

3 Demography and socioeconomic status

Introduction

Socioeconomic disadvantage is a unique determinant of inequalities in health: evidence for this is presented in Chapter 1.

A range of data variables from the 1996 Population Census are mapped in this chapter to indicate variations in socioeconomic disadvantage at the small area level. The results of the correlation analysis, shown in Chapter 8, provide a measure of the strength of the association at the small area level in the distribution of the population with similar characteristics. The correlation analysis also draws attention to associations between the measures being discussed (eg. high rates of premature deaths of males, or high rates of admissions to hospital for circulatory system diseases) and the indicators of socioeconomic disadvantage mapped in this and the following chapters.

The next section describes the growth and distribution of the population in Victoria (derived from Hugo 1991), discusses population projections and Indigenous population issues and raises some of the data issues that apply to the variables mapped and described in the remainder of the chapter.

Background

Population and distribution

While Victoria occupies the smallest area of the mainland States, it is the second largest in terms of population. The site of Melbourne, established by John Batman in 1835, became a separate colony in 1851, with a population of some 10,000. Like most emerging cities, Melbourne developed a port at the mouth of the Yarra River and a commercial centre some 10 kilometres up the Yarra. The discovery of gold at Ballarat and Bendigo caused Melbourne's population to expand to more than 140,000. In the process it became larger than Sydney. The 1880s were a decade of exuberance for Melbourne, but the expansionary cycle ended during the 1890s and population growth declined dramatically. During this period, the city spread mainly north, east and south-east. Railway lines constructed in these directions from the city during the 1880s further facilitated this developing geography. Urbanisation in westerly directions was initially restricted by periodic flooding from the Yarra and Maribyrnong Rivers.

Between 1901 and the early 1930s Melbourne's population virtually doubled, and this expansion extended the pattern of development established in the preceding period. Urban expansion to the north, east and south was encouraged by the introduction of a tramway system and the electrification of the urban railway system between 1914 and 1923. By the end of World War Two, the population of Melbourne had increased to

1.3 million people. Much of this growth was due to the expansion of a manufacturing economy developed from the mid 1920s based around energy sourced from the coal deposits of the Yallourn Valley.

In common with the other Australian capital cities, Melbourne experienced tremendous growth during the "long boom" of the 1950s and 1960s. In this time Australia developed policies for post-war reconstruction which encouraged manufacturing development behind a protective tariff wall. High prices for Australian primary industry commodities on the world market encouraged consumerism, which fuelled manufacturing development. The workforce for industrial expansion was drawn in large part from overseas migration, especially from Britain, but also from Germany the Netherlands, Italy and Greece. Many of these migrants resided close to their workplace, in housing developed to accommodate an expanding unskilled, skilled and labouring workforce. At the same time, government policy encouraged home ownership, and homeowners sought the spaciousness of family life on a large allotment in the suburbs. In Melbourne, much of the industrial development occurred to the north-west and west and south-west of the city on land which had been previously ignored for residential expansion.

Increasing motor vehicle ownership made suburban living a possibility for an increasing proportion of the population, and government developed the arterial and feeder road infrastructure to encourage the suburban development which characterised the period. Considerable in-filling of the interstices between the rail lines occurred, so that the shape of urban Melbourne changed from a star shape to a circular shape that began to sprawl with increasing momentum into the surrounding agricultural land.

During the 1950s Melbourne's rate of population increase, influenced by particularly high levels of international migration, was greater than that recorded for Australia. The rate of increase slowed during the sixties in response to reduced immigration and fertility levels. From 1971, however, the rate of population growth slowed further, principally due to substantial restructuring in the local manufacturing sector necessitated by the increasing internationalisation of capital. As well, Sydney developed as a global city, at the expense of Melbourne, and there was a shift in economic importance from manufacturing to mineral exploration and development. Consequently, between 1971 and 1986 Melbourne's population grew by only half the amount it had grown between 1954 and 1971. At the same time, the proportion of overseas born people resident in Sydney became greater than the proportion living in Melbourne.

Table 3.1: Population and area, Victoria, 1996

Section of State	Population:		Area:	
	No.	Per cent	km ²	Per cent
Melbourne Statistical Division	3,138,147	71.8	7,695	3.4
Rest of State	1,235,373	28.2	220,072	96.6
Whole State	4,373,520	100.0	227,767	100.0

Source: ABS special data services

As **Table 3.1** indicates, 71.8 per cent of Victoria's population is resident in the Melbourne Statistical Division, a similar proportion to that in Adelaide and Perth, although higher than in New South Wales.

Projected population

By 2006 Melbourne's population is projected to increase by 13.8 per cent to 3,571,900, and then to 3,791,900 by 2016. During the same time, the population of rural Victoria is projected to increase by 6.9 per cent to 1,320,700 in 2006 and to 1,327,300 by 2016. These projected growth rates place Melbourne among the slowest growing capital cities in Australia. Only Adelaide and Hobart are projected to grow at a slower rate during the forecast period (ABS 1998).

Data issues

Data quality of Indigenous population counts

As noted in Chapter 2, *Methods*, the data describing the health status and utilisation of health services by Aboriginal people are generally of poor quality. It has become clear with the release of results from the 1996 Census that population data are also less than ideal. **Table 3.2** shows the population of Indigenous

Australians as recorded at the three most recent Censuses, as well as changes over the ten-year period from 1986 to 1996. The number of Indigenous people recorded has increased by 125,325 people, from 227,645 at the 1986 Census to 352,970 at the 1996 Census (an increase of 55.1 per cent). Of the total increase, over half (69,051, or 55.1 per cent) occurred in the non-metropolitan areas, an increase for these areas of 44.4 per cent over ten years. The capital cities, with 26.6 per cent of the population of Indigenous Australians in 1986, showed an apparently stronger growth rate, of 79.0 per cent.

At the State/Territory level, the apparent rate of Indigenous population growth was highest in the Australian Capital Territory (137.6 per cent) and Tasmania (106.6 per cent), and lowest in the Northern Territory (33.2 per cent) and Western Australia (34.4 per cent). Queensland moved from having the largest population of Indigenous Australians in 1986 (with 61,268) to second largest, with 95,518 (after New South Wales with 101,485) in 1996. Sydney remained the capital city with the largest population of Indigenous people over the ten years to 1996. The major urban centres of Geelong and Newcastle/Wollongong had the highest increases, of 359.7 per cent and 134.2 per cent, respectively.

Table 3.2: Population of Indigenous Australians, 1986 to 1996

Area	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
1986									
Capital City	18,589	6,173	11,257	5,825	10,087	2,136	5,536	1,056	60,659
Other Major Urban Centres	4,515	392	6,515	..	..	..	..	..	11,422
Rest of State/Territory	35,907	6,046	44,101	8,466	27,702	4,580	29,203	164	155,564
Whole State/Territory	59,011	12,611	61,268	14,291	37,789	6,716	34,739	1,220	227,645
1991									
Capital City	22,600	7,956	13,456	6,948	11,744	3,026	6,179	1,588	73,497
Other Major Urban Centres	6,641	625	7,462	..	..	..	..	..	14,728
Rest of State/Territory	40,778	8,154	49,977	9,284	30,035	5,859	33,731	187	177,234
Whole State/Territory	70,019	16,735	70,124	16,232	41,779	8,885	39,910	1,775	265,459
1996									
Capital City	34,438	10,725	21,887	9,387	17,198	4,705	7,368	2,896	108,604
Other Major Urban Centres	10,573	1,802	9,233	..	..	..	..	..	20,608
Rest of State/Territory	56,474	9,947	65,462	11,057	33,595	9,168	38,909	3	224,615
Whole State/Territory	101,485	22,474	95,518	20,444	50,793	13,873	46,277	2,899	352,970
percentage change									
Capital city									
1986 to 1991	21.6	28.9	19.5	19.3	16.4	41.7	11.6	50.4	21.2
1991 to 1996	52.4	34.8	62.7	35.1	46.4	55.5	19.2	82.4	47.8
1986 to 1996	85.3	73.7	94.4	61.2	70.5	120.3	33.1	174.2	79.0
Other major urban centre									
1986 to 1991	47.1	59.4	14.5	..	..	..	..	..	28.9
1991 to 1996	59.2	188.3	23.7	..	..	..	..	..	39.9
1986 to 1996	134.2	359.7	41.7	..	..	..	..	..	80.4
Rest of State/Territory									
1986 to 1991	13.6	34.9	13.3	9.7	8.4	27.9	15.5	..	13.9
1991 to 1996	38.5	22.0	31.0	19.1	11.9	56.5	15.4	..	26.7
1986 to 1996	57.3	64.5	48.4	30.6	21.3	100.2	33.2	..	44.4
Whole State/Territory									
1986 to 1991	18.7	32.7	14.5	13.6	10.6	32.3	14.9	45.5	16.6
1991 to 1996	44.9	64.3	36.2	25.9	21.6	56.1	16.0	63.3	33.0
1986 to 1996	72.0	78.2	55.9	43.1	34.4	106.6	33.2	137.6	55.1

Source: ABS special data services

Such increases are not explained by the relatively higher fertility rates among Indigenous people, nor are they explained by a decline in mortality of Indigenous Australians. Rather, it appears that Australian's have been increasingly prepared to identify themselves as Indigenous on the Census form. The question remains as to what per cent of the actual population of Indigenous Australians these current levels of identification represent.

ABS SEIFA Index of Relative Socio-Economic Disadvantage

At each Census since the 1986 Census, the ABS have produced a number of indexes which measure different aspects of the socioeconomic conditions of the populations of geographic areas (ABS 1998). These summary measures, the Socio-Economic Indexes for Areas (SEIFA), combine into one index a range of information relating to the social and economic characteristics of the populations in small areas.

One of these indexes, the Index of Relative Socio-Economic Disadvantage (IRSD), summarises the information available from variables related to education, occupation, income, family structure, race (the proportion of Indigenous people), ethnicity (poor proficiency in use of the English language) and housing. The index reflects the extent of disadvantage represented by, for example, the proportion of low income families, of those with relatively low educational attainment and of high unemployment, in the area being examined. The variables are, therefore, similar to those presented in the remainder of this chapter. While the index number is a useful measure of socioeconomic disadvantage, users should realise its limitations. For example, while it represents the results of a particular set of statistical analyses on a set of variables from the 1996 Census, changing the variables could change the particular index values calculated (although the relativities between the areas for these variables are, in general, likely to remain). It also has a wide range of uses, such as for the allocation of resources or as a shorthand description of populations living in an area, but is not a universal answer to all such needs.

The IRSD is calculated at the smallest geographic level for which data are available from population Censuses – the Census Collection District – and was then calculated for the larger areas in the atlas (Statistical Local Areas, Statistical Subdivisions, Statistical Divisions and States and Territories) by weighting the scores for these smaller units by their population.

The IRSD is calculated to show the relativity of areas to the Australian average for the particular set of variables that comprise it. This average score is set at 1000. In this atlas, data mapped at the SLA level have been re-weighted so that Victoria is the average, with a State score of 1000. The text draws attention to the use of the two averages. Areas with relatively less disadvantaged populations (ie. those of higher socioeconomic status) have an index number of above 1000 and those with relatively greater disadvantage (ie. of lower socioeconomic status) have an index number of less than 1000. It is unfortunate that an IRSD uses high index scores to indicate advantage, when it would be intuitively expected that high index scores would indicate disadvantage, as implied by the name of the index. The text and maps for the IRSD are on pages 76 to 79.

In the discussion in the text, statistically significant *inverse correlations* between the IRSD and other variables indicate a positive association between the distributions of those variables and the disadvantaged population at the SLA level. Statistically significant *positive correlations* indicate an association between the particular variable(s) and areas comprising relatively advantaged populations. This is a difficult concept to grasp, so an example may assist. In the case of the variable for single parent families in Melbourne (page 30), there is an inverse correlation (-0.59) with the IRSD. Thus, at the SLA level in Melbourne there is a strong *negative* association between high proportions of single parent families and high SEIFA index scores. This can be restated as there being a strong *positive* association with socioeconomic disadvantage (ie. low index scores).

Age-sex standardisation

Age-sex standardisation was used to adjust the data mapped for the variable for early school leavers (**Maps 3.20 and 3.21**).

It is straight forward to calculate from the Census the percentage of each SLAs adult population, leaving school at the age of 15 or less, but a significant part of the variation between SLAs in this measure is caused by age structure. A person aged 70 is less likely to have stayed at school past the age of 15 than a person aged 20, simply because of the changes over the past 55 years in the education system. Age-sex standardisation measures variations in educational participation in a way unaffected by age structure. For each SLA, a theoretical expected number of adult residents who left school at age 15 or less has been calculated, assuming that each 5 year age group in its population had the same educational participation record as that same age group in the Victorian population as a whole. This expected number is then compared with the actual number, to establish whether the number of people who did not continue at school beyond 15 is significantly greater or less than one would expect given the area's age structure. A similar analysis compares the level of participation for each State/Territory and capital city, using Australia as the standard.

Data definitions

The variables mapped in this chapter and details of the way in which they have been defined are shown in **Table 3.3**.

Table 3.3: Details of demographic and socioeconomic variables mapped

Topic and variable name	Numerator	Denominator
Age distribution		
children aged 0 to 4	All children aged 0 to 4 years	Total population
people aged 65 and over	All people aged 65 years & over	Total population
Families		
single parent families	Single parent families with dependent children [under 15 yrs]	All families
low income families ¹	Families with income less than \$21,000 p.a. [\$400 per week]	All families with an income
high income families ²	Families with income of \$52,000 or more p.a. [\$1,000 per week]	All families with an income
Labour force		
unskilled and semi-skilled workers	Intermediate production & transport workers; labourers & related workers	Total employed labour force
high status occupations ²	Managers and administrators; & professionals	Total employed labour force
unemployed people	People with labour force status as unemployed	Total labour force
female labour force participation	All females aged 20 to 54 years in the labour force	All females aged 20 to 54 years
Educational participation and achievement		
early school leavers ³	People who left school at age 15 years or less, or did not go to school	Population aged 15 years & over
Aboriginal and Torres Strait Islander	Aboriginal and/or Torres Strait Islander people	Total population
People born in predominantly non-English speaking countries		
resident for five years or more	Number born in predominantly non-English speaking countries and resident for five years or more	Total population
resident for less than five years	Number born in predominantly non-English speaking countries and resident for less than five years	Total population
proficiency in English	People aged five years and over and born in predominantly non-English speaking countries who speak English 'not well' or 'not at all'	Population aged five years and over
Housing		
housing authority rented dwellings	Occupied private dwellings rented from the State/Territory housing authority	All occupied private dwellings
dwellings with no motor vehicle	Occupied private dwellings with no motor vehicles garaged or parked there on Census night	All occupied private dwellings

¹When interpreting the figures for low income families in the text in this chapter, it should be noted that the indicators of low income used in the comparisons (\$12,000 per annum or less in 1986 and less than \$21,000 per annum in 1996) do not equate to equivalent incomes and have thus not been adjusted based on changes to buying power. Rather, they are based on categories of income available from the Census and denote comparability of income in 1986, 1991 and 1996 based on the levels of incomes of recipients of the sole parent's allowance and unemployment allowances.

²These variables were not mapped but are included in the correlation analyses.

³This variable was adjusted using age-sex standardisation: a description of this process is in the text above.

Source: Compiled from project sources

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Children aged 0 to 4 years, 1996

Capital city comparison

Children are major users of health services, especially in the first years of life. Children living in families of lower socioeconomic status are more likely to have poorer health status and generally make more use of primary and secondary health services than those who are better off. Their distribution at a local area level is therefore an indicator of likely health service demand and the need for preventative programs.

Children aged from 0 to 4 years comprised 7.1 per cent of Australia's total population at the 1996 Census, and 6.9 per cent of the population of the capital cities (**Table 3.4**). In the last three Censuses, the proportion of young children in **Adelaide**, the capital city with the highest proportion of population at older ages and the lowest Total Fertility Rate (see **Chapter 5**), was the lowest of all these cities. The percentages for most of the other capitals equated to or were slightly above the average. In contrast **Darwin**, with 8.1 per cent, had a considerably higher proportion of children aged from 0 to 4 years.

The proportion of the total population aged from 0 to 4 years in Australia's capital cities decreased marginally in the ten years to 1996, from 7.3 per cent in 1986 to 7.2 per cent in 1991 and 6.9 per cent in 1996.

Table 3.4: Proportion of population aged 0 to 4 years, capital cities
Per cent

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	7.0	6.9	7.1	6.4	6.8	6.9	8.1	7.3	6.9
1986	7.3	7.0	7.5	6.9	7.6	7.8	9.0	8.3	7.3

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

There were 215,273 children aged from 0 to 4 years in **Melbourne** in 1996, up from 198,853 (7.0 per cent) in 1986. Within **Melbourne** the highest proportions of young children were found in the outer suburbs. More than forty per cent (43.8 per cent) of SLAs had above the **Melbourne** average of 6.9 per cent of children aged from 0 to 4 years in their population. As **Map 3.1** shows, SLAs with the highest proportions of children aged from 0 to 4 years were located in two distinct regions. The first was situated in the newer urban areas to the south-east of the city, centred around Cranbourne (11.8 per cent), Frankston East (11.6 per cent), Berwick (10.6 per cent), and Pakenham (10.3 per cent). The second area was situated on the urban fringe to the north-east of the city, and included Craigieburn (10.6 per cent of children aged from 0 to 4 years), Melton East (11.9 per cent), Wyndham North-West (16.5 per cent) and Werribee (10.0 per cent).

In contrast, inner city SLAs such as Prahran (with 3.5 per cent of children aged from 0 to 4 years), Melbourne (3.6 per cent) and St Kilda (4.0 per cent) are characterised by low percentages.

The largest numbers of young children also occur in the outer suburbs. Nearly 30,000 children aged from 0 to 4 years were resident in the SLAs of Yarra Ranges South-West (7,913 children), Whittlesea South (7,587), Knox North (7,274) and Werribee (6,798), while more than 5,000 children in this age group were located in Keilor, Broadmeadows, Cranbourne, Sunshine and Kingston North.

There were over 28,000 young children in the nine SLAs with the highest percentages of 0 to 4 year olds. This was despite very low numbers in Wyndham North-West (88 children aged from 0 to 4 years) and Melton East (541).

There were correlations of meaningful significance at the SLA level with the variables for early school leavers (0.67) and unskilled and semi-skilled workers (0.50). Inverse correlations were recorded with the variables for managers and administrators, and professionals (-0.63) and dwellings with no motor vehicle (-0.58).

Geelong

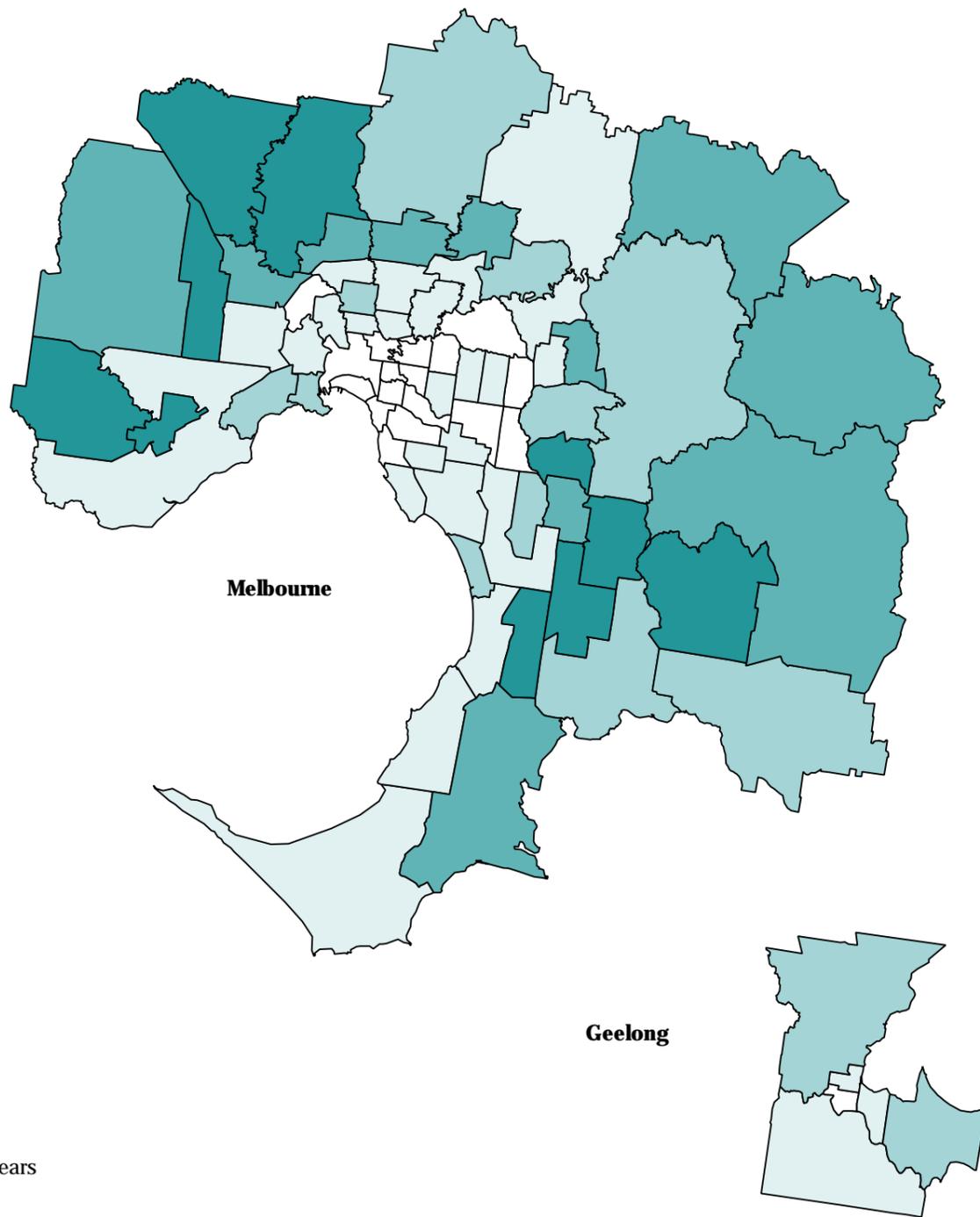
Overall, 6.9 per cent of the population of **Geelong** consisted of children aged from 0 to 4 years. The highest proportions of young children were resident in Bellarine Inner and Corio Inner (with 7.6 per cent and 7.5 per cent respectively), with proportions of just over six per cent in most other SLAs.

The SLAs with the largest numbers of children aged from 0 to 4 years, Corio Inner (with 3,928 children in this age group), South Barwon Inner (2,407) and Bellarine Inner (1,484), were located on the perimeter of **Geelong**.

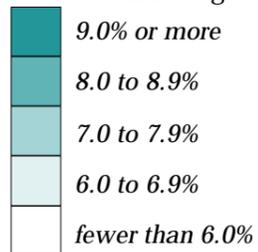
Map 3.1

Children aged 0 to 4 years, Melbourne and Geelong, 1996

as a percentage of the total population in each Statistical Local Area



Per cent children aged 0 to 4 years



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

Children aged 0 to 4 years, 1996

State/Territory comparison

The proportions of children aged from 0 to 4 years in the non-metropolitan areas of Australia (the areas designated *Rest of State/Territory* in the table) were higher than in the capital cities. The average nation-wide percentage for the *Rest of State/Territory* areas was 7.5 per cent (**Table 3.5**).

The percentage of children aged from 0 to 4 years in Victoria in 1996 corresponds to the national average, and is similar to all but South Australia (lower at 6.7 per cent) and the Northern Territory (considerably higher at 8.6 per cent). A comparison of *Rest of State/Territory* figures reveals a similar position, with only the Northern Territory and Western Australia exhibiting markedly different percentages.

Comparisons between the 1986, 1991 and 1996 Censuses indicate a consistent reduction in the proportions of children aged from 0 to 4 years during the past decade. This trend of declining numbers of children over time is apparent across all of the States and Territories, and is particularly significant in the *Rest of State/Territory* areas, where the average declined from 8.4 per cent to 7.5 per cent between 1986 and 1996.

Table 3.5: Proportion of population aged 0 to 4 years, State/Territory
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	7.0	6.9	7.1	6.4	6.8	6.9	8.1	7.3 ²	6.9
Other major urban centres ³	7.2	6.9	6.4	..	..	..	..	..	6.8
Rest of State/Territory	7.4	7.5	7.4	7.4	8.0	7.6	9.0	— ⁴	7.5
Whole of State/Territory	7.1	7.0	7.1	6.7	7.2	7.3	8.6	7.2	7.1
1986									
Rest of State/Territory	8.2	8.2	8.4	8.3	9.2	8.3	10.2	— ⁴	8.4

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

In 1996, there were 81,811 children aged from 0 to 4 years in the non-metropolitan areas of Victoria, 7.5 per cent of the non-metropolitan population. The percentages at the SLA level varied from 5.3 per cent in Delatite South to 9.2 percent in Romsey and Bacchus Marsh, with over three quarters (77.4 percent) of SLAs with between 6.0 and 8.0 percent of their population aged from 0 to 4 years.

Generally, the highest proportions of children aged from 0 to 4 years were in a group of SLAs located to the north of **Melbourne (Map 3.2)**. Elsewhere in the State there were pockets of relatively high concentrations in the La Trobe Valley, along the Murray and the western coastal area. Lower proportions were to be found in parts of the Western Districts and the north-eastern agricultural area.

The highest proportions were recorded in Romsey and Bacchus Marsh (both with 9.2 per cent), Ballan (9.1 per cent), Mitchell North (9.0 per cent), Mitchell South (8.9 per cent) and Murrindindi West (8.7 per cent).

The lowest proportions of children aged from 0 to 4 years were recorded in Delatite South (5.3 per cent), Wangaratta North and Greater Geelong [Part C] (both with 5.4 per cent), Alpine East (5.5 per cent) and Phillip Island (5.8 per cent).

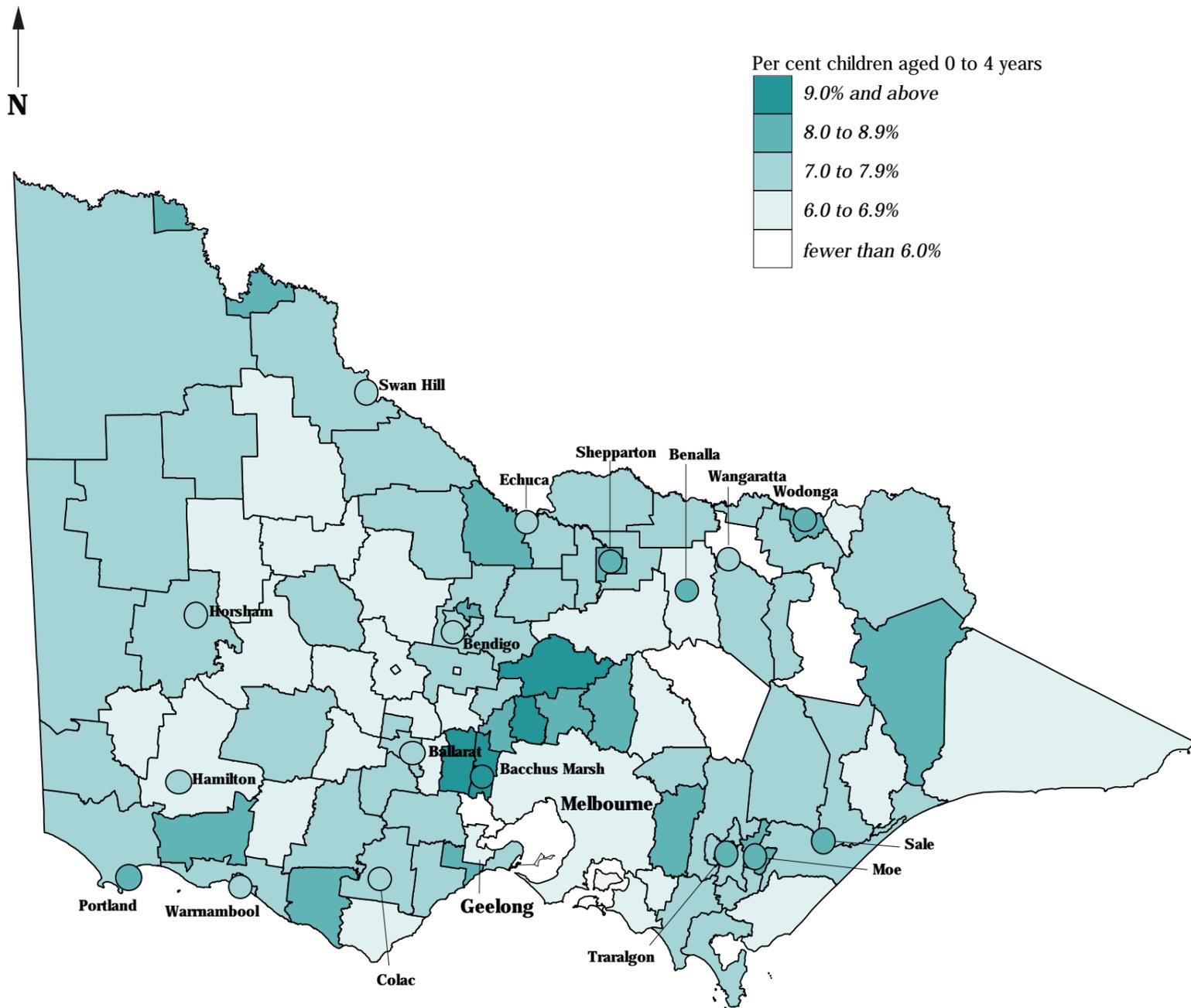
The largest numbers of children aged from 0 to 4 years were in Ballarat (5,463 children), Bendigo (4,336), Mildura (3,288), Shepparton (3,233), Wodonga (2,432), Traralgon (2,060) and Warrnambool (2,054). Twelve other SLAs had more than 1,000 children aged from 0 to 4 years.

There was no consistent evidence in the correlation analysis of an association at the SLA level between high proportions of 0 to 4 year old children and socioeconomic status.

Map 3.2

Children aged 0 to 4 years, Victoria, 1996

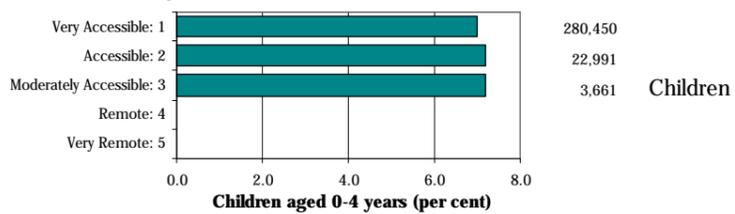
as a percentage of the total population in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



The proportion of young children aged from 0 to 4 years varies only marginally across the ARIA categories, from 7.0 per cent of the population in the Very Accessible ARIA category, to 7.2 per cent in both the Accessible and Moderately Accessible areas.

Source: Calculated on ARIA classification, DHAC
National Social Health Atlas Project, 1999

People aged 65 years and over, 1996

Capital city comparison

Australia is an ageing society, brought about in part by reduced mortality rates at older ages, a trend that has become especially evident over the past two to three decades. Increased morbidity is often associated with reduced mortality, and the incidence of an older population is likely to indicate areas where increased health services will be required.

