



Marlborough, Nelson and Tasman Regions – A Socio-Demographic Profile 1986-2061

Commissioned Report prepared for the Marlborough, Nelson and Tasman Regions by
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EXECUTIVE SUMMARY

Population size and growth 1986-2011

1. The populations of the Marlborough, Nelson and Tasman Regions have grown steadily over the past twenty-five years. For both Marlborough and Nelson the respective increase in numbers (10,476 and 10,153) and percentage change (30.8 and 28.2 per cent) was almost identical, while for Tasman it was somewhat greater (an increase of 14,371, 42.6 per cent). The trends saw the Tasman Region shift from marginally smallest in 1986, to somewhat the largest by 2002.
2. Annual growth rates have been strong for all regions, but greatest for Tasman. However, the three regions have each accounted for a remarkably similar proportion of overall growth at each observation, within a narrow range of 32.0 to 35.0 per cent.

Components of change 1991-2011

3. For the Marlborough and Tasman Regions, the main component of growth in most years has been net migration, while natural increase has tended to play the larger role for the Nelson Region – at least since the mid-1990s. However the picture is far from consistent.
4. For all regions, the main driver of natural increase has been births which – as elsewhere in most of New Zealand – increased somewhat between the early-2000s and 2008, then began to decline. This trend is most clear for the Marlborough and Nelson Regions. Reflecting both structural ageing and increased size, deaths have also increased across the period, somewhat more so for the Marlborough and Tasman Regions. The overall outcome of these generally opposing trends (declining births and increasing deaths) is a reduction in natural increase, which, despite the increased births, has declined since 1991 by 7.9 per cent for Marlborough, 14.4 per cent for Nelson, and 42.4 per cent for Tasman.
5. Components of change by age, which are free of cohort effects, show that between 1996 and 2001, and 2001-2006, all regions experienced overall net migration gain, but also generally experienced net loss at 15-24 years and in one case (Nelson between 1996 and 2001), at 25-29 years. The gains and losses by age were more pronounced for Marlborough and Tasman and somewhat muted for Nelson.

Age structure and population ageing 1996-2006

6. Reflecting these dynamics, the populations of the Marlborough, Nelson and Tasman Regions are relatively old; overall they constitute New Zealand's oldest region. As elsewhere, these regions are ageing both numerically, as more people survive to older ages, and a modest amount of in-migration at older ages augments numbers, and structurally, as birth rates fall, and young adults (mainly 15-24 years) emigrate. The proportions at younger ages of all three regions have declined more or less steadily over the period, and those at 65+ years have increased. In 2011, the proportions aged 65+ years were 18.9, 15.4 and 16.0 per cent for Marlborough, Nelson and Tasman respectively, compared with 13.3 per cent for Total New Zealand. This shift is occurring despite the recent increase at age 0-4 for the Marlborough and Nelson Regions, illustrating that a small increase in birth numbers can slow structural ageing, but not prevent it.

Population projections 2011-2061

7. Customised projections developed for this project indicate that all regions will experience growth under the medium variant assumptions, although overall growth rates (2011-2061) range widely: 2.1 per cent for Marlborough, 7.8 per cent for Nelson, and 17.8 per cent for Tasman. Within these trends, the populations of both Marlborough and Nelson peak around 2041 and then begin to decline, primarily due to their relatively advanced structural ageing. Under the low variant assumptions, all regions decline by 2061, most significantly Marlborough (by 20.1 per cent), while under the high series, all grow significantly, ranging from 24.8 per cent for Marlborough to 53.4 per cent for Tasman.

8. The population of the combined Marlborough-Nelson-Tasman Region is thus also projected to grow under the medium variant assumptions, from approximately 139,990 in 2011 to 153,120 by 2061 (9.4 per cent). However as indicated, the growth will be most uneven by age, with declines projected at 0-19 and 35-54 years, against significant growth at 65 years and above, where the population is anticipated to grow both numerically (almost doubling between 2011 and 2061) and structurally (from 16.7 per cent in 2011 to 28.4 per cent). The low variant projections indicate the population declining by 12.8 per cent, while the high variant indicates growth as high as 34.7 per cent.
9. The overall declines projected for the combined Marlborough-Nelson-Tasman Region at 0-19 and 35-54 years, and at similar ages for each Regional Council (with greater disparity for Tasman), do not occur simultaneously. Those for the younger groups occur primarily in the first half of the projection period (2011-2031) and then feed through to the successively older ages groups in the second half of the period. The pattern is similar under all projection assumptions and for each contributing region, with the losses greater and affecting more age groups under the low series, and lower and affecting fewer age groups under the high series. The periodicity of the losses by age is important for understanding the inexorable shift to natural decline and eventual end of growth, which, under the medium variant assumptions, occurs in the second half of the period as the proportions at key reproductive age reach relatively low levels.
10. Within this overall picture, the respective impact of the underlying projection assumptions on each age group differs significantly by region. For example, at age 0-4 under the medium series, Marlborough experiences a 33 per cent decline, compared with declines of 18 per cent for Nelson and just 3.0 per cent for Tasman. At 15-19 years, Marlborough and Nelson also experience loss, while Tasman experiences a small gain. These differences reflect both the assumptions regarding future birth rates, those for Tasman being somewhat higher than for Marlborough and Nelson, and migration-driven changes in the relative size of the young adult and key reproductive age groups, which have a negative impact for Marlborough and Nelson but a positive impact for Tasman, albeit reducing over time.
11. Although all regions age significantly, the Tasman Region, and to a lesser extent the Nelson Region, remain 'younger' than Marlborough throughout the projection period.
12. The single-largest contribution to the overall growth of the Marlborough-Nelson-Tasman Region is projected to come from Tasman (65.2 per cent) followed by Nelson (27.4 per cent), with Marlborough somewhat lower at 7.4 per cent (medium variant assumptions). Contribution to growth at the older ages is remarkably even. By contrast, the majority of overall decline at the younger ages is projected to be generated in the Marlborough and Nelson Regions, and it is this reduction, as much as their already advanced proportions at older ages, which inhibits these two regions' potential for future growth.

Labour market implications of projected change in age structure 2011-2061

13. Labour market 'entry:exit ratios' (people aged 15-24 years to those aged 55-64 years) are already substantially below parity (ten entrants per ten exits) for all but the Nelson Region, where the ratio is just on parity. The medium variant projections indicate that these ratios will undergo further overall decline for all but the Tasman Region, primarily reflecting the disparate impacts of the underlying assumptions regarding migration levels and migration age profiles which have a more positive impact for Tasman. However, population waves at both ends of the age spectrum mean that the trends do not unfold in a linear manner, with temporary increases projected for each region, mainly around 2031-2041.

Ethnic composition, size and growth 1996-2006

14. The European-origin population declined slightly as a proportion of each region; however both numerically and proportionately remained the dominant ethnic group in each region, especially in Tasman (90.9 per cent in 2006), and particularly when compared with the national proportion (70.1 per cent). The share of the population held by Māori declined fractionally in Marlborough and increased slightly in both Nelson and Tasman). The proportion of each region identifying as Pacific Island, Asian, and/or Middle Eastern/Latin American/African (MELAA) all increased, but remained relatively small by comparison with the national picture.
15. The European population also accounted for the majority of each region's growth between 1996 and 2006: 71.2, 63.4 and 85.6 per cent respectively for Marlborough, Nelson and Tasman. These proportions contrast markedly with the European population's 28.2 per cent contribution at national level.
16. Compared to its 10.4 per cent contribution to growth nationally, the Māori population also made a disproportionate contribution to the growth of the Nelson Region (20.3 per cent). This was double that for the Marlborough Region (9.0 per cent) and almost treble that for Tasman (7.7 per cent).
17. The numerically much smaller Pacific Peoples also accounted for a sizeable proportion of the growth of the Nelson Region (7.7 per cent), and a similar proportion for the Marlborough Region (7.1 per cent). At 1.5 per cent, Pacific Peoples' contribution to growth was by far the smallest for the Tasman Region. In all cases, however, these proportions were relatively small compared with the national situation, where Pacific Peoples accounted for 14.7 per cent of growth.
18. The Asian-origin population of each region also experienced absolute growth, more than doubling in size in both Marlborough and Nelson, and making a sizeable contribution to the growth of each region (9.3 and 8.0 per cent respectively). At 4.5 per cent, the Asian population's contribution to growth in the Tasman Region was substantially smaller. These proportions were all significantly lower than at national level, where the Asian population accounted for 42.6 per cent of New Zealand's growth between 1996 and 2006.
19. The very small Middle Eastern/Latin America/African (MELAA) population of each region accounted for the smallest component of growth, 3.3 per cent for Marlborough, and less than one per cent for each of the Nelson and Tasman Regions. In all cases this is also somewhat lower than the MELAA contribution at national level (4.4 per cent). However, it should not go unnoticed that the MELAA population of the Marlborough Region almost quadrupled between 1996 and 2006, and almost doubled in Tasman.

Ethnic age composition and ageing 1996-2006

20. As elsewhere in New Zealand, the age structures of the Marlborough, Nelson and Tasman Regions' 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, although less so for the Nelson Region. Within that picture, people of all ethnicities with the sole exception of European are underrepresented at all ages by comparison with the national level.
21. When the proportion in each age-ethnic group is viewed spatially, Māori living in the overall region have become less likely to live in the Marlborough Region and more likely to live in the Nelson and Tasman Regions. The situation is exactly the opposite for Pacific Island population, while it is a mixture of both for the Asian and European populations. The pattern by age also differs markedly.

Projections by ethnicity 2006-2021

22. Projections by major ethnic group indicate that the European/Other population of the Marlborough Region will grow only slightly (4.4 per cent) between 2011 and 2021, against a 15.7 per cent increase for Māori. For the Nelson Region the proportions are 3.3 per cent (European) and 22.2 per cent (Māori); and for Tasman, 5.7 per cent and 13.7 per cent respectively. Similar data are not available for the Pacific Island, Asian, or MELAA populations.
23. For the European population of the Marlborough Region, natural increase is presently the primary driver of growth, but it is projected to become negative by 2021 (when deaths are projected to exceed births). Natural Increase is also projected to drop sharply in both the Nelson and Tasman Regions. For the Māori population, natural increase is projected to remain the primary driver of growth for all regions, but for Tasman Region will be offset by projected net migration loss. Numbers for Māori are also expected to be reduced a little by inter-ethnic mobility (propensity to change ethnic identity) in all regions.
24. Because population projections are not available for the Pacific Island, Asian and MELAA populations, it is difficult to say much about the future composition of these regions. The data for the European and Māori populations, however, indicate that the population share held by Māori *vis-à-vis* European will increase, and that Māori are likely to comprise a greater proportion of each region than nationally.

Industrial Change 1996-2006

25. A special topic section provides an overview of the Marlborough, Nelson and Tasman Regions' changing industrial age structure across the 1996-2006 period, focussing first on the twenty largest industries in each region, and then examining trends in labour force ageing for the three largest, in more detail. Among the Marlborough Region's twenty largest industries in 2006, 13 had labour force entry: exit ratios (124: 55+ years) below parity (ten entrants per ten exits), with ultra-low ratios for Community Care Services; Government Administration; and Other Health Services (each one entrant per ten exits), School Education; Grain, Sheep and Beef Cattle Farming; and Hospitals and Nursing Homes (each two per ten), Other Transport Equipment Manufacturing (three per ten), and Horticulture and Fruit Growing; Accommodation; Other Business Services (each four per ten). The situation is similar for the Nelson Region, with below-parity ratios for ten of the region's twenty largest industries, adding Hospitals and Nursing Homes (two per ten); Technical Services; and Marketing and Business Management Services (each three per ten); Legal and Accounting Services (five per ten); and Other Business Services (six per ten); to the above list. For Tasman, 15 of the twenty largest industries have below-parity ratios, making it easier say that only Supermarkets and Grocery Stores; Motor Vehicle Services; Forestry and Logging; Cafes and Restaurants; and Specialised Food Retailing, have ratios which remain above parity, and even they have declined dramatically since 1996, heralding the certain arrival of a demographically-tight labour market.
26. The structure of the Marlborough, Nelson and Tasman Regions' labour market is unlikely to change in the foreseeable future with the regional economy highly dependent on a narrow range of industries (often referred to as the Four F's: farming, forestry, fruit and fisheries (HRC, 2009). These industries are export driven and employ a substantial amount of un- or semi-skilled labour.
27. Challenges exist for the region's labour market arising from the interaction of the housing market with the labour market and the changing demography of the area. Declining affordability of accommodation, driven in part by the in-migration of moderately wealthy retirees, and a fall in the working age population, may restrict supply of the low and unskilled labour demanded by the regions core industries (farming, forestry, fruit and fisheries).

What you need to know about these data

This Region: This report is based on data for the Marlborough, Nelson and Tasman Regional Councils. Where relevant, changes to data collection periods, methods of enumeration, and geographic boundaries are footnoted.

Data sources: All raw 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. So too are totals by major ethnic group, which, as explained below, involve a 'multiple count' enumeration methodology.

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 regional population projections used in this paper have been developed in consultation with the client. The methodology and assumptions are given at Appendix 3. When interpreting the resulting data it is important to remember that demographic projections are not forecasts in the sense that they incorporate interventions that may change the demographic future. Rather, they simply indicate what the future age-sex profile and numbers will be if the underlying assumptions regarding births, deaths, migration prevail. In all likelihood these factors will change over time, as social and economic conditions change. Accordingly, projections should be updated every few years. This is especially the case for New Zealand in the absence of the 2011 Census, as the baseline populations by age and sex used for this project have been drawn from Statistics New Zealand Estimated Usual Resident Population for 2011.

Projections by ethnicity have been drawn directly from Statistics New Zealand (2010a).

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 (e.g., 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’.

Industry: The industry data used in the Special Topic (Section 7) 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

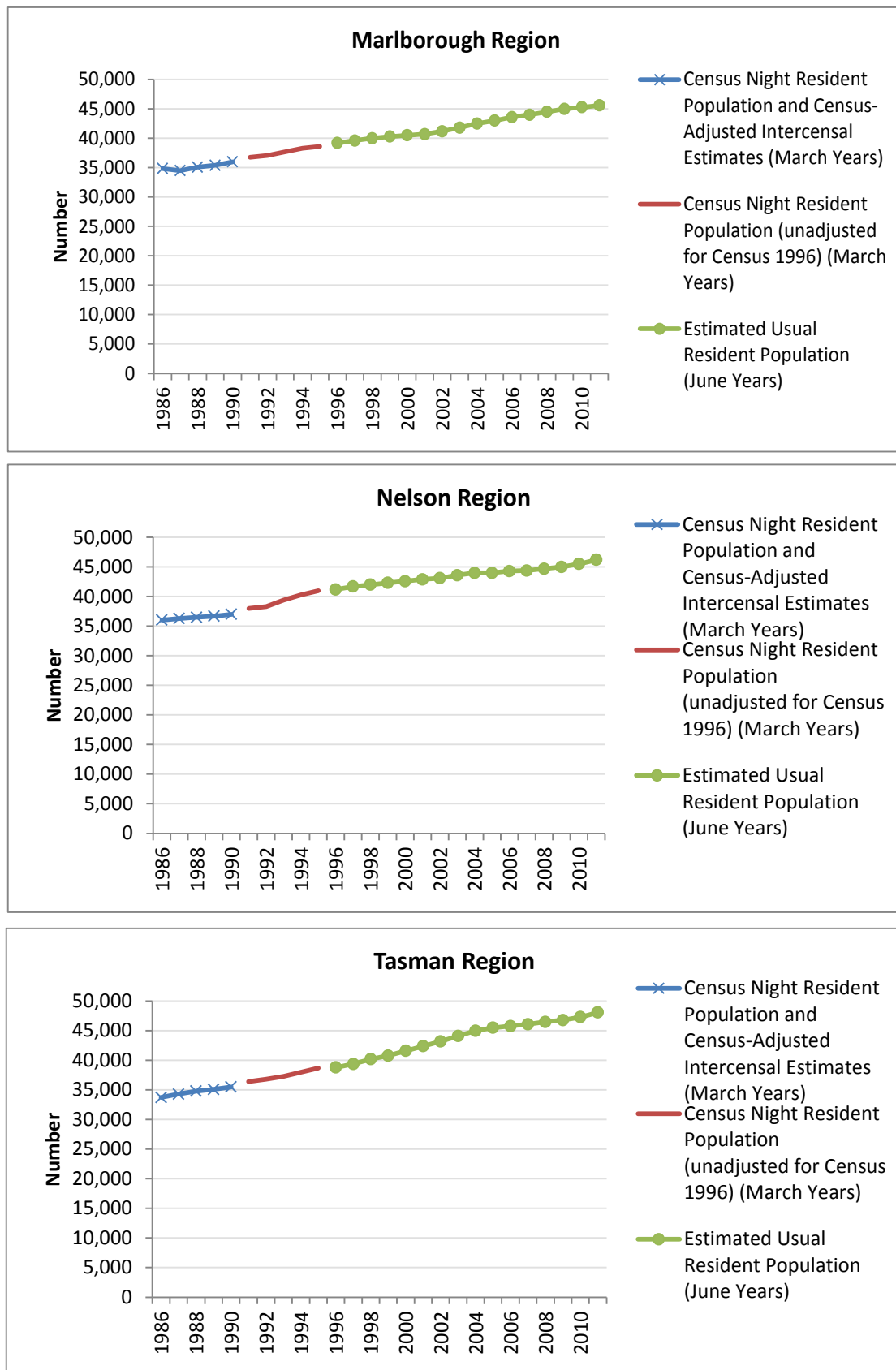
1.1 Population Size and Growth (1986-2011)

The populations of the Marlborough, Nelson and Tasman Regions have grown steadily over the past twenty-five years (Figure 1.1.1, see Appendix 1.1 to 1.3 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. For both Marlborough and Nelson the respective increase in numbers (10,476 and 10,153) and percentage change (30.8 and 28.2 per cent) was almost identical, while for Tasman it was somewhat greater (an increase of 14,371, 42.6 per cent). The trends saw the Tasman Region shift from marginally smallest in 1986, to somewhat the largest by 2002.

Figure 1.1.2 shows the trends in terms of annual growth rates, with the data collection discontinuities identified by gaps (see Table 1.1.1 for data). Data are also compared with Total New Zealand. As indicated, growth rates for the Tasman Region have tended to be relatively strong. Between 2004 and 2009, however, they fell below those for both the Marlborough Region and Total New Zealand, and were barely above those for Nelson; while since then significant growth has resumed. By comparison, relatively strong rates for the Nelson Region in the early part of the period dwindled substantially during the early and mid-2000s, but have also seen substantial increase since 2009. For the Marlborough Region, growth rates across the early 1990s were somewhat lower than for Nelson, while over the 2005-2008 period they were higher than for both Nelson and Tasman. Growth rates for Marlborough across the 1986-2011 period were in fact very comparable to those for Total New Zealand, lagging just a little between 1999 and 2003 and in the 2009-2010 year.

Figure 1.1.3 compares each individual region's resulting share of the population of the Total Marlborough-Nelson-Tasman Region (see also Table 1.1.2). Despite the above differences in growth rates, the three regions have each accounted for a remarkably similar proportion of the population at each observation, within a narrow range of 32.0 to 35.0 per cent. However, the relative increase in the size of the Tasman Region over the late 1990s and early 2000s can be seen to correspond with a slight increase in overall share since 2002, and a somewhat greater overall contribution to growth between 1986 and 2011: 40.7 per cent compared with 30.5 and 28.8 per cent respectively for Marlborough and Nelson (Table 1.1.2, last row).

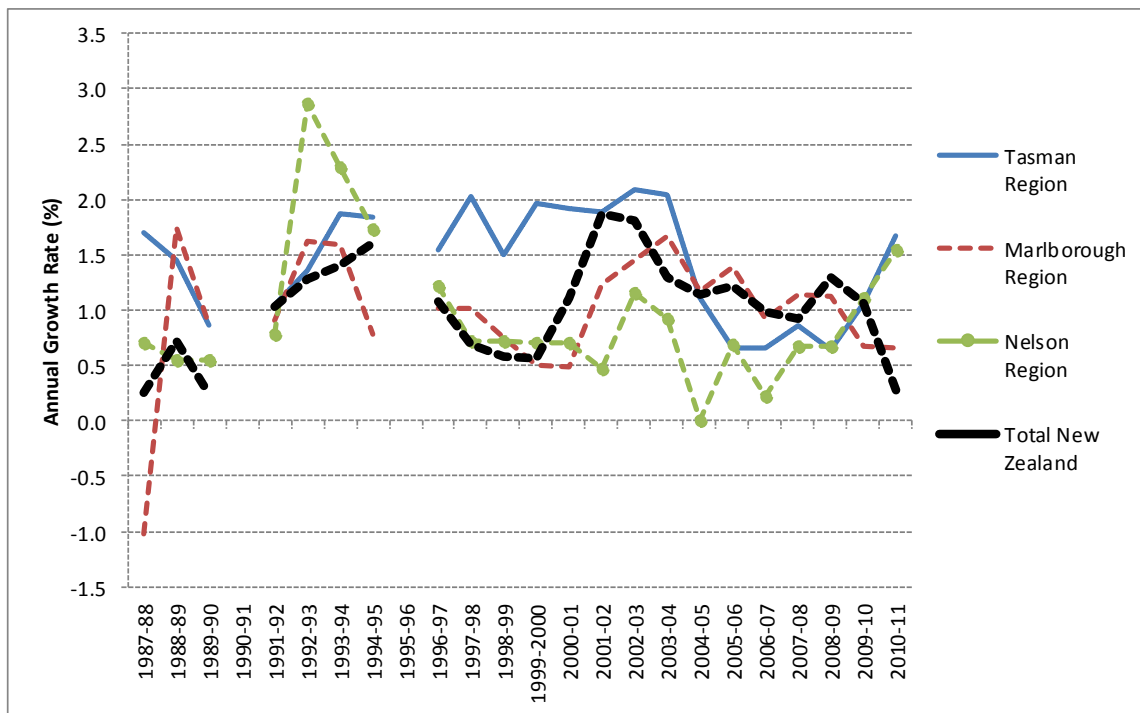
Figure 1.1.1: Population of Marlborough, Nelson and Tasman Regions, 1986-2011



Source: Statistics New Zealand Infoshare, Tables DPE006AA; DPE051AA

1995-1996 mean that the three sets of trends should be understood as discontinuous

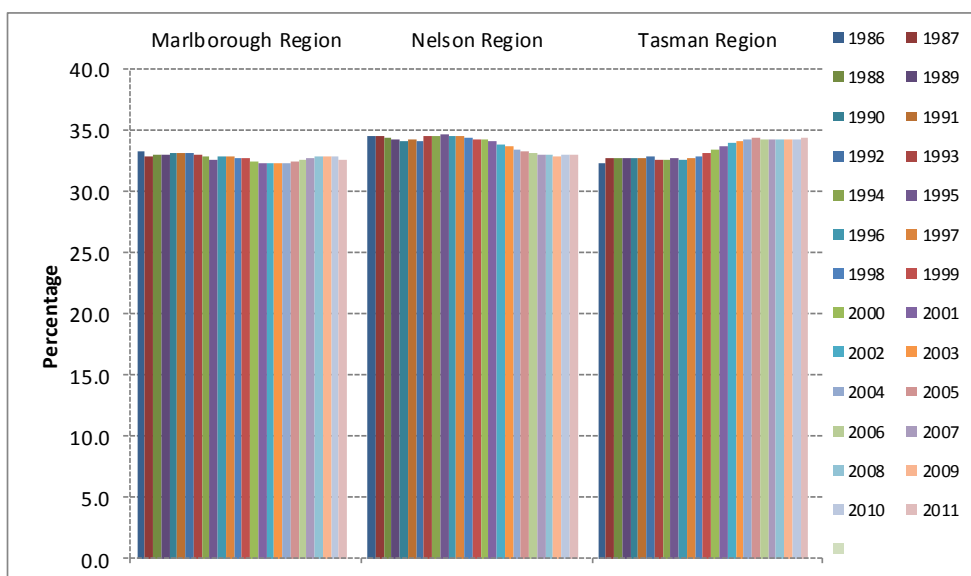
Figure 1.1.2: Annual Population Growth Rates, Marlborough, Nelson and Tasman Regions, and Total New Zealand, 1986-2011



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 1.1.3: Share (%) of the Total Marlborough-Nelson-Tasman Population, by 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

Table 1.1.1: Annual Population Change (%), Marlborough, Nelson and Tasman Regions, and Total New Zealand 1986-2011

	Marlborough Region	Nelson Region	Tasman Region	Total New Zealand
1986 Pop.	34,854	36,047	33,729	3,307,084
1986-87	...	...	...	...
1987-88	-1.0	0.7	1.7	0.3
1988-89	1.7	0.6	1.5	0.7
1989-90	0.9	0.5	0.9	0.2
1990-91	...	...	...	...
1991-92	0.9	0.8	1.1	1.0
1992-93	1.6	2.9	1.4	1.3
1993-94	1.6	2.3	1.9	1.4
1994-95	0.8	1.7	1.8	1.6
1995-96	...	...	...	...
1996-97	1.0	1.2	1.5	1.1
1997-98	1.0	0.7	2.0	0.7
1998-99	0.8	0.7	1.5	0.6
1999-2000	0.5	0.7	2.0	0.6
2000-01	0.5	0.7	1.9	1.1
2001-02	1.2	0.5	1.9	1.9
2002-03	1.5	1.2	2.1	1.8
2003-04	1.7	0.9	2.0	1.3
2004-05	1.2	0.0	1.1	1.1
2005-06	1.4	0.7	0.7	1.2
2006-07	0.9	0.2	0.7	1.0
2007-08	1.1	0.7	0.9	0.9
2008-09	1.1	0.7	0.6	1.3
2009-10	0.7	1.1	1.1	1.1
2010-11	0.7	1.5	1.7	0.3
1986-2011	30.8	28.2	42.6	33.2
2011 Pop.	45,600	46,200	48,100	4,405,200

Source: Statistics New Zealand Infoshare, Tables DPE006AA; DPE051AA
 1991 and 1995-1996 mean that the three sets of trends should be understood as
 discontinuous

Table 1.1.2: Contribution (%) to the Total Marlborough-Nelson-Tasman Region Population, by Region, 1986-2011

	Marlborough	Nelson	Tasman	TOTAL	Marlborough	Nelson	Tasman	TOTAL
	Region	Region	Region		Region	Region	Region	
	NUMBER				PERCENTAGE			
1986	34,854	36,047	33,729	104,630	33.3	34.5	32.2	100.0
1987	34,500	36,300	34,300	105,100	32.8	34.5	32.6	100.0
1988	35,100	36,500	34,800	106,400	33.0	34.3	32.7	100.0
1989	35,400	36,700	35,100	107,200	33.0	34.2	32.7	100.0
1990	36,000	37,000	35,500	108,500	33.2	34.1	32.7	100.0
1991	36,765	38,003	36,416	111,184	33.1	34.2	32.8	100.0
1992	37,100	38,300	36,800	112,200	33.1	34.1	32.8	100.0
1993	37,700	39,400	37,300	114,400	33.0	34.4	32.6	100.0
1994	38,300	40,300	38,000	116,600	32.8	34.6	32.6	100.0
1995	38,600	41,000	38,700	118,300	32.6	34.7	32.7	100.0
1996	39,200	41,200	38,800	119,200	32.9	34.6	32.6	100.0
1997	39,600	41,700	39,400	120,700	32.8	34.5	32.6	100.0
1998	40,000	42,000	40,200	122,200	32.7	34.4	32.9	100.0
1999	40,300	42,300	40,800	123,400	32.7	34.3	33.1	100.0
2000	40,500	42,600	41,600	124,700	32.5	34.2	33.4	100.0
2001	40,700	42,900	42,400	126,000	32.3	34.0	33.7	100.0
2002	41,200	43,100	43,200	127,500	32.3	33.8	33.9	100.0
2003	41,800	43,600	44,100	129,500	32.3	33.7	34.1	100.0
2004	42,500	44,000	45,000	131,500	32.3	33.5	34.2	100.0
2005	43,000	44,000	45,500	132,500	32.5	33.2	34.3	100.0
2006	43,600	44,300	45,800	133,700	32.6	33.1	34.3	100.0
2007	44,000	44,400	46,100	134,500	32.7	33.0	34.3	100.0
2008	44,500	44,700	46,500	135,700	32.8	32.9	34.3	100.0
2009	45,000	45,000	46,800	136,800	32.9	32.9	34.2	100.0
2010	45,300	45,500	47,300	138,100	32.8	32.9	34.3	100.0
2011	45,600	46,200	48,100	139,900	32.6	33.0	34.4	100.0
1986-2011*	10,746	10,153	14,371	35,270	30.5	28.8	40.7	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

2.0 Components of Change

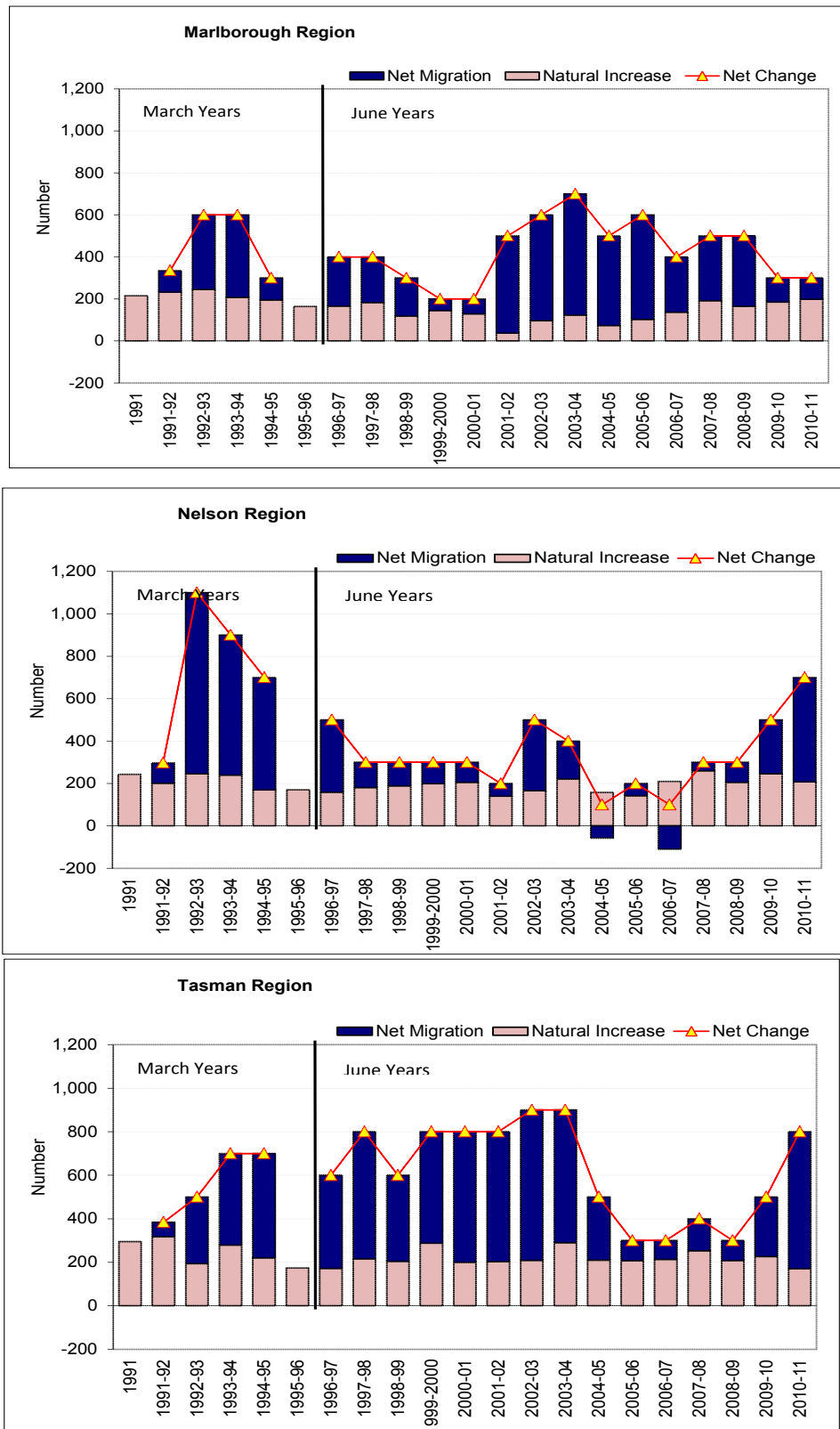
2.1 Natural Increase and Net Migration (1991-2011)

Figure 2.1.1 shows the estimated components of change contributing to growth for the Marlborough, Nelson and Tasman Regions 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). See also Figure 2.1.2 for direct comparison by component.

For the Marlborough and Tasman Regions, the main component of growth in most years has been net migration, while natural increase (the difference between births and deaths) has tended to play the larger role for the Nelson Region – at least since the mid-1990s. However the picture is far from consistent, with net migration between 2005 and 2009 dropping away as a component of growth for Tasman, while increasing for Marlborough, and the same component playing a relatively minor role for Marlborough at the two most recent observations (2009-10 and 2010-11), but a significantly increased role for both Nelson and Tasman.

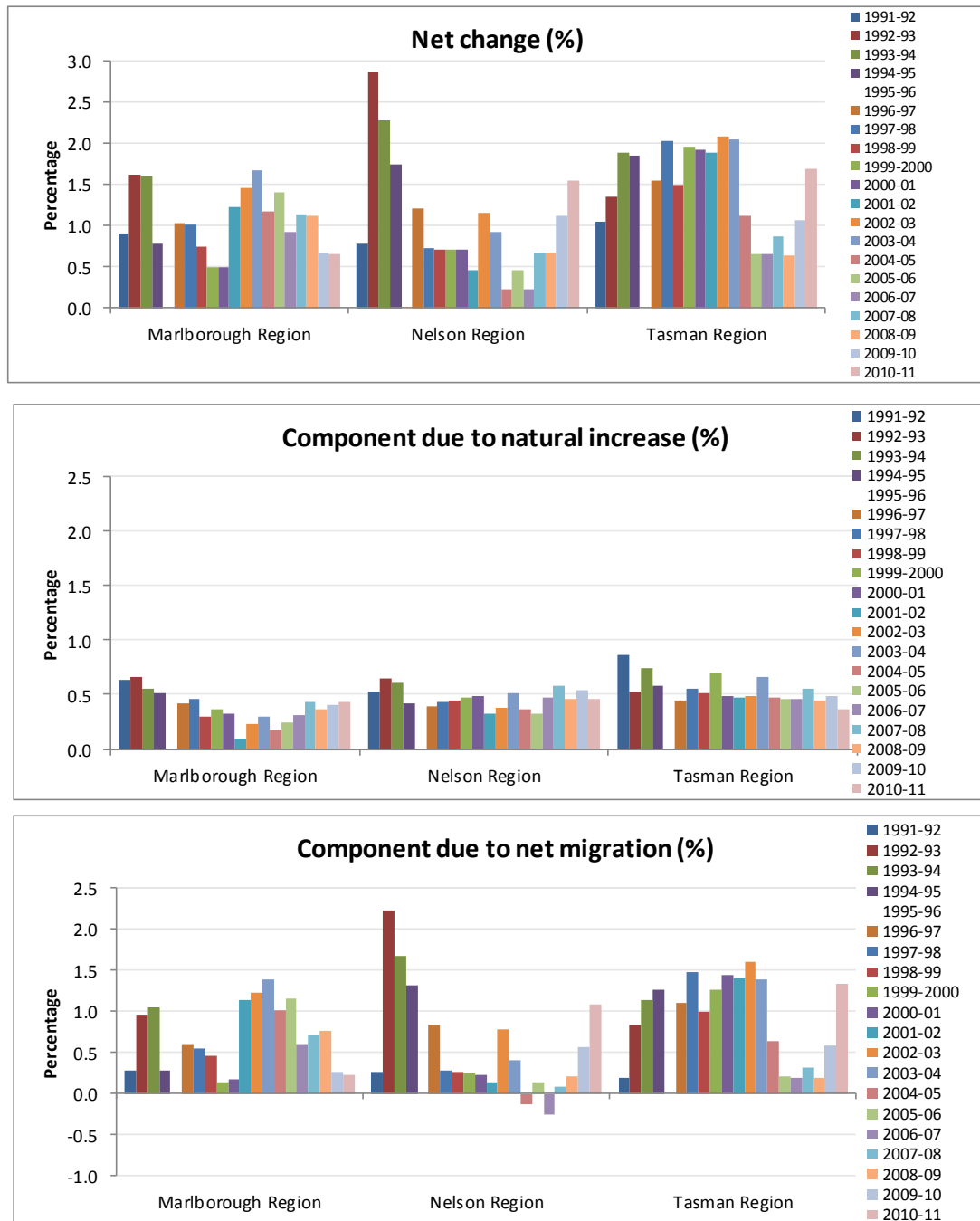
These data add to the picture outlined in Figure 1.1.2. The greater growth rates for the Tasman and Marlborough Regions across most of the period, and the recent growth spurts for Nelson and Tasman, due primarily to their greater gains from net migration. By comparison, the recent slowing in growth for the Marlborough Region reflects a significant reduction in the migration component.

