Greater Wellington – Socio-Demographic Profile 1986-2031

Report prepared for the Wellington Region by
Professor Natalie Jackson

August 2012

National Institute of Demographic and Economic Analysis
Te Rūnanga Tātari Tatauranga
THE UNIVERSITY OF WAIKATO

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Te Whare Wānanga o Waikato

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Population size and growth

1. The population of the Wellington Region has grown steadily over the past twenty-five years, from 395,610 in 1986 to approximately 487,700 in 2011 (23.3 per cent). Steady, albeit slowing, growth is projected to continue throughout the projection period, reaching approximately 541,000 by 2031 (10.7 per cent above 2011). Over three quarters of this growth is projected to be at 65+ years.

2. Wellington City has consistently comprised the largest proportion of the region's population (in 2011 accounting for 41.0 per cent), and has accounted for the majority of the growth between 1986-2011 period (55.3 per cent), followed by the region's fourth-largest TA, the Kapiti Coast District (22.1 per cent). Lower Hutt City and Porirua City have each contributed similar proportions (7.5-8.5 per cent each), and Upper Hutt City and the Masterton, South Wairarapa and Carterton Districts each contributing very little (4.6, 1.1, 0.7 and 1.4 per cent respectively).

Ethnic composition, size and growth

3. In all cases, the number in each ethnic group has grown, but substantially less so for the European-origin population. Overall this group grew by less than five per cent during the period 1996-2006, although accounting for about 35 per cent of the region's growth, while the Māori population grew by 12 per cent, accounting for 14 per cent of growth. The region's Pacific Island population grew by almost 17 per cent, contributing 12 per cent of growth, while the Asian population grew by 60 per cent to account for about one third of growth. The relatively small Middle Eastern/Latin American/African (MELAA) group nearly doubled in size, contributing approximately 6 per cent of growth.

4. These trends are reflected in sizeable differences by TA in terms of each ethnic group's contribution to overall growth. Despite low growth, large initial numbers meant that Europeans made the greatest contribution to growth in Upper Hutt City (33.7 per cent), Wellington City (45.7 per cent), Kapiti Coast District (74.6 per cent), and the Carterton District (113.7 per cent). The Asian population accounted for nearly 38 per cent of Wellington City's growth and was the largest source of growth for both the Masterton District and Lower Hutt City. Māori and Pacific Island populations made substantial contributions to growth in Lower Hutt, Porirua and Upper Hutt Cities (as well as Kapiti Coast District for Pacific Islanders). Despite very high growth rates, the numerically smaller MELAA population made a somewhat smaller contribution to growth in all TAs.

Components of change

5. The main component of the Wellington Region's growth has been natural increase, with net migration loss in the early 1990s and across the 1997-2001 and 2007-2008 periods partially offsetting that growth.

6. The Kapiti Coast and Carterton Districts experienced greater than average growth over the 1991-2011 period, mainly due to higher than average contributions from net migration (particularly in the case of the Kapiti Coast). The opposite was true for the more modest growth of Upper Hutt City and, in particular, Porirua City, both of which experienced relatively high levels of natural increase. This was also the case for Lower Hutt City and the South Wairarapa and Masterton Districts, although for these TAs, substantial net migration loss has resulted in low overall growth. Interestingly, natural increase has also been the main driver of growth for Wellington City, with net migration loss occurring in the early and late 1990s.

7. Components of change by age that are free of cohort effects show that the Wellington Region's net migration gains between 1996 and 2006 were concentrated at 15-24 years of age, while between 2001 and 2006, the gains were greater and more widespread, occurring at ages 15-39 years.

Age structure and population ageing

8. From a cross-sectional perspective (that is, change by age group rather than cohort), all age groups above 40 years grew across the period 1996-2011, while those aged 5-9 and 25-34 years declined (as they did nationally at 30-39 years). The proportion aged 15-24 years remained remarkably stable across the period, resulting in the 20-24 age group forming a slight bulge in the age structure, while as elsewhere, growth was particularly strong across the Baby Boomer age groups.

9. In comparison with other regions, the population of the Wellington Region is relatively youthful, with a very similar age structure to Total New Zealand. However, as elsewhere, it is also ageing, with the proportion aged 0-14 years declining monotonically over the period, and that at 65+ years increasing. This shift is occurring despite a recent increase at ages 0-4 years.

10. The age-sex structures of the TAs which comprise the Wellington Region differ greatly. Wellington City has a disproportion of people aged in their twenties and thirties while the Lower Hutt and Porirua Cities have disproportions of children. Contrasting with both, Upper Hutt City and the Kapiti Coast, Masterton, South Wairarapa and Carterton Districts have deeply 'waisted' (hour-glass shaped) age structures, typically reflecting the net migration loss of young adults. Although much less pronounced, this age structure can also be seen for Lower Hutt and Porirua Cities.

11. Underlying these differences are different mixes of the components of population change. A significant bulge at 20-29 years for Wellington City, for example, is due to large net migration gains at these ages, as well as net migration losses at younger and older ages – making this bulge appear even larger. By contrast, a disproportion of children in the Lower Hutt and Porirua Cities appears to

be the result of relatively high birth rates, as net migration loss primarily occurring at 20-29 years has left somewhat of a 'bite' at the younger reproductive ages. The respective age-sex structures of Upper Hutt City and the Kapiti Coast, Masterton, South Wairarapa and Carterton Districts also have sizeable deficits at 15-29 years, primarily reflecting net migration loss at those ages, but (in the case of all but the Masterton District) also reflecting net gains at younger and older ages, which make the losses at 15-29 years look greater than they are.

Labour market implications of changing age structure

12. The changes by age have important implications for the labour market. The Labour Market 'entry/exit ratio' (populations aged 15-24 : 55-64 years) for the Wellington Region has fallen steadily since 1996, from 18.6 people at labour market entry age for every 10 in the retirement zone, to just 13.6 in 2011 (a decline of 27 per cent). By comparison, Total New Zealand still has 13 people at entry age per 10 at exit age.

13. All entry: exit ratios declined significantly over the period 1996-2011, the greatest declines occurring for the structurally older South Wairarapa and Carterton Districts (respectively 48 and 52 per cent). In both cases, the decline was much greater than the national trend, as it also was in the Masterton District and Upper Hutt City (33-34 per cent). Decline in this index was smallest for Wellington City (20.0 per cent) and – despite its very old age structure – the Kapiti Coast District (17.5 per cent). In the latter case, the decline was from an already low entry: exit ratio of 9.5, falling to just 7.8 in 2011. In 2011, three other TAs had entry: exit ratios below partity (10 entrants per 10 exits): Masterton (9.5), South Wairarapa (6.0) and Carterton (6.3).

Ethnic age composition and ageing

14. As elsewhere in New Zealand, the age structures of the Wellington Region's major ethnic groups differ markedly, with the European-origin population relatively old and the Māori and Pacific Island populations relatively young. The Asian population falls somewhere between, closer to the older age structure of European. When considered together, the general picture is that the Māori and Pacific Island populations increase their share as age decreases, while the European-origin population increases its share as age increases. The picture is significantly less linear for the Asian population, where the largest shares are concentrated at 15-24 and 25-54 years. Within that picture, young Māori and those of Asian origin comprise a slightly smaller share of the Wellington Region's youth than they do at national level, and the situation is similar at each older age. By contrast, the region's European, Pacific Island and MELAA populations generally claim a larger share of each age group than they do nationally.

Population projections

15. In addition to increasing by around 10.7 per cent between 2011 and 2031, the medium variant population projections indicate that more than three quarters of the Wellington Region's projected growth will be at 65+ years, while decline is expected at 0-4 and 15-29 years.

16. Only Wellington City is projected to experience gains in most age groups, with five TAs (Lower Hutt and Upper Hutt Cities, and Masterton, Carterton and South Wairarapa Districts) expected to see decline at most ages below 55 years. All TAs are projected to experience substantial growth at 65+ years, although only Wellington City and Porirua City show growth rates higher than the national average. The outcome of these shifts is projected overall growth of less than 6 per cent for most TAs, with Masterton and South Wairarapa Districts expected to decline in size (-4.0 per cent and -5.1 per cent respectively). Comparatively greater growth is projected for Wellington City (19.1 per cent) and the Kapiti Coast District (20.4 per cent), with both expected to grow by more than the national population (16.3 per cent).

Projections by ethnicity

17. Projections for the Wellington Region by major ethnic group (multiple count ethnicity) show the Māori population increasing between 2011 and 2021 by approximately 13.0 per cent and the European/Other population by just 3.2 per cent. Respective increases of 16.5 and 27.7 per cent are projected for the Pacific Islands and Asian populations. In all cases, natural increase is the primary driver of growth, and for the European, Māori and Pacific Island populations, offsets accompanying net migration loss.

18. The ethnic projections also indicate marked differences by age. The 65+ year European/Other population is projected to increase by 30.2 per cent, compared with 76.9 per cent for Māori, 61.1 per cent for the Pacific Island population and 100.0 per cent for the Asian population. For the European/Other population the increase in the elderly population accounts for the vast majority of the overall 3.2 per cent projected growth, with net losses projected at 0-14 and 40-64 years (2.6 and 1.1 per cent respectively) and minimal growth at 15-39 years (0.5 per cent). Growth is projected at all ages for all other ethnic groups, disproportionately so at 0-14 and 15-39 years for the Māori and Pacific Islands populations, and at 15-39 and 50-64 years for the Asian population.

19. The data suggest only modest change in the overall ethnic composition of the region, with European/Other falling by three percentage points to 67.7 per cent by 2021. Māori and Pacific Island shares are expected to increase slightly (by 0.6 percentage points in both cases), and the Asian population is anticipated to reach 10.8 per cent by 2021, up from 9.1 per cent in 2011. The projections indicate that the European/Other population will continue to account for the majority of each age group, ranging in 2021 from 55.7 per cent at ages 0-14, to 82.1 per cent at ages 65+ years.

Labour market implications of projected change in age structure

20. The Wellington Region is likely to maintain more people at labour market 'entry' (15-24 years) than 'exit' (55-64 years) age across the projection period, falling from 14.9 (fifteen 'entrants' per 10 'exits') in 2011, to below 11.0 between 2021 and 2026, returning to 11.6 in 2031 as the current baby blip enters the labour market. However these population-based ratios may say little about labour market availability, given the Wellington Region's role as a centre for education and international migration.

21. Reflecting its disproportionate bulge at 20-29 years, Wellington City has the highest ratio of people at labour market entry to exit age (18.4 per 10 in 2011), and South Wairarapa District the lowest (6:10), with the ratios of three other TAs (Kapiti Coast, Masterton and Carterton Districts) also already below one. These ratios are projected to decline by at least 10 per cent for all TAs (with the exception of the Carterton District) between 2011 and 2031, with the decline most pronounced for Wellington City (20.2 per cent), albeit the ratio remaining above 14:10 in 2031.

Natural increase implications of changing age structure

22. For the Wellington Region, the ratio of elderly (65+ years) to children (0-14 years) is projected to increase rapidly from its present 0.64 (six elderly for every ten children), to 1.16 by 2031 (twelve for every 10). This profound shift to more elderly than children (the cross over coinciding with that for Total New Zealand around 2026) will by then be contributing to diminishing levels of natural increase, as will the decreasing proportion projected by then to be at the key reproductive ages (28.9 per cent in 2031, down from 27.2 per cent in 2011) compared with Total New Zealand (25-27 per cent).

23. Reflecting the differing drivers of population growth in each TA, the picture differs somewhat at TA level, with the ratio of elderly to children projected to rise most substantially in Upper Hutt City and South Wairarapa and Carterton Districts, where it is anticipated there will be more elderly than children by 2016, joining Kapiti Coast which has already passed this point. All TAs, however, see a significant increase in this index. A concomitant reduction in the proportion of the population of each TA at the key reproductive ages results in a projected decline in natural increase for all but the relatively youthful Wellington City, where natural increase rises slightly.

Industrial Change

24. A special topic section provides an overview of the Wellington Region's changing industrial age structure across the 1996-2006 period, focussing first on the six largest industries (in rank order, Government Administration, Marketing and Business Management Services, School Education, Other Business Services, Computer Services, and Cafes and Restaurants), and then on the 22 industries which each employ more than 3,000 people. In 2006 the six largest industries accounted

for 25 per cent of the region's employed labour force, and (inclusive of these six) the 22 employing more than 3,000 people, for 56 per cent.

25. Within the group comprising the six largest industries are three that have relatively old age structures (as indicated by labour market entry: exit ratios that are below parity, ie., fewer than ten people aged 15-24 years per ten aged 55+ years), two that have entry: exit ratios at or very close to parity (1.2 and 1.0), and one that is extremely youthful. In all cases these ratios had fallen dramatically since 1996, in three cases reducing by more than half. Of equal importance are that five of these industries are significantly feminised, particularly the oldest (School Education), with implications for future recruitment, retention and succession planning as women tend to work fewer hours than men in order to balance work and family commitments.

26. In total, 11 of the 22 industries employing more than 3,000 people in 2006 had fewer people at entry than exit age, up from eight in 1996. The two largest industries – Government Administration, and Marketing and Business Management Services, had entry: exit ratios of just 0.6 (sex entrants per ten exits), while the third largest – School Education, had an entry exit ratio of just 0.2. Other industries with fewer people at entry than exit age were Legal and Accounting Services (0.7), Technical Services (0.6), Post School Education (0.5), Other Health Services (0.4), Public Order and Safety Services (0.4), Interest Groups (0.4), Hospitals and Nursing Homes (0.3), and Community Care Services (0.3). Together these 11 industries accounted for 30 per cent of the Wellington Region's employed workforce in 2006, and point to an urgent need for these industries to engage with the inter-related issues of recruitment, retention and succession planning.

What you need to know about these data

Data sources: All data used in this report have been sourced from Statistics New Zealand. Most have been accessed via Infoshare or Table Builder, while some have come from purchased, customised databases specially prepared for NIDEA by Statistics New Zealand. Because the data come from different collections and/or are aggregated in different ways, for example by ethnicity or labour force status, and small cell sizes have been rounded by Statistics New Zealand to protect individuals, they often generate different totals. While considerable care has been taken to ensure that such inter- and intra-collection discontinuities are acknowledged and accounted for, for example via footnotes to tables or in the text, the disparities are not usually large, and typically do not affect the story being told. The matter is drawn to the attention of readers who are often concerned when numbers which 'should' be the same, are not. The time-series data in Figures 1.1 and 1.2, collected under different methods of aggregation, are a particular case in point.

Ethnicity: The 'multiple count' method of enumerating the population by ethnic group is another case worthy of special note. The ethnic concept underlying data used in in this report is:

> *'the ethnic group or groups that people identify with or feel they belong to. Ethnicity is self-perceived and people can belong to more than one ethnic group. For example, people can identify with Māori ethnicity even though they may not be descended from a Māori ancestor. Conversely, people may choose to not identify with Māori ethnicity even though they are descended from a Māori ancestor'* (Statistics New Zealand 2011).

Counting people more than once makes analysis of the data and its interpretation particularly difficult. Some analysts prefer to calculate proportions based on the summed numbers in each ethnic group, which is the approach taken here, while others prefer to use the total population count as the denominator (eg., for a region). The problem with the latter method is that proportions sum to well over 100 per cent, making it difficult to interpret the resulting graphs. The approach in this paper has been to identify the extent of the 'over count'.

Residual method for estimating total net migration: This paper uses a residual method for estimating net migration. First, deaths for a given observation (e.g., one single year) are subtracted from births to give an estimate of natural increase. Second, the population at one observation is subtracted from the population at the previous observation, to give an estimate of net change between the two observations. Third, natural increase for that observation is subtracted from net change, to give the component due to net migration.

Residual method for estimating inter-censal migration by age and sex: A similar method is used for estimating net migration by age between two observations for which there are existing data (e.g., five year census periods). First, numbers by age and sex for one observation are 'survived' based on the probability of surviving to the next age group. Second, births are apportioned male/female according to the sex ratio (105 males/100 females), and entered at age 0-4. Third, the survived numbers for each age/sex group are 'aged' by five years, to become the expected population for the next observation. Fourth, expected numbers for each age/sex group are subtracted from actual numbers at the next census, to derive an estimate of net migration for each age/sex.

Projections: The population projections used in this paper are in most cases based on Statistics New Zealand's (2009) medium set of assumptions, but comparison with the high and low variants have been included where useful. At national level the medium assumptions are that the total fertility rate (TFR) will decline from its present 2.1 births per woman to 1.9 births per woman by 2026; that life expectancy will continue to increase, but at a decelerating rate, and that annual net international migration will be 10,000 per year. International and internal migration at the subnational level is also accounted for, the assumptions reflecting observed net migration during each five-year period 1981-2006. The assumptions are included at Appendix 3. When interpreting these data it is important to remember that demographic projections of future demand are not forecasts in the sense that they incorporate interventions that may change the demographic future. Rather, they simply indicate what future demand will be if the underlying assumptions regarding births, deaths, migration prevail.

Industry: The industry data used in the Special Topic (Section 6) are drawn from a time-series database developed by Statistics New Zealand to NIDEA specifications. They pertain to the employed population only. Data are given for three Census observations (1996, 2001 and 2006) and have been customised so that the industrial classification and geographic region is internally consistent across the period. The industrial classification is based on ANZSIC96 V4.1 at the three-digit level.

1.0   Population Trends

1.1 Population Size and Growth

The population of the Wellington Region has grown steadily over the past twenty-five years, from 395,610 in 1986 to approximately 487,700 in 2011, an increase of 23 per cent (Figure 1.1.1; see Appendix 1.1 for underlying data). Differences in the timing and methods of estimating population size across the period mean that the trends cannot be presented as continuous; however there is sufficient correspondence to indicate that growth has been approximately as depicted.

Figure 1.1.1: Population of Wellington Region, 1986-2011
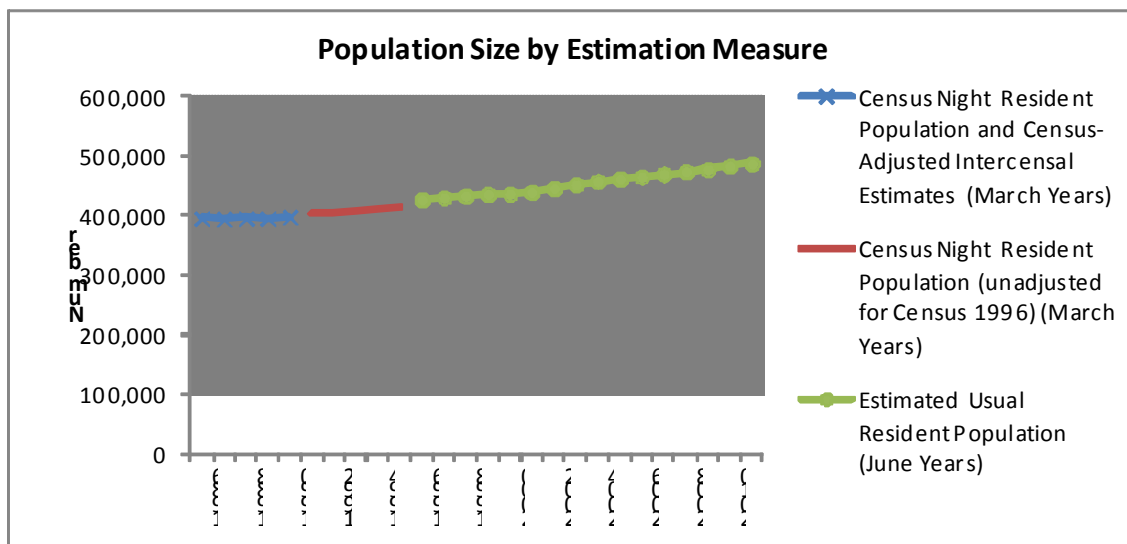
Source: Statistics New Zealand Infoshare, Tables DPE006AA; DPE051AA

Notes: Changes in the timing and method of estimating Resident Population between 1990-1991 and 1995-1996 mean that the three sets of trends should be understood as discontinuous

Figure 1.1.2 shows the trends in terms of annual growth rates, with the data collection discontinuities identified by gaps. Data are also compared with Total New Zealand. Growth for the Wellington Region across the period 1986-2011 has followed national trends very closely, albeit remaining slightly lower at each observation. In particular, the late 1980s, early-mid 1990s and early 2000s were periods where national growth was notably higher than in the Wellington Region.

Figure 1.1.2: Annual Population Growth Rate, Wellington Region and Total New Zealand, 1986-2011
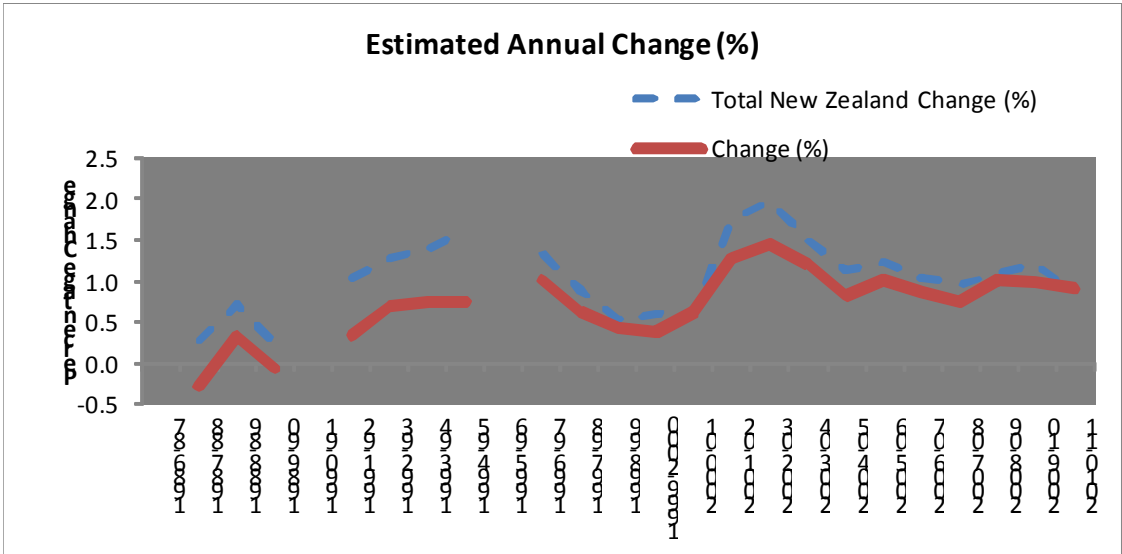
Notes: Changes in the timing and method of estimating Resident Population between 1990-1991 and 1995-1996 mean that the three sets of trends should be understood as discontinuous

Table 1.1.1 compares the annual growth rates of the seven Territorial Authority (TA) areas which comprise the Wellington Region, and Table 1.1.2, the contribution of each TA to the region's population (see Appendix 1.2 for underlying numbers).

Wellington City has consistently comprised the largest proportion of the region's population (in 2011 accounting for 41.0 per cent - Table 1.1.2). The capital city increased by 33.5 per cent over the period 1986-2011 (Table 1.1.1) and contributed to the majority of the region's growth (54.5 per cent) (Table 1.1.2). Although accounting for only 10.2 per cent in 2011, the Kapiti Coast District saw the greatest growth, increasing by 67.4 per cent between 1986 and 2011 and accounting for 21.8 per cent of the region's growth. The relatively large Lower Hutt and Porirua cities (comprising about 21 per cent and 11 per cent of the region respectively) each contributed a smaller amount to overall growth, accounting for only 8.3 and 7.6 per cent respectively. Upper Hutt City grew by a modest 11.3 per cent, accounting for 4.6 per cent of the region's growth, while the Masterton and South Wairarapa Districts experienced the lowest growth rates in the region (less than 8 per cent in both cases) and each contributed just one per cent to overall growth. The relatively fast growth of the Carterton District (20.7 per cent between 1986 and 2011) was also significant, but similarly contributed just 1.4 per cent to the Wellington Region's growth, due to very small initial numbers.

Table 1.1.1: Annual Population Change (%), Wellington Region, TAs, Total New Zealand 1986-2011

	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	Wellington Regional Council	Total New Zealand
1986 Pop.	149,868	95,342	45,663	29,754	37,290	22,508	8747.0	6,336	395,610	3,307,084
1986-87	…	…	…	…	…	…	…	…	…	…
1987-88	-1.0	-0.7	0.3	3.2	-0.5	0.4	0.6	2.0	-0.3	0.3
1988-89	0.0	-0.2	0.4	3.6	0.0	0.0	0.7	1.9	0.3	0.7
1989-90	-0.5	-0.5	0.2	2.5	-0.5	0.0	0.6	1.5	-0.1	0.2
1990-91	…	…	…	…	…	…	…	…	…	…
1991-92	-0.1	0.0	0.9	2.8	-0.2	0.2	0.9	1.7	0.3	1.0
1992-93	0.5	0.1	0.9	2.8	0.0	0.9	1.1	1.6	0.7	1.3
1993-94	0.9	0.3	0.8	1.9	0.3	0.9	1.1	0.6	0.7	1.4
1994-95	1.1	0.1	1.0	1.8	0.0	0.4	0.9	0.6	0.8	1.6
1995-96										…
1996-97	1.6	0.6	0.6	2.3	0.3	0.0	-1.3	-0.6	1.0	1.1
1997-98	0.8	0.2	0.6	2.2	0.0	0.0	-0.1	-0.7	0.6	0.7
1998-99	0.7	-0.2	0.6	1.7	-0.3	-0.4	-0.4	-0.4	0.4	0.6
1999-2000	0.5	-0.1	0.2	1.9	0.0	0.0	0.2	0.3	0.4	0.6
2000-01	0.9	-0.2	0.6	2.1	0.0	0.0	-0.7	2.3	0.6	1.1
2001-02	1.9	0.7	0.6	1.6	1.1	0.4	0.6	0.7	1.3	1.9
2002-03	2.5	0.5	1.0	1.8	1.0	0.0	0.0	1.0	1.5	1.8
2003-04	1.8	0.6	0.4	1.8	1.0	0.0	0.3	0.7	1.2	1.3
2004-05	1.3	0.3	-0.2	1.7	0.8	0.0	0.3	0.4	0.8	1.1
2005-06	1.7	0.1	0.4	1.7	1.3	-0.4	0.8	0.8	1.0	1.2
2006-07	1.5	0.2	0.2	1.1	0.8	-0.4	0.2	0.6	0.9	1.0
2007-08	1.2	0.2	0.6	0.8	0.5	0.4	0.5	0.8	0.7	0.9
2008-09	1.4	0.4	1.0	1.0	1.0	0.4	0.7	0.8	1.0	1.3
2009-10	1.1	0.6	1.2	1.0	1.2	0.4	1.0	1.6	1.0	1.1
2010-11	1.2	0.3	1.2	0.8	1.0	0.4	0.9	1.5	0.9	0.3
1986-2011	33.5	8.0	15.4	67.4	11.3	4.4	7.7	20.7	23.3	33.2
2011 Pop.	200,100	103,000	52,700	49,800	41,500	23,500	9,420	7,650	487,700	4,405,200

Source: Statistics New Zealand Infoshare, Tables DPE006AA; DPE051AA

Table 1.1.2: Contribution (%) to the Wellington Region's Population by TA, 1986-2011

|	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	Wellington Regional Council
1986	37.9	24.1	11.5	7.5	9.4	5.7	2.2	1.6	100.0
1987	37.6	24.0	11.6	7.8	9.4	5.7	2.2	1.6	100.0
1988	37.5	23.9	11.6	8.0	9.4	5.7	2.2	1.7	100.0
1989	37.3	23.8	11.7	8.2	9.3	5.7	2.3	1.7	100.0
1990	37.2	23.7	11.6	8.5	9.3	5.7	2.3	1.7	100.0
1991	37.3	23.5	11.6	8.8	9.2	5.7	2.2	1.7	100.0
1992	37.1	23.4	11.6	9.0	9.2	5.7	2.3	1.7	100.0
1993	37.1	23.2	11.6	9.2	9.1	5.7	2.3	1.8	100.0
1994	37.1	23.1	11.7	9.3	9.0	5.7	2.3	1.8	100.0
1995	37.2	23.0	11.7	9.4	9.0	5.7	2.3	1.7	100.0
1996	38.3	23.1	11.3	9.2	8.8	5.5	2.1	1.6	100.0
1997	38.5	23.1	11.2	9.3	8.8	5.4	2.1	1.6	100.0
1998	38.6	23.0	11.2	9.5	8.7	5.4	2.1	1.6	100.0
1999	38.7	22.8	11.3	9.6	8.7	5.3	2.1	1.6	100.0
2000	38.7	22.7	11.2	9.8	8.6	5.3	2.1	1.6	100.0
2001	38.9	22.5	11.2	9.9	8.6	5.3	2.0	1.6	100.0
2002	39.1	22.4	11.2	9.9	8.5	5.2	2.0	1.6	100.0
2003	39.5	22.2	11.1	10.0	8.5	5.2	2.0	1.6	100.0
2004	39.8	22.0	11.0	10.0	8.5	5.1	2.0	1.6	100.0
2005	40.0	21.9	10.9	10.1	8.5	5.0	2.0	1.6	100.0
2006	40.3	21.7	10.9	10.2	8.5	5.0	2.0	1.6	100.0
2007	40.5	21.6	10.8	10.2	8.5	4.9	1.9	1.6	100.0
2008	40.7	21.5	10.8	10.2	8.5	4.9	1.9	1.6	100.0
2009	40.8	21.3	10.8	10.2	8.5	4.9	1.9	1.6	100.0
2010	40.9	21.2	10.8	10.2	8.5	4.8	1.9	1.6	100.0
2011	41.0	21.1	10.8	10.2	8.5	4.8	1.9	1.6	100.0
1986-2011	54.5	8.3	7.6	21.8	4.6	1.1	0.7	1.4	100.0

Source: Statistics New Zealand Infoshare, Tables DPE006AA; DPE051AA

*Notes: *Changes in the timing and method of estimating Resident Population between 1990-1991 and 1995-1996 mean that the three sets of trends should be understood as discontinuous*

1.2 Ethnic Composition and Growth

Figure 1.2.1 indicates the extent to which the major ethnic groups comprise and have contributed to the Wellington Region's growth over the period 1996-2006 (see also Table 1.2.1). These 'multiple ethnic group' data[1] show that the proportion identifying as European/New Zealander/Other – hereafter European - in the region declined somewhat (-5 per cent) over the decade, from 75.2 per cent in 1996 to 71.5 per cent in 2006. This is a slightly smaller change than for Total New Zealand, with the proportion European reducing from 75.2 to 70.1 per cent (a decline of 6.7 per cent). In contrast to the European population, the remaining four ethnic groups increased their share of the Wellington Region population. Only small increases were experienced by Maori (rising from 11.6 per cent in 1996 to 11.9 per cent in 2006) and Pacific Peoples (7.1 per cent in 1996 to 7.5 per cent in 2006). Proportions identifying as Asian increased substantially, from 5.5 per cent in 1996 to 7.9 per cent in 2006 (44 per cent increase), as did those identifying as Middle Eastern/Latin American/African (MELAA), from 0.7 per cent to 1.1 per cent (57 per cent increase).

In all cases the number in each ethnic group has grown, but substantially less so for the European-origin population. For the Wellington Region this population grew by 4.6 per cent during the period 1996-2006, very similar to the 4.5 per cent for Total New Zealand (Table 1.2.1). However, the dominant size of the European population means that it still accounted for 34.8 per cent of the Wellington Region's growth and 28.2 per cent of national growth.

In absolute terms, the Māori population of the Wellington Region grew by 12.3 per cent (Table 1.2.1), accounting for 14.3 per cent of the region's growth, compared to 10.4 per cent nationally. Pacific Peoples also experienced significant growth between 1996 and 2006, almost 17 per cent regionally compared with 32 per cent for Total New Zealand. They accounted for 12 per cent of the Wellington Region's growth over the period, compared to 14.7 per cent of that for Total New Zealand.

The Asian-origin and MELAA populations of the Wellington Region each experienced substantial absolute growth (Table 1.2.1), growing by around 60 per cent and 92 per cent respectively. Between 1996 and 2006 the Asian-origin population accounted for about a third of the Wellington Region's growth, compared with 42.6 per cent for Total New Zealand; the numerically smaller MELAA population accounted for 6.0 and 4.1 per cent of growth respectively.

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[1] The multiple ethnic group method of enumeration means that a proportion of people are counted more than once. Table 1.2.1 gives an approximation of the extent to which the method results in an over-count.

