

## 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 number of data variables from the 1996 Population Census have been mapped in this chapter to highlight variations in socioeconomic disadvantage at the small area level. The results of the correlation analysis, shown in Chapter 6, 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 deaths of males aged 15 to 24 years, or high rates of admissions to hospital for respiratory system diseases) and the indicators of socioeconomic disadvantage mapped in this chapter.

### Background

#### Population and distribution

In 1998, one third (33.4%) of South Australia's population was estimated to be aged 0 to 24 years (496,268 people; 254,582 males and 241,686 females).

This is a decline of 3.0% (15,164 people) since 1991, a trend which is expected to continue, with the population dropping to 31.1% of the total population in 2006 (475,900 people) and 29.3% (453,300 people) in 2021.

Of the 496,268 people aged from 0 to 24 years living in South Australia, almost three quarters (72.6%, 360,259) were residents of Adelaide (**Table 3.1**). The proportion of the population located in the metropolitan area in each of the five-year age groups ranged from 69.0% at ages 5 to 9 years to 79.6% at ages 20 to 24 years.

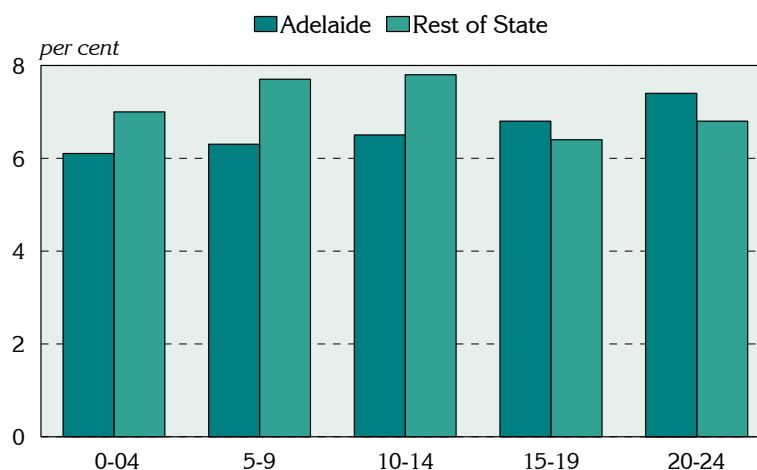
**Figure 3.1** shows the age profile of the South Australian population for each five-year age group from 0 to 24 years. In Adelaide, 6.1% of the population was aged 0 to 4 years, the proportion of the population over the next four age groups rose steadily, from 6.3% (5 to 9 years) to 7.4% (20 to 24 years). In the non-metropolitan areas, there were higher proportions of children aged from 0 to 14 years, with the highest proportion in the 10 to 14 year age group (7.8%). The proportion of the population decreased to 5.2% in the 20 to 24 age range.

**Table 3.1: Population distribution, by age and area of residence, South Australia, 1998**

Section of State	0-4	5-9	10-14	15-19	20-24	0-24	Total
<b>Adelaide</b>							
number	66,906	68,673	70,476	73,662	80,542	360,259	1,088,349
per cent (row)	6.1	6.3	6.5	6.8	7.4	33.1	100.0
per cent (column)	70.4	69.0	69.5	74.3	79.6	72.6	73.2
<b>Rest of State</b>							
number	28,071	30,868	30,984	25,444	20,642	136,009	398,945
per cent (row)	7.0	7.7	7.8	6.4	5.2	34.1	100.0
per cent (column)	29.6	31.0	30.5	25.7	20.4	27.4	26.8
<b>South Australia</b>							
number	94,977	99,541	101,460	99,106	101,184	496,268	1,487,294
per cent (row)	6.4	6.7	6.8	6.7	6.8	33.4	100.0
per cent (column)	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: *Estimated Resident Population, 1998, ABS Cat No. 3235.4*

**Figure 3.1: Population distribution, by age and area of residence, South Australia, 1998**



Source: *Estimated Resident Population, 1998, ABS Cat No. 3235.4*

Within Adelaide, the highest proportion of people aged 0 to 24 years was recorded in the Northern region, with 36.4% of the population in this age range (Table 3.2). The lowest proportion was recorded in the Western Subdivision (29.5%), followed by the Eastern Subdivision (30.9%).

In the Northern region, the population aged 0 to 24 years was evenly spread across each of the five year age groups analysed, with approximately 7% in each category. The proportion of the population in the Eastern region increased steadily, from 4.9% in the 0 to 4 year age group to 8.6% at ages 20 to 24 years.

Of the non-metropolitan regions, the Yorke and Lower North Region had the lowest proportion (30.2%) of people aged 0 to 24 years and the Northern Region had the highest (36.1%). The age profile was relatively consistent across the Subdivisions, with the highest proportions generally in the 5 to 14 year age groups, and the lowest among people aged 20 to 24 years.

**Table 3.2: Population distribution, by age and Region, South Australia, 1998**

Region		0-4	5-9	10-14	15-19	20-24	0-24	All ages
<b>Adelaide</b>								
Northern	- number	24,843	24,823	25,077	24,236	24,585	123,564	339,713
	per cent	7.3	7.3	7.4	7.1	7.2	36.4	100.0
Western	- number	11,801	11,446	11,037	12,142	15,412	61,838	209,786
	per cent	5.6	5.5	5.3	5.8	7.3	29.5	100.0
Eastern	- number	10,872	11,567	11,979	14,742	19,031	68,191	220,735
	per cent	4.9	5.2	5.4	6.7	8.6	30.9	100.0
Southern	- number	19,390	20,837	22,383	22,542	21,514	106,666	318,115
	per cent	6.1	6.6	7.0	7.1	6.8	33.5	100.0
<b>Rest of State</b>								
Outer Adelaide	- number	6,975	8,287	8,602	6,963	5,178	36,005	107,729
	per cent	6.5	7.7	8.0	6.5	4.8	33.4	100.0
Yorke and Lower North-	number	2,666	3,265	3,306	2,452	1,639	13,328	44,103
	per cent	6.0	7.4	7.5	5.6	3.7	30.2	100.0
Murray Lands	- number	4,937	5,187	5,090	4,258	3,657	23,129	68,450
	per cent	7.2	7.6	7.4	6.2	5.3	33.8	100.0
South East	- number	4,607	4,693	4,890	4,256	3,695	22,141	62,776
	per cent	7.3	7.5	7.8	6.8	5.9	35.3	100.0
Eyre	- number	2,434	2,629	2,696	2,123	1,624	11,506	32,968
	per cent	7.4	8.0	8.2	6.4	4.9	34.9	100.0
Northern	- number	6,452	6,807	6,400	5,392	4,849	29,900	82,919
	per cent	7.8	8.2	7.7	6.5	5.8	36.1	100.0

Source: *Estimated Resident Population, 1998, ABS Cat No. 3235.4*

## Geography

A detailed description of the social geography of Adelaide is contained in Chapter 3 of *A Social Health Atlas of South Australia, Second Edition* (Glover et al. 1996). That description by Dr Clive Forster provides a useful background for understanding the demographic context in which children and their families live, and child and youth services operate in South Australia.

It is important to note that Adelaide is characterised by great diversity between areas with respect to their socioeconomic characteristics. In relation to the 'young' population of Adelaide, it is particularly important to stress that the demographic characteristics of a suburb are strongly related to the stage in the life cycle of the suburb which it is currently experiencing (Hugo 1986). In terms of these divisions across the metropolitan area, categorisation into inner, middle and outer suburbs is a useful means of analysis.

The inner suburbs, comprising the City of Adelaide itself in addition to the inner ring of suburbs around the City, are quite youthful in terms of their age structure due to the influence of gentrification and to the availability of private rental accommodation. Often, although not always, these suburbs are the more affluent. The middle suburbs, those around five to fifteen kilometres from the CBD, are greatly diverse both in ethnic and socioeconomic terms. The outer, or fringe suburbs, have long been characterised by a youthful age structure, although changes in the life cycle of the suburbs have meant that the age structure is changing as families become older.

### Note

Throughout the commentaries, Adelaide's inner, middle and outer suburbs are defined by postcodes in and around the following Statistical Local Areas:

#### *Inner Suburbs*

Adelaide, Kensington and Norwood, St Peters, Prospect, Thebarton, Unley, Walkerville.

#### *Middle Suburbs*

Brighton, Burnside, Campbelltown, Enfield, Glenelg, Henley and Grange, Marion, Mitcham, Payneham, Port Adelaide, West Torrens, Woodville.

#### *Outer Suburbs*

East Torrens, Elizabeth, Gawler, Happy Valley, Munno Para, Noarlunga, Salisbury, Stirling, Tea Tree Gully, Willunga.

## Non-metropolitan South Australia

In 1998, just over one third (34.1%) of the non-metropolitan population was aged from 0 and 24 years (136,009 people).

South Australia's non-metropolitan areas face a number of issues which do not generally affect those living in metropolitan areas. Briefly, these include:

- a steady decline in employment in agricultural industries;
- problems of access and mobility in relation to education, health and welfare service provision;
- the loss of much of its skilled young potential populace, through migration to the city or other states in search of better employment and educational opportunities; and
- a high proportion of the Indigenous population (who have a range of health care needs which differ from those of the non-Indigenous population).

It is important to bear these factors, in addition to the earlier points regarding data interpretation, in mind when viewing the demographic maps of non-metropolitan South Australia.

## 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 and Torres Strait Islanders 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 3.3** shows the population of Indigenous South Australians over the ten-year period from 1986 to 1996. The number of people who identified themselves as Aboriginal people or Torres Strait Islanders increased by 6,153 people, from 14,291 at the 1986 Census to 20,444 at the 1996 Census (an increase of 43.1%).

Of the total increase, over half was recorded in Adelaide, an increase of 61.2% over the ten years. The increase in the non-metropolitan areas was weaker, at 30.6%.

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 Indigenous Australians have been increasingly

prepared to identify themselves as such on the Census form. The question remains as to what proportion of the actual population of Indigenous Australians these current levels of identification represent.

**Table 3.3: Population of Indigenous South Australians, 1986 to 1996**

	Adelaide	Rest of State	South Australia
<b>Numbers</b>			
1986	5,825	8,466	14,291
1991	6,948	9,284	16,232
1996	9,387	11,057	20,444
<b>Per cent change</b>			
1986 to 1991	19.3	9.7	13.6
1991 to 1996	35.1	19.1	25.9
1986 to 1996	61.2	30.6	43.1

Source: Calculated from unpublished data supplied by ABS special data services

### ABS SEIFA Index of Relative Socio-Economic Disadvantage

At each Census since the 1986 Census, the ABS has 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, 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 in 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 was calculated at the smallest geographic level for which data are available from population Censuses – the Census Collection District (CD) – and was then calculated for the larger areas in the atlas (postcodes, Statistical Local Areas and regions) by summing the population weighted scores at the CD level in each of the larger areas.

The IRSD is calculated to show the relativity of areas to the Australian average for the particular set of variables which it comprises. This average score is set at 1000. In this atlas, data mapped at the SLA level have been re-weighted so that South Australia is the average, with a State score of 1000. 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 the 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 118 to 121.

Given that the IRSD is presented in this way, statistically significant *inverse correlations* between the IRSD and other variables indicate a positive association between the distribution of those variables and the disadvantaged population at the postcode 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 children living in single parent families in Adelaide (page 46), there is an inverse correlation (-0.89) with the IRSD. Thus, at the

postcode level in Adelaide there is a strong *negative* association between high proportions of single parent families and high IRSD index scores. This can be restated as there being a strong *positive* association with socioeconomic disadvantage (ie. low index scores).

Readers should note that the IRSD has been calculated on the total population only, and is not available for specific age groups.

# Children aged 0 to 4 years, 1998

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## Adelaide

In 1998 there were estimated to be 66,906 children aged 0 to 4 years living in the Adelaide, comprising 6.1% of the total population. Over the period from 1991 to 1998, the number of children in this age group was estimated to have decreased by 1,781 children (2.6%).

The outer postcode areas at the metropolitan fringe generally contain the highest proportions of children aged 0 to 4 years (**Map 3.1**); postcodes recording the highest proportions included *Smithfield* (9.9%), *Angle Vale* (9.6%), *Salisbury* (9.6%), *Burton* (9.4%), *Golden Grove* (8.9%), *Parafield Gardens* (8.9%), *Elizabeth North* (8.8%), *Munno Para* and *Wynn Vale* (both 8.5%) in the north; *Maslin Beach* (9.7%), *Old Noarlunga* (9.0%), *Hackham* and *Aldinga* (both 8.6%) in the south; and *Summertown* (8.5%) in the Adelaide Hills.

Postcodes with relatively low proportions of children in the 0 to 4 year age group were located in the inner south-eastern and coastal areas of Adelaide. The lowest proportions were found in the west, in *West Lakes* and *West Lakes Shore* (both with 3.4%) and *Novar Gardens* (3.5%) and in the south-west in *Seacliff* (3.4%) and *Somerton Park* (3.6%).

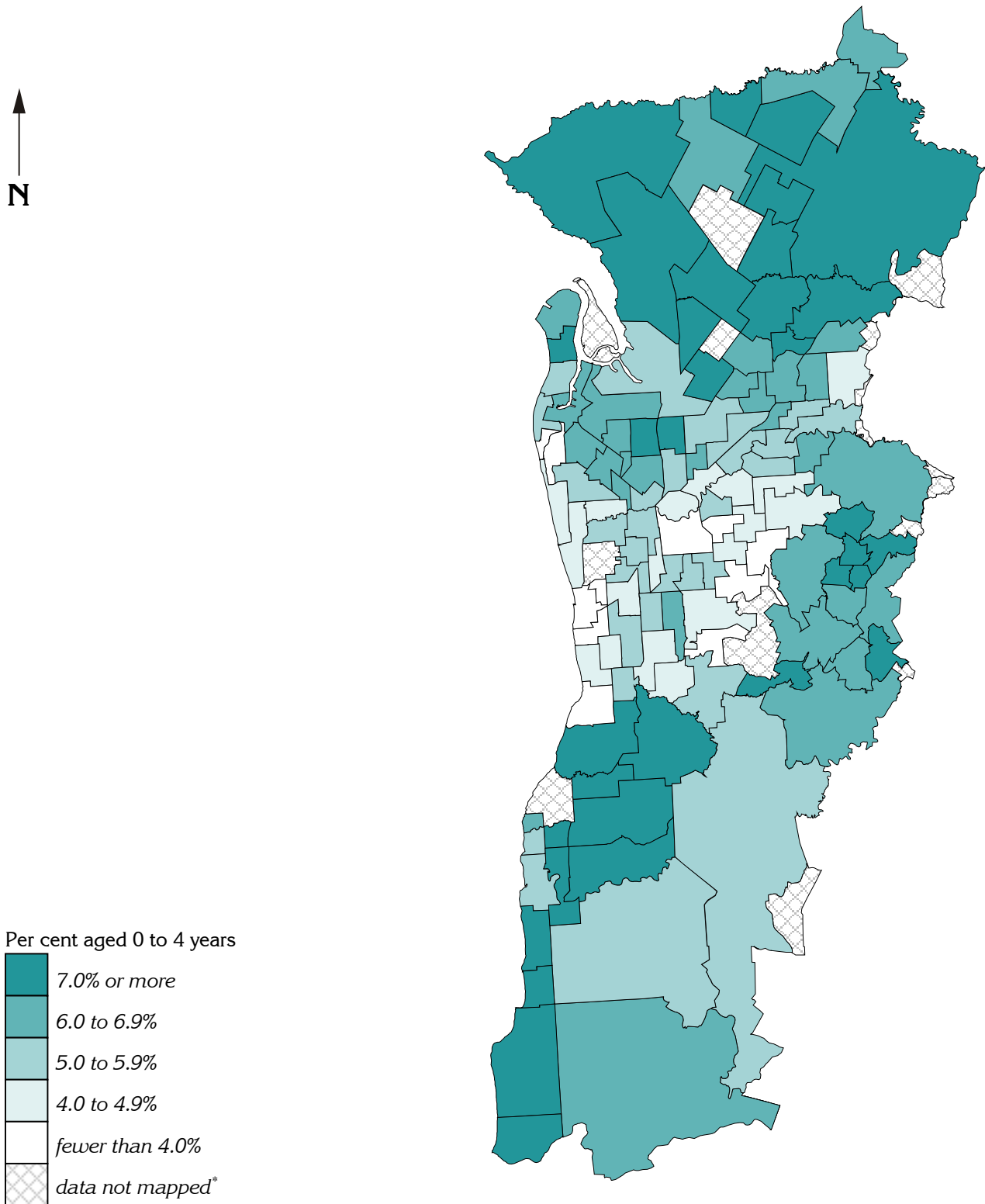
The largest numbers of children aged 0 to 4 years were generally found in postcode areas located in the outer north and south. These included *Salisbury* (3,654 children), *Smithfield* (1,947), *Elizabeth North* (1,689), *Salisbury East* (1,598), *Elizabeth* (1,580), *Golden Grove* (1,293), *Parafield Gardens* (1,158) and *Modbury North* (1,052) in the north; and, to the south, *Morphett Vale* (2,726), *Happy Valley* (2,270), *O'Halloran Hill* (1,754) and *Hackham* (1,226).

There was a correlation of meaningful significance at the postcode level with the variable for people who left school at age 15 years or earlier (0.56).

## Map 3.1

### Children aged 0 to 4 years, Adelaide, 1998

as a percentage of the total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2  
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## Children aged 0 to 4 years, 1998

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### Non-metropolitan South Australia

There were estimated to be 28,071 children aged from 0 to 4 years in the non-metropolitan areas of South Australia in 1998, 7.0% of the non-metropolitan population. This was slightly higher than the corresponding figure for the metropolitan population (6.1%). Between 1991 and 1998, the number of children in this age group fell by 1,616 children (a decline of 5.4%).

There was a fairly uniform distribution of 0 to 4 year olds across the State (**Map 3.2**), with high proportions in the SLAs of Roxby Downs (13.1%, 453 children), Elliston (10.0%), Unincorporated Far North (9.6%), Unincorporated Flinders Ranges (8.9%), Ceduna (8.6%), Unincorporated Riverland and Tatiara (both 8.5%), Southern Mallee (8.2%), Le Hunte (8.1%) and Streaky Bay (8.0%). The lowest proportions tended to be in SLAs located closer to the metropolitan area, with the lowest in Victor Harbor (4.7%), Alexandrina-Coastal and Yankalilla (both 5.3%) and Barossa-Tanunda (5.4%). Relatively low proportions were also found in Tumby Bay (5.1%) and Yorke Peninsula-South (5.3%).

The largest numbers of children were again in the settled areas, with 1,835 children in Whyalla, 1,816 in Mount Gambier, 1,282 in Murray Bridge, 1,096 in Port Augusta, 1,088 in Mount Barker-Central and 1,040 in Port Pirie-City.

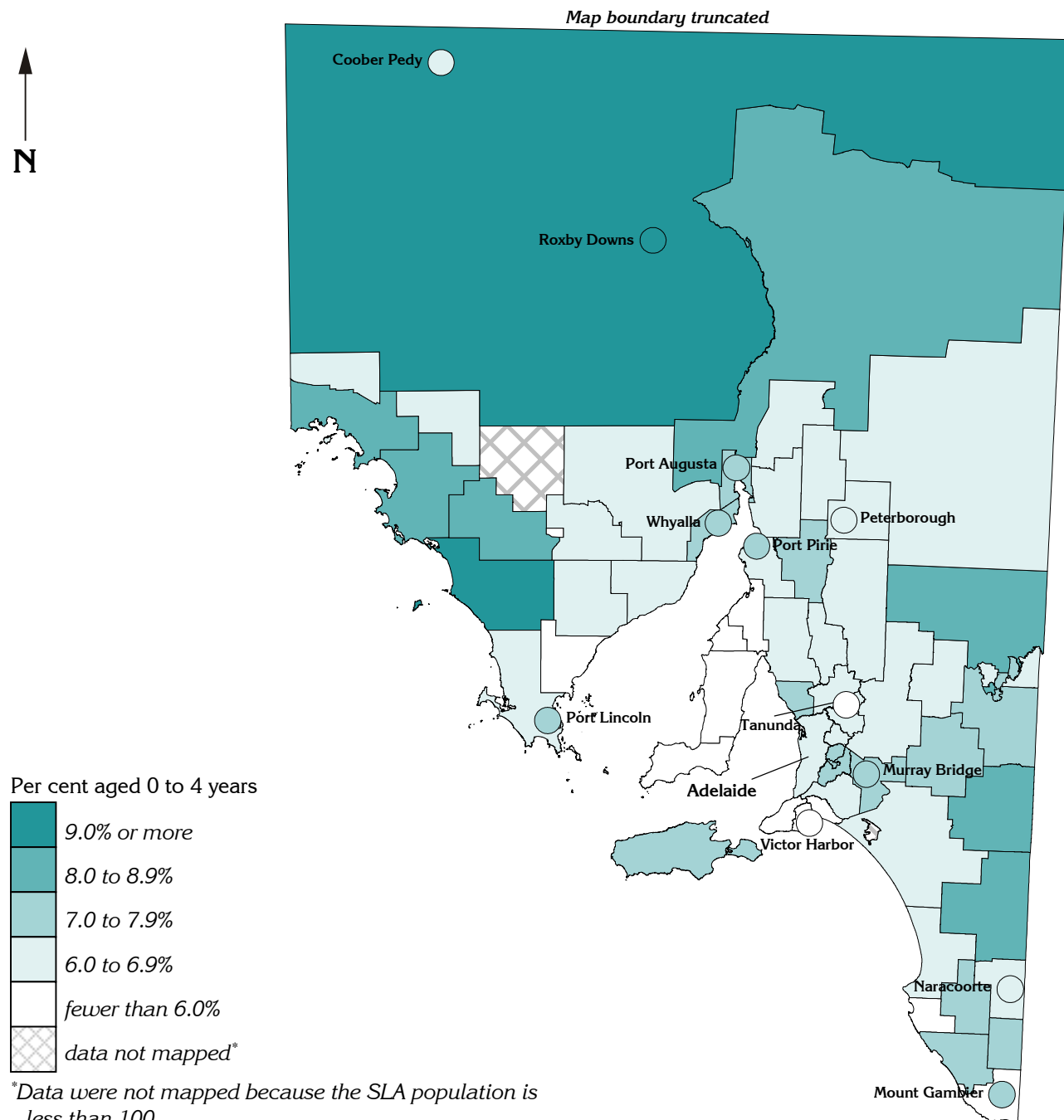
Correlations of meaningful significance at the SLA level were found with the variables for Indigenous people aged 0 to 14 years (0.55) and 15 to 24 years (0.51).



## Map 3.2

### Children aged 0 to 4 years, South Australia, 1998

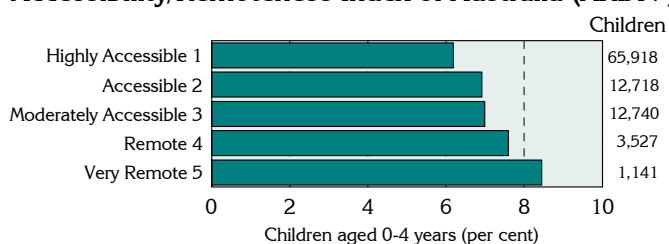
as a percentage of the total population in each Statistical Local Area



Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

#### Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of children aged 0 to 4 years shows a strong relationship with remoteness, increasing steadily across the ARIA+ classes from 6.2% in the Highly Accessible areas to 8.4% in the Very Remote areas. Conversely, the numbers of children drop rapidly across the remoteness classes.

Source: Calculated on ARIA+ classification

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## Children aged 5 to 9 years, 1998

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### Adelaide

In 1998, there were an estimated 68,673 children aged from 5 to 9 years living in Adelaide, 6.3% of the metropolitan population. The number of children in this age group is estimated to have fallen by 1,659 between 1991 and 1998, a decrease of 2.4%. The percentage of the total population in this age group also decreased marginally over the time period, from 6.8% in 1991 to 6.3% in 1998.

As noted for children aged 0 to 4 years, high proportions of the 5 to 9 year old population were recorded in the outer metropolitan fringe areas, particularly to the north and south, and to a lesser extent in the outer eastern hills postcode areas (**Map 3.3**). The highest proportions occurred in the northern postcodes of *Munno Para* (10.3%), *Smithfield* (10.2%), *Wynn Vale* (9.7%), *Angle Vale* (9.5%), *Burton* (9.4%) and *Parafield Gardens* (9.0%); in the south at *O'Halloran Hill* (9.4%) and *Old Noarlunga* (9.3%); and in the Adelaide Hills at *Summertown* (10.1%), *Stirling Forward* (covering *Heathfield* and *Mylor*, 9.4%) and *Uraidla* (9.1%).

The lowest proportions of this age cohort were largely in postcode areas in and around the city and to the south-west. They included *Adelaide* (with 0.9%), *North Adelaide* (2.3%), *Gepps Cross* (2.6%), *Norwood* (3.4%), *Novar Gardens* (3.9%), *Oaklands Park* and *Glenelg* (both 4.1%).

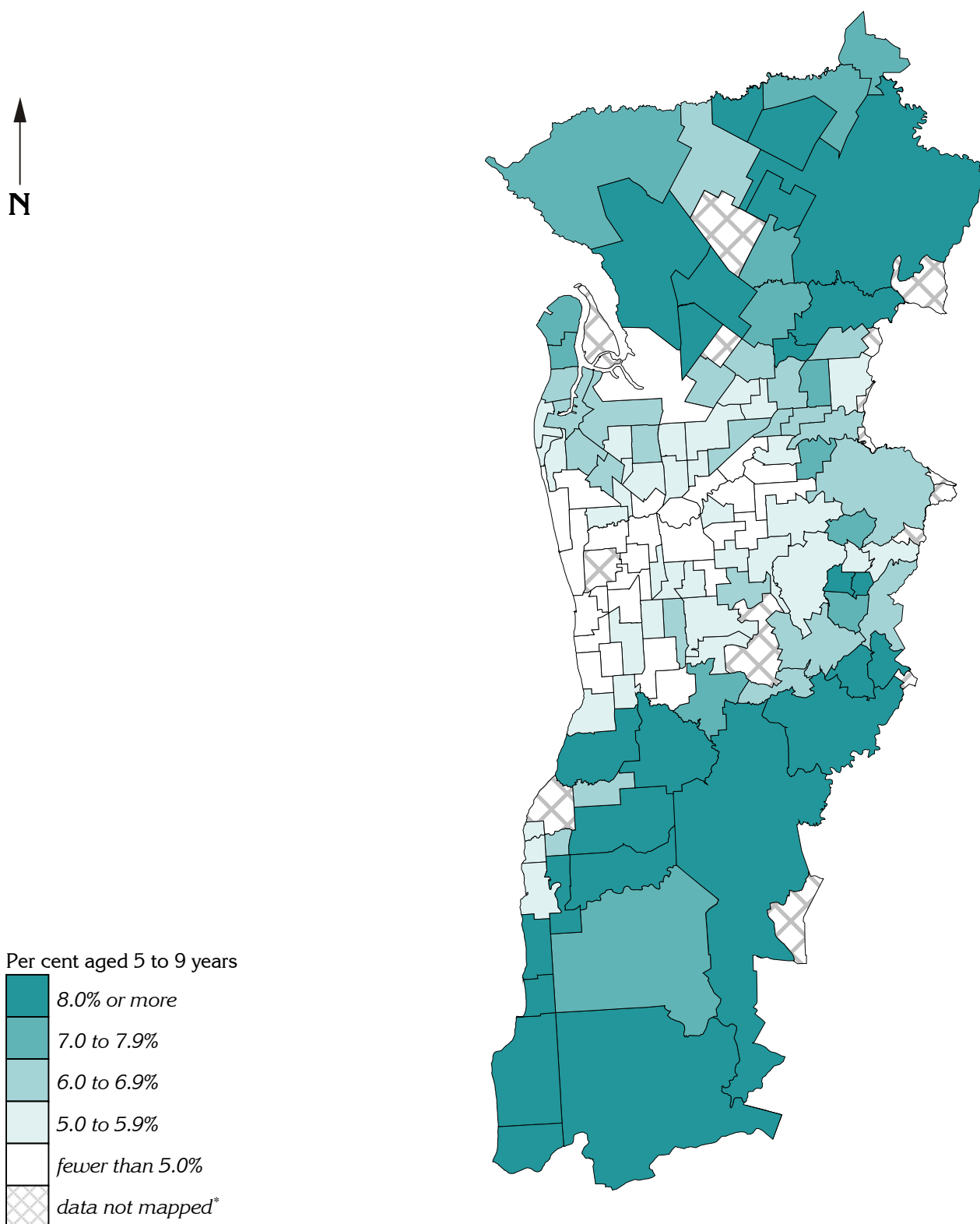
The largest numbers of 5 to 9 year olds were found in the outer suburban postcode areas of *Salisbury* (3,213 children), *Smithfield* (1,997), *Salisbury East* (1,686), *Elizabeth North* (1,584) and *Elizabeth* (1,433) in the north and *Morphett Vale* (2,701), *Happy Valley* (2,688) and *O'Halloran Hill* (2,012) in the south.

There was no consistent evidence in the correlation analysis of an association at the postcode level between high proportions of children aged 5 to 9 years and socioeconomic status.

## Map 3.3

### Children aged 5 to 9 years, Adelaide, 1998

as a percentage of the total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

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## Children aged 5 to 9 years, 1998

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### Non-metropolitan South Australia

In 1998, there were an estimated 30,868 children aged from 5 to 9 years living in the non-metropolitan areas of South Australia, comprising 7.7% of the non-metropolitan population. As for children aged 0 to 4 years, the non-metropolitan percentage of 5 to 9 year olds was higher than that in Adelaide. Between 1991 and 1998, the number of 5 to 9 year olds in the non-metropolitan areas of South Australia was estimated to have fallen by 764 children (2.4%).

The highest proportions of children aged from 5 to 9 years were in the northern and western parts of the State (**Map 3.4**). These were the SLAs of Roxby Downs (10.9%, 376 children), Unincorporated Far North (10.2%), Unincorporated Flinders Ranges (9.8%), Ceduna (9.7%), Lucindale (9.4%), Elliston (9.1%), Cleve and Flinders Ranges (both 9.0%).

Lower than average proportions were found in SLAs scattered throughout the State, with small concentrations in the Yorke Peninsula and Riverland areas. These included Unincorporated Whyalla (5.2%), Victor Harbor (5.8%), Yankalilla and Barossa-Angaston (both 6.5%).

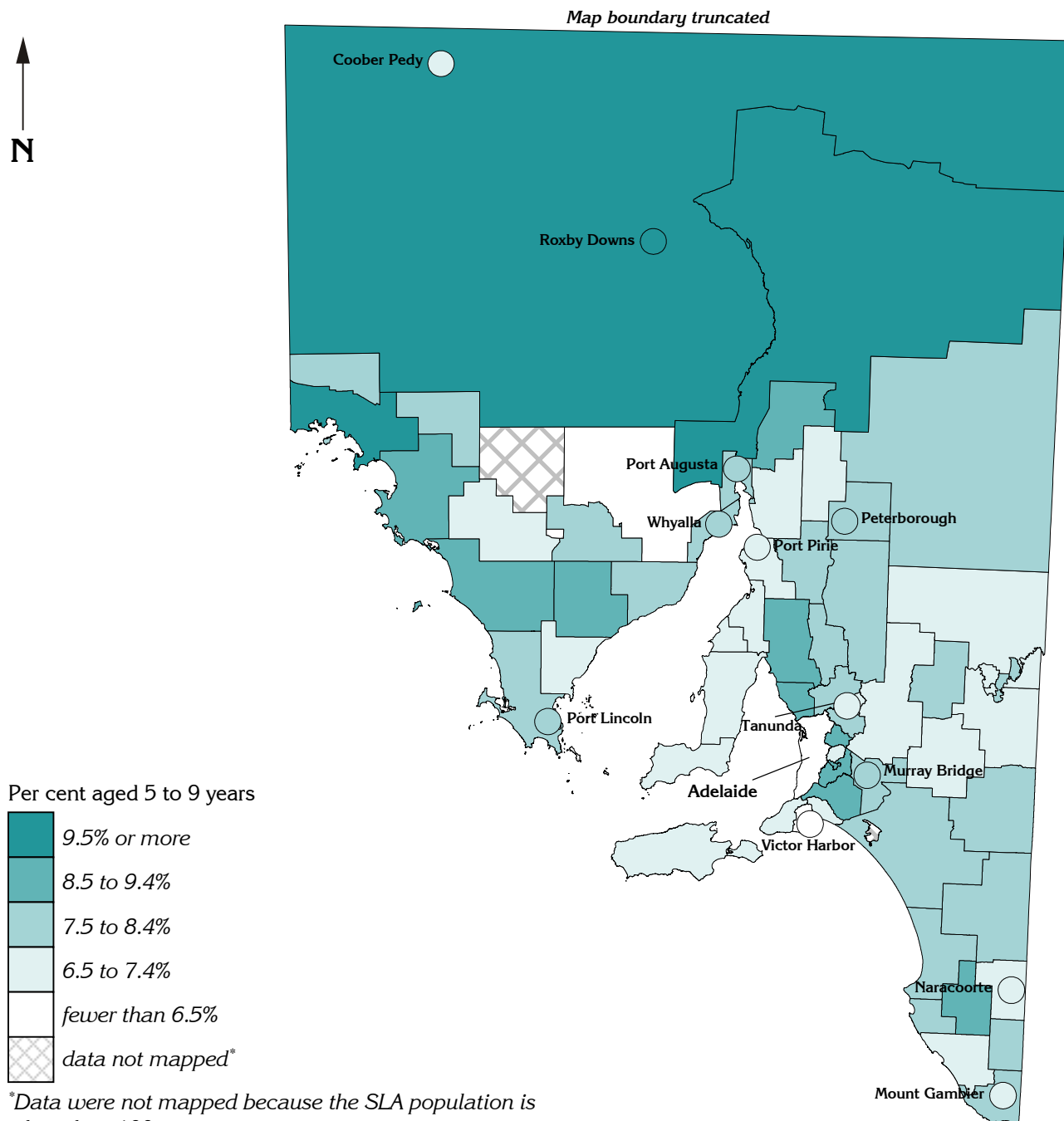
The largest numbers of children at these ages were estimated to live in the towns and settled areas of Whyalla (1,974 children), Mount Gambier (1,640), Mount Barker-Central and Murray Bridge (both 1,254), Port Augusta (1,180) and Port Pirie-City (1,041).

There was no consistent evidence in the correlation analysis of an association at the SLA level between high proportions of children aged 5 to 9 years and socioeconomic status.

# Map 3.4

## Children aged 5 to 9 years, South Australia, 1998

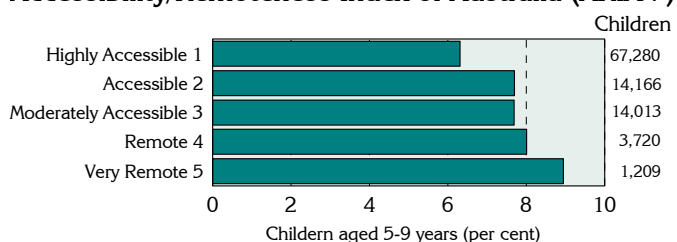
as a percentage of the total population in each Statistical Local Area



Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of children aged 5 to 9 years increases steadily with increasing remoteness, from 6.3% in the Highly Accessible ARIA+ areas to 8.0% in the Remote areas, before increasing to 8.9% in the Very Remote areas. The number of children at these ages drops markedly across the remoteness classes.

Source: Calculated on ARIA+ classification

## Children aged 10 to 14 years, 1998

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### Adelaide

In 1998, there were 70,476 children aged from 10 to 14 years living in Adelaide, comprising 6.5% of Adelaide's population. While this represents an increase of 1,705 children (2.5%) over the 1991 figure, their proportion of the total population decreased slightly, from 6.7% in 1991 to 6.5% in 1998.

The highest proportions of 10 to 14 year olds were located in Adelaide's outer suburbs, in a broad band to the north, south and east of the city (**Map 3.5**). This included the northern postcode areas of *Angle Vale* (11.0%), *MacDonald Park* (9.6%), *Wynn Vale* (9.6%), *Burton and Parafield Gardens* (both 9.3%) and *Smithfield* (9.1%); in the Adelaide Hills at *Piccadilly* (12.7%), *Montacute* (10.7%), *Norton Summit* (9.8%), *Upper Sturt* (9.4%), *Blackwood Forward* (including *Blackwood* and *Clarendon*, 9.3%) and *Aldgate* (9.0%); and in the south at *Maslin Beach* (9.9%), *Happy Valley* (9.7%), *Willunga* and *O'Halloran Hill* (both 9.3%).

Lower than average proportions were predominantly in postcode areas located in and around the city and to the south-west, in *Adelaide* (with 1.7%), *North Adelaide* (2.5%), *Gepps Cross* (2.8%), *Thebarton* (3.6%), *Norwood* (3.7%) and *Netley* (3.9%).

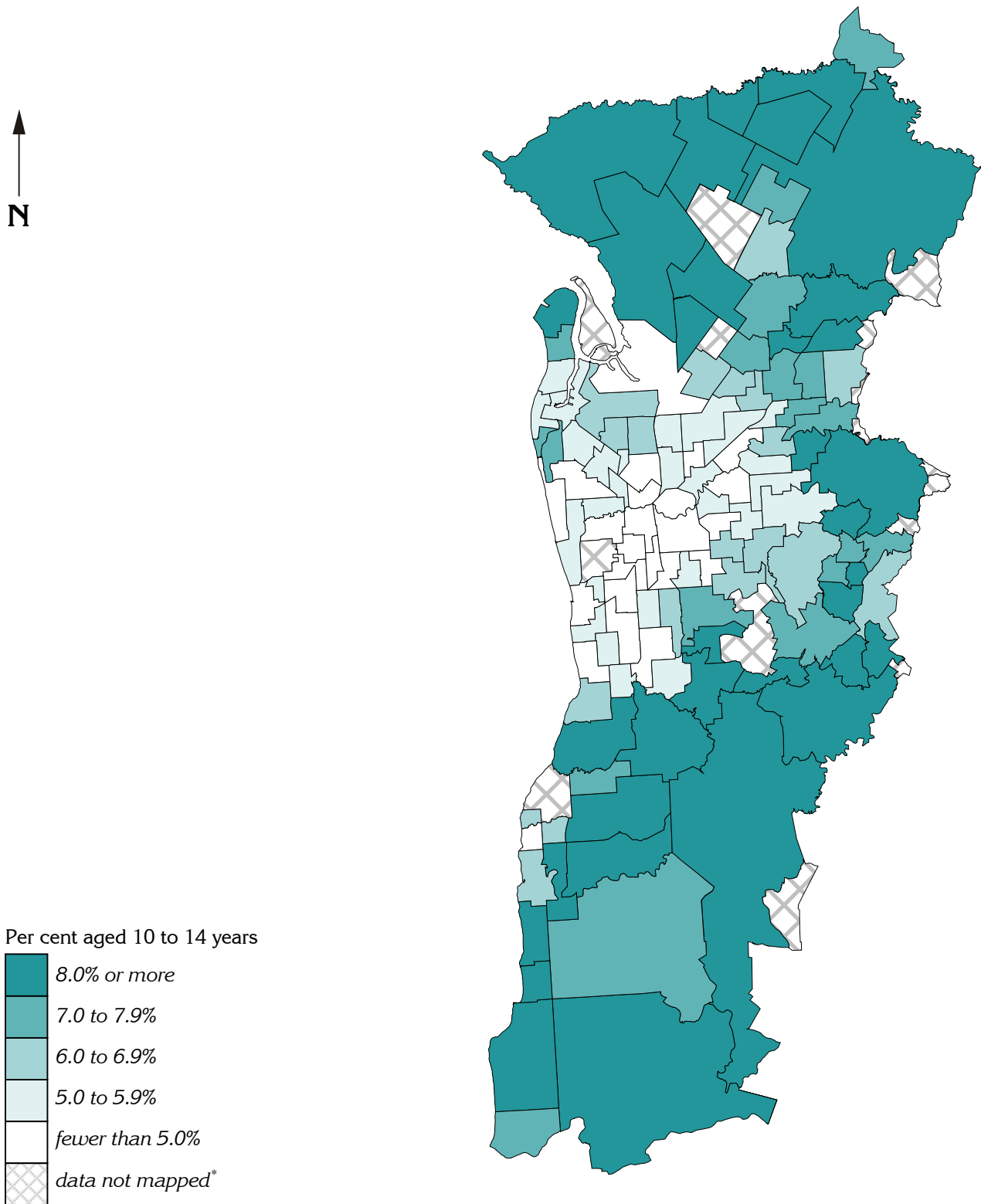
The northern and southern postcode areas had the largest numbers of children at these ages. In the north, these included *Salisbury* (3,076 children), *Salisbury East* (1,803) and *Smithfield* (1,789); and, in the south, *Happy Valley* (3,061), *Morphett Vale* (2,727) and *O'Halloran Hill* (1,990).

There was no consistent evidence in the correlation analysis of an association at the postcode level between high proportions of children aged 10 to 14 years and socioeconomic status.

## Map 3.5

### Children aged 10 to 14 years, Adelaide, 1998

as a percentage of the total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

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## Children aged 10 to 14 years, 1998

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### Non-metropolitan South Australia

In 1998, there were 30,984 children aged from 10 to 14 years in the non-metropolitan areas of South Australia, comprising 7.8% of the non-metropolitan population. The number of 10 to 14 year olds in non-metropolitan South Australia was estimated to have risen by 1,586 (5.4%) from 1991 to 1998.

Relatively high proportions of 10 to 14 year olds were primarily in SLAs located to the north of Adelaide, but were also found in SLAs on the Eyre Peninsula and in the South East (**Map 3.6**). Unincorporated West Coast (10.9%), Lucindale (9.6%), Mallala (9.5%), Karoonda-East Murray (9.4%), Port Pirie-City and Kapunda and Light (both 9.3%), Orroroo/Carrieton (9.2%) and Adelaide Hills-North (9.0%) all had relatively high percentages.

SLAs with the lowest proportions of 10 to 14 year olds were mainly on the Yorke and Fleurieu Peninsulas and to the east of Adelaide.

The largest numbers of children aged 10 to 14 years in the non-metropolitan areas of South Australia were estimated to be in the towns and urban fringe areas of Whyalla (1,870 children), Mount Gambier (1,763), Murray Bridge (1,191), Mount Barker-Central (1,140), Port Augusta (1,097), Port Lincoln (1,083) and Port Pirie-City (1,000).

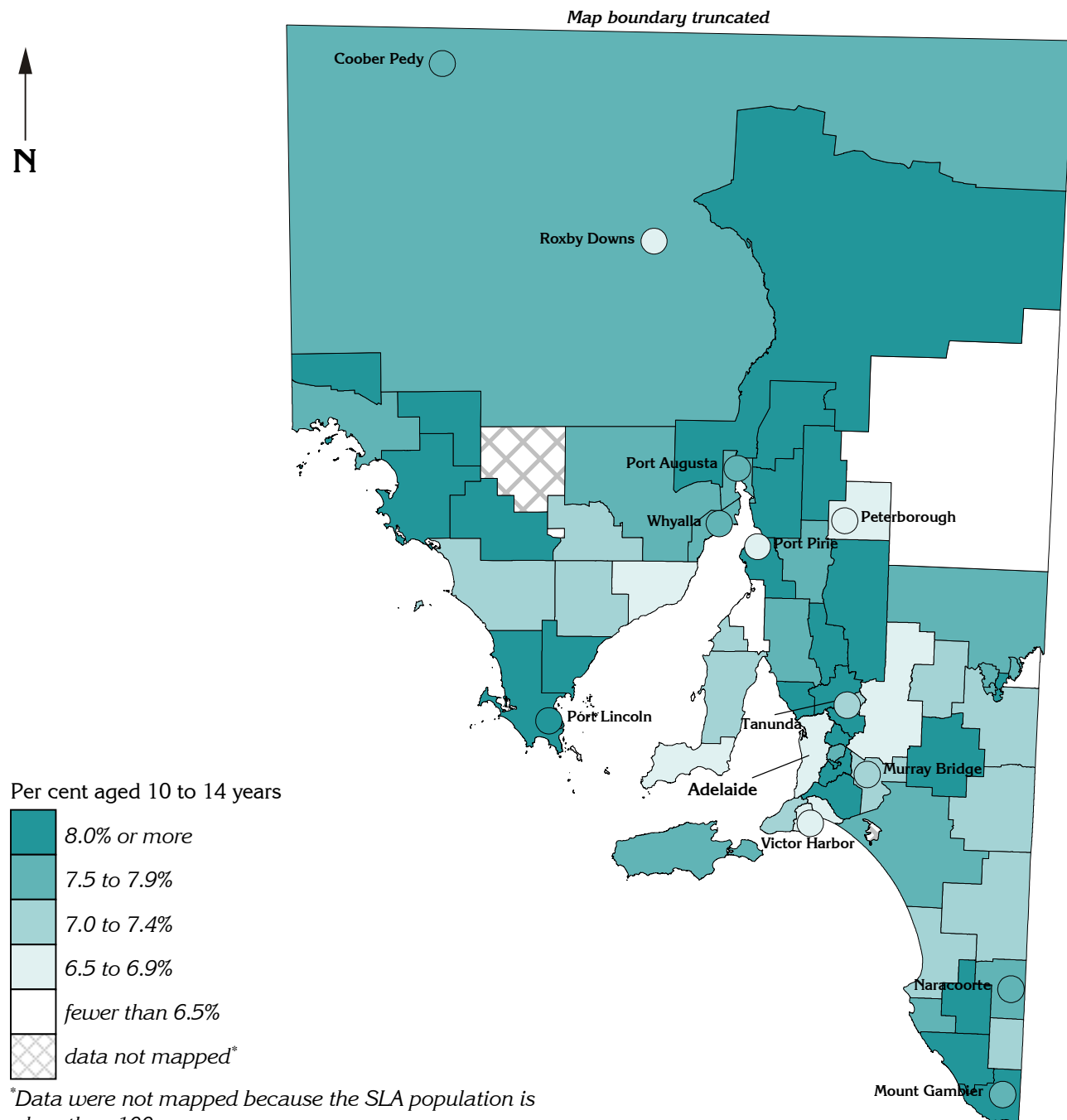
There was no consistent evidence in the correlation analysis of an association at the SLA level between high proportions of children aged 10 to 14 years and socioeconomic status.



# Map 3.6

## Children aged 10 to 14 years, South Australia, 1998

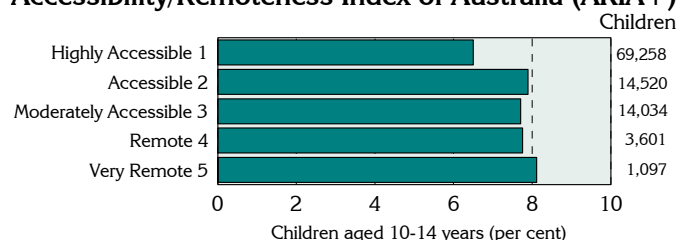
as a percentage of the total population in each Statistical Local Area



Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The highest proportions of children aged 10 to 14 years were estimated for the Very Remote (8.1%) and Accessible (7.9%) areas. The lowest proportion was in the Highly Accessible areas (6.5% of the population). As for the younger ages, the number of children decreases markedly across the remoteness classes.

Source: Calculated on ARIA+ classification

## Proportion of population aged 0 to 14 years, 1998

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### Adelaide

In 1998, there were estimated to be 206,055 children aged from 0 to 14 years, comprising 18.9% of Adelaide's population. The number of children in this age group decreased by 1,735 (0.8%) between 1991 and 1998: the proportion also decreased over this period (down from 20.2% in 1991).

The pattern of distribution of the 0 to 14 year old population in Adelaide mirrors the general distribution of its population sub-groups discussed previously. The highest proportions of 0 to 14 year olds were in outer suburban postcode areas, including *Angle Vale* (30.1%), *Smithfield* (29.2%), *Burton* (28.1%), *Wynn Vale* (27.8%), *Parafield Gardens* (27.1%), *Munno Para* (27.0%) and *Golden Grove* (26.5%) to the north; *Maslin Beach* (28.3%), *Old Noarlunga* (27.0%) and *O'Halloran Hill* (26.8%) in the south; and *Piccadilly* (26.6%) and *Summertown* (26.5%) in the hills.

