

AUSTRALIAN SOCIETY

Population Composition: A National and Regional View of Australia's Social Demography

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Introduction

The two previous chapters have emphasised the importance of the changing size and age composition of Australia's population, particularly in the context of labour supply issues. In addition to the size of Australia's population, the compositional aspects of population change are important in understanding social implications and the future supply of workers. This chapter considers several aspects of Australia's social demography (the composition of Australia's population): young people, marital status and living arrangements, ethnicity and country of birth, and finally regional aspects of population ageing and labour supply.

Finally, a special section completed by Mr John Hearps of DSPPR considers the latest research about social attitudes and the impact of working hours and work intensification on society.



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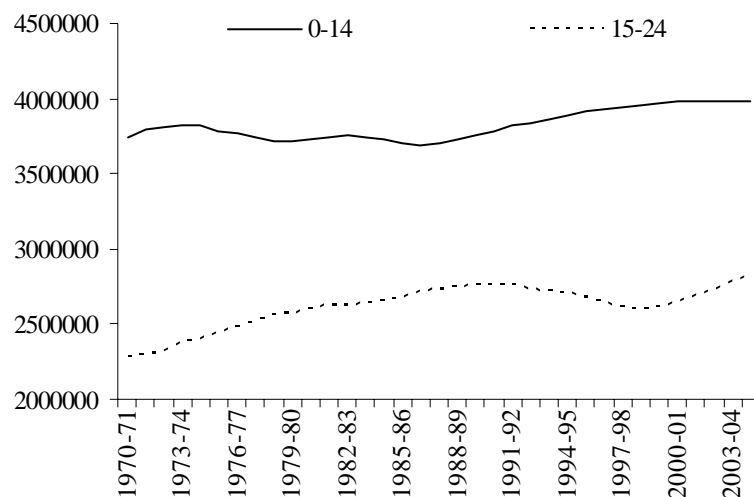
Young People

Young skilled workers are crucial to the ongoing competitiveness of the Australian economy. Of particular relevance, Defence is totally dependent on an ongoing supply of ‘young’ workers to fulfil combat roles, in addition to providing the future leadership of the ADF (Schindlmayr and Ong, 2001). In the following section, we consider historical and projections of the numbers young people, along with their labour force characteristics.

Historical and Projected Numbers of Young People

Figure 38 displays the number of young persons over the period 1970-2005. Over this period the number of 0-14 year olds grew by about 233,000 by 2005, a growth of 6.2%. At the same time, the number of 15-24 year olds grew by 24% (from 2.28 million to 2.82 million).

Figure 38 Number of People Aged 0-14 and 15-24, 1970-2005.



Source: ABS, 2004.

Early during this period, the number of young people was achieved by above replacement levels of fertility in the preceding decade. With infant and child mortality at very low levels in Australia, only variations in the future fertility and migration can affect the numbers of young people. Figures 39 and 40 display projections of the number of young people under six sets of demographic assumptions (as used earlier in chapters 5 and 6). These assumptions are repeated below in Table 36.

Table 36 Scenario's of Population Change.

Model	TFR	ANM	e0m	e0f
1 – Base	1.8	110,000	77.0-->86.5	82.4-->91.5
2 – Low migration	1.8	110,000-->70,000, 10 years	77.0-->86.5	82.4-->91.5
3 – High migration	1.8	110,000-->190,000, 10 years	77.0-->86.5	82.4-->91.5
4 – Low fertility	1.8-->1.5, 10 years	110,000	77.0 -->86.5	82.4-->91.5
5 – High survival	1.8	110,000	77.0-->89.5	82.4 -->95.1
6 – Zero Migration	1.8	0	77.0-->86.5	82.4-->91.5

Note 1: TFR - Total Fertility Rate.

Note 2: ANM - Annual Net Migration.

Note 3: e0m - Life expectancy at birth for males.

Note 4: e0f - Life expectancy at birth for females.

Under the base scenario (continuation of current demographic trends), the number of 0-14 year olds rises to 4.18 million by 2026 and to 4.39 million by 2051 (Figure 39). Not surprisingly, there is very little difference in the projected population under the improved survival scenario as infant and child mortality in Australia is already very low.

In contrast, a fall in fertility has a large effect on the supply of children. If fertility were to fall from its existing level to around 1.5 births per women, the number of 0-14 year olds would be lower by 677,000 by 2026, and lower by 1.1 million by the middle of this century. Indeed, a fall in fertility has a similar effect on the number of people aged 0-14 as eliminating the international migration program in Australia.

Increasing migration has a positive effect on the supply of young people, not only due to the migration of the young, but the migration of women in the major child bearing years. Subsequently by 2026, the number in this age group would be larger by about 677,000 and by 2051, the supply of 0-14 year olds would be larger by about 803,000.

Figure 39 Projected Number of People Aged 0-14, 2005-2050.

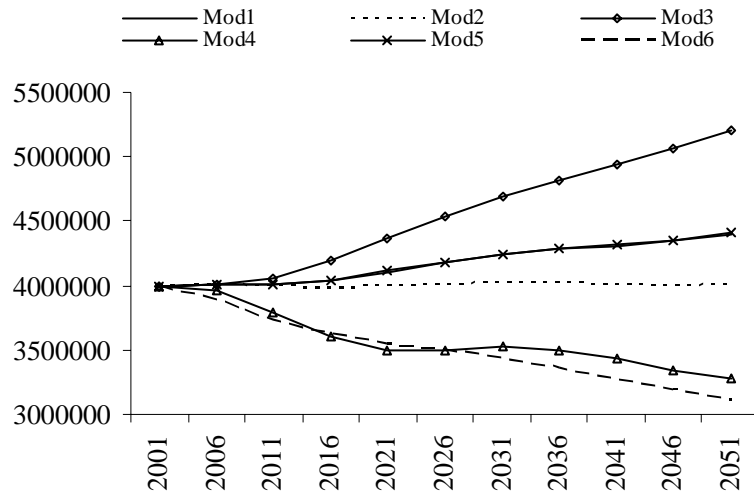


Figure 40 displays the projections for people aged 15-24. The results here are similar to those discussed above. The only significant difference being that the timing of fertility decline has a delayed effect on the number of people in this age group.

Figure 40 Projected Number of People Aged 15-24, 2005-2050.

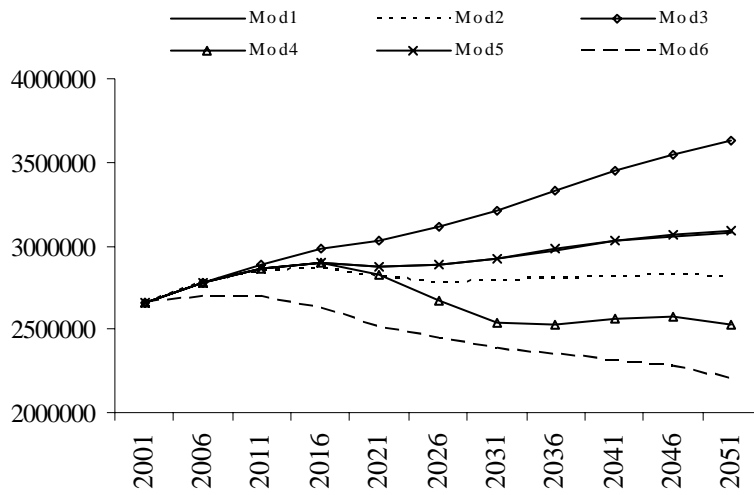


Table 37 summarises the percentage growth of the 0-14 and 15-24 age groups throughout the period 2001-2051. Under each scenario the growth among 15-24 year olds is greater than 0-14 year olds. For example, under current demographic trends, over the period 2001-2051 the 0-14 population grows by 10.2% compared to 15.9% among 15-24 year olds.

