

NEW ZEALAND

A
*Regional
Profile*

MANAWATU / WANGANUI

Published in November 1999 by
Statistics New Zealand
Te Tari Tatau
Wellington, New Zealand

Catalogue Number 01.710.IN98
ISBN 0-478-20708-5

Recommended retail price \$15.00
(includes 12.5% GST)

Preface

New Zealand - A Regional Profile aims to summarise information about all 16 regions in New Zealand into one comprehensive volume.

What do regions mean to New Zealanders? Essentially they are a place to live, a focus for parochialism on the sports field and a source of local identity. If you asked a Southlander, "Do you see yourself as being different to a Nelsonian", they would answer firmly, "Yes". Defining regional qualities is, however, rather less definitive. What does it really mean to be a Cantabrian, a Northlander or a Wellingtonian? How does the region of residence affect the individual in terms of employment choices, income, access to health and educational services? This publication explores how the history, topography, social, demographic and economic forces in each region have shaped experiences. While it cannot exactly describe each individual in Northland or Canterbury, the publication can show the most distinctive characteristics of each region.

The publication has a two-fold purpose: to provide a comprehensive source of information about each region in New Zealand; and to analyse each region, comparing differences and similarities, with the aim of celebrating regional diversity in New Zealand. The sixteen chapters examine the history, topography, population characteristics and economy of each region. Information is presented in written, graphic and tabular form.

I would like to acknowledge my appreciation of Dr Rosemary Goodyear, Aaron Green and Rochelle Morgan of the Regional and International Statistics Division who contributed to this report, under the direction of Zane Colville.

A handwritten signature in black ink, reading "Len Cook". The script is fluid and cursive, with the first letters of "Len" and "Cook" being capitalized and prominent.

Len Cook
Government Statistician

Blank Page 4

Acknowledgement

This report was prepared by the Regional and International Statistics Division and published by the Publishing and Community Information Division of Statistics New Zealand.

Further information

For further information on the statistics in this report, or on other publications or products, contact Information and Consultancy Services.

AUCKLAND

70 Symonds Street,
Private Bag 92003,
Telephone 0-9-357 2100,
Fax 0-9-379 0859.

WELLINGTON

Aorangi House,
85 Molesworth Street,
PO Box, 2922,
Telephone 0-4-495 4600,
Fax 0-4-495 4610.

CHRISTCHURCH

Winchester House,
64 Kilmore Street,
Private Bag 4741.
Telephone 0-3-374 8700,
Fax 0-3-374 8864.

Internet

Home Page: <http://www.stats.govt.nz>
Email: info@stats.govt.nz

Liability statement

Statistics New Zealand gives no warranty that the information or data supplied contains no errors. However, all care and diligence has been used in processing, analysing and extracting the information. Statistics New Zealand shall not be liable for any loss or damage suffered by the customer consequent upon the use directly, or indirectly, of the information supplied in this product.

Reproduction of material

Any table or other material published in the following pages of this report may be reproduced and published without further licence, provided that it does not purport to be published under Government authority and that acknowledgement is made of this source.

Blank Page 6

CONTENTS

	Page
Highlights	9
Introduction	9
History	10
The land and environment	12
Topography	12
Soil and climate	13
Environment	14
Regional features	14
The people	14
Population structure	14
Migration	16
Age and sex structure	16
Ethnicity	18
Religion	18
Education	18
Labour market	20
Access to services	21
Dwellings	22
Households and families	22
Number of children	22
Income and expenditure	23
Health	24
Crime	26
The economy	26
Business	26
Energy	27
Agriculture	27
Forestry	29
Buildings	29
Retail trade	31
Tourism	31
Transport	31
Definitions	33
Bibliography	41

Blank Page 8

Manawatu-Wanganui

Highlights

- Manawatu-Wanganui is the second-largest region by area in the North Island.
- On census night in 1996 the region had a usually resident population of 228,771 people, the fifth-largest population in New Zealand.
- The region contains higher proportions of Māori and European than nationally.
- Population growth in the region has been much slower than the national average.
- The region is dominated by agriculture, particularly sheep farming.
- There were 7,216,177 sheep at 30 June 1996, the largest number of sheep in the North Island.
- The region has three military bases and the largest proportion of people serving in the armed forces nationally.
- Building consents have experienced the greatest decline in New Zealand since 1990.
- The region has the third-highest proportion of students nationally.
- Mt Ruapehu experienced a series of eruptions from 1995 to 1996, disrupting two ski seasons on the mountain.



Introduction

The region is dominated and defined by two significant river catchments, Whanganui and Manawatu. The Whanganui River is the longest navigable river in New Zealand. The river was extremely important to early Māori as it was the southern link in a chain of waterways that spanned almost two-thirds of the North Island. It was one of the chief areas of Māori settlement with its easily fortified cliffs and ample food supplies. Legends emphasise the importance of the river and it remains sacred to Wanganui iwi. Māori along the coast and lowland plains grew kumara and other crops.

Much of the Manawatu-Wanganui Region was fertile and bush-covered when Europeans arrived and developed the area as a source of timber. Saw milling and flax milling dominated the nineteenth century, followed by an influx of sheep farmers who exploited the newly-cleared ground. Deforestation, burn-offs of timber and scrub and large scale drainage combined with over-grazing, resulted in considerable environmental degradation. In the early 1900s authorities realised that careful management was needed to maintain this important agricultural area.

While the open Manawatu Plains became more densely settled by Europeans, inland Ruapehu, Rangitikei and Wanganui remained more Māori-dominated, remote and independent. As late as the 1950s the Whanganui river remained a river of mystery. More recently, however, exploitation of the river's commercial potential has opened up the area, often causing friction with local Māori who have longstanding grievances. The region has remained one of the most important pastoral areas in New Zealand, its status recognised when the government opened the Massey Agricultural College in the 1920s.

There are two major urban areas in the region. Palmerston North City, with a 1996 Census population of 73,095 usual residents, expanded as an educational centre as well as a supply centre for the surrounding rural hinterland. It became a city in 1930. The other major urban area is Wanganui with a usually resident population of 41,097 as at 5 March 1996. Other urban centres include Levin, Feilding, Dannevirke, Taumarunui and Marton.

However, city life does not dominate the region as half of the region's population live outside a large urban area. Over a third of the population live in small towns or rural areas. While manufacturing has become an important part of the region's economy, most businesses are agriculturally based and agriculture remains the regional linchpin. The dominance of agriculture, combined with the relatively small scale of most urban areas, gives a rural quality to the region, quite distinct from neighbouring Wellington. The region's rugged interior has also become one of the main training areas for New Zealand's defence forces, which maintain three bases in the region.

History

- | | |
|-----------|---|
| Pre-1769 | Approximately 3 percent of Māori in Aotearoa live in the Wanganui Basin and 8 percent on the Taranaki Coast. Coastal Māori garden and gather food but life for Māori further inland is more difficult, and often relies on hunting and gathering. |
| 1820-1840 | Ngāti Toa and Te Atiawa iwi displace local iwi from their lands. |
| 1830 | Te Rauparaha (Ngāti Toa) lay siege to Putiki Pa in retaliation for an attack on Kapiti Island, sacking the pa and killing its inhabitants. |
| 1831 | European traders arrive in Wanganui, led by Joe Rowe, supposedly a dealer in preserved heads (moko mokai). A dispute with local Māori leads to the death of three of his party and his own head is cut off and preserved. |
| 1840 | Edward Jerningham Wakefield (Edward Gibbon Wakefield's son) purchases 40,000 acres of land under dubious circumstances, for the New Zealand Company, including the Wanganui town site. The first European settlers start arriving in Wanganui. |
| 1842 | The first organised European settlers in Horowhenua arrive at Paiaka. |
| 1847 | In July the "Battle of St John's Wood" occurs when 400 Māori clash with an equal force of British Regulars. |

- 1848 The Crown purchases Wanganui (80,000 acres), 8,000 acres of which are supposed to be set aside as a reserve.
- 1855 Paiaaka settlers move closer to the coast at “Foxton”, which becomes a port handling flax, timber and agricultural produce.
- 1856 The *Wanganui Chronicle* is first published.
- 1860s Scandinavians settle in the Tararua District, later founding Eketahuna, Dannevirke and Norsewood.
- 1865 A battle ensues between the Hau Hau adherents (who were largely upper Whanganui Māori), who want to expel the Pakeha at Wanganui, and the Māori of the lower river.
- 1866 Palmerston North/Te Papa-i-oaea is founded. It is surrounded by forests with the Manawatu River serving as its only link with the port of Foxton and the outside world.
- 1870s The bush is gradually felled and the Manawatu opened up for European farms and settlement. Former Danish Prime Minister, Bishop Ditlev Gothard Monrad, organises a settlement of Danes near Awapuni.
- 1871 The first sawmill is established at Palmerston North/Te Papa-i-oaea.
- 1872 Wanganui becomes a borough.
- 1875 The *Manawatu Times* is published for the first time at Palmerston North.
- 1876 A railway link is established between Foxton and Palmerston North.
- 1877 Palmerston North becomes a borough.
- 1885 Mother Mary Joseph Aubert starts her community of the Daughters of Our Lady of Compassion at Jerusalem, founding a home for Māori orphans, the elderly and infirm.
- 1886 Wellington/Palmerston North railway is opened, superseding the Foxton link and ensuring Palmerston North's growth.
- 1889 Levin is founded because of the construction of Wellington/Palmerston North railway.
- 1903 The Main Trunk Line reaches Taumarunui, opening up the inland districts for development.