Figure 1.2.1: Population by Major Ethnic Group (Multiple Count), Wellington Region and Total New Zealand 1996, 2001, 2006
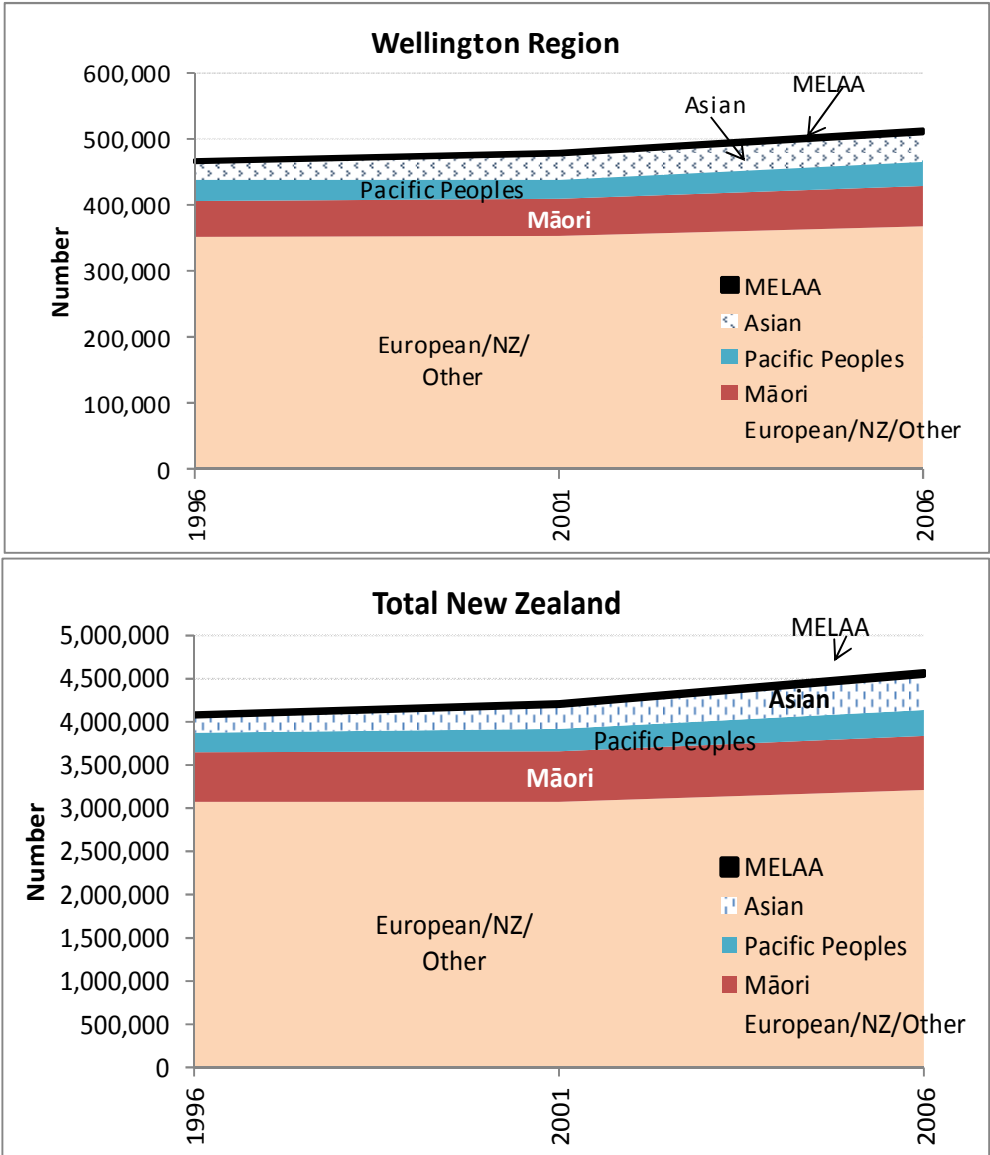
Statistics New Zealand, Estimated Subnational Ethnic Population (RC,TA) by Age and Sex at 30 June 1996, 2001 and 2006

*Notes: *People may be counted in more than one ethnic group*

Table 1.2.1: Population by Major Ethnic Group* (Multiple Count), Wellington Region and Total New Zealand 1996-2006

	1996	2001	2006	Change (%)	1996	2001	2006	Contribution to Change 1996-2006	
	NUMBER				DISTRIBUTION (%)*			Number	(%)
Wellington Region									
European/NZ/Other	351,840	353,130	368,060	4.6	75.2	73.4	71.5	16,220	34.8
Māori	54,300	56,220	60,980	12.3	11.6	11.7	11.9	6,680	14.3
Pacific Peoples	33,140	35,930	38,740	16.9	7.1	7.5	7.5	5,600	12.0
Asian	25,570	31,290	40,820	59.6	5.5	6.5	7.9	15,250	32.8
MELAA#	3,050	4,230	5,860	92.1	0.7	0.9	1.1	2,810	6.0
TOTAL	467,900	480,800	514,460	10.0	100.0	100.0	100.0	46,560	100.0
Total without multiple count	426,900	440,300	466,300	9.2	…	…	…		
Ethnic 'overcount' (%)	9.6	9.2	10.3	7.5	…	…	…		
TOTAL NEW ZEALAND									
European/NZ/Other	3,074,610	3,074,010	3,213,330	4.5	75.2	72.8	70.1	138,720	28.2
Māori	573,180	585,970	624,310	8.9	14.0	13.9	13.6	51,130	10.4
Pacific Peoples	229,280	261,820	301,640	31.6	5.6	6.2	6.6	72,360	14.7
Asian	194,750	272,440	404,320	107.6	4.8	6.5	8.8	209,570	42.6
MELAA#	18,450	27,660	38,550	108.9	0.5	0.7	0.8	20,100	4.1
TOTAL	4,090,270	4,221,900	4,582,150	12.0	100.0	100.0	100.0	491,880	100.0
Total without multiple count	3,732,000	3,880,500	4,184,500	12.1	…	…	…	…	…
Ethnic 'overcount' (%)	9.6	8.8	9.5	-1.0	…	…	…	…	…

Source: Statistics New Zealand, Estimated Subnational Ethnic Population (RC,TA) by Age and Sex at 30 June 1996, 2001 and 2006

*Notes: *Multiple Count means that people may be counted in more than one ethnic group - see Ethnic 'overcount' rows*

 # MELAA = Middle Eastern/Latin American/African

Table 1.2.2 gives these data for the TA's which comprise the Wellington Region. They show the European-origin population of Lower Hutt City declining in both absolute (-5.8 per cent) and relative terms (from 72.5 to 65.7 per cent) between 1996 and 2006, as well as declining slightly in the Masterton District (-0.2 per cent). In all other cases, European numbers grew; although, with the exceptions of the South Wairarapa and Carterton districts, growth rates for the European population were consistently the lowest compared with other ethnic groups (or second lowest in the case of Wellington City). Māori populations also experienced comparatively low growth, including negative in the South Wairarapa (-16.8 per cent) and Carterton (-5.7 per cent) Districts.

By contrast, the Asian and MELAA populations experienced very large increases in almost every TA in both absolute numbers and population share (although shares remained unchanged for the MELAA group in the Kapiti Coast, South Wairarapa and Carterton Districts). In particular, MELAA numbers more than doubled in Upper Hutt, Lower Hutt and Porirua Cities, and Asian numbers grew by more than 50 per cent in Wellington and Lower Hutt cities and the Kapiti Coast District.

Trends for Pacific-origin populations are mixed. Growth rates rank in the middle of the other ethnic groups; however, they range from comparatively high as in the Kapiti Coast District (45 per cent) to the lowest as in Wellington City (8.5 per cent) and Carterton District (-8.7 per cent).

These trends are reflected in sizeable differences by TA in terms of each ethnic group's contribution to overall growth. Despite low growth, their large numbers mean that Europeans made the greatest contribution to growth in Upper Hutt City (33.7 per cent), Wellington City (45.7 per cent), Kapiti Coast District (74.6 per cent), and the Carterton District (113.7 per cent). By comparison, the Asian population accounted for nearly 38 per cent of Wellington City's growth across the decade, and was the largest source of growth for both the Masterton District and Lower Hutt City. Despite high growth rates, the numerically smaller MELAA population made a smaller contribution to growth.

NB. The issue of ethnic 'over-count' should be kept in mind when interpreting these data; as high as 17.8 per cent for Porirua City in 2006. That is, the aggregate population for each area is inflated by the given proportion as the result of multiple counting by ethnicity, and is generally higher where the proportion Māori is higher (Pearson's correlation r = 0.8)[2]. Of interest is that this proportion has increased for most TAs between 1996 and 2006, but decreased for Lower Hutt City and Carterton and South Wairarapa Districts, with the latter two also experiencing declines in the Māori population.

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[2] The Pearson's correlation coefficient (r) measures the strength of association between two arrays of data on a scale ranging from -1.0 to +1.0. An r of 1.0 would indicate that both indices moved in the same direction at the same rate; an r of -1.0, that each moved in the opposite direction at the same rate. In the present case, an r of 0.8 indicates that the higher the proportion Māori, the higher the level of multiple counting.

Table 1.2.2: Population by Major Ethnic Group* (Multiple Count), TA's of Wellington RC 1996-2006

	1996	2001	2006	Change (%)	1996	2001	2006	Number	(%)
	NUMBER				DISTRIBUTION (%)*			Contribution to Change 1996-2006	
Wellington City									
European/NZ/Other	135,700	138,550	148,180	9.2	77.3	75.5	73.0	12480	45.7
Māori	13,130	13,270	15,100	15.0	7.5	7.2	7.4	1970	7.2
Pacific Peoples	9,100	9,370	9,870	8.5	5.2	5.1	4.9	770	2.8
Asian	15,450	19,230	25,760	66.7	8.8	10.5	12.7	10310	37.8
MELAA#	2,210	2,990	3,980	80.1	1.3	1.6	2.0	1770	6.5
TOTAL	175,590	183,410	202,890	15.5	100.0	100.0	100.0	27300	100.0
Total without multiple count	163,400	171,100	187,700	14.9	…	…	…	…	…
Ethnic 'overcount' (%)	7.5	7.2	8.1	8.5	…	…	…	…	…
Lower Hutt City									
European/NZ/Other	78,920	75,370	74,380	-5.8	72.5	69.0	65.7	-4540	-106.4
Māori	15,190	16,280	17,550	15.5	13.9	14.9	15.5	2360	55.3
Pacific Peoples	8,470	9,660	11,000	29.9	7.8	8.8	9.7	2530	59.3
Asian	5,930	7,160	9,120	53.8	5.4	6.6	8.1	3190	74.8
MELAA#	420	700	1,145	172.6	0.4	0.6	1.0	725	17.0
TOTAL	108,930	109,170	113,195	3.9	100.0	100.0	100.0	4265	100.0
Total without multiple count	266,500	298,200	347,100	30.2	…	…	…	…	…
Ethnic 'overcount' (%)	13.3	11.5	11.8	-11.3	…	…	…	…	…
Porirua City									
European/NZ/Other	31,730	31,250	32,170	1.4	56.5	54.4	54.0	440	12.7
Māori	10,150	10,400	10,700	5.4	18.1	18.1	18.0	550	15.8
Pacific Peoples	12,400	13,580	14,100	13.7	22.1	23.6	23.7	1700	48.9
Asian	1,755	2,040	2,380	35.6	3.1	3.6	4.0	625	18.0
MELAA#	90	190	250	177.8	0.2	0.3	0.4	160	4.6
TOTAL	56,125	57,460	59,600	6.2	100.0	100.0	100.0	3475	100.0
Total without multiple count	48,200	49,600	50,600	5.0	…	…	…	…	…
Ethnic 'overcount' (%)	16.4	15.8	17.8	8.2	…	…	…	…	…
Kapiti Coast District									
European/NZ/Other	36,660	40,010	43,320	18.2	85.7	84.7	83.8	6,660	74.6
Māori	4,580	5,310	6,030	31.7	10.7	11.2	11.7	1,450	16.2
Pacific Peoples	730	900	1,060	45.2	1.7	1.9	2.1	330	3.7
Asian	730	935	1,195	63.7	1.7	2.0	2.3	465	5.2
MELAA#	80	75	100	25.0	0.2	0.2	0.2	20	0.2
TOTAL	42,780	47,230	51,705	20.9	100.0	100.0	100.0	8,925	100.0
Total without multiple count	39,500	43,700	47,400	20.0	…	…	…	…	…
Ethnic 'overcount' (%)	8.3	8.1	9.1	9.4	…	…	…	…	…
Upper Hutt City									
European/NZ/Other	33,430	32,770	34,280	2.5	81.3	80.0	78.5	850	33.7
Māori	4,980	5,110	5,620	12.9	12.1	12.5	12.9	640	25.3
Pacific Peoples	1,410	1,570	1,810	28.4	3.4	3.8	4.1	400	15.8
Asian	1,200	1,340	1,680	40.0	2.9	3.3	3.8	480	19.0
MELAA#	105	165	260	147.6	0.3	0.4	0.6	155	6.1
TOTAL	41,125	40,955	43,650	6.1	100.0	100.0	100.0	2,525	100.0
Total without multiple count	37,700	37,700	39,600	5.0	…	…	…	…	…
Ethnic 'overcount' (%)	9.1	8.6	10.2	12.6	…	…	…	…	…
Masterton District									
European/NZ/Other	20,560	20,440	20,520	-0.2	80.2	80.6	80.0	-40	-133.3
Māori	4,020	3,900	4,020	0.0	15.7	15.4	15.7	0	0.0
Pacific Peoples	660	640	660	0.0	2.6	2.5	2.6	0	0.0
Asian	345	350	400	15.9	1.3	1.4	1.6	55	183.3
MELAA#	35	40	50	42.9	0.1	0.2	0.2	15	50.0
TOTAL	25,620	25,370	25,650	0.1	100.0	100.0	100.0	30	100.0
Total without multiple count	23,300	23,200	23,200	-0.4	…	…	…	…	…
Ethnic 'overcount' (%)	10.0	9.4	10.6	6.1	…	…	…	…	…
South Wairarapa District									
European/NZ/Other	8,290	8,130	8,380	1.1	83.1	85.1	84.9	90	-85.7
Māori	1,425	1,190	1,185	-16.8	14.3	12.5	12.0	-240	228.6
Pacific Peoples	160	120	135	-15.6	1.6	1.3	1.4	-25	23.8
Asian	95	110	160	68.4	1.0	1.2	1.6	65	-61.9
MELAA#	5	-	10	100.0	0.1	0.0	0.1	5	-4.8
TOTAL	9,975	9,550	9,870	-1.1	100.0	100.0	100.0	-105	100.0
Total without multiple count	9,150	8,940	9,110	-0.4	…	…	…		
Ethnic 'overcount' (%)	9.0	6.8	8.3	-7.5	…	…	…		
Carterton District									
European/NZ/Other	6,510	6,610	6,800	4.5	87.1	87.7	88.0	290	113.7
Māori	795	755	750	-5.7	10.6	10.0	9.7	-45	-17.6
Pacific Peoples	115	120	105	-8.7	1.5	1.6	1.4	-10	-3.9
Asian	50	50	70	40.0	0.7	0.7	0.9	20	7.8
MELAA#	5	-	5	0.0	0.1	0.0	0.1	0	0.0
TOTAL	7,475	7,535	7,730	3.4	100.0	100.0	100.0	255	100.0
Total without multiple count	6,940	7,000	7,260	4.6	…	…	…	…	…
Ethnic 'overcount' (%)	7.7	7.6	6.5	-16.0	…	…	…	…	…

Source: Statistics New Zealand, Estimated Subnational Ethnic Population (RC,TA) by Age and Sex at 30 June 1996, 2001 and 2006
*Notes: *Multiple Count means that people may be counted in more than one ethnic group - see Ethnic 'overcount' rows*
 # MELAA = Middle Eastern/Latin American/African

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2.0   Components of Change

2.1 Natural Increase and Net Migration

Figure 2.1.1 shows the estimated components of change contributing to growth for the Wellington Region across the period 1991-2011 (see Table 2.1.1 for underlying data, and note the lack of residual migration data for 1991 and the 1995-1996 period due to methodological changes in the underlying data collection). Clearly, natural increase (the difference between births and deaths) has been the major component of growth since 1991. Net migration loss in the early 1990s and across the 1997-2001 and 2007-2008 periods partially offset that growth.

Figure 2.1.1: Natural Increase, Net Migration and Net Change 1991-2011, Wellington Region
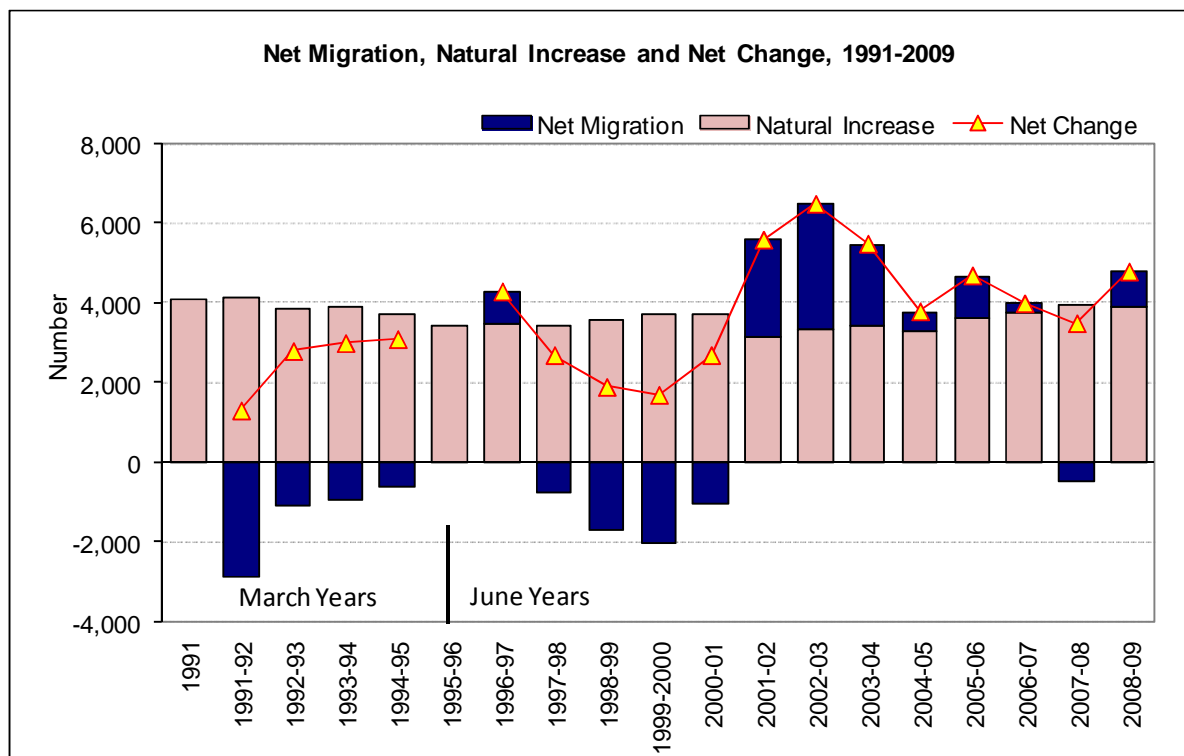
Changes in the timing and method of estimating Resident Population between 1991-1992 and 1995 and 1996 mean that only natural increase can be shown for those years

Comparison with data for Total New Zealand (Figure 2.1.2) indicates similar trends, although net migration levels have been consistently much higher than the Wellington Region, with positive net migration in the early 1990s when it was negative for the Wellington Region.

Figure 2.1.2: Natural Increase, Net Migration and Net Change 1991-2011, Total New Zealand
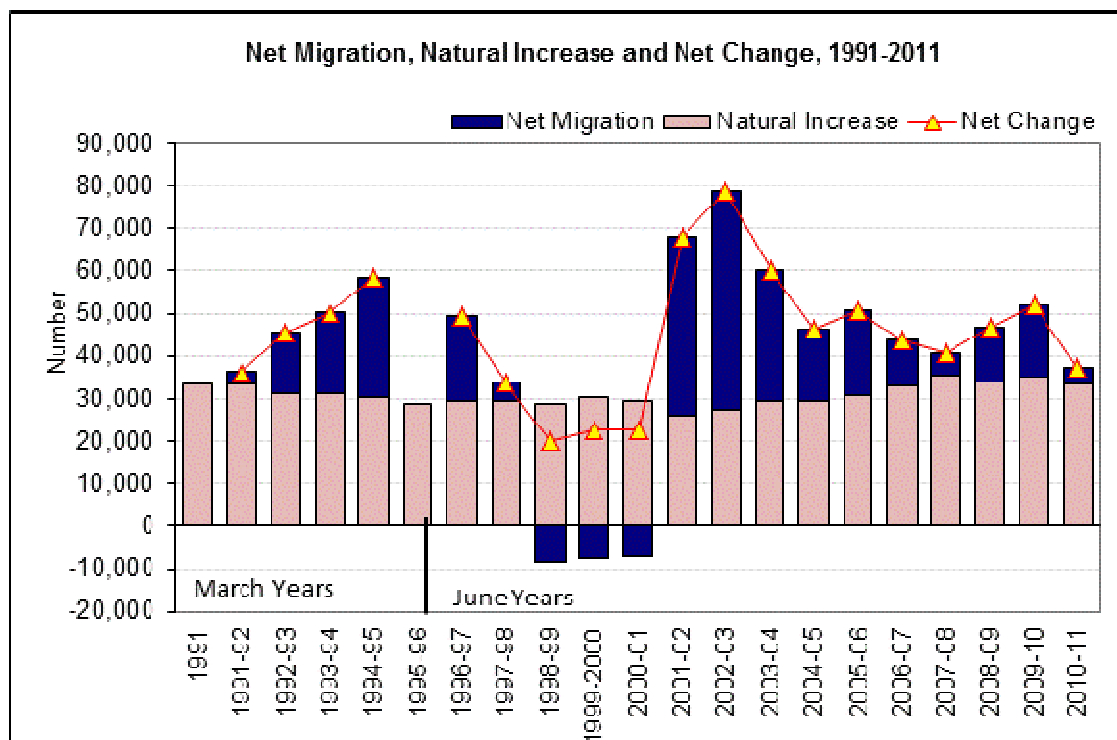
Changes in the timing and method of estimating Resident Population between 1991-1992 and 1995 and 1996 mean that only natural increase can be shown for those years

Comparative data for the TAs comprising the Wellington Region are given in Figure 2.1.3 (see Appendices 1.2-1.5 for underlying data). The greater than average growth over the 1991-2011 period seen earlier in Table 1.1.1 for the Kapiti Coast District (67.4 per cent) and Carterton District (20.7 per cent) is mainly due to their higher than average contributions from net migration (particularly in the case of the Kapiti Coast). The opposite is true for the moderate growth of Upper Hutt City (11.3 per cent) and, in particular, Porirua City (15.4 per cent), which both experienced increases primarily from high levels of natural increase. The same is true for Lower Hutt City and the South Wairarapa and Masterton Districts, although in these cases substantial net migration losses resulted in low overall growth. Interestingly, natural increase has also been the main driver of growth for Wellington City, with net migration loss occurring in the early and late 1990s.

Figure 2.1.3: Net change and components of change, TAs of the Wellington Region, 1991-2011
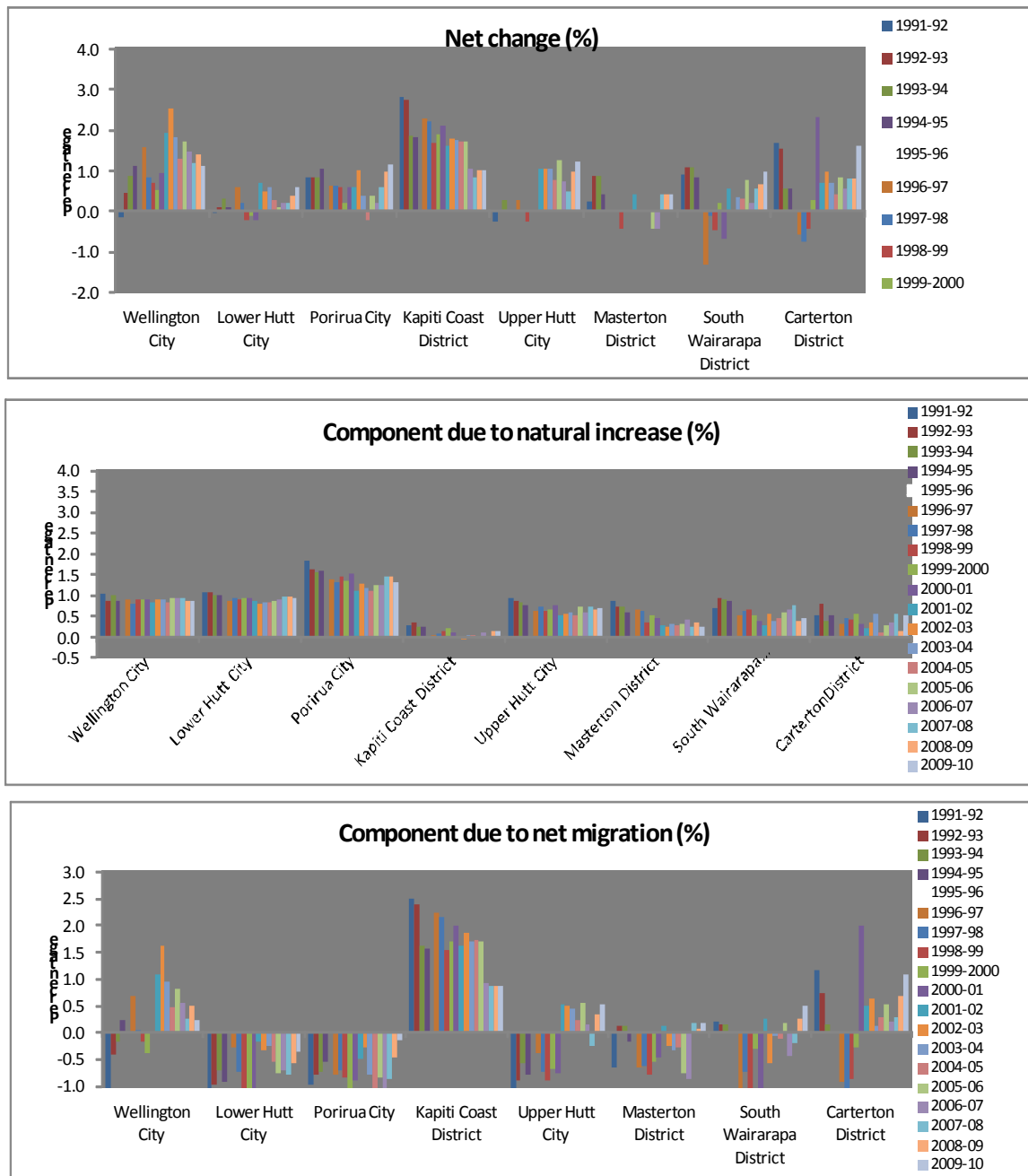
Compiled from Statistics New Zealand Infoshare: Tables DPE051AA, VSB016AA, VSD018AA
(a) 1991-1995 Estimated Defacto; 1996-2011 Estimated Usual Resident
Natural Increase, Net Migration and Net Change as a percentage of previous year's URP

Table 2.1.1: Components of Change, 1991-2011, Wellington Region and Total New Zealand

	Wellington Region									Total New Zealand		
	Components						Contribution to Net Change			Contribution to Net Change		
	Births	Deaths	Natural Increase	Estimated Resident Population (a)	Net Change	Estimated Migration	Estimated Natural Increase~ (%)	Estimated Migration~ (%)	Net Change~ (%)	Estimated Natural Increase~ (%)	Estimated Migration~ (%)	Net Change~ (%)
March Year												
1991	7,067	2,938	4,129	402,892	…	…	…	…	…	…	…	…
1992	7,118	2,949	4,169	404,200	1,308	-2861	1.03	-0.71	0.32	0.95	0.08	1.03
1993	6,819	2,947	3,872	407,000	2,800	-1072	0.96	-0.27	0.69	0.89	0.40	1.28
1994	6,754	2,813	3,941	410,000	3,000	-941	0.97	-0.23	0.74	0.87	0.53	1.40
1995	6,636	2,916	3,720	413,100	3,100	-620	0.91	-0.15	0.76	0.84	0.76	1.60
June Year												
1996	6,411	2,978	3,433	426,900	…	…	…	…	…	...	...	...
1997	6,430	2,934	3,496	431,200	4,300	804	0.82	0.19	1.01	0.79	0.53	1.32
1998	6,353	2,903	3,450	433,900	2,700	-750	0.80	-0.17	0.63	0.78	0.11	0.89
1999	6,468	2,872	3,596	435,800	1,900	-1696	0.83	-0.39	0.44	0.75	-0.22	0.53
2000	6,638	2,925	3,713	437,500	1,700	-2013	0.85	-0.46	0.39	0.79	-0.20	0.59
2001	6,547	2,825	3,722	440,200	2,700	-1022	0.85	-0.23	0.62	0.76	-0.17	0.59
2002	6,045	2,893	3,152	445,800	5,600	2448	0.72	0.56	1.27	0.67	1.08	1.75
2003	6,219	2,867	3,352	452,300	6,500	3148	0.75	0.71	1.46	0.69	1.30	1.99
2004	6,414	2,938	3,476	457,800	5,500	2024	0.77	0.45	1.22	0.74	0.76	1.50
2005	6,225	2,927	3,298	461,600	3,800	502	0.72	0.11	0.83	0.72	0.41	1.14
2006	6,371	2,724	3,647	466,300	4,700	1053	0.79	0.23	1.02	0.75	0.48	1.23
2007	6,657	2,864	3,793	470,300	4,000	207	0.81	0.04	0.86	0.79	0.25	1.04
2008	6,876	2,905	3,971	473,800	3,500	-471	0.84	-0.10	0.74	0.84	0.12	0.96
2009	6,906	2,994	3,912	478,600	4,800	888	0.83	0.19	1.01	0.80	0.30	1.10
2010	6,846	2,994	3,852	483,300	4,700	848	0.80	0.18	0.98	0.82	0.39	1.20
2011	6,716	3,006	3,710	487,700	4,400	690	0.77	0.14	0.91	0.76	0.10	0.86

Compiled from Statistics New Zealand Infoshare: Usual Resident Population, Table DPE051AA; Births, Table VSB016AA; Deaths, Table VSD018AA

(a) 1991-1995 Estimated Defacto; 1996-2011 Estimated Usual Resident

~ Births minus Deaths

* Residual (Net Change minus Natural Increase)

^ Natural Increase, Net Migration and Net Change as a percentage of previous year's URP

2.2 Births, Deaths and Natural Increase

Underlying the trends in natural increase shown above are those for births and deaths, depicted in Figure 2.2.1. Here as might be expected we see that the main driver of natural increase has been births which – as elsewhere in most of New Zealand – have increased since the early 2000s, peaking for the Wellington Region around 2008. For a number of reasons outlined below (most particularly the relatively reducing size of the reproductive age cohort indicated in the section on age structures), birth numbers are unlikely to see major increase in the future.

Deaths have also remained remarkably stable across the period, ending the period at 3,006, only a little above their 1991 level of 2,938 (2.3 per cent). However, the present small increase will almost certainly soon accelerate as the Baby Boomer wave moves through the older age groups.

As the projections further below will show, the overall outcome of these opposing trends will be a steady reduction in natural increase. As indicated above, this trend will have a negative impact on the region's longer-term potential for growth.

Figure 2.2.1: Births, Deaths and Natural Increase, Wellington Region 1991-2011
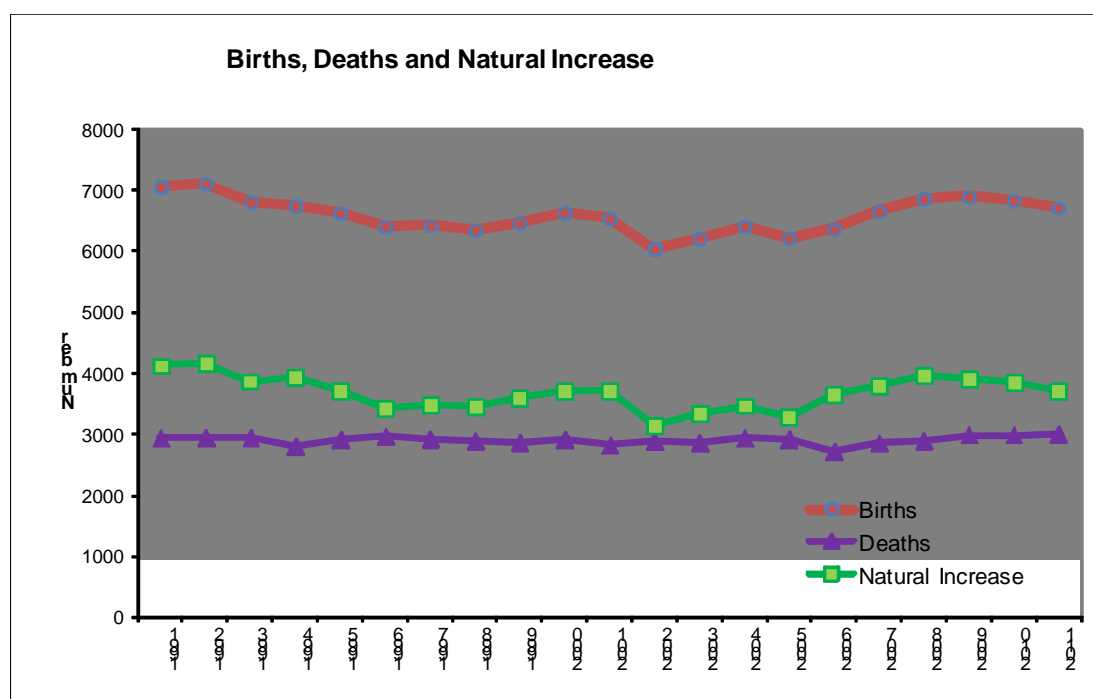
Compiled from Statistics New Zealand Infoshare: Births, Table VSB016AA; Deaths, Table VSD018AA

3.0   Components of Change by Age

3.1 Expected versus Actual Population

Using the residual method for estimating net migration described earlier, the components of change can be plotted by age. Figure 3.1.1 shows that between 1996 and 2001 the small net migration gain outlined above occurred primarily (as is conventional) at the 15-24 year age groups, while between 2001 and 2006 gains were greater and more widespread, occurring at ages 15-39 years. Notable also is the impact of structural ageing which shows at 50-54 years across the 1996-2001 period, and 55-59 years for 2001-2006. That is, the gap between numbers at the previous Census (columns) and Expected/Actual numbers at the subsequent Census reflects the movement of the Baby Boomer wave through the age structure (see also Appendices 2.1 - 2.9 for data and TA graphs).

Figure 3.1.1: Expected and Actual Population by Age, 1996-2001 and 2001-2006, Wellington
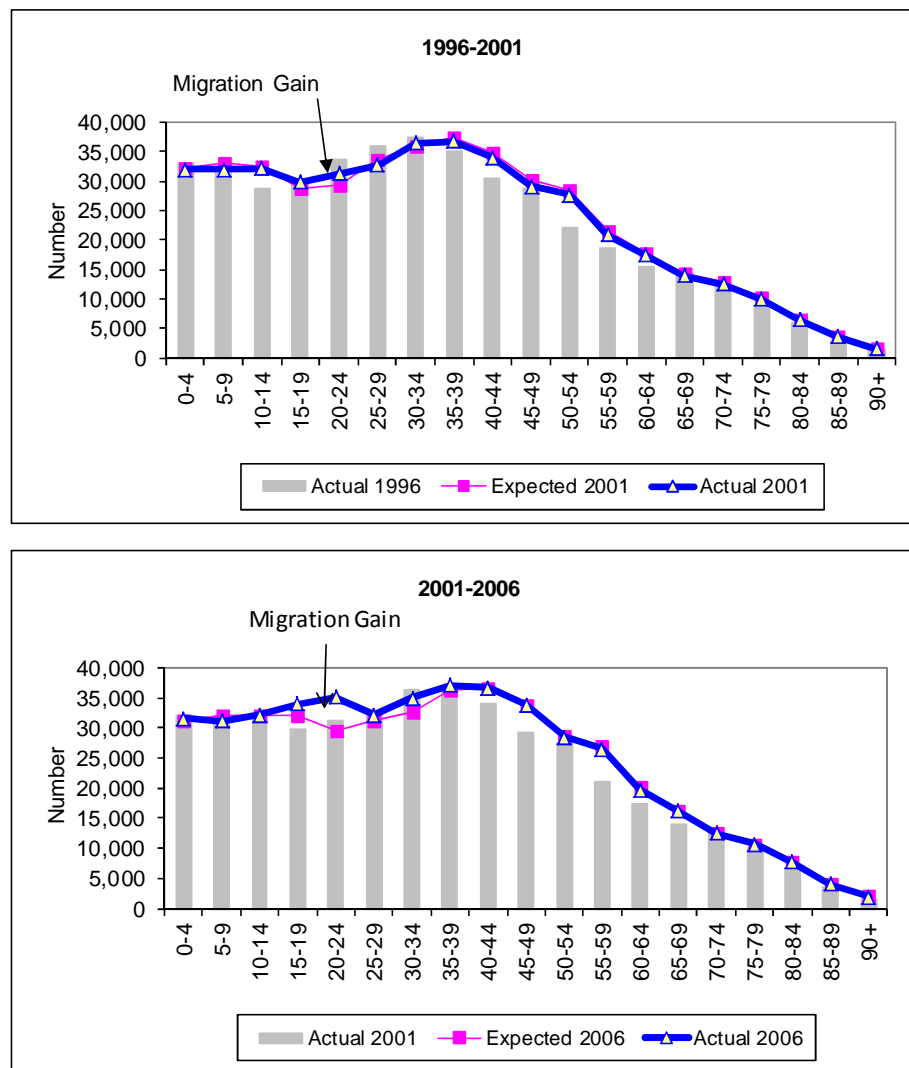
Region *Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007*

3.2 Expected versus Actual Change by Component

The same data are plotted in Figure 3.2.1, this time to highlight the role of the other components of change (births and deaths). As indicated above, the primary driver increasing expected numbers at younger and (between 2001 and 2006) mid-adult ages is migration, while at older ages, migration is negligible and numbers are reduced by deaths. The information in Sections 3.1 and 3.2 is important because it is free of cohort size effects, which have already been accounted for in the methodology.