Figure 2.1.1: Natural Increase, Net Migration and Net Change 1991-2011, Marlborough, Nelson and Tasman Regions



**Changes in the timing and method of estimating Resident Population between 1995 and 1996 mean that only natural increase can be shown for that year*

Figure 2.1.2: Net change and components of change, Marlborough, Nelson and Tasman Regions, 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, Marlborough Region and Total New Zealand

	Marlborough 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	485	270	215	36,765	...	...	...	...	...	...	...	...
1992	495	262	233	37,100	335	102	0.63	0.28	0.91	0.95	0.08	1.03	
1993	548	303	245	37,700	600	355	0.66	0.96	1.62	0.89	0.40	1.28	
1994	479	272	207	38,300	600	393	0.55	1.04	1.59	0.87	0.53	1.40	
1995	521	326	195	38,600	300	105	0.51	0.27	0.78	0.84	0.76	1.60	
June Year													
1996	527	363	164	39,200	...	...	...	...	...	...	...	...
1997	484	318	166	39,600	400	234	0.42	0.60	1.02	0.79	0.53	1.32	
1998	497	315	182	40,000	400	218	0.46	0.55	1.01	0.78	0.11	0.89	
1999	434	316	118	40,300	300	182	0.30	0.46	0.75	0.75	-0.22	0.53	
2000	498	353	145	40,500	200	55	0.36	0.14	0.50	0.79	-0.20	0.59	
2001	457	328	129	40,700	200	71	0.32	0.18	0.49	0.76	-0.17	0.59	
2002	408	371	37	41,200	500	463	0.09	1.14	1.23	0.67	1.08	1.75	
2003	451	355	96	41,800	600	504	0.23	1.22	1.46	0.69	1.30	1.99	
2004	476	353	123	42,500	700	577	0.29	1.38	1.67	0.74	0.76	1.50	
2005	449	376	73	43,000	500	427	0.17	1.00	1.18	0.72	0.41	1.14	
2006	493	391	102	43,600	600	498	0.24	1.16	1.40	0.75	0.48	1.23	
2007	483	346	137	44,000	400	263	0.31	0.60	0.92	0.79	0.25	1.04	
2008	554	363	191	44,500	500	309	0.43	0.70	1.14	0.84	0.12	0.96	
2009	563	398	165	45,000	500	335	0.37	0.75	1.12	0.80	0.30	1.10	
2010	563	378	185	45,300	300	115	0.41	0.26	0.67	0.82	0.39	1.20	
2011	554	356	198	45,600	300	102	0.44	0.23	0.66	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

Table 2.1.2: Components of Change, 1991-2011, Nelson Region and Total New Zealand

	Nelson Region							Total New Zealand				
	Components							Contribution to Net Change				
	Births	Deaths	Natural Increase	Estimated Resident Population (a)	Estimated Net Change	Estimated Migration	Estimated Natural Increase~ (%)	Estimated Migration~ (%)	Net Change~ (%)	Estimated Natural Increase~ (%)	Estimated Migration~ (%)	Net Change~ (%)
March Year												
1991	603	360	243	38,003	...	...	...	...	...	...	...	...
1992	563	362	201	38,300	297	96	0.53	0.25	0.78	0.95	0.08	1.03
1993	558	312	246	39,400	1,100	854	0.64	2.23	2.87	0.89	0.40	1.28
1994	566	326	240	40,300	900	660	0.61	1.68	2.28	0.87	0.53	1.40
1995	518	348	170	41,000	700	530	0.42	1.32	1.74	0.84	0.76	1.60
June Year												
1996	536	366	170	41,200	...	...	...	...	...	...	...	...
1997	511	352	159	41,700	500	341	0.39	0.83	1.21	0.79	0.53	1.32
1998	510	329	181	42,000	300	119	0.43	0.29	0.72	0.78	0.11	0.89
1999	532	343	189	42,300	300	111	0.45	0.26	0.71	0.75	-0.22	0.53
2000	529	330	199	42,600	300	101	0.47	0.24	0.71	0.79	-0.20	0.59
2001	566	361	205	42,900	300	95	0.48	0.22	0.70	0.76	-0.17	0.59
2002	503	363	140	43,100	200	60	0.33	0.14	0.47	0.67	1.08	1.75
2003	548	382	166	43,600	500	334	0.39	0.77	1.16	0.69	1.30	1.99
2004	585	364	221	44,000	400	179	0.51	0.41	0.92	0.74	0.76	1.50
2005	522	364	158	44,100	100	-58	0.36	-0.13	0.23	0.72	0.41	1.14
2006	516	374	142	44,300	200	58	0.32	0.13	0.45	0.75	0.48	1.23
2007	575	365	210	44,400	100	-110	0.47	-0.25	0.23	0.79	0.25	1.04
2008	650	390	260	44,700	300	40	0.59	0.09	0.68	0.84	0.12	0.96
2009	607	402	205	45,000	300	95	0.46	0.21	0.67	0.80	0.30	1.10
2010	613	367	246	45,500	500	254	0.55	0.56	1.11	0.82	0.39	1.20
2011	577	369	208	46,200	700	492	0.46	1.08	1.54	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

Table 2.1.3: Components of Change, 1991-2011, Tasman Region and Total New Zealand

	Tasman Region							Total New Zealand				
	Components					Contribution to Net Change			Contribution to Net Change			
	Births	Deaths	Natural Increase	Estimated Resident Population (a)	Estimated Net Change	Estimated Migration	Estimated Natural Increase~ (%)	Estimated Migration~ (%)	Net Change~ (%)	Estimated Natural Increase~ (%)	Estimated Migration~ (%)	Net Change~ (%)
March Year												
1991	532	237	295	36,416	...	...	...	...	...	...	...	...
1992	541	224	317	36,800	384	67	0.87	0.18	1.05	0.95	0.08	1.03
1993	475	281	194	37,300	500	306	0.53	0.83	1.36	0.89	0.40	1.28
1994	542	263	279	38,000	700	421	0.75	1.13	1.88	0.87	0.53	1.40
1995	516	296	220	38,700	700	480	0.58	1.26	1.84	0.84	0.76	1.60
June Year												
1996	475	301	174	38,800	...	...	...	...	...	...	...	...
1997	472	300	172	39,400	600	428	0.44	1.10	1.55	0.79	0.53	1.32
1998	484	268	216	40,200	800	584	0.55	1.48	2.03	0.78	0.11	0.89
1999	471	267	204	40,800	600	396	0.51	0.99	1.49	0.75	-0.22	0.53
2000	571	283	288	41,600	800	512	0.71	1.25	1.96	0.79	-0.20	0.59
2001	500	300	200	42,400	800	600	0.48	1.44	1.92	0.76	-0.17	0.59
2002	486	283	203	43,200	800	597	0.48	1.41	1.89	0.67	1.08	1.75
2003	516	307	209	44,100	900	691	0.48	1.60	2.08	0.69	1.30	1.99
2004	582	292	290	45,000	900	610	0.66	1.38	2.04	0.74	0.76	1.50
2005	524	314	210	45,500	500	290	0.47	0.64	1.11	0.72	0.41	1.14
2006	541	334	207	45,800	300	93	0.45	0.20	0.66	0.75	0.48	1.23
2007	542	329	213	46,100	300	87	0.47	0.19	0.66	0.79	0.25	1.04
2008	567	314	253	46,500	400	147	0.55	0.32	0.87	0.84	0.12	0.96
2009	492	284	208	46,800	300	92	0.45	0.20	0.65	0.80	0.30	1.10
2010	534	308	226	47,300	500	274	0.48	0.59	1.07	0.82	0.39	1.20
2011	513	343	170	48,100	800	630	0.36	1.33	1.69	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

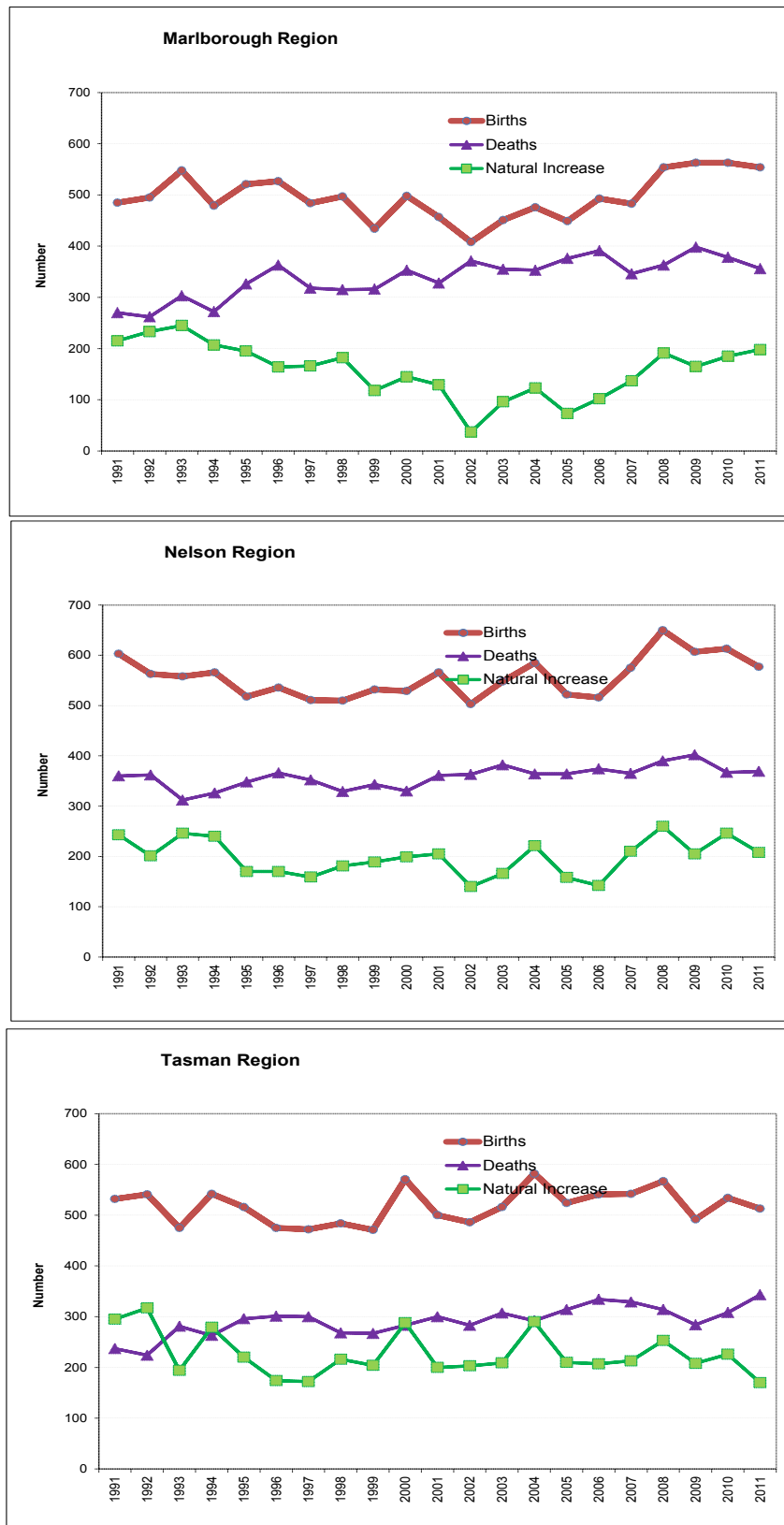
2.2 Births, Deaths and Natural Increase

Underlying the trends in natural increase shown above are those for births and deaths, depicted in Figure 2.2.1. As might be expected, the main driver of natural increase has been births which – as elsewhere in most of New Zealand – increased somewhat between the early-2000s and 2008. Since 2008, the total fertility rate driving the increased birth numbers has resumed its previous decline, as have birth numbers. This trend is clear in the case of the Marlborough and Nelson Regions, but somewhat less so for Tasman, where the most recent peak was earlier, around 2004, and birth numbers have moved within a narrower range. However, birth numbers are lower in 2011 than in 1991 for both Nelson and Tasman (by 4.3 and 3.6 per cent respectively). For a number of reasons outlined below (particularly the relatively reducing size of the reproductive age cohort indicated in the section on age structures), birth numbers are unlikely to see major increases in the future.

Deaths have also increased across the period, somewhat more so for the Marlborough and Tasman Regions than Nelson (31.9, 44.7 and 3.4 per cent respectively – see Table 2.1.2 above). However, the present increase will almost certainly soon accelerate as the Baby Boomer wave moves through the older age groups, also discussed further below.

The overall outcome of these generally opposing trends (declining births and increasing deaths) is anticipated to be a steady reduction in natural increase, as indicated in the panel for Tasman Region. In fact natural increase has declined since 1991 in each of these regions, by 7.9 per cent for Marlborough, 14.4 per cent for Nelson, and 42.4 per cent for Tasman. This trend has negative implications for each region's longer-term potential for growth; however, as will be shown below, the trend is unlikely to be linear, due to the ebb and flow of population waves.

Figure 2.2.1: Births, Deaths and Natural Increase, Marlborough, Nelson and Tasman Regions 1991-2011



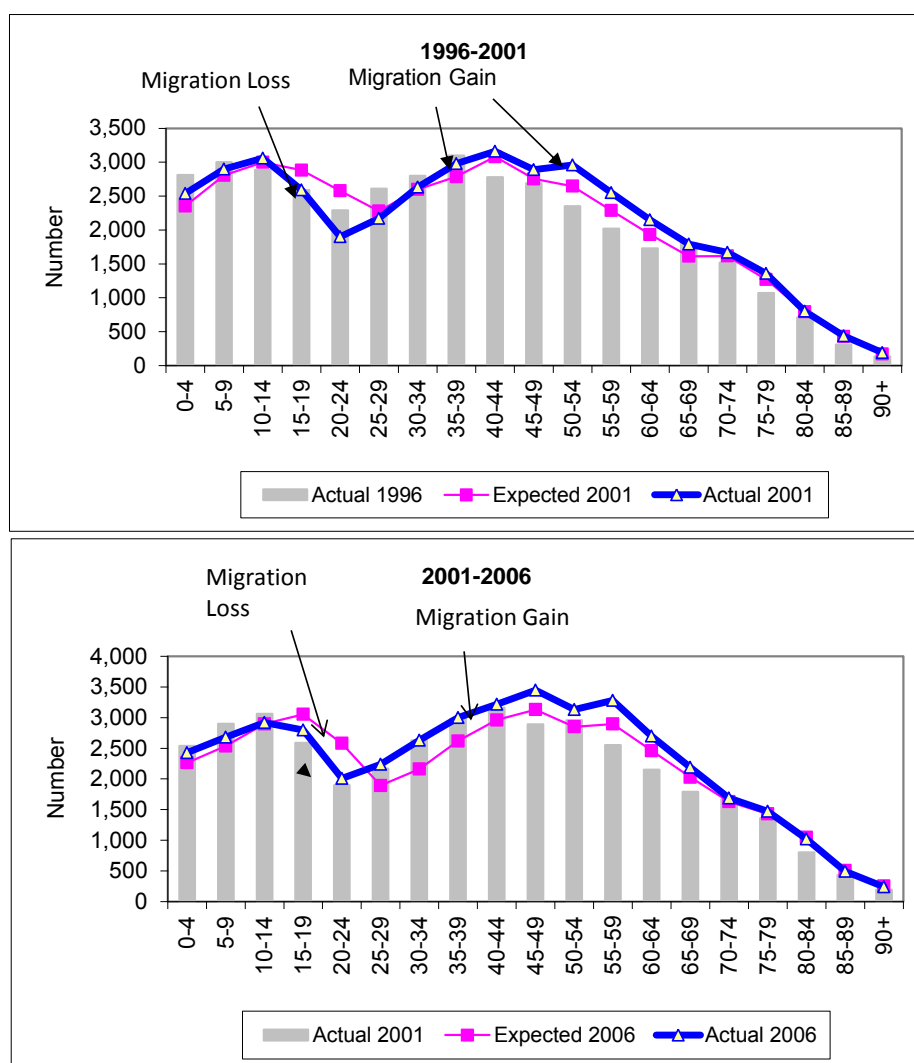
Compiled from Statistics New Zealand Infoshare: Births, Table VSB016AA; Deaths, Table VSD018AA

3.0 Components of Change by Age

3.1 Expected versus Actual Population (1996-2006)

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 despite overall net migration gains, the Marlborough Region has experienced net migration loss across the 15-24 year age group, offset by gains at most other ages up to 74 years (see also Appendix 2.1). Between 2001 and 2006 the losses reduced slightly and the gains both increased and also occurred for those aged 25-34 years. Notable also are gains at 0-9 years, which correlate with those across the key parenting age groups (25-39 years).

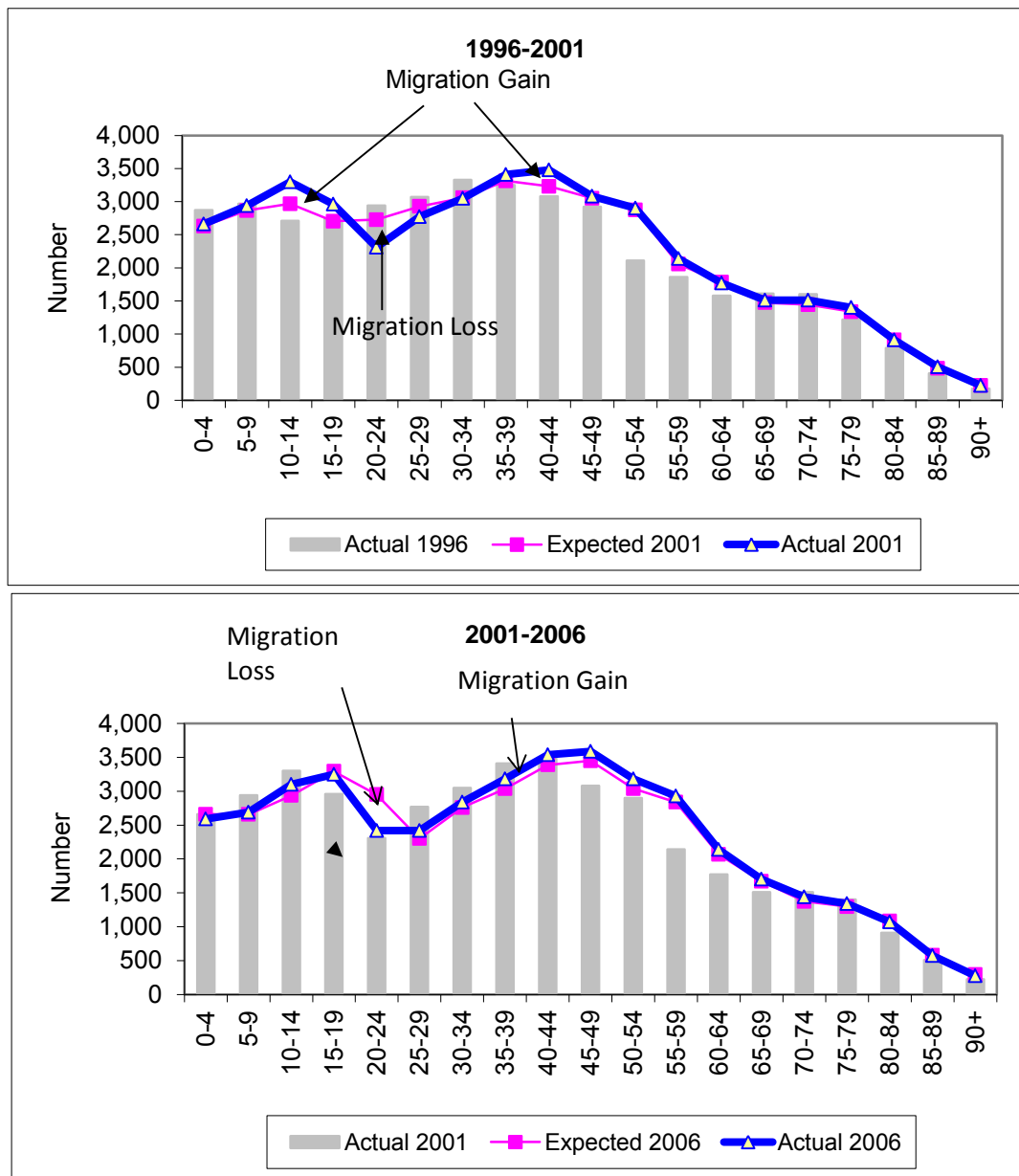
Figure 3.1.1: Expected and Actual Population by Age, 1996-2001 and 2001-2006, Marlborough Region



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

The picture is both similar and different for the Nelson Region (Figure 3.1.2), where gains and losses can be seen for similar age groups, but are more muted. Of note from Figure 3.1.2 are net gains at 10-14 years rather than at 0-9 years, seemingly corresponding with those at 40-44 years, and a small degree of loss at 25-29 years between 1996 and 2001 (see Appendix 2.2).

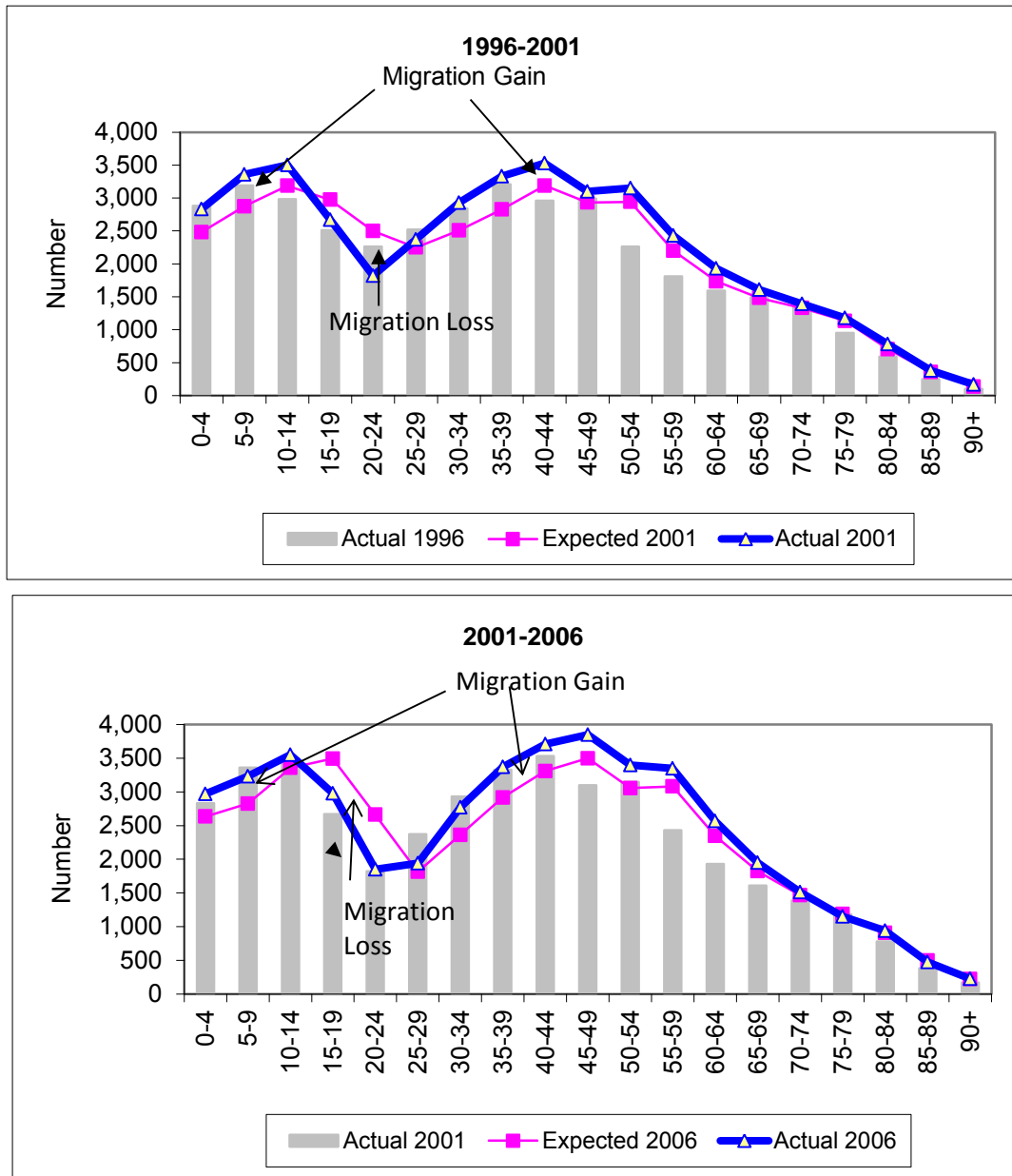
Figure 3.1.2: Expected and Actual Population by Age, 1996-2001 and 2001-2006, Nelson Region



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

The situation differs again for Tasman (Figure 3.1.3), where both the gains and losses by age are more pronounced. Of note for Tasman is that the losses at 15-24 years increased between 2001 and 2006, especially at 15-19 years, where they had reduced slightly for Marlborough (see Appendix 2.3).

Figure 3.1.3: Expected and Actual Population by Age, 1996-2001 and 2001-2006, Tasman Region

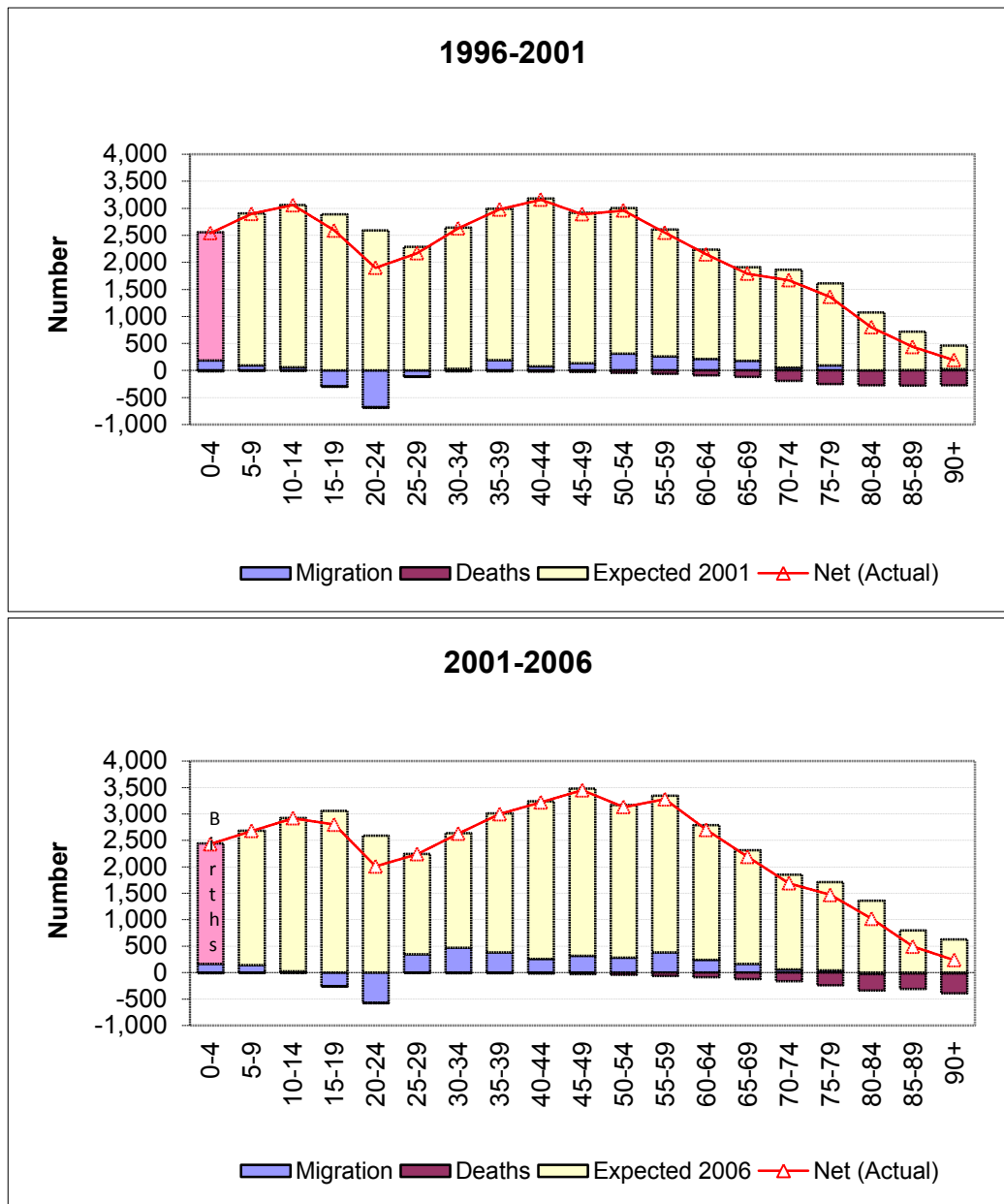


Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorship 1995-2007

3.2 Expected versus Actual Change by Component (1996-2006)

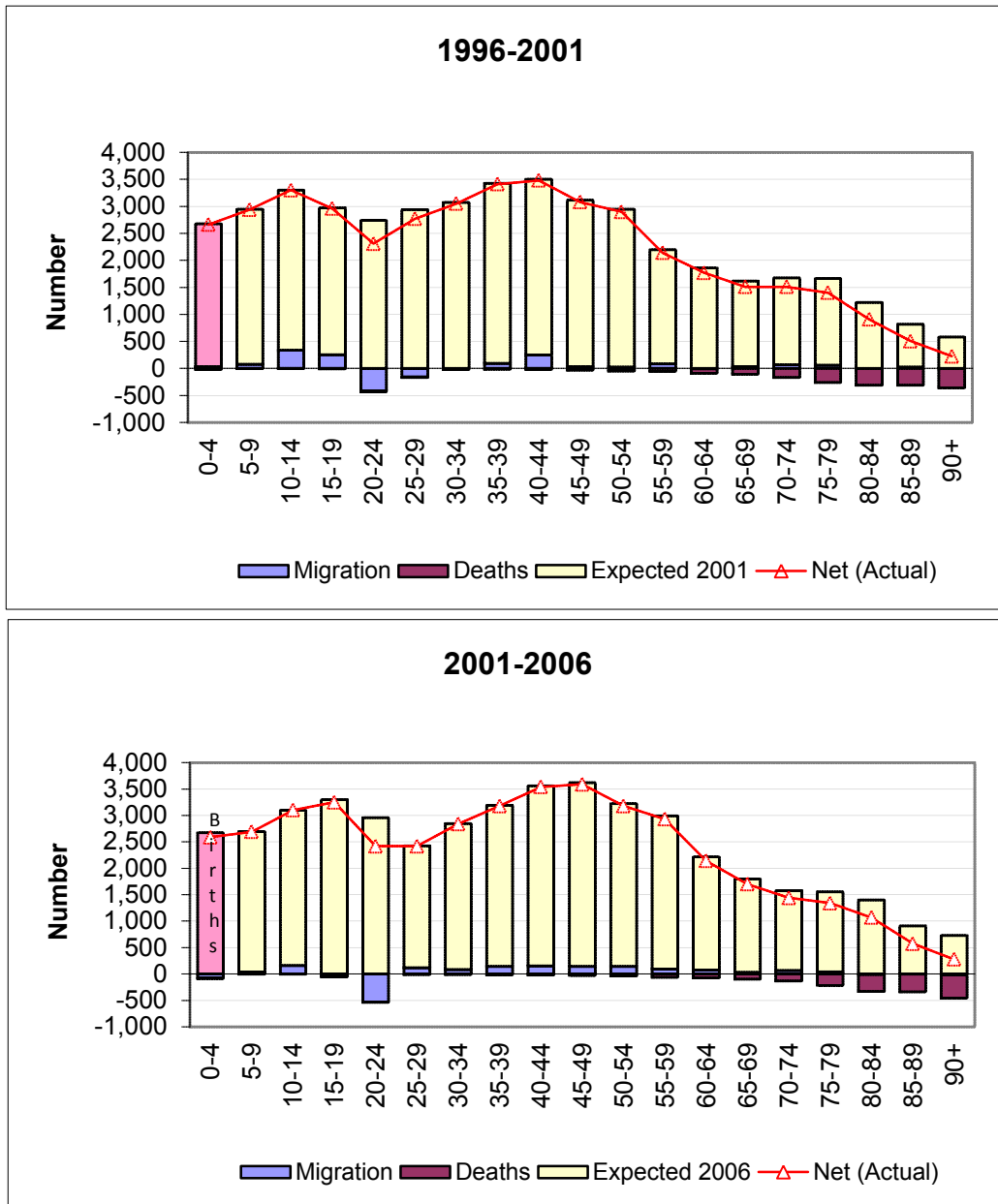
The same data are plotted in Figures 3.2.1 to 3.2.3, this time to highlight the role of the other components of change (births and deaths). As indicated above, the primary driver increasing or decreasing expected numbers at each age is migration, while at older ages, migration is negligible and numbers are reduced by deaths. This 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, Marlborough Region



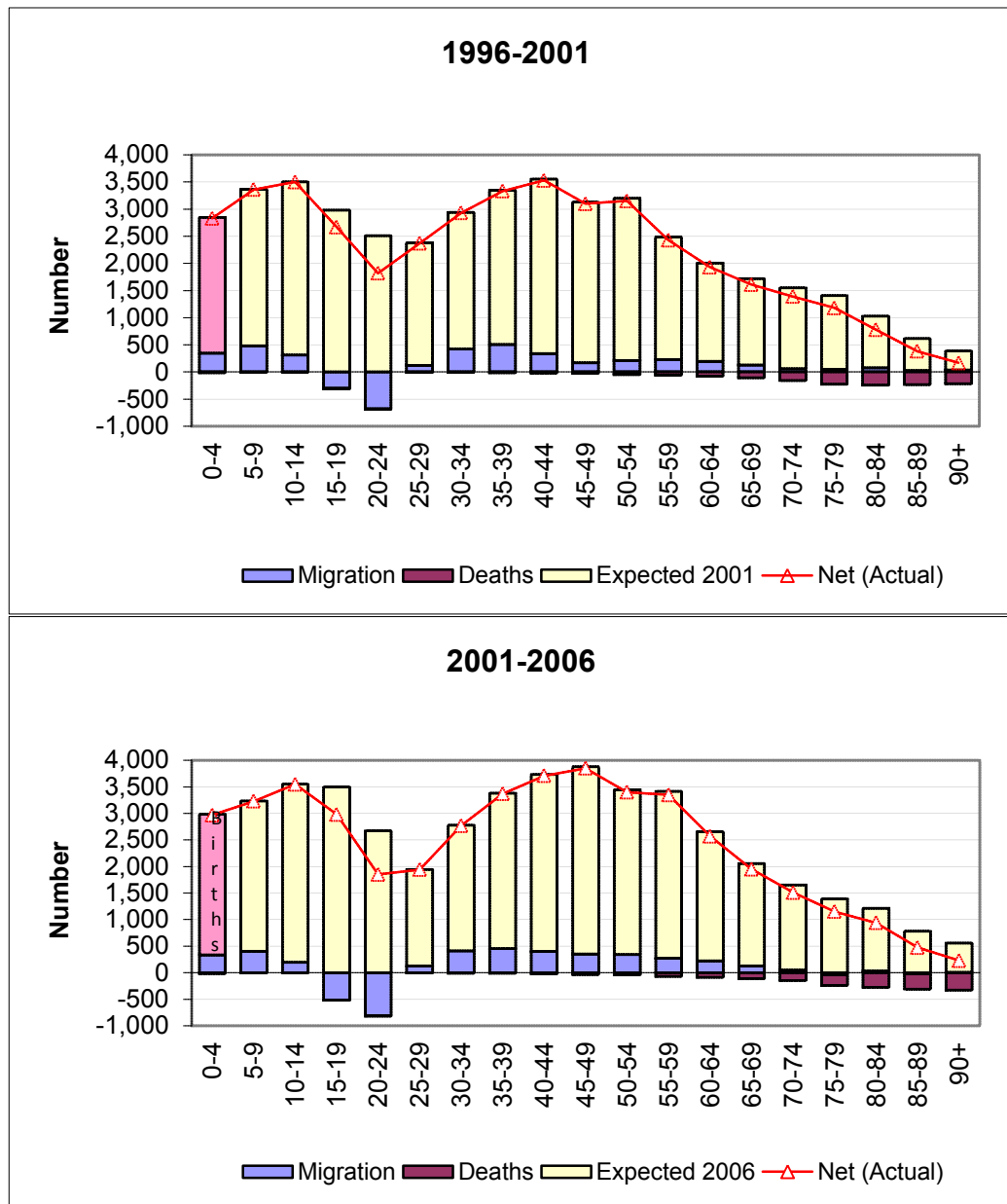
Source: Jackson/from Statistics New Zealand ERP and New Zealand Survivorshp 1995-2007

Figure 3.2.2: Population Change by Age and Component, 1996-2001 and 2001-2006, Nelson Region



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

Figure 3.2.3: Population Change by Age and Component, 1996-2001 and 2001-2006, Tasman Region



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

4.0 Age Structure and Population Ageing

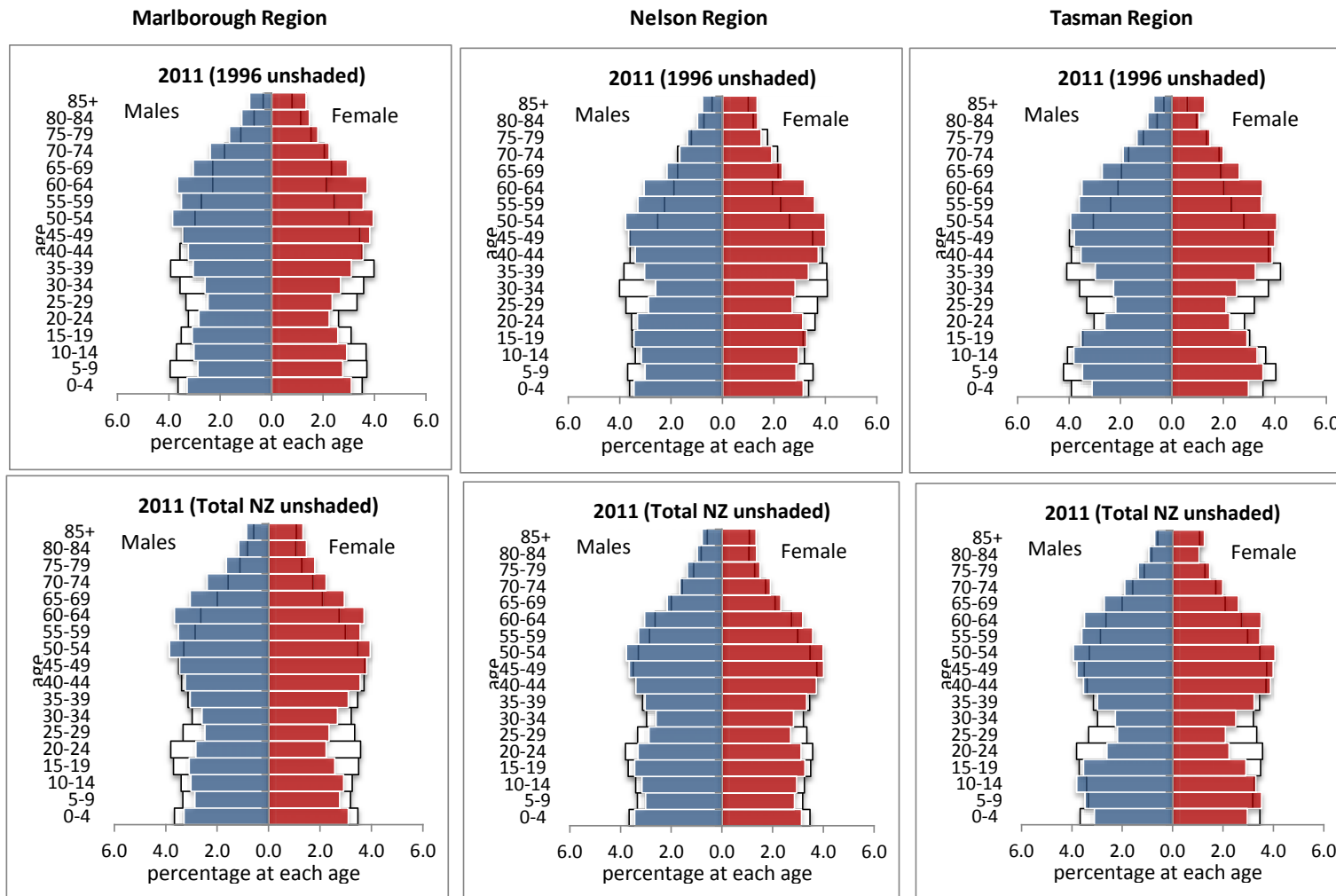
4.1 Numerical and Structural Ageing (1996-2011)

By comparison with Total New Zealand and most other Regional Councils, the age structures of the Marlborough, Nelson and Tasman Regions are relatively old. They are older in part because of the relatively youthful net migration losses and gains at the mid-adult and older ages depicted above, and, for the Tasman Region (and until recently Marlborough also), the lower contribution from natural increase. They are ageing both 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. They are also ageing structurally as previous youthful immigrants 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 readily detected in Figure 4.1.1. The upper panel compares each region's age structure in 2011 compared with 1996; the lower panel, with that of Total New Zealand in 2011. The accompanying Tables 4.1.1-4.1.3 confirm that, despite the recent increase in births which have slightly increased the proportion at 0-4 years for Marlborough and Nelson, the proportion of each region's population at the younger ages has generally declined, especially across the age groups 20-34 years, where there is a deep bite in the age structure, particularly for Tasman. By contrast, the proportion aged 65+ years has dramatically increased, the proportions for Marlborough, Nelson and Tasman in 2011 being respectively 18.9, 15.4, and 16.0 per cent, compared with Total New Zealand at 13.3 per cent. The differences mean that the Marlborough Region already has more elderly than children, while both Nelson and Tasman have significantly higher ratios than Total New Zealand (0.83 and 0.79 elderly per child, compared with 0.66 for Total New Zealand).

Another key indicator of structural ageing, discussed at more length below, is the ratio of people at labour market entry age to those in the 'retirement zone'. For Total New Zealand this ratio is presently 13.0 (13 people aged 15-24 years to every ten aged 55-64 years), down from 18.3 in 1966 (18 per 10). The relative 2011 ratios for Marlborough, Nelson and Tasman are 7.4, 10.0 and 8.0 respectively, that is, fewer people at entry than exit age for both Marlborough and Tasman, and equal numbers for Nelson. In each case the ratio has declined almost monotonically since the 1990s (see Tables 4.1.1-4.1.3). Section 6 revisits this issue from an industrial perspective, using a broader entry: exit ratio which is more appropriate for the employed population (15-24 years: 55+ years).

