Commonwealth Financial Planning

The tyranny of distance?

Carers in regional and remote areas of Australia

Prepared for Carers Australia by the Australian Institute of Family Studies

Ben Edwards, Matthew Gray and Jennifer Baxter
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Centre for Aboriginal Economic Policy Research,
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Carers Australia

Carers Australia is the national peak body representing the diversity of Australians who provide unpaid care and support to family members and friends with a disability, mental illness or disorder, chronic condition, terminal illness or who are frail.

Carers Australia believes all carers, regardless of their cultural and linguistic differences, age, disability, religion, socio-economic status, gender identification and geographical location should have the same rights, choices and opportunities as other Australians.

They should be able to enjoy optimum health, social and economic wellbeing and participate in family, social and community life, employment and education. These rights should be mandated in legislation.

Australian Institute of Family Studies

The Institute is a statutory authority that originated in the Australian *Family Law Act 1975*. It was established by the Australian Government in February 1980.

The Institute promotes the identification and understanding of factors affecting marital and family stability in Australia by:

- researching and evaluating the social, legal and economic wellbeing of all Australian families;
- informing government and the policy-making process about Institute findings;
- communicating the results of Institute and other family research to organisations concerned with family wellbeing and to the wider general community; and
- promoting improved support for families, including measures that prevent family disruption and enhance marital and family stability.

The objectives of the Institute are essentially practical ones, concerned primarily with learning about real situations through research on Australian families.

The "tyranny of distance" was first coined by Geoffrey Blainey in his book *Tyranny of distance: How distance shaped Australia's history* (1966), which examines the effects on Australian society of big distances both within the continent, and from England and Europe.

This project was funded by Commonwealth Financial Planning.

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Foreword

Message from David MacKay, General Manager Commonwealth Financial Planning

I am proud to announce the findings of a new research study conducted by the Australian Institute of Family Studies on behalf of Commonwealth Financial Planning and Carers Australia. Commonwealth Financial Planning is committed to addressing Australian community needs. We support Carers Australia in its efforts to improve the lives of people who provide unpaid care and support to family members and friends with a disability, mental illness or disorder, chronic condition, terminal illness or who are frail.

The Tyranny of Distance? report, funded by Commonwealth Financial Planning, is the first to examine the geographic spread and social, health and economic wellbeing of carers in outer regional and remote areas of Australia.

The report shows that of the 2.4 million Australians living outside major cities and inner regional areas, 363,000 provide unpaid care for family or friends. Despite providing invaluable services to these communities, many carers based in outer regional and remote areas of Australia are more likely to experience financial hardship and have difficulty accessing basic services.

Commonwealth Financial Planning offers financial advice to customers through over 680 planners employed by the Commonwealth Bank operating in over 1,000 branches nationally, many of which are located in outer regional and remote areas. Our financial planners can assist carers in all areas of Australia by providing access to advice around budgeting, goal-setting and achieving ongoing financial independence.

I believe this research will significantly raise awareness on the wellbeing of carers in outer regional and remote areas of Australia and identify actions to improve the access to vital services for these members of the community. I am pleased that Commonwealth Financial Planning can participate by funding the research.

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Executive summary

Unpaid care provided by family and friends is invaluable. It is a vital part of a civilised and caring society and can be the social glue that binds our communities together. In outer regional and remote areas an increasingly ageing population, combined with a lack of services to care for people with a disability, long-term illness or who are frail means that the care provided by family and friends is even more significant. Despite this, little is known about their circumstances and the particular challenges carers in these areas experience.

In this report, we begin to fill this gap by:

- documenting the geographic spread of carers and identifying the outer regional and remote areas that have the highest concentrations of carers;
- examining the ability of carers to access services and how this varies according to geographic remoteness;
- documenting the social, health and economic wellbeing of carers according to geographic remoteness; and
- investigating the impact of drought on carers.

