

NEW ZEALAND

A
*Regional
Profile*

AUCKLAND

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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 that reads "Len Cook". The script is fluid and cursive, with the first letters of "Len" and "Cook" being capitalized and prominent.

Len Cook
Government Statistician

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Auckland

Highlights

- Auckland is the most populated and fastest growing region.
- Almost 30 percent of all New Zealanders live in Auckland.
- The population is expected to reach 1.6 million by 2021.
- Rodney and Franklin Districts were the fastest growing territorial authorities between the 1991 and 1996 Censuses.
- Auckland has the most culturally and ethnically diverse population in the country.
- Auckland is internationally recognised as a major metropolitan city.
- Auckland adults are well qualified and earn the second-highest personal incomes in the country (a median of \$17,818 compared with \$15,603 nationally).
- As the commercial “heart” of New Zealand, Auckland contains over one-third of all business units (as at June 1997). Most of these are concentrated in the manufacturing, retailing and commerce industries.
- House prices are the most expensive in the country, with mean house prices in Auckland City being \$343,133 for the six-month period ending December 1997.



Introduction

The area now known as the Auckland Region, which included Manukau and the Tamaki isthmus was part of the most populated area in pre-European Aotearoa. It has been calculated that over a third of Māori lived in the area from Northland to the Tamaki Isthmus, on the Manukau, Kawhia Harbours and the Waikato Basin. The Auckland area has a warm climate with plentiful rainfall and Māori practised stonefield gardening on the volcanic soil. Ngāti Whātua, Ngāti Paoa, Ngāti Tahi and Tainui tribes all had strong ties with the area. There were around 10,000 pa-dwelling people on the Tamaki Isthmus by the beginning of the Eighteenth century, but wars in the middle of that century reduced the population greatly and the area was only lightly populated by 1839. However, the hinterland continued to be relatively heavily populated by Māori and they initially welcomed the European settlement of Auckland. Their trade with the settlement brought prosperity until well into the 1860s.

Auckland became New Zealand's capital after the British annexation of New Zealand in 1840 and thrived as government money was spent in the settlement. By 1845 it had replaced Russell as the centre of waterborne trade in the north and it flourished because of the rich supply of food from the surrounding Māori hinterland. The loss of capital status to Wellington in 1865 affected Auckland's growth and during the nineteenth century the Auckland economy went through boom and bust cycles. The city and region became known for a brashness and independence that was quite different from the planned Wakefield settlements in the rest of New Zealand. Socially it was the most diverse of New Zealand's provinces and cities with an established mercantile class as well as the poor. In 1851 the Auckland province, with 35.3 percent of New Zealand's non-Māori population, was the most populous province, although between the 1860s and 1880s Otago took over the pre-eminent position as a result of the gold rushes. In 1891 census figures showed that Auckland had again become the largest province, and it has retained its numerical dominance ever since.

Auckland may have had the largest population by the beginning of the twentieth century but for many years the numerical difference was not great. However, in the mid-1960s the cities of the Auckland Region passed the half million mark and the Auckland urban area became substantially larger than any other in New Zealand. This growth occurred partly in response to the growth of manufacturing after World War II. Manufacturing became increasingly concentrated in the Auckland Region. The expansion of jobs and population led to a further concentration of industry in the region and by the 1960s, business people preferred to establish themselves in Auckland unless incentives were offered to them to locate elsewhere.

Auckland's growth also resulted in the region developing greater ethnic diversity than anywhere else in New Zealand. A huge post-war migration of Māori to urban areas occurred, and Auckland attracted most migrants because of the availability of employment in the manufacturing industry. Manufacturing also drew a second wave of migrants from the Pacific. During the 1960s the government encouraged large numbers of Polynesians to migrate in order to supply factory labour. Auckland has become the major destination for most overseas migrants which has further expanded ethnic diversity. When the government changed immigration rules in the early 1990s and encouraged business migrants, particularly from Hong Kong and Taiwan, these highly urbanised people naturally preferred to settle in Auckland. As a result, by the mid-1990s the Auckland Region became relatively distinct from the rest of New Zealand. With over a third of the country's population creating a huge internal market and a cosmopolitan, multi-cultural atmosphere, the region became almost self-sufficient. Other regions seldom shared Auckland's strengths, or weaknesses. The feeling among some Aucklanders that New Zealand ended at the Bombay hills became understandable.

Attempts to limit the region's growth and prevent urban sprawl were spectacularly unsuccessful as population growth within the region and its main cities acquired its own dynamism. Auckland has provided its planners with constant challenges. A 1949 report on Auckland's future population predicted that the local authorities should plan for a maximum metropolitan population of 600,000. Within 10 years they recognised that these projections were unrealistic. One prominent example of planning problems is the Auckland Harbour Bridge. When it was first built it soon became apparent that it was woefully inadequate to deal with traffic flows, and four clip-on lanes were built. These have, however, proved inadequate to deal with traffic flows as suburban sprawl, combined with

Auckland's attachment to the motor vehicle and inadequate transport, have caused increasing congestion problems. The problems of growth have become apparent in other areas as well; water, sewage and electricity services are all vulnerable and require substantial investment. Schools are often overcrowded while other regions worry about shrinking rolls and school closures. Auckland's vitality is not without its problems, but it also gives the region a dynamism and excitement unique to New Zealand.

History

- | | |
|-------------|--|
| 1300s | The first Māori settlers arrive in the area. The region offers a vast array of natural resources which Māori utilise fully. Archaeological evidence suggests that many of the volcanic cones are occupied by Māori which they terrace as gardens. |
| 1820s | The first European traders arrive in the region. They make an impact on the local Māori through the introduction of iron tools, epidemic diseases and muskets. Between 1818 and 1826, northern taua (war parties) armed with muskets raid local Māori. |
| 1833 | The first European village is established at Browns Bay on the Mahurangi River. |
| 1840 | Governor William Hobson buys the Auckland site from Ngāti Whatua and establishes Auckland as the country's new capital (replacing Russell). Hobson names the site after his naval commander George Eden, Lord Auckland. |
| 1842-43 | The first large wave of European settlers arrives, mostly of English, Irish and Australian nationality. Many move on to other parts of the country but a few settle in the growing town. |
| 1852 | The Auckland Institute and Museum is founded and opens to the public.

After the formation of the Native Land Purchase Office, the Crown purchases a substantial acreage of Māori land. |
| 1853 | The province of Auckland is established. |
| Early 1860s | The region experiences rapid population growth as a result of high immigration and the establishment of a military base for the invasion of Waikato. |
| 1863 | A fire in Queen St causes damage estimated at £60,000. |
| 1865 | The Crown confiscate land from South Auckland iwi who are deemed to be part of the King movement "rebellion".

The capital is moved to Wellington. |

1870s	Conditions settle and the population increases, doubling between 1878 and 1886. The region's agricultural base consolidates and the economy is largely based on industries such as timber milling, gum digging and brick-making.
1883	Auckland University is founded. In 1926, the university moves to its permanent base at the Princes St Arts Building.
Late 1880s	The Russian commercial and naval presence in the Pacific leads to the construction of fortifications including Fort Bastion and Fort Takapuna. A torpedo boat base is established at Devonport.
1888	Opening of the Auckland City Art Gallery, the first art gallery in New Zealand. It costs £21,851.
1910	Suburban growth takes place on the North Shore after the construction of the Takapuna Steam Tramway.
1920s	Pastoral farming and associated secondary industries dominates the economy. The kauri timber industry ceases after a century of operation.
1932	The depression leads to major rioting. Queen St shops are looted and a force of 2,000 police and troops is called to restore order.
1940	Auckland celebrates its centenary by creating the Centennial Memorial Park in the Waitakere Ranges.
1950s	Arrival of many European immigrants add to the region's cultural diversity.
1950	Auckland hosts the Empire Games.
1953	Construction begins on the Auckland motorway network.
1959	The Auckland Harbour Bridge opens. The project takes a workforce of 1,000 people three and a half years.
1960s	The government introduces large-scale immigration from the Pacific Islands to support the expanding industrial base in the region.
1963	Establishment of the Auckland Regional Authority.
1964	The population reaches 500,000.
1965	Manukau achieves city status.
1969	Higher than expected traffic flows lead to the construction of two more lanes on the Auckland Harbour Bridge.

