



Population and demography

Population growth and distribution 1991 - 1996 1996 - 2001

The table on the following page provides details of the distribution of the Hunter's population among its component Local Government Areas (LGAs) in each of the last three Population Censuses (1991, 1996 and 2001), and average annual population growth between census periods. Comparable data for the State as a whole is also shown. Major points of note are:

- The population of the Hunter Region totalled 563,586 in 2001, including around 2,000 overseas visitors.
- More than 83 per cent of the Hunter's population reside in the Lower Hunter LGAs. This proportion has remained largely constant over the past ten years. The Lower Hunter is the sixth largest urban area in Australia. It has a larger population than the Gold Coast-Tweed, Canberra-Queanbeyan, Wollongong, Hobart and Darwin urban areas, and is the largest non-capital urban area in Australia.
- Approximately 56 per cent of the Hunter's population reside in the LGAs of Newcastle (137,307 persons, 24 per cent in 2001) and Lake Macquarie (177,619 persons, 32 per cent in 2001). This proportion has fallen slightly over the past ten years, from 57 per cent in 1991.
- The most populous LGAs in the Hunter Balance are Great Lakes (31,388 persons, 5.6 per cent of the Hunter's population in 2001) and Singleton (20,383 persons, 3.6 per cent in 2001).
- Population growth in the Lower Hunter averaged 0.9 per cent per annum between 1996 and 2001, a small decline from an annual average of 1 per cent in the previous five-year period. Growth in the Hunter Balance was lower in the 1996 - 2001 period, averaging 0.5 per cent per annum, a substantial reduction from the annual average of 1.1 per cent between 1991 and 1996.
- For the Region in total the average population growth rate *slowed* from an annual average of 1 per cent during the 1991 - 1996 period, to 0.8 per cent between 1996 and 2001. The respective annual average growth rates for the State were 1 per cent in the earlier period *rising* to 1.1 per cent in the latter period.
- In the Hunter Balance the population declined between 1996 and 2001 in Gloucester, Murrurundi, Muswellbrook and Scone, partly the result of restructuring in the mining and electricity generation industries, and related job losses. These falls were offset by relatively small increases in Dungog, Merriwa, and Singleton, and a large (1.9 per cent per annum) rise in the Great Lakes coastal LGA.

- In the Lower Hunter, the largely coastal LGA of Port Stephens (immediately to the South of Great Lakes) grew most rapidly over the latter five year period, by an average of 2 per cent per annum. While relatively high, this growth rate is lower than the 3.2 per cent annual average recorded during 1991 - 1996. Growth in the Port Stephens and Great Lakes LGAs has been largely due to in-migration associated with either retirees or developments in the tourist industry. Port Stephens also has a growing commuter population oriented towards Newcastle and Maitland.
- After Port Stephens, Maitland experienced the largest rate of population growth (1.5 per cent per annum between 1996 and 2001), followed by Lake Macquarie (0.8 per cent). Lake Macquarie borders the coast and Maitland is about 30 minutes drive from it.
- The coastal areas of Great Lakes, Port Stephens, Newcastle, Lake Macquarie and Maitland account for 81 per cent of the Hunter population.

Population growth and distribution in Hunter local government areas and NSW, 1991 -2001

	1991		1996			2001		
	No.	% total Hunter	No.	% total Hunter	Av. annual growth 1991-1996	No.	% total Hunter	Av. annual growth 1996-2001
Cessnock	43,849	8.5%	44,362	8.2%	0.2%	45,203	8.0%	0.4%
Maitland	46,909	9.1%	49,941	9.2%	1.3%	53,803	9.5%	1.5%
Port Stephens	43,735	8.5%	51,288	9.5%	3.2%	56,677	10.1%	2.0%
Newcastle	131,305	25.6%	133,686	24.7%	0.4%	137,307	24.4%	0.5%
Lake Macquarie	162,026	31.5%	170,495	31.5%	1.0%	177,619	31.5%	0.8%
Total Lower Hunter	427,824	83.3%	449,772	83.2%	1.0%	470,609	83.5%	0.9%
Dungog	7,366	1.4%	7,656	1.4%	0.8%	7,901	1.4%	0.6%
Gloucester	4,649	0.9%	4,815	0.9%	0.7%	4,685	0.8%	-0.5%
Great Lakes	25,999	5.1%	28,609	5.3%	1.9%	31,388	5.6%	1.9%
Merriwa	2,359	0.5%	2,255	0.4%	-0.9%	2,337	0.4%	0.7%
Murrurundi	2,354	0.5%	2,170	0.4%	-1.6%	2,018	0.4%	-1.4%
Muswellbrook	15,109	2.9%	15,562	2.9%	0.6%	14,795	2.6%	-1.0%
Scone	9,380	1.8%	9,518	1.8%	0.3%	9,470	1.7%	-0.1%
Singleton	18,661	3.6%	20,133	3.7%	1.5%	20,383	3.6%	0.2%
Total Hunter Balance	85,877	16.7%	90,718	16.8%	1.1%	92,977	16.5%	0.5%
Total Hunter	513,701	100.0%	540,490	100.0%	1.0%	563,586	100.0%	0.8%
NSW	5,732,032		6,038,696		1.0%	6,371,745		1.1%

Source: Australian Bureau of Statistics, Population Census, 1991, 1996 and 2001

Age and gender distribution

The table over shows the age and gender distribution of the Hunter and State populations, and the change in the distribution between the 1996 and 2001 Censuses. For the Region:

- In 2001 the total of approximately 561,500 persons (excluding overseas visitors) comprised 276,600 males (49 per cent) and 284,900 females (51 per cent).
- The size of the population rose by 4.1 per cent between 1996 and 2001, compared with an increase of 5.3 per cent in the State as a whole.
- In 2001 males outnumbered females prior to age 24; thereafter females outnumbered males. The higher number of females is particularly evident from age 60.

Comparisons with the State indicate that:

- The Hunter's population is a little older. In the Region in 2001 roughly 20 per cent of people were of pre school-leaver age (14 or less); a further 20 per cent were of retirement age (60 and above); while 60 per cent were of working age (15-59). The State had a relatively larger working age population (62 per cent of those aged between 15 and 59) to support a relatively smaller proportion of people aged 60 and over (17 per cent).
- The Region's population is ageing at a faster rate.
 - * In the Hunter between 1996 and 2001 the proportion of the pre school-leaver age population remained about the same (though note the fall in the number of 0-4 year olds). The working age population rose by 4 per cent, while the size of the (generally) retired population (aged 60 and over) rose by 10 per cent. Increases in excess of 20 per cent were recorded for the 50-59 years age group (including the first of the 'baby boomers'), and for those aged 75 and over.
 - * In the State over the same period there was a 2 per cent rise in the proportion of 0-14 year olds, a 5 per cent increase in the proportion of those aged between 15 and 59, and a 9 per cent increase in the proportion aged 60 plus.

An implication of these developments is that in coming years proportionally more expenditure will need to be devoted to the provision of facilities and services for the aged in the Hunter than in the State as a whole.

Age and gender distribution of the population in the Hunter and NSW, 2001

Age group (years)	Hunter					NSW	
	Males	Females	Persons			Persons	
	No.	No.	No.	%	% Change 1996-2001	%	% Change 1996-2001
0-4	18,911	17,963	36,874	6.6%	-4.6%	6.7%	-1.3%
5-9	20,648	19,808	40,456	7.2%	1.2%	7.1%	3.6%
10-14	20,711	19,963	40,674	7.2%	3.7%	7.1%	4.1%
15-19	20,077	18,997	39,074	7.0%	5.7%	6.9%	5.8%
20-24	17,409	16,520	33,929	6.0%	-9.7%	6.5%	-6.2%
25-29	17,146	17,358	34,504	6.1%	-4.9%	7.1%	-0.4%
30-34	18,273	19,031	37,304	6.6%	-4.2%	7.4%	-0.4%
35-39	19,736	20,406	40,142	7.1%	-3.2%	7.7%	1.3%
40-44	20,750	21,166	41,916	7.5%	7.3%	7.6%	9.8%
45-49	19,495	19,554	39,049	7.0%	6.8%	6.9%	4.6%
50-54	18,454	18,480	36,934	6.6%	24.0%	6.5%	24.0%
55-59	15,349	15,078	30,427	5.4%	23.8%	5.2%	18.6%
60-64	12,583	13,001	25,584	4.6%	13.0%	4.2%	12.2%
65-69	10,875	11,803	22,678	4.0%	-6.0%	3.6%	-3.9%
70-74	10,553	12,031	22,584	4.0%	3.9%	3.4%	3.5%
75-79	8,325	10,376	18,701	3.3%	23.2%	2.8%	19.4%
80-84	4,602	7,190	11,792	2.1%	20.5%	1.8%	17.1%
85-89	1,973	4,137	6,110	1.1%	33.6%	1.0%	28.5%
90 +	719	2,071	2,790	0.5%	41.1%	0.5%	38.8%
Total	276,589	284,933	561,522	100.0%	4.1%	100.0%	5.3%