Key findings concerning the geographic spread of carers are as follows:

- The largest numbers of carers in inner regional and outer regional areas resided in the most populous states—New South Wales, Victoria and Queensland.
- Queensland, Western Australia and the Northern Territory were the states with the most carers living in remote areas.
- When we look at the proportion of the total population in a particular area who are carers, a different picture emerges. There were large proportions of carers living in remote areas in the Northern Territory and very remote areas of Western Australia.
- Carers were more likely to be Indigenous in remote and regional Australia—largely as a result of the distinctive geographic distribution of the Indigenous population and the high level of caring required for many in that most disadvantaged sector of Australian society.
- The age structure of the carer population in these very remote areas was also much younger than other regions of Australia, with far more carers aged 24 years or less and fewer aged 65 years and over. Again, the large numbers of Indigenous people living in very remote areas largely explains the differences in the age structure of the carer population in very remote areas.

Depending on where carers lived, there were differences in their ability to access services like doctors, employment services, telecommunication services, Centrelink, banks and other financial institutions, disability services, the Family Assistance Office and Medicare. Compared to non-carers, many carers in outer regional and remote areas reported difficulties accessing services. The proportion of carers living in these areas who experienced such difficulties was significantly greater than among carers living in major cities and in inner regional areas. The main reasons carers in outer regional and remote areas had difficulties were that formal service providers in their area were unavailable, inadequate and unaffordable.

There were several key differences in the social, health and economic wellbeing of carers according to geographic remoteness:

- Carers living in outer regional and remote areas experienced higher rates of disability or a long-term health condition and lower rates of employment than non-carers living in the same areas and carers in major cities.

- Carers living in all areas of Australia were more likely to be living in a jobless household and to experience more financial hardship.
- However, carers in outer regional and remote areas had more sources of personal information and advice available to them than non-carers in these regions.

The report also examined whether drought affects carers more than non-carers, using the 2006 Census of Population and Housing linked to information about rainfall deficits in the local area. The main findings were as follows:

- There is evidence that employment population ratios were lower in drought-affected areas overall. In addition, drought had a significantly greater impact on the employment population ratios of carers than non-carers.
- The employment population ratios of carers were 4.5 percentage points lower than non-carers in above-average rainfall areas, and 8.2 percentage points lower in drought-affected areas.
- The lower employment population ratio of carers in drought areas was due to a smaller proportion of carers being in full-time employment in these areas while part-time employment was similar in all areas.

The evidence presented in this report suggests that carers in outer regional and remote Australia do experience a "tyranny of distance" (Blainey, 1966). Some parts of remote and very remote areas of Australia have high rates of carers per head of the population and a large proportion of these carers are Indigenous. Many carers in outer regional and remote areas have difficulties accessing services and struggle to find employment. They have higher rates of disability or long-term health conditions than carers in inner regional areas and major cities. When they are employed, it appears as though their jobs are also more vulnerable to shocks to the local economy brought on by drought. While the rural communities in which these carers live provide informal supports by way of information and advice, carers do seem to struggle to access services. The immediate task ahead is to insure unpaid family carers in rural and remote areas of Australia have better access to appropriate support and services. This is the challenge for a civilised and caring society.

1. Introduction

Australia is one of the largest countries geographically, while having one of the lowest population densities per square kilometre in the world. At the same time, the Australian population is one of the most urbanised, being concentrated on the eastern seaboard. However, 2.4 million Australians live outside of the major cities and inner regional areas.[1] These areas are geographically remote, sparsely settled and with fewer services than in more densely populated areas. Of these 2.4 million Australians, 363,000 provide unpaid care for family or friends who require care because of disability or long-term illness, or who are frail aged.[2]

Unpaid care provided by family and friends is invaluable.[3] It is a vital part of a civilised and caring society and can be the social glue that binds our communities together. In outer regional and remote areas an increasingly ageing population, combined with a lack of services to care for people with a disability, long-term illness or who are frail means that the care provided by family and friends is even more significant.