1977	Bastion Point occupied by Ngāti Whātua protestors. This is one of the defining acts in recognition of Māori grievances for Pakeha New Zealanders.
1990	Auckland City hosts the XIVth Commonwealth Games.
1991	The government reaches a settlement with Ngāti Whatua.
1994	The estimated population of Auckland Region surpasses one million.
1997	Sky Tower opens, New Zealand's tallest structure.

The land and environment

Topography

Auckland is a region of harbours and bays, which provides the inhabitants of the “City of Sails” with unique recreational opportunities. From north to south the region measures approximately 120 kilometres and its widest point spans 60 kilometres. The land area is 5,600 square kilometres, just 2.0 percent of New Zealand's land area. With 29.5 percent of New Zealanders living there, the region is very densely populated.

The Hauraki Gulf lies out to the east and encompasses many islands such as Waiheke, Great Barrier, Little Barrier and Rangitoto. The Waitakere Ranges (which support a temperate rainforest) lie to the west, and the rocky western coastline and black-sand beaches encompass a number of popular surfing beaches such as Piha and Whatipu. The Waitemata and Manukau Harbours dominate the region with many Aucklanders living around the shoreline and utilising the waters for leisure activities. The Kaipara Harbour inlet marks the northern boundary, and Pukekohe and the Bombay Hills define the southern boundary.

A distinctive volcanic topography covers the region, with over 50 extinct volcanic cones punctuating the Auckland landscape. Volcanic activity began around 150,000 years ago, and the last major eruption occurred only 600 years ago on Rangitoto Island. This short geological time period means that Rangitoto is still regarded as being active. The Auckland volcanic field is still active meaning new volcanoes could appear. The Auckland Regional Council monitors the volcanic field and, with a network of four seismometers around the region, can detect tremors and enable a warning to be given. Some of the more well-known volcanic cones distributed around Auckland City include One Tree Hill, Mt Wellington, Mt Eden, Mt Roskill, Mt Smart and Mt St John.

Soil and climate

Auckland's soils are similar to those in Northland since large areas of infertile gumland soils are spread throughout the upper North Island (formerly covered with kauri). Both Auckland and Northland's soils are lime deficient, and much of the Auckland City and the south-western region's soils are potassium deficient. However, south from the Auckland isthmus, volcanic and alluvial activity has resulted in a distribution of rich fertile loams (a composition of clay and sand with admixture of decayed vegetable matter) and clay from volcanic rocks.

Rainfall in Auckland is both frequent and abundant, and the climate is characterised by warm, humid summers and mild winters. Rainfall totals around 1,300 millimetres per year, most occurring during the winter months. Variation occurs within the region ranging from 1,500 millimetres in western areas such as Oratia and Henderson, to 1,200 millimetres in eastern areas such as Mechanics Bay. Sunshine hours average 2,050 hours per year, which is similar to both Wellington and Christchurch. The average maximum mid-summer daily temperature is approximately 23°C and the average minimum mid-winter daily temperature is around 8°C.

Environment

With a population forecasted to reach 1.55 million by the year 2021, environmental issues are important to the region. Auckland's rapid growth impacts not just on transport in the region, but also on the infrastructure such as sewage treatment, stormwater systems and refuse disposal.

The role of the Auckland Regional Council¹ is to “protect the region's air, soil and water resources from pollution and to ensure their sustainable use as Auckland develops”. To promote these goals a Regional Growth Forum has been established comprising representatives of the local councils. The role of the forum is to develop sustainable growth strategies to accommodate anticipated population growth while maintaining and improving the quality of life of Aucklanders. The council is responsible for the growing demands on transport systems and also supports public transport systems. The Regional Transport Strategy and the “Keep Auckland Moving” campaign are initiatives backed by the council to promote major transport investments in the region and target better transport funding. It also provides a regional parks network with over 37,000 hectares of land.

Auckland is at risk of water pollution due to factors including heavy soils (making effluent disposal difficult), large numbers of small streams and sensitive shallow tidal inlets and estuaries. Rapidly increasing population and vehicle usage also affects water quality. Approximately 65,000 tonnes of sediment is discharged annually into streams and harbours from earthwork sites, vegetation removal activities and quarries. This impacts on plant and animal life in waterways, blocks streams, ports and marinas, and affects water quality for recreational use, drinking and irrigation.

The Auckland Regional Council promotes a stormwater quality management programme aimed at minimising the potential adverse affects of urban stormwater runoff. Discharges are managed by the council conducting site visits at selected catchments, or at industries with a high potential to pollute the waterways. Water quality management also involves the council collecting water-quality data from lakes, streams, marine sites and over 50 beaches in the region. The monitoring of water quality allows the council to assess the impact of development and to establish appropriate remedial policies. A Regional Monitoring Forum is developing initiatives to monitor the quality of the environment throughout the region.

Auckland, by virtue of being a major arrival point for overseas visitors and cargo, is at constant risk of infestation by unwanted insect and other pests which could have a serious effect on the agricultural and forestry industries of New Zealand. In recent years extensive campaigns have been successfully waged against infestation by the *Nasella* tussock moth and the fruit fly, both serious threats to New Zealand's agricultural industry, had they become established.

¹ As outlined in the Auckland Regional Council *Draft Annual Plan 1997/98*.

The council has established a biosecurity unit to provide a region-wide service for plant and animal management. Possums are a problem in the Waitakere Ranges, and the council has undertaken a programme to protect the bush environment from possum damage. Soil erosion and sedimentation of the harbours is also an important issue. The council is encouraging soil conservation programmes to protect the region's soil resources.

Air quality with Auckland traffic producing around 1.9 million tonnes of CO₂ emissions annually is another issue. The Regional Council has prepared an air plan to manage this.

Regional features

Auckland Domain and One Tree Hill are two popular parks in Auckland City. The Domain is the city's oldest park, set aside by New Zealand's Governor William Hobson in 1841. It contains the site of the former Māori village of Pukekaora where a memorial palisade now stands. One Tree Hill is known to the Māori as *Maungakiekie* (mountain of the kiekie plant). Māori created an extensive defense system on the hill extending 2.5 square kilometres and sheltering approximately 4,000 people. Pioneer John Logan Campbell planted a tree on the summit as an apology to the Māori people for the felling of the original totara tree by an early colonist. Campbell's tribute to the Māori, a 21-metre obelisk, also stands there.

Located on the Auckland Domain, the Auckland Museum has various Māori exhibits including the only surviving war canoe. The museum also features New Zealand, Pacific, Asian and European art. The Museum of Transport, Technology and Social History is the largest museum of transport and technology in New Zealand. A working tramway, aviation, and steam and road transport displays are the feature attractions.

Further afield, the Waitakere Ranges Regional Parkland totals more than 16,000 hectares of native forest and coastline. The area includes over 200 kilometres of walking and tramping tracks, beaches, and spectacular hillsides and cliff tops.

Aucklanders are renowned for their water sports. The Manukau and Waitemata Harbours, the latter being spanned by the Auckland Harbour Bridge, attract many sailors and jet skiers. The Waitemata Harbour opens out to the Hauraki Gulf, which contains a number of easily accessible islands such as Waiheke, Rangitoto and Great Barrier Islands.

Queen St in central Auckland is home to numerous banks, businesses, specialist stores and shopping malls. The Victoria Park Market, and the Oriental and Otara Markets are popular shopping areas.