People aged 65 years and over comprised 12.1 per cent of the Australian population at the 1996 Census, with a slightly smaller proportion in the capital cities (11.6 per cent) (**Table 3.6**). This latter proportion compares to percentages of 10.9 per cent in 1991 and 10.4 per cent in 1986, reflecting the general ageing of the population, a trend expected to continue well into the next century (ABS 1998). Importantly, this rising proportion of older people represents an increase of 275,655 people aged 65 years and over between 1986 and 1996.

At the 1996 Census, 11.5 per cent of the population of **Melbourne** was aged 65 years and over, with similar percentages in **Sydney** and **Brisbane**. **Adelaide** had by far the highest percentage of older people, with **Darwin** and **Canberra** recording proportions well below the national average for the capital cities.

Table 3.6: Proportion of population aged 65 years and over, capital cities
Per cent

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	11.8	11.5	11.0	14.1	10.8	12.5	5.0	7.1	11.6
1986	10.8	10.2	10.5	12.0	10.0	10.9	3.3	5.2	10.4

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

The population aged 65 years and over increased marginally from 10.2 per cent in 1986 to 10.6 per cent in 1991. By 1996, however, the proportion had increased further to 11.5 per cent, when there were 362,192 people aged 65 and over in **Melbourne**, an overall increase of 25.6 between 1986 and 1996. The largest increases have occurred in the older cohorts within the age group.

Over forty per cent (41.9 per cent) had more than 12 per cent of their populations aged 65 years and over. The main concentrations of older people in **Melbourne** were located in the inner suburbs circling the city centre and extending down the eastern side of Port Phillip Bay to the tip of the Mornington Peninsula (**Map 3.3**). Mornington Peninsula South had 25.5 per cent of its population aged 65 years and over. This was the highest proportion in **Melbourne** and, at the State level, ranks second only to Queenscliffe (26.4 per cent), another retirement location situated on the western side of the entrance to Port Phillip Bay. Other SLAs with high proportions were Brighton (18.6 per cent), Camberwell North (18.2 per cent) and Glen Eira South (18.0 per cent).

The sprawling outer SLA of Wyndham North-West, located some 30 kilometres west of the city centre, had only 1.5 per cent of its population aged 65 years and over, the lowest proportion in the metropolitan area. Other similar SLAs were Melton East (2.1 per cent), Craigieburn (3.1 per cent) and Knox South (3.5 per cent).

The SLAs of Frankston West (10,129 people), Caulfield (12,037), Kingston North (12,229) and Preston (12,701) each had populations of more than 10,000 older people. There were a further 67,474 older people living in the bayside SLAs from St Kilda to Mornington Peninsula South.

The only correlation of meaningful significance at the SLA level were recorded with the variable for children aged 0 to 4 years (an inverse correlation of -0.61).

Geelong

The pattern of distribution of people aged 65 years and over in **Geelong** was much the same as that identified for **Melbourne**. Of the total population, 13.6 per cent were aged 65 years and over, with the largest proportions in the inner SLAs of Geelong West (18.8 per cent) and Geelong (17.8 per cent). Overall there were 19,851 people aged 65 years and over in **Geelong**, with the largest numbers in Corio Inner (6,286 people) and South Barwon Inner (5,074 people).

Structure of the population 65 years and over in the non-metropolitan areas of Victoria

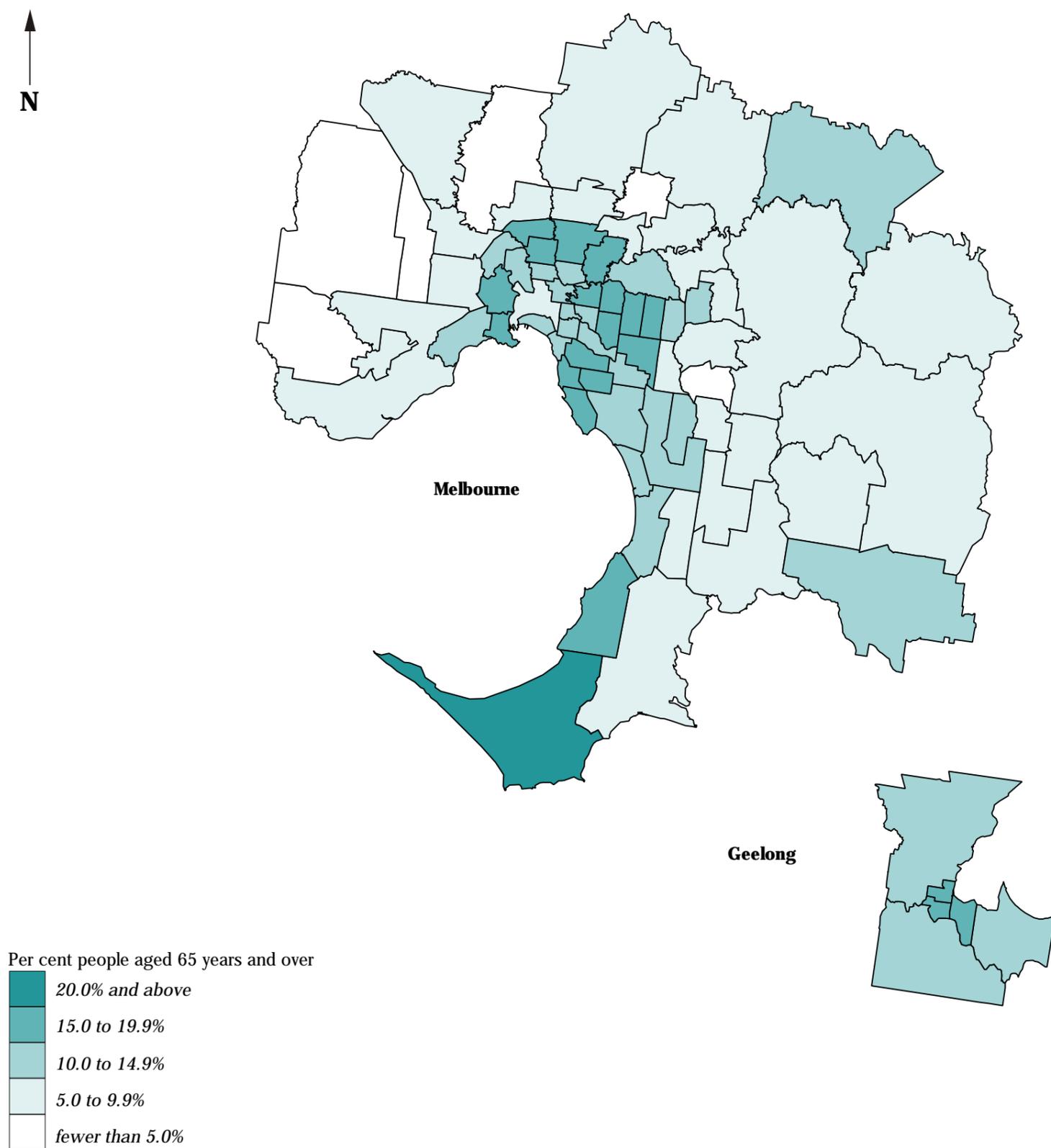
As noted for **Melbourne**, there has been an increase in the number of people in the non-metropolitan areas of Victoria in each of the age groups shown in **Table 3.8** (page 28). For each cohort, except the 80 to 84 year old group, the rate of increase between 1986 and 1996 has been lower than that recorded by their companion cohort in **Melbourne**.

Notably, the proportion of females in this age group in the non-metropolitan areas of Victoria is also lower for each age group than for the population of **Melbourne**.

Map 3.3

People aged 65 years and over, Melbourne and Geelong, 1996

as a percentage of the total population in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

People aged 65 years and over, 1996

State/Territory comparison

After New South Wales, Victoria has the highest proportion of people aged 65 years and over located in areas outside of the capital and other major urban centres. As shown in **Table 3.7**, its levels are well above the levels recorded in the Northern Territory, where high fertility levels, very youthful populations and high rates of net in-migration work to reduce the proportion of elderly people in the total population. On the other hand, demographic developments in Victoria, New South Wales and South Australia have been influenced since the mid 1970s by industrial restructuring, increasing levels of unemployment and net out-migration, which has tended to be age specific. Nation-wide, the most significant increase in the number of elderly people occurred in the *Rest of State/Territory* areas, which experienced a 36.6 per cent increase between 1986 and 1996.

Table 3.7: Proportion of population aged 65 years and over, State/Territory

	<i>Per cent</i>								
	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	11.8	11.5	11.0	14.1	10.8	12.5	5.0	7.1 ²	11.6
Other major urban centres ³	13.6	13.6	15.9	..	..	..	..	..	14.5
Rest of State/Territory	14.4	13.3	12.2	13.2	9.7	12.2	4.9	- ⁴	12.8
Whole of State/Territory	12.7	12.0	12.0	13.8	10.5	12.3	4.9	7.1	12.1
1986									
Rest of State/Territory	11.6	11.2	10.3	10.5	7.7	10.5	4.1	- ⁴	10.5

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

The non-metropolitan areas of Victoria had a higher proportion (13.3 per cent) of population aged 65 years and over than did **Melbourne** (11.5 per cent).

The highest proportions of the older population were located in the coastal areas of Queenscliffe (26.4 per cent), Bass Coast Philip Island (22.7 per cent) and Bass Coast Balance (20.0 per cent), and in the western areas of Castlemaine (21.3 per cent), Maryborough (21.1 per cent), Yarriambiack South (20.9 per cent) and Hindmarsh (20.2 per cent) (**Map 3.4**). This distribution clearly reflects the role of these locations, in terms of services, activities, environment and climate, in catering for the needs of an older, and possibly retired, population.

La Trobe Balance, with its highly industrialised economy, had only 4.9 per cent of its population aged 65 or older. Elsewhere, SLAs experiencing the first signs of the urbanisation process, like Greater Geelong [Part C] (5.5 per cent of the population aged 65 years and over) and Romsey (6.2 per cent) also had very low proportions of older people in their total populations.

The largest numbers of people aged 65 years and over were in Ballarat (9,865 people), Bendigo (8,697), Mildura [Part A] (5,499), Shepparton [Part A] (4,680), Greater Geelong [Part B] (4,510) and Bairnsdale (4,354).

There were correlations of meaningful significance at the SLA level with the following indicators of socioeconomic disadvantage: the variables for low income families (0.59), dwellings without a motor vehicle (0.53) and high income families (an inverse correlation of -0.57). The inverse correlation with the IRSD (-0.40) also indicates a positive association between high proportions of elderly people and socioeconomic disadvantage.

Table 3.8: Structure of population aged 65 years and over, Victoria, 1986 to 1996

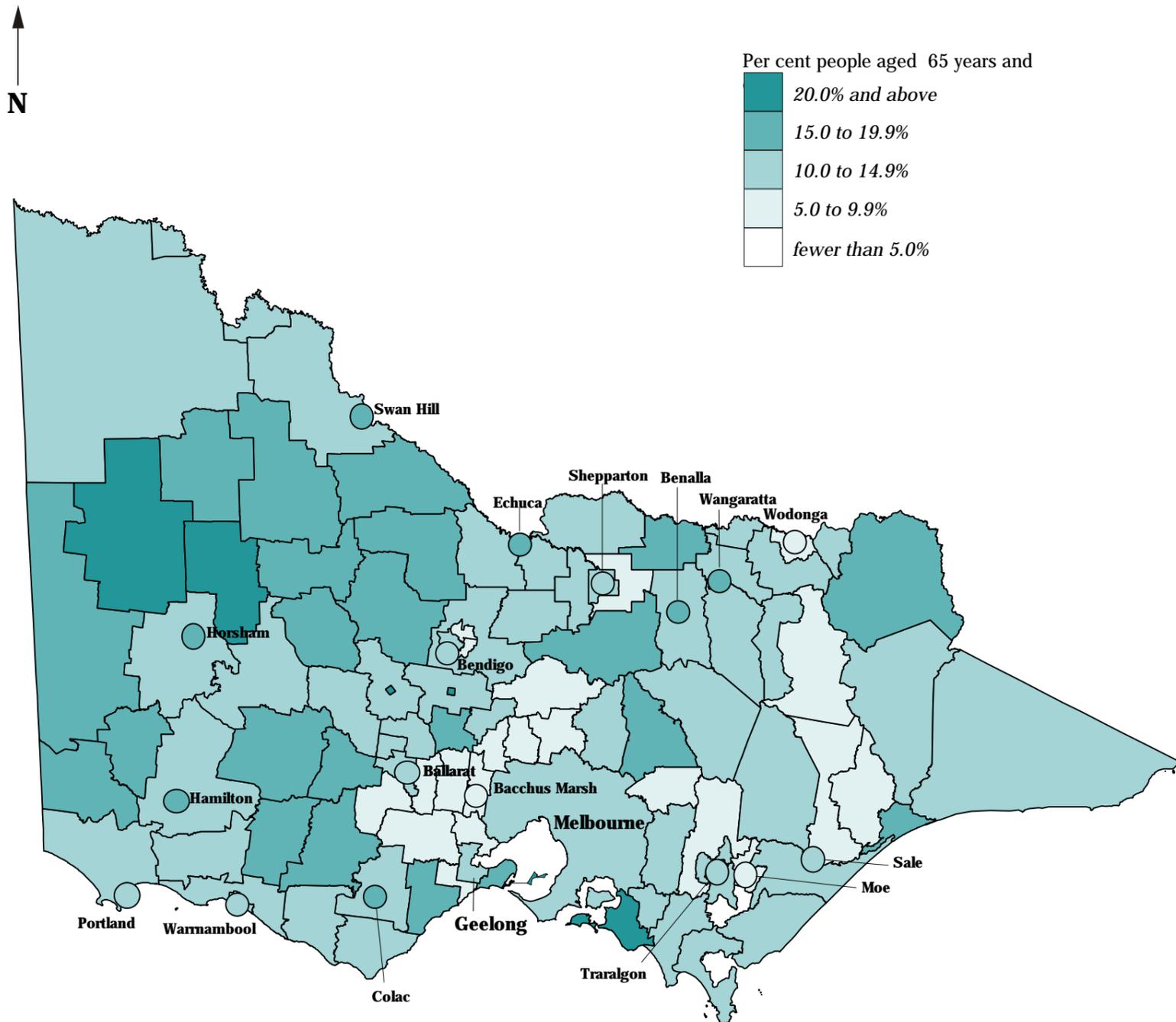
Age group (years)	<i>Per cent</i>				Increase 1986 to 1996	Proportion of females, 1996		
	People aged 65 yrs and over							
	1986		1996					
	Melbourne	Rest of State	Melbourne	Rest of State	Melbourne	Rest of State		
65 to 69	32.5	32.6	30.7	30.6	18.6	16.3	52.2	51.0
70 to 74	27.7	27.8	26.9	27.0	21.8	20.4	55.7	54.2
75 to 79	19.6	20.0	19.0	19.2	21.7	19.0	59.1	58.1
80 to 84	11.7	11.6	13.3	13.4	42.5	43.2	63.9	62.6
85 +	8.4	8.1	10.1	9.8	50.9	49.9	71.7	68.8
Total	100.0	100.0	100.0	100.0	25.6	23.8	58.0	56.5

Source: ABS 1986 Census 21 page format Table CO7; 1996 Census Basic Community Profile Table B03

Map 3.4

People aged 65 years and over, Victoria, 1996

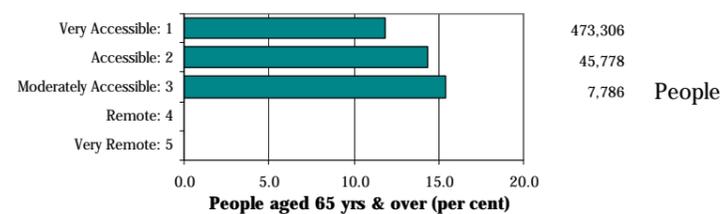
as a percentage of the total population in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



The highest proportions of people aged 65 years and over live in the Moderately Accessible (15.4 per cent of the population) and Accessible (14.4 per cent) areas. The lowest proportion is in the Very Accessible areas (11.8 per cent).

Source: Calculated on ARIA classification, DHAC

National Social Health Atlas Project, 1999

Single parent families, 1996

Capital city comparison

Single parent families are defined as all single parent families with dependent children aged less than 15 years; the proportion of single parent families is derived as the percentage of all families. Throughout Australia, the majority of single parent families are characterised by poverty and hardship, have poor health and are major users of public health services. Details of their location are, therefore, of importance to public policy makers and those providing health, education, welfare, housing and transport services.

At the 1996 Census, the proportion of single parent families in Australia's capital cities was 9.7 per cent (**Table 3.9**), varying from 9.1 per cent in **Melbourne**, to 13.8 per cent in **Darwin**.

The increase in the number of single parent families has been one of the most important demographic trends in Australia in recent years. In the ten years from 1986, the proportion of single parent families in Australia as a whole and in each capital city increased substantially. For Australia, the increase was from 324,171 in 1986 (7.8 per cent of all families) to 460,618 single parent families (9.9 per cent of all families) in 1996. The largest increase was recorded in **Hobart**, where proportions for this variable increased from 9.3 per cent in 1986, to 12.1 per cent in 1996. **Melbourne, Brisbane, Adelaide, Darwin** and **Canberra** all recorded increases of more than two percentage points in this ten year period. Whilst **Sydney** recorded a lower increase than the other major cities, it had the largest number of these families at both the 1986 and 1996 Censuses: the largest increase in the number of single parent families occurred in **Melbourne**.

Table 3.9: Single parent families, capital cities

	<i>Per cent</i>								
	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	9.3	9.1	10.5	10.4	10.1	12.1	13.8	11.5	9.7
1986	7.8	6.9	8.3	8.0	9.1	9.3	11.1	9.2	7.9

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

At the 1996 Census, there were 74,871 single parent families in **Melbourne**, 9.1 per cent of all families in **Melbourne**. This proportion was considerably higher than the 6.9 per cent recorded in 1986.

Housing tenure by family type

Throughout Australia, single parent families are characterised by poverty and hardship because their one parent is typically unemployed and the families have low income levels. Consequently, single parent families often experience difficulty in obtaining housing and are heavily concentrated into rental accommodation, more so into private rental than public rental, as shown in **Table 3.10**.

Single parent families comprised 10 per cent or more of families in almost one third (29.7 per cent) of the SLAs in **Melbourne** (**Map 3.5**). Generally, high proportions of single parent families at the SLA level corresponded with large numbers of single parents. High proportions of single parent families were located near the city centre, the highest in Yarra North (12.8 per cent), Maribyrnong (12.6 per cent) and the City of Melbourne (12.4 per cent), as well as in several outer SLAs: Melton Balance (12.6 per cent), Frankston West (12.4 per cent) and Broadmeadows (12.2 per cent).

Nearly half the SLAs within **Melbourne** had more than 1,000 single parent families, with 2,000 or more single parent families recorded in Sunshine (2,022 single parent families), Whittlesea South (2,076), Preston (2,090), Broadmeadows (2,122), Frankston West (2,499), Yarra Ranges South-West (2,600) and Knox North (2,633).

There were correlations at the SLA level with the variables for low income families and dwellings rented from the State housing authority (both with 0.62), unemployed people (0.56) and Indigenous people (0.54). These results, together with the inverse correlation with the IRSD (-0.59), indicate the existence of an association at the SLA level between high proportions of single parent families and socioeconomic disadvantage.

Geelong

In 1996 there were 4,207 single parent families (10.7 per cent of families) in **Geelong**, an increase from the 2,872 single parent families (7.7 per cent) in 1986. Single parents families comprised 13.2 per cent of all families in Geelong West, a level higher than any recorded in **Melbourne**. In Corio Inner there were 1,709 single parent families, more than three times the number in Bellarine Inner (569 single parent families).

Table 3.10: Housing tenure by family type, Melbourne, 1996

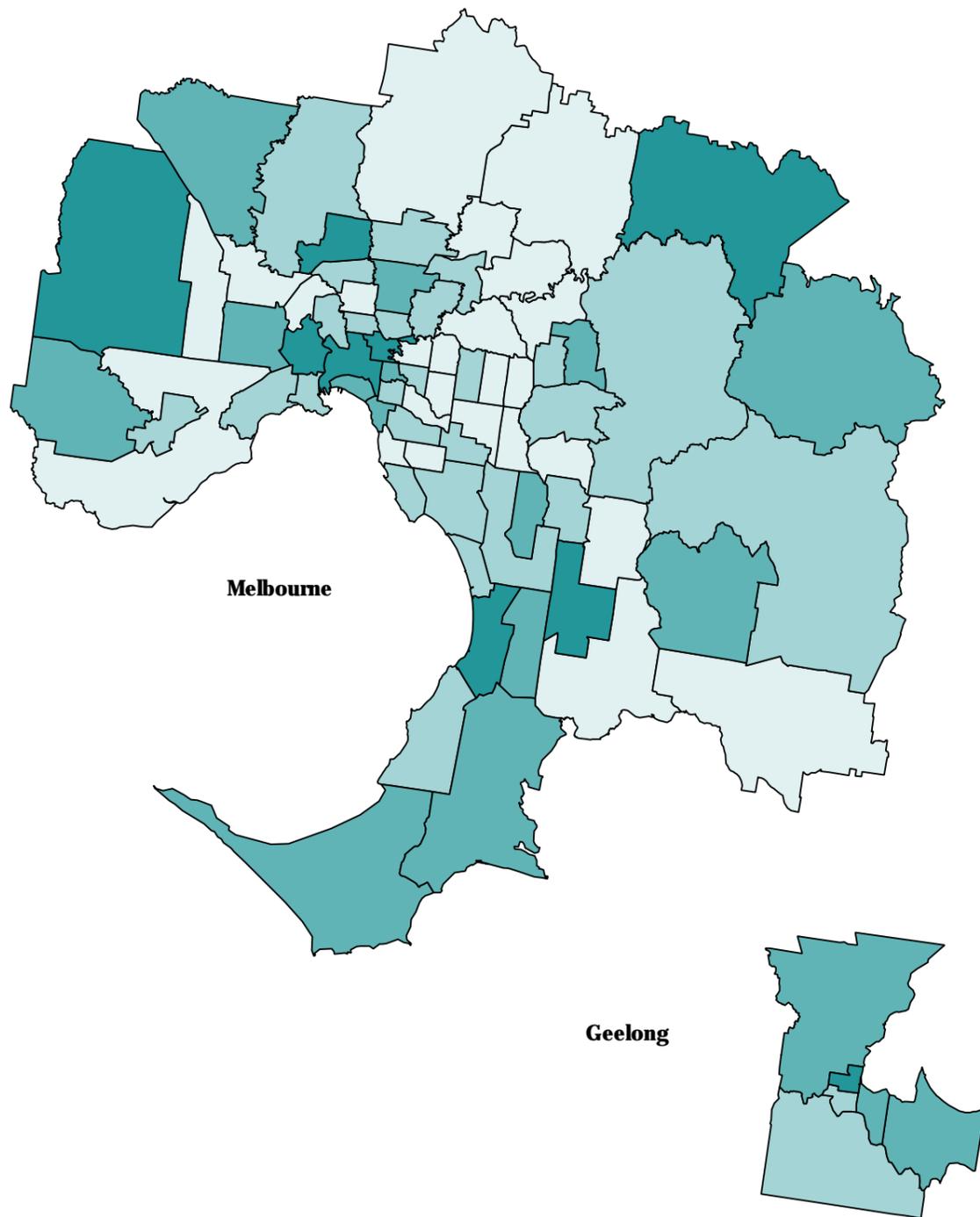
	<i>Per cent</i>				
Family type	Owner/Purchaser	Government Rental	Private Rental	Other	Total
Single parent family: with dependent children	52.5	11.5	34.2	1.8	100.0
Single parent family: with no dependent children	78.7	6.4	13.5	1.3	100.0
Couple family without children	81.8	1.2	15.2	1.8	100.0
Couple family with dependent children	83.9	1.7	13.0	1.5	100.0
Couple family with no dependent children	91.7	1.4	6.1	0.9	100.0
Other families	54.7	3.7	38.4	3.2	100.0
Total	80.5	2.7	15.3	1.5	100.0

Source: ABS Census 1996 Basic Community Profile Table B25

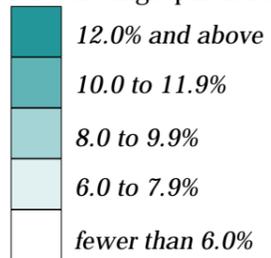
Map 3.5

Single parent families, Melbourne and Geelong, 1996

as a percentage of all families in each Statistical Local Area



Per cent single parent families



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

Single parent families, 1996

State/Territory comparison

In 1996, 9.5 per cent of all families in the non-metropolitan areas of Victoria were single parent families (defined here as single parent families with dependent children under 15 years of age), just below the average of 10.0 per cent across non-metropolitan Australia (the *Rest of State/Territory* category in **Table 3.11**). For most States and the Northern Territory, variations between the *Capital city* and *Rest of State/Territory* totals were minimal, with the largest differences being in South Australia and Tasmania. There has been a steady increase in the proportions of single parent families in all States and Territories since 1986.

Table 3.11: Single parent families, State/Territory
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	9.3	9.1	10.5	10.4	10.1	12.1	13.8	11.5 ²	9.7
Other major urban centres ³	10.4	10.7	11.2	..	..	..	..	..	10.7
Rest of State/Territory	10.6	9.5	10.1	8.4	9.5	9.6	14.6	.. ⁴	10.0
Whole of State/Territory	9.8	9.2	10.4	9.9	10.0	10.6	14.2	11.6	9.9
1986									
Rest of State/Territory	8.0	6.7	7.7	6.5	8.3	7.6	12.1	.. ⁴	7.6

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

Single parent families comprised 9.5 per cent of families in the non-metropolitan areas of Victoria in 1996, compared with 9.1 per cent in **Melbourne**. The 27,355 single parent families in non-metropolitan Victoria represented a substantial increase from the 18,650 families (6.7 per cent of all families) in this category in 1986. The attraction of non-metropolitan areas is in part related to the availability of low-rent public housing in these areas (**Map 3.25**). However, the range of health and welfare services used by single parent families, in particular children in these families, is generally not available outside of the capital cities. This raises issues of access of these families for those involved in policy making and planning decisions.

Relatively high proportions of single parent families were located in the towns mapped, in particular those situated relatively close to **Melbourne**. (**Map 3.6**). The highest proportions were in Castlemaine (14.1 per cent), Morwell (13.9 per cent), Bendigo (13.6 per cent), Ballarat (12.5 per cent) and Moe (12.4 per cent). Other high proportions of single parent families were recorded in the north-eastern SLAs of Wodonga (13.1 per cent), Benalla (12.6 per cent) and Wangaratta Central (12.3 per cent).

Towns in the western districts and along the River Murray also had large numbers of single parent families, with more than 1,000 single parent families recorded in Ballarat (2,384 families), Bendigo (2,080), Mildura (1,140) and Shepparton (1,209). A further nine SLAs with 500 or more single parent families comprised almost one quarter (23.2 per cent) of all single parent families living in the non-metropolitan areas of Victoria.

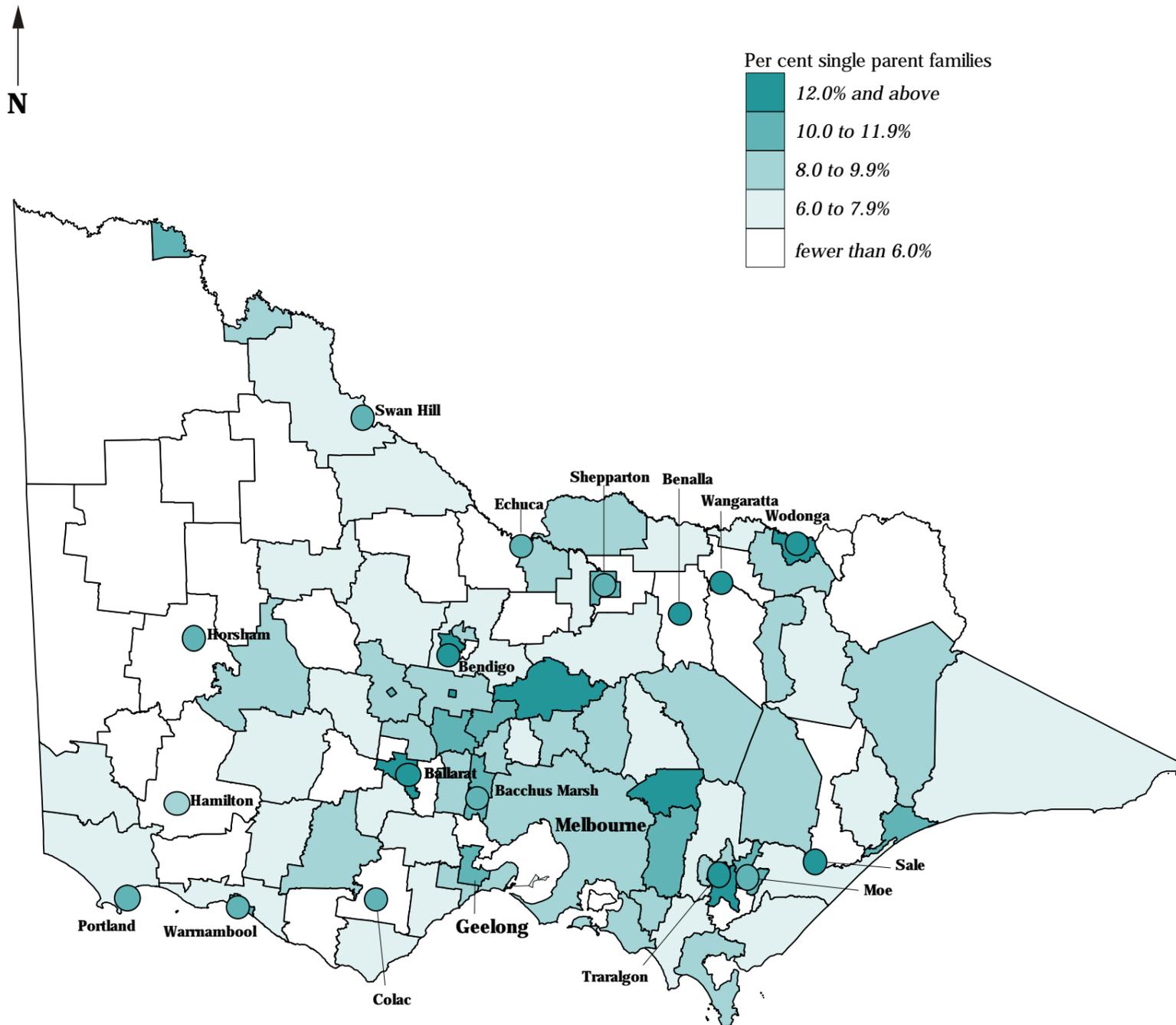
Lower percentages of single parent families were characteristic of the agricultural areas in the Mallee, Wimmera and Glenelg regions, and the Loddon and Shepparton horticultural areas. The lowest proportions were recorded in Horsham Balance (2.5 per cent), Moyne North-west (3.4 per cent), Loddon North (3.5 per cent) and West Wimmera (3.7 per cent).

There were correlations of substantial significance at the SLA level with the variables for dwellings with no motor vehicle (0.74) and dwellings rented from the State housing authority (0.73), and of meaningful significance with the variable for unemployed people (0.60). These results, together with the inverse correlation with the IRSD (-0.58), indicate the existence of an association at the SLA level between high proportions of single parent families and socioeconomic disadvantage.