1906	Levin becomes a borough.
1930	Palmerston North becomes a city.
1939	Ohakea Air Force Station commences operations.
1953	New Zealand's worst rail disaster occurs at Tangiwai, as the rail bridge collapses because of a lahar flow from the crater lake on Mt Ruapehu. A train with Christmas holiday-makers plunges into the flood, killing 151 people.
1960s	Famous New Zealand poet, James K. Baxter, sets up a commune at Jerusalem.
1963	Massey University is formed by a merger of a branch of Victoria University (at Palmerston North) with Massey Agricultural College.
1991	In formal recognition of the river's proper name the government renames the Wanganui River the Whanganui River.
1995	Occupation of Moutoa Gardens (Wanganui) in protest about the slowness of the Waitangi Tribunal claim settlement process and loss of control of the Whanganui River.
1995-1996	A series of small eruptions occurs on Mt Ruapehu, throwing ash over a wide area.

The land and environment

Topography

The Manawatu-Wanganui Region takes up a large proportion of the lower half of the North Island. It is the second-largest region in the North Island and the sixth-largest region in New Zealand, totalling 22,215 square kilometres (8.1 percent of New Zealand's total land area). The region stretches from north of Taumarunui to south of Levin on the west coast, and across to the east coast from Cape Turnagain to Owhanga. It borders the Waikato, Taranaki, Hawke's Bay and Wellington Regions and includes river catchment areas that run from the volcanic plateau to the sea. The Pacific Ocean marks the eastern border and the Ruahine ranges form a natural boundary between the region and Hawke's Bay. There are 10 territorial authorities within the region but five of these straddle the boundary with other regions.

This extensive area includes a variety of landscape formations. Districts close to the volcanic plateau are higher and more rugged, often subject to harsh temperatures in winter. The Manawatu District has a much gentler topography, consisting mainly of flat, tree studded plains that run between the ranges and the sea. The land was under the sea till about 500,000 years ago and still has a very thick layer of marine sediment, which is about five or six million years old. A block faulting system underneath the thick sediment has raised a series of domes and gentle depressions. These

structures can provide natural storage areas for oil and some of the Manawatu domes have been drilled. The domes have shaped the course of the Manawatu River, giving it a meandering path which, uniquely among New Zealand rivers, begins on the east coast and exits on the west coast. The Manawatu River begins just inside the Hawke's Bay Region then flows through a deep gorge to the Manawatu Plains before exiting in the Tasman Sea.¹ The Wanganui District is more rugged, with canyon-like valleys and gorges carved out of the soft rock by rivers and ocean waves.

The region includes a series of mountain ranges - the Tararua and the Ruahine ranges - as well as the three major active volcanoes of the North Island. This triumvirate towers above the volcanic plateau. Ruapehu, at 2,797 metres, is the tallest mountain in the North Island, Ngauruhoe reaches 2,291 metres and Tongariro 1,968 metres. During the last 100 years, Ruapehu has experienced six significant eruptions and has erupted as recently as 1995 and 1996. Three major rivers divide the region: the Whanganui (290 kilometres), Manawatu (182 kilometres) and Rangitikei (241 kilometres). The Whanganui is the second-longest river and has the second-largest catchment in the North Island and drains most of the inland region west of Lake Taupo. There are few roads in this area, which contains some of the largest surviving areas of native bush in the North Island.

Soil and climate

Soils in the region are productive with the addition of fertiliser. In the Manawatu and Horowhenua Districts there are sandy soils and swamp hollows around the coast with loess-covered terraces and river flats inland. These river flats and swamp areas contain fertile alluvial and organic soils. On the drier terraces inland yellow-grey earths predominate. The flatter more fertile soils suit intensive sheep farming and cropping while the hill country of Rangitikei favours semi-intensive sheep and beef farming. Areas close to the volcanic plateau consist largely of pumice soils which lack some essential trace elements but within the region much of this land is occupied by national parks.

The Manawatu-Wanganui Region has a comparatively mild climate although there are greater climatic extremes inland. Chateau Tongariro experienced the lowest temperature ever recorded in the North Island, falling to -13.6°C on 7 July 1937. In summer the region is warm, with a maximum mid-summer daily average of between 20.1° - 22.9°C. Sunshine hours approximate the national average for much of the region (between 1,800 and 2,000 hours per annum) but Palmerston North is defined as cloudy with an average of 1,725 sunshine hours a year. In the winter the minimum mid-winter daily average for coastal areas is a cool 4.0 - 7.9°C, while inland areas are considerably colder. Waikato averages a minimum mid-winter daily average of 0.1°C. Rainfall on the plains is slightly below average, with Palmerston North receiving an annual average of 960 millimetres per year, while the rest of the region receives the New Zealand average rainfall of between 1,000 and 2,000 millimetres per annum.

¹ Graeme R. Stevens, *Rugged landscape the Geology of Central North Island, including Wellington, Wairarapa Manawatu and the Marlborough Sounds*, AH and AW Reed, Wellington, 1974. pp.141-144.

Environment

The Manawatu-Wanganui Region contains areas of great ecological significance which is reflected in the designation of approximately a seventh of its land area as part of the nation's conservation estate. Tongariro National Park is the largest park in the region (79,598 hectares) and is the oldest park in the country, established in 1887. The Whanganui National Park is slightly smaller (74,231 hectares) and was established 99 years later when a series of reserves were incorporated into one area and given national park status. There are also two state forest parks situated in the rugged, bush-clad Ruahine and Tararua Ranges.

The regional council, responsible for managing natural and physical resources, provides flood protection and monitors environmental problems such as pest infestation and pollution. Invasive plant pests such as African feathergrass, goats rue and nodding thistle pose a threat to pastureland in this heavily agricultural-dependent region, and the regional council has instituted control campaigns. The regional council has also instituted animal pest control programmes. Possums are perceived as the major animal pest since they damage native forests and endanger cattle production through the spread of bovine tuberculosis. Eradication programmes also concentrate on rabbits, rooks and feral goats, while other exotic species such as dama wallaby, wasps, ferrets, stoats and weasels are a source of concern.²

Regional features

The Manawatu-Wanganui Region stretches from the remote inland volcanic plateau to the gentle rolling Manawatu plains. As a result the region offers visitors a variety of landscapes and experiences. The Ruapehu and Wanganui Districts contain some of the most spectacular landforms in the North Island. The volcanoes Tongariro, Ruapehu and Ngauruhoe are sacred to Māori and in 1887 Te Heuheu Tukino IV, paramount chief of Tūwharetoa, gifted these to the nation. The Tongariro National Park is now designated a world heritage area. The park adjoins the newer Whanganui National Park which extends from Mt Tongariro to the densely bush-covered Whanganui River area. These parks offer skiing, jet boating and white-water rafting as well as the opportunity to appreciate the environment. Māori history is documented in the Wanganui Regional museum. The presence of the university in Palmerston North attracts visitors, especially for conferences.

The people

Population structure

Manawatu-Wanganui had a usually resident population of 228,771 people at the time of the 1996 Census, giving it the fifth-largest population in New Zealand. More recent population estimates, which allow for an undercounting of the population on census night, suggest that at 30 June 1997 there were 232,900 people resident in the region.³ Despite its substantial population, the region has

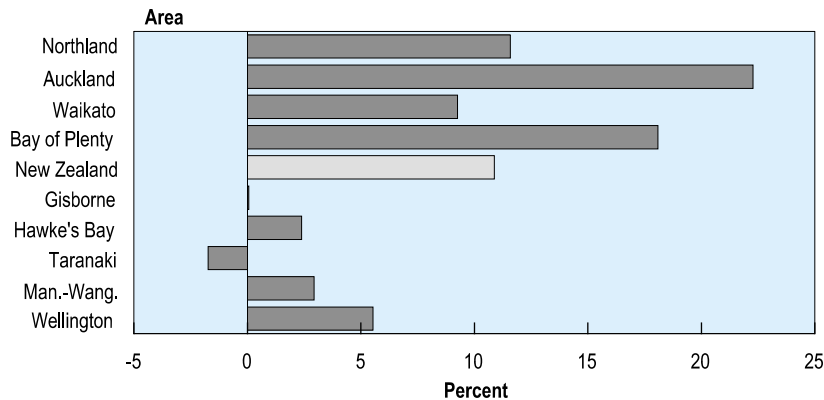
² Information supplied by the Manawatu-Wanganui Regional Council.

a lower than average population density, with an average of 10.3 people per square kilometre, compared with 13.1 for New Zealand. This lower population density reflects the region's more rural nature, with 80.6 percent of population living in urban areas, compared with the national average of 85.4 percent.

Population growth in Manawatu-Wanganui has been much slower than the national average. In the 10-year period between 1986 and 1996 the New Zealand population increased by almost 11 percent whereas the population in Manawatu-Wanganui rose by only 2.9 percent. Population projections estimate that between 1996 and 2021 the population of the region will increase by only 1.2 percent while the population of New Zealand will increase by 17.2 percent. This projection parallels that of the entire lower North Island reflecting a trend towards population growth in the north of both islands.⁴

Figure 8.1

Percentage Change in Population for North Island Regions, 1986-1996



Source: Statistics New Zealand, *Census of Population and Dwellings, 1986, 1996*

Within the region it is apparent that the most serious decline in population is occurring in the more rural districts, especially those closest to Taranaki which is the only region in the North Island suffering from a shrinking population. In contrast, Palmerston North City, the region's largest urban area, and Manawatu District, its immediate hinterland, are projected to experience population growth.

³ This estimate is based on the number of New Zealand residents in New Zealand on census night, 5 March 1996, adjusted for the estimated undercount at the 1996 Census (45,000) and for the estimated number of New Zealand residents temporarily overseas on 5 March 1996 (40,000), then adjusted according to estimated population change between 1996 and 1997.

⁴ Source: Statistics New Zealand, *Subnational Resident Population Projections*.