It is also the case that a higher proportion of the male population in outer regional and remote areas have a disability, long-term illness or are frail aged. This is explained by people in outer regional areas reporting more acute or chronic injury, higher psychological distress, risky drinking and being overweight, as well as there being a higher proportion of Indigenous people living in remote areas, who on average have much poorer health than other Australians (Australian Institute of Health and Welfare [AIHW], 2008a, 2008b; Vos, Barker, Stanley, & Lopez, 2007).

The long-term ageing of the population means that there is a greater demand for carers; hence the need to understand factors associated with unpaid caring is more urgent than ever before. This effect is more pronounced in outer regional and remote areas, primarily because younger people in those regions are more likely to move to the "greener pastures" of the cities in search of employment, leaving behind a proportionally older population with fewer people to care for them.

In contrast, within the Indigenous population there is a higher proportion of younger people (Taylor, 2009); however, the health burden in this population is much greater and there are fewer healthy adults available to provide care.

There has also been a long-term trend towards declining prosperity in many parts of outer regional and remote Australia, leading to a decline in the capacity of the average resident to pay for services (Barr, 2004; Budge 2006). This structural adjustment is evident in many Australian regional areas and is exacerbated by the increasing incidence of drought.

Despite the importance of carers in regional and remote areas of Australia, virtually nothing is known about their circumstances and the particular challenges, such as a lack of services, that they experience.[4]

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1 See Section 2.2 for more information about the classification of remoteness used in this report. Examples of regional and remote areas using this classification include: inner regional—Blue Mountains (NSW), Ballarat (VIC), Bundaberg (QLD), Adelaide Hills (SA); outer regional—Tamworth (NSW), Mildura (VIC), Rockhampton (QLD), Port Augusta (SA), Bunbury (WA), Burnie (TAS); remote—Bega Valley (NSW), Orbost (VIC), Gladstone (QLD), Broome (WA), Alice Springs (NT); very remote—West Kimberly (WA), East Arnhem Land (NT).

2 Estimate from the General Social Survey (GSS) 2006.

3 Carers can be either paid or unpaid for the services they provide. The focus in this report is on unpaid carers, since there is a substantial existing literature that examines paid carers (predominantly through analysis of industry data on nursing and related professionals).

4 Hill, Smyth, Thomson, and Cass (2009) reported on the geographic distribution of young carers (15–24 years of age) and their demographic characteristics.

In this report we begin to fill this gap by:

- documenting the geographic spread of carers and identifying the outer regional and remote areas that have the highest concentrations of carers;
- describing the demographic and social–economic characteristics of carers;
- examining the ability of carers to access services and how this varies according to geographic remoteness;
- documenting the social, health and economic wellbeing of carers according to geographic remoteness; and
- investigating the impacts of drought on carers.

The structure of the report is as follows. Section 2 describes the datasets used in the report and some issues in how carers are defined in these datasets. Section 3 describes the geographic spread of carers by states/territories and remote areas. Section 4 examines the impact of living in inner regional, outer regional and remote areas on carers' wellbeing and economic and social participation. Section 5 explores whether these differences are due to geographic remoteness or the result of the demographic profile of individuals who live in inner regional, outer regional and remote areas. Section 6 examines drought and carers, and section 7 concludes.

2. Data and definitional issues

2.1 Datasets

In this report, we use data from two nationally representative datasets collected by the Australian Bureau of Statistics (ABS)—the 2006 Census of Population and Housing (Census 2006) and the 2006 General Social Survey (GSS 2006). In these surveys, the carers were self-identified. In the Census 2006 carers are identified from age 15 years while in the GSS 2006 carers are identified from 18 years of age onwards.