Map 3.6

Single parent families, Victoria, 1996

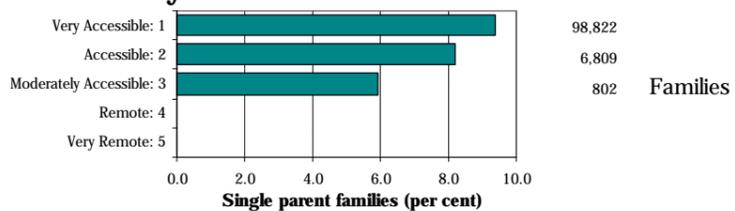
as a percentage of all families in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



Single parent families are most concentrated in the Very Accessible areas (9.4 per cent of all families), with lower proportions in the Accessible (8.2 per cent) and Moderately Accessible (5.9 per cent) areas.

Source: Calculated on ARIA classification, DHAC
National Social Health Atlas Project, 1999

Low income families, 1996

Capital city comparison

Low income families, defined as families with annual family incomes of less than \$21,000 (less than \$400 per week), comprised 17.2 per cent of all families in **Melbourne** for which income details were obtained at the 1996 Census (**Table 3.12**). The use of low income as a measure of poverty is compromised to an extent by the fact that it is influenced by differences in family size, age structure and housing tenure and costs. While the variable will normally capture most welfare dependent families, it will also include sizeable numbers of families whose low incomes are linked to their retirement status.

Adelaide had the highest (21.8) percentage of low income families, while **Darwin** (11.1 per cent) and **Canberra** (11.7 per cent) had much lower proportions, reflecting the younger age structures of these cities and the lower proportions of retired families in their populations. Overall, there has been an increase in the proportion of low income families in all capital cities in the ten years from 1986 to 1996. Refer to the footnote to **Table 3.3** on page 20 regarding the interpretation of these comparisons over time.

Table 3.12: Low income families, capital cities
Per cent

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	16.6	17.2	18.0	21.8	17.7	20.2	11.1	11.7	17.5
1986	15.7	14.3	16.9	19.2	17.4	17.3	10.6	8.8	15.8

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

The number of low income families in **Melbourne** has increased by over 50 per cent over the ten years from 1986 (93,026 low income families, 14.3 per cent of all families for which income details were obtained) to 1996 (142,176 low income families, 17.2 per cent)¹.

The distribution of low income families throughout **Melbourne** was relatively widespread. The highest concentration of low income families was located at the tip of Mornington Peninsula, in Mornington Peninsula South with 33.2 percent of its families with incomes of less than \$21,000 per annum. Other relatively high concentrations are in a number of inner SLAs and through a coastal strip along the eastern side of Port Phillip Bay (where there are high concentrations of older and retired people); and in SLAs located on the eastern and south-eastern fringe areas of **Melbourne** (where there are high proportions of young families and families in receipt of income support payments) (**Map 3.7**).

Overall, over 20 per cent of families in more than a quarter (25.7 per cent) of all SLAs in **Melbourne** were low income families. SLAs mapped in the second highest range were Maribyrnong (28.4 per cent), Preston (26.4 per cent) and Moreland North (25.0 per cent). SLAs with proportions between 20 and 25 per cent included Sunshine and Dandenong (both with 23.9 per cent) and Brunswick (23.4 per cent).

SLAs with the lowest proportions of low income families were in Nillumbik South (7.6 per cent of all families), Manningham East (7.7 per cent), Nillumbik South-West (8.1 per cent), Nillumbik Balance (8.8 per cent), Knox South (9.2 per cent), Brighton (9.7 per cent) and Melton East (9.8 per cent).

Seven urban SLAs had more than 4,000 families with low incomes in 1996: they were Preston (5,457 low income families), Sunshine (4,851), Whittlesea South (4,369), Dandenong Balance (4,288), Maribyrnong (4,222), Frankston West (4,182) and Kingston North (4,059). On the other hand, low numbers of low income families were located in Manningham (277 families), Cardinia South (249), Nillumbik Balance (201), Wyndham Balance (159), Melton East (125) and Wyndham North-West (17).

There was a correlation of substantial significance at the SLA level with the variable for unemployed people (0.89) and a meaningful correlation with the variable for single parent families (0.62). Not surprisingly there was an inverse correlations (of substantial significance) with the variable for high income families (-0.78). These results, together with the inverse correlation of substantial significance with the IRSD (-0.88), indicate the existence of an association at the SLA level between low income families and socioeconomic disadvantage.

Geelong

In **Geelong**, there were 8,843 low income families in 1996, 22.6 percent of all families with an income: the comparable figures in 1986 were 6,157 and 18.9 per cent. The largest proportions were in Geelong Inner (26 per cent of families) and Corio Inner and Geelong West (both with 25.5 per cent).

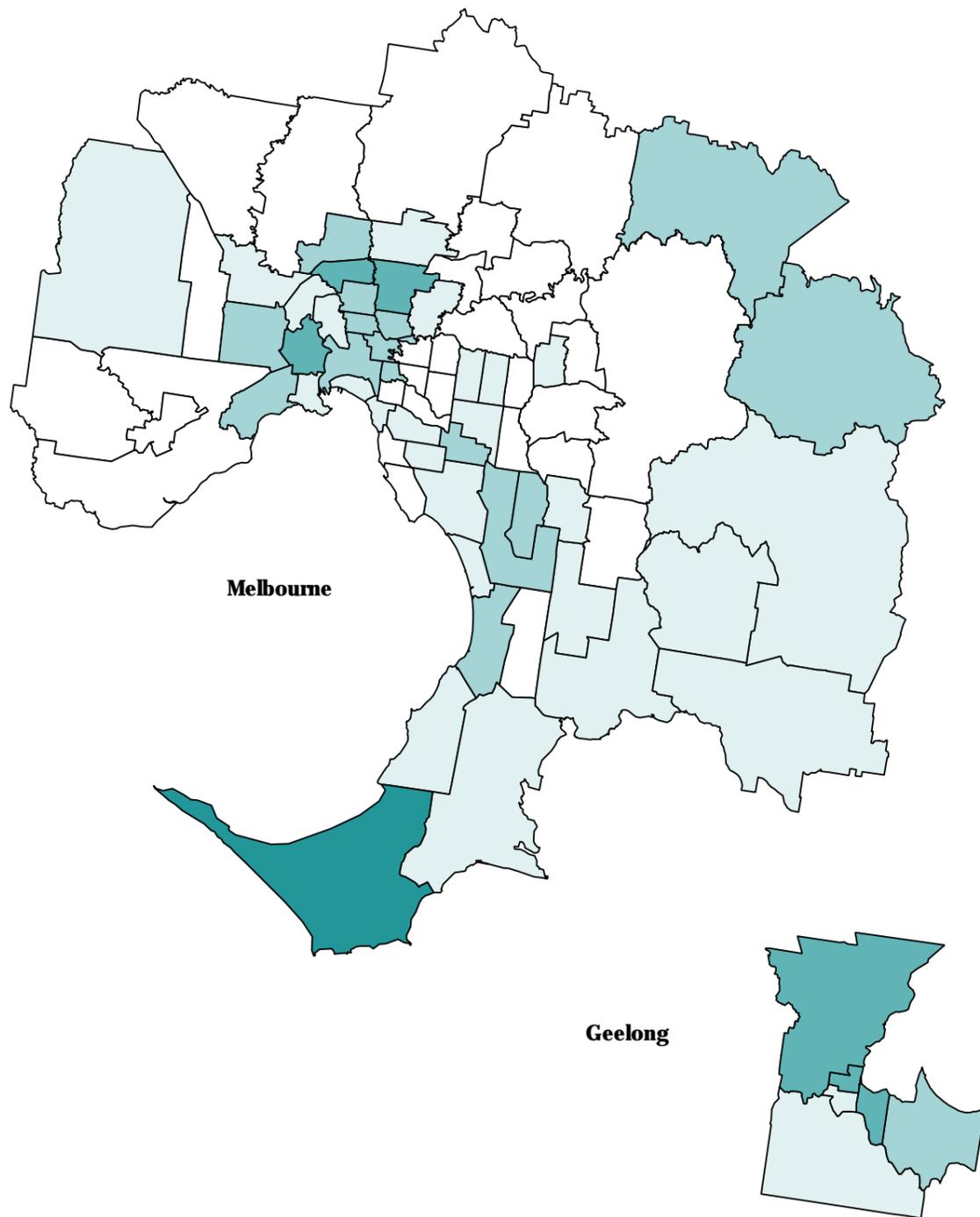
More than 40 per cent, or 3,679, of the low income families in **Geelong** were located in Corio Inner, with 877 in Geelong West and 749 in Geelong SLA.

¹See footnote to Table 3.3, page 20 regarding these comparisons.

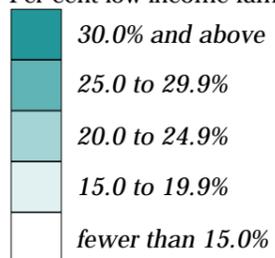
Map 3.7

Low income families*, Melbourne and Geelong, 1996

as a percentage of all families in each Statistical Local Area



Per cent low income families*



*Families with annual income of less than \$21,000 as a percentage of all families for which income data was obtained

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

Low income families, 1996

State/Territory comparison

The proportion of low income families (families with annual family incomes of less than \$21,000) living outside of the capital and other major urban centres in Victoria is, at 24.2 per cent, just below the Australian value of 24.6 per cent (**Table 3.13**). Victoria, New South Wales, South Australia and Tasmania have values which reflect the declining industrial base which has characterised their economies from the mid seventies. What is particularly clear from the table is a rural-urban dichotomy influencing the distribution of low income families. Regardless of the State of residence, there is a higher proportion of low income families outside the capital cities and major urban centres.

Low income families have increased as a proportion of all families with an income in the non-metropolitan areas of Victoria, from 21.9 per cent in 1986 to 24.2 per cent in 1996. For all of Victoria, the change has been from 16.4 per cent to 19.1 per cent.

Table 3.13: Low income families, State/Territory
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	16.6	17.2	18.0	21.8	17.7	20.2	11.1	11.2 ²	17.5
Other major urban centres ³	23.6	22.6	22.4	..	..	..	..	..	23.0
Rest of State/Territory	26.5	24.2	23.6	26.2	20.6	25.7	21.6	- ⁴	24.6
Whole of State/Territory	20.0	19.1	20.8	22.9	18.5	23.5	16.6	11.2	20.0
1986									
Rest of State/Territory	26.7	21.9	25.0	25.9	22.1	22.3	20.5	- ⁴	24.8

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

In the non-metropolitan areas of Victoria, there were 69,749 families with low incomes, 24.2 per cent of all families reporting income details at the 1996 Census. This figure is higher than the figures for **Melbourne** (17.2 per cent) and Geelong (22.6 per cent). This represents a 20.0 per cent increase on the 1991 level of 58,147 families. Between 1986 and 1991, the number of low income families increased by 13.5 per cent from 51, 215 as noted in **Table 3.3** on page 20. Caution must be taken when interpreting these comparisons over time.

The most striking aspect of **Map 3.8** is the widespread distribution of low income families, with high concentrations located in the north-east high country, the northern and north-west agricultural and horticultural areas, the western districts and along the River Murray. In these areas more than 20 percent of families with an income recorded at the 1996 Census were low income families. Low concentrations were more discretely localised, being generally confined to the commuter belt just beyond the urban fringe of **Melbourne**, where fewer than 15 per cent of families had low incomes.

Individual SLAs with the highest proportions of low income families included Loddon South (38.5 per cent), Pyrenees North (35.5 per cent), Goldfields Balance (34.7 per cent), Maryborough (34.0 per cent), Hepburn East (33.3 per cent) and Pyrenees South (30.5 per cent) just west of Melbourne, Phillip Island (34.5 per cent) and Bass Coast Balance (31.9 per cent) south of Melbourne and Orbost (32.4 per cent), Bairnsdale (31.1) and East Gippsland Balance (30.9 per cent) in the East of the State.

The lowest proportions of low income families were recorded in Macedon Ranges Balance (13.6 per cent), Romsey (14.2 per cent) and Greater Geelong [Part C] (14.7 per cent).

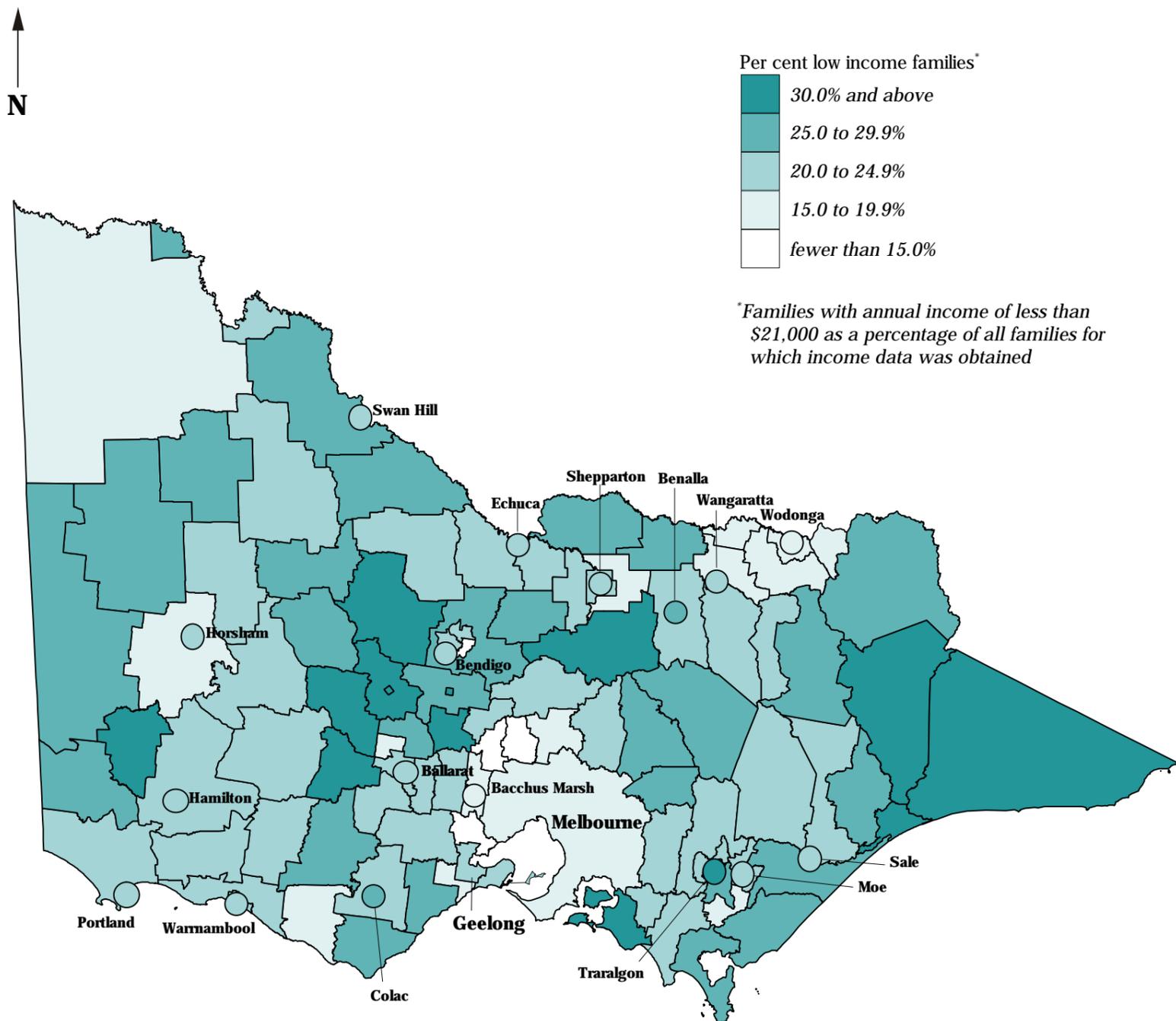
More than 2,000 low income families were recorded in Ballarat (4,526 families), Bendigo (3,771), Mildura (2,783) and Shepparton (2,388).

There was a correlation of meaningful significance at the SLA level with the variable for people aged 65 years and over (0.59) and correlations of lesser significance with other indicators of socioeconomic disadvantage. As was the case for **Melbourne**, there was an inverse correlation of substantial significance with the variable for high income families (-0.87). These results, together with the inverse correlation of substantial significance with the IRSD (-0.76), indicate the existence of an association at the SLA level between low income families and socioeconomic disadvantage.

Map 3.8

Low income families*, Victoria, 1996

as a percentage of all families in each Statistical Local Area



Accessibility/Remoteness Index of Australia



The proportion of low income families increases across the ARIA categories, from the lowest in the Very Accessible areas (18.6 per

Unskilled and semi-skilled workers, 1996

Capital city comparison

Occupation remains the most important determinant of wealth, social standing and well-being for most people in Australian society. People employed in the Census defined occupations of labourers and related workers, and intermediate production and transport workers, are described generally in this analysis as unskilled and semi-skilled workers. These categories of occupation encompass most lower paid and less skilled, blue collar work and their prevalence therefore forms a useful general measure of low socioeconomic status. The percentages of workers employed in these occupations are calculated as a proportion of the total employed labour force.

Melbourne and **Brisbane** have almost identical proportions of unskilled and semi-skilled workers, but the highest metropolitan concentration is in **Adelaide**.

In 1986, the proportion of **Melbourne's** employed workforce in unskilled and semi-skilled occupations was 22.1 per cent. By 1991, this proportion had reduced to 18.5 per cent, and reduced even further to 16.4 per cent in 1996 (a net loss of 48,746 people from these occupations) and reflects the substantial industrial restructuring which occurred in Victoria during this period. Similar declines occurred across the nation, such workers declining from 20.9 per cent of all people with an occupation in 1986, to 17.8 per cent in 1991 and to 15.6 per cent in 1996, a net loss 110,506 of these occupations.

Table 3.14: Unskilled and semi-skilled workers, capital cities

	<i>Per cent</i>								
	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	14.9	16.4	16.5	17.3	15.7	14.5	13.2	9.3	15.6
1986	20.7	22.1	21.6	21.6	20.3	19.4	15.1	12.3	20.9

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne²

In 1996, there were 228,715 unskilled and semi-skilled workers in **Melbourne**, 16.4 per cent of the employed workforce.

The pattern of distribution of unskilled and semi-skilled workers (**Map 3.9**) is related to the major locations of **Melbourne's** manufacturing industry, especially that situated in the Dandenong region to the south-east and the Sunshine and Broadmeadows areas to the west and north-west of the city centre.

Proportions of unskilled and semi-skilled workers of between 30 and 40 per cent were recorded in the western SLAs of Sunshine (36.2 per cent) and Broadmeadows (31.3 per cent), and in Dandenong Balance (35.6 per cent) and Dandenong (32.0 per cent) in the south-east of **Melbourne**.

With the exception of Nillumbik South (7.3 per cent) and Manningham East (7.4 per cent), all SLAs with proportions below 10.0 per cent were in the inner city. The lowest proportions of unskilled and semi-skilled workers were recorded in Brighton (4.6 per cent), Kew (5.5 per cent), Camberwell South (5.9 per cent) and Hawthorn and Prahran (both with 6.0 per cent).

The largest numbers of unskilled and semi-skilled workers in 1996 were in Whittlesea South (11,256 unskilled and semi-skilled workers), Sunshine (9,458), Dandenong Balance (9,525) and Knox North (8,409).

There was a correlation of substantial significance at the SLA level with the variable for early school leavers (0.88), and inverse correlations of substantial significance with the variables for managers, administrators and professionals (-0.93), high income families (-0.86) and female labour force participation (-0.88).

²Because these categories do not appropriately reflect the occupational status of country residents, this variable has not been mapped for areas outside of the major urban centres.

These results, together with the inverse correlation of substantial significance with the IRSD (-0.80), indicate the existence of an association at the SLA level between unskilled and semi-skilled workers and socioeconomic disadvantage.

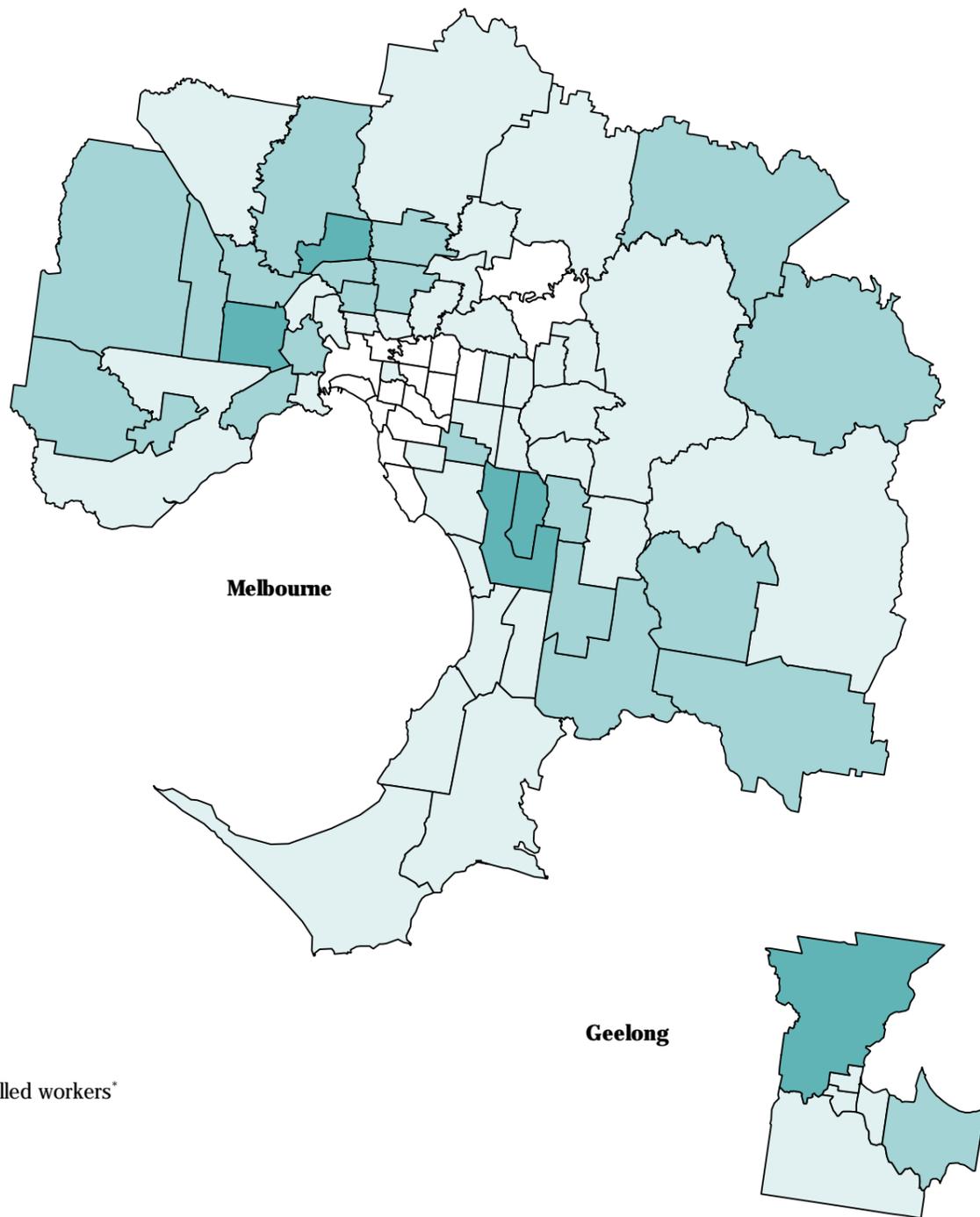
Geelong

In **Geelong**, 21.1 per cent of the population was comprised of unskilled and semi-skilled workers in 1996, 12,024 people. Concentrations ranged from a high of 30.1 in Corio Inner to 10.0 per cent in Newtown. **Geelong** has experienced greater decline in its unskilled and semi-skilled workforce since 1986 than occurred for **Melbourne**. Between 1986 and 1991 the number of these workers declined by 13.6 per cent, with a further 8.3 per cent reduction in the five years to 1996. This was a net decline of 20.8 per cent and a loss of 3,160 occupations.

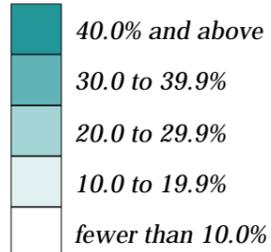
Map 3.9

Unskilled and semi-skilled workers*, Melbourne and Geelong, 1996

as a percentage of the total employed labour force in each Statistical Local Area



Per cent unskilled and semi-skilled workers*



*Consists of ABS occupation groups 'intermediate production and transport workers' and 'labourers & related workers'

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

Unemployed people, 1996

Capital city comparison

At the 1996 Census, 771,970 Australians reported being unemployed and looking for work, of whom 463,429 resided in Australia's capital cities. More than a quarter of the *All capitals* unemployed lived in **Sydney** (134,857 people), 7.4 per cent of **Sydney's** labour force. The unemployment rate in the other capital cities ranged from 7.5 per cent in **Canberra** (13,062 people, and a considerably higher rate than in 1986 when it was 4.8 per cent) to 10.6 per cent in **Adelaide** (51,662 people) (**Table 3.15**). The *All capitals* unemployment figure varied greatly over the ten years to 1996, rising considerably from 8.2 per cent in 1986, to 11.2 per cent in 1991, before declining to the 1996 rate of 8.5 per cent.

It is important to note that these figures can understate the true extent of unemployment because they do not report hidden unemployment and under-employment. Hidden unemployment results from people not recording themselves at the Census as unemployed, as they felt they did not fit the 'looking for work' requirement, often having been discouraged from doing so by the difficulty of obtaining employment. Hidden unemployment is less prevalent at the Census where people 'self-report' than in the official unemployment figures published by the ABS, which are based on data where the 'looking for work' and strict 'availability to work' definitions are applied more rigorously by personal interviewers in the monthly ABS Population Survey. Under-employment refers to those who have jobs but are working fewer hours than they would prefer. Women predominate in both of these categories, as do those who are socioeconomically disadvantaged.

These figures are based on self-report information in the Census. As it is unclear how Indigenous people would record their involvement in CDEP schemes it may be more appropriate to use the information for unemployment beneficiaries, page 96, which includes details of those schemes.

Table 3.15: Unemployed people, capital cities
Per cent

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	7.4	9.1	8.8	10.6	8.3	9.7	7.7	7.5	8.5
1986	8.6	6.6	9.5	9.5	9.5	9.1	9.7	4.8	8.2

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

There were 88,398 unemployed people (6.6 per cent of the labour force) in **Melbourne** in 1986. This number more than doubled in 1991, when 180,532 people (12.0 per cent) were classified as unemployed, before declining to 139,623 (9.1 per cent) in 1996.

Table 3.17 (overleaf) illustrates the considerable variation in unemployment rates between both the different sexes and age groups within **Melbourne**. Male unemployment rates were higher than those of females in all except the 65 years and over age group. The overall rate of female unemployment in 1996 was 8.6 per cent, compared with 9.5 per cent for males. For both sexes, the younger age groups, particularly youths 15 to 19 years old, experienced the highest unemployment rates, a tendency that was especially evident for males. In 1996, 17,596 15 to 19 year olds were unemployed, 18.3 per cent of the population in this age group.

As with the distribution of unskilled and semi-skilled workers, the distribution of unemployed people has strong associations with the location of **Melbourne's** industrial and manufacturing activity. The highest proportions of unemployed people were in Maribyrnong (18.9 per cent), Sunshine (17.0) and Broadmeadows (15.0). Slightly lower rates of unemployment were recorded in Dandenong Balance (14.5 per cent), Dandenong (14.4 per cent) and Preston and Brunswick (both with 14.1 per cent). Almost one fifth (19.2 per cent) of **Melbourne's** SLAs had unemployment rates of more than 12 per cent or more in 1996.

The lowest levels of unemployment were in the outer north-east SLAs and those located east of the city. In the north-east were Manningham East (4.9 per cent), Nillumbik South (4.9 per cent), Nillumbik South-West (5.0 per cent) and Nillumbik Balance (5.8 per cent). A low proportion of was also recorded in the coastal SLA of Brighton (4.9 per cent) and in the eastern SLAs including Camberwell North (5.1 per cent), Camberwell South (5.2 per cent) and Knox South (5.3 per cent).

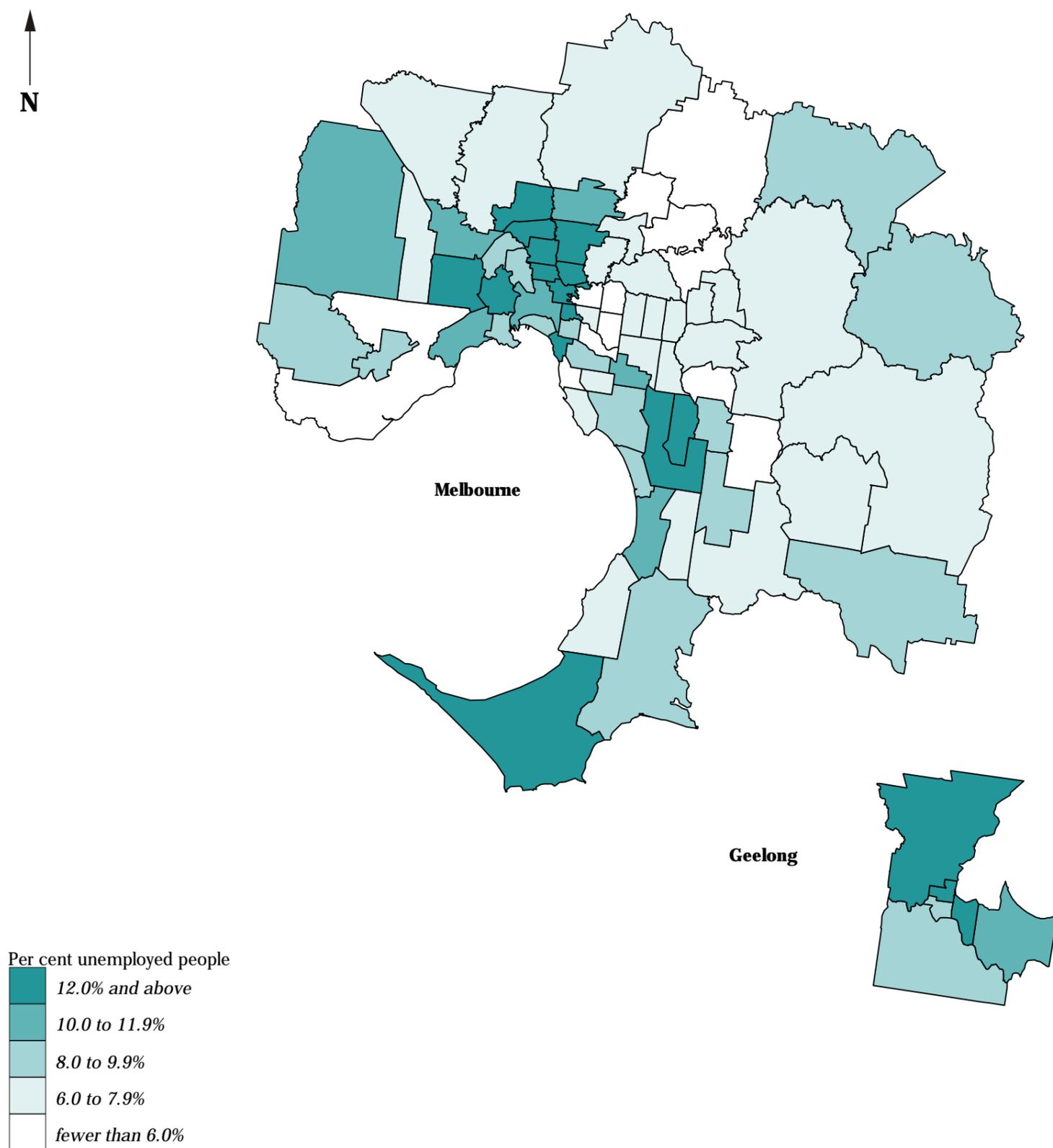
There were correlations of substantial significance with the variables for low income families (0.89) and people who reported poor proficiency in English (0.78), and of meaningful significance with single parent families (0.56) and unskilled and semi-skilled workers (0.60). Inverse correlations of substantial significance were recorded with high income families (-0.71), and female labour force participation (-0.79). These results, together with the inverse correlation of substantial significance with the IRSD (-0.90), indicate the existence of an association at the SLA level between unemployment and socioeconomic disadvantage.