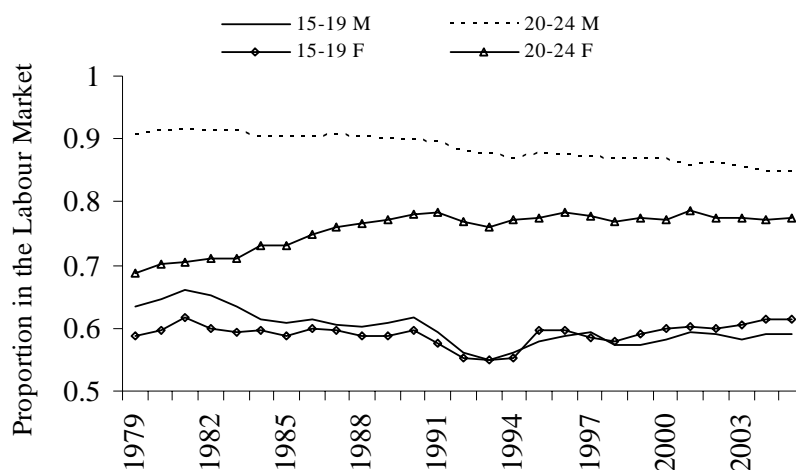
Table 37 Summary % Growth, People Aged 15-24 and 0-14, Selected Time Periods.

	15-24					0-14					
	To:	2016	2026	2036	2051	2051	2016	2026	2036	2051	2051
	From:	2001	2016	2026	2036	2001	2001	2016	2026	2036	2001
Model 1	9.0	-0.2	3.0	3.5	15.9	1.4	3.4	2.5	2.6	10.2	
Model 2	7.7	-2.7	0.8	0.3	5.9	-0.2	0.9	0.2	-0.5	0.4	
Model 3	12.2	4.6	7.0	8.7	36.5	5.2	8.0	6.4	7.8	30.4	
Model 4	9.0	-7.6	-5.2	0.0	-4.6	-9.5	-2.9	0.0	-6.3	-17.7	
Model 5	9.0	-0.2	3.1	3.5	16.2	1.4	3.5	2.5	2.7	10.5	
Model 6	-1.1	-6.9	-4.0	-5.9	-16.9	-9.0	-3.5	-4.0	-7.3	-21.9	

Note 1: Model 1 - Current demography.
 Note 2: Model 2 - Low migration.
 Note 3: Model 3 - High migration.
 Note 4: Model 4 - Low fertility.
 Note 5: Model 5 - High survival.
 Note 6: Model 6 - Zero net migration.

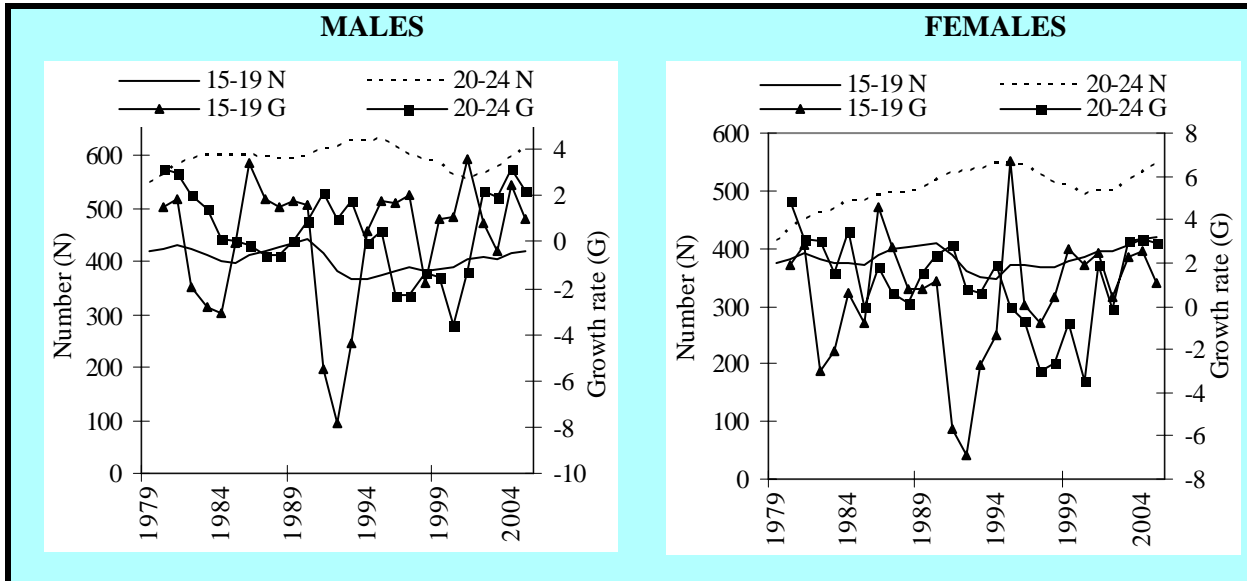
As will be discussed (in the education chapter), larger proportions of younger people have remained enrolled in secondary and tertiary education, which has had flow on effects for labour supply. Figure 41 displays participation rates for male and females aged 15-19 and 20-24 over the period 1980-2005. At the end of the 1970's, about 91% of males aged 20-24 were in the labour market, compared with 85% today. In contrast, the percentage of females in this age group rose from 69% in 1979 to 78% today. The shifts in labour market participation among 15-19 year olds has remained relatively stable for both sexes.

Figure 41 Young Peoples Participation Rates in the Labour Market, 1980-2005.



Combined with shifts in the underlying demography of the population, the supply of young workers has changed since 1980, particularly for women (Figure 42). Reflecting increased participation, the number of 20-24 year old females in the labour market has increased by about 32% since the late 70's, compared to just 12% growth in the number of males. This figure also highlights the effect of the recession during the early 90's on the propensity for young people to remain out of the labour force.

Figure 42 Young People in the Labour Force (Thousands and %), 1980-2005.



Marital Status and Living Arrangements

Since the implementation of no fault divorce in 1975 in the Family Law Act, the marital status profile of the Australian population has changed considerably. Not only have the rates of divorce changed, but so too the rates and ages of marriage, marital separation and marital dissolution. These changing characteristics have a profound effect on household composition, and importantly, the living arrangements of children.

Marital Status

Figure 43 summarises the age specific shifts in marriage, divorce and remarriage rates through the 1980's, 1990's and finally in 2001. As shown in Figure 43, the rate of marriage has decreased substantially in the Australian population over this time period; from about 710 females per thousand in 1982 to 569 per thousand in 2001 (ABS, 2002:23). However, much of the shift away from marriage has occurred at younger ages as shown by the large disparity between the 1982 and 2001 first marriage curves for ages 34 and under.

In contrast, since 1982 there has been a slight decrease in the rate of divorce, and the age at which people divorce is also older as shown by the outward shift in the divorce rate curve. The crude divorce rate has reduced from 2.8 divorces per 1000 in 1984 to 2.6 per 1000 in 2004. Nonetheless, adjusting for age, remarriage, mortality and other characteristics, the expectation of divorce has increased, with about 1 in 3 marriages ending in divorce (ABS, 2004). Given the reduced likelihood of marriage, and current levels of divorce, it is not surprising that the rates of re-marriage have increased considerably since the 1980's.

