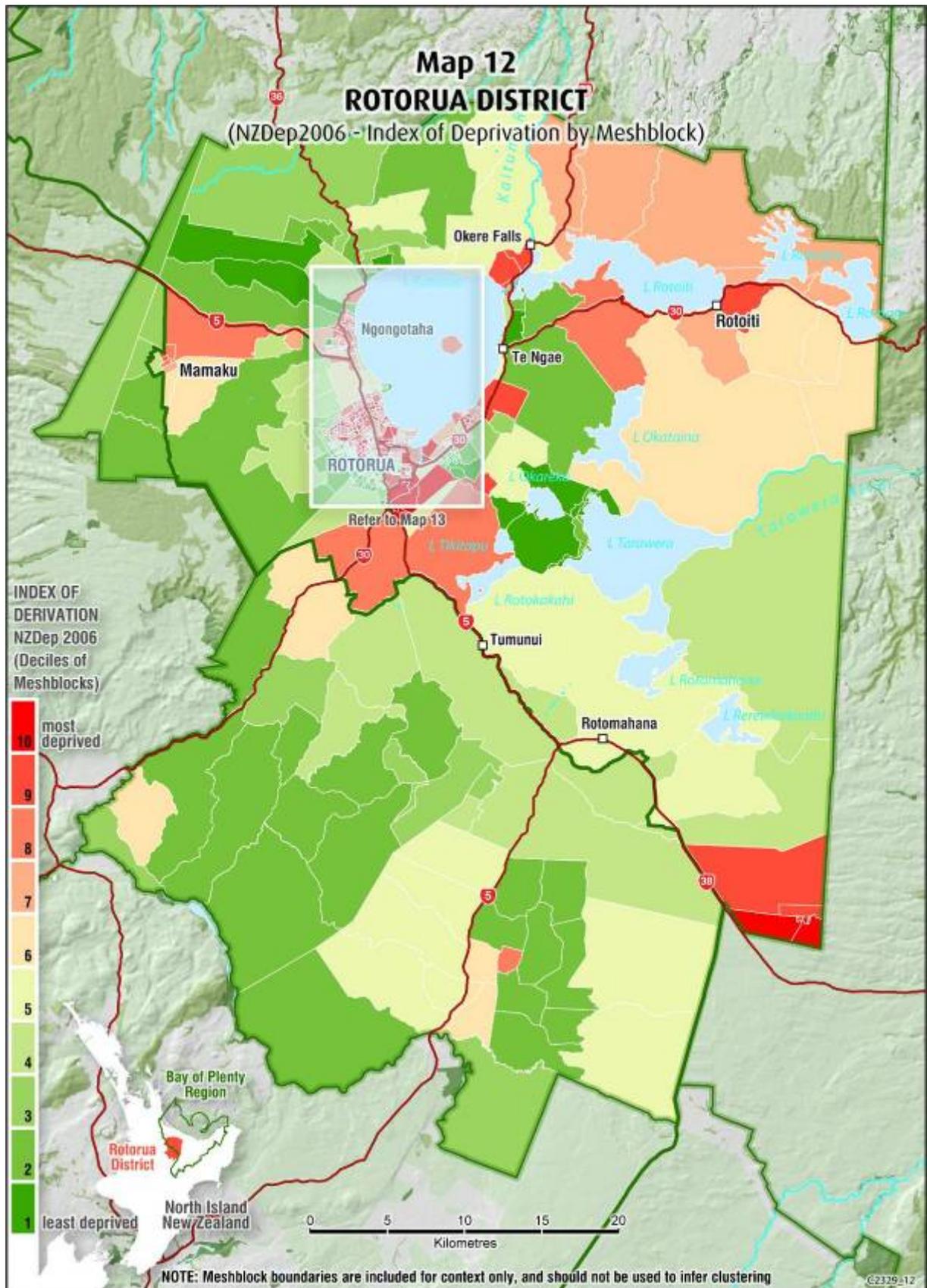


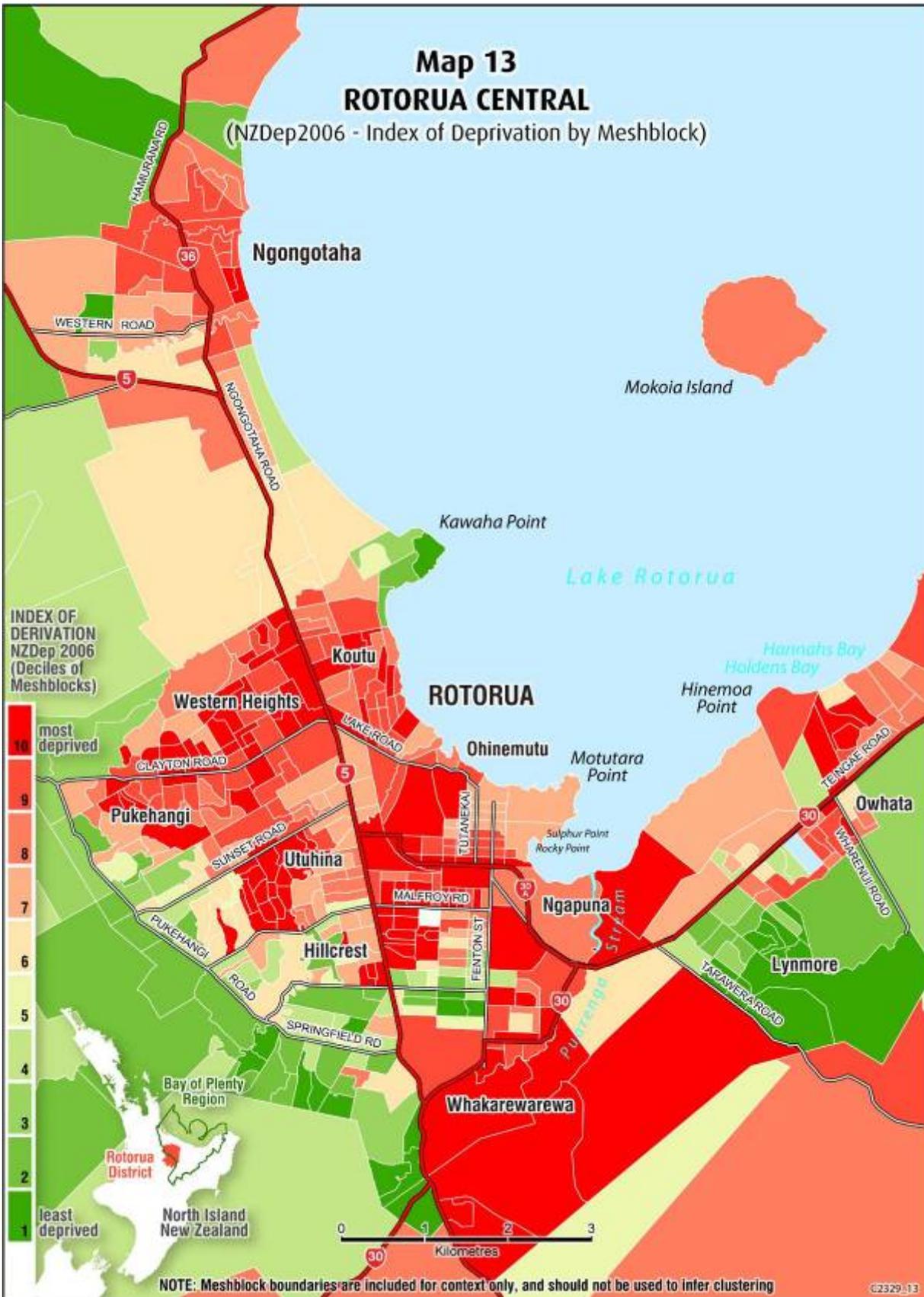
## **Index of Deprivation maps**

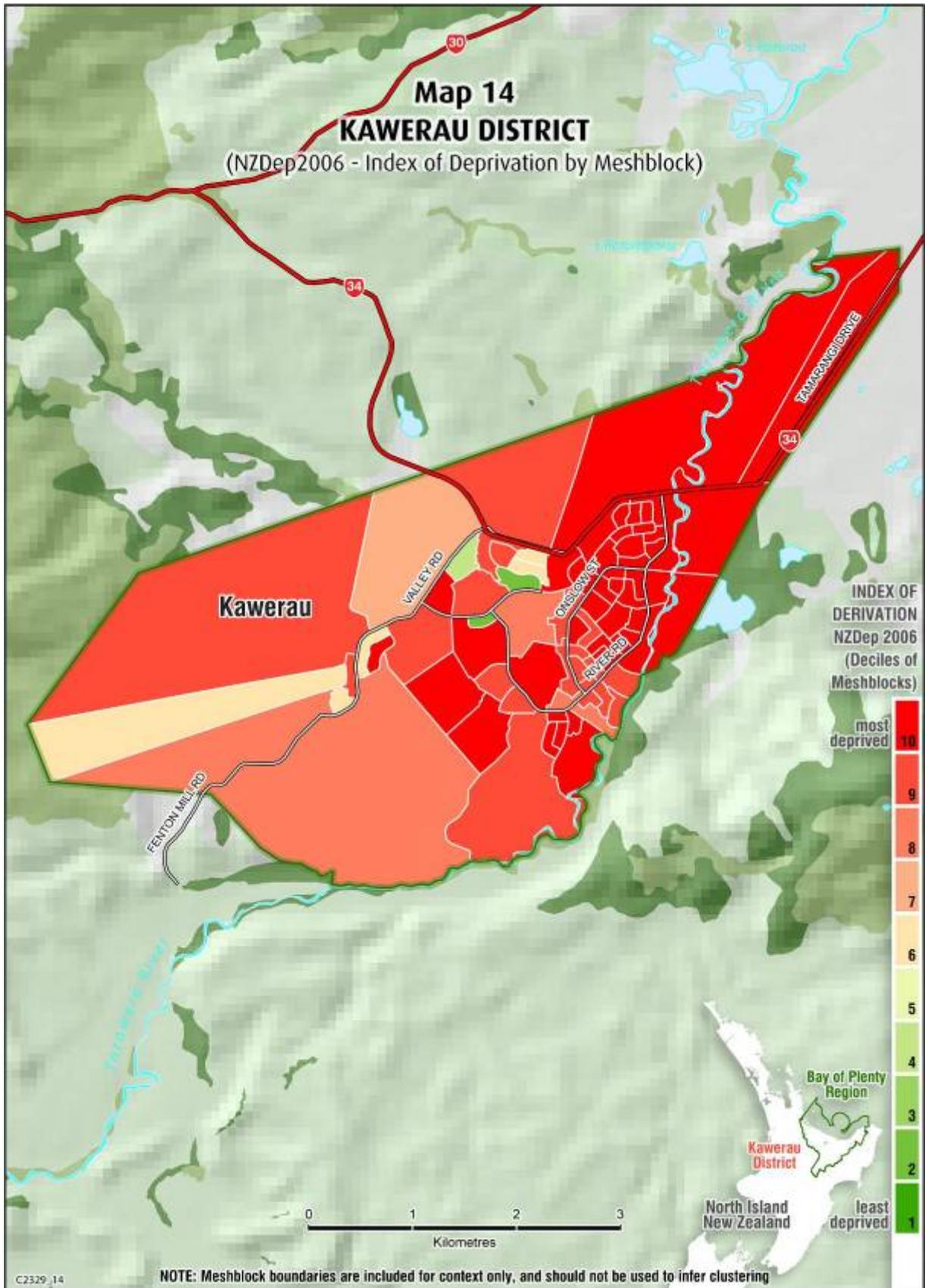


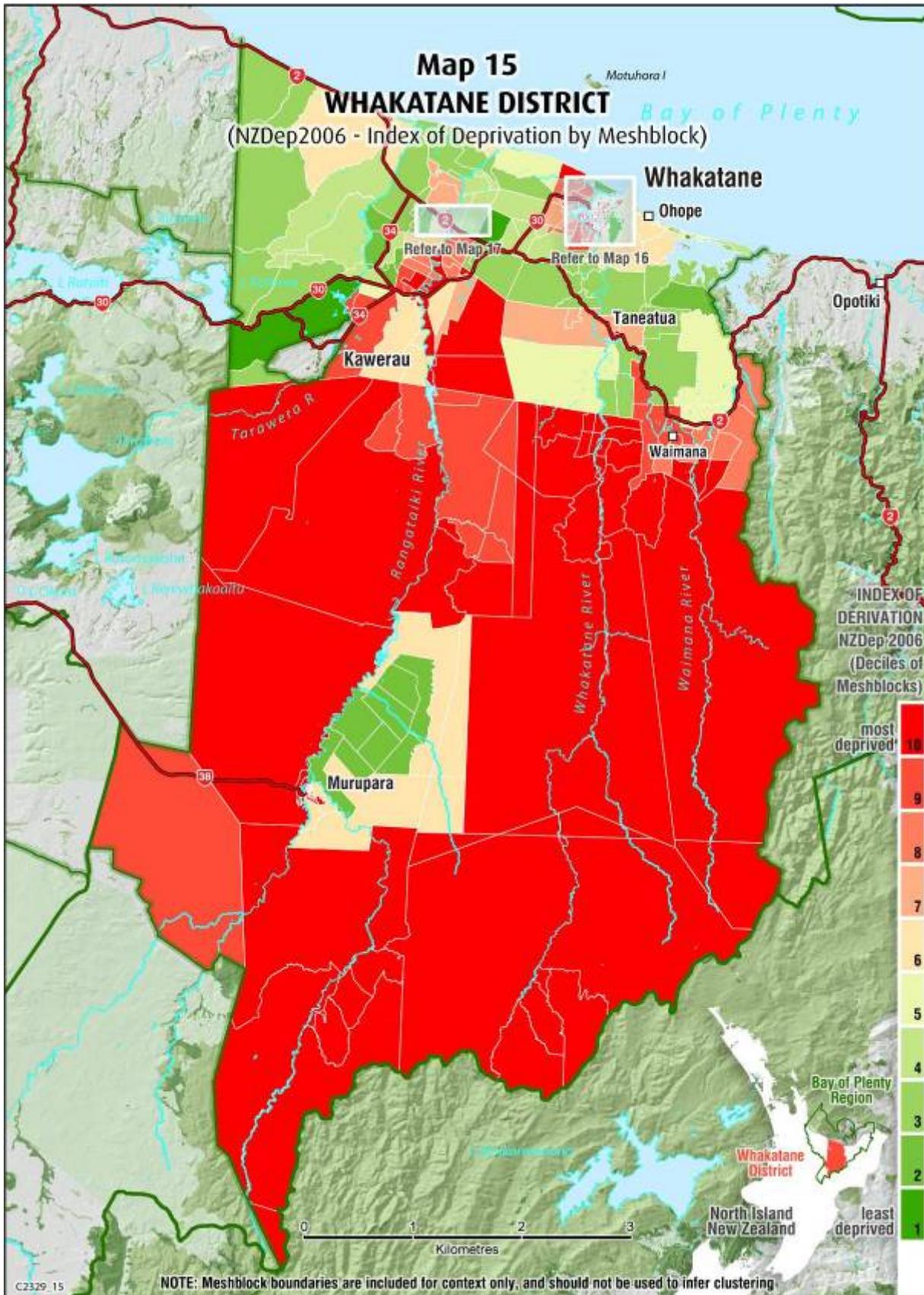


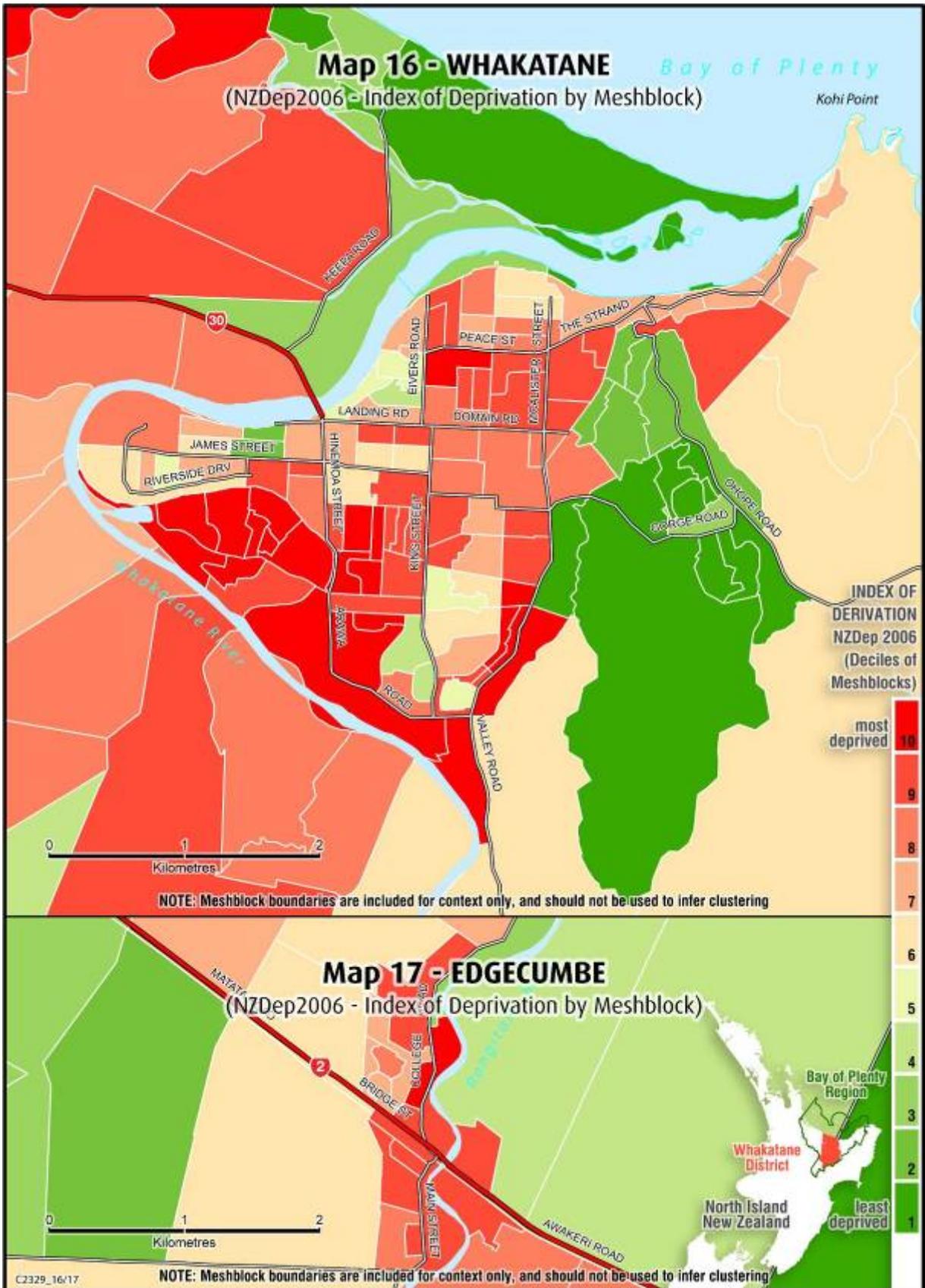


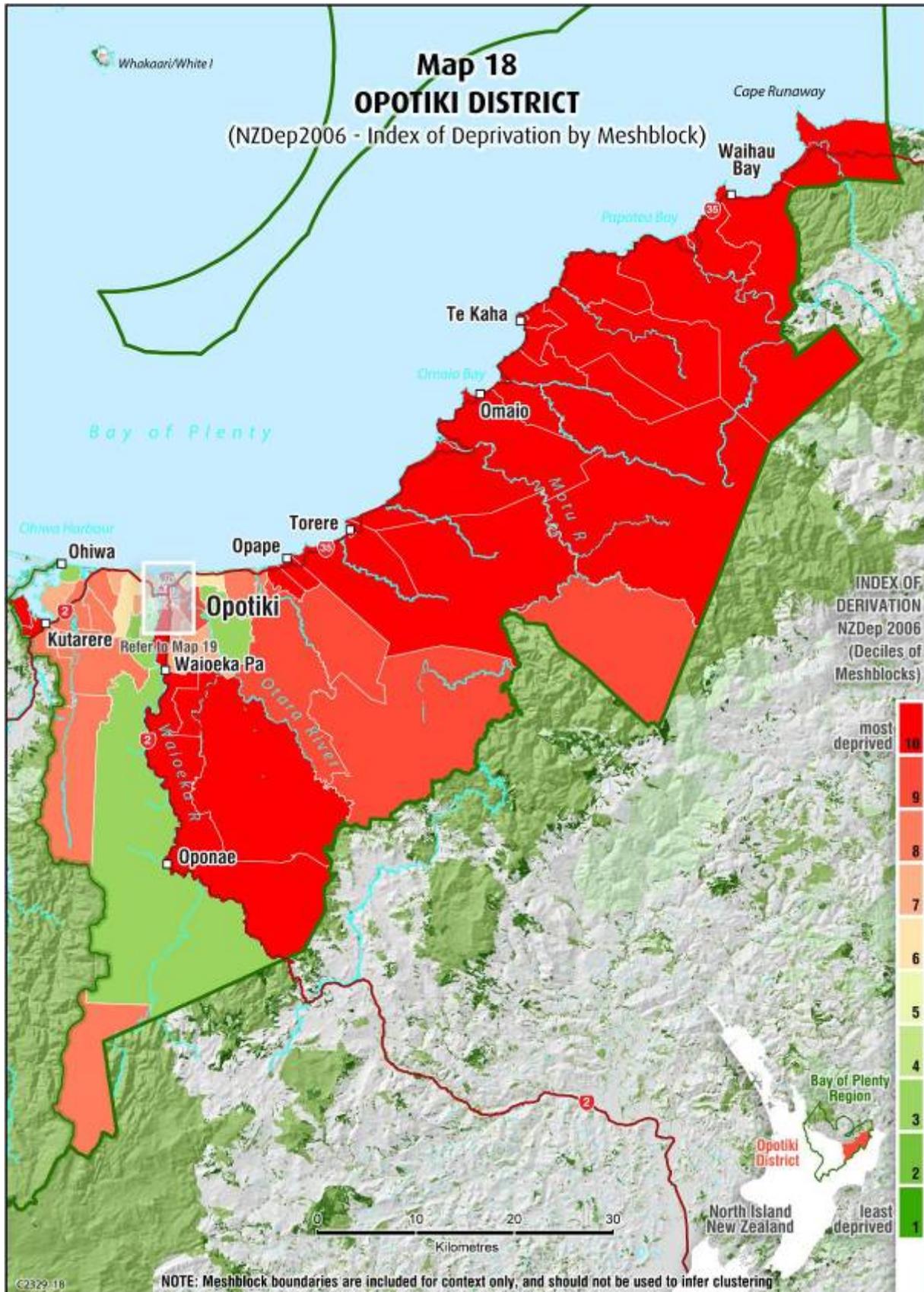


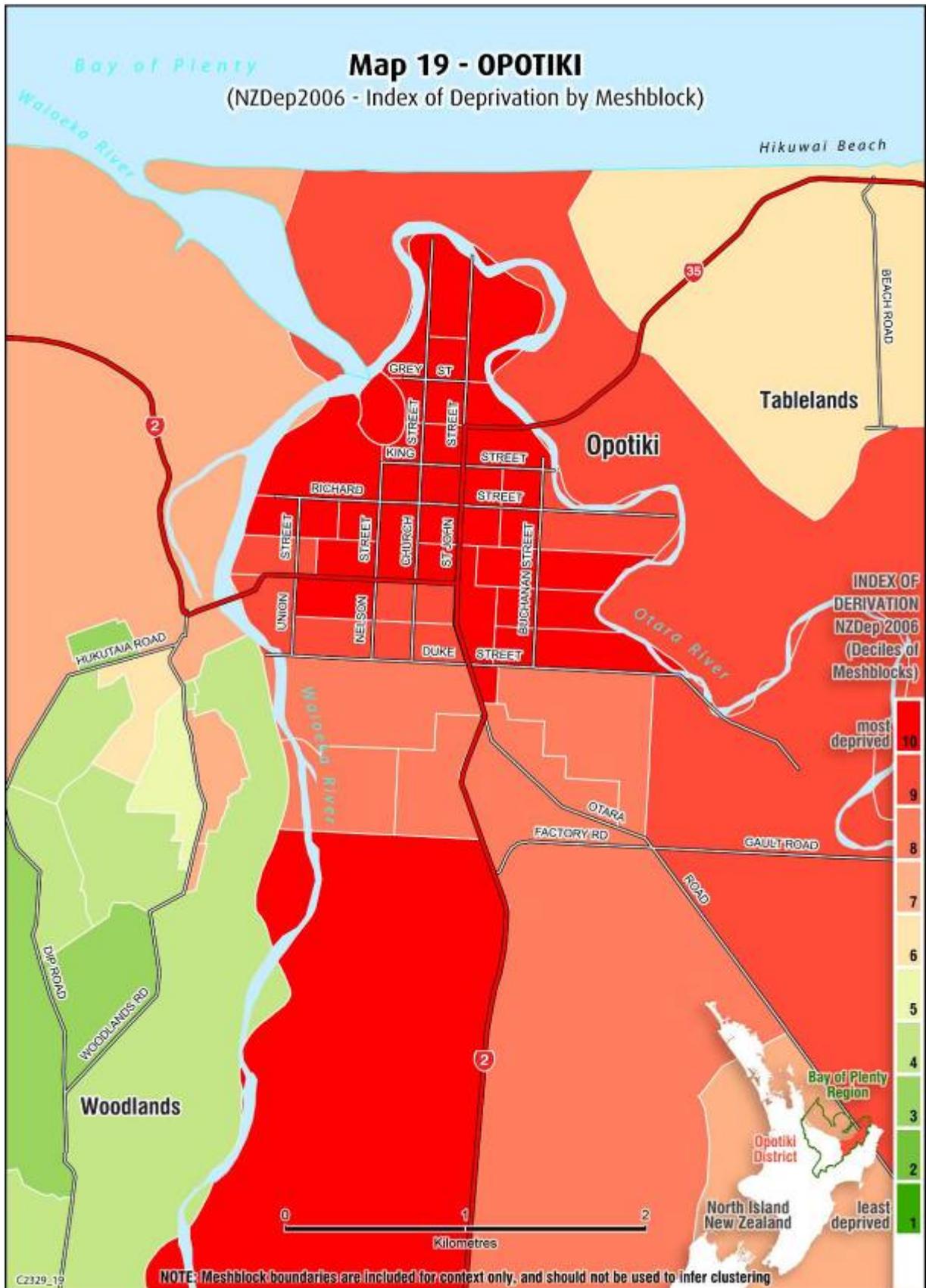


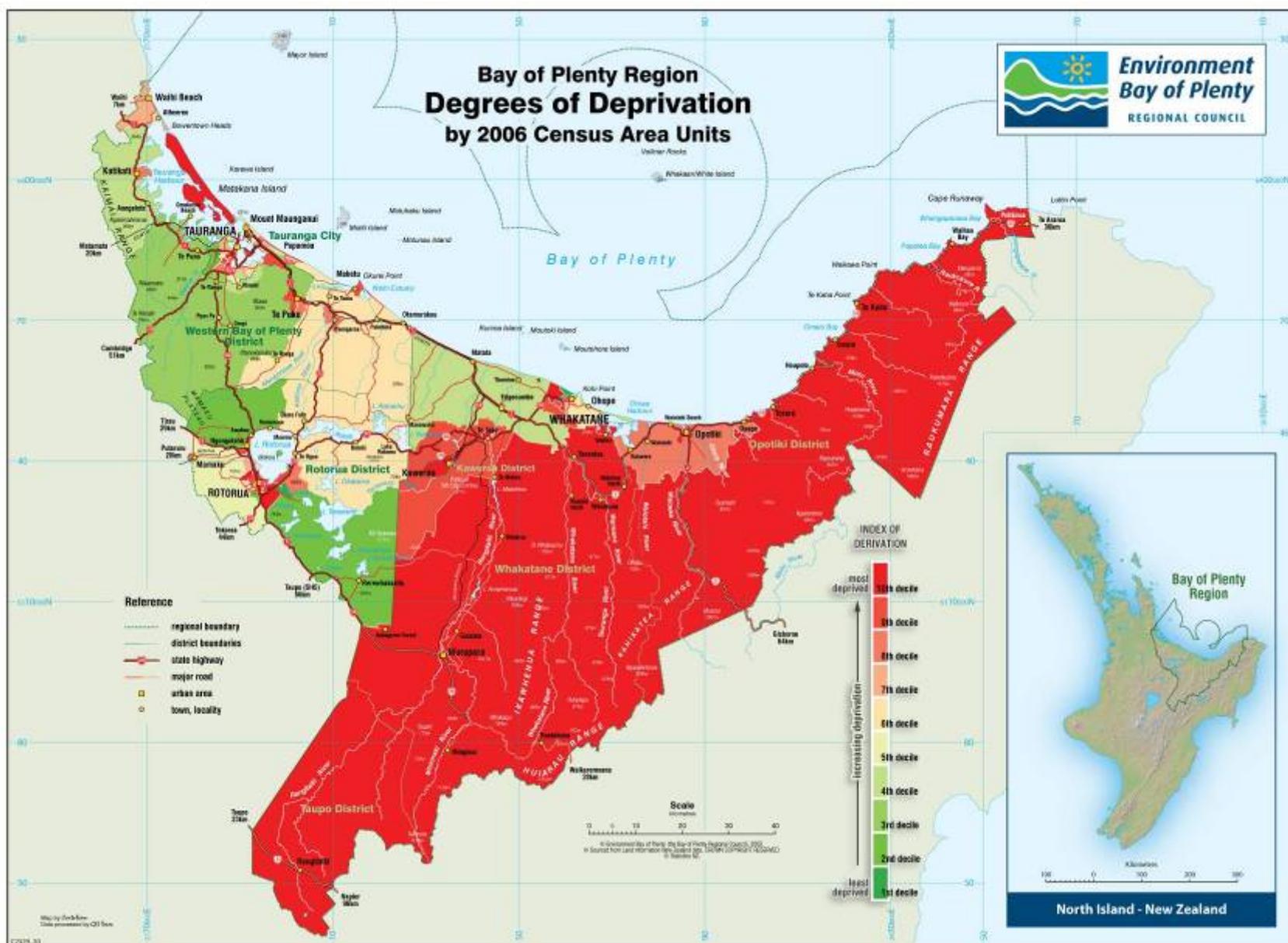


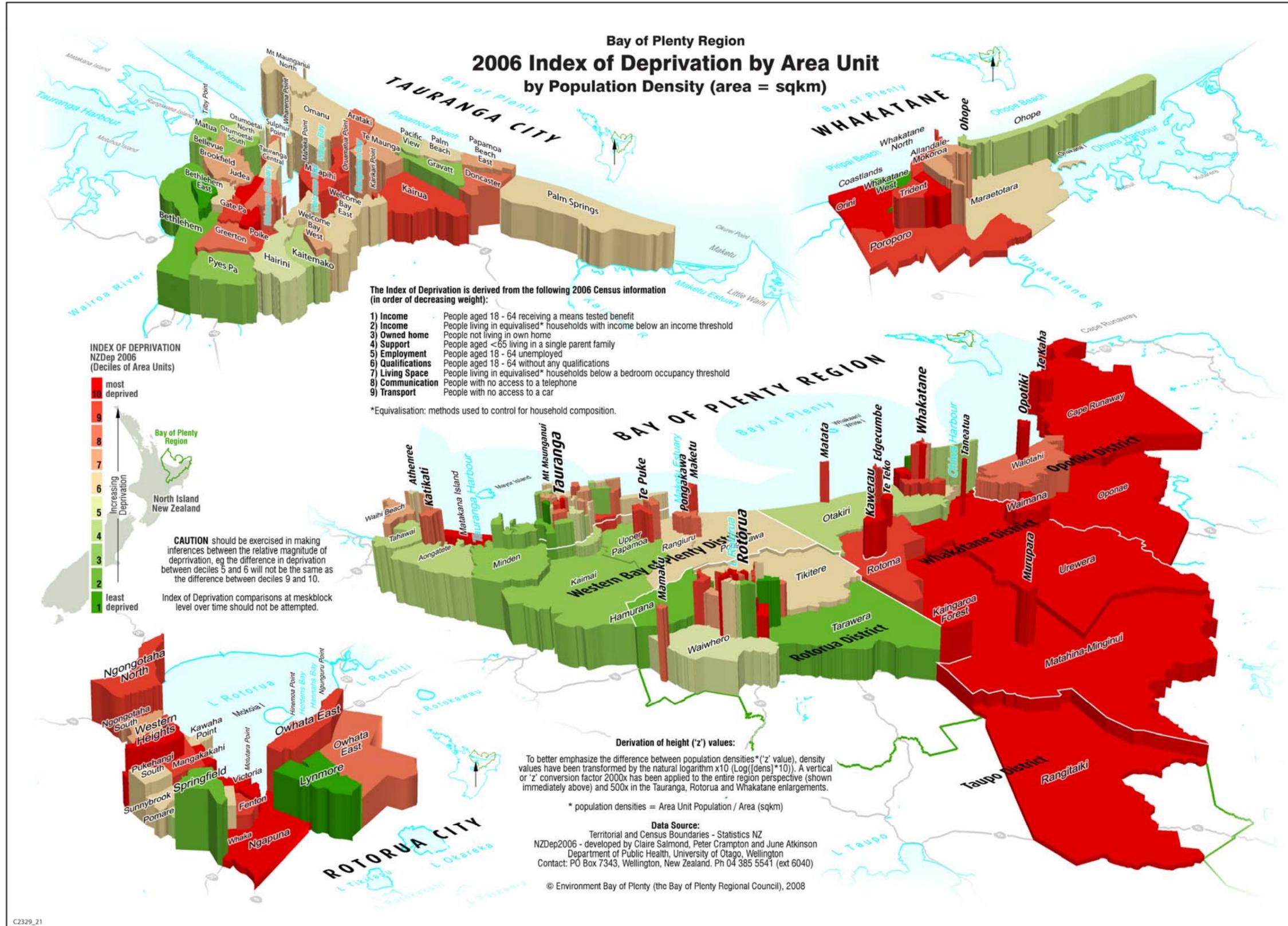














## Part 5: References

---

Education Counts (2008) *School Leavers*, [www.educationcounts.govt.nz](http://www.educationcounts.govt.nz)

Real Estate Institute of New Zealand Inc. (2008) *Market Trends*, [www.reinz.org.nz](http://www.reinz.org.nz)

Statistics New Zealand (2008) *2006 Census of Population and Dwellings*, [www.stats.govt.nz](http://www.stats.govt.nz)

Statistics New Zealand (2008) *Migration Survey 2006*, [www.stats.govt.nz](http://www.stats.govt.nz)

Tauranga City Council (2008) *The Battles of Gate Pa (Pukehinahina) and Te Ranga*, [www.tauranga.govt.nz](http://www.tauranga.govt.nz)

Tauranga City Council (2008) *Tauranga City Historical Timelines*, [www.tauranga.govt.nz](http://www.tauranga.govt.nz)