Figure 3.2.1: Population Change by Age and Component, 1996-2001 and 2001-2006, Wellington RC
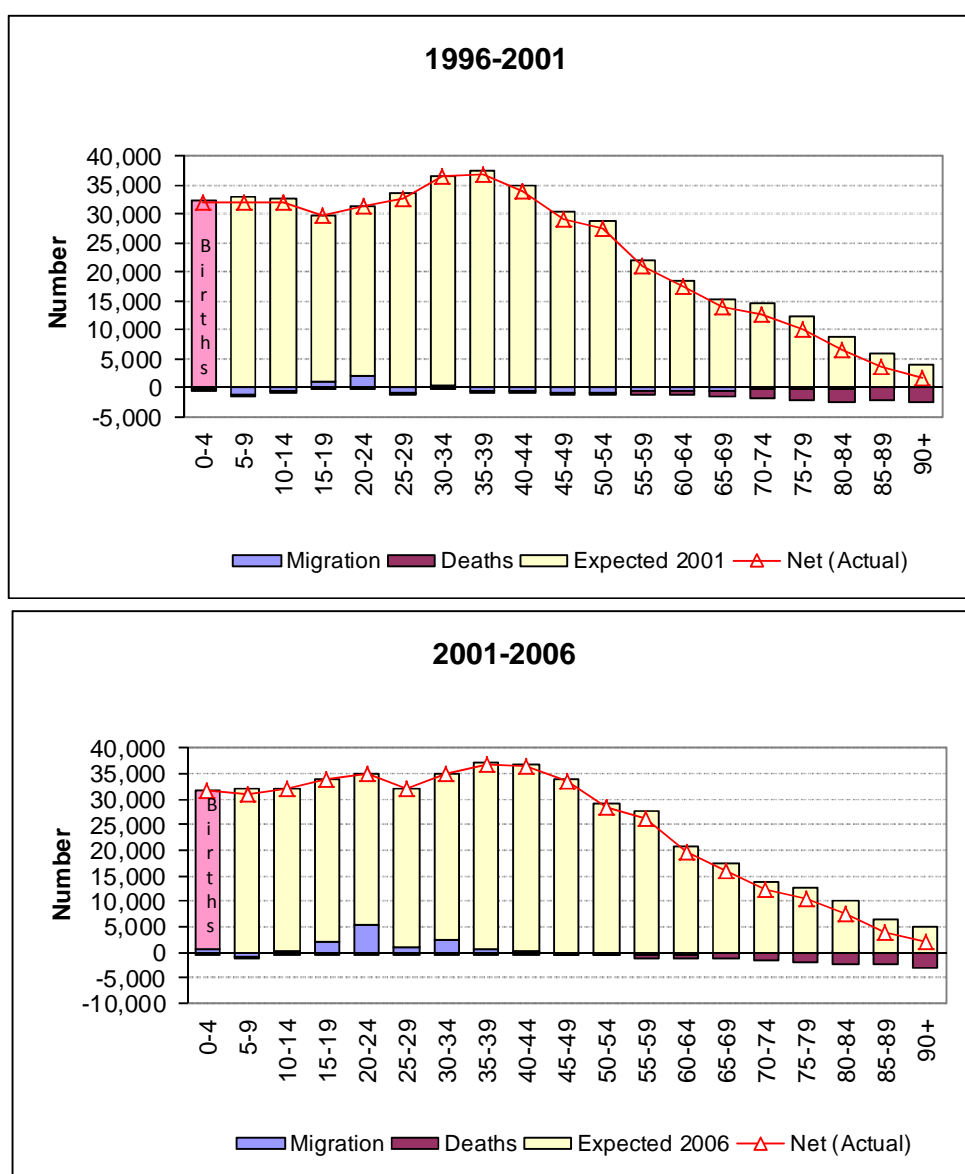
Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007

4.0 Age Structure and Population Ageing

4.1 Numerical and Structural Ageing

By comparison with many other regions, the age structure of the Wellington Region is relatively young. It is very similar to the overall age structure of Total New Zealand (although with slightly larger proportions at ages 20-44 years, and slightly smaller proportions at ages above and below this). Nevertheless, as elsewhere, the region's population is ageing. It is ageing numerically, as more people survive to older ages, and structurally, as lower birth rates deliver relatively fewer babies and children into the base of the age structure *vis-à-vis* the size of the parental generation. It is also ageing structurally as previous youthful migrants grow older. Together these dynamics cause the proportions at younger ages to decrease, and the increased numbers at older ages to also become increased proportions.

The shifts can be detected in Figure 4.1.1 (see especially the lower right panel which directly compares the region's age structure in 1996 and 2011). However they are clearer from Table 4.1.1, which shows that despite the recent increase in births, the proportion of the Wellington Region population aged 0-14 years has declined monotonically; from 22.1 per cent in 1996 to 19.5 per cent in 2011, while the proportion aged 65+ years has increased from 10.7 to 12.4 per cent. For Total New Zealand the proportion aged 65+ years in 2011 is 13.3 per cent, making the nation's age structure nearly seven per cent older than that of the Wellington Region. Also despite the net migration gains at 15-24 and 25-39 years, the proportions at these ages have scarcely changed, that at 15-24 years remaining unchanged at 14.8 per cent between 1996 and 2006, and at 25-54 years actually falling slightly, from 44.5 per cent in 1996 to 42.5 per cent in 2011. The trends have resulted in the 20-24 year age group increasingly appearing as a slight bulge in the age structure. In sum, the gains at the younger ages from both migration and births are slowing the pace of the Wellington Region's structural ageing, but are unable to prevent it.

Perhaps more important than ageing *per se* from Figure 4.1.1 is the recent increase at age 0-4 years, resulting in the development of third 'wave' within the age structure, a phenomenon referred to as an (advanced) age-structural transition (AST). As the people in these waves grow older and are replaced by differently sized cohorts, the peaks and troughs move through the age structure, and result in concomitant peaks and troughs in demand. For example, the current peak at 20-24 years will be replaced by a trough which will deepen over the next 15 years; then numbers will again grow.

Figure 4.1.1: Age-Sex Structure Wellington Region, 1996-2010, and 2011 compared with 1996
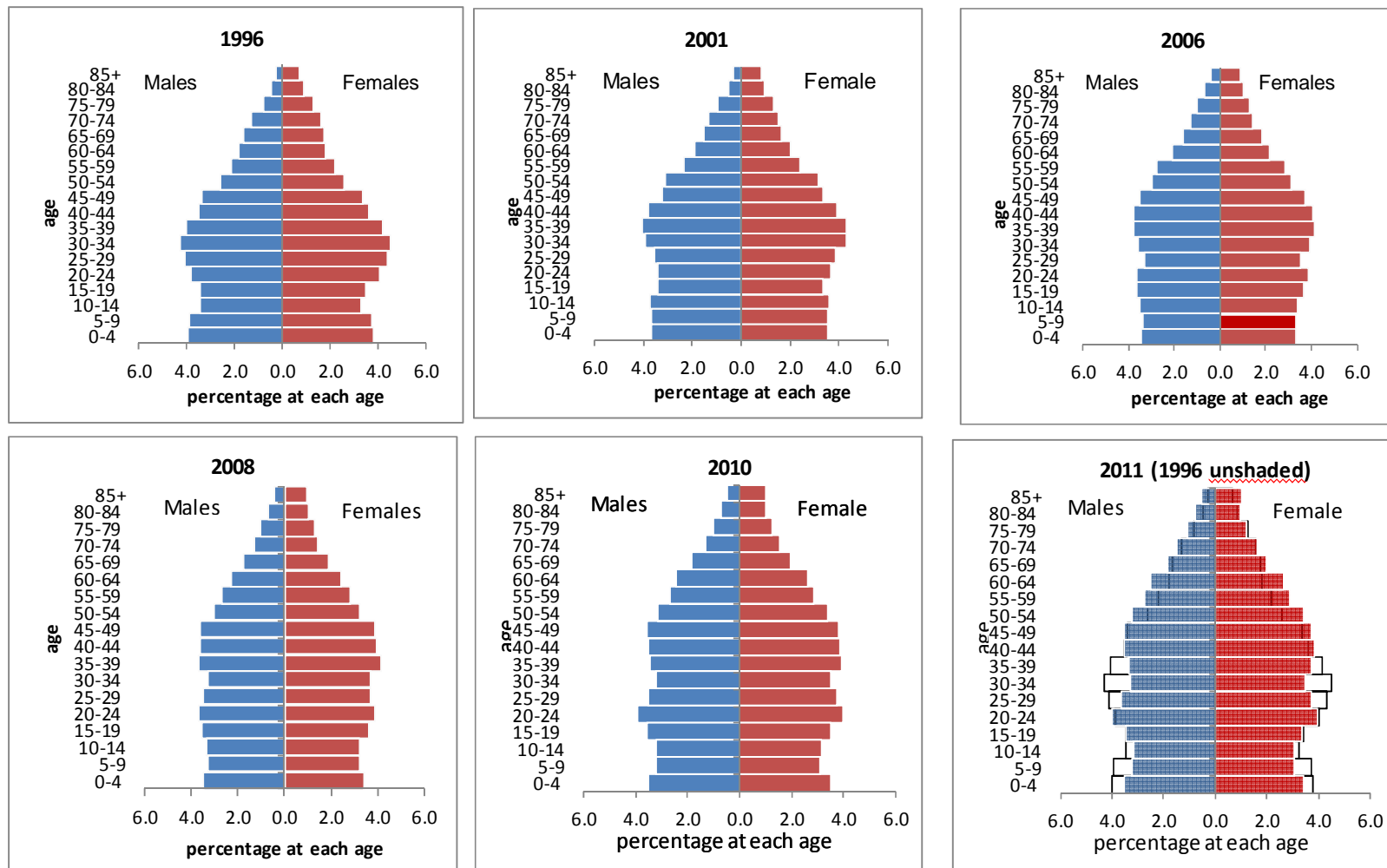
Table 4.1.1: Summary Indicators of Change by Age, 1996-2011, Wellington Region and Total New

Wellington RC	1996	2001	2006	2007	2008	2009	2010	2011	1996-01	2001-06	2006-11	2006-07	2007-08	2008-09	2009-10	2010-11
					Number					Av. Annual Change (%)				Annual Change (%)		
Broad Age Group																
0-14	94,430	96,180	94,870	94,780	94,740	94,760	94,950	95,100	0.4	-0.3	0.0	-0.1	0.0	0.0	0.2	0.2
15-24	63,190	61,010	69,050	69,500	69,940	71,050	72,210	72,410	-0.7	2.6	1.0	0.7	0.6	1.6	1.6	0.3
25-54	189,880	196,710	203,060	204,270	204,770	205,880	206,420	207,360	0.7	0.6	0.4	0.6	0.2	0.5	0.3	0.5
55-64	33,960	38,300	46,210	47,180	48,590	49,790	50,900	52,190	2.6	4.1	2.6	2.1	3.0	2.5	2.2	2.5
65+	45,510	48,050	53,060	54,600	55,730	57,140	58,800	60,630	1.1	2.1	2.9	2.9	2.1	2.5	2.9	3.1
Wellington Region	426,970	440,250	466,250	470,330	473,770	478,620	483,280	487,690	0.6	1.2	0.9	0.9	0.7	1.0	1.0	0.9
Total NZ	3,731,970	3,880,500	4,184,600	4,228,330	4,315,770	4,268,870	4,367,780	4,405,180	0.8	1.6	1.1	1.0	2.1	-1.1	2.3	0.9
					Percentage					Av. Annual Change (%)				Annual Change (%)		
0-14	22.1	21.8	20.3	20.2	20.0	19.8	19.6	19.5	-0.2	-1.4	-0.8	-1.0	-0.8	-1.0	-0.8	-0.7
15-24	14.8	13.9	14.8	14.8	14.8	14.8	14.9	14.8	-1.3	1.4	0.1	-0.2	-0.1	0.6	0.7	-0.6
25-54	44.5	44.7	43.6	43.4	43.2	43.0	42.7	42.5	0.1	-0.5	-0.5	-0.3	-0.5	-0.5	-0.7	-0.5
55-64	8.0	8.7	9.9	10.0	10.3	10.4	10.5	10.7	1.9	2.8	1.6	1.2	2.2	1.4	1.2	1.6
65+	10.7	10.9	11.4	11.6	11.8	11.9	12.2	12.4	0.5	0.9	1.8	2.0	1.3	1.5	1.9	2.2
Wellington Region	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	…	…	…	…	…	…	…	…
Total NZ %65+ ye:	11.5	11.9	12.2	12.5	12.8	12.6	13.0	13.3	0.6	0.6	1.8	1.9	2.8	-1.6	3.4	2.3

Ratio Labour Market Entrants to Exits (Number aged 15-24 per 10 persons aged 55-64)

	1996	2001	2006	2007	2008	2009	2010	2011	1996-01	2001-06	2006-11	2006-07	2007-08	2008-09	2009-10	2010-11
					Number					Av. Annual Change (%)				Annual Change (%)		
Wellington RC	18.6	15.9	14.9	14.7	14.4	14.3	14.2	13.9	-2.9	-1.2	-1.4	-1.4	-2.3	-0.9	-0.6	-2.2
Total NZ	18.3	15.2	14.1	13.9	13.4	13.6	13.2	13.0	-3.3	-1.5	-1.5	-1.2	-3.7	1.5	-2.6	-1.9

Ratio Elderly to Children (Number 65+ per Child 0-14)

	1996	2001	2006	2007	2008	2009	2010		1996-01	2001-06	2006-11	2006-07	2007-08	2008-09	2009-10	2010-11
					Number					Av. Annual Change (%)				Annual Change (%)		
Wellington RC	0.48	0.50	0.56	0.58	0.59	0.60	0.62	0.64	0.7	2.4	2.8	3.0	2.1	2.5	2.7	2.9
Total NZ	0.50	0.53	0.58	0.59	0.62	0.60	0.64	0.66	1.0	1.9	2.8	2.9	4.6	-2.5	5.2	3.1

The age-sex structures of the TAs which comprise the Wellington Region differ greatly. As Figure 4.1.2 shows, Wellington City has a disproportion of people aged in their twenties and, to a lesser extent, thirties, while Lower Hutt City and Porirua City have a disproportion of children. Contrasting with both of these age structural 'types', Upper Hutt City and the Kapiti Coast, Masterton, South Wairarapa and Carterton Districts all have deeply 'waisted' (hour-glass shaped) age structures, a form typically observed in more rural areas and tending to reflect the net migration loss of young (mainly 20-29 year old) adults. Although much less pronounced, this age structure can also be seen in Lower Hutt and Porirua Cities.

As indicated in Section 3.0, underlying these differences are different mixes of the components of population change (see Appendix 2 for the role of migration by age). The bulge at 20-29 years for Wellington City, for example, is due to large net migration gains at these ages, as well as net migration losses at younger and older ages – making this bulge appear even larger (see Appendix 2.3). By contrast, the disproportion of children in the Lower Hutt and Porirua Cities appears to be the result of slightly higher birth rates, as net migration loss at 20-29 years has left somewhat of a 'bite' at these key reproductive ages. The deep waists in the respective age-sex structures of Upper Hutt City and the Kapiti Coast, Masterton, South Wairarapa and Carterton Districts reflect net migration loss at 15-29 years, but (in the case of all but the Masterton District) are equally driven by net gains at younger and older ages, which make the losses at 15-29 years look greater than they are.

Figure 4.1.2: Age-Sex Structures of the TAs of the Wellington Region in 2011, compared with that of Wellington Region
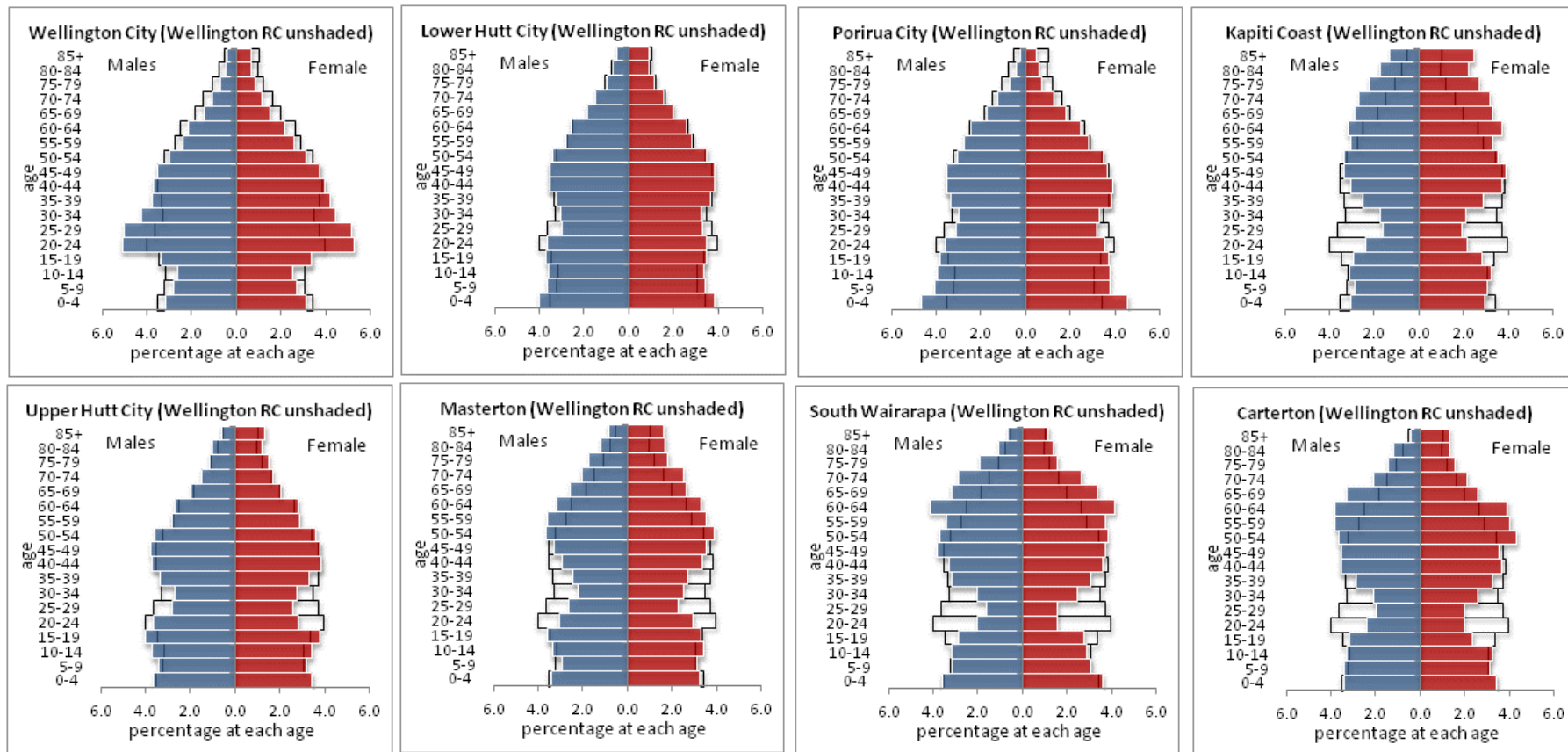
Overall trends by five-year age group for the Wellington Region for the period 1996 to 2011 are summarised in Figure 4.1.3 (see also Table 4.1.2). Between 1996 and 2011, all age groups above 40 years grew, while those aged 5-9 years and 30-39 years show notable decline. Growth was most significant across the Baby Boomer age groups. However, as indicated in Section 3 (above), some of these changes reflect cohort size effects, with smaller cohorts replacing larger cohorts at the younger ages, and vice-versa at older ages. Data for Total New Zealand display very similar trends.

Figure 4.1.3: Change by Age (Number), Wellington Region and Total New Zealand, 1996-2011

Source: Jackson, N.O (2012) Subnational Age Structure Resource 1996-2011, NIDEA, University of Waikato
Source data from Stats NZ Infoshare Estimated Subnational Population (RC, TA,AU) by Age and Sex at 30 June
1996, 2001, 2006-2011

Data by five-year age group for the TAs which comprise the Wellington Region are given in Table 4.1.2. Here we see that six TAs experienced decline at 30-34 and 35-39 years between 1996 and 2011, with the remaining two TAs (Wellington City and the Kapiti Coast District) declining at 30-34 years only, contributing to the overall outcome of regional decline for those age groups. All TAs but Wellington City also declined at ages 5-9 years and 25-29 years, with Masterton, South Wairarapa and Carterton Districts experiencing losses at nearly every age group below 45 years.

Table 4.1.2: Change by Age (%), Wellington Region and Total New Zealand, 1996-2011

	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	Wellington Regional Council	Total New Zealand
									%	%
0-4	11.2	-3.0	2.6	6.3	-4.3	-16.8	-10.7	8.0	2.5	6.6
5-9	5.3	-10.0	-13.2	-4.4	-9.0	-25.1	-24.1	-19.4	-6.5	-2.9
10-14	14.6	2.6	2.3	18.6	6.4	-17.6	-13.0	-5.3	6.3	8.9
15-19	25.5	8.4	13.4	36.5	6.6	-2.9	-11.7	-11.8	15.8	17.2
20-24	26.0	-0.4	3.1	25.6	-10.2	1.5	-22.7	0.0	12.9	16.0
25-29	12.9	-18.9	-10.0	-13.5	-20.0	-16.2	-42.3	-10.5	-2.4	3.1
30-34	-0.5	-22.6	-19.3	-25.0	-22.6	-31.2	-33.3	-25.0	-13.0	-9.8
35-39	15.1	-8.4	-1.8	5.2	-6.4	-27.8	-11.4	-7.7	2.0	-1.8
40-44	27.4	10.4	12.6	31.8	15.5	-14.8	-3.1	-5.2	17.5	18.4
45-49	31.4	15.1	18.2	41.2	22.1	9.9	2.8	2.0	23.8	27.8
50-54	43.2	37.0	33.6	57.5	48.5	44.6	28.3	48.8	42.3	54.8
55-59	47.8	29.9	33.3	60.2	44.7	50.0	38.0	78.8	43.3	56.5
60-64	63.6	49.7	65.3	53.7	50.7	45.5	92.5	80.6	57.9	72.5
65-69	29.5	19.9	42.5	24.5	20.7	20.8	53.7	21.2	26.9	33.5
70-74	9.3	5.5	27.4	22.9	12.7	19.5	22.2	21.7	14.0	25.5
75-79	14.7	8.0	32.8	37.9	56.2	22.7	37.5	14.3	23.4	26.4
80-84	19.7	16.4	86.2	71.7	89.1	50.0	57.1	72.7	42.3	46.4
85+	46.5	46.9	63.6	140.5	153.3	100.0	70.0	37.5	76.4	86.6
Total	21.0	3.9	8.1	25.1	9.0	0.4	2.1	8.5	13.2	18.0

Source: *Jackson, N.O (2012) Subnational Age Structure Resource 1996-2011, NIDEA, University of Waikato*

Notes: *Source data from Stats NZ TableBuilder Estimated Subnational Population by Age and Sex at 30 June*

4.2 Labour Market Implications

Reflecting structural population ageing, Table 4.1.1 (above) showed that the Wellington Region's Labour Market 'entry/exit ratio' has fallen since 1996, from 18.6 people at labour market entry age (15-24 years) for every 10 in the retirement age zone (55-64 years), to 13.9 per 10 in 2011 (illustrated here in Figure 4.2.1 – and note differences in periodicity, the seemingly sharp decline at the beginning of the period reflecting five year observations which then shift to annual). However as Figure 4.2.1 shows, the entry: exit index for the Wellington Region remains slightly higher than for Total New Zealand, which in 2011 had only 13.0 people at entry age per 10 at exit age (down from 18.3 in 1996). If older age groupings are used, for example 20-29 and 60-69 years, the difference is greater. The Wellington Region in 2011 had 17.1 entrants per 10 exits, while Total New Zealand had just 14.8 (not shown on Table 4.1.1). In both cases the disparity reflects the relative youth of the Wellington Region, particularly its small bulge at these labour market entry ages, although the presence of a university means that it says nothing about labour market availability *per se*.

Figure 4.2.1: Labour Market Entry/Exit Ratio, Wellington Region and Total New Zealand, 1996-2011
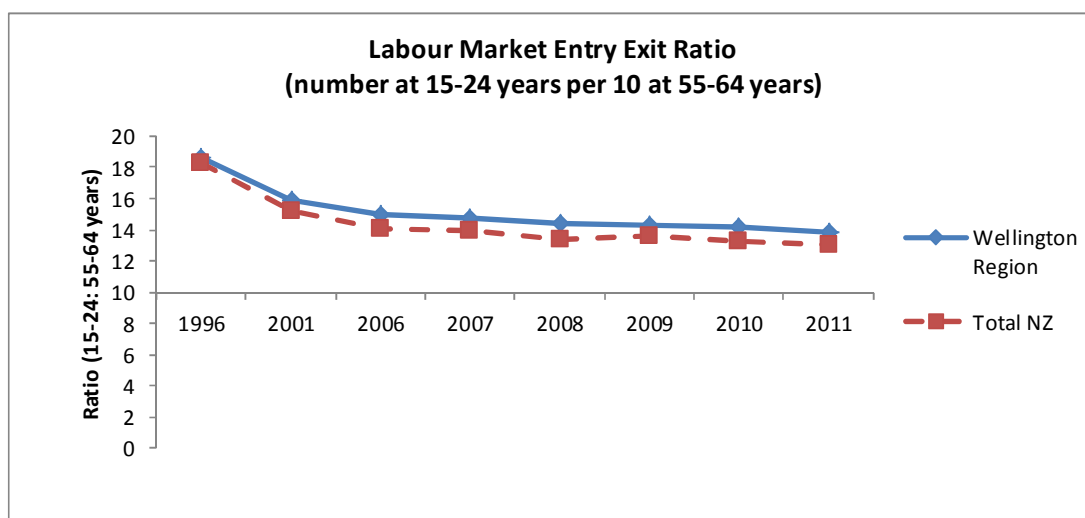
Source: Jackson, N.O (2012) Subnational Age Structure Resource 1996-2011, NIDEA, University of Waikato
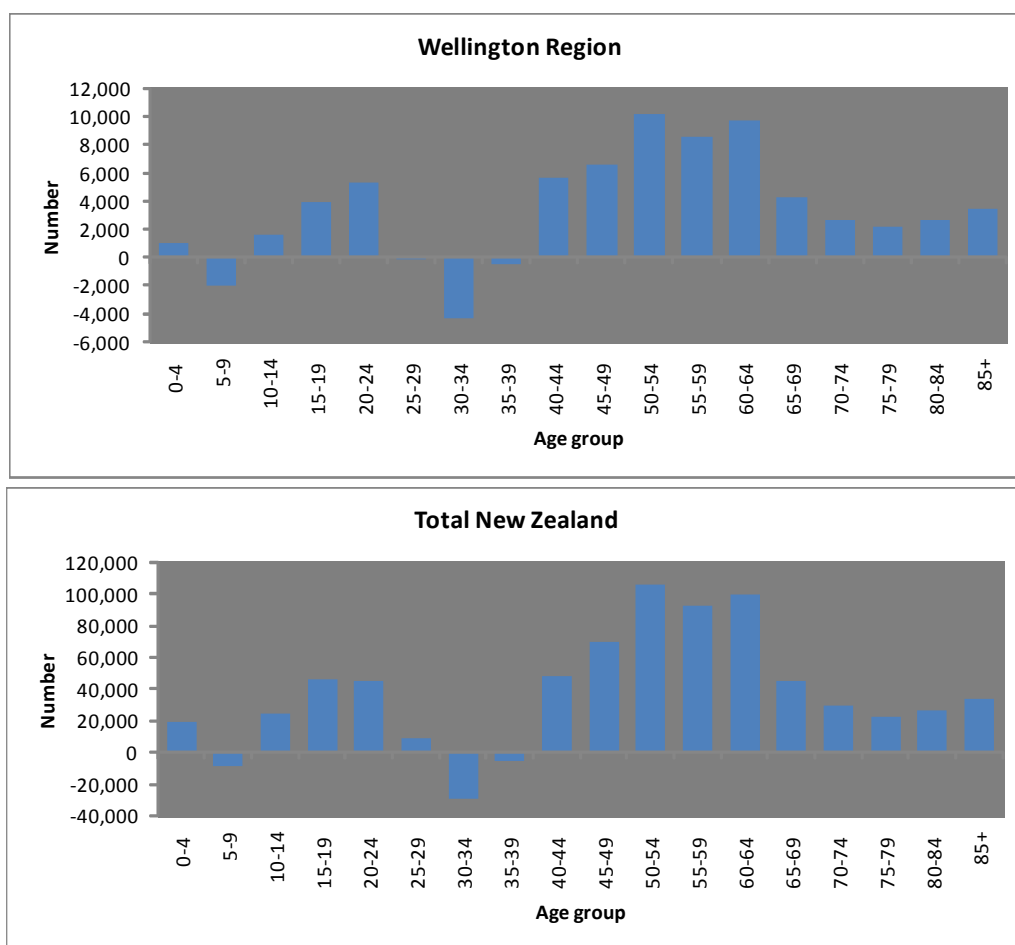*Source data from Stats NZ Infoshare Estimated Subnational Population (RC, TA,AU) by Age and Sex at 30 June 1996, 2001, 2006-2011 (2006 Boundaries)*

Table 4.2.1 gives the data for the TAs which comprise the Wellington Region, along with those for Total New Zealand. All entry:exit ratios declined significantly over the period 1996-2011, the greatest declines in the Wellington Region occurring for the structurally older South Wairarapa and Carterton Districts (48 and 52 per cent respectively). In both cases the decline was much greater than occurred nationally (29 per cent), as it was also in the Masterton District and Upper Hutt City (33-34 per cent). Decline in this index was smaller for Wellington City (20.3 per cent) and, despite its significantly older age structure, the Kapiti Coast District (17.5 per cent); in the latter case decline occurring from an already low ratio of 9.5. These trends mean that in 2011, four Wellington Region TAs had fewer people at labour market entry than exit age: Kapiti Coast (7.8 per 10), Masterton District (9.5:10), South Wairarapa District (6.0:10), and Carterton (6.3:10). For Kapiti Coast, South Wairarapa and Carterton these are exceedingly low levels.

Table 4.2.1: Labour Market Entry/Exit Ratio (15-24:55-64 years), Wellington Region and its Territorial Authorities compared with Total New Zealand, 1996-2011

|	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	WELLINGTON REGION	Total NZ
1996	23.1	18.2	20.2	9.5	19.1	14.5	11.6	13.1	18.6	18.3
2001	20.7	15.4	17.3	7.9	15.4	12.2	7.4	9.2	15.9	15.2
2006	20.4	14.2	15.4	7.8	13.0	10.7	5.5	7.7	14.9	14.1
2007	19.9	14.0	15.3	8.0	12.9	10.2	5.6	7.4	14.7	13.9
2008	19.1	13.9	15.1	7.9	12.6	10.1	5.8	7.4	14.4	13.4
2009	19.0	13.6	15.0	8.0	12.7	10.1	5.8	7.0	14.3	13.6
2010	18.8	13.6	14.9	8.0	12.8	9.7	6.0	6.8	14.2	13.0
2011	18.4	13.3	14.1	7.8	12.7	9.5	6.0	6.3	13.9	13.0
Change 1996-2011 (%)	-20.3	-26.8	-30.1	-17.5	-33.4	-34.5	-48.3	-51.9	-25.4	-28.8

Source: Jackson, N.O (2012) Subnational Age Structure Resource 1996-2011, NIDEA, University of Waikato

Source data from Stats NZ Infoshare Estimated Subnational Population (RC, TA,AU) by Age and Sex at 30 June

1996, 2001, 2006-2011

4.3 Ethnic Age Composition and Ageing

Figure 4.3.1 provides a comparison of the Wellington Region's major ethnic groups in 2006, according to the multiple count enumeration method discussed above. As was indicated in Table 1.2.1 (p. 18), this method of enumeration means that a portion of the population is counted in more than one ethnic group. In the Wellington Region's case, the over-count for 2006 (when the totals by ethnic group are summed) was approximately 10.3 per cent, a little higher than at the 1996 Census when it was 9.6 per cent. However, as can be seen by the markedly different age structures of each group in Figure 4.3.1, this methodological complexity would have very little impact on the story by age composition.

The data identify that the relative youthfulness of the region's population discussed above is very much contributed to by the extremely youthful Māori and Pacific Island populations, which at 0-14 and 15-24 years greatly exceed their total share, accounting for almost 30 per cent at age 0-14 (see Table 4.3.1). The significant 'wings' on the Asian population at 20-24 years (presumably reflecting education-related migration) also stand in marked contrast to the others, and account for 10.6 per cent of the population at that age.

Figure 4.3.2 provides a comparison with Total New Zealand. In each case the age structures for each ethnic group are similar to those for the Wellington Region. However at national level the 'bite' at 20-29 years for the European-origin population is somewhat deeper than for the total Wellington Region, while the Wellington Region Māori population is slightly younger, and the Pacific Island population slightly older, than their national level counterparts (denoted by smaller and larger ratios of elderly to children than for the Wellington Region).

Table 4.3.1 provides an overview of each group's population share by age for 2006. The general picture is that the Māori and Pacific Island populations increase their share as age decreases, while the European-origin population increases its share as age increases. The picture is significantly less linear for the Asian population, where the largest shares are concentrated at 15-24 and 25-54 years. Within that picture, young Māori and those of Asian origin comprise a slightly smaller share of the Wellington Region's youth (17.5 and 7.4 per cent respectively) than they do at national level (20.2 and 7.9 per cent respectively), and the situation is similar at each older age. By contrast, the region's European, Pacific Island and MELAA populations generally claim a larger share of each age group than they do nationally.