Note: figures do not include overseas visitors

Source: Australian Bureau of Statistics, Population Census, 1996 and 2001

Age distribution by LGA

The next two tables show the age distribution of the population in Hunter LGAs in 1996 and 2001. Major points of note are:

- The Hunter Balance has a relatively older population than the Lower Hunter. In 2001 almost 28 per cent of Hunter Balance residents were aged 55 and over, a 14 per cent increase since 1996. In the Lower Hunter 24 per cent were in the 55 plus age group, 13 per cent more than five years earlier.
- In the Great Lakes LGA 40 per cent of the population were aged 55 or more. In the largely coastal LGAs of the Lower Hunter (Port Stephens, Newcastle, Lake Macquarie and Maitland) approximately 22 per cent of residents were in this age group.
- Between the two censuses, in the Hunter as a whole there was a small rise in the number of 0-14 year olds: 0.1 per cent compared with 2.2 per cent in the State. A substantial decline in the Hunter Balance (of 4.8 per cent) was offset by an increase in the Lower Hunter (of 1.2 per cent).
- In both the Lower Hunter and Hunter Balance numbers in the next two age groups shown in the tables (15-24 and 25-39) declined between 1996 and 2001. For the whole of the Region there was a fall of 3.3 per cent in the number aged between 15 and 39, compared with almost no change at the State level.
- The 40-54 years age group was the only one for which population increases were similar (at around 11 to 12 per cent) in the Lower Hunter, Hunter Balance and State.
- In 2001 in the Lower Hunter the youth population (15-24 year olds) was relatively evenly spread over the five LGAs. Proportionally, the highest concentration of this group was in Newcastle (15 per cent of the population) and the lowest in Port Stephens (11 per cent). There was more variation among the Hunter Balance LGAs, with youth concentrations highest in Muswellbrook, Scone and Singleton (at around 13 per cent), and lowest in Gloucester, Great Lakes and Murrurundi (about 8 to 9 per cent).

Age distribution of the population in Hunter Local government areas and NSW, 1996

1996	0-14 years	15-24 years	25-39 years	40-54 years	55 + years	Overseas visitors	Total
Cessnock	10,409	6,150	9,740	8,882	9,108	73	44,362
% total	23.5%	13.9%	22.0%	20.0%	20.5%	0.2%	100%
Maitland	12,420	7,328	11,278	10,006	8,815	94	49,941
% total	24.9%	14.7%	22.6%	20.0%	17.7%	0.2%	100%
Port Stephens	12,263	6,204	11,179	9,639	11,869	134	51,288
% total	23.9%	12.1%	21.8%	18.8%	23.1%	0.3%	100%
Newcastle	23,611	21,828	30,269	24,030	33,496	452	133,686
% total	17.7%	16.3%	22.6%	18.0%	25.1%	0.3%	100%
Lake Macquarie	38,119	22,686	35,265	35,220	38,849	356	170,495
% total	22.4%	13.3%	20.7%	20.7%	22.8%	0.2%	100%
Lower Hunter	96,822	64,196	97,731	87,777	102,137	1,109	449,772
% total	21.5%	14.3%	21.7%	19.5%	22.7%	0.2%	100%
Change '91-'96	2.5%	-0.9%	0.7%	16.0%	7.5%	30.3%	5.1%
Dungog	1,845	824	1,617	1,550	1,800	23	7,659
% total	24.1%	10.8%	21.1%	20.2%	25.3%	0.3%	100%
Gloucester	1,094	485	899	946	1,381	10	4,815
% total	22.7%	10.1%	18.7%	19.6%	28.7%	0.2%	100%
Great Lakes	5,497	2,363	4,723	5,113	10,831	82	28,609
% total	19.2%	8.3%	16.5%	17.9%	37.9%	0.3%	100%
Merriwa	496	246	444	460	618	3	2,267
% total	21.9%	10.9%	19.6%	20.3%	27.3%	0.1%	100%
Murrurundi	428	230	400	494	606	6	2,164
% total	19.8%	10.6%	18.5%	22.8%	28.0%	0.3%	100%
Muswellbrook	4,029	2,227	3,795	3,083	2,377	51	15,562
% total	25.9%	14.3%	24.4%	19.8%	15.3%	0.3%	100%
Scone	2,388	1,139	2,153	1,955	1,868	15	9,518
% total	25.1%	12.0%	22.6%	20.5%	19.6%	0.2%	100%
Singleton	5,274	2,828	4,957	4,060	2,975	39	20,133
% total	26.2%	14.0%	24.6%	20.2%	14.8%	0.2%	100%
Hunter Balance	21,051	10,342	18,988	17,661	22,456	229	90,727
% total	23.2%	11.4%	20.9%	19.5%	24.5%	0.3%	100%
Change '91-96	2.8%	-6.7%	0.1%	17.5%	11.5%	37.1%	5.7%
Hunter	117,873	74,538	116,719	105,438	124,593	1,338	540,499
% total	22.4%	12.8%	21.3%	19.5%	23.7%	0.2%	100%
Change '91-96	2.6%	-1.7%	0.6%	16.2%	8.2%	31.4%	5.2%
NSW	1,285,592	848,425	1,395,097	1,191,314	1,275,117	43,151	6,038,696
% total	21.3%	14.0%	23.1%	19.7%	21.1%	0.7%	100%
Change '91-96	2.0%	-2.8%	3.2%	13.9%	8.4%	76.4%	5.4%

Source: Australian Bureau of Statistics, Population Census, 1991 and 1996

Age distribution of the population in Hunter Local government areas and NSW, 2001

2001	0-14 years	15-24 years	25-39 years	40-54 years	55+ years	Overseas visitors	Total
Cessnock	10,155	5,844	9,008	9,796	10,267	133	45,203
% total	22.5%	12.9%	19.9%	21.7%	22.7%	0.3%	100.0%
Maitland	12,863	7,576	11,226	11,513	10,540	85	53,803
% total	23.9%	14.1%	20.9%	21.4%	19.6%	0.2%	100.0%
Port Stephens	12,803	6,386	11,056	11,602	14,627	203	56,677
% total	22.6%	11.3%	19.5%	20.5%	25.8%	0.4%	100.0%
Newcastle	24,375	20,645	29,952	27,042	34,399	894	137,307
% total	17.8%	15.0%	21.8%	19.7%	25.1%	0.7%	100.0%
Lake Macquarie	37,768	22,347	33,587	38,290	45,193	434	177,619
% total	21.3%	12.6%	18.9%	21.6%	25.4%	0.2%	100.0%
Lower Hunter	97,964	62,798	94,829	98,243	115,026	1,749	470,609
% total	20.8%	13.3%	20.2%	20.9%	24.4%	0.4%	100.0%
Change '96-'01	1.2%	-2.2%	-3.0%	11.9%	12.6%	57.7%	4.6%
Dungog	1,791	807	1,445	1,820	2,012	26	7,901
% total	22.7%	10.2%	18.3%	23.0%	25.5%	0.3%	100.0%
Gloucester	985	426	744	1,007	1,520	3	4,685
% total	21.0%	9.1%	15.9%	21.5%	32.4%	0.1%	100.0%
Great Lakes	5,567	2,600	4,372	6,111	12,620	118	31,388
% total	17.7%	8.3%	13.9%	19.5%	40.2%	0.4%	100.0%
Merriwa	490	260	394	506	684	3	2,337
% total	21.0%	11.1%	16.9%	21.7%	29.3%	0.1%	100.0%
Murrurundi	397	183	376	422	626	14	2,018
% total	19.7%	9.1%	18.6%	20.9%	31.0%	0.7%	100.0%
Muswellbrook	3,651	1,939	3,371	3,139	2,655	40	14,795
% total	24.7%	13.1%	22.8%	21.2%	17.9%	0.3%	100.0%
Scone	2,122	1,208	1,865	2,134	2,127	14	9,470
% total	22.4%	12.8%	19.7%	22.5%	22.5%	0.1%	100.0%
Singleton	5,037	2,782	4,554	4,517	3,399	94	20,383
% total	24.7%	13.6%	22.3%	22.2%	16.7%	0.5%	100.0%
Hunter Balance	20,040	10,205	17,121	19,656	25,643	312	92,977
% total	21.6%	11.0%	18.4%	21.1%	27.6%	0.3%	100.0%
Change '96-'01	-4.8%	-1.3%	-9.8%	11.3%	14.2%	36.2%	2.5%
Hunter	118,004	73,003	111,950	117,899	140,669	2,061	563,586
% total	20.9%	13.0%	19.9%	20.9%	25.0%	0.4%	100.0%
Change '96-'01	0.1%	-2.1%	-4.1%	11.8%	12.9%	54.0%	4.3%
NSW	1,313,350	845,345	1,398,042	1,333,562	1,420,869	60,577	6,371,745
% total	20.6%	13.3%	21.9%	20.9%	22.3%	1.0%	100.0%
Change '96-'01	2.2%	-0.4%	0.2%	11.9%	11.4%	40.4%	5.5%