Figure 8.2

Projected Percentage Change for Territorial Authority, 1996-2021

Territorial authority	1996-base	2021	Percentage change
Stratford District	9,700	8,100	-16.5
Ruapehu District	17,200	14,000	-18.6
Wanganui District	45,800	43,400	-5.2
Rangitikei District	16,700	13,600	-18.6
Manawatu District	28,600	31,700	10.8
Palmerston North City	74,900	85,800	14.6
Taranua District	19,400	17,600	-9.3
Horowhenua District	30,700	30,000	-2.3

Source: Statistics New Zealand, Subnational Resident Population Projections, 30 October 1997

Migration⁵

Between 1991 and 1996 Manawatu-Wanganui suffered a net loss of 3,462 people to other regions. The most significant area of net population loss was north, to Auckland (1,605 people), Waikato (1,524), and the Bay of Plenty (1,320). The region did experience small net population gains from Taranaki (501 people) and Wellington (972 people).⁶

Age and sex structure

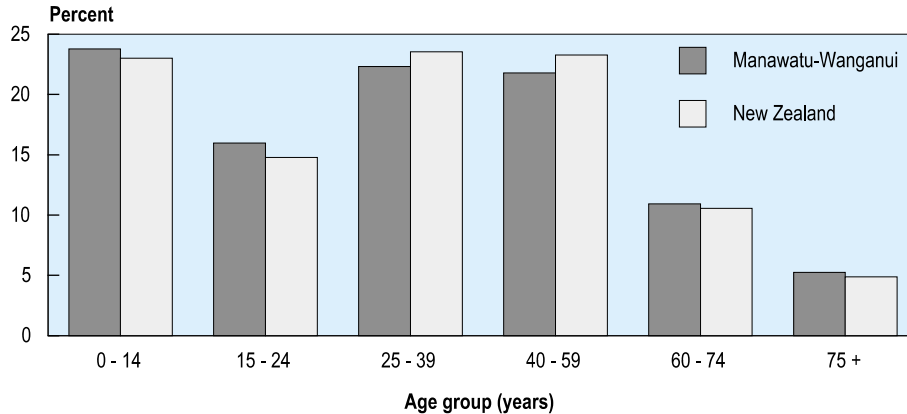
On census night in 1996 the Manawatu-Wanganui Region had the fourth-lowest median age (32.2 years) in the country. In age structure the Manawatu-Wanganui Region has certain similarities to the Otago Region in the South Island, since it has a higher than average percentage of people aged 15 to 24 years and a lower than average proportion of people aged 25 to 59 years. However, the percentage of children was higher than the national average, probably as a consequence of the large population of Māori in the region. There were also more elderly in the region than the national average.

⁵ For definitions of internal and overseas migration, refer to glossary.

⁶ The following tables include the population usually resident in the Manawatu-Wanganui Region on census night in 1996. Overseas residents are excluded from the count. When census data is being referred to, unidentifiable, not applicable, or missing responses have been excluded from all calculations.

Figure 8.3

Age Distribution for Manawatu-Wanganui and New Zealand, 1996



Source: Statistics New Zealand, Census of Population and Dwellings, 1996

It seems likely that the preponderance of people in the 15 to 24-year age group was affected by the presence of a large number of students in Palmerston North City. The city had 22.2 percent of the population in this age group on census night in 1996, compared with the national average of 14.8 percent. This percentage was even higher than the other main student city, Dunedin, where 20.7 percent of the population fits into this age group. Considerable differences in age distribution emerge between territorial authorities within the region. The Ruapehu District, which has the highest percentage of Māori ethnic group, has fewer elderly and greater numbers of children. In contrast, the Horowhenua District has higher proportions of elderly, and appears to be a favoured destination for retirees. On census night in 1996, almost a quarter of the adult population in this district said that they had received income from National Superannuation in the past 12 months.

Figure 8.4

Age Distribution for Selected Territorial Authorities within the Manawatu-Wanganui Region, 1996

Area	Percent					
	0-14 years	15-24 years	25-39 years	40-59 years	60-74 years	75+ years
Ruapehu District	28.5	15.4	25.0	19.7	8.2	3.2
Wanganui District	23.8	13.4	20.8	22.5	13.0	6.5
Rangitikei District	26.7	12.1	23.4	22.1	10.9	4.8
Manawatu District	25.6	13.2	22.9	23.6	10.0	4.7
Palmerston North City	20.7	22.2	23.3	20.2	9.0	4.5
Tararua District	26.5	12.6	21.5	23.4	10.8	5.2
Horowhenua District	23.4	11.8	19.9	22.8	15.0	7.1
New Zealand	23.0	14.8	23.5	23.3	10.6	4.9

Source: Statistics New Zealand, Census of Population and Dwellings, 1996

Ethnicity

Manawatu-Wanganui has higher than average proportions of Māori and European and a much smaller percentage of Asian, Pacific Islands and other ethnic groups. This situation occurs in other regions since recent immigrants tend to settle in main urban areas such as Auckland. Numbers of Pacific Islands and Asian people were, however, significantly higher than in neighbouring Hawke's Bay and Taranaki. At the 1996 Census 191,307 people (86.7 percent) in the region identified European ethnicity and 39,996 people (18.1 percent) identified with the Māori ethnic group.⁷

The region had been a significant area of Māori settlement before the arrival of Europeans and for a long time remained fairly remote, especially the upper reaches of the Whanganui River where cultural traditions remained strong. The Ruapehu District had the highest proportion of Māori, with over 39.0 percent of people identifying with this ethnic group in 1996. In the region the main iwi are Muaūpoko, Ngāti Raukawa, Tūwharetoa, Rangitāne, Ngāti Apa and Whanganui. There are 34 marae along the length of the Whanganui River. The number of Māori in the region is expected to increase from 41,700 in 1996 to 58,900 in 2021, an increase of 41 percent which exactly approximates the national average growth for Māori.⁸

Religion

Anglicanism was the most common Christian denomination in the region with 45,813 people specifying that they belonged to this denomination at the time of the 1996 Census. The percentage of people professing Anglicanism was slightly higher than the national average. Proportions of people adhering to the Catholic and Pentecostal denominations were also higher than the national average. There were also more followers of the Rātana church, which reflects the greater than average percentage of people with Māori ethnicity in the region.

Education

The Manawatu-Wanganui population generally has a lower level of educational qualifications than the national average. At the time of the 1996 Census there was a higher percentage of people with no qualifications (41.8 percent compared with 38.1 percent nationally) and a slightly lower percentage of people with a university degree. This replicates a pattern found in regions such as Waikato and the Bay of Plenty. A large contributing factor is the more rural nature of the region, as people in more rural regions have fewer educational qualifications because of the nature of rural occupations. Rural areas also have fewer educational opportunities meaning that young people must move to a city to obtain higher educational qualifications. There is a higher proportion of elderly in the region which could also be a contributing factor because participation in higher education was far less common in the past.

⁷ Because people can identify with more than one ethnic group, percentages across ethnic groups will add up to more than 100 percent.

⁸ Source: Statistics New Zealand, Subnational Māori Population Projections.

Figure 8.5

Highest Qualification Gained for Selected Territorial Authorities, 1996

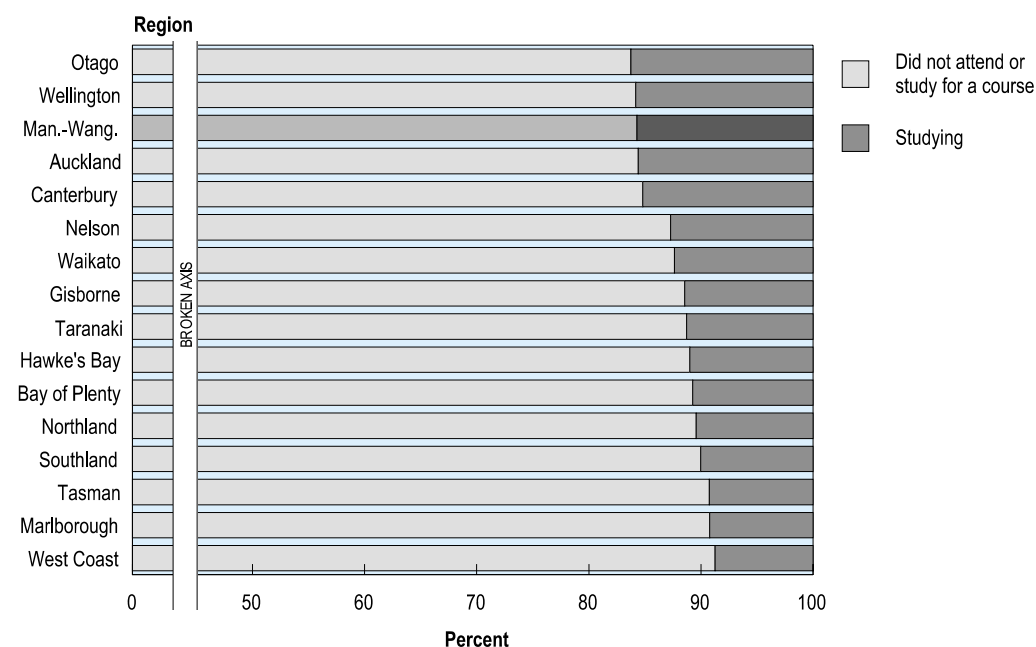
Area	University degree (percent)	Vocational qualification (percent)	Higher school qualification (percent)	School certificate qualification (percent)	No qualification (percent)
Ruapehu District	3.7	19.7	3.5	15.1	46.9
Wanganui District	5.2	21.1	3.6	13.6	45.8
Rangitikei District	4.5	19.8	3.4	14.8	45.9
Manawatu District	5.7	20.4	4.1	15.2	43.5
Palmerston North City	13.2	20.1	12.3	11.6	30.8
Taranua District	3.9	19.1	2.9	15.1	49.0
Horowhenua District	4.0	17.4	2.9	12.6	53.1
New Zealand	9.5	21.0	5.6	13.2	38.1

Source: Statistics New Zealand, Census of Population and Dwellings, 1996

Although the region has a lower level of educational qualifications, the city of Palmerston North is the exception. The presence of the university, related research institutions and polytechnic is evident in the greater proportion of people with university degrees. More people within the city had a higher school qualification which reflects the large number of students within the city who require advanced school qualifications in order to attend university. Almost 14,000 people in Palmerston North City said that they were studying either full or part-time at 5 March 1996. The proportion of the adult population studying or receiving a student allowance was the highest for any territorial authority in New Zealand.