There are a variety of sources of data on carers in Australia and their wellbeing. The ABS collects information about carers using the Survey of Disability, Ageing and Carers (SDAC). There are also a range of other surveys that identify respondents with caring responsibilities and thus allow an examination of the circumstances of carers and how they compare to those without caring responsibilities. Key recent national surveys that provide information on carers and their geographic distribution are the Census 2006, the GSS 2006, 2006 Time Use Survey and the Australian Institute of Family Studies (AIFS) Families Caring for a Person with a Disability survey.

The surveys have each employed different methods to identify carers and different criteria for classifying a person as a carer. As a consequence, the number of carers estimated from the surveys varies. Given the sensitivity of the estimated number of carers in Australia to the definition used, it is important to understand the extent to which a particular dataset produces a "low" or "high" estimate of the number of carers.

Our assessment is that the SDAC 2003 produced the most accurate estimates of the number of carers in Australia. This is because it used the approach of asking those with a disability or long-term illness to identify who provides care for them. Other surveys, such as the GSS 2006, ask people whether they provide care for someone with a disability or long-term health problem, or who is frail aged, and the nature of care provided and then use this information to identify those who are carers. Using the latter method, the identification of carers is less clearly linked to the extent to which the person they are caring for has a disability, and there may be some people who provide care who may not self-identify as they do not consider themselves to be a carer.

While we believe that the SDAC 2003 survey was best for identifying carers, it had a number of limitations when analysing how the circumstances and wellbeing of carers vary across geographic areas of Australia. Its primary limitations for this purpose were that it provided only limited

information on the wellbeing of carers and their economic and social participation and the information was collected over five years ago.

Given the limitations of SDAC 2003 for understanding the circumstances of carers outside the major cities, the information presented in this report is drawn from the GSS 2006 and the Census 2006. The GSS is used because it provides detailed and wide-ranging information on wellbeing, service use and social and economic participation. The two main limitations of the GSS (at least for the publicly available data) are that it is not possible to use it to identify Indigenous carers and the most detailed geographic analysis allowed are major city, inner regional and the combined category of outer regional and remote areas.[5] The Census is used because it allows estimates to be produced using a more detailed geographic breakdown (inner regional, outer regional, remote and very remote) and for the Indigenous population. The limitations of the 2006 Census are that it identified a much lower number of carers than other surveys (see Box 1) and provided only limited information on wellbeing.

Box 1: Comparing estimates of the number of carers in Australia from the SDAC 2003, GSS 2006 and Census 2006

According to the Census, there were 1.8 million carers in Australia in 2006, while according to the SDAC, there were 2.5 million carers in 2003, and according to the GSS, there were 3.1 million carers in 2006.*

Assuming that the SDAC 2003 provided the best source of data on the number of carers in 2003 and taking into account that the number of carers increased between 2003 and 2006, it is clear that the Census 2006 produced much lower estimates of the number of carers than the SDAC.** The GSS 2006 produced a higher estimate of the number of carers than the Census 2006, but it is unclear how much of this difference was due to an increase in the underlying number of carers in the period between the surveys and how much was due to the different methods and definitions used to identify carers.

Possible reasons for the lower number of carers identified in the Census than the GSS 2006 include:

- the GSS questions asked about caring in the last four weeks, whereas the Census asked about caring in the last two weeks;
- the sequencing of the Census questions may have confused some respondents, as the previous question on unpaid help referred to a narrower reference period (i.e., what happened over the previous week rather than the 2-week timeframe for the carer question);
- in the Census, one person per household reported on the caring status of all members of the household, but the respondent may not have been aware of some instances of care activity in which other household members were engaged (e.g., infrequent assistance in the two-week period); and
- in the Census, non-response to the carers question was greater among older people and hence greater for carers given they are older on average.

A detailed description of the methodology and questions used to identify carers in each of the surveys is provided in Appendix A. A detailed discussion of some other reasons for differences in the estimates of the number of carers in ABS Surveys can be found in *A Profile of Carers in Australia* (ABS, 2008)

* Estimate corrected for the Census undercount using an adjustment factor of 1.042609.