Source: Australian Bureau of Statistics, Population Census, 1996 and 2001

Population of urban centres in Hunter LGAs

The tables on the following pages show a broad age group breakdown of the population in suburbs of the two most populous Hunter LGAs, Newcastle and Lake Macquarie, and then for urban areas in the remaining LGAs in the Lower Hunter, and those in the Hunter Balance.

Broad age group breakdown by suburb in the Newcastle Local Government Area, 2001

	No. persons					No. private dwellings
	0-19	20-59	60 +	Overseas visitors	Total	
Adamstown	1,159	2,680	982	12	4,833	2,353
Adamstown Heights	1,044	2,180	1,072	6	4,302	1,748
Bar Beach	298	781	247	12	1,338	721
Beresfield/Tarro	1,155	2,421	1,025	9	4,610	1,887
Birmingham Gardens	434	913	418	13	1,778	757
Broadmeadow	340	880	242	6	1,468	732
Carrington	346	954	311	-	1,611	809
Cooks Hill	483	1,759	371	11	2,624	1,381
Elmore Vale	1,588	2,721	480	9	4,798	1,705
Fletcher	236	480	18	-	734	274
Georgetown	389	1,048	373	3	1,813	893
Hamilton	703	2,328	952	14	3,997	2,009
Hamilton East	247	544	182	11	984	434
Hamilton North	205	505	157	3	870	408
Hamilton South	879	1,926	858	3	3,666	1,861
Islington	260	882	243	9	1,394	779
Jesmond	541	1,261	540	36	2,378	1,136
Kotara	985	1,844	968	6	3,803	1,601
Lambton	1,203	2,406	917	16	4,542	2,032
Maryland	2,435	3,933	470	19	6,857	2,384
Maryville	201	634	211	3	1,049	533
Mayfield	2,170	4,930	1,916	33	9,049	4,276
Mayfield East	407	845	256	9	1,517	730
Mayfield West	409	917	386	10	1,722	783
Merewether	2,297	5,691	2,066	50	10,104	4,800
Merewether Heights	313	665	306	6	1,290	542
Minmi	230	377	45	-	652	220

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Source: Australian Bureau of Statistics, Population Census, 2001

Broad age group breakdown by suburb in the Newcastle Local Government Area, 2001 (continued)

	No. persons					No. private dwellings
	0-19	20-59	60+	Overseas visitors	Total	
New Lambton	2,152	4,741	2,061	40	8,994	4,222
New Lambton Heights	395	659	323	12	1,389	384
Newcastle	213	1,144	385	72	1,814	849
Newcastle East	110	626	139	50	925	524
Newcastle West	14	130	39	3	186	75
North Lambton	724	1,563	682	11	2,980	1,291
Rankin Park	331	823	130	3	1,287	512
Sandgate	30	69	179	-	278	103
Shortland	1,326	2,229	803	245	4,603	1,517
Stockton	979	2,389	1,000	13	4,381	1,759
The Hill	347	1,270	283	37	1,937	1,107
The Junction	256	760	250	14	1,280	675
Tighes Hill	375	850	274	9	1,508	730
Wallsend	2,944	6,083	2,519	22	11,568	4,875
Warabrook	528	1,089	420	-	2,037	765
Waratah	921	2,104	1,346	23	4,394	1,902
Waratah West	712	1,498	614	22	2,846	1,163
Wickham	129	419	97	3	648	371
Rural balance	164	296	70	-	530	208

Source: Australian Bureau of Statistics, Population Census, 2001

Broad age group breakdown by suburb in the Lake Macquarie Local Government Area, 2001

	No. persons				Total	No. private dwellings
	0-19 years	20-59 years	60+ years	Overseas visitors		
Argenton	296	681	316	3	1,296	579
Avondale	452	832	567	9	1,860	706
Awaba	122	162	42	0	326	116
Barnsley	672	1,029	111	3	1,815	620
Belmont	1,459	2,877	1,662	34	6,032	2,805
Belmont North	1,525	2,695	1,212	15	5,447	2,108
Belmont South	294	583	246	3	1,126	517
Blackalls Park	806	1,468	501	6	2,781	1,087
Blacksmiths	413	834	463	6	1,716	870
Bolton Point	831	1,034	419	0	2,284	824
Bonnells Bay	799	1,290	596	9	2,694	1,171
Boolaroo	320	650	233	0	1,203	519
Booragul	475	683	474	3	1,635	634
Brightwaters	160	260	121	3	544	249
Cardiff	1,287	2,675	1,066	9	5,037	2,158
Cardiff Heights	440	912	449	6	1,807	699
Cardiff South	837	1,396	441	9	2,683	1,077
Carey Bay	167	374	407	3	951	420
Catherine Hill Bay	37	113	46	0	196	106
Caves Beach	1,238	2,144	764	3	4,149	1,619
Charlestown	2,992	5,956	2,393	24	11,365	4,755
Coal Point	443	820	364	6	1,633	702
Cooranbong	412	699	311	3	1,425	535
Croudace Bay	93	217	78	0	388	163
Dora Creek	364	651	336	11	1,362	645
Dudley	647	1,212	359	3	2,221	889
Edgeworth	2,373	4,259	1,136	6	7,774	2,891
Eleebana	1,803	3,121	834	13	5,771	2,043
Estelville	353	574	55	0	982	321
Fennell Bay	589	1,072	368	6	2,035	821
Floraville	422	719	156	6	1,303	481
Garden Suburb	508	825	220	4	1,557	555
Gateshead	1,071	1,829	719	0	3,619	1,452
Glendale	797	1,601	634	6	3,038	1,274
Highfields	359	809	297	12	1,477	617
Hillsborough	230	354	72	3	659	234
Holmesville	485	876	163	0	1,524	549

...Continued

Source: Australian Bureau of Statistics, Population Census, 2001

Broad age group breakdown by suburb in the Lake Macquarie Local Government Area, 2001 (continued)