Figure 4.3.1: Age-Sex Structure by Major Ethnic Group*, Wellington Region, 2006
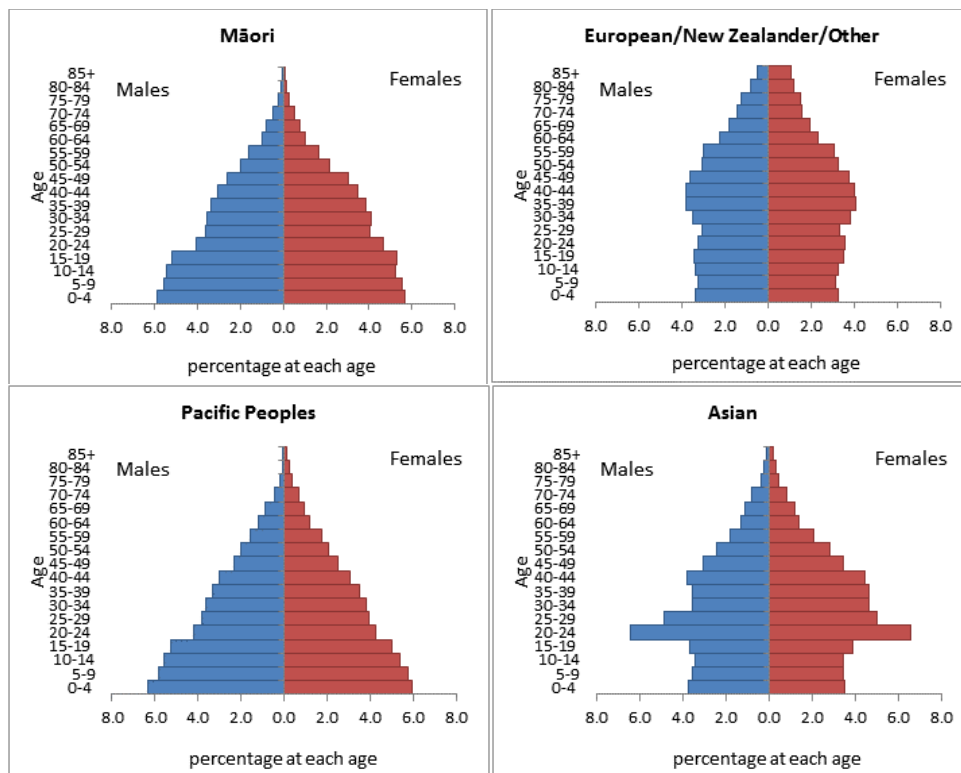
Figure 4.3.2: Age-Sex Structure by Major Ethnic Group*, Total New Zealand, 2006
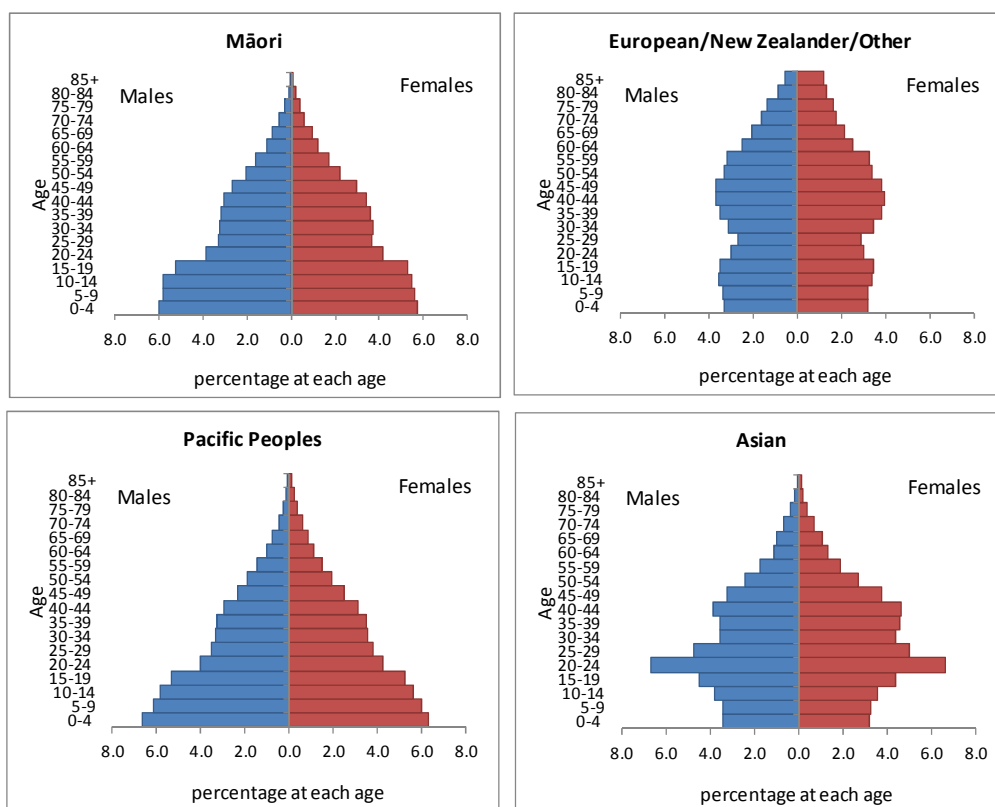
Table 4.3.1: Ethnic Group* Percentage Share by Age Group and Region, 2006

	Māori	Pacific Island	Asian	MELAA	European /NZ/Other	Total*	Number*
Wellington Region							
0-14	17.5	11.6	7.4	1.4	62.1	100.0	116,150
15-24	14.9	9.2	10.6	1.4	64.0	100.0	78,990
25-54	10.9	6.6	8.7	1.2	72.7	100.0	218,000
55-64	6.7	4.6	5.6	0.6	82.4	100.0	47,460
65+	3.8	2.8	4.3	0.4	88.7	100.0	53,860
Total	11.9	7.5	7.9	1.1	71.5	100.0	514,460
Total NZ							
0-14	20.2	10.4	7.9	1.0	60.6	100.0	1,064,730
15-24	17.0	8.3	13.1	1.1	60.5	100.0	684,330
25-54	12.4	5.8	10.0	1.0	70.8	100.0	1,870,490
55-64	7.9	3.4	5.6	0.4	82.7	100.0	442,280
65+	4.9	2.2	3.6	0.2	89.0	100.0	520,320
Total	13.6	6.6	8.8	0.8	70.1	100.0	4,582,150

Source: Jackson, N.O (2011) Subnational Ethnic Age Structure Resource 1996, 2001, 2006, NIDEA

Source data: Statistics New Zealand, Estimated Subnational Ethnic Population (RC,TA) by Age and Sex at 30 June

*Notes: *Multiple count ethnicity means that people may be counted in more than one ethnic group*

Tables 4.3.2 to 4.3.5 provide summary data for the Wellington Region's Māori, Pacific Island, Asian, and European origin populations by age across the 1996-2006 period. Data for the MELAA population are not presented because of relatively small numbers by age.

Table 4.3.2 shows that the very youthful age structure of the Wellington Region's Māori population results in at least one-third aged 0-14 years across all three observations, falling from 35.7 per cent in 1996 to 33.3 per cent in 2006. These proportions are in stark contrast to that population's 11.9 per cent total share in 2006 shown earlier in Table 1.2.1, and are clearly where the Māori population's contribution to the region's growth is concentrated, i.e., at the youngest ages. The population's relative youth is also evidenced in its very high labour market entry exit ratio in 2006 of 36.7 at labour market entry age per 10 in the retirement zone (by comparison the national 'all ethnic groups combined' ratio was 14.1 per 10, and for the Wellington Region, 14.9 per 10). However the region's Māori population is also ageing, with the Labour Market entry: exit ratio having fallen from 48.3 per 10 in 1996.

At 65+ years, both numbers and proportions have grown, albeit the proportion in 2006 is still only 3.3 per cent. The data indicate that the Wellington Region's Māori population is slightly younger than its national counterpart, where the proportion aged 65+ is a little higher (4.1 per cent), and the labour market entry: exit ratio concomitantly fractionally lower (see also Section 6 on this topic).

Table 4.3.2: Summary Indicators, Wellington Region Māori Population, 1996, 2001, 2006

Māori	1996	2001	2006	1996-2001	2001-2006	1996-2006
		Number		Change (%) over 5 years		(10 years)
Broad Age Group						
0-14	19,390	20,360	20,310	5.0	-0.2	4.7
15-24	10,960	10,240	11,750	-6.6	14.7	7.2
25-54	20,480	21,790	23,680	6.4	8.7	15.6
55-64	2,270	2,430	3,200	7.0	31.7	41.0
65+	1,200	1,400	2,040	16.7	45.7	70.0
Wellington Region	54,300	56,220	60,980	3.5	8.5	12.3
Total NZ Māori	573,180	585,970	624,310	2.2	6.5	8.9
		Percentage		Change (%) over 5 years		(10 years)
0-14	35.7	36.2	33.3	1.4	-8.0	-6.7
15-24	20.2	18.2	19.3	-9.8	5.8	-4.5
25-54	37.7	38.8	38.8	2.8	0.2	3.0
55-64	4.2	4.3	5.2	3.4	21.4	25.5
65+	2.2	2.5	3.3	12.7	34.3	51.4
Wellington Region	100.0	100.0	100.0	...	...	...
Total NZ Māori % 65+ years	3.0	3.4	4.1	11.8	22.0	36.4

Ratio Labour Market Entrants to Exits (Number aged 15-24 per 10 persons aged 55-64)

	1996	2001	2006	1996-2001	2001-2006	1996-2006
		Number		Change (%) over 5 years		(10 years)
Wellington Region	48.3	42.1	36.7	-12.7	-12.9	-23.9
Total NZ Māori	42.0	36.9	33.1	-12.1	-10.2	-21.1

Ratio Elderly to Children (Number 65+ per Child 0-14)

	1996	2001	2006	1996-2001	2001-2006	1996-2006
		Number		Change (%) over 5 years		(10 years)
Wellington Region	0.06	0.07	0.10	11.1	46.1	62.3
Total NZ Māori	0.08	0.09	0.12	11.8	30.5	45.9

Source: Jackson, N.O. (2011) Subnational Age Structure Resource 1996, 2001, 2006, NIDEA, University of Waikato.

Notes: Source data from Stats NZ TableBuilder Estimated Subnational Population (RC,TA,AU) by Age and Sex at 30 June 96,01,06.

Notes: Multiple count ethnicity means that people may be counted in more than one ethnic group

The Pacific Island population of the Wellington Region has an even greater proportion at the youngest ages than Māori, 34.7 per cent in 2006 (Table 4.3.3), but also a slightly higher proportion aged 65+ years (3.9 per cent). The latter was also a little higher than for the national Pacific Island population (3.8 per cent). As can be seen from Tables 4.3.2 and 4.3.3, both populations are also ageing, and, as was the case for Māori, the Pacific Island population's contribution to the growth of the region is clearly also heavily concentrated at the youngest ages.

Table 4.3.3: Summary Indicators, Wellington Region Pacific Island Population, 1996, 2001, 2006

Pacific Island	1996	2001	2006	1996-2001	2001-2006	1996-2006
	Number			Change (%) over 5 years		(10 years)
Broad Age Group						
0-14	12,070	13,120	13,450	8.7	2.5	11.4
15-24	6,540	6,640	7,240	1.5	9.0	10.7
25-54	12,030	13,250	14,320	10.1	8.1	19.0
55-64	1,470	1,770	2,200	20.4	24.3	49.7
65+	1,030	1,150	1,530	11.7	33.0	48.5
Wellington Region	33,140	35,930	38,740	8.4	7.8	16.9
Total NZ Pacific Island	229,280	261,820	301,640	14.2	15.2	31.6
	Percentage			Change (%) over 5 years		(10 years)
0-14	36.4	36.5	34.7	0.3	-4.9	-4.7
15-24	19.7	18.5	18.7	-6.4	1.1	-5.3
25-54	36.3	36.9	37.0	1.6	0.2	1.8
55-64	4.4	4.9	5.7	11.1	15.3	28.0
65+	3.1	3.2	3.9	3.0	23.4	27.1
Wellington Region	100.0	100.0	100.0	...	...	...
Total NZ Pacific Island % 65+ years	3.1	3.4	3.8	11.8	11.8	25.0

Ratio Labour Market Entrants to Exits (Number aged 15-24 per 10 persons aged 55-64)

	1996	2001	2006	1996-2001	2001-2006	1996-2006
	Number			Change (%) over 5 years		(10 years)
Wellington Region	44.5	37.5	32.9	-15.7	-12.3	-26.0
Total NZ Pacific Island	47.1	40.0	37.2	-14.9	-7.0	-20.9

Ratio Elderly to Children (Number 65+ per Child 0-14)

	1996	2001	2006	1996-2001	2001-2006	1996-2006
	Number			Change (%) over 5 years		(10 years)
Wellington Region	0.09	0.09	0.11	2.7	29.8	33.3
Total NZ Pacific Island	0.08	0.09	0.10	12.0	16.8	30.8

Source: Jackson, N.O (2011) Subnational Ethnic Age Structure Resource 1996, 2001, 2006, NIDEA

Notes: Source data from Stats NZ TableBuilder Estimated Subnational Population (RC,TA,AU) by Age and Sex at 30 June 96,01,06.

Notes: Multiple count ethnicity means that people may be counted in more than one ethnic group

As noted above, the region's Asian population has a significantly different and somewhat older age structure, with little over one-fifth aged 0-14 years in 2006, and 5.7 per cent aged 65+ years (Table 4.3.4), the latter being somewhat greater than its national counterpart (4.7 per cent). The most distinctive feature of the region's Asian population is, however, its particularly large disproportion at 20-24 years, as noted above presumably reflecting the pursuit of higher education, and a somewhat larger and stable proportion at 25-54 years. At 31:10 in 2006, the ratio of Asian people at labour market entry to exit age was strongly positive; however for the Wellington Region this index says little about labour market availability, with so many young Asian people known to be studying.

Table 4.3.4: Summary Indicators, Wellington Region Asian Population, 1996, 2001, 2006

Asian	1996	2001	2006	1996-2001	2001-2006	1996-2006
	Number			Change (%) over 5 years		(10 years)
Broad Age Group						
0-14	6,640	7,270	8,630	9.5	18.7	30.0
15-24	4,390	5,690	8,340	29.6	46.6	90.0
25-54	12,130	14,740	18,860	21.5	28.0	55.5
55-64	1,410	2,020	2,680	43.3	32.7	90.1
65+	1,000	1,570	2,310	57.0	47.1	131.0
Wellington Region	25,570	31,290	40,820	22.4	30.5	59.6
Total NZ Asian	194,750	272,440	404,320	39.9	48.4	107.6
	Percentage			Change (%) over 5 years		(10 years)
0-14	26.0	23.2	21.1	-10.5	-9.0	-18.6
15-24	17.2	18.2	20.4	5.9	12.4	19.0
25-54	47.4	47.1	46.2	-0.7	-1.9	-2.6
55-64	5.5	6.5	6.6	17.1	1.7	19.1
65+	3.9	5.0	5.7	28.3	12.8	44.7
Wellington Region	100.0	100.0	100.0	...	...	...
Total NZ Asian % 65+ years	3.0	4.2	4.7	37.9	11.4	53.6

Ratio Labour Market Entrants to Exits (Number aged 15-24 per 10 persons aged 55-64)

	1996	2001	2006	1996-2001	2001-2006	1996-2006
	Number			Change (%) over 5 years		(10 years)
Wellington Region	31.1	28.2	31.1	-9.5	10.5	0.0
Total NZ Asian	51.0	37.5	36.3	-26.3	-3.3	-28.7

Ratio Elderly to Children (Number 65+ per Child 0-14)

	1996	2001	2006	1996-2001	2001-2006	1996-2006
	Number			Change (%) over 5 years		(10 years)
Wellington Region	0.15	0.22	0.27	43.4	23.9	77.7
Total NZ Asian	0.12	0.19	0.23	58.7	21.6	93.0

Source: Jackson, N.O (2011) Subnational Ethnic Age Structure Resource 1996, 2001, 2006, NIDEA

Notes: Source data from Stats NZ TableBuilder Estimated Subnational Population (RC,TA,AU) by Age and Sex at 30 June 96,01,06.

Notes: Multiple count ethnicity means that people may be counted in more than one ethnic group

The data for the Wellington Region's European-origin population (Table 4.3.5) also stand in stark contrast to that for the other ethnic groups. With 13.0 per cent aged 65+ years in 2006, the European-origin population of the Wellington Region is much older than each of the other ethnic groups, but simultaneously somewhat younger than its national counterpart (14.4 per cent) and ageing somewhat more slowly. This disparity is also evident in the entry exit ratio for the region's European-origin population being just 12.9 people at entry age per 10 at exit age in 2006, the ratio also having fallen from 16.8 across the period, albeit that decline being less pronounced than for its national counterpart.

Table 4.3.5: Summary Indicators, Wellington Region European/New Zealand/Other Population, 1996, 2001, 2006

European/NZ/Other	1996	2001	2006	1996-2001	2001-2006	1996-2006
		Number		Change (%) over 5 years		(10 years)
Broad Age Group						
0-14	73,560	73,480	72,120	-0.1	-1.9	-2.0
15-24	49,700	45,720	50,570	-8.0	10.6	1.8
25-54	156,100	156,980	158,510	0.6	1.0	1.5
55-64	29,640	32,650	39,090	10.2	19.7	31.9
65+	42,840	44,300	47,770	3.4	7.8	11.5
Wellington Region	351,840	353,130	368,060	0.4	4.2	4.6
Total NZ European/Other/NZ	3,074,610	3,074,010	3,213,330	0.0	4.5	4.5
		Percentage		Change (%) over 5 years		(10 years)
0-14	20.9	20.8	19.6	-0.5	-5.8	-6.3
15-24	14.1	12.9	13.7	-8.3	6.1	-2.7
25-54	44.4	44.5	43.1	0.2	-3.1	-2.9
55-64	8.4	9.2	10.6	9.8	14.9	26.1
65+	12.2	12.5	13.0	3.0	3.5	6.6
Wellington Region	100.0	100.0	100.0	…	…	…
Total NZ European/Other/NZ % 65+ y	13.2	13.8	14.4	4.6	4.1	8.8

Ratio Labour Market Entrants to Exits (Number aged 15-24 per 10 persons aged 55-64)

	1996	2001	2006	1996-2001	2001-2006	1996-2006
		Number		Change (%) over 5 years		(10 years)
Wellington Region	16.8	14.0	12.9	-16.5	-7.6	-22.8
Total NZ European/Other/NZ	15.9	12.7	11.3	-20.1	-11.0	-28.9

Ratio Elderly to Children (Number 65+ per Child 0-14)

	1996	2001	2006	1996-2001	2001-2006	1996-2006
		Number		Change (%) over 5 years		(10 years)
Wellington Region	0.58	0.60	0.66	3.5	9.9	13.7
Total NZ European/Other/NZ	0.61	0.65	0.72	6.1	10.0	16.7

Source: Jackson, N.O (2011) Subnational Ethnic Age Structure Resource 1996, 2001, 2006, NIDEA

Notes: Source data from Stats NZ TableBuilder Estimated Subnational Population (RC,TA,AU) by Age and Sex at 30 June 96,01,06.

Notes: Multiple count ethnicity means that people may be counted in more than one ethnic group

5.0   Population Projections

5.1 Size, Growth and Population Ageing

Under the medium series assumptions, the population of the Wellington Region is projected to continue to grow steadily, reaching approximately 541,000 by 2031, an increase of 10.7 per cent over 2011 (Table 5.1.1). The gains are not shared evenly across the age distribution, however, with decline projected for age groups 0-14 years (-2.3 per cent), 15-24 years (-3.3 per cent) and 40-54 years (-2.3 per cent), and those aged 25-39 years experiencing only minor growth (4.3 per cent). By contrast, the population aged 65+ years is anticipated to grow both numerically (77.2 per cent between 2011 and 2031) and structurally (from 12.4 per cent in 2011 to 19.9 per cent by 2031), with the changes even more marked at 75+ and 85+ years.

Figure 5.1.1: Projected Change in Numbers by Broad Age Group, Wellington Region, 2006-2031, Medium Series
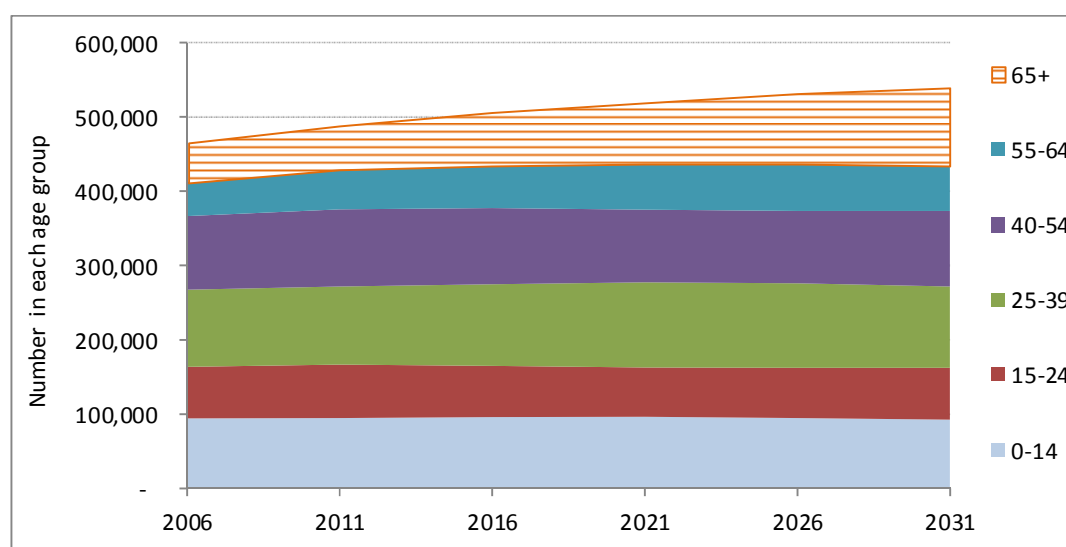
Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

Figure 5.1.2 compares these changes under the low and high variant assumptions. Very few gains are projected for age groups below 55 years under either the low and medium variant assumptions, while growth is overwhelmingly at 65+ years. Of note is the resilience of growth at the older ages irrespective of the projection assumptions. Only under the high assumptions is growth spread more evenly across the younger, middle, and older age groups. Also of note is the ebbing and flowing of inter-censal change in the age groups, for example, numbers aged 15-24 years declining between both 2011-2016 and 2016-2021 but growth then resuming; this is also the case nationally.

Table 5.1.1: Projected Population, Wellington Region, 2006-2021 (Medium Series)

Wellington Region	2006	2011	2016	2021	2026	2031	Change (%) 2011-2031
Numbers by age							
0-14	94,870	**95,270**	96,220	97,000	94,880	93,090	-2.3
15-24	69,050	**71,880**	69,020	66,310	68,070	69,490	-3.3
25-39	104,130	**105,140**	109,880	114,500	113,490	109,620	4.3
40-54	98,930	**104,040**	102,730	98,020	97,460	101,660	-2.3
55-64	46,210	**52,020**	56,230	61,350	62,530	59,830	15.0
65-74	28,680	**33,510**	40,800	46,160	50,360	55,350	65.2
75-84	18,400	**19,540**	22,170	26,350	32,660	37,300	90.9
85+	5,980	**7,660**	9,090	10,150	12,230	14,920	94.8
Total	466,250	**489,060**	506,140	519,840	531,680	541,260	10.7
65+	53,060	**60,710**	72,060	82,660	95,250	107,570	77.2

Intercensal Change by Age - Numbers		2006-2011	2011-2016	2016-2021	2021-2026	2026-2031	Change (N) 2011-2031	Contribution to growth (%)
0-14	…	**400**	950	780	-2120	-1790	-2180	-4.2
15-24	…	**2830**	-2860	-2710	1760	1420	-2390	-4.6
25-39	…	**1010**	4740	4620	-1010	-3870	4480	8.6
40-54	…	**5110**	-1310	-4710	-560	4200	-2380	-4.6
55-64	…	**5810**	4210	5120	1180	-2700	7810	15.0
65-74	…	**4830**	7290	5360	4200	4990	21840	41.8
75-84	…	**1140**	2630	4180	6310	4640	17760	34.0
85+	…	**1680**	1430	1060	2080	2690	7260	13.9
Total	…	**22810**	17080	13700	11840	9580	52200	100.0
65+		**7650**	11350	10600	12590	12320	46860	89.8

Age Distribution (percentage at each age)	2006	2011	2016	2021	2026	2031	Change (%) 2011-2031
0-14	20.3	**19.5**	19.0	18.7	17.8	17.2	-11.7
15-24	14.8	**14.7**	13.6	12.8	12.8	12.8	-12.6
25-39	22.3	**21.5**	21.7	22.0	21.3	20.3	-5.8
40-54	21.2	**21.3**	20.3	18.9	18.3	18.8	-11.7
55-64	9.9	**10.6**	11.1	11.8	11.8	11.1	3.9
65-74	6.2	**6.9**	8.1	8.9	9.5	10.2	49.2
75-84	3.9	**4.0**	4.4	5.1	6.1	6.9	72.5
85+	1.3	**1.6**	1.8	2.0	2.3	2.8	76.0
Total	100.0	**100.0**	100.0	100.0	100.0	100.0	…
65+	11.4	**12.4**	14.2	15.9	17.9	19.9	60.1

Summary measures	2006	2011	2016	2021	2026	2031	2011-2031
LM Entrants/Exits							
(15-24/55-64 years)	1.5	**1.4**	1.2	1.1	1.1	1.2	…
(20-29/60-69 years)	1.9	**1.7**	1.6	1.4	1.2	1.2	…
Elderly/Children	0.56	0.64	0.75	0.85	1.00	1.16	…
Reproductive (20-39 yrs)	29.8	29.4	29.2	28.9	27.9	27.2	…
65+	11.4	**12.4**	14.2	15.9	17.9	19.9	…
75+	5.2	**5.6**	6.2	7.0	8.4	9.6	…
Growth (%) - 5 years	…	**4.89**	3.49	2.71	2.28	1.80	10.67
Annual average growth (%)	…	0.98	0.70	0.54	0.46	0.36	0.53

Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

Figure 5.1.2: Projected Population Change by Age and Projection Series, Wellington Region
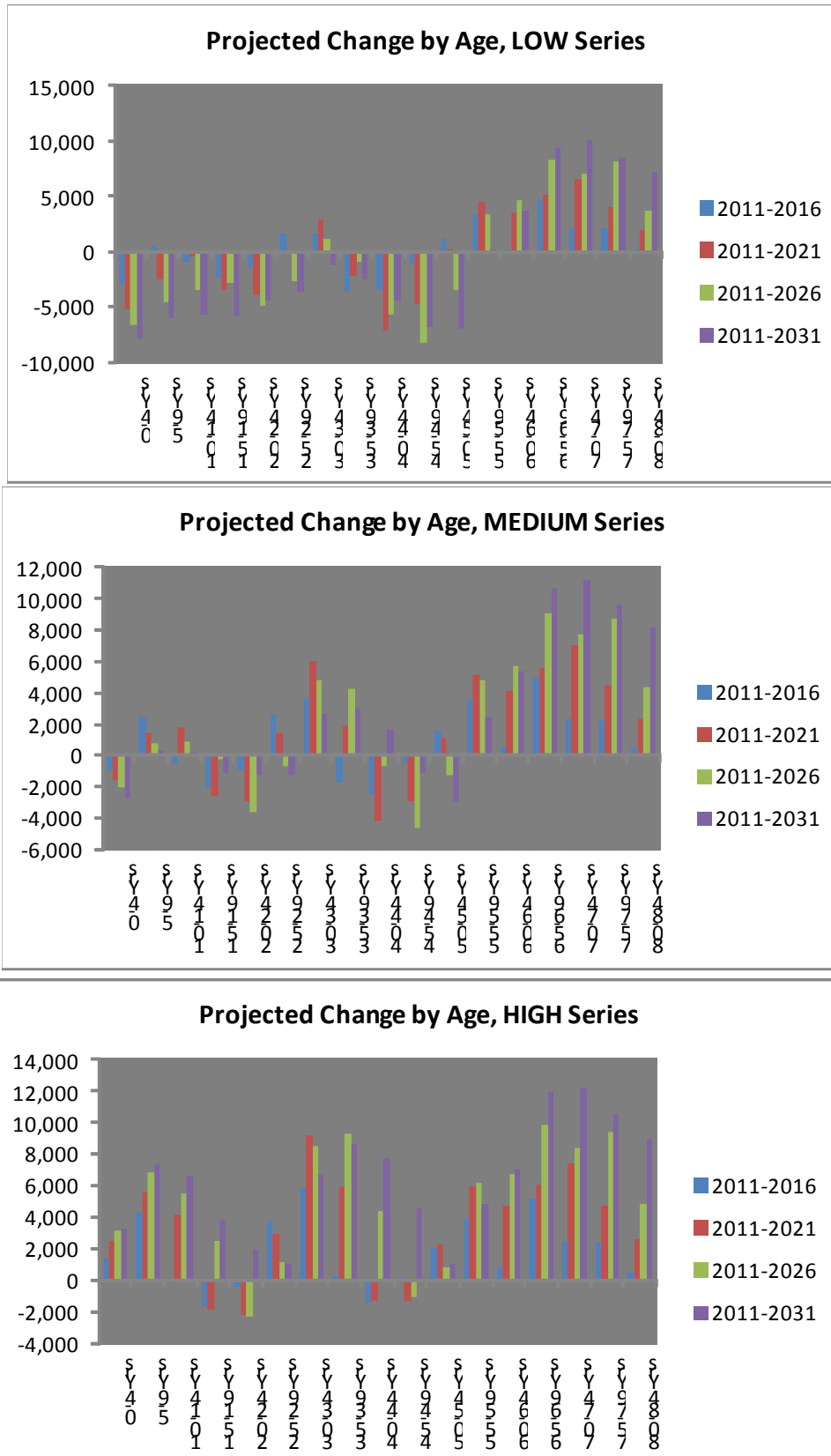
Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

Figure 5.1.3 and Table 5.1.2 summarise the projected changes for the region, its TAs, and total New Zealand, under the medium variant assumptions. Reflecting the trends at regional level, only Wellington City is projected to experience gains at every age group, with five TAs (Lower Hutt City, Upper Hutt City, and Masterton, Carterton and South Wairarapa Districts) projected to decline at all age groups below 55 years – although it should be recalled that there is likely to be an underlying ebbing and flowing across the different inter-censal periods, as larger cohorts (of recently born children) replace smaller ones, and vice-versa. All TAs are also projected to experience substantial growth at 65+ years. Still, only Wellington City and Porirua City show growth rates at 65+ years greater than the national average.

The outcome of these shifts (Table 5.1.2) is projected overall growth of less than 6 per cent for most TAs, with Masterton and South Wairarapa Districts expected to decline in size (-4.0 per cent and -5.1 per cent respectively). Substantial growth is projected for Wellington City and the Kapiti Coast District only, with both expected to experience greater growth than Total New Zealand (16.3 per cent).

Figure 5.1.3: Projected Change (%) in Numbers by Broad Age Group, Wellington Region, its TAs, and Total New Zealand 2011-2031, Medium Series

Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

Table 5.1.2: Projected Change (%) in Numbers by Broad Age Group, Wellington Region, its TAs and Total New Zealand, 2011-2031, Medium Series

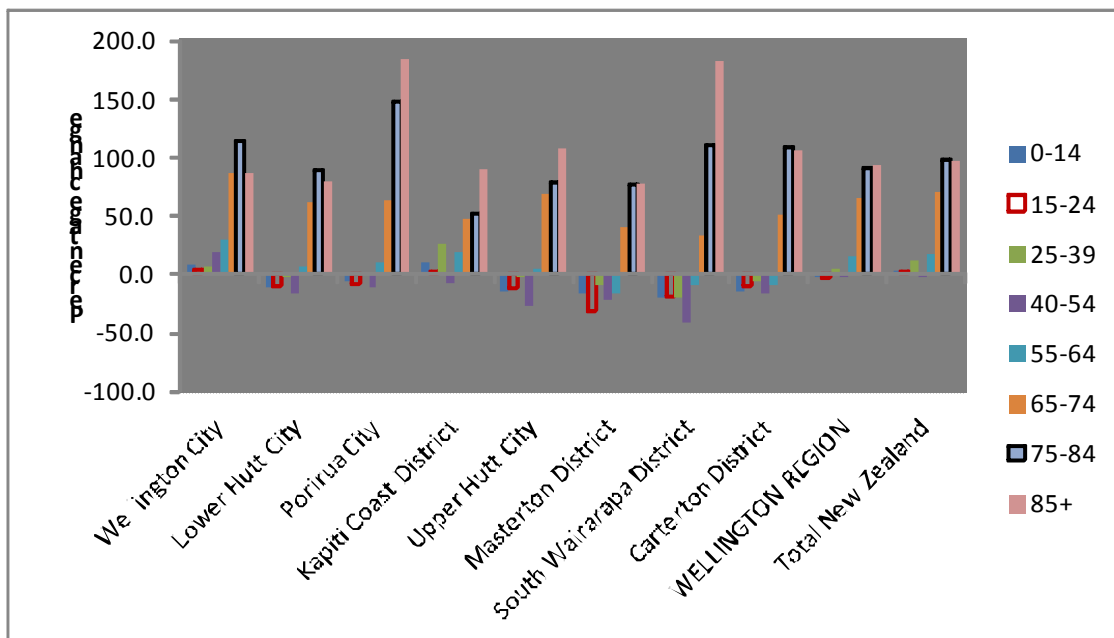|	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	WELLINGTON REGION	Total New Zealand
0-14	8.0	-11.1	-5.7	9.7	-14.4	-15.6	-20.5	-14.0	-2.3	3.2
15-24	4.4	-9.9	-8.3	2.3	-12.5	-30.4	-18.4	-10.5	-3.3	2.2
25-39	6.6	-1.6	1.6	26.1	-0.3	-9.6	-20.3	-5.4	4.3	12.7
40-54	18.8	-16.9	-11.1	-6.4	-27.2	-21.5	-40.8	-15.7	-2.3	0.0
55-64	30.7	6.5	10.0	19.9	6.0	-16.4	-8.8	-8.7	15.0	16.9
65-74	86.6	62.4	64.1	48.5	69.1	41.1	33.0	51.4	65.2	70.7
75-84	115.1	89.1	147.4	53.0	78.4	76.7	110.9	109.8	90.9	97.9
85+	86.0	80.1	184.2	89.8	107.3	78.3	182.4	107.1	94.8	98.1
Total	19.1	1.5	5.4	20.4	0.8	-4.0	-5.1	3.3	10.7	16.3
65+	95.1	72.9	96.0	56.3	77.7	58.3	70.1	76.4	77.2	82.8

Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

Table 5.1.3 shows the projected contribution to growth of each TA comprising the Wellington Region. By far the majority of growth is anticipated to occur in Wellington City (73.2 per cent), followed by the Kapiti Coast District (19.8 per cent). While the remaining TAs account for relatively small proportions of total growth, their contributions to growth at the youngest ages (0-14 years) are quite the opposite, particularly for Lower Hutt City. At the older ages (65+ years), contributions to growth are spread a little more evenly among TAs, with the greatest for Wellington City (35.9 per cent) and Lower Hutt City (19.1 per cent) contributions around 10 per cent or greater for the three largest TAs.

Table 5.1.3: Projected Contribution to Growth by Broad Age Group, Wellington Region, its TAs and Total New Zealand, 2011-2031, Medium Series

	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	WELLINGTON REGION	Number
0-14	-123.9	114.7	33.9	-40.8	56.9	32.6	17.4	10.1	100.0	-2,180
15-24	-61.9	61.1	27.6	-5.0	30.5	38.1	6.7	3.3	100.0	-2,390
25-39	80.6	-7.1	3.8	38.2	-0.4	-7.4	-5.8	-1.3	100.0	4,480
40-54	-334.0	159.2	51.3	28.6	106.3	43.7	35.3	10.9	100.0	-2,380
55-64	72.5	9.2	6.9	16.9	3.6	-6.7	-1.7	-1.3	100.0	7,810
65-74	40.0	20.0	9.5	13.4	9.5	4.3	1.7	1.7	100.0	21,840
75-84	34.4	19.4	11.2	13.4	9.0	6.5	3.4	2.5	100.0	17,760
85+	27.0	15.6	9.6	23.0	12.1	6.5	4.3	2.1	100.0	7,260
Total	73.2	3.0	5.5	19.8	0.6	-1.8	-0.9	0.5	100.0	52,200
65+	35.9	19.1	10.2	14.9	9.7	5.5	2.8	2.1	100.0	46,860

Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

5.2 Projections by Ethnicity

While counting population by ethnicity is difficult, projecting populations based on ethnic affiliation is even more difficult. The following projections have many caveats attached to them and should be read as indicative only. Among them is their multiple count base, the high degree of rounding of numbers involved, and numbers by age and sex are less reliable because of very small cell sizes.

Table 5.2.1 shows the European/Other population of the Wellington Region growing only slightly (3.2 per cent) between 2011 and 2021 against a 13.0 per cent increase for Māori. The percentage increases projected for the Pacific Island and Asian populations (16.5 and 27.7 per cent respectively) are somewhat larger, partly reflecting their smaller bases.