The Auckland Sky Tower, dominating the skyline at 328 metres, emphasises Auckland's position as New Zealand's largest and fastest-growing region. The tower opened in 1997 and is the country's tallest structure. It is expected to attract around one million visitors annually. The Auckland Casino, at the base of the tower, is New Zealand's second and largest casino. The Auckland City Art Gallery, another popular attraction, displays contemporary New Zealand art. The gallery opened in 1888 and was the first permanent art gallery in New Zealand. The Aotea Centre is the region's largest theatre complex and features international entertainment throughout the year.

Auckland has a number of festivals which celebrate the ethnic and cultural diversity of the region. The Pasifica Polynesian Festival features Polynesian song, dance and entertainers. The annual “Opera in the Park” and “Symphony Under the Stars” are two major summer events. The Industrial Easter Show is New Zealand’s largest agricultural and pastoral show.

The people

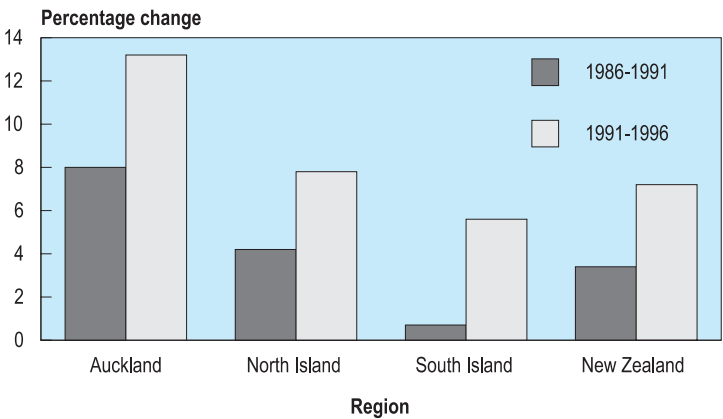
Population structure

Auckland is the most populated and the fastest growing region in New Zealand. At the time of the 1996 Census the usually resident population was 1,068,645, up from 943,779 since the 1991 Census or an increase of 13.2 percent. The population increase is equivalent to adding the population of Dunedin City to the region every five years.

Between the 1986 and 1996 Censuses, the population increased by 22.3 percent or approximately 200,000 people. Auckland’s share of the national population increased from 26.8 percent in 1986 to 29.5 percent in 1996. Its population is over twice that of Canterbury (468,042), the second-most populated region. The large number of people in the region act like a magnet drawing more and more people and businesses. Attractions are the increased economic opportunities, educational and other services provided by a large urban centre. Businesses relocate to be nearer to the Auckland market which is recognised as a major market internationally. The warm climate, extensive marine and bush-clad environments are other major attractions.

Figure 2.1:

Population Growth, 1986-1996



Source: Statistics New Zealand, Censuses of Population and Dwellings, 1986- 1996

The Auckland Region consists of seven territorial authorities - three districts (Rodney, Papakura and part of Franklin) and four cities (North Shore, Waitakere, Auckland and Manukau). Auckland is New Zealand's largest city with 345,768 usually resident people. Manukau City is the third largest with 254,280 people (behind Christchurch City with 309,027). North Shore and Waitakere cities rank fourth and sixth largest respectively.

With a population density of 190.8 people per square kilometre (census night 1996), Auckland is the most densely populated region. This compares with 13.1 people per square kilometre nationally. Not surprisingly, the most densely populated areas within the region are the four cities. On census night 1996, the Auckland urban area had 908.9 people per square kilometre. This compares with population densities of 739.7 and 527.4 people per square kilometre for both Wellington and Christchurch urban areas respectively.

In New Zealand terms Auckland is considered to be densely populated, however, population density within the region is considered low by international standards. The Regional Growth Strategy aims to accommodate future population growth by restricting the outward spread of urban Auckland and to encourage most of the anticipated future growth within the existing urban area. The objective of this policy is to promote better use of transport, maintain a quality environment, provide higher quality urban amenities, preserve the region's cultural heritage and improve employment and business opportunities.

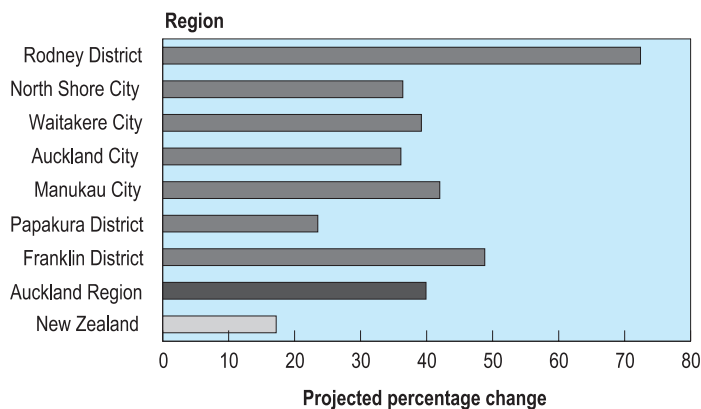
Between the 1991 and 1996 Censuses, the fastest growing territorial authorities in Auckland were the northernmost and southernmost districts. Rodney increased by 21.3 percent (11,669 people) and Franklin increased by 29.9 percent (6,057 people). Land availability, lower population density, an extensive roading network and lifestyle choices are factors resulting in more people choosing to live on the urban fringe. Growth in the other territorial authorities is between 10 and 15 percent, with the exception of Papakura District which has increased by 6.7 percent.

Subnational resident population projections (using the 1996 Census as a base) suggest further strong growth in the region. It is expected that by the year 2021 there will be 1,551,000 people living in the region, a growth of 39.9 percent from 30 June 1996. Auckland is expected to be the fastest growing region in the country with growth significantly greater than the 17 percent growth projected for the country over this 25 year period.

The fastest growing territorial authority in the country is expected to be Rodney District, estimated to increase from 68,000 (30 June 1996) to 116,800 in 30 June 2021. This represents an increase of 71.8 percent over this period. Of the four cities in the region, Manukau is expected to grow the fastest with a projected increase of 40.9 percent. The principal growth component in Rodney District is likely to be from internal migration from other areas within the Auckland Region and from other regions within New Zealand. However, the growth in Manukau City is more likely to come from natural population increase and overseas migrants.

Figure 2.2:

Population Projections, 1996-2021



Source: Statistics New Zealand, *Subnational Resident Population Projections, 1996 (base) - 2021*

The Auckland Region had the third-highest percentage of people living in urban areas with 95.9 percent of the usually resident population on census night 1996. Only the Nelson and Wellington Regions had a greater proportion living in urban areas (98.3 percent and 96.5 percent respectively). With 96.2 percent of people living in urban areas in 1991, the population has become slightly more rural, reflecting the outward drift.

Age structure

Aucklanders are marginally younger, the median age being 32.1 years (census night 1996), compared with a national median age of 33.0 years. Proportionately, Auckland has more working-age people (15 to 65-year-olds) and fewer elderly people. The economic importance of the region has resulted in more people living there for work and education purposes rather than retirement purposes. In addition, there are significant differences in the age structures of the various ethnic groups within the region.

There were more females than males living in Auckland at the time of the 1996 Census with 955 males per 1,000 females. Nationally, there are more females than males, but Auckland has a greater proportion of females. Although the region has a smaller elderly population (which would decrease the proportion of females), the large urban population would be the main contributing factor as females are associated more with urban-based occupations.

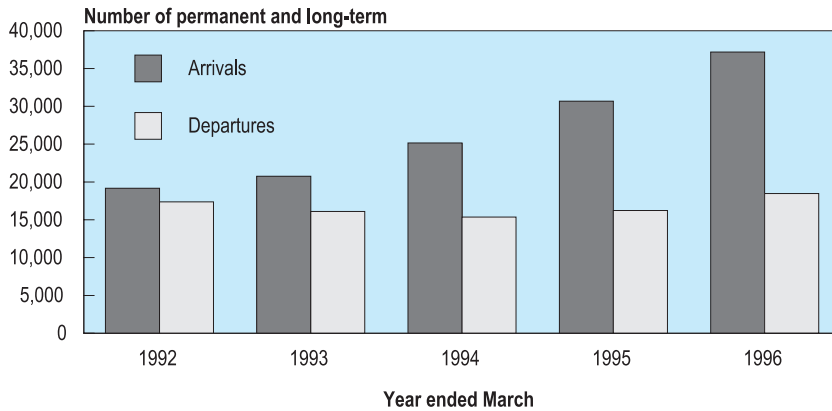
Migration²

Much of the 1991 to 1996 population increase can be attributed to overseas migration (long-term residents from overseas) and natural increase. Between March 1991 and March 1996 a total of 132,961 people from overseas settled in the Auckland Region, 47.4 percent of all immigrants to New Zealand. After accounting for long-term migrants departing the region, Auckland experienced a net gain of 49,421 people during this period.