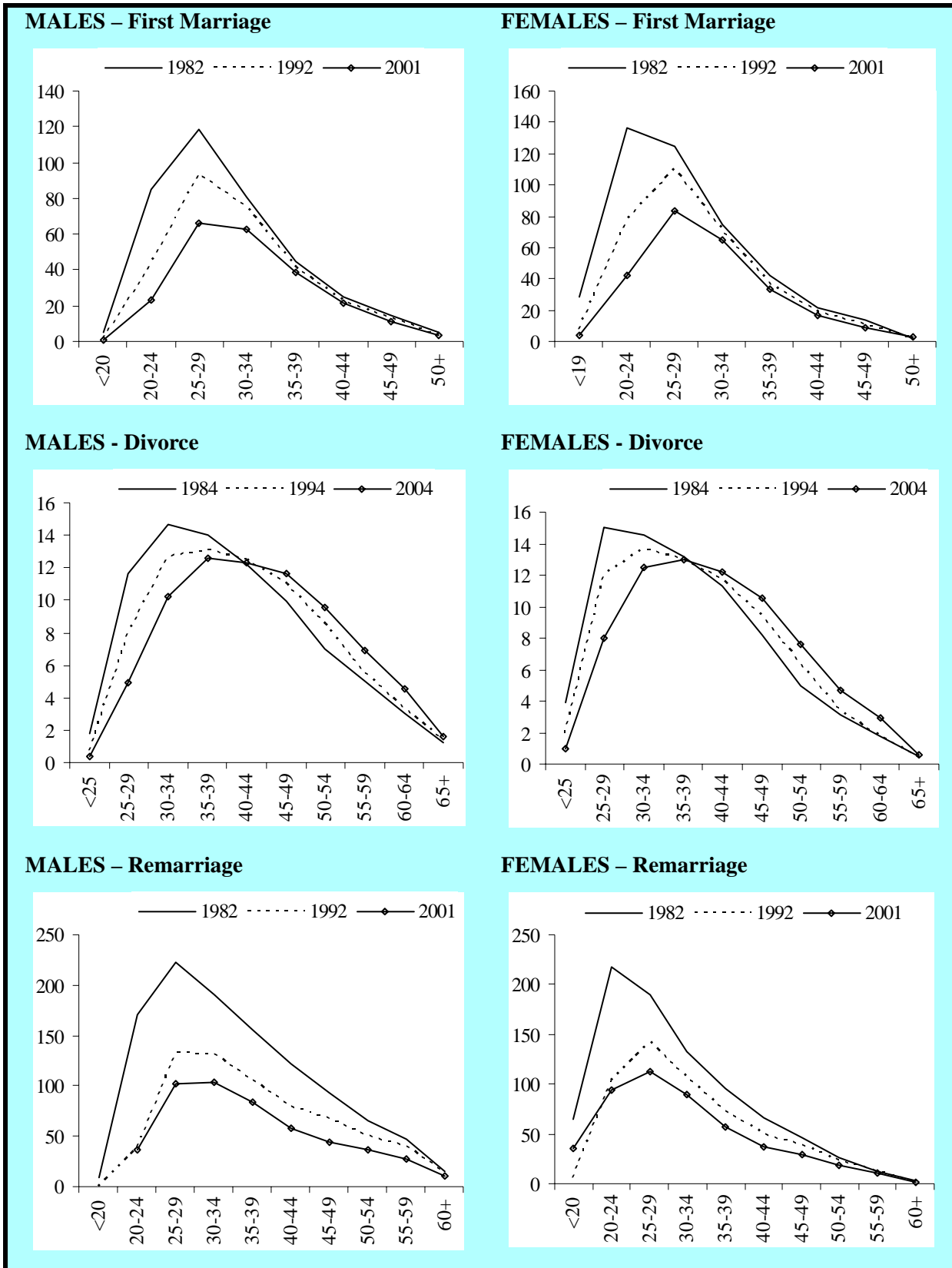
As summarised in Table 38, the timing of each of marital formation and dissolution has changed considerably since the 1980s. In 1984, the 'median' male could expect to marry at 23, separate at 35 and divorce at about 37. By 2004, these ages had increased to 27, 39 and 43 respectively.

Table 38 Timing of Marriage, Separation and Divorce, Husbands and Wives, 1984-2004.

	1984	1994	2000	2004
Median age of husband				
At marriage	23.86	25.41	26.37	27.1
At separation	34.05	36.56	38.05	39.51
At divorce	36.73	39.66	41.41	43.03
Median age of wife				
At marriage	21.28	22.8	23.83	24.63
At separation	31.33	33.76	35.3	36.79
At divorce	34.06	36.83	38.62	40.32

Source: ABS, 2005

Figure 43 Age Specific Marriage, Divorce and Remarriage Rates (per 1000), Males and Females, Selected Years.



Source: ABS, 2005a 2005b.

Living Arrangements

Along with other household transitions, marriage and divorce has an important effect on the living arrangements of Australian families. Table 39 displays ABS projections of individuals by household type from the observed counts in 1986, 2001 to 2026. It is important to recognise that these projected shifts encompass the shift towards an older age structure (with the living arrangement distribution that this entails), as well as shifts in household formation and dissolution.

Between 1986 and 2001, these data show several important shifts in the living arrangement distribution of Australia's population. Firstly there is a movement away from being partnered in a family household with children, but towards being partnered in a coupled family without children. Secondly there is only a slight movement towards being a lone parent, and finally, a lower representation of children, due mostly to declining fertility over this period.

By 2026, the ABS projects an exaggerated form of these movements. For example, although the number of partners in a family household is projected to grow by about 5% over the period 2001-2026, the population actually consists of a small proportion of these individuals. In 2001, about 26% of the Australian population were husbands, wives or partners in a family household. By 2026 this will decrease to about 21.8%. In contrast, the number of persons in childless families is projected to grow by about 62% over the same period. Similarly, the number of lone parents is projected to grow by 45% for men and 42% for women. This has implications for the living arrangements of children. The number of children in family households is projected to fall by 4.4%, whereas the number of children in lone parent families is projected to grow by 19.4%. Finally, reflecting an ageing population with marriage rates that have been declining, the number of lone persons is projected to grow by 65% for men and 83% for women between 2001 and 2026.

Although these national level results are informative, there is also a great deal of heterogeneity in the current and projected level and composition of Australia's living arrangements at the regional level. Projections by McDonald and Temple (2003) and Temple (2005), provide an insight into this variability.

Table 39 Historical and Projected Living Arrangements, 1986-2026.

	1986		2001		Projected 2026	
	% Dist.	% Dist.	Number (‘000)	% Dist.	Number (‘000)	Growth (%)
Family Household						
Husband, wife or partner	29.4	26	4983.1	21.8	5220.5	4.8
Child	30.4	25.7	5002.6	19.9	4781	-4.4
Other related individual	0.6	0.5	102.1	0.5	113.3	11.0
Couple Family Without Children						
Husband, wife or partner	17	19.7	3835.2	25.9	6216.2	62.1
Other related individual	0.3	0.3	59.4	0.3	77.6	30.6
One Parent Family						
Male Lone Parent	0.5	0.7	139.8	0.8	202.7	45.0
Female Lone Parent	2.7	3.6	698.4	4.1	989.6	41.7
Child	5.2	6.9	1344.4	6.7	1605.4	19.4
Other related individual	0.2	0.3	62	0.4	93.6	51.0
Other Families						
Related Individual	1.1	1.1	209.5	1.0	236.4	12.8
Group Household	3.1	3.4	665.6	3.5	843.2	26.7
Lone Person Household						
Male Lone Person	2.8	4.2	819.4	5.6	1348.7	64.6
Female Lone Person	3.7	5	985.9	7.5	1800.7	82.6
Non Private Dwelling	2.2	1.7	331	1.9	454.4	37.3
Total	100%	100%	19238.4	100%	23983.3	24.7

Source: Calculated from ABS, 2004.

Note 1: Dist. - The percentage distribution of individual living arrangement types.

Note 2: Number - The number of individuals in each living arrangement type.

Note 3: Growth - The percentage growth in each living arrangement type between 2001 and 2026.

Note 4: The ABS defines a family as two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering, and who are usually resident in the same household.