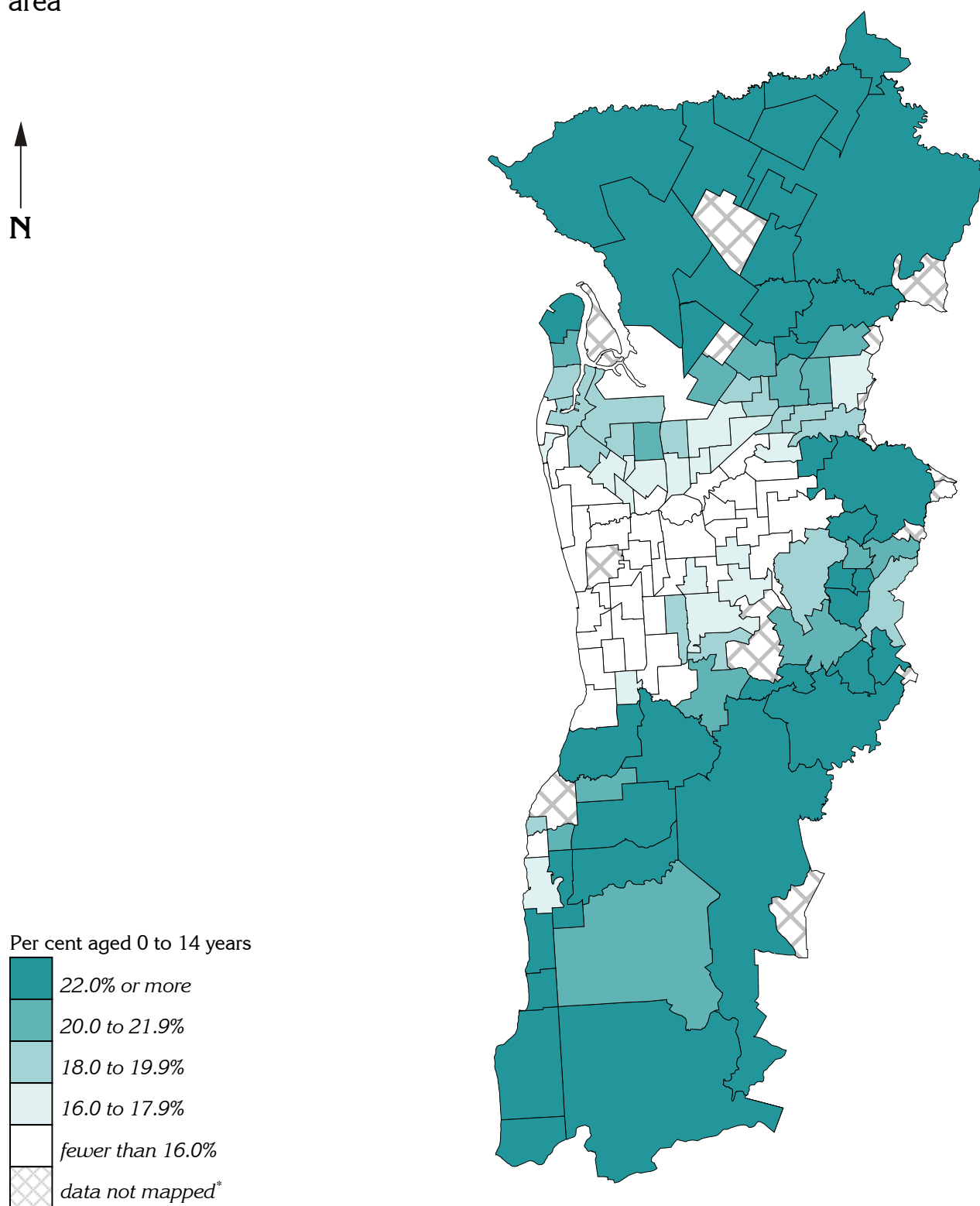
The postcodes with the lowest proportions in this age group were generally located in and around the city and in the inner eastern and western suburbs (**Map 3.7**); in the inner city areas of *Adelaide* (with 4.4%), *North Adelaide* (9.2%) and *Norwood* (11.0%); in the north in *Gepps Cross* (11.0%); in the west at *Glenelg* (11.9%), *Thebarton* (13.3%), *Novar Gardens* and *Hindmarsh* (both 13.4%); and in the east at *Marden* (12.8%).

There was no consistent evidence in the correlation analysis of an association at the postcode level between high proportions of children aged 0 to 14 years and socioeconomic status.

## Map 3.7

### Proportion of population aged 0 to 14 years, Adelaide, 1998

Children aged 0-14 years as a percentage of the total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## Proportion of population aged 0 to 14 years, 1998

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### Non-metropolitan South Australia

There were an estimated 89,923 children aged from 0 to 14 years living in the non-metropolitan area of South Australia in 1998, comprising 22.5% of the total non-metropolitan population. Between 1991 and 1998, the number of children in this age group decreased by 794 (0.9%). Their proportion of the total non-metropolitan population also decreased slightly, from 24.1% in 1991 to 22.5% in 1998.

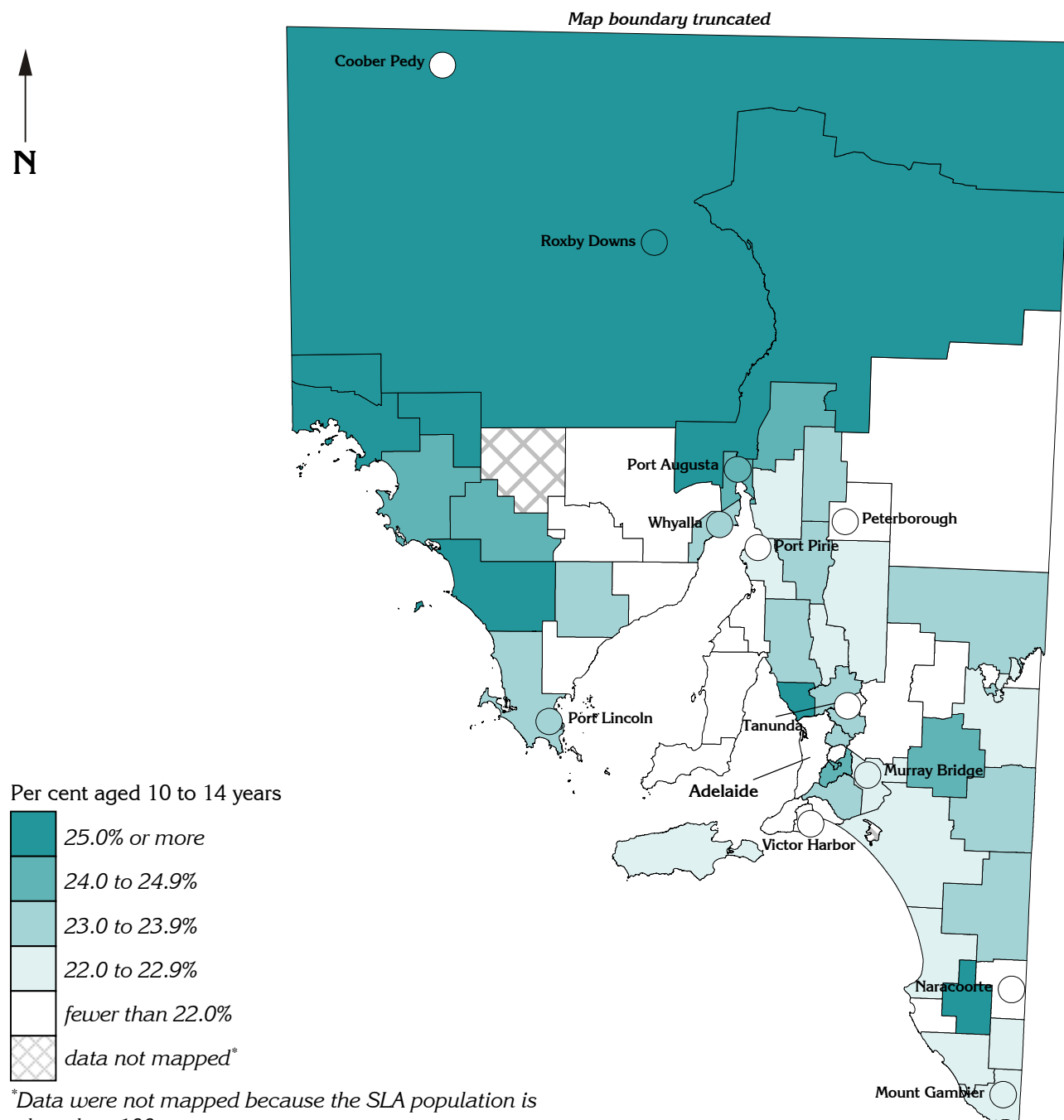
The highest proportions of the 0 to 14 year old population in non-metropolitan South Australia were in SLAs located mainly on the west coast of the Eyre Peninsula and in the far north of the State (**Map 3.8**). The highest proportions were recorded in the SLAs of Roxby Downs (30.6%), Unincorporated Far North (27.8%), Unincorporated Flinders Ranges (27.1%), Elliston (26.3%), Ceduna (26.1%), Lucindale (26.0%), Mallala (25.8%), Unincorporated West Coast (25.4%), Streaky Bay and Mount Barker-Balance (both 24.8%), Mount Barker-Central (24.5%), Le Hunte (24.3%), Flinders Ranges (24.2%), Karoonda East Murray (24.1%) and Port Augusta (24.1%).

Relatively low proportions of 0 to 14 year olds were recorded in SLAs distributed throughout the State, and most notably on the Yorke Peninsula and in areas on the fringe of Adelaide. Proportions below 19% were recorded in the SLAs of Victor Harbor (with 17.1%), Yorke Peninsula-South (18.5%), Barunga West (18.6%), Alexandrina-Coastal (18.7%) and Unincorporated Pirie (18.9%).

There was no consistent evidence in the correlation analysis of an association at the SLA level between high proportions of children aged 0 to 14 years and socioeconomic status.

# Map 3.8 Proportion of population aged 0 to 14 years, South Australia, 1998

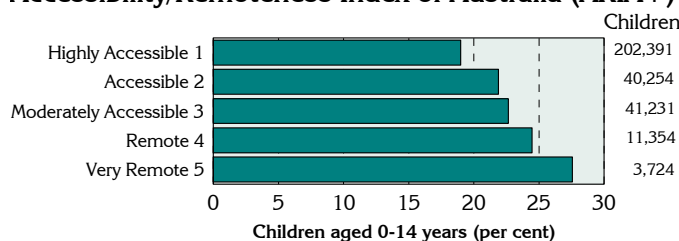
as a percentage of the total population in each Statistical Local Area



Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

## Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of children aged 0 to 14 years increased steadily with increasing remoteness, ranging from 19.0% in the Highly Accessible areas to 27.6% in the Very Remote areas.

Source: Calculated on ARIA+ classification

## Number of children aged 0 to 14 years, 1998

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### Adelaide

There were an estimated 206,055 children aged from 0 to 14 years in Adelaide in 1998, 1,735 (0.8%) fewer children than in 1991.

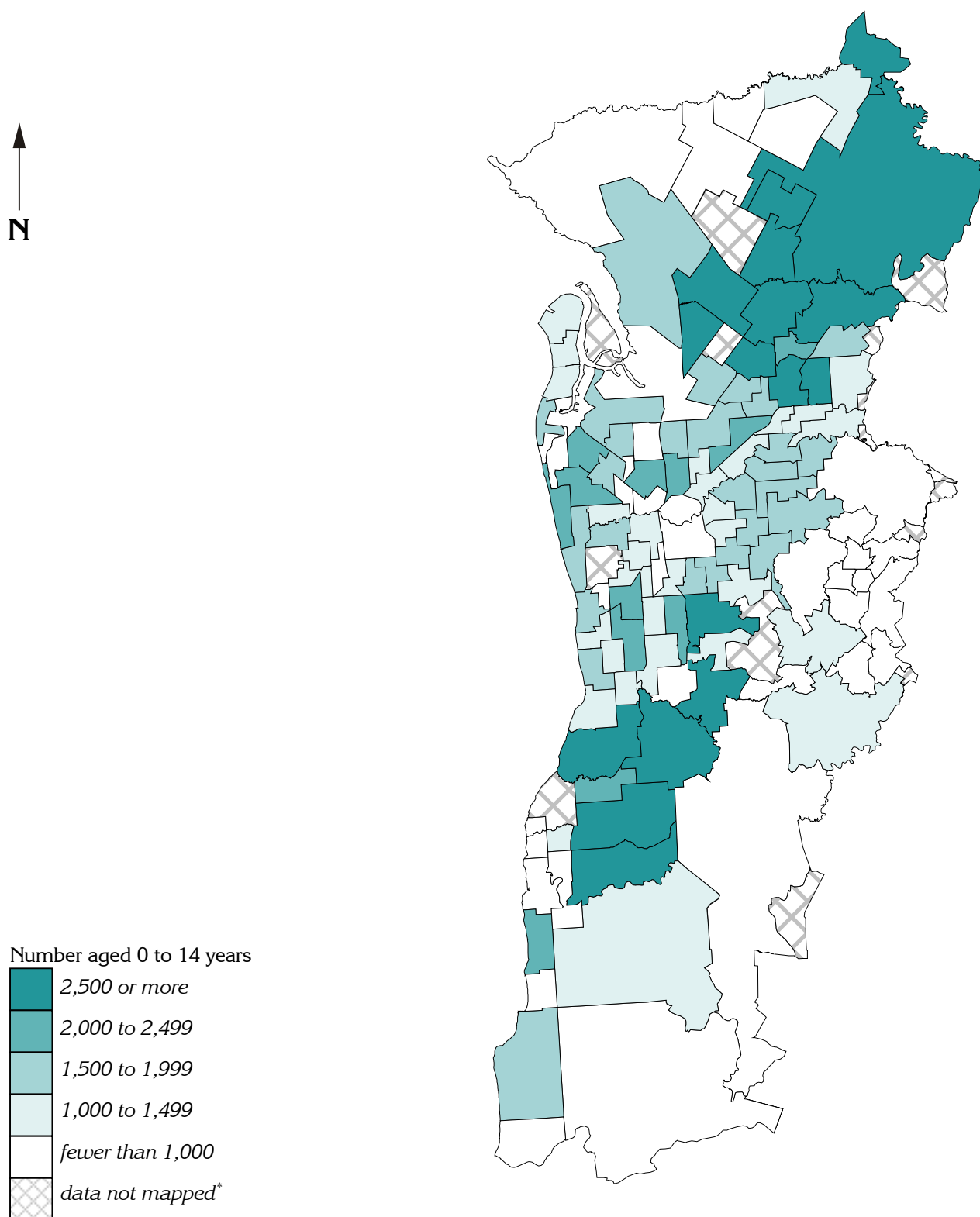
The distribution of 0 to 14 year olds by postcode reflects that of the population sub-groups under 15 years of age. The largest numbers of children in this age group were generally located in outer suburban fringe areas (**Map 3.9**); in the north in *Salisbury* (9,943 children), *Smithfield* (5,733), *Salisbury East* (5,087), *Elizabeth North* (4,737), *Elizabeth* (4,348), *Golden Grove* (3,832), *Parafield Gardens* (3,545), *Modbury North* (3,387), *Gawler* (3,305) and *St Agnes* (3,168) and in the south in *Morphett Vale* (8,154), *Happy Valley* (8,019), *O'Halloran Hill* (5,756) and *Hackham* (3,666).

In contrast, the lowest numbers were largely found in postcode areas in the Adelaide Hills (9 of the 10 postcodes with the lowest numbers were located in this region), such as *Basket Range* (with 52 children), *Ashton* (66), *Greenhill* (96), *Norton Summit* (111), *Uraidla* (129), *Montacute* (135), *Piccadilly* (142), *Summertown* (150) and *Carey Gully* (168). It is important to note, however, that the number of children aged 0 to 14 in any area is largely a function of the total population in each postcode in addition to other considerations such as the population density of the area and its proximity to the city.

## Map 3.9

### Number of children aged 0 to 14 years, Adelaide, 1998

total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## Number of children aged 0 to 14 years, 1998

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### Non-metropolitan South Australia

There were an estimated 89,923 children aged from 0 to 14 years living in the non-metropolitan areas of South Australia in 1998. Between 1991 and 1998, the number of children in this age group decreased by 794 (0.9%).

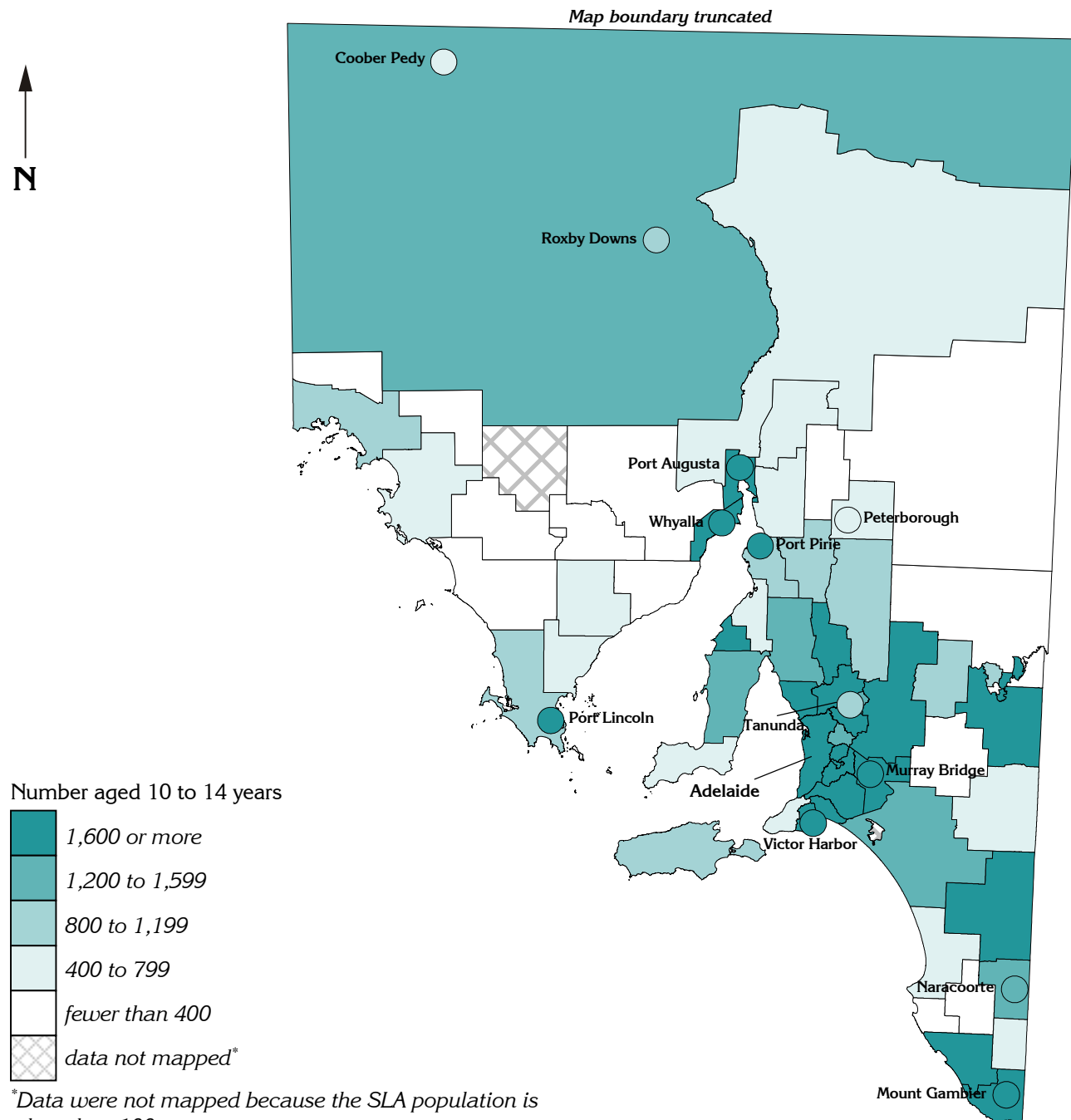
Large numbers of children in the 0 to 14 age group were located in the towns and at the fringe of the metropolitan area (**Map 3.10**), in Whyalla (5,679 children), Mount Gambier (5,219), Murray Bridge (3,727), Port Augusta (3,490), Mount Barker-Central (3,365), Port Pirie-City (3,164), Port Lincoln (2,961), Wattle Range-West (2,363), Kapunda and Light (2,142) and Tatiara (2,045).

Areas with low total population counts also tended to record low numbers of children in the 0 to 14 year age group. These included the Unincorporated areas of Riverland (38 children), Whyalla (49), Pirie (69) and West Coast (159).



# Map 3.10 Number of children aged 0 to 14 years, South Australia, 1998

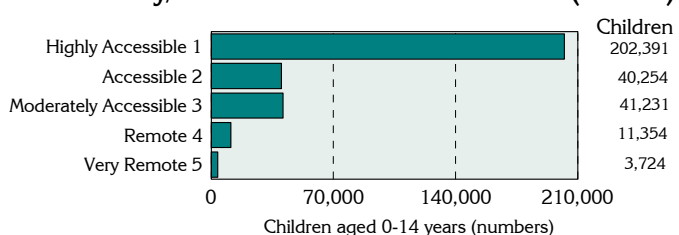
total population in each Statistical Local Area



Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

## Accessibility/Remoteness Index of Australia (ARIA+)



The largest numbers of children aged 0 to 14 years were in the Highly Accessible areas (202,391 children). The number then decreased sharply to 41,231 in the Moderately Accessible areas and to 3,724 in the Very Remote areas.

Source: Calculated on ARIA+ classification

# Children aged 0 to 14 years living in single parent families, 1996

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## Adelaide

There were 37,982 children aged 0 to 14 years living in single parent families at the 1996 Census, comprising 18.4% of the metropolitan 0 to 14 year old population. Since 1991, this figure has increased by 6,650 children (21.2%).

The distribution of 0 to 14 year old children living in single parent families forms a distinctive spatial pattern across Adelaide, with the highest proportions in a strip of postcodes running from the outer northern suburbs to the outer southern suburbs, including much of the inner north, north-west and south-west (**Map 3.11**). Many of the areas recording high percentages of children living in single parent families reflect the distribution of SA Housing Trust dwellings, highlighting the high proportion of single parent families living in this type of accommodation. The highest proportions were found to the north and north-west of the city at *Ferryden Park* (38.3%), *Blair Athol* (35.4%), *Osborne* (33.9%), *Port Adelaide* (33.4%), *Woodville North* (30.5%), *Greenacres* (30.2%), *Hindmarsh* (28.8%) and *Enfield* (28.8%); in the outer north at *Elizabeth North* (31.8%) and in the south at *Maslin Beach* (29.9%), *Christie Downs* (29.1%), *O'Sullivan Beach* (29.1%), *Old Noarlunga* (28.9%) and *Darlington* (28.8%).

In contrast, relatively low proportions of 0 to 14 year old children living in single parent families were found in the Adelaide Hills and inner southern and south-eastern postcode areas. The lowest proportions were in *Montacute* (6.0%), *Carey Gully* (6.1%), *Stirling* (6.4%) and *Ashton* (6.5%).

Postcodes with the largest numbers of children living in single parent families were largely located in the outer northern and southern suburbs. In the north these postcodes included *Salisbury* (2,081 children), *Elizabeth North* (1,510), *Elizabeth* (1,216), *Smithfield* (1,045), *Salisbury East* (855) and *Parafield Gardens* (847) and in the south, *Morphett Vale* (1,646), *Happy Valley* (942) and *Hackham* (849).

There were correlations of substantial significance at the postcode level with the variables for children aged 0 to 14 years living in low income families (0.91), dwellings with no motor vehicles (0.88), SA Housing Trust rented dwellings (0.81) and unemployed females aged 15 to 24 years (0.73).

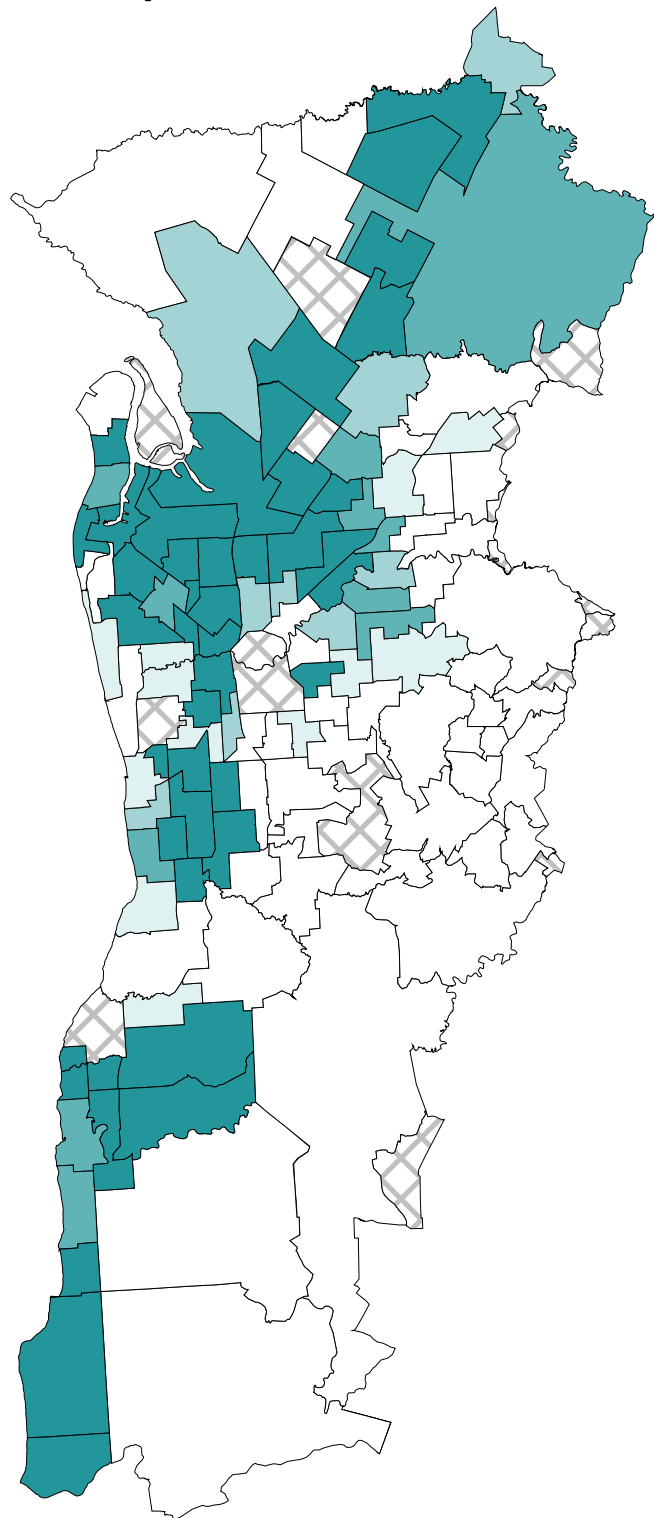
The correlation analysis also revealed a negative association with indicators of high socioeconomic status, with correlations of substantial significance recorded with the variables for high income families (-0.80), female labour force participation (-0.73) and managers and administrators, and professionals (-0.73).

These results, together with the inverse correlation of substantial significance with the IRSD (-0.89), indicate the existence of an association at the postcode level between high proportions of children living in single parent families and socioeconomic disadvantage.

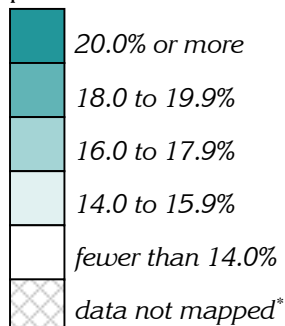
## Map 3.11

### Children aged 0 to 14 years living in single parent families, Adelaide, 1996

as a percentage of all 0 to 14 year olds in each postcode area



Per cent of children living in single parent families



\*Data were not mapped because either too many non-resident people were included in the Census population, the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

# Children aged 0 to 14 years living in single parent families, 1996

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## Non-metropolitan South Australia

In the non-metropolitan areas of South Australia in 1996, there were 12,799 children aged 0 to 14 years living in single parent families, comprising 14.3% of the total 0 to 14 year old population. This figure was lower than the corresponding metropolitan proportion of 18.4%.

The highest proportions of children living in single parent families were mainly in towns and in the SLAs surrounding Adelaide (**Map 3.12**). SLAs with the highest proportions included Unincorporated Riverland (29.8%, but with just 14 children), Unincorporated Whyalla (28.1%), Peterborough (M) (21.8%), Whyalla (21.6%), Port Pirie (21.2%), Wallaroo (21.0%), Port Augusta (20.1%), Browns Well (19.6%), Port Lincoln (19.6%) and Murray Bridge (19.5%).

In comparison, relatively low proportions of children living in sole parent families were recorded in SLAs throughout the Murray Mallee and much of the South-East; in the north of the State; or on Eyre Peninsula. The lowest proportions were in Carrieton (with 0.0%), Roxby Downs (1.1%), Hawker (2.7%), Spalding (3.3%), Bute (3.8%), Orroroo (4.4%), Unincorporated Flinders Ranges (4.4%), Karoonda-East Murray and Naracoorte (DC) (both 4.7%).

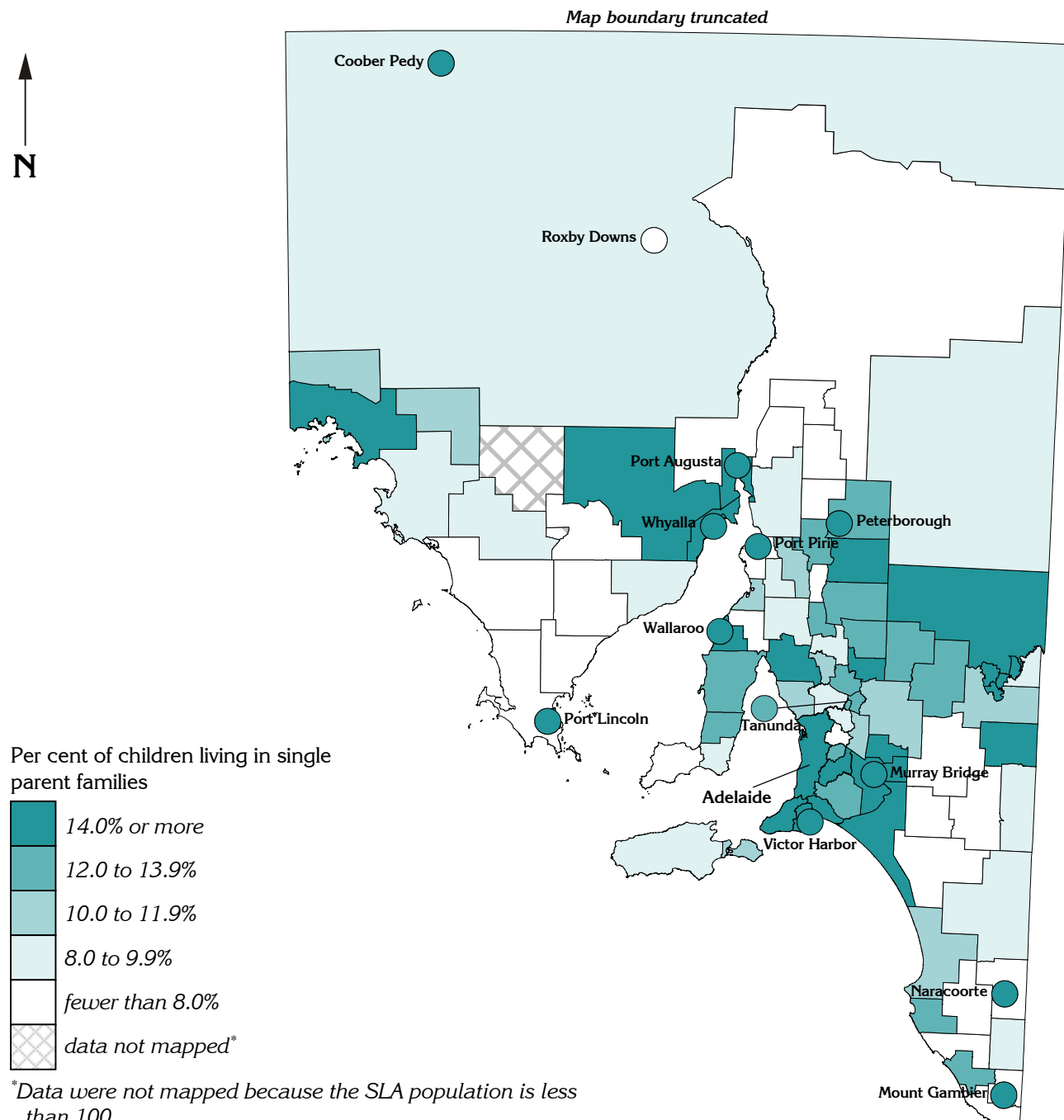
The largest numbers of children at these ages were, as would be expected, in the towns, in Whyalla (1,239 children), Mount Gambier (978), Murray Bridge (716), Port Augusta (693) and Port Pirie (637).

There were correlations of substantial significance at the SLA level with the variables for children aged 0 to 14 years living in low income families (0.78), SA Housing Trust rented dwellings and dwellings with no motor vehicles (both 0.72). These results, together with the inverse correlation of substantial significance with the IRSD (-0.73), indicate an association at the SLA level between high proportions of children living in single parent families and socioeconomic disadvantage.

## Map 3.12

# Children aged 0 to 14 years living in single parent families, South Australia, 1996

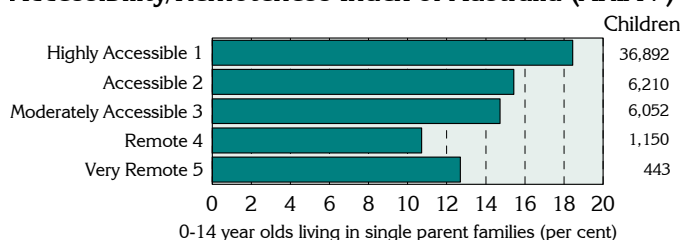
as a percentage of all 0 to 14 year olds in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The most accessible areas had the highest proportions of single parent families (18.5% in the Highly Accessible areas and 15.4% in the Accessible areas), with 14.7% in the Moderately Accessible areas. The lowest proportion was recorded in the Remote areas (10.7%), with a higher 12.7% in the Very Remote areas.

Source: Calculated on ARIA+ classification

# Children aged 0 to 14 years living in low income families, 1996

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## Adelaide

In 1996, there were 37,417 children aged 0 to 14 years living in low income families (defined here as families with weekly incomes of less than \$400), comprising 18.1% of all children living in the metropolitan area. The use of children living in low income families as a measure of economic hardship should be employed with caution however, as a family's actual wealth depends upon a number of factors such as family size, age structure and, importantly, housing tenure and costs.

Children aged 0 to 14 years and living in low income families were largely in postcode areas located in the city's inner north and west, as well as in the outer north and south (**Map 3.13**). The distribution of children in this group is closely linked to the distribution of different types of housing tenure across Adelaide, with high proportions tending to live in areas with high proportions of public housing and/or areas of cheaper private rental housing. Specifically, relatively high proportions of children living in low income families were located in the inner northern and western areas of *Ferryden Park* (47.2%), *Woodville North* and *Blair Athol* (both 36.9%), *Osborne* (35.8%), *Hindmarsh* (34.1%) and *Port Adelaide* (28.6%); in the north in *Elizabeth North* (35.8%) and *Elizabeth* (29.5%); and in the south in *Old Noarlunga* (31.9%), *Christie Downs* (29.6%), *O'Sullivan Beach* (29.3%), *Christies Beach* (29.2%) and *Sellicks Beach* (29.1%).

There were low proportions of children living in low income families in postcodes in the Adelaide Hills and south-eastern suburbs, with the lowest proportions recorded at *Montacute* (with 4.5%), *Stirling* (5.2%), *Glen Osmond* (5.9%), *Unley* (6.0%) and *Aldgate* (6.5%).

The largest numbers of 0 to 14 year old children living in low income families in the outer northern and southern suburbs, in *Salisbury* (2,337), *Elizabeth North* (1,701), *Elizabeth* (1,259), *Smithfield* (1,096) and *Parafield Gardens* (1,017) in the north, and in *Morphett Vale* (1,538) in the south.

There were correlations of substantial significance at the postcode level with the variables for children aged 0 to 14 years living in single parent families (0.91), dwellings with no motor vehicles (0.85) and

SA Housing Trust rented dwellings (0.83); people aged 15 to 24 years who were unemployed (a correlation of 0.77 for males and 0.75 for females); and people who left school at age 15 year or earlier (0.77).

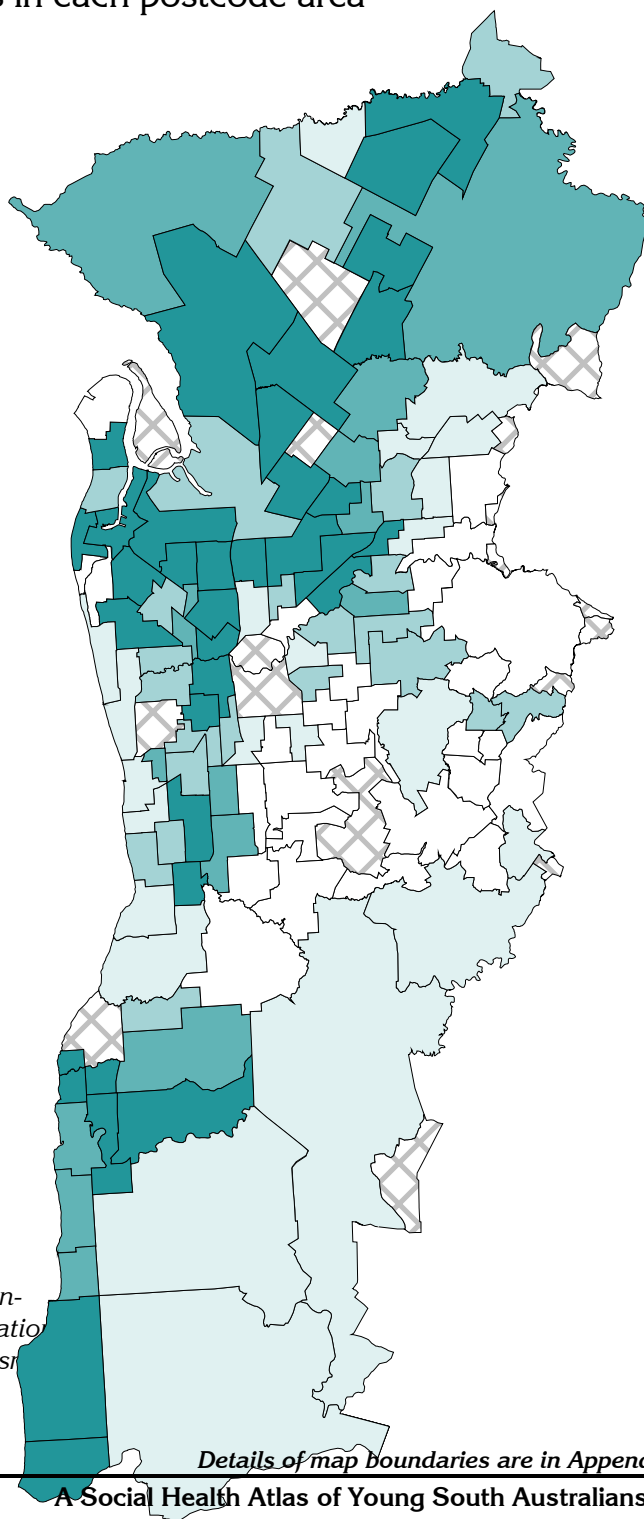
The correlation analysis also revealed a negative association with indicators of high socioeconomic status, with correlations of substantial significance recorded with the variables for high income families (-0.89), female labour force participation (-0.84) and managers and administrators, and professionals (-0.76).

These results, together with the inverse correlation of substantial significance with the IRSD (-0.95), indicate an association at the postcode level between high proportions of children living in low income families and socioeconomic disadvantage.

### Map 3.13

## Children aged 0 to 14 years living in low income families, Adelaide, 1996

as a percentage of all 0 to 14 year olds in each postcode area



Per cent of children living in low income families



\*Data were not mapped because either too many non-resident people were included in the Census population or the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census  
 fewer than 10.0%  
 data not mapped\*

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

# Children aged 0 to 14 years living in low income families, 1996

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## Non-metropolitan South Australia

In 1996, almost one fifth (19.1%) of children aged from 0 to 14 years living in non-metropolitan South Australia lived in families with weekly incomes of less than \$400, a total of 17,154 children. This was only slightly higher than the corresponding Adelaide figure of 18.1%. It is important to bear in mind, however, that there tends to be a higher rate of under-reporting of income in rural areas due to the relatively higher proportion of people who are self-employed in occupations such as farming.

High proportions of children living in low income families were recorded in SLAs scattered throughout the State (**Map 3.14**). The highest proportions were observed at Peterborough (M) (40.1%), Unincorporated West Coast and Unincorporated Whyalla (both 32.8%), Wallaroo (31.8%), Warooka (30.0%), Dudley (29.4%), Coober Pedy (29.0%), Hallett (28.4%), Northern Yorke Peninsula (28.3%), Eudunda (27.5%), Kingscote and Peterborough (DC) (both 26.8%) and Port Pirie (26.7%). In contrast, the lowest proportions of children in this group were recorded at Roxby Downs (with 0.5%), Carrieton (7.5%), Mount Gambier (DC) (7.8%), Unincorporated Flinders Ranges (8.7%) and Orroroo (9.8%), all with under 10.0%.

The largest numbers of 0 to 14 year olds living in low income families were in towns, including Whyalla (1,190 children), Mount Barker (928), Mount Gambier (C) (862), Murray Bridge (831), Port Pirie (803), Port Augusta (779) and Port Lincoln (637).

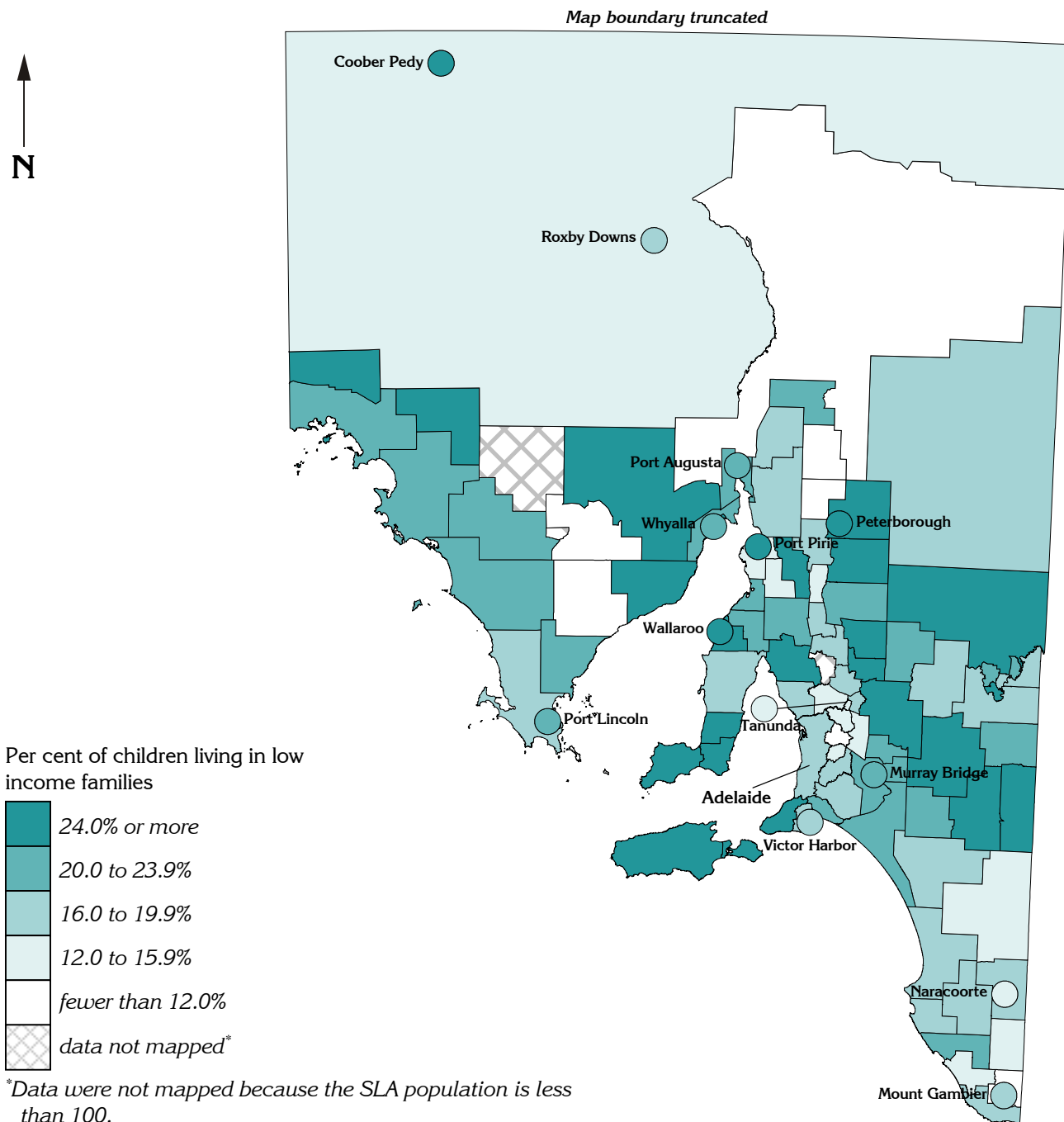
A correlation of substantial significance at the SLA level was found with the variable for children aged 0 to 14 years living in single parent families (0.78). Correlations of meaningful significance were recorded with the variables for children aged 0 to 14 years living in dwellings with no vehicles (0.56), and unemployed males (0.69) and females (0.66) aged 15 to 24 years. The inverse correlation with the IRSD (-0.75) also indicates a positive association between high proportions of children living in low income families and socioeconomic disadvantage.



# Map 3.14

## Children aged 0 to 14 years living in low income families, South Australia, 1996

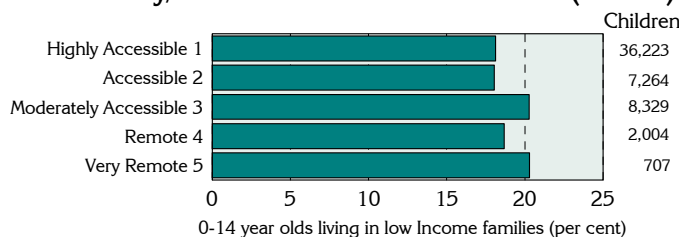
as a percentage of all 0 to 14 year olds in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



Both the Moderately Accessible and Very Remote areas had 20.3% of families receiving low incomes. The lowest proportions were in the Accessible (18.0%) and Highly Accessible (18.1%) ARIA+ classes.

Source: Calculated on ARIA+ classification

# Children aged 0 to 14 years living in SA Housing Trust rented dwellings, 1996

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## Adelaide

In Adelaide in 1996, there were 19,895 children aged from 0 to 14 years living in housing rented from the SA Housing Trust, comprising 9.6% of Adelaide's children aged from 0 to 14 years.

The spatial distribution of children aged 0 to 14 years living in dwellings rented from the SA Housing Trust generally follows, as expected, the distribution of these dwellings across Adelaide. This means that high proportions of children in this group were generally located in the outer northern and south-western metropolitan postcode areas and in a tight band across the inner north-western suburbs of Adelaide (**Map 3.15**).

Areas with very high proportions of these children were located to the north and west of the city in *Ferryden Park* (73.7%), *Osborne* (46.5%), *Woodville North* (40.3%), *Blair Athol* (40.0%), *Enfield* (26.5%) and *Greenacres* (25.0%); to the outer north in *Elizabeth North* (36.1%), *Elizabeth* (30.2%) and *Parafield Gardens* (19.9%), in the north-east in *Klemzig* (23.3%) and to the south in *Old Noarlunga* (34.0%), *Park Holme* (26.9%), *Christie Downs* (26.0%) and *Hackham* (20.3%).

Many postcode areas had no, or very few, children in this category. These included most of the hills suburbs, as well as the eastern and south-eastern sector of the metropolitan area and selected suburbs along the coastline.

The northern suburbs are the location for the largest numbers of children in this group; postcodes with very high numbers include *Elizabeth North* (1,717 children), *Salisbury* (1,364), *Elizabeth* (1,289), *Smithfield* (836) and the southern postcode area of *Morphett Vale* (805).