** There is some evidence of there having been an increase in the number of carers over this period. For example, the number of recipients of Carer Payment or Carer Allowance has been increasing (Edwards, Higgins, Gray, Zmijewski, & Kingston, 2008).

5 The GSS 2006 did not collect data in very remote areas. The ABS did not release a variable that distinguished between outer regional areas and remote areas in the 2006 General Social Survey due to confidentiality concerns (ABS, 2006b).

2.2 Measures of geographic remoteness

Geographic remoteness is measured using the standard ABS approach of dividing Australia into five areas according to their degree of remoteness:

- major cities;
- inner regional;
- outer regional;
- remote; and
- very remote.

The classification is based upon the Australian Remoteness Index Plus (ARIA), which measures road distance to major service centres. Although the focus of this report is on carers outside of major cities and inner regional areas, information on carers in major cities are provided as a point of comparison.

The Census also allows for a more finally grained geographic analysis—in this report we use Statistical Local Areas (SLAs). In 2006 there were over 1,300 SLAs that were designed to be relatively consistent overtime and can be thought of as being appropriate for an analysis of labour markets (see Hunter & Biddle, 2009). This level of analysis is used to identify "carer hotspots" and to link to data on rainfall deficits provided by the Bureau of Rural Sciences.

2.3 Data on rainfall deficiencies

In this paper, we use data from the Bureau of Rural Sciences on rainfall deficiency throughout Australia for statistical local areas (SLAs; see Edwards, Gray & Hunter, 2009). This rainfall deficit definition of drought is based upon rainfall deficits in the area in the last three years compared to the last 100 years.

3. The geography of caring

Geography is central to a report that focuses on carers in the more geographically remote areas of Australia. In this section, we provide information about the geographic spread of carers according to geographic remoteness and state/territory.

3.1 Distribution of carers

Of the 1.8 million carers in Australia, there were approximately 1.2 million carers in major cities, 372,000 in inner regional, 170,000 in outer regional areas, 23,000 in remote areas and 14,000 in very remote areas (Table 1). At a state level, differences in the number of carers largely reflected differences in the population of each state, with the largest number of carers being in New South Wales and Victoria and the smallest in the Northern Territory and the Australian Capital Territory (Table 1).

Table 1 Number of carers, by state/territory and region, 2006

Region	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
					'000				
Major cities	430	331	197	108	113	–	–	28	**1,207**
Inner regional	132	97	77	18	19	29	–	0	**372**
Outer regional	44	24	48	16	14	15	7	–	**170**
Remote	3	1	6	4	6	1	3	–	**23**
Very remote	0	–	4	1	4	0	4	–	**14**
Total	**609**	**454**	**333**	**147**	**156**	**45**	**14**	**28**	**1,785**

Note: A dash (–) indicates that there is no region of that type in the state/territory. Not-stated responses to the question about caring status have been proportionately allocated as carers and non-carers. There were so few inner regional areas in the ACT we do not report the number of carers here.

Source: Census 2006

New South Wales had a large number of carers in inner regional and outer regional areas in particular. Compared to Victoria, the next largest state in terms of carer population in these regions, New South Wales had more carers in inner regional areas (132,000 compared to 97,000). In outer regional areas, New South Wales (44,000) and Queensland (48,000) had the most carers. In remote areas, the states with the most carers were Western Australia (6,000) and Queensland (6,000). In very remote areas, Queensland (4,000), Western Australia (4,000) and the Northern Territory (4,000) had the most carers.

If the interest is in the number of carers in different areas of Australia, it is necessary to take into account the Census underestimates (see Box 1 on page 3). One way of doing this is to "scale-up" the Census estimates to produce a total number of carers Australia-wide that matches the GSS 2006 results.[6] This method is quite imprecise and approximate only, and is also based on the assumption that the underestimation of carers is the same in each state and across regions.