² For definitions of internal and overseas migration, refer to glossary.

Figure 2.3:

Permanent and Long-term Arrivals and Departures for Auckland Region



Source: New Zealand Customs Service / Statistics New Zealand Overseas Migration

A smaller proportion of the increase resulted from net internal migration flows. Between March 1991 and March 1996, Auckland experienced a net gain of 4,953 people,³ around 4 percent of the overall population increase. Auckland lost population to the neighbouring regions of Northland (net loss of 861 people), Waikato (net loss of 249 people) and Bay of Plenty (net loss of 549 people), suggesting a trend for Aucklanders to live further afield or elsewhere for lifestyle or retirement reasons. Most of the increase, however, was from Wellington (net gain of 3,492 people) and Canterbury (net gain of 492 people) which is probably due to the more diverse work opportunities.

Ethnicity

The high level of overseas immigration has resulted in the most ethnically diverse population in the country. Where most other regional populations consist almost entirely of Europeans and Māori, Auckland has a much greater diversity. On census night 1996, the region had the highest percentage of people identifying with both the Pacific Islands and Asian ethnic groups, 13.0 and 10.1 percent⁴ respectively, compared with 5.8 and 5.0 percent nationally. Europeans accounted for 74.1 percent of the population, below the national average of 83.1 percent. People identifying with the Māori ethnic group accounted for 12.5 percent of the population, which was also below the national average 15.1 percent. However, the distribution of the various ethnic groups was not uniform across the region, as the table below shows.

³ When census data is being referred to, unidentifiable, not applicable, or missing responses have been excluded from all calculations.

⁴ Because people can identify with more than one ethnic group, percentages across ethnic groups will add up to more than 100 percent.

Figure 2.4:

Distribution of Selected Ethnic Groups, 1996

Territorial authority	Percent				
	European	Māori	Pacific Islands	Asian	Other
Rodney District	94.6	8.9	1.8	1.9	0.3
North Shore City	86.7	7.3	3.1	8.9	0.9
Waitakere City	78.6	13.7	12.5	7.5	0.6
Auckland City	70.8	9.8	14.1	14.0	1.0
Manukau City	59.7	17.8	24.0	11.0	0.7
Papakura District	77.3	23.5	7.3	4.5	0.5
Franklin District	85.2	17.2	2.8	3.9	0.1
New Zealand	83.1	15.1	5.8	5.0	0.5

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

Other ethnic groups are well represented in the region. Auckland had the highest percentage of people identifying with the Samoan ethnic group (6.6 percent compared with 2.9 percent nationally), the South African ethnic group and many Asian ethnic groups, such as Chinese, Thai, Vietnamese and Filipino. This reflects the tendency for smaller ethnic groups to live in large urban areas and for overseas immigrants to settle in the area in which they first arrive.

Most ethnic groups have grown at a faster rate than the national average, reflecting Auckland's fast population growth. Europeans increased by 5.5 percent between March 1991 and March 1996, the lowest percentage increase. However, this still represents an increase of 39,075 people because of the large European population base, which is almost the population of the Nelson Region alone. In terms of percentages, the Asian ethnic group has almost doubled increasing by 94.7 percent (compared with a 73.9 percent national increase for this group) during the 1991 to 1996 period.

Religion

An ethnically diverse population has resulted in many of the smaller religions being significant. Auckland had the highest proportion of people who stated they were Buddhist, Hindu and Islam/Muslim. Anglicanism, the dominant religion in New Zealand, accounts for 15.9 percent of the population, lower than the national average of 18.4 percent.

Education

As a further reflection of Auckland's large immigrant population, the region has the highest percentage of people with overseas school qualifications (as their highest qualification). On census night 1996, a total of 4.1 percent of the adult population were in this category, compared with 2.5 percent nationally.

Auckland's population can be regarded as being well educated by New Zealand standards with 11.8 percent having either a bachelor or higher degree, compared with 9.5 percent nationally. In addition, significantly fewer have no qualification, 34.3 percent of the adult population compared with 38.1 percent nationally. Urban populations tend to be more highly qualified because of the more diverse range of educational opportunities. However, as the table below shows, the educational qualifications attained were not uniformly spread across the region.

Figure 2.5:

Highest Qualification by Territorial Authority, 1996

Territorial authority	Percent				
	No qualification	School qualification	Overseas qualification	Vocational qualification	University degree
Rodney District	37.0	29.0	3.3	24.0	6.7
North Shore City	26.4	31.4	4.9	24.2	13.1
Waitakere City	38.0	29.7	3.9	21.3	7.1
Auckland City	28.6	27.7	4.4	20.3	19.0
Manukau City	42.8	27.7	4.1	18.8	6.7
Papakura District	43.8	28.2	2.2	20.6	5.2
Franklin District	41.9	28.6	2.2	22.0	5.4
New Zealand	38.1	28.8	2.5	21.0	9.5

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

Labour market

Auckland's commercial dominance emerges when examining the distribution of the workforce. On census night 1996, the region had the highest proportion of people employed in the wholesale trade industry, 9.0 percent compared with 6.2 percent nationally, reflecting Auckland's status as an international market. The finance and insurance, and property and business services industries also employed a larger share of the population. As Auckland is a predominately urban area, employment in the agriculture, forestry and fishing industries was around one-quarter of the national percentage.

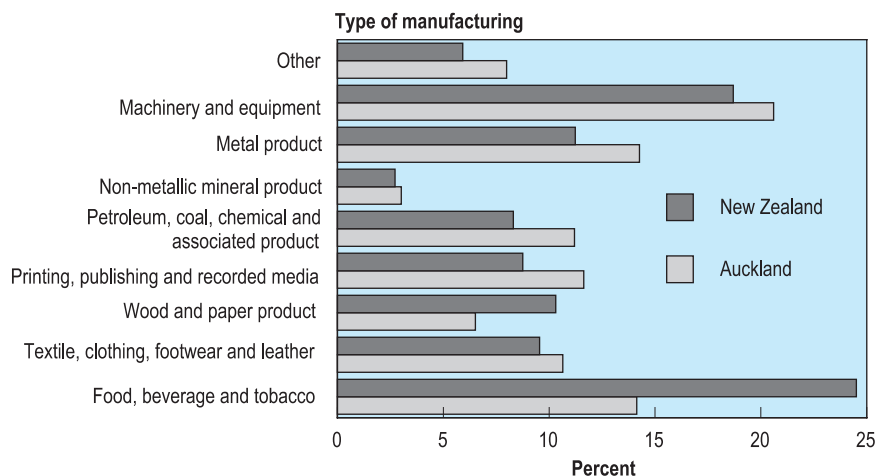
At the time of the 1996 Census, the proportion of adults employed was slightly higher - 61.8 percent compared with 60.4 percent nationally. This higher employment rate and lower elderly population has meant there are fewer people who are not in the labour force - 33.2 percent of the working-age population compared to 34.6 percent nationally.

A concentration of manufacturing and industrial employment has aided Auckland's population growth. During the 1960s and 1970s, immigrants, predominately of Pacific Islands descent, settled in Auckland to work in the many factories. On census night 1996, a total of 17.4 percent of all employed people worked in the manufacturing industry, the second-highest percentage in the country behind Southland (17.7 percent). Approximately one-third of all full-time equivalents employed in manufacturing worked in machinery and equipment and metal product manufacturing, compared with 29.9 percent nationally as at 30 June 1997.