There were correlations of substantial significance at the postcode level with the variables of children aged 0 to 14 years living in dwellings with no motor vehicles (0.85), low income families (0.83) and single parent families (0.81).

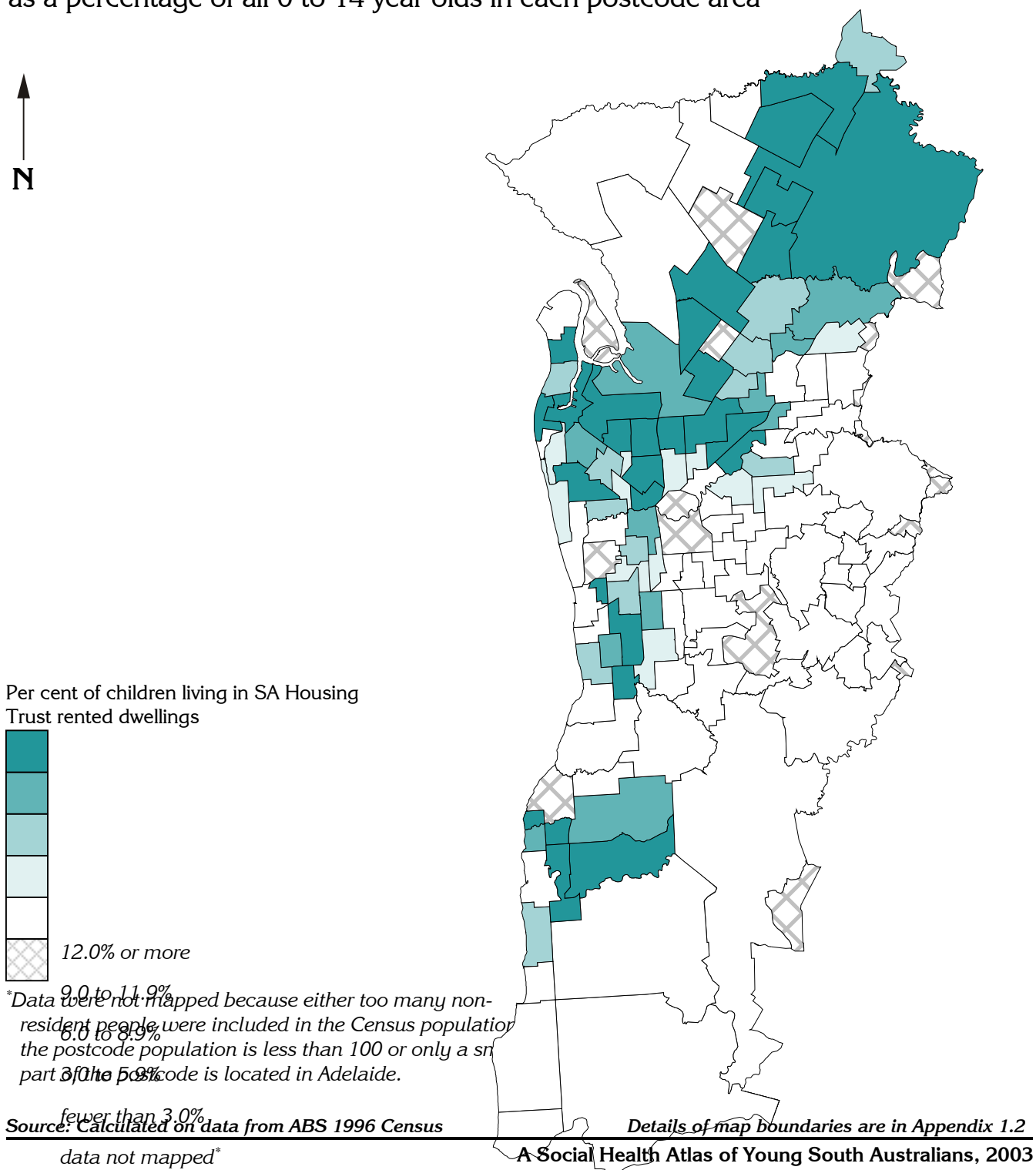
The correlation analysis also revealed a negative association with indicators of high socioeconomic status, with correlations of statistical significance recorded with the variables for female labour force participation (-0.76), high income families (-0.63) and managers and administrators, and professionals (-0.61).

These results, together with the inverse correlation of substantial significance with the IRSD (-0.83), indicate an association at the postcode level between children living in SA Housing Trust rented dwellings and socioeconomic disadvantage.

### Map 3.15

## Children aged 0 to 14 years living in SA Housing Trust rented dwellings, Adelaide, 1996

as a percentage of all 0 to 14 year olds in each postcode area



# Children aged 0 to 14 years living in SA Housing Trust rented dwellings, 1996

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## Non-metropolitan South Australia

In 1996, there were 8,314 children aged from 0 to 14 years living in dwellings rented from the SA Housing Trust, comprising 9.3% of the non-metropolitan 0 to 14 year old population. This figure is consistent with the metropolitan proportion of 9.6%.

The highest proportions of children aged 0 to 14 years living in dwellings rented from the SA Housing Trust were generally located in or around the towns (**Map 3.16**). The highest proportions were in the towns of Whyalla (31.5%), Port Augusta (29.3%), Port Lincoln (21.1%), Mount Gambier (C) (18.1%), Coober Pedy (16.5%) and Murray Bridge (16.3%), as well as in Unincorporated Whyalla (23.1%). In contrast, lower than average proportions were spread across the State, but were primarily found in SLAs close to Adelaide. Twenty-five areas including Naracoorte (M), Eudunda, Browns Well, Dudley and Mount Pleasant had no children in this category.

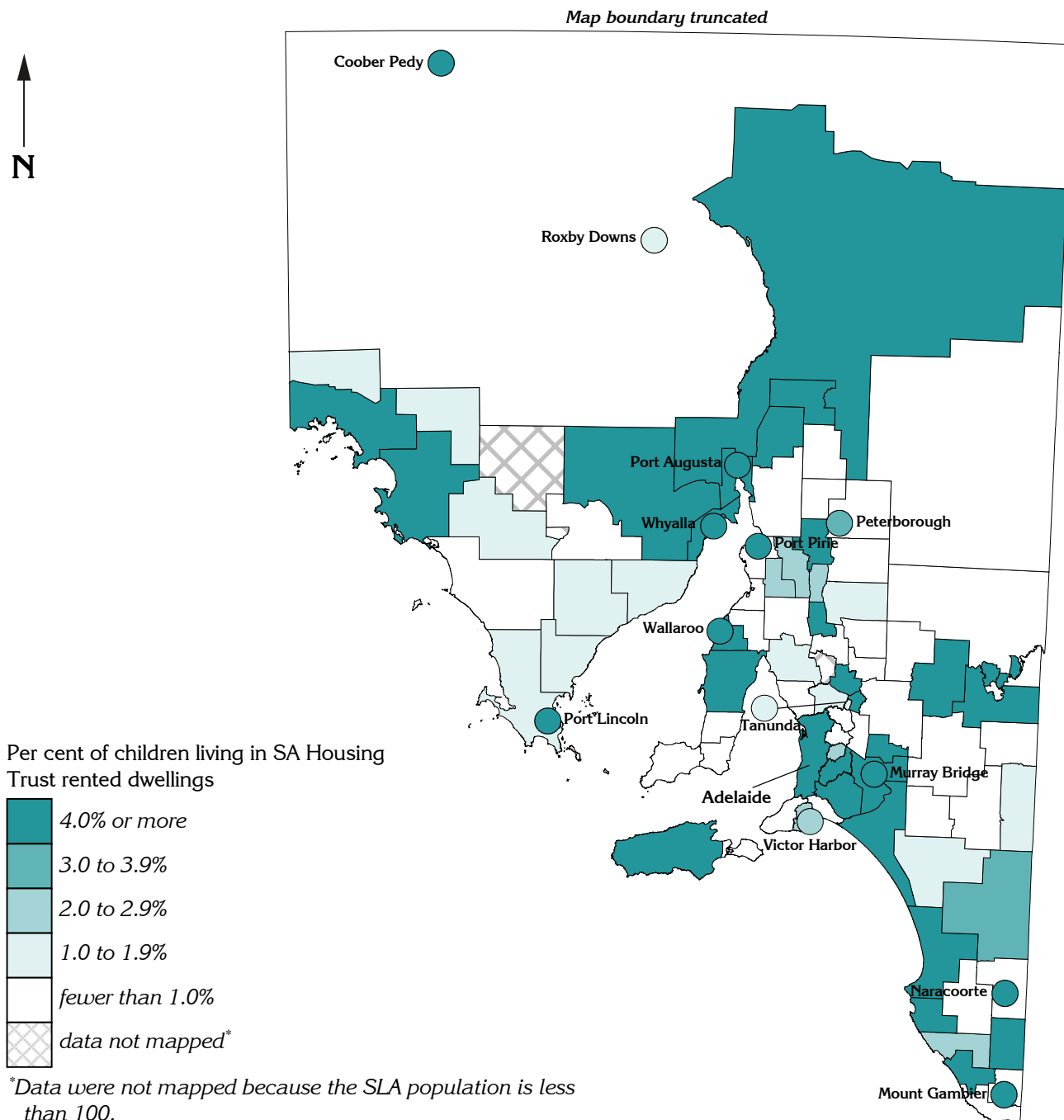
The largest numbers of children at these ages were located in the towns. The largest numbers across the State were in Whyalla (1,804 children), Port Augusta (1,011), Mount Gambier (C) (945), Port Lincoln (635) and Murray Bridge (598).

Correlations of substantial significance were found at the SLA level with the variables for children aged 0 to 14 years living in dwellings with no vehicles (0.76) and single parent families (0.72). These results, together with the inverse correlation of meaningful significance with the IRSD (-0.64), indicate an association at the SLA level between children living in SA Housing Trust rented dwellings and socioeconomic disadvantage.

## Map 3.16

# Children aged 0 to 14 years living in SA Housing Trust rented dwellings, South Australia, 1996

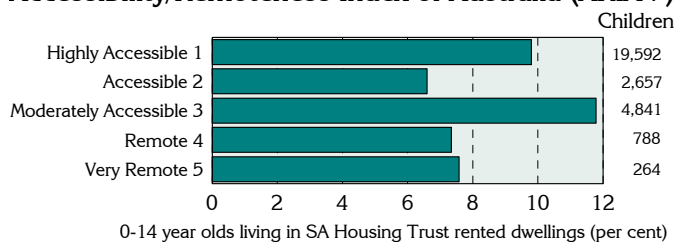
as a percentage of all 0 to 14 year olds in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



More than two thirds (69.6%, 19,592 children) of children living in dwellings rented from the SA Housing Trust were in the Highly Accessible areas. However, the highest proportion was recorded in the Moderately Accessible areas, where they represented 11.8% of all children at these ages. The lowest proportion was in the Accessible areas (6.6%).

Source: Calculated on ARIA+ classification

# Children aged 0 to 14 years living in dwellings with no vehicles, 1996

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## Adelaide

In 1996, there were 10,604 children aged from 0 and 14 years living in dwellings in Adelaide with no vehicles parked or garaged at the dwelling, comprising 5.1% of the population at these ages.

The distribution of children living in dwellings with no vehicles is highly concentrated in the northern and western sectors of Adelaide, as well as in the outer northern and southern areas (**Map 3.17**). Most of the postcode areas with high proportions of children living in dwellings with no vehicles are located within a ten to fifteen kilometre radius of the city, suggesting that, while mobility may be difficult, the suburbs in question would still be serviced by adequate public transport networks. However, it is disturbing to note that relatively high proportions of children in dwellings without a vehicle live at the outer northern and southern metropolitan fringe, where there may be limited access to alternative means of transport, particularly for cross-suburban trips.

The highest proportions of children aged 0 to 14 years and living in dwellings with no vehicles were found in postcodes located in the outer north-west of the city at *Ferryden Park* (19.7%), *Blair Athol* (14.6%), *Woodville North* (14.2%), and *Osborne* (13.6%) and to the outer north of the city at *Elizabeth North* (17.4%) and *Elizabeth* (14.1%). In contrast, postcodes with relatively low proportions of children living in dwellings with no vehicles were located predominantly in the Adelaide Hills, where *Montacute*, *Summertown*, *Carey Gully*, *Greenhill*, *Blackwood Forward*, *MacDonald Park*, *Ashton* and *Piccadilly* all had proportions of less than 0.1%.

Large numbers of 0 to 14 year olds living in dwellings with no vehicles were mainly in the outer northern suburbs. *Elizabeth North* had the highest number, with 826 children, followed by *Salisbury* (685), *Elizabeth* (603), *Smithfield* (345) and the outer southern postcode area of *Morphett Vale* (366).

There were correlations of substantial significance with the variables for children aged 0 to 14 years living in single parent families (0.88), low income families (0.85) and SA Housing Trust rented dwellings (0.85); and unemployed males (0.71) and females (0.72) aged from 15 to 24 years.

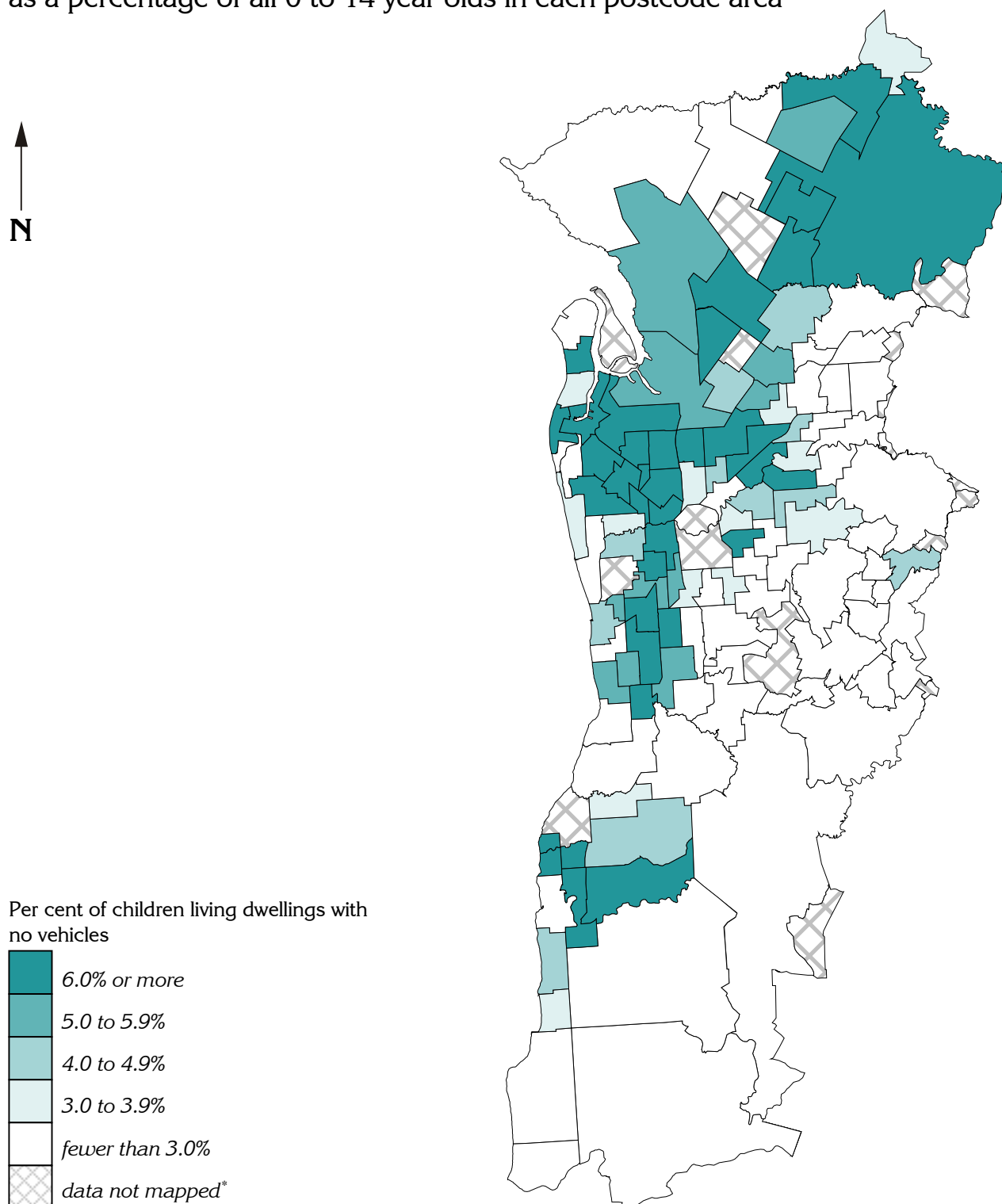
The correlation analysis also revealed a negative association with indicators of high socioeconomic status, with correlations of statistical significance recorded with the variables for female labour force participation (-0.73), high income families (-0.69) and managers and administrators, and professionals (-0.58).

These results, together with the inverse correlation of substantial significance with the IRSD (-0.87), suggest an association at the postcode level between children living in dwellings with no motor vehicle and socioeconomic disadvantage.

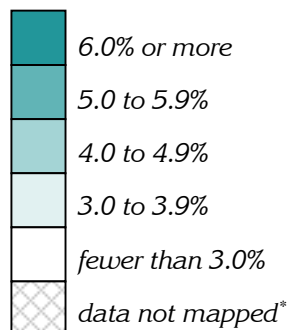
## Map 3.17

### Children aged 0 to 14 years living in dwellings with no vehicles, Adelaide, 1996

as a percentage of all 0 to 14 year olds in each postcode area



Per cent of children living dwellings with no vehicles



\*Data were not mapped because either too many non-resident people were included in the Census population, the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

# Children aged 0 to 14 years living in dwellings with no vehicles, 1996

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## Non-metropolitan South Australia

In 1996, there were 3,812 children aged 0 to 14 years living in dwellings with no vehicles in the non-metropolitan areas of South Australia. This figure represented 4.3% of the 0 to 14 year old non-metropolitan population, compared with 5.1% in Adelaide.

High proportions of children living in dwellings with no vehicles were primarily in the towns and Unincorporated areas of non-metropolitan South Australia (**Map 3.18**). The highest proportions were in Unincorporated Riverland (43.5%, 20 children), Coober Pedy (14.7%), Ceduna (13.7%), Port Augusta (12.4%) and Whyalla (9.3%).

Areas with relatively low proportions of children in this group were distributed throughout the State, particularly in areas that are some distance from a regional centre. Twelve SLAs had no children at all in this category, including the south-eastern areas of Lameroo, Lucindale, Peake and Pinnaroo.

Large numbers of children living in dwellings with no vehicles were found in the towns of Whyalla (534 children), Port Augusta (428), Mount Gambier (C) (256), Port Pirie (240), Murray Bridge (236) and Port Lincoln (200).

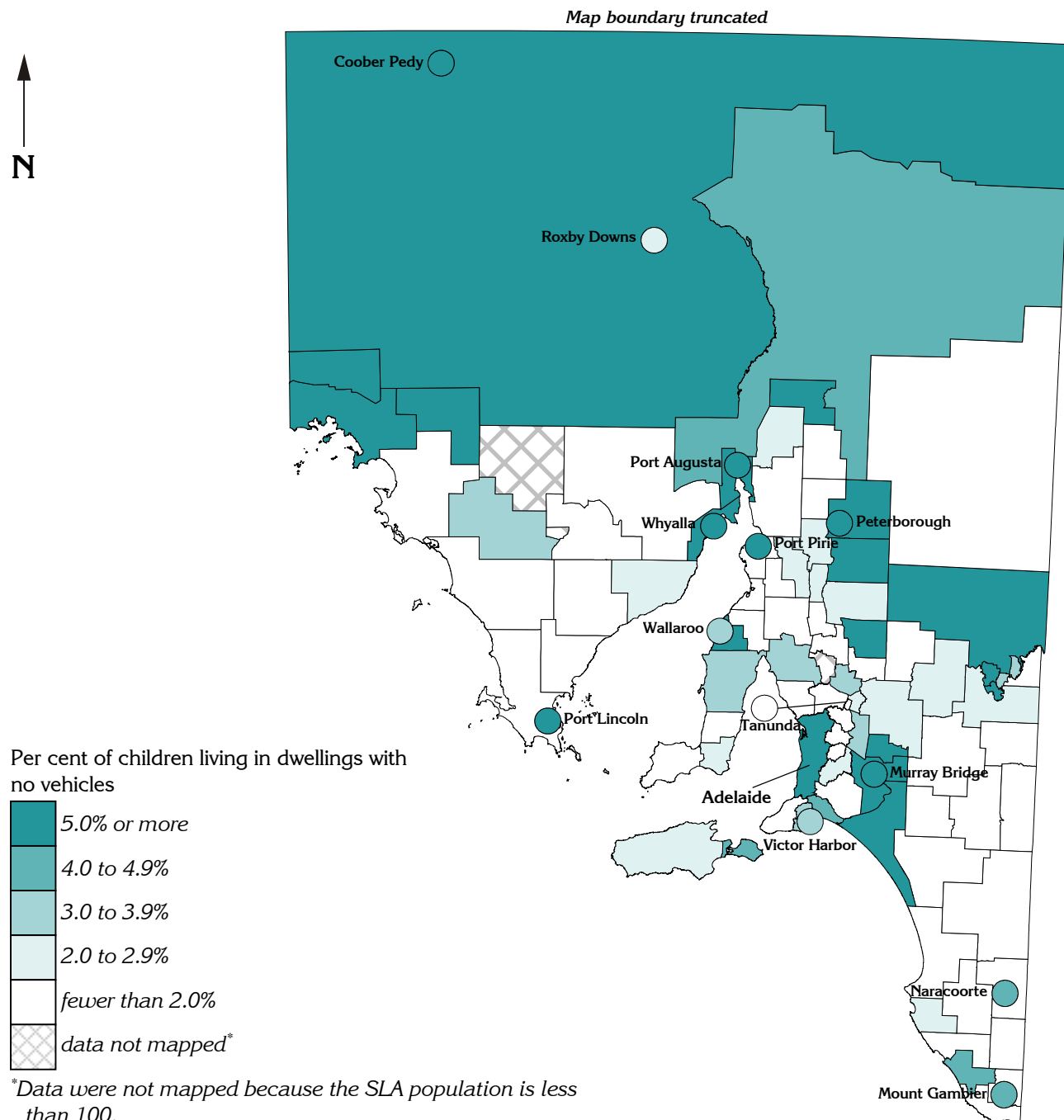
There were correlations of substantial significance with the variables for children aged 0 to 14 years living in dwellings rented from the SA Housing Trust (0.76) and single parent families (0.72). Correlations of meaningful significance were found with the variables for children aged 0 to 14 years living in low income families (0.56), Indigenous children aged 0 to 14 years (0.55) and unemployed males aged 15 to 24 years (0.53). These results, together with the inverse correlation of substantial significance with the IRSD (-0.84), suggest an association at the SLA level between children living in dwellings with no motor vehicles and socioeconomic disadvantage.



# Map 3.18

## Children aged 0 to 14 years living in dwellings with no vehicles, South Australia, 1996

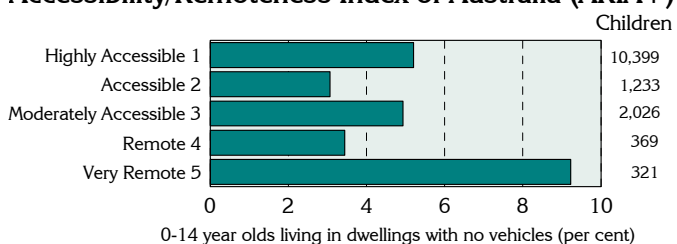
as a percentage of all 0 to 14 year olds in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The highest proportion of children at these ages living in dwellings without a motor vehicle was in the Very Remote areas (9.2%), with the lowest in the Accessible ARIA+ class (3.1%). The distribution of Indigenous children is likely to have influenced the high proportion in the Very Remote areas.

Source: Calculated on ARIA+ classification

# Aboriginal and Torres Strait Islander children aged 0 to 14 years, 1996

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## Adelaide

In 1996, there were 3,701 children aged from 0 to 14 years living in Adelaide who identified at the Census as being of Aboriginal or Torres Strait Islander descent, comprising 1.8% of the 0 to 14 year old population.

The distribution of Aboriginal and Torres Strait Islander children in Adelaide was highly concentrated in postcodes to the north and north-west of the city (**Map 3.19**). This area encompasses the postcodes of *Gepps Cross* (15.0%), *Osborne* (8.1%), *Port Adelaide* (5.8%), *Enfield* (5.7%) and *Rosewater* (5.5%), with high proportions also in *O'Sullivan Beach* (5.7%) and *Christies Beach* (5.3%). In contrast, areas with low proportions of Aboriginal and Torres Strait Islander children were generally located in the south-east of the city and in the Adelaide Hills. Postcodes with very low percentages of children in this group included *Montacute*, *Summertown*, *Carey Gully*, *Blackwood Forward*, *Ashton*, *Stirling* and *Belair*.

Postcode areas with the largest numbers of Aboriginal and Torres Strait Islander children were located in the northern suburbs, in particular in *Salisbury* (254 children), *Elizabeth North* (229), *Elizabeth* (161), *Smithfield* (119), *Parafield Gardens* (107), and *Salisbury East* (104). Other postcodes with relatively large numbers were *Rosewater* (102 children) and *Enfield* (101).

There were correlations of meaningful significance at the postcode level with the variables for children aged 0 to 14 years living in single parent families (0.62), dwellings with no motor vehicles (0.59), low income families (0.57) and dwellings rented from the SA Housing Trust (0.56).

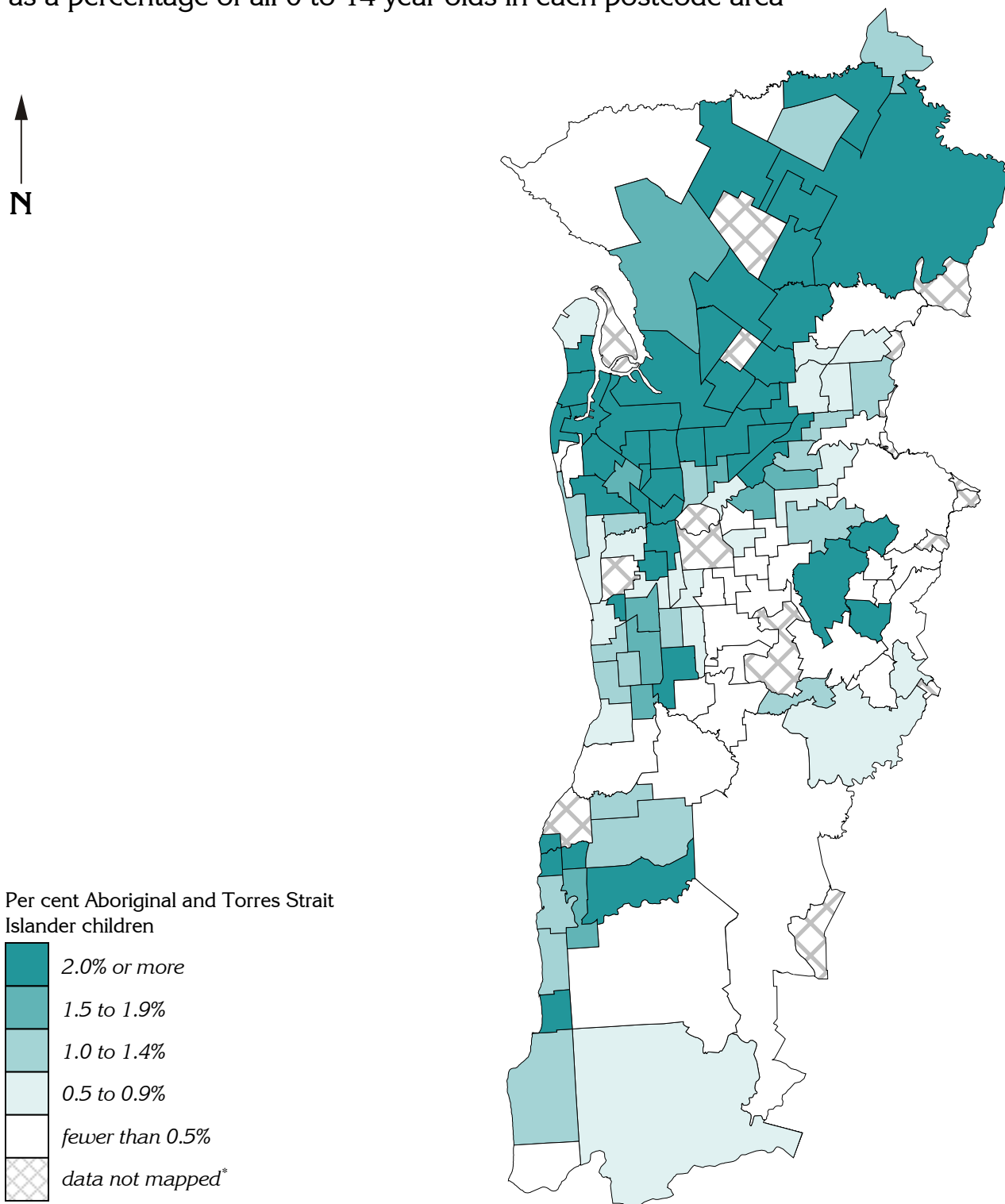
The correlation analysis also revealed a negative association with indicators of high socioeconomic status, with correlations of meaningful significance recorded with the variables for managers and administrators, and professionals (-0.52), female labour force participation (-0.51) and high income families (-0.51).

These results, together with the inverse correlation of meaningful significance with the IRSD (-0.60), suggest an association between high proportions of Indigenous children aged 0 to 14 years and socioeconomic disadvantage.

### Map 3.19

## Aboriginal and Torres Strait Islander children aged 0 to 14 years, Adelaide, 1996

as a percentage of all 0 to 14 year olds in each postcode area



\*Data were not mapped because either too many non-resident people were included in the Census population, the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## Aboriginal and Torres Strait Islander children aged 0 to 14 years, 1996

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### Non-metropolitan South Australia

In 1996, there were 4,496 children aged from 0 to 14 years who identified at the Census as being of Aboriginal or Torres Strait Islander descent in non-metropolitan South Australia, comprising 5.0% of the non-metropolitan population. This figure was much higher than the metropolitan figure of 1.8%, reflecting the different settlement and distribution patterns of the Indigenous and non-Indigenous populations.

The highest proportions of Aboriginal and Torres Strait Islander children were found in the more remote areas of the State, in particular in the Unincorporated areas of Riverland (82.6%), West Coast (55.9%) and Far North (55.3%). High proportions were also recorded in the towns of Coober Pedy (32.5%) and Port Augusta (21.5%), and elsewhere at Ceduna (36.2%). A large number of SLAs had comparatively low proportions of children in this group. Much of the South East, the outer metropolitan area and the mid-north of the State were characterised by low proportions of Indigenous children (**Map 3.20**).

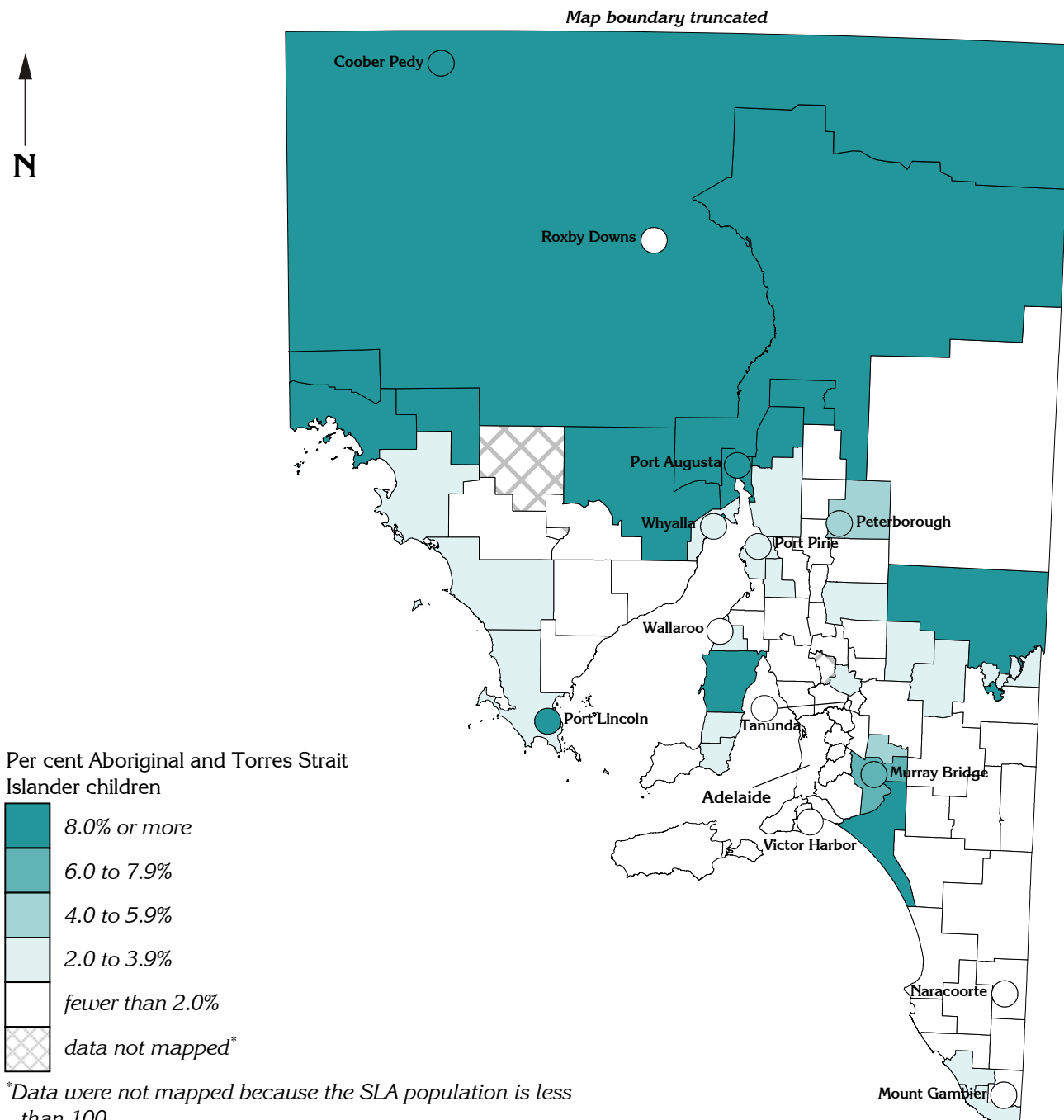
As with the proportion of Aboriginal and Torres Strait Islander children, the largest numbers were in the Unincorporated SLAs and regional centres. These were the SLAs of Unincorporated Far North (850 children), Port Augusta (741), Ceduna (318), Port Lincoln (269), Murray Bridge (252) and at Whyalla (228).

There were correlations of meaningful significance at the SLA level with the variables for children aged 0 to 14 years living in dwellings with no motor vehicles (0.55) and full time students aged 15 to 24 years (an inverse correlation of -0.64). These results, together with the weak inverse correlation with the IRSD (-0.39), suggest an association between high proportions of Indigenous children aged 0 to 14 years and socioeconomic disadvantage.

## Map 3.20

# Aboriginal and Torres Strait Islander children aged 0 to 14 years, South Australia, 1996

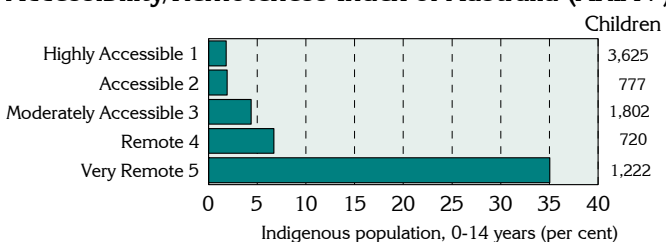
as a percentage of all 0 to 14 year olds in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



Indigenous children have the most striking distribution under the ARIA+ classification of any of the population groups examined in this chapter. The graph shows a clear gradient in the proportion of the population represented in each ARIA+ class, from 1.8% in the Highly Accessible areas, to 35.0% in the Very Remote areas.

Source: Calculated on ARIA+ classification

# Children aged 0 to 14 years born in predominantly non-English speaking countries, 1996

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## Adelaide

In 1996, there were 6,599 children aged from 0 to 14 years living in Adelaide who were born in predominantly non-English speaking countries<sup>1</sup>, comprising 3.2% of the 0 to 14 year old population.

Vietnam (comprising 603 children, 9.1%) was the main birthplace from where these children arrived, followed by the Philippines (449, 6.8%), Poland (368, 5.6%), Malaysia (302, 4.6%) and Hong Kong (262, 4.0%).

Children aged 0 to 14 years who were born in predominantly non-English speaking countries were largely located in the north-western suburbs of the city and in a ring of suburbs surrounding the city (**Map 3.21**). Relatively high proportions of children in this group were recorded in *Woodville North* (15.0%), *Ferryden Park* (14.6%), *Rosewater* (9.2%), *Virginia* (8.5%), *Gepps Cross* (8.4%), *Blair Athol* (8.4%), *Burton* (8.4%), *Croydon* (8.3%), *Hindmarsh* (8.2%) and *Magill* (8.1%). In contrast, relatively low proportions of children in this group were found in the outer metropolitan area, with the Adelaide Hills postcode areas of *Greenhill*, *Piccadilly*, *Norton Summit*, *Basket Range* and *Ashton* and the outer southern postcode area of *Sellicks Beach* recording the lowest proportions.

The largest numbers of children born in predominantly non-English speaking countries were in postcodes to the north of the city in *Salisbury* (324 children) and *Parafield Gardens* (241), to the inner north and west in *Woodville North* (257), *Rosewater* (171), *Croydon* (167) and *Ferryden Park* (154) and to the outer south in *Morphett Vale* (155) and *Happy Valley* (150).

There were weak correlations with the indicators of socioeconomic disadvantage and weak inverse correlations with the indicators of high socioeconomic status. These results, together with the weak inverse correlation with the IRSD (-0.40), suggest an association at the postcode level between children born in predominantly non-English speaking countries and socioeconomic disadvantage.

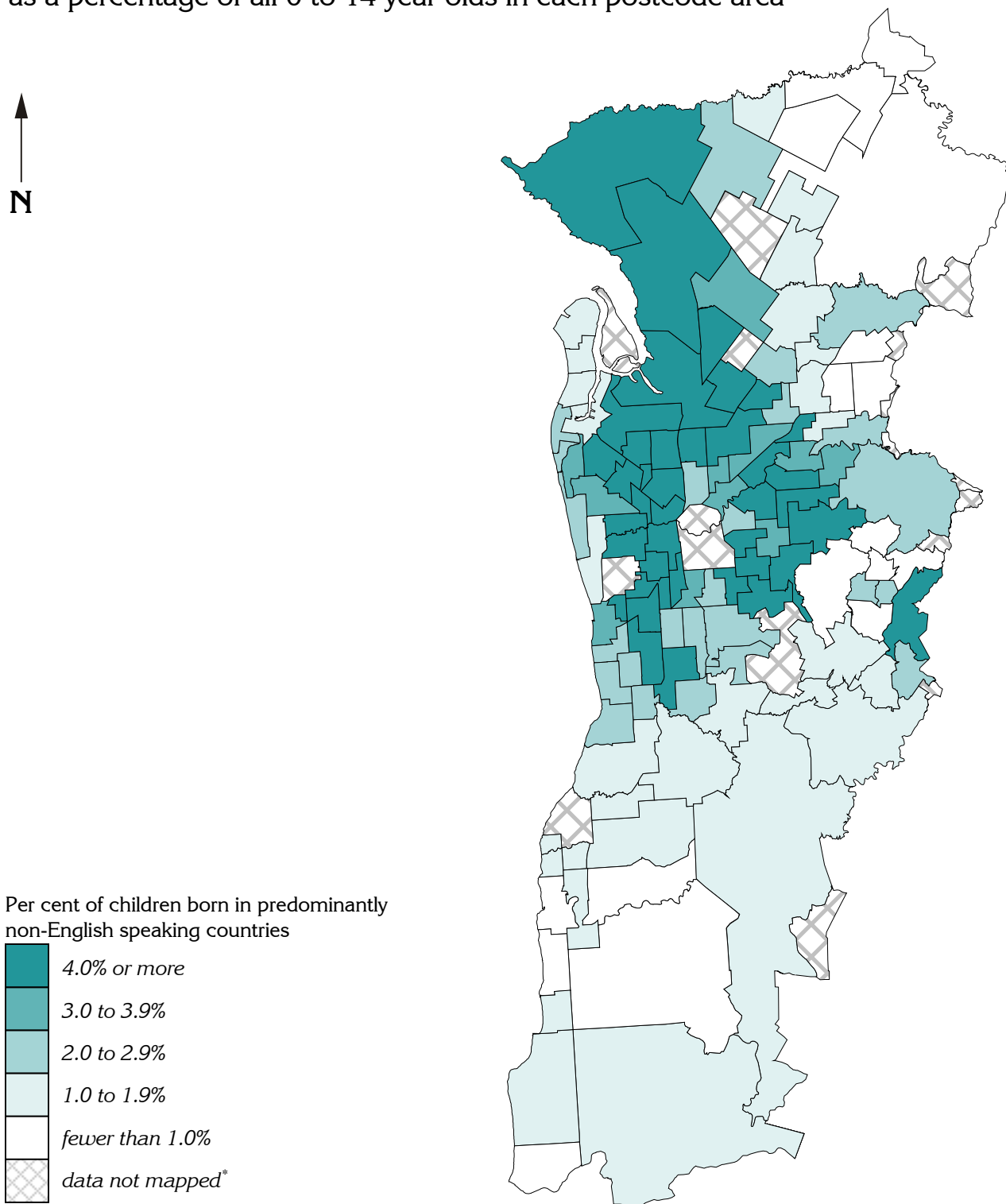
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<sup>1</sup> Predominantly non-English speaking countries comprise all countries other than Australia, Canada, Ireland, New Zealand, South Africa, United Kingdom and the United States of America.

## Map 3.21

### Children aged 0 to 14 years born in predominantly non-English speaking countries, Adelaide, 1996

as a percentage of all 0 to 14 year olds in each postcode area



\*Data were not mapped because either too many non-resident people were included in the Census population, the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

# Children aged 0 to 14 years born in predominantly non-English speaking countries, 1996

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## Non-metropolitan South Australia

In 1996, there were 507 children aged 0 to 14 years living in the non-metropolitan areas of South Australia who were born in predominantly non-English speaking countries<sup>2</sup>. This figure represents just 0.6% of the non-metropolitan 0 to 14 year old population, and was considerably lower than the corresponding metropolitan figure of 3.2%. The greater attraction of the metropolitan area could be attributed to the relatively greater number of employment and educational opportunities available there, and the existence of social networks or family contacts, which are an important source of support to newly arrived migrants.

Of the children aged 0 to 14 years born in predominantly non-English speaking countries residing in the non-metropolitan areas of South Australia, the Philippines (comprising 59 children, 12.0%) was the main birthplace from where these children arrived, followed by Germany (38, 7.7%), India (33, 6.7%), Sri Lanka (21, 4.3%) and Greece (16, 3.3%).

Children living in non-metropolitan South Australia who were born in predominantly non-English speaking countries, were largely located in the towns and in areas close to the fringe of the metropolitan area (**Map 3.22**). These included Coober Pedy (3.2%), Renmark (1.3%) and Whyalla (1.0%), Barmera (1.5%), Gumeracha (1.1%), Unincorporated Far North (1.0%), Unincorporated Flinders Ranges (1.0%), Kimba (1.0%) and Eudunda (1.0%). In contrast, relatively low proportions of children born in non-English speaking countries were recorded in the more remote SLAs. Over forty SLAs had no children of non-English speaking backgrounds, including Robe, Tumby Bay, Peterborough (DC), Spalding and Browns Well.

The largest numbers of children aged 0 to 14 years born in predominantly non-English speaking countries were also located in the towns and at the fringes of the metropolitan area. These included Whyalla (58 children), Mount Barker (34), Mount Gambier (C) (32) and Port Lincoln (27).

There was no consistent evidence in the correlation analysis of an association between high proportions of children born in predominantly non-English speaking countries and socioeconomic status.

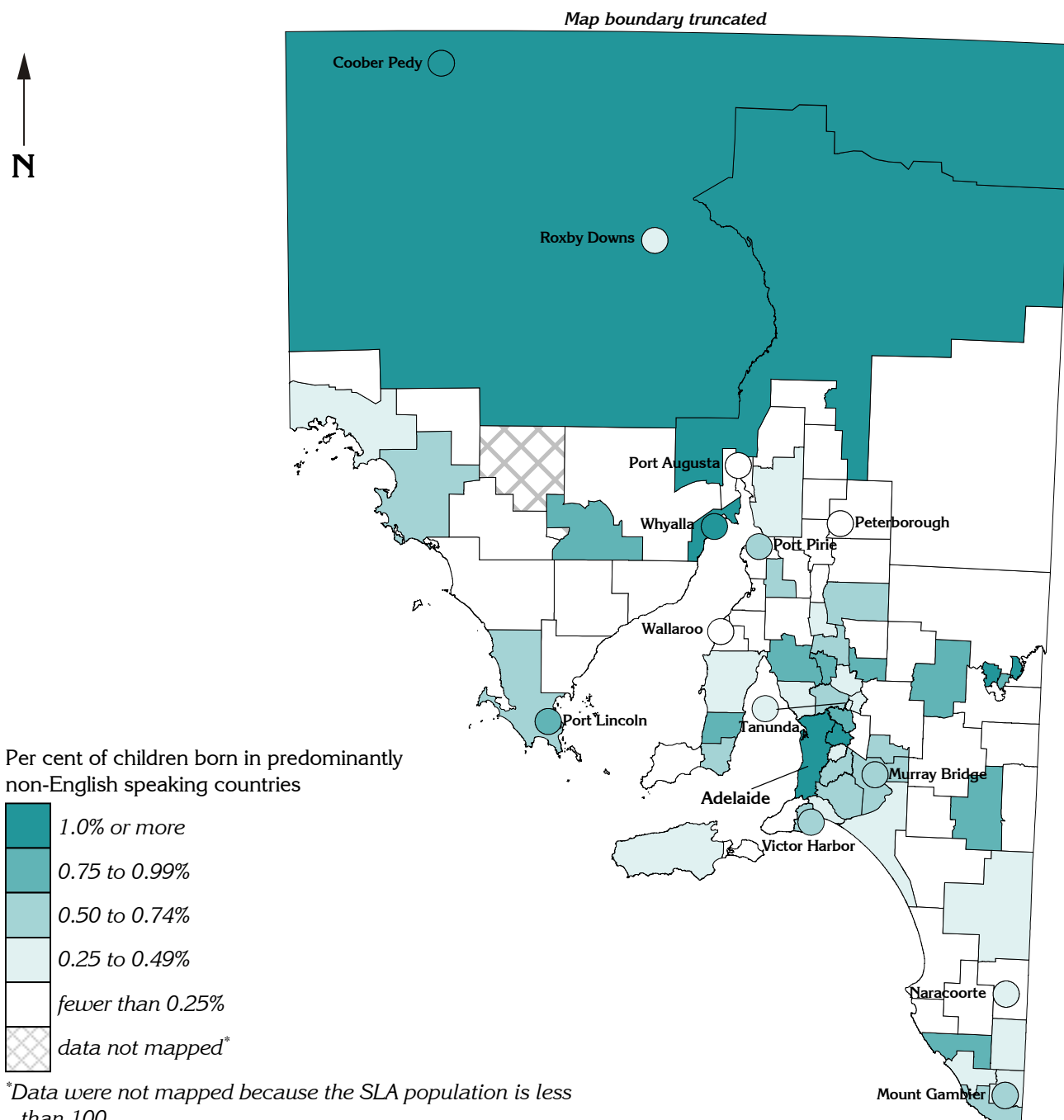
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<sup>2</sup> Predominantly non-English speaking countries comprise all countries other than Australia, Canada, Ireland, New Zealand, South Africa, United Kingdom and the United States of America.