	No. persons					No. private dwellings
	0-19 years	20-59 years	60+ years	Overseas visitors	Total	
Jewells	830	1,491	319	3	2,643	920
Kahibah	602	1,195	598	6	2,401	1,060
Kilaben Bay	366	630	210	0	1,206	489
Killingworth	275	391	39	0	705	215
Kotara South	253	573	302	6	1,134	471
Lakelands	580	847	153	9	1,589	509
Macquarie Hills	837	1,531	164	3	2,535	884
Marks Point	370	864	407	3	1,644	877
Marmong Point	97	194	113	0	404	192
Mirabooka	214	352	105	0	671	297
Morriset	297	551	195	3	1,046	419
Mount Hutton	943	1,519	553	9	3,024	1,184
New Lambton Heights	515	867	138	13	1,533	506
Nords Wharf	290	428	143	3	864	382
Pelican	232	407	175	0	814	363
Rankin Park	360	752	84	12	1,208	423
Redhead	843	1,551	809	3	3,206	1,352
Silverwater	173	353	175	0	701	357
Speers Point	731	1,568	728	6	3,033	1,380
Sunshine	104	184	89	0	377	215
Swansea - Swansea Heads	1,186	2,448	1,640	3	5,277	2,548
Teralba	393	728	322	3	1,446	582
Tingira Heights	915	1,562	427	11	2,915	1,020
Toronto	1,361	2,409	1,376	21	5,167	2,164
Valentine	1,532	2,859	818	30	5,239	1,902
Wangi - Rathmines	2,394	4,329	1,655	35	8,413	3,661
Warners Bay	1,696	3,400	1,478	18	6,592	2,867
West Wallsend	633	1,027	295	3	1,958	730
Whitebridge	820	1,290	350	0	2,460	902
Windale	924	1,477	538	6	2,945	1,209
Windermere Park	398	694	256	3	1,351	601
Woodrising	599	845	62	3	1,509	487
Wyee - Wyee Point	607	965	272	3	1,847	684
Yarrawonga Park	235	382	137	3	757	370
Rural balance	1,281	2,579	1,361	22	5,243	1,974

Source: Australian Bureau of Statistics, Population Census, 2001

Broad age group breakdown by suburb in other Lower Hunter Local Government Areas, 2001

	No. persons					No. private dwellings
	0-19 years	20-59 years	60+ years	Overseas visitors	Total	
Cessnock						
Cessnock-Bellbird	5,231	8,861	3,705	34	17,831	7,043
Kurri Kurri-Weston	3,644	6,400	2,233	9	12,286	5,093
Branxton-Greta	1,240	2,099	479	3	3,821	1,481
Heddon Greta	383	634	75	3	1,095	366
Ellalong	200	294	81	0	575	203
Paxton	161	288	105	0	554	243
Rothbury North	177	285	33	0	495	188
Millfield	159	253	71	0	483	214
Neath	100	181	81	0	362	168
Kitchener	97	159	41	6	303	115
Mulbring	89	147	39	0	275	109
Rural balance	1,846	4,263	980	77	7,166	2,902
Maitland						
Ashtonfield	1,324	2,048	367	12	3,751	1,256
Bolwarra - Bolwarra Heights - Largs	981	1,671	466	8	3,126	1,121
East Maitland - Green Hills	2,668	4,978	2,081	9	9,736	4,272
Gillieston Heights	169	300	164	0	633	275
Lochinvar	167	288	102	0	557	184
Lorn	369	680	244	0	1,293	531
Maitland	791	1,651	729	9	3,180	1,327
Metford	1,389	2,166	298	0	3,853	1,418
Morpeth	288	481	169	0	938	414
Rutherford - Aberglasslyn	2,695	4,621	1,180	12	8,508	3,263
Telarah	619	1,092	467	0	2,178	950
Tenambit	940	1,585	448	6	2,979	1,115
Thornton	2,191	3,188	423	3	5,805	1,978
Windella Downs	170	238	26	0	434	133
Woodberry	1,313	1,827	248	3	3,391	1,159
Rural balance	1,090	1,871	474	19	3,454	1,238

...Continued

Source: Australian Bureau of Statistics, Population Census, 2001

Broad age group breakdown by suburb in other Lower Hunter Local Government Areas, 2001 (continued)

	No. persons					Total	No. private dwellings
	0-19 years	20-59 years	60+ years	Overseas visitors			
Port Stephens							
Raymond Terrace	4,302	6,400	1,761	27	12,490	4,763	
Nelson Bay-Shoal Bay	1,716	3,745	2,411	75	7,947	5,490	
Medowie	2,332	3,502	436	6	6,276	2,122	
Lemon Tree Passage	1,437	2,686	1,333	15	5,471	2,583	
Salamander Bay-Soldiers Point	1,234	2,304	1,464	15	5,017	2,782	
Corlette	694	1,248	749	22	2,713	1,363	
Anna Bay	806	1,323	284	6	2,419	1,108	
Fingal Bay	372	600	630	0	1,602	948	
Karuah	253	480	332	0	1,065	451	
Brandy Hill	296	430	68	0	794	237	
Boat Harbour	150	255	88	3	496	256	
Fern Bay	121	255	95	0	471	210	
Wallalong	138	211	27	0	376	117	
Seaham	128	206	29	0	363	123	
Hinton	96	154	58	0	308	132	
Rural balance	2,324	4,764	1,646	43	8,777	3,451	

Broad age group breakdown by suburb in Hunter Balance Local Government Areas, 2001

	No. persons					Total	No. private dwellings
	0-19 years	20-59 years	60+ years	Overseas visitors			
Dungog							
Dungog	558	1,003	578	0	2,139	969	
Clarencetown	284	417	116	0	817	312	
Paterson	102	174	57	0	333	133	
Gresford East and West	76	114	66	0	256	140	
Rural balance	1,303	2,324	727	27	4,381	1,983	
Gloucester							
Gloucester	709	1,074	703	0	2,486	1,141	
Rural balance	551	1,121	488	9	2,169	1,142	

...Continued

Source (both tables): Australian Bureau of Statistics, Population Census, 2001

Broad age group breakdown by suburb in Hunter Balance Local Government Areas, 2001 (continued)

	No. persons					Total	No. private dwellings
	0-19 years	20-59 years	60+ years	Overseas visitors			
Great Lakes							
Forster-Tuncurry	3,649	7,328	6,844	52	17,873	9,904	
Tea Gardens	275	613	493	10	1,391	809	
Hawks Nest	197	501	479	6	1,183	1,443	
Bulahdelah	298	479	339	10	1,126	495	
Smiths Lake	294	407	196	0	897	561	
Pacific Palms-Bluey's Beach	165	332	184	12	693	715	
Stroud	200	310	160	3	673	276	
Nabiac	193	278	104	0	575	222	
Green Point	166	252	101	0	519	244	
North Arm Cove	42	139	137	3	321	272	
Coomba Park	71	141	108	0	320	247	
Pindimar	82	172	64	0	318	156	
Rural balance	1,554	2,698	1,055	21	5,328	2,788	
Merriwa							
Merriwa	257	439	270	0	966	445	
Rural balance	388	730	244	9	1,371	725	
Murrurundi							
Murrurundi	190	378	211	0	779	420	
Rural balance	310	691	234	13	1,248	680	
Muswellbrook							
Muswellbrook	3,324	5,434	1,286	33	10,077	4,065	
Denman	445	750	197	3	1,395	558	
Rural balance	974	1,997	381	15	3,367	1,322	
Scone							
Scone	1,380	2,209	910	12	4,511	1,975	
Aberdeen	561	920	227	0	1,708	694	
Rural balance	916	1,829	477	0	3,222	1,503	
Singleton							
Singleton	4,100	6,664	1,710	43	12,517	4,752	
Broke	60	153	21	0	234	89	
Rural balance	2,498	4,310	821	59	7,688	2,821	

Source: Australian Bureau of Statistics, Population Census, 2001

Ethnicity

Country of birth

Compared with other regions of NSW and Australia the Hunter has a low level of ethnic diversity. According to the 2001 census approximately 86 per cent of people in the Hunter were born in Australia compared with 70 per cent in NSW as a whole. In recent years there has been an increase in the proportion of non-Australian born people in both the Region and the State: in 1996 around 87 per cent in the Hunter and 73 per cent in the State were born in the country. The ethnic distribution of the Hunter and State populations is shown in the table below.