Figure 8.6

Studying Status, for Adult Population for Regions, 1996



Source: Statistics New Zealand, Census of Population and Dwellings, 1996

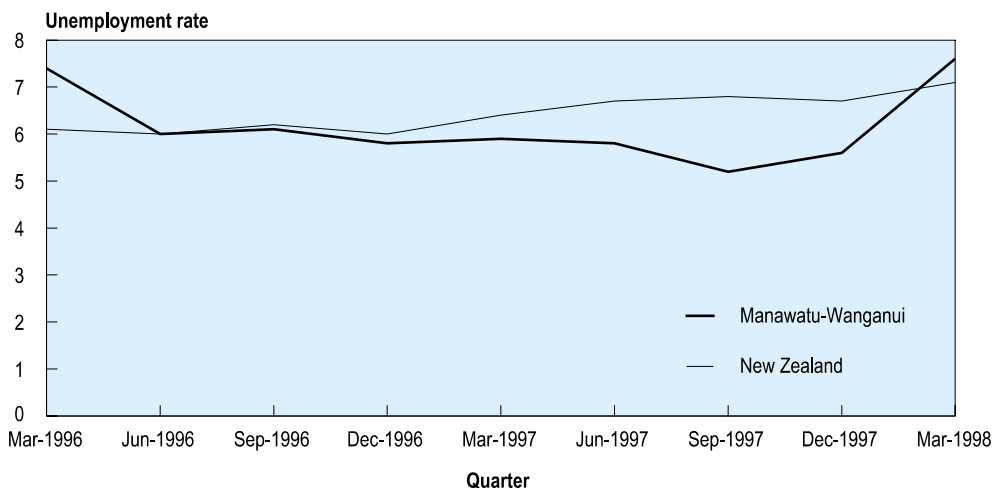
Labour market

Within the Manawatu-Wanganui Region the labour force participation rate was slightly lower than the national average (63.2 percent participated in the labour force compared with 65.4 percent for New Zealand on census night 1996), possibly as a consequence of the larger proportion of elderly and students in the population.

The unemployment rate on census night in 1996 was, however, slightly higher than the national average at 8.5 percent of the labour force compared with 7.7 percent nationally. The Household Labour Force Survey⁹ shows that unemployment rates have fluctuated since then, reaching a low point in September 1997, but have remained reasonably close to the national average.

Figure 8.7

Unemployment Rates for Manawatu-Wanganui, 1996-1998



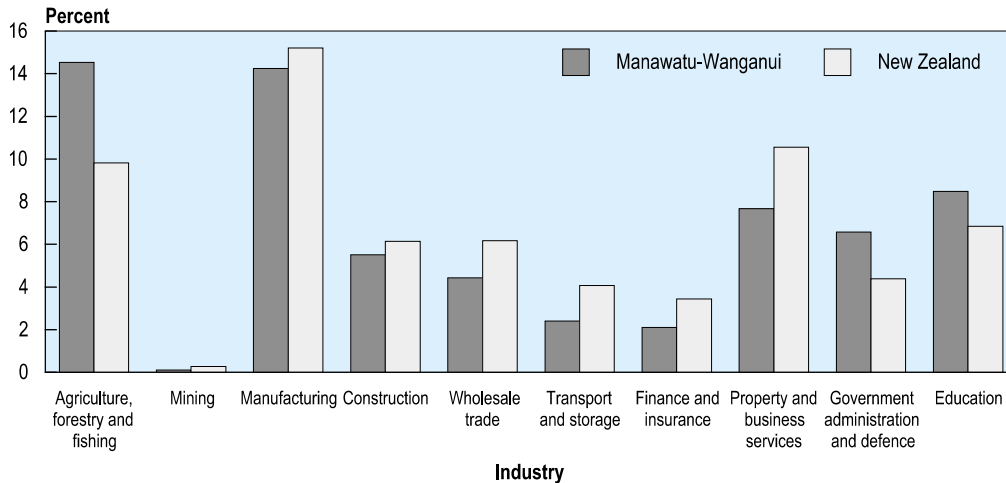
Source: Statistics New Zealand, Household Labour Force Survey

On census night in 1996 agriculture, forestry and fishing were the single-largest employers of people by industry in the region, reflecting the region's agricultural focus. These industries employed slightly more people than the manufacturing industry, usually the largest employing industry in the country. Proportionately, far fewer people than the national average worked in urban-focused industries such as finance and insurance or property and business services. Education also employed a greater proportion of people than the national average, reflecting the significance of Massey University in the region. A detailed occupational breakdown reinforces the importance of the university. The region had the highest percentage of zoologists, agricultural technicians, microbiologists, physical scientist technicians and soil scientists in New Zealand.

⁹ Census night unemployment figures vary from those of the Household Labour Force Survey, which estimates unemployment figures from a representative sample rather than a general census of the population.

Figure 8.8

Employment by Selected Industry, 1996



Source: Statistics New Zealand, *Census of Population and Dwellings, 1996*

The presence of army bases at Waiouru and Linton as well as the airforce base at Ohakea resulted in the region having the highest proportion of people working in the armed forces.

Access to services

In common with other, more rural regions, Manawatu-Wanganui had poorer access to services than the national average. At the time of the 1996 Census there were fewer health professionals and the lowest numbers of surveyors per head of population in New Zealand. One explanation for the low proportion of surveyors is the decline in construction (see economy section) in the region, as the surveying profession is dependent on development. Although there were fewer general practitioners and other medical practitioners, the region had a slightly higher proportion of nurses. Other more rural regions appear very similar and this may be related to the difficulty of retaining doctors in small towns and rural areas.

Figure 8.9

Access to Professional Services

Profession	Ratio of population to one professional	
	Manawatu-Wanganui	New Zealand
Engineers	292	209
Surveyors	3,631	2,388
General practitioners	1,230	1,040
Other medical professionals	953	883
Dentists and dental surgeons	3,631	2,798
Pharmacists	1,816	1,939
Nurses	123	130
Teachers	68	71
Barristers and solicitors	1,155	547

Source: Statistics New Zealand, *Census of Population and Dwellings, 1996*

Dwellings

Manawatu-Wanganui had a much higher proportion of separate dwellings than the national average at the 1996 Census (87.8 percent compared with a national average of 81.8 percent), which appears to be a feature of other more rural regions such as Waikato, Taranaki and Tasman. Occupation rates, at 2.82 people per dwelling, approximated the national average. The proportion of rented dwellings was slightly higher than the national average. This could be partly a reflection of the large number of students in the region and the presence of the military since the proportion of rented households is highest in Palmerston North City and Ruapehu District.

Households and families

The demographic structure of the region was reflected in household composition. There were more one-person households in the region on 5 March 1996, possibly reflecting the higher proportion of people aged 60 years or over in the population. There were also more one-parent households proportionately than the national average, which could be partly due to the above average population of Māori within the region. One-parent households were more common among Māori.

Figure 8.10

Family Type and Number of Dependent Children, 1996¹⁰

Family type and number of dependent children	Manawatu-Wanganui (percent)	New Zealand (percent)
One-parent family		
One child	14.9	13.8
Two children	9.1	8.2
Three or more children	5.3	4.5
Total	29.2	26.5
Two-parent family		
One child	23.4	25.3
Two children	27.3	29.1
Three or more children	20.0	19.1
Total	70.8	73.5

Source: Statistics New Zealand, *Census of Population and Dwellings, 1996*

Number of children

The larger Māori population and rural nature of the region perhaps explains why the number of children born alive to mothers in the region is considerably higher than the national average, 2.93 live births per mother compared with 2.80 nationally. At the 1996 Census the proportion of children in the region was higher than the national average.

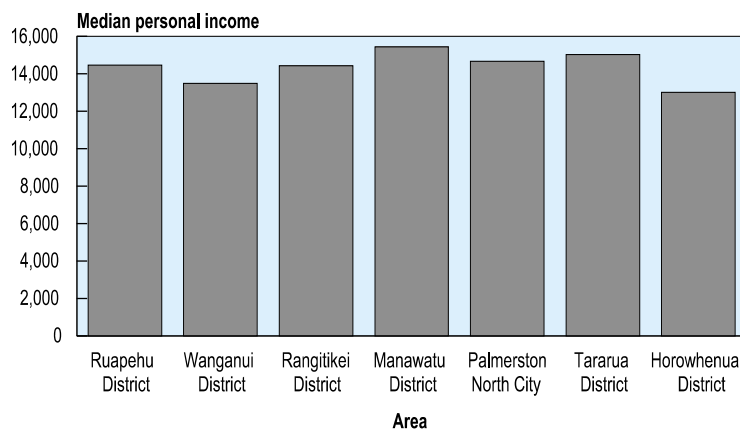
¹⁰ This table excludes couples without children and families without dependent children.