## Map 3.22

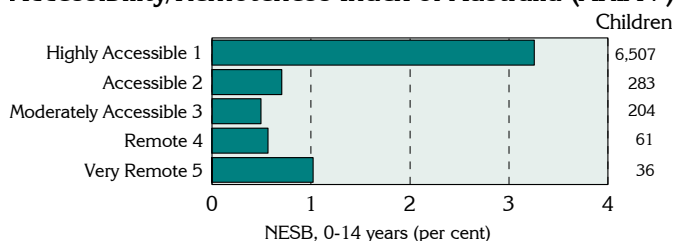
### Children aged 0 to 14 years born in predominantly non-English speaking countries, South Australia, 1996 as a percentage of all 0 to 14 year olds in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

#### Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of the population aged 0 to 14 years who were born in predominantly non-English speaking countries is highest in the Highly Accessible areas (3.3%) and drops away rapidly to lower proportions in the next three ARIA+ classes. The very small number in the Very Remote areas represents a slightly higher per cent at 1.0%.

Source: Calculated on ARIA+ classification

## People aged 15 to 19 years, 1998

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### Adelaide

In 1998, there were an estimated 73,662 people aged 15 to 19 years living in Adelaide, comprising 6.8% of the metropolitan population. The number of 15 to 19 year olds fell by 5,522 people in the period from 1991 to 1998, a decrease of 7.0%. The number of people in this age group expressed as a proportion of the total population also declined, down from 7.7% in 1991.

In contrast to the distribution of the 0 to 14 year old population, the metropolitan population aged 15 to 19 years was predominantly in localities closer to the city, in particular in the middle suburbs (**Map 3.23**). This distribution reflects the settlement patterns associated with different stages of the residential life cycle in Adelaide's suburbs, described in the introduction to this section.

The highest proportions of 15 to 19 year olds were found in postcodes in the Adelaide Hills at *Upper Sturt* (9.5%), *Aldgate* (8.9%), *Piccadilly* (8.6%) and *Eden Hills* (8.5%); to the north at *Highbury* (9.2%), *Modbury North* (8.8%) and *Tea Tree Gully* (8.5%) and elsewhere at *Novar Gardens* (12.0%), *North Adelaide* (11.7%), *West Lakes Shore* (9.3%), *Happy Valley* (9.0%), *Greenhill* (8.9%) and *Fairview Park* (8.5%).

In contrast, relatively low proportions of children aged 15 to 19 years were found in the inner northern and western sectors of the city. The lowest proportions were in *Thebarton* (4.7%), *Largs Bay*, *Woodville* and *Glenelg* (each 4.8%), *Port Adelaide* (4.9%) and *Hindmarsh* (5.0%) in the west.

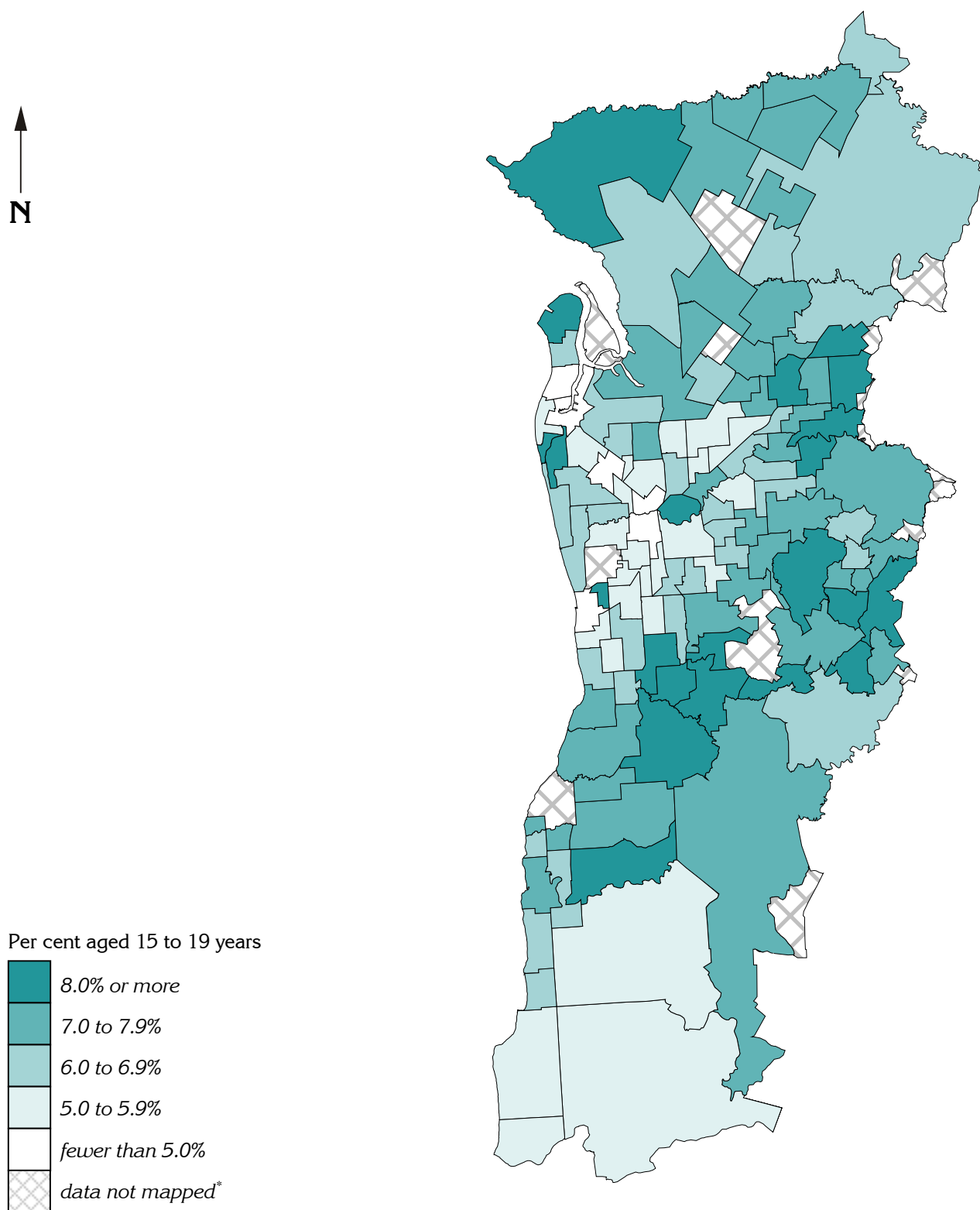
The largest numbers of people aged from 15 to 19 years were in postcode areas located in the outer suburbs of *Salisbury* (2,838 people), *Salisbury East* (1,794), *Modbury North* (1,481), *Elizabeth North* (1,376) and *Smithfield* (1,324) in the north, and *Happy Valley* (2,830) and *O'Halloran Hill* (1,627) in the south.

There was a correlation of meaningful significance at the postcode level with the variable for people who were full time students (0.54).

## Map 3.23

### People aged 15 to 19 years, Adelaide, 1998

as a percentage of the total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## People aged 15 to 19 years, 1998

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### Non-metropolitan South Australia

In 1998, there were an estimated 25,444 people aged from 15 to 19 years living in the non-metropolitan areas of South Australia, comprising 6.4% of the non-metropolitan population. This figure was slightly lower than in Adelaide. The number of 15 to 19 year olds rose by 360 people in the period from 1991 to 1998, an increase of 1.4%.

High proportions of people aged 15 to 19 years were generally in SLAs located close to the metropolitan area and in the regional centres (**Map 3.24**). The highest proportions were in the SLAs of Unincorporated West Coast (10.2%), Kapunda and Light (7.7%), Port Pirie-City (7.7%), Grant (7.6%), Barossa-Tanunda (7.4%), Unincorporated Riverland (7.3%), Mount Barker-Central and Port Lincoln (both 7.2%), Mount Gambier, Barossa-Angaston, Renmark and Orroroo/Carrieton (each 7.1%).

The distribution of low proportions of people in this age group showed little spatial patterning. The SLAs of Elliston (2.2%), Southern Mallee (4.4%), Victor Harbor (4.5%), Yorke Peninsula-South (4.5%), Roxby Downs (4.6%), Franklin Harbor (4.7%), Karoonda-East Murray and Robe (both 4.8%), all had proportions of below 5%.

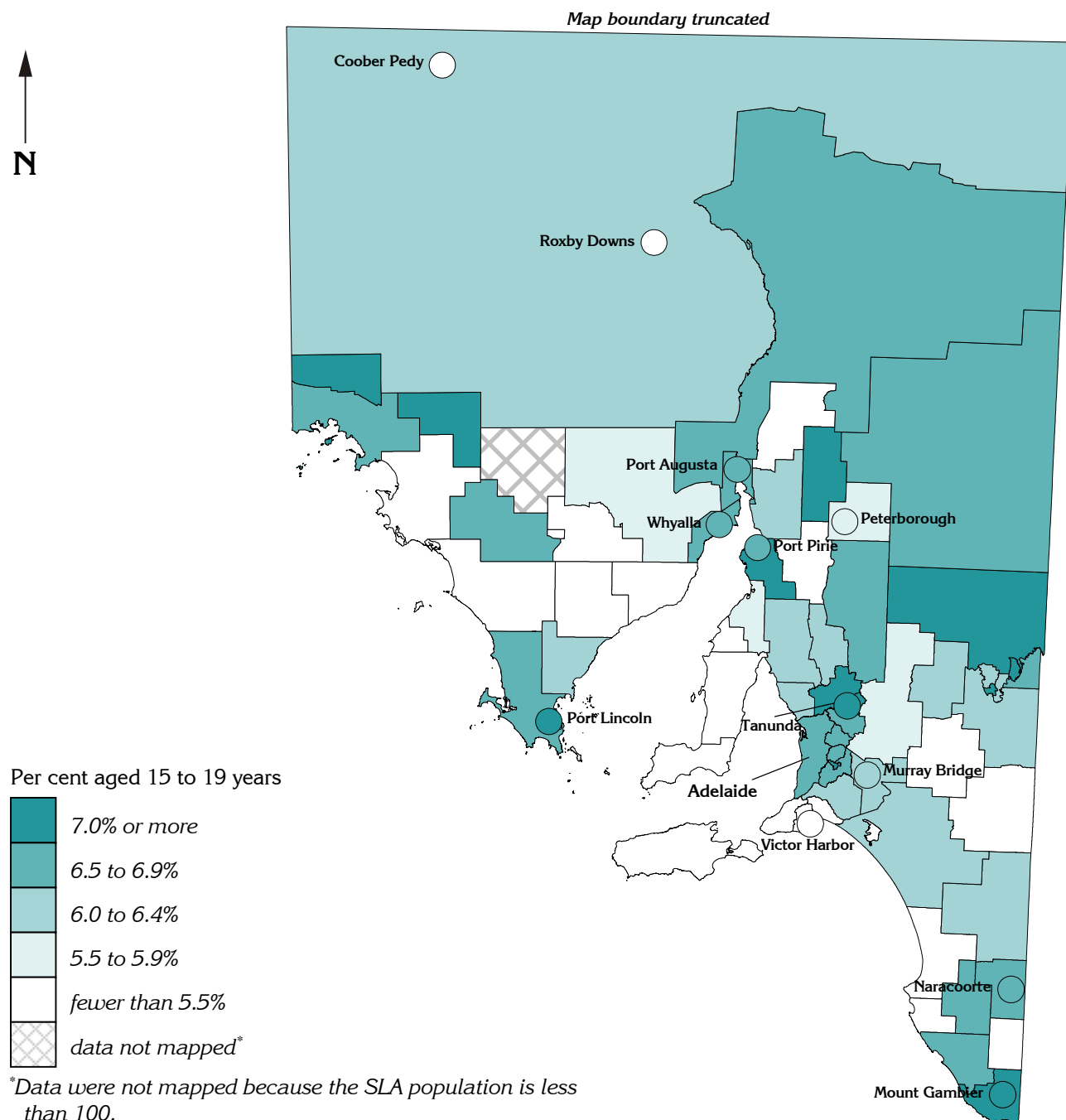
The largest numbers of people aged from 15 to 19 years were in the regional centres, in Mount Gambier (1,646 people), Whyalla (1,644), Murray Bridge (1,055), Mount Barker (1,028), Port Augusta and Port Pirie-City (both 956) and Port Lincoln (933).

There was no consistent evidence in the correlation analysis of an association at the SLA level between high proportions of people aged 15 to 19 years and socioeconomic disadvantage.

## Map 3.24

### People aged 15 to 19 years, South Australia, 1998

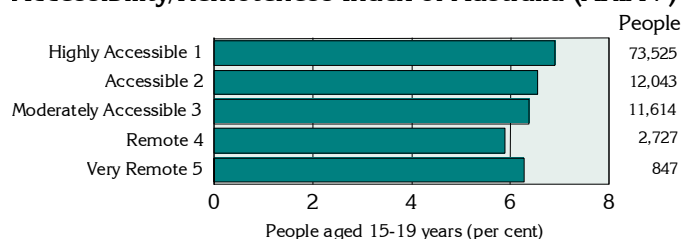
as a percentage of the total population in each Statistical Local Area



Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

#### Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of the population aged 15 to 19 years declines steadily over the first four ARIA+ classes, from 6.9% in the Highly Accessible areas to 5.9% in the Remote areas, before increasing slightly to 6.3% in the Very Remote areas.

Source: Calculated on ARIA+ classification

A Social Health Atlas of Young South Australians, 2003

## People aged 20 to 24 years, 1998

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### Adelaide

In 1998, there were an estimated 80,542 people aged from 20 to 24 years living in Adelaide, comprising 7.4% of the metropolitan population. From 1991 to 1998, the number of people in this age group fell by 4,279 people (5.0%). The proportion of people in this age group relative to the total population also declined over the period.

The pattern of distribution of people in this age group is highly distinctive. Postcode areas recording high proportions of 20 to 24 year olds formed a band in and around the city. This pattern extended in some cases out to the middle suburbs (**Map 3.25**). Postcode areas recording the highest proportions of 20 to 24 year olds were *North Adelaide* (15.1%), *Gepps Cross* (12.9%), *Adelaide* (12.9%), *Norwood* (11.9%), *St Marys* (11.0%), *Thebarton* (10.6%), *Keswick* (10.1%), *Eastwood* (10.1%), *Goodwood* (9.7%) and *St Peters* (9.0%).

In contrast, relatively low proportions of people in the 20 to 24 age group were found in the Adelaide Hills and the outer southern suburbs. *Summertown* (with 3.0%), *Norton Summit* (3.2%), *Piccadilly* (3.7%), *Maslin Beach* (3.8%), *Willunga* and *Upper Sturt* (both 4.0%), *Uraidla*, *Blackwood Forward*, *Stirling Forward* and *Sellicks Beach* (each 4.4%) and *Angle Vale* (4.6%) all had values of below 5%.

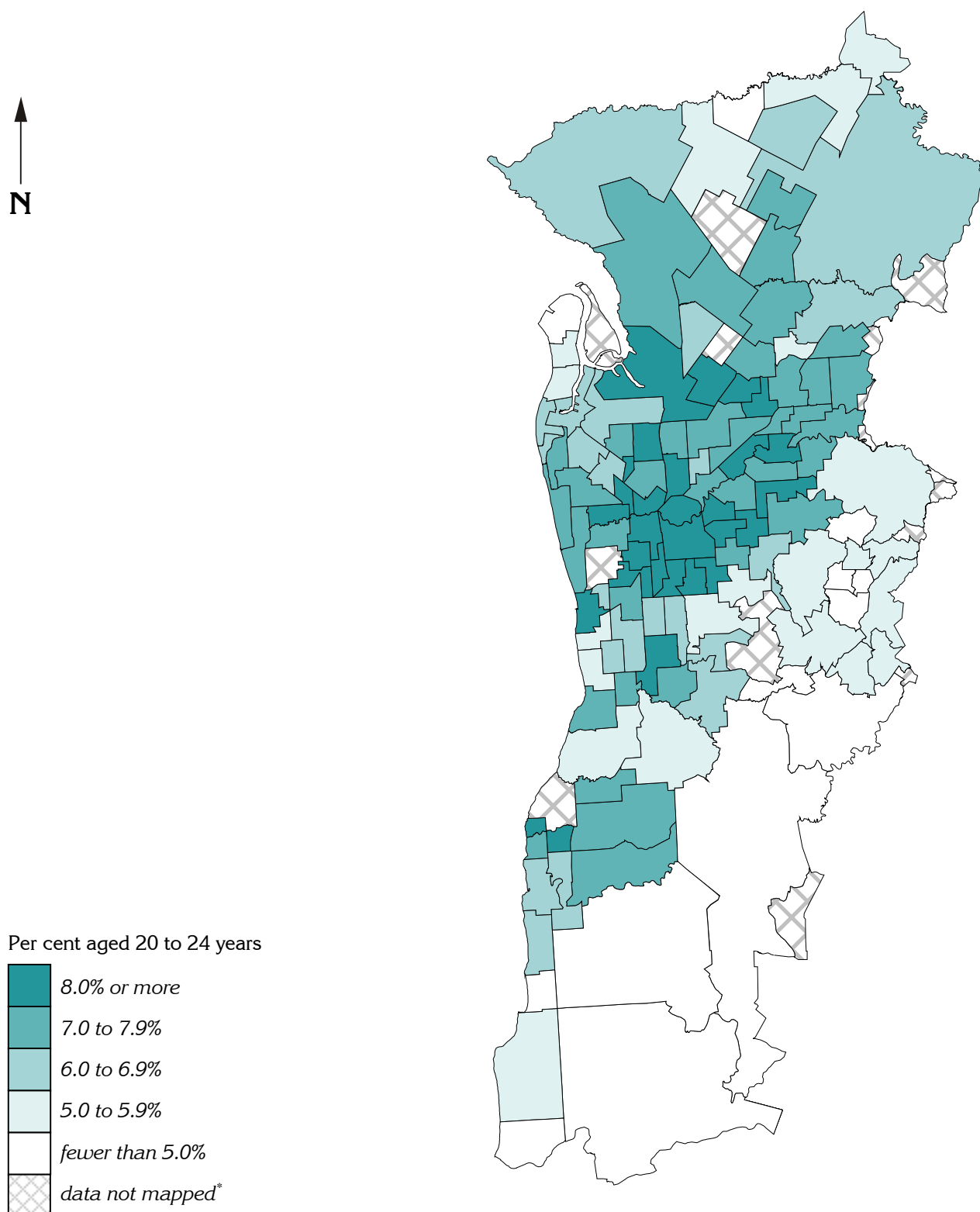
The largest numbers of people aged from 20 to 24 years were located in outer postcode areas. These included *Salisbury* (2,935 people), *Salisbury East* (1,699), *Elizabeth North* (1,385), *Elizabeth* (1,371), *Smithfield* (1,298) and *Modbury North* (1,241) in the outer north and *Morphett Vale* (2,413) and *Happy Valley* (1,850) in the outer south.

There was no consistent evidence in the correlation analysis at the postcode level between high proportions of people aged 20 to 24 years and socioeconomic disadvantage.

## Map 3.25

### People aged 20 to 24 years, Adelaide, 1998

as a percentage of the total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## People aged 20 to 24 years, 1998

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### Non-metropolitan South Australia

In 1998, there were an estimated 20,642 people aged from 20 to 24 years living in the non-metropolitan areas of South Australia, comprising 5.2% of the non-metropolitan population. From 1991 to 1998, the number of people in this age group fell by 3,956 people (16.1%). The proportion of people in this age group relative to the total population also declined over the period.

In non-metropolitan South Australia, the highest proportions of people aged from 20 to 24 years were located in the towns and in the Unincorporated areas (**Map 3.26**). These areas included the towns and settled areas of Roxby Downs (10.4%) and Mount Gambier (7.0%), and the Unincorporated areas of Riverland (9.8%), Far North (8.0%), West Coast (7.5%), Pirie (7.2%), and Flinders Ranges (6.9%).

Low proportions of people in this group were distributed unevenly across the State, particularly in SLAs in the Yorke Peninsula, the Mid North and to the east of the State; Yankalilla (2.8%), Yorke Peninsula-South and Lower Eyre Peninsula (both 3.0%), Barunga West (3.1%), Yorke Peninsula-North and Northern Areas (both 3.3%), Karoonda-East Murray (3.4%) and Tumby Bay (3.5%) all had proportions of 3.5% or less.

The largest numbers of people aged from 20 to 24 years were located in the towns and in regional centres on the fringe of the metropolitan area. These included Mount Gambier (1,621 people), Whyalla (1,451), Murray Bridge (986), Port Augusta (866), Port Pirie-City (860), Mount Barker-Central (786) and Port Lincoln (717).

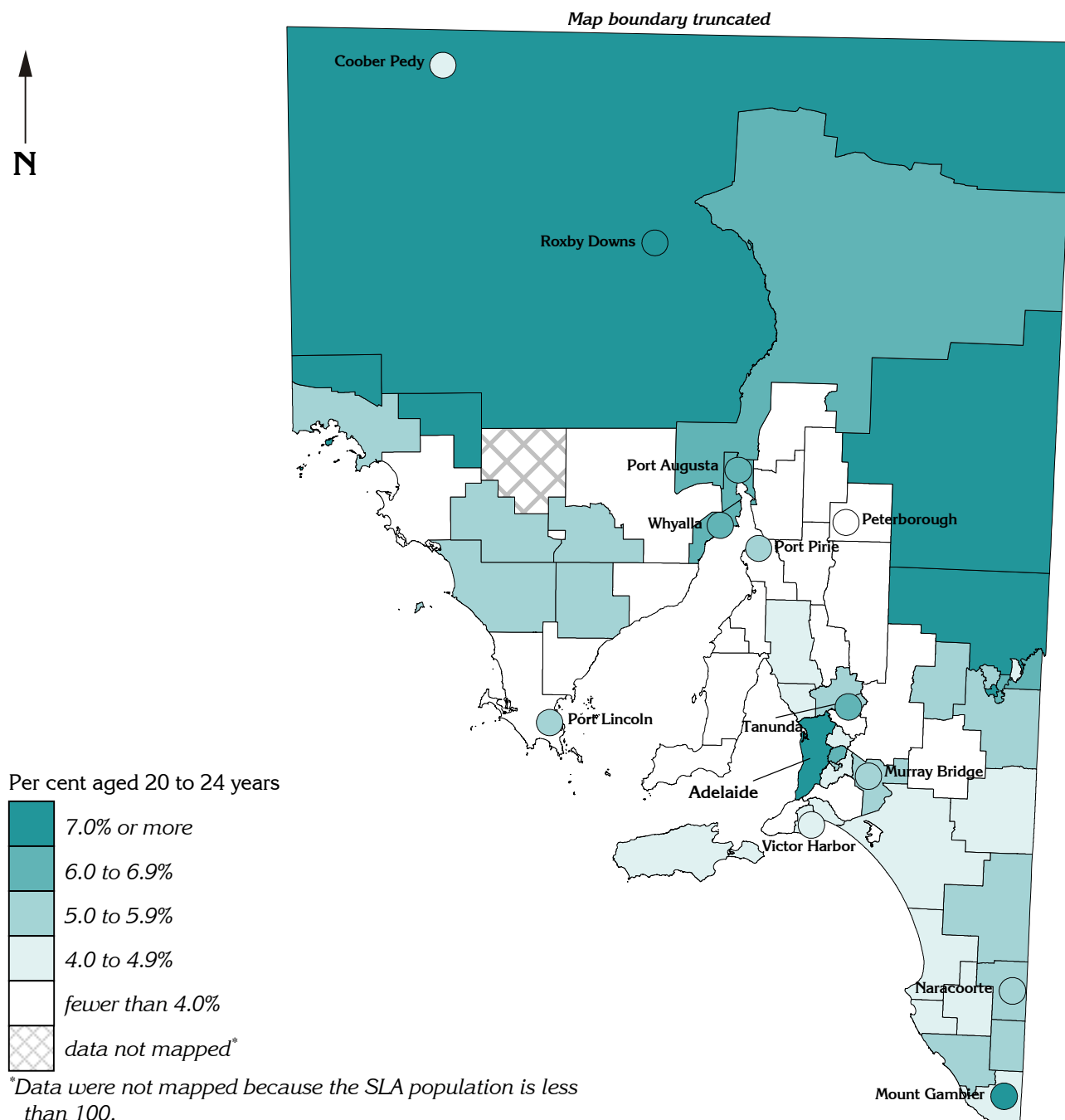
There was no consistent evidence in the correlation analysis at the SLA level between high proportions of people aged 20 to 24 years and socioeconomic disadvantage.



## Map 3.26

### People aged 20 to 24 years, South Australia, 1998

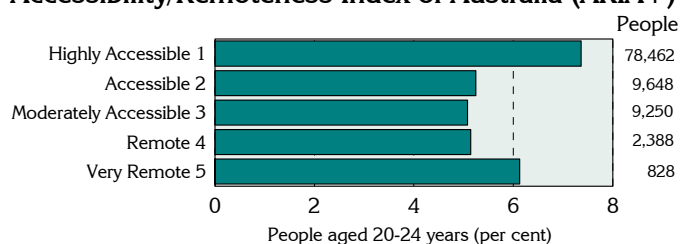
as a percentage of the total population in each Statistical Local Area



Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

#### Accessibility/Remoteness Index of Australia (ARIA+)



The highest proportion of people aged 20 to 24 years was estimated to be in the Highly Accessible areas, (7.4%). Proportions of around 5% were recorded in the next three ARIA+ classes, with a higher 6.1% in the Very Remote areas.

Source: Calculated on ARIA+ classification

A Social Health Atlas of Young South Australians, 2003

## Proportion of the population aged 15 to 24 years, 1998

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### Adelaide

In 1998, the estimated number of people aged from 15 to 24 years living in Adelaide was 154,204, comprising 14.2% of the metropolitan population. From 1991 to 1998, the number of people in this age group fell by 9,801 people (6.0%). The proportion of people in this age group also declined.

In contrast to the distribution of the 0 to 14 year old population, the metropolitan population aged 15 to 24 years tended to be located in postcode areas closer to the city, in particular in the inner and middle suburbs (**Map 3.27**). As this broad age group incorporates both the 15 to 19 year old and 20 to 24 year old age groups, each of which displays distinctively different spatial distribution patterns, to some extent the amalgamation of the groups masks the true variations in the underlying data.

The highest proportions of 15 to 24 year olds were in postcode areas located to the north and north-east of the city at *North Adelaide* (26.8%), *Gepps Cross* (20.6%), *Adelaide* (18.1%), *Highbury* (16.9%), *Ingle Farm* (16.5%), *Fairview Park* and *Tea Tree Gully* (both 16.2%), *Para Vista* and *Modbury North* (both 16.1%); to the south and south-west of the city at *St Marys* (19.1%), *Novar Gardens* (18.7%), *Goodwood* (16.6%) and *Christie Downs* (16.4%); to the east of the city at *Norwood* (18.5%) and *Kensington Park* (16.1%); and in the Adelaide Hills at *Eden Hills* (16.1%).

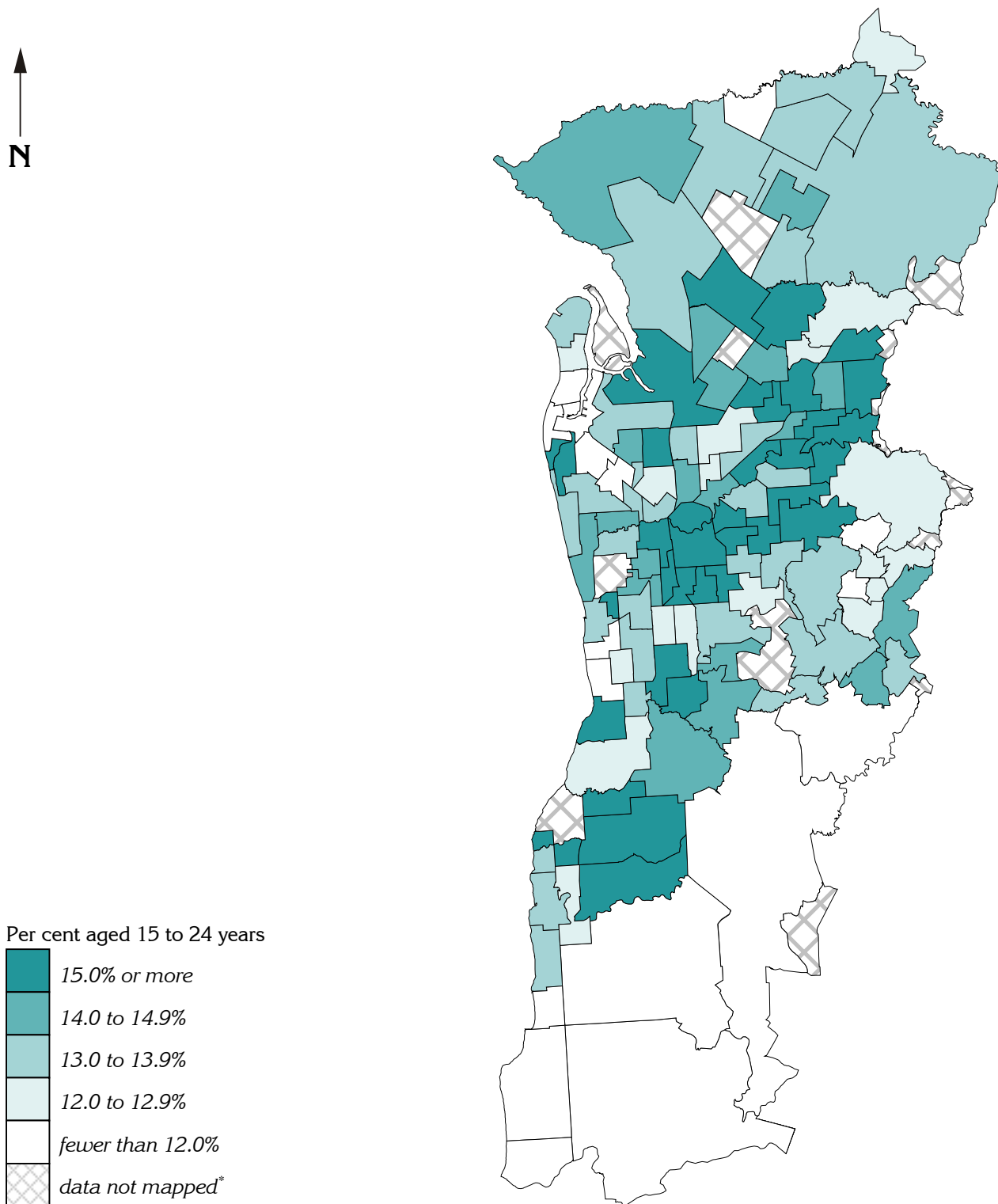
In contrast, relatively low proportions of the 15 to 24 year old population were found in pockets throughout the metropolitan area, most notably to the north and north-west of the city, in the Adelaide Hills and at the southern metropolitan fringe. The lowest proportions were in *Sellicks Beach* (9.6%), *Willunga* (9.8%), *Maslin Beach* (10.0%) and *Aldinga* (10.6%) in the south, *Largs Bay* (10.0%) in the west and *Norton Summit* (10.0%), *Summertown* (10.4%) and *Stirling Forward* (10.9%) in the Adelaide Hills.

There was no consistent evidence in the correlation analysis at the postcode level between high proportions of people aged 15 to 24 years and socioeconomic disadvantage.

## Map 3.27

# Proportion of the population aged 15 to 24 years, Adelaide, 1998

as a percentage of the total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## People aged 15 to 24 years, 1998: Proportion

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### Non-metropolitan South Australia

In 1998, there were 46,086 people aged from 15 to 24 years living in non-metropolitan South Australia, comprising 11.6% of the non-metropolitan population. Over the period from 1991 to 1998, the number of people in this age group fell by 3,426 people (6.9%). The proportion of people in this age group relative to the total population also declined.

The highest proportions of people aged from 15 to 24 years were in the Unincorporated areas of West Coast (17.8%), Riverland (17.1%), Far North (14.4%), Pirie (13.8%) and Flinders Ranges (13.6%); in the urban centres of Roxby Downs (15.1%), Mount Gambier (14.2%) and Port Augusta (13.0%); and elsewhere at Barossa-Tanunda (13.5%), Adelaide Hills-Balance (13.1%), Kapunda and Light (13.3%) and Paringa (13.0%).

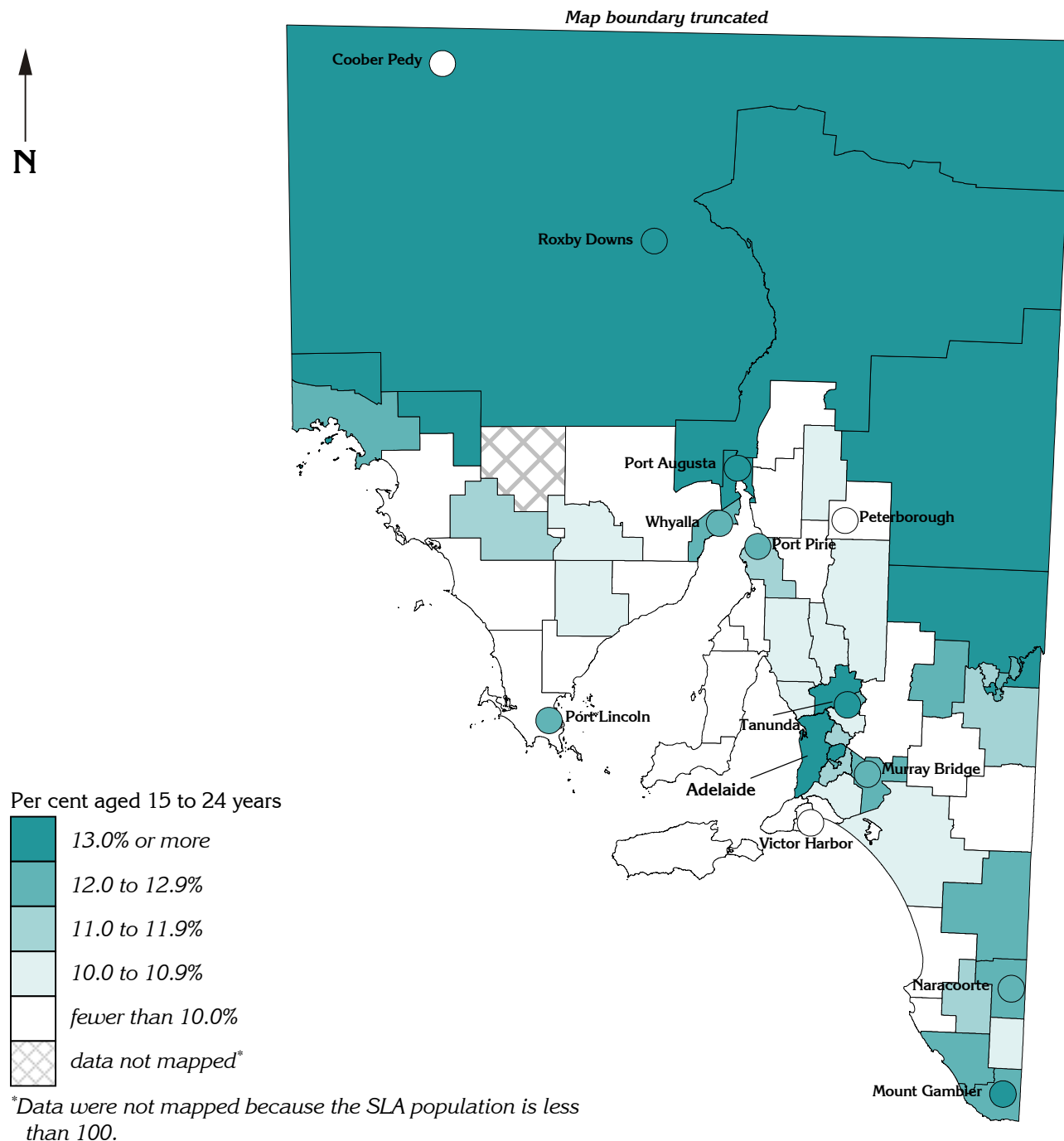
SLAs with low proportions of people in this age group were spread across the non-metropolitan areas of South Australia (**Map 3.28**). Yorke Peninsula-South (7.5%), Elliston (8.0%), Yankalilla and Karoonda-East Murray (both 8.2%), Yorke Peninsula-North (8.3%), Franklin Harbor (8.4%), Victor Harbor (8.6%), Streaky Bay and Cooper Coast (both 8.7%) and Northern Areas and Southern Mallee (both 8.8%) had the lowest proportions, of less than 9.0%.

There was no consistent evidence in the correlation analysis at the SLA level between high proportions of people aged 15 to 24 years and socioeconomic disadvantage.

# Map 3.28

## People aged 15 to 24 years, South Australia, 1998: Proportion

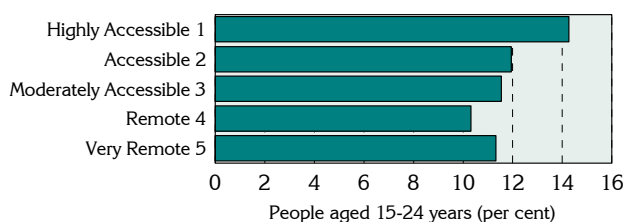
as a percentage of the total population in each Statistical Local Area



Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of the population aged from 15 to 24 years decreased steadily across the first four ARIA+ classes (from 14.3% in the Highly Accessible areas to 10.3% in the Remote areas), before increasing slightly in the Very Remote areas (11.3%).

Source: Calculated on ARIA+ classification

## People aged 15 to 24 years, 1998: Number

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### Adelaide

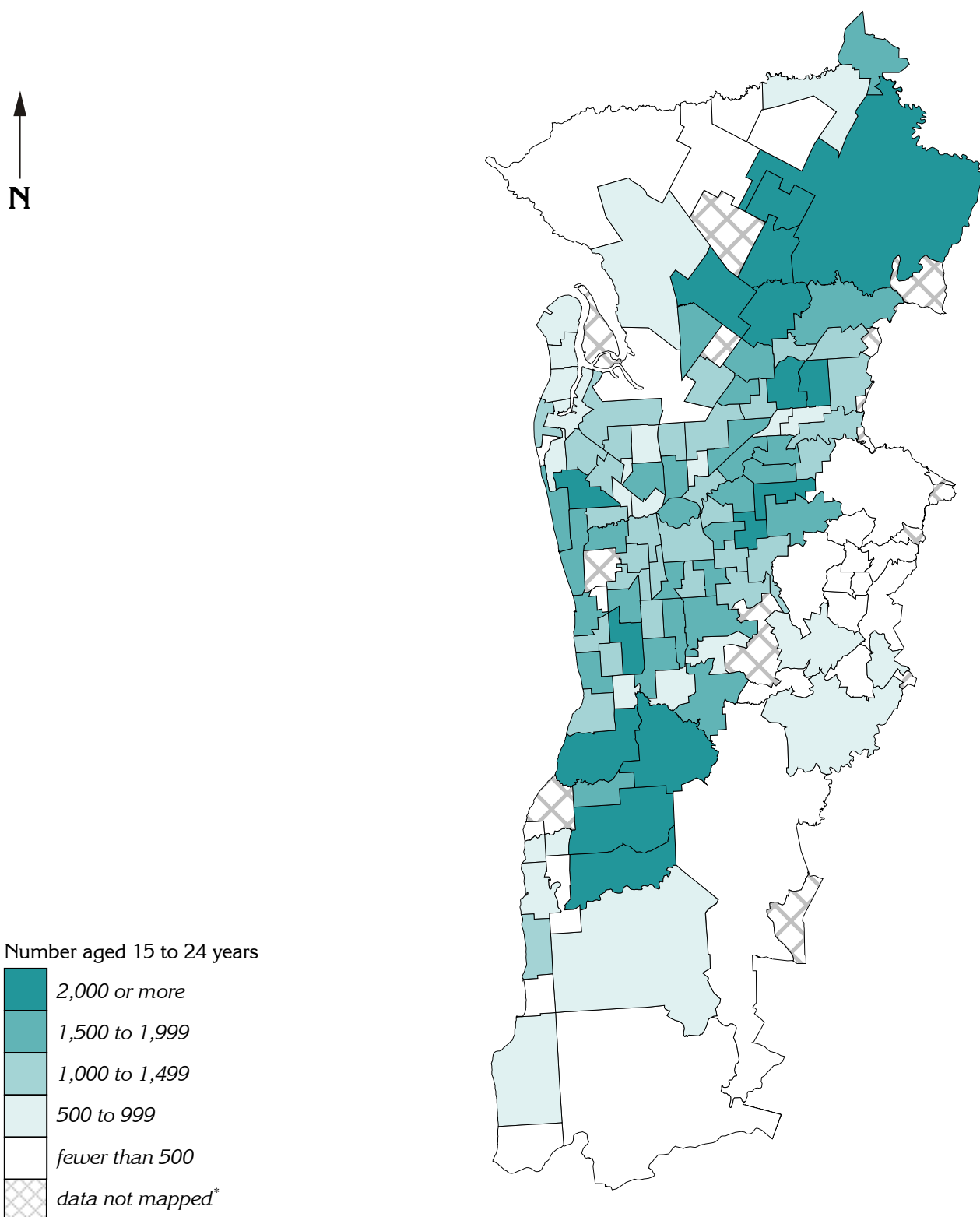
In 1998, there were an estimated 154,204 people aged from 15 to 24 years living in Adelaide. Over the period from 1991 to 1998, the number of people in this age group fell substantially, down by 9,801 people (6.0%).

Large numbers of 15 to 24 year olds were estimated to live in the outer metropolitan postcode areas, as well as within some postcodes located in the middle sector of the city (**Map 3.29**). The largest numbers were in the north, in *Salisbury* (5,773 people), *Salisbury East* (3,493), *Elizabeth North* (2,761), *Modbury North* (2,722) *Smithfield* (2,622), *Elizabeth* (2,554) and *St Agnes* (2,176); and in the south, in *Morphett Vale* (5,047) *Happy Valley* (4,680), *O'Halloran Hill* (2,755), *Hackham* (2,229) and *Park Holme* (2,202).

The smallest numbers of 15 to 24 year olds were in postcode areas located in the Adelaide Hills and in a small number of outer postcode areas. These were *Basket Range* (30 people), *Ashton* (40), *Norton Summit* (44), *Summertown* (59), *Uraidla* (62), *Piccadilly* (66), *Greenhill* (69), *Montacute* (75) and *Maslin Beach* (96).

## Map 3.29

### People aged 15 to 24 years, Adelaide, 1998: Number total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## People aged 15 to 24 years, 1998: Number

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### Non-metropolitan South Australia

In 1998, there were an estimated 46,086 people aged from 15 to 24 years living in the non-metropolitan areas of South Australia. Over the period from 1991 to 1998, the total number of people in this age group fell by 3,426 people (6.9%).

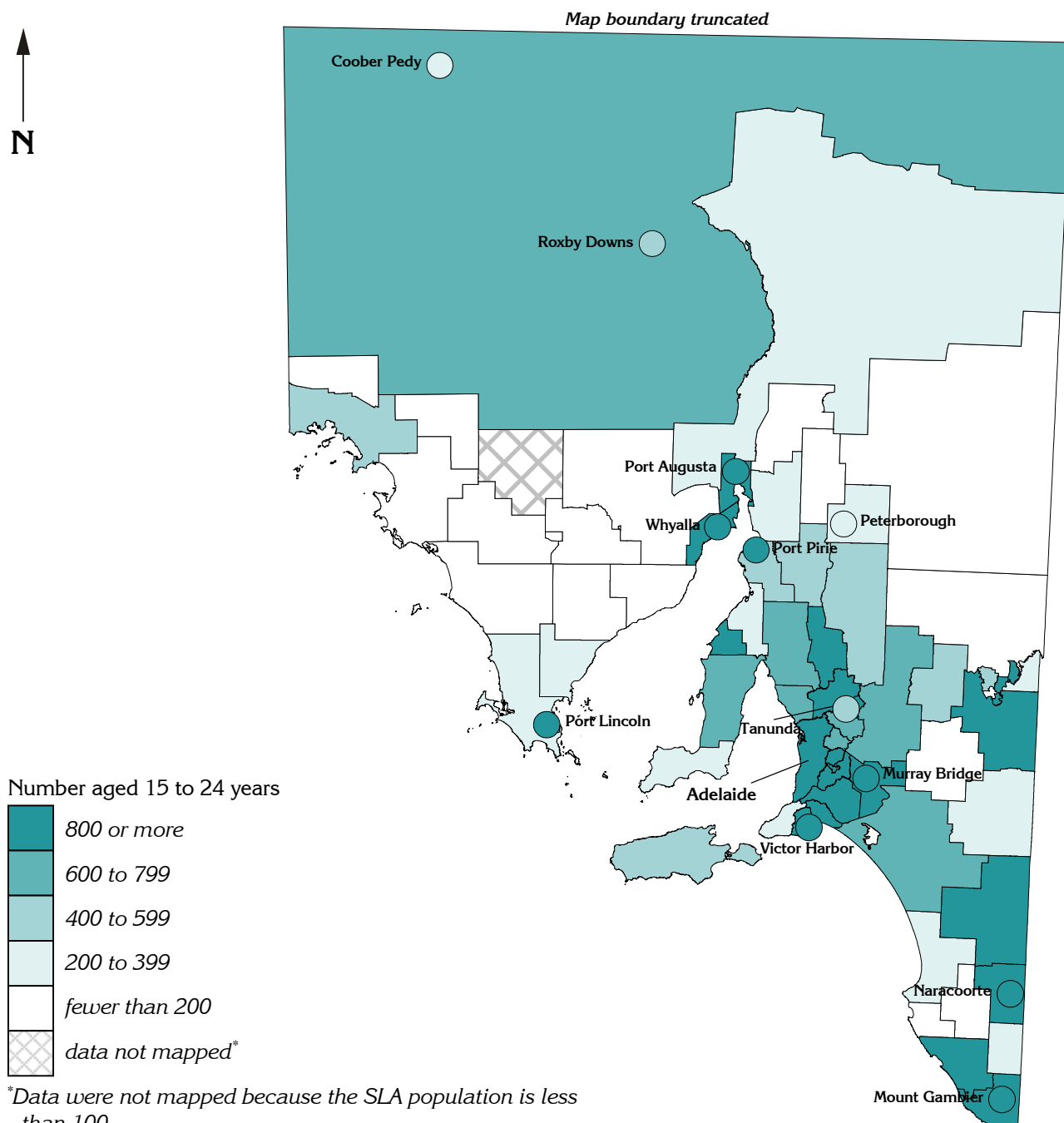
The largest numbers of 15 to 24 year olds were estimated to live in the towns of Mount Gambier (3,267 people), Whyalla (3,095), Murray Bridge (2,041), Port Augusta (1,822), Port Pirie-City (1,816), Mount Barker-Central (1,814), and Port Lincoln (1,650).

In contrast, relatively low numbers of the 15 to 24 year old population were found in the more remote SLAs such as Unincorporated Riverland (28 people), Unincorporated Whyalla (29), Unincorporated Pirie (44), Elliston (98), Franklin Harbor (102), Karoonda-East Murray (110), Unincorporated West Coast (111), Orroroo/Carrieton (119), Robe (121), Kimba (129) and Lucindale (149), all had fewer than 150 people in this age group (**Map 3.30**).



## Map 3.30

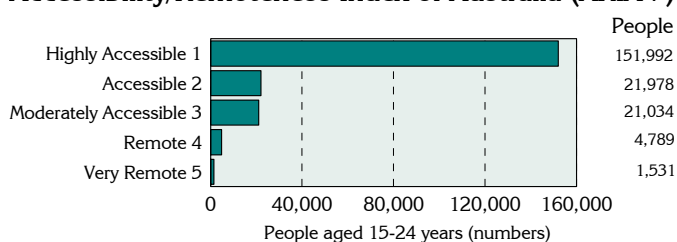
### People aged 15 to 24 years, South Australia, 1998: Number total population in each Statistical Local Area



Source: ERP, 1998, ABS Cat No. 3235.4

Details of map boundaries are in Appendix 1.2

#### Accessibility/Remoteness Index of Australia (ARIA+)



More than three quarters (75.5%, 151,992 people) of the population aged 15 to 24 years were estimated to live in the Highly Accessible areas. The numbers declined rapidly over the next four ARIA+ classes, to a low of 1,531 in the Very Remote areas.

Source: Calculated on ARIA+ classification

A Social Health Atlas of Young South Australians, 2003

# Unemployed males aged 15 to 24 years, 1996

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## Adelaide

There were 10,480 males aged 15 to 24 years in Adelaide recorded at the 1996 Census as being unemployed, an unemployment rate of 20.9%.