Auckland has the highest proportion of legislators, administrators and managers in the country, accounting for 14.9 percent of all employed people in the region (compared with 12.2 percent nationally). There are also large numbers of professionals, and technicians and associate professionals. Occupations within the region reflect the size of the urban area and the high number of company head offices.

Figure 2.6:

Employment in the Manufacturing Industries, 1997 for Auckland Region

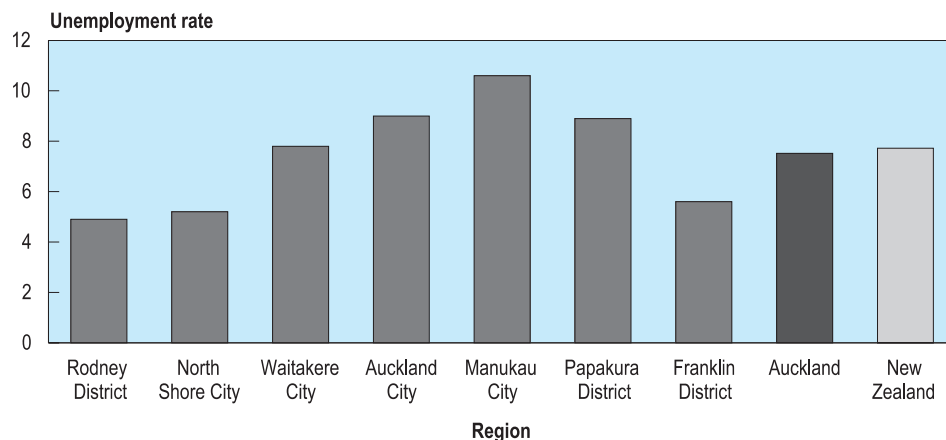


Source: Statistics New Zealand, Annual Business Frame Update, February 1997

Unemployment rates over time have closely followed the national trend. On 5 March 1996, a total of 7.5 percent of the labour force were unemployed, marginally below the national figure of 7.7 percent. The unemployment rate varied throughout the region with Manukau City having the highest rate at 10.6 percent. The large numbers of young Pacific Islands people usually resident in Manukau City, and who have traditionally worked in the manufacturing industries, would explain this. On census night 1996 the national unemployment rate for people aged 15 to 19 years was 19.5 percent, over twice the rate of all age groups combined.

Figure 2.7:

Unemployment Rates, 1996



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

Access to services

With a large population base, the Auckland Region has good access to most professional services. The legal profession is well established, relating to the region's high number of businesses. Engineers are in higher proportions also (one for every 177 people compared with one for every 209 people nationally), possibly reflecting the general rate of growth in the area, such as the rise in building consents. Conversely, there are proportionately fewer nurses. This relates to fewer hospital beds per head of population (one bed for every 406 people compared with one for every 242 people nationally), and possibly as a consequence of the proportionately smaller elderly population and the centralisation of medical services.

Dwellings

Dwelling-type patterns are quite different in Auckland. The region has fewer separate houses (77.1 percent of all dwellings compared with 81.8 percent nationally), and the highest percentage of dwellings consisting of three or more houses/flats joined together, 10.9 percent of all dwellings compared with 7.3 percent nationally. Apartment buildings and townhouses, widespread in Auckland, contribute to and impact on the overall population density. Despite the number of multi-dwelling units Auckland is still not regarded as an area with very high density housing by international standards. However, the Regional Growth Strategy, which intends to encourage most of the future growth within the existing metropolitan area, may transform Auckland into an area of much higher population and dwelling density.

Housing demand has also influenced weekly rent for rented dwellings. Census figures confirm this. In 1996, almost half of all rented dwellings had rent exceeding \$200 per week. More specifically, 12.4 percent of rented dwellings had rent exceeding \$300 per week, almost twice that of Wellington which ranks second. Around 70 percent of all private dwellings in Auckland are owned, similar to the national average. However, 56.2 percent of Auckland's privately owned dwellings are owned with a mortgage, compared with 53.1 percent nationally, a reflection of higher house prices within the region.

On census night 1996, Auckland had the second-highest number of people per dwelling (an average of 3.01 people compared with 2.83 people nationally). A number of factors, such as the rapidly growing population impacting on a possible dwelling shortage, and higher rentals and house prices, may have caused more people to live together in one dwelling. Auckland also has more multi-family households and an ethnically diverse population with differing occupancy rates. Traditionally, Pacific Islands people have larger families than Europeans.

Figure 2.8:

Dwelling Occupancy Rates by Region, 1996



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

Households and families

Family types also differ markedly from those nationally. With the lowest proportion of one-family-only households in the country, Auckland also has the highest percentage of one-family households with other people households, 8.3 percent compared with 6.4 percent nationally. Two-family (with or without other people) and three-or-more-family households are also more common. When considering all family types (one-parent, two-parent, and couple-only families), Auckland has the highest percentage of two-parent families, 47.5 percent compared with 44.9 percent nationally.

Number of children

Auckland mothers are older than most other regions. For the five-year period ending December 1997, a total of 13.2 percent of all babies born were born to mothers over 35 years of age, compared with 8.5 percent nationally.⁵ In contrast, teenage mothers (less than 20 years) constituted 6.9 percent of all mothers, below the national average of 8.7 percent.

Census data showed that Auckland also had the lowest number of children born per mother, 2.66 children per mother on census night 1996. There was variability within the region, influenced by the age structure (with older populations having more opportunity to have more children), and the ethnic mix of the population. Of all women residing in North Shore City, 10.4 percent had four or more children compared with 16.9 percent of all women in Manukau City.

⁵ Source: Statistics New Zealand, *Vital Statistics*.

Income and expenditure

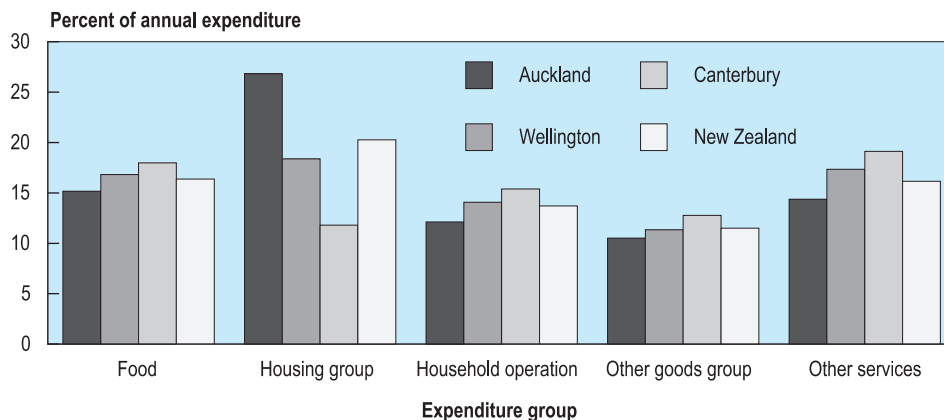
Incomes are among the highest in the country with a personal median income of \$17,818 (for the adult population) on census night 1996. The region was second behind Wellington (annual median income of \$19,006) and over \$2,000 higher than the national median. Median household incomes are the nation's highest at \$42,163, around \$7,500 more than the national median. A high dwelling occupancy rate and a high labour force participation rate would influence this. Auckland also has the greatest percentage of people earning over \$30,000 per year with 28.2 percent of all adults compared with 23.8 percent nationally.

These higher incomes reflect the commercial strength of the region and the large number of head offices and companies employing professional people on higher salaries. Auckland has a higher proportion of managers, legislators and administrators (median income of \$37,563) and professionals (median income of \$35,556).

Aucklanders also spend more, particularly on housing. For the year ended March 1997 the mean annual household expenditure was \$38,635, approximately \$5,500 more the national mean of \$33,145.⁶ A total of 26.8 percent of the mean expenditure went on housing, the highest proportion in the country. A high proportion of owned dwellings and high house prices would influence expenditure in this area. Proportionately other expenditure areas were substantially lower because of this.