White, P., Gunston, J., Salmond, C., Atkinson, J. & Crampton, P. (2008). *Atlas of Socioeconomic Deprivation in New Zealand NZDep2006*. Ministry of Health, Wellington.



## Appendices

---

<i>Appendix 1.....</i>	<i>Tables</i>
<i>Appendix 2.....</i>	<i>Glossary of Terms</i>
<i>Appendix 3.....</i>	<i>Technical notes about population projections</i>
<i>Appendix 4.....</i>	<i>NZDep06 variables</i>



## Appendix 1 – Tables

- Table 1 Projected Change in Age Structure, New Zealand, Bay of Plenty region and districts, 2006, 2016, 2031.
- Table 2 Age Structure, New Zealand, Bay of Plenty region and districts, 2006.
- Table 3 Ethnic Composition, New Zealand, Bay of Plenty region and districts, 2006.
- Table 4 Ethnic Age Composition, Bay of Plenty region, 2006.
- Table 5 Tenure of Private Dwellings, New Zealand, Bay of Plenty region and districts, 2006.
- Table 6 Family Type, New Zealand, Bay of Plenty region and districts, 2006.
- Table 7 Household Composition, New Zealand, Bay of Plenty region and districts, 2006.
- Table 8 Motor Vehicle Availability, New Zealand, Bay of Plenty region and districts, 2006.
- Table 9 Access to Telecommunications, New Zealand, Bay of Plenty region and districts, 2006.
- Table 10 Means of Home Heating, New Zealand, Bay of Plenty region and districts, 2006.