Income and expenditure

Both personal and household incomes in the region were considerably lower than the national average at the 1996 Census. Median annual household incomes in the region, at \$29,804, were considerably lower than the national median of \$34,707 for the year ended 31 March 1996. The region was ranked sixth-lowest in the country, followed by Hawke's Bay, Northland, Southland, Tasman and the West Coast. All these regions are more rural than the national average and are heavily reliant on agriculture. The slightly lower labour force participation rates and higher proportions of elderly and students in the region contribute to lower median incomes. Within the region, median personal incomes were lowest in the Horowhenua District, which had the highest proportion of elderly. The second-lowest personal income in the region was in the Wanganui District which had relatively high proportions of people who had received the unemployment benefit or domestic purposes benefit (9.5 percent and 5.5 percent respectively of the adult population) in the 12 months before the census.

Figure 8.11

Median Personal Income for Selected Territorial Authority, 1996



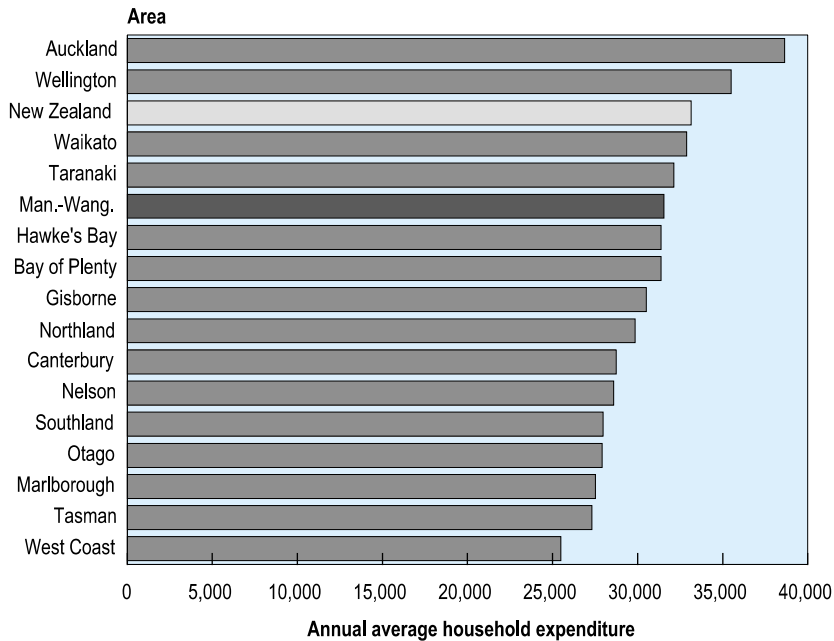
Source: Statistics New Zealand, *Census of Population and Dwellings, 1996*

Household incomes in the region are much lower than the national average but average household expenditure is close to the New Zealand average. Annual household expenditure averaged \$31,549, which ranks fifth-highest in the country.¹¹ This figure is lower than the national average of \$33,145 per annum, but the national average is affected by the dominance of the Auckland and Wellington Regions.

¹¹ Source: Statistics New Zealand, Regional Household Expenditure Database.

Figure 8.12

Annual Average Household Expenditure, Year Ended March 1997



Source: Statistics New Zealand, Regional Household Expenditure Database

Health

The main hospitals in the region are situated in Wanganui and Palmerston North urban areas and have 215 and 397 beds respectively.¹² Levin has a large centre (436 beds) that provides mental health and disability services. There are a total of 1,310 hospital beds (including mental health and disability services and state-funded old people's homes) in the Manawatu-Wanganui Region, giving a ratio of one bed for every 175 people. This figure is considerably better than the national average of one bed for every 242 people, perhaps reflecting the slightly higher proportion of elderly in the population. A total of 11,506 people in Wanganui and 18,872 people in the Manawatu were discharged from public hospitals for the year ending June 1996. This represented declines of 4.0 percent and 3.8 percent respectively from the previous 12-month period compared to a 4.1 percent increase nationally.¹³

¹² Source: Ministry of Health.

¹³ Source: *Purchasing for your health 1995/96: A performance report on the third year of the Regional Health Authorities*, Ministry of Health, 1995/6.

Life expectancy in the region was slightly below the New Zealand average, 76.4 years at birth compared with 77.1 years nationally.¹⁴ Life expectancy for both men and women in the region is below the national average. Men in the region can expect to live an average of 73.8 years and women 79.0 years. This lower life expectancy could be partially influenced by slightly higher than average smoking rates in the region. Again ethnicity could be a factor as smoking rates are higher among Māori. In the Ruapehu District, which has the largest population of Māori, female smokers outnumber male smokers and approximately a third of all women smoke.

Figure 8.13

Smoking Status for Manawatu-Wanganui and New Zealand, 1996

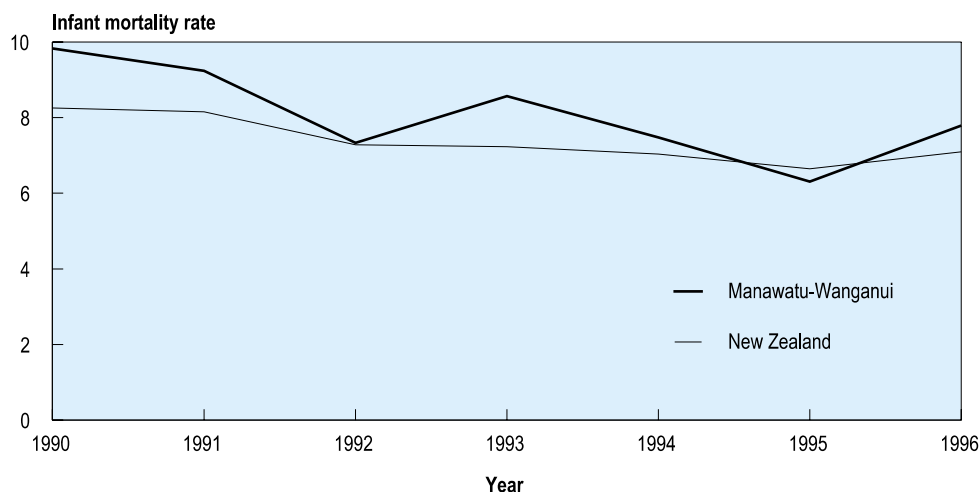
Smoking status	Manawatu-Wanganui		New Zealand	
	Male (percent)	Female (percent)	Male (percent)	Female (percent)
Smoker	25.7	24.6	24.8	22.8
Ex-smoker	24.3	18.9	24.9	19.4
Never smoked regularly	50.0	56.5	50.3	57.9
Total	100.0	100.0	100.0	100.0

Source: Statistics New Zealand, Census of Population and Dwellings, 1996

Infant mortality rates in the region have declined slightly since 1990, in common with the rest of New Zealand, but still remained slightly higher than average (an average of 7.5 infant deaths per 1,000 live births compared with 7.0 deaths per 1,000 live births for the period 1990 to 1996). This higher than average infant mortality could also affect life expectancies in the region.

Figure 8.14

Crude Infant Mortality Rate for Manawatu-Wanganui and New Zealand, 1990-1996



Source: Statistics New Zealand, Vital Statistics

¹⁴ Source: Statistics New Zealand, Regional Life Tables, 1995-97.

Crime

The rate of reported offences in the Manawatu-Wanganui Region¹⁵ is slightly higher than the national average. There were 158.1 reported offences per 1,000 people compared with 145.5 offences per 1,000 people nationally.¹⁶

Violent and sexual offences approximate the national average but the proportion of reported dishonesty offences and offences against property are higher in the region. Rangitikei District had the largest number of reported crime per head of population while Manawatu District had the lowest. Numbers of reported offences in Rangitikei were considerably greater than the national average and the proportion of reported offences of violence almost twice the national average.

Figure 8.15

Reported Offences per 1,000 People for Manawatu-Wanganui, Year Ended 30 June 1997

Area	Percent							
	Violence	Sexual	Drugs and anti-social	Dis-honesty	Property damage	Property abuses	Adminis-trative	Total
Ruapehu District	15.6	1.0	23.1	70.1	10.6	10.2	6.3	136.8
Wanganui District	15.8	1.0	16.6	99.4	15.3	11.7	8.1	167.9
Rangitikei District	21.3	1.7	19.1	125.3	21.4	13.8	3.4	206.1
Manawatu District	10.6	0.9	11.3	66.1	9.5	6.8	0.9	106.1
Palmerston North City	13.5	1.5	16.4	124.0	14.3	9.9	3.9	183.6
Tararua District	13.4	1.1	18.4	64.6	14.0	8.6	1.9	121.9
Horowhenua District	14.5	1.1	12.4	82.9	17.2	7.0	3.6	138.7
Manawatu-Wanganui	14.4	1.2	16.1	97.8	14.5	9.7	4.3	158.1
New Zealand	12.8	1.2	17.4	90.8	12.2	8.0	3.0	145.5

Source: New Zealand Police

The economy

Business

Agriculture dominates the economy in the Manawatu-Wanganui Region. A higher than average proportion of businesses were engaged in the agriculture, forestry and fishing industries, 6.3 percent compared with 4.4 percent nationally.¹⁷ Businesses engaged in retail trade were the most dominant numerically. In 1997 there were 2,300 businesses in the region, employing a total of 10,380 full-time equivalents (FTEs). The percentage of businesses engaged in manufacturing was slightly higher than the national average and manufacturing employed the greatest number of people (12,830 FTEs).

¹⁵ Because crime statistics are available at territorial authority level only, the following territorial authorities are used to approximate the Manawatu-Wanganui Region: Ruapehu District, Wanganui District, Rangitikei District, Manawatu District, Palmerston North City, Tararua District, and Horowhenua District.

¹⁶ Source: New Zealand Police.

¹⁷ Source: Statistics New Zealand, Annual Business Frame Update.