Birthplace of residents in the Hunter and NSW, 2001

	Hunter			NSW
	No.	%	% Change 1996-2001	%
Australia	481,717	85.5%	2.2%	69.9%
United Kingdom(including Northern Ireland, Channel Islands and Isle of Man)	19,227	3.4%	-3.9%	4.3%
New Zealand	5,463	1.0%	6.0%	1.7%
Germany	2,724	0.5%	-4.6%	0.5%
Italy	1,712	0.3%	-5.7%	1.0%
Netherlands	1,616	0.3%	0.2%	0.3%
Philippines	1,353	0.2%	8.0%	0.8%
Poland	1,177	0.2%	-15.0%	0.3%
Macedonia	1,162	0.2%	2.7%	0.3%
United States of America	910	0.2%	16.8%	0.3%
South Africa	840	0.1%	39.3%	0.5%
Greece	810	0.1%	-8.5%	0.6%
China (excludes Hong Kong, Macau and Taiwan Province)	776	0.1%	-1.8%	1.3%
Yugoslavia, Federal Republic of	771	0.1%	N/A	0.3%
Malaysia	722	0.1%	-18.3%	0.3%
Ireland	670	0.1%	4.4%	0.3%
India	592	0.1%	3.1%	0.6%
Born elsewhere overseas	10,854	1.9%	-5.3%	9.8%
Not stated	28,426	5.0%	77.7%	6.1%
Overseas visitors	2,065	0.4%	54.9%	1.0%
Total	563,587	100.0%	4.3%	100.0%

N/A: not available

Source: Australian Bureau of Statistics, Population Census, 1996 and 2001

Between the censuses of 1996 and 2001 there have been some slight changes in the ethnic profile of the Hunter, with relatively large increases in the proportion of people born in South Africa (39 per cent) and the United States (17 per cent), though note that these percentages represent only small increases in the actual number of residents from these countries. There were moderate increases in the proportion of people from the Philippines (8 per cent) and New Zealand (6 per cent), with New Zealanders comprising the second largest ethnic minority in the Region (1 per cent of the total population).

Over the period there were also relatively large declines in the proportion of Hunter residents from Malaysia (18 per cent) and Poland (15 per cent), while the number in the largest ethnic group in the Hunter - from the United Kingdom - fell by 4 per cent.

Language spoken at home

The extent to which languages other than English are spoken at home is another indicator of ethnicity. In 2001 approximately 92 per cent of Hunter residents spoke English at home, compared with 75 per cent in the State. Five years earlier in 1996 the respective proportions were 93 per cent and 78 per cent. In the Hunter in 2001 the foreign languages most frequently spoken at home were Italian and Macedonian. The next table provides details.

Language spoken at home in the Hunter and NSW, 2001

	Hunter		NSW	
	No.	%	No.	%
English only	517,373	91.8%	4,777,493	75.0%
Italian	2,119	0.4%	96,790	1.5%
Macedonian	1,993	0.4%	30,658	0.5%
Greek	1,539	0.3%	90,180	1.4%
German	1,440	0.3%	22,154	0.3%
Polish	1,255	0.2%	17,045	0.3%
Cantonese	1,225	0.2%	120,752	1.9%
Tagalog (Philippine)	706	0.1%	42,849	0.7%
Croatian	647	0.1%	26,006	0.4%
Spanish	634	0.1%	49,315	0.8%
Dutch	612	0.1%	9,683	0.2%
Other	8,260	1.5%	690,772	10.8%
Other than English total	20,430	3.6%	1,196,204	18.8%
Not stated	23,719	4.2%	337,471	5.3%
Overseas visitors	2,065	0.4%	60,577	1.0%
Total	563,587	100.0%	6,371,745	100.0%

Source: Australian Bureau of Statistics, Population Census, 2001

Indigenous status

In 2001 there were 12,031 persons of Aboriginal or Torres Strait Islander descent in the Hunter, 2.2 per cent of the regional population. This proportion represents an increase from 1.8 per cent in 1996, and is higher than the average for the State of 2 per cent in 2001.

There was a slightly higher proportion of indigenous people in the Hunter Balance (2.7 per cent) than in the Lower Hunter (2.1 per cent) in 2001. The highest *number* of indigenous people lived in Lake Macquarie and Newcastle, but they formed the highest proportion of the population in LGAs outside the Region's main population centres: Muswellbrook (3.6 per cent), followed by Cessnock and Great Lakes (each 2.8 per cent) and Gloucester and Scone (each 2.6 per cent).

Indigenous status in the Hunter and NSW, 1996 and 2001

	Indigenous	Non-indigenous	Total	% Indigenous
Cessnock	1,226	42,014	43,240	2.8%
Lake Macquarie	3,409	168,939	172,348	2.0%
Maitland	1,217	51,321	52,538	2.3%
Newcastle - Inner	66	3,962	4,028	1.6%
Newcastle - Remainder	2,376	124,666	127,042	1.9%
Port Stephens	1,336	53,088	54,424	2.5%
Lower Hunter	9,360	443,990	453,350	2.1%
Dungog	160	7,442	7,602	2.1%
Gloucester	118	4,445	4,563	2.6%
Great Lakes	859	29,378	30,237	2.8%
Merriwa	38	2,124	2,162	1.8%
Murrurundi	45	1,909	1,954	2.3%
Muswellbrook	503	13,629	14,132	3.6%
Scone	237	8,880	9,117	2.6%
Singleton	441	19,038	19,479	2.3%
Hunter Balance	2,401	86,845	89,246	2.7%
Hunter 2001	12,031	530,835	542,866	2.2%
Hunter 1996	9,279	516,804	526,083	1.8%
NSW 2001	119,865	5,901,295	6,021,160	2.0%
NSW 1996	101,485	5,716,770	5,818,255	1.7%

Excludes people who did not state their indigenous status and overseas visitors
Source: Australian Bureau of Statistics, Population Census, 1996 and 2001

The 'baby boom' generation

Article prepared by
Dr W.E.J Paradise

The baby boomers

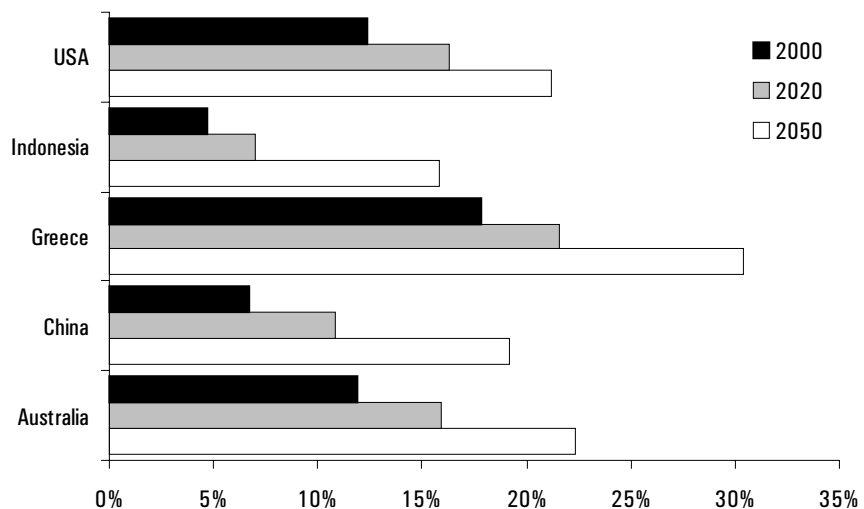
Baby boomers is the term used for those people born from 1946 to 1965. This makes the oldest 56, the youngest 37. If the oldest stay employed until the age of 65 they will retire in nine years, or 2011, while the youngest will be reaching that age in 2030. As this generation ages the overall Australian population also ages. This *structural ageing* is mainly due to the sustained decline in fertility following the postwar baby boom.

In 1961, at the height of the baby boom, the total fertility rate peaked at 3.6 babies per woman. By the late 1970s it had fallen to around half that level and has continued to decline throughout the eighties and nineties. Projections for the Australian population are based on a fertility rate of 1.75 births per woman by 2006. This fertility rate is then assumed to remain constant until 2051.

While it is more difficult to define the end of the baby boom generation than it is to define the beginning, it is apparent that a change began to take place in the 1960s. With the introduction of oral contraceptives, changing perceptions of desired family size, and growing acceptance of women's participation in paid employment, birth rates began to decline.

To put the issue of Australia's ageing population into an international context it is worth reviewing projections of populations in other countries. The figure below shows the proportion of the population over 65 years in selected countries.