Geelong

In 1996, 12.0 per cent of the labour force in **Geelong** was unemployed, a considerably higher rate than in **Melbourne**. The highest rates were in Corio Inner (15.1 per cent) and Geelong West (13.1 per cent). The lowest rates were in Newtown and South Barwon Inner (both with 8.7 per cent).

Youth unemployment in **Geelong** has experienced similar trends to total unemployment. Youth unemployed numbers increased from 1,416 to 1,788 between 1986 and 1991, but reduced to 1,306 (24.0 per cent) in the five years to 1996.

Map 3.10
Unemployed people, Melbourne and Geelong, 1996
 as a percentage of the total labour force in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
 National Social Health Atlas Project, 1999

Unemployed people, 1996

State/Territory comparison

In 1996, unemployment rates in the *Other major urban centres* category in **Table 3.16** were considerably higher than those recorded for the capital cities and, in Victoria, higher than the average for the *Rest of State /Territory* areas. Victoria, Queensland and Tasmania also had higher levels of unemployment in the *Rest of State /Territory* areas than in the capital cities, in contrast to the situation in South Australia and Western Australia.

Although the unemployment rate in the *Rest of State /Territory* areas was lower in 1996 (10.1 per cent) than in 1986 (10.8 per cent), the relativities between the States and Territories varied, with the largest declines occurring in the Northern Territory, Queensland and New South Wales, and the largest increase in Victoria.

Table 3.16: Unemployed people, State/Territory
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	7.4	9.1	8.8	10.6	8.3	9.7	7.7	7.5 ²	8.5
Other major urban centres ³	11.6	12.0	11.9	..	..	..	..	..	11.7
Rest of State/Territory	11.2	10.1	10.0	9.8	7.5	11.9	7.0	— ⁴	10.1
Whole of State/Territory	8.8	9.4	9.6	10.4	8.1	11.0	7.4	7.3	9.2
1986									
Rest of State/Territory	12.6	8.0	12.2	9.6	9.2	10.6	12.0	— ⁴	10.8

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

A discussion of variations in unemployment rates by sex, age and area of State (around the data in **Table 3.17**) is on page 40.

Rest of State

There were 48,589 unemployed people in the non-metropolitan areas of Victoria in 1996, 10.1 per cent of the labour force. This rate was one percentage point higher than the overall unemployment rate for **Melbourne**, but nearly two percentage points lower than the unemployment rate in **Geelong**.

There are two main concentrations of SLAs with high unemployment levels in non-metropolitan Victoria, with lower rates predominating throughout much of State (**Map 3.11**). High levels occur in the La Trobe Valley/East Gippsland area and in the Eastern Highlands/Loddon/Central Goldfields area. The highest unemployment rates at the SLA level were in Moe (20 per cent), Morwell (18.0), Central Goldfields Balance (17.8), East Gippsland Balance (15.1) Golden Plains North-West (14.8) and Loddon South (14.8).

In contrast, unemployment rates were below six per cent in the West Mallee region, with the lowest rates in the SLAs of Yarriambiack North (3.3 per cent), Mildura [Part B] (4.5 per cent) and Buloke North (4.8 per cent). Rates below six per cent were also recorded in Corangamite South (4.6 per cent), as well as in Delatite South (5.0 per cent), Alpine East (5.6 per cent) and Wangaratta South (5.9 per cent) in the north-east of the State; and in Shepparton East (5.2 per cent) and SLAs in the west coast region. Medium levels of unemployment were found in the Western Districts, along virtually the full length of the Murray River and scattered throughout the eastern region of the State.

There were correlations at the SLA level with the indicators of socioeconomic disadvantage, and inverse correlations with indicators of high socioeconomic status. These results, together with the correlation of meaningful significance with the IRSD (-0.64), indicate the existence of an association at the SLA level between unemployment and socioeconomic disadvantage.

Table 3.17: Unemployment rates by age and sex, Victoria, 1996

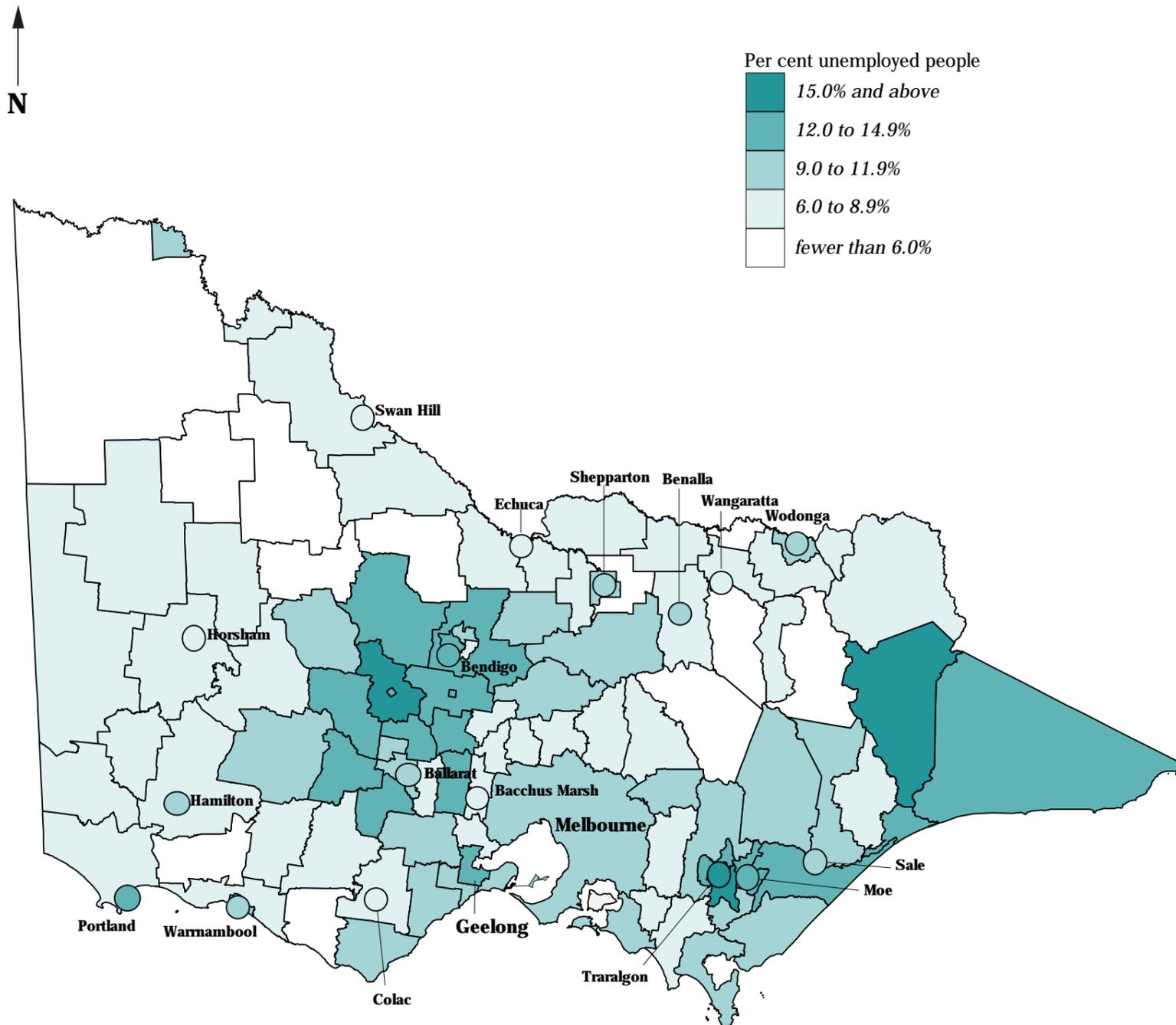
Age group (years)	<i>per cent</i>		<i>per cent</i>	
	Per cent male labour force unemployed Melbourne	Per cent male labour force unemployed Rest of State	Per cent female labour force unemployed Melbourne	Per cent female labour force unemployed Rest of State
15 to 19	19.1	22.1	17.6	21.1
20 to 24	15.0	17.9	12.2	15.6
25 to 34	8.8	11.2	7.9	9.0
35 to 44	7.1	8.1	6.9	6.8
45 to 54	7.1	8.1	6.4	6.6
55 to 64	11.2	12.1	7.7	6.1
65 & over	4.3	1.8	5.9	3.1
Total	9.5	11.0	8.6	9.3

Source: ABS Census 1996 Basic Community Profile Table B25

Map 3.11

Unemployed people, Victoria, 1996

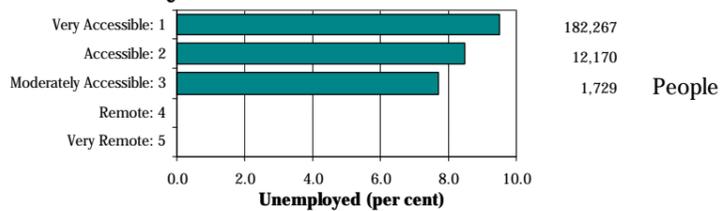
as a percentage of the total labour force in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



There is a clear gradient in unemployment rates across the ARIA categories, from the highest in the Very Accessible areas (9.5 per cent of the labour force), through 8.5 per cent in the Accessible areas, to the lowest in the Moderately Accessible areas (7.7 per cent).

Source: Calculated on ARIA classification, DHAC
National Social Health Atlas Project, 1999

Female labour force participation, 1996

Capital city comparison

The marked increase in women's participation in paid work has been one of the most significant trends in Australian society in recent years. Women are both remaining in the work force longer (partly by delaying childbirth), and re-entering the workforce after childbirth, because of changes in social perceptions of the role of women and increased economic pressures on families. Female labour force participation is calculated here as the number of females in the labour force (employed plus unemployed and looking for work) as a proportion of all females in the population aged 20 to 54 years. The denominator is limited to the 20 to 54 year age group, as the participation rate for women under the age of 20 years is affected by differences in educational participation rates and for women aged 55 years and over by retirement rates, which are particularly high from age 55 years.

As **Table 3.18** shows, most cities had participation rates close to the average. The highest rates were in **Canberra** (almost seven percentage points higher than the average) and **Darwin**. The participation of women in the labour force in all capital cities increased between 1986 and 1996, with the largest increase occurring in **Brisbane**.

Table 3.18: Female labour force participation, capital cities
Per cent

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	69.3	69.8	69.4	69.1	68.3	68.9	70.7	76.3	69.5
1986	64.5	64.8	61.0	64.3	62.2	62.6	68.5	72.4	64.1

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

In **Melbourne**, female labour force participation grew from 64.8 per cent at the 1986 Census to 70.4 per cent in 1991, before dropping slightly to 69.8 per cent in 1996.

High participation rates are heavily concentrated in eight SLAs situated to the immediate east and south-east of the central city area (**Map 3.12**). Another pocket of high participation is located to the north-east, straddling the Yarra Valley some 20 kilometres from the city centre and the very lowest participation rates are in SLAs to the west of the city.

The highest female labour force participation rates were recorded in St Kilda (78.7 per cent of females aged 20 to 54 years), Camberwell South (76.8 per cent), Nillumbik South (76.8 per cent), Malvern (76.2 per cent) and Hawthorn (75.9 per cent).

Just two SLAs were mapped in the lowest range: Broadmeadows (58.6 per cent) and Sunshine (58.9 per cent) west of the inner city area. Low female labour force participation rates were also recorded in Wyndham Balance (60.8 per cent), Preston (61.2 per cent), Yarra Ranges Central (61.6 per cent) and Dandenong (61.7 per cent).

Within **Melbourne** there were 587,762 females participating in the labour force. SLAs with more than 15,000 females in the labour force were Knox North (19,984 females), Yarra Ranges South-West (19,642), Manningham West (17,665), Whittlesea South (16,794) and Kingston North (15,574).

There was a correlation of meaningful significance at the SLA level with the variable for high income families (0.87). The inverse correlations with unskilled and semi-skilled workers (-0.88) and early school leavers (-0.76), together with the positive correlation with the IRSD (0.88), indicate that female labour force participation at the SLA level is strongly associated with socioeconomic advantage.

Geelong

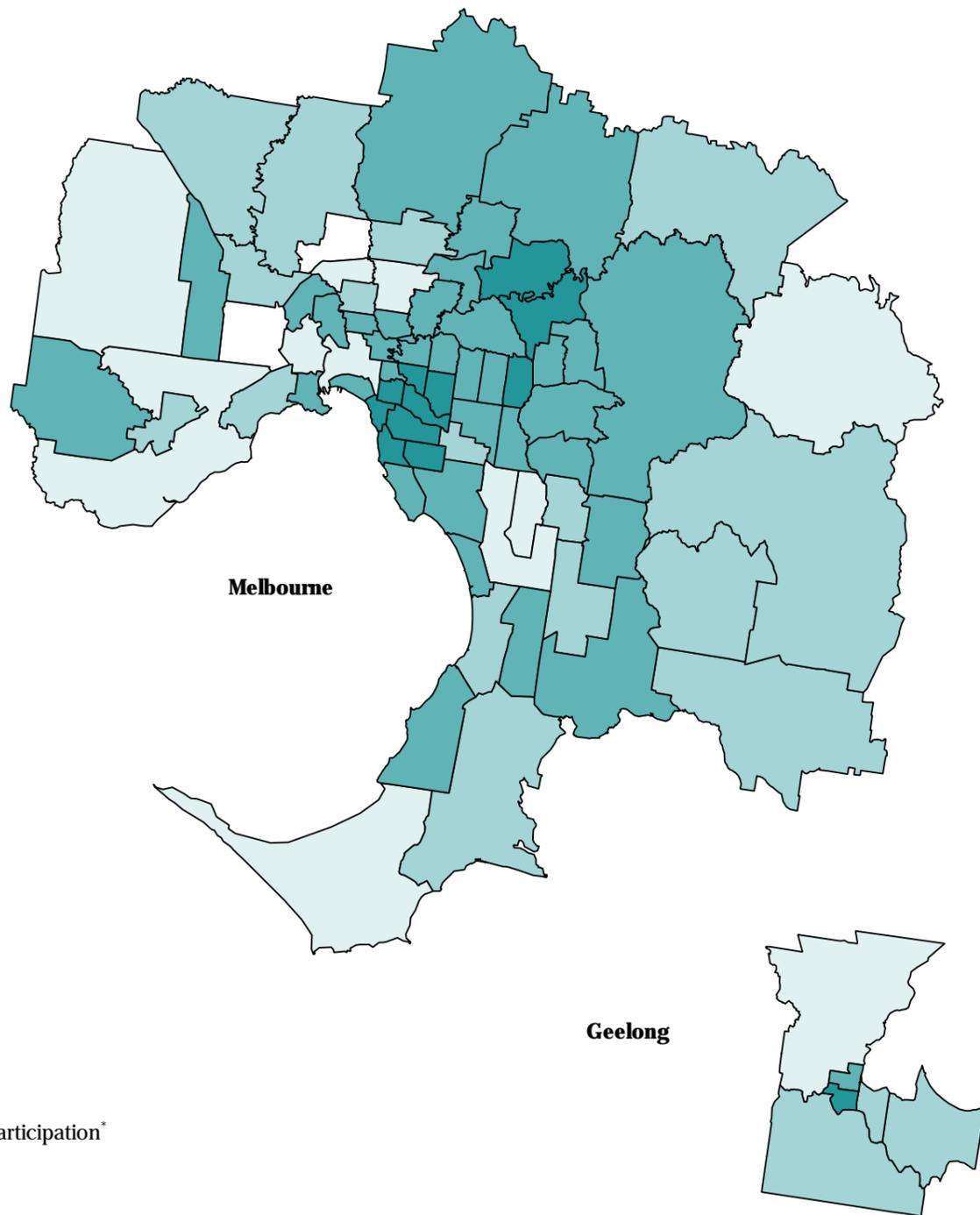
The female labour force participation rate in **Geelong** (66.8 per cent and 24,280 females) was slightly lower than that recorded for **Melbourne** in 1996.

Map 3.12 shows that all but one SLA recorded a participation rate of 65 per cent or greater, with the highest rates in Newtown (76.5 per cent) and Geelong West (72.1 per cent). However, these patterns hide the fact that Corio Inner, with the lowest participation rate (61.3 per cent), had the largest number of women in the labour force (7,853 women). In contrast Newtown, with the highest participation rate, had only 1,809 women in the labour force.

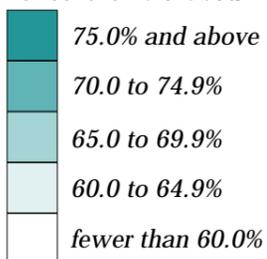
Map 3.12

Female labour force participation*, Melbourne and Geelong, 1996

as a percentage of all females aged 20 to 54 years in each Statistical Local Area



Per cent female labour force participation*



*Labour force participation of females aged 20 to 54 years

Source: Calculated on data from ABS 1996 Census

**Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999**

Female labour force participation, 1996

State/Territory comparison

Female labour force participation is calculated here as the number of females in the labour force (employed plus unemployed and looking for work) as a proportion of all females in the population aged from 20 to 54 years.

The Australian rate for this variable is 68.0 per cent, with most States and Territories having near average participation rates ranging from 64.1 per cent in the Northern Territory, to 69.0 per cent in Victoria. Within all of the States and Territories, the rates of female labour force participation were lower in non-metropolitan areas than in the capital cities.

Compared with other States, the female labour force participation in the non-metropolitan areas of Victoria is the highest in Australia, although it is lower than the level recorded in **Melbourne** (Table 3.19). This situation reflects the nature of non-metropolitan Victoria, especially its intensive agricultural and horticultural activity and allied processing operations, together with a high level of decentralised manufacturing and commercial activity in a number of regional centres, and extractive industries located in the La Trobe valley. This widespread activity throughout the State offers a greater opportunity for female employment than is found in the other States.

Table 3.19: Female labour force participation, State/Territory
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	69.3	69.8	69.4	69.1	68.3	68.9	70.7	76.3 ²	69.5
Other major urban centres ³	64.7	66.8	67.9	..	..	..	..	..	66.1
Rest of State/Territory	65.4	66.5	63.8	66.2	64.6	62.2	58.3	- ⁴	64.8
Whole of State/Territory	67.8	69.0	67.0	68.4	67.3	65.1	64.1	76.6	68.0
1986									
Rest of State/Territory	58.0	60.1	55.3	60.7	56.8	55.4	56.6	- ⁴	57.7

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

Female labour force participation in the non-metropolitan areas of Victoria increased over the ten years to 1996 from 60.1 per cent at the 1986 Census, to 65.8 per cent at the 1991 Census, and further to 66.5 per cent at the 1996 Census. It is likely that these trends have been encouraged by an increase in the number of women taking part-time and/or casual employment during the decade.

The highest female labour force participation rate in the non-metropolitan areas of Victoria was in the SLA of Alpine East, where 78.6 per cent of females aged from 15 to 54 years were in the labour force (Map 3.13). This was almost the same as the highest rate in the State, recorded in metropolitan St Kilda, a rate of 78.7 per cent. High proportions were also recorded in the north-east River Murray region, which is characterised by land uses and secondary industry associated with irrigated horticultural activity, including the SLAs of Wangaratta North (74.1 per cent) and Indigo [Part B] (73.1 per cent). Other SLAs with high proportions were Corangamite South (74.6 per cent), Delatite South (73.7 per cent) and Horsham Balance (72.8 per cent).

The lowest female labour force participation rates were recorded in Yarra Ranges [Part B] (35.1 per cent), Morwell (57.5 per cent) and Moe (58.1 per cent) as well as in Hepburn West (57.7 per cent) located in a group of western SLAs which also were mapped in the lowest range. This group included the SLAs of Central Goldfields Balance (58.5 per cent), Loddon South (59.2 per cent) and St Arnaud (59.7 per cent). These rates probably reflect the role this area plays as a retirement location.

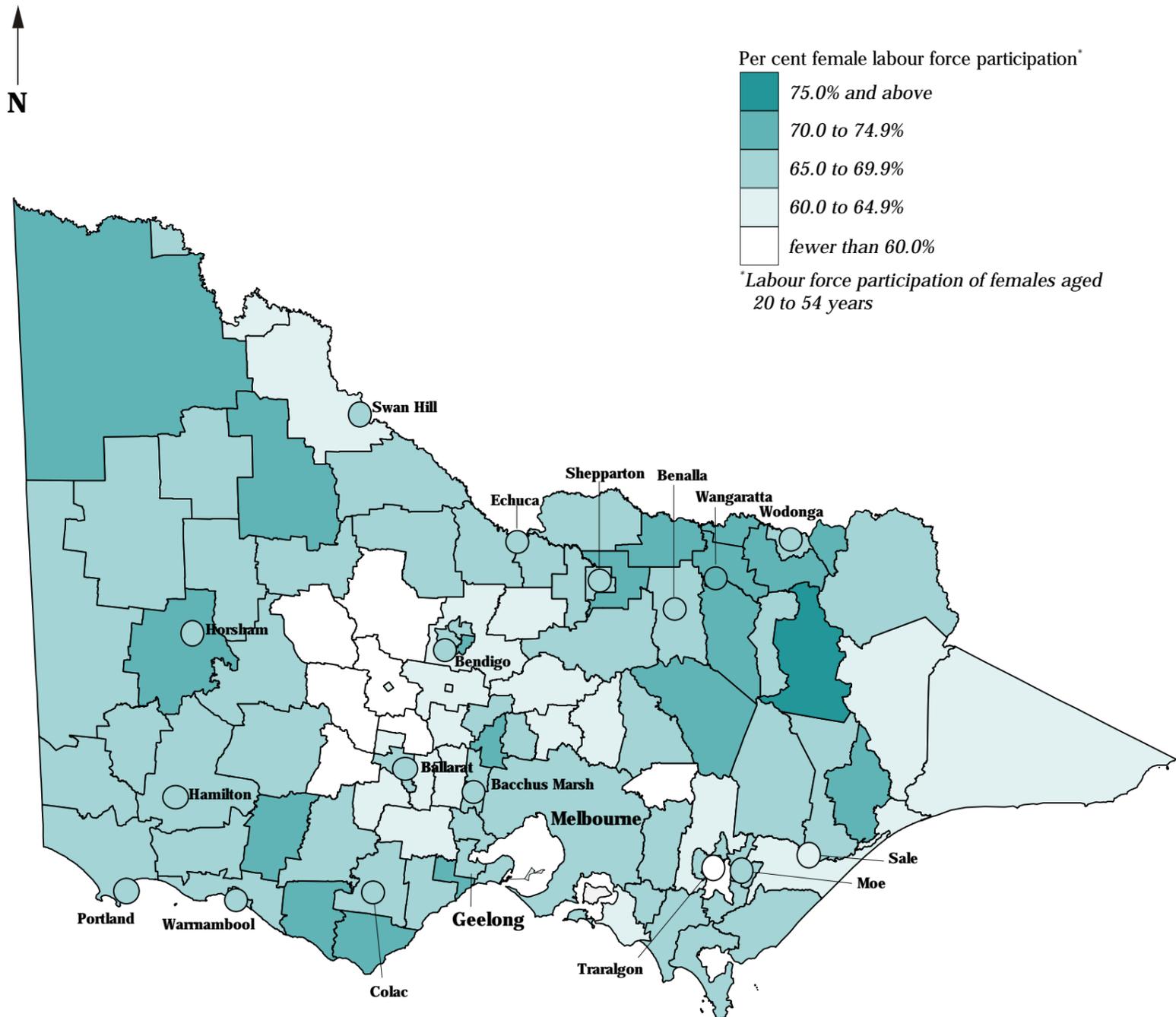
The largest numbers of females participating in the labour force were recorded in Ballarat (12,204 females), Bendigo (9,624), Shepparton [Part A] (6,639), Mildura [Part A] (6,387) and Wodonga (5,106).

As for **Melbourne**, there was an inverse correlation of meaningful significance with the variable for unemployed people (-0.60) and weaker inverse correlations with the variables for socioeconomic disadvantage. These results, together with the positive correlation of meaningful significance with the IRSD (0.58), indicate the existence of an association at the SLA level between high rates of female labour force participation and socioeconomic advantage.

Map 3.13

Female labour force participation*, Victoria, 1996

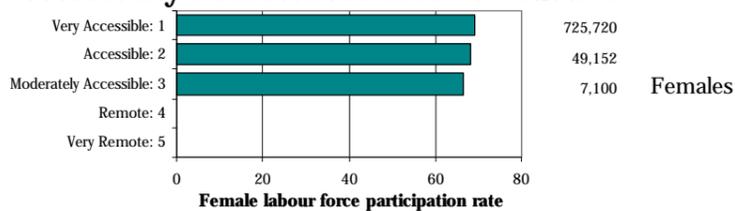
as a percentage of all females aged 20 to 54 years in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



There are relatively high (and similar) levels of female labour force participation across the three ARIA categories in Victoria. The highest rates is in the Very Accessible areas (69.0 per cent), with a slightly lower rate in the Accessible areas (68.1 per cent) and the lowest rate in the Moderately Accessible areas (66.5 per cent).

Source: Calculated on ARIA classification, DHAC
National Social Health Atlas Project, 1999

People who left school at age 15 years or less, or did not go to school, 1996

Capital city comparison (Australia as the Standard)

The age at which people cease their formal education does not determine absolutely how they will fare in life, but it does have a strong influence, not only on the ability to gain secure and rewarding employment but also on general life style. Differences in educational participation are examined in this analysis by comparing variations in the extent to which the population left school at age 15 or less, or did not go to school (jointly referred to as early school leavers). This variable has been age-sex standardised to remove differences in participation rates occurring between areas solely because of differences in the age and sex of the population in the areas being studied. A description of this process is on page 19. Among the capital cities, the highest standardised ratio (SR) of early school leavers was recorded in **Perth**, with 12 per cent more early school leavers than expected (an SR of 112**), and the lowest was recorded in **Canberra**, where the ratio of 68** indicated that there were 32 per cent fewer early school leavers than were expected from the Australian rates.

There was relatively little difference in the early school leaver ratios for 1986 and 1996 (**Table 3.20**), with some cities (**Sydney**, **Melbourne** and **Brisbane**) showing a small improvement (relative to the Australian rates) and others (eg. **Hobart** and **Darwin**) showing a relative decline as their rates moved closer to the Australian rates. The ratio for **Hobart** moved from below (in 1986) to above (1996) the *All capitals* ratio.

Table 3.20: People who left school at age 15 years or less, or did not go to school, capital cities
Age-sex standardised participation ratios

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	89**	82**	110**	98**	112**	98**	92**	68**	92**
1986	92**	85**	112**	98**	112**	92**	88**	69**	94**

¹Includes Queanbeyan (C)

Source: ABS special data services

Statistical significance: * significance at 5 per cent level; ** significance at 1 per cent level

Melbourne (Victoria as the Standard)

Over the past decade the areas with low participation in education have remained basically the same. Education data shows that children who leave school early continue to have low rates of participation in schooling beyond the age of compulsion, and low rates of continuation to higher education. There is a danger that the pattern of inequality of opportunity expressed in this map will continue, with a wide range of social health implications.

Variations in age-standardised educational participation rates within **Melbourne** are a striking illustration of the links between education, occupation, income and wellbeing. As **Map 3.14** shows, there are two significantly high concentrations of early school leavers, in SLAs located to the west and north of the city, and in the outer south-eastern suburbs. These sit in contrast with the very low levels in a number of higher socioeconomic status inner and near inner suburbs.

The highest level in **Melbourne** was in Wyndham North-West, where there were 43 per cent more early school leavers than expected from the State rates (an SR of 143**). To the south-east of the city, Cardinia South and Cranbourne both had 35 per cent more early school leavers than expected (with an SR of 135**). Melton Balance (with an SR of 134**) and Broadmeadows (133**) also had ratios in the highest range mapped.

Of the SLAs with fewer than the expected number of early school leavers, Hawthorn and Malvern (both with an SR of 50**) had half the number expected from the State rates, while Brighton (52**) and Kew (51**) had similarly low ratios.

The largest numbers of early school leavers were in Preston (with 24,417 early school leavers), Whittlesea South (22,688), Knox North (22,548), Yarra Ranges South-West (21,472), Sunshine (20,977) and Kingston North (20,416).

There was a correlation of substantial significance at the SLA level with the variable for unskilled and semi-skilled workers (0.88). The strongest inverse correlations were with the variables for managers, administrators and professionals (-0.92) and high income families (-0.85). The inverse correlation of substantial significance with the IRSD (-0.74) also indicates a positive association at the SLA level between the distribution of early school leavers and socioeconomic disadvantage.