Figure 8.16

Distribution of Full Time Equivalents Employed in the Manufacturing Industry, 1997

Manufacturing industry	Manawatu-Wanganui (percent)	New Zealand (percent)
Food, beverage and tobacco	29.5	24.5
Textile, clothing, footwear and leather manufacturing	17.3	9.5
Wood and paper product manufacturing	8.6	10.3
Printing, publishing and recorded media	6.0	8.8
Petroleum, coal, chemical and associated product manufacturing	6.5	8.3
Non-metallic mineral product manufacturing	2.3	2.7
Metal product manufacturing	7.2	11.2
Machinery and equipment manufacturing	17.5	18.7

Source: Statistics New Zealand, Annual Business Frame Update

Energy

Unlike its neighbour Taranaki, Manawatu-Wanganui is not a major producer of energy or minerals. There are some small power schemes operating within the region of which the largest is the Mangahao hydro-electric station, with a capacity of 19 megawatts.

Agriculture

Manawatu-Wanganui is renowned for its strong agricultural base, which prompted the establishment of an agricultural college there in the 1920s. The government wanted to promote scientific farming and established colleges in two of the most important farming areas, Canterbury and the Manawatu. Research by members of the college into animal genetics in the 1930s led to the development of new breeds of sheep, the Drysdale and the Perendale, which became commercially significant after World War II.

Agriculture dominates land use in the region although there are areas of forestry and horticulture. Soils and climate favour pastoral farming. There were 6,344 farm holdings in the region on 30 June 1996, which was almost a tenth of all farm holdings in New Zealand.¹⁸ Farming occupied 72.5 percent of land in the region, which was much higher than the national average of 60.1 percent. Approximately 80 percent of this land was used for agricultural purposes (grazing, arable, fodder and fallow land). In the Manawatu, Rangitikei and Tararua Districts this percentage rose to over 90 percent of total land.

¹⁸ Source: Statistics New Zealand, Agricultural Statistics.

Figure 8.17

Agricultural Land Use for Selected Territorial Authorities, Year Ended 30 June 1996

Territorial authority	Number of farms	Grazing, arable, fodder and fallow land (hectares)	Percent in grazing, arable, fodder and fallow land	Land in horticulture (hectares)	Other land (hectares)	Total land (hectares)
Ruapehu District	761	287,348	76.0	..	45,652	377,841
Wanganui District	629	108,961	69.2	157,510
Rangitikei District	926	306,549	91.9	333,672
Manawatu District	1,531	205,413	93.3	2,391	6,966	220,261
Palmerston North City	308	24,194	88.9	27,210
Taranua District	1,368	372,182	93.6	..	14,728	397,830
Horowhenua District	773	48,517	66.3	3,257	..	73,211

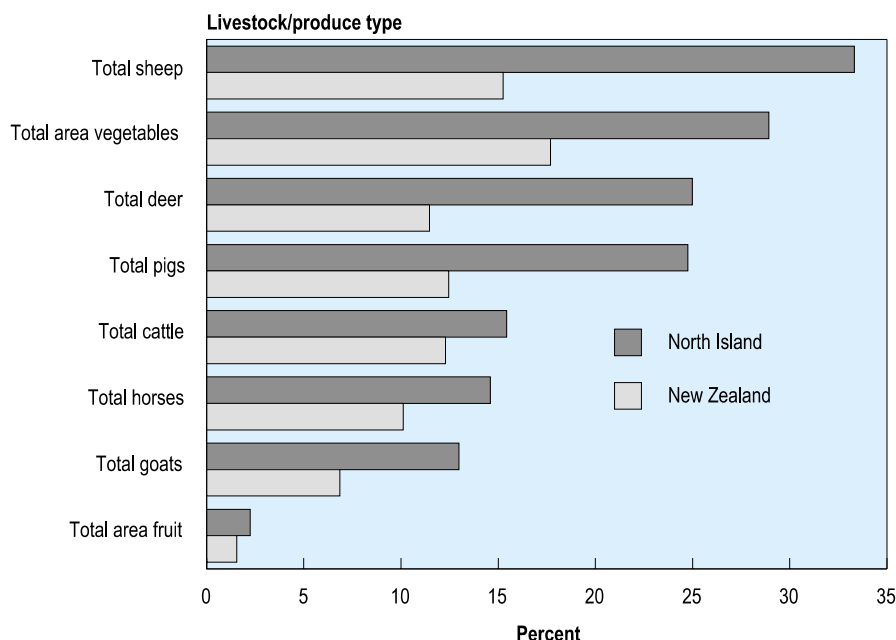
.. too small to be expressed

Source: Statistics New Zealand, Agriculture Production Survey for the year ended 30 June 1996

The Manawatu-Wanganui Region is one of the most important areas of pastoral farming in New Zealand. The region had 7,216,177 sheep (at 30 June 1996), the largest number of sheep in the North Island and the fourth-highest figure in the country behind Canterbury, Southland and Otago. The region also produces a significant proportion of vegetables in the North Island and is particularly noted for its abundant potato crop. Barley, which is used for the manufacture of stock feed and for malting, is grown in the region. Manawatu-Wanganui produces the largest quantities of barley in the North Island, providing 10 percent of the national refined crop of 302,804 tonnes in 1995.

Figure 8.18

Livestock and Horticultural Production for Manawatu-Wanganui as a Percentage of the North Island and New Zealand, 1996



Source: Statistics New Zealand, Agriculture Production Survey for the year ended 30 June 1996

Forestry

Manawatu-Wanganui is one of the most significant forestry areas in the southern North Island. The predominant soil type in the region, yellow-brown earths, when enhanced by the use of fertilisers, is very suitable for forestry. Forestry has a long history in the Manawatu since Palmerston North developed as a saw-milling town and the region's initial prosperity depended on heavy exploitation of native timbers. But land use practices inhibited the long term viability of this indigenous forestry industry. Severe burn-offs destroyed large areas of native forest and subsequent overgrazing affected the region's soils. Forestry largely disappeared until the early twentieth century. In an attempt to combat erosion problems in sandy soils the government planted forests in the Foxton/Levin area in the early twentieth century. Inland forests were planted later. Some private native forest in the region has been set aside for sustainable logging but most forestry in the region depends on exotic plantings.

Figure 8.19

Area Planted in Production Forestry (Hectares), 30 June 1996

District	Radiata pine	Douglas fir	Other softwoods	Hardwoods	Total
Ruapehu District	28,950	260	1,439	32	30,681
Wanganui District	17,393	435	204	142	18,174
Rangitikei District	9,692	66	346	280	10,384
Manawatu District	4,328	8	129	117	4,582
Palmerston North City	2,067	0	0	6	2,073
Horowhenua District	6,454	22	247	151	6,874
Tararua District	6,056	5	23	123	6,207

Source: *New Zealand's Forest Growing and Wood Processing Sector, Regional Studies*, Southern North Island & Central North Island Ministry of Forestry, June 1997

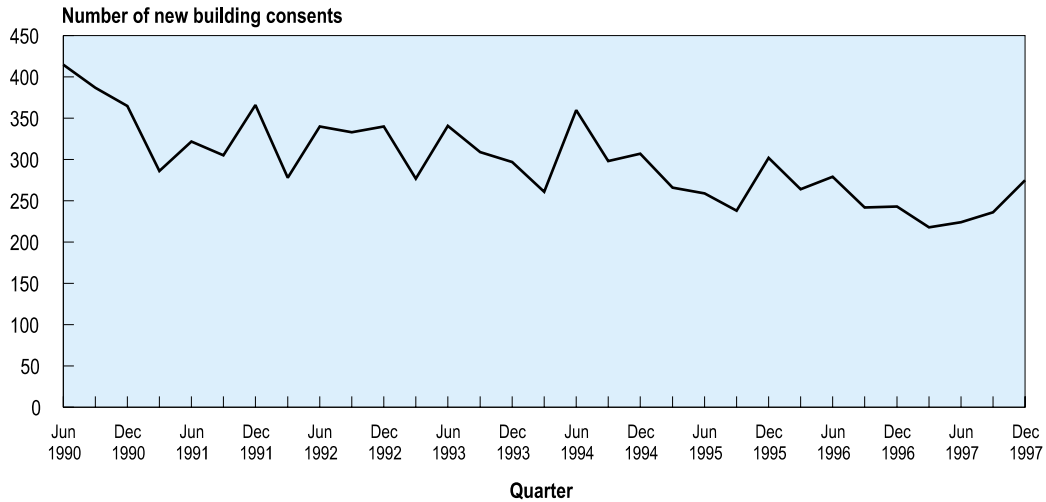
Buildings

The region experienced the greatest decline in building consents. New building consents declined by 25.5 percent between 1990 and 1997 compared with a 51.8 percent increase nationwide.¹⁹ Slow population growth during this period, with less demand for housing, would be an important contributing factor in this decline.

¹⁹ Source: Statistics New Zealand, Building Consents.