Figure 4.1.1: Age-Sex Structure, Marlborough, Nelson and Tasman Regions 2011 compared with 1996, and 2011 compared with Total New Zealand



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

Source data from Stats NZ Infoshare Estimated Subnational Population

Notes: (RC, TA,AU) by Age and Sex at 30 June 1996, 2001, 2006-2011

Table 4.1.1: Summary Indicators of Change by Age, 1996-2011, Marlborough Region and Total New Zealand

Marlborough Reg	1996	2001	2006	2007	2008	2009	2010	2011	1996-01	2001-06	2006-11	2006-07	2007-08	2008-09	2009-10	2010-11
Broad Age Group									Number			Av. Annual Change (%)				
0-14	8,700	8,500	8,030	7,970	7,990	8,050	8,080	8,190	-0.5	-1.1	0.4	-0.7	0.3	0.8	0.4	1.4
15-24	4,880	4,490	4,810	4,840	4,960	4,950	4,920	4,890	-1.6	1.4	0.3	0.6	2.5	-0.2	-0.6	-0.6
25-54	16,330	16,790	17,670	17,610	17,590	17,620	17,570	17,380	0.6	1.0	-0.3	-0.3	-0.1	0.2	-0.3	-1.1
55-64	3,750	4,700	5,980	6,100	6,300	6,380	6,490	6,580	5.1	5.4	2.0	2.0	3.3	1.3	1.7	1.4
65+	5,550	6,250	7,100	7,430	7,670	8,000	8,290	8,610	2.5	2.7	4.3	4.6	3.2	4.3	3.6	3.9
Marlborough Regic	39,210	40,730	43,590	43,950	44,510	45,000	45,350	45,650	0.8	1.4	0.9	0.8	1.3	1.1	0.8	0.7
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
Broad Age Group									Percentage			Av. Annual Change (%)				
0-14	22.2	20.9	18.4	18.1	18.0	17.9	17.8	17.9	-1.2	-2.3	-0.5	-1.6	-1.0	-0.3	-0.4	0.7
15-24	12.4	11.0	11.0	11.0	11.1	11.0	10.8	10.7	-2.3	0.0	-0.6	-0.2	1.2	-1.3	-1.4	-1.3
25-54	41.6	41.2	40.5	40.1	39.5	39.2	38.7	38.1	-0.2	-0.3	-1.2	-1.2	-1.4	-0.9	-1.1	-1.7
55-64	9.6	11.5	13.7	13.9	14.2	14.2	14.3	14.4	4.1	3.8	1.0	1.2	2.0	0.2	0.9	0.7
65+	14.2	15.3	16.3	16.9	17.2	17.8	18.3	18.9	1.7	1.2	3.2	3.8	1.9	3.2	2.8	3.2
Marlborough Regic	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	...	...	...	...	...	...	...	...
Total NZ %65+ year	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 (%)				
Marlborough Regic	13.0	9.6	8.0	7.9	7.9	7.8	7.6	7.4	-5.3	-3.2	-1.5	-1.4	-0.8	-1.5	-2.3	-2.0
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	2011	1996-01	2001-06	2006-11	2006-07	2007-08	2008-09	2009-10	2010-11
Number									Av. Annual Change (%)			Annual Change (%)				
Marlborough Regic	0.64	0.74	0.88	0.93	0.96	0.99	1.03	1.05	3.1	4.0	3.8	5.4	3.0	3.5	3.2	2.5
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

Source: Jackson, N.O (2012) Subnational Age Structure Resource 1996-2011, National Institute of Demographic and Economic Analysis (NIDEA), University of Waikato

Notes: Source data from Stats NZ Infoshare Estimated Subnational Population (RC, TA,AU) by Age and Sex at 30 June 1996, 2001 and 2006-2011 (2006 Boundaries)

Table 4.1.2: Summary Indicators of Change by Age, 1996-2011, Nelson Region and Total New Zealand

Nelson Region	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	8,550	8,900	8,380	8,300	8,340	8,320	8,410	8,570	0.8	-1.2	0.5	-1.0	0.5	-0.2	1.1	1.9	
15-24	5,680	5,270	5,670	5,760	5,830	5,910	5,940	6,070	-1.4	1.5	1.4	1.6	1.2	1.4	0.5	2.2	
25-54	17,760	18,690	18,750	18,620	18,490	18,490	18,460	18,430	1.0	0.1	-0.3	-0.7	-0.7	0.0	-0.2	-0.2	
55-64	3,440	3,910	5,070	5,210	5,430	5,590	5,820	6,050	2.7	5.9	3.9	2.8	4.2	2.9	4.1	4.0	
65+	5,800	6,060	6,400	6,540	6,600	6,750	6,890	7,100	0.9	1.1	2.2	2.2	0.9	2.3	2.1	3.0	
Nelson Region	41,230	42,830	44,270	44,430	44,690	45,060	45,520	46,220	0.8	0.7	0.9	0.4	0.6	0.8	1.0	1.5	
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	20.7	20.8	18.9	18.7	18.7	18.5	18.5	18.5	0.0	-1.8	-0.4	-1.3	-0.1	-1.1	0.1	0.4	
15-24	13.8	12.3	12.8	13.0	13.0	13.1	13.0	13.1	-2.1	0.8	0.5	1.2	0.6	0.5	-0.5	0.6	
25-54	43.1	43.6	42.4	41.9	41.4	41.0	40.6	39.9	0.3	-0.6	-1.2	-1.1	-1.3	-0.8	-1.2	-1.7	
55-64	8.3	9.1	11.5	11.7	12.2	12.4	12.8	13.1	1.9	5.1	2.9	2.4	3.6	2.1	3.1	2.4	
65+	14.1	14.1	14.5	14.7	14.8	15.0	15.1	15.4	0.1	0.4	1.3	1.8	0.3	1.4	1.0	1.5	
Nelson Region	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	...	...	...	...	...	...	...	...
Total NZ %65+ year	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 (%)					
Nelson Region	16.5	13.5	11.2	11.1	10.7	10.6	10.2	10.0	-3.7	-3.4	-2.1	-1.1	-2.9	-1.5	-3.5	-1.7	
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	2011	1996-01	2001-06	2006-11	2006-07	2007-08	2008-09	2009-10	2010-11	
Number									Av. Annual Change (%)			Annual Change (%)					
Nelson Region	0.68	0.68	0.76	0.79	0.79	0.81	0.82	0.83	0.1	2.4	1.7	3.2	0.4	2.5	1.0	1.1	
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	

Source: Jackson, N.O (2012) Subnational Age Structure Resource 1996-2011, National Institute of Demographic and Economic Analysis (NIDEA), University of Waikato

Notes: Source data from Stats NZ Infoshare Estimated Subnational Population (RC, TA,AU) by Age and Sex at 30 June 1996, 2001 and 2006-2011 (2006 Boundaries)

Table 4.1.3: Summary Indicators of Change by Age, 1996-2011, Tasman Region and Total New Zealand

Tasman Region	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	9,050	9,690	9,750	9,680	9,660	9,570	9,570	9,710	1.4	0.1	-0.1	-0.7	-0.2	-0.9	0.0	1.5	
15-24	4,770	4,490	4,830	4,980	5,090	5,210	5,350	5,430	-1.2	1.5	2.5	3.1	2.2	2.4	2.7	1.5	
25-54	16,780	18,410	19,040	18,920	18,750	18,590	18,480	18,510	1.9	0.7	-0.6	-0.6	-0.9	-0.9	-0.6	0.2	
55-64	3,400	4,360	5,920	6,080	6,260	6,450	6,620	6,770	5.6	7.2	2.9	2.7	3.0	3.0	2.6	2.3	
65+	4,740	5,510	6,250	6,500	6,720	6,950	7,300	7,700	3.2	2.7	4.6	4.0	3.4	3.4	5.0	5.5	
Tasman Region	38,740	42,460	45,790	46,160	46,480	46,770	47,320	48,120	1.9	1.6	1.0	0.8	0.7	0.6	1.2	1.7	
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	23.4	22.8	21.3	21.0	20.8	20.5	20.2	20.2	-0.5	-1.3	-1.0	-1.5	-0.9	-1.5	-1.2	-0.2	
15-24	12.3	10.6	10.5	10.8	11.0	11.1	11.3	11.3	-2.8	-0.1	1.4	2.3	1.5	1.7	1.5	-0.2	
25-54	43.3	43.4	41.6	41.0	40.3	39.7	39.1	38.5	0.0	-0.8	-1.5	-1.4	-1.6	-1.5	-1.7	-1.5	
55-64	8.8	10.3	12.9	13.2	13.5	13.8	14.0	14.1	3.4	5.2	1.8	1.9	2.3	2.4	1.4	0.6	
65+	12.2	13.0	13.6	14.1	14.5	14.9	15.4	16.0	1.2	1.0	3.4	3.2	2.7	2.8	3.8	3.7	
Tasman Region	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	...	...	...	...	...	...	...	...
Total NZ %65+ year	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 (%)					
Tasman Region	14.0	10.3	8.2	8.2	8.1	8.1	8.1	8.0	-5.3	-4.2	-0.3	0.4	-0.7	-0.7	0.1	-0.8	
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	2011	1996-01	2001-06	2006-11	2006-07	2007-08	2008-09	2009-10	2010-11	
Number									Av. Annual Change (%)			Annual Change (%)					
Tasman Region	0.52	0.57	0.64	0.67	0.70	0.73	0.76	0.79	1.7	2.5	4.7	4.8	3.6	4.4	5.0	4.0	
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	

Source: Jackson, N.O (2012) *Subnational Age Structure Resource 1996-2011*, National Institute of Demographic and Economic Analysis (NIDEA), University of Waikato

Notes: Source data from Stats NZ *Infoshare Estimated Subnational Population (RC, TA, AU) by Age and Sex at 30 June 1996, 2001 and 2006-2011 (2006 Boundaries)*

Equally important as structural ageing in Figure 4.1.1 is the recent increase at age 0-4 for the Marlborough and Nelson regions, resulting in the development of third 'wave' within the age structure, a phenomenon referred to as an (advanced) age-structural transition (Pool et al. 2006). As the people in these waves grow older and are replaced by differently sized cohorts, the peaks and troughs ebb and flow through the age structure, and result in concomitant peaks and troughs in demand. For example, the current peak around 15-19 years will soon be replaced by a trough which will deepen over the next 15 years; then, as the projections below will show, numbers will again grow. The recent increase at 0-4 years is not expected to continue indefinitely as it reflects the combined impact of a small increase in the birth rate per woman multiplied by a large cohort passing through the key reproductive ages. However as indicated, other 'baby blips' will appear in the future, as the current larger cohorts move through to reproductive age themselves.

5.0 Population Projections

5.1 Size, Growth and Population Ageing: Overall Trends (2011-2061)

This section begins with an overview of projected numbers and growth rates for each region, followed by trends in key ageing indicators and then by a more detailed examination of the trends by age. Explanation of the projection methodology and underlying assumptions for these customised projections is given in Appendix 3.1. As indicated in the background section (page 8), care should be taken not to interpret the resulting data as forecasts, but rather, to see the three projection series (high, medium and low) as indicating the likely parameters of change.

Table 5.1.1 gives projected total trends for each region to 2061. Under the medium variant assumptions, all regions experience growth, with overall growth rates ranging widely, 2.1 per cent for Marlborough, 7.8 per cent for Nelson, and 17.8 per cent for Tasman. Of note, however, is that the populations of both Marlborough and Nelson peak around 2041 and then begin to decline, the reasons for which are discussed further below. Under the low variant assumptions, all regions (and thus also the total Marlborough-Nelson-Tasman Region) decline, most significantly Marlborough (by 20.1 per cent), while under the high series, all grow significantly, ranging from 24.8 per cent for Marlborough to 53.4 per cent for Tasman. Figure 5.1.1 provides graphical illustration of these trends and includes comparison with Statistics New Zealand projections to 2031 (see also Appendix 3.2). The customised projections follow very similar trajectories to those created by Statistics New Zealand, but fall within a slightly narrower range.

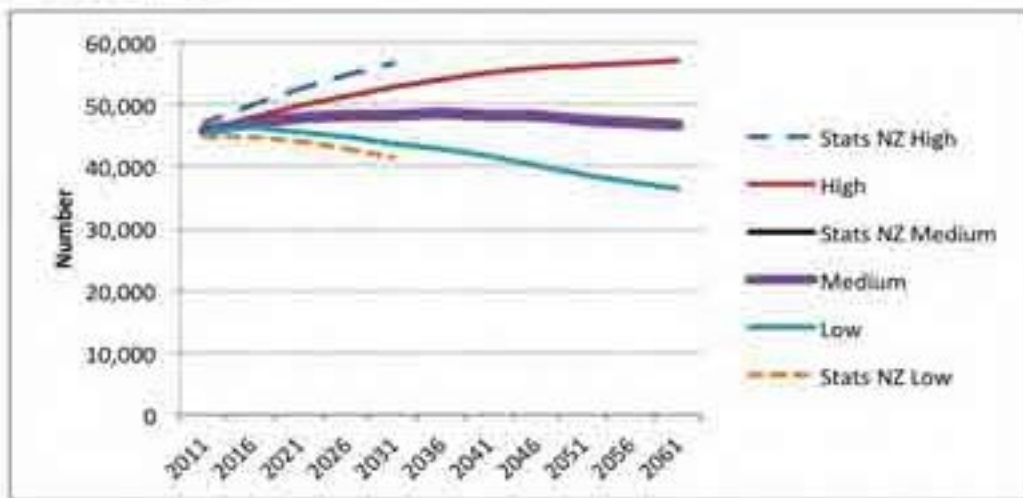
Table 5.1.1: Projected Population by Region and Series, Marlborough-Nelson-Tasman Regions and Comparison with Total New Zealand, 2011-2061

	Number						Change (%) per 10 year period					CHANGE (%)
	2011	2021	2031	2041	2051	2061	2011-2021	2021-2031	2031-2041	2041-2051	2051-2061	2011-2061
Marlborough Region												
Low	45,650	45,609	43,759	41,541	38,798	36,404	-0.1	-4.1	-5.1	-6.6	-6.2	-20.3
Medium	45,650	47,642	48,283	48,306	47,518	46,622	4.4	1.3	0.0	-1.6	-1.9	2.1
High	45,650	49,643	52,658	54,899	56,155	56,977	8.7	6.1	4.3	2.3	1.5	24.8
Nelson Region												
Low	46,220	47,062	47,033	45,851	43,845	41,823	1.8	-0.1	-2.5	-4.4	-4.6	-9.5
Medium	46,220	48,878	50,397	50,879	50,395	49,813	5.8	3.1	1.0	-1.0	-1.2	7.8
High	46,220	50,728	54,649	57,791	59,909	61,646	9.8	7.7	5.7	3.7	2.9	33.4
Tasman Region												
Low	48,120	48,925	48,770	47,702	45,554	43,914	1.7	-0.3	-2.2	-4.5	-3.6	-8.7
Medium	48,120	51,290	53,692	55,327	55,825	56,685	6.6	4.7	3.0	0.9	1.5	17.8
High	48,120	54,133	59,907	65,184	69,392	73,826	12.5	10.7	8.8	6.5	6.4	53.4
Total Marlborough-Nelson-Tasman Region												
Low	139,990	141,596	139,561	135,094	128,198	122,141	1.1	-1.4	-3.2	-5.1	-4.7	-12.8
Medium	139,990	147,810	152,371	154,511	153,739	153,120	5.6	3.1	1.4	-0.5	-0.4	9.4
High	139,420	153,419	165,223	174,982	181,703	187,781	10.0	7.7	5.9	3.8	3.3	34.7
Total New Zealand												
Medium	4,405,180	4,819,760	5,123,242	5,346,498	5,502,298	5,618,732	9.4	6.3	4.4	2.9	2.1	27.5

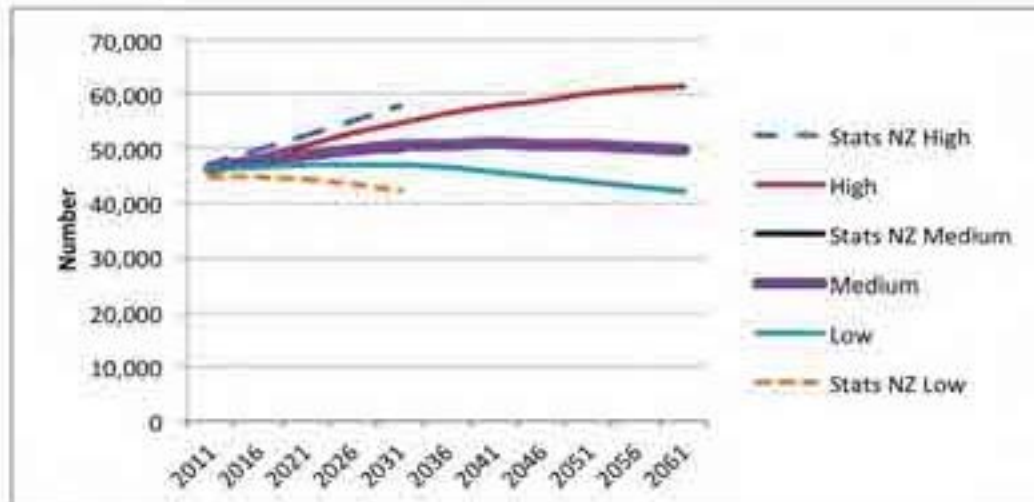
Source: Jackson (2012) Subnational Population Projections by Age and Sex, 2011(base)

Figure 5.1.1: Projected Population by Region and Series, Marlborough-Nelson-Tasman Regions, 2011-2061 and Comparison with Statistics New Zealand (2006-2031) Projections

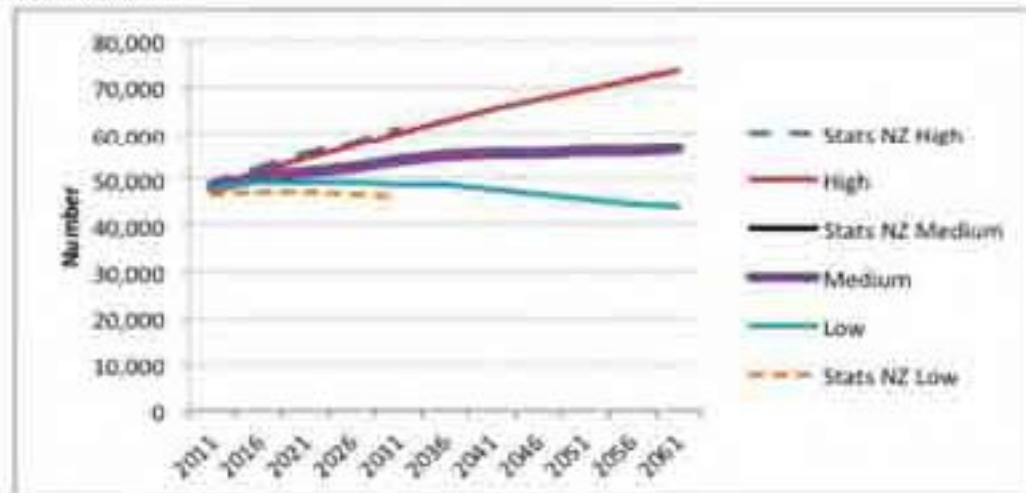
MARLBOROUGH REGION



NELSON REGION



TASMAN REGION



Source: Jackson (2012) Customised Projections, 2011(base)

Table 5.1.2 gives an insight into these diverse outcomes through the lens of the relatively advanced structural ageing of the Marlborough Region, noted above. With almost 19 per cent aged 65+ years in 2011, the region already has more elderly than children. Under the medium variant assumptions, a similar situation is projected for all three regions within a decade; however, at each observation the Marlborough Region retains its status as the significantly oldest of the three, ending the period with 2.43 people aged 65+ years per child aged 0-14 years. Such 'hyper-ageing' means that net migration gains will be increasingly offset by natural decline, which the underlying data indicate is already occurring – or is close to occurring, depending on projection variant - in the Marlborough Region (see also Appendices 3.3 to 3.5). Notably, natural decline is also projected to begin in both the Nelson and Tasman Regions within two decades, while it is likely to be occurring for the combined Marlborough-Nelson-Tasman Region by 2021. As explained earlier, this situation is not simply due to conventional structural ageing, i.e., that driven by increased numbers of elderly and declining numbers of children, but is also very much the result of net migration loss at young adult and key reproductive ages, which accelerates the structural ageing process and is projected to be greater for Nelson than Tasman. However, the dramatic diminishing of natural increase at national level should also be noted, as this is a global trend that extends well beyond the Marlborough-Nelson-Tasman Region.

Table 5.1.2: Key Ageing Indicators, Marlborough-Nelson-Tasman Regions, 2011-2061 , Medium Series

	2011	2021	2031	2041	2051	2061	Change (%) 2011-2061
Percentage Aged 65+ Years							
Marlborough	18.9	24.1	28.9	31.1	31.8	31.7	68.3
Nelson	15.4	20.4	26.0	29.0	28.6	28.3	84.5
Tasman	16.0	21.9	26.9	28.8	27.1	25.8	61.1
Total Region	16.7	22.1	27.2	29.6	29.0	28.4	70.0
Total NZ	13.3	16.6	20.6	23.1	24.1	25.9	94.3
Ratio Numbers at 65+ Years to Children 0-14 Years							
Marlborough	1.05	1.52	2.11	2.17	2.31	2.43	131.3
Nelson	0.83	1.20	1.67	1.85	1.87	1.89	128.0
Tasman	0.79	1.34	1.68	1.67	1.67	1.61	102.6
Total Region	0.88	1.35	1.80	1.87	1.92	1.92	117.3
Total NZ	0.66	0.86	1.16	1.37	1.45	1.60	144.1
Natural Increase or Decline							
Marlborough	-20	-124	-182	-264	-297	-265	...
Nelson	138	66	-22	-134	-168	-116	...
Tasman	90	41	-5	-139	-139	-37	...
Total Region	208	-16	-209	-537	-604	-419	...
Total NZ	28,194	22,255	13,928	7,194	1,964	990	...

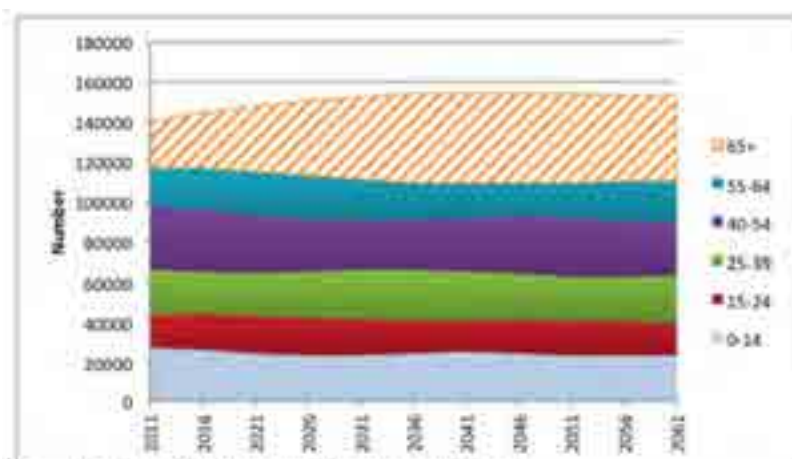
Source: Jackson (2012) Customised Projections, 2011(base)

The unfolding relationship between structural ageing and the ending of growth can be summarised using the Pearson’s Correlation Coefficient (r), an index which measures the strength of a linear relationship between two arrays of data, in this case between the rate of growth for each region across the period 2011-2061, and the ‘elderly: child ratio’ in 2011 under the medium variant assumptions. The result is a strong negative -0.85 , which confirms that as the rate of ageing increases, the rate of growth declines¹. The correlation increases over the period to -0.94 , an almost perfect negative correlation. The findings are clear evidence of the diminishing ability for regions to grow once their populations contain more elderly than children.

5.2 Age Structural Changes (2011-2061)

Figure 5.2.1 shows projected changes by broad age group for the combined Marlborough-Nelson-Tasman Region under the medium variant assumptions (see Appendices 3.6 to 3.8 for underlying regional data by projection variant). While the population is projected to grow from approximately 139,990 in 2011 to 153,120 by 2061 (an increase of 9.4 per cent), the growth, as indicated above, is most uneven by age. As Table 5.2.1 below shows, declines are projected at 0-19 and 35-54 years, while significant growth is clear above 65 years, where the population is anticipated to grow both numerically (almost doubling between 2011 and 2061) and structurally (from 16.7 per cent in 2011 to 28.4 per cent).

Figure 5.2.1: Projected Change in Numbers by Broad Age Group, Total Marlborough-Nelson-Tasman Region, 2011-2061, Medium Series



Source: Jackson (2012) Customised Projections, 2011(base).

¹ The Pearson’s Correlation Co-efficient is measured along a continuum of -1.0 to $+1.0$. A ‘perfect negative’ score of -1.0 indicate that the two arrays of data moved in exactly opposite directions at the same rate, while a score of $+1.0$ indicates that both arrays moved in exactly the same direction at the same rate.

Importantly, the medium variant data in Table 5.2.1 (middle panel) show that the overall declines projected at 0-19 and 35-54 years by 2061 do not occur simultaneously. Those for the younger group occur primarily in the first half of the projection period (2011-2031) and then feed through to the successively older ages groups in the second half of the period. The pattern is similar under all projection assumptions, with the losses greater and affecting more age groups under the low series, and lower and affecting fewer age groups under the high series. The periodicity of the losses by age is important for understanding the shift to natural decline, which does not become pronounced until the losses begin to show at the key reproductive ages (20-39 years) in the second half of the period. As noted earlier, the ebbing and flowing of population waves across the age structure as time progresses is also a critical factor in responding to issues related to supply and demand.

Table 5.2.1: Projected Change in Numbers by Series and Five-Year Age Group, Total Marlborough-Nelson-Tasman Region, 2011-2031, 2031-2065, and 2011-2061

Total Region	LOW			MEDIUM			HIGH		
	2011-2031	2031-2051	2011-2061	2011-2031	2031-2051	2011-2061	2011-2031	2031-2051	2011-2061
0-4 Yrs	-1802	-608	-3093	-950	-608	-1428	-346	-885	-571
5-9 Yrs	-1909	503	-2885	-1069	103	-1169	-329	1,073	858
10-14 Yrs	-2324	681	-3073	-1319	681	-1223	-188	1,439	1,655
15-19 Yrs	-1664	550	-2530	-515	550	-524	1,067	1,090	2,132
20-24 Yrs	1388	-1057	-877	1923	-1057	890	2,500	-327	3,160
25-29 Yrs	1910	-1204	221	1520	-1204	983	890	-304	1,690
30-34 Yrs	1741	-1526	-188	1422	-1526	601	487	-149	1,199
35-39 Yrs	-301	-449	-2055	-487	-449	-1041	-1,195	1,098	-98
40-44 Yrs	-2985	2520	-3420	-2867	2520	-2082	2,271	2,898	-538
45-49 Yrs	-3789	1465	-3606	-2436	1465	-2040	647	933	7
50-54 Yrs	-9747	1263	-2201	-2331	1263	-823	-500	562	1,197
55-59 Yrs	-1138	-622	-1329	185	-622	224	1,836	-1,034	2,216
60-64 Yrs	-79	-2838	-1120	1235	-2838	667	2,705	-1,978	2,618
65-69 Yrs	2417	-2157	491	3468	-2157	2173	4,740	-252	4,166
70-74 Yrs	3911	-1789	465	4840	-1789	2240	5,987	129	5,068
75-79 Yrs	3382	625	1173	4185	625	3777	5,130	2,430	7,344
80-84 Yrs	2878	1654	1631	3485	1654	4050	4,252	1,248	7,426
85+ Yrs	1682	4758	4637	2133	4758	7889	2,705	7,003	12,489
Total	-429	1368	-17849	12381	-1368	13130	27,224	18,243	52,460

Source: Jackson (2012) Customised Projections, 2011(basis)

Table 5.2.2 provides similar data for each Regional Council area, this time in terms of percentage change in each age group. The respective impact of the projection assumptions on each age group can be seen to differ significantly. For example, at age 0-4 under the medium series, Marlborough experiences a 33 per cent decline, compared with 18 per cent for Nelson and just 3.0 per cent for Tasman. As indicated, these differences reflect both the assumptions regarding future birth rates, those for Tasman being somewhat higher than for Marlborough and Nelson, but also migration-driven changes in the relative size of the key reproductive age groups, which are indicated in Table 5.2.2 as having a substantial negative impact for Marlborough but a positive impact for Tasman (see also Table 5.2.3 which summarises the changes for the key reproductive age groups).

Table 5.2.2: Projected Percentage Change by Series and Five-Year Age Group, Marlborough-Nelson-Tasman Regions, 2011-2031, 2031-2061, and 2011-2061

Marlborough RC	LOW			MEDIUM			HIGH		
	2011-2031	2031-2051	2011-2061	2011-2031	2031-2051	2011-2061	2011-2031	2031-2051	2011-2061
0-4	25	-13	-44	24	-10	-33	20	-2	-22
5-9	26	1	-37	16	1	-22	-7	6	-7
10-14	40	7	-38	17	6	-22	-6	7	-6
15-19	17	0	-28	6	0	-13	4	1	3
20-24	30	-24	-13	28	-25	-2	28	-19	9
25-29	19	-16	-4	5	-19	-6	-9	-9	-8
30-34	13	-17	-15	4	-18	-11	-4	-7	-8
35-39	-15	-4	-33	-11	-4	-21	-9	4	-11
40-44	39	41	-40	22	32	-23	3	23	-8
45-49	33	2	-37	-15	2	-20	2	-5	-4
50-54	30	1	-18	-15	1	-4	-1	-2	10
55-59	-11	-12	-21	2	-10	-4	18	-5	14
60-64	-11	-21	-24	3	-18	-3	18	-5	18
65-69	14	-13	-21	30	-12	13	47	4	45
70-74	48	-12	-23	65	-10	33	85	5	85
75-79	60	8	10	78	7	83	98	23	157
80-84	78	16	36	93	15	114	113	33	200
85+	73	80	142	79	77	248	80	109	378
Total	-4	1152	-20	6	-2	2	15	-7	25

Nelson RC	LOW			MEDIUM			HIGH		
	2011-2031	2031-2051	2011-2061	2011-2031	2031-2051	2011-2061	2011-2031	2031-2051	2011-2061
0-4	23	-7	-38	12	-6	-18	-4	6	6
5-9	13	-2	-29	5	-2	-9	1	12	14
10-14	14	1	-28	8	1	-10	0	13	13
15-19	16	-2	-32	6	-1	-11	12	6	20
20-24	2	-12	-26	11	-11	-3	30	-3	33
25-29	4	6	-12	4	-6	1	-1	1	11
30-34	12	-14	-8	15	13	-3	-1	1	8
35-39	4	8	-20	-2	-9	-14	21	16	-11
40-44	-11	23	-27	-28	28	-21	-32	40	-14
45-49	28	5	-28	-22	5	-19	-7	-1	-5
50-54	32	15	-17	-22	13	-10	-5	0	4
55-59	11	-3	-18	3	-3	-6	23	-15	14
60-64	8	-32	-8	24	-27	11	42	-23	30
65-69	56	-22	37	70	-20	53	88	-3	70
70-74	86	-21	58	102	-19	52	121	1	93
75-79	86	8	55	106	8	99	128	30	184
80-84	69	40	54	89	36	115	115	56	222
85+	36	123	162	53	110	257	73	141	420
Total	2	1276	-10	9	0	8	18	10	33

Tasman RC	LOW			MEDIUM			HIGH		
	2011-2031	2031-2051	2011-2061	2011-2031	2031-2051	2011-2061	2011-2031	2031-2051	2011-2061
0-4	-8	-8	-23	3	-7	3	12	8	35
5-9	27	5	-35	-16	4	-11	-5	19	19
10-14	33	23	-36	-19	19	-10	-1	27	25
15-19	23	-25	-26	-5	20	5	19	23	46
20-24	28	1	8	41	1	42	58	10	85
25-29	67	-18	31	64	-18	53	54	-5	78
30-34	49	-20	16	41	-21	34	26	0	53
35-39	0	3	-18	-5	-3	-2	-11	23	18
40-44	-40	50	-37	35	46	-19	-26	51	4
45-49	-45	63	-37	32	50	-18	-12	34	8
50-54	-40	38	-25	-26	31	-8	-8	17	-15
55-59	13	6	-2	1	-6	18	18	-7	39
60-64	2	-35	-3	12	-32	13	26	-19	34
65-69	35	-30	6	47	-28	28	53	-7	58
70-74	79	-24	1	95	-22	37	117	-2	93
75-79	96	7	21	115	7	85	139	25	180
80-84	125	27	65	147	24	150	172	42	274
85+	64	111	182	86	98	305	114	124	483
Total	1	662	-9	12	4	18	24	16	53

Source: Jackson (2012) Customised Projections, 2011(base)

The resulting proportions in the key reproductive age groups (20-39 years) across the projection period under the medium variant assumptions can be seen from Table 5.2.3. Reflecting their older age structures, all Marlborough-Nelson-Tasman regions have lower proportions at these ages than nationally, and this disparity remains across the projection period. However the Tasman Region, which begins the period with lower proportions than either Marlborough or Nelson, is projected to end the period with higher proportions, evident from 2031.

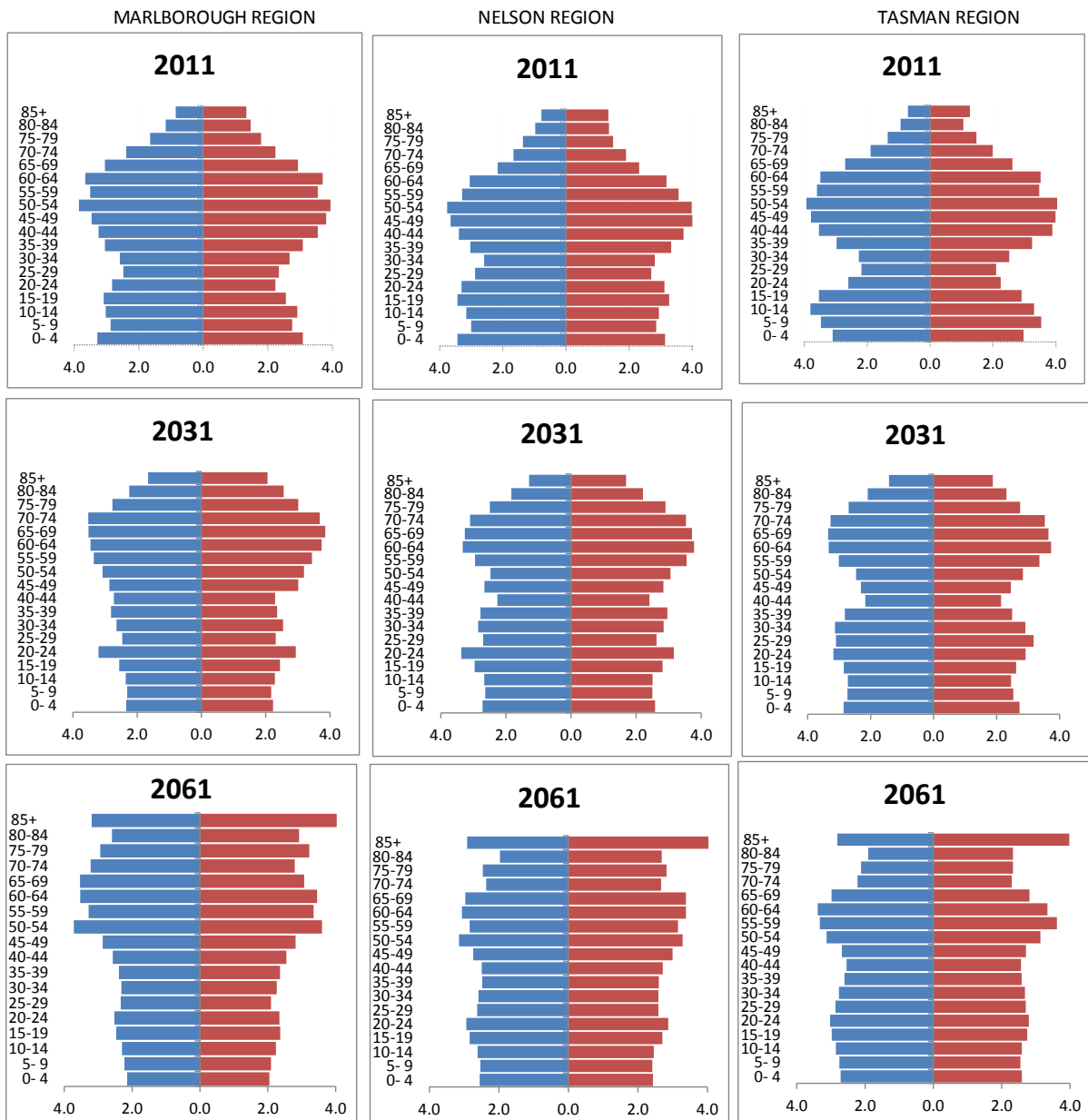
Table 5.2.3: Projected Percentage at 20-39 Years, Marlborough-Nelson-Tasman Regions, 2011-2061, Medium Series.

	2011	2021	2031	2041	2051	2061	Change (%) 2011-2061
Marlborough	21.3	19.9	21.3	20.1	18.0	18.6	-12.4
Nelson	23.8	22.4	23.3	21.8	21.0	21.3	-10.5
Tasman	20.1	20.3	23.7	21.6	20.4	22.0	9.5
Total Region	21.7	20.8	22.8	21.2	19.9	20.8	-4.4
Total NZ	26.8	26.0	24.9	23.9	23.2	22.6	-15.8

Source: Jackson (2012) Customised Projections, 2011(base)

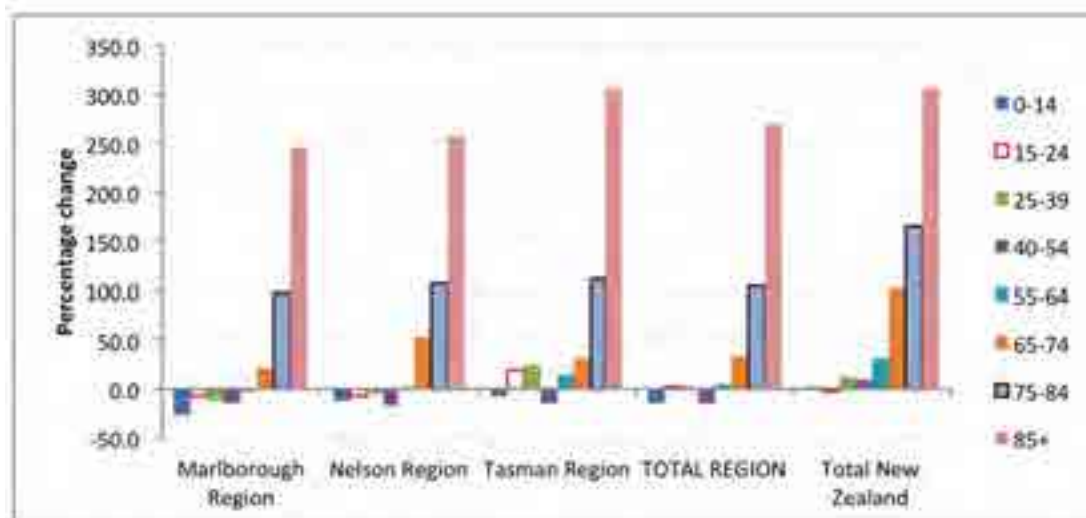
Figures 5.2.2 and 5.2.3 and Table 5.2.4 summarise the projected changes and their contribution to the region's growth under the medium variant assumptions. Figure 5.2.2 shows the dramatically changing age structures of each region between 2011 and 2061. Although all regions age significantly, the relative 'youth' of the Tasman Region in 2061, and to a lesser extent of the Nelson Region, is apparent. Figure 5.2.3 shows that this situation is largely due to the small overall gains projected for Tasman at 15-24 and 25-39 years, *vis-à-vis* losses at these ages for Marlborough and Nelson. Trends at the older ages differ slightly, especially at 85+ years for Tasman where projected growth is greater. However, for all three regions, percentage growth for the older age groups is lower than for Total New Zealand, reflecting the already much higher proportions aged 65+ years in the Marlborough-Nelson-Tasman Region. Finally, Table 5.2.4 shows the projected contribution to the overall growth of the region by each Regional Council and broad age group. As indicated, the single-largest contribution is anticipated to come from Tasman (65.2 per cent) followed by Nelson (27.4 per cent), with Marlborough somewhat lower at 7.4 per cent. Contribution to growth at the older ages is remarkably even. By contrast, the majority of overall decline at the younger ages is projected to be generated in the Marlborough and Nelson Regions, and it is this reduction, as much as their already advanced proportions at older ages, which inhibits these two regions' potential for future growth.

Figure 5.2.2: Current (2011) and Projected (2061) Age-Sex Structures: Marlborough, Nelson and Tasman Regions, Medium Series.



Source: Jackson (2012) Customised Projections, 2011(base)

Figure 5.2.3: Projected Change (%) in Numbers by Broad Age Group, Marlborough-Nelson-Tasman Regions and Total New Zealand 2011-2061, Medium Series



Source: Jackson (2012) Customised Projections, 2011(base)

Table 5.2.4: Projected Contribution to Growth by Broad Age Group, Marlborough-Nelson-Tasman Regions, 2011-2061, Medium Series

	Marlborough Region	Nelson Region	Tasman Region	TOTAL REGION	
0-14	-55.2	-28.7	-16.1	-100.0	-3,812
15-24	-113.2	-128.1	341.3	100.0	326
25-39	-180.9	-56.7	337.5	100.0	544
40-54	-31.0	-35.4	-33.6	-100.0	-4,945
55-64	-25.8	16.3	109.5	100.0	892
65-74	23.8	44.2	32.0	100.0	4,413
75-84	34.2	32.6	33.2	100.0	7,833
85+	31.3	31.9	36.8	100.0	7,880
Total	7.4	27.4	65.2	100.0	13,130
65+	30.8	34.9	34.4	100.0	20,125

Source: Jackson (2012) Subnational Population Projections by Age and Sex, 2011(base)

5.3 Labour Market Implications of Changing Age Structure (2011-2061)

Section 5 concludes with a brief examination of the labour market implications of the changing age structure of each region. Table 5.3.1 shows the ratio of people at labour market entry age (15-24 years, hereafter termed 'Entrants') to those approaching 'exit' age (55-64 years, hereafter, 'Exits').

As noted earlier, entry:exit ratios are already substantially below parity (ten entrants per ten exits) for all but the Nelson Region, at 7-8 Entrants per 10 Exits. Table 5.3.1 also shows that these ratios are projected to undergo further overall decline for all but the Tasman Region, primarily reflecting the disparate impacts of the underlying assumptions regarding migration levels and migration age profiles noted above. However, reflecting the ebb and flow of population waves at both ends of the age spectrum, the trends are not linear, with ratios projected to experience a temporary increase for the Marlborough and Nelson Regions around 2031, as births from the early projection period (while birth rates are still relatively high) and youthful immigrants reach labour market entry age. For Nelson, the increase may be sustained through to 2051 as subsequent population waves and troughs flow through, while for Tasman, there are two increases, one around 2021, the other between 2041 and 2051. Most notably, while the ratios for each region and for the total Marlborough-Nelson-Tasman region differ substantially to those at national level, the latter also decline to below parity by 2041, foreshadowing a demographically-tight labour market that will be widespread. These issues are returned to below in Section 7.