Geelong

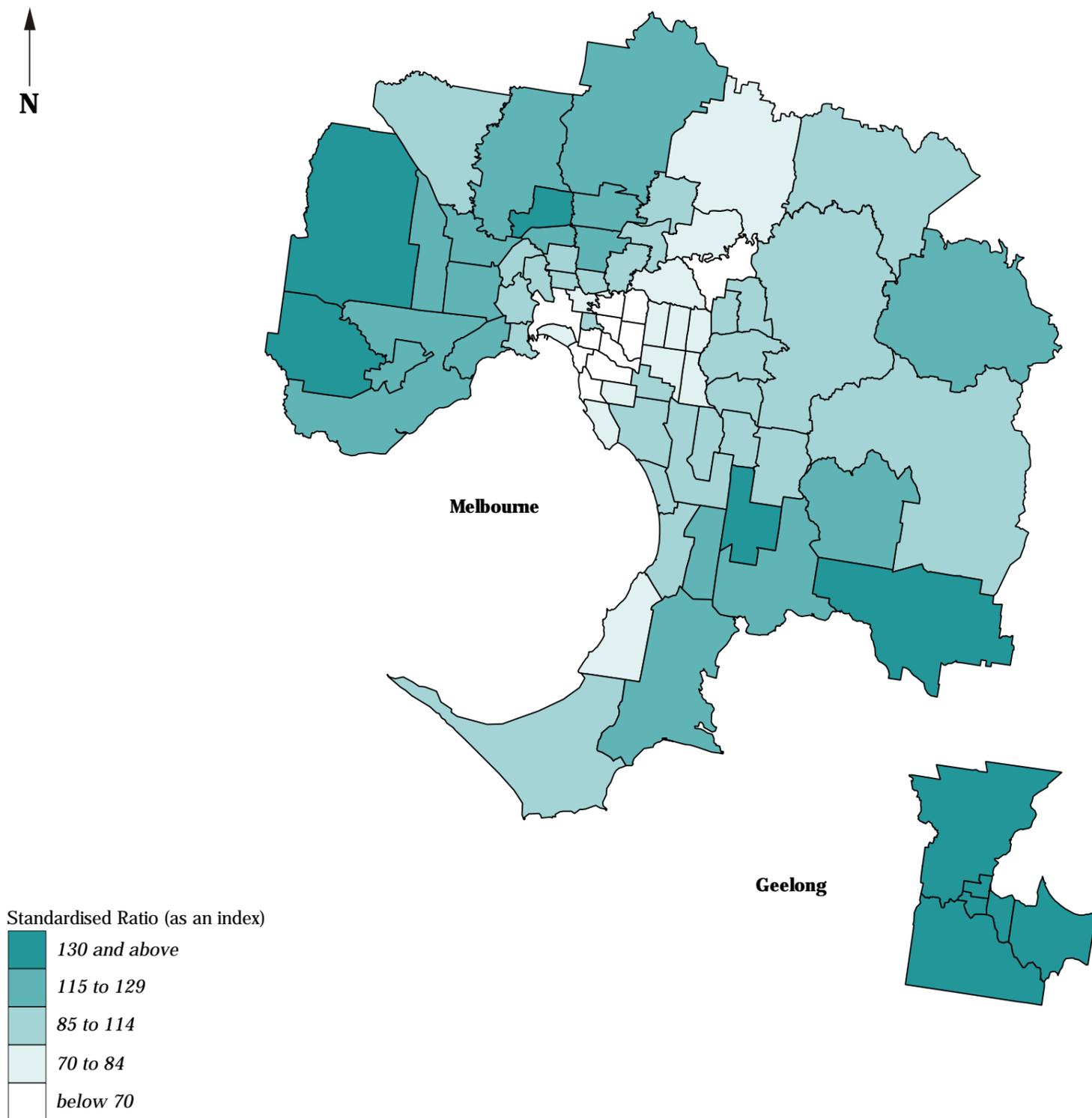
The highest levels of early school leavers in **Geelong** were resident in the outer SLAs of Corio Inner (with an SR of 125**) and Bellarine Inner (124**). Both South Barwon Inner (92**) and Newtown (75**) had fewer than expected numbers of people who left school at age 15 or earlier, or did not attend school.

There were 14,855 early school leavers living in Corio Inner in 1996, over one third (39.5 per cent) of the total of 37,596 early school leavers in **Geelong**.

Map 3.14

People who left school at age 15 years or less, or did not go to school, Melbourne and Geelong, 1996

Standardised Ratio: number of people in each Statistical Local Area compared with the number expected*



*Expected numbers were derived by indirect age-sex standardisation, based on Vic totals

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

People who left school at age 15 years or less, or did not go to school, 1996

State/Territory comparison (Australia as the Standard)

A description of the process of age-sex standardisation, used in producing the standardised ratios (SRs) mapped, is provided on page 19. The overall number of early school leavers (people had left school aged 15 years or less, or did not go to school), was 13 per cent higher than expected in the non-metropolitan areas of Australia, compared with eight per cent lower in the capital cities. This relationship was evident in all of the Australian States, with the biggest difference between capital city and non-metropolitan ratios occurring in the Northern Territory. Western Australia (with an SR of 133**) and Queensland (127**) had the highest *Rest of State/Territory* ratios.

There were notably larger differentials (from the Australian rates) in the ratios recorded for the non-metropolitan areas of the Northern Territory, Tasmania and Western Australia in 1996, when compared with the ratios for 1986 (Table 3.21). The higher ratios suggest a decline in educational participation, relative to the Australian experience, over this ten year period.

Table 3.21: People who left school at age 15 years or less, or did not go to school, State/Territory
Age-sex standardised participation ratios

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	89**	82**	110**	98**	112**	98**	92**	68 ² **	92**
Other major urban centres	114**	95**	106**	..	..	..	..	..	109**
Rest of State/Territory	106**	97**	127**	114**	133**	120**	121**	- ⁴	113**
Whole of State/Territory	96**	86**	116**	102**	118**	111**	108**	64**	100**
1986									
Rest of State/Territory	104**	98**	125**	112**	123**	111**	104**	- ⁴	110**

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Statistical significance: * significance at 5 per cent level; ** significance at 1 per cent level

Rest of State (Victoria as the Standard)

Overall, the non-metropolitan areas of Victoria had 12 per cent more early school leavers than expected from the State rates (a standardised ratio of 112**).

The distribution of SLAs with the most highly elevated ratios for early school leavers were confined to four discrete regions (Map 3.15). They were the north-west Wimmera and Murray Mallee region, the coastal area of the Western Districts, the Central Highlands, Loddon and Goulburn Valley region and the East Gippsland area. These included the SLAs of Robinvale and Colac Otway North (both with the largest SR of 127**, 27 per cent more early school leavers than expected from the State rates), Mitchell North (126**), Loddon South (125**) and Mildura [Part A], Bendigo Inner North and Golden Plains North-west (all with an SR of 124**). In between these regions were extensive tracts with SLAs with lower numbers of early school leavers, ranging between 15 per cent above and below the level expected from the State rates.

The lowest ratios were recorded in Queenscliffe (with an SR of 76**, 24 per cent fewer early school leavers than expected from the State rates), Surf Coast East (79**) and Alpine East (83**). Delatite South (86**), Wangaratta North (89**) and Macedon Ranges Balance (90**) had the lowest ratios in the middle range with 14, 11 and 10 per cent fewer early school leavers than were expected from the State rates respectively.

The largest numbers of early school leavers were located in Ballarat, with 18,666; Bendigo, with 15,190; Mildura, with 12,003; and Shepparton, with 10,567; while more than 6,000 were

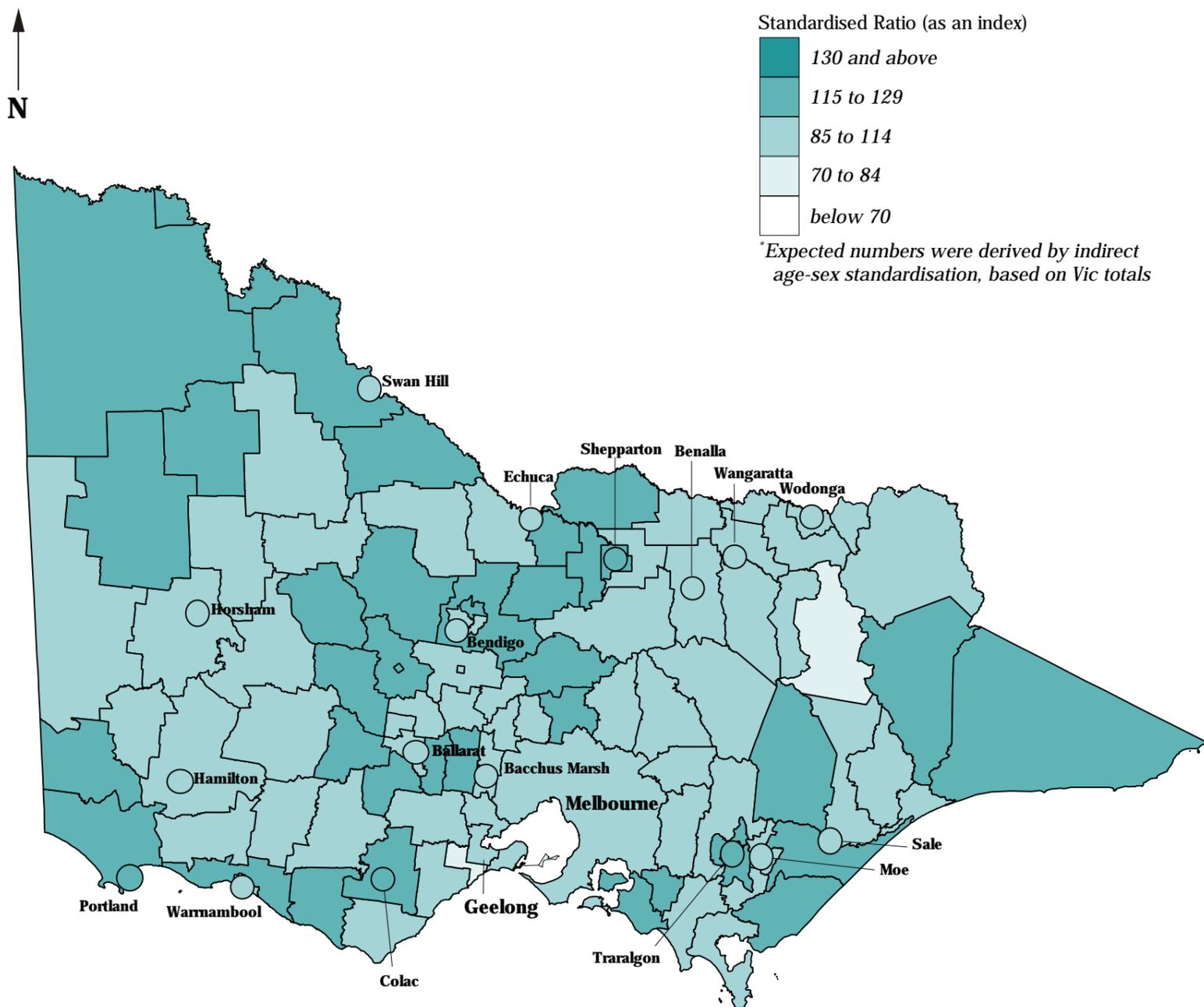
resident in Bairnsdale (7,172), Greater Geelong [Part B] (6,838), Warrnambool (6,777), Wodonga (6,453) and Baw Baw West [Part B] (6,288).

There were weak correlations at the SLA level in the non-metropolitan areas of Victoria with the variables for low income families (0.33) and the unemployed (0.31). These results, together with the inverse correlation of meaningful significance with the IRSD (-0.63), indicate the existence of an association at the SLA level between the distribution of early school leavers and socioeconomic disadvantage.

Map 3.15

People who left school at age 15 years or less, or did not go to school, Victoria, 1996

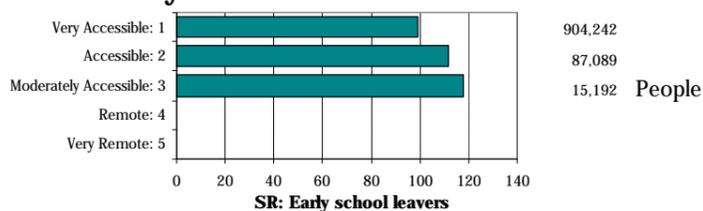
Standardised Ratio: number of people in each Statistical Local Area compared with the number expected*



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



People living in the areas classified within ARIA as Very Accessible had the highest rates of educational participation (the lowest rates of people who left school at age 15 or earlier, or did not go to school, an SR of 99). The lowest rates of educational participation were in the areas in the Accessible (an SR of 112) and Moderately Accessible categories (an SR of 118, 18 per cent more early school leavers than expected from the State rates).

Source: Calculated on ARIA classification, DHAC

National Social Health Atlas Project, 1999

Aboriginal and Torres Strait Islander people, 1996

Capital city comparison

The percentages of people identifying as Aboriginal and Torres Strait Islanders in the 1996 Census were low, with the *All capitals* average was 1.0 per cent (Table 3.22). The exceptions were **Hobart** and **Darwin**, where Indigenous people comprised 2.5 per cent and 8.6 per cent of the population, respectively. The lowest percentage was recorded in **Melbourne** (0.3 per cent), with **Sydney** and **Adelaide** the next lowest, both with 0.9 per cent. However, some 30.8 per cent of Australia's Indigenous people (108,557 people) lived in the capital cities at the 1996 Census, with the largest numbers in **Sydney** (34,432 Indigenous people).

The proportion of Indigenous people living in Australia's capital cities increased in the ten years from 1986, rising from 0.6 per cent in 1986, to 0.7 per cent in 1991 and to 1.0 per cent in the 1996 Census. The number of Indigenous Australians rose by 47,945 in the same period. This substantial increase largely reflects changes over time in the preparedness of people to identify themselves as Indigenous on the Census form. The increase was greatest in New South Wales, and particularly marked in the non-metropolitan areas of the State, with a population of 56,474 in 1996 compared with 35,907 in 1986. Additional information about these increases is provided on pages 18 and 19 (see *Data quality of Indigenous population counts*).

Table 3.22: Aboriginal and Torres Strait Islander people, capital cities
Per cent

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	0.9	0.3	1.5	0.9	1.4	2.5	8.6	1.1	1.0
1986	0.6	0.2	1.0	0.6	1.0	1.2	7.6	0.6	0.6

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

Melbourne had a very low proportion (0.3 per cent) of Aboriginal and Torres Strait Islander people in the population in 1996, a total of 10,700 people.

The proportions of Indigenous people are very low at the SLA level in **Melbourne** (Map 3.16). Yarra Ranges North has the highest proportion, with 2.2 per cent (239 people), of its population comprised of Aboriginal people. The adjacent SLA of Yarra Ranges Central had 98 Aboriginal people, 0.7 per cent of its total population.

A second concentration of Indigenous people is located in an area comprising the SLAs of Yarra North (0.5 per cent), Northcote (0.8 per cent), Preston (1.0 per cent), Broadmeadows (0.7 per cent) and Whittlesea North (0.8 per cent). Within these five SLAs there are 1,866 Aboriginal people, representing 17.4 per cent of the total Indigenous population in **Melbourne**.

The largest numbers of Indigenous people were recorded in Preston (762 people), Whittlesea South (439 people, 0.5 per cent of the total population), Broadmeadows (432 people), Dandenong (376 people, 0.7 per cent), Yarra Ranges South West (376 people, 0.4 per cent), Northcote (372 people, 0.8 per cent) and Werribee (350 people, 0.5 per cent).

On the other hand, over one fifth (20.5 per cent) of the SLAs in **Melbourne** had 50 or fewer Aboriginal residents. Just under half of these SLAs were in higher socioeconomic SLAs located in the inner eastern region or in SLAs located some 25 kilometres to the north-east and east of the city centre.

There was a weak association in the correlation analysis at the SLA level with indicators of socioeconomic disadvantage, with the strongest being inverse correlations with the variables for single parent families (0.54) and high income families (-0.52). The inverse correlation with the IRSD (-0.46) also indicates a positive association at the SLA level between high proportions of Indigenous people and socioeconomic disadvantage.

Geelong

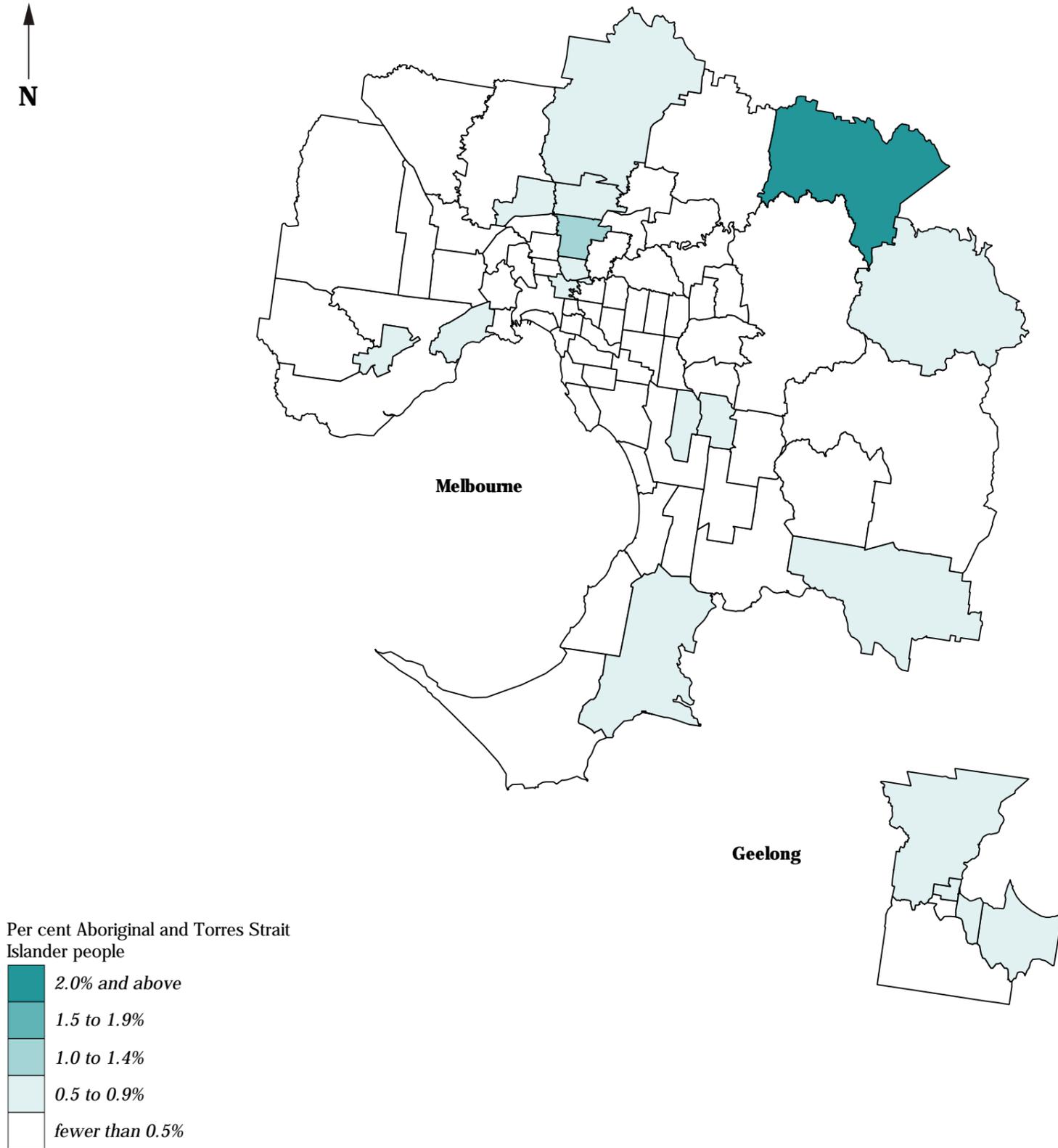
Although the number of Indigenous people (805 people) living in **Geelong** was relatively low, compared with the numbers living in **Melbourne**, they had increased over the ten years to 1996. Between 1986 and 1991, numbers increased by 59.4 per cent, from 392 to 625 with a further increase of 180 (28.8 per cent) between 1991 and 1996.

Within **Geelong**, 376 Aboriginal people were resident in Corio Inner (0.7 per cent of the population), with a further 167 in South Barwon Inner (0.4 per cent) and 98 in Bellarine Inner (0.5 per cent).

Map 3.16

Aboriginal and Torres Strait Islander people, Melbourne and Geelong, 1996

as a percentage of the total population in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

Aboriginal and Torres Strait Islander people, 1996

State/Territory comparison

At the 1996 Census, some two thirds of those who identified themselves at the Census as being Aboriginal and/or Torres Strait (Indigenous) Islander people lived in inland and remote areas of Australia, away from major urban centres and other highly populated areas. There were wide variations between States and Territories, from a high of 23.7 per cent in the Northern Territory to a low of 0.5 per cent in Victoria; similar variations occurred in the non-metropolitan areas (**Table 3.23**). While Indigenous people accounted for just 3.5 per cent of the population in the non-metropolitan areas of New South Wales, compared with 35.6 per cent in the non-metropolitan areas of Northern Territory, the population was much larger (56,648 Indigenous people, compared to 38,893 people, respectively).

The number of Indigenous people recorded in New South Wales as a whole increased from 59,011 in 1986 to 101,652 in 1996. These changes represent an increase of 72.0 per cent, presumably because of changes over time in the preparedness of people to identify themselves on the Census form. Additional information about these increases is on pages 18 and 19.

Table 3.23: Aboriginal and Torres Strait Islander people, State/Territory
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	0.9	0.3	1.5	0.9	1.4	2.5	8.6	1.1 ²	1.0
Other major urban centres ³	1.5	0.5	1.9	..	..	..	..	..	1.5
Rest of State/Territory	3.5	0.9	4.6	2.9	7.0	3.4	35.6	— ⁴	4.2
Whole of State/Territory	1.7	0.5	2.8	1.4	2.9	3.0	23.7	1.0	2.0
1986									
Rest of State/Territory	2.6	0.6	3.7	2.3	6.7	1.8	35.7	— ⁴	3.3

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

At the 1996 Census, there were 9,990 Aboriginal and Torres Strait Islander people living in the non-metropolitan areas of Victoria, 0.9 per cent of the rural population.

The highest proportions of Indigenous people were in SLAs located along the River Murray (**Map 3.17**). These included the SLAs of Robinvale (9.2 per cent), Orbost (4.3 per cent), Swan Hill (3.4 per cent), Shepparton (2.9 per cent), Echuca (2.7 per cent) and East Gippsland Balance and Bairnsdale (both with 2.5 per cent). These SLAs accounted for a total of 3,090 Aboriginal people. The largest number of Indigenous people in this group of SLAs was in Shepparton, with 1,136 people. The other SLAs had numbers ranging from 70 Indigenous people in East Gippsland Balance to 595 in Ballarat.

However, outside these seven SLAs there were 780 Indigenous people living in Mildura. Other centres with more than 200 Indigenous people in their populations in 1996 were Bendigo (455 Aboriginal people), Morwell (284), Warrnambool (263), Baw Baw West [Part B] (249) and Wodonga (215). Together they comprised 14.7 per cent of the non-metropolitan Aboriginal population, or 1,466 people.

Indigenous people comprised less than 0.5 per cent of the population in almost half (45.4 per cent) of the SLAs in the non-metropolitan areas of Victoria. These SLAs accounted for just over 900 people, or 9.2 per cent, of the non-metropolitan Aboriginal population. The numbers in these SLAs were also generally low; only Greater Geelong [Part B] had more than 100 Aboriginal people in its population.

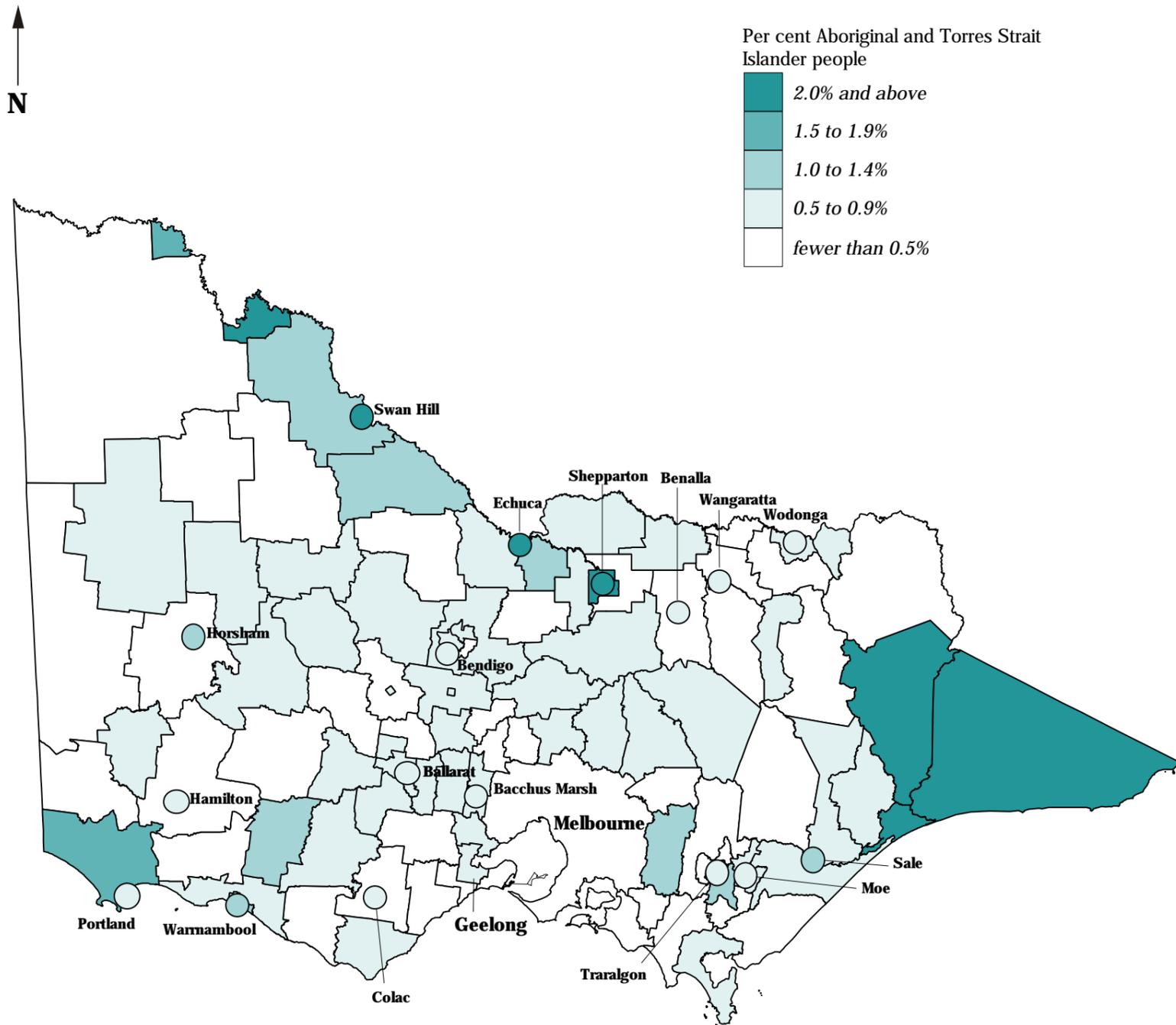
The majority of SLAs mapped in the lowest range had fewer than 20 Indigenous people in their population. SLAs with low proportions and 20 or more Indigenous people included Alpine East (0.2 per cent), Macedon Ranges Balance (0.3 per cent), Indigo [Part A], Bass Coast Balance and Greater Geelong [Part B] (all with 0.4 per cent).

There was a weak association in the correlation analysis at the SLA level with indicators of socioeconomic disadvantage. The inverse correlation with the IRSD (-0.33) also indicates a positive association between high proportions of Indigenous people and socioeconomic disadvantage.

Map 3.17

Aboriginal and Torres Strait Islander people, Victoria, 1996

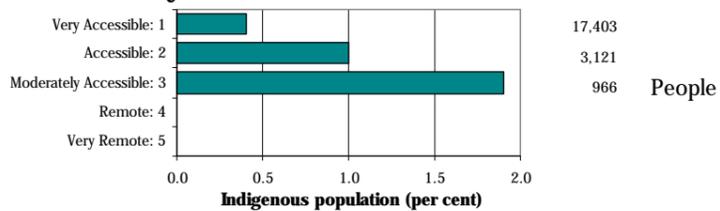
as a percentage of the total population in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



Although low, the proportions of Indigenous population increase strikingly across the ARIA categories. Indigenous people comprise just 0.4 per cent of the population in the Very Accessible areas, increasing to 1.0 per cent in the Accessible areas and to 1.9 per cent in the Moderately Accessible areas.

Source: Calculated on ARIA classification, DHAC National Social Health Atlas Project, 1999

People born in predominantly non-English speaking countries and resident in Australia for five years or more, 1996

Capital city comparison

Migrants in this category arrived in Australia from predominantly non-English speaking countries in or before 1991. As a substantial proportion will have been resident in Australia for many years, their distribution is often widespread within urban areas, especially the capital cities. Of the Australian capital cities, **Melbourne** has the highest proportion of its total population in this category (**Table 3.24**), while **Hobart** has the lowest (4.3 per cent). This characteristic, of a strong over representation of non-English speaking migrants, has been a feature of Victoria's demography during the post-war period. There were 568,565 people in this category in **Melbourne** in 1996, well below **Sydney's** number of 666,190. This represents a major change from the situation in 1986, when **Melbourne** had 456,686 people in this category, just 15,177 fewer than in **Sydney**.

Table 3.24: People born in predominantly non-English speaking countries and resident in Australia for five years or more, capital cities

	<i>Per cent</i>								
	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra¹	All capitals
1996	17.8	18.1	7.5	11.1	11.7	4.3	10.7	11.4	14.8
1986	14.0	16.1	6.0	10.5	10.5	4.2	10.2	10.8	12.7

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

There were 568,565 migrants in **Melbourne** born in predominantly non-English speaking countries who had been resident in Australia for five years or more, 18.1 per cent of the population in 1996.

There are two main groups of SLAs in **Melbourne** with high proportions of people from predominantly non-English speaking countries who had been resident in Australia for five years or more (**Map 3.18**). Each comprises SLAs located at middle distances from the city centre. The first is centred around Coburg and Moonee Valley, while the second is centred on the Dandenong area to the south-east of the city centre. The distribution of these migrants is generally influenced by the distribution of employment opportunities requiring labouring, semi-skilled and unskilled workers. The lowest proportions of migrants in this population group were located in outlying SLAs.

Thirteen SLAs in **Melbourne** had more than a quarter of their population comprised of long term resident migrants, with the highest proportions in Sunshine (37.9 per cent of the population) and adjacent Keilor (33.6 per cent) and Maribyrnong (30.3 per cent), Whittlesea South (30.7 per cent) and, to the south-east, in Dandenong Balance (37.1 per cent), Dandenong (30.3 per cent) and Hallam (28.5 per cent).

Mornington Peninsular East (4.1 per cent) and Yarra Ranges North (4.9 per cent) were the only SLAs mapped in the lowest range. Low proportions were also recorded in Nillumbik Balance (5.0 per cent), Pakenham (5.1 per cent) and Mornington Peninsular West (5.2 per cent).

Both Sunshine (28,796 people) and Whittlesea South (28,432) had similar numbers of people born in predominantly non-English speaking countries who had been resident in Australia for five years or more. Four other SLAs had more than 20,000 people in this category: Dandenong Balance (26,074 people), Keilor (24,596), Manningham West (22,141) and Preston (20,380). A further 16 SLAs had between 10,000 and 20,000 in this population group.

As would be expected, there were correlations of statistical significance with the other variables for people born in predominantly non-English speaking countries, of 0.91 with those who reported poor proficiency in English and of 0.67 with those resident for less than five years. There was also a correlation of meaningful significance with the variable for unemployed people (0.65). These results, together with the inverse correlation of meaningful significance with the IRSD (-0.57), indicate a positive association at the SLA level between the distribution of people in this population group and socioeconomic disadvantage.