Proportion of the population aged over 65, projections 2000 - 2050



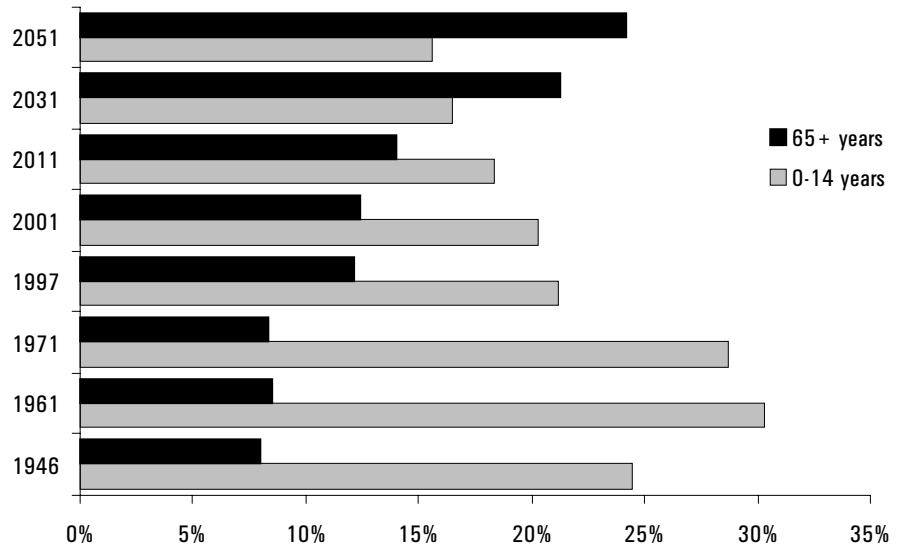
Source: Australian Bureau of Statistics, catalogue no. 4102.0

Australia's changing age profile

While Australia's population is relatively old by world standards it is still relatively young when compared with other developed countries. For example, in Italy, Greece and Japan the proportion of the population aged 65 and over is projected to exceed 30 per cent by 2050, yet in Australia the proportion aged 65 and over is projected to double between 2001 and 2051 to around 22 per cent.

The next figure demonstrates Australia's changing age profile over time and clearly shows the impact of the ageing baby boomers on the population profile.

Proportion of Australia's population aged 0-14 and 65 and over, 1946 - 2051



Source: Australian Bureau of Statistics, catalogue no. 4102.0

In 1961, at the tail of the baby boom, the proportion of the population under 15 years (the baby boom cohort) was 30.3 per cent while only 8.5 per cent was 65 years and over. The median age was 29.3 years. The total population was 10.5 million.

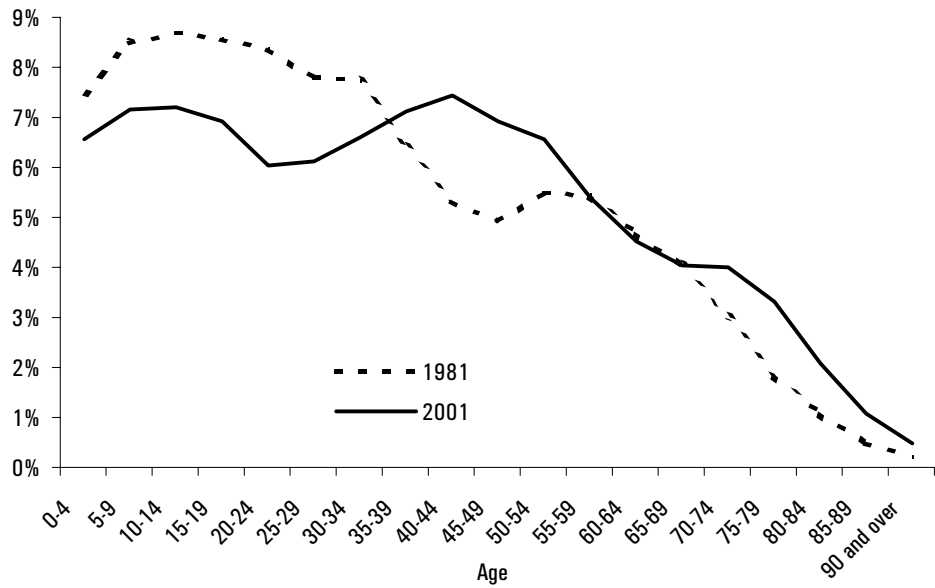
In 2031 it is projected that only 16.5 per cent of the population will be under 15 years, with 21.3 per cent 65 years and older. The median age will be 42.2. The baby boom cohort will have declined to 18.7 per cent of the total population of 23.7 million. From 2011 to 2031 the population aged 65 years and over is projected to grow from 3 million to 5 million. Between 2031 and 2051 baby boomers are projected to swell the population aged 85 and over from 612,000 to 1.1 million. At the same time the age dependency ratio will rise from 18 per cent in 1997 to 40 per cent by the year 2051.

It is also worth noting that population age profiles vary between States and Territories. For example, Tasmania's population is projected to age the most rapidly, overtaking South Australia as the oldest State in about 20 years time and reaching a median age of around 51 years by 2051. In that year it is projected that 32 per cent of Tasmanians, and 29 per cent of South Australians will be 65 years and over, compared with the Australian figure of 24 per cent.

The Hunter's changing age profile

Reviewing recent changes in our local age profile, the following figure shows the movement of the baby boom generation through the demographic profile. The large proportion of the population in the lower part of the profile in 1981 has moved into the middle age years by the time of the 2001 Census while the older age categories continue to increase significantly.

Age profile of the Hunter Region, 1981 and 2001

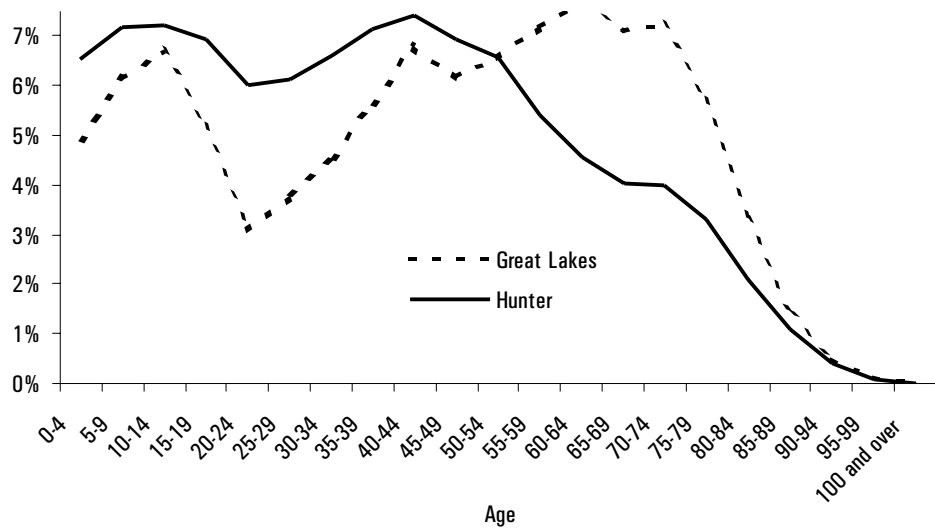


Source: Australian Bureau of Statistics, Population Census 1981 and 2001

Changes within the Hunter

To demonstrate the importance of considering local changes, the next figure clearly shows the high proportion of people aged over 60 in the Great Lakes LGA compared with the Hunter Region as a whole.

Age profile of the Great Lakes LGA and the Hunter Region, 2001



Source: Australian Bureau of Statistics, Population Census 2001

The figure also shows that in 2001 there was a higher proportion of people in the 80 plus age category in the Great Lakes than in the Hunter, suggesting that people are remaining in the LGA even when, for example, one of the partners dies. This trend has implications regarding, among other things, the location of nursing home facilities in the future.

The Great Lakes demographic profiles tell a further story in relation to the development of another population group, apparently made up of young families. This is reflected in minor peaks in the age profile for primary school and young teenage children, and their parents in their early 40s. This group appears to be moving into the LGA to help service growth associated with the migration of retirees into the area.

These profiles emphasise the importance of understanding the key drivers of population projections at the local level, particularly the motives of people migrating between local government areas at different stages of their life cycle. Modelling by the Hunter Valley Research Foundation indicates that, using very conservative assumptions, the number of people aged 65 and over in the Hunter is likely to increase from about 84,600 in 2001 to at least 127,000 in 2021. Similarly, in Great Lakes, the increase will be from approximately 8,000 people aged 65 and over in 2001 to at least 12,900 in 2021.