In all cases, natural increase is the primary driver of growth, and for the European, Māori and Pacific Island populations, offsets accompanying net migration loss. By 2021, natural increase for Māori is three-quarters of that for European/Other in absolute terms (6,900 compared with 9,400). There are marked differences by age. The 65+ year European/Other population is projected to increase by 30.2 per cent, compared with 76.9 per cent for Māori, 61.1 per cent for the Pacific Island population and 100.0 per cent for the Asian population. For the European/Other population the increase in the elderly population accounts for the vast majority of that population's overall 3.2 per cent projected growth, with net losses projected at 0-14 and 40-64 years (2.6 and 1.1 per cent respectively) and minimal growth at 15-39 years (0.5 per cent). Growth is projected at all ages for all other ethnic groups, disproportionately so at 0-14 and 15-39 years for the Māori and Pacific Islands populations, and at 15-39 and 50-64 years for the Asian population.

By 2021 the median age of the European/Other and Asian populations will be approximately 39.4 and 34.6 years respectively, that for European/Other around 14 or 15 years greater than for the Māori and Pacific Islands populations (25.6 and 24.2 years respectively), leaving the differences much the same as in 2011.

Table 5.2.1: Population Projections for Wellington Region by Ethnic Group and Broad Age Group

Wellington Region	Population(2, 3) by age group (years) at 30 June					Projected components of population change, five years ended 30 June					Median age(5) (years) at 30 June
	0–14	15–39	40–64	65+	All ages	Births	Deaths	Natural increase	Net migration	Inter-ethnic mobility(4)	
European/Other											
1996	73,600	137100	98,400	42,900	351900	…	…	…	…	…	34.0
2001	73,500	128400	107,000	44,300	353100	…	…	…	…	…	35.6
2006 (base)	72,100	129900	118,300	47,800	368100	…	…	…	…	…	36.9
2011	**71,500**	**129000**	**125,100**	**53,900**	**379500**	**25900**	**12800**	**13100**	**-1700**	**0**	**38.0**
2016	70,600	128500	125,300	62,800	387100	24600	13800	10900	-3200	0	38.9
2021	69,100	129700	122,900	70,200	391800	24000	14600	9400	-4700	0	39.4
Change 2011-2021 (%)	**-3.4**	**0.5**	**-1.8**	**30.2**	**3.2**	…	…	…	…	…	…
Māori											
1996	19,400	24,500	9,200	1,200	54,300	…	…	…	…	…	22.1
2001	20,400	23,800	10,700	1,400	56,200	…	…	…	…	…	22.6
2006 (base)	20,300	25,500	13,100	2,000	61,000	…	…	…	…	…	23.5
2011	**21,900**	**26,200**	**15,300**	**2,600**	**66,100**	**8700**	**1100**	**7600**	**-1500**	**-1000**	**24.0**
2016	23,200	27,000	16,800	3,500	70,600	8500	1300	7200	-1700	-1000	24.9
2021	24,300	28,200	17,600	4,600	74,700	8300	1400	6900	-1700	-1000	25.6
Change 2011-2021 (%)	**11.0**	**7.6**	**15.0**	**76.9**	**13.0**	…	…	…	…	…	…
Pacific Islands											
1996	12,100	14,100	5,900	1,000	33,100	…	…	…	…	…	21.8
2001	13,100	14,900	6,700	1,200	35,900	…	…	…	…	…	22.2
2006 (base)	13,500	15,800	8,000	1,500	38,700	…	…	…	…	…	23.0
2011	**14,700**	**16,700**	**9,100**	**1,800**	**42,300**	**5500**	**700**	**4800**	**-800**	**-400**	**23.1**
2016	15,700	17,700	10,000	2,400	45,900	5600	800	4800	-800	-400	23.6
2021	16,600	19,000	10,800	2,900	49,300	5600	900	4700	-800	-500	24.2
Change 2011-2021 (%)	**12.9**	**13.8**	**18.7**	**61.1**	**16.5**	…	…	…	…	…	…
Asian											
1996	6,600	12,100	5,800	1,000	25,600	…	…	…	…	…	28.8
2001	7,300	14,300	8,200	1,600	31,300	…	…	…	…	…	30.1
2006 (base)	8,600	19,000	10,800	2,300	40,800	…	…	…	…	…	29.3
2011	**10,200**	**21,600**	**13,400**	**3,900**	**49,100**	**3900**	**500**	**3400**	**5300**	**-400**	**30.7**
2016	12,100	23,200	14,900	5,600	55,900	4500	700	3800	3500	-500	32.7
2021	14,100	24,000	16,700	7,800	62,700	4800	900	3800	3500	-500	34.6
Change 2011-2021 (%)	**38.2**	**11.1**	**24.6**	**100.0**	**27.7**	…	…	…	…	…	…

Source: Statistics New Zealand, Subnational Ethnic Population Projections (2006 Base - 2009 Update) Tables 3e, 3m, 3p, 3a

(1) Boundaries at 30 June 2009.

(2) These projections have as a base the estimated resident population of each ethnicity, of each area, at 30 June 2006 and incorporate medium fertility, medium migration, medium mortality, and medium inter-ethnic mobility assumptions for each area. Population estimates for 1996–2006 are derived from the respective 1996–2006 census usually resident population counts.

(3) Numbers reflect the multiple count enumeration methodology and their sum is somewhat greater than the total projection for the TA. Projections are not available for all ethnic groups for all TA's.

(4) The net effect of people changing their ethnic identity.

(5) Half the population is younger, and half older, than this age.

Table 5.2.2 and Figure 5.2.1 provide an overview in terms of resulting population share by age. The data suggest moderate change in the overall ethnic composition of the region, with European/ Other falling by three percentage points to 67.7 per cent by 2021, Māori and Pacific Island shares increasing slightly (by 0.6 percentage points in both cases), and the Asian population reaching 10.8 per cent by 2021, up from 9.1 per cent in 2011. However there are greater differences by age. The projections indicate that the European/Other population will continue to account for the majority of each age group, ranging in 2021 from 55.7 per cent at ages 0-14 years, to 82.1 per cent at ages 65+ years. Equivalent data are not available for the MELAA population and thus projected contribution for each ethnic group by TA is not shown.

Table 5.2.2: Projected Distribution (% Population Share) by Age and Ethnic Group*, Wellington Region

	0–14	15–39	40–64	65+	All ages
2011					
European	60.4	66.7	76.8	86.7	70.7
Māori	18.5	13.5	9.4	4.2	12.3
Pacific Island	12.4	8.6	5.6	2.9	7.9
Asian	8.6	11.2	8.2	6.3	9.1
Total	100.0	100.0	100.0	100.0	100.0
Number (3)	118300	193500	162900	62200	537000
2016					
European	58.1	65.4	75.0	84.5	69.2
Māori	19.1	13.7	10.1	4.7	12.6
Pacific Island	12.9	9.0	6.0	3.2	8.2
Asian	10.0	11.8	8.9	7.5	10.0
Total	100.0	100.0	100.0	100.0	100.0
Number (3)	121600	196400	167000	74300	559500
2021					
European	55.7	64.6	73.2	82.1	67.7
Māori	19.6	14.0	10.5	5.4	12.9
Pacific Island	13.4	9.5	6.4	3.4	8.5
Asian	11.4	11.9	9.9	9.1	10.8
Total	100.0	100.0	100.0	100.0	100.0
Number (3)	124100	200900	168000	85500	578500

Source: Statistics New Zealand, Subnational Ethnic Population Projections (2006 Base - 2009 Update) Tables 3e, 3m, 3p, 3a

(1) Boundaries at 30 June 2009.

(2) These projections have as a base the estimated resident population of each ethnicity, of each area, at 30 June 2006 and incorporate medium fertility, medium migration, medium mortality, and medium inter-ethnic mobility assumptions for each area.

(3) Underlying numbers reflect the multiple count enumeration methodology and their sum is somewhat greater than the total projection for the region. Projections not available for all ethnic groups for all regions.

Figure 5.2.1: Projected Population of the Wellington Region by Major Ethnic Group* and Broad Age Group, 2011 and 2021
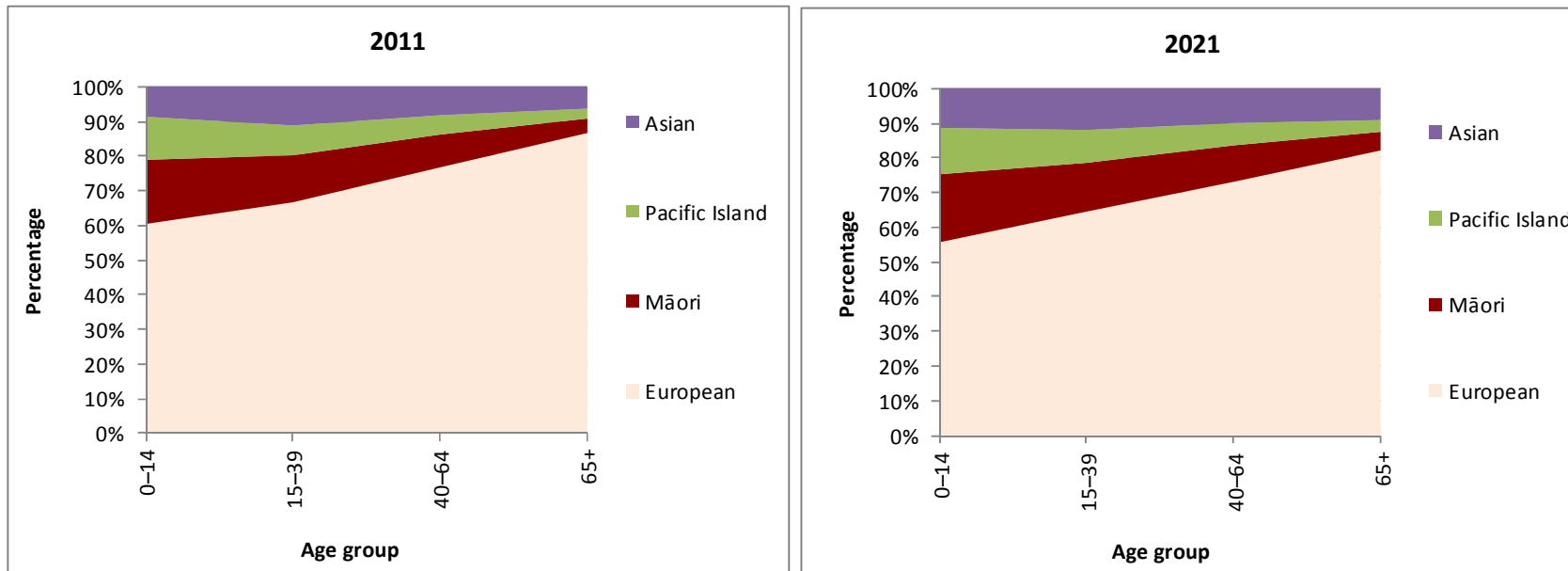
Source: Statistics New Zealand, Subnational Ethnic Population Projections (2006 Base - 2009 Update) Tables 3e, 3m, 3p,3a

(1) Boundaries at 30 June 2009.

(2) These projections have as a base the estimated resident population of each ethnicity, of each area, at 30 June 2006 and incorporate medium fertility, medium migration, medium mortality, and medium inter-ethnic mobility assumptions for each area. Population estimates for 1996–2006 are derived from the respective 1996–2006 census usually resident population counts.

(3) The underlying numbers reflect the multiple count enumeration methodology and their sum is somewhat greater than the total projection for the region.

5.3 Labour Market Implications of Changing Age Structure

As noted earlier, population ageing drives other important demographic changes. One of the most important is change in the ratio of people at labour market entry age to those at 'exit' age. Various age groupings can be employed to calculate this ratio; here we use two: people aged 15-24 to those 55-64 years, and people aged 20-29 to those 60-69 years (Figure 5.3.1). Based on the first of these indices, the Wellington Region can expect to maintain more people at 'entry' than 'exit' age across the projection period, falling from 1.4 (fourteen 'entrants' per 10 'exits') in 2011, to a low of 1.1 between 2021 and 2026, returning to 1.2 in 2031 when the current baby blip reaches labour market entry ages (see also Table 5.1.1 above). When the ratio is based on those aged 20-29 and 60-69 years, it also falls, but does not reach the low levels at 15-24:55-64 years, dropping to 1.2 between 2026 and 2031. These population-based ratios say little about future labour market availability however, given the Wellington Region's role as a centre for education and international migration.

Nationally the ratios similarly decline, falling to near-parity in 2021 (Appendix 3.3). All are linked, however, in a national (and international) labour market that will see increased competition for the participation of the young and greater need to encourage the retention of older workers. This demographically-tight labour market will have significant implications for labour costs as it unfolds. This will be particularly so for industries which have older age structures and are ageing faster than average, as outlined in the following special topic (Section 6.0), and for non-urban areas.

Figure 5.3.1: Projected Ratio of People at Labour Market Entry Age to Those Approaching Exit Age, Wellington Region and Total New Zealand, 2006-2031 (Medium Variant Assumptions)
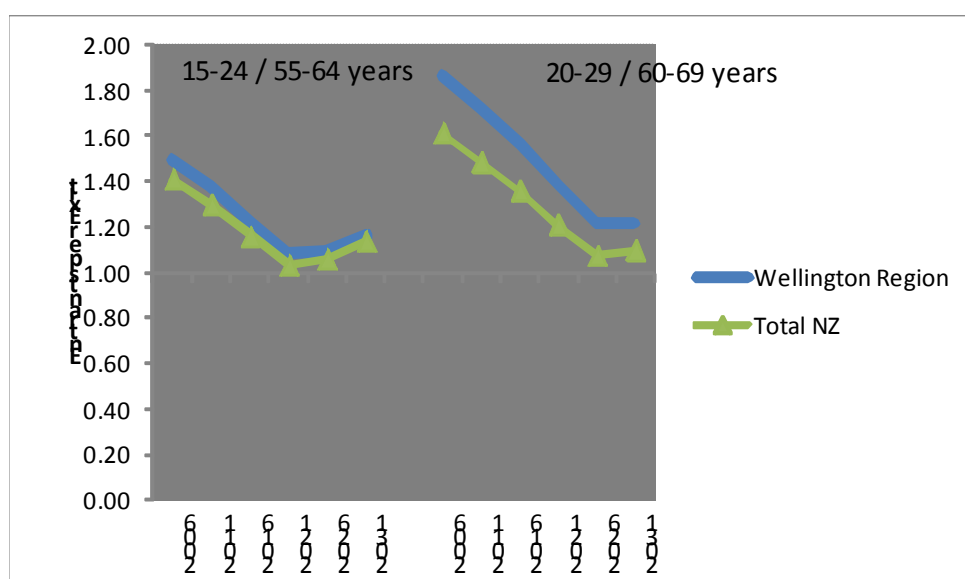
Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

Table 5.3.1 provides similar information for the TAs which comprise the Wellington Region. As noted earlier, Wellington City has the highest ratio of people at labour market entry to exit age under both scenarios (that is, younger and older age groupings), a reflection of its disproportion at 20-24 years. The ratios for South Wairarapa District are the lowest, with those of three other TAs (Kapiti Coast, Masterton and Carterton Districts) already somewhat below ten entrants per ten exits and continuing to fall across the projection period. The labour market entry to exit ratio is projected to decline by at least 10 per cent for all TAs under both age groupings (with the exception of Carterton District under the younger age grouping), with the decline most pronounced for Wellington City under both scenarios.

Table 5.3.1: Projected Ratio of People at Labour Market Entry Age to Those Approaching Exit Age, Wellington Region and its Territorial Authority Areas, 2006-2031 (Medium Variant Assumptions)

	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	WELLINGTON REGION
(15-24 years per 10 aged 55-64 years)									
2006	20.4	14.2	15.4	7.8	13.0	10.7	5.4	7.7	14.9
2011	**18.2**	**13.3**	**14.6**	**7.9**	**12.5**	**9.4**	**5.9**	**6.6**	**13.8**
2016	16.4	14.5	12.8	7.2	11.2	7.6	5.6	5.5	12.3
2021	14.5	10.1	10.8	6.2	9.4	6.6	4.5	5.9	10.8
2026	14.1	10.4	11.0	6.2	9.5	7.0	5.1	6.4	10.9
2031	14.5	11.2	12.2	6.8	10.3	7.8	5.3	6.5	11.6
2011-2031 (% change)	-20.2	-15.4	-16.7	-14.6	-17.6	-16.8	-10.5	-2.0	-16.0
(20-29 years per 10 aged 60-69 years)									
2006	32.3	16.3	17.1	5.8	13.9	9.5	5.4	7.3	18.7
2011	**28.9**	**15.1**	**16.5**	**6.3**	**12.1**	**9.1**	**4.5**	**6.8**	**17.3**
2016	25.1	13.1	15.4	6.5	11.7	8.3	4.9	5.7	15.7
2021	22.2	11.9	13.4	5.9	10.4	6.5	4.5	4.8	13.8
2026	19.4	10.4	11.2	5.2	8.6	5.4	3.6	5.0	12.2
2031	18.7	10.8	11.3	5.2	8.7	5.6	4.0	5.5	12.2
2011-2031 (% change)	-35.2	-28.8	-31.5	-18.6	-28.3	-38.2	-13.0	-20.2	-29.4

Source: Statistics New Zealand, Subnational Population Projections by Age and
Sex, 2006(base)-2031 Update

5.4 Natural Increase Implications of Changing Age Structure

For the Wellington Region, the ratio of elderly (65+ years) to children (0-14 years) is projected to increase rapidly from its present 0.64 (six elderly for every ten children), to 1.16 by 2031 (twelve for every 10 - Figure 5.4.1). This profound shift to more elderly than children (the cross over coinciding with that for Total New Zealand around 2026) will by then be contributing to diminishing levels of natural increase (Figure 5.4.2), as will the decreasing proportion projected to be at the key reproductive ages (28.9 per cent in 2031, down from 27.2 per cent in 2011) compared with Total New Zealand (25-27 per cent) (Figure 5.4.3).

Figure 5.4.1: Projected Ratio of Elderly (65+ Years) to Children (0-14 Years), Wellington Region and Total New Zealand, 2006-2031 (Medium Variant Assumptions)
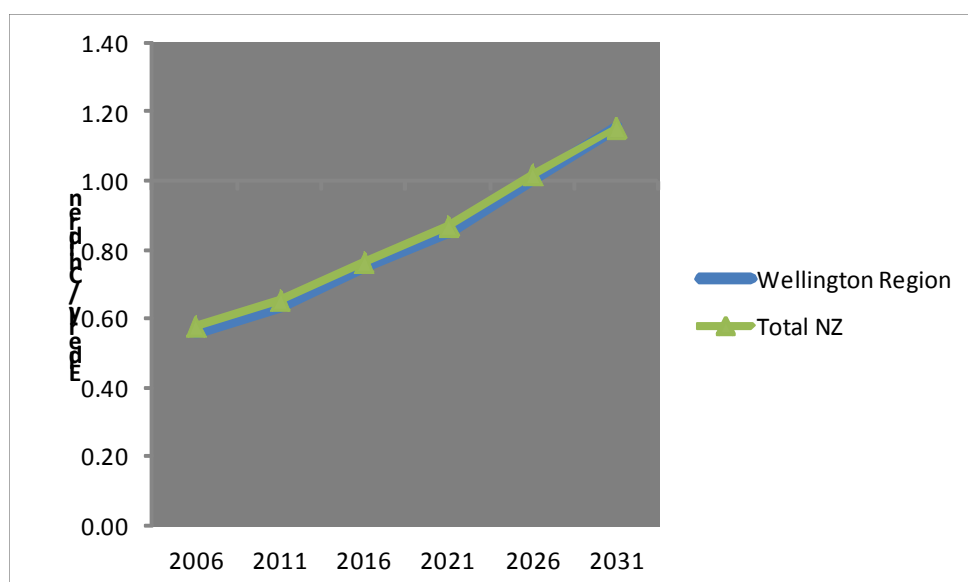
Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

The proportion at key reproductive ages (Figure 5.4.3) appears to be a particularly critical indicator of future growth. In 2010, 15 of New Zealand's 67 Territorial Authorities (22 per cent) had either stopped growing or declined in size (Jackson 2011: 20). All had proportions aged 20-39 years lower than the national average (then 26.9 per cent), and thereby severe 'hour-glass' shaped age structures which are no longer conducive to sustained natural growth. Referring back to Section 2, natural increase is currently the major component of the Wellington Region's growth and

particularly of some TAs. As that component declines, growth – or maintenance of population size - will become ever more dependent on migration.

Figure 5.4.2: Projected Natural Increase, Wellington Region and Total New Zealand, 2011-2031 (Medium Variant Assumptions)
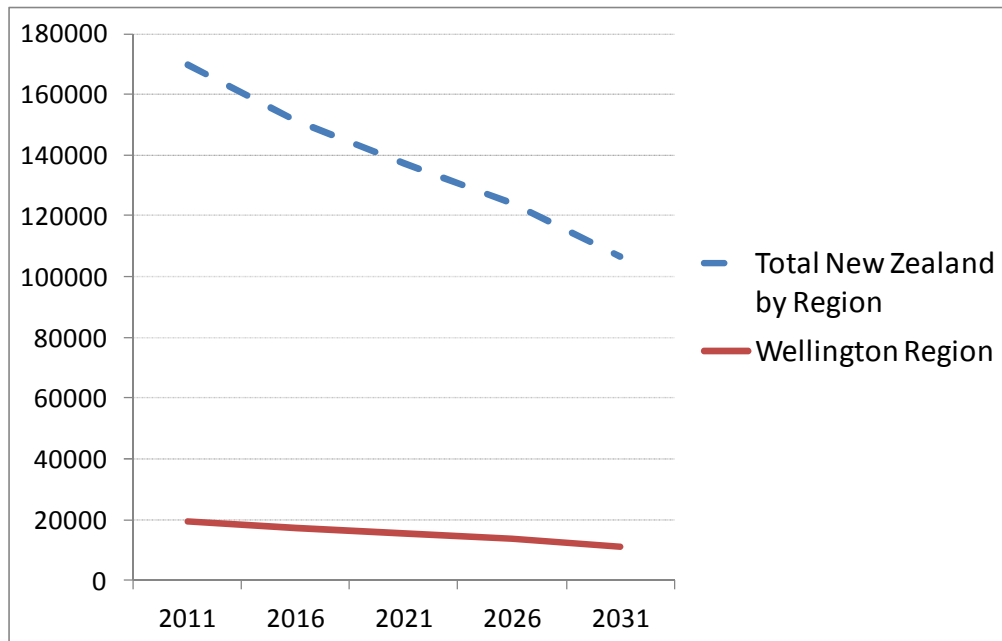
Source: Statistics NZ Subnational Projected Population Characteristics, 2006(base)-2031 Update

Figure 5.4.3: Projected Proportion at Key Reproductive Ages (20-39 Years), Wellington Region and Total New Zealand, 2006-2031 (Medium Variant Assumptions)
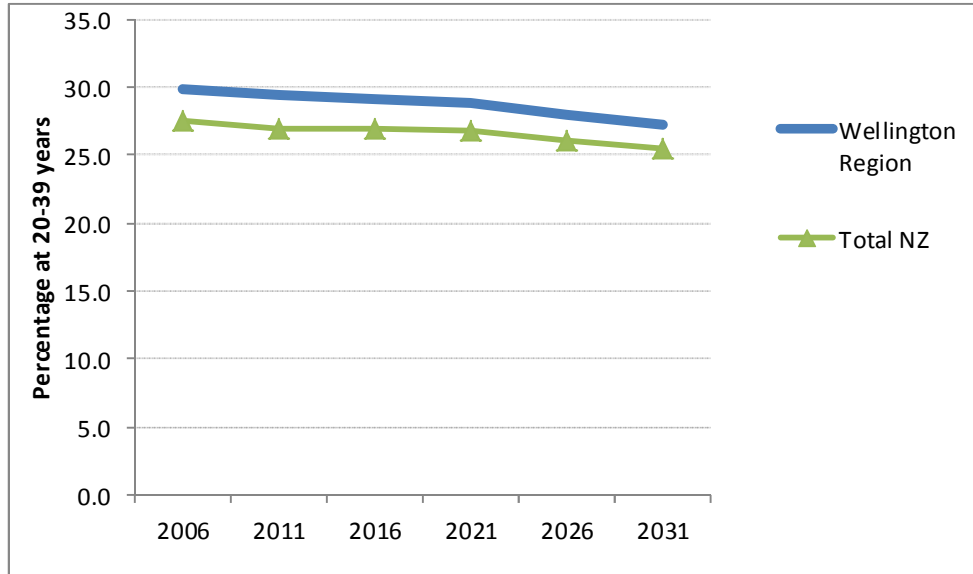
Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

Tables 5.4.1 to 5.4.3 give the data for the TAs which comprise the Wellington Region, beginning with the proportion of each TA at the key reproductive ages (Table 5.4.1). These data indicate that all TAs are projected to experience a decline in the proportion at these ages, although for the Kapiti Coast District the decline is very slight (note as earlier that the change is based on a 2011 baseline, not 2006). Decline is greatest for the region's three smallest TAs (Masterton, South Wairarapa and Carterton Districts), where 2011 figures are already comparatively low. Decline in this index for Wellington City is also substantial, although the capital city will continue to have the highest proportion at 20-39 years over the next two decades.

Table 5.4.1: Projected Proportion at Key Reproductive Ages (20-39 Years), Wellington Region and its Territorial Authority Areas, 2006-2031 (Medium Variant Assumptions)

|	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	WELLINGTON REGION
2006	37.6	27.4	27.4	18.4	25.5	20.8	19.9	20.1	29.8
2011	**37.5**	**26.8**	**27.0**	**17.5**	**23.8**	**20.5**	**17.3**	**19.5**	**29.4**
2016	37.1	26.3	26.7	17.7	23.4	20.9	15.9	18.4	29.2
2021	36.1	26.3	26.8	18.2	23.7	20.6	15.0	18.5	28.9
2026	34.3	25.9	25.9	18.1	23.5	19.6	14.9	18.1	27.9
2031	33.2	25.4	25.3	17.5	23.2	17.8	15.2	17.2	27.2
2011-2031 (% change)	-11.5	-5.0	-6.2	-0.3	-2.7	-13.4	-12.2	-11.8	-7.6

Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

The changing proportions at reproductive age are closely associated with shifts in the ratio of elderly to children (Table 5.4.2), which is projected to rise most substantially in Upper Hutt City and the South Wairarapa and Carterton Districts. Kapiti District already has more elderly than children, and is expected to be joined by three TAs as early as 2016: Masterton, South Wairarapa, and Carterton, More elderly than children is also projected for Upper Hutt City by 2021 and Lower Hutt City by 2031. Only Wellington and Porirua Cities do not experience a crossover to more elderly than children over the coming two decades.

The general reduction in the proportion at the key reproductive ages, alongside the underlying assumptions regarding future birth and life expectancy rates which change the ratio of old to young, result in a projected decline in natural increase for all TAs, with the sole exception of the relatively youthful Wellington City (Table 5.4.3). In general, declines are progressively greater for smaller TAs, in part reflecting their lower proportions at 20-39 years and greater proportions at 65+ years.

Table 5.4.2: Projected Ratio of Elderly (65+ Years) to Children (0-14 Years), Wellington Region and its Territorial Authority Areas, 2006-2031 (Medium Variant Assumptions)

	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	WELLINGTON REGION
2006	0.48	0.48	0.31	1.21	0.57	0.80	0.80	0.72	0.56
2011	**0.52**	**0.54**	**0.38**	**1.35**	**0.68**	**0.97**	**0.99**	**0.81**	**0.64**
2016	0.60	0.64	0.48	1.52	0.85	1.17	1.27	1.02	0.75
2021	0.68	0.75	0.56	1.63	1.00	1.36	1.49	1.21	0.85
2026	0.80	0.91	0.68	1.78	1.22	1.61	1.84	1.48	1.00
2031	0.94	1.06	0.79	1.92	1.42	1.82	2.13	1.66	1.16
2011-2031 (% change)	80.7	94.4	107.7	42.5	107.6	87.5	114.1	105.1	81.3

Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

Table 5.4.3: Projected Natural Increase Wellington Region and its Territorial Authority Areas, 2006-2031 (Medium Variant Assumptions)

	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	WELLINGTON REGION
2006									
2011	9600	5200	3800	300	1500	500	300	150	21400
2016	10300	5300	3800	200	1300	500	230	120	21700
2021	10600	5300	3800	300	1200	400	150	100	21800
2026	10300	5100	3700	300	1100	400	100	70	21200
2031	9900	4800	3500	200	1000	200	50	30	19700
2011-2031 (% change)	3.1	-7.7	-7.9	-33.3	-33.3	-60.0	-83.3	-80.0	-7.9

Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

As outlined throughout this profile, the trends mean that the Wellington Region will continue to grow, although at a decreasing rate. As elsewhere in New Zealand, the region's overall growth will also become increasingly patchy, as its underlying drivers – births, deaths and migration - change.

6.0　Industrial Change – Special Topic 1

6.1 Industrial Age-Sex Structures (1996, 2001, 2006)

The extent (and speed) of population ageing and its impact on the ratio of those at the labour market entry ages to those in the retirement zone also differs by industry. Industries which employ large proportions of younger people, such as supermarkets and grocery stores, by definition have youthful age structures; those employing large proportions of older people (especially in senior management positions) have older age structures. However industrial employment patterns by age are not of interest simply because they differ, but rather, in the context of population ageing, they provide important information for issues such as future labour supply and succession planning. Most importantly, in this section the index is not based on population *per se*, but rather, on those actually employed in each industry: it is thus an *employment* ratio, as opposed to a labour *market* ratio.

This section provides an overview of the changing age-sex structure of the Wellington Region's employed labour force (and briefly touches on employment status) first for the total labour force, then for the region's six largest industries at the three digit level: Government Administration, Marketing and Business Management Services, School Education, Other Business Services, Computer Services, and Cafes and Restaurants. The data have been customised by Statistics New Zealand to be consistent in terms of industry and employment status across time. The section concludes with a brief look at all industries employing over 3,000 persons in 2006.

Reflecting the trends outlined above, the average age of the region's employed persons at each census was respectively 37.9, 39.3 and 40.4 years (Figure 6.1.1, see also Appendix 4.1); an overall increase of 2.5 years (6.7 per cent). By comparison, the national average at each observation was 38.2, 40.0 and 41.1 years (an increase of 2.9 years, 7.5 per cent), the Wellington Region thus experiencing a slightly slower rate of labour force ageing. As might be expected, employers and the self-employed have the oldest average ages, around eight years greater than paid employees, with all employments statuses from the Wellington Region slightly younger than nationally. The sex ratio is slightly masculinised, especially above age 60, while this has diminished over time. Of most significance, however, is that the employment entry: exit ratio has declined from 1.7 to 1.0 (17 persons aged 15-24 years per 10 in the retirement zone 55+ years in 1996, to ten per ten in 2006). Reflecting this trend, the proportion of the employed workforce aged 55+ years has increased from 10.7 to 16.9 per cent (59 per cent), albeit not quite as much as nationally where the equivalent figures are 11.7 to 18.4 per cent (a 60.3 per cent increase).

Figure 6.1.1: Age-Sex Structure and Employment Status of Employed Labour Force 1996, 2001, 2006, Wellington Region
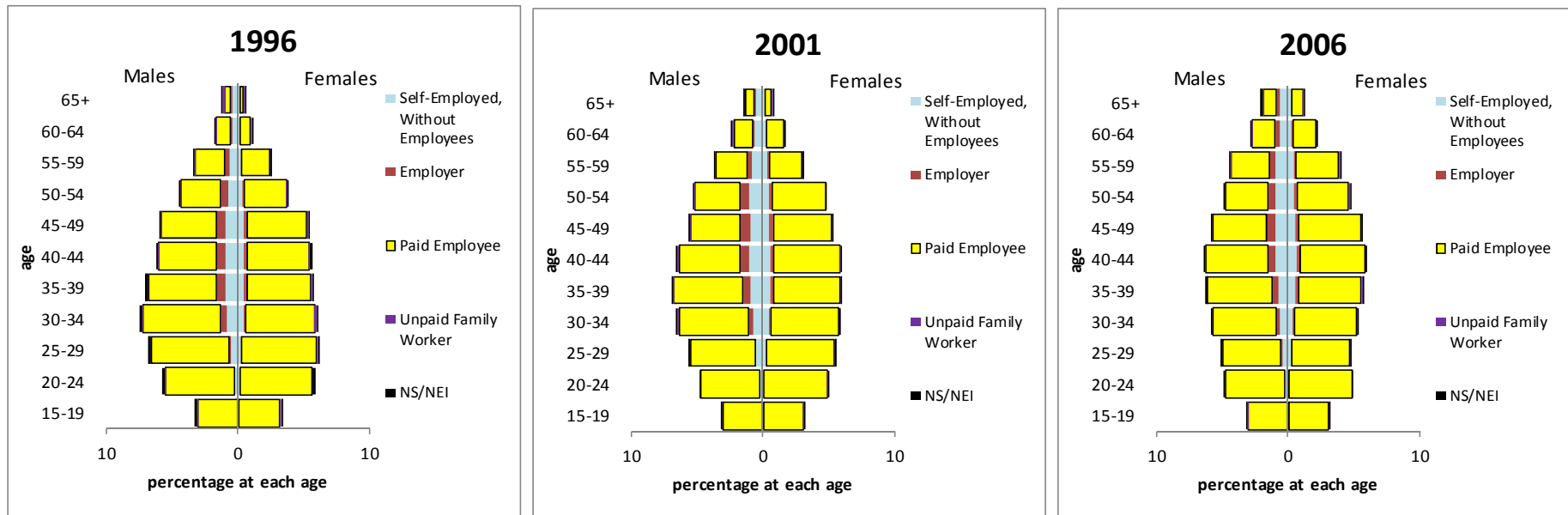
Source: Jackson/Statistics NZ Customised Database,
Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

Employing 18,303 persons at the 2006 Census, the region's single largest industrial grouping, **Government Administration** (ANZSIC96 V4.1 code M811), is slightly older than the region's total labour force and significantly more feminised (sex ratio 0.9 and 0.8 males per female in 1996 and 2006 respectively), most notably under age 34 (Figure 6.1.2). The average age of employed persons at each census was respectively 39.3, 40.6 and 41.1 years, an increase of 1.9 years (4.7 per cent) (Appendix 4.2). In 2006 the industry accounted for 7.8 per cent of the Wellington Region's employed workforce, up from 7.0 per cent in 1996, when it was also the largest. As for the total labour force, the employment entry: exit ratio for this industry has similarly declined significantly, from 0.9 in 1996 to 0.6 in 2006, that is, there are now only six persons aged 15-24 for every ten aged 55+ years.

Slightly less feminised is the region's second largest industrial grouping, **Marketing and Business Management Services** (ANZSIC96 V4.1 code L785) (Figure 6.1.3 and Appendix 4.3). The average age of persons employed in this industry (41.3 years in 2006) is just a little older than the region's total labour force, and has shifted upwards since 1996 by 3.5 years (9.2 per cent); the proportion aged 55+ years increasing from 8.7 to 15.1 per cent (73.7 per cent). This industry is thus ageing relatively rapidly. Reflecting these trends, the ratio of those at employment entry age to those in the retirement zone has fallen by more than half, from 1.7 in 1996, to 0.6 in 2006 (from 17 to just six at entry age per 10 aged 55+ years). This workforce is also fractionally older than its national counterpart (average age 41.0 years in 2006) but it is ageing slightly more slowly. Employing 9,750 persons in 2006, the industry accounted for 4.2 per cent of the region's workforce, up from 2.8 per cent in 1996.