- Table 11 Unemployment Rates, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006.
- Table 12 Employment by Industry Group, Labour Force Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006.
- Table 13 Highest Qualification Attained, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006.
- Table 14 Highest Qualification by Ethnicity, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006.
- Table 15 Total Personal Income, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006.
- Table 16 Personal Income by Ethnicity, New Zealand, Bay of Plenty region and districts, 2006.
- Table 17 Types of Benefits Received by Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006.
- Table 18 Family Income, New Zealand, Bay of Plenty region and districts, 2006.

Table 1.1 *Projected\* Change in Age Structure, Western Bay of Plenty, 2006-2031 (2006 – Base Population Projection)*

<b>Year (ending 30 June)</b>	<b>0-4 Years</b>	<b>5-14 Years</b>	<b>15-24 Years</b>	<b>25-44 Years</b>	<b>45-64 Years</b>	<b>65 Years Plus</b>
2006	2590	6640	4600	10150	12500	6800
2011	2750	6310	5110	9610	14280	8200
2016	2740	6290	4920	9960	15070	10000
2021	2800	6430	4580	10520	15250	11900
2026	2840	6480	4560	11030	14750	14200
2031	2800	6570	4710	11190	14270	16200

Table 1.2 *Projected\* Change in Age Structure, Tauranga district, 2006-2031 (2006 – Base Population Projection)*

<b>Year (ending 30 June)</b>	<b>0-4 Years</b>	<b>5-14 Years</b>	<b>15-24 Years</b>	<b>25-44 Years</b>	<b>45-64 Years</b>	<b>65 Years Plus</b>
2006	7120	14910	13070	27690	25400	18500
2011	7990	15570	14200	28830	29000	21200
2016	8100	16730	14990	30330	31730	24600
2021	8370	17700	15650	32350	33690	28300
2026	8710	18070	16800	34770	34730	32400
2031	9070	18690	17780	36570	35910	36700

Table 1.3 *Projected\* Change in Age Structure, Rotorua district (whole), 2006-2031 (2006 – Base Population Projection)*

<b>Year (ending 30 June)</b>	<b>0-4 Years</b>	<b>5-14 Years</b>	<b>15-24 Years</b>	<b>25-44 Years</b>	<b>45-64 Years</b>	<b>65 Years Plus</b>
2006	5450	11520	9070	18590	15900	7600
2011	5740	10960	9650	17200	17430	8500
2016	5320	11000	9370	16660	17970	10100
2021	5100	10870	8810	16560	17940	11700
2026	5010	10230	8850	16590	16930	13700
2031	4900	9930	8720	16630	15680	15400

Table 1.4 *Projected Change\* in Age Structure, Whakatane district, 2006-2031 (2006 – Base Population Projection)*