Table 5.3.1: Projected Ratio of People at Labour Market ‘Entry’ To ‘Exit’ Age (per 10), Marlborough-Nelson-Tasman Regions and Total New Zealand, 2011-2061, Medium Series

Labour Market Entry: Exit Ratios							Change (%)
	2011	2021	2031	2041	2051	2061	2011-2061
(15-24: 55-64 years)							
Marlborough	7.4	7.3	8.0	7.0	8.1	7.1	-4.19
Nelson	10.0	8.6	9.0	10.0	10.1	9.1	-9.07
Tasman	8.0	9.4	8.6	10.6	11.8	8.4	5.30
Total Region	8.4	8.4	8.5	9.1	10.0	8.2	-2.49
Total NZ	13.0	10.1	10.5	10.4	9.2	9.8	-24.93

Source: Jackson (2012) Customised Projections, 2011(base)

6.0 Ethnic Composition

6.1 Ethnic Composition and Growth (1996-2006)

Figure 6.1.1 and Table 6.1.1 indicate the extent to which the major ethnic groups comprise and have contributed to the each region’s growth over the period 1996-2006. These ‘multiple ethnic group’ data show that the European/New Zealander/Other group – hereafter European – increased numerically but declined slightly as a proportion of each region. However, European overwhelmingly

remained the dominant ethnic group in each region, especially in Tasman (90.9 per cent in 2006), and particularly when compared with the national proportion (70.1 per cent). The share of the population held by Māori declined fractionally in Marlborough (from 10.0 to 9.9 per cent) and increased slightly in both Nelson and Tasman (respectively, from 7.4 to 8.4 per cent, and from 6.7 to 6.9 per cent). The proportion of each region identifying as Pacific Island, Asian, and/or Middle Eastern/Latin American/African (MELAA) all increased, but as is clear from Figure 6.1.1, remained relatively small in comparison with the national picture.

The dominant size of the European population means that it also accounted for the majority of each region's growth between 1996 and 2006: 71.2, 63.4 and 85.6 per cent respectively for Marlborough, Nelson and Tasman. These proportions contrast markedly with the European population's 28.2 per cent contribution at national level.

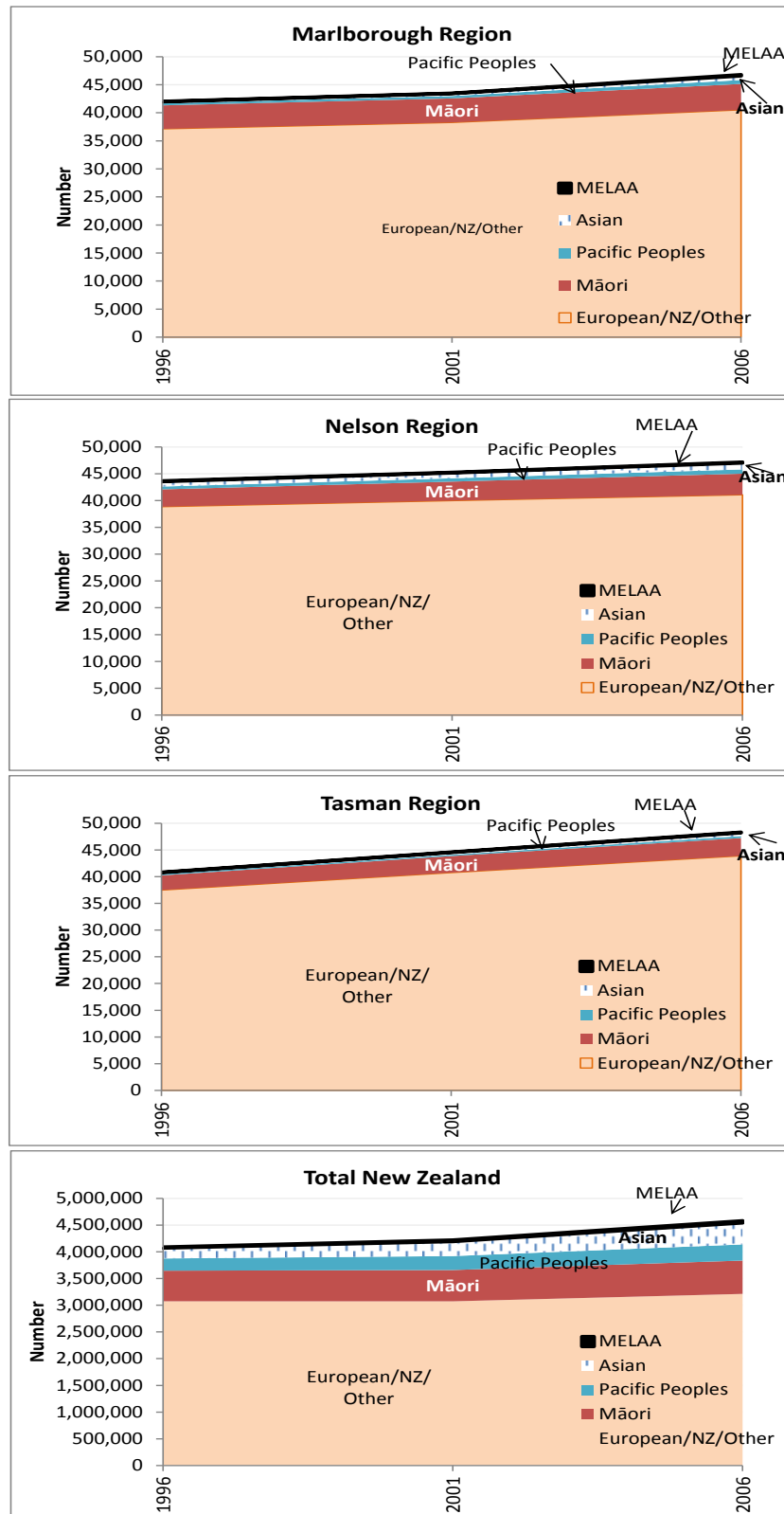
Compared to its 10.4 per cent contribution to growth nationally, the Māori population also made a disproportionate contribution to the growth of the Nelson Region (20.3 per cent). This was double that for the Marlborough Region (9.0 per cent) and almost treble that for Tasman (7.7 per cent).

The numerically much smaller Pacific Peoples also accounted for a sizeable proportion of the growth of the Nelson Region (7.7 per cent), and a similar proportion for the Marlborough Region (7.1 per cent). At 1.5 per cent, Pacific Peoples' contribution to growth was by far the smallest for the Tasman Region. In all cases, however, these proportions were relatively small compared with the national situation, where Pacific Peoples accounted for 14.7 per cent of growth.

As indicated, the Asian-origin population of each region also experienced absolute growth (Table 7.1.1), more than doubling in size in both Marlborough and Nelson, and making a sizeable contribution to the growth of each region (9.3 and 8.0 per cent respectively). At 4.5 per cent, the Asian population's contribution to growth in the Tasman Region was substantially smaller. Again, however, these proportions were all significantly lower than at national level, where the Asian population accounted for 42.6 per cent of New Zealand's growth between 1996 and 2006.

As might be expected, the very small Middle Eastern/Latin America/African (MELAA) population of each region accounted for the smallest component of growth, 3.3 per cent for Marlborough, and less than one per cent for each of the Nelson and Tasman Regions. In all cases this is also somewhat lower than the MELAA contribution at national level (4.4 per cent). However, it should not go unnoticed that the MELAA population of the Marlborough Region almost quadrupled between 1996 and 2006 (from 55 persons in 1996 to 201 in 2006), and almost doubled in Tasman.

Figure 6.1.1: Population by Major Ethnic Group (Multiple Count*), Marlborough, Nelson and Tasman Regions 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 6.1.1: Population by Major Ethnic Group* (Multiple Count), Marlborough, Nelson and Tasman Regions and Total New Zealand 1996-2006

	1996	2001	2006	Change (%)	1996	2001	2006	Contribution to Change 1996-2006	
	NUMBER				DISTRIBUTION (%)*			Number	(%)
Marlborough Region									
European/NZ/Other	37,130	38,270	40,520	9.1	88.4	88.0	86.6	3,390	71.2
Māori	4,190	4,290	4,620	10.3	10.0	9.9	9.9	430	9.0
Pacific Peoples	365	430	705	93.2	0.9	1.0	1.5	340	7.1
Asian	285	430	730	156.1	0.7	1.0	1.6	445	9.3
MELAA#	55	60	210	281.8	0.1	0.1	0.4	155	3.3
TOTAL	42,025	43,480	46,785	11.3	100.0	100.0	100.0	4,760	100.0
Total without multiple count	39,200	40,700	43,600	11.2	...	...	...	...	...
Ethnic 'overcount' (%)	7.2	6.8	7.3	1.4	...	...	...	...	...
Nelson Region									
European/NZ/Other	38,870	40,000	41,090	5.7	89.0	88.4	87.1	2,220	63.4
Māori	3,230	3,550	3,940	22.0	7.4	7.8	8.4	710	20.3
Pacific Peoples	525	630	795	51.4	1.2	1.4	1.7	270	7.7
Asian	925	990	1,205	30.3	2.1	2.2	2.6	280	8.0
MELAA#	130	100	150	15.4	0.3	0.2	0.3	20	0.6
TOTAL	43,680	45,270	47,180	8.0	100.0	100.0	100.0	3,500	100.0
Total without multiple count	41,200	42,900	44,200	7.3	...	...	...	...	...
Ethnic 'overcount' (%)	6.0	5.5	6.7	12.0	...	...	...	...	...
Tasman Region									
European/NZ/Other	37,500	40,770	43,920	17.1	91.8	91.4	90.9	6,420	85.6
Māori	2,750	3,100	3,330	21.1	6.7	6.9	6.9	580	7.7
Pacific Peoples	245	240	360	46.9	0.6	0.5	0.7	115	1.5
Asian	285	435	620	117.5	0.7	1.0	1.3	335	4.5
MELAA#	60	70	110	83.3	0.1	0.2	0.2	50	0.7
TOTAL	40,840	44,615	48,340	18.4	100.0	100.0	100.0	7,500	100.0
Total without multiple count	38,700	42,500	45,800	18.3	...	...	...	...	...
Ethnic 'overcount' (%)	5.5	5.0	5.5	0.3	...	...	...	...	...
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

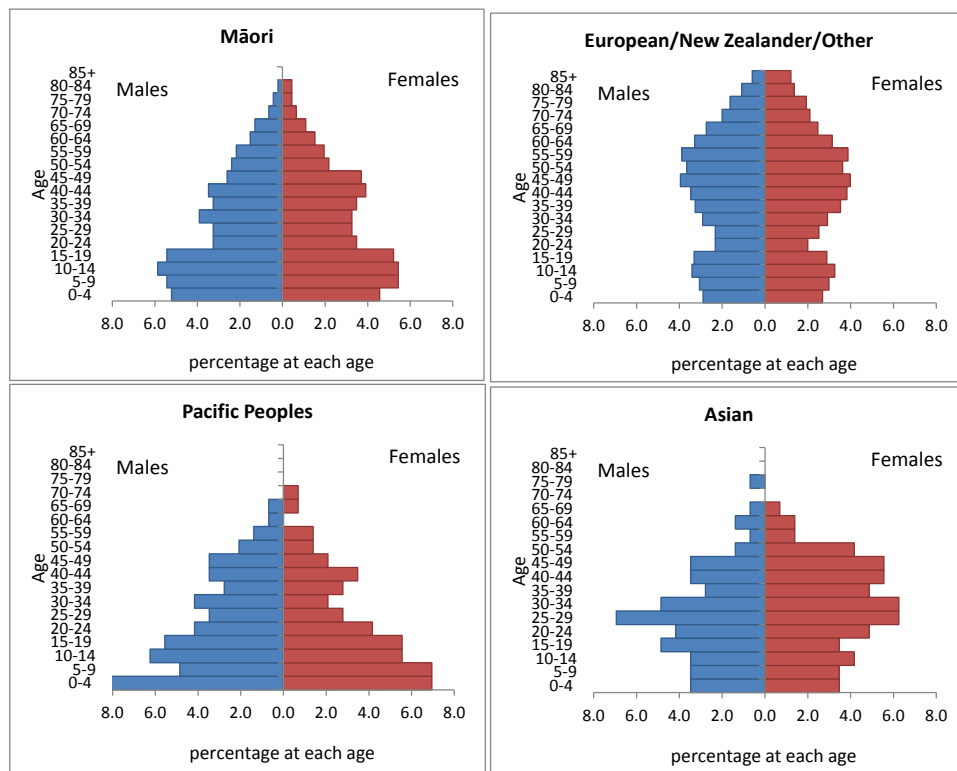
The issue of ethnic 'overcount' should be kept in mind when interpreting these data, in 2006 ranging from a low 5.5 per cent for Tasman Region to 7.3 per cent for Marlborough (and 9.5 per cent for Total New Zealand) (Table 6.1.1). That is, the aggregate population for each area is inflated by the given proportion as the result of multiple counting by ethnicity, and is generally higher where the proportion Māori is higher (Pearson's correlation $r = 0.99$ for the combined Marlborough, Nelson, Tasman and New Zealand proportions; see footnote 1 regarding Pearson's Correlation)

6.2 Ethnic Age Composition and Ageing (1996-2006)

Figures 6.2.1 to 6.2.3 provide a comparison of the age-sex structures of the Marlborough, Nelson and Tasman Regions' major ethnic groups in 2006, according to the multiple count enumeration method discussed above. As explained, this method of enumeration means that a portion of the population is counted in more than one ethnic group. However, as can be seen by the markedly different age structures of each ethnic group, alongside their equally marked similarity both regionally and nationally, this methodological complexity would have very little impact on the story by age composition. That said, the relatively small numbers in the Pacific and Asian populations of the Marlborough, Nelson and Tasman Regions affect the smoothness of their respective population pyramids, and care should be taken interpreting these data. For similar reasons, data are not shown for the relatively small Middle Eastern/Latin American/African (MELAA) population.

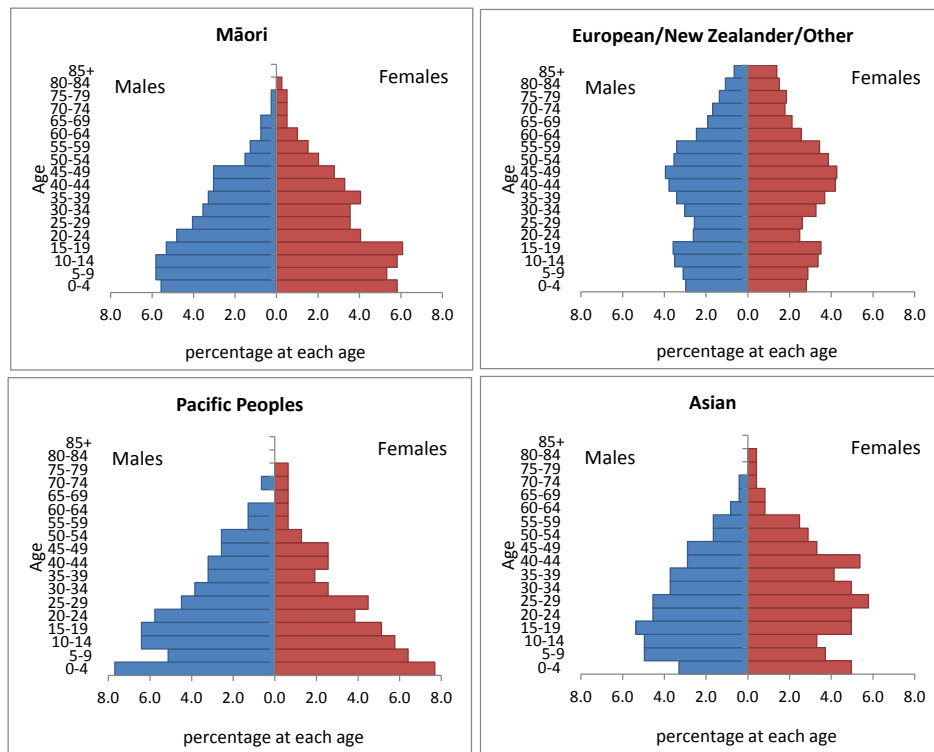
The data clearly show the relative youth of the Māori and Pacific populations, *vis-à-vis* the somewhat older, 'top-heavy' and deep-waisted, European/Other age structure, and the more 'diamond-shaped' structure of the Asian population. Together they identify that the bite in the age structure at 20-34 years in each region's overall age structure shown earlier in Figure 4.1.1 is very much accounted for by the bite in the European age structure, particularly for the Tasman Region, where net migration loss at those ages was shown above (Figure 3.1.3) to be quite significant. This deficit becomes more pronounced when the relative youth of the Māori and Pacific Islands populations are overlaid, together creating the now-characteristic 'hourglass' shape of New Zealand's provincial populations.

Figure 6.2.1: Age-Sex Structure by Major Ethnic Group*, Marlborough Region, 2006



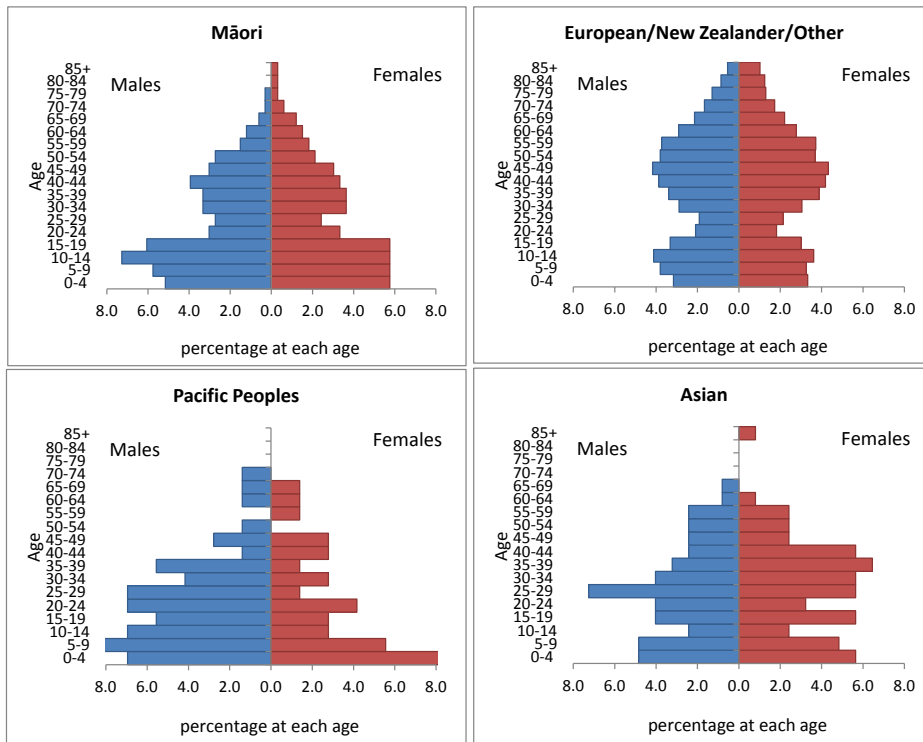
Source: Statistics New Zealand, Estimated Subnational Ethnic Population (RC, TA) by Age and Sex at 30 June 2006
 Notes: *Multiple count ethnicity means that people may be counted in more than one ethnic group

Figure 6.2.2: Age-Sex Structure by Major Ethnic Group*, Nelson Region, 2006



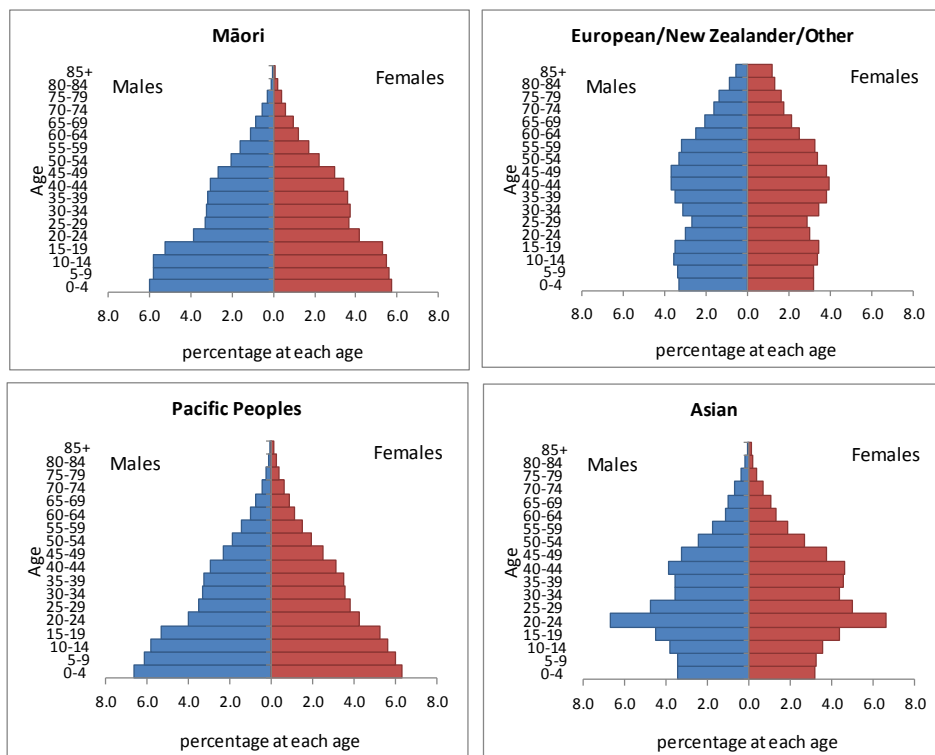
Source: Statistics New Zealand, Estimated Subnational Ethnic Population (RC, TA) by Age and Sex at 30 June 2006
 Notes: *Multiple count ethnicity means that people may be counted in more than one ethnic group

Figure 6.2.3: Age-Sex Structure by Major Ethnic Group*, Tasman Region, 2006



Source: Statistics New Zealand, Estimated Subnational Ethnic Population (RC,TA) by Age and Sex at 30 June 2006
 Notes: *Multiple count ethnicity means that people may be counted in more than one ethnic group

Figure 6.2.4: Age-Sex Structure by Major Ethnic Group*, Total New Zealand, 2006



Source: Statistics New Zealand, Estimated Subnational Ethnic Population (RC,TA) by Age and Sex at 30 June 2006
 Notes: *Multiple count ethnicity means that people may be counted in more than one ethnic group

Table 6.2.1 provides an overview of each group's population share by age for 2006, by region (see Appendices 4.1 to 4.3 for the period 1996-2006). 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, although less so for the Nelson Region. Within that picture, people of all ethnicities with the sole exception of European are under-represented at all ages by comparison with the national level.

Table 6.2.1: Ethnic Group* Percentage Share by Age Group and Region, 2006

	Māori	Pacific Island	Asian	MELAA	European /NZ/Other	Total*	Number*
Marlborough Region							
0-14	15.7	3.0	1.7	0.4	79.2	100.0	9,355
15-24	14.9	2.6	2.3	0.9	79.3	100.0	5,375
25-54	9.5	1.3	2.1	0.6	86.4	100.0	18,725
55-64	5.4	0.4	0.6	0.0	93.6	100.0	6,130
65+	3.3	0.2	0.2	0.0	96.3	100.0	7,200
Total	9.9	1.5	1.6	0.4	86.6	100.0	46,785
Nelson Region							
0-14	14.0	3.2	3.2	0.6	79.1	100.0	9,660
15-24	12.8	2.6	3.8	0.5	80.2	100.0	6,235
25-54	7.6	1.4	2.8	0.3	87.9	100.0	19,660
55-64	3.5	0.6	1.4	0.0	94.6	100.0	5,150
65+	1.9	0.3	0.5	0.0	97.3	100.0	6,475
Total	8.4	1.7	2.6	0.3	87.1	100.0	47,180
Tasman Region							
0-14	10.8	1.3	1.4	0.3	86.2	100.0	10,850
15-24	11.3	1.3	2.0	0.5	84.9	100.0	5,300
25-54	6.2	0.6	1.6	0.2	91.4	100.0	19,845
55-64	3.3	0.2	0.7	0.1	95.7	100.0	6,030
65+	2.1	0.2	0.2	0.0	97.5	100.0	6,315
Total	6.9	0.7	1.3	0.2	90.9	100.0	48,340
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

Drawing on change in the percentage of each age-ethnic population by Regional Council Area, Table 6.2.2 provides an overview of spatial change within the Total Marlborough-Nelson-Tasman Region between 1996 and 2006 (see also Appendices 4.1 to 4.3). The data show that Māori living in the overall region have become less likely to live in the Marlborough Region and more likely to live in the Nelson and Tasman Regions. The situation is the exactly the opposite for Pacific Island population, while it is a mixture of both for the Asian and European populations. MELAA people have become significantly more likely to live in Marlborough and less likely to live in the Nelson and Tasman Regions. The patterns also differ quite markedly by age, older Pacific Island peoples, for example, having become less likely to live in the Marlborough and Tasman Regions and more likely to live in Nelson.

Table 6.2.2: Spatial Change for the Total Marlborough-Nelson-Tasman Region by Regional Council Area, Major Ethnic Group and Broad Age group, 1996-2006

	Māori	Pacific Island	Asian	MELAA	European/NZ/ Other	Total*
Marlborough Region						
0-14	-9.8	3.7	9.7	-16.0	-7.0	-7.0
15-24	-7.4	32.4	130.5	114.3	-3.0	-1.4
25-54	-3.9	30.8	51.3	291.1	-1.9	-0.7
55-64	4.6	60.7	-27.6 ...		-0.1	0.0
65+	-12.5	-10.0	75.0 ...		4.2	4.1
Total	-5.7	17.9	49.9	99.0	-1.3	-1.0
Nelson Region						
0-14	8.1	-5.8	-12.6	7.9	-2.2	-0.4
15-24	4.8	-4.7	-26.2	-35.7	0.5	-0.1
25-54	4.1	-11.9	-26.5	-58.1	-3.1	-3.2
55-64	-4.9	-3.6	-27.6	-100.0	-8.7	-8.4
65+	2.0	20.0	-18.3 ...		-10.0	-10.0
Total	4.3	-7.6	-23.8	-39.9	-4.4	-3.9
Tasman Region						
0-14	5.3	6.8	24.3	10.2	8.5	7.3
15-24	4.8	-27.2	16.2	-28.6	2.5	1.5
25-54	1.2	-14.6	26.3	-12.0	5.0	4.1
55-64	-2.5	-35.7 ...	...		8.9	8.5
65+	32.7	-10.0	16.7 ...		7.4	7.4
Total	3.6	-10.3	27.3	-4.4	5.9	5.3

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

6.3 Projections by Ethnicity (2006-2031)

While counting population by ethnicity is difficult, projecting populations based on ethnic affiliation is even more difficult. The following projections by Statistics New Zealand (2010a) have many caveats attached to them and should be read as indicative only. Among them is their multiple ethnic count base, the high degree of rounding of numbers involved, and the fact that for the Marlborough, Nelson and Tasman Regions, projections are available for the European and Māori populations only. This is because the underlying numbers by age and sex are too small on which to develop reliable projections. Those numbers by age given here should also be read as indicative only.

Table 6.3.1 shows the European/Other population of the Marlborough Region growing only slightly (4.4 per cent) between 2011 and 2021 against a 15.7 per cent increase for Māori. For the Nelson Region the proportions are 3.3 per cent (European) and 22.2 per cent (Māori); and for Tasman, 5.7 per cent and 13.7 per cent respectively.

For the European population of the Marlborough Region, natural increase is presently the primary driver of growth, but it is projected to become negative by 2021 (when deaths are projected to exceed births). Natural Increase is also projected to drop sharply in both the Nelson and Tasman Regions. For the Māori population, natural increase is projected to remain the primary driver of growth for all regions, but for Tasman Region will be offset by projected net migration loss. Numbers for Māori are also expected to be reduced a little by inter-ethnic mobility (propensity to change ethnic identity) in all regions. As indicated by increasing median ages, all populations will grow older as these trends unfold.

Table 6.3.1: Population Projections for Marlborough, Nelson and Tasman Regions by Ethnic Group and Broad Age Group

Marlborough-Nelson-Tasman 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)	
MARLBOROUGH REGION											
European/Other											
1996	8,100	12,500	11,100	5,500	37,100	---	---	---	---	---	36.6
2001	7,900	11,200	13,100	6,100	38,300	---	---	---	---	---	40.1
2006 (base)	7,400	11,300	14,800	6,900	40,500	---	---	---	---	---	42.6
2011	7,400	11,000	15,600	8,200	42,300	2400	1900	600	1200	0	44.6
2016	7,400	10,500	15,600	9,900	43,400	2300	2000	200	800	0	46.7
2021	7,400	10,100	15,400	11,200	44,100	2100	2200	-100	800	0	48.5
Change 2011-2021 (%)	0.0	-8.2	-1.3	36.6	4.3	---	---	---	---	---	---
Māori											
1996	1,500	1,800	800	100	4,200	---	---	---	---	---	21.9
2001	1,600	1,700	900	200	4,300	---	---	---	---	---	22.7
2006 (base)	1,500	1,700	1,200	200	4,600	---	---	---	---	---	25.6
2011	1,600	1,800	1,300	400	5,100	600	100	500	0	-100	25.5
2016	1,800	1,900	1,400	500	5,500	600	100	500	0	-100	26.7
2021	2,000	1,900	1,500	600	5,900	600	100	500	0	-100	27.8
Change 2011-2021 (%)	25.0	5.6	15.4	50.0	15.7	---	---	---	---	---	---
NELSON REGION											
European/Other											
1996	7,900	14,100	11,100	5,700	38,900	---	---	---	---	---	35.8
2001	8,200	13,100	12,800	6,000	40,000	---	---	---	---	---	38.0
2006 (base)	7,600	12,600	14,500	6,300	41,100	---	---	---	---	---	40.5
2011	7,500	12,200	15,400	7,000	42,100	2700	1900	800	200	0	42.1
2016	7,600	11,700	15,300	8,200	42,900	2500	2000	600	200	0	43.8
2021	7,600	11,600	14,700	9,600	43,500	2400	2000	400	200	0	45.3
Change 2011-2021 (%)	1.3	-4.9	-4.5	37.1	3.3	---	---	---	---	---	---
Māori											
1996	1,200	1,500	400	100	3,200	---	---	---	---	---	21.4
2001	1,400	1,500	600	100	3,500	---	---	---	---	---	21.2
2006 (base)	1,400	1,700	800	100	3,900	---	---	---	---	---	22.5
2011	1,500	1,800	1,000	200	4,500	600	0	600	0	-100	23.3
2016	1,700	1,800	1,200	300	5,000	600	100	600	0	-100	24.3
2021	1,900	1,900	1,300	400	5,500	600	100	600	0	-100	25.2
Change 2011-2021 (%)	26.7	5.6	30.0	100.0	22.2	---	---	---	---	---	---
TASMAN REGION											
European/Other											
1996	8,700	12,700	11,300	4,700	37,500	---	---	---	---	---	35.6
2001	9,200	12,400	13,700	5,500	40,800	---	---	---	---	---	38.0
2006 (base)	9,300	12,100	16,300	6,200	43,900	---	---	---	---	---	40.7
2011	9,100	11,700	17,300	7,500	45,700	2500	1500	1000	800	0	42.9
2016	8,900	11,500	17,300	9,500	47,200	2300	1700	600	800	0	45.1
2021	8,500	11,800	16,700	11,300	48,300	2300	1900	300	800	0	46.9
Change 2011-2021 (%)	-6.6	0.9	-3.5	50.7	5.7	---	---	---	---	---	---
Māori											
1996	1,000	1,100	500	100	2,800	---	---	---	---	---	21.6
2001	1,200	1,200	600	100	3,100	---	---	---	---	---	21.2
2006 (base)	1,200	1,200	800	100	3,300	---	---	---	---	---	22.4
2011	1,200	1,300	900	200	3,600	400	0	400	-100	0	23.2
2016	1,200	1,400	1,000	200	3,800	400	100	400	-100	-100	24.8
2021	1,300	1,500	1,000	300	4,100	400	100	400	-100	-100	26.1
Change 2011-2021 (%)	8.3	15.4	11.1	50.0	13.9	---	---	---	---	---	---

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

*Projections are not available for all ethnic groups for all Regions.

(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 Region.

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

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

Drawing on these data, Table 6.3.2 provides an overview of the projected contribution to growth by Major Ethnic Group for each of New Zealand's Regional Council Areas, for the decade 2011-2021. For the Marlborough, Nelson and Tasman Regions, the data are, of course, not strictly comparable, because of the exclusion of the Pacific Island and Asian populations (the same comment applying to all regions where the latter are excluded from the projections). Nevertheless, the dominance of the European and Māori populations mean that they give an approximation of anticipated change, should the underlying assumptions prevail. Most notably, the data indicate that the Māori population of the Nelson and Marlborough Regions will make a disproportionate contribution to growth, potentially somewhat greater than the projected contribution at national level. In reality this contribution will be lower, because as can be seen on Table 6.1.1 above, the Pacific Island, Asian and MELAA populations collectively accounted for more of the Marlborough Region's growth across the period 1996-2006 than did Māori (19.7 and 9.0 per cent respectively). However, this was not true for the Nelson and Tasman Regions, where Māori accounted for 20.3 and 7.7 per cent of growth respectively, while the combined effect of the Pacific Island, Asian and MELAA populations was 16.3 and 6.7 per cent respectively.

Table 6.3.2: Projected Contribution to Growth, 2011-2021 by Ethnic Group*, New Zealand's Regional Council Areas

	European/Other	Māori	Pacific Islands	Asian
Northland Region	39.6	35.4	17.4	7.6
Auckland Region	14.8	10.9	22.3	51.9
Waikato Region	31.2	29.7	12.8	26.2
Bay of Plenty Region	50.2	25.7	9.5	14.7
Gisborne Region (4)	-62.5	162.5	...	...
Hawke's Bay Region	-3.9	55.8	28.6	19.5
Taranaki Region	-14.3	80.0	34.3	...
Manawatu-Wanganui Region	6.0	48.3	22.4	23.3
Wellington Region	29.6	20.7	16.9	32.8
Tasman Region (4)	83.9	16.1	...	...
Nelson Region (4)	58.3	41.7	...	...
Marlborough Region (4)	69.2	30.8	...	...
West Coast Region (4)	-100.0	100.0	...	...
Canterbury Region	44.2	18.2	7.9	29.7
Otago Region	45.0	21.7	6.7	26.7
Southland Region (4)	750.0	-650.0	...	...
Total New Zealand by Region	24.1	18.9	18.0	39.1

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.

(4) Data not available for all ethnic groups and thus proportions European and Māori not directly comparable

7.0 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.

The section begins with a brief overview of the twenty largest industries at the three-digit level in the Marlborough, Nelson and Tasman Regions for the period 1996-2006 (Tables 7.1.1-7.1.3, ordered by size in 2006). It then illustrates the changing age-sex structure of each region's total labour force and three largest industries. The data have been customised by Statistics New Zealand to be consistent in terms of industry and employment status across time.

Of particular note from Tables 7.1.1-7.1.3 is that for the Marlborough and Tasman Regions, the role of single-largest industry at each Census 1996-2006, **Horticulture and Fruit Growing**, has changed significantly. For the Marlborough Region the industry has increased its share of all employed persons from 6.4 to 8.0 per cent (23.5 per cent), while for Tasman its share has declined, from 17.0 to 9.2 per cent (a decline of 45.1 per cent). For the Nelson Region, the largest industry at each observation was **School Education**, increasing its share of the employed labour force by 9.1 per cent. **School Education** was the second-largest industry for both Marlborough and Tasman, increasing its share only modestly for Marlborough (0.6 per cent), but significantly for Tasman (19.1 per cent). Ranking third in the both Marlborough and Tasman Regions is **Grain, Sheep and Beef Farming**; however in both cases, labour force share has fallen significantly since 1996 (by 25.6 and 15.5 per cent respectively), For Nelson, again different, the third-ranked industry is **Other Health Services** which, like the region's fourth-largest industry, **Community Care Services**, has dramatically increased its share; both more than doubling. The remaining larger industries for each region then show greater diversity, led by substantial increase in the Beverage and Malt Manufacturing industry for the Marlborough Region, and a strong increase for the Building Industry in Tasman (22 per cent).

Table 7.1.1: Twenty Largest Industries, Size and Percentage Share, Marlborough Region, 1996-2006

Marlborough Region								
	1996	2001	2006	1996-2006 (%)	1996	2001	2006	1996-2006 (%)
	Number			Change	Percentage Distribution			Change
A011 Horticulture and Fruit Growing	1098	1389	1716	56.3	6.4	7.5	8.0	23.5
N842 School Education	582	648	741	27.3	3.4	3.5	3.4	0.6
A012 Grain, Sheep and Beef Cattle Farming	759	714	714	-5.9	4.5	3.9	3.3	-25.6
C218 Beverage and Malt Manufacturing	207	435	708	242.0	1.2	2.3	3.3	170.3
E411 Building Construction	396	456	705	78.0	2.3	2.5	3.3	40.7
A021 Services to Agriculture	309	348	663	114.6	1.8	1.9	3.1	69.6
G511 Supermarket and Grocery Stores	462	579	660	42.9	2.7	3.1	3.1	12.9
H571 Accommodation	435	570	633	45.5	2.6	3.1	2.9	15.0
O872 Community Care Services	267	402	618	131.5	1.6	2.2	2.9	83.0
M820 Defence	900	690	549	-39.0	5.3	3.7	2.5	-51.8
H573 Cafes and Restaurants	351	480	537	53.0	2.1	2.6	2.5	20.9
O861 Hospitals and Nursing Homes	429	435	429	0.0	2.5	2.3	2.0	-21.0
C217 Other Food Manufacturing	447	426	399	-10.7	2.6	2.3	1.9	-29.4
C282 Other Transport Equipment Manufact.	258	357	378	46.5	1.5	1.9	1.8	15.8
G532 Motor Vehicle Services	303	309	372	22.8	1.8	1.7	1.7	-3.0
L786 Other Business Services	243	297	360	48.1	1.4	1.6	1.7	17.1
M811 Government Administration	465	348	348	-25.2	2.7	1.9	1.6	-40.8
G512 Specialised Food Retailing	303	282	345	13.9	1.8	1.5	1.6	-10.0
G525 Other Personal & Household Good Retail	282	315	342	21.3	1.7	1.7	1.6	-4.1
O863 Other Health Services	111	372	330	197.3	0.7	2.0	1.5	135.0
Total These Industries*	8607	9852	11547	34.2	50.5	53.2	53.6	6.0
TOTAL ALL INDUSTRIES*	17040	18525	21558	26.5	100.0	100.0	100.0	...
Not Elsewhere Included (1)	1080	933	1098	1.7	6.0	4.8	4.8	-18.8

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

Notes: (1) Not elsewhere included has been excluded from the analysis, but shown here as a percentage of original total

Table 7.1.2: Twenty Largest Industries, Size and Percentage Share, Nelson Region, 1996-2006

Nelson Region								
	1996	2001	2006	1996-2006 (%)	1996	2001	2006	1996-2006 (%)
	Number			Change	Percentage Distribution			Change
N842 School Education	711	858	933	31.2	4.1	4.6	4.4	9.1
C217 Other Food Manufacturing	561	855	756	34.8	3.2	4.6	3.6	12.0
O863 Other Health Services	291	621	744	155.7	1.7	3.3	3.5	112.6
O872 Community Care Services	273	426	738	170.3	1.6	2.3	3.5	124.7
O861 Hospitals and Nursing Homes	684	666	603	-11.8	3.9	3.6	2.9	-26.7
H573 Cafes and Restaurants	432	513	600	38.9	2.5	2.8	2.8	15.5
G511 Supermarket and Grocery Stores	480	567	561	16.9	2.7	3.1	2.7	-2.8
E411 Building Construction	357	315	549	53.8	2.0	1.7	2.6	27.9
H571 Accommodation	339	498	534	57.5	1.9	2.7	2.5	31.0
L786 Other Business Services	357	390	456	27.7	2.0	2.1	2.2	6.2
L784 Legal and Accounting Services	312	354	438	40.4	1.8	1.9	2.1	16.7
M811 Government Administration	717	477	429	-40.2	4.1	2.6	2.0	-50.3
G525 Other Personal and Household Good Re	306	342	402	31.4	1.7	1.8	1.9	9.2
G512 Specialised Food Retailing	369	297	396	7.3	2.1	1.6	1.9	-10.8
L782 Technical Services	225	222	390	73.3	1.3	1.2	1.9	44.1
E423 Installation Trade Services	219	252	384	75.3	1.3	1.4	1.8	45.8
G532 Motor Vehicle Services	387	384	384	-0.8	2.2	2.1	1.8	-17.5
L785 Marketing and Business Management Se	279	270	384	37.6	1.6	1.5	1.8	14.4
Q952 Other Personal Services	333	342	360	8.1	1.9	1.8	1.7	-10.1
L771 Property Operators and Developers	120	321	357	197.5	0.7	1.7	1.7	147.3
Total These Industries*	7752	8970	10398	34.1	44.3	48.3	49.4	11.5
TOTAL ALL INDUSTRIES*	17514	18579	21066	20.3	100.0	100.0	100.0	...
Not Elsewhere Included (1)	18669	19575	22029	18.0	1763	1983	2331	32.2

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

Notes: (1) Not elsewhere included has been excluded from the analysis, but shown here as a percentage of original total

Table 7.1.3: Twenty Largest Industries, Size and Percentage Share, Tasman Region, 1996-2006

	Tasman Region							
	Number			Change	Percentage Distribution			Change
	1996	2001	2006	1996-2006 (%)	1996	2001	2006	1996-2006 (%)
A011 Horticulture and Fruit Growing	2979	2646	2034	-31.7	17.0	13.7	9.2	-46.1
N842 School Education	648	864	978	50.9	3.7	4.5	4.4	19.1
A012 Grain, Sheep and Beef Cattle Farming	591	573	633	7.1	3.4	3.0	2.9	-15.5
E411 Building Construction	405	381	630	55.6	2.3	2.0	2.8	22.8
G511 Supermarket and Grocery Stores	450	522	606	34.7	2.6	2.7	2.7	6.3
H571 Accommodation	288	456	603	109.4	1.6	2.4	2.7	65.2
A021 Services to Agriculture	291	411	564	93.8	1.7	2.1	2.5	53.0
O872 Community Care Services	198	372	564	184.8	1.1	1.9	2.5	124.8
C217 Other Food Manufacturing	477	531	555	16.4	2.7	2.8	2.5	-8.2
G532 Motor Vehicle Services	390	447	531	36.2	2.2	2.3	2.4	7.4
A013 Dairy Cattle Farming	531	537	525	-1.1	3.0	2.8	2.4	-22.0
G525 Other Personal & Household Good Retail.	315	378	477	51.4	1.8	2.0	2.2	19.5
A030 Forestry and Logging	450	489	465	3.3	2.6	2.5	2.1	-18.5
H573 Cafes and Restaurants	264	366	426	61.4	1.5	1.9	1.9	27.3
O863 Other Health Services	138	393	426	208.7	0.8	2.0	1.9	143.6
G512 Specialised Food Retailing	267	258	405	51.7	1.5	1.3	1.8	19.7
E423 Installation Trade Services	201	192	387	92.5	1.1	1.0	1.7	51.9
O861 Hospitals and Nursing Homes	330	381	381	15.5	1.9	2.0	1.7	-8.9
I611 Road Freight Transport	261	282	354	35.6	1.5	1.5	1.6	7.0
L771 Property Operators and Developers	132	273	351	165.9	0.8	1.4	1.6	109.8
Total These Industries	9606	10752	11895	23.8	54.9	55.8	53.7	-2.3
TOTAL ALL INDUSTRIES	17496	19281	22170	26.7	100.0	100.0	100.0	...
Not Elsewhere Included (1)	18735	20550	23316	24.5	1512.1	1631.0	2078.1	37.4

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

Notes: (1) Not elsewhere included has been excluded from the analysis, but shown here as a percentage of original total

Reflecting the trends by age outlined earlier, the average age of the Marlborough, Nelson and Tasman workforces in 2006 was older than that of the total New Zealand workforce, and these three regions' workforces have also been ageing more rapidly (Table 7.1.4, Appendix 5.1). The Marlborough and Tasman employed workforces are equally-oldest at 43.0 years in 2006; somewhat older than Nelson at 41.5 years. However, rapid ageing is equally notable for the Nelson Region, because the average age of the employed workforce has shifted from a little younger than the national level in 1996, to a little older in 2006. These profound shifts can be seen in Figure 7.1.1, which depicts the overall employed workforce of each region.