Ethnicity and Country of Birth

An additional aspect of Australia's changing demography is the country of origin of its population. Table 40 displays the change in the birth place distribution of the population between 1976 and 2001. The proportion of the population born overseas grew by about 3 percent, from 20.1% in 1976 to 23.1% in 2001. Over this same period, the country of birth distribution of the overseas born population has also changed considerably. In 2001, the Australian population consists of a greater proportion (and number) of those from New Zealand, Africa and the Middle East, Asia and America. The representation of UK and other European born has decreased between 1976 and 2001. An excellent historical overview of the changing origins of Australian migrants is given in Khoo, 2003.

Table 40 Australia's Population by Birth Place, 1976-2001.

	1976	2001	2001-1976
Australia	79.9	76.9	-3.0
New Zealand	0.7	2.0	1.3
UK, Ireland	8.2	6.1	-2.1
Other Europe	8.1	5.9	-2.2
Africa and Middle East	0.5	2.0	1.5
Asia	1.8	5.5	3.7
America	0.6	0.9	0.3
Other	0.2	0.7	0.5
Total Overseas	20.1	23.1	3.0
Total	100%	100%	

Source: 1976 and 2001 Census.

Distribution and Labour Market Characteristics of Migrants

Tables 41 and 42 display remarkable diversity in the regional variations in the distribution of the overseas born. Within all States, the capital cities contain a higher number and proportion of the overseas born when compared with the balance of state populations. For example, in 2001, Sydney contained 1.37 million people born overseas, about 31% of its population. In contrast, the remainder of NSW contained 266,000 overseas born people, representing just 11% of its regional population. Since 1991, there has been a strong increase in the number of overseas born, particularly in the major capital cities. Over the period 1976-2001, the populations of the overseas born grew by 24%, 33% and 14% in Sydney, Brisbane and Melbourne respectively. Nonetheless, the relative proportional distribution of Australian born/Overseas born has remained relatively stable.

Table 41 Number and Growth of Migrants, by Region 1991-2001.

	2001 Number	1991 Number	Growth (%)	2001 Dist. %	1991 Dist. %	Diff Dist
NSW CC	1372087	1105162	24	34	31	3
NSW Bal	266842	241184	11	11	11	0
Vic CC	1040567	916561	14	31	30	1
VIC Bal	138235	132175	5	11	11	0
QLD CC	369469	277135	33	23	21	2
QLD Bal	351762	246246	43	17	15	2
SA CC	271923	274131	-1	25	26	-1
SA Bal	46373	44569	4	12	12	0
WA CC	454659	391132	16	34	34	0
WA Bal	86783	75778	15	17	17	0
Tas	49719	49049	1	11	11	0
NT	40219	34183	18	19	19	0
ACT	72782	67167	8	23	24	-1

Source: 2001 Census.

Note 1: CC - Capital city of State.

Note 2: Bal - the population within each state outside of capital cities.

Note 3: Not adjusted for census undercount.

Note 4: Growth - the percentage growth between 2001 and 1991.

Note 5: Dist - the percentage of the population which is overseas born.

Note 6: Diff Dist - the difference in the percentage of persons born overseas between 1991 and 2001.

Table 42 displays the birth place distribution by region of residence. The capital cities, in particular Sydney, Melbourne and Perth, have a relatively high percentage of persons from North East and South East Asia, and a large proportion of persons from North West and South East Europe when compared to other regions.

Table 42 Distribution of Migrants by Country of Birth and Region of Residence, 2001.

	Oceania *	North West Europe	South East Europe	South East Asia	North East Asia	South Central Asia	Nth Africa/ Middle East	Americas	Sub Saharan Africa	Other
NSW CC	69.03%	6.68%	5.74%	4.92%	4.36%	1.87%	3.27%	1.60%	1.06%	0.16%
NSW Bal	90.04%	5.43%	1.96%	0.57%	0.32%	0.24%	0.20%	0.46%	0.25%	0.03%
Vic CC	70.96%	6.90%	8.84%	4.39%	2.01%	2.01%	1.81%	1.01%	1.04%	0.16%
VIC Bal	90.11%	5.55%	2.34%	0.50%	0.18%	0.18%	0.23%	0.27%	0.19%	0.03%
QLD CC	82.55%	7.70%	2.03%	2.19%	1.54%	0.60%	0.31%	0.90%	0.88%	0.07%
QLD Bal	86.50%	6.52%	1.37%	0.87%	0.57%	0.21%	0.18%	0.58%	0.50%	0.05%
SA CC	75.97%	12.05%	6.06%	2.37%	0.71%	0.53%	0.56%	0.62%	0.43%	0.08%
SA Bal	88.55%	7.84%	1.52%	0.40%	0.10%	0.35%	0.27%	0.23%	0.19%	0.03%
WA CC	68.76%	15.26%	4.27%	4.49%	1.01%	1.36%	0.66%	0.99%	1.95%	0.11%
WA Bal	85.73%	9.34%	1.25%	0.78%	0.13%	0.42%	0.22%	0.42%	0.69%	0.05%
Tas	90.08%	6.36%	1.10%	0.58%	0.30%	0.19%	0.13%	0.47%	0.33%	0.04%
NT	83.29%	5.72%	1.51%	2.87%	0.45%	0.48%	0.17%	0.92%	0.43%	0.08%
ACT	78.57%	8.02%	3.97%	2.84%	1.49%	1.41%	0.53%	1.48%	0.68%	0.08%

Source: 2001 Census.

Note 1: Not adjusted for census undercount.

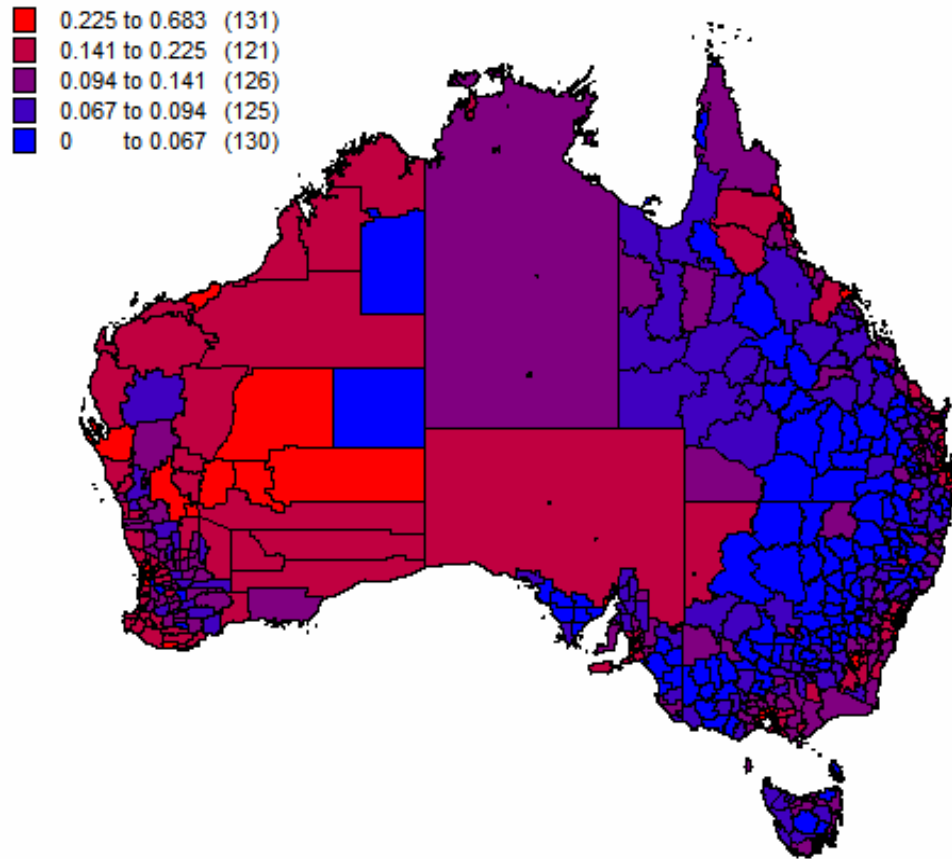
Note 2: * Includes Australia.