Geelong

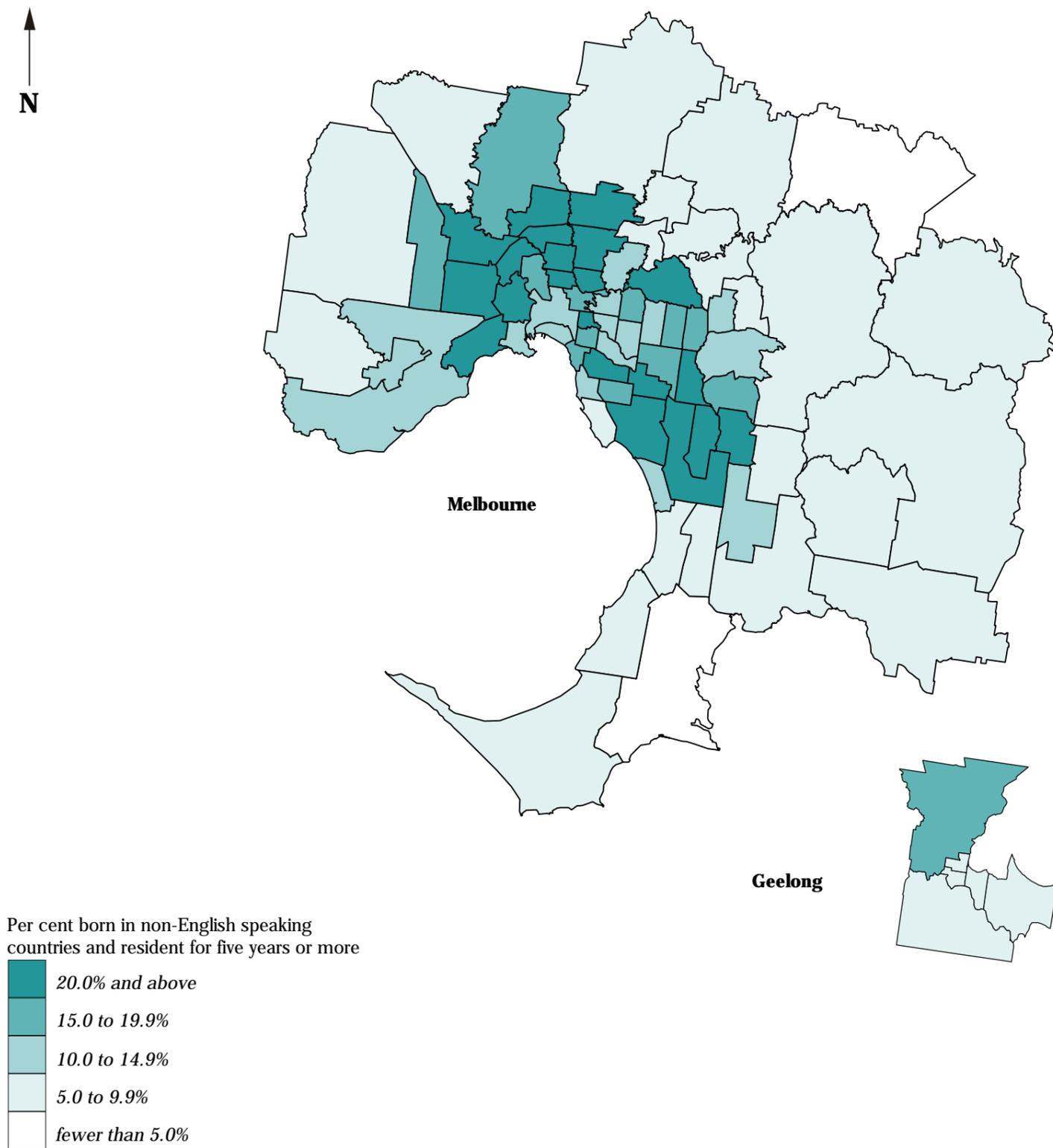
There were considerably fewer people born in predominantly non-English speaking countries who had been resident in Australia for five years or more in **Geelong** than in **Melbourne**. The highest proportion was in Corio Inner (15.6 per cent of the population). Elsewhere, as is shown in **Map 3.18**, concentrations were considerably lower, ranging from 8.0 per cent in Geelong West to 5.9 per cent in Newtown.

Of the 14,564 people in this population group in **Geelong**, over half (56.1 per cent) lived in Corio Inner (8,167 people) with 2,541 in South Barwon Inner.

Map 3.18

People born in predominantly non-English speaking countries and resident in Australia for five years or more, Melbourne and Geelong, 1996

as a percentage of the total population in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

People born in predominantly non-English speaking countries and resident in Australia for five years or more, 1996

State/Territory comparison

The proportion of migrants born in predominantly non-English speaking countries, who arrived in Australia in or before 1991 and resided in the non-metropolitan areas at the 1996 Census, was highest in Victoria and Western Australia. However, as is shown in **Table 3.25**, the proportion of migrants in this category located in the non-metropolitan areas of the States is low relative to capital city rates. An important social process is suggested when **Tables 3.25** and **3.27** (of more recently arrived migrants) are compared. As migrants born in predominantly non-English speaking countries become more proficient in English, and adapted to the host country's economic and social systems, they are more prepared to leave the capital cities to access opportunities available in the more rural areas.

Between 1986 and 1996, there was an increase in the proportions of people born in non-English speaking countries and resident for five years or more in all States and Territories except the Northern Territory, where there was a small decline. The Australian average increased from 9.5 per cent in 1986 to 10.9 per cent in 1996. The proportion across the *Rest of State/Territory* areas was 3.5 per cent at both Censuses.

Table 3.25: People born in predominantly non-English speaking countries and resident in Australia for five years or more, State/Territory
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	17.8	18.1	7.5	11.1	11.7	4.3	10.7	11.4 ²	14.8
Other major urban centres ²	7.0	10.0	6.1	..	..	..	..	..	7.0
Rest of State/Territory	3.1	3.9	3.7	3.8	3.9	2.6	3.2	— ⁴	3.5
Whole of State/Territory	12.7	14.3	5.7	9.2	9.5	3.3	6.5	11.3	10.9
1986									
Rest of State/Territory	2.8	4.1	3.6	4.1	4.6	2.4	3.8	— ⁴	3.5

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

There were 42,196 people in the non-metropolitan areas of Victoria in 1996 born in predominantly non-English speaking countries and resident in Australia for five years or more, 3.9 per cent of the population.

The distribution of migrants born in predominantly non-English speaking countries and resident in Australia for five years or more is concentrated in the middle and eastern parts of the State, with much lower proportions in the western third of the State (**Map 3.19**).

The highest proportion in this population group was in Alpine West, where they comprised 11.8 per cent of the population. Other SLAs with high proportions were Robinvale (9.6 per cent), Morwell (9.4 per cent) and Moe (9.3 per cent), with an economic base centred around coal mining. In Greater Geelong [Part C], 9.0 per cent of the population was comprised of migrants resident for five years or more.

The lowest proportions were in Yarriambiack North and Loddon North (both with 0.9 per cent of their populations born in predominantly non-English speaking countries and resident in Australia for five years or more) and Buloke North (1.0 per cent) in the north-west of the State and in Moyne North-west (0.9 per cent), Moyne North-east (1.1 per cent) and Glenelg North (1.1 per cent) in the south-west.

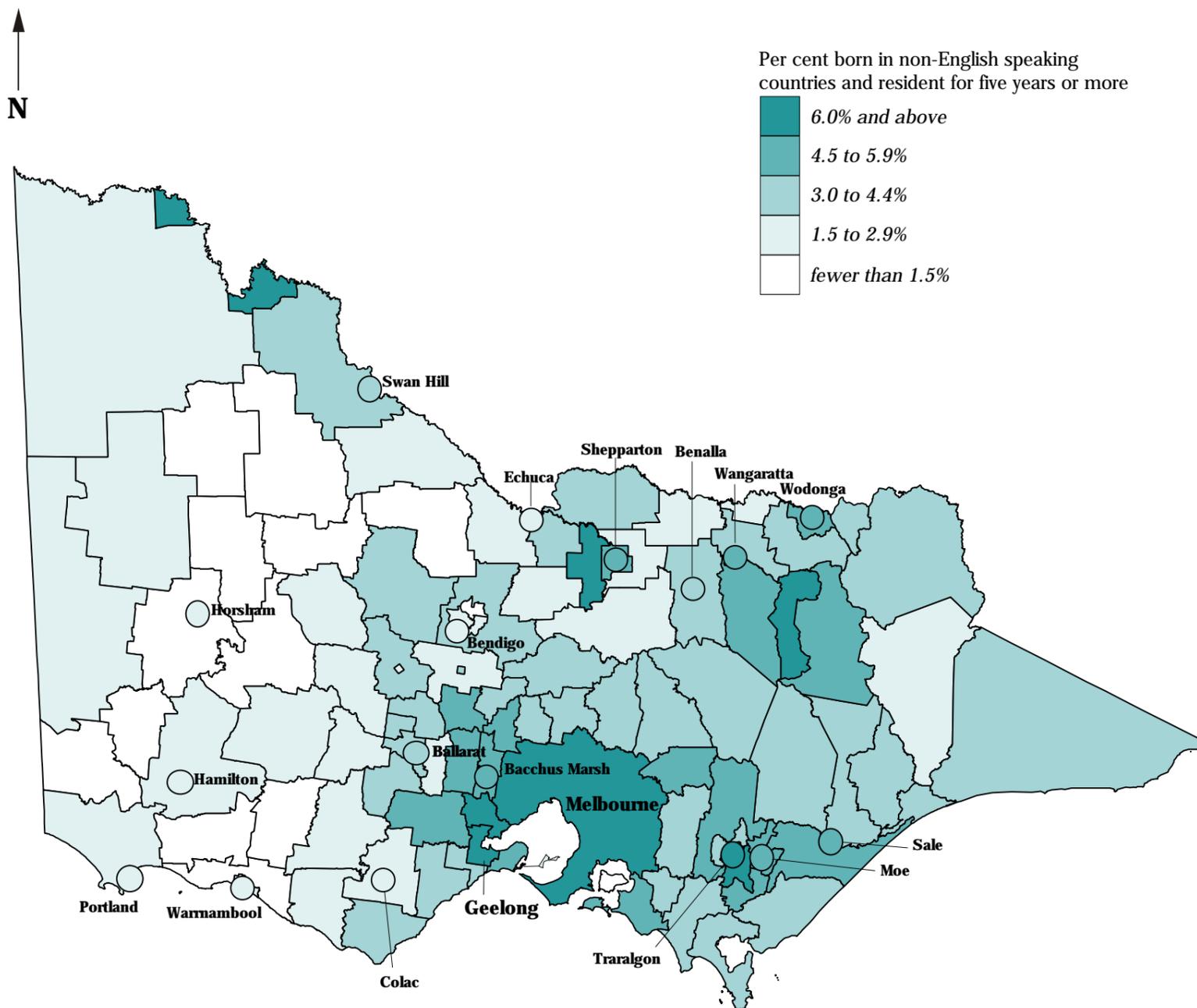
The largest numbers of longer term migrants born in non-English speaking countries were located in Mildura (2,500 people), Ballarat (2,452), Shepparton (2,307) and Morwell (2,148). These SLAs contained almost one quarter (22.3 per cent) of all migrants resident in Australia for five years or more and living in non-metropolitan Victoria. More than 1,500 of these migrants were resident in Moe (1,667 people) and Wodonga (1,665), whilst Greater Geelong [Part B], Traralgon and Bendigo each had more than 1,000.

There was a correlation of substantial significance with the variable for people who reported poor proficiency in English (0.73) and a weak correlation with recently arrived migrants from predominantly non-English speaking countries (0.39).

Map 3.19

People born in predominantly non-English speaking countries and resident in Australia for five years or more, Victoria, 1996

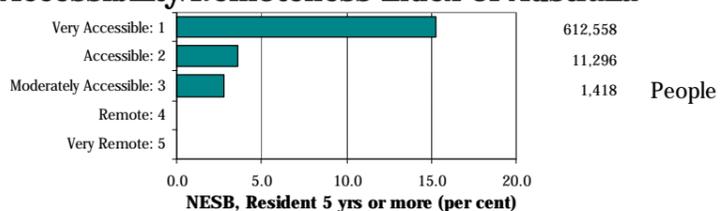
as a percentage of the total population in each Statistical local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



The highest proportion of the population born in predominantly non-English speaking countries and resident in Australia for five years or more lives in areas in the Very Accessible category (15.3 per cent of the population), with lower proportions in the Accessible (3.6 per cent) and Moderately Accessible (2.8 per cent) areas.

Source: Calculated on ARIA classification, DHAC National Social Health Atlas Project, 1999

People born in predominantly non-English speaking countries and resident in Australia for less than five years, 1996

Capital city comparison

For migrants arriving from non-English speaking countries, the initial years of settlement are the most difficult. The settlement process is often further exacerbated by limited English proficiency. For these migrants, obtaining employment may be difficult, type of employment may be restricted, and income levels may be low. In this context, the largest capital cities hold wider prospects for employment and they also have the most culturally diverse populations. **Sydney** is the major initial destination for migrants from predominantly non-English speaking countries, with 138,009 people (3.7 per cent of its population) having arrived in Australia in the previous five years (**Table 3.26**). **Melbourne** was the second largest destination, attracting 88,673 people in this population group, 2.8 per cent of its population at the 1996 Census.

The proportion of recent immigrants in Australia's capital cities increased slightly from 2.5 per cent in 1986 to 2.7 per cent in 1996. This was largely due to the growth in numbers in **Brisbane**, **Sydney** and **Melbourne**. Although the proportion remained the same, there was an increase in absolute terms in **Perth** over the same period of time. **Darwin**, **Canberra** and **Adelaide** experienced a decline in both proportions and numbers in this population group.

Table 3.26: People born in predominantly non-English speaking countries and resident in Australia for less than five years, State/Territory
Per cent

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	3.7	2.8	1.7	1.4	2.3	0.7	1.7	1.9	2.7
1986	3.1	2.6	1.4	1.6	2.3	0.7	3.1	2.2	2.5

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

There were 88,673 migrants in **Melbourne** born in predominantly non-English speaking countries who had been resident in Australia for less than five years, 2.8 per cent of the population in 1996.

The highest proportions of recently arrived migrants born in predominantly non-English speaking countries in **Melbourne** were located in the inner suburbs (**Map 3.20**). This phenomenon is a characteristic of most large cities. However, in **Melbourne**, this typical pattern extends along a corridor south-east to Dandenong.

At the 1996 Census, the highest proportion of recently arrived migrants (8.7 per cent) was in City of Melbourne. Proportions above six per cent were also recorded in the neighbouring SLAs of Maribyrnong (7.6 per cent), St Kilda (6.5 per cent) and Richmond (6.4 per cent) as well as in Dandenong Balance (8.6 per cent), Monash South-West (8.3 per cent) and Dandenong (6.9 per cent), to the east of the city centre.

The lowest proportions of recently arrived migrants were in outlying SLAs including Nillumbik Balance and Casey South (both with 0.1 per cent), Yarra Ranges North, Yarra Ranges Central, Cardinia North and Nillumbik South-West (all with 0.2 per cent).

The largest numbers of recently arrived migrants from predominantly non-English speaking countries were located in Dandenong Balance (6,043 people), Maribyrnong (4,486) and in the SLA of Melbourne (4,245). St Kilda (3,021 people), Sunshine (3,270), Monash South-West (3,303), Preston (3,394), Caulfield (3,600) and Dandenong (3,853) all had relatively large numbers of people in this population group.

As would be expected, there were correlations of statistical significance with the other variables for people born in predominantly non-English speaking countries, of 0.76 with those who reported poor proficiency in English and of 0.67 with those resident for less than five years. There were also correlations of significance with the indicators of socioeconomic disadvantage, including with the variables for dwellings with no motor vehicles (0.72) and unemployed people (0.53).

Geelong

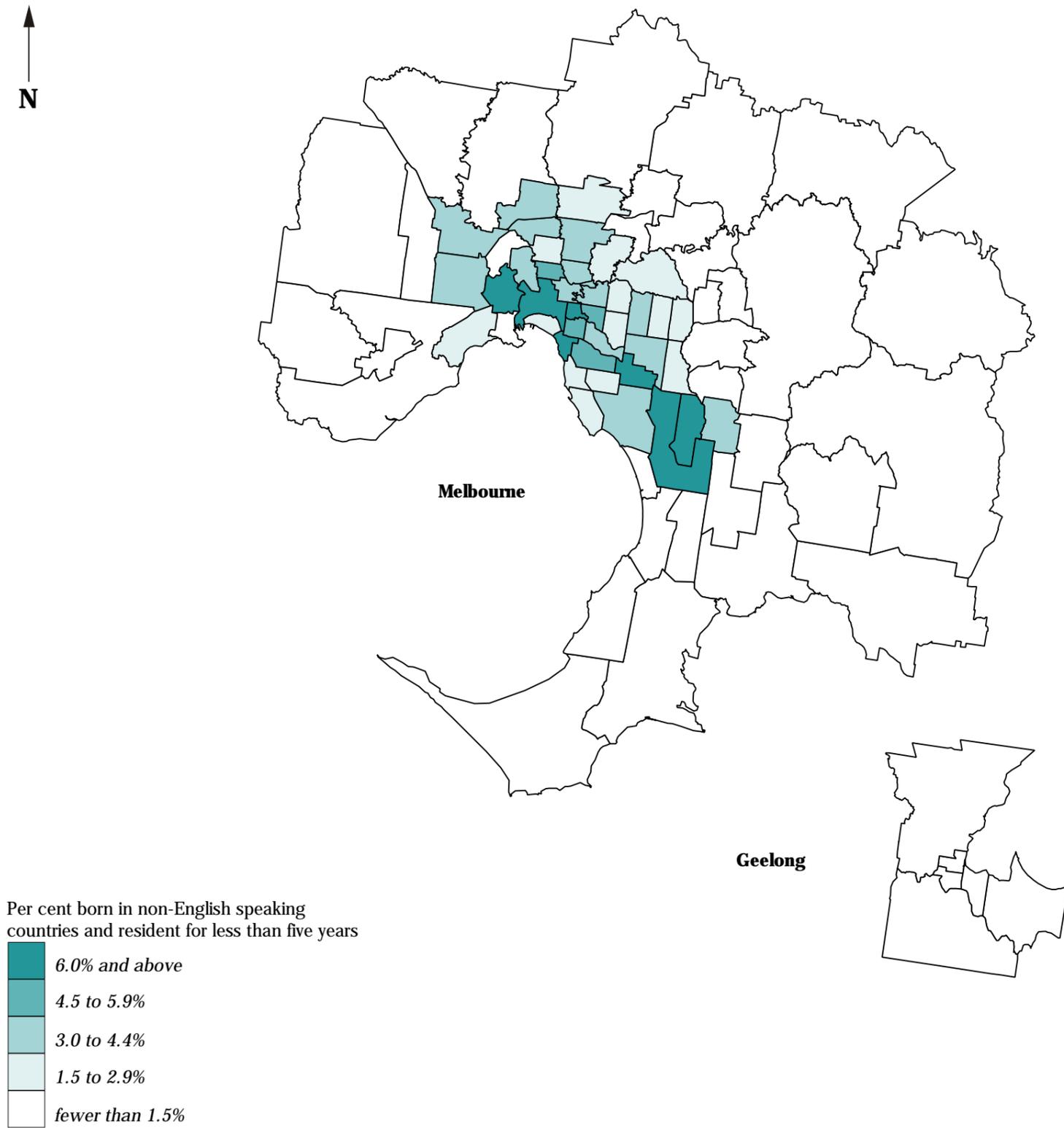
The proportion of recently arrived migrants in **Geelong** was very low (1.0 per cent of the population), compared with **Melbourne** (2.8 per cent). The highest proportion was in Corio Inner (1.3 per cent of the population), with 1.2 per cent in the city of Geelong and 1.0 per cent in South Barwon Inner.

There were only 1,393 migrants in this category in **Geelong**, with 698 located in Corio Inner and 383 in South Barwon Inner. These two SLAs comprised over three quarters (77.6 per cent) of this population in **Geelong**.

Map 3.20

People born in predominantly non-English speaking countries and resident in Australia for less than five years, Melbourne and Geelong, 1996

as a percentage of the total population in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

People born in predominantly non-English speaking countries and resident in Australia for less than five years, 1996

State/Territory comparison

Recently arrived migrants from predominantly non-English speaking countries have a strong preference for capital city residence, as is clear from **Table 3.27** (see comments on previous text page). The proportion of the population in the non-metropolitan areas of all of the States and the Northern Territory has declined between the periods shown.

The slight increase in the proportion of people born in predominantly non-English speaking countries, from 1.7 to 1.9 per cent of the population of Australia between 1986 and 1996, was due mainly to increases in New South Wales, Victoria and Queensland. South Australia and the Northern Territory experienced a decline in both numbers and proportions over this ten year period.

Table 3.27: People born in predominantly non-English speaking countries and resident in Australia for less than five years, State/Territory

	<i>Per cent</i>								
	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	3.7	2.8	1.7	1.4	2.3	0.7	1.7	1.9 ²	2.7
Other major urban centres ³	0.9	1.0	1.2	..	..	..	..	..	1.0
Rest of State/Territory	0.3	0.3	0.5	0.2	0.4	0.4	0.5	— ⁴	0.4
Whole of State/Territory	2.5	2.1	1.2	1.0	1.8	0.5	1.0	2.0	1.9
1986									
Rest of State/Territory	0.4	0.4	0.6	0.4	0.8	0.4	1.0	— ⁴	0.5

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

The 1996 Population Census recorded 3,018 people in the non-metropolitan areas of Victoria who were born in predominantly non-English speaking countries and who had been resident in Australia for less than five years, 0.3 per cent of the population.

Only three SLAs in non-metropolitan Victoria had more than 1.0 per cent of recently arrived migrants in their population. These were Queenscliffe (1.7 per cent), Morwell (1.6 per cent) and Robinvale (1.2 per cent). The proportions for Queenscliffe (53 people) and Robinvale (45), however, were based on very low numbers of migrants. A further five SLAs which had between 0.5 per cent and 0.9 per cent were scattered throughout the State, as shown in **Map 3.21**.

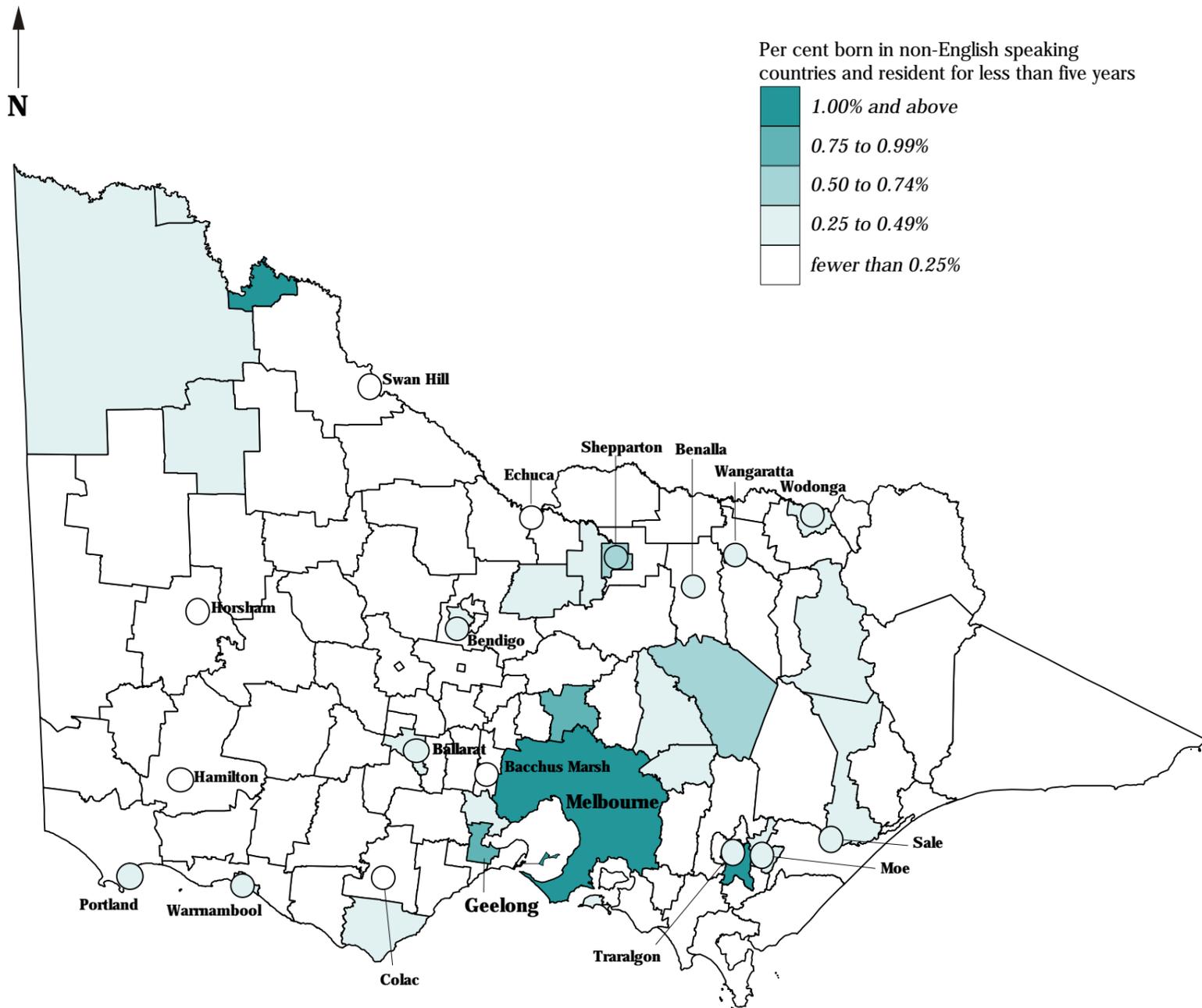
More significance, however, can be attached to the numbers of people in this population group. Their distribution would seem to be influenced by the availability of suitable employment opportunities, and the presence of longer term migrants. The largest number of recently arrived migrants was in Morwell (369 people), likely to have been attracted to employment opportunities in the La Trobe Valley coal mining industry. Agricultural and horticultural employment would seem likely to influence their presence in Shepparton (261 people), Mildura (148) and Mitchell South (122). Other SLAs with 100 or more people in this population group were the towns of Ballarat (313 people), Bendigo (172) and Warrnambool (119). The majority (73.0 per cent) of non-metropolitan SLAs in Victoria had fewer than 20 recently arrived immigrants.

There was a correlation of meaningful significance with the variable for people who reported poor proficiency in English (0.51) and a weak correlation with recently arrived migrants from predominantly non-English speaking countries (0.39).

Map 3.21

People born in predominantly non-English speaking countries and resident in Australia for less than five years, Victoria, 1996

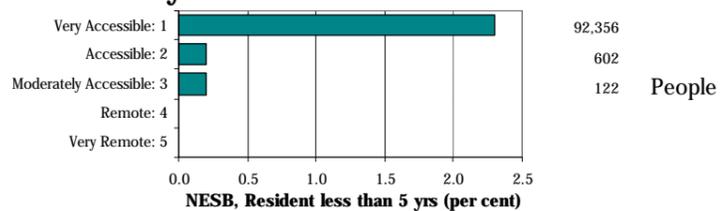
as a percentage of the total population in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



The proportion of the population born in predominantly non-English speaking countries and resident in Australia for fewer than five years is highest in the Very Accessible areas (2.3 per cent) and drops away rapidly to just 0.2 per cent in each of the Accessible and Moderately Accessible ARIA categories.

Source: Calculated on ARIA classification, DHAC National Social Health Atlas Project, 1999

Proficiency in English, 1996

Capital city comparison

For migrants from non-English speaking countries, the rate at which they adapt to live in the host country is directly related to the rate at which they achieve proficiency in English. Their level of proficiency in English has profound implications for the ease with which they are able to access labour markets, develop social networks, become aware of and utilise services, and participate in many aspects of Australian society. From a health service provision viewpoint, the location of migrants with limited English proficiency may indicate areas within the city where different approaches might be taken to ensure that these residents are aware of the health services available. In the provision of health services for women and older people, these distributions are perhaps even more relevant, as many migrants from European countries who arrived in Australia in the 1950s and 1960s have not developed English language skills (especially females), or have returned to using the language of their birthplace as they have aged (both females and males).

Poor proficiency in English of people aged five years and over and born overseas in predominantly non-English speaking countries was determined when people within this category reported speaking English 'not well' or 'not at all' (**Table 3.28**). The percentages shown are calculated on the total population aged five years and over, not just those born overseas. **Melbourne** and **Sydney** have the highest proportions of migrants with poor proficiency in English at 5.0 and 4.9 per cent respectively. These high levels are due largely to the fact that **Melbourne** and **Sydney** have been the principal destinations for migrants from South-East Asia during the last two decades, following the major influx of people from European countries in the 1950s and 1960s. However, since the 1986 Census, there has been a trend across most Australian cities towards increasing numbers of people who are not fluent in English. While proportions may have fluctuated, numbers increased in most cities. **Darwin** was the only capital city to record a fall in both proportions and numbers.

Table 3.28: Poor proficiency in English of people aged five years and over and born in predominantly non-English speaking countries, capital cities

	<i>Per cent</i>								
	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	4.9	5.0	1.4	2.5	2.1	0.6	2.0	1.7	3.7
1986	4.0	4.8	1.2	2.7	2.1	0.6	2.6	1.9	3.4

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

There were 144,702 people in **Melbourne** in 1996 born overseas in predominantly non-English speaking countries who reported poor proficiency in English, 5.0 per cent of the population aged five years and over.

The distribution of people reporting poor proficiency in English (**Map 3.22**) closely mirrors the distribution of people born in predominantly non-English speaking countries (see previous maps for people born overseas in these countries), although the distribution of SLAs with the highest proportions is more extensive.

The highest proportion was in Dandenong Balance (15.8 per cent of the population aged five years and over). There were five other SLAs with more than 10 per cent of their population in this category; they were Northcote (10.1 per cent), Brunswick (11.5), Sunshine (13.1), Richmond (13.5) and Maribyrnong (15.0).

The lowest proportions were in the eastern SLAs of Nillumbik Balance (0.1 per cent), Mornington Peninsular East (0.2 per cent), Pakenham, Manningham East, Yarra Ranges North, Yarra Ranges Central, Mornington Peninsular West and Nillumbik South (all with 0.3 per cent).

The largest numbers of migrants with poor proficiency in English was in Dandenong Balance (10,350 people), Sunshine (9,231) and Maribyrnong (8,209). Each of Dandenong, Broadmeadows, Keilor, Preston and Whittlesea South had more than 5,000 residents who reported having poor proficiency in English.

As would be expected, there were correlations of substantial significance at the SLA level with the variables for people born in non-English speaking countries (0.76 for those who had been resident for less than five years, and 0.91 when resident for five years or more). There was also a correlation of substantial significance with unemployed people (0.78), and correlations of meaningful significance with low income families (0.57) and dwellings with no motor vehicles (0.58). These results, together with the inverse correlation of meaningful significance with the IRSD (-0.66), indicate the existence of an association at the SLA level between high proportions of people reporting poor proficiency in English and socioeconomic disadvantage.