Figure 8.20

Number of New Building Consents 1990-1997

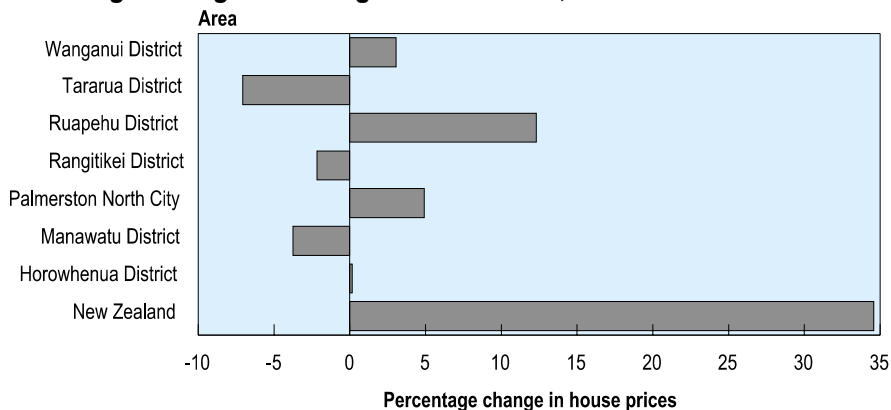


Source: Statistics New Zealand, Building Consents

The stagnation in building consents is reflected in house prices within the region. Average house prices during the six-month periods ending June 1994 and December 1997 remained fairly static with only three territorial authorities (Palmerston North City, Ruapehu District and Wanganui District) experiencing a significant increase in house prices.²⁰ House prices in the Ruapehu District grew the most, perhaps reflecting the influence of tourism, but the rise was still only a third of the national increase in house prices. House prices in Palmerston North City were the most expensive in the region, averaging \$135,493 for the six months ending December 1997, but were considerably lower than the national average of \$183,986.

Figure 8.21

Percentage Change in Average House Prices, June 1994 - December 1997



Source: Quotable Value New Zealand

²⁰ Source: Quotable Value New Zealand.

Retail trade

Economic indicators reveal that the regional economy is contracting slightly. Eight regions, including Manawatu-Wanganui, experienced a decline in retail trade between March 1996 and March 1998.²¹ For this period retail trade decreased in the region by 2.1 percent, the fourth-greatest decline nationally while retail trade for the country remained static.

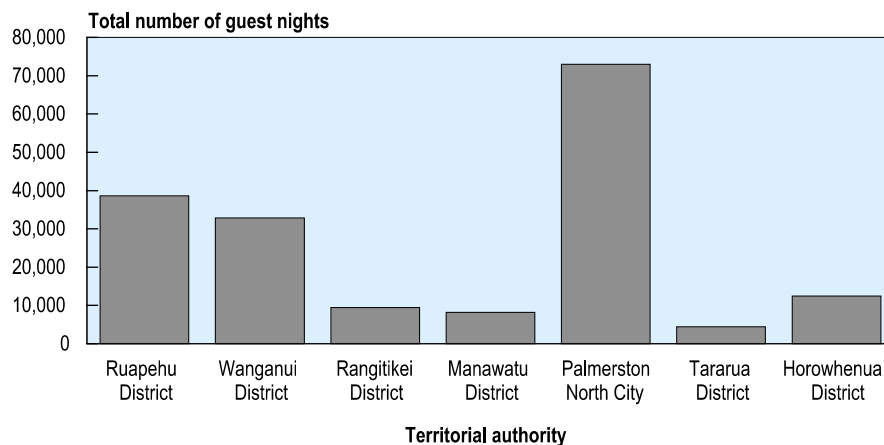
Tourism

For the eight quarters between September 1996 and June 1998 the region averaged 4.1 percent of total guest nights in New Zealand.²² This was close behind Wellington at 6.7 percent but greater than Hawke's Bay which averaged 3.1 percent of total guest nights.

Occupancy rates at 20.1 percent were the fourth-lowest in the country for the June 1998 quarter. However, occupancy rates for the city of Palmerston North were significantly higher than the national average (39.5 percent compared with 25.8 percent nationally) whereas districts such as Ruapehu are far more seasonal with fairly low occupancy rates except in the peak ski season.

Figure 8.22

Total Number of Guest Nights for Selected Territorial Authorities, June 1998 Quarter



Source: Statistics New Zealand, Accommodation Survey

Transport

The Manawatu-Wanganui Region includes the main state highway and main railway line that link the north and south of the North Island. A railway line follows the Manawatu Gorge, linking the region with Hawke's Bay. Although there is no seaport in the region, road and rail transport give the region's exporters easy access to ports.

²¹ Source: Statistics New Zealand, Retail Trade Survey.

²² Source: Statistics New Zealand, Accommodation Survey.

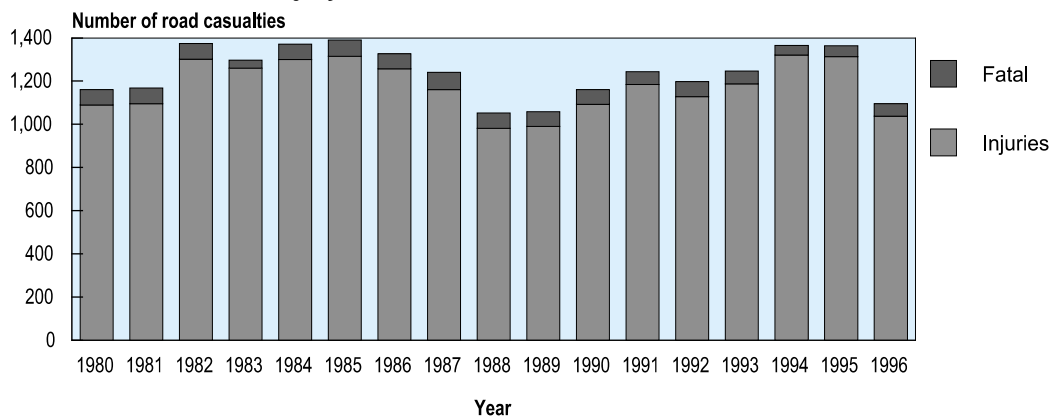
The region has approximately 16 percent of the North Island's total road length. There are 8,732 kilometres of road, of which two-thirds is sealed.²³ Approximately 12 percent of roads in the region are classified as urban, and three-quarters as rural, with almost half of the rural roads being unsealed. With 945.9 kilometres of state highways the region has the second-highest proportion of state highways in the North Island, after Waikato.

A total of 6,406 new or ex-overseas vehicles were registered in the region in 1997, 4.1 percent of the total registered nationally.²⁴ At 28 new or ex-overseas vehicles per 1,000 people, this was lower than the national average of 43 per 1,000 population.

Combined injury and fatal statistics in the region are above average with 4.8 deaths or injuries per 1,000 population, compared with a rate of 4.2 for New Zealand. The Land Transport Safety Authority calculates that road factors are an important contributing cause of risk in the region. The Desert Road is notoriously difficult in winter and in particularly severe winters can be closed for days or even weeks.

Figure 8.23

Number of Fatal and Injury Casualties, 1990-1996



Source: Land Transport Safety Authority

²³ Source: *Roading Statistics*, Transfund New Zealand, 30 June 1997.

²⁴ Source: New Zealand Post.

Definitions

Adult

Person aged 15 years and over.

Birth (fertility) rate

A measure expressing the number of births in relation to the size of the population from which these births arose.

Census

A type of survey in which all members of a given population provide information at a given time. These units may be people, companies, buildings, local authorities, etc. Statistics New Zealand carries out a range of censuses at regular intervals, such as the **Census of Population and Dwellings**, (at five-yearly intervals).

Child

Person under 15 years of age.

Country road

Defined by the Land Transport Safety Authority as a road with a posted speed limit of 70 km/h or more.

Couple

Two persons who usually reside together, and are married or living in a consensual union.

Death (mortality) rate

A measure expressing the number of deaths in relation to the size of the population in which these deaths occurred.

De facto population

The population enumerated in terms of its actual place of residence at a given time. Visitors from overseas, who are in New Zealand on census night, are included in the de facto population. Thus the de facto population is different from the usually resident population, which refers to people who usually live in New Zealand.

Density (of population)

Average number of persons per square kilometre in a particular locality.

Dependency ratio

An indication of the burden of non-workers on workers. The **conventional measure of dependency** is the sum of people aged 0-14 years and 65 years or more as a ratio of the number of people aged 15-64 years. The **child dependency ratio** is the number of people aged 0-14 years as a ratio of the number of people aged 15-64 years. The **elderly dependency ratio** is the number of people aged 65 years or over as a ratio of the number of people aged 15-64 years. The **labour force dependency**

ratio is the sum of people aged 0-14 years and the number of people not in the labour force as a ratio of the number of people in the labour force. The advantage of the latter is that it takes into account variations in the labour force participation of women, and changes in the age at entry and age at retirement from the labour force. The **employment dependency ratio** is the sum of people aged 0-14 years and people who are not employed (including those not in the labour force and those who are unemployed) as a ratio of the number of people who are employed. This has the additional advantage of taking into account changing levels of unemployment.

Dependent child

Person aged under 18 years who is not employed full-time.

Elderly

Person aged 65 years and over.

Employment status

A person's status within the labour force. Including those in full- and part-time employment: paid employee; self-employed and without employees; employer; and unpaid family worker.

Ethnicity / ethnic responses

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 meaning that the total number of ethnic responses for the target population will often exceed the actual number of people. Furthermore, this affects percentages, in that they will often sum to more than 100 percent. An **ethnic group** is defined as a social group whose members have the following 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.

Life expectancy

The average number of years that a person could expect to live from a given age if a given set of age-specific mortality rates are applied without change for each successive year. Conceptually, it equals the number of years of life remaining to all persons reaching a specified age in a life table, divided by the number of persons reaching that age. The expectation of life is derived from a life table.

Family

A family consists of two or more people, who are members of the same household, and who comprise either a couple, or at least one parent role/child relationship, or both.

Full-time

Persons working 30 hours or more a week.

Full-time equivalent

Full-time equivalents are all full-time employees plus one-half of all part-time employees.

Guest nights

A guest night is equivalent to one guest spending one night at an establishment. For example, a motel with 15 guests spending two nights each would report provision of 30 guest nights of accommodation.

Household

One person who usually resides alone, or two or more people who usually reside together and share facilities (such as eating facilities, cooking facilities, bathroom and toilet facilities, a living area).

Household operation

The household operation category (for household expenditure) covers the cost of running a household, and includes items such as heating, the purchase of household items (eg furniture) and any non-food household services.