Table 7.1.4: Average Age of Employed Labour Force, Marlborough, Nelson and Tasman Regions, 1996-2006

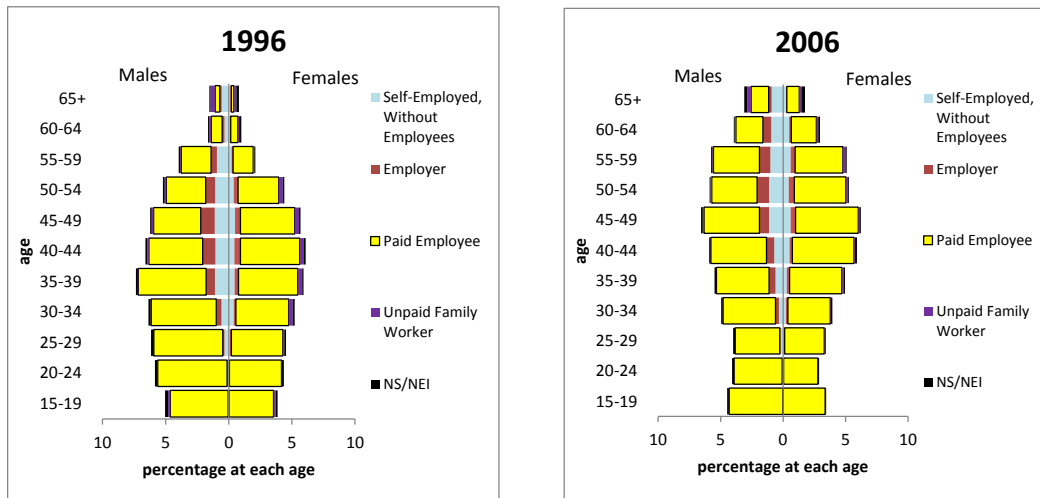
	1996	2001	2006	1996-2006 (Change)
Marlborough Region	39.0	41.5	43.0	10.1%
Nelson Region	38.1	39.9	41.5	8.9%
Tasman Region	39.3	41.3	43.0	9.4%
TOTAL NZ	38.2	40.0	41.1	7.5%

Source: Statistics New Zealand Customised Database

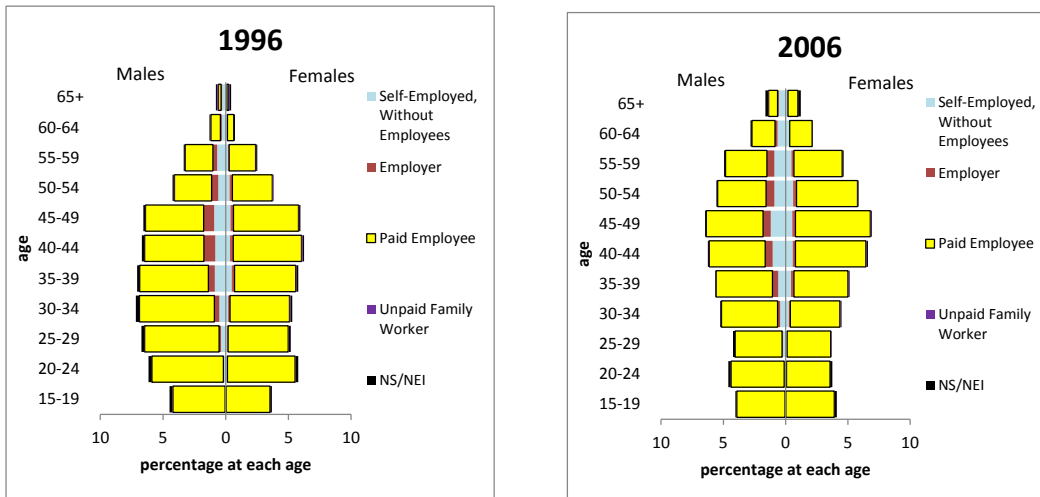
Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

Figure 7.1.1: Age-Sex Structure and Employment Status of the Employed Labour Force 1996 and 2006, Marlborough, Nelson and Tasman Regions

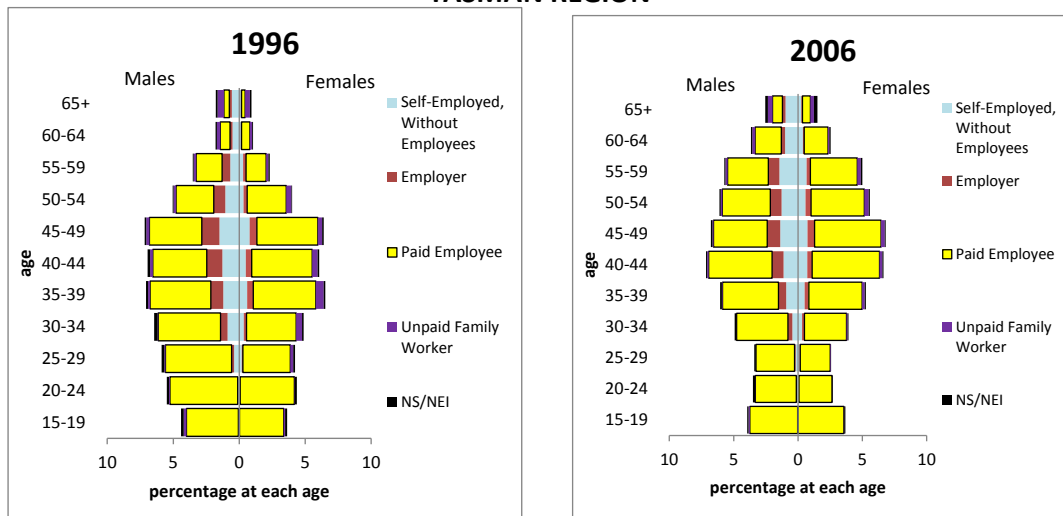
MARLBOROUGH REGION



NELSON REGION



TASMAN REGION



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

These age-structural differences show up clearly in the changing population pyramids for the three largest industries of each region, as they do for all other industries, summarised further below.

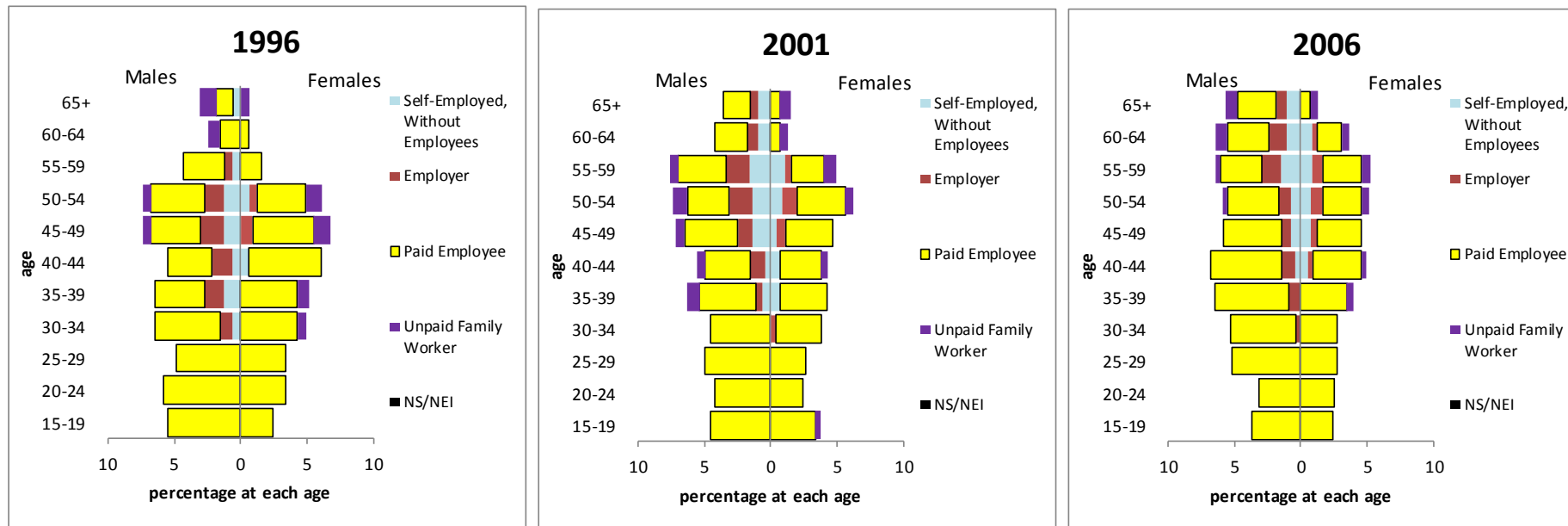
Marlborough Region: Employing 1,716 persons at the 2006 Census, the region's single largest industrial grouping, **Horticulture and Fruit Growing** (ANZSIC96 V4.1 code A011) (Figure 7.1.2), is somewhat older and more masculinised than the region's overall workforce. The average age of employed persons at each census was respectively 40.2, 42.8 and 44.5 years, an increase of 4.3 years (10.7 per cent) (Appendix 5.2). Reflecting this shift, the proportion over the age of 55 years has increased significantly, from 12.5 to 28.8 per cent (73.0 per cent), while the employment entry: exit ratio has declined concomitantly, from 1.4 (14 persons at entry age to every ten in at exit age) in 1996 to 0.4 in 2006 (a decline of 69.9 per cent). This makes this industry for Marlborough a little older than its national counterpart, which still has five persons at entry age for every ten at exit age.

The region's second largest industrial grouping in 2006 (4th in 1996), **School Education** (ANZSIC96 V4.1 code N842), is somewhat older again (Figure 7.1.3 and Appendix 5.3). By contrast with the previous industry, it is very heavily feminised and has become more so over time (sex ratio 0.4 and 0.3 males per female in 1996 and 2006 respectively). The average age of persons employed in this industry in Marlborough (46.6 years in 2006) is around 3.6 years greater than the region's total labour force, and has shifted upwards since 1996 by 3.2 years (7.4 per cent); the percentage 55+ years similarly increasing from 13.8 to 23.9. Reflecting this trend, the ratio of those at employment entry to exit age has fallen from an already low 0.4 in 1996, to 0.1 in 2006 (from four to three people at entry age per ten at exit age). This is lower than the national level ratio for the industry (0.1 in 2006) and indicates an urgent need to engage with recruitment and succession planning.

The Marlborough Region's third largest industry, **Grain, Sheep and Beef Farming** (ANZSIC96 V4.1 code A012), in 2006 employed 714 persons (Figure 7.1.4, Appendix 5.4). The average age of the region's employees in this very masculinised industry (sex ratio 2.0 in 2006) is older again, increasing, from 43.7 years in 1996 to 48.4 years in 2006 (4.7 years, 10.8 per cent). Reflecting this trend, the percentage aged 55+ years increased from 18.3 per cent in 1996 to 34.3 per cent in 2006, and the ratio of people at employment entry age (15-24 years) to those in the retirement zone (55+ years) reduced dramatically from 0.6 (six per ten) in 1996 to 0.2 (two per ten) in 2006.

Taken together, the Marlborough Region's three largest industries account for 15.1 per cent of its employed labour force, each of which is visibly aged, and ageing faster than at national level.

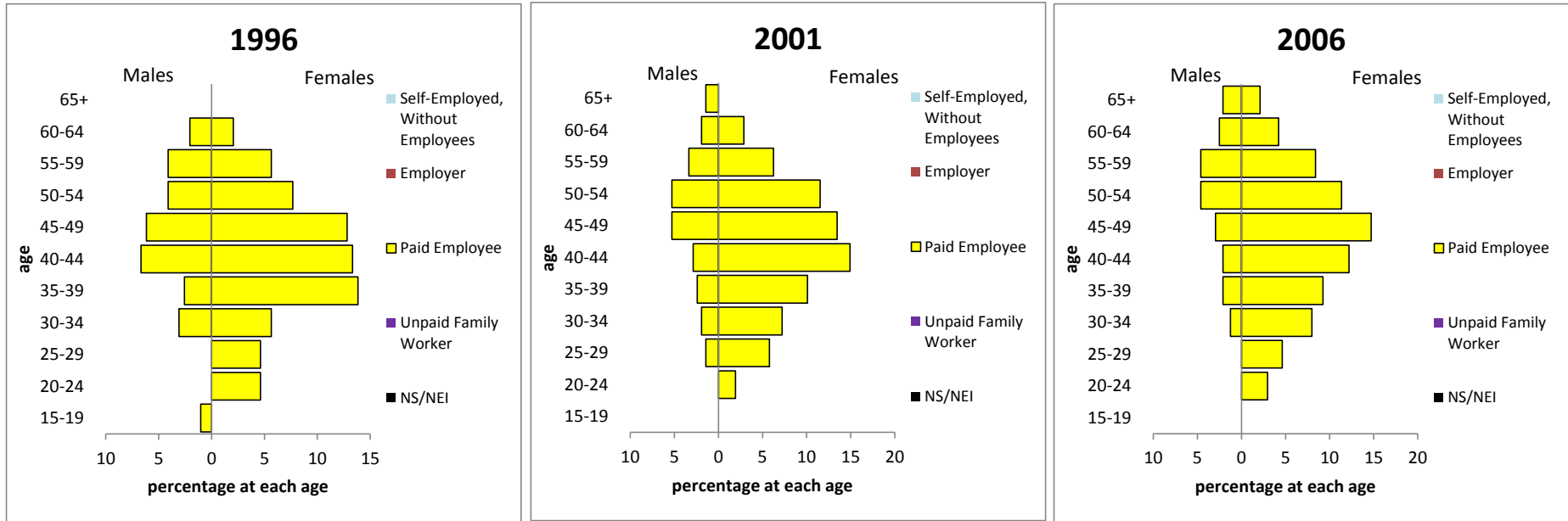
Figure 7.1.2: Age-Sex Structure of Major Industries 1996, 2001, 2006, MARLBOROUGH Region: Horticulture and Fruit Growing (A011)



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

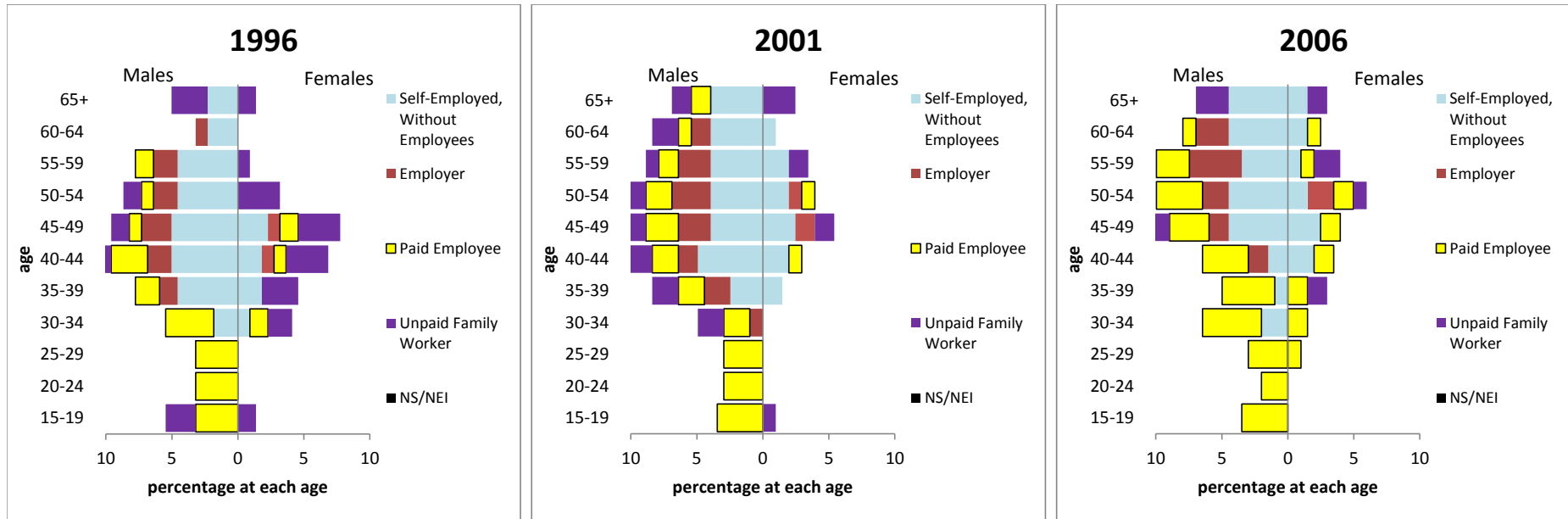
Figure 7.1.3: Age-Sex Structure of Major Industries 1996, 2001, 2006, MARLBOROUGH Region: School Education (N842)



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 7.1.4: Age-Sex Structure of Major Industries 1996, 2001, 2006, MARLBOROUGH Region: Grain, Sheep and Beef Farming (A012)



Source: Jackson/Statistic NZ Customised Database,

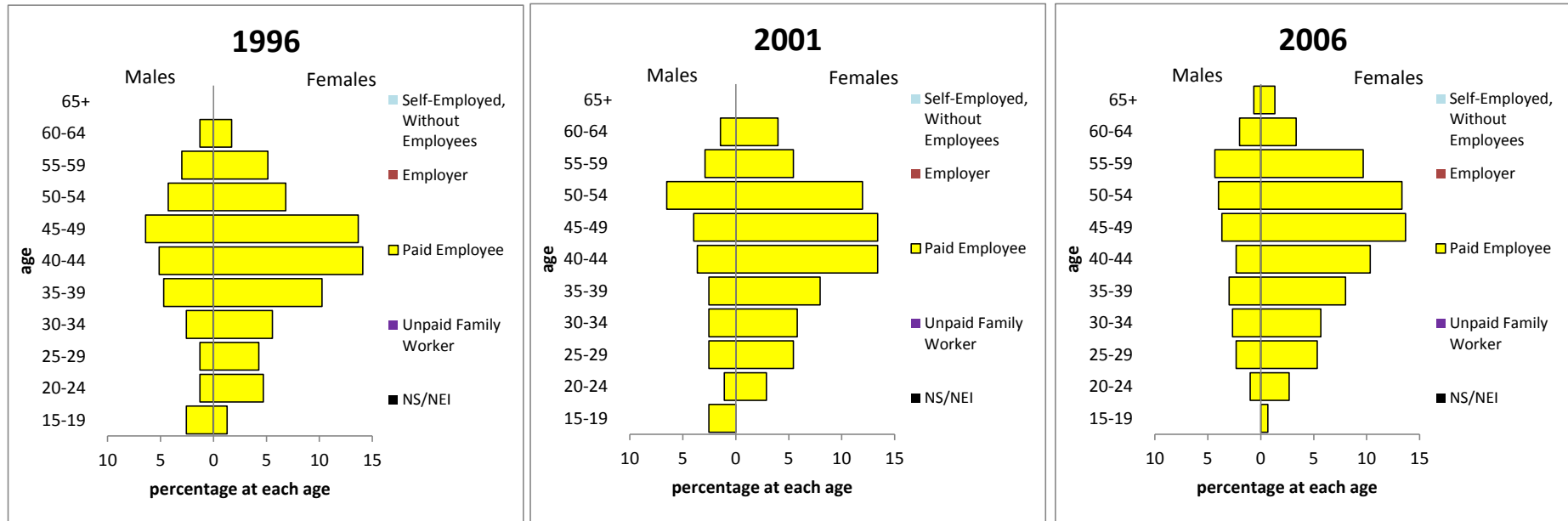
Area of Usual Residence, Industry (ANZSIC96 V4.1) and Status in Employment by Age Group and Sex for the Employed Census Usually Resident Population Count Aged 15+ Years, 1996, 2001, 2006

Nelson Region: The Nelson Region's largest industry in 2006, **School Education** (ANZSIC96 V4.1 code N842) employed 933 people. Accounting for 4.4 per cent of the region's employed labour force, this represents an increase in share of 9.1 per cent since 1996. As for the Marlborough Region, the industry is both relatively old (average age 45.3 years in 2006) and highly feminised, the sex ratio falling from 0.5 males per female in 1996 to 0.4 in 2006 (see Figure 7.1.5 and Appendix 5.5). Fractionally younger than its Marlborough Region counterpart, the percentage aged 55+ years has increased from 11.1 to 21.3 per cent (an increase of 92.0 per cent) and the ratio of people at employment entry to exit age declining from 0.9 in 1996 to 0.2 in 2006 (a 77.0 per cent decline). As for the Marlborough Region, this is an extremely low ratio, and indicates a growing difficulty in replacing those who will soon retire.

Ranking second in size in 2006, the Nelson Region's **Other Food Manufacturing** industry (ANZSIC96 V4.1 code C217) is relatively youthful, average age in 2006 just 38.2 years. However, while 3.3 years lower than the overall average for the region, average age has shifted upwards from 32.2 years in 1996, an increase of 18.7 per cent. Concomitantly the ratio of people at employment entry age (15-24 years) to those at exit age (55+ years) has declined from 10.6 to 2.2 (from 106 persons at entry age per ten, to 22 per ten at exit age), while the proportion aged 55+ years has trebled, from 2.9 to 9.4 per cent. This represents a significant speed of ageing (Figure 7.1.6, see also Appendix 5.6).

The third largest industry for the Nelson Region in 2006, **Other Health Services** (ANZSIC96 V4.1 code O863), employed 744 persons and accounted for 3.5 per cent of the region's employed workforce. Also ageing, but not as rapidly as some other industries, the average age of those employed in the industry increased from 43.9 years in 1996 to 45.5 years in 2006 (an increase of 3.7 per cent), while the percentage aged 55+ years rose from 13.5 to 18.8 (an increase of 39.4 per cent). In 2006 this highly feminised workforce (sex ratio 0.4 in 1996 and 0.3 in 2006) had a labour market entry: exit ratio of 0.2 (two persons aged 15-24 years to every ten aged 55+ years); however this ratio has remained stable since 1996 (Figure 7.1.7, see also Appendix 5.7). The industry is perhaps most notable for its rise from 15th position in 1996, when it accounted for just 1.7 per cent of the employed labour force.

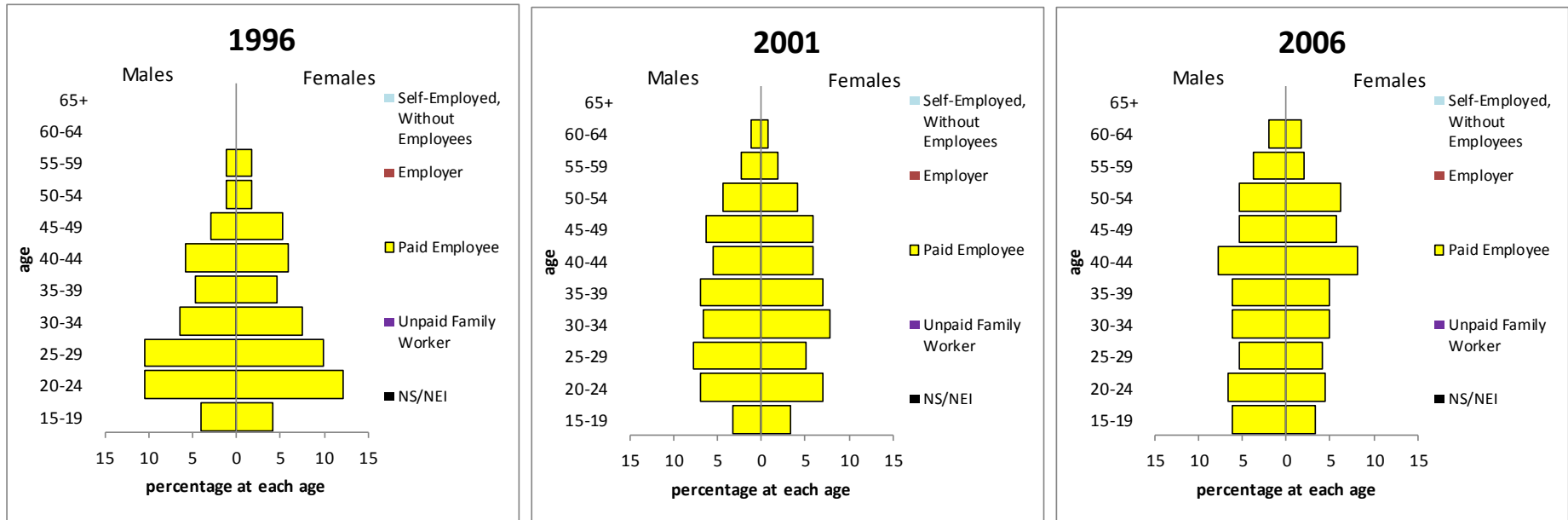
Figure 7.1.5: Age-Sex Structure of Major Industries 1996, 2001, 2006, NELSON Region: School Education (N842)



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

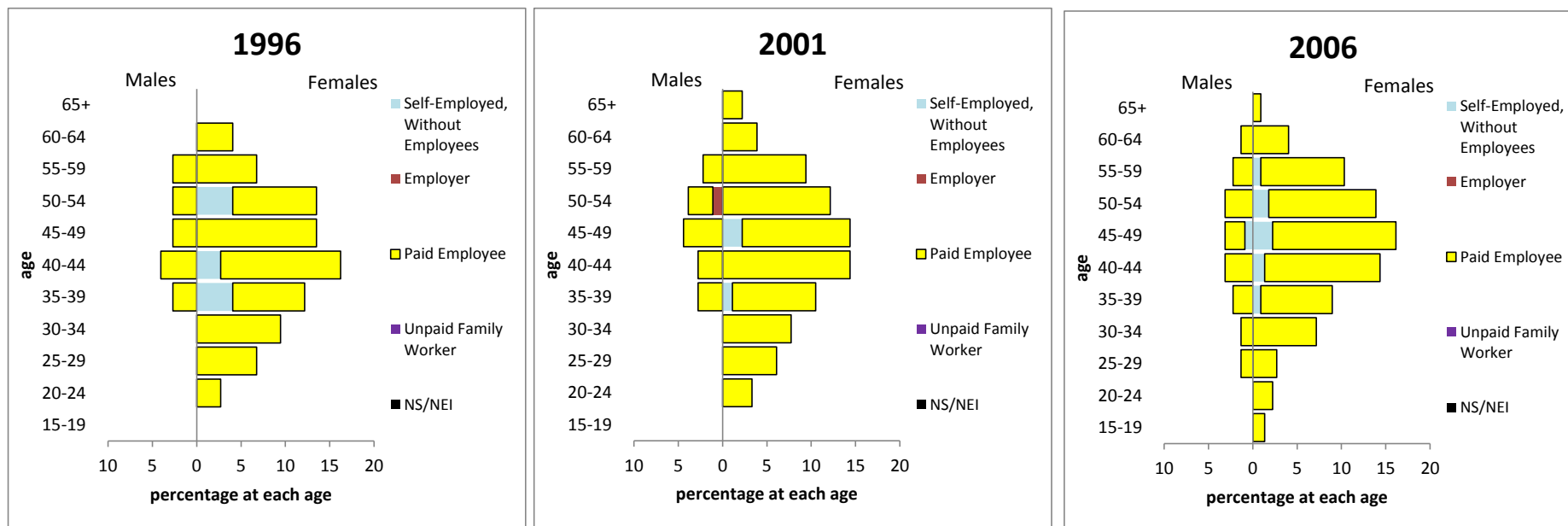
Figure 7.1.6: Age-Sex Structure of Major Industries 1996, 2001, 2006, NELSON Region: Other Food Manufacturing (C217)



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 7.1.7: Age-Sex Structure of Major Industries 1996, 2001, 2006, NELSON Region: Other Health Services (O863)



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

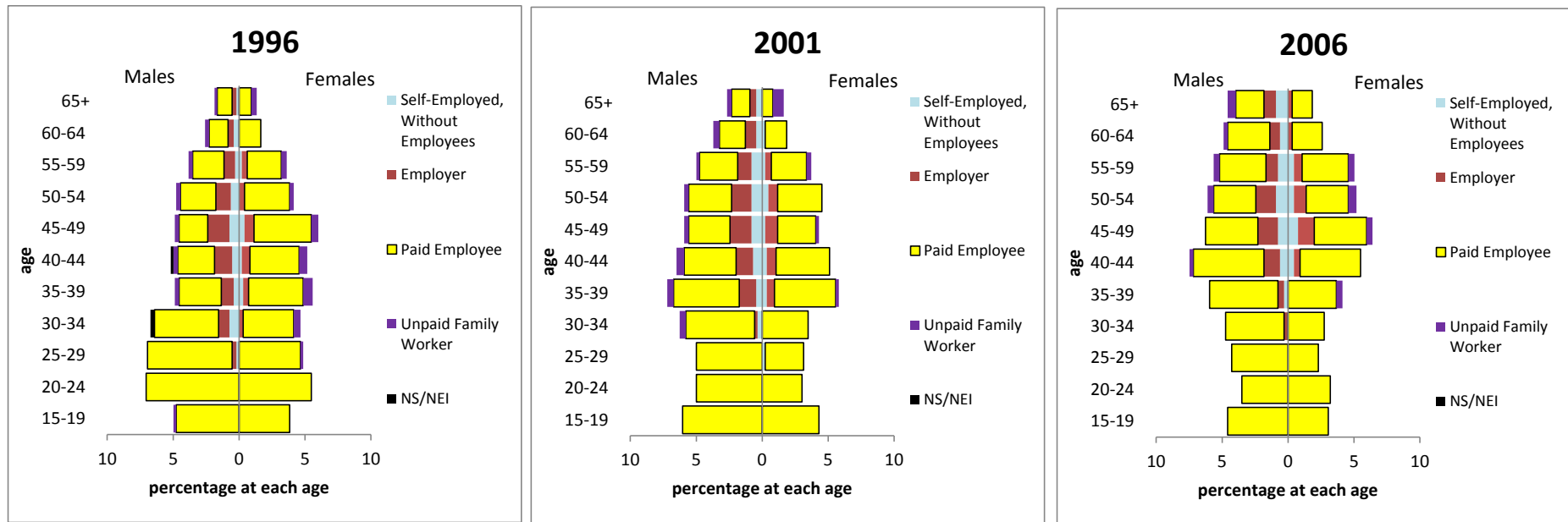
Tasman Region: The Tasman Region's industrial composition is very similar to that for the Marlborough Region, especially with respect to the three largest industries, which are identical.

Employing 2,034 persons at the 2006 Census, the Tasman Region's single largest industry at all three census observations, **Horticulture and Fruit Growing** (ANZSIC96 V4.1 code A011) (Figure 7.1.8), is a little larger than its Marlborough counterpart. However by comparison with the growth experienced in this industry for Marlborough, in Tasman it has undergone significant decline, accounting for 17.0 per cent of the region's employed labour force in 1996, but only 9.2 per cent in 2006 (a decline of 46.1 per cent). Like its Marlborough counterpart, the industry is (in 2006) older and more masculinised than the region's overall workforce, but less so than for Marlborough. The average age of persons employed in the industry in Tasman increased from 38.6 years in 1996 to 43.5 in 2006, an increase of 4.9 years (12.7 per cent) (Appendix 5.8). Reflecting this shift, the proportion aged 55+ years increased, from 15.0 to 24.6 per cent (64.0 per cent), while the employment entry: exit ratio declined, from 1.4 (14 persons at entry age to every ten in at exit age) in 1996 to 0.6 in 2006 (a decline of 59.2 per cent). Each of these indices identify that the industry in Tasman is a little younger than its Marlborough counterpart, and is ageing a little more slowly.

As was the case for Marlborough, the Tasman Region's second largest industry in 2006, **School Education** (ANZSIC96 V4.1 code N842), is somewhat older again (Figure 7.1.9 and Appendix 5.9), its average age increasing across the period from 43.0 years to 46.2 years (an increase of 7.6 per cent). While average age is a little lower than for Marlborough, the speed of ageing is almost the same. The industry for Tasman is similarly heavily feminised (sex ratio 0.4 males per female in 2006), but has remained constant over the period. The percentage 55+ years has more than trebled, increasing from 7.2 to 25.0, while the ratio of those at employment entry to exit age has fallen from 0.4 in 1996, to 0.1 in 2006 (from four to three people at entry age per ten at exit age). As indicated above this is the same as for Marlborough, but lower than the national level for the industry (0.1 in 2006), and suggests that urgent attention to recruitment and succession planning is critical.

The Tasman Region's third largest industry (633 persons in 2006), **Grain, Sheep and Beef Farming** (ANZSIC96 V4.1 code A012) is also its oldest (Figure 7.1.10, Appendix 5.10). The average age in this very masculinised industry (sex ratio 1.7 in 2006) increased from 46.1 years in 1996 to 52.1 years in 2006 (6.1 years, 13.2 per cent), the percentage aged 55+ years increased from 28.9 to 50.9 per cent, and the entry: exit ratio fell from 0.3 (three per ten) in 1996 to 0.1 (one per ten) in 2006. This industry would appear to be facing a crisis of succession, with few readily available replacements.

Figure 7.1.8: Age-Sex Structure of Major Industries 1996, 2001, 2006, TASMAN Region: Horticulture and Fruit Growing (A011)



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

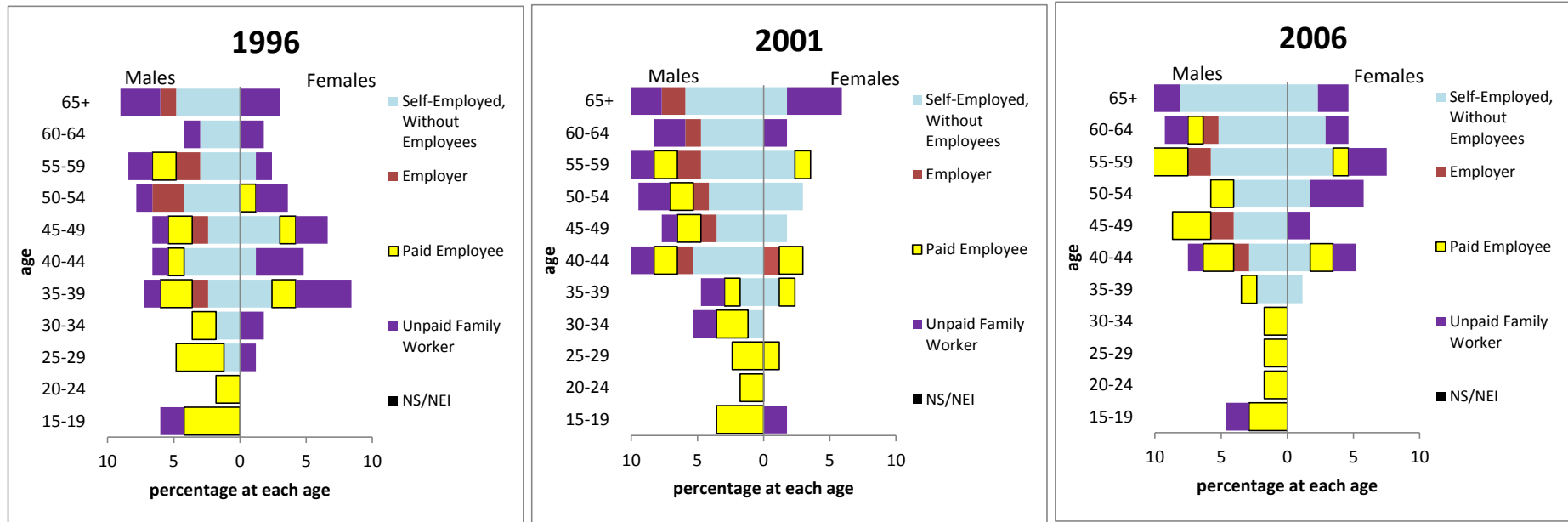
Figure 7.1.9: Age-Sex Structure of Major Industries 1996, 2001, 2006, TASMAN Region: School Education (N842)



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 7.1.10: Age-Sex Structure of Major Industries 1996, 2001, 2006, TASMAN Region: Grain, Sheep and Beef Farming (A012)



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

Summary: Tables 7.1.5 to 7.1.7 conclude this section with a summary perspective on the ageing of the twenty largest industries of each region, as indicated by the employed labour force entry: exit ratio. For Marlborough (Table 7.1.5), 13 of the twenty largest industries in 2006 have ratios below 1.0, with ultra-low ratios for Community Care Services; Government Administration; and Other Health Services (each 0.1), School Education; Grain, Sheep and Beef Cattle Farming; and Hospitals and Nursing Homes (each 0.2), Other Transport Equipment Manufacturing (0.3), and Horticulture and Fruit Growing; Accommodation; Other Business Services (each 0.4).

Table 7.1.5: Twenty Largest Industries, Labour Force Entry: Exit Ratio, Marlborough Region, 1996-2006

	Marlborough Region				Total NZ 2006
	Ratio 15-24 Years: 55+ Years			Change	
	1996	2001	2006	1996- 2006 (%)	
A011 Horticulture and Fruit Growing	1.1	0.6	0.4	-62.1	0.5
N842 School Education	0.4	0.2	0.2	-61.9	0.2
A012 Grain, Sheep and Beef Cattle Farming	0.6	0.3	0.2	-62.4	0.2
C218 Beverage and Malt Manufacturing	2.2	1.4	0.9	-60.7	1.1
E411 Building Construction	1.9	1.3	1.1	-42.2	1.2
A021 Services to Agriculture	2.8	0.9	1.2	-58.5	1.0
G511 Supermarket and Grocery Stores	9.0	4.4	3.5	-60.7	4.1
H571 Accommodation	0.9	0.6	0.4	-56.4	1.1
O872 Community Care Services	0.4	0.2	0.1	-66.9	0.3
M820 Defence	11.8	6.6	3.6	-69.4	3.5
H573 Cafes and Restaurants	6.5	3.6	2.5	-61.5	6.1
O861 Hospitals and Nursing Homes	0.8	0.4	0.2	-76.9	0.3
C217 Other Food Manufacturing	5.4	2.3	0.9	-83.5	1.0
C282 Other Transport Equipment Manufacturing	0.9	0.3	0.3	-72.7	0.8
G532 Motor Vehicle Services	3.7	2.2	1.7	-54.2	1.6
L786 Other Business Services	1.0	0.4	0.4	-59.4	0.9
M811 Government Administration	0.6	0.2	0.1	-78.9	0.4
G512 Specialised Food Retailing	4.1	2.9	2.4	-42.7	4.0
G525 Other Personal and Household Good Retaili	1.4	0.6	0.5	-63.6	1.1
O863 Other Health Services	0.3	0.1	0.1	-76.0	0.3
TOTAL (this region)	1.4	0.8	0.6	-58.3	0.9

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

The situation is similar for the Nelson Region (Table 7.1.6), with below-parity ratios for ten of the region's twenty largest industries, adding Hospitals and Nursing Homes (0.2); Technical Services; and Marketing and Business Management Services (0.3); Legal and Accounting Services (0.5); and Other Business Services (0.6); to the above list. For Tasman (Table 7.1.7), a full 15 of the twenty largest industries have below-parity ratios, making it easier say that only Supermarkets and Grocery Stores; Motor Vehicle Services; Forestry and Logging; Cafes and Restaurants; and Specialised Food Retailing, have ratios which remain above parity, and even they have declined dramatically, heralding the certain arrival of the demographically-tight labour market referred to above.