The highest proportions of unemployed 15 to 24 year old males were found in the inner north-western and western suburbs of Adelaide, as well as in the outer northern and southern suburbs (**Map 3.31**). The highest proportion was recorded in *Elizabeth North*, where 40.9% of all males at ages 15 to 24 years were unemployed. Other areas with high percentages included *Elizabeth* (35.7%), also in the outer north; *Ferryden Park* (38.5%), *Woodville North* (38.2%), *Osborne* (32.3%) and *Thebarton* (30.2%) in the west; *Blair Athol* (31.6%) in the north and *Aldinga* (39.5%), *O'Sullivan Beach* (37.0%), *Sellicks Beach* (31.0%) and *Christie Downs* (30.1%) in the outer south.

In contrast, the lowest proportions of unemployed males aged 15 to 24 years were generally in the hills suburbs, the inner south-eastern suburbs and in pockets along the metropolitan coastline. Postcode areas with less than 12.0% of unemployed males were *West Lakes*, *West Lakes Shore*, *Burnside*, *Greenhill*, *Montacute*, *Summertown*, *Uraidla*, *Gepps Cross* and *Willunga*,

The largest numbers of unemployed males in this age group were distributed in a similar pattern to the largest proportions: in the north in *Salisbury* (506 males), *Elizabeth North* (371), *Elizabeth* (298) and *Salisbury East* (238) and in the south in *Morphett Vale* (356), *Happy Valley* and *Hackham* (both 214).

There were correlations of substantial significance at the postcode level with the variables for children aged 0 to 14 years living in low income families (0.77) and dwellings with no motor vehicles (0.71); and unemployed females aged 15 to 24 years (0.75). Correlations of meaningful significance were found with the variables for children aged 0 to 14 years living in single parent families (0.70) and dwellings rented from the SA Housing Trust (0.59); people who left school at age 15 years or earlier (0.64); and Indigenous people aged 15 to 24 years (0.51).

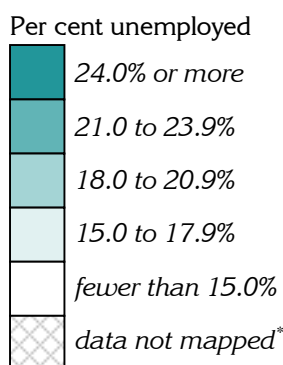
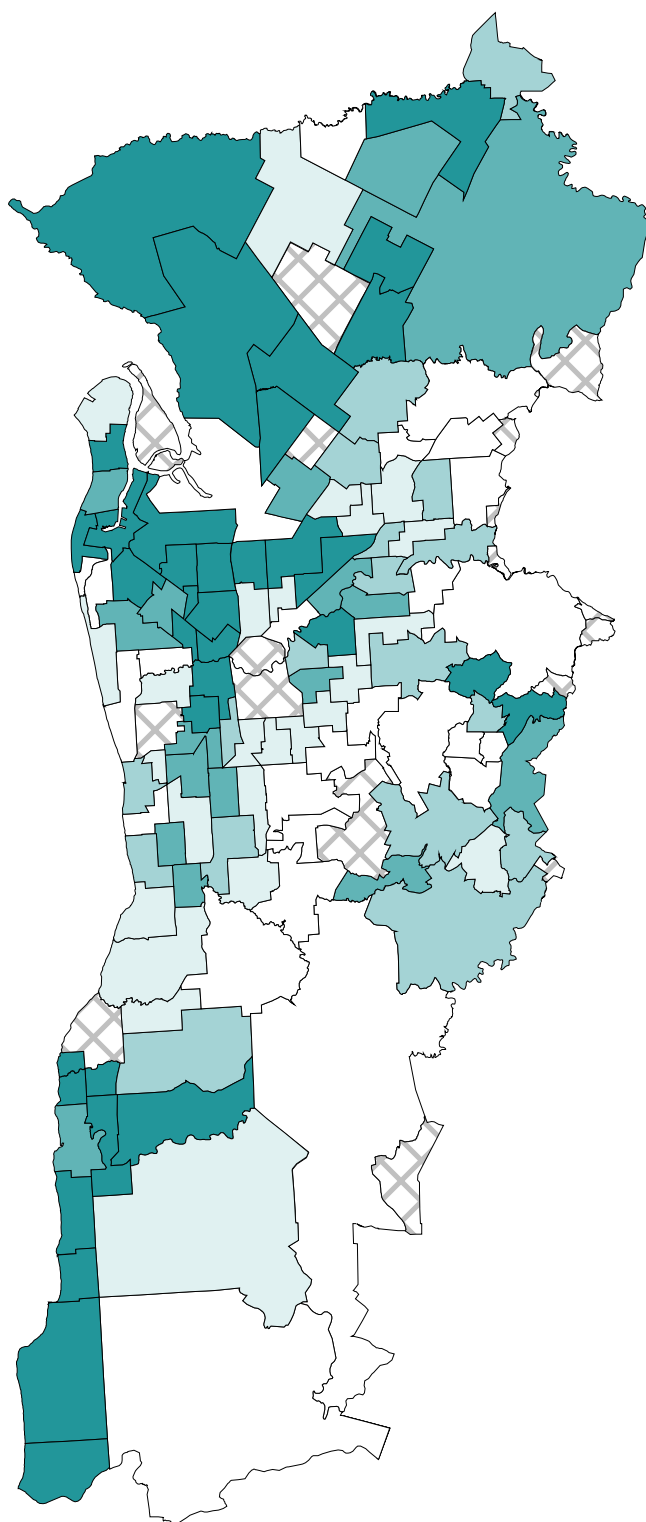
The correlation analysis also revealed a negative association with indicators of high socioeconomic status, with correlations of meaningful significance recorded with the variables for female labour force participation (-0.66), high income families (-0.65) and managers and administrators, and professionals (-0.50).

These results, together with the inverse correlation of substantial significance with the IRSD (-0.73), indicate an association at the postcode level between unemployed males and socioeconomic disadvantage.

### Map 3.31

## Unemployed males aged 15 to 24 years, Adelaide, 1996

as a percentage of males aged 15 to 24 years in the labour force in each postcode area



\* Data were not mapped because either too many non-resident people were included in the Census population, the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## Unemployed males aged 15 to 24 years, 1996

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### Non-metropolitan South Australia

There were 2,862 males aged 15 to 24 years in non-metropolitan South Australia recorded at the 1996 Census as being unemployed, an unemployment rate of 18.4%. This was lower than the rate in Adelaide, of 20.9%. Males at these ages are highly mobile and are likely to have moved from the non-metropolitan area as a whole (and from some rural areas in particular) to Adelaide, or interstate.

It should be noted that these data are unlikely to include details of young Indigenous males involved in the Community Development Employment Program (CDEP). Under this program unemployment benefits are paid to the community, and participants work for the benefit. It is likely that at least some young men involved in the CDEP would show themselves as 'employed', thereby understating the extent of unemployment. This is particularly likely to have affected the rates under ARIA+ (see graph opposite).

The distribution of unemployed males aged 15 to 24 years showed considerable variation across the State (**Map 3.32**). The highest proportions were in the towns of Peterborough (M) (41.2%), Port Pirie (35.5%), Coober Pedy (33.3%), Wallaroo (29.8%) and Port Lincoln (28.4%) and elsewhere at Dudley (55.0%), Pirie (40.0%), Kingscote (33.3%), Yorketown (32.1%) and Port Elliot and Goolwa (29.0%).

Many SLAs had low proportions of unemployed 15 to 24 year old males. Browns Well, Carrieton, Elliston, Franklin Harbor, Hawker, Lucindale, Orroroo, Peterborough (DC) and the Unincorporated areas of Pirie, Riverland and West Coast all had values of 0.0% unemployment for males in this age group.

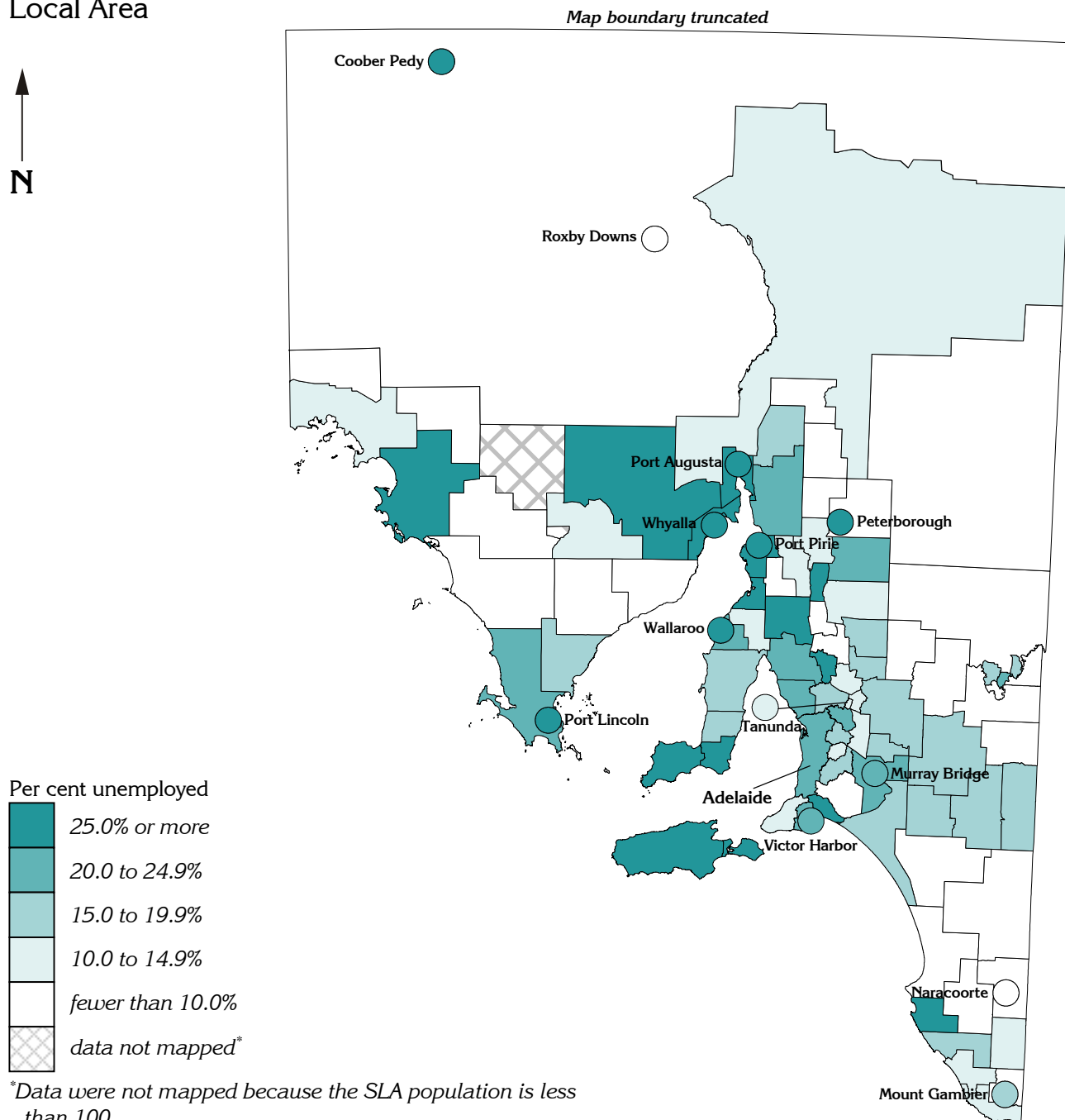
The largest numbers of unemployed males were located in the towns and major centres, including Whyalla (295 males), Port Pirie (217), Mount Gambier (C) (196), Port Augusta (167), Murray Bridge (159), Mount Barker (154) and Port Lincoln (149).

There were correlations of meaningful significance at the SLA level with the variables for children aged 0 to 14 years living in low income families (0.69), single parent families (0.67) and dwellings with no motor vehicles (0.53). These results, together with the correlation of meaningful significance with the IRSD (-0.51), suggest an association at the SLA level between high rates of unemployed males aged 15 to 24 years and socioeconomic disadvantage.

## Map 3.32

### Unemployed males aged 15 to 24 years, South Australia, 1996

as a percentage of males aged 15 to 24 years in the 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 (ARIA+)



The distribution of unemployed males aged 15 to 24 years by ARIA+ class is unusual, in that the lowest proportions were in the Very Remote (13.5%) areas. The comment in the text (opposite) on the CDEP should be read in this context. The Highly Accessible and Remote classes had the highest proportions.

Source: Calculated on ARIA+ classification

A Social Health Atlas of Young South Australians, 2003

# Unemployed females aged 15 to 24 years, 1996

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## Adelaide

There were 7,579 females aged 15 to 24 years in Adelaide recorded at the 1996 Census as being unemployed, an unemployment rate of 16.1%.

The distribution of unemployed females aged 15 to 24 years in Adelaide was similar to that of males, with the highest proportions recorded in postcode areas at the outskirts of the metropolitan area, as well as in the inner western and northern suburbs (**Map 3.33**). The highest proportion of unemployed females in this age group was recorded at *Ferryden Park*, with 34.9%. Other postcodes with high proportions of females in this group included *Elizabeth North* (33.9%), *Christie Downs* (30.8%), *Rosewater* (30.4%), *Osborne* (29.3%), *Elizabeth* (28.8%), *Aldinga* (28.1%) and *Woodville North* (28.1%).

In contrast, the lowest proportions of unemployed females aged 15 to 24 years were generally in postcode areas in the Adelaide Hills and south-eastern suburbs, with *Norton Summit*, *Ashton*, *Greenhill*, *Piccadilly*, *Montacute* and *Summertown* recording very low proportions of people in this group.

The largest numbers of 15 to 24 year old unemployed females were generally in northern, outer northern and outer southern postcode areas. Postcodes with in excess of 150 unemployed females were *Salisbury* (339 females), *Morphett Vale* (275), *Elizabeth North* (227), *Elizabeth* (205), *Salisbury East* (174) and *Happy Valley* (154).

There were correlations of substantial significance at the postcode level with the variables for children aged 0 to 14 years living in low income families (0.75), single parent families (0.73) and dwellings with no motor vehicles (0.72); and unemployed males aged 15 to 24 years (0.75). Correlations of meaningful significance were found with the variables for children aged 0 to 14 years living in dwellings rented from the SA Housing Trust (0.63), people who left school at age 15 years or earlier (0.63) and Indigenous people aged 15 to 24 years (0.61).

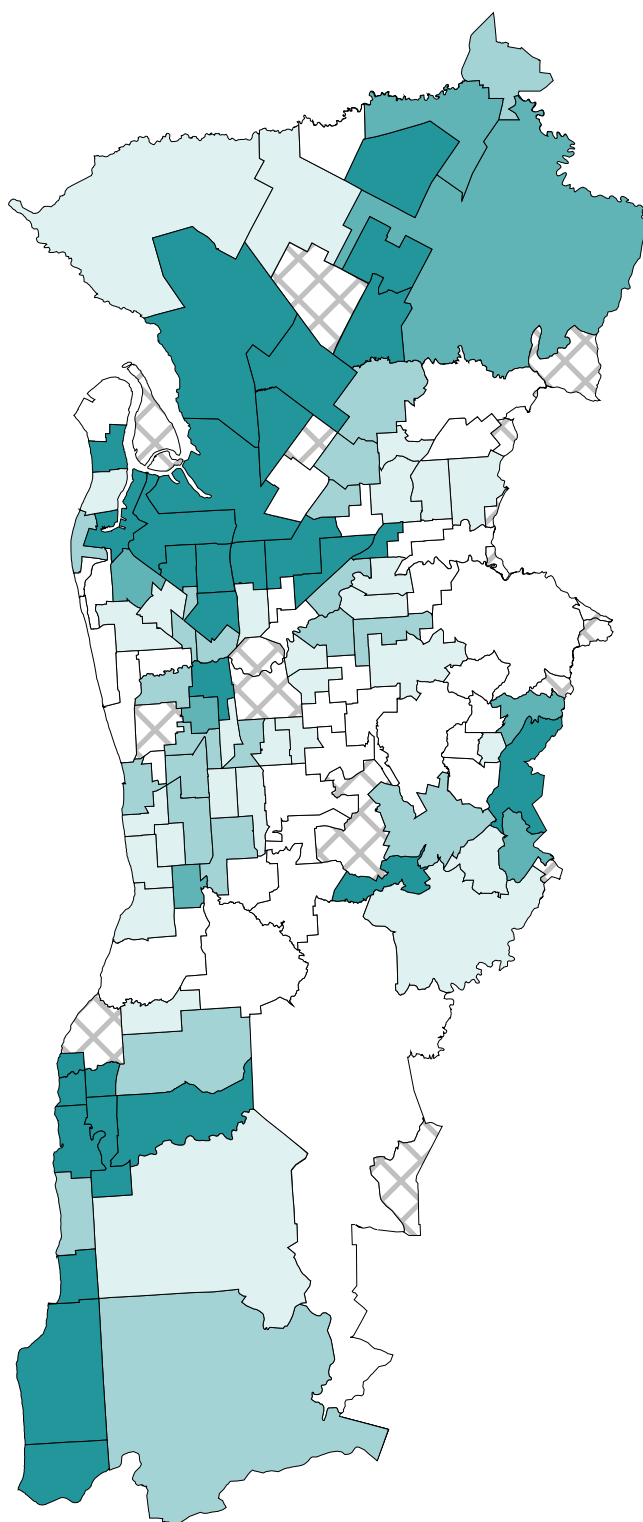
The correlation analysis also revealed a negative association with indicators of high socioeconomic status, with correlations of statistical significance recorded with the variables for female labour force participation (-0.74), high income families (-0.66) and managers and administrators, and professionals (-0.58).

These results, together with the inverse correlation of substantial significance with the IRSD (-0.77), indicate an association at the postcode level between high rates of unemployed females and socioeconomic disadvantage.

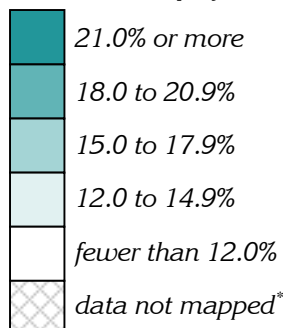
### Map 3.33

## Unemployed females aged 15 to 24 years, Adelaide, 1996

as a percentage of females aged 15 to 24 years in the labour force in each postcode area



Per cent unemployed



\* Data were not mapped because either too many non-resident people were included in the Census population, the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

# Unemployed females aged 15 to 24 years, 1996

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## Non-metropolitan South Australia

There were 2,075 females aged 15 to 24 years in non-metropolitan South Australia recorded at the 1996 Census as being unemployed, an unemployment rate of 17.1%. This was higher than the rate in Adelaide, of 16.1%.

It should be noted that these data are unlikely to include details of young Indigenous females involved in the Community Development Employment Program (CDEP). Under this program, unemployment benefits are paid to the community, and participants work for the benefit. It is likely that at least some young women involved in the CDEP would show themselves as 'employed', thereby understating the extent of unemployment. This is particularly likely to have affected the rates under ARIA+ (see graph opposite).

High rates of unemployment among the 15 to 24 year old female population were evident throughout the mid north of the State, and, to a lesser extent, on the west coast of the Eyre Peninsula (**Map 3.34**). The highest proportions were observed in the mid north of the State at Hallett (50.0%), Jamestown (33.3%), Rocky River (30.6%), Spalding (30.0%) and Peterborough (M) (28.9%); in outer Adelaide at Riverton (35.0%) and Kapunda (30.8%) and to the east at Karoonda-East Murray (31.6%) and Peake (30.0%).

Many SLAs had low proportions of unemployed females, although in many of these areas the total number of females in the labour force was also very low. Warooka, Unincorporated Whyalla, Pinnaroo, Bute, Coonalpyn Downs, Browns Well, Franklin Harbor, Hawker, Orroroo, Peterborough (DC) and the Unincorporated areas of Pirie, Riverland and West Coast all had values of 0.0% unemployed for this category.

The largest numbers of unemployed women aged from 15 to 24 years were found in the towns, including Whyalla (207 females), Mount Gambier (C) (185), Port Pirie (149), Mount Barker (140), Murray Bridge (103) and Port Augusta (100).

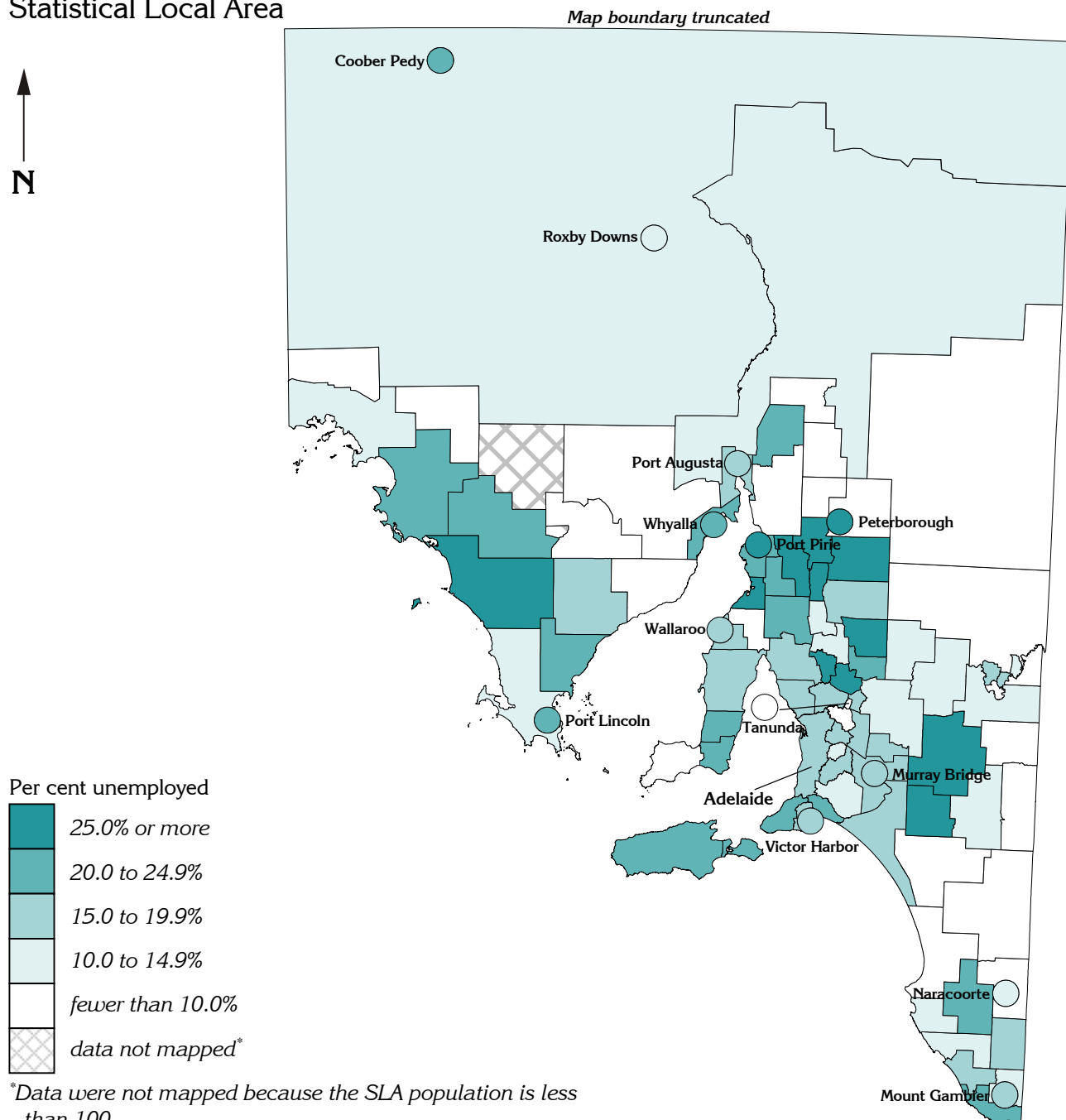
There were correlations of meaningful significance at the SLA level with the variables for children aged 0 to 14 years living in single parent families (0.67) and low income families (0.66). These results, together with the correlation of meaningful significance with the IRSD (-0.52), suggest an association at the SLA level between high rates of unemployed females aged 15 to 24 years and socioeconomic disadvantage.



## Map 3.34

# Unemployed females aged 15 to 24 years, South Australia, 1996

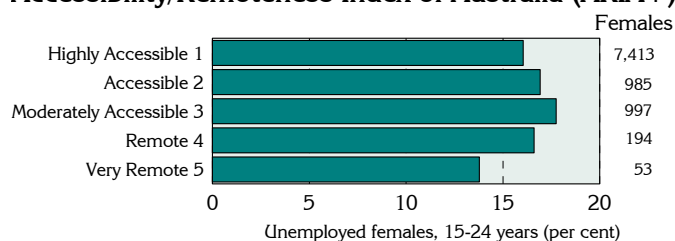
as a percentage of females aged 15 to 24 years in the labour force in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of unemployed females aged 15 to 24 years increases over the ARIA+ classes, from 16.0% in Highly Accessible to 17.7% in Moderately Accessible. The proportion then declines to a low of 13.8% in the Very Remote areas. The comment in the text (opposite) on the CDEP should be read in this context.

Source: Calculated on ARIA+ classification

# People aged 15 to 24 years who are full-time students, 1996

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## Adelaide

There were 62,628 full-time students aged from 15 to 24 years in Adelaide in 1996, comprising 41.1% of the metropolitan population at these ages.

The highest proportions of 15 to 24 year old full-time students were located in the inner eastern and south-eastern suburbs in *Glen Osmond* (66.7%), *Burnside* (65.2%), *Kingswood* (63.5%) and *Glenside* (58.0%); in the Adelaide Hills in *Montacute* (69.3%), *Upper Sturt* (67.5%), *Stirling* (62.9%), *Belair* (62.8%), *Aldgate* (62.2%), *Greenhill* (62.2%) and *Blackwood Forward* (60.4%); and elsewhere in *Novar Gardens* (61.1%).

In contrast, the lowest proportions of people aged 15 to 24 years who were full-time students were located in parts of the north-western and south-western suburbs (**Map 3.35**): the postcode areas of *Elizabeth* (24.5%), *Port Adelaide* (25.5%), *Elizabeth North* (25.7%), *Christies Beach* (25.8%), *O'Sullivan Beach* (26.5%), *Christie Downs* (27.2%), *Old Noarlunga* (29.2%), *Salisbury* (29.5%), *Osborne* (29.7%) and *Smithfield* (29.9%), all had proportions of below 30%.

The areas with the largest numbers of full-time students in this age group were, in some cases, also areas with low proportions; this demonstrates the need for careful interpretation of relative (proportions) and absolute numbers. The largest numbers of these students were in the outer south in *Happy Valley* (2,277 students), *Morphett Vale* (1,702) and *O'Halloran Hill* (1,257); in the outer north in *Salisbury* (1,595), *Modbury North* (1,241) and *Salisbury East* (1,198) and in the south-eastern suburbs at *Kingswood* (1,189) and *Kensington Park* (1,016).

Inverse correlations of statistical significance were found with the variables for children aged 0 to 14 years living in low income families (-0.71), single parent families (-0.69) and dwellings with no motor vehicles (-0.59); unemployed males (-0.56) and females (-0.56) aged 15 to 24 years; and Indigenous people aged 15 to 24 years (-0.55).

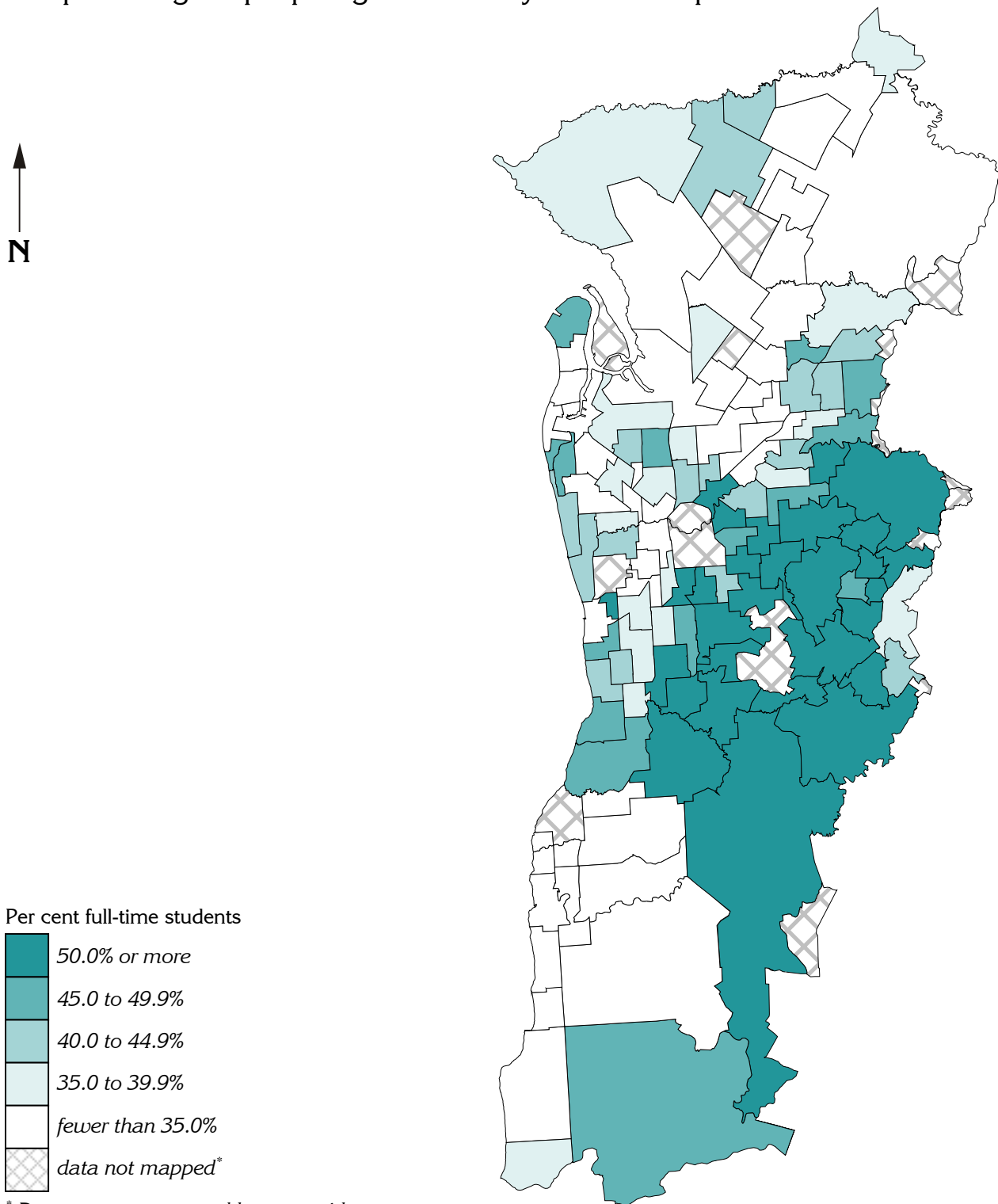
The correlation analysis also revealed a positive association with indicators of high socioeconomic status, with correlations of statistical significance recorded with the variables for managers and administrators, and professionals (0.81), high income families (0.80) and female labour force participation (0.62).

These results, together with the correlation of substantial significance with the IRSD (0.76), suggest an association at the postcode level between full-time students aged 15 to 24 years and high socioeconomic status.

### Map 3.35

## People aged 15 to 24 years who are full time students, Adelaide, 1996

as a percentage of people aged 15 to 24 years in each postcode area



\* Data were not mapped because either too many non-resident people were included in the Census population, the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## People aged 15 to 24 years who are full-time students, 1996

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### Non-metropolitan South Australia

There were a total of 13,955 full-time students aged from 15 to 24 years living in non-metropolitan South Australia in 1996, comprising 31.1% of the non-metropolitan 15 to 24 year old population. This was considerably lower than the corresponding metropolitan figure of 41.1%, and is likely to reflect the greater availability of educational opportunities open to students living in the metropolitan area.

The distribution of full-time students aged 15 to 24 years in non-metropolitan South Australia was centred on the surrounds of the metropolitan area and parts of the mid north (**Map 3.36**). The highest proportions were in Peake (53.6%), Riverton (53.2%), Robertstown (51.3%), Light (49.1%), Carrieton (47.8%), Orroroo (47.2%), Eudunda (46.7%), Jamestown (45.5%), Minlaton (45.3%) and Mount Pleasant (45.0%).

Relatively low proportions of 15 to 24 year olds in this group were found in the Unincorporated areas and in pockets across the State; Unincorporated West Coast, Unincorporated Far North, Unincorporated Riverland, Unincorporated Pirie, Unincorporated Lincoln, Elliston and Roxby Downs all had proportions of less than 20.0%.

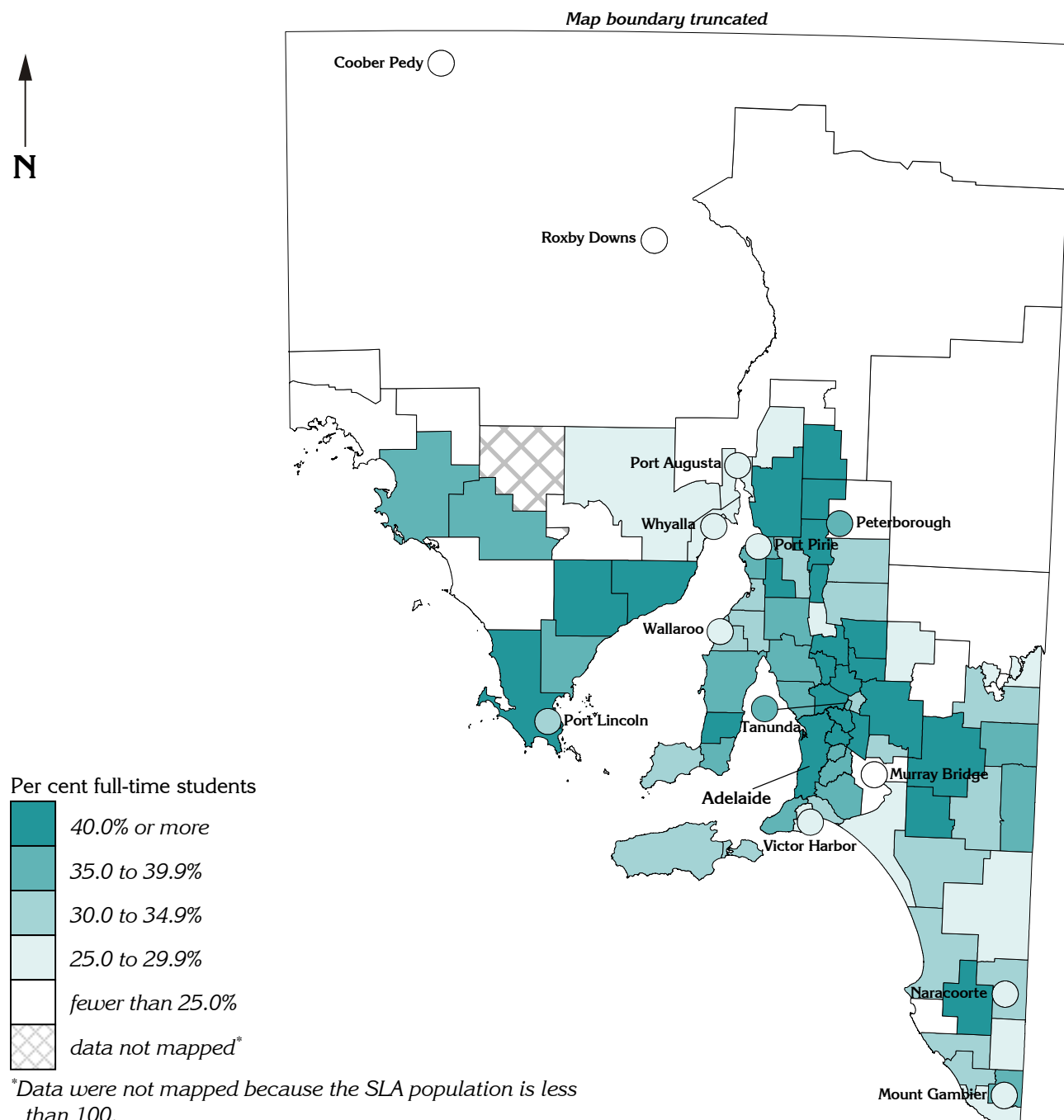
The largest numbers of full-time students were located in the towns and other settled areas; Mount Barker (1,031 students), Whyalla (946), Mount Gambier (C) (834) and Port Lincoln (541) each had in excess of 500 students.

Inverse correlations of meaningful significance were found with the variables for children aged 0 to 14 years living in dwellings with no motor vehicles (-0.59); and Indigenous people aged 0 to 14 years (-0.64) and 15 to 24 years (-0.63). These results, together with the correlation of meaningful significance with the IRSD (0.66), suggest an association at the SLA level between full-time students aged 15 to 24 years and high socioeconomic status.

## Map 3.36

### People aged 15 to 24 years who are full-time students, South Australia, 1996

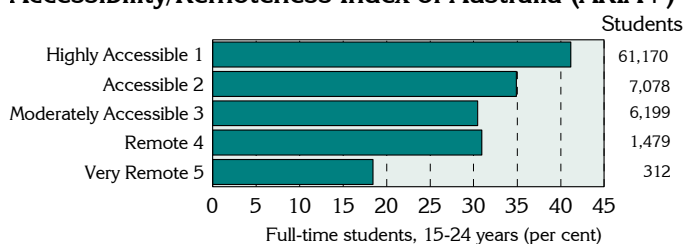
as a percentage of all people aged 15 to 24 years in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

#### Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of the population aged 15 to 24 years who are full-time students shows a strong relationship with the accessibility and remoteness. Proportions range from 41.2% in the Highly Accessible areas to 18.4% in the Very Remote areas.

Source: Calculated on ARIA+ classification

A Social Health Atlas of Young South Australians, 2003

# People aged 15 to 24 years who left school aged 15 or less, 1996

## Adelaide

Although the age at which one leaves school is not an absolute determinant of future wellbeing, there are strong links between completion of education and the ability to gain secure employment, with implications for social health and wellbeing. However, it should be recognised that school is not an appropriate or desired setting for all young people. Like other environmental influences on children's development, positive school influences can have benefits for both advantaged and disadvantaged children but, on their own, are unlikely to reduce population variance to any marked extent (Rutter & Maughan 2002).

This variable has been age standardised to remove differences in participation rates occurring between areas solely because of differences in the age of the population in the areas being studied. A description of this process is on page 368.

In 1996, there were 14,994 people aged 15 to 24 years who left school at age 15 years or less (or did not go to school) living in Adelaide, 8% fewer than were expected from the State rates (a standardised ratio (SR) of 92<sup>\*\*</sup>). The highest rates of 15 to 24 year olds leaving school when aged 15 years or younger were located in the outer suburbs and in the inner north and north-west (**Map 3.37**). These included the outer northern suburbs of *Elizabeth North* (with an SR of 229<sup>\*\*</sup>, i.e. more than twice the number of early school leavers expected from the State rates), *Elizabeth* (191<sup>\*\*</sup>), *Munno Para* (184<sup>\*\*</sup>), *Evanston* (175<sup>\*\*</sup>) and *Virginia* (162<sup>\*\*</sup>); in the northern and western suburbs of *Osborne* (202<sup>\*\*</sup>), *Enfield* (180<sup>\*\*</sup>), *Woodville North* (161<sup>\*\*</sup>) and *Ferryden Park* (161<sup>\*\*</sup>); in the southern suburbs of *Christie Downs* (200<sup>\*\*</sup>) and *Old Noarlunga* (172<sup>\*\*</sup>); and in the hills in *Basket Range* (199<sup>\*\*</sup>). In contrast, the lowest ratios were located in south-eastern and in a number of Adelaide Hills postcode areas. Postcodes with at least 30% fewer early school-leavers than expected from the State rates included *Upper Sturt*, *Belair*, *Carey Gully*, *Kingswood*, *Stirling* and *Burnside*.

The largest numbers of young people in this group were located in the outer northern and southern suburbs; in the north in *Salisbury* (937 young people), *Elizabeth North* (659), *Elizabeth* (518), *Salisbury East* (412) and *Smithfield* (409), and in the south in *Morphett Vale* (635).

There was a correlation of substantial significance with the variable for children aged 0 to 14 years

living in low income families (a positive correlation of 0.74). There were also correlations of meaningful significance with the variables for children aged 0 to 14 years living in dwellings with no motor vehicles (0.63), single parent families (0.62) and dwellings rented from the SA Housing Trust (0.62); unemployed males (0.63) and females (0.60); Indigenous people aged 15 to 24 years (0.51); and dependent children living in low income families (0.70). These results, together with the inverse correlations of substantial significance with the IRSD (-0.78), indicate an association at the postcode level between high proportions of people who left school at age 15 years or earlier and socioeconomic disadvantage. The correlation analysis also revealed a negative association at the postcode level with indicators of high socioeconomic status, with correlations of substantial significance recorded with the variables for female labour force participation (-0.79) and high income families (-0.78).

### Participation and retention rates<sup>1</sup>

In South Australia, participation rates for full-time school students in 2001 were 92.9% for 15 year-olds, 84.2% for 16 year-olds, 59.5% for 17 year-olds, 8.8% for 18 year-olds and 1.7% for 19 year-olds (ABS 2001). Over the last decade, the age participation rate for 16 (81.2% in 1991) and 17 (39.9% in 1991) year-olds has risen, while there has been a decrease in participation rates among 15 (93.7% in 1991) and 18 (2.7% in 1991) year-olds. Since 1991, the participation rate among 18 year-olds has remained relatively stable, rising slightly from 8.7%.

In 2001, the apparent retention rate<sup>2</sup> of full-time school students from Year 7/8 to Year 12 was 66.4% compared to 83.5% in 1991 (ABS 2001). As in previous years, the apparent retention rate for females (72.5%) was significantly higher than the rate for males (60.4%). Over the last decade, the apparent retention rate from Year 10 to Year 12 also decreased significantly, from 85.3% in 1991 to 69.6% in 2001, with the rate for females in 2001 again being considerably higher than that for males (75.1% and 64.2% respectively).

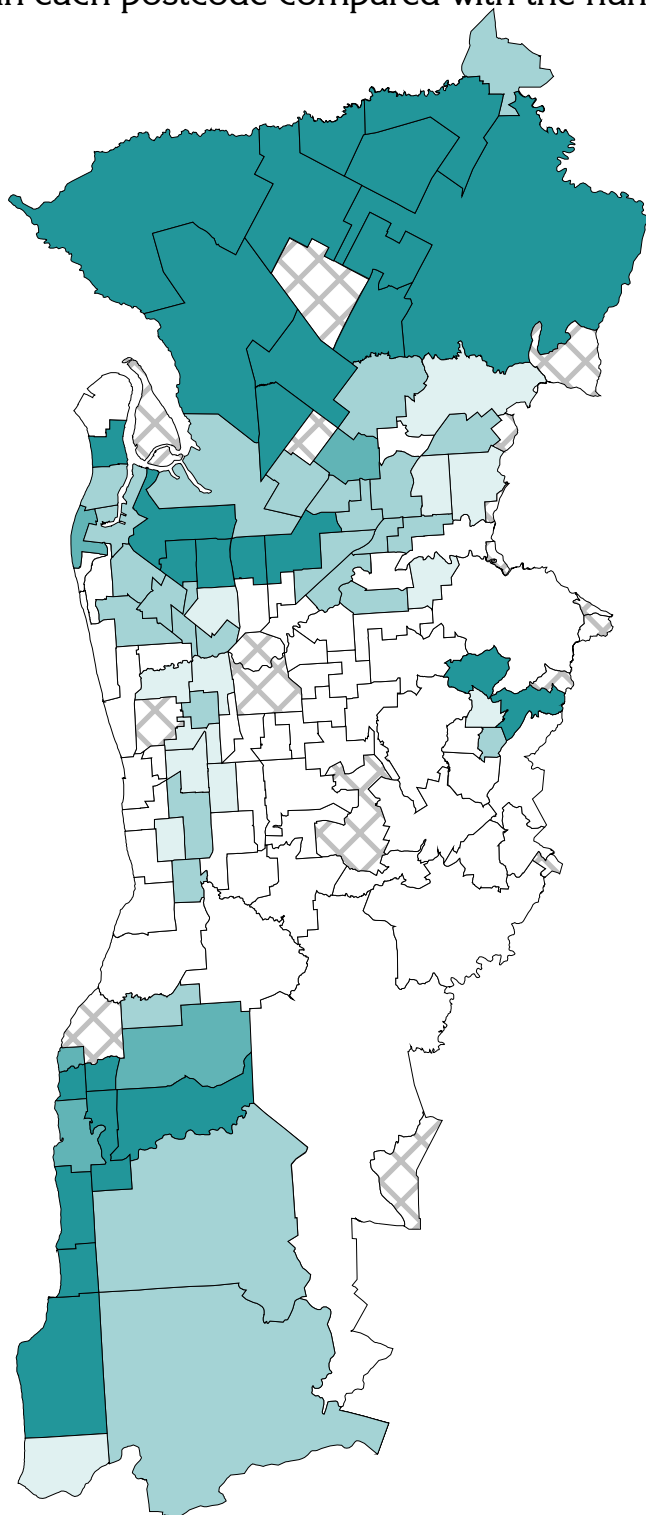
<sup>1</sup>Participation rates are calculated as the number of full-time school students at an age expressed as a proportion of the population at that age.

<sup>2</sup>Retention rates are calculated as the total number of full-time students in Year 12 divided by the number of the full-time students in year 8.

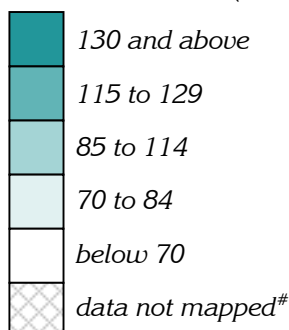
### Map 3.37

## People aged 15 to 24 years who left school aged 15 or less, Adelaide, 1996

Standardised ratio: number of people in each postcode compared with the number expected\*



Standardised Ratio (as an index)



\* Expected numbers were derived by indirect age standardisation

<sup>#</sup> Data were not mapped because either too many non-resident people were included in the Census population, the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

# People aged 15 to 24 years who left school aged 15 or less, 1996

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## Non-metropolitan South Australia

This variable has been age standardised to remove differences in participation rates occurring between areas solely because of differences in the age of the population in the areas being studied. A description of this process is on page 368.

In 1996, there were 5,792 early school-leavers aged from 15 to 24 years living in the non-metropolitan areas of South Australia, 24% more than were expected from the State rates (a standardised ratio (SR) of 124<sup>\*\*</sup>). This figure was relatively high in comparison with that in Adelaide, although it should be noted that the tendency for young people to move to the metropolitan area in order to complete their education may inflate the proportion of those who left school early (as the composition of the total remaining population is altered as a result). This is relevant to the ARIA+ graph, opposite.

The highest rates of early school leavers in this age group were primarily located in the Unincorporated areas of the State (**Map 3.38**). These include the Unincorporated areas of Riverland (with an SR of 498<sup>\*\*</sup>, 16 young people), West Coast (317<sup>\*\*</sup>, 32), Far North (190<sup>\*\*</sup>, 166) and Pirie (178<sup>\*\*</sup>, 8), as well as Peterborough (DC) (256<sup>\*\*</sup>), Ceduna (228<sup>\*\*</sup>), Morgan (175<sup>\*\*</sup>), Meningie (172<sup>\*\*</sup>), Wallaroo (169<sup>\*\*</sup>), Renmark (167<sup>\*\*</sup>), Waikerie (167<sup>\*\*</sup>) and Northern Yorke Peninsula (165<sup>\*\*</sup>). These are also areas with high proportions of Indigenous young people, who are much more likely to have left school at age 15 years or earlier than non-Indigenous young people. At the 1996 Census, 34.0% of Indigenous people aged from 15 to 24 years had left school at age 15 years or earlier, or not attended school, nearly two and a half times the rate of 14.1% for non-Indigenous young people. These figures are for Australia as a whole, but are likely to be representative of the position in South Australia. The gap between these rates is likely to be even greater in the more remote areas and should be borne in mind when reading the ARIA+ graph, opposite.

In contrast, relatively low proportions of early school-leavers in this age group were located in the Barossa Valley and Adelaide Hills to the east of Adelaide, as well as in parts of the Eyre Peninsula and the South East. Areas with at least 30% fewer early school-leavers than were expected from the

State rates were Lucindale (with an SR of 37<sup>\*\*</sup>), Kimba (41<sup>\*\*</sup>), Cleve (60<sup>\*\*</sup>), Spalding (62<sup>\*\*</sup>), Naracoorte (DC) (63<sup>\*\*</sup>), Eudunda (66<sup>\*\*</sup>), Lameroo (68<sup>\*\*</sup>), Jamestown (69<sup>\*\*</sup>) and Peake (70<sup>\*\*</sup>).