Note 3: CC - Capital city of State.

Note 4: Bal - the population within each state outside of capital cities.

A more detailed geographic distribution of the overseas born is given below in Figure 44.

Figure 44 Proportion of Population with Persons Born Overseas by LGA, 2001.



An important aspect of overseas migrants is their occupational profile. Hugo (2004:100) points out that during the last decade immigration policy has had a greater economic focus through:

- An increase in skilled migrants versus humanitarian and family reunion migrants.
- Stricter eligibility criteria on English proficiency
- Introduction of temporary work migration categories
- Preference shown for migrants with Australian qualifications, and
- With the exception of humanitarian immigrants, most were excluded from welfare payments for a period of two years of arrival.

These changes have led to a higher level of qualifications of migrants, which is reflected in their occupational distribution. Table 43 compares the numbers, percentage and growth of workers (1996 to 2001) by occupation, immigrant status and length of residence in Australia.

Compared to the Australian born, recent migrants (arrived within 5 years) are more likely to be employed as managers, professionals and labourers. The rate of growth in the number of recent migrants in these occupations is also far greater among recent migrants than the Australian born. The distribution of occupations between Australian born and those who have been in Australia for more than 5 years is similar. In examining the results in Table 43, it is important to recognise that there are considerable differences in the labour market participation rates by country of birth and length of residence. In 2001, the Australian born had a labour force participation rate of 74.6%, compared with 70.5% for migrants who have been resident for 5 years or more and 60.1% for migrants who have arrived in Australia within the last 5 years (Hugo, 2004:103).

Table 43 Occupation Profile, for Australian Born and Immigrants (Resident <5 and >5 years).

	Australian Born			Immigrants resident < 5 years			Immigrants resident > 5 years		
	2001 N	%	Growth	N	%	Growth	N	%	Growth
Managers & Administrators	550244	9.3	6.2	19429	8	46.8	140982	8.7	4
Professionals	1075377	18	13.7	57538	23.8	36.8	329027	20	14.1
Associate Professionals	712805	12	13	24734	10.2	41.9	201529	13	5.9
Trades Persons and Related	756239	13	2.9	23816	9.8	7.9	198684	12	-8
Advanced Clerical and Service Workers	234200	3.9	-6.5	6019	2.5	10.3	57952	3.6	10.1
Intermediate Clerical, Sales and Service Workers	1031584	17	10.6	38773	16	35.5	251433	16	7.3
Intermediate Production and Transport	474321	8	2	18126	7.5	-0.4	149963	9.3	-7
Elementary Clerical, Sales and Service Workers	607507	10	15	23586	9.7	63.8	128877	8	11.4
Labourers and Related Workers	496905	8.4	7.5	30382	12.5	14.4	154431	9.6	-1.4
Total	5939182	100	8.6	242403	100	28.9	1612878	100	3.2

Source: 2001 Census of Population and Housing.

Note 1: Excludes 'Not Stated'.

Note 2: Derived from pg. 105, 108 in Hugo, 2004

Future Ethnic Composition of Australia

Projections of the country of birth of members of Australia's population should be treated with caution. Although it is possible to project the country of birth profile of those at older ages relatively accurately due to the low level of overseas migration in these age groups (See for example AIHW, 2001), results for the broader population are more problematic due to changing country origins within the migration program. Table 44 displays indicative projections of country of birth over the period 1994 to 2031, which assume a continuation of country-age-sex specific international migration profiles.

Table 44 Projections of Population by Country of Birth, 1994-2031.

	1994 %	2031 %	Growth %
Australia	77.2	79.1	47
Overseas	22.8	20.9	30
UK and Ireland	6.8	3.7	-22
Other Europe	6.5	3.1	-32
Asia	4.6	9.1	182
Oceania	2.1	1.5	1
Middle East	1.2	1.4	73
Americas	0.9	1.1	63
Africa	0.6	0.7	65

Source: Bureau of Immigration, Multicultural and Population Research in Khoo and Price, 1996.
Note 1: Growth is the percentage growth of each group between 1994 and 2031.

These projections show a 47% increase in the number of Australian born between 1994 and 2031 compared with a 30% increase in the overseas born population residing in Australia. The largest increase is among migrants from Asia, who increase by over 180% over this period. The proportion of persons from the Middle East, Americas and Africa also increase slightly in the population and the proportion from the UK and Europe decrease substantially.



A limitation of the above projections is that they do not take account of the increasing ethnic diversity within the Australian population that occurs due to intermarriage. Table 45 displays projections of 'Ethnic Strength' for Australia to 2025, based upon a continuation of the current ethnic profile of migrants, coupled with assumptions about the degree of intermarriage within ethnic groups in the population.

Table 45 Observed and Projected 'Ethnic Strength', 1978-2025.

	1978	1999	2025	2025-1999 Change
Anglo-Celt	76.61	69.88	62.62	-7.26
Aboriginal/TSI	0.98	1.51	1.60	+0.09
North and West Europe	7.49	6.89	5.84	-1.05
South Europe	8.06	6.96	5.66	-1.30
East Europe	3.85	4.36	4.10	-0.26
West Asian & North African	1.13	2.46	4.85	+2.39
South Asian	0.28	1.31	2.14	+0.83
South East Asian	0.27	2.54	5.48	+2.94
North East Asian	0.33	2.72	6.62	+3.90
Other	1.00	1.37	1.09	-0.28

Source: Price, 2000:7.

As shown in Table 45, the percentage of persons from an Anglo-Celt heritage is projected to decrease by about 7% between 1999 and 2025. The percentage from a European heritage is projected to decrease by 3% over the same period. In contrast, North East Asian, South East Asian and West Asian and North Ethnic groups are projected to increase proportionally in the population by between 1 and 4 percentage points.

The key point from the above projections of country of birth and ethnicity is that Australia's future population will have a more diverse ethnic background than is presently the case. These results have been found for other developed countries, including the United States (cited in Khoo, 2003).



A Closer Look: Sub National Ageing and Regional Labour Markets

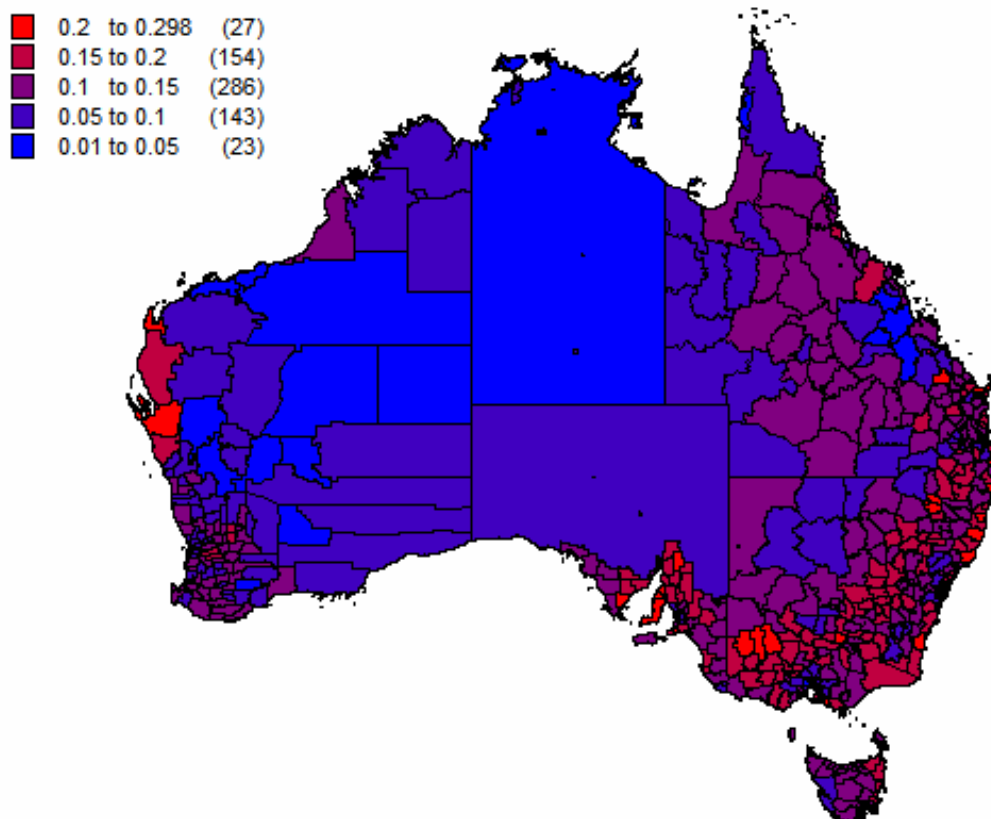
An important aspect of Australia's social demography is its geography. This section considers a closer analysis of sub national ageing and sub national labour markets.