Table 7.1.6: Twenty Largest Industries, Labour Force Entry: Exit Ratio, Nelson Region, 1996-2006

	Nelson Region				Total NZ 2006
	Ratio 15-24 Years: 55+ Years			Change	
	1996	2001	2006	1996- 2006 (%)	
N842 School Education	0.9	0.5	0.2	-73.3	0.2
C217 Other Food Manufacturing	4.6	2.9	2.0	-56.4	1.0
O863 Other Health Services	0.2	0.2	0.2	-4.8	0.3
O872 Community Care Services	0.8	0.4	0.3	-62.9	0.3
O861 Hospitals and Nursing Homes	0.4	0.2	0.2	-50.1	0.3
H573 Cafes and Restaurants	7.5	9.5	9.3	24.0	6.1
G511 Supermarket and Grocery Stores	18.6	12.8	5.1	-72.8	4.1
E411 Building Construction	2.0	1.2	1.0	-48.3	1.2
H571 Accommodation	1.5	1.0	0.8	-49.1	1.1
L786 Other Business Services	1.7	0.6	0.6	-65.8	0.9
L784 Legal and Accounting Services	1.1	0.7	0.5	-54.1	0.6
M811 Government Administration	0.7	0.2	0.2	-69.8	0.4
G525 Other Personal and Household Good Retaili	1.1	1.0	1.0	-6.9	1.1
G512 Specialised Food Retailing	7.5	3.3	2.9	-60.8	4.0
L782 Technical Services	0.9	0.3	0.3	-64.4	0.6
E423 Installation Trade Services	1.7	0.8	1.4	-18.3	1.2
G532 Motor Vehicle Services	5.0	2.2	1.3	-75.0	1.6
L785 Marketing and Business Management Servic	1.5	0.5	0.3	-81.0	0.7
Q952 Other Personal Services	4.0	1.9	1.1	-72.6	1.1
L771 Property Operators and Developers	0.5	1.1	1.0	100.0	0.4
TOTAL (this region)	1.8	1.2	0.8	-52.4	0.9

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

Table 7.1.7: Twenty Largest Industries, Labour Force Entry: Exit Ratio, Tasman Region, 1996-2006

	Tasman Region				Total NZ 2006
	Ratio 15-24 Years: 55+ Years			Change	
	1996	2001	2006	1996- 2006 (%)	
A011 Horticulture and Fruit Growing	1.4	1.0	0.6	-58.7	0.5
N842 School Education	0.5	0.2	0.1	-79.3	0.2
A012 Grain, Sheep and Beef Cattle Farming	0.4	0.1	0.2	-54.6	0.2
E411 Building Construction	1.2	0.7	0.8	-30.7	1.2
G511 Supermarket and Grocery Stores	9.5	8.4	4.0	-57.4	4.1
H571 Accommodation	0.9	0.5	0.4	-51.7	1.1
A021 Services to Agriculture	2.1	1.2	0.9	-55.4	1.0
O872 Community Care Services	0.4	0.3	0.1	-75.4	0.3
C217 Other Food Manufacturing	3.6	1.3	0.8	-78.8	1.0
G532 Motor Vehicle Services	2.6	1.6	1.5	-43.4	1.6
A013 Dairy Cattle Farming	1.0	0.9	0.8	-25.4	0.9
G525 Other Personal and Household Good Retaili	1.5	1.1	0.8	-47.5	1.1
A030 Forestry and Logging	3.7	2.6	1.0	-74.4	1.3
H573 Cafes and Restaurants	4.5	5.6	4.8	6.0	6.1
O863 Other Health Services	0.0	0.2	0.1	...	0.3
G512 Specialised Food Retailing	3.2	3.4	2.5	-24.0	4.0
E423 Installation Trade Services	1.8	0.8	0.7	-60.3	1.2
O861 Hospitals and Nursing Homes	0.4	0.2	0.1	-70.0	0.3
I611 Road Freight Transport	0.7	0.4	0.3	-62.5	0.5
L771 Property Operators and Developers	0.6	0.6	0.4	-42.9	0.4
TOTAL (this region)	1.4	0.8	0.6	-55.9	0.9

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

7.2 Future Labour Market Conditions in the Region – A Commentary

The most recent comprehensive analysis of the labour market and economy of the Marlborough, Nelson and Tasman Region was undertaken by Infometrics (2011) on behalf of the Tertiary Education Commission. The report covered not only the performance of the labour market and economy in the Marlborough, Nelson and Tasman Region but forecasts of the demand for skills and qualifications through to 2016. The region covered by the Infometrics report differs from that used in this analysis in that it included Kaikoura. This is unlikely to significantly affect the applicability of Infometrics findings to the region covered in this report as Kaikoura district contributes only about two per cent of total employment in the Marlborough, Nelson Tasman and Kaikoura region.

This section draws largely upon the Infometrics analysis, albeit with a greater degree of pessimism, of patterns in the short to medium term development of the labour market and economy of the Marlborough, Nelson and Tasman Region. It will then discuss the possible impact of these developments.

The mainstays of the regional economy for the foreseeable future will continue to be agriculture and forestry, along with the associated further processing industries. While these activities do require some skilled labour inputs, such as skilled managers or trades workers, the bulk of employment in these industries is in lower skilled occupations such as farm and forestry or food process workers. In terms of value being added to the regional economy, the future in these industries is relatively bright. However, much of the medium outlook of these industries is contingent on the strength of the global economy; in particular the demand for agricultural commodities. It should also be noted that even if global demand for the outputs of the Marlborough, Nelson and Tasman Region is strong this will not necessarily equate to strong employment growth. This is due to the demand for labour in these sectors likely being muted by increases in labour productivity in excess of the increased demand for industry outputs, and by changes in the structure of these industries.

Should the recovery from the global financial crisis occur swiftly and the regional economy regains the momentum that it had prior to the crisis, it would be expected that the expansion of the construction industry employment would be one of the major contributors to regional employment growth. This growth would be evident particularly in occupations such as specialist managers and engineering technicians as well as lower skilled construction workers and other labourers. If one accepts the optimistic view taken by Infometrics (2011, p 47) of the short run (2011-2016) prospects in the Marlborough, Nelson and Tasman Region, expansion of employment in the construction

industry would be projected to account for over a fifth of the region's job creation, as opposed to its estimated share in total employment in 2011 of around seven and a half per cent.

Employment in the retail, wholesale and transport industries in the Marlborough, Nelson and Tasman Region are projected by Infometrics to account for about 20 per cent of employment in 2016. This figure is little changed from the 2011 estimate of employment share implying that employment growth in this sector grows in line with overall employment. Future employment growth in this sector is likely to be muted by the fallout from the global financial crisis as households and businesses deleverage and modify their consumption patterns, due to increased credit constraints, pessimism as to the future trajectory of the economy in general, and increased aversion to risk. Medium term, if and when economic conditions improve, there is likely to be an upturn in employment growth in this sector as consumption norms return to something closer to the mid-2000s. However until this eventuates the flat growth in this sector will inhibit demand in the lower skilled and youth labour markets; both of these types of worker being prevalent in this sector.

In line with the projected demographic changes detailed in preceding sections, the demand for health, personal and other community and education services is likely to continue to grow. However, should current constraints on government spending persist it is likely that employment growth will be at a lower level than that experienced in the previous decade. While employment in this sector does include some highly skilled occupations a large portion of this sectorial employment is in the lower skilled occupations, such as carers and aides.

Infometrics project that Business and Property Services will make the third largest contribution to regional employment growth 2011-016 (2011, p 52) and will remain a major contributor to regional GDP (2011, p 51). While activity in this sector is muted at the moment by the prevailing economic climate it can be anticipated that any improvement in this will see a return to strong employment growth, particularly if the construction industry expands at the rate it did prior to the global financial crisis. Such growth would see an increase in demand for a wide range of professionals, such as those involved in the business, engineering legal and IT areas (Infometrics, 2011, p 48).

While cultural and recreational services, along with accommodation and hospitality only contribute a small proportion of regional GDP (Infometrics, 2011, p 49), combined they make up around 12% of the regional employment. As a proportion of total employment, Infometrics project that this grouping will slightly increase its share of employment and enjoy higher than average rates of

employment growth. As with other industries, while this will entail some growth in specialist professional occupations, the bulk of employment in this sector is in the lower skilled occupations.

Beyond the specifics of this conjuncture, the Marlborough, Nelson and Tasman Regional labour market faces a number of challenges, many of them related to the changing demography of the region, that are of a medium to longer run or structural nature. The following will briefly address some of these challenges.

Firstly, the regional economy is highly dependent on a narrow range of industries (often referred to as the Four F's: farming, forestry, fruit and fisheries (HRC, 2009). These industries are export driven and employ a substantial amount of un or semi-skilled labour. This labour is often (relatively) poorly remunerated and seasonal in nature. The external orientation of these industries renders the region vulnerable to external shocks however this is probably a fair description of the New Zealand economy as a whole and is unlikely to change in the foreseeable future. In addition, while technological change in these industries may well increase output, it is likely that employment levels will stagnate or fall.

Secondly, the Infometrics study (2009, p 51) referred to above identifies the building and construction industries as being one of the drivers of employment growth in the region. This sector is prone to large fluctuations in both output and employment hence a disproportionate reliance on this sector is likely to result in higher levels of volatility in the regional economy (PWC, 2011, p 2-5). In addition this sector is poorly paid and has low productivity (PWC, 2011, p 3-4). While the low productivity is likely to be difficult to address, the wages in this sector may well be bid up in the medium term as a result of the rebuild of Christchurch and, in the longer term, as heightened demand for younger workers coincides with a decline in their availability.

Thirdly, a matter of on-going concern has been the interaction of the regions housing market with the labour market and the changing demography of the area (see Grimes and Aitken (2005) for example). The migration flows into this region are comprised, in part, of flows of moderately wealthy people moving from larger cities to retire to an attractive location. Therefore the nature of the 'retirement' houses that will be demanded are likely to be relatively 'upmarket' (Grimes and Aitken, 2005, p 57) and this demand will exert an upward pressure on the regions house prices and rents. The older population is likely to induce demand for labour in the relatively low paid occupations which, along with the already existing demand for low waged labour, will increase the demand for

dwelling suitable for working aged households on modest incomes. Therein lies a contradiction as demand for housing will drive up the cost of dwellings (whether rented or owned) and the land on which residences are built, while at the same time the influx of retirees will exacerbate the demand for lower skilled/paid labour. Obviously this then will pose a challenge in provision of medium and lower priced housing to meet the needs of this workforce in the face of mounting competition for suitable land. That competition is not only between types of residential land use, but between residential and productive land uses.

In conclusion, a number of factors will impact on the future trajectory of the Marlborough, Nelson and Tasman Region labour market. In part these lie beyond the control of local and national business, and governance in New Zealand, though they may mitigate to a degree, as they stem from the exposure of the economy to exogenous shocks. Others, such as population ageing, have a specific conjectural component but are also largely beyond control as they are manifestations of relatively immutable structural change. The effects of these changes may be addressed, to a degree, through policy interventions, so that issues such as the provision of appropriate accommodation for the labour force should be foremost in regional labour market policy formation.

Appendices

Appendix 1.1: Population Size and Growth, MARLBOROUGH Region and Total New Zealand 1986-2010

Marlborough Region	Night Resident Population and Census-Adjusted	Night Resident Population (unadjusted for Census)	Estimated Usual Resident Population (June Years)	Marlborough Region	Change (%)	Total New Zealand Change (%)
1986	34,854	...	...	
1987	34,500	...	...	1986-87	...	...
1988	35,100	...	...	1987-88	-1.0	0.3
1989	35,400	...	...	1988-89	1.7	0.7
1990	36,000	...	...	1989-90	0.9	0.2
1991	...	36,765	...	1990-91	...	...
1992	...	37,100	...	1991-92	0.9	1.0
1993	...	37,700	...	1992-93	1.6	1.3
1994	...	38,300	...	1993-94	1.6	1.4
1995	...	38,600	...	1994-95	0.8	1.6
1996	...	...	39,200	1995-96	...	...
1997	...	...	39,600	1996-97	1.0	1.1
1998	...	...	40,000	1997-98	1.0	0.7
1999	...	...	40,300	1998-99	0.8	0.6
2000	...	...	40,500	1999-2000	0.5	0.6
2001	...	...	40,700	2000-01	0.5	1.1
2002	...	...	41,200	2001-02	1.2	1.9
2003	...	...	41,800	2002-03	1.5	1.8
2004	...	...	42,500	2003-04	1.7	1.3
2005	...	...	43,000	2004-05	1.2	1.1
2006	...	...	43,600	2005-06	1.4	1.2
2007	...	...	44,000	2006-07	0.9	1.0
2008	...	...	44,500	2007-08	1.1	0.9
2009	...	...	45,000	2008-09	1.1	1.3
2010	...	...	45,300	2009-10	0.7	1.1
2011	...	...	45,600	2010-11	0.7	0.3
1986-2011*			10,746		30.8	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, NELSON Region and Total New Zealand 1986-2010

Nelson Region	Night Resident Population and Census-Adjusted	Night Resident Population (unadjusted for Census)	Estimated Usual Resident Population (June Years)	Nelson Region	Change (%)	Total New Zealand Change (%)
1986	36,047	...	...	
1987	36,300	...	...	1986-87	...	...
1988	36,500	...	...	1987-88	0.7	0.3
1989	36,700	...	...	1988-89	0.6	0.7
1990	37,000	...	...	1989-90	0.5	0.2
1991	...	38,003	...	1990-91	...	...
1992	...	38,300	...	1991-92	0.8	1.0
1993	...	39,400	...	1992-93	2.9	1.3
1994	...	40,300	...	1993-94	2.3	1.4
1995	...	41,000	...	1994-95	1.7	1.6
1996	...	...	41,200	1995-96	...	...
1997	...	...	41,700	1996-97	1.2	1.1
1998	...	...	42,000	1997-98	0.7	0.7
1999	...	...	42,300	1998-99	0.7	0.6
2000	...	...	42,600	1999-2000	0.7	0.6
2001	...	...	42,900	2000-01	0.7	1.1
2002	...	...	43,100	2001-02	0.5	1.9
2003	...	...	43,600	2002-03	1.2	1.8
2004	...	...	44,000	2003-04	0.9	1.3
2005	...	...	44,000	2004-05	0.0	1.1
2006	...	...	44,300	2005-06	0.7	1.2
2007	...	...	44,400	2006-07	0.2	1.0
2008	...	...	44,700	2007-08	0.7	0.9
2009	...	...	45,000	2008-09	0.7	1.3
2010	...	...	45,500	2009-10	1.1	1.1
2011	...	...	46,200	2010-11	1.5	0.3
1986-2011*			10,153		28.2	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 1.3: Population Size and Growth, TASMAN Region and Total New Zealand 1986-2010

Tasman Region	Night Resident Population and Census-Adjusted	Night Resident Population (unadjusted for Census)	Estimated Usual Resident Population (June Years)	Tasman Region	Change (%)	Total New Zealand Change (%)
1986	33,729	...	...	
1987	34,300	...	...	1986-87	...	...
1988	34,800	...	...	1987-88	1.7	0.3
1989	35,100	...	...	1988-89	1.5	0.7
1990	35,500	...	...	1989-90	0.9	0.2
1991	...	36,416	...	1990-91	...	...
1992	...	36,800	...	1991-92	1.1	1.0
1993	...	37,300	...	1992-93	1.4	1.3
1994	...	38,000	...	1993-94	1.9	1.4
1995	...	38,700	...	1994-95	1.8	1.6
1996	...	...	38,800	1995-96	...	...
1997	...	...	39,400	1996-97	1.5	1.1
1998	...	...	40,200	1997-98	2.0	0.7
1999	...	...	40,800	1998-99	1.5	0.6
2000	...	...	41,600	1999-2000	2.0	0.6
2001	...	...	42,400	2000-01	1.9	1.1
2002	...	...	43,200	2001-02	1.9	1.9
2003	...	...	44,100	2002-03	2.1	1.8
2004	...	...	45,000	2003-04	2.0	1.3
2005	...	...	45,500	2004-05	1.1	1.1
2006	...	...	45,800	2005-06	0.7	1.2
2007	...	...	46,100	2006-07	0.7	1.0
2008	...	...	46,500	2007-08	0.9	0.9
2009	...	...	46,800	2008-09	0.6	1.3
2010	...	...	47,300	2009-10	1.1	1.1
2011	...	...	48,100	2010-11	1.7	0.3
1986-2011*			14,371		42.6	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 2.1(a): Components of Change by age, MARLBOROUGH 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	2,810	2,354	2,540	-270	186	-16	-440	-9.6	6.6	-0.6	-15.7	
5-9	3,000	2,806	2,900	-100	94	-4	-190	-3.3	3.1	-0.1	-6.3	
10-14	2,890	2,998	3,060	170	62	-2	110	5.9	2.2	-0.1	3.8	
15-19	2,590	2,883	2,590	0	-293	-7	300	0.0	-11.3	-0.3	11.6	
20-24	2,290	2,578	1,900	-390	-678	-12	300	-17.0	-29.6	-0.5	13.1	
25-29	2,610	2,279	2,170	-440	-109	-11	-320	-16.9	-4.2	-0.4	-12.3	
30-34	2,800	2,598	2,630	-170	32	-12	-190	-6.1	1.1	-0.4	-6.8	
35-39	3,100	2,786	2,980	-120	194	-14	-300	-3.9	6.3	-0.5	-9.7	
40-44	2,780	3,080	3,160	380	80	-20	320	13.7	2.9	-0.7	11.5	
45-49	2,690	2,753	2,890	200	137	-27	90	7.4	5.1	-1.0	3.3	
50-54	2,350	2,648	2,960	610	312	-42	340	26.0	13.3	-1.8	14.5	
55-59	2,020	2,289	2,550	530	261	-61	330	26.2	12.9	-3.0	16.3	
60-64	1,730	1,934	2,150	420	216	-86	290	24.3	12.5	-5.0	16.8	
65-69	1,810	1,612	1,790	-20	178	-118	-80	-1.1	9.8	-6.5	-4.4	
70-74	1,520	1,617	1,670	150	53	-193	290	9.9	3.5	-12.7	19.1	
75-79	1,070	1,268	1,360	290	92	-252	450	27.1	8.6	-23.6	42.1	
80-84	710	795	800	90	5	-275	360	12.7	0.7	-38.7	50.7	
85-89	309	431	437	128	6	-279	401	41.3	1.9	-90.1	129.5	
90+	131	170	193	62	23	-270	309	47.6	17.6	-206.8	236.7	
Total	39,210	39,880	40,730	1,520	850	-1700	2,370	3.9	2.2	-4.3	6.0	

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

Notes: ~As a percentage of Previous Observed Population

Appendix 2.1(b): Components of Change by age, MARLBOROUGH 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	2,540	2,264	2,430	-110	166	-13	-263	-4.3	6.5	-0.5	-10.4	
5-9	2,900	2,537	2,680	-220	143	-3	-360	-7.6	4.9	-0.1	-12.4	
10-14	3,060	2,898	2,920	-140	22	-2	-160	-4.6	0.7	-0.1	-5.2	
15-19	2,590	3,054	2,800	210	-254	-6	470	8.1	-9.8	-0.2	18.1	
20-24	1,900	2,581	2,010	110	-571	-9	690	5.8	-30.0	-0.5	36.3	
25-29	2,170	1,893	2,240	70	347	-7	-270	3.2	16.0	-0.3	-12.4	
30-34	2,630	2,162	2,630	0	468	-8	-460	0.0	17.8	-0.3	-17.5	
35-39	2,980	2,618	3,000	20	382	-12	-350	0.7	12.8	-0.4	-11.7	
40-44	3,160	2,962	3,220	60	258	-18	-180	1.9	8.2	-0.6	-5.7	
45-49	2,890	3,132	3,450	560	318	-28	270	19.4	11.0	-1.0	9.3	
50-54	2,960	2,850	3,130	170	280	-40	-70	5.7	9.4	-1.3	-2.4	
55-59	2,550	2,896	3,280	730	384	-64	410	28.6	15.1	-2.5	16.1	
60-64	2,150	2,461	2,700	550	239	-89	400	25.6	11.1	-4.2	18.6	
65-69	1,790	2,028	2,190	400	162	-122	360	22.3	9.1	-6.8	20.1	
70-74	1,670	1,628	1,690	20	62	-162	120	1.2	3.7	-9.7	7.2	
75-79	1,360	1,430	1,470	110	40	-240	310	8.1	2.9	-17.6	22.8	
80-84	800	1,048	1,020	220	-28	-312	560	27.5	-3.5	-39.0	70.0	
85-89	437	507	492	55	-15	-293	363	12.6	-3.5	-66.9	83.0	
90+	193	253	238	45	-15	-377	437	23.4	-7.7	-195.6	226.7	
Total	40,730	41,200	43,590	2,860	2,390	-1807	2,277	7.0	5.9	-4.4	5.6	

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

Notes: ~As a percentage of Previous Observed Population

Appendix 2.2(a): Components of Change by age, NELSON 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	2,870	2,630	2,660	-210	30	-18	-222	-7.3	1.0	-0.6	-7.7	
5-9	2,970	2,866	2,940	-30	74	-4	-100	-1.0	2.5	-0.1	-3.4	
10-14	2,710	2,968	3,300	590	332	-2	260	21.8	12.3	-0.1	9.6	
15-19	2,740	2,704	2,960	220	256	-6	-30	8.0	9.3	-0.2	-1.1	
20-24	2,940	2,728	2,310	-630	-418	-12	-200	-21.4	-14.2	-0.4	-6.8	
25-29	3,070	2,927	2,770	-300	-157	-13	-130	-9.8	-5.1	-0.4	-4.2	
30-34	3,330	3,056	3,050	-280	-6	-14	-260	-8.4	-0.2	-0.4	-7.8	
35-39	3,250	3,313	3,410	160	97	-17	80	4.9	3.0	-0.5	2.5	
40-44	3,080	3,229	3,480	400	251	-21	170	13.0	8.1	-0.7	5.5	
45-49	2,920	3,050	3,080	160	30	-30	160	5.5	1.0	-1.0	5.5	
50-54	2,110	2,874	2,900	790	26	-46	810	37.4	1.2	-2.2	38.4	
55-59	1,860	2,055	2,140	280	85	-55	250	15.1	4.6	-2.9	13.4	
60-64	1,580	1,782	1,770	190	-12	-78	280	12.0	-0.7	-5.0	17.7	
65-69	1,610	1,474	1,510	-100	36	-106	-30	-6.2	2.3	-6.6	-1.9	
70-74	1,600	1,443	1,510	-90	67	-167	10	-5.6	4.2	-10.4	0.6	
75-79	1,220	1,338	1,400	180	62	-262	380	14.8	5.1	-21.5	31.1	
80-84	790	910	910	120	0	-310	430	15.2	0.0	-39.2	54.4	
85-89	408	480	506	98	26	-310	382	24.0	6.3	-76.0	93.8	
90+	172	224	224	52	0	-356	408	30.2	0.2	-206.6	236.6	
Total	41,230	42,050	42,830	1,600	780	-1828	2,648	3.9	1.9	-4.4	6.4	

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

Notes: ~As a percentage of Previous Observed Population

Appendix 2.2(b): Components of Change by age, NELSON 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	2,660	2,658	2,590	-70	-68	-16	14	-2.6	-2.6	-0.6	0.5	
5-9	2,940	2,657	2,690	-250	33	-3	-280	-8.5	1.1	-0.1	-9.5	
10-14	3,300	2,938	3,100	-200	162	-2	-360	-6.1	4.9	-0.1	-10.9	
15-19	2,960	3,294	3,250	290	-44	-6	340	9.8	-1.5	-0.2	11.5	
20-24	2,310	2,950	2,420	110	-530	-10	650	4.8	-22.9	-0.4	28.1	
25-29	2,770	2,301	2,420	-350	119	-9	-460	-12.6	4.3	-0.3	-16.6	
30-34	3,050	2,759	2,840	-210	81	-11	-280	-6.9	2.6	-0.3	-9.2	
35-39	3,410	3,036	3,180	-230	144	-14	-360	-6.7	4.2	-0.4	-10.6	
40-44	3,480	3,389	3,540	60	151	-21	-70	1.7	4.3	-0.6	-2.0	
45-49	3,080	3,449	3,590	510	141	-31	400	16.6	4.6	-1.0	13.0	
50-54	2,900	3,038	3,180	280	142	-42	180	9.7	4.9	-1.4	6.2	
55-59	2,140	2,837	2,930	790	93	-63	760	36.9	4.3	-2.9	35.5	
60-64	1,770	2,065	2,140	370	75	-75	370	20.9	4.2	-4.2	20.9	
65-69	1,510	1,671	1,700	190	29	-99	260	12.6	1.9	-6.6	17.2	
70-74	1,510	1,374	1,440	-70	66	-136	0	-4.6	4.4	-9.0	0.0	
75-79	1,400	1,297	1,340	-60	43	-213	110	-4.3	3.1	-15.2	7.9	
80-84	910	1,082	1,070	160	-12	-318	490	17.6	-1.3	-34.9	53.8	
85-89	506	578	573	67	-5	-332	404	13.3	-0.9	-65.7	79.9	
90+	224	294	277	53	-17	-436	506	23.5	-7.5	-194.4	225.5	
Total	42,830	43,667	44,270	1,440	603	-1837	2,674	3.4	1.4	-4.3	6.2	

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

Notes: ~As a percentage of Previous Observed Population

Appendix 2.3(a): Components of Change by age, TASMAN 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	2,880	2,481	2,830	-50	349	-17	-382	-1.7	12.1	-0.6	-13.3	
5-9	3,190	2,876	3,360	170	484	-4	-310	5.3	15.2	-0.1	-9.7	
10-14	2,980	3,187	3,500	520	313	-3	210	17.4	10.5	-0.1	7.0	
15-19	2,510	2,973	2,670	160	-303	-7	470	6.4	-12.1	-0.3	18.7	
20-24	2,260	2,499	1,820	-440	-679	-11	250	-19.5	-30.0	-0.5	11.1	
25-29	2,520	2,250	2,370	-150	120	-10	-260	-6.0	4.8	-0.4	-10.3	
30-34	2,840	2,509	2,930	90	421	-11	-320	3.2	14.8	-0.4	-11.3	
35-39	3,210	2,826	3,330	120	504	-14	-370	3.7	15.7	-0.4	-11.5	
40-44	2,960	3,190	3,530	570	340	-20	250	19.3	11.5	-0.7	8.4	
45-49	2,990	2,931	3,100	110	169	-29	-30	3.7	5.6	-1.0	-1.0	
50-54	2,260	2,943	3,150	890	207	-47	730	39.4	9.2	-2.1	32.3	
55-59	1,810	2,201	2,430	620	229	-59	450	34.3	12.7	-3.3	24.9	
60-64	1,590	1,733	1,930	340	197	-77	220	21.4	12.4	-4.8	13.8	
65-69	1,490	1,482	1,610	120	128	-108	100	8.1	8.6	-7.2	6.7	
70-74	1,360	1,330	1,390	30	60	-160	130	2.2	4.4	-11.7	9.6	
75-79	950	1,134	1,180	230	46	-226	410	24.2	4.8	-23.8	43.2	
80-84	590	705	780	190	75	-245	360	32.2	12.8	-41.6	61.0	
85-89	247	359	382	135	23	-231	343	54.6	9.4	-93.5	138.7	
90+	103	134	168	65	34	-216	247	63.3	33.5	-210.5	240.3	
Total	38,740	39,742	42,460	3,720	2,718	-1496	2,498	9.6	7.0	-3.9	6.4	

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

Notes: ~As a percentage of Previous Observed Population

Appendix 2.3(b): Components of Change by age, TASMAN 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	2,830	2,634	2,970	140	336	-15	-181	4.9	11.9	-0.5	-6.4	
5-9	3,360	2,826	3,230	-130	404	-4	-530	-3.9	12.0	-0.1	-15.8	
10-14	3,500	3,358	3,550	50	192	-2	-140	1.4	5.5	-0.1	-4.0	
15-19	2,670	3,493	2,980	310	-513	-7	830	11.6	-19.2	-0.2	31.1	
20-24	1,820	2,660	1,850	30	-810	-10	850	1.6	-44.5	-0.5	46.7	
25-29	2,370	1,813	1,940	-430	127	-7	-550	-18.1	5.4	-0.3	-23.2	
30-34	2,930	2,361	2,770	-160	409	-9	-560	-5.5	14.0	-0.3	-19.1	
35-39	3,330	2,917	3,370	40	453	-13	-400	1.2	13.6	-0.4	-12.0	
40-44	3,530	3,310	3,710	180	400	-20	-200	5.1	11.3	-0.6	-5.7	
45-49	3,100	3,498	3,850	750	352	-32	430	24.2	11.3	-1.0	13.9	
50-54	3,150	3,057	3,400	250	343	-43	-50	7.9	10.9	-1.4	-1.6	
55-59	2,430	3,081	3,350	920	269	-69	720	37.9	11.1	-2.8	29.6	
60-64	1,930	2,345	2,570	640	225	-85	500	33.2	11.7	-4.4	25.9	
65-69	1,610	1,822	1,950	340	128	-108	320	21.1	8.0	-6.7	19.9	
70-74	1,390	1,465	1,510	120	45	-145	220	8.6	3.3	-10.5	15.8	
75-79	1,180	1,187	1,150	-30	-37	-203	210	-2.5	-3.1	-17.2	17.8	
80-84	780	908	940	160	32	-272	400	20.5	4.0	-34.8	51.3	
85-89	382	496	473	91	-23	-284	398	23.7	-6.1	-74.3	104.1	
90+	168	220	227	59	7	-330	382	35.4	4.2	-196.3	227.5	
Total	42,460	43,451	45,790	3,330	2,339	-1658	2,649	7.8	5.5	-3.9	6.2	

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

Notes: ~As a percentage of Previous Observed Population

Appendix 3.1: Customised Projection Assumptions and Methodology

The customised projections used in this project were developed in consultation with the client.

Consultation involved discussing and refining a set of assumptions regarding fertility, mortality and migration which were based on those developed by Statistics New Zealand for their national projections 2006-2061, but to which regional multipliers had been applied. The following table (A3.1.1) gives those multipliers, which, for fertility (total fertility rate) and mortality (life expectancy), were based on the percentage above or below which these indices for each Regional Council population fell in 2006 (2005-2007 in the case of mortality) *vis-à-vis* their projected national level counterpart. Migration levels, by contrast, were based on comparison of the regional level assumptions developed by Statistics New Zealand for their 2006-2031 projections, and the average of observed net migration for the period 1996-2006. The latter observations resulted in a slight raising of some of the net migration levels assumed by Statistics New Zealand.

Table A3.1.1: Projection Assumptions - Levels

Region	Component/Multiplier	LOW	MEDIUM	HIGH
Marlborough RC	Fertility (*0.985) in 2011	1.98	2.05	2.13
	Mortality (e0 in 2061)			
	Males: (*1.001)	83.35	86.40	89.23
	Females: (*0.999)	86.11	88.60	91.09
	Migration (annual by 2016)	0	200	400
Nelson RC	Fertility (*0.990) in 2011	1.99	2.06	2.14
	Mortality (e0 in 2061)			
	Males: (*1.012)	83.35	86.40	83.23
	Females: (*1.001)	86.1	88.60	91.09
	Migration (annual by 2016)	0	100	300
Tasman RC	Fertility (*1.059) in 2011	2.13	2.20	2.29
	Mortality (e0 in 2061)			
	Males: (*1.012)	83.30	86.39	89.17
	Females: (*1.004)	86.32	88.81	91.11
	Migration (annual by 2016)	0	200	500

(e0 = Life Expectancy at Birth)

In addition to level, population projections involve determining the age distribution for each component, that is, the distribution of fertility by age, the age groups for which migration is negative or positive, and the extent to which mortality is concentrated at older or younger ages. In the former and latter cases, published age/sex distributions for 2006 (or 2005-2007 in the case of mortality) for each region were readily available and utilised.

Mortality Age Profile: The age distribution for mortality was based directly on lx (number alive at exact age X), drawn directly from Statistics New Zealand Abridged Regional Life Tables 2005-2007, purchased for the project from Statistics New Zealand.

Age-Specific Fertility Distribution: The age profile for fertility was taken from Statistics New Zealand Regional Fertility Rates for 2006 (see Table A3.1.2 below).

Table A3.1.2: Age-Specific Fertility Rates 2006

Regional council area	Age-specific fertility rates(1)(2)							TFR (2006)	av. Births 2005-2007
	Under 20	20-24	25-29	30-34	35-39	40-44	45+		
Tasman Region	20.2	85.7	130.0	123.2	61.8	9.7	0.7	2.16	538
Nelson Region	24.0	81.6	104.6	122.9	59.0	11.3	0.4	2.02	560
Marlborough Region	28.9	84.1	107.0	119.5	53.2	8.7	0.6	2.01	491

Source: Statistics New Zealand (2006) Regional Fertility Rates

(1) To minimise annual fluctuations calculations are based on the annual average number of live births during the three-year period 2005-2007.

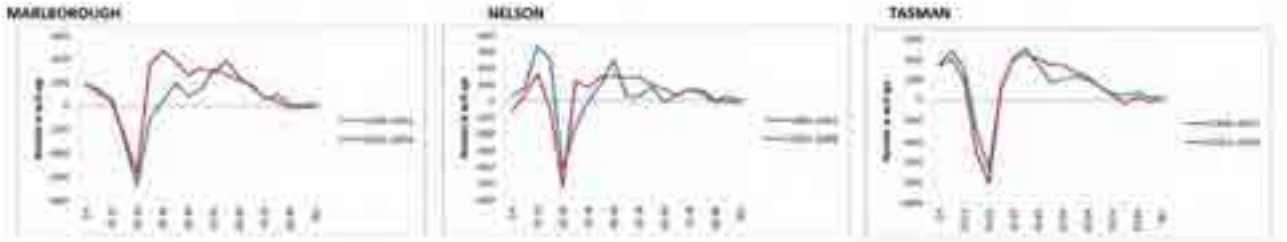
(2) Per 1,000 female estimated resident population in each age group at 30 June 2006. Rates for women under 20 years are calculated using the population aged 15-19 years and rates for women aged 45 and over are calculated using the population aged 45-49.

Note:

- (a) Births and fertility rates are based on births registered in New Zealand to mothers resident in New Zealand by date of registration.
- (b) Due to small populations in some regions rates should be interpreted with caution.

Migration Age Profile: In the case of migration it was decided to use the age profiles generated by the residual migration methodology used in Section 3 (see Figure A3.1.1 below). For the medium and high variants, the most positive age profile occurring over the 1996-2001 or 2001-2006 period was chosen, while for the low variant, the average of the 1996-2001 and 2001-2006 period was used (see Table A3.1.3 below). An exception was made for Nelson, for which the average age profile was used for all three variants. The decisions were based on two main observations. First, while net migration at 15-19 and/or 20-24 years is typically negative for provincial (non-major urban) regions, observation shows that higher net migration gains are typically associated with lower net outflows of young people. This observation means that where (for example) 25 per cent of net migration occurs at age 20-24 years, higher net gains (such as for Marlborough and Tasman) would result in greater absolute losses. Applying the most positive age profile to assumed net gains (migration level) reduced this loss. Second, there was in fact very little difference between the age distribution of migration in years in which high and low levels were experienced.

Figure A3.1.1: Migration: Age Distribution Profiles 1996-2001 and 2001-2006



A3.1.3: Migration Age Distribution Assumptions by Series

MARLBOROUGH						
	Low		Medium		High	
0-4	6.97	3.90	4.2	2.7	4.23	2.73
5-9	2.29	5.04	1.3	4.7	1.33	4.66
10-14	2.55	0.06	1.3	-0.4	1.30	-0.38
15-19	-5.61	-11.29	-3.6	-7.0	-3.60	-7.04
20-24	-18.35	-20.20	-10.6	-13.3	-10.60	-13.29
25-29	-2.34	9.70	3.2	11.4	3.17	11.37
30-34	5.69	9.75	9.5	10.1	9.46	10.14
35-39	6.38	11.40	7.8	8.1	7.85	8.14
40-44	5.65	4.78	5.9	4.9	5.89	4.91
45-49	6.87	7.18	6.6	6.8	6.56	6.77
50-54	8.27	10.00	5.6	6.1	5.57	6.13
55-59	11.20	8.70	9.1	7.0	9.09	6.98
60-64	8.25	5.81	6.4	3.6	6.40	3.61
65-69	6.22	4.28	4.5	2.3	4.46	2.33
70-74	0.35	3.20	0.1	2.6	0.06	2.55
75-79	2.14	1.93	1.2	0.4	1.25	0.42
80+	0.37	-1.13	-0.4	-2.0	-0.41	-2.03

NELSON						
	Low		Medium		High	
0-4	-1.26	-1.53	-1.26	-1.53	-1.26	-1.53
5-9	5.37	2.41	5.37	2.41	5.37	2.41
10-14	16.82	18.94	16.82	18.94	16.82	18.94
15-19	4.22	11.14	4.22	11.14	4.22	11.14
20-24	-35.69	-32.83	-35.69	-32.83	-35.69	-32.83
25-29	-3.17	0.42	-3.17	0.42	-3.17	0.42
30-34	-3.09	8.48	-3.09	8.48	-3.09	8.48
35-39	3.59	13.80	3.59	13.80	3.59	13.80
40-44	12.66	16.37	12.66	16.37	12.66	16.37
45-49	5.41	6.93	5.41	6.93	5.41	6.93
50-54	2.95	9.20	2.95	9.20	2.95	9.20
55-59	7.83	5.00	7.83	5.00	7.83	5.00
60-64	1.52	3.04	1.52	3.04	1.52	3.04
65-69	2.44	2.30	2.44	2.30	2.44	2.30
70-74	4.97	4.66	4.97	4.66	4.97	4.66
75-79	2.62	5.02	2.62	5.02	2.62	5.02
80+	2.69	-3.27	2.69	-3.27	2.69	-3.27

TASMAN						
	Low		Medium		High	
0-4	6.75	6.80	8.82	4.01	8.82	4.01
5-9	10.17	7.38	10.76	7.06	10.76	7.06
10-14	4.21	5.78	4.84	6.66	4.84	6.66
15-19	-6.94	-9.21	-5.71	-5.44	-5.71	-5.44
20-24	-15.91	-13.54	-14.41	-10.56	-14.41	-10.56
25-29	0.26	4.63	0.29	4.14	0.29	4.14
30-34	7.01	9.41	6.19	9.32	6.19	9.32
35-39	7.47	11.47	8.43	10.12	8.43	10.12
40-44	6.82	7.83	5.98	6.55	5.98	6.55
45-49	5.06	5.24	2.84	3.37	2.84	3.37
50-54	5.41	5.47	3.25	4.38	3.25	4.38
55-59	4.49	5.36	3.90	4.53	3.90	4.53
60-64	3.92	4.42	3.19	4.04	3.19	4.04
65-69	2.62	2.45	2.48	2.23	2.48	2.23
70-74	1.40	0.68	1.89	0.31	1.89	0.31
75-79	0.21	-0.03	0.92	0.77	0.92	0.77
80+	0.56	2.37	1.45	3.44	1.45	3.44

Base Population: Last but not least is the base population by age and sex. In the absence of the 2011 Census, and in order to incorporate the recent increase in births occurring between 2006 and 2011, the estimated usual resident population for 2011 for each region was chosen (Table A3.1.4). This decision required applying the projected fertility and mortality/survival rates for 2011 to the base data.