The largest numbers of people in this group were generally located in the towns and settled areas, in Mount Gambier (C) (396 young people), Whyalla (357), Murray Bridge (354), Mount Barker (261), Port Pirie and Port Augusta (both 257).

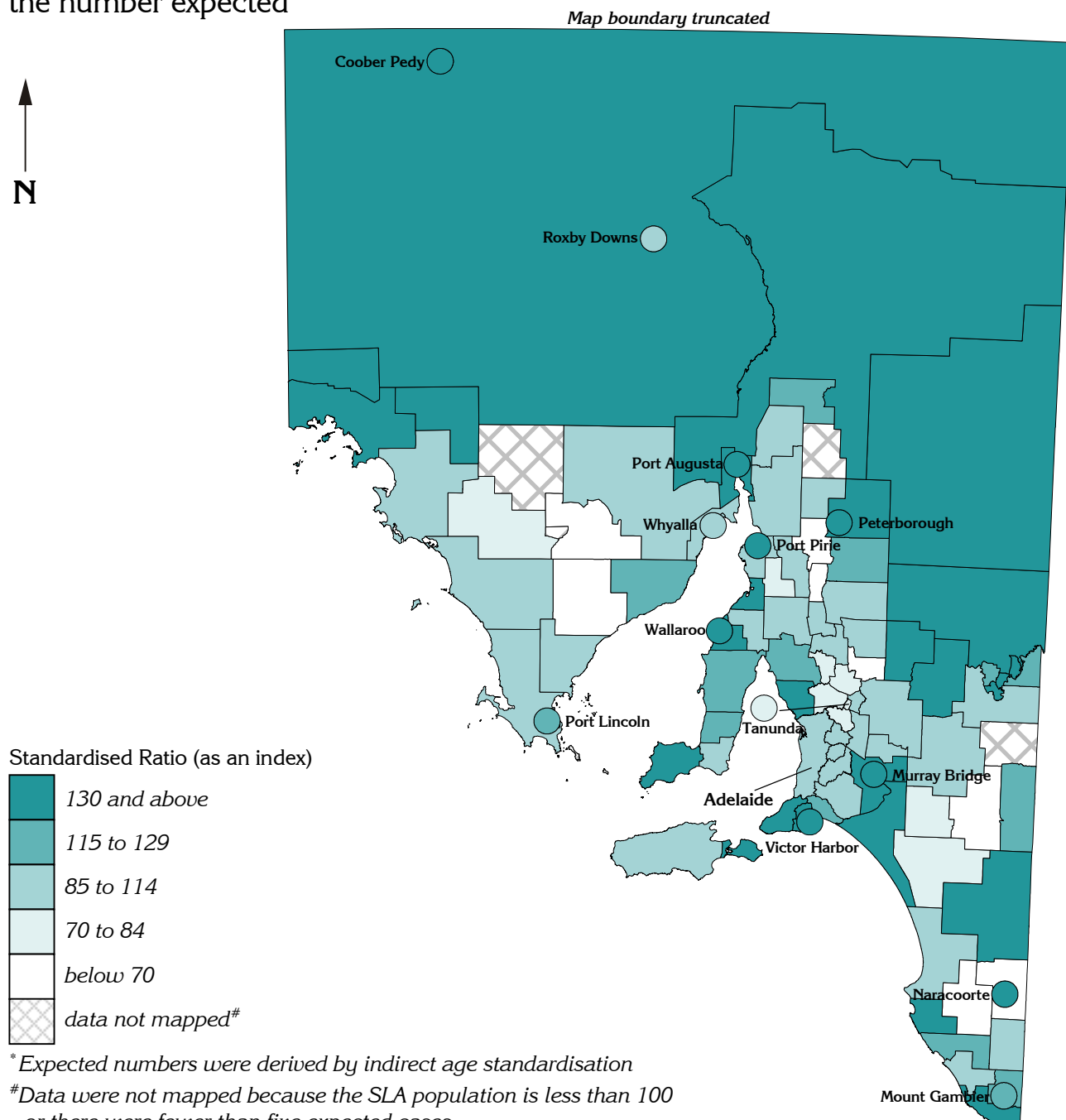
There were weak correlations at the SLA level with the variables for children aged 0 to 14 years living in dwellings with no motor vehicles (0.44) and Indigenous people (a correlation of 0.48 for children aged 0 to 14 years and 0.47 for people aged 15 to 24 years). These results, together with the inverse correlation of meaningful significance with the IRSD (-0.65), suggest an association at the SLA level between high proportions of people who left school at age 15 years or earlier and socioeconomic disadvantage.



## Map 3.38

### People aged 15 to 24 years who left school aged 15 or less, South Australia, 1996

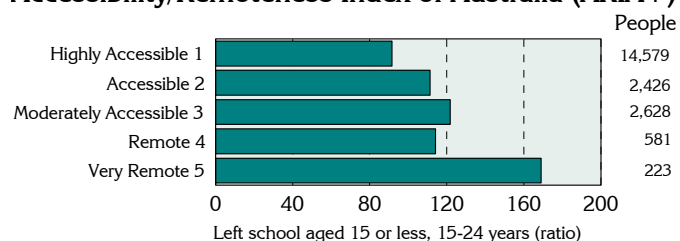
Standardised ratio: number of people in each Statistical Local Area compared with the number expected\*



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

#### Accessibility/Remoteness Index of Australia (ARIA+)



Young people living in the Highly Accessible areas have the highest rate of educational participation. As accessibility decreases, people are increasingly likely to have left school early (with an SR of 169 in the Very Remote areas): the relatively high proportion of Indigenous people in these areas is likely to be an important influence on the rates (see text opposite).

Source: Calculated on ARIA+ classification

# Aboriginal people and Torres Strait Islanders aged 15 to 24 years, 1996

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## Adelaide

In 1996, there were 1,845 people aged from 15 to 24 years who identified as being of Aboriginal or Torres Strait Islander descent living in Adelaide. This figure represents 1.2% of all 15 to 24 year olds living in Adelaide.

People aged from 15 to 24 years and identifying as being of either Aboriginal or Torres Strait Islander origin are highly concentrated in the north-western suburbs (**Map 3.39**). The highest proportions of 15 to 24 year olds in this group are in the northern and north-western postcode areas of *Enfield* (5.4%), *Osborne* (4.6%), *Gepps Cross* (4.3%), *Rosewater* (3.9%), *Woodville North* (3.8%), *Alberton* (3.3%), *Hindmarsh* (3.2%), *Kilkenny* (2.9%), *Blair Athol* (2.8%) and *Largs Bay* (2.7%), in the outer north at *Elizabeth North* (3.3%) and in the south at *Maslin Beach* (3.0%).

The lowest proportions of people identified as Aboriginal or Torres Strait Islander were primarily in the south-eastern and hills areas of Adelaide. Around one fifth of postcode areas (21 postcodes) had 0.0% of 15 to 24 year olds identifying as Aboriginal or Torres Strait Islanders; these included *MacDonald Park*, *Greenhill*, *Burnside*, *West Lakes*, *Golden Grove* and *Willunga*.

The largest numbers of 15 to 24 year old Aboriginal or Torres Strait Islander people were located in the northern, western and southern suburbs; the largest were in *Salisbury* (105 people), *Elizabeth North* (92), *Enfield* (77), *Salisbury East* (63), *Elizabeth* (59) and *Woodville North* (51).

There were correlations of statistical significance at the postcode level with the variables for children aged 0 to 14 years living in single parent families (0.71), dwellings with no motor vehicles (0.70), low income families (0.65) and dwellings rented from the SA Housing Trust (0.60); unemployed males (0.51) and females (0.61) aged 15 to 24 years; and people who left school at age 15 years or earlier (0.55).

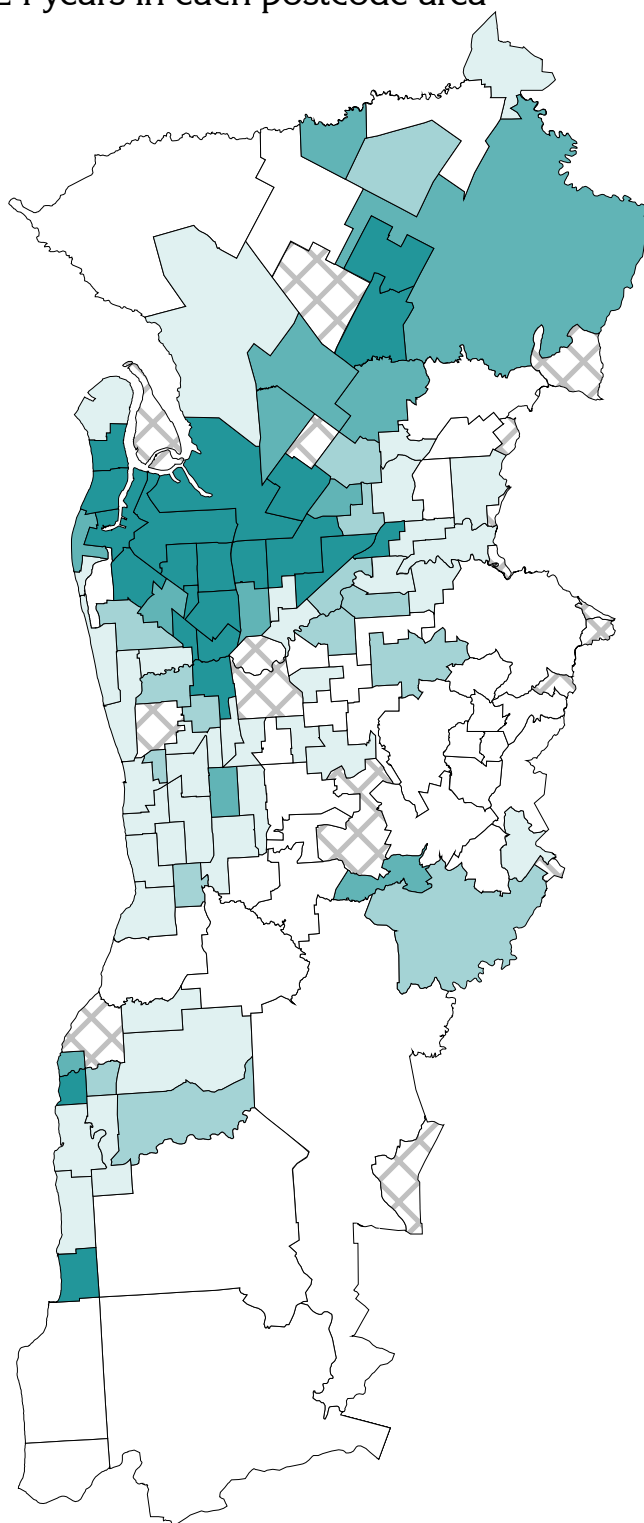
The correlation analysis also revealed a negative association with indicators of high socioeconomic status, with correlations of meaningful significance recorded with the variables for high income families (-0.58), female labour force participation (-0.57) and managers and administrators, and professionals (-0.57).

These results, together with the inverse correlation of meaningful significance with the IRSD (-0.70), indicate an association at the postcode level between Indigenous people aged 15 to 24 years and socioeconomic disadvantage.

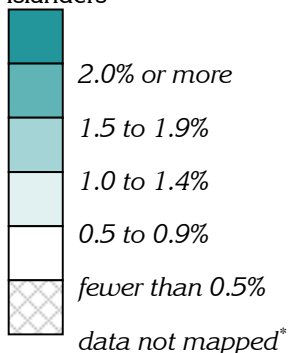
### Map 3.39

## Aboriginal people and Torres Strait Islanders aged 15 to 24 years, Adelaide, 1996

as a percentage of people aged 15 to 24 years in each postcode area



Per cent Aboriginal people and Torres Strait Islanders



\* Data were not mapped because either too many non-resident people were included in the Census population, the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## Aboriginal people and Torres Strait Islanders aged 15 to 24 years, 1996

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### Non-metropolitan South Australia

In 1996, there were 2,048 people aged from 15 to 24 years who identified as being of Aboriginal or Torres Strait Islander descent living in non-metropolitan South Australia, comprising 4.6% of the non-metropolitan population at these ages. This was nearly four times higher than the corresponding metropolitan figure.

The highest proportions of 15 to 24 year old Aboriginal and Torres Strait Islander people were generally found in the Unincorporated areas of the State, and to a lesser extent in the towns (**Map 3.40**). The highest proportions were observed in the Unincorporated SLAs of Riverland (78.1%, 25 people), Far North (59.8%, 477), West Coast (57.9%, 55) and Flinders Ranges (21.7%, 50), as well as in Ceduna (32.2%), Coober Pedy (19.1%), Port Augusta (17.8%), Central Yorke Peninsula (11.7%), Kanyaka-Quorn (11.1%) and Meningie (10.4%).

In contrast, much of the State was characterised by low proportions of Aboriginal and Torres Strait Islander people in this age group, particularly throughout the Mid North and South East. Approximately thirty SLAs included in the analysis had a proportion of 0.0%, including Strathalbyn, Penola, Ridley-Truro, Barossa and Lucindale.

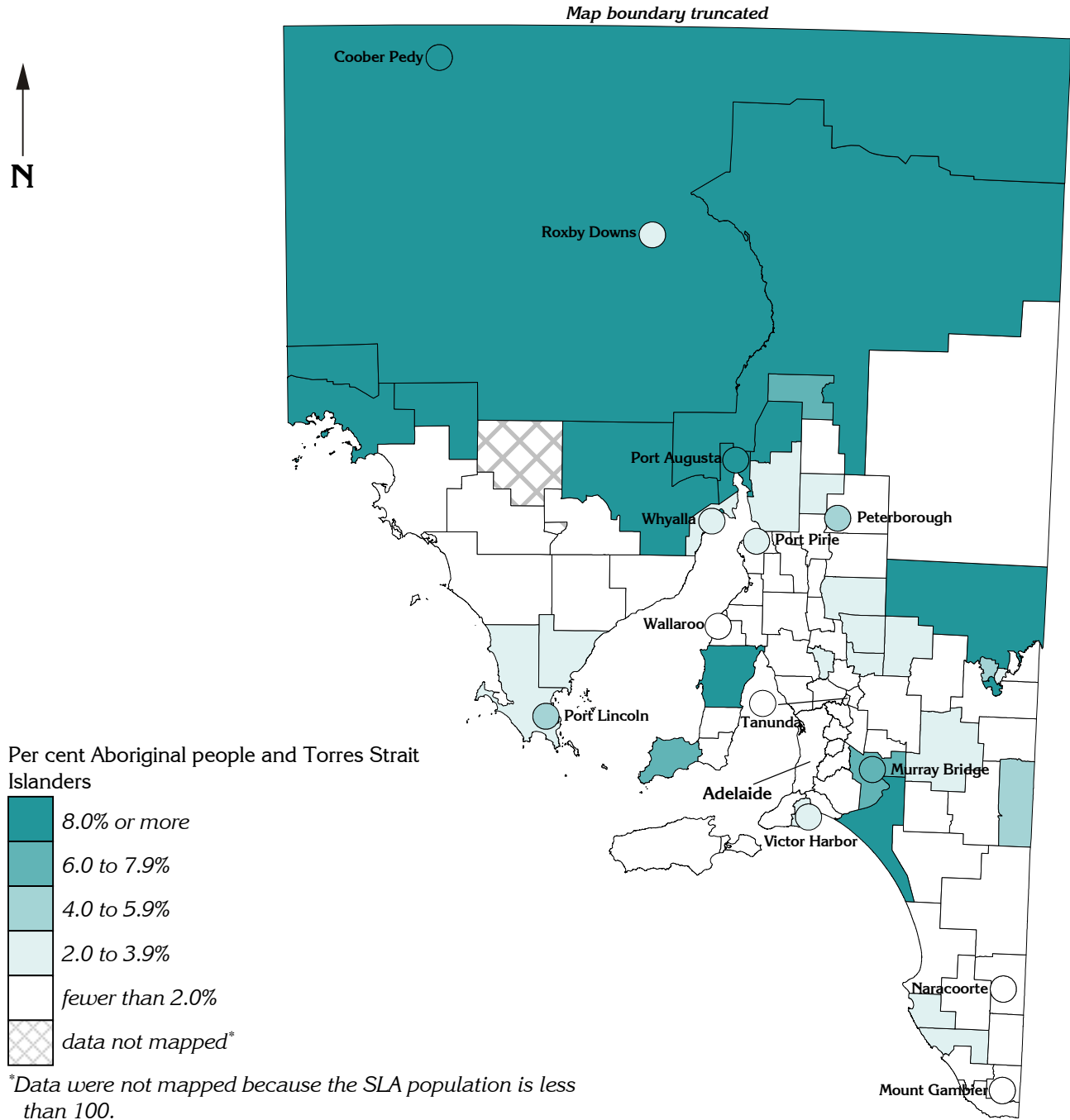
The largest number of Aboriginal and Torres Strait Islander people in this age group was in Unincorporated Far North (477 people), which is a function of the size of the area and a reflection of a range of factors, including historical settlement patterns and the results of white colonisation. Other relatively large numbers were in Port Augusta (327 people), Ceduna (150) and Murray Bridge (126).

There was no consistent evidence in the correlation analysis at the SLA level between high proportions of Indigenous people aged 15 to 24 years and socioeconomic disadvantage.

# Map 3.40

## Aboriginal people and Torres Strait Islanders aged 15 to 24 years, South Australia, 1996

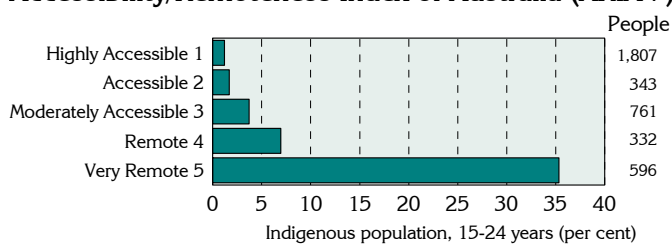
as a percentage of people aged 15 to 24 years in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The graph shows a clear gradient across the ARIA+ classes in the distribution of the Indigenous population aged 15 to 24 years, from 1.2% in the Highly Accessible areas, to 35.3% in the Very Remote areas.

Source: Calculated on ARIA+ classification

# People aged 15 to 24 years born in predominantly non-English speaking countries, 1996

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## Adelaide

In 1996, there were 12,530 people aged 15 to 24 years living in Adelaide who were born in predominantly non-English speaking countries, comprising 8.2% of Adelaide's 15 to 24 year old population.

Vietnam (comprising 2,556 young people, 20.3%) was the main birthplace from where these young people arrived, followed by Malaysia (1,381, 11.0%), Hong Kong (696, 5.5%), Poland (686, 5.5%) and the Philippines (489, 3.9%).

The population aged from 15 to 24 years and born in predominantly non-English speaking countries was mainly located in the north-western sector of Adelaide, in the middle northern and western suburbs at *Woodville North* (43.8%), *Ferryden Park* (41.6%), *Rosewater* (31.5%), *Blair Athol* (22.7%), *Croydon* (20.2%) and *Hindmarsh* (17.5%); in the outer northern suburbs at *Burton* (25.1%), *Virginia* (22.7%) and *Parafield Gardens* (20.9%); in the eastern suburbs at *Magill* (15.4%) and *Burnside* (15.0%); and in the south at *St Marys* (17.6%).

Low proportions of 15 to 24 years olds who were born in predominantly non-English speaking countries were generally found in the postcode areas in the hills and outer suburbs (**Map 3.41**). *Maslin Beach*, *Norton Summit*, *Uraidla*, *Basket Range*, *Summertown*, *Montacute* and *Piccadilly* all had proportions of 0.0%.

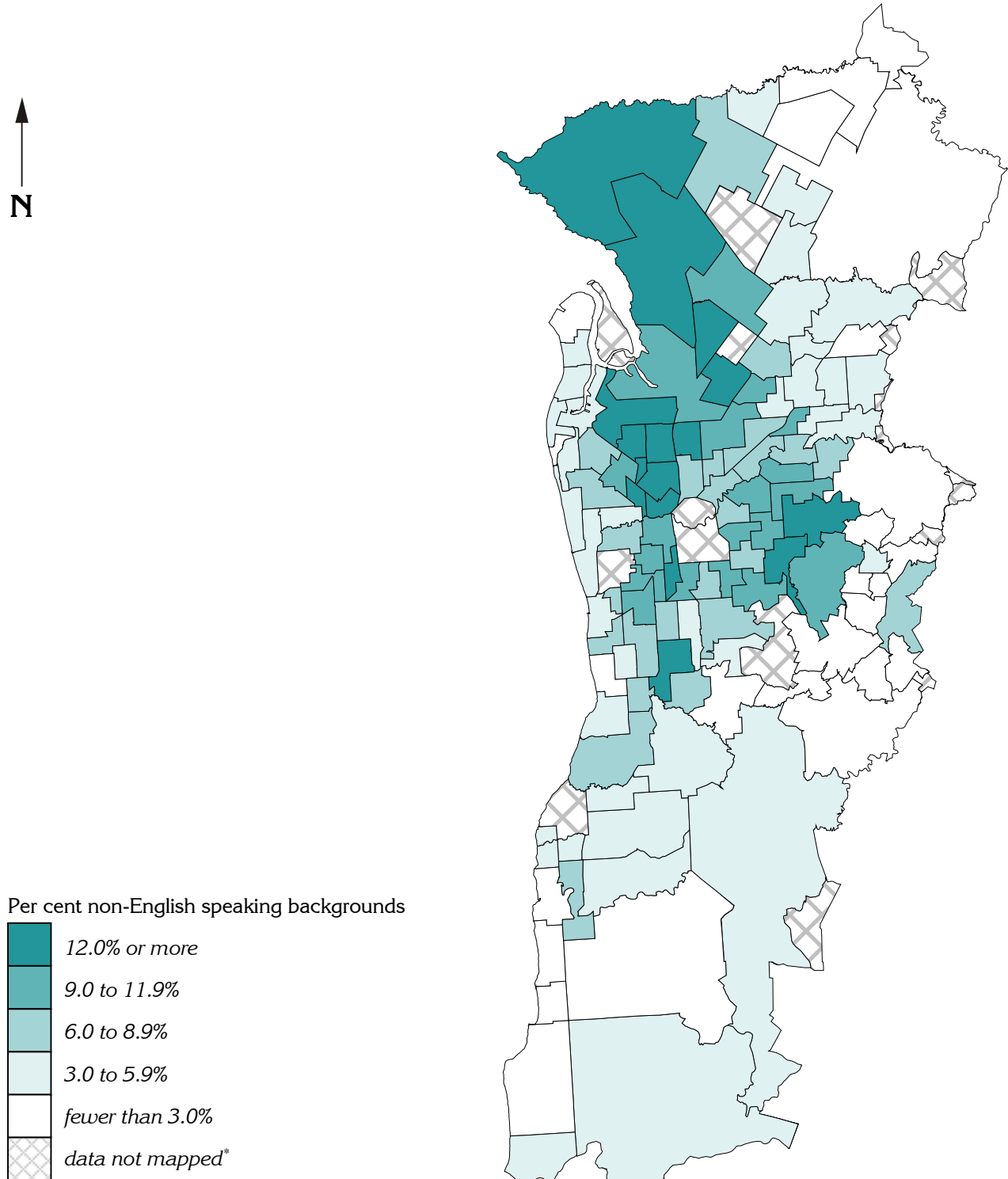
The largest numbers of these 15 to 24 years olds were located in postcode areas to the north and west of the city, in *Woodville North* (583 people), *Salisbury* (522), *Parafield Gardens* (432) and *Rosewater* (394).

There were weak correlations with the indicators of socioeconomic disadvantage and weak inverse correlations with the indicators of high socioeconomic status. These results, together with the weak inverse correlation with the IRSD (-0.47), suggest an association at the postcode level between high proportions of people aged 15 to 24 years born in predominantly non-English speaking countries and socioeconomic disadvantage.

## Map 3.41

### People aged 15 to 24 years born in predominantly non-English speaking countries, Adelaide, 1996

as a percentage of all people aged 15 to 24 years in each postcode area



\* Data were not mapped because either too many non-resident people were included in the Census population, the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## People aged 15 to 24 years born in predominantly non-English speaking countries, 1996

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### Non-metropolitan South Australia

In 1996, there were 624 people aged 15 to 24 years living in non-metropolitan South Australia who had been born in predominantly non-English speaking countries, comprising 1.5% of the 15 to 24 year old non-metropolitan population. This was much lower than the corresponding metropolitan proportion (of 8.2%), demonstrating the tendency for this population to locate in the metropolitan area.

Vietnam (comprising 49 young people, 7.6%) was the main birthplace from where these young people arrived, followed by Germany (48, 7.7%), the Philippines (45, 7.2%), India (39, 6.3%) and the Netherlands (41, 6.6%).

The distribution of 15 to 24 year olds in this group was located around the metropolitan area and in the towns (**Map 3.42**), in Coober Pedy (5.5%), Renmark (4.3%), Whyalla (C) (2.4%), Murray Bridge (1.9%) and Mount Barker (DC) (1.8%); and elsewhere at Barmera and Mallala (both 3.4%), Gumeracha (2.5%), Yankalilla (2.3%), Berri (2.2%), Meningie and Waikerie (both 2.1%). In contrast, SLAs with relatively low proportions of people in this group were recorded right across the State, with almost half of the SLAs recording a proportion of 0.0%. These SLAs included Kapunda, Naracoorte (M), Kingscote, Cleve and Paringa.

The largest numbers of people with these characteristics were in the towns and in SLAs at the fringe of the metropolitan area, including Whyalla (78 people), Mount Barker (48), Renmark (40), Murray Bridge and Mount Gambier (C) (both 39).

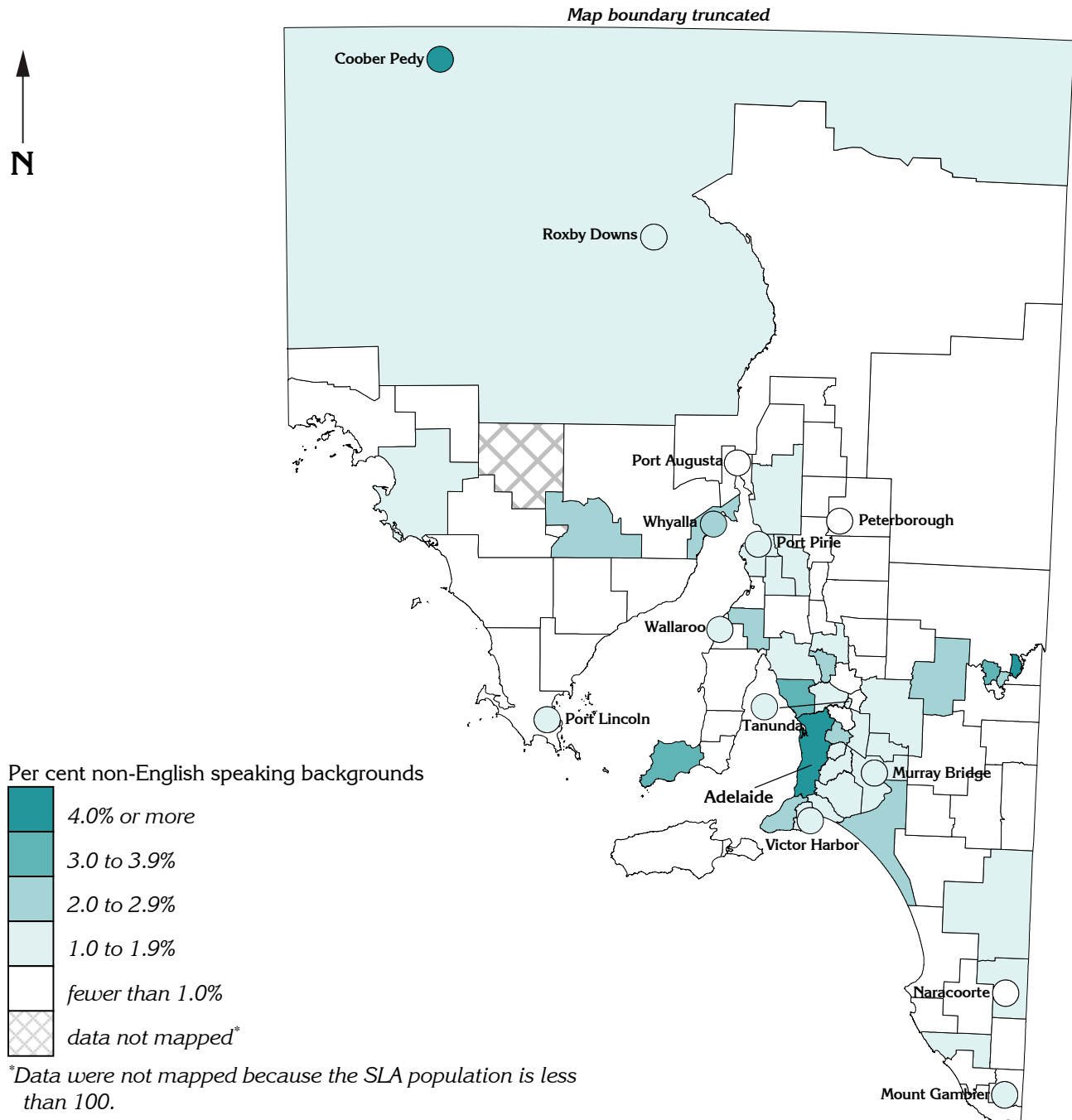
There was no consistent evidence in the correlation analysis of an association at the SLA level between high proportions of people aged 15 to 24 years born in predominantly non-English speaking countries and socioeconomic status.



## Map 3.42

### People aged 15 to 24 years born in predominantly non-English speaking countries, South Australia, 1996

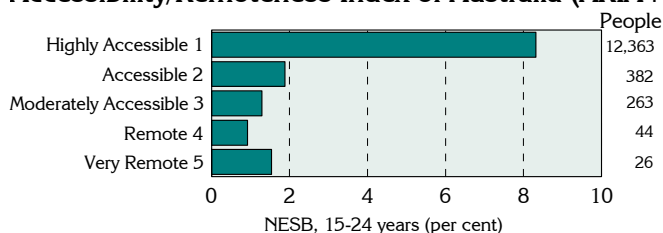
as a percentage of all people aged 15 to 24 years in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

#### Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of the population aged 15 to 24 years born in predominantly non-English speaking countries declines with increasing remoteness, from 8.3% in the Highly Accessible areas to 0.9% in the Remote areas. The proportion in the Very Remote areas is higher, at 1.5%.

Source: Calculated on ARIA+ classification

## Proportion of population aged 0 to 24 years, 1998

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### Adelaide

In 1998, there were an estimated 360,259 people aged from 0 to 24 years living in Adelaide, comprising almost one third (33.1%) of the metropolitan population. The proportion of people in this age group as a percentage of the total population fell, from 36.2% in 1991 to 33.1% in 1998.

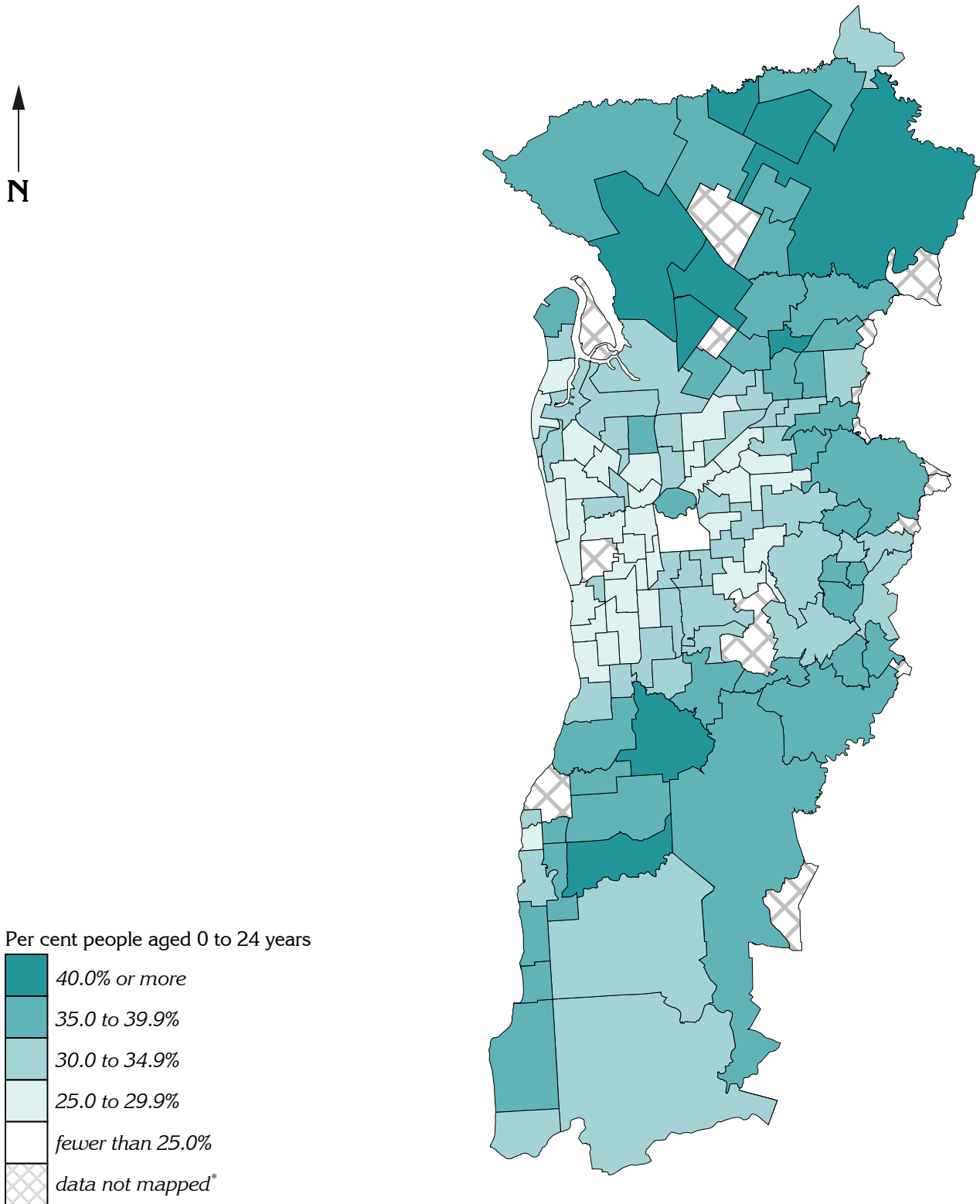
The highest proportions of people in this age group were in postcodes located at the outer northern and southern metropolitan fringe: in the north in *Smithfield* (42.5%), *Burton* and *Angle Vale* (both 41.9%), *Parafield Gardens* (41.7%), *Salisbury* (41.2%), *Wynn Vale* (40.6%), *Munno Para* (40.5%), *Golden Grove* (39.4%), and *Elizabeth North* (39.2%), and in the south in *Hackham* (41.2%), *Happy Valley* (40.4%), *Old Noarlunga* (39.9%), *O'Halloran Hill* (39.7%) and *Morphett Vale* (39.5%).

In contrast, the lowest proportions were generally in postcodes in the inner metropolitan area and, in particular, along the coastal sector (**Map 3.43**). It is important to note, however, that the range of the 0 to 24 age group covers a large number of smaller age sub-groups, which may have very distinctive spatial patterning effectively disguised by the size of this category. Areas with the lowest proportions of people aged 0 to 24 years were located to the west of the city in postcodes such as *Glenelg*, *Somerton Park*, *Brighton*, *Oaklands Park*, *Hindmarsh*, *Plympton*, *Semaphore*, *Henley Beach*, *Cowandilla*, *Park Holme*, *Edwardstown*, and *Largs Bay*, and elsewhere in the inner suburbs at *Marden*. All of the listed areas had proportions of below 30%.

There was no consistent evidence in the correlation analysis of an association at the postcode level between high proportions of people aged 0 to 24 years and socioeconomic status.

### Map 3.43

## Proportion of population aged 0 to 24 years, Adelaide, 1998 as a percentage of the total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## Proportion of population aged 0 to 24 years, 1998

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### Non-metropolitan South Australia

There were an estimated 136,009 people aged from 0 to 24 years living in non-metropolitan South Australia in 1996, just over one third (34.1%) of the non-metropolitan population.

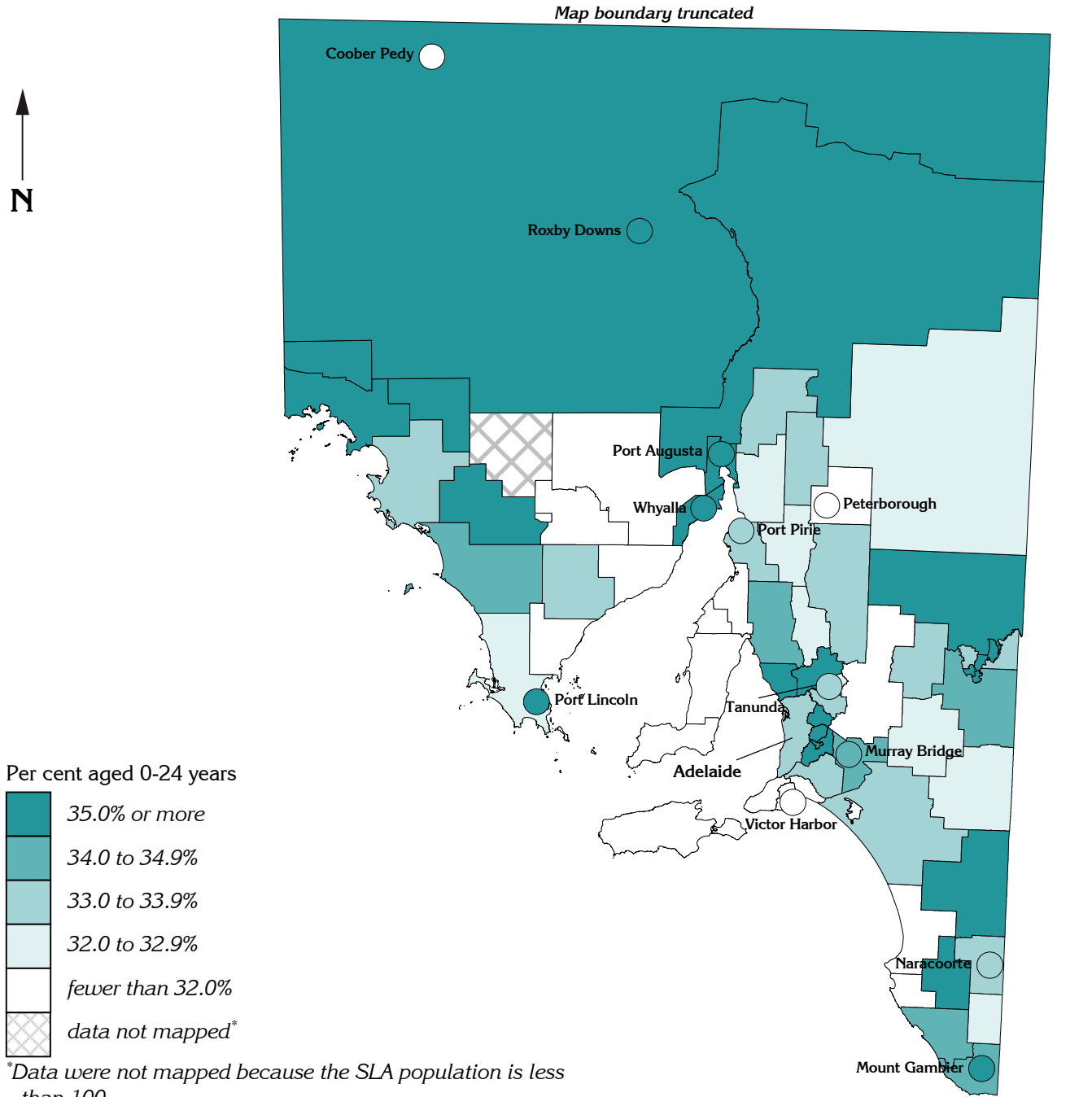
High proportions of people in this group tended to be located in the Unincorporated areas and in a number of the towns (**Map 3.44**). The highest proportions were in the SLAs of Roxby Downs (45.6%), Unincorporated West Coast (43.2%), Unincorporated Far North (42.2%), Unincorporated Flinders Ranges (40.7%), Unincorporated Riverland (40.2%), Ceduna (38.9%), Lucindale (37.6%), Mount Barker-Central (37.2%), Port Augusta (37.1%), Kapunda and Light (37.0%), Mount Gambier (36.8%), Mount Barker-Balance and Whyalla (both 36.6%) and Mallala (36.5%).

Relatively low proportions of 0 to 24 year olds were estimated to live to the south of Adelaide in Victor Harbor, Yankalilla and Alexandrina-Coastal, and on the Yorke Peninsula in Yorke Peninsula-South, Barunga West and Yorke Peninsula-North. In other areas, Cooper Coast, Unincorporated Whyalla, Franklin Harbor, Mid Murray and Robe all had proportions below 30%.

There was no consistent evidence in the correlation analysis of an association at the SLA level between high proportions of people aged 0 to 24 years and socioeconomic status.

# Map 3.44 Proportion of population aged 0 to 24 years, South Australia, 1998

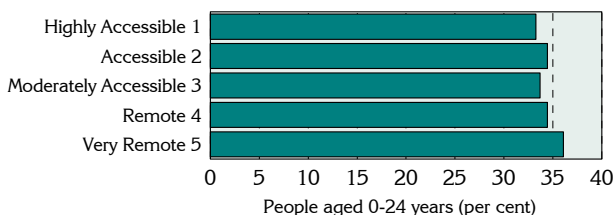
as a percentage of the total population in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

## Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of the population aged 0 to 24 years varied little over the ARIA+ classes, from 33.3% in the Highly Accessible areas to 36.1% in the Very Remote areas.

Source: Calculated on ARIA+ classification

## Number of people aged 0 to 24 years, 1998

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### Adelaide

There were an estimated 360,259 people aged from 0 to 24 years living in Adelaide in 1998. This was 9,828 fewer than in 1991, a decline of 2.7%.

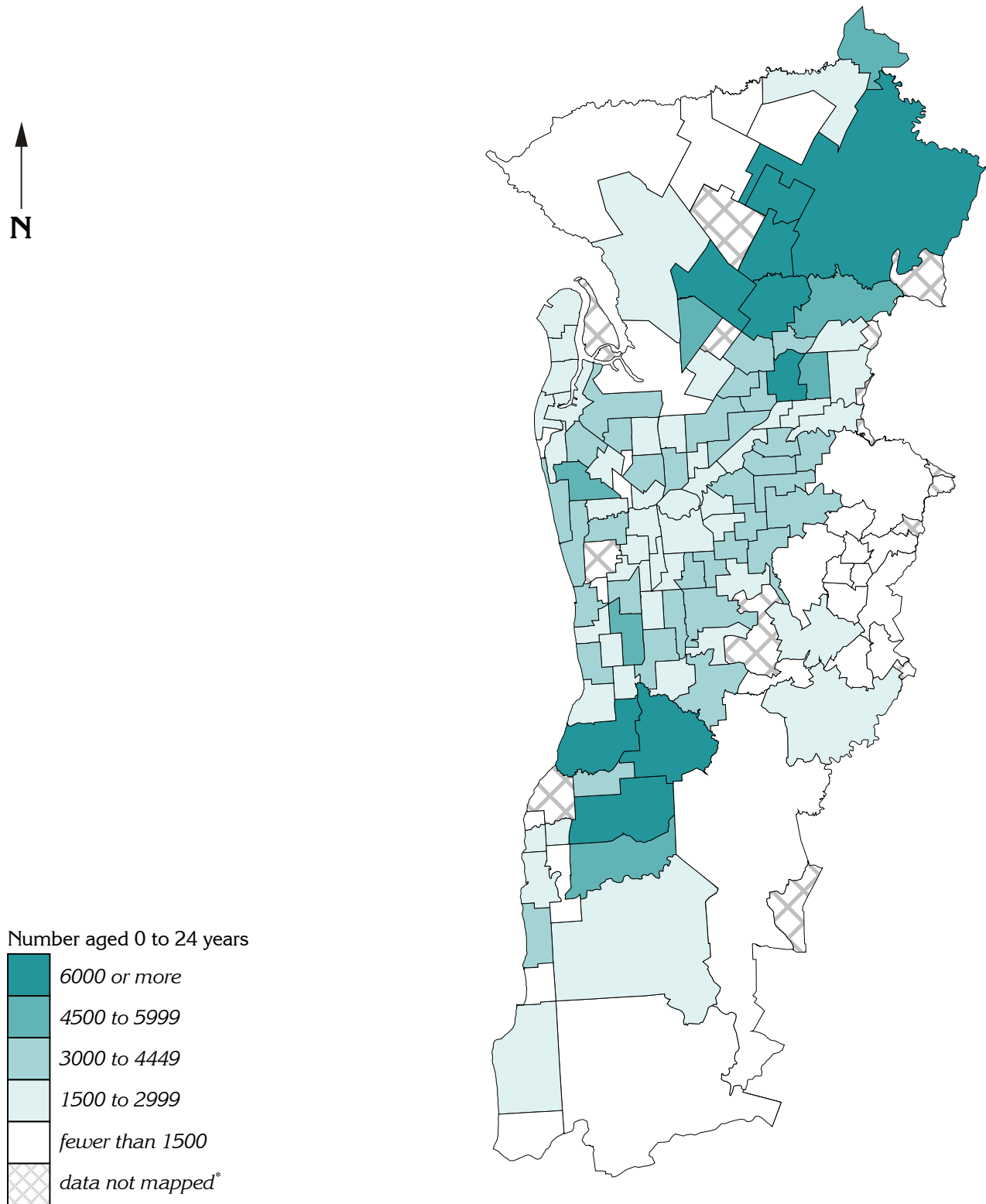
The largest numbers of people in this group were in outer metropolitan postcode areas (**Map 3.45**). In the outer north, these areas included *Salisbury* (15,716 people), *Salisbury East* (8,580), *Smithfield* (8,355), *Elizabeth North* (7,498), *Elizabeth* (6,902), *Golden Grove* (5,697), *Parafield Gardens* (5,444) and *St. Agnes* (5,344), and in the outer south, the postcodes were *Morphett Vale* (13,201), *Happy Valley* (12,699), *O'Halloran Hill* (8,511) and *Hackham* (5,895).

In contrast to the pattern described above, relatively low numbers of 0 to 24 year olds were found in postcode areas located in the Adelaide Hills, areas which contain a relatively low total population count. There were fewer than 300 people aged 0 to 24 years in *Basket Range*, *Ashton*, *Norton Summit*, *Greenhill*, *Uraidla*, *Piccadilly*, *Summertown*, *Montacute*, *Gepps Cross* and *Carey Gully*.

## Map 3.45

### Number of people aged 0 to 24 years, Adelaide, 1998

total population in each postcode area



\*Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

## Number of people aged 0 to 24 years, 1998

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### Non-metropolitan South Australia

In 1998, there were 136,009 people aged from 0 to 24 years living in non-metropolitan South Australia. This represented a decline of 4,390 people (3.1%) from 1991 to 1998.