<b>Year (ending 30 June)</b>	<b>0-4 Years</b>	<b>5-14 Years</b>	<b>15-24 Years</b>	<b>25-44 Years</b>	<b>45-64 Years</b>	<b>65 Years Plus</b>
2006	2590	6040	4290	8600	8560	4300
2011	2870	5350	4690	7740	9380	4900
2016	2620	5380	4220	7550	9400	6000
2021	2470	5400	3540	7490	9150	7100
2026	2330	5000	3570	7330	8370	8200
2031	2160	4710	3590	7050	7540	9100

Table 1.5 *Projected Change\* in Age Structure, Kawerau district, 2006-2031 (2006 – Base Population Projection)*

<b>Year (ending 30 June)</b>	<b>0-4 Years</b>	<b>5-14 Years</b>	<b>15-24 Years</b>	<b>25-44 Years</b>	<b>45-64 Years</b>	<b>65+ Years</b>
2006	620	1360	890	1760	1620	890
2011	580	1130	1060	1500	1590	1100
2016	520	1050	880	1410	1540	1280
2021	470	950	660	1430	1420	1390
2026	430	840	580	1320	1250	1480
2031	350	760	470	1260	1010	1540

Table 1.6 *Projected\* Change in Age Structure, Opotiki district, 2006-2031 (2006 – Base Population Projection)*

<b>Year (ending 30 June)</b>	<b>0-4 Years</b>	<b>5-14 Years</b>	<b>15-24 Years</b>	<b>25-44 Years</b>	<b>45-64 Years</b>	<b>65+ Years</b>
2006	710	1760	1080	2070	2290	1280
2011	680	1540	1270	1820	2470	1390
2016	650	1440	1180	1730	2450	1650
2021	630	1380	960	1880	2290	1870
2026	610	1320	860	1900	2020	2140
2031	550	1280	790	1850	1810	2340