The Wellington Region's third largest industry, **School Education** (ANZSIC96 V4.1 code N842), in 2006 employed 8,919 persons (Figure 6.1.3, Appendix 4.4). The average age of employees in this highly feminised industry (sex ratio 0.3 in both 1996 and 2006) is somewhat older than the region's total employed labour force, and similarly increasing, from 42.7 years in 1996 to 44.8 years in 2006 (2.1 years, 4.8 per cent). Reflecting this trend, the percentage aged 55+ years increased from 13.4 per cent in 1996 to 21.4 per cent in 2006 (60.5 per cent), and the ratio of people at employment entry age (15-24 years) to those in the retirement zone (55+ years) more than halved, from 0.5 (five per 10) in 1996 to just 0.2 (two per 10) in 2006. Those employed in this industry in the Wellington Region are slightly younger than their national counterparts, whose average age in 2006 was 45.1 years; otherwise the trends are similar, both painting a picture of an imminent shortage of teachers and associated personnel.

Figure 6.1.2: Age-Sex Structure of Major Industries 1996, 2001, 2006, Wellington Region: Government Administration (M811)

Source: Jackson/Statistics NZ Customised Database,
Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

Figure 6.1.3: Age-Sex Structure of Major Industries 1996, 2001, 2006, Wellington Region: Marketing and Business Management Services (L785)
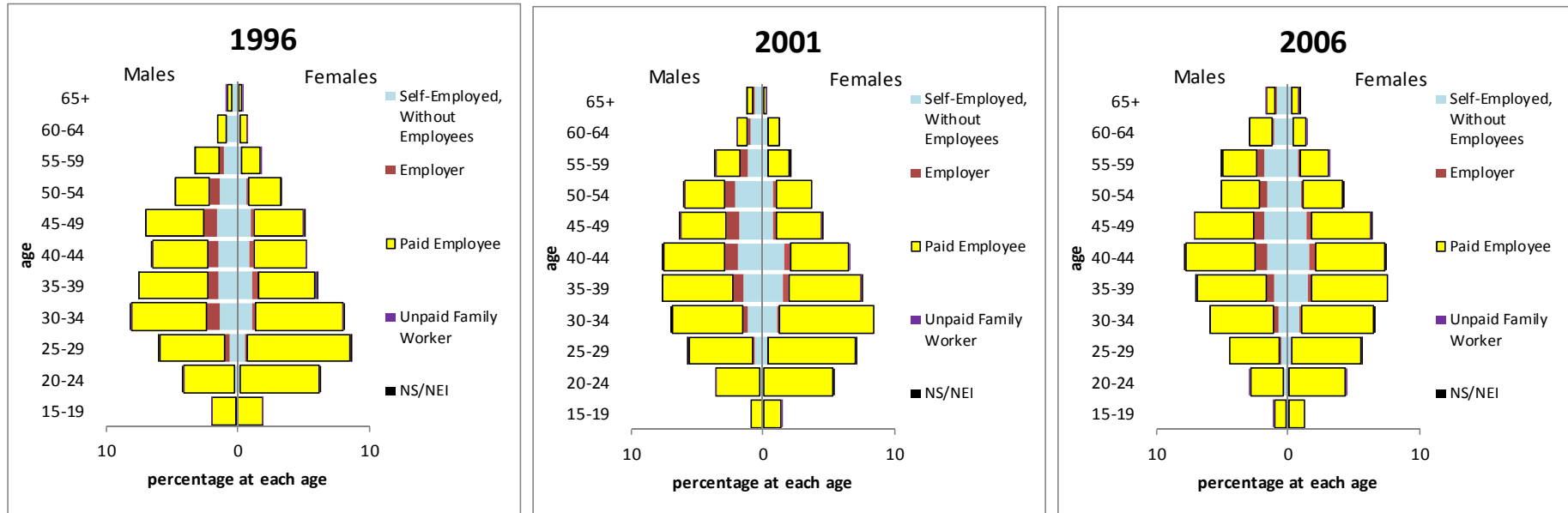
Source: Jackson/Statistics NZ Customised Database,
Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

Figure 6.1.4: Age-Sex Structure of Major Industries 1996, 2001, 2006, Wellington Region: School Education (N842)
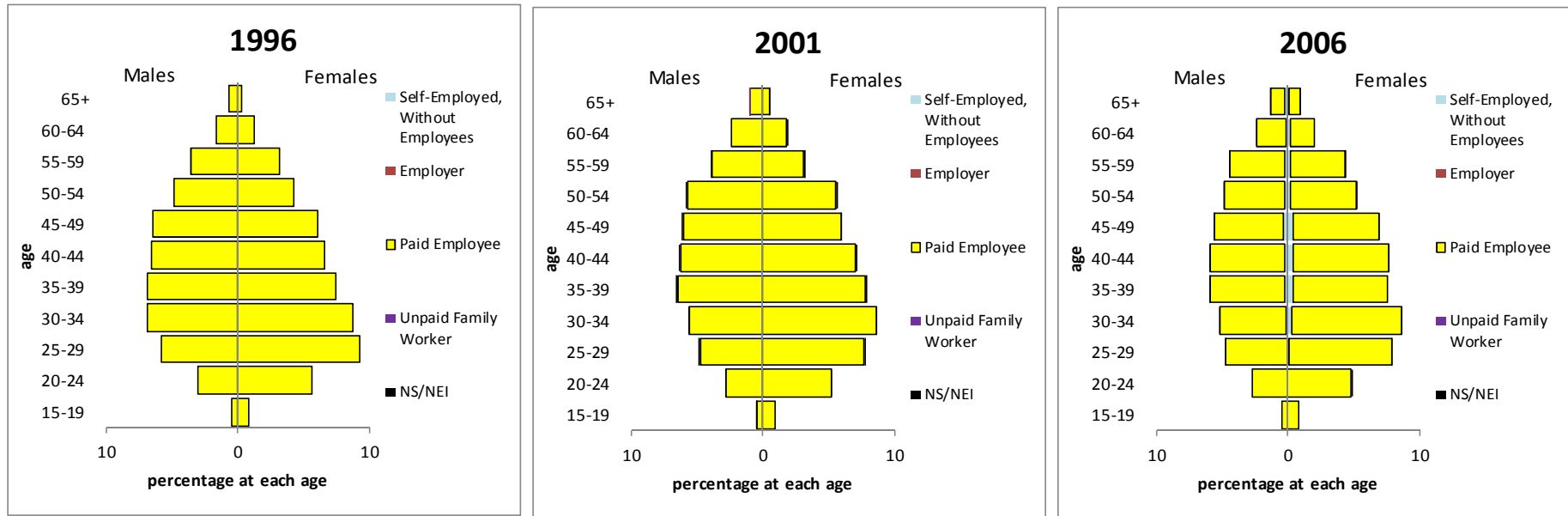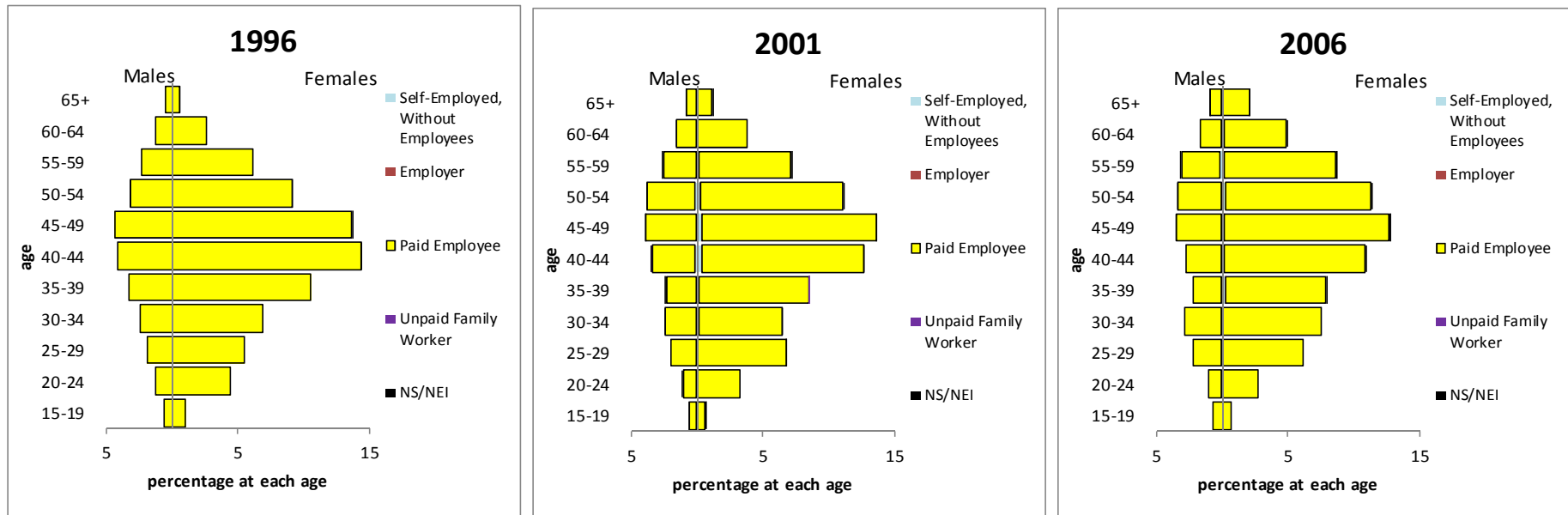

Source: Jackson/Statistics NZ Customised Database,
Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

Another industry with a disproportion of females – albeit less so in 2006 than in 1996 – is the region's fourth largest: **Other Business Services** (ANZSIC96 V4.1 code L786); see Figure 6.1.5 and Appendix 4.5. Employing 7,965 people in 2006 (3.4 per cent of the region's employed labour force, up from 3.0 per cent in 1996), the industry has increased its share of the employed labour force but also fallen from third position in 1996 and 2001. Relatively youthful, with an average age in 2006 of 40.1 years, up from 37.8 in 1996, this industry is also ageing structurally, the percentage aged 55+ years increasing from 9.7 to 16.0 per cent (64.7 per cent) and the ratio of people at employment entry age (15-24 years) declining from 17.0 per ten at 55+ years in 1996, to parity (ten per ten) in 2006 (a 40.6 per cent decline).

Ranking 5th in size in 2006, up from 12th in 1996, the **Computer Services** industry (ANZSIC96 V4.1 code L783) is both heavily masculinised and becoming more so (the sex ratio increasing from 1.7 males per female in 1996 to 2.3 in 2006) (Figure 6.1.6, see also Appendix 4.6). Relatively youthful, with an average age of 38.5 years in 2006, this industry too is ageing, with that index having increased from 35.9 years in 1996 (7.3 per cent), and the percentage aged 55+ years increasing from 4.3 to 7.3 (68.1 per cent). Concomitantly the ratio of people at employment entry age (15-24 years) to those in the retirement zone (55+ years) has declined substantially, from 3.1 in 1996 to 1.2 in 2006 (31 per 10, to 12 per 10).

The final industry examined here, ranking 6th in size in 2006 (employing 6,324 persons), up from seventh in 1996, is **Cafes and Restaurants** (ANZSIC96 V4.1 code H573) (Figure 6.1.7, see also Appendix 4.7). Youngest of the six industries examined here, the average age of those employed in the industry increased from 29.5 years in 1996 to 30.6 years in 2006, and the percentage aged 55+ years rose from 4.0 to 6.5. In 2006 this somewhat feminised workforce (sex ratio 0.7 in both 1996 and 2006) had 7.5 persons at the employment entry ages (15-24 years) for every person in the retirement zone (55+ years), down from 12.5 per person in 1996. This extreme youth is readily observable from Figure 6.17.

Together the six featured industries accounted for 25 per cent of the region's 2006 employed workforce, up from 21 per cent in 1996. As illustrated, some are younger or older, others are more feminised or masculinised, but all are ageing structurally. This is the case for all 157 industries at the three digit level and is a trend that must be prepared for, particularly in the older industries like school education which need to ensure that recruitment, retention and succession planning are urgently attended to.

Figure 6.1.5: Age-Sex Structure of Major Industries 1996, 2001, 2006, Wellington Region: Other Business Services (L786)
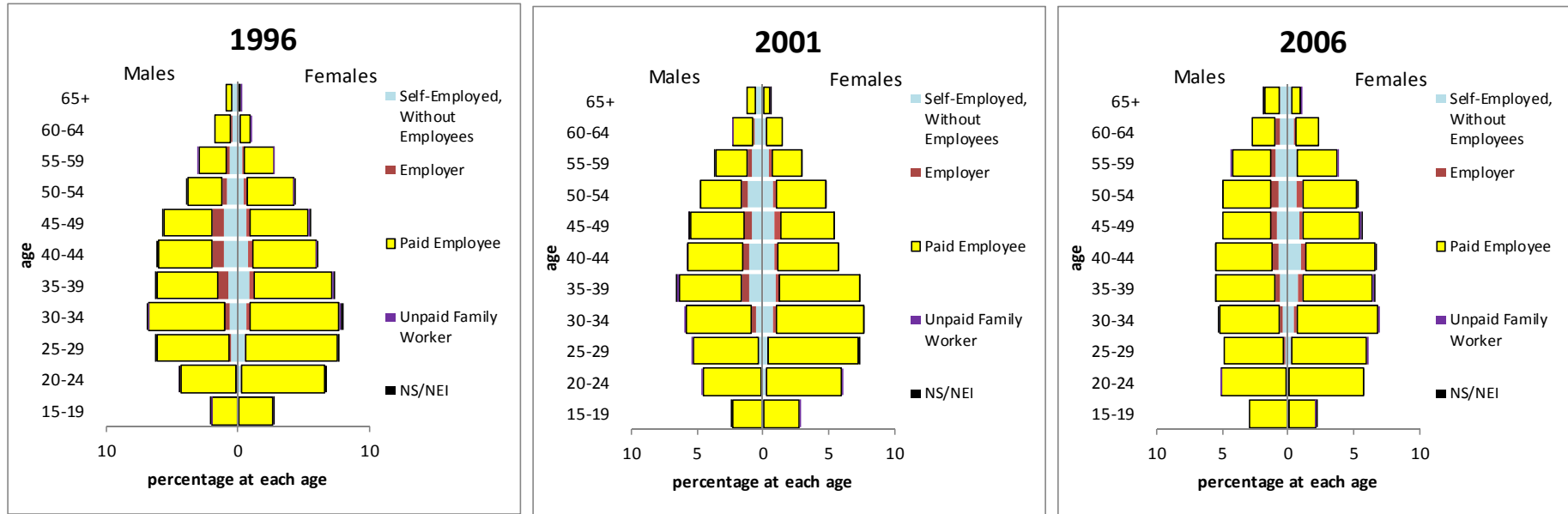
Source: Jackson/Statistic NZ Customised Database,
Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

Figure 6.1.6: Age-Sex Structure of Major Industries 1996, 2001, 2006, Wellington Region: Computer Services (L783)
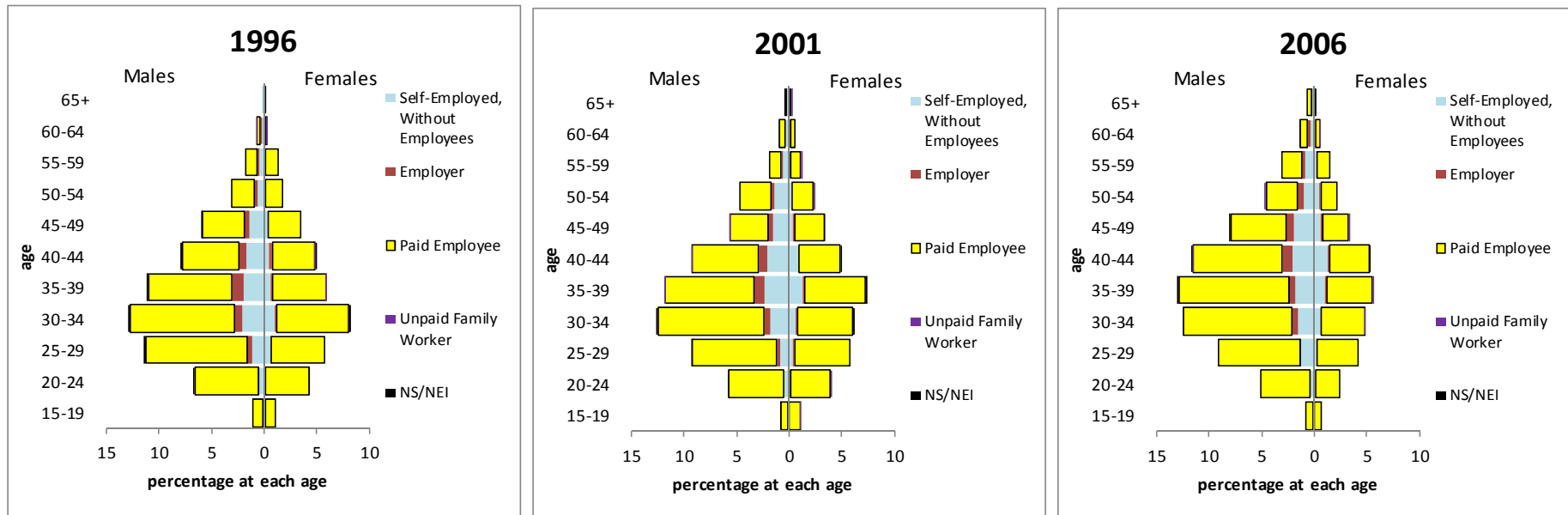
Source: Jackson/Statistics NZ Customised Database,
Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

Figure 6.1.7: Age-Sex Structure of Major Industries 1996, 2001, 2006, Wellington Region: Cafes and Restaurants (H573)
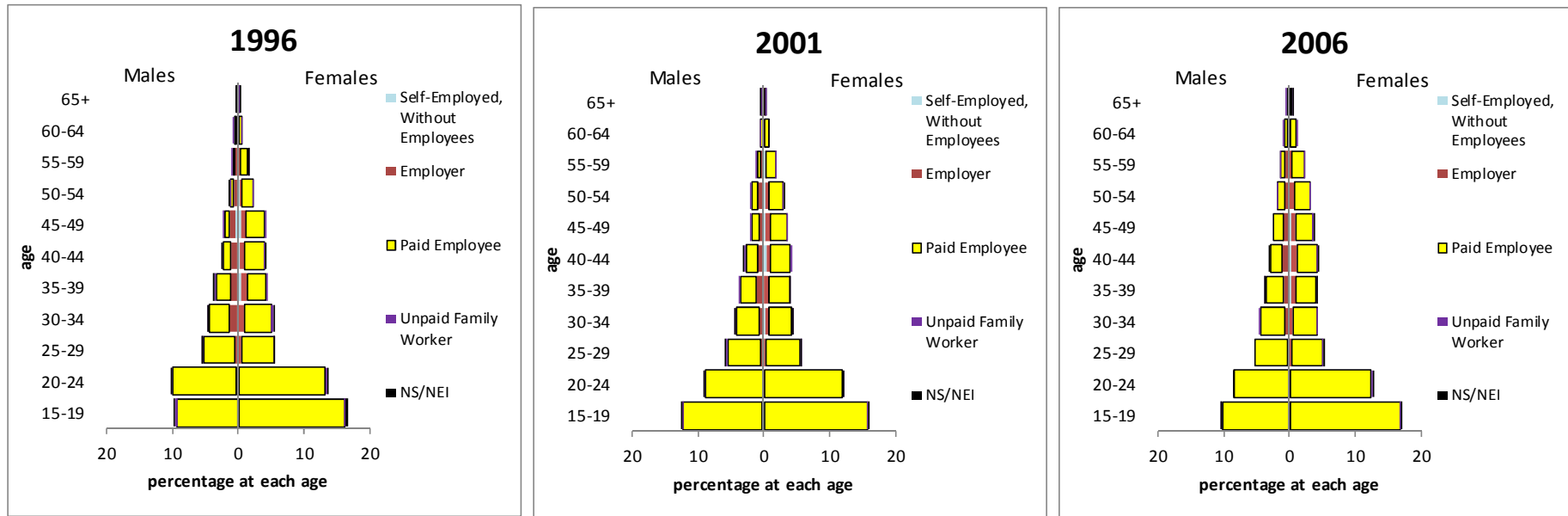
Source: Jackson/Statistics NZ Customised Database,
Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

Table 6.1.1 concludes this section with a brief summary of data for all industries in the Wellington Region with more than 3,000 employed persons in 2006, together accounting for over 56 per cent of the region's employed persons.

In 2006, 11 of the 22 industries employing more than 3,000 people had fewer people at entry than exit age, up from eight in 1996. The mature age structures of the School Education, Marketing and Business Management Services, and Government Administration industries discussed above are joined here by Legal and Accounting Services (0.7), Technical Services (0.6), Post School Education (0.5), Other Health Services (0.4), Public Order and Safety Services (0.4), Interest Groups (0.4), Hospitals and Nursing Homes (0.3), and Community Care Services (0.3). Together these 11 industries accounted for 30 per cent of the Wellington Region's employed workforce in 2006. The ratios for some of these industries do of course reflect the relatively low proportions of people at younger ages who have yet attained the necessary qualifications or experience; however in all but one case (Specialised Food Retailing) they have declined significantly in just the one decade, and all are part of the larger story which depicts increasing national (and international) competition for employees. Indeed, while the very high ratios for those employed in the Wellington Region's Cafes and Restaurants and Supermarkets and Grocery Stores stand in stark contrast for their youthfulness, they too have declined at an astonishing rate. All point to an urgent need to engage with the forthcoming even more rapid ageing of, and succession planning within, local industries. This urgency is even more pronounced in the more feminised industries, because of the different hours that men and many women prefer (or need) to work in order to balance family commitments.

Table 6.1.1: Ratio of Employed Population at Employment Entry Age (15-24 Years) to Exit Age (55+ Years) in Industries Employing Over 3,000 Persons, Wellington Region and Total New Zealand, 1996, 2001, 2006

| Employed Labour Force by Industry and Employment Entry/Exit Ratio (15-24:55+ Years) 1996-2006	Wellington Region				Total New Zealand			
	Entry/Exit Ratio (entrants per exit)			Change	Entry/Exit Ratio (entrants per exit)			Change
Industries over 3,000 persons	1996	2001	2006	1996-2006 (%	1996	2001	2006	1996-2006 (%)
M811 Government Administration	0.9	0.7	0.6	-38.9	0.8	0.5	0.4	-44.1
L785 Marketing and Business Management Services	1.7	1.1	0.6	-62.4	1.7	1.1	0.7	-58.4
N842 School Education	0.5	0.3	0.2	-56.2	0.6	0.3	0.2	-60.2
L786 Other Business Services	1.7	1.3	1.0	-40.9	1.6	1.1	0.9	-43.6
L783 Computer Services	3.2	2.3	1.2	-62.1	3.5	2.6	1.3	-63.4
H573 Cafes and Restaurants	12.3	10.1	7.5	-38.9	9.4	7.9	6.1	-35.0
G511 Supermarket and Grocery Stores	14.3	8.0	4.8	-66.5	11.5	6.8	4.1	-64.1
K732 Deposit Taking Financiers	5.3	3.2	1.9	-64.7	5.3	2.2	1.4	-74.4
O863 Other Health Services	0.8	0.4	0.4	-51.5	0.8	0.4	0.3	-62.1
E411 Building Construction	1.6	1.2	1.3	-22.2	1.8	1.1	1.2	-30.6
L784 Legal and Accounting Services	1.6	1.1	0.7	-53.5	1.6	0.9	0.6	-60.6
O861 Hospitals and Nursing Homes	0.9	0.5	0.3	-62.9	0.9	0.4	0.3	-65.1
O872 Community Care Services	1.1	0.5	0.3	-68.2	0.9	0.4	0.3	-69.4
L782 Technical Services	0.9	0.6	0.6	-34.8	1.2	0.7	0.6	-47.6
N843 Post School Education	0.7	0.5	0.5	-32.0	0.8	0.6	0.4	-49.4
G525 Other Personal and Household Good Retailing	1.7	1.6	1.4	-20.2	1.5	1.2	1.1	-28.4
E423 Installation Trade Services	2.1	1.2	1.4	-32.9	1.9	1.2	1.2	-40.5
G512 Specialised Food Retailing	4.5	4.9	5.1	12.8	5.0	4.1	4.0	-20.7
Q952 Other Personal Services	3.8	2.0	1.2	-67.9	2.7	1.6	1.1	-59.2
G532 Motor Vehicle Services	4.4	2.3	1.7	-61.8	4.3	2.4	1.6	-62.3
Q963 Public Order and Safety Services	0.9	0.6	0.4	-54.9	0.8	0.5	0.3	-61.9
Q962 Interest Groups	0.7	0.5	0.4	-37.0	0.8	0.6	0.4	-46.7
TOTAL EMPLOYED (Wellington Region)	1.7	1.2	1.0	-44.1	1.6	1.1	0.9	-47.1

Source: Jackson/Statistics NZ Customised Database,

Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex

for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

Appendices

Appendix 1.1: Population Size and Growth, Wellington Region and Total New Zealand 1986-2011

Wellington Region	Night Resident Population and Census-Adjusted	Night Resident Population (unadjusted for Census	Estimated Usual Resident Population (June Years)		Wellington Region	Change (%)	Total New Zealand Change (%)
1986	395,610	…	…				
1987	394,500	…	…		1986-87	…	…
1988	395,800	…	…		1987-88	-0.3	0.3
1989	395,600	…	…		1988-89	0.3	0.7
1990	397,200	…	…		1989-90	-0.1	0.2
1991	…	402,892	…		1990-91	…	…
1992	…	404,200	…		1991-92	0.3	1.0
1993	…	407,000	…		1992-93	0.7	1.3
1994	…	410,000	…		1993-94	0.7	1.4
1995	…	413,100	…		1994-95	0.8	1.6
1996	…	…	426,900		1995-96		
1997	…	…	431,200		1996-97	1.0	1.3
1998	…	…	433,900		1997-98	0.6	0.9
1999	…	…	435,800		1998-99	0.4	0.5
2000	…	…	437,500		1999-2000	0.4	0.6
2001	…	…	440,200		2000-01	0.6	0.6
2002	…	…	445,800		2001-02	1.3	1.8
2003	…	…	452,300		2002-03	1.5	2.0
2004	…	…	457,800		2003-04	1.2	1.5
2005	…	…	461,600		2004-05	0.8	1.1
2006	…	…	466,300		2005-06	1.0	1.2
2007	…	…	470,300		2006-07	0.9	1.0
2008	…	…	473,800		2007-08	0.7	1.0
2009	…	…	478,600		2008-09	1.0	1.1
2010	…	…	483,300		2009-10	1.0	1.2
2011	…	…	487,700		2010-11	0.9	0.9
1986-2011*			92,090			23.3	33.2

Source: Statistics New Zealand Infoshare, Tables DPE006AA; DPE051AA

*Notes: *Changes in the timing and method of estimating Resident Population between 1990-1991 and 1995-1996 mean that the three sets of trends should be understood as discontinuous*

Appendix 1.2: Population Size and Growth, Wellington Region and its Territorial Authorities, 1986-2011

	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	Wellington Regional Council	Total New Zealand
1986	149,868	95,342	45,663	29,754	37,290	22,508	8,747	6,336	395,610	3,307,084
1987	148,300	94,700	45,800	30,700	37,100	22,600	8,800	6,460	394,500	3,315,410
1988	148,300	94,500	46,000	31,800	37,100	22,600	8,860	6,580	395,800	3,339,160
1989	147,600	94,000	46,100	32,600	36,900	22,600	8,910	6,680	395,600	3,347,140
1990	147,700	94,000	46,200	33,700	36,900	22,700	8,960	6,800	397,200	3,373,400
1991	150,301	94,540	46,601	35,309	37,092	22,947	9,037	6,913	402,892	3,515,980
1992	150,100	94,500	47,000	36,300	37,000	23,000	9,120	7,030	404,200	3,552,240
1993	150,800	94,600	47,400	37,300	37,000	23,200	9,220	7,140	407,000	3,597,850
1994	152,100	94,900	47,800	38,000	37,100	23,400	9,320	7,180	410,000	3,648,260
1995	153,800	95,000	48,300	38,700	37,100	23,500	9,400	7,220	413,100	3,706,710
1996	163,400	98,800	48,200	39,400	37,700	23,300	9,150	6,940	426,900	3,762,360
1997	166,000	99,400	48,500	40,300	37,800	23,300	9,030	6,900	431,200	3,802,710
1998	167,400	99,600	48,800	41,200	37,800	23,300	9,020	6,850	433,900	3,829,160
1999	168,600	99,400	49,100	41,900	37,700	23,200	8,980	6,820	435,800	3,851,130
2000	169,500	99,300	49,200	42,700	37,700	23,200	9,000	6,840	437,500	3,873,000
2001	171,100	99,100	49,500	43,600	37,700	23,200	8,940	7,000	440,200	3,916,130
2002	174,400	99,800	49,800	44,300	38,100	23,300	8,990	7,050	445,800	3,989,530
2003	178,800	100,300	50,300	45,100	38,500	23,300	8,990	7,120	452,300	4,061,580
2004	182,100	100,900	50,500	45,900	38,900	23,300	9,020	7,170	457,800	4,114,290
2005	184,500	101,200	50,400	46,700	39,200	23,300	9,050	7,200	461,600	4,161,000
2006	187,700	101,300	50,600	47,500	39,700	23,200	9,120	7,260	466,300	4,211,380
2007	190,500	101,500	50,700	48,000	40,000	23,100	9,140	7,300	470,300	4,252,570
2008	192,800	101,700	51,000	48,400	40,200	23,200	9,190	7,360	473,800	4,291,600
2009	195,500	102,100	51,500	48,900	40,600	23,300	9,250	7,420	478,600	4,347,110
2010	197,700	102,700	52,100	49,400	41,100	23,400	9,340	7,540	483,300	4,393,470
2011	200,100	103,000	52,700	49,800	41,500	23,500	9,420	7,650	487,700	4,405,200
1986-2011*	50,232	7,658	7,037	20,046	4,210	992	673	1,314	92,090	1,098,116

Source: Statistics New Zealand Infoshare, Tables DPE006AA; DPE051AA

Notes: *Changes in the timing and method of estimating Resident Population between 1990-1991 and 1995-1996 mean that the three sets of trends should be understood as discontinuous

*Numbers for each TA do not sum to the total for the Wellington Region, due to the above differences.

Appendix 1.3: Annual Net Change (%), Wellington Region and its Territorial Authorities, 1991-2011

	Wellington City	Lower Hutt City	Porirura City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	Wellington Regional Council	Total New Zealand
March Year (a)										
1991-92	-0.13	-0.04	0.86	2.81	-0.25	0.23	0.92	1.69	0.32	1.03
1992-93	0.47	0.11	0.85	2.75	0.00	0.87	1.10	1.56	0.69	1.28
1993-94	0.86	0.32	0.84	1.88	0.27	0.86	1.08	0.56	0.74	1.40
1994-95	1.12	0.11	1.05	1.84	0.00	0.43	0.86	0.56	0.76	1.60
June Year (a)										
1995-96										…
1996-97	1.59	0.61	0.62	2.28	0.27	0.00	-1.31	-0.58	1.01	1.32
1997-98	0.84	0.20	0.62	2.23	0.00	0.00	-0.11	-0.72	0.63	0.89
1998-99	0.72	-0.20	0.61	1.70	-0.26	-0.43	-0.44	-0.44	0.44	0.53
1999-2000	0.53	-0.10	0.20	1.91	0.00	0.00	0.22	0.29	0.39	0.59
2000-01	0.94	-0.20	0.61	2.11	0.00	0.00	-0.67	2.34	0.62	0.59
2001-02	1.93	0.71	0.61	1.61	1.06	0.43	0.56	0.71	1.27	1.75
2002-03	2.52	0.50	1.00	1.81	1.05	0.00	0.00	0.99	1.46	1.99
2003-04	1.85	0.60	0.40	1.77	1.04	0.00	0.33	0.70	1.22	1.50
2004-05	1.32	0.30	-0.20	1.74	0.77	0.00	0.33	0.42	0.83	1.14
2005-06	1.73	0.10	0.40	1.71	1.28	-0.43	0.77	0.83	1.02	1.23
2006-07	1.49	0.20	0.20	1.05	0.76	-0.43	0.22	0.55	0.86	1.04
2007-08	1.21	0.20	0.59	0.83	0.50	0.43	0.55	0.82	0.74	0.96
2008-09	1.40	0.39	0.98	1.03	1.00	0.43	0.65	0.82	1.01	1.10
2009-10	1.13	0.59	1.17	1.02	1.23	0.43	0.97	1.62	0.98	1.20
2010-11	1.21	0.29	1.15	0.81	0.97	0.43	0.86	1.46	0.91	0.86

Compiled from Statistics New Zealand Infoshare: Usual Resident Population, Table DPE051AA; Births, Table VSB016AA;

Deaths, Table VSD018AA.

(a) 1991-1995 Estimated Defacto; 1996-2011 Estimated Usual Resident

Appendix 1.4: Percentage Point Contribution to Annual Net Change due to Natural Increase, Wellington Region and its Territorial Authorities, 1991-2011

	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	Wellington Regional Council	Total New Zealand
March Year (a)										
1991-92	1.04	1.07	1.84	0.29	0.93	0.88	0.71	0.52	1.03	0.95
1992-93	0.87	1.09	1.64	0.34	0.89	0.75	0.95	0.81	0.96	0.89
1993-94	1.03	1.01	1.56	0.26	0.85	0.75	0.92	0.41	0.97	0.87
1994-95	0.89	1.01	1.60	0.26	0.77	0.59	0.86	0.54	0.91	0.84
June Year (a)										
1995-96										…
1996-97	0.90	0.87	1.40	0.06	0.64	0.66	0.51	0.33	0.82	0.79
1997-98	0.81	0.93	1.33	0.08	0.73	0.62	0.62	0.46	0.80	0.78
1998-99	0.90	0.92	1.46	0.15	0.62	0.35	0.68	0.42	0.83	0.75
1999-2000	0.92	0.96	1.37	0.21	0.67	0.53	0.51	0.57	0.85	0.79
2000-01	0.91	0.93	1.51	0.12	0.77	0.47	0.38	0.34	0.85	0.76
2001-02	0.85	0.86	1.10	-0.02	0.53	0.30	0.29	0.21	0.72	0.67
2002-03	0.90	0.82	1.28	-0.06	0.56	0.25	0.57	0.37	0.75	0.69
2003-04	0.90	0.85	1.18	0.06	0.60	0.33	0.39	0.58	0.77	0.74
2004-05	0.85	0.84	1.13	0.00	0.54	0.29	0.44	0.13	0.72	0.72
2005-06	0.93	0.87	1.25	0.00	0.72	0.32	0.61	0.31	0.79	0.75
2006-07	0.93	0.91	1.26	0.12	0.61	0.44	0.66	0.36	0.81	0.79
2007-08	0.94	0.98	1.45	-0.03	0.75	0.26	0.75	0.55	0.84	0.84
2008-09	0.89	0.97	1.45	0.15	0.66	0.37	0.40	0.14	0.83	0.80
2009-10	0.89	0.93	1.31	0.14	0.70	0.24	0.48	0.54	0.80	0.82
2010-11	0.86	0.90	1.20	0.10	0.61	0.31	0.41	0.74	0.77	0.76

Compiled from Statistics New Zealand Infoshare: Usual Resident Population, Table DPE051AA; Births, Table VSB016AA; Deaths, Table VSD018AA.