Sub National Ageing

Within the Australian population, heterogeneity in the underlying demography at the regional level necessarily implies differences in the timing and speed of population ageing at the sub-national level. Indeed, commentators have suggested that the policy issues arising due to population ageing will occur more strongly at the sub national level. For example, McDonald (2004) argues 'issues related to local concentrations of aged people are likely to be a much more significant issue than ageing at the national level' (p.32).

Figure 45 displays ageing as measured by the proportion of the population aged 65 and over across Australia's Local Government Areas (LGA). Blue shades indicate a low proportion of the population aged 65 and over, whereas red indicate large proportions of the population aged 65 and over.

Figure 45 Proportion of Population 65 and Over, 2001 by LGA.



The time frame with which to plan for population ageing is a particularly important concept for policy makers. The speed of population ageing is an important measure of the *location in time* of populations of elderly consumers. Table 46 presents several measures of the speed and timing of regional ageing:

1.	The change in the proportion aged 65 plus between 2001 and 2016;
2.	The annualised change in structural ageing, and;
3.	The year in which those aged over 65 account for 10%, 15%, 20% and 25% of the population over the period 2001-2016.

Table 46 shows that on average Sydney is ageing more slowly than the NSW Balance. Whereas Australia's annualised rate of structural ageing is about 0.30%, the figure for Sydney is lower (about 0.21%), whereas the figure for NSW Balance is considerably higher than Sydney and Australia (about 0.45%). More specifically, for each additional year from 2001-2016 the proportion of the NSW Balance population aged 65 and over increases by 0.45%.

It is also clear from Table 46 that at the start of the projection period, NSW Balance is already older than both Australia and Sydney, with 15% of its population aged 65 plus (the comparative figures for Sydney and Australia are 11.8% and 12.5% respectively). Indeed, Sydney does not reach the 'structural age' of 15% until the end of the projection period: that is, it takes 15 years for Sydney's population to 'age' to NSW Balances age in 2001. When Sydney has 15% of its population aged 65 and over, the comparative figure for NSW Balance is almost 22%.

Table 46 Speed of Structural Ageing, by Region 2001-2016.

	% Pop. >65		2016-	Ann.	Speed	% Pop. >85		Year Population 65> exceeds:			
	2001	2016				2001	Change	Rank	2001	2016	10%
National Level											
Australia	12.5	17.0	4.5	0.30				-	2012	-	-
State Level											
Capital – NSW	11.8	15.0	3.2	0.21		1.3	2.2	-	2016	-	-
Balance - NSW	15	21.8	6.8	0.45		1.5	2.9	-	2001	2013	-
Regional Level											
Sydney											
Inner Sydney	12.2	14.6	2.4	0.16	13	1.6	2.1	-	-	-	-
Middle Sydney	14	15.4	1.4	0.09	14	1.7	2.6	-	2014	-	-
Outer Nth Sydney	13.5	18.0	4.5	0.30	11	1.6	2.6	-	2009	-	-
Outer Sth Sydney	8.9	13.3	4.4	0.29	12	0.8	1.6	2007	-	-	-
Coastal											
Hunter	15	20.4	5.4	0.36	8	1.5	2.6	-	2001	2016	-
Richmond Tweed	17.1	24.1	7.0	0.47	3	1.8	2.7	-	-	2012	-
Illawarra	15.1	20.8	5.7	0.38	7	1.3	2.7	-	2001	2015	-
Mid North Coast	18	26.0	8.0	0.53	1	1.8	3.3	-	-	2007	2015
Regional											
Northern	13.7	20.5	6.8	0.45	4	1.5	2.4	-	2005	2015	-
South Eastern	14.7	22.0	7.3	0.49	2	1.4	2.5	-	2002	2013	-
North Western	12.5	17.5	5.0	0.33	10	1.2	2.1	-	2010	-	-
Murrumbidgee	12.9	18.0	5.1	0.34	9	1.4	2.5	-	2009	-	-
Central West	13.8	20.5	6.7	0.45	4	1.5	2.7	-	2005	2015	-
Murray	14.7	21.4	6.7	0.45	4	1.5	3	-	2002	2014	-

Source: 2001 ABS Full Count Census.

Note 1: % Pop.>65 - Percentage of the population aged over 65.

Note 2: Ann. Change - Annual Change in the percentage of the population 65 and over

Note 3: % Pop.>85 - Percentage of the population aged over 85.

At the regional level, the differences are even more pronounced. Viewing the column labelled ‘annualised change’ and ‘speed rank’, it is clear that both Regional and Coastal TSDs are ageing faster than Sydney regions. The oldest population in NSW is the Mid North Coast, which is the only population projected to have over 25% of its population aged 65 and over at the end of the projection period. In addition to being the oldest, the Mid North Coast also ages the fastest: for each year between 2001 and 2016, and additional 0.53% of the population is aged over 65. In addition, South Eastern, Northern, Central West and Murray are all ageing rapidly, with between 0.45% and 0.49% additional persons aged over 65 being added to the population each year between 2001 and 2016. For all these populations, the population aged 65 and over, changes by more than 5% over the projection period.

Not surprisingly, all four Sydney regions have the slowest annualised change in the population's structural age. Nonetheless, the speed of ageing in Sydney is significantly faster on the outskirts of Sydney, even though these populations have significantly higher fertility.

From a policy perspective, the spatial aspect of population ageing is important to plan where services will be required. Furthermore, the rapidly ageing and growing coastal populations and rapidly ageing and declining regional populations highlight the issue of economies of scale in service provision to the elderly. From an industry perspective, understanding the spatial distribution of the elderly is important in planning marketing, labour supply and location of businesses. Numerous authors have pointed to the need for further research on the extent and implications of sub-national ageing in Australia (McDonald, 2004; Hugo, 2003a; Jackson, 2002; Gibson, Braun, et al., 2002; McDonald and Kippen, 1999a).

Regional Labour Markets

As discussed above, population ageing is not only a national level phenomenon. The quantum and tempo of population ageing differs spatially, with important implications for regional labour markets. Results in Figure 46 show wide variations in the Labour Market Entry Exit Ratio (LMEER) across Australia's LGAs. High values of LMEER (in red) indicate regions with a high number of people in labour market entry age relative to people in labour market exit ages. In contrast, blue regions indicate the reverse. The lightest blue colour (LMEER <1) indicates that there are more people of labour market exit rather than labour market entry age.

Figure 46 Labour Market Entry Exit Ratio, 2001 by LGA.