Table 1.7 *Projected\* Change in Age Structure, Bay of Plenty region, 2006-2031 (2006 – Base Population Projection)*

<b>Year (ending 30 June)</b>	<b>0-4 Years</b>	<b>5-14 Years</b>	<b>15-24 Years</b>	<b>25-44 Years</b>	<b>45-64 Years</b>	<b>65+ Years</b>
2006	18750	41570	32550	67760	65480	39200
2011	20210	40190	35490	65650	73290	45100
2016	19580	41140	35140	66700	77230	53300
2021	19480	41960	33770	69300	78830	61900
2026	19590	41240	34720	72020	77260	71500
2031	19500	41260	35540	73640	75480	80800

Table 1.8 *Projected\* Change in Age Structure, New Zealand, 2006-2031 (2006 – Base Population Projection)*

<b>Year (ending 30 June)</b>	<b>0-4 Years</b>	<b>5-14 Years</b>	<b>15-24 Years</b>	<b>25-44 Years</b>	<b>45-64 Years</b>	<b>65+ Years</b>
2006	286000	602310	604740	1181430	998480	511600
2011	308000	586600	629130	1168530	1115490	585500
2016	299250	607400	620430	1183740	1178200	699700
2021	296720	620900	605380	1221340	1209470	817000
2026	296760	609680	626280	1257040	1194340	955200
2031	296180	607230	639830	1268290	1187060	1091100

\*These population projections are calculated assuming medium fertility, medium mortality and medium migration

Table 2 Age Structure, New Zealand, Bay of Plenty region and districts, 2006

	0-4 Years	5-14 Years	15-24 Years	25-44 Years	45-64 Years	65+Years	Total
Western Bay of Plenty District	2526	6585	4323	9945	12165	6540	42075
Tauranga City	6906	14676	12468	26829	24696	18057	103632
Rotorua District (part)	4935	10686	8070	16860	14586	7161	62289
Whakatane District	2562	5937	3999	8337	8262	4200	33300
Kawerau District	609	1341	825	1716	1569	858	6924
Opotiki District	723	1749	993	2013	2256	1245	8976
Bay of Plenty	18267	41004	30717	65751	63582	38058	257379
New Zealand	275076	592497	571176	1134255	959340	495600	4027947

Table 3 Ethnic Composition, New Zealand, Bay of Plenty region and districts, 2006

	European	Maori	Other	Total
Western Bay of Plenty District	31890	6399	1140	38232
Tauranga District	76776	14112	3762	90906
Rotorua District (part)	40593	20973	4506	61041
Whakatane District	20949	13200	1104	32814
Kawerau District	3426	3915	342	6975
Opotiki District	4842	4995	291	9201
Bay of Plenty	178626	63654	11160	239412
New Zealand	2871432	526281	494970	3737280

Table 4 Ethnic Age Composition, Bay of Plenty region, 2006

	0-9 Years	10-19 Years	20-29 Years	30-49 Years	50-69 Years	70+ Years	Total
European	22617	23928	15072	43767	37680	21948	165012
Maori	15888	14874	8751	17640	8592	1917	67662
Other	7128	6375	4401	13806	10788	2685	45192

Table 5 Tenure of Private Dwellings, New Zealand, Bay of Plenty region and districts, 2006

	Dwelling Owned or Partly Owned	Dwelling Not Owned by Usual Resident(s)	Not Specified	Total
Western Bay of Plenty District	7539	3816	1113	15438
Tauranga City	19269	12471	2214	39954
Rotorua District (part)	11808	7653	1653	23220
Whakatane District	6021	3636	810	11709
Kawerau District	1389	759	132	2394
Opotiki District	1518	1083	291	3189
Bay of Plenty	47031	28974	6165	94773
New Zealand	743955	451965	90336	1454175

Table 6 Family Type, New Zealand, Bay of Plenty region and districts, 2006

	<b>Couple Only</b>	<b>Two Parent Family</b>	<b>One Parent Family</b>	<b>Total</b>
Western Bay of Plenty District	5517	4698	1656	11871
Tauranga City	13326	10410	5310	29049
Rotorua District (part)	6333	6921	4116	17370
Whakatane District	3447	3528	2097	9072
Kawerau District	648	636	558	1845
Opotiki District	849	834	648	2331
Bay of Plenty	29820	26517	14298	70635
New Zealand	425973	447894	193635	1067505

Table 7 Household Composition, New Zealand, Bay of Plenty region and districts, 2006

	<b>One-Person Household</b>	<b>One-Family Household</b>	<b>Two or More Families</b>	<b>Other Multiperson Household</b>	<b>Household Composition Unidentifiable</b>	<b>Total</b>
Western Bay of Plenty District	3048	11208	324	399	468	15441
Tauranga City	9414	27447	780	1794	516	39951
Rotorua District (part)	5127	15834	741	945	573	23220
Whakatane District	2472	8253	399	369	216	11709
Kawerau District	558	1650	96	75	18	2394
Opotiki District	762	2130	99	102	96	3189
Bay of Plenty	21192	65661	2418	3648	1857	94773
New Zealand	328302	985542	39609	72660	28065	1454175

Table 8 Motor Vehicle Availability, New Zealand, Bay of Plenty region and districts, 2006

	No Motor Vehicle	One Motor Vehicle	Two Motor Vehicles	Three or More Motor Vehicles	Not Elsewhere Included	Total
Western Bay of Plenty District	627	4707	6588	2733	783	15441
Tauranga City	2556	15705	15126	5343	1224	39951
Rotorua District (part)	1782	8526	8316	3444	1155	23220
Whakatane District	948	4254	4245	1710	549	11706
Kawerau District	276	1008	741	288	81	2394
Opotiki District	327	1344	942	360	216	3189
Bay of Plenty	6504	35226	35448	13626	3969	94773
New Zealand	112758	527844	531627	222201	59742	1454175

Table 9 Access to Telecommunications, New Zealand, Bay of Plenty region and districts, 2006

	No Access to Telecommunications	Access to Telephone	Access to Cellphone	Access to Fax	Access to Internet	Total
Western Bay of Plenty District	270	13311	11262	5640	8862	15441
Tauranga City	633	35526	29145	10452	23046	39951
Rotorua District (part)	732	18954	16419	5199	11901	23220
Whakatane District	543	9702	7641	2793	5868	11709
Kawerau District	165	1848	1647	384	1017	2394
Opotiki District	282	2325	1641	696	1146	3189
Bay of Plenty	2610	80688	66852	24687	51156	94773
New Zealand	28407	1277322	1034529	362040	843738	1454175

Table 10 Means of Home Heating, New Zealand, Bay of Plenty region and districts, 2006

	Electricity	Mains Gas	Bottled Gas	Wood	Coal	Solar Power	No Fuels Used	Other Fuel(s)	Not Specified	Total
Western Bay of Plenty District	8772	552	5511	8109	393	423	312	267	852	15687
Tauranga City	26082	5142	15252	10179	792	576	1074	555	1383	40494
Rotorua District (part)	13605	3036	6915	12225	969	189	309	1089	1218	23577
Whakatane District	7041	369	3963	6297	399	222	201	174	588	11883
Kawerau District	1317	225	753	1530	84	21	33	54	84	2418
Opotiki District	1602	87	1131	1749	96	54	114	54	240	3249
Bay of Plenty	57753	9384	33195	39171	2700	1470	2040	2163	4332	96165
New Zealand	1051095	185826	388746	574482	98226	15159	33177	29304	66189	1471746

Table 11 Unemployment Rates, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

	Employed Full-time	Employed Part-time	Unemployed	Total Labour Force	Not in the Labour Force	Labour Force Status Unidentifiable	Total
Western Bay of Plenty District	15294	5103	978	21378	10059	1530	32967
Tauranga City	37071	11883	2625	51582	28575	1893	82047
Rotorua District (whole)	23883	6939	2172	32994	14187	2055	49239
Whakatane District	10863	3570	1251	15678	8118	1005	24798
Kawerau District	1809	600	381	2790	2007	180	4974
Opotiki District	2478	888	366	3735	2394	378	6504
Bay of Plenty	89892	28578	7722	126192	64950	6963	198108
New Zealand	1531017	454758	106500	2092275	961788	106311	3160374

Table 12 Employment by Industry Group, Labour Force Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