(a) 1991-1995 Estimated Defacto; 1996-2011 Estimated Usual Resident

Appendix 1.5: Percentage Point Contribution to Annual Net Change due to Net Migration, Wellington Region and its Territorial Authorities, 1991-2011

	Wellington City	Lower Hutt City	Porirua City	Kapiti Coast District	Upper Hutt City	Masterton District	South Wairarapa District	Carterton District	Wellington Regional Council	Total New Zealand
March Year (a)										
1991-92	-1.17	-1.11	-0.98	2.51	-1.18	-0.65	0.21	1.17	-0.71	0.08
1992-93	-0.40	-0.98	-0.79	2.41	-0.89	0.12	0.14	0.75	-0.27	0.40
1993-94	-0.16	-0.69	-0.72	1.62	-0.58	0.11	0.16	0.15	-0.23	0.53
1994-95	0.23	-0.91	-0.56	1.58	-0.77	-0.16	0.00	0.01	-0.15	0.76
June Year (a)										
1995-96										…
1996-97	0.69	-0.27	-0.78	2.23	-0.37	-0.66	-1.83	-0.91	0.19	0.53
1997-98	0.04	-0.73	-0.71	2.15	-0.73	-0.62	-0.73	-1.19	-0.17	0.11
1998-99	-0.18	-1.12	-0.85	1.55	-0.88	-0.78	-1.12	-0.86	-0.39	-0.22
1999-2000	-0.38	-1.06	-1.16	1.70	-0.67	-0.53	-0.29	-0.28	-0.46	-0.20
2000-01	0.03	-1.13	-0.90	1.99	-0.77	-0.47	-1.04	2.00	-0.23	-0.17
2001-02	1.08	-0.16	-0.49	1.63	0.53	0.13	0.27	0.50	0.56	1.08
2002-03	1.62	-0.32	-0.27	1.86	0.49	-0.25	-0.57	0.62	0.71	1.30
2003-04	0.94	-0.25	-0.78	1.71	0.44	-0.33	-0.06	0.13	0.45	0.76
2004-05	0.46	-0.54	-1.33	1.74	0.23	-0.29	-0.11	0.29	0.11	0.41
2005-06	0.81	-0.77	-0.85	1.72	0.55	-0.75	0.17	0.53	0.23	0.48
2006-07	0.56	-0.71	-1.06	0.93	0.15	-0.87	-0.44	0.19	0.04	0.25
2007-08	0.27	-0.79	-0.86	0.86	-0.25	0.17	-0.21	0.27	-0.10	0.12
2008-09	0.51	-0.58	-0.47	0.89	0.33	0.06	0.25	0.68	0.19	0.30
2009-10	0.24	-0.34	-0.14	0.89	0.53	0.18	0.50	1.08	0.18	0.39
2010-11	0.35	-0.60	-0.05	0.71	0.37	0.12	0.45	0.72	0.14	0.10

Compiled from Statistics New Zealand Infoshare: Usual Resident Population, Table DPE051AA; Births, Table VSB016AA; Deaths, Table VSD018AA.

(a) 1991-1995 Estimated Defacto; 1996-2011 Estimated Usual Resident

Appendix 2.1: Components of Change by age (Wellington Region 1996-2001)

	Actual (Observed) 1996	Expected 2001	Actual (Observed) 2001	Actual (Observed) change 1996-2001	Change due to migration	Change due to Deaths	Change to cohort size	Actual (Observed) change (1996-2001)	Change due to migration~	Change due to Deaths~	Change to cohort size~
				Number				Percentage			
0-4	33,100	32,218	32,020	**-1,080**	-198	-218	-664	**-3.3**	-0.6	-0.7	-2.0
5-9	32,600	33,051	32,010	**-590**	-1,041	-49	500	**-1.8**	-3.2	-0.2	1.5
10-14	28,730	32,573	32,150	**3,420**	-423	-27	3,870	**11.9**	-1.5	-0.1	13.5
15-19	29,490	28,665	29,760	**270**	1,095	-65	-760	**0.9**	3.7	-0.2	-2.6
20-24	33,700	29,362	31,250	**-2,450**	1,888	-128	-4,210	**-7.3**	5.6	-0.4	-12.5
25-29	35,990	33,548	32,680	**-3,310**	-868	-152	-2,290	**-9.2**	-2.4	-0.4	-6.4
30-34	37,490	35,829	36,410	**-1,080**	581	-161	-1,500	**-2.9**	1.5	-0.4	-4.0
35-39	34,980	37,304	36,790	**1,810**	-514	-186	2,510	**5.2**	-1.5	-0.5	7.2
40-44	30,410	34,757	34,070	**3,660**	-687	-223	4,570	**12.0**	-2.3	-0.7	15.0
45-49	28,850	30,116	29,110	**260**	-1,006	-294	1,560	**0.9**	-3.5	-1.0	5.4
50-54	22,160	28,395	27,650	**5,490**	-745	-455	6,690	**24.8**	-3.4	-2.1	30.2
55-59	18,610	21,584	20,940	**2,330**	-644	-576	3,550	**12.5**	-3.5	-3.1	19.1
60-64	15,350	17,826	17,360	**2,010**	-466	-784	3,260	**13.1**	-3.0	-5.1	21.2
65-69	14,450	14,313	13,930	**-520**	-383	-1037	900	**-3.6**	-2.7	-7.2	6.2
70-74	12,260	12,921	12,560	**300**	-361	-1529	2,190	**2.4**	-2.9	-12.5	17.9
75-79	8,850	10,245	9,980	**1,130**	-265	-2015	3,410	**12.8**	-3.0	-22.8	38.5
80-84	5,840	6,611	6,430	**590**	-181	-2239	3,010	**10.1**	-3.1	-38.3	51.5
85-89	2,889	3,562	3,562	**674**	0	-2278	2,951	**23.3**	0.0	-78.9	102.2
90+	1,221	1,587	1,588	**366**	1	-2523	2,889	**30.0**	0.0	-206.5	236.5
Total	426,970	444,468	440,250	**13,280**	-4,218	-14938	32,436	**3.1**	-1.0	-3.5	7.6

Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007
Notes: ~As a percentage of Previous Observed Population

Appendix 2.2: Components of Change by age (Wellington Region 2001-2006)

	Actual (Observed) 2001	Expected 2006	Actual (Observed) 2006	Actual (Observed) change 2001-06	Change due to migration	Change due to Deaths	Change to cohort size	Actual (Observed) change (2001-2006)	Change due to migration~	Change due to Deaths~	Change to cohort size~
				Number				Percentage			
0-4	32,020	31,092	31,630	**-390**	538	-182	-746	**-1.2**	1.7	-0.6	-2.3
5-9	32,010	31,979	31,080	**-930**	-899	-41	10	**-2.9**	-2.8	-0.1	0.0
10-14	32,150	31,988	32,160	**10**	172	-22	-140	**0.0**	0.5	-0.1	-0.4
15-19	29,760	32,089	34,010	**4,250**	1,921	-61	2,390	**14.3**	6.5	-0.2	8.0
20-24	31,250	29,656	35,040	**3,790**	5,384	-104	-1,490	**12.1**	17.2	-0.3	-4.8
25-29	32,680	31,135	32,070	**-610**	935	-115	-1,430	**-1.9**	2.9	-0.4	-4.4
30-34	36,410	32,556	35,000	**-1,410**	2,444	-124	-3,730	**-3.9**	6.7	-0.3	-10.2
35-39	36,790	36,245	37,060	**270**	815	-165	-380	**0.7**	2.2	-0.4	-1.0
40-44	34,070	36,565	36,660	**2,590**	95	-225	2,720	**7.6**	0.3	-0.7	8.0
45-49	29,110	33,764	33,760	**4,650**	-4	-306	4,960	**16.0**	0.0	-1.1	17.0
50-54	27,650	28,712	28,510	**860**	-202	-398	1,460	**3.1**	-0.7	-1.4	5.3
55-59	20,940	27,050	26,440	**5,500**	-610	-600	6,710	**26.3**	-2.9	-2.9	32.0
60-64	17,360	20,208	19,770	**2,410**	-438	-732	3,580	**13.9**	-2.5	-4.2	20.6
65-69	13,930	16,386	16,160	**2,230**	-226	-974	3,430	**16.0**	-1.6	-7.0	24.6
70-74	12,560	12,683	12,520	**-40**	-163	-1247	1,370	**-0.3**	-1.3	-9.9	10.9
75-79	9,980	10,759	10,650	**670**	-109	-1801	2,580	**6.7**	-1.1	-18.0	25.9
80-84	6,430	7,706	7,750	**1,320**	44	-2274	3,550	**20.5**	0.7	-35.4	55.2
85-89	3,562	4,108	4,021	**458**	-88	-2322	2,868	**12.9**	-2.5	-65.2	80.5
90+	1,588	2,079	1,959	**372**	-119	-3071	3,562	**23.4**	-7.5	-193.4	224.4
Total	440,250	456,760	466,250	**26,000**	9,490	-14764	31,274	**5.9**	2.2	-3.4	7.1

Source: *Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007*
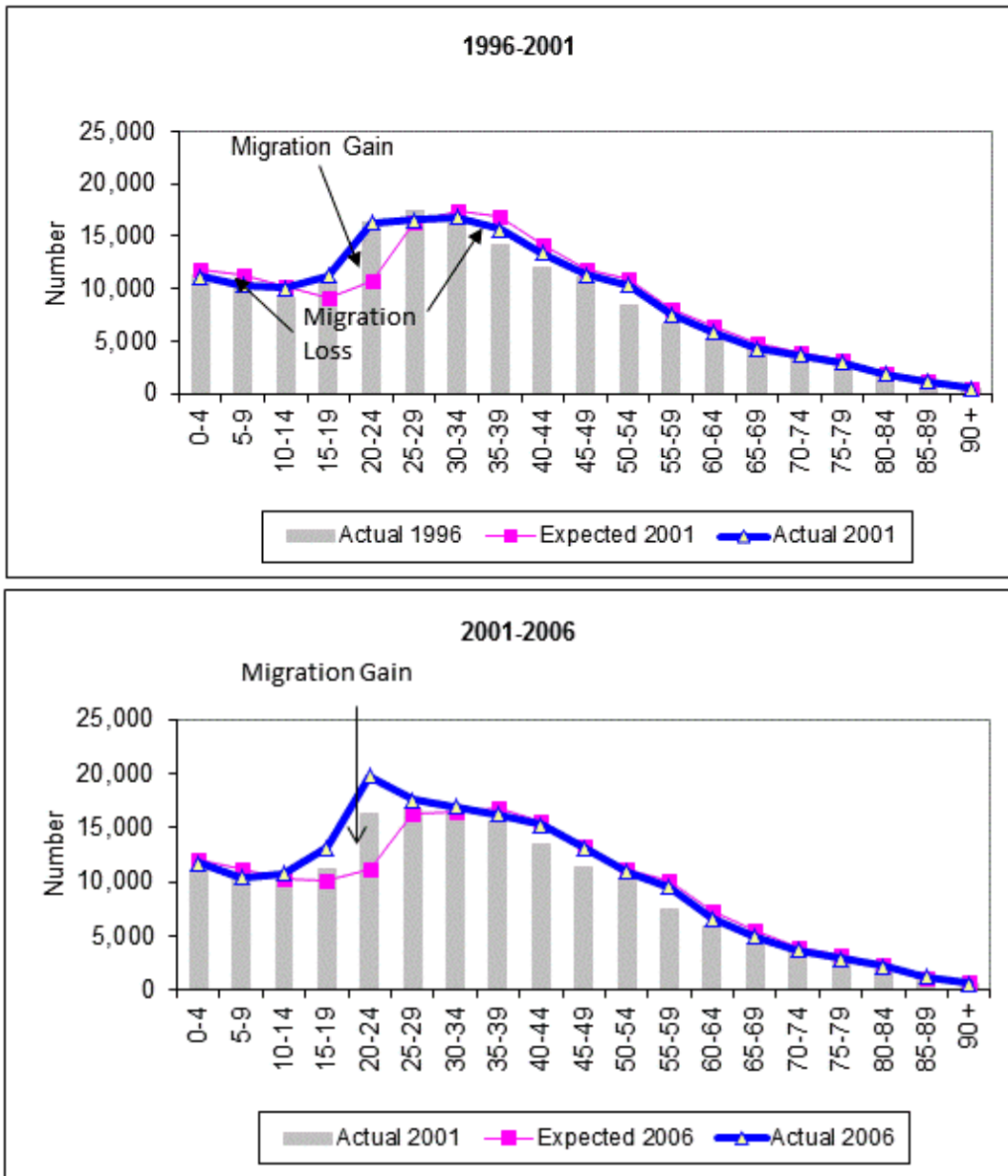
Notes: *~As a percentage of Previous Observed Population*

Appendix 2.3: Expected and Actual Population by Age, 1996-2001 and 2001-2006, Wellington City

Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007
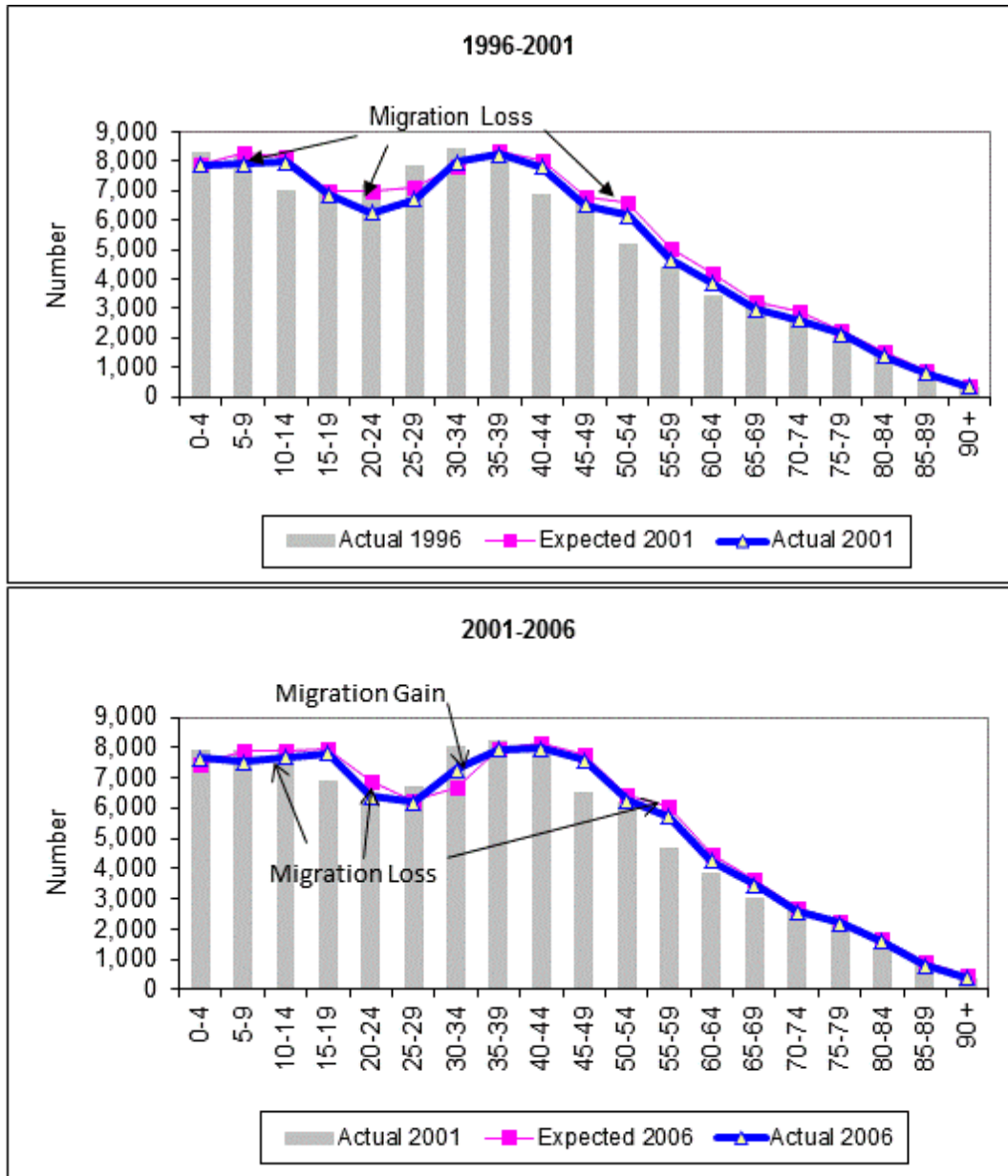
Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007

Appendix 2.5: Expected and Actual Population by Age, 1996-2001 and 2001-2006, Porirua City

1996-2001

Migration Loss

Number

Actual 1996   Expected 2001   Actual 2001

2001-2006

Migration Loss

Number

Actual 2001   Expected 2006   Actual 2006

Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007

Appendix 2.6: Expected and Actual Population by Age, 1996-2001 and 2001-2006, Kapiti Coast District
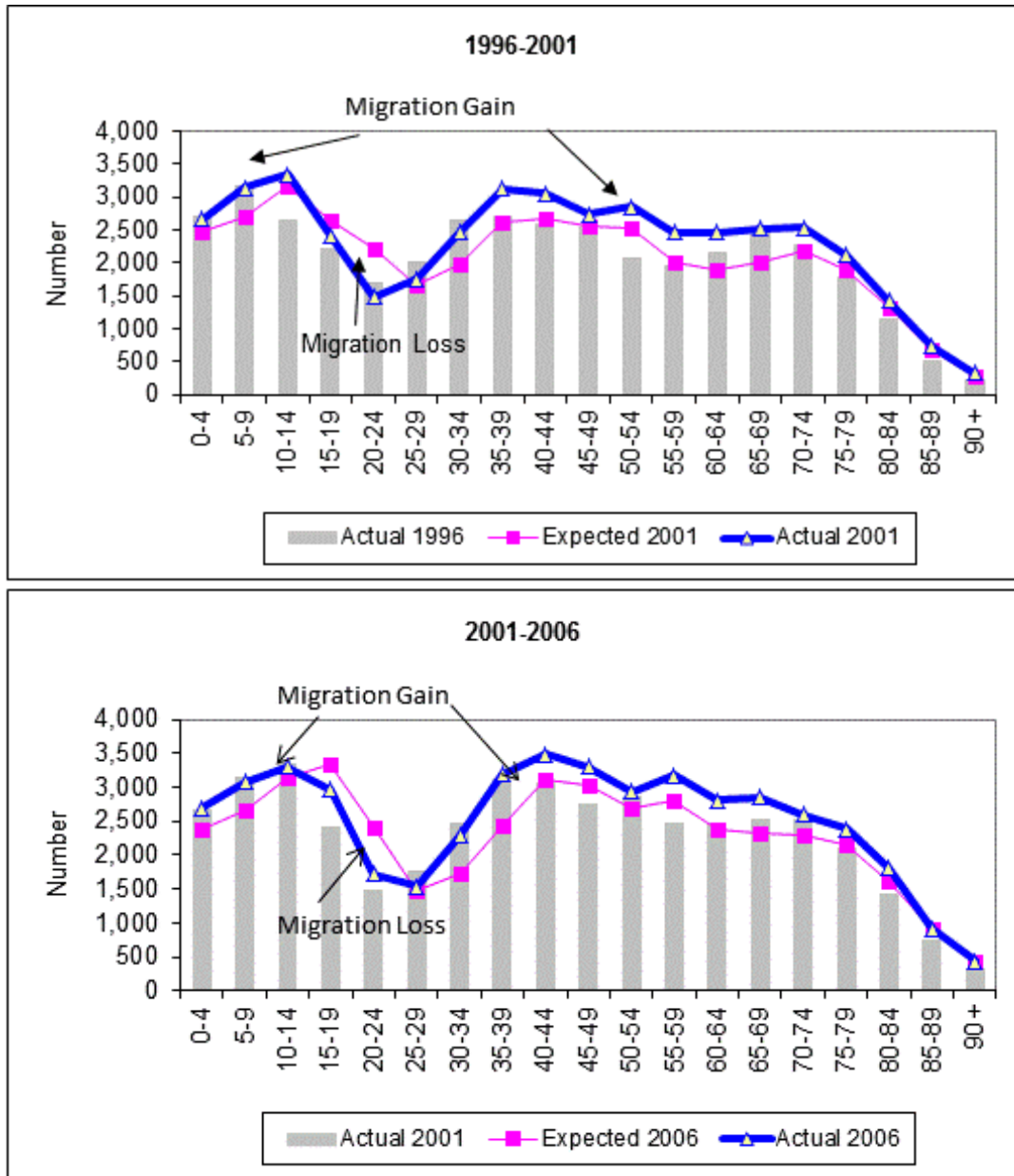
Appendix 2.7: Expected and Actual Population by Age, 1996-2001 and 2001-2006, Upper Hutt City
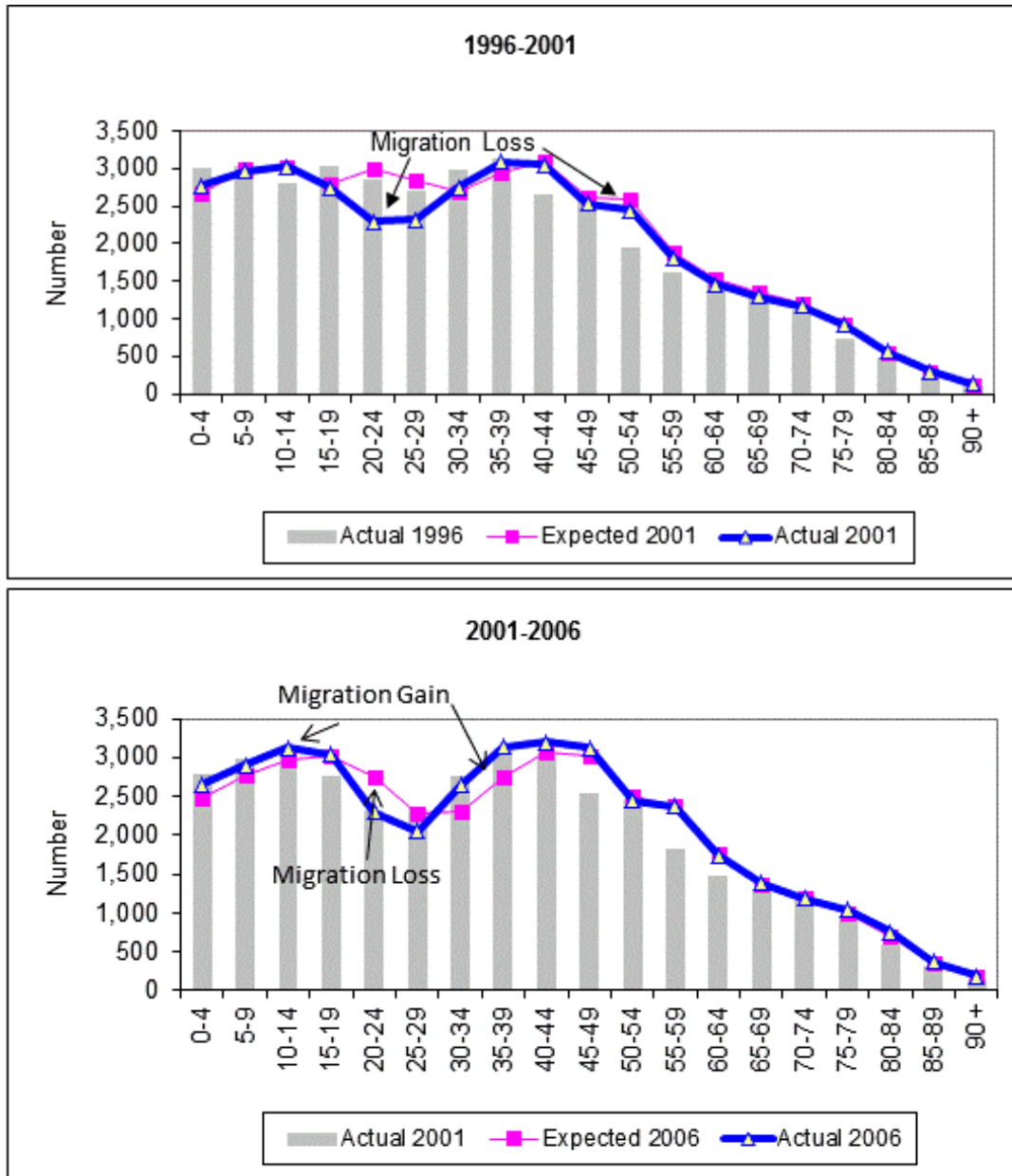
Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007

1996-2001

Migration Loss

Legend: Actual 1996 | Expected 2001 | Actual 2001

2001-2006

Migration Loss

Legend: Actual 2001 | Expected 2006 | Actual 2006
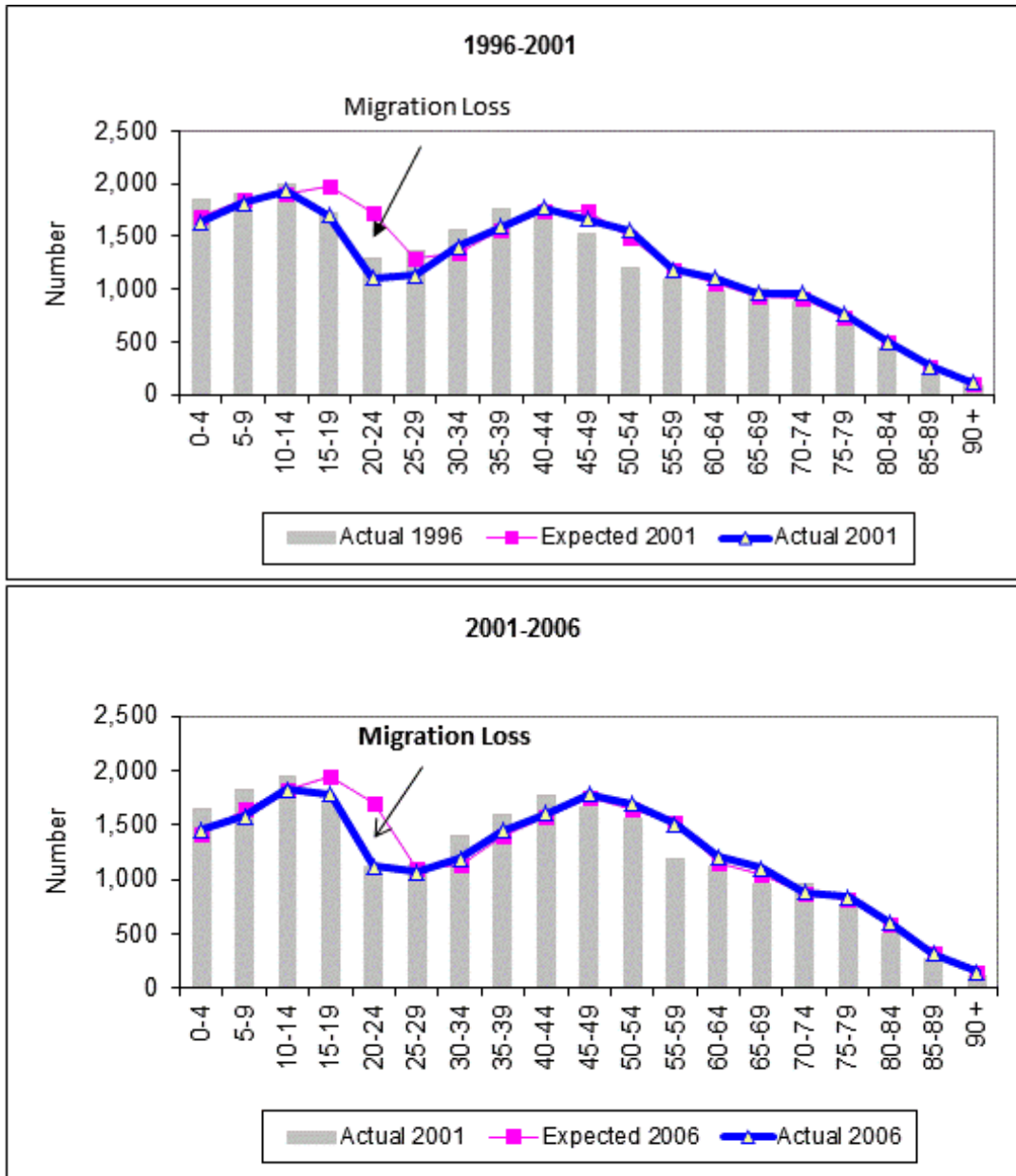
Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007

Appendix 2.9: Expected and Actual Population by Age, 1996-2001 and 2001-2006, South Wairarapa District
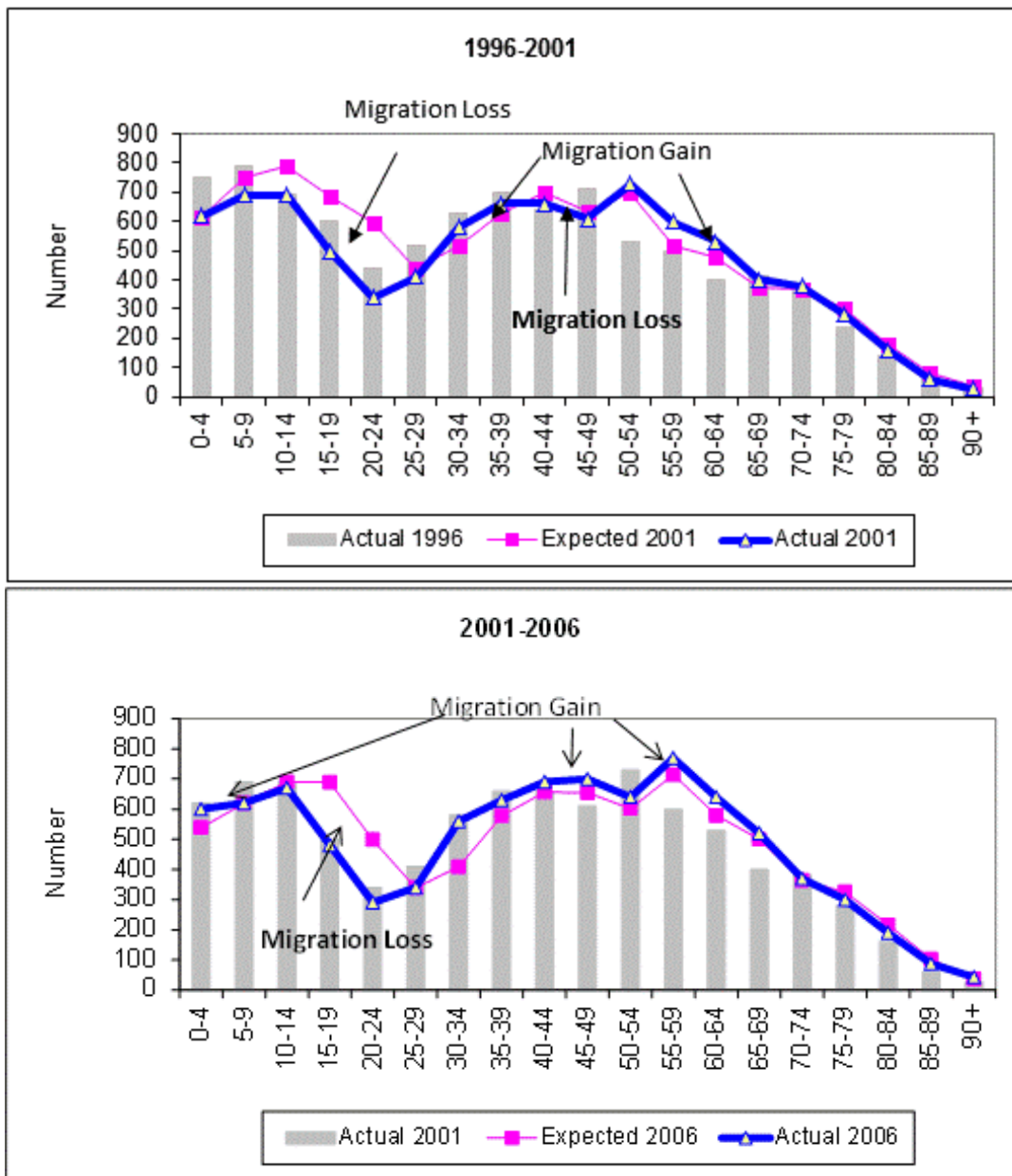
Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007

Appendix 2.10: Expected and Actual Population by Age, 1996-2001 and 2001-2006, Carterton District
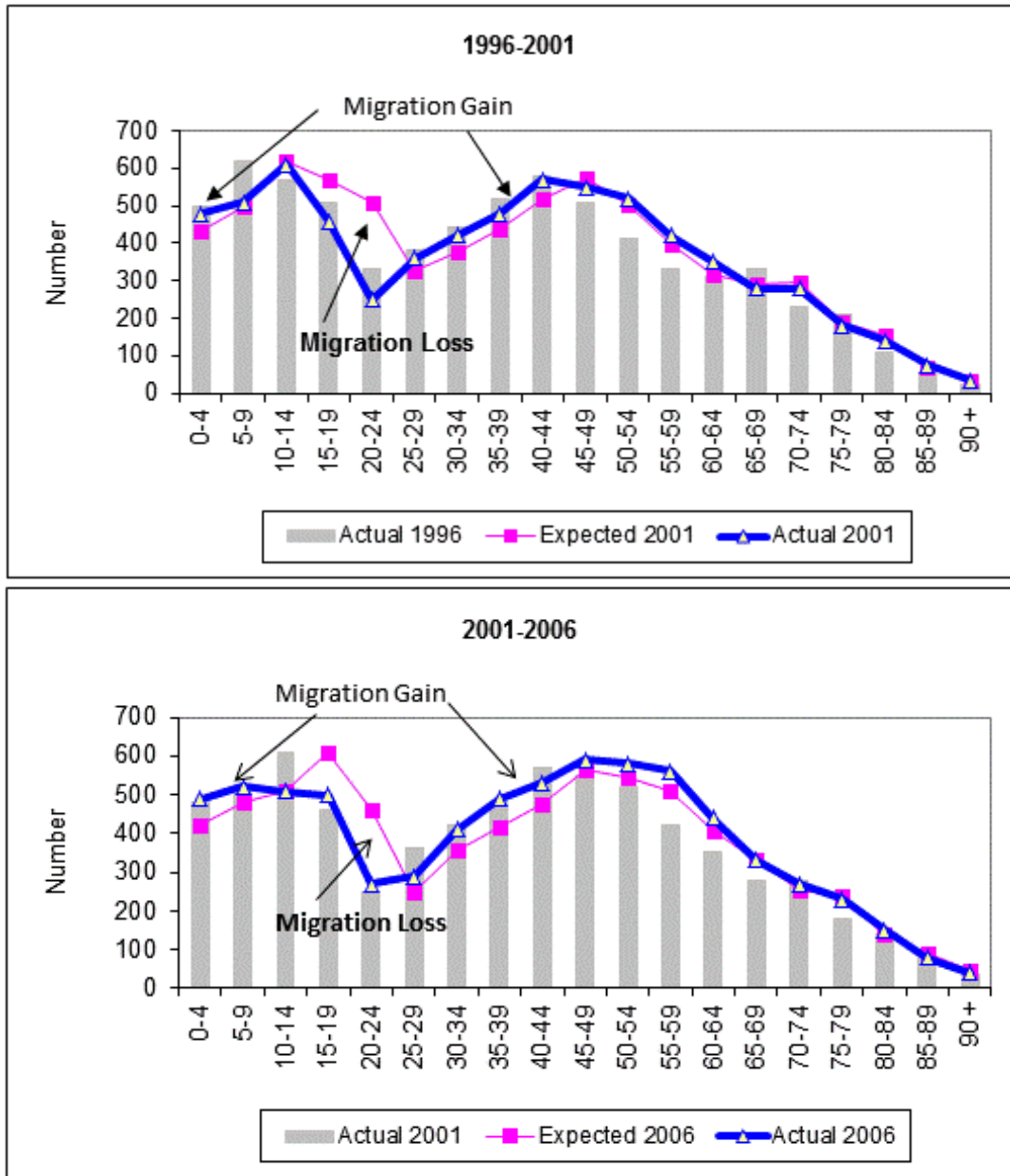
Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007