Table A3.1.4: Base Populations by Age and Sex, 2011

	Marlborough Region		Nelson Region		Tasman Region	
	Males	Females	Males	Females	Males	Females
0-4	1500	1410	1590	1450	1490	1430
5-9	1310	1260	1390	1320	1670	1700
10-14	1380	1330	1460	1360	1830	1590
15-19	1410	1170	1590	1510	1700	1400
20-24	1290	1020	1530	1440	1250	1080
25-29	1130	1070	1330	1250	1050	1010
30-34	1180	1220	1200	1300	1090	1210
35-39	1390	1410	1400	1540	1430	1560
40-44	1480	1620	1570	1720	1700	1870
45-49	1580	1740	1690	1850	1820	1920
50-54	1760	1800	1740	1840	1890	1960
55-59	1600	1620	1520	1650	1730	1670
60-64	1670	1690	1410	1470	1680	1690
65-69	1390	1340	1000	1070	1300	1260
70-74	1090	1020	770	880	910	960
75-79	750	820	630	690	650	710
80-84	530	670	450	630	450	510
85+	390	610	360	620	340	610
TOTAL	22800	22800	22600	23600	24000	24100

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

Source data from Stats NZ *Infoshare Estimated Subnational Population (RC, TA, AU) by Age and Sex at 30 June 2006 (2006 Boundaries)*

Appendix 3.2: Customised Projections 2011-2061 Compared with Statistics New Zealand 2011-2031 (2006 Base):

												Change (%)
MARLBOROUGH RC	2011	2016	2021	2026	2031	2036	2041	2046	2051	2056	2061	2011-2061
High	45,650	47,786	49,643	51,242	52,658	53,869	54,899	55,638	56,155	56,574	56,977	24.8
Medium	45,650	47,049	47,642	48,022	48,283	48,375	48,306	47,988	47,518	47,035	46,622	2.1
Low	45,650	46,336	45,609	44,707	43,759	42,705	41,541	40,194	38,798	37,508	36,404	-20.3
Stats NZ High*	47,000	49,700	52,200	54,500	56,400	...	...	...	...	...	...
Stats NZ Medium*	45,800	47,100	48,000	48,600	48,700	...	...	...	...	...	...
Stats NZ Low*	44,600	44,600	44,000	42,900	41,400	...	...	...	...	...	...
												Change (%)
NELSON RC	2011	2016	2021	2026	2031	2036	2041	2046	2051	2056	2061	2011-2061
High	46,220	48,565	50,728	52,739	54,649	56,345	57,791	58,949	59,909	60,762	61,646	33.4
Medium	46,220	47,911	48,878	49,710	50,397	50,785	50,879	50,708	50,395	50,054	49,813	7.8
Low	46,220	46,755	47,062	47,170	47,033	46,569	45,851	44,908	43,845	42,789	41,823	-9.5
Stats NZ High*	47,100	49,800	52,500	55,200	57,700	...	...	...	...	...	...
Stats NZ Medium*	45,900	47,200	48,300	49,200	49,900	...	...	...	...	...	...
Stats NZ Low*	44,700	44,600	44,100	43,300	42,200	...	...	...	...	...	...
												Change (%)
TASMAN RC	2011	2016	2021	2026	2031	2036	2041	2046	2051	2056	2061	2011-2061
High	48,120	51,238	54,133	57,005	59,907	62,669	65,184	67,352	69,392	71,502	73,826	53.4
Medium	48,120	50,068	51,290	52,498	53,692	54,665	55,327	55,630	55,825	56,128	56,685	17.8
Low	48,120	48,907	48,925	48,883	48,770	48,398	47,702	46,668	45,534	44,588	43,914	-8.7
Stats NZ High*	49,100	52,200	55,200	58,200	60,900	...	...	...	...	...	...
Stats NZ Medium*	47,900	49,600	51,100	52,300	53,200	...	...	...	...	...	...
Stats NZ Low*	46,700	47,100	47,000	46,600	45,800	...	...	...	...	...	...

Source: Jackson (2012) Customised Projections, 2011(base)

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

Appendix 3.3: Projection Assumptions and Results by Variant, MARLBOROUGH Region

LOW

Marlborough RC												
Year	Population	Annual Growth Rate %	Average Annual Increase	TFR	Male e0	Female e0	Annual Net Migration (includes deaths)	Annual Births	Annual Deaths	Annual Natural Increase	CBR	CDR
2011	45,690	0.30	137	1.88	78.58	81.89	200	428	491	-63	9.3	10.7
2016	45,336	-0.32	-145	1.81	79.08	82.44	0	382	527	-145	8.3	11.5
2021	45,409	-0.40	-160	1.71	79.32	82.92	0	382	563	-181	8.3	12.5
2026	44,707	-0.43	-190	1.68	79.96	83.39	0	412	600	-188	8.3	13.0
2031	43,759	-0.49	-211	1.66	80.38	83.83	0	428	636	-208	8.6	14.7
2036	42,706	-0.56	-233	1.66	80.78	84.24	0	457	679	-222	8.3	15.2
2041	41,541	-0.66	-269	1.66	81.17	84.62	0	571	840	-269	8.1	15.7
2046	40,194	-0.70	-279	1.68	81.53	84.99	0	556	818	-262	8.6	15.0
2051	39,739	-0.67	-258	1.66	81.88	85.33	0	527	780	-253	8.6	15.3
2056	37,508	-0.60	-221	1.68	82.22	85.85	0	529	750	-221	8.9	14.9
2061	36,404	-0.50	-182	1.68	82.53	86.34	0	538	710	-172	9.1	14.2

MEDIUM

Marlborough RC												
Year	Population	Annual Growth Rate %	Average Annual Increase	TFR	Male e0	Female e0	Annual Net Migration (includes deaths)	Annual Births	Annual Deaths	Annual Natural Increase	CBR	CDR
2011	45,690	0.41	260	2.00	78.88	82.49	200	478	478	0	9.6	10.3
2016	47,049	0.25	119	1.95	78.77	83.17	200	428	500	-72	9.0	10.7
2021	47,642	0.18	76	1.88	80.58	83.84	200	420	544	-124	8.8	11.4
2026	48,022	0.11	52	1.87	81.38	84.48	200	443	591	-148	8.2	12.3
2031	48,283	0.04	28	1.87	82.08	85.10	200	456	638	-182	8.5	13.2
2036	48,376	-0.03	-14	1.87	82.72	85.71	200	448	665	-217	8.3	13.7
2041	48,386	-0.12	-64	1.87	83.38	86.29	200	424	688	-264	8.8	14.3
2046	47,986	-0.20	-84	1.87	83.97	86.85	200	508	692	-184	8.3	14.5
2051	47,518	-0.20	-87	1.87	84.52	87.40	200	580	696	-116	8.2	14.5
2056	47,038	-0.18	-83	1.87	85.09	87.90	200	593	670	-77	8.4	14.4
2061	46,622	-0.14	-65	1.87	85.61	88.43	200	594	669	-75	8.5	14.2

HIGH

Marlborough RC												
Year	Population	Annual Growth Rate %	Average Annual Increase	TFR	Male e0	Female e0	Annual Net Migration (includes deaths)	Annual Births	Annual Deaths	Annual Natural Increase	CBR	CDR
2011	45,690	0.63	427	2.13	80.08	82.78	400	484	457	27	10.4	9.8
2016	47,786	0.77	371	2.10	81.02	83.88	400	458	486	-28	9.4	10.0
2021	49,643	0.64	320	2.08	81.93	84.89	400	449	529	-80	8.8	10.5
2026	51,242	0.55	283	2.07	82.81	85.47	400	467	584	-117	8.0	11.2
2031	52,658	0.46	242	2.07	83.66	86.32	400	488	646	-158	8.2	12.1
2036	53,889	0.38	208	2.07	84.50	87.14	400	480	696	-194	8.0	12.8
2041	54,889	0.27	148	2.07	85.30	87.93	400	478	730	-252	8.8	13.2
2046	55,636	0.18	104	2.07	86.08	88.70	400	458	754	-296	8.2	13.6
2051	56,155	0.15	81	2.07	86.84	89.44	400	451	767	-316	8.0	13.8
2056	56,574	0.14	81	2.07	87.57	90.16	400	458	776	-318	8.0	13.7
2061	56,977	0.15	83	2.07	88.28	90.86	400	460	780	-317	8.1	13.6

Source: Jackson (2012) Customized Projections 2011/2061

Notes:

TFR Total Fertility Rate (the average number of births a woman would have across her lifetime if she experienced the age-specific fertility rates occurring in the given year)

e0 Life Expectancy at Birth

CBR Crude Birth Rate (Births per 1,000 population)

CDR Crude Death Rate (Deaths per 1,000 population)

Appendix 3.4: Projection Assumptions and Results by Variant, NELSON Region

LOW												
Nelson RC		Annual Growth Rate %	Average Annual Increase	TFR	Male e0	Female e0	Annual Net Migration	Annual Births	Annual Deaths	Annual Natural Increase	CBR	CDR
Year	Population						(Includes deaths)					
2011	46,220	0.23	103	1.89	75.28	82.12	0	521	416	107	11.3	9.0
2016	46,750	0.13	61	1.82	76.84	82.64	0	490	429	61	10.4	9.3
2021	47,062	0.05	22	1.72	80.36	83.32	0	476	455	22	10.1	9.7
2026	47,170	-0.06	-27	1.68	80.86	83.59	0	467	499	-27	9.9	10.5
2031	47,033	-0.28	-63	1.66	81.20	84.00	0	456	540	-83	9.7	11.7
2036	46,569	-0.51	-144	1.66	81.72	84.40	0	444	587	-144	9.6	12.7
2041	45,851	-0.41	-169	1.66	82.10	84.81	0	427	610	-183	9.4	13.6
2046	44,908	-0.46	-213	1.66	83.46	85.36	0	405	618	-213	9.1	13.9
2051	43,844	-0.49	-211	1.66	82.78	85.50	0	389	600	-211	9.0	13.8
2056	42,789	-0.46	-193	1.66	83.08	85.82	0	372	571	-193	8.9	13.3
2061	41,823	-0.41	-173	1.66	83.35	86.11	0	367	530	-163	8.8	13.0

MEDIUM												
Nelson RC		Annual Growth Rate %	Average Annual Increase	TFR	Male e0	Female e0	Annual Net Migration	Annual Births	Annual Deaths	Annual Natural Increase	CBR	CDR
Year	Population						(Includes deaths)					
2011	46,220	0.72	338	2.09	79.67	82.69	206	646	407	238	13.8	8.7
2016	47,811	0.40	182	1.96	80.70	83.28	100	619	426	193	10.7	8.6
2021	48,876	0.34	166	1.90	81.48	84.02	100	623	456	166	10.8	9.3
2026	49,710	0.27	137	1.88	82.22	84.86	100	608	469	137	10.7	10.0
2031	50,197	0.16	76	1.88	82.82	85.29	100	598	556	-22	10.6	11.0
2036	50,785	0.04	59	1.88	83.58	85.69	100	525	607	-81	10.2	11.8
2041	50,879	-0.07	-54	1.88	84.21	86.40	100	517	648	-134	10.1	12.7
2046	50,708	-0.12	-63	1.88	84.80	87.02	100	502	660	-158	9.9	13.1
2051	50,355	-0.14	-68	1.88	85.36	87.57	100	487	660	-173	9.8	13.2
2056	50,054	-0.10	-48	1.88	85.88	88.09	100	487	646	-159	10.0	13.0
2061	49,813	-0.03	-18	1.88	86.42	88.62	100	486	673	-186	10.0	12.3

HIGH												
Nelson RC		Annual Growth Rate %	Average Annual Increase	TFR	Male e0	Female e0	Annual Net Migration	Annual Births	Annual Deaths	Annual Natural Increase	CBR	CDR
Year	Population						(Includes deaths)					
2011	46,220	0.99	468	2.14	80.18	83.22	296	673	386	274	12.1	8.4
2016	48,565	0.66	432	2.11	81.23	84.14	300	652	410	242	11.1	8.4
2021	50,728	0.78	462	2.09	82.42	85.09	300	656	456	200	10.9	8.8
2026	52,730	0.71	382	2.08	83.46	85.86	300	587	505	82	10.8	9.6
2031	54,645	0.61	309	2.08	84.43	86.71	300	612	573	39	11.0	10.3
2036	56,345	0.51	289	2.08	85.36	87.51	300	623	614	-91	10.9	11.1
2041	57,791	0.46	232	2.08	86.22	88.27	300	624	660	-36	10.7	11.9
2046	58,949	0.32	192	2.08	87.01	89.02	300	623	731	-108	10.5	12.3
2051	59,908	0.28	171	2.08	87.81	89.73	300	629	750	-121	10.4	12.6
2056	60,782	0.29	177	2.08	88.54	90.42	300	645	768	-123	10.8	12.6
2061	61,648	0.33	206	2.08	89.21	91.09	300	660	750	-94	10.6	12.2

Source: Jackson (2012) Customised Projections 2011/16/61

Notes:

TFR Total Fertility Rate (the average number of births a woman would have across her lifetime if she experienced the age-specific fertility rates occurring in the given year)

e0 Life Expectancy at Birth

CBR Crude Birth Rate (Births per 1,000 population)

CDR Crude Death Rate (Deaths per 1,000 population)

Appendix 3.5: Projection Assumptions and Results by Variant, TASMAN Region

LOW

Tasman RC		Annual Growth Rate %	Average Annual Increase	TFR	Male e0	Female e0	Annual Net Migration	Annual Births	Annual Deaths	Annual Natural Increase	CBR
Year	Population						(Includes Deaths)				
2011	48,120	0.33	167	2.13	79.21	82.81	300	462	425	37	8.8
2016	48,907	0.01	3	1.98	79.77	83.01	0	461	455	6	8.4
2021	48,526	-0.02	-8	1.84	80.30	83.49	0	496	504	-8	10.1
2026	48,883	-0.05	-23	1.80	80.78	83.93	0	539	562	-23	11.0
2031	48,776	-0.15	-74	1.80	81.24	84.35	0	544	618	-74	11.2
2036	48,398	-0.29	-139	1.80	81.66	84.74	0	506	645	-139	10.5
2041	47,702	-0.44	-307	1.80	82.05	85.10	0	459	666	-207	9.7
2046	46,668	-0.48	-323	1.80	82.40	85.44	0	430	689	-223	8.5
2051	45,594	-0.43	-393	1.80	82.73	85.76	0	441	734	-193	9.8
2056	44,588	-0.30	-136	1.80	83.03	86.05	0	482	597	-115	10.2
2061	43,914	-0.10	-82	1.80	83.30	86.32	0	490	532	-62	10.3

MEDIUM

Tasman RC		Annual Growth Rate %	Average Annual Increase	TFR	Male e0	Female e0	Annual Net Migration	Annual Births	Annual Deaths	Annual Natural Increase	CBR
Year	Population						(Includes Deaths)				
2011	48,120	0.85	370	2.20	79.81	82.78	300	507	417	90	10.3
2016	50,068	0.48	244	2.10	80.71	83.58	200	497	453	44	8.8
2021	51,290	0.47	241	2.03	81.56	84.19	200	542	501	41	10.5
2026	52,498	0.45	238	2.01	82.33	84.85	200	602	563	39	11.3
2031	53,692	0.36	155	2.01	83.05	85.49	200	624	629	-5	11.9
2036	54,668	0.24	132	2.01	83.72	86.10	200	601	669	-68	10.9
2041	55,327	0.11	61	2.01	84.35	86.69	200	568	706	-138	10.2
2046	55,830	0.07	39	2.01	84.92	87.25	200	567	718	-151	10.0
2051	55,825	0.11	61	2.01	85.45	87.79	200	576	718	-132	10.3
2056	56,128	0.20	111	2.01	85.94	88.31	200	603	692	-89	10.7
2061	56,625	0.29	163	2.01	86.39	88.81	200	616	653	-37	10.8

HIGH

Tasman RC		Annual Growth Rate %	Average Annual Increase	TFR	Male e0	Female e0	Annual Net Migration	Annual Births	Annual Deaths	Annual Natural Increase	CBR
Year	Population						(Includes Deaths)				
2011	48,120	1.26	624	2.29	80.10	83.31	500	634	410	124	10.7
2016	51,238	1.11	578	2.26	81.27	84.22	500	629	450	79	10.0
2021	54,133	1.04	674	2.23	82.36	85.10	500	679	505	174	10.4
2026	57,005	1.00	690	2.22	83.40	85.98	500	655	574	80	11.2
2031	59,907	0.91	552	2.22	84.37	86.77	500	705	653	52	11.5
2036	62,668	0.78	503	2.22	85.28	87.58	500	710	707	3	11.1
2041	65,184	0.66	434	2.22	86.16	88.32	500	697	764	-66	10.5
2046	67,352	0.60	408	2.22	86.97	89.06	500	704	798	-92	10.3
2051	69,302	0.66	422	2.22	87.78	89.77	500	741	819	-78	10.5
2056	71,502	0.64	465	2.22	88.48	90.45	500	789	824	-35	10.9
2061	73,826	0.69	514	2.22	89.17	91.11	500	827	814	14	11.3

Source: Jackson (2012) Customised Projections, 2011(base)

Notes:

TFR Total Fertility Rate (the average number of births a woman would have across her lifetime if she experienced the age-specific fertility rates occurring in the given year)

e0 Life Expectancy at Birth

CBR Crude Birth Rate (Births per 1,000 population)

CDR Crude Death Rate (Deaths per 1,000 population)

Appendix 3.6: Projection Results by Variant, MARLBOROUGH Region

LOW	MARLBOROUGH										
	2011	2016	2021	2026	2031	2036	2041	2046	2051	2056	2061
0-4	2,910	2,135	1,901	1,905	2,054	2,118	2,027	1,849	1,687	1,632	1,642
5-9	2,570	3,010	2,103	1,900	1,903	2,053	2,117	2,026	1,847	1,806	1,831
10-14	2,710	2,642	3,014	2,132	1,809	1,903	2,052	2,116	2,025	1,847	1,886
15-19	2,590	2,732	2,638	3,010	2,130	1,896	1,900	2,049	2,114	2,023	1,945
20-24	2,310	2,404	2,725	2,632	3,003	2,125	1,893	1,897	2,046	2,110	2,020
25-29	2,200	1,917	2,397	2,718	2,625	2,996	2,121	1,899	1,893	2,042	2,107
30-34	2,400	2,296	1,911	2,350	2,711	2,619	2,609	2,116	1,885	1,889	2,036
35-39	2,800	2,544	2,258	1,904	2,382	2,702	2,611	2,600	2,110	1,880	1,895
40-44	3,100	2,961	2,590	2,246	1,894	2,370	2,665	2,607	2,102	2,062	1,873
45-49	3,320	3,177	2,897	2,511	2,230	1,881	2,355	2,674	2,585	2,952	2,091
50-54	3,560	3,416	3,138	2,993	2,484	2,207	1,862	2,333	2,660	2,564	2,929
55-59	3,220	3,087	3,390	3,081	2,853	2,443	2,173	1,834	2,299	2,015	2,531
60-64	3,390	3,308	3,551	3,251	2,695	2,777	2,382	2,121	1,791	2,248	2,561
65-69	2,730	3,314	3,138	3,379	3,103	2,865	2,683	2,288	2,042	1,725	2,169
70-74	2,110	2,585	3,033	2,865	3,121	2,878	2,807	2,488	2,144	1,918	1,821
75-79	1,570	1,832	2,221	2,628	2,514	2,738	2,941	2,367	2,216	1,920	1,725
80-84	1,200	1,278	1,460	1,787	2,132	2,058	2,259	2,113	1,901	1,905	1,826
85+	1,000	1,142	1,274	1,449	1,727	2,078	2,239	2,455	2,512	2,488	2,424
Total	45,650	46,336	45,609	44,707	43,759	42,705	41,541	40,194	38,798	37,508	38,404

MEDIUM	MARLBOROUGH										
	2011	2016	2021	2026	2031	2036	2041	2046	2051	2056	2061
0-4	2,910	2,283	2,117	2,099	2,208	2,283	2,242	2,117	1,988	1,943	1,956
5-9	2,570	3,012	2,351	2,185	2,164	2,276	2,351	2,310	2,186	2,057	2,012
10-14	2,710	2,688	3,070	2,409	2,244	2,223	2,338	2,410	2,370	2,245	2,117
15-19	2,590	2,720	2,864	3,076	2,416	2,251	2,230	2,343	2,418	2,377	2,253
20-24	2,310	2,414	2,807	2,652	2,984	2,306	2,141	2,121	2,234	2,309	2,268
25-29	2,200	1,945	2,169	2,363	2,308	2,719	2,083	1,898	1,879	1,992	2,067
30-34	2,400	2,411	2,085	2,398	2,503	2,448	2,859	2,206	2,042	2,022	2,135
35-39	2,800	2,894	2,598	2,273	2,497	2,692	2,839	3,049	2,396	2,234	2,215
40-44	3,100	3,023	2,890	2,746	2,423	2,647	2,842	2,781	3,200	2,550	2,388
45-49	3,320	3,236	3,109	2,919	2,637	2,518	2,742	2,917	2,807	3,296	2,649
50-54	3,560	3,478	3,332	3,210	3,025	2,946	2,831	2,855	3,052	3,003	3,411
55-59	3,220	3,864	3,832	3,395	3,278	3,101	3,027	2,718	2,943	3,140	3,094
60-64	3,360	3,355	3,716	3,598	3,478	3,367	3,199	3,132	2,832	3,057	3,256
65-69	2,730	3,332	3,294	3,654	3,557	3,448	3,355	3,202	3,145	2,858	3,084
70-74	2,110	2,580	3,135	3,121	3,478	3,407	3,321	3,247	3,115	3,073	2,806
75-79	1,570	1,847	2,275	2,716	2,791	3,136	3,100	3,045	2,987	2,895	2,872
80-84	1,200	1,274	1,507	1,879	2,129	2,361	2,602	2,681	2,659	2,640	2,573
85+	1,000	1,122	1,252	1,461	1,795	2,244	2,545	2,925	3,176	3,344	3,464
Total	45,650	47,048	47,642	48,022	48,283	48,375	48,306	47,889	47,518	47,035	48,622

HIGH	MARLBOROUGH										
	2011	2016	2021	2026	2031	2036	2041	2046	2051	2056	2061
0-4	2,910	2,414	2,283	2,340	2,332	2,435	2,454	2,384	2,286	2,282	2,279
5-9	2,570	3,047	2,551	2,421	2,378	2,469	2,573	2,502	2,523	2,424	2,391
10-14	2,710	2,688	3,165	2,670	2,540	2,497	2,589	2,692	2,712	2,642	2,544
15-19	2,590	2,725	2,704	3,180	2,686	2,657	2,514	2,600	2,709	2,729	2,600
20-24	2,310	2,361	2,507	2,467	2,983	2,470	2,341	2,298	2,391	2,494	2,515
25-29	2,200	1,826	1,876	2,024	2,005	2,481	1,988	1,861	1,818	1,911	2,015
30-34	2,400	2,484	2,112	2,165	2,311	2,292	2,788	2,277	2,148	2,107	2,200
35-39	2,800	2,783	2,868	2,498	2,351	2,698	2,679	3,155	2,605	2,538	2,497
40-44	3,100	3,105	3,090	3,178	2,808	2,862	3,010	2,993	3,498	2,980	2,854
45-49	3,320	3,292	3,300	3,267	3,376	3,012	3,067	3,216	3,200	3,675	3,189
50-54	3,560	3,548	3,525	3,537	3,528	3,619	3,259	3,317	3,447	3,453	3,928
55-59	3,220	3,728	3,724	3,709	3,726	3,723	3,818	3,465	3,526	3,679	3,668
60-64	3,360	3,444	3,950	3,958	3,953	3,979	3,984	4,088	3,744	3,809	3,905
65-69	2,730	3,396	3,494	3,999	4,025	4,035	4,073	4,091	4,202	3,875	3,946
70-74	2,110	2,644	3,286	3,403	3,903	3,954	3,988	4,044	4,080	4,205	3,902
75-79	1,570	1,879	2,374	2,875	3,114	3,604	3,687	3,750	3,833	3,897	4,043
80-84	1,200	1,298	1,573	2,013	2,555	2,713	3,178	3,297	3,384	3,507	3,602
85+	1,000	1,122	1,257	1,501	1,905	2,471	2,927	3,514	3,589	4,396	4,780
Total	45,650	47,786	49,643	51,242	52,668	53,989	54,899	55,638	56,155	56,574	58,977

Appendix 3.7: Projection Results by Variant, NELSON Region

NELSON											
Year:	2011	2016	2021	2026	2031	2036	2041	2046	2051	2056	2061
LOW											
0-4	3,040	2,602	2,438	2,371	2,327	2,272	2,209	2,125	2,020	1,937	1,881
5-9	2,710	3,036	2,599	2,435	2,366	2,325	2,270	2,208	2,124	2,018	1,936
10-14	2,820	2,708	3,034	2,597	2,434	2,367	2,324	2,269	2,207	2,123	2,018
15-19	3,100	2,815	2,704	3,030	2,594	2,431	2,364	2,321	2,267	2,204	2,121
20-24	2,970	3,091	2,808	2,697	3,023	2,588	2,426	2,360	2,317	2,263	2,201
25-29	2,580	2,961	3,082	2,800	2,691	3,016	2,583	2,421	2,355	2,313	2,259
30-34	2,500	2,572	2,952	3,074	2,793	2,684	3,009	2,577	2,416	2,351	2,308
35-39	2,940	2,480	2,562	2,942	3,064	2,785	2,677	3,001	2,571	2,410	2,345
40-44	3,290	2,924	2,477	2,550	2,929	3,051	2,773	2,666	2,990	2,562	2,402
45-49	3,540	3,263	2,802	2,463	2,533	2,910	3,033	2,758	2,652	2,975	2,550
50-54	3,580	3,498	3,227	2,871	2,436	2,510	2,885	3,008	2,737	2,633	2,954
55-59	3,170	3,514	3,437	3,175	2,828	2,401	2,476	2,848	2,972	2,705	2,604
60-64	2,880	3,078	3,418	3,350	3,099	2,765	2,350	2,425	2,793	2,917	2,657
65-69	2,070	2,746	2,945	3,279	3,222	2,987	2,670	2,274	2,349	2,710	2,833
70-74	1,650	1,915	2,552	2,749	3,072	3,038	2,818	2,526	2,157	2,231	2,579
75-79	1,320	1,448	1,691	2,268	2,459	2,762	2,739	2,559	2,303	1,974	2,046
80-84	1,080	1,033	1,147	1,352	1,630	2,002	2,267	2,265	2,131	1,931	1,664
85+	980	1,060	1,086	1,169	1,331	1,683	1,978	2,296	2,486	2,534	2,467
Total	46,220	46,755	47,062	47,170	47,033	46,569	45,851	44,908	43,845	42,789	41,823
MEDIUM											
0-4	3,040	2,714	2,585	2,604	2,672	2,671	2,619	2,560	2,504	2,480	2,482
5-9	2,710	3,008	2,697	2,569	2,587	2,656	2,655	2,604	2,544	2,489	2,465
10-14	2,820	2,786	3,046	2,735	2,606	2,625	2,694	2,693	2,642	2,583	2,527
15-19	3,100	3,173	2,961	3,221	2,910	2,783	2,802	2,870	2,870	2,819	2,760
20-24	2,970	3,245	3,242	3,031	3,291	2,982	2,855	2,874	2,943	2,943	2,893
25-29	2,580	2,277	2,895	2,892	2,683	2,942	2,634	2,508	2,528	2,597	2,598
30-34	2,500	2,545	2,257	2,874	2,673	2,664	2,924	2,617	2,491	2,511	2,580
35-39	2,940	2,545	2,583	2,277	2,893	2,892	2,685	2,945	2,639	2,514	2,534
40-44	3,290	3,098	2,620	2,639	2,355	2,970	2,970	2,764	3,024	2,720	2,595
45-49	3,540	3,555	3,222	2,749	2,770	2,488	3,102	3,103	2,899	3,199	2,856
50-54	3,580	3,624	3,581	3,255	2,788	2,811	2,533	3,144	3,147	2,946	3,206
55-59	3,170	3,639	3,628	3,591	3,274	2,816	2,842	2,570	3,178	3,183	2,985
60-64	2,880	3,211	3,613	3,611	3,582	3,278	2,834	2,862	2,598	3,202	3,210
65-69	2,070	2,800	3,107	3,507	3,516	3,499	3,213	2,787	2,820	2,567	3,164
70-74	1,650	1,970	2,842	2,946	3,340	3,365	3,364	3,103	2,705	2,745	2,507
75-79	1,320	1,549	1,803	2,424	2,720	3,101	3,147	3,186	2,843	2,586	2,633
80-84	1,080	1,114	1,280	1,504	2,037	2,312	2,662	2,732	2,777	2,811	2,320
85+	980	1,059	1,137	1,283	1,499	1,929	2,345	2,806	3,143	3,401	3,496
Total	46,220	47,911	48,878	49,710	50,397	50,785	50,879	50,708	50,395	50,054	49,813
HIGH											
0-4	3,040	2,853	2,749	2,781	2,928	3,054	3,107	3,113	3,109	3,142	3,219
5-9	2,710	2,995	2,808	2,705	2,738	2,884	3,010	3,064	3,070	3,066	3,099
10-14	2,820	2,823	3,111	2,924	2,821	2,853	3,000	3,126	3,180	3,186	3,182
15-19	3,100	3,343	3,356	3,643	3,457	3,355	3,388	3,534	3,661	3,715	3,722
20-24	2,970	3,319	3,566	3,580	3,888	3,683	3,581	3,614	3,762	3,888	3,943
25-29	2,580	1,951	2,283	2,531	2,546	2,834	2,650	2,550	2,583	2,731	2,858
30-34	2,500	2,532	1,906	2,238	2,486	2,501	2,790	2,606	2,506	2,540	2,888
35-39	2,940	2,571	2,805	1,981	2,313	2,562	2,578	2,866	2,684	2,584	2,819
40-44	3,290	3,182	2,820	2,857	2,236	2,568	2,817	2,833	3,122	2,941	2,841
45-49	3,540	3,694	3,597	3,240	3,278	2,662	2,994	3,243	3,261	3,550	3,370
50-54	3,580	3,684	3,845	3,753	3,403	3,444	2,833	3,169	3,416	3,435	3,725
55-59	3,170	3,700	3,813	3,979	3,895	3,554	3,598	2,996	3,329	3,580	3,602
60-64	2,880	3,275	3,808	3,930	4,103	4,030	3,701	3,751	3,159	3,494	3,747
65-69	2,070	2,827	3,225	3,756	3,891	4,074	4,015	3,703	3,760	3,185	3,521
70-74	1,650	1,998	2,728	3,126	3,653	3,805	4,001	3,963	3,675	3,743	3,190
75-79	1,320	1,600	1,935	2,622	3,015	3,535	3,708	3,921	3,912	3,662	3,745
80-84	1,080	1,155	1,409	1,713	2,324	2,701	3,196	3,396	3,631	3,667	3,477
85+	980	1,062	1,164	1,380	1,694	2,248	2,824	3,503	4,088	4,653	5,100
Total	46,220	48,565	50,728	52,739	54,949	56,345	57,791	58,949	59,909	60,762	61,646

Appendix 3.8: Projection Results by Variant, TASMAN Region

Total		TASMAN												
LOW		2011	2016	2021	2026	2031	2036	2041	2046	2051	2056	2061		
0-4		2,920	2,400	2,297	2,471	2,667	2,711	2,522	2,289	2,176	2,199	2,254		
5-9		3,370	2,965	2,397	2,295	2,469	2,604	2,700	2,520	2,287	2,175	2,198		
10-14		3,470	3,456	2,983	2,366	2,204	2,466	2,683	2,708	2,519	2,287	2,174		
15-19		3,100	3,464	3,451	2,979	2,393	2,291	2,465	2,690	2,705	2,516	2,284		
20-24		2,330	3,010	3,455	3,442	2,972	2,388	2,286	2,461	2,676	2,700	2,512		
25-29		2,060	2,175	3,001	3,448	3,434	2,965	2,382	2,262	2,459	2,671	2,666		
30-34		2,300	2,078	2,169	2,993	3,437	3,426	2,958	2,377	2,277	2,451	2,666		
35-39		2,990	2,373	2,071	2,162	2,963	3,427	2,951	2,372	2,272	2,446	2,646		
40-44		3,570	3,068	2,361	2,061	2,152	2,971	3,413	3,404	2,940	2,445	2,265		
45-49		3,740	3,615	3,046	2,346	2,048	2,139	2,954	3,395	3,387	2,926	2,353		
50-54		3,850	3,748	3,576	3,016	2,324	2,030	2,121	2,930	3,369	3,363	2,906		
55-59		3,400	3,834	3,684	3,520	2,971	2,291	2,003	2,094	2,856	3,331	3,326		
60-64		3,370	3,390	3,730	3,591	3,437	2,905	2,243	1,962	2,054	2,841	3,272		
65-69		2,560	3,254	3,203	3,577	3,453	3,312	2,805	2,170	1,901	1,992	2,769		
70-74		1,870	2,388	3,019	2,965	3,348	3,243	3,121	2,651	2,056	1,805	1,894		
75-79		1,360	1,644	2,101	2,675	2,660	3,001	2,923	2,827	2,411	1,878	1,652		
80-84		960	1,065	1,300	1,676	2,156	2,161	2,461	2,415	2,353	2,020	1,582		
85+		950	1,001	1,079	1,253	1,554	1,965	2,235	2,562	2,720	2,769	2,876		
Total		48,120	48,907	48,925	48,693	46,770	48,398	47,702	40,668	45,554	44,588	43,914		
MEDIUM		2011	2016	2021	2026	2031	2036	2041	2046	2051	2056	2061		
0-4		2,920	2,524	2,476	2,703	2,999	3,112	2,997	2,826	2,779	2,677	3,010		
5-9		3,370	3,109	2,650	2,604	2,829	3,126	3,238	3,124	2,953	2,906	3,004		
10-14		3,420	3,635	3,266	2,827	2,781	3,006	3,303	3,415	3,301	3,131	3,063		
15-19		3,100	3,587	3,745	3,397	2,939	2,893	3,118	3,415	3,528	3,414	3,244		
20-24		2,330	2,924	3,467	3,626	3,279	2,823	2,777	3,003	3,269	3,412	3,299		
25-29		2,060	1,949	2,667	3,209	3,369	3,023	2,568	2,523	2,749	3,045	3,159		
30-34		2,300	2,120	1,968	2,705	3,247	3,407	3,062	2,609	2,364	2,790	3,066		
35-39		2,990	2,524	2,268	2,137	2,653	3,394	3,555	3,211	2,759	2,715	2,941		
40-44		3,570	3,252	2,698	2,444	2,314	3,028	3,570	3,731	3,389	2,938	2,895		
45-49		3,740	3,731	3,356	2,807	2,557	2,429	3,140	3,681	3,843	3,503	3,055		
50-54		3,850	3,792	3,757	3,389	2,847	2,600	2,474	3,184	3,723	3,886	3,549		
55-59		3,400	3,897	3,809	3,781	3,422	2,891	2,690	2,528	3,233	3,770	3,935		
60-64		3,370	3,431	3,865	3,806	3,789	3,444	2,927	2,694	2,577	3,276	3,811		
65-69		2,560	3,327	3,365	3,816	3,755	3,748	3,423	2,927	2,705	2,595	3,286		
70-74		1,670	2,441	3,152	3,207	3,652	3,613	3,623	3,326	2,861	2,666	2,667		
75-79		1,360	1,674	2,188	2,849	2,924	3,365	3,344	3,376	3,120	2,702	2,521		
80-84		960	1,096	1,358	1,785	2,367	2,460	2,856	2,882	2,842	2,746	2,402		
85+		950	1,053	1,174	1,394	1,769	2,313	2,698	3,175	3,501	3,768	3,850		
Total		48,120	50,068	51,200	52,496	53,692	54,685	55,327	55,830	55,825	56,128	56,685		
HIGH		2011	2016	2021	2026	2031	2036	2041	2046	2051	2056	2061		
0-4		2,920	2,658	2,838	2,887	3,265	3,518	3,546	3,481	3,515	3,699	3,943		
5-9		3,370	3,238	2,976	2,957	3,205	3,584	3,837	3,885	3,800	3,834	4,019		
10-14		3,470	3,813	3,681	3,420	3,401	3,650	4,029	4,262	4,309	4,245	4,279		
15-19		3,100	3,702	4,096	3,965	3,704	3,696	3,935	4,314	4,507	4,595	4,531		
20-24		2,330	2,813	3,416	3,810	3,680	3,420	3,403	3,652	4,031	4,285	4,313		
25-29		2,060	1,699	2,162	2,764	3,179	3,050	2,792	2,775	3,024	3,403	3,657		
30-34		2,300	2,185	1,806	2,266	2,890	3,265	3,157	2,899	2,883	3,132	3,512		
35-39		2,990	2,679	2,546	2,168	2,670	3,272	3,667	3,540	3,283	3,267	3,517		
40-44		3,570	3,438	3,131	3,000	2,845	3,128	3,728	4,123	3,997	3,742	3,726		
45-49		3,740	3,857	3,730	3,427	3,299	2,947	3,429	4,030	4,426	4,301	4,047		
50-54		3,850	3,856	3,976	3,856	3,599	3,435	3,087	3,569	4,169	4,566	4,444		
55-59		3,400	3,977	3,991	4,119	4,005	3,717	3,597	3,256	3,737	4,336	4,736		
60-64		3,370	3,519	4,095	4,121	4,258	4,155	3,879	3,707	3,434	3,916	4,516		
65-69		2,560	3,405	3,567	4,142	4,185	4,333	4,246	3,985	3,886	3,566	4,047		
70-74		1,670	2,495	3,310	3,489	4,061	4,126	4,291	4,227	5,991	3,907	3,606		
75-79		1,360	1,704	2,266	3,054	3,251	3,815	3,910	4,097	4,065	3,866	3,807		
80-84		960	1,120	1,422	1,929	2,613	2,628	3,364	3,408	3,713	3,728	3,587		
85+		950	1,098	1,283	1,669	2,036	2,723	3,289	3,993	4,561	5,111	5,539		
Total		48,120	51,238	54,133	57,005	59,907	62,669	65,184	67,352	69,392	71,502	73,826		

Appendix 4.1: Population by Major Ethnic Group*, Broad Age Group, MARLBOROUGH Region, 1996-2006

Marlborough Region	Māori	Pacific Island	Asian	MELAA	European/NZ/Other	Total*
1996						
0-14	1540	175	85	30	8070	9900
15-24	770	55	45	10	4520	5400
25-54	1540	120	140	15	15460	17275
55-64	200	10	10	0	3610	3830
65+	140	5	5	0	5470	5620
Total*	4190	365	285	55	37130	42025
2001						
0-14	1570	205	125	30	7850	9780
15-24	710	65	75	15	4080	4945
25-54	1590	145	210	15	15680	17640
55-64	260	15	10	0	4530	4815
65+	160	0	10	0	6130	6300
Total*	4290	430	430	60	38270	43480
2006						
0-14	1470	280	155	40	7410	9355
15-24	800	140	125	50	4260	5375
25-54	1780	245	400	120	16180	18725
55-64	330	25	35	0	5740	6130
65+	240	15	15	0	6930	7200
Total*	4620	705	730	210	40520	46785

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

Appendix 4.2: Population by Major Ethnic Group*, Broad Age Group, NELSON Region, 1996-2006

Nelson Region	Māori	Pacific Island	Asian	MELAA	European/NZ/Other	Total*
1996						
0-14	1180	210	210	35	7910	9545
15-24	680	90	270	20	5120	6180
25-54	1190	200	400	70	16730	18590
55-64	120	20	20	5	3350	3515
65+	60	5	25	0	5760	5850
Total*	3230	525	925	130	38870	43680
2001						
0-14	1360	255	235	25	8180	10055
15-24	660	135	245	15	4650	5705
25-54	1340	225	460	60	17380	19465
55-64	120	15	25	0	3810	3970
65+	70	0	25	0	5980	6075
Total*	3550	630	990	100	40000	45270
2006						
0-14	1350	305	305	60	7640	9660
15-24	800	165	240	30	5000	6235
25-54	1490	275	555	60	17280	19660
55-64	180	30	70	0	4870	5150
65+	120	20	35	0	6300	6475
Total*	3940	795	1205	150	41090	47180

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

Appendix 4.3: Population by Major Ethnic Group*, Broad Age Group, TASMAN Region, 1996-2006

Tasman Region	Māori	Pacific Island	Asian	MELAA	European/NZ /Other	Total*
1996						
0-14	1050	85	75	20	8730	9960
15-24	510	50	75	15	4520	5170
25-54	1010	90	130	25	16200	17455
55-64	130	15	0	0	3330	3475
65+	50	5	5	0	4720	4780
Total*	2750	245	285	60	37500	40840
2001						
0-14	1240	85	120	25	9230	10700
15-24	460	50	110	10	4200	4830
25-54	1180	95	175	35	17620	19105
55-64	150	5	25	0	4240	4420
65+	70	5	5	0	5480	5560
Total*	3100	240	435	70	40770	44615
2006						
0-14	1170	140	155	35	9350	10850
15-24	600	70	105	25	4500	5300
25-54	1230	120	310	45	18140	19845
55-64	200	15	40	5	5770	6030
65+	130	15	10	0	6160	6315
Total*	3330	360	620	110	43920	48340

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

Appendix 5.1(a): Average Age of Employed Labour Force by Employment Status, MARLBOROUGH, Nelson and Tasman Regions, 1996, 2001, 2006

Marlborough Region	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Total						
Self Employed, no employee	2,127	2,484	2,817	16.8	13.4	32.4
Employer	1,638	1,791	2,094	9.3	16.9	27.8
Paid Employee	12,972	14,115	16,635	8.8	17.9	28.2
Unpaid Family Worker	816	654	600	-19.9	-8.3	-26.5
Total (by age/employment status)	17,553	19,044	22,146	8.5	16.3	26.2
TOTAL*	18,150	19,530	22,737	7.6	16.4	25.3

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	2.2	2.0	1.8	-11.0	-10.1	-20.0
Employer	2.1	2.0	2.0	-7.0	1.4	-5.7
Paid Employee	1.2	1.1	1.1	-8.8	0.2	-8.6
Unpaid Family Worker	0.6	0.7	0.8	13.6	11.7	26.9
TOTAL*	1.3	1.2	1.2	-6.2	-1.2	-7.4

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	1.3	1.1	1.3	-11.3	13.4	0.6
20-24	1.4	1.3	1.4	-1.2	3.8	2.6
25-29	1.3	1.3	1.1	-4.3	-10.6	-14.4
30-34	1.2	1.2	1.2	-3.2	2.4	-0.9
35-39	1.2	1.1	1.1	-9.9	1.4	-8.6
40-44	1.1	1.1	1.0	-1.9	-9.4	-11.1
45-49	1.1	1.1	1.1	1.1	-4.4	-3.3
50-54	1.2	1.1	1.1	-7.9	-0.1	-8.0
55-59	1.7	1.3	1.2	-24.2	-11.6	-33.0
60-64	1.7	1.7	1.4	0.6	-19.4	-18.9
65+	2.0	1.8	1.9	-8.5	3.0	-5.8
TOTAL*	1.3	1.2	1.2	-6.2	-1.2	-7.4