Planning for the ageing population

To cope with the ageing population the OECD has developed a number of principles which it suggests need to be applied in the policy development process. They include the following¹ :

- Public pension systems, taxation systems and social transfer programs should be reformed to remove financial incentives to early retirement and financial disincentives to later retirement².
- A variety of reforms will be needed to ensure that more job opportunities are available to older workers and that they are equipped with the necessary skills and competencies to take advantage of such opportunities.
- Fiscal consolidation should be pursued and public debt burdens should be reduced. This would obviously minimise liabilities into the future.
- Retirement income should be provided by a mix of tax and transfer systems, funded systems, private savings and earnings. The objective is risk diversification, a better balance of burden sharing between generations and the desire to give individuals more flexibility over their retirement decision.
- In health and long term care there should be greater focus on cost effectiveness. Medical expenditure and research should be increasingly directed to ways of reducing physical dependence, and explicit policies for providing care to frail older people should be developed.
- The development of advanced funded pension systems should go hand in hand with the strengthening of the financial market infrastructure, including the establishment of a modern and effective regulatory framework.
- Strategic frameworks should be put in place at the national level now in order to harmonise these ageing reforms over time, and to ensure adequate attention to implementation and the build up of public understanding and support.

1 OECD, *Economic Surveys Australia*, "Coping with Population Ageing", pp. 99-149

2 It would appear that such a policy would also have to consider employer decisions (public and private) which contribute to redundancy, retrenchment etc.

It is apparent that the financial position of various governments is likely to be affected by population ageing since an increase in expenditure on age and related pensions, and health care will be expected.

Mechanisms have been established to encourage people to save for their old age, specifically the development of superannuation funds. These funds form an important part of future retirement income, however, there is a risk to the performance of these super funds. This is highlighted by the OECD in its concern that as the baby boomers accumulate stocks during middle age they may drive up prices. When they all begin to retire and there are high net sales this could then drive down prices.

Yet it is believed that the major risk to government finances in the long term comes from rising health care expenditures. Older people use health care services more intensively. Per person, health care expenditure for persons aged 65 and over is 3.8 times higher than for persons less than 65, rising to 5 times more for persons over 75. Much of the increase reflects higher spending in the last two years of life. Health care during the last three months of an elderly person's life is eight times that for a survivor. The other factor contributing to high outlays is having to stay in a nursing home due to a severe disability. Present information suggests that 40 per cent of those aged over 70 will enter residential care, with 17 per cent of people over 65 having a severe or profound handicap. This rises to 42 per cent for those over 80.

The main cause of disability among the very elderly is dementia, affecting 25 per cent of those over the age of 85. As dementia is age related the number of years people suffer from it may possibly increase as life expectancy rises. Accordingly, the need for long term residential care is likely to rise in step with growth in the very elderly population, particularly if an effective treatment for dementia is not developed before 2030.

The impact of ageing on the labour force

While health care is the natural focus when discussing the impact of an ageing population, a less obvious issue, but no less critical, is the effect on the labour force. With the ageing of the population there will be more people leaving the workforce. This will result in a decline in the annual growth of the working age population and is projected to lower annual growth of GDP by 1.6 per cent.

The retirement decision, or a person's exit from the workforce, is critical. In 1960 the participation rate for those over 55 years was about 36 per cent: it is now about 25 per cent. If it were possible to increase labour force participation rates amongst persons aged 55 and over to the levels recorded in the 1960s, this could offset about one half of the decline in the proportion of the population in employment by 2030.

Employers over the past few decades have been accustomed to an expanding labour supply. The average growth of the labour force between 1978 and 1998 was 1.9 per cent per annum. From 1998 to 2016 it is expected to grow at an annual average rate of 0.8 per cent, with a growth rate of 0.4 per cent in 2016³.

3 Australian Bureau of Statistics, catalogue no. 6260.0

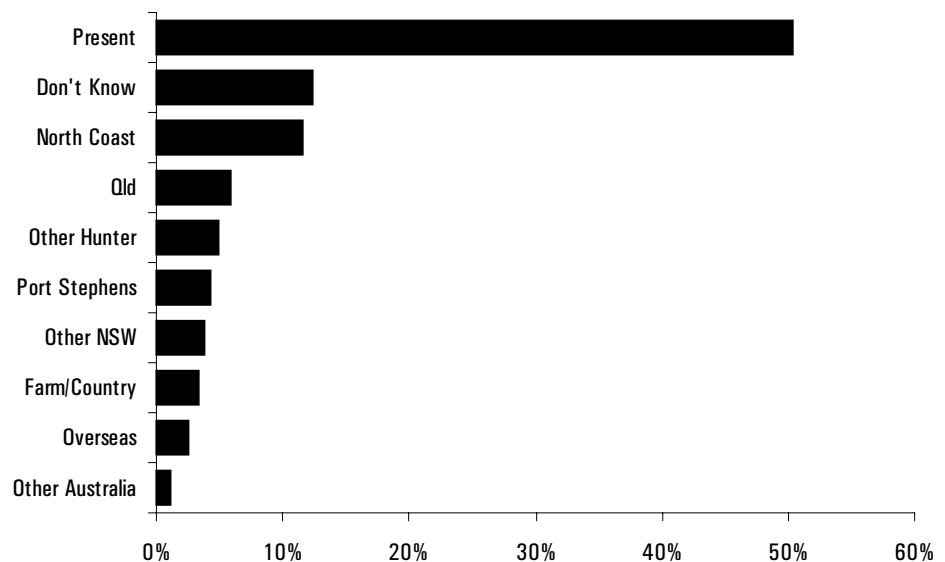
In the years to come employers may find it more difficult to obtain employees. The irony is that unless our education and training systems anticipate the requirements of the future we could have relatively high unemployment and a significant labour shortage at the same time. When employers introduce a redundancy program they should think about their needs in five years time. With a slowly growing labour supply it may become harder to obtain people with the appropriate skills and experience to meet the needs of the organisation.

At a local level the key issue will be managing change. As is evident in a place like Great Lakes the Council will be under continued development pressure and will face constant conflict between preservation and development for new housing. Such conflicts will be very localised, with a council such as Port Stephens facing challenges because of the great diversity of needs within its boundaries. For example, one area may be dominated by the needs of an older population, and another by the needs of families, yet all are within the one council area. Small rural councils will face the challenge of population change based on loss of employment and associated services. Anticipating these demographic changes will need to become a critical part of the planning process.

Retirement intentions

As mentioned previously, the potential migration between local government areas will be critical in predicting this demographic change. In an effort to quantify what this might mean in the Hunter Region the Hunter Valley Research Foundation surveyed a random sample of regional residents to determine where they would go when they retire. The results are shown in the figure below.

Retirement intentions of Hunter residents still in the workforce



Source: Hunter Valley Research Foundation

Responses suggest that approximately 50 per cent of people in the Hunter will retire in their present location. A further 9.2 per cent will retire in Port Stephens or elsewhere in the Hunter, while the North Coast and Queensland were popular locations outside the Region.

Analysis of the results by age shows that the older we get the more likely we are to stay put, and the more definite we are in our decision. Approximately 70 per cent of the over 50s said that they will retire in their present location, while only 32 per cent of the youngest group indicated that they will stay in the one place. About 55 per cent of the baby boomers intended staying in their present location, however 11 per cent did not know where they would like to retire. The majority of the 18-24 age group either did not know, or would like to move north to Queensland or the North Coast for their retirement.

Business opportunities

The ageing of the baby boomers will also provide business opportunities. A recent survey by the Australian Bureau of Statistics⁴ indicates that 27 per cent of older people needed assistance with property maintenance; 18 per cent with personal mobility; 23 per cent with health care; 20 per cent with transport; 18 per cent with housework; 12 per cent with paperwork; 6 per cent with meal preparation; and 5.8 per cent with communication.

While these results give some insight, business needs to focus on the services that people require as they age. For example, any service or product that assists older people with living at home has the prospect of success. In the US *assisted living companies* are emerging which help keep people out of nursing homes and make retirement villages less attractive.

The 'young' retired with a reasonable disposable income from superannuation are likely to be attracted to travel and entertainment. There is a suggestion they are also likely to be willing purchasers of recreational goods; self-improvement products and services; cosmetic surgery; home automation and possibly home shopping⁵. The key challenge for business will be to maintain a close assessment of the attitudes and preferences of the baby boomers and be able to anticipate their needs as they move into the next phase of their lives.