Figure 2.9:

Annual Household Expenditure by Selected Expenditure Group,⁽¹⁾ for Selected Regions, Year Ended March 1997



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

Source: Statistics New Zealand, Regional Household Expenditure Database

⁶ Source: Statistics New Zealand, Regional Household Expenditure Database.

Health

The Auckland Region has a total of 939 general practitioners (GPs) as at September 1997, a ratio of one GP for every 1,138 people.⁷ This is a higher ratio than the national average of one GP per 1,233 people. Auckland supports 17 government-owned hospitals and retirement homes. However, Auckland has fewer hospital beds than the national average, one bed for every 406 people compared with one per 242 people nationally.

Hospital discharges in the former Northern Regional Health Authority (now the Health Funding Authority Northern) increased by 6.7 percent between the years ended 30 June 1995 and 30 June 1996. This was significantly greater than the national increase of 4.1 percent over the same time period. In particular, the South Auckland hospital area had the largest increase in discharges of 9.2 percent.

Life expectancy, infant mortality and smoking are three key measures used to assess the health of the population in a region. Auckland, when compared against the rest of the country, performs well in all of these measures.

Aucklanders have the second-highest life expectancy in the country. Life expectancy at birth of 77.7 years,⁸ is second only to the Canterbury Region. The 1995-97 regional life tables show that life expectancy at birth for males in the Auckland Region was above the male average (75.1 years compared to 74.4 years nationally), and life expectancy for females at birth in the region was also above average (80.2 years compared to 79.8 years).

Infant mortality rates were lower than the national average. Over a five-year period ending December 1996, there were 6.7 infant deaths per 1,000 live births, lower than the national average of 7.0 deaths.⁹ Neighbouring Northland and Waikato have higher infant mortality rates which could reflect urban and rural differences.

Smoking rates over the region are also lower, 57.3 percent of the adult population having never smoked regularly. This is the highest percentage of non-smokers in the country (the national average is 54.2 percent). The Canterbury Region is second at 55.8 percent.

⁷ Source: Ministry of Health.

⁸ Source: Statistics New Zealand, *Regional Life Tables, 1995-97*.

⁹ Source: Statistics New Zealand, *Vital Statistics*.

Figure 2.10:

Smoking Status, 1996

Region	Smoking status		
	Smoker (percent)	Ex-smoker (percent)	Never smoked regularly (percent)
Rodney District	20.7	26.3	52.9
North Shore City	18.3	23.2	58.5
Waitakere City	24.9	20.8	54.3
Auckland City	20.8	19.7	59.5
Manukau City	25.1	17.5	57.4
Papakura District	27.3	20.2	52.5
Franklin District	24.2	21.8	54.0
New Zealand	23.7	22.0	54.2

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

Crime

The level of crime in Auckland is higher than most other regions. In the Auckland Region (including all of the Franklin District, part of which is inside the Waikato Region), there were a total of 170,145 criminal offences for the year ended 30 June 1997.¹⁰ This represents 32.3 percent of all offences in New Zealand. Violent crimes exceeded the national average in most territorial authorities within the region. In Waitakere City 12.5 percent of all reported crimes were violent, significantly higher than the national average of 8.8 percent. Of the seven territorial authorities in the region, only Auckland City and North Shore City reported proportionately fewer violent crimes than the national average.

Drugs and anti-social crimes were higher in the Rodney District with 15.3 percent of all offences in this category (compared with 12.0 percent of all crimes nationally). In contrast, dishonesty offences were proportionately lower. A different pattern emerged in Manukau City where 68.6 percent of all reported offences were dishonesty crimes, the highest proportion in the Auckland Region.

Within the Auckland Region the highest crime rates were recorded in Auckland City and Papakura District with one reported offence for every 4.9 and 2.7 people respectively for the year ended June 1997. During the same period one offence was reported for every 6.9 people nationally. The lowest crime rates were recorded in the more rural territorial authorities, Rodney and Franklin Districts reported one offence per 12.5 and 15.8 people respectively.

¹⁰ Source: New Zealand Police.

The economy

Business

Auckland is the commercial heart of New Zealand. The Auckland economy has dominated the rest of the country since European colonisation began early in the nineteenth century. The Auckland economy had humble merchant origins, dominated by wool, kauri gum, timber and agricultural products mainly exported to Britain. Auckland became the country's major importing centre where goods were repackaged and subsequently redistributed for consumption in other regions of New Zealand. An import substitution manufacturing industry began to flourish and this fuelled the growth of the Auckland economy. However, with the lowering of trade barriers in the 1980s, Auckland industry began to change toward a more business service orientation.

Today, with an emphasis on manufacturing, retailing and commerce, the Auckland economy continues to dominate the rest of the country. In a recent survey 96 of the top 200 businesses (using annual turnover to differentiate) were located in the region.¹¹ Most of these businesses, particularly in the top 50, are company head offices and are involved in a wide range of industries across the country.

A total of 83,112 business units were operating in the region as at 30 June 1997, almost three times the number in Wellington and 35.0 percent of the national total.¹² Most of Auckland's businesses are in the property and business services industries, amounting to 23.6 percent of all businesses (compared with 19.1 percent of all units nationally). High population growth is reflected in the proportion of businesses involved in the construction industry with Auckland being ranked third nationally, behind Bay of Plenty and Tasman. The region also had the highest proportion of business units in the wholesale trade industry, 9.8 percent compared with 7.8 percent nationally. The predominantly urban population and commercial base has meant that few businesses are engaged in the agriculture, forestry and fishing industry.

Minerals

Although there are extensive deposits of iron ore in the black-sand beaches throughout the west coast of Auckland, no significant mining operations are in place. Non-metallic minerals, however are being mined. Serpentine, a magnesium-rich rock used as a fertiliser additive, is mined at Wairere in the southern part of the region. Silica sand, used for glass manufacture, foundry moulds and in the building industry, is mined in northern areas.

¹¹ Source: "1997 Top 200 New Zealand Companies", Deloitte & Touche Consulting Group, *Management*, December 1997, pp.68-91.

¹² Source: Statistics New Zealand, Annual Business Frame Update.

Energy

Electricity is generated at the Otahuhu Thermal Power Station which was commissioned between 1968 and 1970. The station is powered by gas and diesel, and was the first large gas turbine power station in Australasia. The station has an operating output capacity of 135 megawatts. As the output capacity is small compared to the Huntly Thermal Power Station (1,000 megawatts, in the Waikato Region), the Otahuhu plant is largely an “insurance” plant available to cover major plant breakdown and other emergency conditions.

The rapid growth experienced in the region has impacted on much of the infrastructure, including the power supply. Excess demand in February 1998, fueled by a heatwave, caused a major power blackout when all four supplier cables to the Auckland City central business district failed. This affected an area around eight city blocks wide and two kilometres long, causing 72 stores on Queen St to temporarily close and many major corporations and banks to move out of the city centre until a reliable power supply was restored. An overhead cable was installed to supply the central business district with electricity and a new tunnel, scheduled to be operational in 1999, will house replacements for all four of the failed cables.