Geelong

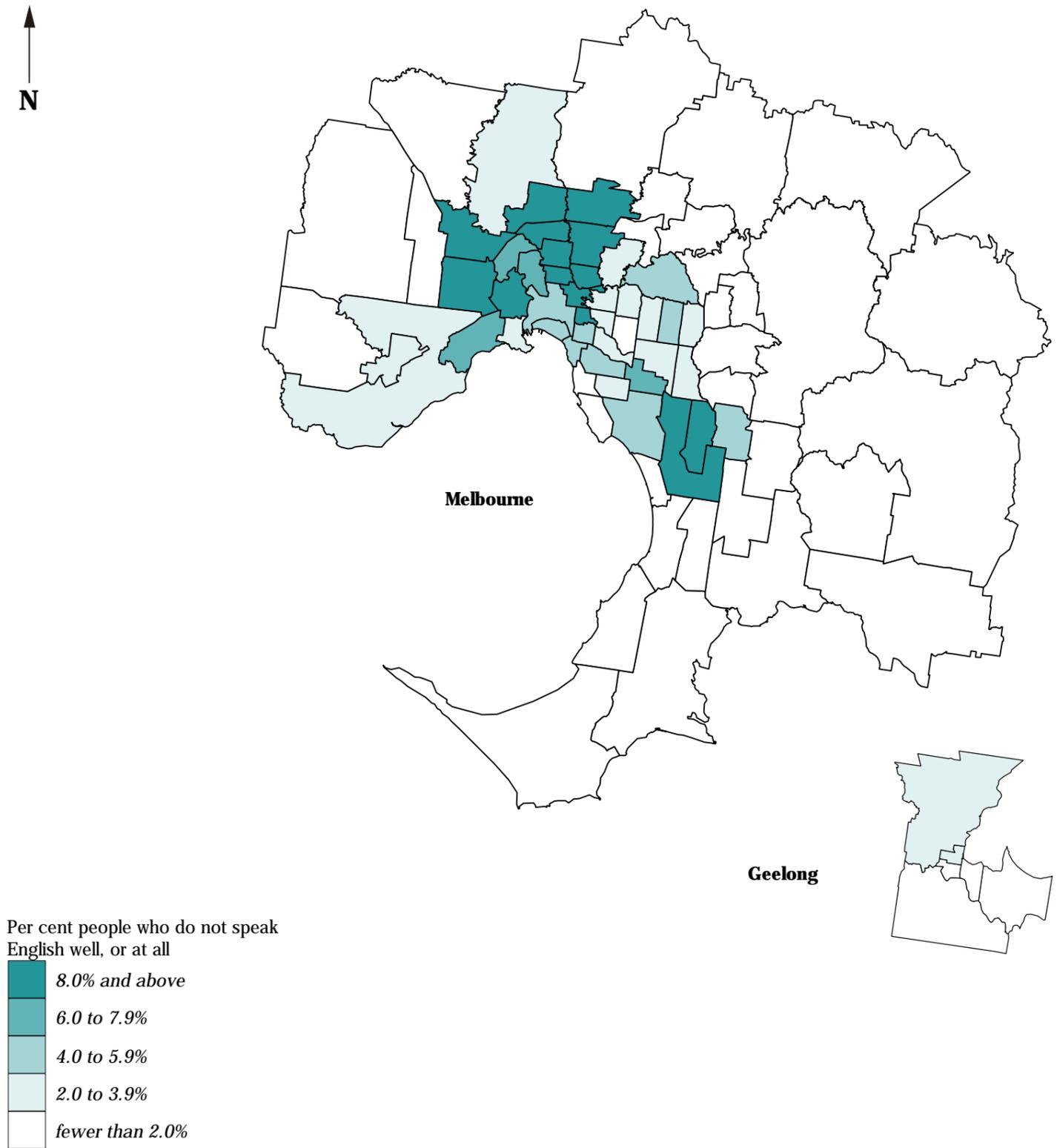
Geelong had 2,814 residents who reported poor proficiency in English, 2.1 per cent of the population aged five years and over. This smaller proportion is indicative of the less attractive labour market in regional cities in comparison with that in **Melbourne**.

The highest proportion of people reporting poor English proficiency was in Corio Inner (3.9 per cent) and a total of 1,908 people. This was more than two thirds of people in **Geelong** in this category. Geelong West had 2.2 per cent of its residents in this category.

Map 3.22

Proficiency in English of people aged five years and over and born in a non-English speaking country, Melbourne and Geelong, 1996

as a percentage of the total population aged five years and over in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

Proficiency in English, 1996

State/Territory comparison

Poor proficiency in English of people aged 5 years and over and born overseas in predominantly non-English speaking countries was determined when people within this category reported speaking English 'not well' or 'not at all'. Migration research has consistently demonstrated a propensity for migrants to locate in the major cities of the States and Territories, especially the capital cities. **Table 3.29** shows that this tendency is evident, possibly more so, for migrants reporting a poor proficiency in English. Outside of **Melbourne** (and, to a lesser extent, **Geelong**), the incidence of migrants with poor English speaking skills is very low, a characteristic shared by each of the States. For these migrants to move away from the capital city and seek employment and residence elsewhere requires an ability to interact with the wider community. Poor proficiency in English restricts this capacity. Consequently, until English proficiency improves, they generally remain restricted to areas where they have the security of their language community, including longer term resident migrants with better English skills who can represent them in their interactions with the labour market, schools and the bureaucracy.

There has been an increase (at the whole of Australia level) in both the proportions and numbers of people reporting poor proficiency in English in the ten years from 1986 (when 2.4 per cent of Australia's population aged over 5 years did not speak English fluently) to 1996 (2.6 per cent). This increase took place in the capital cities as there was a slight decline in the *Rest of State/Territory* areas.

Table 3.29: Poor proficiency in English of people aged 5 years and over and born in predominantly non-English speaking countries, State/Territory
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	4.9	5.0	1.4	2.5	2.1	0.6	2.0	1.7 ²	3.7
Other major urban centres ³	1.4	2.1	0.8	..	..	..	..	..	1.2
Rest of State/Territory	0.3	0.4	0.4	0.4	0.3	0.2	0.2	— ⁴	0.4
Whole of State/Territory	3.3	3.7	0.9	2.0	1.6	0.3	1.0	1.7	2.6
1986									
Rest of State/Territory	0.4	0.6	0.5	0.6	0.7	0.2	0.4	— ⁴	0.5

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

In 1996, there were 4,451 people in the non-metropolitan areas of Victoria reporting poor proficiency in English, 0.4 per cent of the population.

There are few SLAs in non-metropolitan Victoria with notable concentrations of people who were born in predominantly non-English speaking countries and reported poor proficiency in English (**Map 3.23**). As noted for this variable in **Melbourne**, the maps of the distribution of people born overseas in these countries is of relevance.

The highest proportions of people reporting poor English proficiency were in Robinvale (3.1 per cent) and Alpine West (2.9 per cent). This was in contrast to the situation in **Melbourne**, where there were 36 SLAs with these levels, or higher, in their population. SLAs with proportions of between 1.0 and 2.0 per cent included Shepparton West (1.9 per cent), Shepparton and Mildura (both with 1.6 per cent), Wangaratta Central (1.3 per cent), Morwell (1.2 per cent) and Moe and Queenscliffe (both with 1.1 per cent).

Eleven non-metropolitan SLAs had no people reporting poor English proficiency at the 1996 Census and the majority of SLAs had fewer than 20 people in this category. Accordingly, the majority of rural SLAs had proportions below 0.5 per cent.

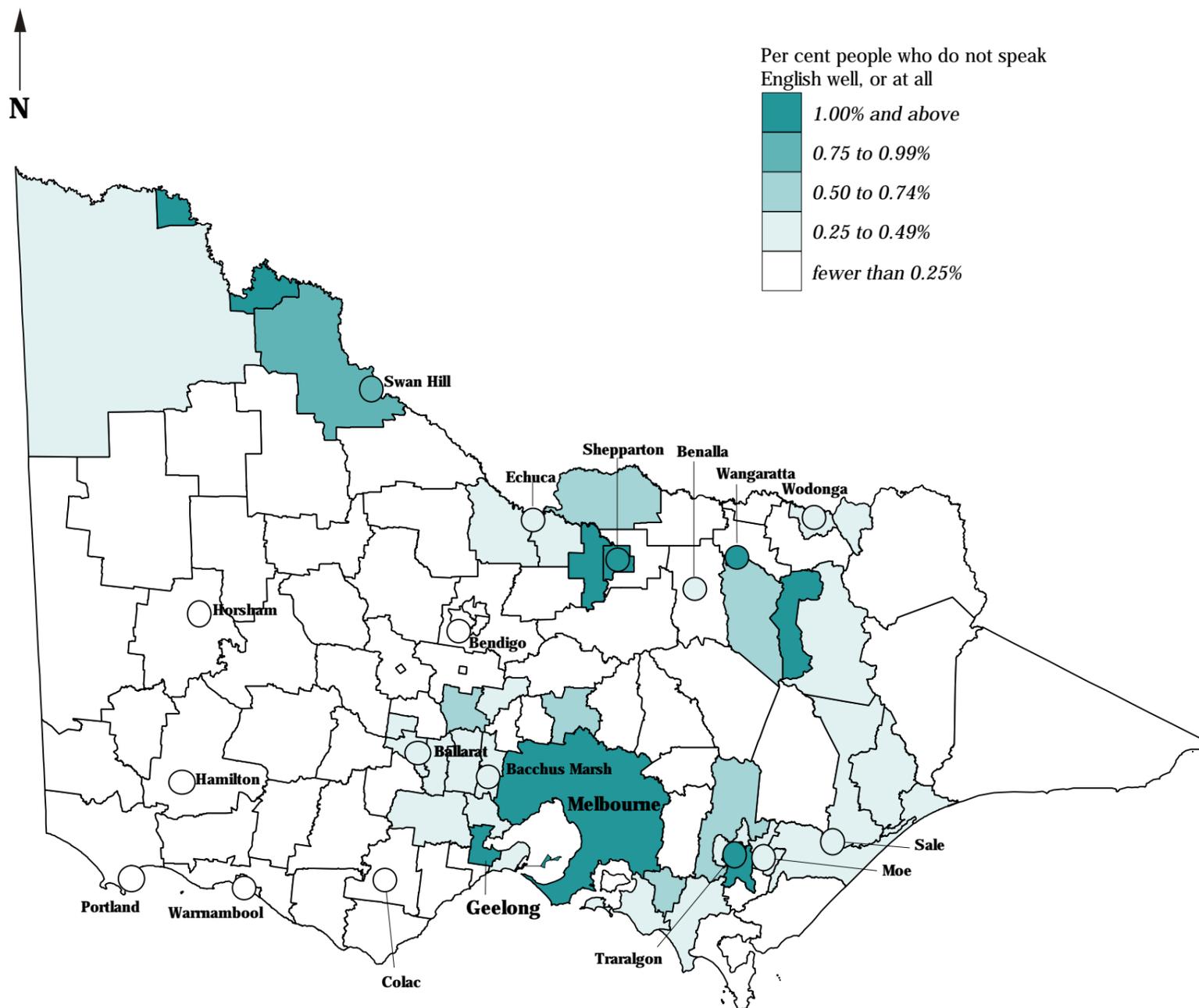
There were 4,451 people in the non-metropolitan areas of Victoria who reported poor proficiency in English. Of these, 26.5 per cent were resident in Shepparton (593 people) and Mildura (588). Other SLAs with relatively large numbers were Morwell (250 people), Ballarat (226), Wangaratta Central (187), Moe (181) and Shepparton West (150). Generally, the largest numbers of migrants with poor proficiency in English were located in areas along the River Murray, in the high country and in the La Trobe Valley.

Again, there was a correlation of substantial significance with the variable for people from non-English speaking countries who had been resident for five years or more (0.73) and of meaningful significance with the variable for recently arrived migrants from non-English speaking countries (0.51).

Map 3.23

Proficiency in English of people aged five years and over and born in a non-English speaking country, Victoria, 1996

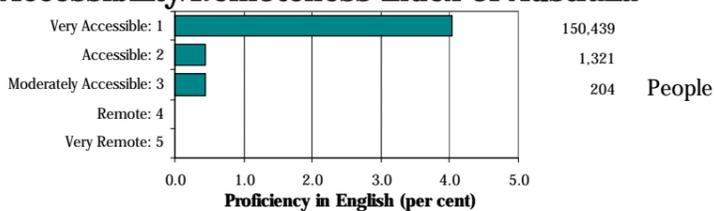
as a percentage of the total population aged five years and over in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



Not surprisingly, the proficiency in English of the population has a distribution that is similar to that for people born in predominantly non-English speaking countries and now resident in Australia. The highest proportions of the population aged five years and over who reported not speaking English well, or at all, are in the Very Accessible (4.0 per cent of the population), Accessible (0.5 per cent) and Moderately Accessible (0.4 per cent) categories.

Source: Calculated on ARIA classification, DHAC
National Social Health Atlas Project, 1999

Dwellings rented from the State housing authority, 1996

Capital city comparisons

The Census collects data on dwellings rented from the State and Territory housing authorities (in Victoria it is the Office of Housing): in this analysis, rented dwellings are expressed as a proportion of all occupied private dwellings. (Note: Private dwellings exclude special dwellings such as hotels and boarding houses.) The distribution of housing authority dwellings is an indicator of the distribution of single parents, unemployed, aged, disabled and Indigenous people, as these groups are being given waiting list priority for public housing which has become increasingly scarce since the 1970s.

The proportion of the dwelling stock rented from the State housing authority is well below the national average for both **Melbourne** and Victoria (**Table 3.30**). In comparison, **Darwin**, **Adelaide** and **Canberra** have above average proportions of dwelling stock rented from State government housing authorities. The proportion of housing authority dwellings in **Melbourne** in 1991 was 3.5 per cent, up from 2.9 per cent in 1986 it was 2.9 per cent. Clearly, therefore, the ten years to 1996 has seen a five year period of increased public housing provision, followed by a period of public housing reduction to the levels which existed in 1986. In 1996 there were 33,247 housing authority dwellings in **Melbourne**, and the decline between 1991 and 1996 reflected a trend by State housing authorities throughout Australia to release some of their dwelling stock to the ownership market.

Table 3.30: Dwellings rented from the State housing authority, capital cities
Per cent

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	5.5	2.9	4.8	9.7	4.6	8.3	15.8	9.7	5.3
1986	5.2	2.9	3.9	10.5	5.3	10.0	21.9	11.5	5.3

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

At the 1996 Census, there were 33,247 dwellings rented from the State housing authority in **Melbourne**, 2.9 per cent of all occupied private dwellings.

The concentration of these dwellings in inner and middle SLAs is clear from **Map 3.24**. The highest proportions were in the inner **Melbourne** SLAs of Richmond (13.0 per cent), Port Phillip West (12.3 per cent), Yarra North (11.2 per cent), the City of Melbourne (11.1 per cent) and Essendon (10.0 per cent). These areas are characterised by high rise residential towers constructed during the sixties. The next highest proportions of State owned rental housing were located in a number of SLAs situated just beyond the inner suburbs and included Maribyrnong (6.7 per cent), Broadmeadows (6.6 per cent) and Heidelberg (6.1 per cent). There were also relatively high proportions in Hallam (5.3 per cent) and Dandenong (4.6 per cent).

Lower proportions were found in SLAs linked to industrial and manufacturing activity in **Melbourne's** western and south-eastern suburbs, including the SLAs of Dandenong Balance (2.6 per cent), Cranbourne (2.6 per cent), Sunshine (2.3 per cent) and Altona (2.3 per cent).

The lowest proportions were to be found in the outer, semi-rural SLAs of Wyndham Balance and Wyndham North-West (both with no housing authority dwellings), Melton East (0.2 per cent) and Craigieburn (0.3 per cent), as well as in Camberwell North (0.1 per cent) and Casey South (0.2 per cent).

There were correlations of meaningful significance at the SLA level with the variables for dwellings without a motor vehicle (0.69) and single parent families (0.62), and weaker correlations with low income families (0.42), people with poor proficiency in English (0.41) and unemployed people (0.35).

These results, together with the weak inverse correlation with the IRSD (-0.35), indicate the existence of an association at the SLA level between high proportions of housing authority rented dwellings and socioeconomic disadvantage.

Geelong

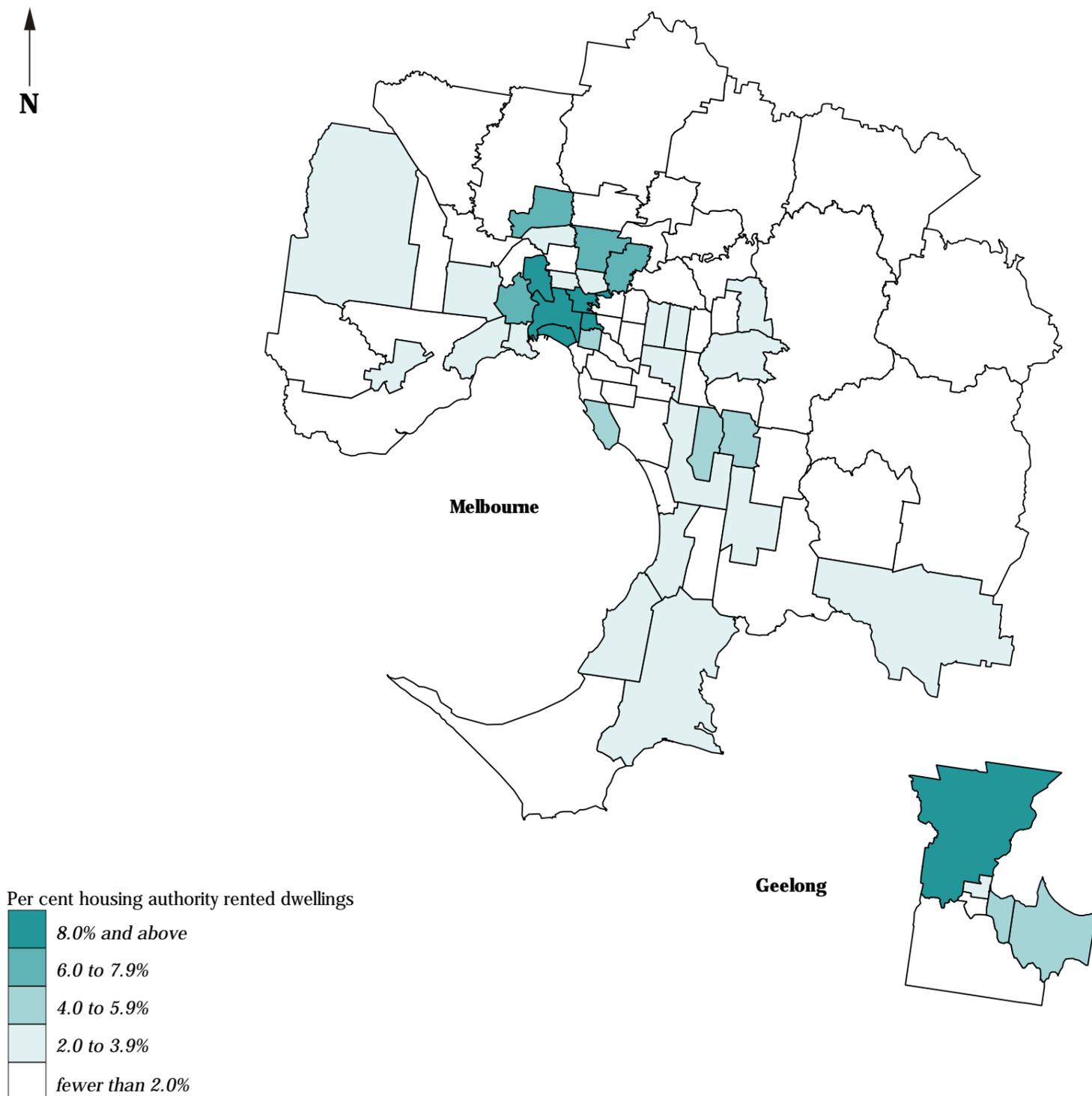
Between 1986 and 1991, the number housing of authority dwellings rented in **Geelong** increased by 12.3 per cent to 3,018. This was followed by a decline to 2,752 dwellings in 1996, 5.0 per cent of all occupied private dwellings in **Geelong**. This was considerably higher than the 2.9 per cent in **Melbourne**.

The SLAs of Corio Inner (with 9.1 per cent of dwellings in this category), Geelong (5.0 per cent) and Bellarine Inner (4.8 per cent) had 2,262 rental dwellings between them, over 80 per cent of these dwellings in **Geelong**.

Map 3.24

Dwellings rented from the State housing authority, Melbourne and Geelong, 1996

as a percentage of all occupied private dwellings* in each Statistical Local Area



*Includes all privately owned, occupied, dwellings and private rented dwellings. Excludes institutions, motels, guest houses etc and caravans in parks

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

Dwellings rented from the State housing authority, 1996

State/Territory comparison

The Census collects data on dwellings rented from the State and Territory housing authorities (in Victoria it is the Office of Housing): in this analysis, rented dwellings are expressed as a proportion of all occupied private dwellings. (Note: Private dwellings exclude special dwellings such as hotels and boarding houses.) In 1996, the Northern Territory had the highest proportion of housing authority rented dwellings outside the capital cities (**Table 3.31**). The lowest levels were recorded in the non-metropolitan areas of Queensland and Victoria. With the exception of Queensland, these rental dwellings declined as a proportion of all occupied private dwellings in all non-metropolitan areas between 1986 and 1996.

At the 1996 Census 15,711 dwellings in non-metropolitan Victoria were rented from the Victorian Housing Authority, 3.9 per cent of all occupied private dwellings. In 1986, the proportion of dwellings rented from the State housing authority was 4.5 per cent, and this level increased to 4.9 per cent in 1991 before falling to the 1996 level of 3.9 per cent.

Table 3.31: Dwellings rented from the State housing authority, State/Territory
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	5.5	2.9	4.8	9.7	4.6	8.3	15.8	9.7 ²	5.3
Other major urban centres ³	7.3	5.0	3.3	..	..	..	..	..	5.5
Rest of State/Territory	4.3	3.9	2.9	9.0	5.7	6.2	10.5	— ⁴	4.6
Whole of State/Territory	5.4	3.2	3.8	9.5	4.9	7.1	13.0	10.1	5.1
1986									
Rest of State/Territory	4.9	4.5	1.7	12.4	7.5	6.9	13.4	— ⁴	5.1

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

In 1996, there were 15,711 dwellings in the non-metropolitan areas of Victoria rented from the State housing authority, 3.9 per cent of all occupied private dwellings.

The highest proportions of dwellings rented from the State housing authority were scattered throughout Victoria with higher proportions in the towns mapped (**Map 3.25**).

The seven SLAs with the highest percentages were Swan Hill (with 8.9 per cent of all occupied private dwellings in this category), Echuca and Wodonga (both with 8.7 per cent), Morwell (8.4 per cent), Benalla and Portland (both with 8.1 per cent) and Moe (8.0 per cent). These locations are characterised by mining, agricultural and decentralised manufacturing activity, and State housing has often been provided as an inducement for a workforce to locate to the region. However, as noted on the previous text page, those living in these dwellings also include significant proportions of socioeconomically disadvantaged populations. These seven SLAs, representing six percent of Victoria's non-metropolitan SLAs, contained 3,403 housing authority rental dwellings, 21.7 per cent of all non-metropolitan dwellings. The largest number of State housing authority rented dwellings was in Shepparton, with 962 such dwellings, Wodonga (901), Mildura (785) and Morwell (705).

Large country towns also had sizeable concentrations of dwellings rented from the State housing authority, with 1,524 of these dwellings in Ballarat, 1,172 in Bendigo and 619 in Warrnambool.

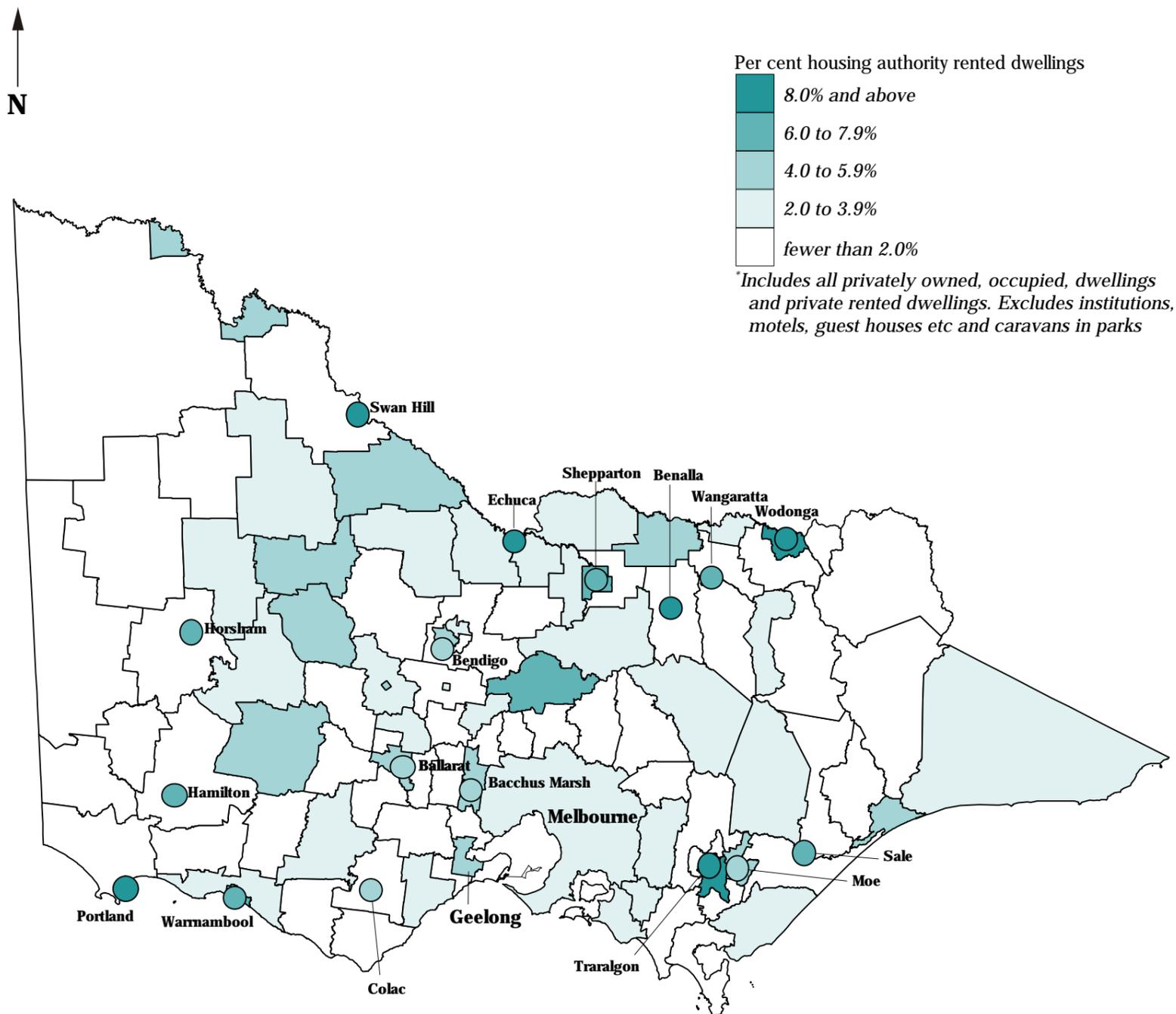
The lowest percentages of these dwellings were recorded in Surf Coast East (0.1 per cent) and Golden Plains South-East (0.2 per cent) and represented just 5 and 4 dwellings respectively. SLAs with proportions below 1.0 per cent also included Bendigo [Part B] and Geelong [Part B] (both with 0.6 per cent). Eleven non-metropolitan SLAs had no housing authority dwellings.

There were correlations with a number of indicators of socioeconomic disadvantage, including correlations of substantial significance with the variables for dwellings with no motor vehicle (0.80) and single parent families (0.73). An inverse correlation of meaningful significance was recorded with the variable for managers and administrators, and professionals (-0.62). These results, together with the inverse correlation of meaningful significance with the IRSD (-0.57), indicate an association at the SLA level between the distribution of these dwellings and areas comprising the most disadvantaged populations.

Map 3.25

Dwellings rented from the State housing authority, Victoria, 1996

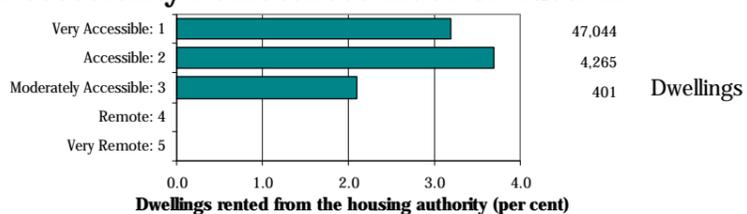
as a percentage of all occupied private dwellings* in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



The majority (91.0 per cent) of dwellings rented from the State housing authority are in the Very Accessible category. However, the highest proportion (and second largest number) is in the Accessible category, where they represent 3.7 per cent of all occupied private dwellings. The second highest proportion is in the Very Accessible category (3.2 per cent) and the lowest is in the Moderately Accessible category (2.1 per cent).

Source: Calculated on ARIA classification, DHAC

National Social Health Atlas Project, 1999

Dwellings with no motor vehicle, 1996

Capital city comparison

People living in households without cars face many disadvantages in gaining access to jobs, services and recreation, especially if they are in low-density outer suburbia. In 1996, 11.2 per cent of all occupied private dwellings in **Melbourne** had no motor vehicles parked or garaged overnight (**Table 3.32**), among the lowest percentages for the capital cities. **Sydney** (15.4 per cent) was the only capital city to record a percentage above the average for this variable, with the next highest in **Adelaide**, which also had 12.5 per cent. The lowest percentages were recorded in **Canberra** (8.6 per cent) and in **Perth** (9.5 per cent).

Comparisons with 1986 data show that, on average, there has been a decline in the proportion of dwellings without motor vehicles in the capital cities in the ten years to 1996. However, although the *All capitals* figure fell from 13.8 per cent in 1986 to 12.5 per cent in 1996, and a decrease was recorded for all capital cities except **Darwin** and **Canberra** (increases of 1.0 and 1.1 percentage points respectively), the absolute number of dwellings with no motor vehicle increased.

Table 3.32: Dwellings with no motor vehicle, capital cities
Per cent

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	15.4	11.2	11.6	12.5	9.5	12.2	10.2	8.8	12.5
1986	16.8	12.7	12.9	13.2	10.6	13.4	9.2	7.7	13.8

¹Includes Queanbeyan (C)

Source: ABS special data services

Melbourne

In a country of relatively high rates of ownership of motor vehicles, **Melbourne** has one of the highest overall rates, with just 11.2 per cent of dwellings not having a motor vehicle parked or garaged overnight at the 1996 census.

Within **Melbourne**, the distribution of households without a motor vehicle was largely limited to inner, middle and bayside SLAs (**Map 3.26**). The highest proportions of dwellings without a motor vehicle were in the City of Melbourne (28.2 per cent), Richmond (27.4 per cent), St Kilda (24.9 per cent), Yarra North (22.8 per cent), Maribyrnong (22.5 per cent), Brunswick and Prahran (both 22.3 per cent), Northcote (20.5 per cent) and Port Phillip (West) (20.4 per cent).

The other striking feature of **Map 3.26** is the widespread distribution of dwellings with high vehicle ownership. In almost two thirds (63.0 per cent) of metropolitan SLAs, the proportion of dwellings without a motor vehicle was less than 10 per cent. In other words, motor vehicle ownership in these SLAs was very high. The seven SLAs with proportions of 2.5 per cent or less were evenly distributed between lower socioeconomic areas to the north-west and west of the city in the SLAs of Wyndham North-West (no dwellings without a motor vehicle), Melton East (2.2 per cent) and Craigieburn (2.3 per cent), and higher socioeconomic areas situated in the Yarra Valley and to the city's east in the SLAs of Manningham East (1.8 per cent), Nillumbik South-West (1.9 per cent), Nillumbik Balance (2.3 per cent) and Knox South (2.4 per cent).

There were more than 5,000 dwellings without a vehicle in St Kilda (5,976 dwellings), Maribyrnong (5,152) and Essendon (5,090). Relatively large numbers of dwellings without a motor vehicle were also recorded in Preston (4,985 dwellings), Caulfield (4,872), Prahran (4,641) and Melbourne (4,529).

There was a correlation of substantial significance with the variable for people who were born in predominantly non-English speaking countries and had been resident for more than five years (0.72), indicating that this population group has low levels of access to a motor vehicle. Correlations of meaningful significance were recorded with the variables for dwellings rented from the State housing authority (0.69), people with poor proficiency in English (0.58), low income families (0.51) and unemployed people (0.53). These results, together with the weak inverse correlation with the IRSD (-0.30), suggest an association at the SLA level between the distribution of these dwellings and socioeconomic disadvantage.