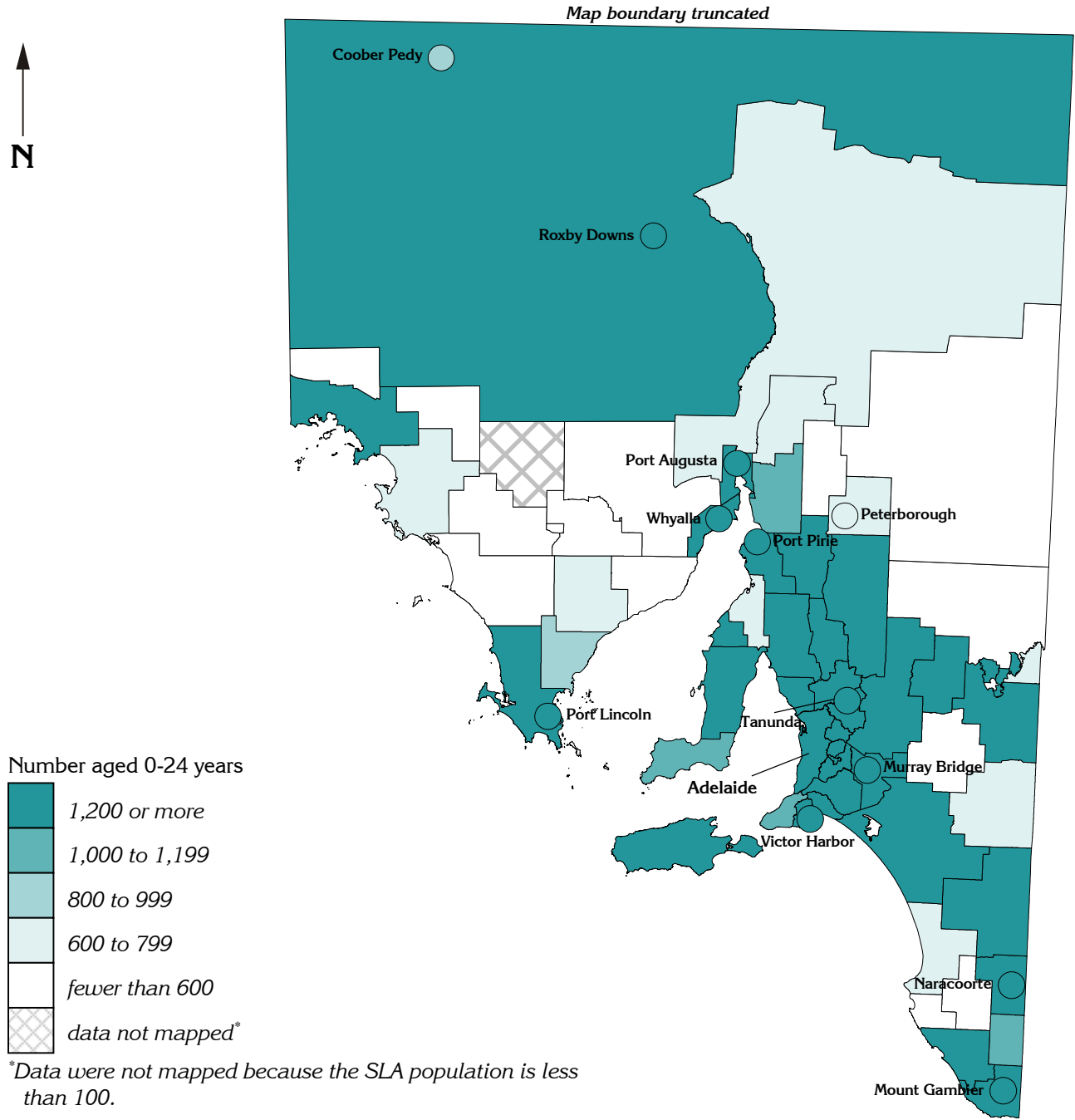
The largest numbers of people in this group were located primarily in the towns and in SLAs at the fringe of the metropolitan area (**Map 3.46**). These included Whyalla (8,774 people), Mount Gambier (8,486), Murray Bridge (5,768), Mount Barker-Central (5,296), Port Augusta (5,195), Port Pirie (4,897) and Port Lincoln (4,694).

Low numbers of those aged 0 to 24 years were found in the Unincorporated areas of the State and in the more remote SLAs. The lowest numbers of 0 to 24 year olds were in the Unincorporated areas of Lincoln, Riverland, Whyalla, Pirie and West Coast, all with fewer than 300 people in this age group.



# Map 3.46

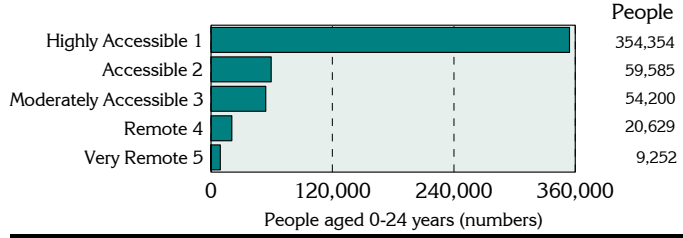
## Number of people aged 0 to 24 years, South Australia, 1998 total population in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The number of people aged from 0 to 24 years decreased sharply with increasing remoteness, declining from 354,354 people in the Highly Accessible areas to 9,252 people in the Very Remote areas.

Source: Calculated on ARIA+ classification

# Index of Relative Socio-Economic Disadvantage, 1996

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A description of the Index of Relative Socio-Economic Disadvantage (IRSD) is provided on page 24. Briefly, the IRSD score measures the relative socioeconomic disadvantage of the population of an area in comparison with the average for South Australia as a whole. High index scores indicate least disadvantage and low index scores indicate greater disadvantage.

The IRSD has been calculated on the total population only, and is not available for specific age groups.

## Adelaide

At the 1996 Census, the IRSD score calculated for Adelaide was 1010 (when the index score for South Australia as a whole was 1000).

The overall pattern of distribution within Adelaide shows that the least disadvantaged areas in 1996 were those to the east, south-east and south of the city, while the most disadvantaged areas were generally those to the north-west and in the outer north and outer south (**Map 3.47**).

The eastern and hills suburbs of Adelaide had the highest index scores (least disadvantaged), with scores of greater than 1140 in *Greenhill* (1177), *Aldgate* (1173), *Belair* (1170), *Burnside* (1164), *Stirling* (1160), *Upper Sturt* (1155), *Glen Osmond* (1153), *Ashton* (1149), *Norton Summit* (1146), *Blackwood* (1145), *Glenside* (1142) and *Kingswood* (1140).

Relatively low scores, indicating the most disadvantaged areas, were calculated for the inner northern and north-western areas of *Ferryden Park* (664), *Woodville North* (764), *Osborne* (821), *Blair Athol* (825), *Rosewater* (845), *Port Adelaide* (893) and *Enfield* (896); for the outer northern suburbs of *Elizabeth North* (780), *Elizabeth* (852) and *Munno Para* (884); and for the southern areas of *Christies Downs* (852) and *Old Noarlunga* (879).

The IRSD, understandably, was highly correlated with many of the individual variables mapped. The strongest inverse correlations were with the variables for children aged 0 to 14 years living in low income families (-0.95), single parent families (-0.89), dwellings with no motor vehicles (-0.87) and dwellings rented from the SA Housing Trust (-0.83).

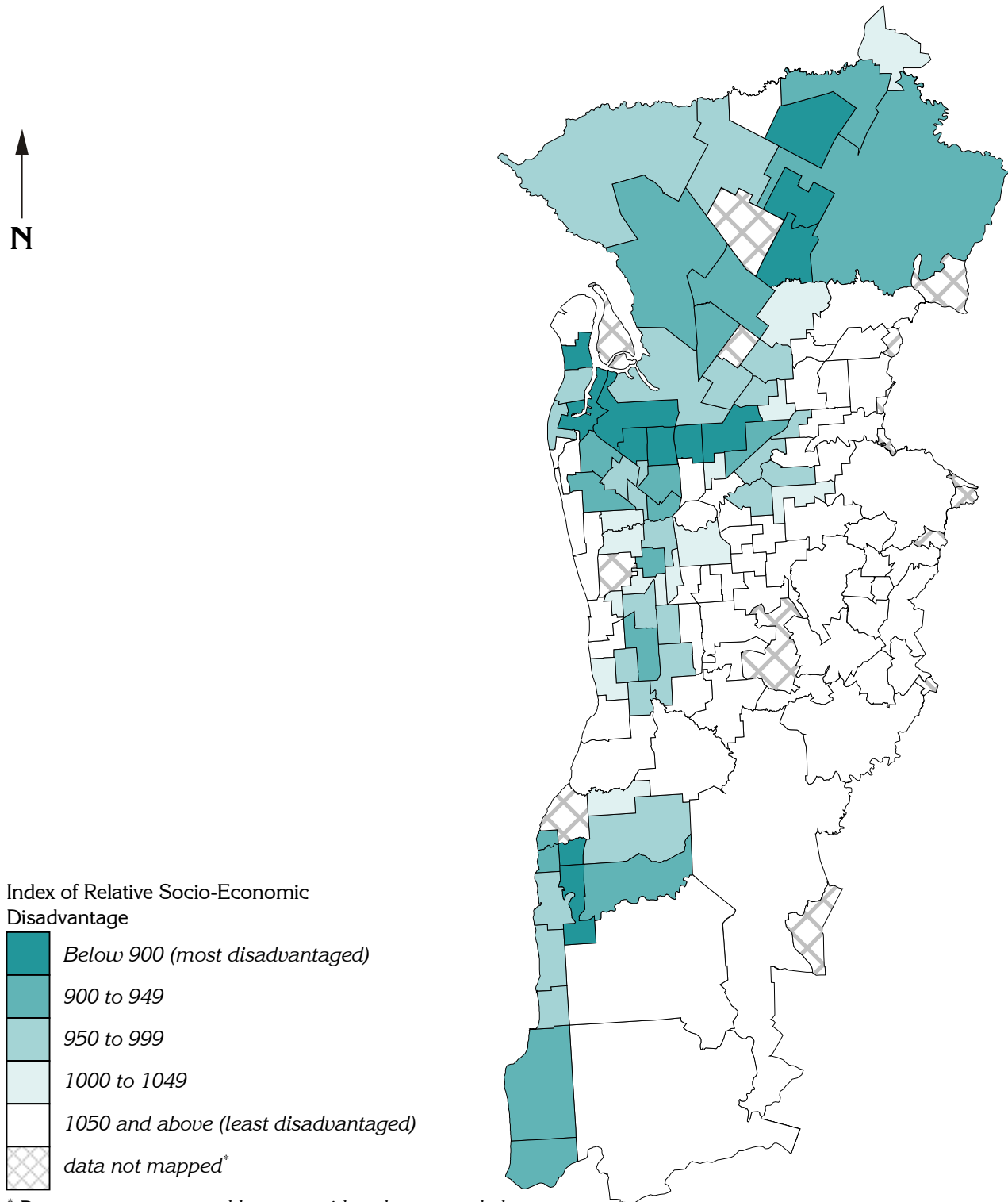
The correlation analysis also revealed a strong positive association with indicators of high socioeconomic status, with correlations of substantial significance recorded with the variables for high income families (0.91), female labour force participation (0.89) and managers and administrators, and professionals (0.83).

The strength of the correlations with these particular variables is an indication of their importance as key indicators of socioeconomic status.

# Map 3.47

## Index of Relative Socio-Economic Disadvantage, Adelaide, 1996

IRSD index number in each postcode area



\* Data were not mapped because either the postcode has a population of less than 100, or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

# Index of Relative Socio-Economic Disadvantage, 1996

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## Non-metropolitan South Australia

At the 1996 Census, the non-metropolitan areas of South Australia had an IRSD score of 980 (when the index score for South Australia was 1000). This was considerably lower than the index score calculated for in Adelaide (of 1010), indicating a greater degree of disadvantage relative to South Australia as a whole.

Outside Adelaide, the most disadvantaged areas were located in the north of the State (**Map 3.48**), with the lowest score of 820 calculated for the small population in Unincorporated Whyalla (23,644 people, 2.2% of whom identified at the Census as being Indigenous). IRSD scores of below 900 were also recorded in Unincorporated Riverland (an index of 852 – with 177 people, 68.4% of whom identified at the Census as being Indigenous), Wallaroo (860 – 2,289 people, 0.5% Indigenous), Peterborough (M) (871 – 1,850 people, 3.1% Indigenous) and Port Pirie (897 – 13,950 people, 1.6% Indigenous).

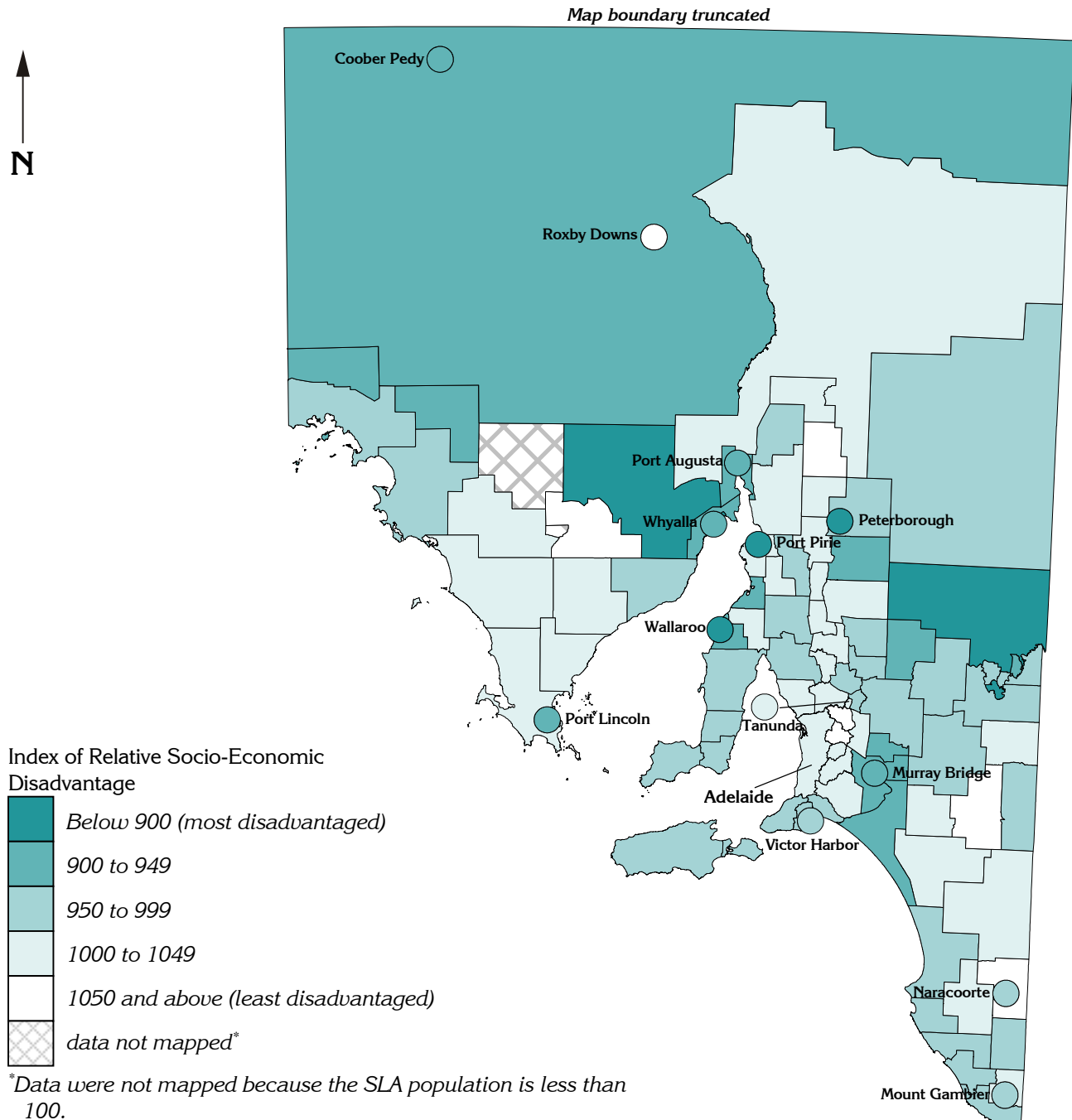
The SLA with the highest socioeconomic status as measured by the IRSD was the mining centre of Roxby Downs, with an index score of 1103. Gumeracha (1087), Carrieton (1065), Naracoorte (1059), Lameroo (1058), Barossa (1057) and Kimba (1056) all had relatively high index scores.

The strongest inverse correlations at the SLA level were found with the variables for children aged 0 to 14 years living in dwellings with no vehicles (-0.84), low income families (-0.75) and single parent families (-0.73); and people who left school at age 15 years or earlier (-0.65). These inverse correlations indicate a positive association at the SLA level between this aggregate measure of socioeconomic disadvantage and the individual indicators analysed.

# Map 3.48

## Index of Relative Socio-Economic Disadvantage, South Australia, 1996

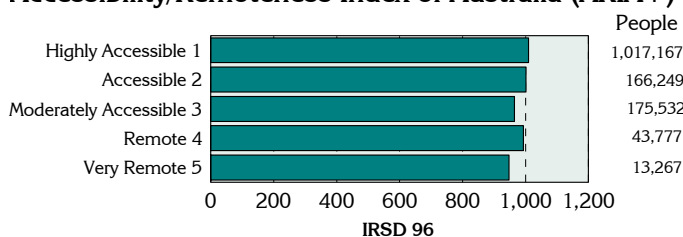
IRSD index number in each Statistical Local Area



Source: Calculated on data from ABS 1996 Census

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The graph of the ABS Index of Relative Socio-Economic Disadvantage shows the highest index score (indicating the most advantaged areas) is in the Highly Accessible ARIA+ class (1010) and the lowest score is in the Very Remote areas (948).

Source: Calculated on ARIA+ classification

# Dependent children of selected pensioners and beneficiaries, 30 June 2001

Dependent children aged less than 16 years and living in families receiving an income support payment from the Department of Family and Community Services (DFaCS) have been mapped as a percentage of all children aged less than 16 years. Families included are those receiving the DFaCS Age, Disability Support and Sole Parent Pensions; Youth Training or Newstart Allowances; sickness and special benefits; and the Family Tax Benefit<sup>3</sup> (previously the Family Payment). These families represent the majority of families with children who are reliant on government welfare payments for their main source of income, or wage earners on low incomes.

## Adelaide

Both the number and proportion of dependent children aged less than 16 years in Adelaide and living in families receiving an income support payment have increased substantially since 1989. While the percentage rose from 28.8% in 1989 to 52.9% in 2001, the numbers have also increased, from 64,241 to 114,360 children (Table 3.4).

**Table 3.4: Dependent children of selected pensioners and beneficiaries, Adelaide**

	1989	1992	1996	2001
<b>number</b>	64,241	84,480	99,880	114,360
<b>per cent</b>	28.8	37.6	45.6	52.9

Source: Calculated on data from DFaCS

The highest proportions of dependent children were located in the north-western, outer northern and outer southern postcodes (Map 3.49), not unlike the distribution of children in low income and single parent families. Postcode areas with the highest proportions for this variable were *Ferryden Park* (92.4%), *Woodville North* (91.3%), *Gepps Cross* (88.2%), *Blair Athol* (80.9%) and *Rosewater* (77.7%), located in the north-western and inner northern suburbs; *Elizabeth North* (92.2%), *Virginia* (88.1%), *Burton* (76.3%) and *Elizabeth* (75.4%), in the outer north; and *Christies Downs* (86.9%), *Sellicks Beach* (84.7%), *Christies Beach* (82.4%), *Old Noarlunga* (80.1%) and *O'Sullivan Beach* (78.6%), in the outer south.

Although a number of the percentages shown above appear to be particularly high, they are

proportional to the increase in the percentage of dependent children that has occurred since 1992. From 1992 to 2001, there has been an increase of 40.7% in the proportion of children in Adelaide in families receiving an income support payment. Had this increase applied to the postcodes with the highest proportions in 1992, the postcode areas of *Ferryden Park*, *Woodville North* and *Elizabeth North* would, by 2001, have had proportions in excess of 100%.

Lower than average proportions of children in this group were concentrated in the inner city areas, extending through the eastern suburbs to the Adelaide Hills. Proportions of less than 20% were recorded in *Basket Range* (10.1%), *North Adelaide* (17.6%), *Greenhill* (18.1%), *Unley* (18.6%) and *Glen Osmond* (19.2%). Relatively low proportions were also recorded in the postcode areas of *Burnside* (20.3%), *Walkerville* (20.5%), *Kingswood* (21.7%), *Glenside* (21.8%), *St Peters* (22.4%), *Montacute* (23.4%) and *Goodwood* (23.5%).

The largest numbers of dependent children in families receiving an income support payment were recorded in the outer postcodes areas of *Salisbury* (6,947 children), *Morphett Vale* (5,134 children), *Elizabeth North* (4,525 children), *Smithfield* (4,089 children) and *Elizabeth* (3,313 children).

The correlation analysis showed a strong association at the postcode level with many indicators of socioeconomic disadvantage. Correlations of substantial significance were recorded with the variables for children aged 0 to 14 years living in low income families (0.83), people who left school at age 15 or earlier (0.82), and children aged 0 to 14 years living in single parent families (0.71). An inverse correlation of substantial significance was recorded with full-time students, 15 to 24 years (-0.77). The inverse correlation of substantial significance with the IRSD (-0.85) also indicates an association at the postcode level between high proportions of dependent children in families receiving an income support payment and socioeconomic disadvantage.

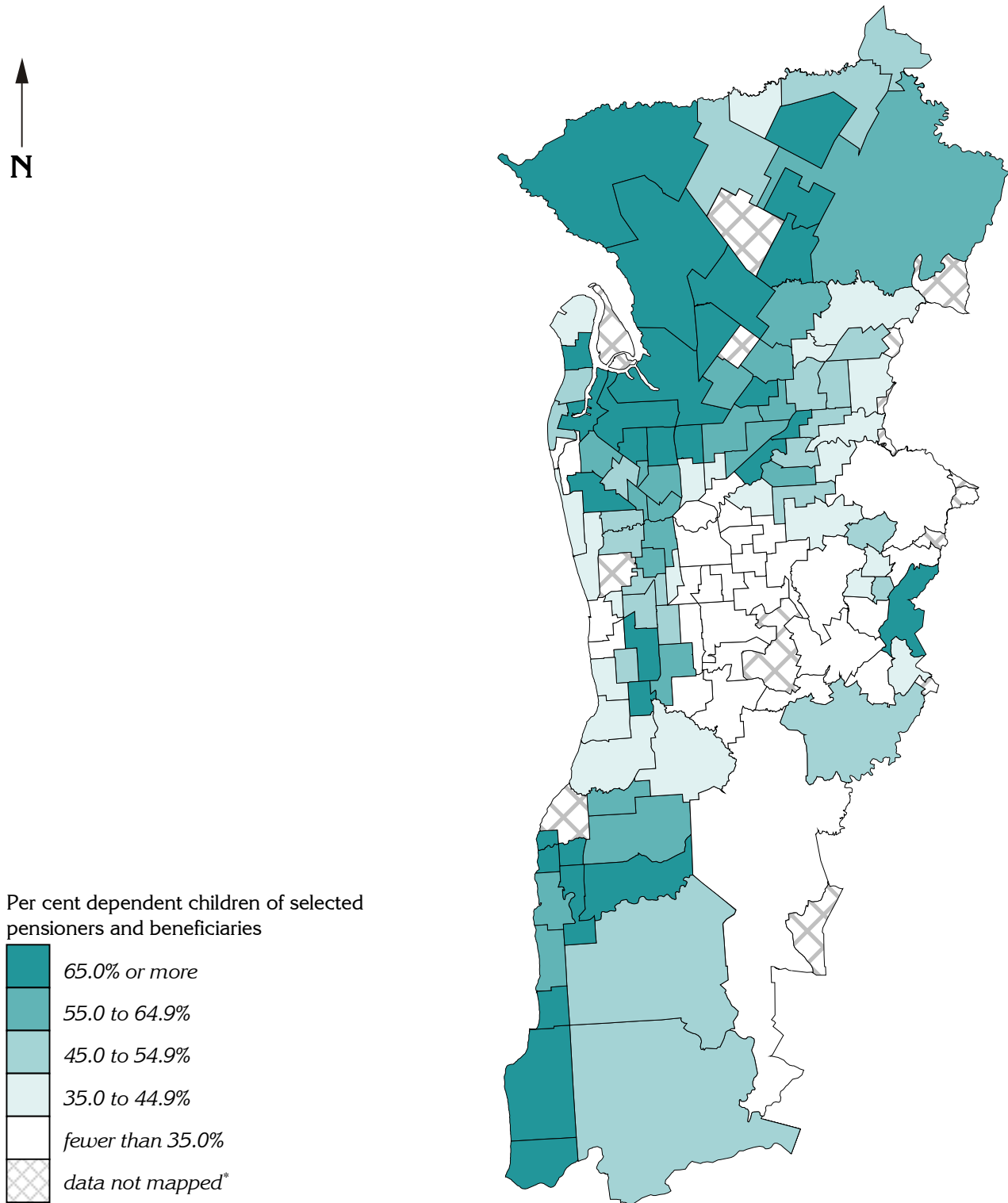
The correlation analysis also revealed a negative association with indicators of high socioeconomic status, with correlations of substantial significance recorded with the variables for high income families (-0.86), female labour force participation (-0.82) and managers and administrators, and professionals (-0.81).

<sup>3</sup> In 1996 the income threshold for a couple with two dependent children was \$23,000: in 2001 it was \$28,200.

### Map 3.49

## Dependent children of selected pensioners and beneficiaries, Adelaide, 2001

as a percentage of all children aged from 0 to 15 years in each postcode area



\*Data were not mapped because either the postcode population is less than 100 or only a small part of the postcode is located in Adelaide.

Source: Calculated on data from DFACS

Details of map boundaries are in Appendix 1.2

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# Dependent children of selected pensioners and beneficiaries, 30 June 2001

## Non-metropolitan South Australia

In 1989, 34,835 children under 16 years of age in the non-metropolitan areas of South Australia were living in families receiving an income support payment (36.9% of the population under 16 years of age). By 2001, both the number and proportion of children had increased to 53,055 children, 59.1% of the population at these ages (**Table 3.5**). This is an increase of 40.7% in the proportion of children in families receiving an income support payment.

It should be noted that these data are unlikely to include details of children in families receiving unemployment benefits through the Community Development Employment Program (CDEP), the Indigenous unemployment program.

**Table 3.5: Dependent children of selected pensioners and beneficiaries, non-metropolitan South Australia**

	1989	1992	1996	2001
<b>number</b>	34,835	45,177	48,545	53,055
<b>per cent</b>	36.9	47.5	51.5	59.1

Source: Calculated on data from DFACS

The highest proportions of dependent children in families receiving an income support payment were recorded in the SLAs of Warooka (88.3%) and Wallaroo (78.8%), on the Yorke Peninsula; Orroroo (87.3%), Peterborough (M) (80.1%), Peterborough (DC) (80.1%), Eudunda (79.6%), Rocky River (79.1%), Hallett (78.1%), Spalding (72.6%) and Unincorporated Pirie (72.0%), situated in areas to the north of the city; Ceduna (78.8%), Unincorporated Far West (78.3%) and Streaky Bay (73.8%), located in the far west; and Meningie (76.4%), Port Elliot and Goolwa (74.0%) and Murray Bridge (72.4%), situated in close proximity to Adelaide.

SLAs with less than 45.0% of children under 16 years living in families receiving an income support payment were generally located either in the south-east or far northern and western areas of the State (**Map 3.50**). The SLAs located in the far northern and western areas included Roxby Downs (9.2%), Hawker (31.2%), Unincorporated Flinders Ranges (41.2%), Kimba (42.5%) and Unincorporated Far North (44.8%); while those in the south-east were Port MacDonnell (32.6%), Mount Gambier (DC) (33.7%), Robe (42.1%) and Lucindale (43.0%). Relatively low proportions were also recorded in Browns Well (37.3%) and Tanunda (37.7%).

There were more than 2,000 dependent children in families receiving an income support payment in the towns of Mount Gambier (3,203 children), Whyalla (3,122 children), Murray Bridge (2,903 children), Port Pirie (2,068 children) and Port Augusta (2,015 children).

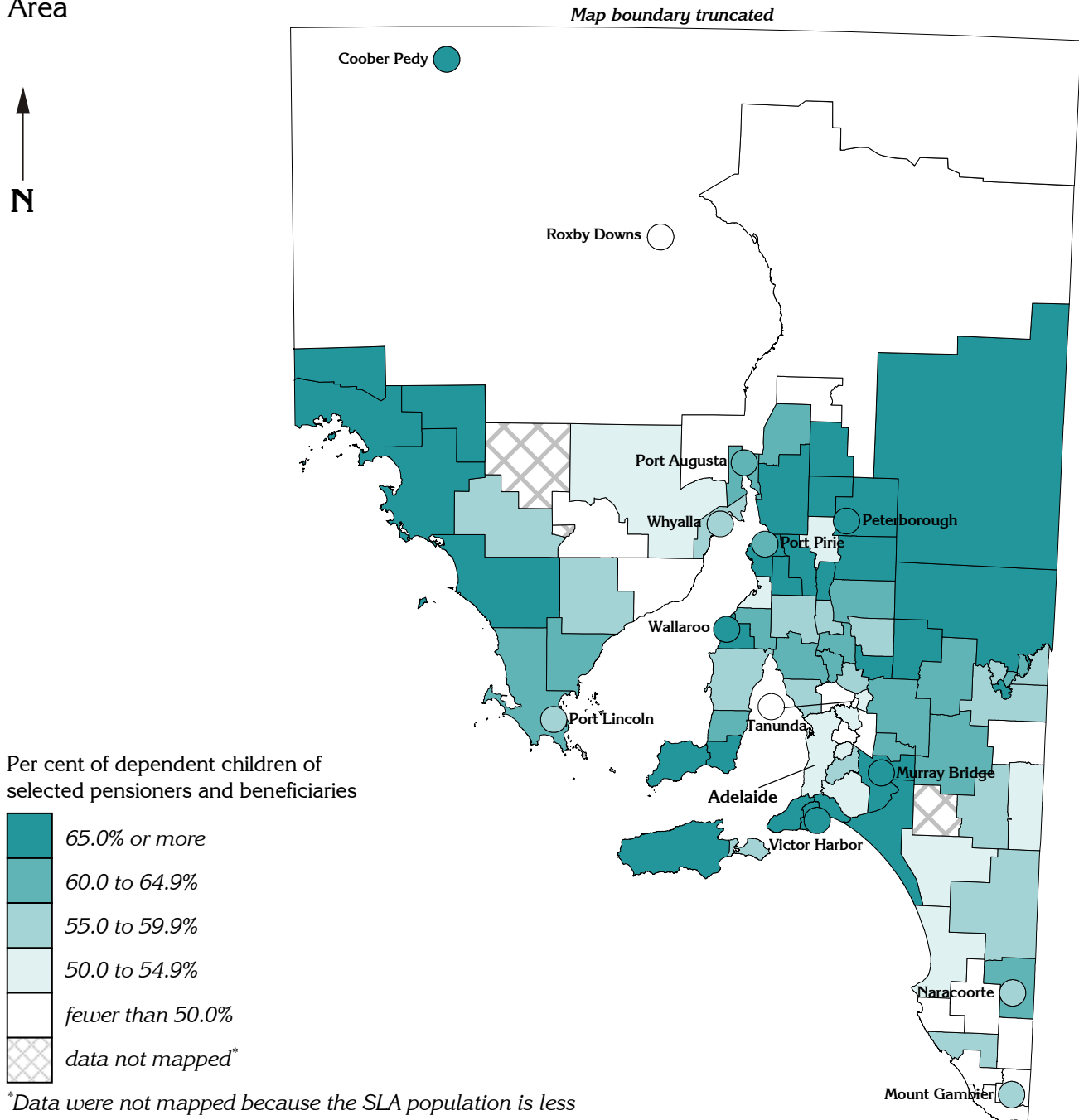
A correlation of substantial significance at the SLA level was recorded with the variable for children aged 0 to 14 years living in low income families (0.82). There were also correlations of meaningful significance with the other indicators of socioeconomic disadvantage. These results, together with the inverse correlation of meaningful significance with the IRSD (-0.58), suggest an association at the SLA level between high proportions of dependent children in families receiving an income support payment and socioeconomic disadvantage.



# Map 3.50

## Dependent children of selected pensioners and beneficiaries, South Australia, 2001

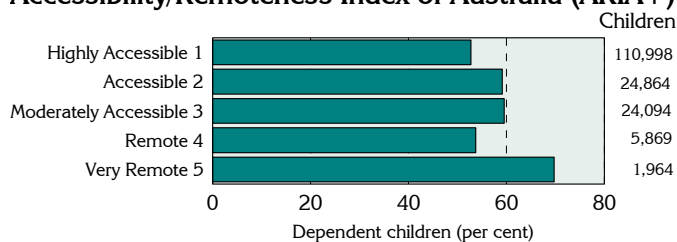
as a percentage of all children aged from 0 to 15 years in each Statistical Local Area



Source: Calculated on data from DFACS

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The proportion of the population aged under 16 years living in families receiving an income support payment is high in all of the ARIA+ classes, ranging from 52.7% in the Highly Accessible areas to 69.7% in areas in the Very Remote areas.

Source: Calculated on ARIA+ classification

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# Senior Secondary Assessment Board of South Australia (SSABSA) Achievement Scores

From 1992, students have been able to register with the Senior Secondary Assessment Board of South Australia (SSABSA) for the South Australian Certificate of Education (SACE), an upper secondary program of study normally undertaken over two years. Subjects within the SACE are classified as Stage 1, corresponding to Year 11 level of high school, and Stage 2, corresponding to Year 12 level (SSABSA 2000).

The data presented in the following maps are the average achievement score for all subjects completed<sup>4</sup> by students in each postcode (or group of postcodes, in the case of the country maps) in 2000. Data are presented separately for publicly examined subjects (PES), publicly assessed subjects (PAS) and school-assessed subjects (SAS). PES, PAS and SAS differ in the academic standard of the courses offered and in the method of assessment. The selection criteria for most university-level courses at the three metropolitan universities require the completion of at least four publicly examined subjects.

SSABSA allocates subject achievement scores and an associated grade to each student. The reporting scale approved by the Board is shown in Table 3.6.

**Table 3.6: Subject achievement scores**

Achievement score	Grade	Description
20	A	Outstanding achievement
17-19	A	Very high achievement
14-16	B	High achievement
11-13	C	Competent achievement
8-10	D	Marginal achievement
3-7	E	Low achievement
0-2		Requirements not met

Source: SSABSA Handbook, 2000

For the following analysis, an average achievement score has been calculated for each postcode. The score has not been shown where there were fewer than five students in any postcode. The postcode is the postcode of the address given by students for the posting of their certificate or results. This should provide a good fit to the 'usual' address of the student as, for students living at a boarding school during term time, it is likely to be the address of the family home.

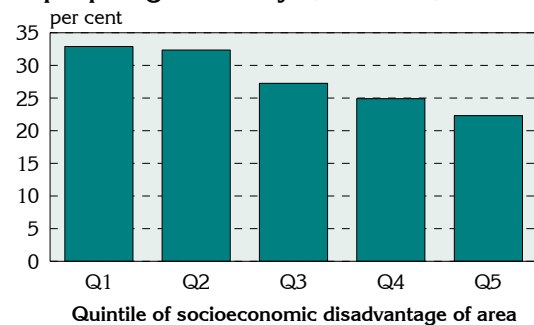
Figures 3.2 and 3.3 show the total number of SACE students (PES, PAS and SAS) as a

<sup>4</sup> Includes details where students have gained a score in at least one subject in Stage 2 of SACE.

proportion of the population aged 15 to 24 years by quintile of socioeconomic disadvantage of area. Areas for which the data are available have been grouped into quintiles of approximately equal population, based on the Index of Relative Socio-Economic Disadvantage (IRSD) score for the postcode as calculated from data collected at the 1996 Population Census<sup>5</sup>. Quintile 1 comprises the areas with the highest IRSD scores (highest socioeconomic status, or most advantaged, areas) and Quintile 5 comprises the postcodes with the lowest IRSD scores (lowest socioeconomic status, or most disadvantaged, areas).

The highest proportion of the 15 to 19 year old population in Adelaide registered with SSABSA lives in the most advantaged areas (Quintiles 1 and 2); the proportion in the most disadvantaged areas (Quintile 5) is 32.2% lower.

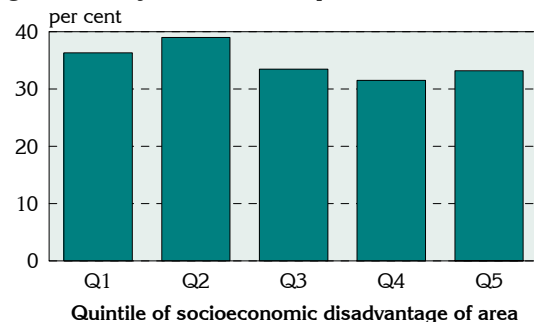
**Figure 3.2: SACE students as a proportion of people aged 15-19 yrs, Adelaide, 2000**



Source: Calculated on data from SSABSA

In the non-metropolitan areas of South Australia the gradient across the quintiles is less defined, although the proportion of the 15 to 19 year old population living in the most disadvantaged non-metropolitan areas is 8.5% lower than in the most well off areas.

**Figure 3.3: SACE students as a proportion of people aged 15-19 yrs, non-metropolitan areas, 2000**



Source: Calculated on data from SSABSA

<sup>5</sup> The IRSD is described in Chapter 2, Methods.

# Average publicly examined subject achievement scores, 2000

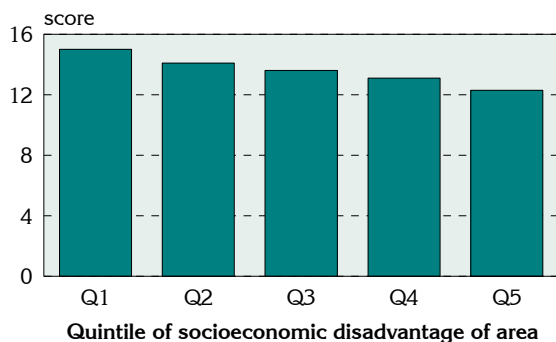
A general description of the South Australian Certificate of Education (SACE) is included on page 127.

For the following analysis, an average achievement score was calculated for each postcode. The score has not been shown where there were fewer than five students in any postcode.

## Adelaide

The average publicly examined subject (PES) achievement scores in Adelaide are shown in **Figure 3.4** by quintile of socioeconomic disadvantage of area (quintiles are described on page 127). There is a gradient in achievement scores, from the highest PES score in Quintile 1 (the most advantaged areas, a score of 15.0) to the lowest score in Quintile 5 (the most disadvantaged areas, a score of 12.3).

**Figure 3.4: Average publicly examined subject achievement scores, Adelaide, 2000**



Source: Calculated on data from SSABSA

Students giving an address in Adelaide for the posting of their certificate or results undertook 25,673 publicly examined subjects<sup>6</sup>, representing 51.9% of all SACE subjects undertaken by metropolitan students. The average achievement score for PES in Adelaide was 13.7.

The lowest average achievement scores for publicly examined subjects by postcode areas (for postcode areas with 10 or more students) were generally recorded in the outer northern and southern coastal suburbs (**Map 3.51**). They included postcodes located in the outer north at *Elizabeth North* (10.3), *Burton* (11.0), *Munno Para* (11.5),

*Salisbury* (11.8) and *Elizabeth* (11.9); and in the southern coastal areas of *O'Sullivan Beach* (10.4), *Christies Beach* (10.5), *Christie Downs* (11.3), *Port Noarlunga* (11.4) and *Moana* (11.9).

The highest average achievement scores were in postcodes adjacent to the city (although not to the west) and in the eastern, south-eastern and inner southern suburbs. The highest of these were recorded for students in the postcode areas of *Greenhill* (17.2), *Burnside* (16.1), *Ashton* (16.0), *Goodwood* (15.9), *Walkerville* (15.8), *Glenside* (15.7), *Magill*, *Marden* and *Kingswood* (each 15.5), *Norwood* and *Kensington Park* (both 15.4), *Unley*, *St Peters* and *Uraidla* (each 15.3), *Aldgate* and *Blackwood Forward* (each 15.2), *Glen Osmond* (15.1) and *Belair* (15.0).

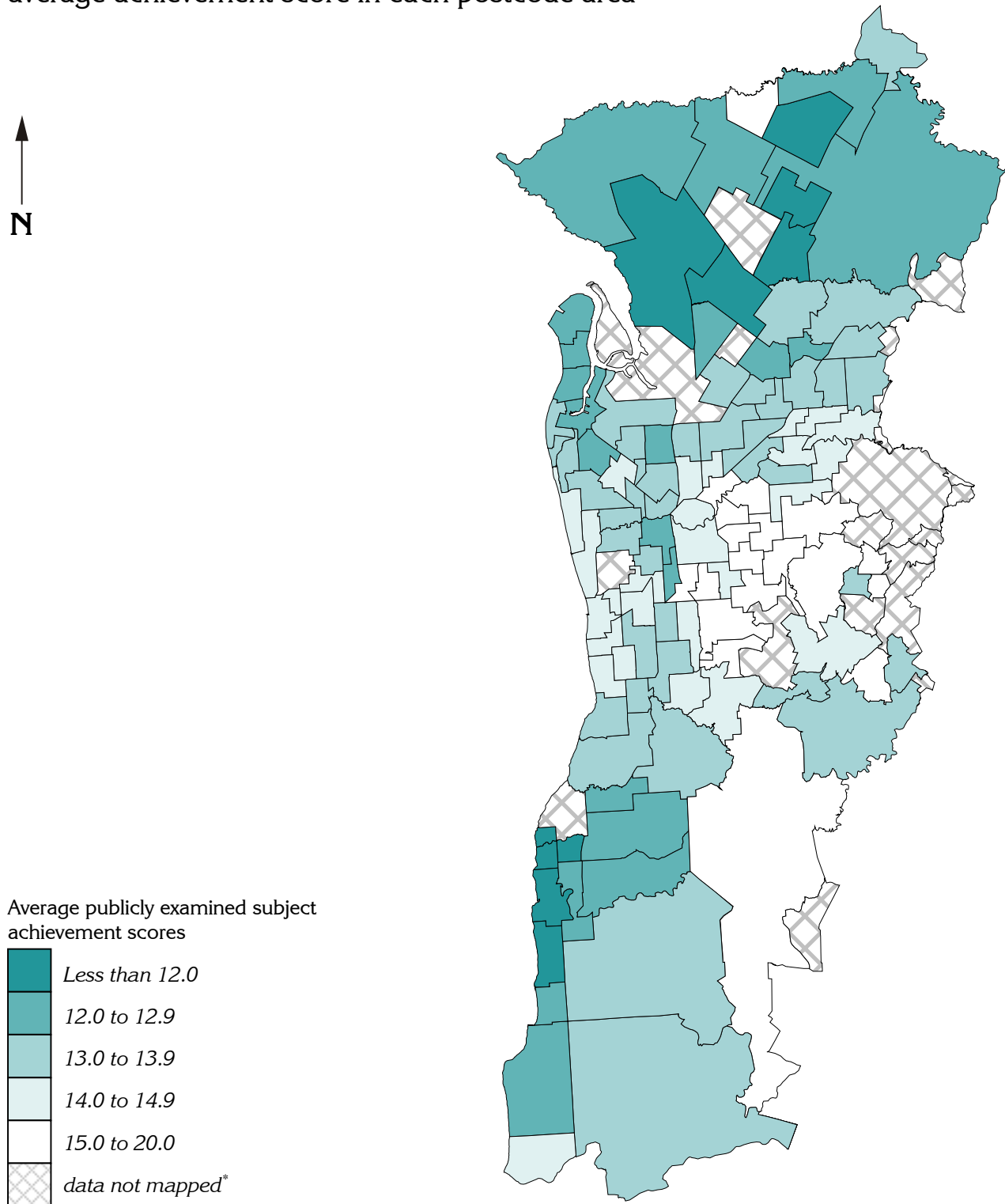
The correlation analysis showed a strong association at the postcode level between high PES scores and a number of indicators of socioeconomic disadvantage. Inverse correlations of meaningful significance were recorded with the variables for children aged 0 to 14 years living in low income families (-0.66) and single parent families (-0.52); and unemployed females (-0.56) and males (-0.61) aged 15 to 24 years. There was an inverse correlation of substantial significance with high proportions of dependent children of selected pensioners and beneficiaries (-0.78). The positive correlation of meaningful significance with the IRSD (0.68) also indicates an association at the postcode level between low average publicly examined subject achievement scores and socioeconomic disadvantage.

<sup>6</sup> In Stage 2 PES, a public examination usually provides 50% of the final score. The moderated school assessment provides the other 50%.

## Map 3.51

### Average publicly examined subject achievement scores, Adelaide, 2000

average achievement score in each postcode area



\* Data were not mapped because either the postcode population is less than 100, only a small part of the postcode is located in Adelaide or there were fewer than five students.

Source: Calculated on data from SSABSA

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

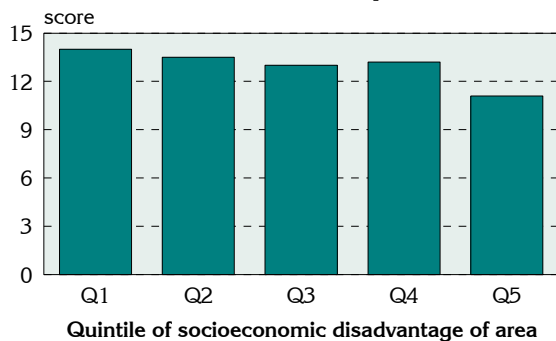
# Average publicly examined subject achievement scores, 2000

## Non-metropolitan South Australia

The average publicly examined subject (PES) achievement scores in the non-metropolitan areas of South Australia are shown in **Figure 3.5** by quintile of socioeconomic disadvantage of area (see page 127).

It is clear from the graph (**Figure 3.5**) that a gradient exists, from the highest PES score in Quintile 1 (the most advantaged areas, a score of 14.0) to the lowest score in Quintile 5 (the most disadvantaged areas, a score of 11.1). The score of 13.2 in Quintile 4 breaks this pattern.

**Figure 3.5: Average publicly examined subject achievement scores, non-metropolitan SA, 2000**



Source: Calculated on data from SSABSA

Students giving an address in the non-metropolitan area of South Australia for posting of their certificates or results undertook 6,830 publicly examined subjects. This represented 40.9% of all SACE subjects undertaken by non-metropolitan students. The average achievement score for PES in non-metropolitan South Australia was 12.7, slightly lower than the metropolitan figure of 13.7.

As relatively few country students undertook publicly examined subjects, a number of SLAs have been excluded from the analysis (**Map 3.52**). Of the areas mapped, the highest average achievement scores were recorded for students in Cleve (15.4), Jamestown (15.2), Clare (15.1), Le Hunte, Lucindale and Yorketown (each 14.9), Lacedpede (14.7), Waikerie, Beachport and Lameroo (each 14.6), Naracoorte (DC) and Orroroo (both 14.5). Of the towns mapped, Tanunda and Naracoorte (C) (both with 14.4) had the highest achievement score.