Infant mortality rate

The number of deaths of infants under 1 year of age registered during a year per 1000 live births during the same year. It should be noted that some of the infant deaths in the numerator of the infant mortality rate occur to infants born in the year prior to that for which the infant death rate is computed. Hence, the measure is only an approximation of the true risk of mortality during the year of birth.

Labour force

Persons aged 15 years and over who:

- regularly work for one or more hours a week for financial gain
- are unpaid working in a family business
- are unemployed and actively seeking either part-time or full-time work.

Labour force participation rate

The percentage of the total population aged 15 years or over who are in the labour force. Institutionalised people and those in the armed forces are sometimes excluded.

Median

The value which divides a distribution or array so that an equal number of items is on either side of it. For example, the median age is the specified age where one half of the population is older and one half is younger.

Migrant

A person moving from one place to another. A return migrant is a person who moves back to their place of origin.

Migration

Net overseas migration

The number of overseas arrivals into a country, less the number of overseas departures from a country. When there are more arrivals than departures it is known as net immigration, and when there are more departures than arrivals it is net emigration.

Net internal migration

Internal migration is determined by matching details supplied in the "usual address five years ago" question on the census form against the current usual address. If the two are the same, then the person is classified as a non-mover. If there are differences, then it is assumed that the person has changed where they usually live. Internal migration recorded in this way tends to under-estimate the true magnitude of movements that have taken place. This is because the census only looks at two points in time, and there is no record of any other movements which may have occurred in between. For example, multiple moves by a single person will be missed, as will return migration, moves by people who have subsequently died, been born, or moved overseas since the 1991 Census. A number of groups within the population are excluded from census-based internal migration analysis because they have no previous address available. This could be due to a variety of reasons, including being overseas at the time, being born after the 1991 Census, or providing a previous address which could not be coded to an area. Overall, around 4 in every 5 New Zealanders were able to be included in an analysis of internal migration flows between 1991 and 1996.

Natural increase

The excess of births over deaths. When deaths exceed births, there is what may be called a negative natural increase or natural decrease.

New Zealand

Geographic New Zealand, that is, the North Island, South Island, and adjacent islands. Persons on board ship in New Zealand ports or territorial waters are included in regional council area, North and South Island, and New Zealand populations, but not in those of smaller administrative or statistical units.

Non-private dwelling

A building or structure in which a number of generally unrelated people (either individuals or families) live. Includes institutions and group-living quarters: hotels, motels, hospitals, prisons, hostels, motor camps, boarding houses, ships and trains. They usually have common cooking and dining facilities. Lounge rooms and dormitories can also be shared by the occupants.

Occupancy rate (for accommodation providers)

These are calculated by dividing stay unit nights occupied by stay unit nights available (a stay unit is the unit of accommodation charged out to guests). If a motel had six of its ten units occupied every night in July, it had $6 \times 31 = 186$ stay unit nights occupied. Its stay unit nights available (capacity) would have been $10 \times 31 = 310$. So its occupancy rate would be 60 percent ($186 / 310 \times 100$).

Occupation

A set of jobs which 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.

Part-time

Persons working less than 30 hours a week.

People not in the labour force

People who were not in the categories employed or unemployed. This category includes people who were solely engaged in home duties, retired people, pensioners, people in institutions (hospitals, gaols, sanatoriums, etc), trainee teachers, students and children under 15 years.

Permanent dwelling

A building or structure that is both fixed in location and of durable construction. This includes houses, flats, baches, hotels and hospitals, but excludes tents, houseboats and caravans.

Population projections

Estimates of the future size and other demographic characteristics of a population, based on an assessment of past trends and assumptions about the future course of demographic behaviour (fertility, mortality and net migration).

Private dwelling

A building or structure in which one person usually resides alone, or two or more people usually reside together and share facilities (such as eating facilities, cooking facilities, bathroom and toilet facilities, a living area).

Ratio

A quotient which indicates the relative size of one number to another.

Regional council area (region)

The Local Government Amendment Act (No 3) 1988 provides for the constitution of these regions. The geographical boundaries conform as far as practical to the boundaries of one or more water catchments. Consideration was also given to regional communities of interest, civil defence, natural resource management, land use planning, port facilities and environmental matters. At 31 March 1992, there were fourteen regions covering every territorial authority area in New Zealand except for Chatham Islands District.

At 1 July 1992, the number of regions increased to sixteen following boundary reorganisation in the northern South Island. Twelve of these regions are administered by regional councils while the Gisborne, Tasman, Nelson and Marlborough Regions are administered by their respective district/city councils. The boundaries of territorial authority areas are generally the same as regional council area boundaries, although there are eight instances where territorial boundaries straddle regional boundaries.

Regional council boundaries extend out to the Coastal Marine Area which is the seabed from the line of mean high water spring tides extending to the territorial (12 mile) limit.

Rural area

An area not specifically designated as “urban”. This includes towns of fewer than 1,000 population plus district territory where this is not included in an urban area. Rural areas also include offshore islands.

Territorial authority areas

The smallest local government entities, created by the local government reorganisation that took effect on 1 November 1989. There is a total of 74 territorial authority areas, comprising 15 cities and 59 districts.

A city must have a minimum population of 50,000 persons and be predominantly urban in character, while a *district* serves a combination of rural and urban communities. The boundaries of territorial authority areas are defined according to “community of interest” considerations to each other and the ability of the unit to efficiently service its community.

Unemployment rate

For any group, the number of unemployed expressed as a percentage of the labour force (employed plus unemployed) in the same group.

Unpaid work. Hours of unpaid work performed outside the household in the 4 weeks prior to the 1996 Census.

Urban area

A non-administrative area with urban characteristics and high to moderate concentration of population. The classification of urban areas was revised for the 1991 Census of Population and Dwellings, and comprises a three-part classification consisting of main, secondary and minor urban areas, differentiated by population size:

- (i) Main urban areas - centres with populations of 30,000 or more. There are currently fifteen main urban areas, eleven in the North Island and four in the South. Auckland, Wellington, Hamilton and Napier-Hastings are further subdivided into zones.
- (ii) Secondary urban areas - centres with populations between 10,000 and 29,999. There are currently fifteen secondary urban areas including Timaru, formerly a main urban area.
- (iii) Minor urban areas - centres with populations of 1,000 or more not already classified as urban (ie not falling within a main or secondary urban area). There are currently ninety-nine minor urban areas and together with the above two categories they constitute the urban population of New Zealand.

Usually resident (de jure) population

The legal population of a locality. The de jure population at census is obtained by assigning all persons to their usual place of residence. Overseas residents who are temporarily in New Zealand on census night are excluded from the population, while those persons normally resident in an area in New Zealand but who were enumerated elsewhere in New Zealand on census night are relocated to their usual address.

Vehicle-kilometre

A vehicle-kilometre occurs when one vehicle travels a distance of one kilometre.

Vitals

Events such as births, deaths and marriages which influence the numbers of a population.

Working-age population. People aged 15-64 years.

Blank Page

Bibliography

Author's surname, Author's christian name, Title (underlined or italics), Publisher, Place of publication, Date of publication

- McKinnon, Malcolm (ed.), *New Zealand Historical Atlas*, David Bateman Ltd, Auckland, 1997.
- McLauchlan, Gordon (ed.), *The Illustrated Encyclopedia of New Zealand*, David Bateman Ltd, Auckland 1986.
- *Road Safety Atlas*, Land Transport Safety Authority, Wellington, 1996.
- *Wises New Zealand Guide (8th edn)*, Wises Publications Ltd, Auckland, 1987.
- Statistics New Zealand, *New Zealand Yearbooks 1995-1998*, GP Publications, Wellington, 1995-1998.
- Belich, James, *Making Peoples, A History of New Zealanders*, Penguin Books (NZ) Ltd, Auckland, 1996.
- Sinclair, Keith (ed.), *The Oxford Illustrated History of New Zealand*, Oxford University Press, Auckland, 1990.
- Oliver WH and Williams BR, *The Oxford History of New Zealand*, Oxford University Press, Wellington, 1981.
- Binney J, Bassett J, Olssen E, *An Illustrated History of New Zealand 1820-1920*, Allen & Unwin New Zealand Ltd in association with the Port Nicholson Press, Wellington, 1990.
- *New Zealand's Forest Growing and Wood Processing Sector*, Ministry of Forestry, Wellington, 1997.
- Butler, Richard, *Nelson in Profile*, Nelson City Council, Nelson, 1997.
- *Licensed CHE Operated Hospitals and Old People's Homes in New Zealand*, Ministry of Health, Wellington, 1997.
- Reed, *The Story of Northland*, AH & AW Reed, Wellington, 1956.
- Barry Mitcalfe, *Northland New Zealand*, Coromandel Press, Coromandel, 1984.
- Draft Conservation Quorum, Gisborne District Council, Gisborne
- Clark, RH, *New Zealand from the Road. Landforms of the North Island*, Heinemann Reed, Auckland, 1989.
- *Regional Trends in Taranaki*, Taranaki Regional Council, New Plymouth, March 1998.
- *State of the Environment*, Hawke's Bay Regional Council, Napier, 1997.
- Jim McAloon, *Nelson, A Regional History*, Cape Catley Ltd, Queen Charlotte Sound, 1997.
- *Proposed West Coast Regional Policy Statement*, West Cost Regional Council, Greymouth, 1996.
- *1998-1999 Annual Plan Funding Policy Long Term Financial Strategy*, Southland Regional Council, Invercargill, 1998.
- Holcroft, MH, *Old Invercargill*, John McIndoe, Dunedin, 1976.
- McNab, Robert, *Murihiki and the Southern Islands*, William Smith, Invercargill, 1907.