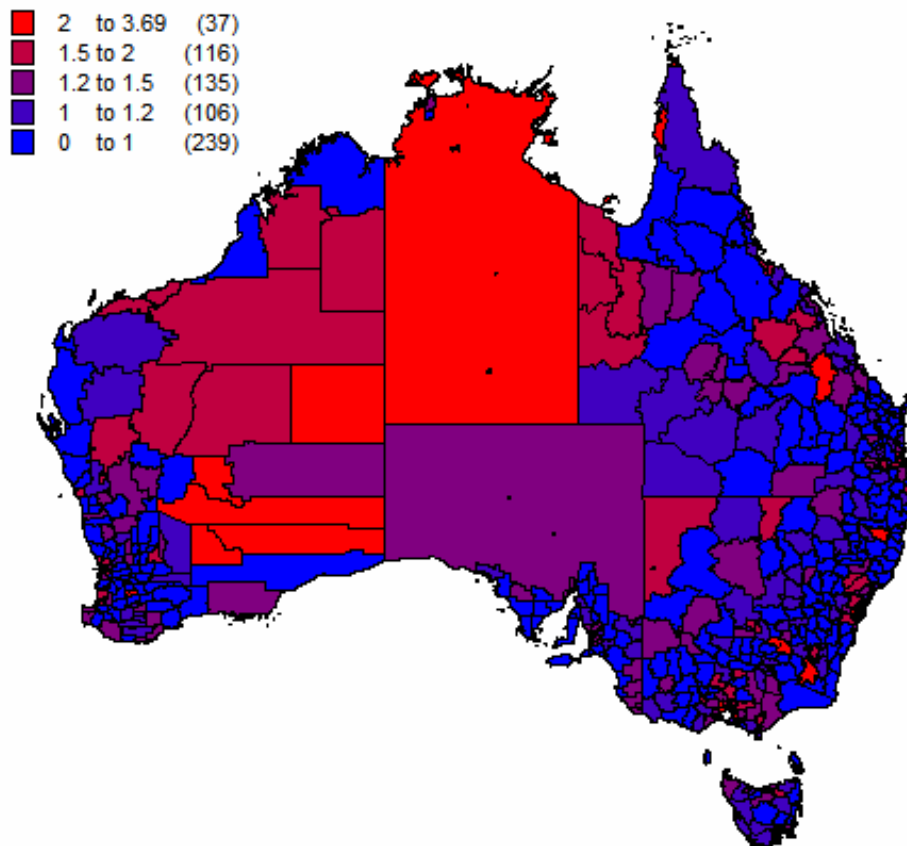


Table 47 displays variations in the LMEER in regions of NSW over the period 2001 to 2016. In Australia in the year 2001 there were about 1.45 people of labour market entry age to every one person of retirement age. By 2016, the LMEER is barely above unity; nonetheless the labour market still has more people entering than leaving. Table 47 also indicates important variations in the projected LMEER.

Whereas all regions in Sydney experience LMEER well above unity in both 2001 and 2016, this is not the case for regional and coastal NSW. In 2001, both the Mid North Coast and South Eastern regions have LMEER below unity, indicating that more people are of labour market exit, rather than labour market entry age. On average, in 2001 the LMEER are already much lower in coastal and regional NSW, with the exception of the Murrumbidgee TSD (LMEER=1.492). By 2016 the LMEER for all Non-Sydney regions, with the exception of Murrumbidgee, is below unity. As summarised in Table 47, in 2016, Sydney has about 120 workers of labour market entry age to every 100 workers of labour market exit age. The comparative figure for 'N.S.W Balance' regions is 86 persons of labour entry age for every 100 persons leaving the labour market. A basic indicator of the speed of the reduction in the LMEER is the difference between the 2001 LMEER and 2016 LMEER. Averaging across regions, Coastal NSW experiences the largest drop in the LMEER (-0.430), followed by Regional NSW (-0.368) and Sydney (-0.360). Although the speed of change in the LMEER for Regional NSW and Sydney is relatively close, it is important to recall that Sydney's population at 2001 is much younger than Regional NSW, indicating a longer time frame with which to plan for future labour markets in Sydney. The preferred destinations of immigrants only serve to exacerbate this situation.

Table 47 Labour Market Entry/Exit Ratios (LMEER), by Region 2001-2016.

		LMEER		
		2001	2016	2016 - 2001
National Level	Australia	1.450	1.016	-0.434
State Level	Capital City - NSW	1.563	1.202	-0.360
	Balance - NSW	1.186	0.779	-0.407
TSD Level	Sydney			
	Inner Sydney	1.565	1.236	-0.329
	Middle Sydney	1.495	1.250	-0.245
	Outer Nth Sydney	1.300	1.050	-0.250
	Outer Sth Sydney	1.817	1.219	-0.599
TSD Level	Coastal			
	Hunter	1.282	0.863	-0.419
	Richmond Tweed	1.141	0.597	-0.544
	Illawarra	1.220	0.833	-0.388
	Mid North Coast	0.922	0.554	-0.369
TSD Level	Regional			
	Northern	1.240	0.910	-0.329
	South Eastern	0.986	0.638	-0.348
	North Western	1.167	0.904	-0.263
	Murrumbidgee	1.492	1.034	-0.458
	Central West	1.289	0.894	-0.395
	Murray	1.195	0.779	-0.416

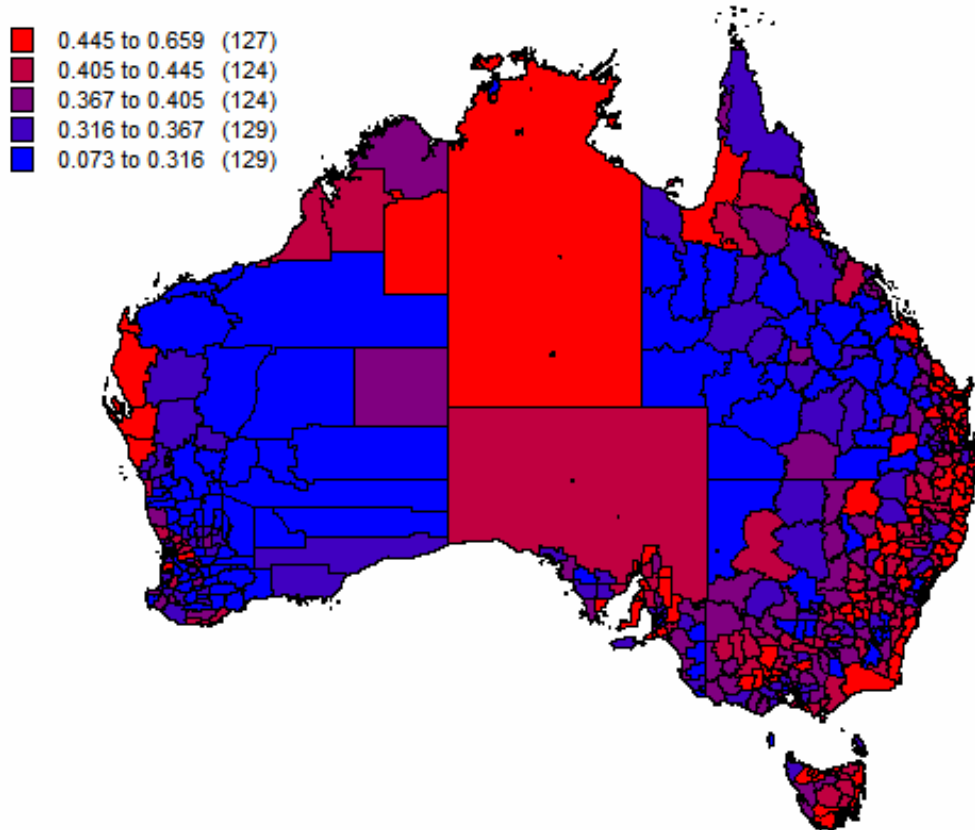
Source: Developed by ANU, Dr Temple, 2005-2006.