Industry Group	Western Bay of Plenty District	Tauranga City	Rotorua District (whole)	Whakatane District	Kawerau District	Opotiki District	Bay of Plenty	New Zealand
Agriculture, Forestry and Fishing	4341	1395	2355	1950	126	840	10143	135426
Mining	75	36	30	18	3	0	153	4155
Manufacturing	1965	5193	3333	1638	582	138	12708	217758
Electricity, Gas, Water and Waste Services	45	189	207	126	15	9	582	9738
Construction	1899	5451	2097	1113	165	243	10887	149361
Wholesale Trade	696	2373	1176	312	48	72	4638	98340
Retail Trade	1569	6102	3207	1551	228	315	12879	196062
Accommodation and Food Services	693	2598	2757	621	108	183	6897	111102
Transport, Postal and Warehousing	726	2424	1155	435	96	75	4839	81771
Information Media and Telecommunications	108	534	261	129	12	18	1059	37650
Financial and Insurance Services	360	1296	546	243	42	33	2505	64143
Rental, Hiring and Real Estate Services	720	1701	744	315	36	69	3558	54543
Professional, Scientific and Technical Services	1089	3492	1911	657	60	99	7242	154215
Administrative and Support Services	786	1494	837	351	69	96	3591	66195
Public Administration and Safety	354	1332	1062	555	54	87	3408	81321
Education and Training	1110	3138	2451	1377	234	348	8529	142113
Health Care and Social Assistance	1539	4836	2790	1242	180	222	10746	160287
Arts and Recreation Services	219	645	792	147	15	42	1827	32685
Other Services	756	2202	1269	594	114	108	5001	77811
Not Elsewhere Included	1347	2532	1845	1065	222	369	7278	111111
Total Industry	20400	48957	30822	14430	2409	3366	118470	1985778

Table 13 Highest Qualification Attained, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

	No Qualification	School Qualification	University or Other Tertiary	Not Specified	Total
Western Bay of Plenty District	8394	14742	5928	3906	32967
Tauranga City	19644	38325	16038	8043	82050
Rotorua District (whole)	12267	22047	8706	6216	49239
Whakatane District	6888	10560	3990	3360	24798
Kawerau District	1827	2028	417	699	4974
Opotiki District	2235	2454	786	1032	6504
Bay of Plenty	50685	88959	35421	23040	198108
New Zealand	708429	1407783	716139	328014	3160374

Table 14 Highest Qualification by Ethnicity, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

	No Qualification	School Qualification	University or Other Tertiary	Not Specified	Total
European	32670	62427	25512	8991	129594
Maori	15591	18087	4647	5214	43539
Other	7047	17073	7935	2412	34464

Table 15 Total Personal Income, Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

	Loss	0\$-\$15,000	\$15,001-\$30,000	\$30,001-\$40,000	\$40,001 - \$50,000	\$50,001 - \$70,000	\$70,001 plus	Not Stated
Western Bay of Plenty District	294	9951	7992	4131	2475	2646	1974	3510
Tauranga City	366	24564	21030	10824	6564	6999	4695	7005
Rotorua District (whole)	228	14103	11856	6543	3876	3993	2655	5988
Whakatane District	150	7668	5805	2658	1668	2016	1539	3291
Kawerau District	21	1896	1101	399	267	321	264	699
Opotiki District	48	2358	1596	606	333	327	195	1044
Bay of Plenty	1092	60024	48870	24771	14946	16005	11058	21342
New Zealand	17355	948915	695040	404070	262299	281157	230643	320892

Table 16 Personal Income by Ethnicity, Population Aged 15 Years and Over, Bay of Plenty region, 2006

	Loss	\$0-\$15,000	\$15,001-\$30,000	\$30,001-\$40,000	\$40,001-\$50,000	\$50,001-\$70,000	\$70,001+	Not Stated	Total
European	642	40584	33837	17235	10545	11463	8157	7134	129597
Maori	249	15354	11385	5088	2607	2292	1089	5478	43539
Other	288	9951	8151	4737	3009	3453	2466	2421	34461

Table 17 Types of Benefits Received by Population Aged 15 Years and Over, New Zealand, Bay of Plenty region and districts, 2006

	Unemployment Benefit	Sickness Benefit	Domestic Purposes Benefit	Invalids Benefit	Other Benefits	Total
Western Bay of Plenty District	1%	2%	3%	2%	3%	32967
Tauranga City	2%	2%	4%	2%	4%	82050
Rotorua District (part)	4%	3%	5%	2%	3%	46659
Whakatane District	6%	3%	5%	2%	3%	24798
Kawerau District	10%	3%	7%	5%	3%	4974
Opotiki District	9%	4%	6%	3%	3%	6507
Bay of Plenty	3%	3%	4%	2%	3%	198108
New Zealand	3%	2%	3%	2%	3%	3160371

Table 18 Family Income, New Zealand, Bay of Plenty region and districts, 2006

	\$0 - \$15,000	\$15,001 - \$30,000	\$30,001 - \$40,000	\$40,001 - \$50,000	\$50,001 - \$70,000	\$70,001 plus	Not Stated	Total
Western Bay of Plenty District	471	1989	1251	1035	2088	3471	1491	11874
Tauranga City	1128	5181	3066	2541	4986	8526	3567	29052
Rotorua District (whole)	897	2796	1608	1437	2946	5007	2646	17370
Whakatane District	501	1566	804	660	1317	2484	1725	9072
Kawerau District	132	462	168	153	216	360	348	1845
Opotiki District	180	564	237	177	288	378	507	2331
Bay of Plenty	3297	12480	7065	5931	11667	19839	10167	70635
New Zealand	45549	156534	94830	82893	169914	366462	148347	1067502

## Appendix 2 – Glossary of Terms

**Employment Status** - A respondent's employment status within the labour force. This applies to persons in full and part-time employment. Employment status categories are: paid employee; self-employed and without employees; employer; and unpaid family worker.

**Ethnicity** - Ethnicity is the ethnic group or groups that people identify with or feel they belong to. Thus, ethnicity is self-perceived and people can belong to more than one ethnic group. Ethnicity is a measure of cultural affiliation, as opposed to race, ancestry, nationality or citizenship. An ethnic group is a social group whose members have the following four characteristics:

- share a sense of common origins;
- claim a common and distinctive history and destiny;
- possess one or more dimensions of collective cultural individuality;
- feel a sense of unique collective solidarity.

**Equivalisation** – Methods used as control for family composition.

**Family Income** - Family income is the combined gross total income that persons aged 15 years and over in a co-resident family receive.

**Family Type** - For census purposes the 'family' is defined as two or more people, who are members of the same household, and who comprise either a couple, or at least one parent-child relationship. Three categories are used to describe the family: One-Parent, Two-Parent, and Couple-Only families.

**Highest Qualification** - The highest completed educational award attained as the result of formally recognised learning gained by people aged 15 years and over.

**Household Composition** - Refers to the nature of a household based upon usual composition. A household may consist of one or more families, or it may be a non-family household, or a one-person household.

**Income Support** - Refers to government funded payments, benefits and pensions received from either the department of Social Welfare or the Accident Compensation Corporation (ACC).

**Industry** - Industry is the type of activity undertaken by the organisation, enterprise, business or unit or economic activity within which a person is employed. Any individual business can be assigned an appropriate industry category on the basis of its predominant activity, which is the main income producing activity of a business.

**Iwi Affiliations** - Refers to the connections a person of New Zealand Maori ancestry has with a tribe or tribes (iwi). Included are the main (primary) iwi to which a person of Maori ancestry belongs as well as any other (secondary) iwi with which such person has strong ties (i.e. tribes which are important to that person).

**Labour Force** - The labour force consists of people aged 15 years and over who regularly work for one or more hours per week for financial gain, or as an unpaid worker in a family business. Also included are people who are unemployed and actively seeking either full-time or part-time work.

**Labour Force Status** - Labour Force Status is the position of all people aged 15 and over in relation to the labour market.

**Maori Ancestry** - People have Maori ancestry if they consider they have Maori ancestors no matter how distant.

**Mortality** - Mortality is a health status indicator that measures the rate and cause of death among population groups. Common mortality measures are life expectancy, survivorship rates, cause of death, and general mortality rates (i.e. rate of death per 100,000 population).

**Motor Vehicles** - Number of motor vehicles is the number of motor vehicles which are mechanically operational, but not necessarily licensed or having a current Warrant of Fitness, and are available for private use by the usual residents of private dwellings.