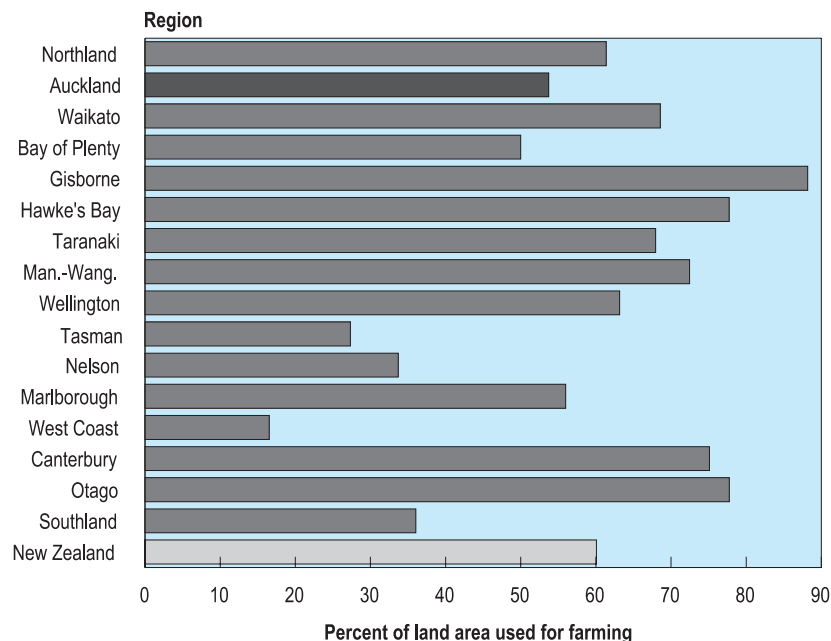
Agriculture

Although Auckland has a similar number of farms as Northland (5,033 farms compared with Northland's 5,523 as at 30 June 1996), the mean farm size is only 60 hectares or approximately one-third of the size.¹³ Auckland's farms are the smallest in New Zealand, reflecting the predominance of horticulture over agricultural uses and the number of lifestyle blocks. High quality soils and convenient access to both airports and markets explains the relatively high number of farms. Of the total land area in the region, 53.7 percent is being used for farming purposes. This is high considering the small land area and large urban population.

¹³ Source: Statistics New Zealand, Agriculture Statistics.

Figure 2.11:

Percent of Land Area Used for Farming, 1996



Source: Statistics New Zealand, Agriculture Production Survey, June 1996

Of the major livestock groups farmed, cattle are the most significant constituting 3.4 percent of the total cattle in the country (June 1996). Around half of Auckland's 5,033 farms had beef cattle, approximating the national average. High numbers of beef cattle probably relates to proximity of the major cattle farming region of Waikato. Both regions have similar land types and climate suitable for cattle farming. Sheep farming is less intensive and only 0.8 percent of the total sheep in the country are being farmed in Auckland.

Horticulture

Some of the major crops grown in the region include potatoes, nashi pears, strawberries, feijoas and persimmons. Auckland is best known for its red wines, in particular the Cabernet and Merlot varieties. The main concentration of wine growing is located in and around Henderson and Huapai. According to an annual survey,¹⁴ 1997 data showed that the Auckland Region had 191 hectares of producing vines. A 12 percent increase in the area planted in grapes is projected by the year 2000. In 1997, approximately 1,000 tonnes of grapes for wine production were produced, which is the fourth-highest production in the country but considerably less than the major grape-wine producing areas of Gisborne (18,172 tonnes), Hawke's Bay (16,533 tonnes) and Marlborough (19,585 tonnes).

¹⁴ Source: New Zealand Vineyard Survey conducted for Winegrowers of New Zealand by HortResearch.

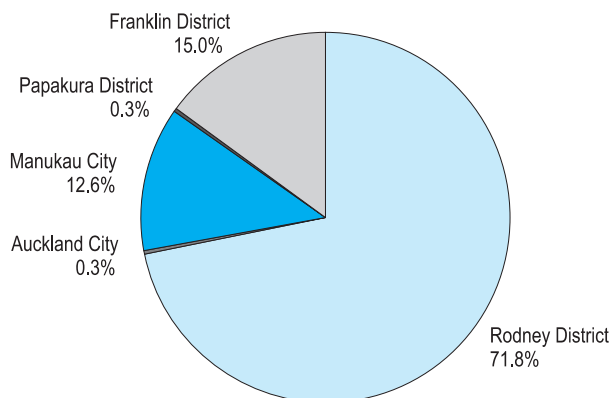
Forestry

European and Māori settlers cleared large areas of natural forest, most being of the mixed subtropical rain forest type. The fast population growth promoted a rapid deforestation of large areas to provide land for farming and timber for building. Auckland's remaining natural forests are now mainly confined to the Waitakere and Hunua Ranges. These areas are managed for water and soil conservation and no natural timber is harvested as they are both major water catchment areas for the region. Great Barrier Island has significant areas of indigenous forest managed by the Department of Conservation.

Planted production forests have been a feature since the 1920s. Most of the planted forest is radiata pine constituting around 97 percent of the total planted area.¹⁵ The remainder is made up of hardwoods and other softwoods. Although douglas fir is New Zealand's second-most commonly planted production species, it is generally not suitable for Auckland growing conditions.

Figure 2.12:

Distribution of Radiata Pine, 1997 for Auckland Region



Source: Ministry of Agriculture and Forestry, April 1997

Consistent with the rest of the country, Auckland's forest harvest levels are projected to increase significantly in the years leading up to 2000 and for some time after that. A harvest yield of over 880,000 cubic metres for the Auckland area as at 1 April 1996,¹⁶ is expected to almost double in size by the year 2000.

¹⁵ Source: Ministry of Agriculture and Forestry.

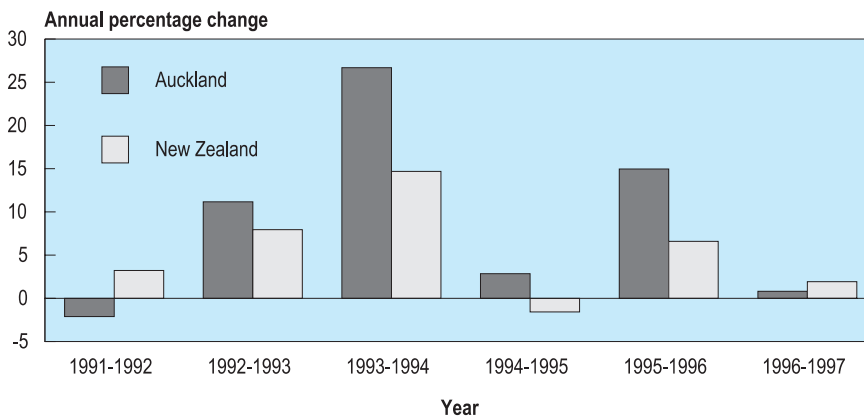
¹⁶ Source: *New Zealand's Forest Growing and Wood Processing Sector* report, Ministry of Forestry. Note also that the Auckland area referred to in this statistic extends from the Brynderwyn Range in the north to Raglan on the west coast and to Tauranga Harbour on the Bay of Plenty coast. It also includes the Coromandel Peninsula.

Buildings

Building consents are a way of measuring economic growth. Between 1991 and 1997 growth was steady, with the strongest period of growth being in 1994 and 1995 following the national trend of a post-recession recovery period.¹⁷ Comparing the number of new and altered consents (combined) for the years 1991 and 1997, building consents in Auckland increased by 64.4 percent, significantly greater than the national increase of 36.7 percent, and second only to the Bay of Plenty Region (75.7 percent increase).