Note 1: LMEER Labour Market Entry Exit Ratio.

Note 2: Projection assumes continuation of current Regional specific changes in mortality, fertility and migration.

Apart from these demographically determined aspects of labour supply, there are wide regional variations in labour force participation (see Figure 47). The scale in Figure 47 ranges from light blue indicating a low proportion of the LGA population Not in the Labour Force (NILF) to bright red (a high proportion of people aged 15 and over NILF).

Figure 47 Proportion of Population aged 15+ Not in the Labour Force (NILF), 2001 by LGA.



Summary

This chapter has sought to outline some of the recent trends and indicative projections of Australia's population composition. Although population size and age structure largely determine the size of the labour supply, the compositional aspects of the population are also important to labour supply; in terms of productivity, location of workers, spatial requirements for workers and to understand indicative social trends in the population more generally. This chapter has focused upon several broad concepts of population composition. Among the more notable findings from this chapter are:

The future supply of young people is dependent upon stabilising fertility. Under current demographic trends, the number of persons 0-14 is projected to grow to 4.18 million by 2026 and 4.39 million by 2051. With a drop in fertility, which many contend is a possible population outcome, by 2026 there would be 677,000 fewer younger people, and by 2051 this figure would be 1.1 million.

The living arrangement composition of the population has shifted considerably since 1986 and further changes are projected. With increasing probabilities of divorce and remarriage since 1976, many more children are living in lone parent or mixed family households. By 2026, a 19 per cent increase in the number of children living in lone person households is projected.

The timing of births and marriage has also shifted to older ages over this period of time.

Changes throughout the 1980's and 1990's have shifted the ethnic composition of Australia's population. Moreover, through a targeted skilled migration program, the current generation of migrants have higher levels of qualification than existed in the past.

The final compositional aspect of the population examined here, geography, shows that labour markets and population ageing have strong regional dimensions. Many regional areas are experiencing population ageing earlier and at a faster rate than is the case at the national level or in capital cities. Labour supply issues will become a concern for policy makers much earlier in many regional communities.

Social attitudes, work and future society⁴⁷

The Australian Survey of Social Attitudes (AuSSA), a statistically representative national survey of Australians was conducted by the Centre for Social Research at the Australian National University in late 2003. The following selected social commentary reflects the images of Australian society and provides an opportunity to reflect on a range of current and possibly future important personnel related aspects⁴⁸.

Family.

Remains central to Australian identity with three quarters of respondents listing family as one of the three groups most important to who they are. However, understanding what relationships make a family is quite broadly defined, especially amongst women and younger generations. A majority perceive that gay and lesbian couples with children, and single – parent households, are families.

Welfare.

Australians are less preoccupied with lower taxes with more now preferring higher social spending. A large proportion of Australians are even prepared for increased taxation to support spending on health and education. However, the public also emphasised the need for welfare recipients to find work but this did not mean support for cutting welfare, which was rejected by the majority.

Immigration.

An increasing number of Australians support immigration, with the economic impacts of migrants becoming more positive.

Trust.

Whilst the trust of Australians has declined toward some institutions including major Australian companies and churches, the Australian Defence Force (ADF), remains the institution in which Australians have the most confidence.

Participation in civil society.

Over 85% of respondents belong to at least one voluntary association with about a quarter of members being office bearers or active members. Participation levels in voluntary associations were also shown to be strongly linked to political participation and to national values. Many Australians continue to highly support environmental protection and other ‘quality of life’ values.

Global aspects.

Australians want closer economic ties with Asia, but are less enthusiastic about closer political and cultural ties. Many reported that they believe globalisation is increasing insecurity at home.

47. This section developed by Mr John Hearps, DSPPR.

48. Draws on data from *Australian Social Attitudes: the first report*.

Role of Government.

Australians want government ownership of key services like Telstra and strongly support award wages as the foundation of industrial relations. Australians are economic pragmatists, continuing to envisage an active role for the government in utilities ownership, the economy and service delivery.

Working life.

Overall trends are that most respondents like their jobs, think that their skills are used at work, report fairly harmonious management-employee relations and are not afraid of losing their jobs. However about 50% of respondents also had negative perceptions about their marketability and 43% felt under pressure to work harder. Most working Australians see long working hours as a social problem, and many recognise the effects of long hours on personal and family life.

*Working hours and work intensification.*⁴⁹

Overwhelmingly a key issue of concern to workers and managers alike is the pressure and stress associated with work. These sentiments arise in all sectors, and are associated with working longer hours and/or working harder. With fewer workers being available in the future, these concerns may intensify, posing significant risks and challenges to workforce sustainability, family and social cohesion, individuals' health and ultimately organisational and economic performance.

ABS (6302.0) sources indicate that between 1982 and 2002; there has been a substantial reduction in standard working hours (35-40 hrs per week) for both men and women. This has been reflected in a relatively large increase in part time hours by men and a solid increase in substantial part time hours by women as well as, increases in extended hours of work by both men and women. In particular, the proportion of men working very long hours grew from 22 per cent to 29 percent. The idea of a normal working day or working week has also been eroded.

Most research agrees that long working hours, especially 'very extended' or 'extremely extended' hours, involve significant risks. The most immediate are to the individual employee and to aspects such as health and safety. In addition, long hours can be seen as negative for family relationships, children and the sustainment of the community fabric. Working extended hours also threatens the quality of non work time due to fatigue and stress and subsequently the employees' family, social and community relationships.

Overall, workers at all levels and from all sectors are suffering from increased pressures and stresses at work because of the way that work has been changing. These changes are causing dysfunctional outcomes for the economy as a whole, particularly to its long term sustainability. The problems can not be readily solved at the workplace level or by businesses becoming family friendly or by devising skill development and retention strategies. This issue is a *systemic* problem and addressing it is at the heart of sustaining the future workforce.

49. Draws on data from *Fragmented Futures - New Challenges in Working Life*.

Implications for Defence

Several aspects of the changes in Australian social trends over the next 20 years will have particular relevance to Defence and will be discussed in greater detail below⁵⁰.

Firstly, with an ageing population, a decline in the overall fertility rate and an increase in the numbers of young people remaining engaged in secondary and tertiary studies, competition for young skilled workers will increase. Defence, like other organisations and business, will be required to provide a greater range of incentives in order to attract and retain quality personnel. Ongoing research will most likely be necessary to ensure that Defence is maintaining a competitive edge.

Secondly, the projection that by the year 2026, the number of lone parents is projected to grow by 45% for men and 42% for women will have an impact on Defence housing aspects. Recruitment and retention strategies will need to consider the importance of childcare arrangements, and the impact of postings and overseas deployments on single parents and their dependants. Given that the timing of marriages and births have shifted to older ages, the above factors will increasingly become issues for older and more experienced/qualified ADF personnel, who represent significant value to the organisation.

Thirdly, with the progressive changes to the ethnic composition of Australia's population, particularly in relation to an increasing Asian component, targeted recruitment and retention strategies will be required to consider the values important to people from a variety of cultural backgrounds. Again, further research in this area would be warranted.

Finally, with a shrinking recruitment pool and a high demand for skilled ADF and APS workforces there is likely to be further intensification of work arrangements whilst also meeting a potentially higher level of operational commitment. Workforce sustainability into the future will be the major strategic consideration.

The implications focus around an approach that reflects both a work life balance that is commensurate with individual circumstances and operational requirements as well as, working smarter with the resources available. In parallel, the Defence organisation could investigate enhancing its overall productivity by applying work redesign, occupational analysis, the application of technology and improved business processes and procedures.

50. This section developed by Mr John Hearps and LTCOL Andrew Cohn, DSPPR.