**Occupation** - An occupation is a set of jobs that involve the performance of a common set of tasks. It refers to the job, trade, profession or type of work in which a person is employed for financial reward or as an unpaid worker in a family business.

**Personal Income** - Defined as the total income, including income support, before tax that a person aged 15 years and over received from all sources for the preceding financial year.

**Population Density** - The number of people relative to the space around them (e.g. number of residents per hectare).

**Population Projections** - A type of estimate that calculates (predicts) changes in population characteristics in the future. This estimate makes certain assumptions about the future course of fertility, mortality and migration. Population projections are guidelines rather than exact forecasts. They ignore non-demographic factors (e.g. catastrophes, war, and major government and business decisions) which could have significant effects on future population growth.

**Private Dwelling** - A private dwelling is any dwelling, either permanent or temporary, which is occupied by a private household. Permanent private dwellings include houses and flats, residences attached to a business or institution, baches, cribs and huts. Caravans, cabins, tents and other makeshift dwellings that are the principal or usual residence of households are classified as temporary private dwellings.

**Rohe** - A territory or boundary which defines the areas within which a tangata whenua group claims traditional association and mana whenua (customary authority exercised by iwi or hapu in an identified area).

**Telephone Access** - Access to a telephone refers to the availability of a working telephone located in the dwelling. 'Telephones' include cordless telephones and some cell phones. Cell phones are treated as a telephone if they are predominately located in the household when members are at home.

**Tenure** - Tenure is the nature of occupancy of a permanent private dwelling, but not the land it stands on. Categories of private dwelling tenure are dwelling owned or partly owned and dwelling not owned by usual resident (i.e. rented).

**Unemployed** - Persons who are unemployed are not working in a paid job, business, farm or profession at census date, but had looked for either full-time or part-time work in the four weeks preceding the census.

**Usually Resident Population** - Refers to all people counted during a census who usually live in New Zealand (and sub-regions of New Zealand) and excludes people usually resident overseas and New Zealand residents who usually live overseas. The definition is generally based on a person's self-identified usual address.



## **Appendix 3 – Technical notes about population projections**

### **1.1 Projections method**

A "Cohort-Component" method is used to derive the population projections. In this method, the base population is projected forward by calculating the effects of births, deaths, and migration within each age and sex group according to the specified fertility, mortality, and net migration assumptions.

### **1.2 Base population**

The base (or starting) population for the population projections is the estimated resident population at 30 June 2006. This population was calculated by adjusting the 2006 Census usually resident population for undercount and New Zealand residents temporarily overseas at that date. The populations were then updated for births, deaths, and permanent and long-term migration between 5 March 2006 and 30 June 2006.

### **1.3 Projection assumptions**

Assumptions are formulated regarding future levels of fertility, mortality, and migration. These assumptions take into account historical demographic trends and characteristics of each Territorial Authority. They also take into account the assumptions adopted by the 2006-base New Zealand population projections.

### **1.4 Nature of projections**

The population projections are based on assumptions made about future fertility, mortality, and net migration. Although the assumptions are carefully formulated to represent future trends, they are subject to uncertainty. The projections should therefore be used as guidelines rather than exact forecasts. They measure the changes in the population size and age composition that will occur if the stated assumptions were to apply over the projection period. The projections ignore non-demographic factors (e.g. catastrophes, war, etc) which may invalidate the projections.



## Appendix 4 – NZDep06 Variables<sup>†</sup>

The *NZDep06* index of deprivation combines nine variables from the 2006 census reflecting eight dimensions of material and social deprivation. These dimensions reflect lack of income, communication, employment, transport, qualifications, support, living space and an owned home.

The index reflects a continuum from lack of deprivation to deprivation, rather than from affluence to deprivation. All the variables in *NZDep06* reflect a lack of something. Technically, the variables make sense. Deprivation scores in areas known to the researchers were as expected. There is no unexpected pattern to the geography or demography for the areas with the worst extreme values, that is the most and least deprived.

A list of the variables used in *NZDep06* is given in the following table and described in more detail below.

*Table 1 Description of the nine variables, in decreasing importance, used to construct the New Zealand Index of Deprivation 2006*

Deprivation domain	Census variables
Income	aged 18–64 years receiving a means-tested benefit
Income	living in households with equivalised income below an income threshold
Owned home	not living in own home
Support	aged under 65 years living in a single-parent family
Employment	aged 18–64 years and unemployed
Qualifications	aged 18–64 years and without any qualifications
Living space	living in households below an equivalised bedroom occupancy threshold
Communication	with no access to a telephone
Transport	with no access to a car

### 1.1 Means tested benefits

The means tested benefits included in the definition of this variable changed as a result of changes to the question in the 1996 census. Means tested benefits included in the *NZDep96* version of this variable are: domestic purposes benefit, sickness benefit, invalid's benefit, and other government benefits, income support payments or war pensions.

<sup>†</sup> This appendix is based on extracts from White et al. (2008).

## 1.2 Household income

Equivalent household income was used for calculating the income variable so that, for example, the standard of living of a household consisting of a single person with an income of \$40,000 could be compared to that of a household consisting of two adults and six children on an income of \$40,000,

Equivalent annual household income was calculated using the median income for each of the income bands used in the 2006 census.

## 1.3 Dwellings not owner occupied

The housing tenure variable is: proportion of people in dwellings not owner occupied. The "rented or leased" census variable value was used to capture not owner occupied. The census variable value "provided rent free" was treated as not specified since it was not possible to determine whether this represents an advantage or a disadvantage (for example, both a farm labourer and a multinational company executive could have accommodation provided rent free).

## 1.4 Single parent families

The following are abbreviated versions of Statistics New Zealand definitions:

- A family consists of a couple (legal or defacto marriage) with or without children, or one parent with children (i.e. a brother and a sister is not a family);
- A household is a group of people who live together whether related or not; and
- A dwelling is the physical structure occupied by a household.

If a three-generation family lives in a dwelling, Statistics New Zealand creates two families, *but each person is only counted once*.

Therefore:

- There may be more than one family per household (and therefore per dwelling); and
- The sum of occupants of households equals the sum of all people in families and all people not in families.

Our definition of the proportion of single parent families variable is: people less than 60 in a single parent family with dependent children as a proportion of all people under 60.

To derive this we carried out the followings steps:

- 1 Assigned single parent family status (yes/no) to all people aged less than 60 in families by merging family information with personal information;
- 2 Calculated the numerator by summing the number of people aged less than 60 years in single parent families with dependent children only, and those in single parent families with dependent children and adult children (but not those in single parent families with adult children only); and

- 3 Calculated the denominator by summing all people aged less than 60 years.

The denominator includes everyone aged under 60 years (i.e. those considered to be at risk of being in a single parent family). This variable is restricted to those aged under 60 years in order to avoid inflation of the denominator by large numbers of elderly people who are less likely to be in a single parent family.

## 1.5 Unemployed

The unemployed variable refers only to the 18 to 59 year age group.

## 1.6 No qualifications

The no qualifications variable refers only to the 18 to 59 year age group. No qualification indicated that no qualification has been obtained from a completed course.

## 1.7 Occupancy

Occupancy describes the relationship between housing space available and persons usually resident in the house. For deprivation purposes, the extreme of an occupancy scale is used. It is usually called overcrowding.

The definition of occupancy used in deriving our indices was: any household with greater than one person-equivalent per bedroom. A person-equivalent was defined as: children age 10 and over are equivalent to one adult; children age under 10 are equivalent to half an adult. The threshold value, one, was determined by examining the national distribution of equivalent occupants per bedroom for the usually resident population in private dwellings with number of bedrooms specified.

Rooms other than bedrooms were excluded from the definition because anecdotal evidence suggested that census data relating to "other rooms" is less accurate than that relating to "bedrooms".

## 1.8 Access to a telephone

This question was included for the first time in the 1996 Census of Population and Dwellings. The access to telephone variable is consistent with the theory of deprivation, and was included in the principal components analysis, and subsequently in *NZDep96*, *NZDep01* and *NZDep06*. The definition of the variable is the proportion of people without access to a telephone in their dwelling (private dwellings only).

## 1.9 Access to a car

This variable was changed from proportion of adults with no access to a car, to proportion of people with no access to a car. The rationale for this change is that cars (access to transport) have relevance to children as well as adults.