Figure 2.13:

Annual Percentage Change in New and Altered Building Consents for Auckland Region



Source: Statistics New Zealand, Building Consents

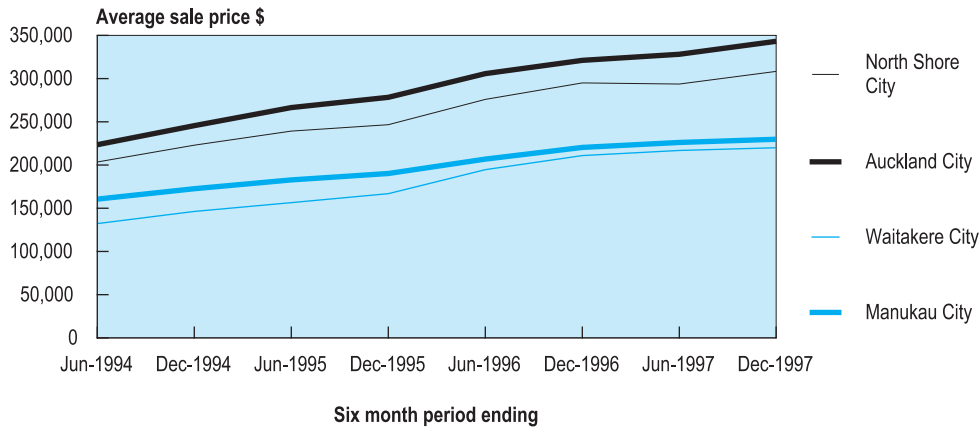
House prices in the Auckland Region are among the highest in the country. Figures for the six-month period ending December 1997 showed that Auckland City had the highest mean house price (\$343,133 compared with a national average of \$183,986).¹⁸ North Shore City had the second-highest mean house price, at \$308,289, and the rapidly growing Rodney District had the third-highest mean price at \$236,378. The rate of increase in house prices in Auckland has also been among the highest in the country. Between the six-month periods ending December 1992 and December 1997, mean house prices increased by 74.8 percent (or an average annual increase of around 12 percent), compared with a national five-yearly increase of 47.8 percent.

¹⁷ Source: Statistics New Zealand, Building Consents.

¹⁸ Source: Quotable Value New Zealand.

Figure 2.14:

Average House Prices by Territorial Authority



Source: *Quotable Value New Zealand*

Retail trade

Retail trade in the Auckland Region for the December 1997 quarter totalled \$3,427 million, or 32.7 percent of the national total.¹⁹ There was an increase of 2.8 percent between the December 1995 and December 1996 quarters, compared with a national increase of 2.5 percent. However, retail trade fell by 1.0 percent between the December 1996 and December 1997 quarters, against the national trend of a 0.7 percent increase.

Manufacturing

The manufacturing industry, although still significant to the Auckland economy, has declined a little in relative importance in recent years. During the years ended June 1994 to 1997, the proportion of businesses engaged in manufacturing in the Auckland Region declined from 11.6 percent to 10.0 percent.²⁰ At the 1996 Census the principal manufacturing industries were metal product, machinery and equipment manufacture, which together employed over one-third of the Auckland manufacturing workforce. Other significant manufacturing industries within the region were: food processing, printing, publishing and recorded media, textile, clothing, footwear and leather production.

Around half of New Zealand's steel needs are met through a steel mill plant located at Glenbrook in the southwest of the region. The plant is designed to produce 700,000 tonnes per annum of steel from ironsand. It is also the world's first plant for the production of steel using titanomagnetite sand as the ore and low-ranking coal as the reductant. Of the total output around half is exported.

¹⁹ Source: Statistics New Zealand, Retail Trade Survey.

²⁰ Source: Statistics New Zealand, Annual Business Frame Update.

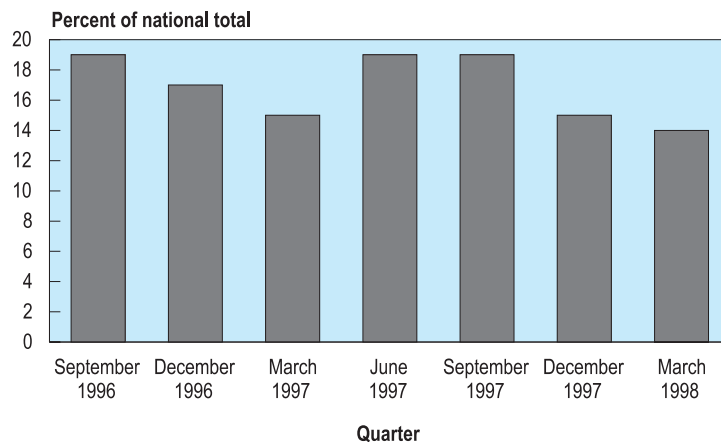
Tourism

Auckland is the major international gateway into New Zealand catering for a large number of international tourists throughout the year. Total guest nights for accommodation providers in the 1997 year totalled 3,621,662 or 16.5 percent of the national total.²¹ Between the December 1996 and December 1997 quarters, total guest nights in the region decreased by 5.6 percent, against the national increase of 1.5 percent.

As in most regions the busiest time of the year is the March quarter, which includes the summer holiday season. However, there is less variability throughout the year, possibly due to the constant influx of people arriving for business purposes.

Figure 2.15:

Guest Nights for Auckland as a Percent of National Total



Source: Statistics New Zealand, Accommodation Survey

Transport

Road, rail and sea transportation networks are extensive throughout the region, catering for the large population. State Highway One links Auckland with Whangarei to the north, and Hamilton to the south. State highways also link Auckland to other urban areas, namely Thames, Rotorua and Tauranga.

The main railway routes extending out from Auckland also connect the region with Whangarei and Hamilton. Auckland has the nation's largest general cargo port, handling 3.4 million tonnes of exports and 6.7 million tonnes of imports for the year ended 30 June 1996.²² Auckland International Airport is the country's main aerial gateway handling the bulk of air-freighted exports. Domestic and international passengers arriving and departing through the airport (including transits and transfers both ways) for the year ended June 1997 totalled 7,591,426 people, over twice the national population.

²¹ Source: Statistics New Zealand, Accommodation Survey.

²² Source: Statistics New Zealand, Overseas Cargo Statistics.

Urban sprawl is a major concern to the region with the Auckland urban area far exceeding that of most international cities, although its population is modest in comparison. With the rapid increase in motor vehicle use in the 1950s and the introduction of motorways, the urban area expanded outward and congestion became a concern. Growth in the northern areas has been strong since the construction of the Auckland Harbour Bridge. At present, more than 140,000 vehicle trips are made across the bridge daily. With the rapid growth being exhibited by the northern areas (North Shore and Rodney), this is placing an increasing pressure on the roading network.

Past and present proposals²³ have been to construct a second harbour bridge or a tunnel underneath the Waitemata Harbour, from the North Shore across to the Western Viaduct. The options now being considered include reserving any new crossing for public transport only. However, the Auckland Regional Council's view is to focus more on public transport as opposed to the construction of more roading and bridges, and therefore contain urban sprawl. Transport growth strategies for the region highlight the need for railway upgrades, bus priorities on major arterial roads and more frequent services.

The vast urban sprawl has meant Aucklanders are very car-dependent, and on census night 1996 they had the highest percentage of households owning three or more vehicles - 14.1 percent of households compared with 11.1 percent nationally. Not surprisingly, traffic volumes in the region are the greatest in the country, amounting to 8,235 million vehicle-kilometres per year (see glossary), more than double the next closest region Waikato (3,949 million vehicle-kilometres per year).²⁴ Travel to work is the primary generator of traffic flows in the Auckland Region. At the 1996 Census 56 percent of Aucklanders worked within the same local authority in which they lived.

Rodney District has the greatest length of roading, although traffic volumes in Auckland City, at 3,389 million vehicle-kilometres per year, are over twice that of the nearest territorial authority, Manukau City (1,523 million vehicle-kilometres per year). Over 8 percent of the nation's roads are in Auckland, a total of 7,571 kilometres of roading (of which 49.7 percent are defined as urban roads, the highest proportion in the country).

Figure 2.16:

Main Means of Travel to Work, 1996

Means of travel to work	Percent	
	Auckland	New Zealand
Worked at home	6.9	10.0
Did not go to work	9.8	10.2
Public bus	5.1	3.0
Train	0.5	0.8
Drove a private car, truck, van	52.5	48.1
Drove a company car, truck or van	12.7	10.8
Passenger in a car, truck, van or company bus	5.6	5.6
Bicycle	1.3	3.2
Motor bike or power cycle	0.7	1.3
Walked or jogged	3.8	5.9
Other	1.3	1.0
Total	100.0	100.0

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

²³ Source: *A Bridge Too Far*, New Zealand Local Government, August 1997.

²⁴ Source: *Road Safety Atlas*, Land Transport Safety Authority, Wellington, 1996.

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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.

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