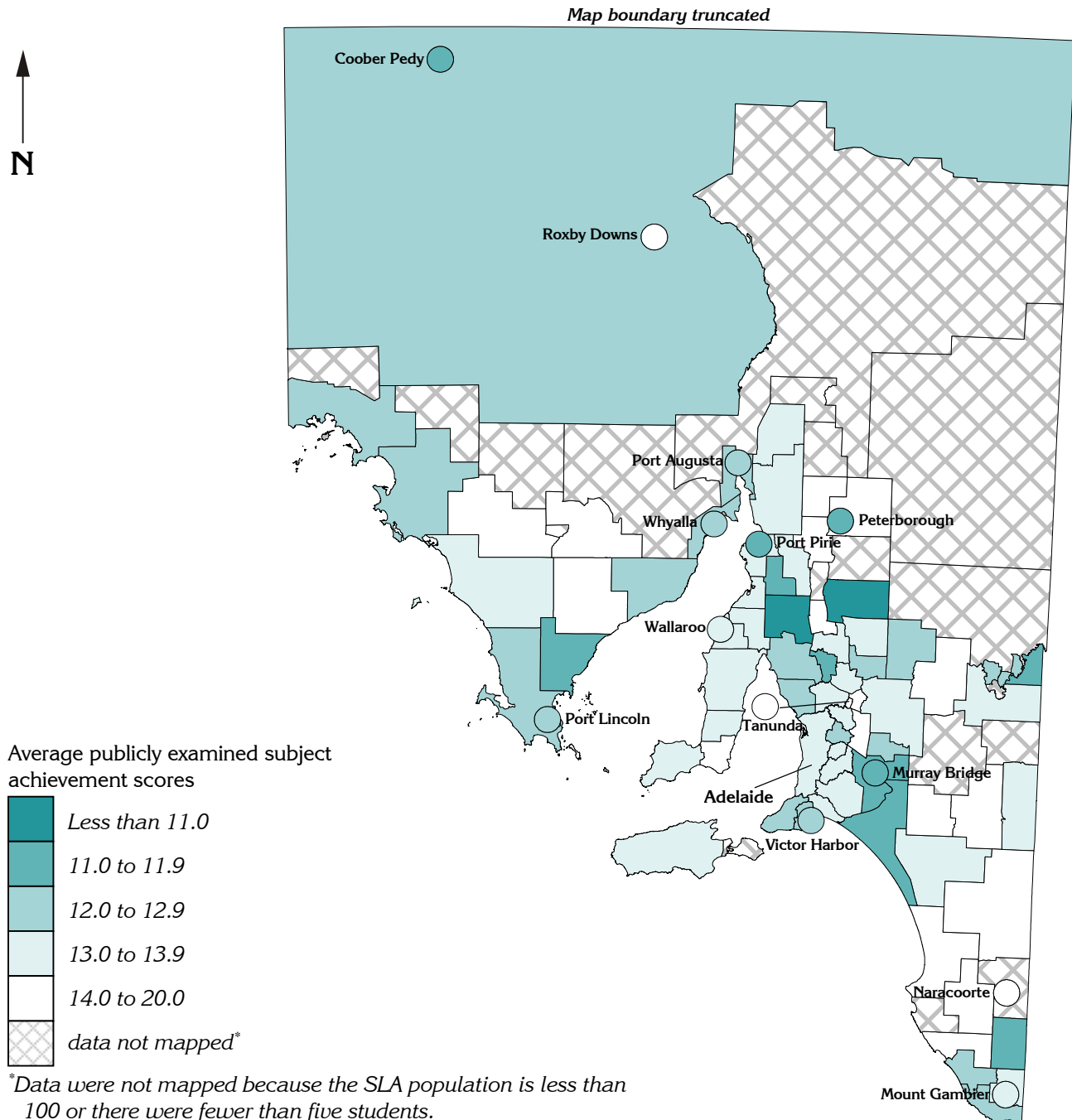
The lowest achievement scores were recorded for students in Burra Burra (9.7), Blyth-Snowtown (10.6), Peterborough, Riverton and Crystal Brook-Redhill (both 11.9) and Port Pirie (12.0) to the north of the city; Coober Pedy (11.3) situated in the far north of the State; Penola (11.4) in the lower south east; Meningie (11.7) and Murray Bridge (11.9) in the Murray Mallee area; Paringa (11.8) and Berri (12.0) in the Riverland; and Tumby Bay (11.9) on the Eyre Peninsula.

Inverse correlations of meaningful significance were recorded with the variables for children aged 0 to 14 years living in dwellings with no vehicles (-0.64); and unemployed males (-0.67) and females (-0.61) aged 15 to 24 years. The positive correlation of meaningful significance with the IRSD (0.56) also indicates an association at the SLA level between low average publicly examined subject achievement scores and socioeconomic disadvantage.

# Map 3.52

## Average publicly examined subject achievement scores, South Australia, 2000

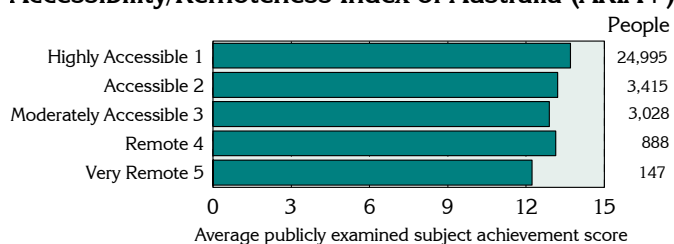
average achievement score in each Statistical Local Area



Source: Calculated on data from SSABSA

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



Average achievement scores for publicly examined subjects decrease with increasing remoteness. The highest score of 13.7 was recorded in the Highly Accessible areas, with the lowest in the Very Remote areas (12.2).

Source: Calculated on ARIA+ classification

# Average publicly assessed subject achievement scores, 2000

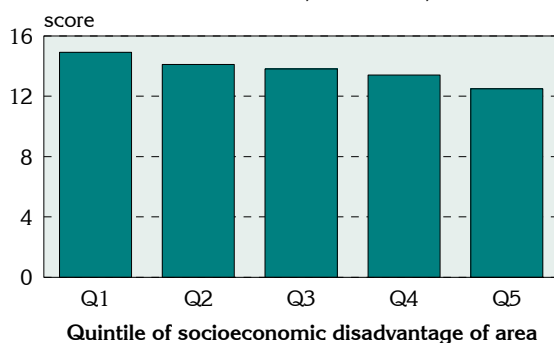
A general description of the South Australian Certificate of Education (SACE) is included on page 127.

For the following analysis, an average achievement score was calculated for each postcode. The score has not been shown where there were fewer than five students in any postcode.

## Adelaide

The average publicly assessed subject (PAS) achievement scores in Adelaide are shown in **Figure 3.6** by quintile of socioeconomic disadvantage of area (quintiles are described on page 127). It is clear from the graph that a gradient exists, from the highest PAS score in Quintile 1 (the most advantaged areas, a score of 14.9) to the lowest score in Quintile 5 (the most disadvantaged areas, a score of 12.5).

**Figure 3.6: Average publicly assessed subject achievement scores, Adelaide, 2000**



Source: Calculated on data from SSABSA

Students giving an address in Adelaide for posting of their certificates or results undertook 8,452 publicly assessed subjects<sup>7</sup> (PAS). This was 17.1% of all SACE subjects undertaken by metropolitan students. The average achievement score for PAS in Adelaide was 13.8.

The lowest average achievement scores were in the outer northern and inner north-western suburbs (**Map 3.53**). Scores of less than 12.0 were recorded for students in the postcode areas of *Elizabeth North* (10.6), *Woodville North* (11.4), *Blair Athol* (11.6), *Ferryden Park* (11.8), *Salisbury* (11.8), *Smithfield* (11.8), *O'Sullivan Beach* (11.9) and *Cowandilla* (11.9). Relatively low scores were also recorded in the outer northern areas of *Elizabeth* (12.0), *Burton* (12.2) and *Parafield*

*Gardens* (12.5); in the inner western suburb of *Keswick* (12.2); and in the outer southern postcodes of *Christie Downs* (12.4) and *Moana* (12.5).

The highest average achievement scores were largely confined to the inner city and to Adelaide Hills postcodes. Excluding areas with fewer than five students, the highest scores were recorded for students in *North Adelaide* (16.7), *Novar Gardens* (16.3), *St Peters* (16.0), *Walkerville* (15.8), *Glen Osmond*, *Kensington Park* and *Aldgate* (each 15.5), *Glenside* and *Stirling* (15.4), *Highbury* (15.3), *Kingswood*, *Burnside*, *Belair* and *Sellicks Beach* (each 15.2) and *Blackwood* (15.0).

The correlation analysis showed a strong association at the postcode level with many indicators of socioeconomic disadvantage. Inverse correlations of significance were recorded with the variables for children aged 0 to 14 years living in low income families (-0.74), single parent families (-0.67), dwellings with no motor vehicles (-0.65) and dwellings rented from the SA Housing Trust (-0.62); and unemployed males and females (both -0.59) aged 15 to 24 years. An inverse correlation of substantial significance was recorded with dependent children of selected pensioners and beneficiaries (-0.78). The positive correlation of substantial significance with the IRSD (0.78) also indicates an association at the postcode level between low average publicly assessed subject achievement scores and socioeconomic disadvantage.

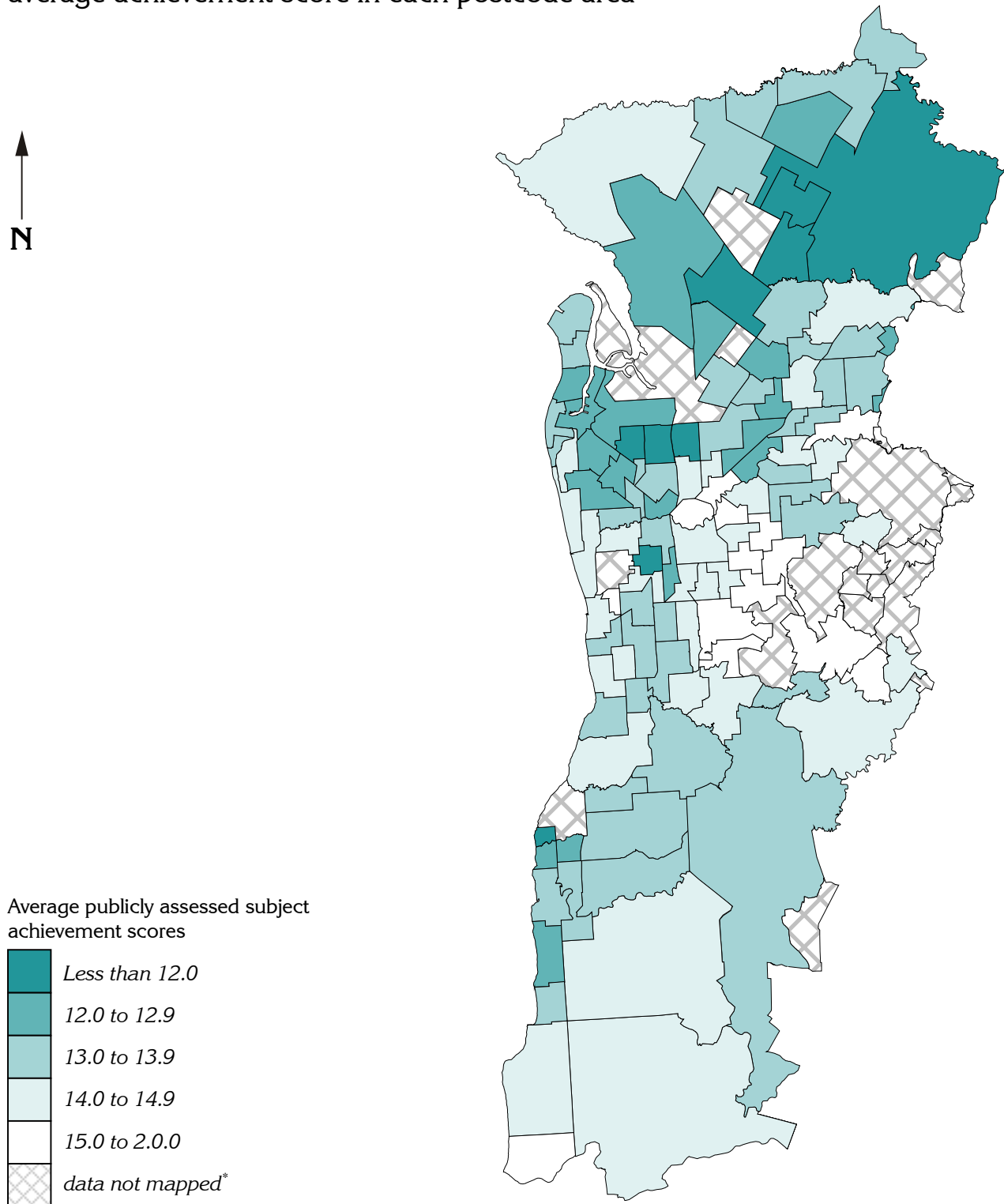
<sup>7</sup> Stage 2 publicly assessed subjects contain a common assessment task with a weighting of 30%.



### Map 3.53

## Average publicly assessed subject achievement scores, Adelaide, 2000

average achievement score in each postcode area



\* Data were not mapped because either the postcode population is less than 100, only a small part of the postcode is located in Adelaide or there were fewer than five students.

Source: Calculated on data from SSABSA

Details of map boundaries are in Appendix 1.2

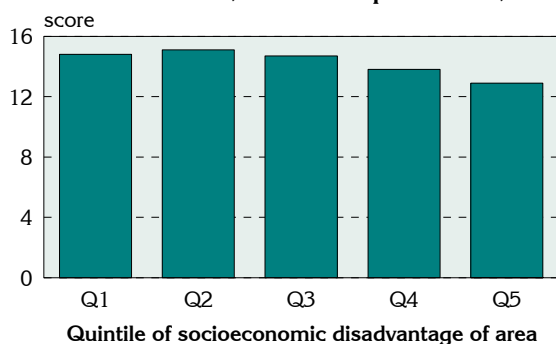
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# Average publicly assessed subject achievement scores, 2000

## Non-metropolitan South Australia

The average publicly assessed subject (PAS) achievement scores in the non-metropolitan areas of South Australia are shown by quintile of socioeconomic disadvantage of area (quintiles are described on page 127). The graph (Figure 3.7) a drop in PAS scores from the highest in Quintiles 2 and 1 (the most advantaged areas; Quintile 2 with a score of 15.1 and Quintile 1 with a score of 14.8) to the lowest score in Quintile 5 (the most disadvantaged areas, with a score of 12.9).

**Figure 3.7: Average publicly assessed subject achievement scores, non-metropolitan SA, 2000**



Source: Calculated on data from SSABSA

Students giving an address in the non-metropolitan areas of South Australia undertook 3,072 publicly assessed subjects. This was 18.4% of all SACE subjects undertaken by non-metropolitan students. The average PAS score across non-metropolitan South Australia was 14.2, slightly higher than the metropolitan figure of 13.8.

As relatively few country students undertook publicly assessed subjects, a number of SLAs have been excluded from the analysis (Map 3.54). Of the areas mapped, the highest average achievement scores were recorded for students in Cleve (17.3), Coonalpyn Downs (17.1), Franklin Harbor (16.9), Saddleworth and Auburn (16.7), Lameroo (16.2), Lacepede and Beachport (both 16.1) and Pinnaroo (16.0). Relatively high scores were also recorded in Loxton (15.9), Warooka and Jamestown (both 15.8), Crystal Brook-Redhill, Riverton, Tatiara and Mount Remarkable (each 15.7), Onkaparinga and Clare (both 15.6), Penola and Peake (both 15.5).

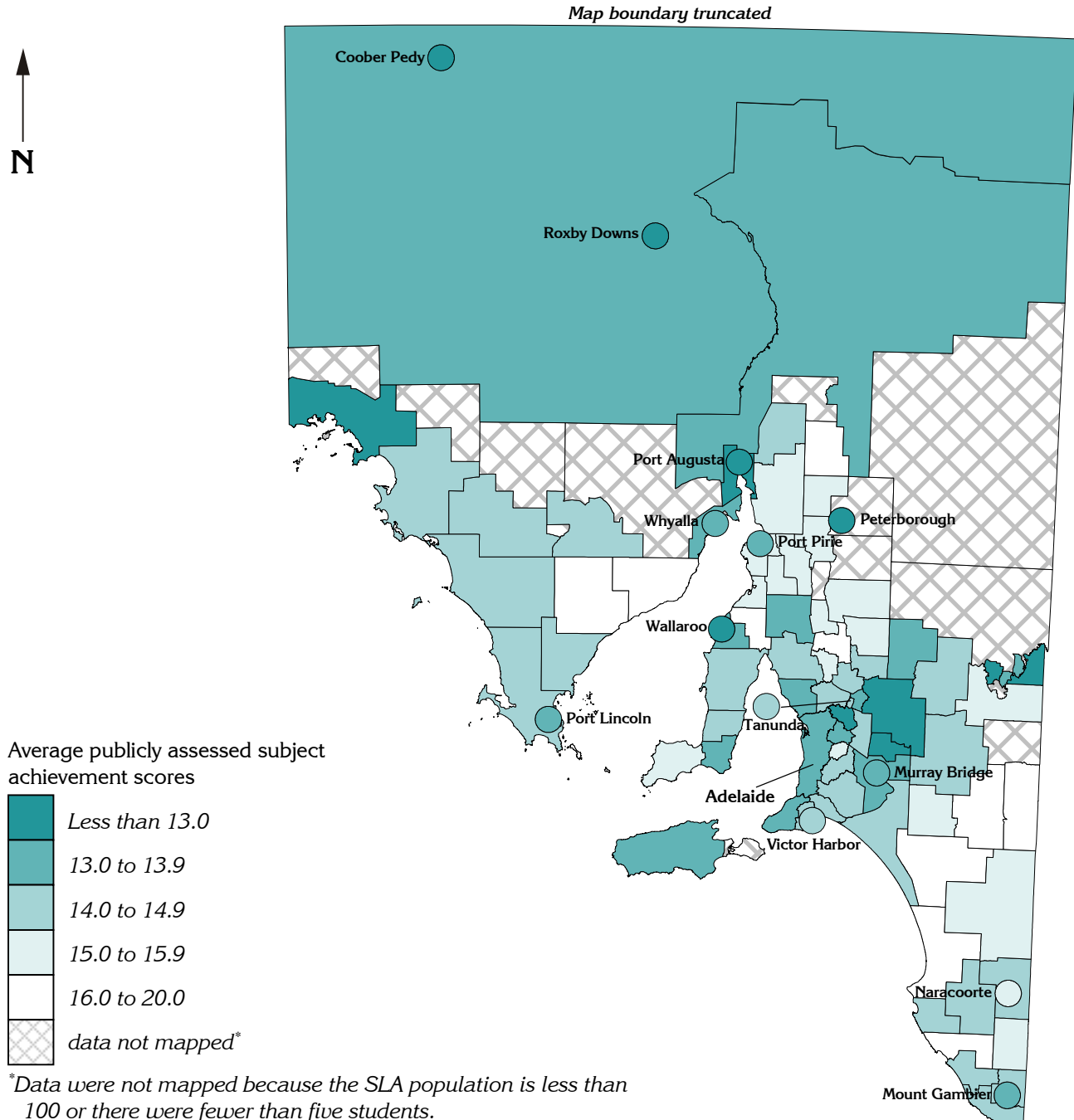
Students in Barossa had the lowest score for publicly assessed subjects, with an average score of 11.4. Relatively low scores were also recorded for students in the towns of Coober Pedy (11.5), Roxby Downs (12.2), Peterborough (12.5), Ceduna (12.7), Wallaroo (12.7), Port Augusta (12.8), Port Lincoln (13.1), Whyalla (13.4), Mount Gambier (13.6), Murray Bridge (13.9), Port Pirie (13.9) and Tanunda (14.0).

There was no consistent evidence in the correlation analysis at the SLA level between average publicly assessed achievement scores and socioeconomic status.

# Map 3.54

## Average publicly assessed subject achievement scores, South Australia, 2000

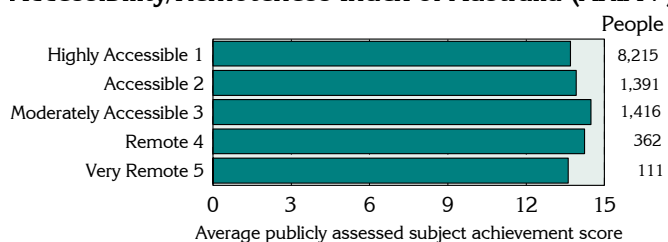
average achievement score in each Statistical Local Area



Source: Calculated on data from SSABSA

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



Average achievement scores for publicly assessed subjects increase across the ARIA+ classes, from 13.7 in the Highly Accessible areas to 14.5 in the Moderately Accessible areas, before declining to an average score of 13.6 in the Very Remote areas.

Source: Calculated on ARIA+ classification

# Average school-assessed subject achievement scores, 2000

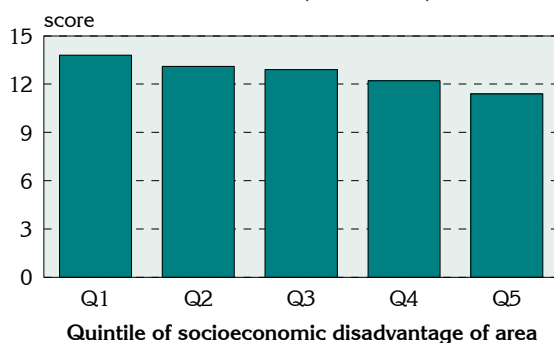
A general description of the South Australian Certificate of Education (SACE) is included on page 127.

For the following analysis, an average achievement score was calculated for each postcode. The score has not been shown where there were fewer than five students in any postcode.

## Adelaide

The average school assessed subject (SAS) achievement scores in Adelaide are shown in **Figure 3.8** by quintile of socioeconomic disadvantage of area (quintiles are described on page 127). It is clear from the graph that a gradient exists, from the highest SAS score in Quintile 1 (the most advantaged areas, a score of 13.8) to the lowest score in Quintile 5 (the most disadvantaged areas, a score of 11.4).

**Figure 3.8: Average school assessed subject achievement scores, Adelaide, 2000**



Source: Calculated on data from SSABSA

Students giving an address in Adelaide for posting of their certificates or results undertook 15,370 school-assessed subjects<sup>8</sup>. This was 31.1% of all SACE subjects undertaken by metropolitan students. The average achievement score for school-assessed subjects in Adelaide was 12.7.

The lowest average achievement scores were largely found in Adelaide's outer northern postcodes (**Map 3.55**), with the lowest score recorded for students in *Elizabeth North* (9.4). The next lowest scores were recorded in the postcode areas of *Burton* (9.9), *Maslin Beach* (10.2), *Angle Vale* (10.3), *Munno Para* (10.4), *Smithfield* (10.6), *Norton Summit* (10.7), *Christies Beach* (10.7),

*Salisbury* (10.8), *Woodville North* (10.8) and *Christie Downs* (10.8).

Relatively high average scores were recorded for students in postcodes in the inner eastern and inner southern suburbs, with the highest scores recorded at *Gepps Cross* and *Walkerville* (both 15.4), *Summertown* (15.1), *Belair* (14.7), *Blackwood* (14.5), *St Peters* (14.4), *Glenside*, *Somerton Park* and *Highbury* (each 14.3), *West Lakes Shores* (14.2), *Glen Osmond*, *Novar Gardens* and *Eastwood* (each 14.1), *Burnside*, *Uraidla*, *Eden Hills* and *Daw Park* (each 14.0).

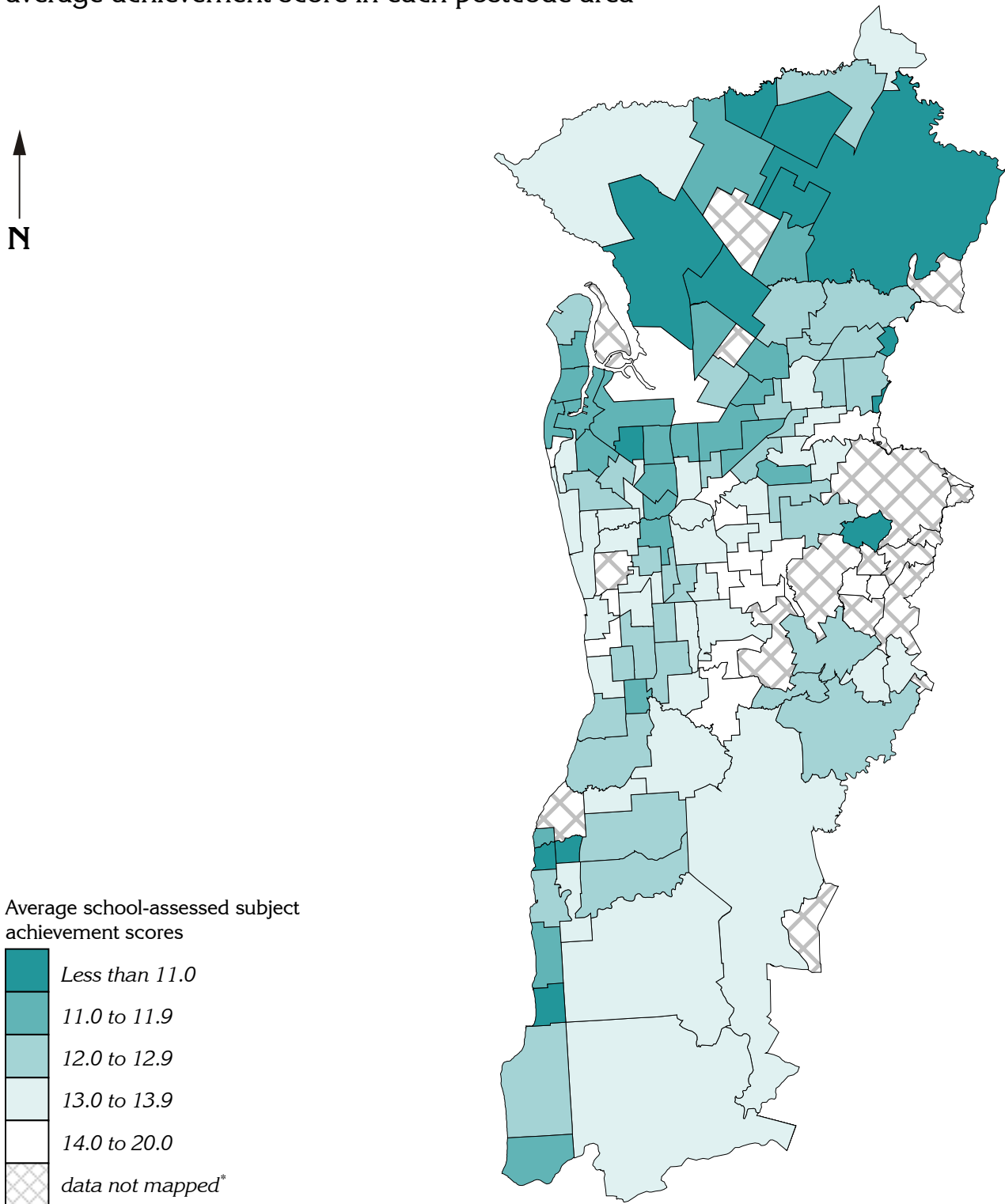
The correlation analysis showed a strong association at the postcode level with many indicators of socioeconomic disadvantage. Inverse correlations of significance were recorded with the variables for children aged 0 to 14 years living in low income families (-0.76), single parent families (-0.66), dwellings with no motor vehicles (-0.62) and dwellings rented from the SA Housing Trust (-0.61); and unemployed males (-0.69) and females (-0.70) aged 15 to 24 years. An inverse correlation of substantial significance was recorded with dependent children of selected pensioners and beneficiaries (-0.79). The positive correlation of substantial significance with the IRSD (0.77) also indicates an association at the postcode level between low average publicly assessed subject achievement scores and socioeconomic disadvantage.

<sup>8</sup> Stage 2 school-assessed subjects are wholly assessed by the school, using teacher judgements based upon the assessment provisions in the syllabus. These assessments are then moderated by SSABSA.

## Map 3.55

### Average school-assessed subject achievement scores, Adelaide, 2000

average achievement score in each postcode area



\* Data were not mapped because either the postcode population is less than 100, only a small part of the postcode is located in Adelaide or there were fewer than five students.

Source: Calculated on data from SSABSA

Details of map boundaries are in Appendix 1.2

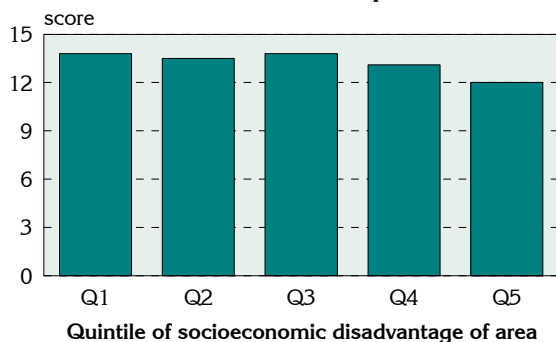
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# Average school-assessed subject achievement scores, 2000

## Non-metropolitan South Australia

Average school-assessed subject (SAS) achievement scores in the non-metropolitan areas of South Australia are shown in **Figure 3.9** by quintile of socioeconomic disadvantage of area (quintiles are described on page 127). There is little variation in SAS scores across the first three quintiles, with a score of 13.8 in both Quintiles 1 and 3. Over the next two quintiles, the score decreases to 13.1 in Quintile 4 and 12.0 in Quintile 5.

**Figure 3.9: Average school assessed subject achievement scores, non-metropolitan SA, 2000**



Source: Calculated on data from SSABSA

Students giving an address in the non-metropolitan areas of South Australia for posting of their certificates or results undertook 6,785 school-assessed subjects. This was 40.7% of all SACE subjects undertaken by non-metropolitan students. The average achievement score for school-assessed subjects across non-metropolitan South Australia was 13.0, slightly higher than the metropolitan figure (12.7).

The lowest average achievement scores were located in SLAs at the fringe of the metropolitan area and in the towns (**Map 3.56**). The SLAs were Mount Pleasant (10.7), Murray Bridge (10.8), Yankalilla, Port Elliot and Goolwa and Barossa (each 11.9) situated in close proximity to the metropolitan area; Burra Burra (10.8) and Clare (11.8) in the mid north; in the towns of Peterborough (11.2), Roxby Downs (11.3), Whyalla and Port Lincoln (11.6); and in Renmark (11.3), Yorketown (11.6) and Elliston (11.8).

Higher than average scores were recorded for students in SLAs scattered throughout the State, in Beachport (16.6), Lucindale (16.1), Loxton (15.9), Riverton and Coonalpyn Downs (both 15.4),

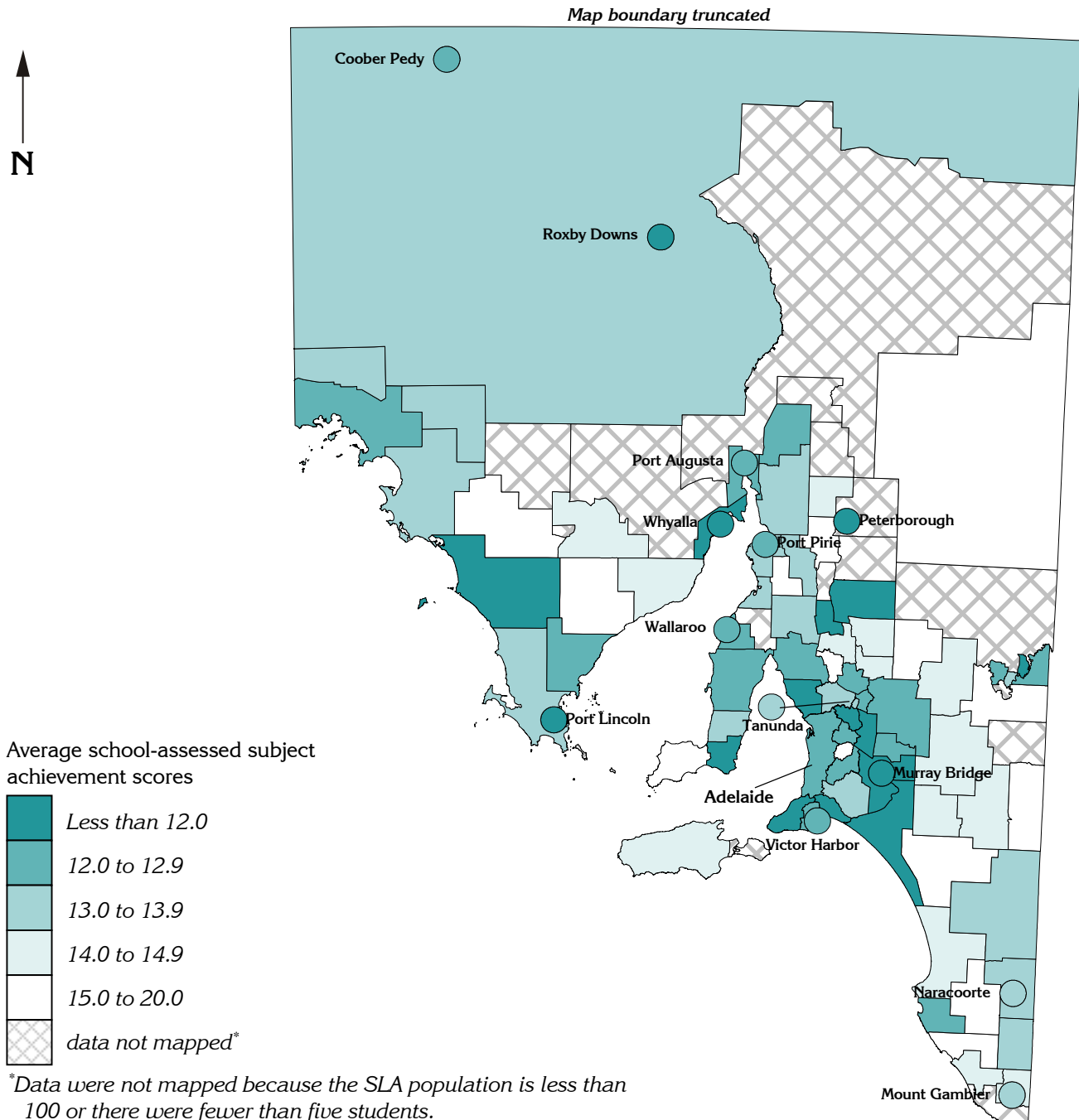
Jamestown and Warooka (both 15.3), Cleve, Le Hunte, Crystal Brook-Redhill, Onkaparinga and Pinnaroo (each 15.2) and Morgan (15.0).

Inverse correlations of meaningful significance were recorded with the variables for children aged 0 to 14 years living in single parent families (-0.57) and low income families (-0.55); and unemployed males (-0.68) and females (-0.52) aged 15 to 24 years. The positive correlation of meaningful significance with the IRSD (0.54) also indicates an association at the SLA level between low average school-assessed subject achievement scores and socioeconomic disadvantage.

# Map 3.56

## Average school-assessed subject achievement scores, South Australia, 2000

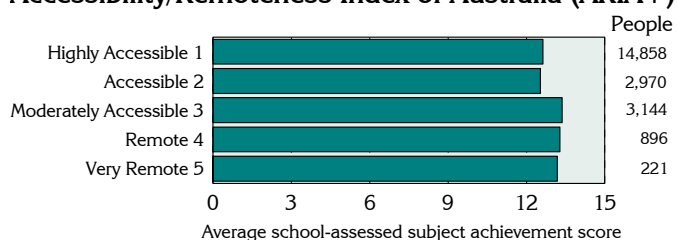
average achievement score in each Statistical Local Area



Source: Calculated on data from SSABSA

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



Average school-assessed subject achievement scores were lowest in the Highly Accessible (12.6) and Accessible (12.5) areas, while relatively high scores were recorded in the Moderately Accessible (13.4), Remote (13.3) and Very Remote areas (13.2).

Source: Calculated on ARIA+ classification

## Total Fertility Rate, females aged under 25 years, 1996 to 1999

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The Total Fertility Rate<sup>9</sup> measures the production of children and is calculated from details of the age of the female population, the number of births and the age of the mother at birth. Postcodes recording fewer than 20 births were excluded from the analysis.

Since the late 1960s, South Australia has had lower Total Fertility Rates than the Australian average, although the differential is narrowing. For example, in 1978 the differential was 10.5%; by 1998, this had declined to 3.1%, a rate of 1.70 in South Australia and 1.76 in Australia.

### Adelaide

The Total Fertility Rate (TFR) for Adelaide over the four year period from 1996 to 1999 was 1.61, slightly lower than the State rate of 1.70. The TFR for Aboriginal and Torres Strait Islander women living in Adelaide was almost double, a TFR of 3.16.

Most of the postcode areas in Adelaide had TFRs of between 1.0 and 2.0, with rates of 2.0 and above in postcodes primarily located in the outer north (**Map 3.57**).

Female residents of *Norton Summit* (with a TFR of 2.72), *Virginia* (2.63), *Elizabeth North* (2.44), *Summertown* (2.24), *Parafield Gardens* (2.21), *Ferryden Park* (2.19), *Smithfield* (2.17), *Old Noarlunga* (2.13), *Angle Vale* (2.09), *Woodville North*, *Elizabeth* and *Christie Downs* (each 2.05), *Salisbury*, *Moana* and *Osborne* (each 2.01) had the highest TFRs.

Postcode areas located in the inner city suburbs generally had the lowest TFRs. These areas included *Adelaide* (with a TFR of 0.61), *Norwood* (0.93), *North Adelaide* (1.00), *Keswick* (1.11), *Glenside* (1.13), *Eastwood* (1.22), *Kensington Park* and *Marden* (both 1.23), *Hindmarsh* (1.25), *St Peters* (1.29) and *Walkerville* (1.30).

There were 52,218 births to mothers aged from 15 to 49 years over the four years from 1996 to 1999, with the largest numbers being in *Salisbury* (with 2,649 births), *Morphett Vale* (2,097 births), *Happy Valley* (1,720 births), *Smithfield* (1,477 births), *Elizabeth North* (1,344 births), *Salisbury East* (1,204 births), *Elizabeth* (1,166 births) and *O'Halloran Hill* (1,121 births).

As would be expected, there was a strong association at the postcode level between high TFRs and the variable for children aged 0 to 4 years (0.65). A correlation of meaningful significance was also found with the variable for people who left school at age 15 years or earlier (0.54).

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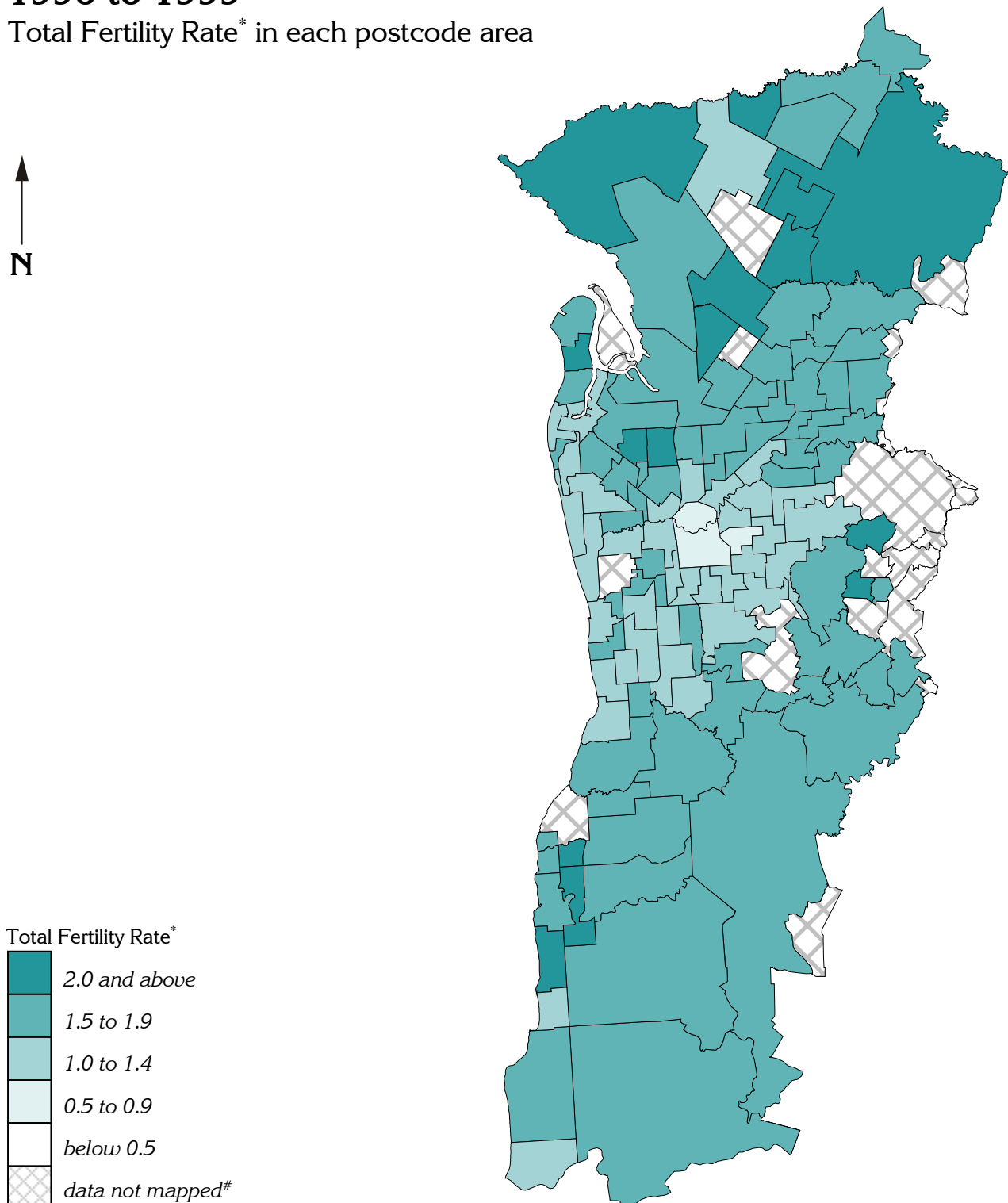
<sup>9</sup> The *Total Fertility Rate* represents the mean number of children females living right through their child-bearing period will (on the average) bear, if they are subject to the fertility conditions holding in a particular area over the given period.



## Map 3.57

### Total Fertility Rate\*, females aged under 25 years, Adelaide, 1996 to 1999

Total Fertility Rate\* in each postcode area



\*The Total Fertility Rate is a measure of the number of children a woman can expect to bear in her lifetime.

#Data were not mapped because either the postcode population is less than 100, only a small part of the postcode is located in Adelaide or there were fewer than 20 births.

Source: Calculated on data from ABS

Details of map boundaries are in Appendix 1.2

A Social Health Atlas of Young South Australians, 2003

# Total Fertility Rate, females aged under 25 years, 1996 to 1999

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## Non-metropolitan South Australia

The Total Fertility Rate (TFR) for the non-metropolitan areas of South Australia over the four year period from 1996 to 1999 was 2.04, substantially (26.7%) above the Adelaide rate of 1.61. The TFR for Aboriginal and Torres Strait Islander women resident in these areas was higher, a TFR of 2.88.

As many of the TFRs in **Map 3.58** are higher than those in Adelaide, the ranges mapped have been changed to enhance the pattern of differentiation. The highest and lowest ranges have been set at 2.5 and above, and less than 1.0, respectively, rather than at 2.0 and 0.5, as in the map of Adelaide for this variable.

SLAs with high TFRs were distributed throughout the State in no notable pattern, however the lowest rates were generally in SLAs located in the far north (see Note, below).

By far the highest rate was recorded for female residents of Unincorporated Whyalla, with a TFR of 4.20 (and 6 births). Relatively high rates were also recorded in the SLAs of Ceduna (with TFR of 2.97), Wakefield Plains (2.91), Warooka (2.87), Streaky Bay (2.78), Eudunda (2.70), Elliston (2.68), Tatiara (2.61), Karoonda-East Murray (2.55), Crystal Brook-Redhill (2.54) and Kanyaka-Quorn (2.53).

The lowest TFRs were in the south-eastern SLAs of Beachport (with a TFR of 1.17), Naracoorte (DC) (1.49), Lacepede (1.66) and Mount Gambier (DC) (1.70); in the far northern areas of Unincorporated Far North (1.20) and Unincorporated Flinders Ranges (1.70); and in the fringe SLAs of Victor Harbor (1.53), Mount Pleasant (1.56), Tanunda (1.62) and Strathalbyn (1.65).

In the non-metropolitan areas of South Australia, the largest numbers of births to mothers aged from 15 to 49 years were in the towns of Whyalla (with 1,399 births), Mount Gambier (1,388 births), Mount Barker (1,322 births), Murray Bridge (968 births), Port Pirie (848 births), Port Augusta (845) and Port Lincoln (789 births).

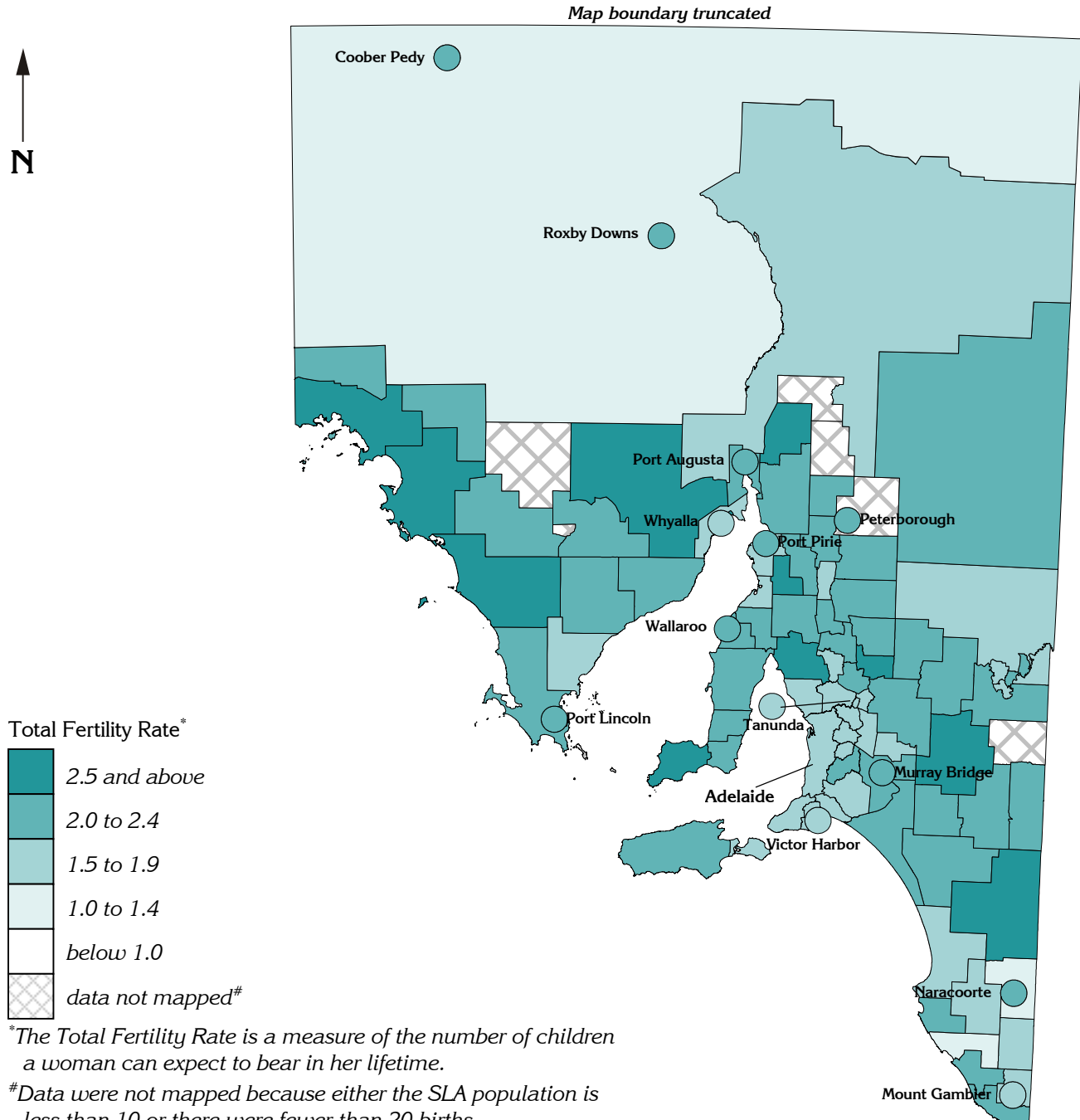
There was no consistent evidence in the correlation analysis at the SLA level of an association between high TFRs and socioeconomic status.

Note: The very low Total Fertility Rate in Unincorporated Far North (1.20) does not fit with the general pattern of higher TFRs among Indigenous women. Either the large Indigenous population in the far north of the State has very low fertility rates or there are problems with the quality of the data. The latter is a possibility. In theory all births are recorded to the address of usual residence of the mother, regardless of where in Australia the birth occurs. This may not be occurring for births to Aboriginal women who live in the far north of the State, in particular where the birth takes place in a hospital in Alice Springs, or in South Australia, for example in Adelaide and where a local postcode is given as the address (rather than the postcode of usual residence of the mother). This could also contribute to the very high TFR recorded for Indigenous women in Adelaide.

# Map 3.58

## Total Fertility Rate\*, females aged under 25 years, South Australia, 1996 to 1999

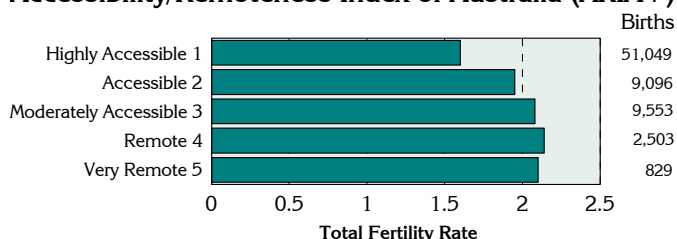
Total Fertility Rate\* in each Statistical Local Area



Source: Calculated on data from ABS

Details of map boundaries are in Appendix 1.2

### Accessibility/Remoteness Index of Australia (ARIA+)



The Total Fertility Rate (TFR) increases by one third, from 1.60 in the Highly Accessible areas to 2.14 in the Remote areas, before decreasing slightly to a rate of 2.10 in areas in the Very Remote ARIA+ class.

Source: Calculated on ARIA+ classification

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