Future challenges

There is no doubt that Australia's and the Hunter Region's population is ageing. The march of the baby boom generation through the population age profile is apparent and predictable. Because it is so apparent Federal and State Government agencies should be able to anticipate the implications of these changes; however, at a local level it becomes more difficult. Local councils will be faced with a changing age profile, but the speed of the change will be heavily influenced by the level of in-migration which, in turn, will probably be determined by lifestyle factors.

To anticipate these changes it will be critical for government and business to ensure that the impact of the changing demographics on their clients and customers has been factored into their strategic plans and that these plans are reviewed regularly as new information about the needs and preferences of the baby boom generation becomes available.

4 Australian Bureau of Statistics, catalogue no. 4430.0

5 *The Bulletin*, "Boom, Baby, Boom", 25 January 1999, pp. 12-15

HVRF population projections

Determinants of population growth

Population change is determined by only two major factors:

- Natural increase/decrease - the difference between births and deaths
- Migration - movement of people into or out of an area.

At the national level population change will primarily be due to natural increase/decrease, and broad projections of this component can be reasonably made using historic trends. With declining fertility (the number of births per woman now below replacement values) any projection showing a large increase in the Australian population has to be based on a very large increase in the number of migrants moving to Australia. This figure is under the direct control of the Federal Government.

Projections are more difficult at the LGA level since they can be significantly influenced by developments in the area and the migration of people from one LGA to another, with government having minimal control over this movement. For example, small coastal communities may have very little natural increase (the number of births and deaths may be approximately equal), but a large number of retirees may move into the area from major metropolitan areas. Similarly, small rural communities could suffer significant population loss as a result of out-migration, particularly if a major industry in the area closes. While local governments may have some influence on the rate of in-migration based on the amount of land zoned for residential purposes, this will only be the case if there is a shortage of residential land.

The interaction of natural population increase/decrease, local migration and the change in housing stock is reflected in changes in household size. For example, a number of new houses may be built in an area indicating the influx of new people. However, if an ageing population is resulting in smaller household sizes the overall impact could actually be a declining population in the area. In 1999 the Australian Bureau of Statistics (ABS) predicted that the average household size in Australia would fall from 2.6 persons per household in 1996 to between 2.2 and 2.3 persons per household in 2021 (ABS catalogue no. 3236.0). It can be expected that similar changes will be experienced in the Hunter.

Assumptions underlying the HVRF model

The model developed by the Hunter Valley Research Foundation provides projections for the total population of each LGA in the Hunter Region, as well as the age distribution of these totals. Calculations are based upon information collected in the 1996 and 2001 Censuses, as well as assumptions relating to:

- Birth rates for each age group - women primarily have children between 25 and 34 years of age
- Death rates for each age group - death rates increase significantly after 70 years of age
- The number of deaths in an area before a house becomes vacant and therefore available for new residents - two deaths have been assumed
- The proportion of occupied private dwellings in the area - this can vary significantly between LGAs, with holiday areas having a high proportion of non-occupied houses; this is then reflected in household size

- The number of new houses built in the LGA - this is the major indicator of in-migration at the local level, and the most difficult to predict. For the *medium* growth projections shown below, the average number of new homes approved between 1998-99 and 2001-02 was used for the forward projections. This time span was chosen because of its recency, and because it covers a time of both high and restrained growth. *High* growth projections are based on an increase in housing approvals 10 per cent above the period average, and a *low* growth scenario is based upon housing approvals at a rate 10 per cent below the period average.

It may be possible to finetune these projections with further, locally specific information, such as future lot releases. However, this is likely to be relevant only for near term projections; obtaining accurate information for the longer term is more problematic.

'Medium growth' projections

Under the medium growth scenario, based upon the level of housing growth over the past four years, the Hunter's population increases from approximately 563,500 in 2001 to a little over 590,000 in 2006, and to approximately 706,000 by 2026. While growth will continue in the Lower Hunter and further along the coast, the Upper Hunter LGAs will experience a slight decline in population over the period.

'Medium growth' population projections 2006 – 2026, Hunter Region LGAs

	2006	2011	2016	2021	2026
Lower Hunter					
Cessnock	46,330	47,565	48,834	50,207	51,704
Lake Macquarie	183,861	190,380	196,945	203,810	210,971
Maitland	58,466	63,028	67,467	71,856	76,237
Newcastle	144,207	151,653	158,546	165,135	171,585
Port Stephens	62,600	68,548	74,461	80,398	86,297
Lower Hunter	495,464	521,173	546,254	571,405	596,794
Hunter Balance (Eastern Hunter)					
Dungog	7,994	8,083	8,184	8,308	8,443
Gloucester	4,709	4,722	4,760	4,836	4,928
Great Lakes	34,788	38,240	41,700	45,100	48,339
Eastern Hunter	47,491	51,046	54,644	58,244	61,711
Hunter Balance (Upper Hunter)					
Merriwa	2,307	2,283	2,270	2,258	2,251
Murrurundi	1,901	1,796	1,692	1,597	1,512
Muswellbrook	14,183	13,636	13,163	12,773	12,454
Scone	9,196	8,992	8,867	8,800	8,763
Singleton	20,755	21,197	21,675	22,235	22,852
Upper Hunter	48,342	47,903	47,667	47,663	47,832
Total Hunter	591,297	620,122	648,564	677,312	706,338

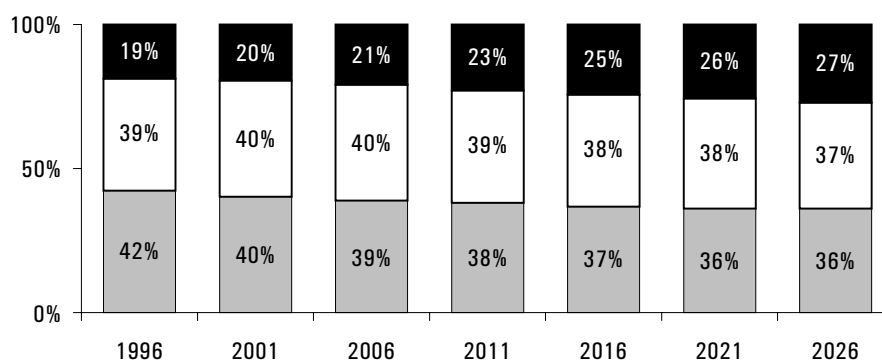
Source: The Hunter Valley Research Foundation

Age distribution

The chart below shows that over the next 25 years the ageing population trend will continue: the total regional population will be comprised of an increasing proportion of people aged 60 or over (the top, black section of the bars), while the proportion of 30-59 year olds (the middle white component), and 0-29 year olds (the bottom, grey section) will decline. This general trend is also relevant for the high and low growth scenarios.

Age distribution of 'medium growth' population projections, Hunter Region

■ Young (0 to 29) □ Middle (30 to 59) ■ Older (60+)



Note: Proportions for 1996 and 2001 are based on actual population data, the remaining proportions are based on population projections.

Other projection scenarios

Under the low growth scenario the regional population will rise to approximately 586,000 in 2006, increasing to about 682,000 in 2026. The majority of growth is in the Lower Hunter and the coastal LGAs. There is a steady decline in the population of all Upper Hunter LGAs except Singleton.

Using the high growth scenario, in 2006 the population of the Hunter will approach 600,000, rising to more than 730,000 in 2026. Again, growth is mainly in the Lower Hunter and coastal areas, but in this case the population remains relatively stable in the Upper Hunter LGAs.

Comments on the projections

The population projections clearly identify ongoing growth in population along the Region's coastal fringe. As people retire or reduce their involvement in the workforce, lifestyle becomes an even more significant factor in their choice of residential location. Coastal locations will continue to attract the ageing *baby boomers* both from large metropolitan areas such as Sydney and the rural areas of the State. Moreover, as household size continues to decline as people age, the population will not increase in proportion to the number of new dwellings constructed.

Population growth in the Lower Hunter may also be a product of improved roads and the increasing involvement of women in the workforce. Better roads mean that people are able to commute more easily to jobs further afield. Those living in, say, Maitland can now travel to employment opportunities in the Upper Hunter (Singleton, Muswellbrook and Scone), particularly if shift work and car pooling further encourage such developments. Higher female participation in the workforce also means that residential location decisions will often take into consideration employment opportunities for both partners. For example, women are more likely to be involved in tertiary sector activities, more available in the Lower Hunter.