Appendix 3.1: Projected Assumptions by Projection Variant, Wellington Region
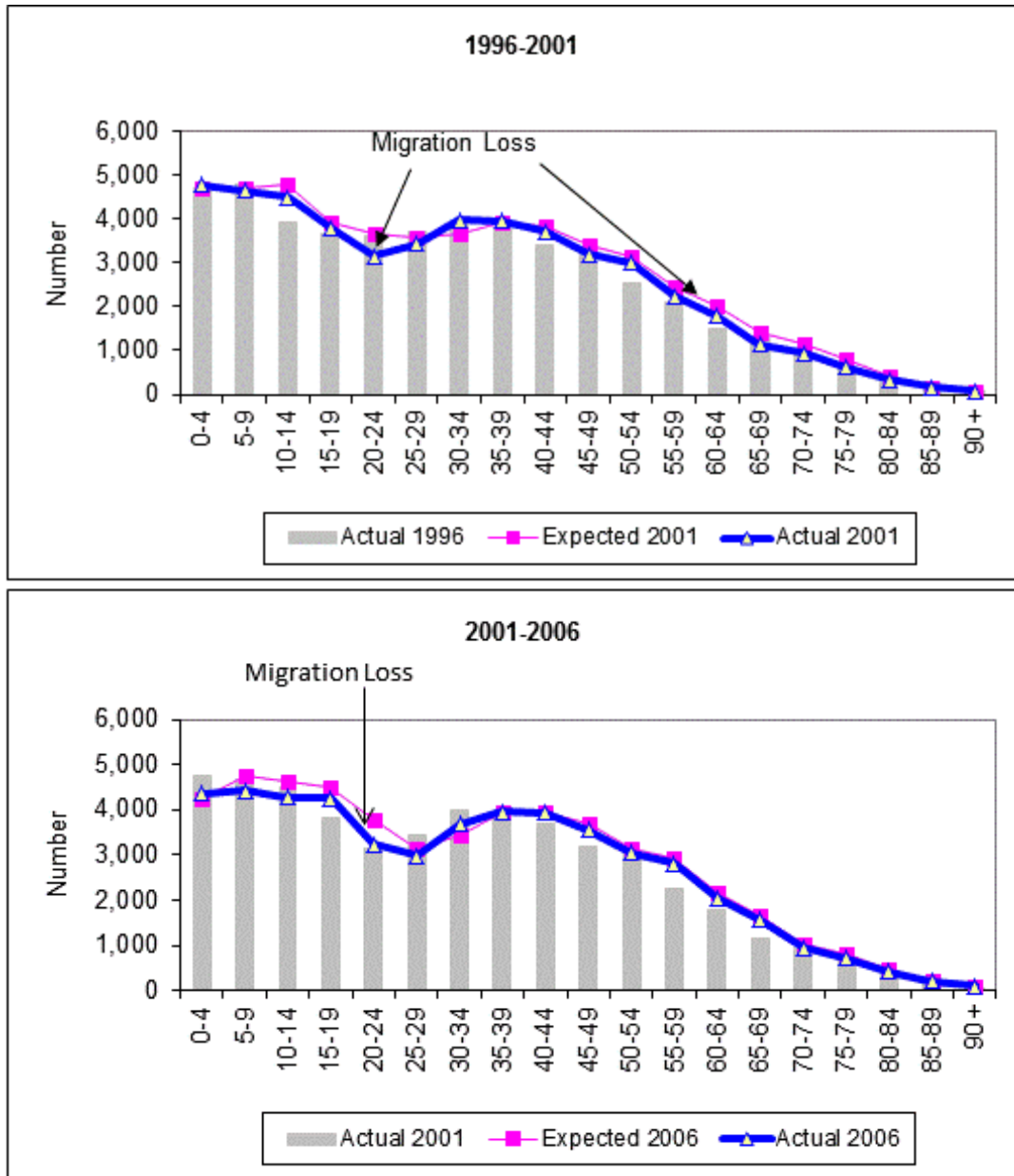

High Variant

Medium Variant

Low Variant
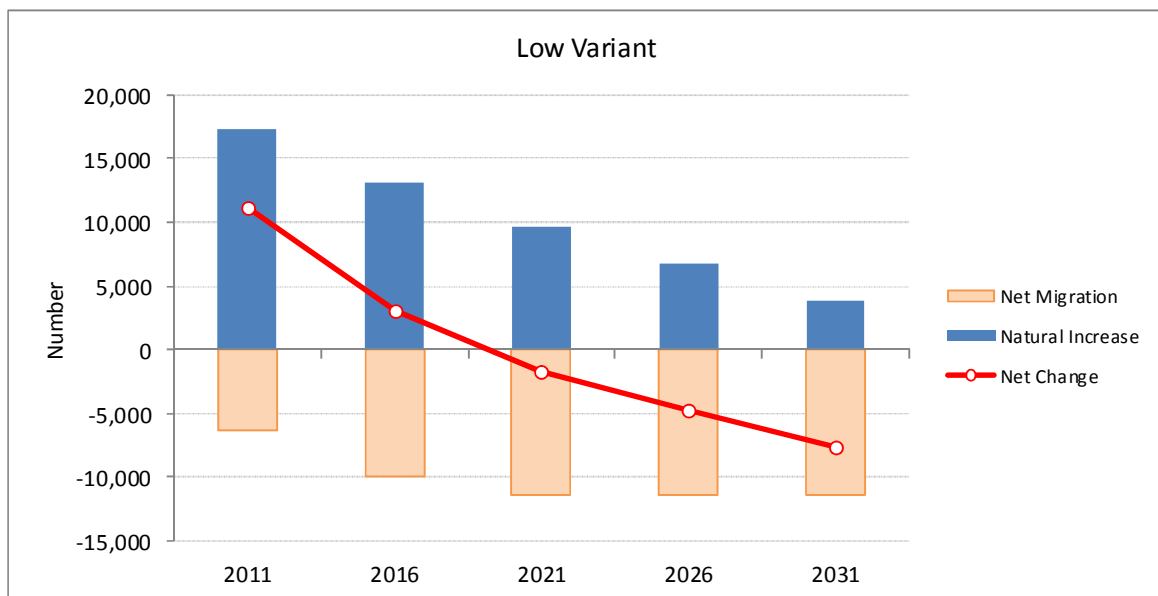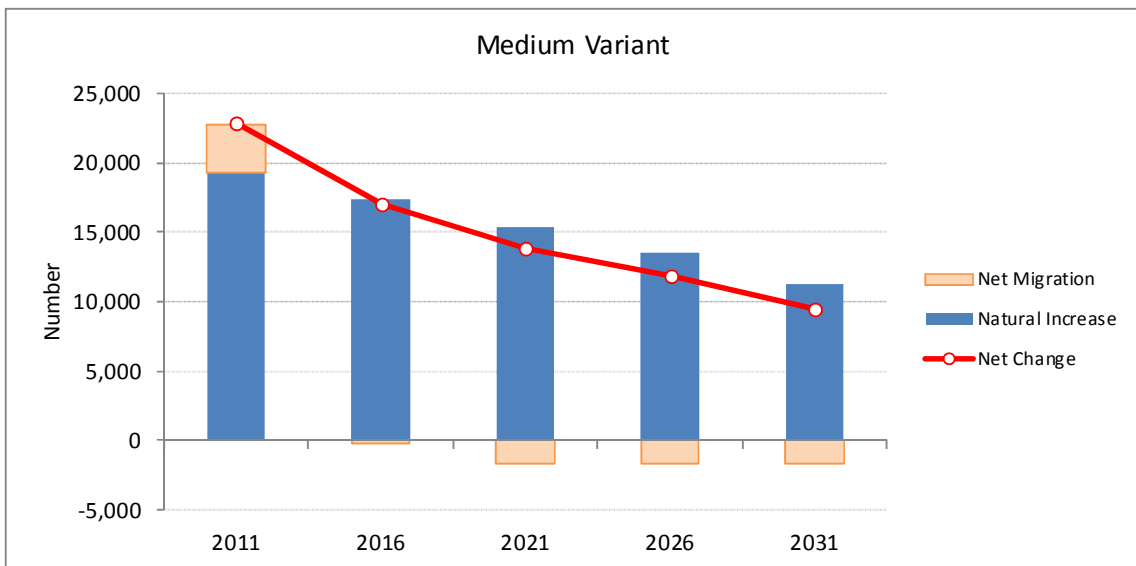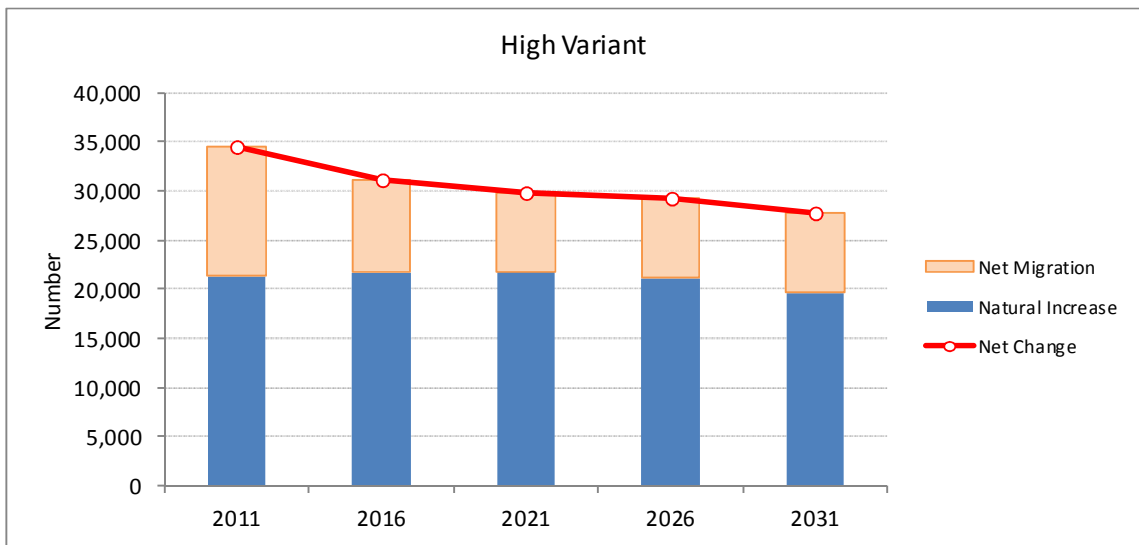
Note different Y-axis
Source: Statistics NZ Subnational Projected Population Characteristics, 2006(base)-2031 Update

Appendix 3.2: Projection Assumptions by Variant, Wellington Region

Wellington Region	2011	2016	2021	2026	2031
HIGH					
Births (Live)	36000	37400	38600	39200	39300
Deaths	14600	15700	16800	18000	19600
Natural Increase	21400	21700	21800	21200	19700
Net Migration	13150	9500	8000	8000	8000
Population	500800	532000	561800	591000	618700
Median Age (Years)	35.6	36	36.7	37.7	38.7
MEDIUM					
Births (Live)	34300	33400	32800	32300	31600
Deaths	14900	16200	17400	18700	20400
Natural Increase	19300	17300	15400	13500	11200
Net Migration	3450	-200	-1700	-1700	-1700
Population	489100	506100	519900	531700	541200
Median Age (Years)	36.0	36.7	37.6	38.6	39.8
LOW					
Births (Live)	32700	29700	27600	26100	24900
Deaths	15300	16700	17900	19400	21100
Natural Increase	17300	13100	9600	6700	3800
Net Migration	-6250	-9900	-11400	-11400	-11400
Population	477400	480500	478800	474100	466500
Median Age (Years)	36.4	37.5	38.6	39.8	41.2

Source: Statistics NZ Subnational Projected Population Characteristics, 2006(base)-2031 Update

Appendix 3.3: Projected Population, Total New Zealand, 2006-2021 (Medium Series)

Total New Zealand

	2006	2011	2016	2021	2026	2031	Change (%) 2011-2031
Numbers by age							
0-14	888,320	898,880	917,400	936,520	928,840	928,020	3.2
15-24	604,740	642,530	631,120	611,040	635,720	656,930	2.2
25-39	858,960	867,230	915,380	977,760	992,370	977,670	12.7
40-54	891,290	935,560	924,010	886,920	888,330	935,510	0.0
55-64	429,670	494,900	544,530	593,920	602,570	578,610	16.9
65-74	275,700	325,340	397,410	458,230	507,220	555,350	70.7
75-84	177,780	188,360	214,970	257,970	320,330	372,710	97.9
85+	58,140	72,560	85,950	95,590	116,530	143,740	98.1
Total	4,184,600	4,425,360	4,630,770	4,817,950	4,991,910	5,148,540	16.3
65+	511,620	586,260	698,330	811,790	944,080	1,071,800	82.8

		2006-2011	2011-2016	2016-2021	2021-2026	2026-2031	Change (N) 2011-2031
Intercensal Change by Age - Numbers							
0-14	…	10560	18520	19120	-7680	-820	29140
15-24	…	37790	-11410	-20080	24680	21210	14400
25-39	…	8270	48150	62380	14610	-14700	110440
40-54	…	44270	-11550	-37090	1410	47180	-50
55-64	…	65230	49630	49390	8650	-23960	83710
65-74	…	49640	72070	60820	48990	48130	230010
75-84	…	10580	26610	43000	62360	52380	184350
85+	…	14420	13390	9640	20940	27210	71180
Total	…	240760	205410	187180	173960	156630	723180
65+		74640	112070	113460	132290	127720	485540

	2006	2011	2016	2021	2026	2031	Change (%) 2011-2031
Age Distribution (percentage at each age)							
0-14	21.2	20.3	19.8	19.4	18.6	18.0	-11.3
15-24	14.5	14.5	13.6	12.7	12.7	12.8	-12.1
25-39	20.5	19.6	19.8	20.3	19.9	19.0	-3.1
40-54	21.3	21.1	20.0	18.4	17.8	18.2	-14.1
55-64	10.3	11.2	11.8	12.3	12.1	11.2	0.5
65-74	6.6	7.4	8.6	9.5	10.2	10.8	46.7
75-84	4.2	4.3	4.6	5.4	6.4	7.2	70.1
85+	1.4	1.6	1.9	2.0	2.3	2.8	70.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	…
65+	12.2	13.2	15.1	16.8	18.9	20.8	57.1

	2006	2011	2016	2021	2026	2031	2011-2031
Summary measures							
LM Entrants/Exits							
(15-24/55-64 years)	1.4	1.3	1.2	1.0	1.1	1.1	…
(20-29/60-69 years)	1.6	1.5	1.4	1.2	1.1	1.1	…
Elderly/Children	0.58	0.65	0.76	0.87	1.02	1.15	…
Reproductive (20-39 yrs)	27.5	26.9	26.9	26.8	26.1	25.5	…
65+	12.2	13.2	15.1	16.8	18.9	20.8	…
75+	5.6	5.9	6.5	7.3	8.8	10.0	…
Growth (%) - 5 years	…	5.75	4.64	4.04	3.61	3.14	16.34
Annual average growth r	…	1.15	0.93	0.81	0.72	0.63	0.82

Source: Statistics New Zealand, Subnational Population Projections by Age and Sex, 2006(base)-2031 Update

Appendix 4.1: Average Age of Employed Labour Force by Employment Status, Wellington Region, 1996, 2001, 2006

Total Wellington Region	Males	Females	Total	Sex Ratio Males/Females	Average Age (Total)*
1996					
Self Employed, no employee	12,711	5,949	18,660	2.1	43.8
Employer	8,253	3,000	11,253	2.8	44.4
Paid Employee	79,305	78,696	158,001	1.0	36.6
Unpaid Family Worker	1,572	2,127	3,699	0.7	42.2
NS/NEI	2,841	2,703	5,544	1.1	37.9
Total	**104,682**	**92,475**	**197,157**	**1.13**	**37.9**
2001					
Self Employed, no employee	15,348	7,461	22,809	2.1	45.7
Employer	8,496	3,345	11,841	2.5	46.3
Paid Employee	81,594	85,311	166,905	1.0	37.8
Unpaid Family Worker	1,152	1,608	2,760	0.7	44.0
NS/NEI	2,442	2,094	4,536	1.2	39.3
Total	**109,032**	**99,819**	**208,851**	**1.09**	**39.3**
2006					
Self Employed, no employee	16,335	9,204	25,539	1.8	47.0
Employer	9,096	3,735	12,831	2.4	47.5
Paid Employee	91,617	95,826	187,443	1.0	38.9
Unpaid Family Worker	1,122	1,602	2,724	0.7	46.1
NS/NEI	2,739	2,322	5,061	1.2	40.4
Total	**120,909**	**112,689**	**233,598**	**1.07**	**40.4**

Change 1996-2006	Males	Females	Total
Number	16,227	20,214	36,441
(%)	15.5	21.9	18.5

Employment Entry/Exit Ratio	1996	2001	2006	ge 1996-2006 (%)
15-24: 55+ years	1.7	1.2	1.0	-44.2

Percentage aged 55+ Years	10.7	13.2	16.9	59.0

Sex Ratio by age (males/females)	1996	2001	2006	Change 1996-2006 (%)
15-19	1.0	1.0	1.0	2.5
20-24	1.0	1.0	1.0	2.8
25-29	1.1	1.0	1.1	-1.9
30-34	1.2	1.1	1.1	-9.9
35-39	1.2	1.2	1.1	-9.8
40-44	1.1	1.1	1.1	-3.0
45-49	1.1	1.0	1.0	-6.0
50-54	1.2	1.1	1.0	-10.7
55-59	1.3	1.2	1.1	-14.0
60-64	1.6	1.4	1.2	-22.0
65+	1.9	1.8	1.6	-17.8
TOTAL*	**1.1**	**1.1**	**1.1**	**-5.2**

Source: Jackson/Statistics NZ Customised Database,

Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex

for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

* Age not available for small cell sizes, thus summed totals by employment status are lower than summed totals by indus

Appendix 4.2: Average Age of Employed Labour Force by Employment Status, Wellington Region, 1996, 2001, 2006 Government Administration [M811]

M811 Government Administration Wellington Region	Males	Females	Total	Sex Ratio Males/Females	Average Age (Total)*
1996					
Self Employed, no employee	-	-	-	…	...
Employer	-	-	-	…	...
Paid Employee	6,405	7,332	13,737	0.9	39.3
Unpaid Family Worker	-	-	-	…	...
NS/NEI	-	-	-	…	…
Total	**6,405**	**7,332**	**13,737**	**0.87**	**39.3**
2001					
Self Employed, no employee	-	-	-	...	...
Employer	-	-	-	...	...
Paid Employee	6,594	7,890	14,484	0.8	40.5
Unpaid Family Worker	12	3	15	4.0	...
NS/NEI	45	36	81	1.3	…
Total	**6,651**	**7,929**	**14,580**	**0.84**	**40.6**
2006					
Self Employed, no employee	339	366	705	0.9	...
Employer	21	18	39	1.2	...
Paid Employee	7,530	9,990	17,520	0.8	40.8
Unpaid Family Worker	-	-	-	...	...
NS/NEI	27	15	…	…	…
Total	**7,917**	**10,389**	**18,264**	**0.76**	**41.1**

Change 1996-2006	Males	Females	Total
Number	1,512	3,057	4,527
(%)	23.6	41.7	33.0

Employment Entry/Exit Ratio	1996	2001	2006	Change 1996-2006 (%)
15-24: 55+ years	0.9	0.7	0.6	-39.1

Percentage aged 55+ Years	1996	2001	2006	Change 1996-2006 (%)
	10.5	12.7	15.4	46.5

Sex Ratio by age (males/females)	1996	2001	2006	Change 1996-2006 (%)
15-19	0.6	0.5	0.5	-14.3
20-24	0.5	0.5	0.6	2.5
25-29	0.6	0.6	0.6	-5.6
30-34	0.8	0.6	0.6	-24.1
35-39	0.9	0.8	0.8	-14.4
40-44	1.0	0.9	0.8	-22.4
45-49	1.1	1.0	0.8	-24.7
50-54	1.1	1.0	0.9	-18.3
55-59	1.1	1.2	1.0	-8.9
60-64	1.3	1.3	1.2	-9.1
65+	2.1	1.9	1.4	-34.5
TOTAL*	**0.9**	**0.8**	**0.8**	**-12.8**

Source: Jackson/Statistics NZ Customised Database,

Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex

for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

* Age not available for small cell sizes, thus summed totals by employment status are lower than summed totals by industry

Appendix 4.3: Average Age of Employed Labour Force by Employment Status, Wellington Region, 1996, 2001, 2006 Marketing and Business Management Services [L785]

L785 Marketing and Business Management Wellington Region	Males	Females	Total	Sex Ratio Males/Females	Average Age (Total)*
1996					
Self Employed, no employee	588	327	915	1.8	43.7
Employer	303	108	411	2.8	42.0
Paid Employee	1,974	2,172	4,146	0.9	36.1
Unpaid Family Worker	15	39	54	0.4	42.8
NS/NEI	36	27	63	1.3	37.8
Total	**2,916**	**2,673**	**5,589**	**1.09**	**37.8**
2001					
Self Employed, no employee	918	534	1,452	1.7	45.2
Employer	390	135	525	2.9	45.2
Paid Employee	2,553	2,964	5,517	0.9	37.1
Unpaid Family Worker	21	36	57	0.6	47.0
NS/NEI	15	33	48	0.5	39.3
Total	**3,897**	**3,702**	**7,599**	**1.05**	**39.3**
2006					
Self Employed, no employee	1,095	801	1,896	1.4	46.7
Employer	444	171	615	2.6	46.0
Paid Employee	3,393	3,750	7,143	0.9	39.4
Unpaid Family Worker	24	42	66	0.6	46.8
NS/NEI	15	18	33	0.8	41.3
Total	**4,971**	**4,782**	**9,753**	**1.04**	**41.3**

Change 1996-2006	Males	Females	Total
Number	2,055	2,109	4,164
(%)	70.5	78.9	74.5

Employment Entry/Exit Ratio	1996	2001	2006	Change 1996-2006 (%)
15-24: 55+ years	1.7	1.1	0.6	-61.9

Percentage aged 55+ Years	8.7	10.6	15.1	73.7

Sex Ratio by age (males/females)	1996	2001	2006	Change 1996-2006 (%)
15-19	1.0	0.6	0.9	-16.9
20-24	0.7	0.7	0.7	-4.9
25-29	0.7	0.8	0.8	13.6
30-34	1.0	0.8	0.9	-11.0
35-39	1.2	1.0	0.9	-26.0
40-44	1.3	1.2	1.0	-16.4
45-49	1.4	1.4	1.1	-17.2
50-54	1.4	1.6	1.2	-16.8
55-59	1.8	1.8	1.6	-11.8
60-64	2.1	1.6	2.0	-2.4
65+	2.0	3.4	1.9	-6.9
TOTAL*	**1.1**	**1.1**	**1.0**	**-4.7**

Source: Jackson/Statistics NZ Customised Database,

Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex

for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

* Age not available for small cell sizes, thus summed totals by employment status are lower than summed totals by industry

Appendix 4.4: Average Age of Employed Labour Force by Employment Status, Wellington Region, 1996, 2001, 2006 School Education [N842]

N842 School Education Wellington Region	Males	Females	Total	Sex Ratio Males/Females	Average Age (Total)*
1996					
Self Employed, no employee	-	3	3	…	...
Employer	-	-	-	…	…
Paid Employee	1,869	5,574	7,443	0.3	42.7
Unpaid Family Worker	-	-	-	…	…
NS/NEI	3	6	9	0.5	...
Total	**1,872**	**5,583**	**7,455**	**0.34**	**42.7**
2001					
Self Employed, no employee	63	117	180	0.5	46.2
Employer	6	21	27	0.3	47.5
Paid Employee	1,998	6,276	8,274	0.3	43.9
Unpaid Family Worker	3	3	6	1.0	...
NS/NEI	24	45	69	0.5	44.0
Total	**2,094**	**6,462**	**8,556**	**0.32**	**44.0**
2006					
Self Employed, no employee	63	105	168	0.6	47.5
Employer	-	21	21	0.0	46.8
Paid Employee	2,088	6,606	8,694	0.3	44.7
Unpaid Family Worker	-	-	-	…	…
NS/NEI	9	21	30	0.4	44.8
Total	**2,160**	**6,753**	**8,913**	**0.32**	**44.8**

Change 1996-2006	Males	Females	Total
Number	288	1,170	1,458
(%)	15.4	21.0	19.6

Employment Entry/Exit Ratio	1996	2001	2006	Change 1996-2006 (%)
15-24: 55+ years	0.5	0.3	0.2	-56.2

Percentage aged 55+ Years	13.4	17.1	21.4	60.5

Sex Ratio by age (males/females)	1996	2001	2006	Change 1996-2006 (%)
15-19	0.6	0.8	1.0	52.4
20-24	0.3	0.3	0.4	27.3
25-29	0.3	0.3	0.4	6.8
30-34	0.3	0.4	0.4	7.2
35-39	0.3	0.3	0.3	-13.4
40-44	0.3	0.3	0.3	-12.3
45-49	0.3	0.3	0.3	-13.4
50-54	0.3	0.3	0.3	-13.5
55-59	0.4	0.4	0.4	-2.8
60-64	0.5	0.4	0.3	-29.5
65+	0.9	0.7	0.5	-51.4
TOTAL*	**0.3**	**0.3**	**0.3**	**-4.9**

Source: Jackson/Statistics NZ Customised Database,

Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex

for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

* *Age not available for small cell sizes, thus summed totals by employment status are lower than summed totals by industry*

Appendix 4.5: Average Age of Employed Labour Force by Employment Status, Wellington Region, 1996, 2001, 2006 Other Business Services [L786]

L786 Other Business Services Wellington Region	Males	Females	Total	Sex Ratio Males/Females	Average Age (Total)*
1996					
Self Employed, no employee	384	279	663	1.4	43.7
Employer	225	120	345	1.9	43.2
Paid Employee	2,118	2,607	4,725	0.8	36.7
Unpaid Family Worker	15	48	63	0.3	40.4
NS/NEI	33	48	81	0.7	37.8
Total	**2,775**	**3,102**	**5,877**	**0.89**	**37.8**
2001					
Self Employed, no employee	531	426	957	1.2	45.2
Employer	243	144	387	1.7	45.6
Paid Employee	2,751	3,297	6,048	0.8	37.4
Unpaid Family Worker	15	27	42	0.6	37.1
NS/NEI	27	21	48	1.3	38.8
Total	**3,567**	**3,915**	**7,482**	**0.91**	**38.8**
2006					
Self Employed, no employee	456	435	891	1.0	47.9
Employer	252	156	408	1.6	47.6
Paid Employee	3,066	3,489	6,555	0.9	38.6
Unpaid Family Worker	9	39	48	0.2	42.5
NS/NEI	18	24	42	0.8	40.1
Total	**3,801**	**4,143**	**7,944**	**0.92**	**40.1**

Change 1996-2006	Males	Females	Total
Number	1,026	1,041	2,067
(%)	37.0	33.6	35.2

Employment Entry/Exit Ratio	1996	2001	2006	Change 1996-2006 (%)
15-24: 55+ years	1.7	1.3	1.0	-40.6

Percentage aged 55+ Years	1996	2001	2006	Change 1996-2006 (%)
Percentage aged 55+ Years	9.7	12.1	16.0	64.7

Sex Ratio by age (males/females)	1996	2001	2006	Change 1996-2006 (%)
15-19	0.7	0.8	1.3	78.9
20-24	0.7	0.8	0.9	33.2
25-29	0.8	0.7	0.8	-0.3
30-34	0.9	0.8	0.8	-11.5
35-39	0.9	0.9	0.8	-1.1
40-44	1.0	1.0	0.8	-17.3
45-49	1.0	1.0	0.9	-14.6
50-54	0.9	1.0	0.9	5.1
55-59	1.1	1.2	1.1	5.3
60-64	1.7	1.5	1.2	-29.6
65+	3.4	1.9	1.8	-46.6
TOTAL*	**0.9**	**0.9**	**0.9**	**2.7**

Source: Jackson/Statistics NZ Customised Database,

Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex

for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

* Age not available for small cell sizes, thus summed totals by employment status are lower than summed totals by industry

Appendix 4.6: Average Age of Employed Labour Force by Employment Status, Wellington Region, 1996, 2001, 2006 Computer Services [L783]

L783 Computer Services Wellington Region	Males	Females	Total	Sex Ratio Males/Females	Average Age (Total)*
1996					
Self Employed, no employee	354	132	486	2.7	38.8
Employer	150	30	180	5.0	39.8
Paid Employee	1,635	1,113	2,748	1.5	35.1
Unpaid Family Worker	12	12	24	1.0	43.8
NS/NEI	24	9	33	2.7	35.9
Total	**2,175**	**1,296**	**3,471**	**1.68**	**35.9**
2001					
Self Employed, no employee	639	231	870	2.8	40.9
Employer	219	48	267	4.6	40.6
Paid Employee	2,580	1,716	4,296	1.5	36.1
Unpaid Family Worker	24	12	36	2.0	39.2
NS/NEI	9	12	21	0.8	37.1
Total	**3,471**	**2,019**	**5,490**	**1.72**	**37.1**
2006					
Self Employed, no employee	741	297	1,038	2.5	42.0
Employer	297	69	366	4.3	44.1
Paid Employee	3,420	1,575	4,995	2.2	37.3
Unpaid Family Worker	12	15	27	0.8	43.1
NS/NEI	15	3	18	5.0	38.5
Total	**4,485**	**1,959**	**6,444**	**2.29**	**38.5**

Change 1996-2006	Males	Females	Total
Number	2,310	663	2,973
(%)	106.2	51.2	85.7

Employment Entry/Exit Ratio	1996	2001	2006	Change 1996-2006 (%)
15-24: 55+ years	3.1	2.2	1.2	-59.8

Percentage aged 55+ Years	1996	2001	2006	Change 1996-2006 (%)
	4.3	5.2	7.3	68.1

Sex Ratio by age (males/fem	1996	2001	2006	Change 1996-2006 (%)
15-19	0.9	0.8	1.1	22.8
20-24	1.6	1.5	2.1	37.0
25-29	2.0	1.6	2.2	11.2
30-34	1.6	2.0	2.6	64.3
35-39	1.9	1.6	2.3	25.0
40-44	1.6	1.9	2.2	36.0
45-49	1.7	1.7	2.4	41.6
50-54	1.8	2.0	2.2	27.0
55-59	1.3	1.6	2.1	67.5
60-64	2.0	1.6	2.4	20.8
65+	1.0	2.0	4.3	333.3
TOTAL*	**1.7**	**1.7**	**2.3**	**36.5**

Source: Jackson/Statistics NZ Customised Database,

Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex

for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

* Age not available for small cell sizes, thus summed totals by employment status are lower than summed totals by industry

Appendix 4.7: Average Age of Employed Labour Force by Employment Status, Wellington Region, 1996, 2001, 2006 Cafes and Restaurants [H573]

H573 Cafes and Restaurants Wellington Region	Males	Females	Total	Sex Ratio Males/Females	Average Age (Total)*
1996					
Self Employed, no employee	81	99	180	0.8	42.5
Employer	255	219	474	1.2	40.8
Paid Employee	1,557	2,436	3,993	0.6	27.3
Unpaid Family Worker	69	75	144	0.9	38.1
NS/NEI	33	39	72	0.8	29.5
Total	**1,995**	**2,868**	**4,863**	**0.70**	**29.5**
2001					
Self Employed, no employee	81	87	168	0.9	42.1
Employer	276	231	507	1.2	42.8
Paid Employee	2,079	2,826	4,905	0.7	27.8
Unpaid Family Worker	51	72	123	0.7	39.5
NS/NEI	24	27	51	0.9	29.8
Total	**2,511**	**3,243**	**5,754**	**0.77**	**29.8**
2006					
Self Employed, no employee	78	90	168	0.9	44.4
Employer	291	285	576	1.0	43.6
Paid Employee	2,223	3,225	5,448	0.7	28.6
Unpaid Family Worker	27	63	90	0.4	41.3
NS/NEI	12	30	42	0.4	30.6
Total	**2,631**	**3,693**	**6,324**	**0.71**	**30.6**

Change 1996-2006	Males	Females	Total
Number	636	825	1,461
(%)	31.9	28.8	30.0

Employment Entry/Exit Ratio	1996	2001	2006	Change 1996-2006 (%)
15-24: 55+ years	12.5	10.2	7.5	-40.0

Percentage aged 55+ Years	4.0	4.8	6.5	60.9

Sex Ratio by age (males/females)	1996	2001	2006	Change 1996-2006 (%)
15-19	0.6	0.8	0.6	4.9
20-24	0.7	0.7	0.7	-10.7
25-29	1.0	1.0	1.0	1.1
30-34	0.9	1.0	1.0	22.8
35-39	0.8	0.9	0.9	4.5
40-44	0.6	0.7	0.7	15.0
45-49	0.5	0.5	0.6	26.4
50-54	0.5	0.7	0.6	6.9
55-59	0.5	0.6	0.6	14.3
60-64	1.0	0.7	0.8	-21.7
65+	1.0	1.4	0.8	-20.0
TOTAL*	**0.7**	**0.8**	**0.7**	**3.4**

Source: Jackson/Statistics NZ Customised Database,

Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex

for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

* Age not available for small cell sizes, thus summed totals by employment status are lower than summed totals by industry

References

Jackson, N.O. (2011) The demographic forces shaping New Zealand's future. What population ageing [really] means, *NIDEA Working Papers* No. 1, National Institute of Demographic and Economic Analysis, University of Waikato, Hamilton.

Statistics New Zealand Infoshare: Estimated Resident Population, Tables DPE006AA (Discontinued); DPE051AA; Births, Table VSB016AA; Deaths, Table VSD018AA.

Statistics New Zealand TableBuilder: Estimated Subnational Population (RC, TA,AU) by Age and Sex at 30 June 1996, 2001, 2006-2011 (2006 Boundaries).

Statistics New Zealand, Estimated Subnational Ethnic Population (RC,TA) by Age and Sex at 30 June 1996, 2001 and 2006.

Statistics New Zealand (2010) Subnational Ethnic Population Projections (2006 Base - 2009 Update).

Statistics New Zealand (2010a) Technical Notes, Ethnic Population Projections, http://www.stats.govt.nz/tools_and_services/tools/TableBuilder/population-projections-tables.aspx

Statistics New Zealand (2010b) Technical Notes, Subnational Population Projections, http://www.stats.govt.nz/browse_for_stats/population/estimates_and_projections/SubnationalPopulationProjections_HOTP2031/Technical%20Notes.aspx

Statistics New Zealand (various years) Abridged Life Tables.