Geelong

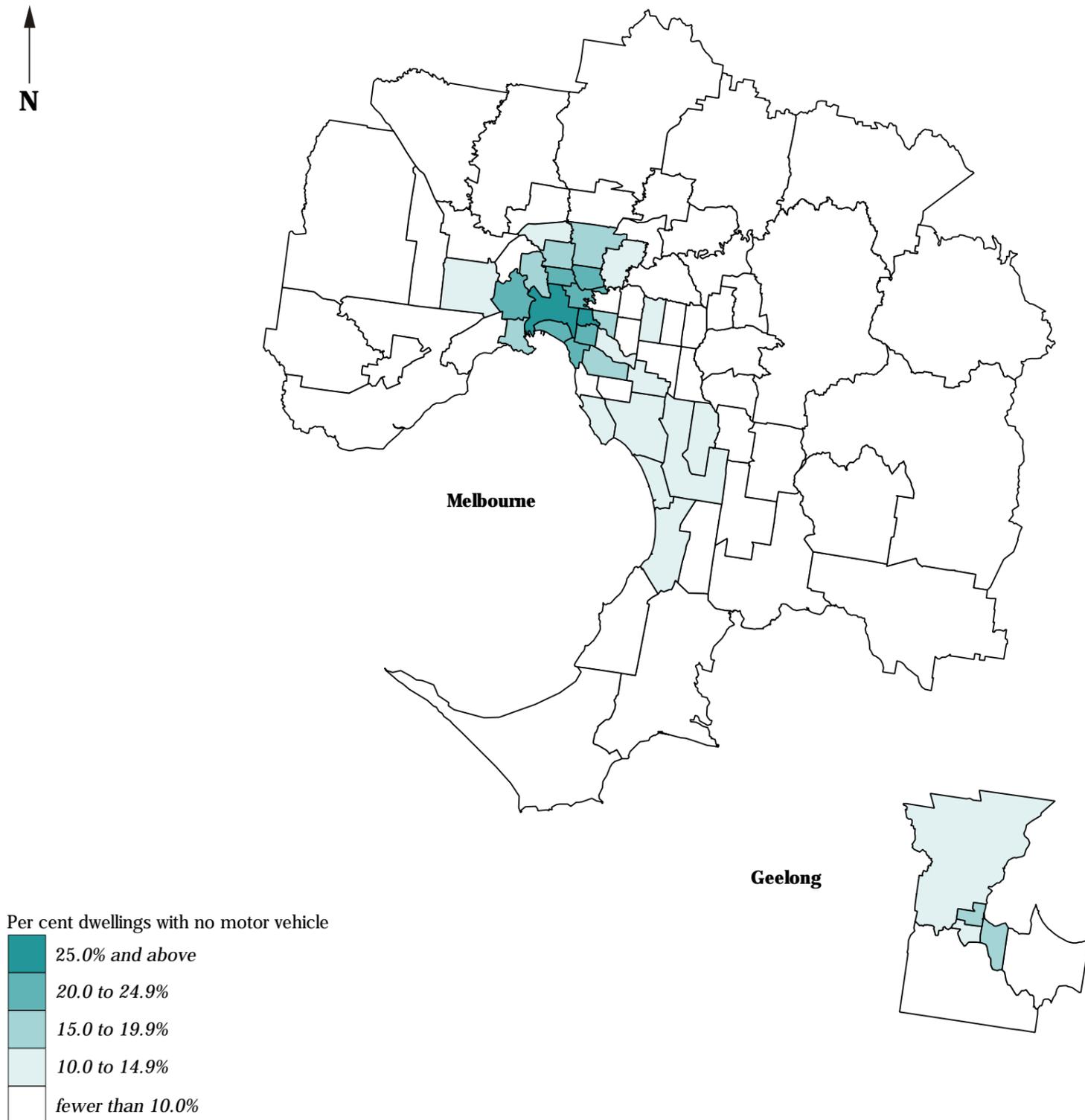
In **Geelong**, the proportion of dwellings with no motor vehicles decreased marginally between 1986 and 1996, from 12.1 per cent to 11.7 per cent (6,393 dwellings).

As in **Melbourne**, the highest proportions of dwellings with no motor vehicles were to be found in the inner SLAs of Geelong West (18.5 per cent) and the City of Geelong (17.7 per cent). Newtown and Corio Inner each had 12 per cent of dwellings without a motor vehicle, and Bellarine Inner and South Barwon Inner had 8.1 and 7.9 per cent respectively.

Map 3.26

Dwellings with no motor vehicle, Melbourne and Geelong, 1996

as a percentage of all occupied private dwellings* in each Statistical Local Area



*Includes all privately owned, occupied, dwellings and private rented dwellings. Excludes institutions, motels, guest houses etc and caravans in parks

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

Dwellings with no motor vehicle, 1996

State/Territory comparison

The phenomenon of higher car ownership in non-metropolitan relative to urban areas was apparent within all the States and Territories other than the Northern Territory. Rates varied considerably across the nation, from 7.8 per cent of occupied private dwellings with no motor vehicle in Western Australia to 18.3 per cent in the Northern Territory, with most States and Territories recording between 8 and 10 per cent (**Table 3.33**). The Northern Territory had the highest percentages for both the *Rest of State* and *Whole of State/Territory* categories, ahead of New South Wales.

Victoria had one of the lowest non-metropolitan percentages, and its proportions of dwellings without a motor vehicle are lower than the national average for each of the spatial categories shown in **Table 3.33**.

Table 3.33: Dwellings with no motor vehicle, State/Territory
Per cent

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	15.4	11.2	11.6	12.5	9.5	12.2	10.2	8.8 ²	12.5
Other major urban centres ³	13.8	11.7	10.8	..	..	..	..	..	12.4
Rest of State/Territory	10.7	8.3	9.8	8.2	7.8	9.5	18.3	— ⁴	9.6
Whole of State/Territory	14.0	10.5	10.7	11.4	9.0	10.7	14.4	8.5	11.6
1986									
Rest of State/Territory	10.6	8.6	9.7	8.1	8.1	10.2	19.8	— ⁴	9.6

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Rest of State

In the non-metropolitan areas of Victoria as a whole, only 8.3 per cent of dwellings were without motor vehicles in 1996, compared with 11.2 per cent in **Melbourne** (**Table 3.33**).

High levels of car ownership are to be expected, given the long distances many people must travel for social interaction, to gain access to services and facilities, and in connection with employment.

The highest concentrations of dwellings with no motor vehicles are in the towns, which tend to be concentrated in four main regions in Victoria: the La Trobe Valley, the Western Districts, the River Murray and the Ballarat/Bendigo area (**Map 3.27**). Within these regions there were 19 towns with more than 10 per cent of dwellings with no motor vehicle.

The highest proportions of dwellings without a motor vehicle were in Moe (13.6 per cent), Maryborough (13.4 per cent), Bendigo (12.0 per cent), Ballarat (11.1 per cent) and Castlemaine (13.1 per cent). These towns all had relatively high proportions of disadvantaged groups in their populations, including single parent families and unemployed people, groups with low levels of motor vehicle ownership.

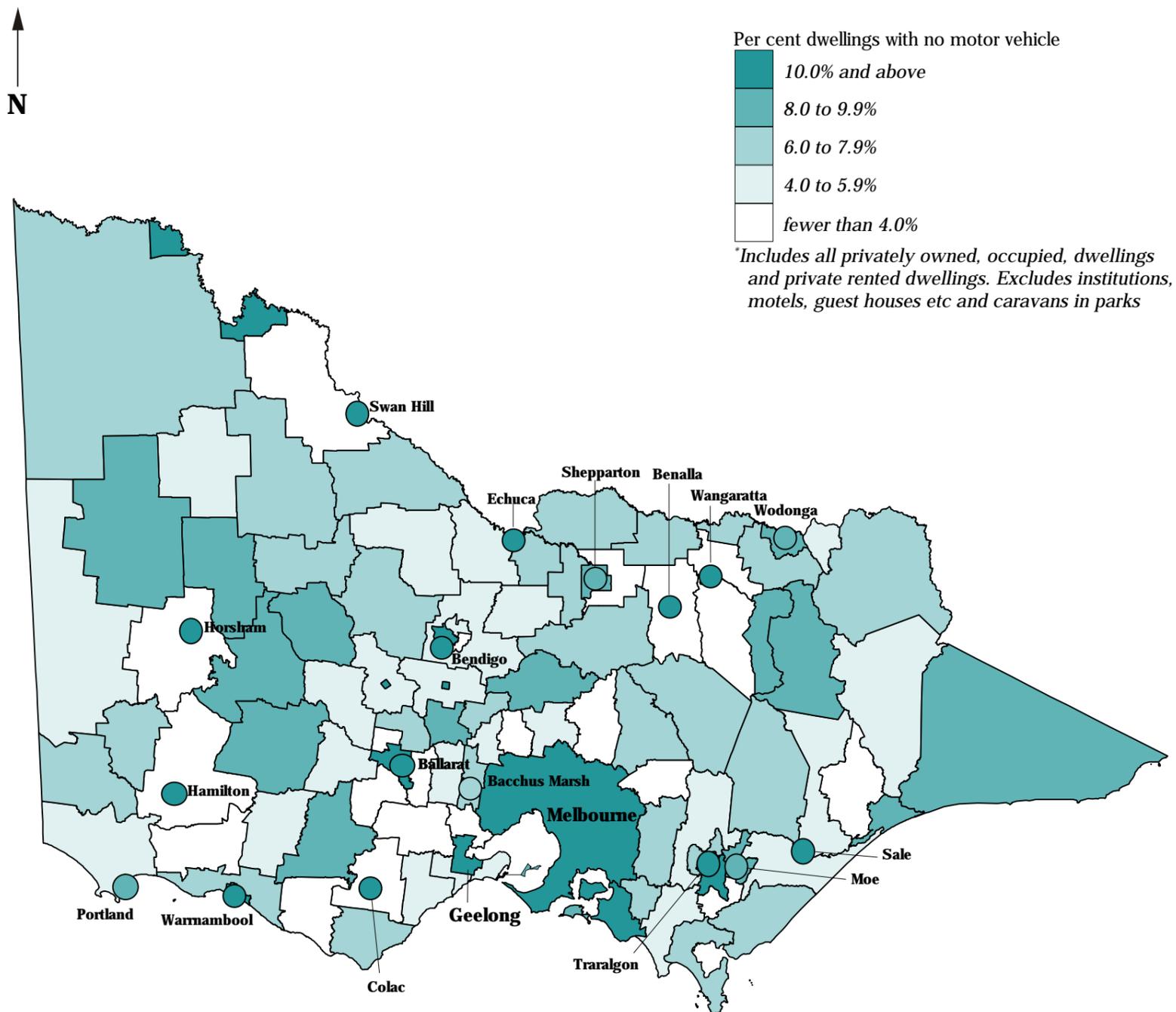
Of the remaining 105 SLAs in the rest of the State, one fifth had less than four per cent of dwellings without a motor vehicle and half had between four and eight per cent without a motor vehicle. Proportions below two per cent were recorded in La Trobe Balance and Shepparton East (both with 1.5 per cent), Ballarat North, Bendigo-Strathfieldsaye and Geelong [Part C] (all with 1.7 per cent) and in Yarra Ranges [Part B] (1.9 per cent).

There were correlations of substantial significance at the SLA level in Victoria with the variables for dwellings rented from the State housing authority (0.80) and single parent families (0.74). These results, together with the inverse correlation with the IRSD (-0.66), indicate an association at the SLA level between the distribution of dwellings without a motor vehicle and socioeconomic disadvantage.

Map 3.27

Dwellings with no motor vehicle, Victoria, 1996

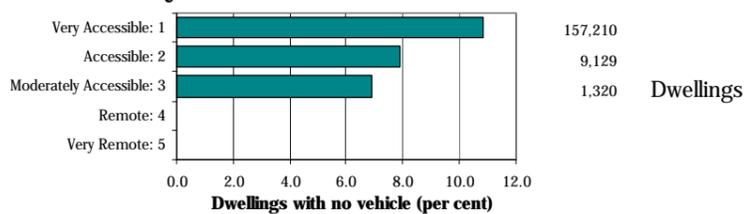
as a percentage of all occupied private dwellings* in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



The highest proportions of dwellings without a motor vehicle are in areas in the Very Accessible (10.8 per cent) ARIA category, dropping away to proportions of 7.9 per cent and 6.9 per cent in the Accessible and Moderately Accessible areas, respectively.

Source: Calculated on ARIA classification, DHAC National Social Health Atlas Project, 1999

SEIFA Index of Relative Socio-Economic Disadvantage, 1996

Capital city comparison (Australia equals 1000)

A description of the SEIFA Index of Relative Socio-Economic Disadvantage (IRSD), and comments as to its use in comparisons between Censuses, is provided on page 19. Briefly, the IRSD score measures the relative socioeconomic disadvantage of the population of an area in comparison with the average for Australia as a whole. High index scores indicate least disadvantage and low index scores indicate greater disadvantage. At the 1996 Census, **Canberra** had the highest IRSD score, of 1084, showing its population to have the least relative disadvantage, or highest socioeconomic status, and **Adelaide** the lowest, with 992, showing its population to have the most relative disadvantage, or lowest socioeconomic status (**Table 3.34**). Between 1986 and 1996, the IRSD scores in **Sydney**, **Perth** and **Darwin** all increased relative to the Australian score of 1000: scores for the other capital cities declined or remained relatively stable.

Table 3.34: SEIFA Index of Relative Socio-Economic Disadvantage, capital cities
Index values (Australia equals 1000)

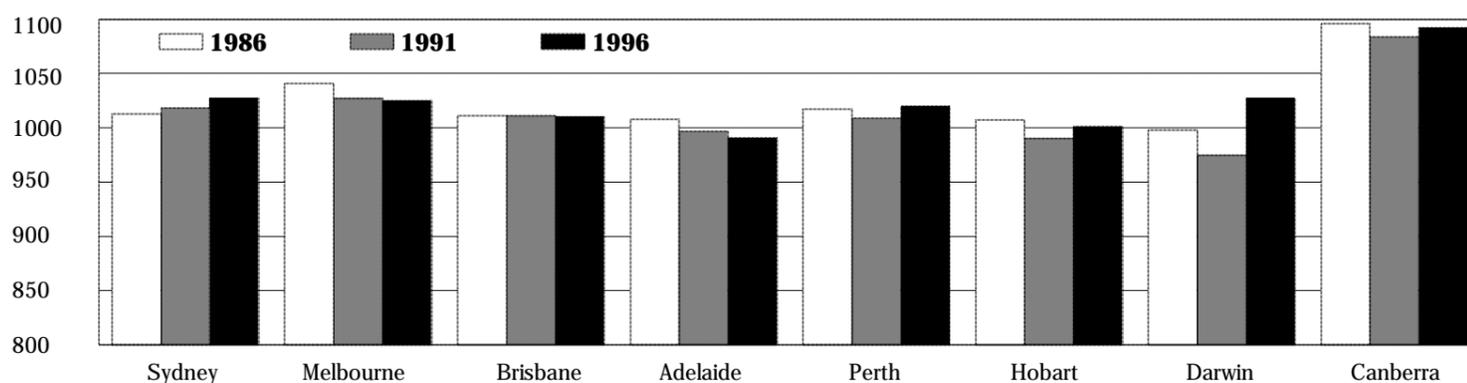
	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra ¹	All capitals
1996	1027	1025	1010	992	1020	1001	1027	1084	1021
1986	1013	1041	1011	1008	1017	1007	998	1089	1021

¹Includes Queanbeyan (C)

Source: ABS special data services

Figure 3.1 indicates the steady increase over each of the last three Censuses (1986, 1991, 1996) in the scores for **Sydney**; the steady decline for **Adelaide**; the stable situation in **Brisbane**; the slowing of the decline in **Melbourne**; and the turnaround experienced by the other capital cities, following a decline in index scores from 1986 to 1991. **Adelaide** had the lowest score of the capital cities for the first time in any of these three periods.

Figure 3.1: SEIFA Index of Relative Socio-Economic Disadvantage, capital cities



Source: ABS special data services

Melbourne (Victoria equals 1000)

At the 1996 Census the SEIFA Index of Relative Socio-Economic Disadvantage (IRSD) score for **Melbourne** was 1010 (when the index score for Victoria was 1000).

The overall pattern of distribution within **Melbourne** indicated that the least disadvantaged areas in 1996 included the bayside, eastern and Yarra Valley SLAs, while the most disadvantaged areas were located in the Broadmeadows, Sunshine, Preston, Maribyrnong and Dandenong areas (**Map 3.28**).

Eight SLAs had IRSD scores of more than 1100, with the highest in Manningham East and Kew (both with 1119), Brighton and Camberwell South (both with 1120) and Nillumbik South (1122), confirming the relatively high socioeconomic status of these areas.

The lowest IRSD scores, indicating the most disadvantaged areas, were those in Sunshine (888) and Maribyrnong (875).

Relatively low scores were recorded for the SLAs of Dandenong (910), Dandenong Balance (905), Preston (904) and Broadmeadows (903).

The IRSD was, understandably, highly correlated with many of the individual variables mapped, including those for unemployed people (-0.90), low income families (-0.88), unskilled and semi-skilled workers (-0.80) and early school leavers (-0.74). These correlations indicate a positive association at the SLA level between this aggregate measure of socioeconomic disadvantage and the individual indicators analysed.

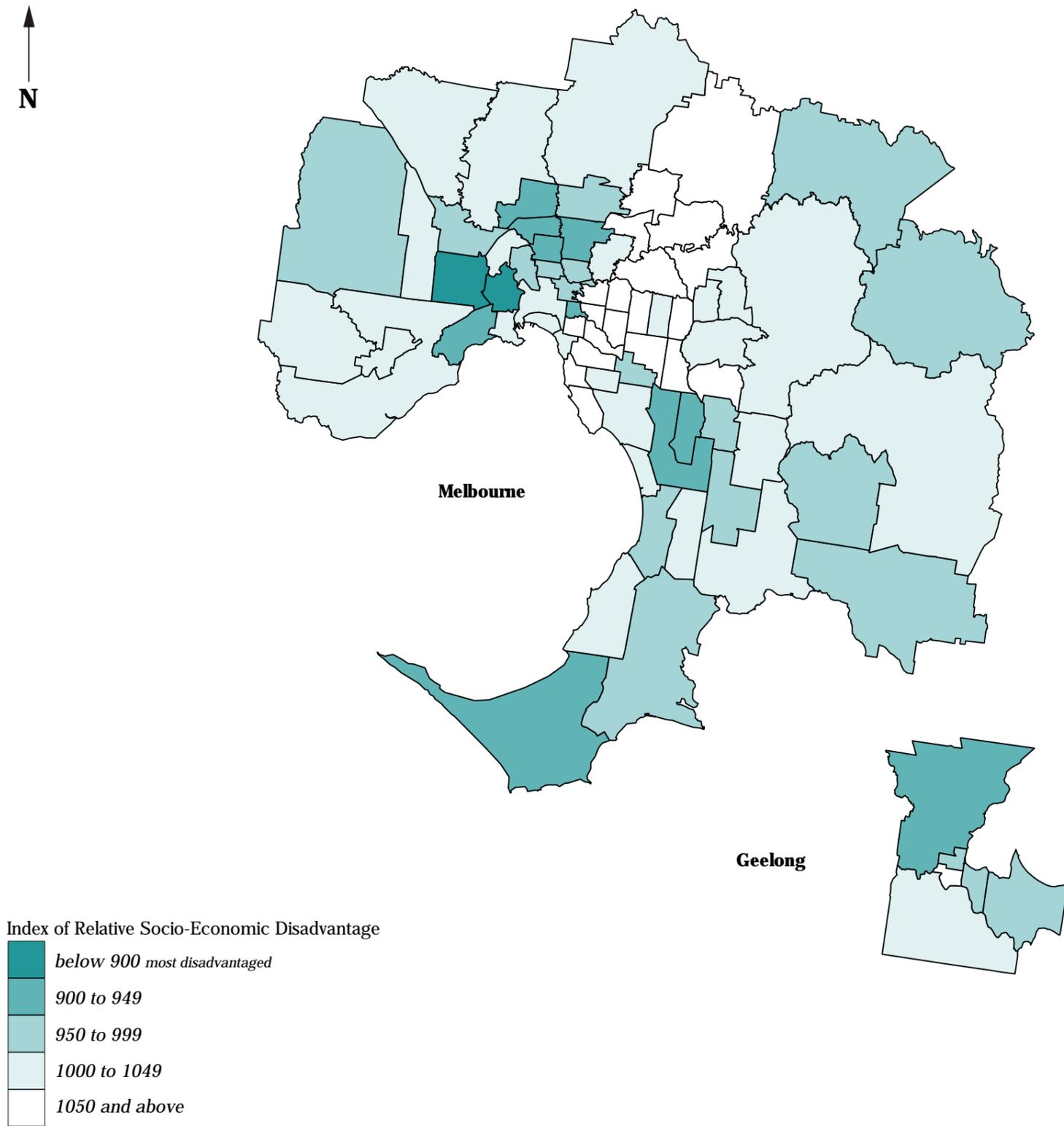
Geelong

The IRSD for Geelong in 1996 was 965. The highest index score was that calculated for Newtown (1058), while South Barwon Inner (1035) was the only other SLA with an index score greater than 1000. The lowest index score was that for Corio Inner (904).

Map 3.28

ABS Index of Relative Socio-Economic Disadvantage, Melbourne and Geelong, 1996

IRSD index number for each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2
National Social Health Atlas Project, 1999

SEIFA Index of Relative Socio-Economic Disadvantage, 1996

State/Territory comparison (Australia equals 1000)

A description of the SEIFA Index of Relative Socio-Economic Disadvantage (IRSD), and comments as to its use in comparisons between Censuses, is provided on page 19. The *Whole of State/Territory* index scores ranged from a low of 962 in the Northern Territory to a high of 1091 in the Australian Capital Territory. Between 1986 and 1996 index scores for the non-metropolitan areas of Australia declined for each State and the Northern Territory (Table 3.35), although the score in Western Australia was almost stable.

Table 3.35: SEIFA Index of Relative Socio-Economic Disadvantage, State/Territory
Index values (Australia equals 1000)

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Total ¹
1996									
Capital city	1027	1025	1010	992	1020	1001	1027	1084	1021
Other major urban centres	973	980	985	..	..	..	..	..	978
Rest of State/Territory	973	995	965	963	970	955	909	- ⁴	972
Whole of State/Territory	1007	1016	989	984	1006	974	962	1091	1000
1986									
Rest of State/Territory	981	1026	972	986	971	988	917	- ⁴	999

¹Total for *Whole of State/Territory* includes 'Other Territories' (Jervis Bay, Christmas Island and Cocos Islands)

²Includes Queanbeyan (C)

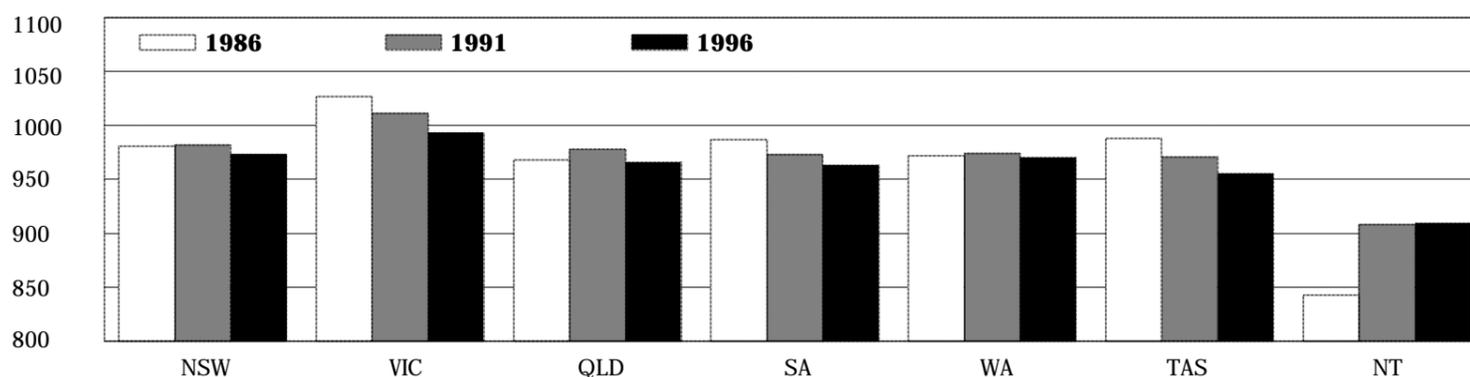
³Includes Newcastle and Wollongong (NSW); Geelong (Vic); and Gold Coast-Tweed Heads and Townsville-Thuringowa (Qld)

⁴Data included with ACT total

Source: ABS special data services

Figure 3.2 indicates the steady decline over the last three Censuses (1986, 1991, 1996) in the scores for the non-metropolitan areas of Victoria, South Australia and Tasmania and the marked increase in the Northern Territory (although remaining as the lowest score); and the small decline experienced by the non-metropolitan areas of New South Wales, Queensland and Western Australia, following the increase from 1986 to 1991.

Figure 3.2: SEIFA Index of Relative Socio-Economic Disadvantage, Rest of State/Territory



Source: ABS SEIFA86, SEIFA91, SEIFA96

Rest of State (Victoria equals 1000)

At the 1996 Census, the non-metropolitan area of Victoria had an IRSD score of 980 (when the index score for Victoria was 1000). This was considerably lower than the score recorded in **Melbourne** (1010), indicating a greater degree of disadvantage in these non-metropolitan areas relative to the State as a whole.

The most disadvantaged areas, as measured by the IRSD, were in the contiguous areas of Maryborough (with an IRSD score of 907), Loddon South (923), Central Goldfields Balance (925) and Pyrenees North (936); in the La Trobe Valley in Moe (912) and Morwell (926), and further east in Orbost (938); and in Robinvale (936).

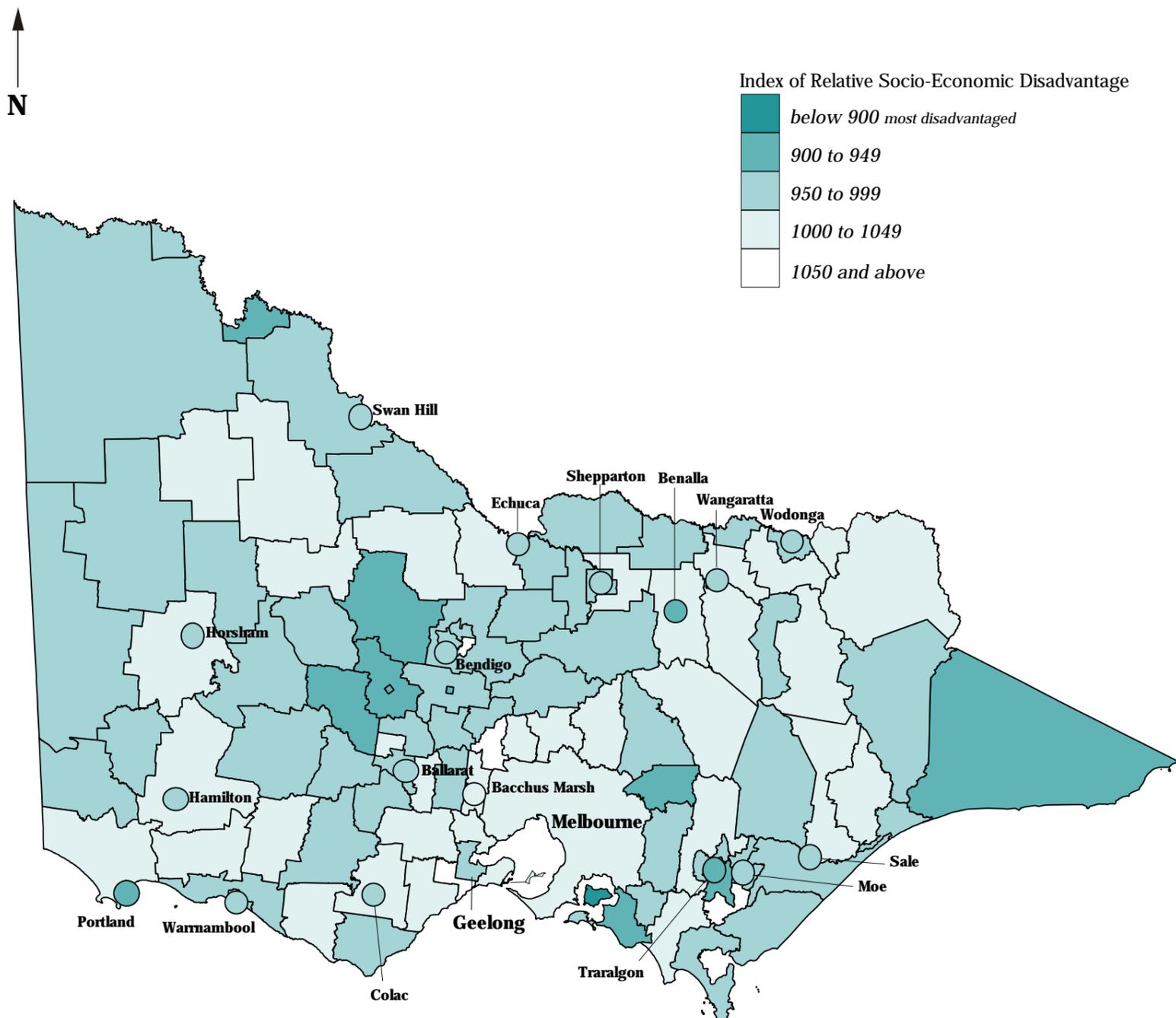
The highest index scores were in the rural SLAs of Macedon Ranges Balance (an IRSD score of 1070), La Trobe Balance (1060), Surf Coast East (1057) and Romsey (1049).

The IRSD was, understandably, highly correlated with many of the individual variables mapped, including those for low income families (-0.76), dwellings with no motor vehicle (-0.66), unemployed people (-0.64), early school leavers (-0.63), single parent families (-0.58) and public rental housing (-0.57). These correlations indicate a positive association at the SLA level between this aggregate measure of socioeconomic disadvantage and the individual indicators analysed.

Map 3.29

ABS Index of Relative Socio-Economic Disadvantage, Victoria, 1996

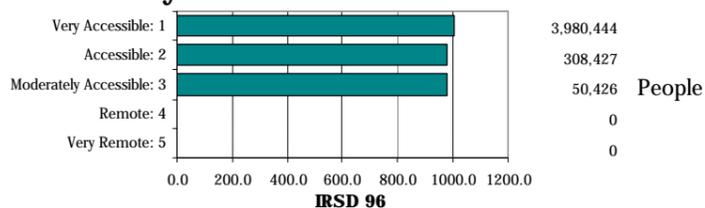
IRSD index number for each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

Accessibility/Remoteness Index of Australia



When calculated by ARIA category, the ABS Index of Relative Socio-Economic Disadvantage scores in Victoria cover a narrower range than the other States or the Northern Territory. The highest index score (indicating the most advantaged areas) is in the Very Accessible ARIA category (1003) and the lowest scores are in the Accessible (981) and Moderately Accessible (977) categories, respectively.

Source: Calculated on ARIA classification, DHAC National Social Health Atlas Project, 1999

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