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	1.4	0.8	0.6	-43.1	-26.7	-58.3
Percentage aged 55+ Years	13.0	18.5	24.1	42.3	30.4	85.6

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	46.3	48.7	50.3	4.1	8.8
Employer	45.3	48.1	49.2	3.9	8.6
Paid Employee	36.6	39.0	40.6	3.9	10.8
Unpaid Family Worker	...	...	...	...	...
TOTAL*	39.0	41.5	43.0	3.9	10.1

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

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

Appendix 5.1(b): Average Age of Employed Labour Force by Employment Status, Marlborough, NELSON and Tasman Regions, 1996, 2001, 2006

Nelson Region	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Total						
Self Employed, no employee	1,848	2,289	2,721	23.9	18.9	47.2
Employer	1,356	1,407	1,521	3.8	8.1	12.2
Paid Employee	14,547	15,030	17,052	3.3	13.5	17.2
Unpaid Family Worker	342	288	267	-15.8	-7.3	-21.9
Total (by age/employment status)	18,093	19,014	21,561	5.1	13.4	19.2
TOTAL*	18,669	19,575	22,029	4.9	12.5	18.0

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	2.1	2.1	1.8	-2.4	-15.4	-17.4
Employer	2.5	2.2	2.1	-9.8	-4.7	-14.0
Paid Employee	1.1	1.0	1.0	-8.5	-3.3	-11.6
Unpaid Family Worker	0.7	0.6	0.5	-3.8	-14.8	-18.0
TOTAL*	1.2	1.1	1.1	-5.8	-5.6	-11.0

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	1.2	1.1	1.0	-12.1	-5.6	-17.0
20-24	1.1	1.1	1.2	2.4	10.9	13.5
25-29	1.3	1.2	1.2	-5.6	-4.9	-10.3
30-34	1.3	1.2	1.2	-8.1	-5.6	-13.2
35-39	1.2	1.1	1.1	-13.1	1.1	-12.1
40-44	1.1	1.0	1.0	-2.8	-6.4	-9.0
45-49	1.1	1.0	1.0	-9.7	-5.9	-15.0
50-54	1.2	1.1	1.0	-5.9	-8.2	-13.6
55-59	1.4	1.2	1.1	-14.0	-7.9	-20.7
60-64	1.9	1.4	1.3	-22.3	-8.5	-28.9
65+	2.0	1.8	1.5	-7.7	-18.1	-24.4
TOTAL*	1.2	1.1	1.1	-5.8	-5.6	-11.0

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	1.8	1.2	0.9	-34.6	-26.9	-52.2
Percentage aged 55+ Years	11.0	13.9	19.0	25.8	37.0	72.4

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	44.6	46.3	47.9	3.3	7.3
Employer	44.5	46.2	47.3	2.8	6.4
Paid Employee	36.5	38.4	39.9	3.3	9.1
Unpaid Family Worker	...	...	...	...	...
TOTAL*	38.1	39.9	41.5	3.4	8.9

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 5.1(c): Average Age of Employed Labour Force by Employment Status, Marlborough, Nelson and TASMAN Regions, 1996, 2001, 2006

Tasman Region	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Total						
Self Employed, no employee	2,469	2,862	3,492	15.9	22.0	41.4
Employer	1,854	2,007	2,154	8.3	7.3	16.2
Paid Employee	12,735	14,262	16,239	12.0	13.9	27.5
Unpaid Family Worker	1,101	852	903	-22.6	6.0	-18.0
Total (by age/employment status)	18,159	19,983	22,788	10.0	14.0	25.5
TOTAL*	18,735	20,550	23,316	9.7	13.5	24.5

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	2.2	2.1	1.8	-5.6	-13.4	-18.2
Employer	2.3	2.1	1.9	-6.9	-9.6	-15.9
Paid Employee	1.1	1.0	1.0	-5.2	-2.1	-7.2
Unpaid Family Worker	0.7	0.7	0.7	-3.6	1.8	-1.9
TOTAL*	1.3	1.2	1.2	-4.1	-3.9	-7.8

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	1.2	1.1	1.1	-5.0	-4.2	-8.9
20-24	1.3	1.2	1.3	-4.5	6.7	1.9
25-29	1.3	1.2	1.3	-5.7	1.5	-4.3
30-34	1.3	1.4	1.2	10.2	-14.7	-6.1
35-39	1.1	1.2	1.1	7.6	-5.2	2.0
40-44	1.2	1.1	1.1	-6.6	-1.9	-8.3
45-49	1.1	1.1	1.0	-0.4	-11.0	-11.4
50-54	1.3	1.1	1.1	-11.7	-5.0	-16.1
55-59	1.5	1.4	1.1	-10.9	-16.4	-25.5
60-64	1.7	1.6	1.5	-7.1	-8.5	-15.0
65+	1.9	1.7	1.7	-12.1	4.8	-7.9
TOTAL*	1.3	1.2	1.2	-4.1	-3.9	-7.8

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	1.4	0.8	0.6	-38.8	-27.7	-55.8
Percentage aged 55+ Years	12.9	17.0	22.3	31.6	31.5	73.0

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	45.2	47.8	49.2	3.9	8.7
Employer	44.9	46.8	47.8	2.9	6.4
Paid Employee	36.8	38.8	40.6	3.7	10.2
Unpaid Family Worker	...	...	...	...	...
TOTAL*	39.3	41.3	43.0	3.7	9.4

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 ns,

Appendix 5.1(d): Average Age of Employed Labour Force by Employment Status, Total New Zealand, 1996, 2001, 2006

Total New Zealand	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Total New Zealand						
Self Employed, no employee	185,379	213,123	234,960	15.0	10.2	26.7
Employer	122,307	129,630	142,875	6.0	10.2	16.8
Paid Employee	1,213,122	1,296,918	1,511,244	6.9	16.5	24.6
Unpaid Family Worker	54,006	39,288	39,576	-27.3	0.7	-26.7
Total (by age/employment status)	1,574,814	1,678,959	1,928,655	6.6	14.9	22.5
TOTAL*	1,630,812	1,727,274	1,985,781	5.9	15.0	21.8

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	2.2	2.0	1.8	-8.2	-9.2	-16.7
Employer	2.5	2.3	2.2	-8.6	-2.8	-11.1
Paid Employee	1.1	1.0	1.0	-5.7	-0.7	-6.3
Unpaid Family Worker	0.7	0.7	0.7	-0.7	2.3	1.5
TOTAL*	1.2	1.1	1.1	-4.5	-2.3	-6.6

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	1.1	1.0	1.1	-3.6	4.1	0.3
20-24	1.1	1.1	1.1	-2.8	3.4	0.5
25-29	1.2	1.1	1.1	-6.4	0.7	-5.7
30-34	1.3	1.2	1.1	-6.8	-4.0	-10.5
35-39	1.2	1.2	1.1	-1.9	-5.8	-7.6
40-44	1.1	1.1	1.1	-1.4	-3.9	-5.2
45-49	1.1	1.1	1.0	-4.1	-3.3	-7.3
50-54	1.2	1.1	1.1	-5.2	-5.8	-10.7
55-59	1.4	1.3	1.1	-8.6	-9.3	-17.1
60-64	1.7	1.5	1.3	-13.6	-12.2	-24.1
65+	2.1	1.8	1.7	-13.4	-7.7	-20.1
TOTAL*	1.2	1.1	1.1	-4.5	-2.3	-6.6

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	1.6	1.1	0.9	-34.3	-19.3	-47.0
Percentage aged 55+ Years	11.9	15.0	18.9	26.5	26.0	59.4

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	44.5	46.6	47.9	3.3	7.5
Employer	44.8	46.8	47.7	2.9	6.4
Paid Employee	36.4	38.1	39.1	2.8	7.6
Unpaid Family Worker	...	27.3	...	...	...
TOTAL*	38.2	40.0	41.1	2.9	7.5

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 5.2: Average Age of Employed Labour Force by Employment Status, MARLBOROUGH Region, 1996, 2001, 2006, Horticulture and Fruit Growing [A011]

Marlborough Region A011 Horticulture and Fruit Growing	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	72	147	153	104.2	4.1	112.5
Employer	93	141	171	51.6	21.3	83.9
Paid Employee	738	945	1,218	28.0	28.9	65.0
Unpaid Family Worker	78	108	96	38.5	-11.1	23.1
Total (by age/employment status)	981	1,341	1,638	36.7	22.1	67.0
TOTAL*	1,098	1,389	1,716	26.5	23.5	56.3

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	5.0	1.9	1.4	-62.4	-24.1	-71.4
Employer	5.2	2.9	2.6	-43.9	-12.1	-50.7
Paid Employee	1.2	1.4	1.5	12.1	10.9	24.4
Unpaid Family Worker	0.7	1.0	0.8	36.4	-22.2	6.1
TOTAL*	1.3	1.4	1.5	4.2	8.8	13.3

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	2.3	1.2	1.5	-47.7	30.8	-31.6
20-24	1.7	1.7	1.2	0.0	-29.7	-29.7
25-29	1.5	1.8	1.9	26.0	1.8	28.3
30-34	1.3	1.2	1.9	-10.4	64.3	47.3
35-39	1.2	1.5	1.6	19.3	8.0	28.8
40-44	0.9	1.3	1.4	46.2	4.1	52.3
45-49	1.1	1.5	1.3	39.7	-16.0	17.3
50-54	1.2	1.2	1.1	-1.8	-3.0	-4.8
55-59	2.8	1.5	1.2	-44.8	-21.9	-56.9
60-64	4.0	3.2	1.8	-20.8	-44.7	-56.3
65+	5.0	2.3	4.4	-54.3	93.8	-11.4
TOTAL*	1.3	1.4	1.5	4.2	8.8	13.3

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	1.4	0.6	0.4	-52.8	-36.7	-70.2
Percentage aged 55+ Years	12.5	23.3	28.8	85.6	23.6	129.3

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	47.5	52.1	55.9	8.4	17.8
Employer	45.4	52.0	52.1	6.7	14.9
Paid Employee	37.5	39.2	40.9	3.4	9.2
Unpaid Family Worker	...	6.3	2.4	...	...
TOTAL*	40.2	42.8	44.5	4.3	10.7

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 5.3: Average Age of Employed Labour Force by Employment Status, MARLBOROUGH Region, 1996, 2001, 2006, School Education (N842)

Marlborough Region N842 School Education	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	-	-	...	...	...
Employer	-	-	-	...	...	...
Paid Employee	585	624	714	6.7	14.4	22.1
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	585	624	714	6.7	14.4	22.1
TOTAL*	582	648	741	11.3	14.4	27.3

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	...	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.4	0.4	0.3	-17.2	-18.3	-32.3
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.4	0.4	0.3	-15.9	-16.3	-29.7

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	..	... ..		...	...	...
20-24	0.0	0.0	0.0	...	...	...
25-29	0.0	0.3	0.0	...	-100.0	...
30-34	0.5	0.3	0.2	-51.1	-40.8	-71.1
35-39	0.2	0.2	0.2	28.6	-4.5	22.7
40-44	0.5	0.2	0.2	-61.3	-10.9	-65.5
45-49	0.5	0.4	0.2	-18.2	-49.1	-58.3
50-54	0.5	0.5	0.4	-14.1	-11.1	-23.6
55-59	0.7	0.5	0.6	-26.0	2.1	-24.4
60-64	1.0	0.7	0.6	-33.3	-10.0	-40.0
65+	...	...	1.0	...	...	...
TOTAL*	0.4	0.4	0.3	-15.9	-16.3	-29.7

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.4	0.1	0.1	-70.2	1.3	-69.9
Percentage aged 55+ Years	13.8	15.9	23.9	14.6	51.0	73.0

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	...	...	...	...	...
Employer	...	...	...	...	...
Paid Employee	43.3	44.9	46.6	3.2	7.4
Unpaid Family Worker	...	0.0	...	...	...
TOTAL*	43.3	44.9	46.6	3.2	7.4

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

Appendix 5.4: Average Age of Employed Labour Force by Employment Status, MARLBOROUGH Region, 1996, 2001, 2006, Grain, Sheep and Beef Farming (A012)

Marlborough Region A012 Grain, Sheep and Beef Cattle F	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	243	231	216	-4.9	-6.5	-11.1
Employer	78	99	81	26.9	-18.2	3.8
Paid Employee	162	156	246	-3.7	57.7	51.9
Unpaid Family Worker	174	123	60	-29.3	-51.2	-65.5
Total (by age/employment status)	657	609	603	-7.3	-1.0	-8.2
TOTAL*	759	714	714	-5.9	0.0	-5.9

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	4.4	2.5	2.6	-43.2	4.0	-40.9
Employer	5.5	5.6	5.8	1.8	2.7	4.5
Paid Employee	5.8	12.0	2.9	108.7	-75.8	-49.5
Unpaid Family Worker	0.5	0.5	0.7	-4.7	43.6	36.8
TOTAL*	1.9	1.9	2.0	1.6	3.8	5.5

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	3.5	...	...	...	...
20-24	...	...	...	...	...	...
25-29	...	...	3.0	...	...	...
30-34	1.3	...	4.3	...	...	225.0
35-39	1.7	5.7	1.7	233.3	-70.6	-2.0
40-44	1.5	3.7	1.9	139.1	-49.4	21.1
45-49	1.2	1.9	2.6	54.5	37.5	112.5
50-54	2.7	2.6	1.7	-3.3	-36.5	-38.6
55-59	8.5	2.6	2.5	-69.7	-2.8	-70.6
60-64	...	8.5	3.2	...	-62.4	...
65+	3.7	2.8	2.3	-23.6	-16.7	-36.4
TOTAL*	1.9	1.9	2.0	1.6	3.8	5.5

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.6	0.2	0.2	-56.7	-33.0	-71.0
Percentage aged 55+ Years	18.3	31.0	34.3	69.9	10.6	87.9

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	47.7	51.9	53.8	6.1	12.7
Employer	48.7	49.0	54.2	5.5	11.3
Paid Employee	34.0	38.7	39.8	5.8	17.2
Unpaid Family Worker	...	4.2	3.1	...	...
TOTAL*	43.7	47.6	48.4	4.7	10.8

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 5.5: Average Age of Employed Labour Force by Employment Status, NELSON Region, 1996, 2001, 2006, School Education (N842)

Nelson Region N842 School Education	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	-	-	...	...	...
Employer	-	-	-	...	...	...
Paid Employee	702	828	900	17.9	8.7	28.2
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	702	828	900	17.9	8.7	28.2
TOTAL*	711	858	933	20.7	8.7	31.2

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	...	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.5	0.4	0.4	-12.1	-16.9	-27.0
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.5	0.4	0.4	-14.0	-18.1	-29.6

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	2.0	...	0.0	...	...	-100.0
20-24	0.3	0.4	0.4	37.5	0.0	37.5
25-29	0.3	0.5	0.4	55.6	-6.3	45.8
30-34	0.5	0.4	0.5	-5.2	7.6	2.0
35-39	0.5	0.3	0.4	-30.6	17.9	-18.2
40-44	0.4	0.3	0.2	-25.7	-16.5	-37.9
45-49	0.5	0.3	0.3	-36.6	-9.8	-42.8
50-54	0.6	0.5	0.3	-12.7	-45.0	-52.0
55-59	0.6	0.5	0.4	-8.6	-15.9	-23.2
60-64	0.8	0.4	0.6	-51.5	65.0	-20.0
65+	...	...	0.5	...	...	...
TOTAL*	0.5	0.4	0.4	-14.0	-18.1	-29.6

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.9	0.5	0.2	-46.5	-57.1	-77.0
Percentage aged 55+ Years	11.1	13.8	21.3	23.9	54.9	92.0

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	...	...	...	...	...
Employer	...	...	...	...	...
Paid Employee	41.9	43.6	45.3	3.5	8.2
Unpaid Family Worker	...	0.0	...	...	...
TOTAL*	41.9	43.6	45.3	3.5	8.2

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 industry

Appendix 5.6: Average Age of Employed Labour Force by Employment Status, NELSON Region, 1996, 2001, 2006, Other Food Manufacturing (C217)

Nelson Region C217 Other Food Manufacturing	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	-	-	...	...	...
Employer	-	-	-	...	...	...
Paid Employee	516	813	732	57.6	-10.0	41.9
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	516	813	732	57.6	-10.0	41.9
TOTAL*	561	855	756	52.4	-11.6	34.8

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	...	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.9	1.1	1.2	18.3	13.8	34.6
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.9	1.1	1.2	14.8	13.6	30.5

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	1.0	1.0	1.9	0.0	87.5	87.5
20-24	0.9	1.0	1.5	16.7	45.5	69.7
25-29	1.1	1.5	1.3	41.7	-13.3	22.8
30-34	0.8	0.9	1.3	1.3	45.8	47.7
35-39	1.0	1.0	1.3	0.0	25.0	25.0
40-44	1.0	0.9	1.0	-6.3	1.3	-5.0
45-49	0.6	1.1	0.9	91.3	-12.6	67.1
50-54	0.7	1.1	0.9	63.6	-20.6	30.0
55-59	0.7	1.2	1.8	80.0	50.0	170.0
60-64	...	1.5	1.3	...	-16.7	...
65+	...	...	...	...	...	...
TOTAL*	0.9	1.1	1.2	14.8	13.6	30.5

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	10.6	3.5	2.2	-67.0	-37.9	-79.5
Percentage aged 55+ Years	2.9	5.9	9.4	103.1	59.7	224.3

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	...	...	...	...	...
Employer	...	...	...	...	...
Paid Employee	32.2	36.4	38.2	6.0	18.7
Unpaid Family Worker	...	...	...	...	...
TOTAL*	32.2	36.4	38.2	6.0	18.7

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 5.7: Average Age of Employed Labour Force by Employment Status, NELSON Region, 1996, 2001, 2006, Other Health Services (O863)

Nelson Region O863 Other Health Services	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	24	18	54	-25.0	200.0	125.0
Employer	-	6	-	...	-100.0	...
Paid Employee	198	519	615	162.1	18.5	210.6
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	222	543	669	144.6	23.2	201.4
TOTAL*	291	621	744	113.4	19.8	155.7

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	0.0	0.0	0.1	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.2	0.2	0.2	-7.5	23.0	13.8
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.4	0.3	0.3	-28.4	3.7	-25.8

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	...	...	...	...	...
20-24	...	...	...	...	...	...
25-29	...	...	0.5	...	...	...
30-34	...	...	0.2	...	...	...
35-39	0.2	0.3	0.3	18.4	-5.0	12.5
40-44	0.3	0.2	0.2	-23.1	13.8	-12.5
45-49	0.2	0.3	0.2	53.8	-36.8	-2.8
50-54	0.2	0.3	0.2	59.1	-29.0	12.9
55-59	0.4	0.2	0.2	-41.2	-7.6	-45.7
60-64	...	...	0.3	...	...	...
65+	...	...	...	...	...	...
TOTAL*	0.4	0.3	0.3	-28.4	3.7	-25.8

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.2	0.2	0.2	-6.3	1.6	-4.8
Percentage aged 55+ Years	13.5	17.7	18.8	30.8	6.5	39.4

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	44.4	44.2	47.8	3.4	7.7
Employer	...	52.5	...	...	...
Paid Employee	43.9	45.0	45.4	1.5	3.4
Unpaid Family Worker	...	...	...	...	...
TOTAL*	43.9	45.1	45.5	1.6	3.7

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 5.8: Average Age of Employed Labour Force by Employment Status, TASMAN Region, 1996, 2001, 2006, Horticulture and Fruit Growing (A011)

Tasman Region A011 Horticulture and Fruit Growing	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	153	180	138	17.6	-23.3	-9.8
Employer	309	300	225	-2.9	-25.0	-27.2
Paid Employee	2,247	1,980	1,521	-11.9	-23.2	-32.3
Unpaid Family Worker	174	126	81	-27.6	-35.7	-53.4
Total (by age/employment status)	2,883	2,586	1,965	-10.3	-24.0	-31.8
TOTAL*	2,979	2,646	2,034	-11.2	-23.1	-31.7

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	3.6	2.3	2.3	-35.8	-2.0	-37.1
Employer	2.7	2.4	2.0	-8.6	-18.3	-25.3
Paid Employee	1.0	1.3	1.3	25.8	0.4	26.3
Unpaid Family Worker	0.6	0.5	1.1	-18.2	115.4	76.2
TOTAL*	1.1	1.4	1.3	21.2	-3.7	16.7

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	1.3	1.4	1.5	8.3	6.7	15.6
20-24	1.3	1.7	1.1	28.9	-33.8	-14.6
25-29	1.4	1.6	1.9	11.7	17.2	30.9
30-34	1.4	1.8	1.7	24.6	-4.3	19.2
35-39	0.9	1.2	1.4	42.5	16.5	66.0
40-44	1.0	1.3	1.4	27.3	6.9	36.1
45-49	0.8	1.4	1.0	70.1	-29.2	20.5
50-54	1.2	1.3	1.2	13.7	-10.0	2.3
55-59	1.1	1.3	1.1	27.1	-16.6	6.1
60-64	1.6	2.0	1.9	28.0	-5.9	20.5
65+	1.4	1.6	2.5	18.7	52.2	80.6
TOTAL*	1.1	1.4	1.3	21.2	-3.7	16.7

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	1.4	1.0	0.6	-31.0	-40.9	-59.2
Percentage aged 55+ Years	15.0	18.6	24.6	23.9	32.4	64.0

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	46.1	49.4	52.9	6.8	14.8
Employer	46.2	48.9	51.9	5.7	12.4
Paid Employee	36.4	37.7	40.8	4.4	12.2
Unpaid Family Worker	...	4.1	2.6	...	...
TOTAL*	38.6	40.5	43.5	4.9	12.7

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 5.9: Average Age of Employed Labour Force by Employment Status, TASMAN Region, 1996, 2001, 2006, School Education (N842)

Tasman Region N842 School Education	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	-	-	...	...	...
Employer	-	-	-	...	...	...
Paid Employee	627	831	948	32.5	14.1	51.2
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	627	831	948	32.5	14.1	51.2
TOTAL*	648	864	978	33.3	13.2	50.9

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	...	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.4	0.4	0.3	1.4	-10.2	-8.9
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.4	0.4	0.4	2.3	-8.3	-6.1

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	..	... ..		...	...	...
20-24	0.0	0.0	0.0	...	...	...
25-29	0.2	0.3	0.4	...	25.0	...
30-34	0.2	0.5	0.4	133.3	-22.2	81.5
35-39	0.3	0.3	0.2	-12.5	-10.0	-21.3
40-44	0.3	0.3	0.3	12.5	-0.2	12.3
45-49	0.5	0.3	0.3	-44.7	-4.7	-47.2
50-54	0.6	0.5	0.4	-24.7	-23.7	-42.6
55-59	0.9	0.7	0.5	-17.6	-31.3	-43.4
60-64	0.0	0.5	0.5	...	-7.7	...
65+	...	...	0.0	...	...	...
TOTAL*	0.4	0.4	0.4	2.3	-8.3	-6.1

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.4	0.1	0.1	-67.1	-35.8	-78.9
Percentage aged 55+ Years	7.2	13.7	22.5	91.1	63.8	213.1

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	...	...	...	...	...
Employer	...	...	...	...	...
Paid Employee	43.0	44.6	46.2	3.3	7.6
Unpaid Family Worker	...	0.0	...	...	...
TOTAL*	43.0	44.6	46.2	3.3	7.6

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 5.10: Average Age of Employed Labour Force by Employment Status, TASMAN Region, 1996, 2001, 2006, Grain, Sheep and Beef Farming (A012)

Tasman Region A012 Grain, Sheep and Beef Cattle F	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	174	210	237	20.7	12.9	36.2
Employer	39	48	30	23.1	-37.5	-23.1
Paid Employee	114	120	120	5.3	0.0	5.3
Unpaid Family Worker	171	129	132	-24.6	2.3	-22.8
Total (by age/employment status)	498	507	519	1.8	2.4	4.2
TOTAL*	591	573	633	-3.0	10.5	7.1

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	3.5	3.1	2.4	-9.9	-21.9	-29.7
Employer	...	7.0	...	...	...	...
Paid Employee	4.4	3.4	7.0	-22.2	103.2	58.1
Unpaid Family Worker	0.6	0.4	0.8	-25.7	75.4	30.3
TOTAL*	1.7	1.6	1.7	-2.8	5.5	2.6

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	2.0	...	...	...	...
20-24	...	...	...	...	...	...
25-29	4.0	2.0	...	-50.0	...	...
30-34	2.0	...	...	...	...	...
35-39	0.9	2.0	3.0	133.3	50.0	250.0
40-44	1.4	3.8	1.4	176.4	-62.0	5.1
45-49	1.0	4.3	5.0	333.3	15.4	400.0
50-54	2.2	3.2	1.0	47.7	-68.8	-53.8
55-59	3.5	3.0	1.5	-14.3	-48.7	-56.0
60-64	2.3	4.7	2.0	100.0	-57.1	-14.3
65+	3.0	1.8	2.9	-40.0	59.7	-4.2
TOTAL*	1.7	1.6	1.7	-2.8	5.5	2.6

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.3	0.2	0.1	-35.8	-28.1	-53.8
Percentage aged 55+ Years	28.9	40.8	50.9	41.2	24.6	75.9

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	49.7	53.7	56.1	6.4	12.8
Employer	52.9	54.4	52.5	-0.4	-0.7
Paid Employee	34.6	36.5	40.8	6.1	17.8
Unpaid Family Worker	...	8.9	2.7	...	...
TOTAL*	46.1	49.4	52.1	6.1	13.2

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 industry

Appendix 5.11: Average Age of Employed Labour Force by Employment Status, MALBOROUGH Region, 1996, 2001, 2006, Community Care Services (0872)

Marlborough Region 0872 Community Care Services	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	-	-	...	...	...
Employer	-	-	-	...	...	...
Paid Employee	231	351	570	51.9	62.4	146.8
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	231	351	570	51.9	62.4	146.8
TOTAL*	267	402	618	50.6	53.7	131.5

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	...	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.0	0.0	0.1	...	142.1	...
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.1	0.1	0.1	101.0	-17.7	65.4

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	0.0	0.0	0.0	...	...	...
20-24	0.0	0.0	0.0	...	...	...
25-29	0.0	0.0	0.0	...	...	...
30-34	0.0	0.0	0.0	...	...	...
35-39	0.0	0.2	0.0	...	-100.0	...
40-44	0.0	0.0	0.1	...	...	...
45-49	0.0	0.1	0.2	...	65.2	...
50-54	0.0	0.0	0.1	...	...	...
55-59	0.0	0.0	0.1	...	...	...
60-64	0.0	0.0	0.1	...	...	...
65+	...	0.0	0.1	...	...	...
TOTAL*	0.1	0.1	0.1	101.0	-17.7	65.4

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.5	0.2	0.1	-53.3	-36.3	-70.3
Percentage aged 55+ Years	20.8	25.6	38.9	23.4	51.9	87.4

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	...	...	...	...	...
Employer	...	...	...	...	...
Paid Employee	44.3	46.6	49.6	5.3	12.0
Unpaid Family Worker	...	...	...	...	...
TOTAL*	44.3	46.6	49.6	5.3	12.0

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 5.12: Average Age of Employed Labour Force by Employment Status, NELSON Region, 1996, 2001, 2006, Community Care Services (O872)

Nelson Region O872 Community Care Services	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	6	9	...	50.0	...
Employer	-	-	-	...	...	...
Paid Employee	222	372	675	67.6	81.5	204.1
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	222	378	684	70.3	81.0	208.1
TOTAL*	273	426	738	56.0	73.2	170.3

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	0.0	0.0	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.0	0.1	0.1	...	42.5	...
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.2	0.2	0.1	-7.3	-3.2	-10.3

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	0.0	0.0	...	...	...
20-24	0.0	0.0	0.0	...	...	...
25-29	0.0	0.3	0.2	...	-36.4	...
30-34	0.0	0.3	0.0	...	-100.0	...
35-39	0.0	0.1	0.2	...	88.2	...
40-44	0.0	0.0	0.1	...	...	...
45-49	0.2	0.1	0.1	...	18.8	-25.0
50-54	0.0	0.1	0.1	...	12.5	...
55-59	0.0	0.0	0.2	...	...	...
60-64	...	0.0	0.2	...	...	...
65+	...	...	0.0	...	...	...
TOTAL*	0.2	0.2	0.1	-7.3	-3.2	-10.3

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.9	0.5	0.3	-48.6	-38.7	-68.5
Percentage aged 55+ Years	10.8	15.9	25.4	46.8	60.3	135.3

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	...	...	...	...	...
Employer	...	...	...	...	...
Paid Employee	41.5	43.5	46.0	4.5	10.8
Unpaid Family Worker	...	...	...	...	...
TOTAL*	41.5	43.6	46.1	4.6	11.0

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 5.13: Average Age of Employed Labour Force by Employment Status, TASMAN Region, 1996, 2001, 2006, Community Care Services (0872)

Tasman Region 0872 Community Care Services	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	-	15	...	...	...
Employer	-	-	-	...	...	...
Paid Employee	159	315	510	98.1	61.9	220.8
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	159	315	525	98.1	66.7	230.2
TOTAL*	198	372	564	87.9	51.6	184.8

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	0.0	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.0	0.1	0.1	...	3.1	...
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.1	0.1	0.1	27.3	-6.5	19.0

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	0.0	0.0	...	...	...
20-24	0.0	0.0	0.0	...	...	...
25-29	0.0	0.0	0.0	...	...	...
30-34	0.0	0.0	0.0	...	...	...
35-39	0.0	0.2	0.0	...	-100.0	...
40-44	0.0	0.0	0.1	...	...	...
45-49	0.0	0.1	0.0	...	-100.0	...
50-54	0.0	0.0	0.1	...	...	...
55-59	0.0	0.0	0.1	...	...	...
60-64	...	0.3	0.1	...	...	...
65+	...	...	0.0	...	...	...
TOTAL*	0.1	0.1	0.1	27.3	-6.5	19.0

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.6	0.3	0.1	-50.0	-57.0	-78.5
Percentage aged 55+ Years	9.4	19.0	35.4	101.9	86.0	275.5

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	...	...	...	...	...
Employer	...	...	...	...	...
Paid Employee	42.6	45.4	48.5	5.9	13.9
Unpaid Family Worker	...	...	...	...	...
TOTAL*	42.6	45.4	48.7	6.1	14.4

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

Appendix 5.14: Average Age of Employed Labour Force by Employment Status, MARLBOROUGH Region, 1996, 2001, 2006, Other Health Services (O863)

Marlborough Region O863 Other Health Services	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	6	6	...	...	...
Employer	-	-	-	...	...	...
Paid Employee	60	294	252	390.0	-14.3	320.0
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	60	300	258	400.0	-14.0	330.0
TOTAL*	111	372	330	235.1	-11.3	197.3

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	0.0	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.1	0.0	0.1	...	...	...
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.3	0.1	0.2	-61.2	47.4	-42.8

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	0.0	...	...	...	...
20-24	...	...	...	...	...	...
25-29	...	0.0	0.0	...	...	...
30-34	0.0	0.0	0.0	...	...	...
35-39	0.3	0.0	0.0	...	...	...
40-44	0.0	0.0	0.2	...	...	...
45-49	0.0	0.0	0.1	...	...	...
50-54	0.0	0.0	0.0	...	...	...
55-59	0.0	0.0	0.0	...	...	...
60-64	...	0.0	0.0	...	...	...
65+	...	...	0.0	...	...	...
TOTAL*	0.3	0.1	0.2	-61.2	47.4	-42.8

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.0	0.1	0.0	...	-100.0	...
Percentage aged 55+ Years	10.0	21.0	23.3	110.0	10.7	132.6

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	...	...	...	...	...
Employer	...	...	...	...	...
Paid Employee	42.8	45.3	47.3	4.6	10.7
Unpaid Family Worker	...	...	...	...	...
TOTAL*	42.8	45.5	47.3	4.6	10.7

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 5.15: Average Age of Employed Labour Force by Employment Status, NELSON Region, 1996, 2001, 2006, Other Health Services (0863)

Nelson Region 0863 Other Health Services	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	24	18	54	-25.0	200.0	125.0
Employer	-	6	-	...	...	...
Paid Employee	198	519	615	162.1	18.5	210.6
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	222	543	669	144.6	23.2	201.4
TOTAL*	291	621	744	113.4	19.8	155.7

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	0.1	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.2	0.2	0.2	...	...	...
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.4	0.3	0.3	-28.4	3.7	-25.8

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	...	...	...	...	...
20-24	...	...	...	...	...	...
25-29	...	0.0	0.5	...	...	...
30-34	0.0	0.0	0.2	...	...	...
35-39	0.2	0.3	0.3	...	...	...
40-44	0.3	0.2	0.2	...	...	...
45-49	0.2	0.3	0.2	...	...	...
50-54	0.2	0.3	0.2	...	...	...
55-59	0.4	0.2	0.2	...	...	...
60-64	...	0.0	0.3	...	...	...
65+	...	...	0.0	...	...	...
TOTAL*	0.4	0.3	0.3	-28.4	3.7	-25.8

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	0.2	0.2	0.2	-6.3	1.6	-4.8
Percentage aged 55+ Years	13.5	17.7	18.8	30.8	6.5	39.4

Average Age (Total)	Average Age (Years)			Change 1996-2006		
	1996	2001	2006	N Years	(%)	
Self Employed, no employee	44.4	44.2	47.8	...	3.4	7.7
Employer	...	52.5	...	...	...	...
Paid Employee	43.9	45.0	45.4	...	1.5	3.4
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	43.9	45.1	45.5	...	1.6	3.7

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 5.16: Average Age of Employed Labour Force by Employment Status, TASMAN Region, 1996, 2001, 2006, Other Health Services (O863)

Tasman Region O863 Other Health Services	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	6	12	30	100.0	150.0	400.0
Employer	-	-	-	...	...	...
Paid Employee	81	306	327	277.8	6.9	303.7
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	87	318	357	265.5	12.3	310.3
TOTAL*	138	393	426	184.8	8.4	208.7

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	0.0	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.0	0.1	0.1	...	...	...
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.2	0.2	0.2	-19.4	-3.4	-22.1

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	...	...	...	...	...
20-24	...	0.0	...	...	...	...
25-29	0.0	0.0	0.0	...	...	...
30-34	0.0	0.0	0.5	...	...	...
35-39	0.0	0.3	0.0	...	...	...
40-44	0.0	0.1	0.2	...	...	...
45-49	0.0	0.2	0.0	...	...	...
50-54	0.0	0.0	0.2	...	...	...
55-59	...	0.0	0.0	...	...	...
60-64	...	0.0	0.0	...	...	...
65+	...	...	0.0	...	...	...
TOTAL*	0.2	0.2	0.2	-19.4	-3.4	-22.1

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	...	0.2	0.0	...	-100.0	...
Percentage aged 55+ Years	0.0	17.9	21.0	...	17.2	...

Average Age (Total)	Average Age (Years)			Change 1996-2006		
	1996	2001	2006	N Years	(%)	
Self Employed, no employee	42.5	40.0	43.5	...	1.0	2.4
Employer	...	...	...	...	...	...
Paid Employee	41.2	45.6	47.8	...	6.6	16.1
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	41.3	45.4	47.5	...	6.2	14.9

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 5.17: Average Age of Employed Labour Force by Employment Status, MARLBOROUGH Region, 1996, 2001, 2006, Hospitals and Nursing Homes (O861)

Marlborough Region O861 Hospitals and Nursing Homes	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	-	-	...	...	...
Employer	-	-	-	...	...	...
Paid Employee	420	390	405	-7.1	3.8	-3.6
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	420	390	405	-7.1	3.8	-3.6
TOTAL*	429	435	429	1.4	-1.4	0.0

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	...	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.1	0.1	0.1	-37.3	5.5	-33.9
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.2	0.2	0.1	4.4	-10.0	-6.0

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	0.0	...	...	...	...
20-24	0.3	0.0	0.0	-100.0	...	-100.0
25-29	0.0	0.3	0.0	...	-100.0	...
30-34	0.3	0.0	0.0	-100.0	...	-100.0
35-39	0.2	0.0	0.2	-100.0	...	4.2
40-44	0.2	0.1	0.1	-41.1	16.7	-31.3
45-49	0.1	0.2	0.1	42.9	-25.0	7.1
50-54	0.0	0.0	0.1	...	...	...
55-59	0.3	0.0	0.1	-100.0	...	-60.0
60-64	0.0	0.3	0.0	...	-100.0	...
65+	...	...	0.0	...	...	...
TOTAL*	0.2	0.2	0.1	4.4	-10.0	-6.0

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	...	0.3	0.1	...	-60.0	...
Percentage aged 55+ Years	11.4	16.2	22.2	...	37.6	...

Average Age (Total)	Average Age (Years)			Change 1996-2006		
	1996	2001	2006	N Years	(%)	
Self Employed, no employee	...	...	...	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	41.7	43.9	46.8	...	5.1	12.3
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	41.7	43.9	46.8	...	5.1	12.3

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 5.18: Average Age of Employed Labour Force by Employment Status, NELSON Region, 1996, 2001, 2006, Hospitals and Nursing Homes (O861)

Nelson Region O861 Hospitals and Nursing Homes	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	-	-	...	...	...
Employer	-	-	-	...	...	...
Paid Employee	660	636	561	-3.6	-11.8	-15.0
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	660	636	561	-3.6	-11.8	-15.0
TOTAL*	684	666	603	-2.6	-9.5	-11.8

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	...	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.3	0.2	0.2	-32.8	-3.4	-35.0
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.3	0.2	0.2	-29.2	9.5	-22.4

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	...	...	...	...	...
20-24	0.4	0.3	0.0	-11.1	-100.0	-100.0
25-29	0.1	0.3	0.0	118.2	-100.0	-100.0
30-34	0.3	0.2	0.3	-26.9	30.0	-5.0
35-39	0.3	0.2	0.5	-46.0	212.5	68.8
40-44	0.3	0.2	0.2	-37.6	8.8	-32.2
45-49	0.3	0.2	0.2	-27.5	-19.4	-41.5
50-54	0.2	0.2	0.2	-24.2	32.0	0.0
55-59	0.5	0.2	0.2	-70.7	46.2	-57.1
60-64	0.5	0.4	0.2	-14.3	-61.1	-66.7
65+	...	...	0.0	...	...	...
TOTAL*	0.3	0.2	0.2	-29.2	9.5	-22.4

Key Labour Market Statistics	1996			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	...	0.2	0.2	...	-15.0	...
Percentage aged 55+ Years	11.8	16.0	26.7	35.7	66.7	126.2

Average Age (Total)	Average Age (Years)			Change 1996-2006		
	1996	2001	2006	N Years	(%)	
Self Employed, no employee	...	...	...	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	42.5	44.7	46.6	...	4.2	9.9
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	42.5	44.7	46.6	...	4.2	9.9

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 5.19: Average Age of Employed Labour Force by Employment Status, TASMAN Region, 1996, 2001, 2006, Hospitals and Nursing Homes (O861)

Tasman Region O861 Hospitals and Nursing Homes	Number Employed*			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	-	-	-	...	...	...
Employer	-	-	-	...	...	...
Paid Employee	312	360	345	15.4	-4.2	10.6
Unpaid Family Worker	-	-	-	...	...	...
Total (by age/employment status)	312	360	345	15.4	-4.2	10.6
TOTAL*	330	381	381	15.5	0.0	15.5

Sex Ratio by Employment Status	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Self Employed, no employee	...	...	...	...	...	...
Employer	...	...	...	...	...	...
Paid Employee	0.1	0.1	0.1	-34.6	37.1	-10.4
Unpaid Family Worker	...	...	...	...	...	...
TOTAL*	0.2	0.1	0.1	-39.9	30.7	-21.5

Sex Ratio by age	Ratio Males: Females			Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
15-19	...	...	...	...	...	...
20-24	0.0	0.0	0.0	...	...	...
25-29	0.0	0.0	0.0	...	...	...
30-34	0.0	0.0	0.0	...	...	...
35-39	0.0	0.2	0.2	...	30.0	...
40-44	0.2	0.0	0.2	-100.0	...	17.6
45-49	0.1	0.0	0.0	-100.0	...	-100.0
50-54	0.3	0.0	0.2	-100.0	...	-36.8
55-59	0.0	0.2	0.0	...	-100.0	...
60-64	0.0	0.5	0.0	...	-100.0	...
65+	...	...	...	...	...	...
TOTAL*	0.2	0.1	0.1	-39.9	30.7	-21.5

Key Labour Market Statistics				Change (%)		
	1996	2001	2006	1996-2001	2001-2006	1996-2006
Entry:Exit Ratio (15-24: 55+ Years)	...	0.2	0.1	...	-53.8	...
Percentage aged 55+ Years	8.7	20.0	22.6	131.1	13.0	161.3

Average Age (Total)	Average Age (Years)			Change 1996-2006	
	1996	2001	2006	N Years	(%)
Self Employed, no employee	...	...	...	...	...
Employer	...	...	...	...	...
Paid Employee	43.3	45.8	47.1	...	3.8
Unpaid Family Worker	...	...	...	...	...
TOTAL*	43.3	45.8	47.1	...	3.8

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

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