The results of scaling-up the estimates from the Census 2006 is shown in Table 2. This results in an estimate of 2.4 million carers in major cities, 733,000 in inner regional areas, 334,000 in outer regional areas, 46,000 in remote areas and 27,000 in very remote areas.

Table 2 Number of carers, by state/territory and region, corrected for census undercount of carers, 2006

Region	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
					'000				
Major cities	847	653	388	212	222	–	–	55	**2,377**
Inner regional	259	192	152	35	38	57	–	0	**733**
Outer regional	87	48	96	32	27	29	15	–	**334**
Remote	6	1	12	8	12	1	6	–	**46**
Very remote	1	–	7	3	8	0	7	–	**27**
Total	**1199**	**894**	**655**	**290**	**307**	**88**	**28**	**55**	**3,516**

Notes: A dash (–) indicates that there is no region of that type in the state/territory. Not-stated responses to the question about caring status have been proportionately allocated as carers and non-carers.
Source: Census 2006 estimates corrected for undercount using estimates from the GSS 2006.

An alternative way of thinking about the geographic distribution of carers is in terms of the proportion of the population in a region that are carers. Table 3 provides information on the proportion of the population who were carers, by state/territory and region. The proportion who were carers was highest in inner regional areas (12.1%) and outer regional areas (11.2%). In remote and very remote areas, the proportion was somewhat less, at 9.0 and 9.1% respectively.

Table 3 Proportion of population who were carers, by state/territory and region, 2006

Region	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
					%				
Major cities	11.3	11.2	10.4	12.1	10.1	–	–	10.6	**11.0**
Inner regional	12.5	12.6	11.6	12.5	10.5	11.8	–	11.3	**12.1**
Outer regional	12.9	12.4	10.0	12.0	9.9	12.2	8.1	–	**11.2**
Remote	11.3	13.9	8.8	10.9	7.6	10.6	8.2	–	**9.0**
Very remote	11.3	–	8.5	10.4	8.0	11.0	10.9	–	**9.1**
Total	**11.6**	**11.5**	**10.5**	**12.1**	**10.0**	**11.9**	**8.7**	**10.6**	**11.2**

Note: A dash (–) indicates that there is no region of that type in the state/territory. Not-stated responses to the question about caring status have been proportionately allocated as carers and non-carers.
Source: Census 2006

6 We do this by assuming that the GSS 2006 provides a "true" estimate and that the undercount is consistent between areas. This provides an adjustment factor of 1.97. While this will produce estimates that are only approximate, we believe that our estimates will be to the correct order of magnitude.

A more detailed depiction of the geography of caring is provided by Figure 1, which shows the proportion of the population in each statistical local area who were carers.[7] The percentage of carers in Figure 1 are based on the 2006 Census and are not corrected for the Census undercount. The map can be used to identify "carer hotspots" in outer regional and remote areas of Australia.

3.2 Indigenous carers

A striking feature of Figure 1 is the high proportion of the population who were carers in some very remote SLAs in the Northern Territory and Western Australia. This appears to be largely driven by these areas having a high proportion of Indigenous people, who have higher rates of caring than non-Indigenous people (Tables 4 and 5). In remote areas, and particularly very remote areas, a relatively high proportion of carers are Indigenous.

Table 4 Proportion of the population who were Indigenous, by state/territory and region, 2006

Region	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
					%				
Major cities	1.1	0.3	1.3	0.9	1.2	–	–	1.0	**0.9**
Inner regional	2.8	0.9	2.4	1.0	1.6	2.5	–	0.8	**1.9**
Outer regional	4.7	1.5	5.0	2.9	4.0	3.8	8.7	–	**4.0**
Remote	15.4	1.0	10.3	2.0	8.4	4.0	25.6	–	**9.9**
Very remote	20.9	–	28.2	21.8	21.9	7.2	61.2	–	**30.1**

Source: Census 2006

Table 5 Proportion of carers who were Indigenous, by state/territory and region, 2006

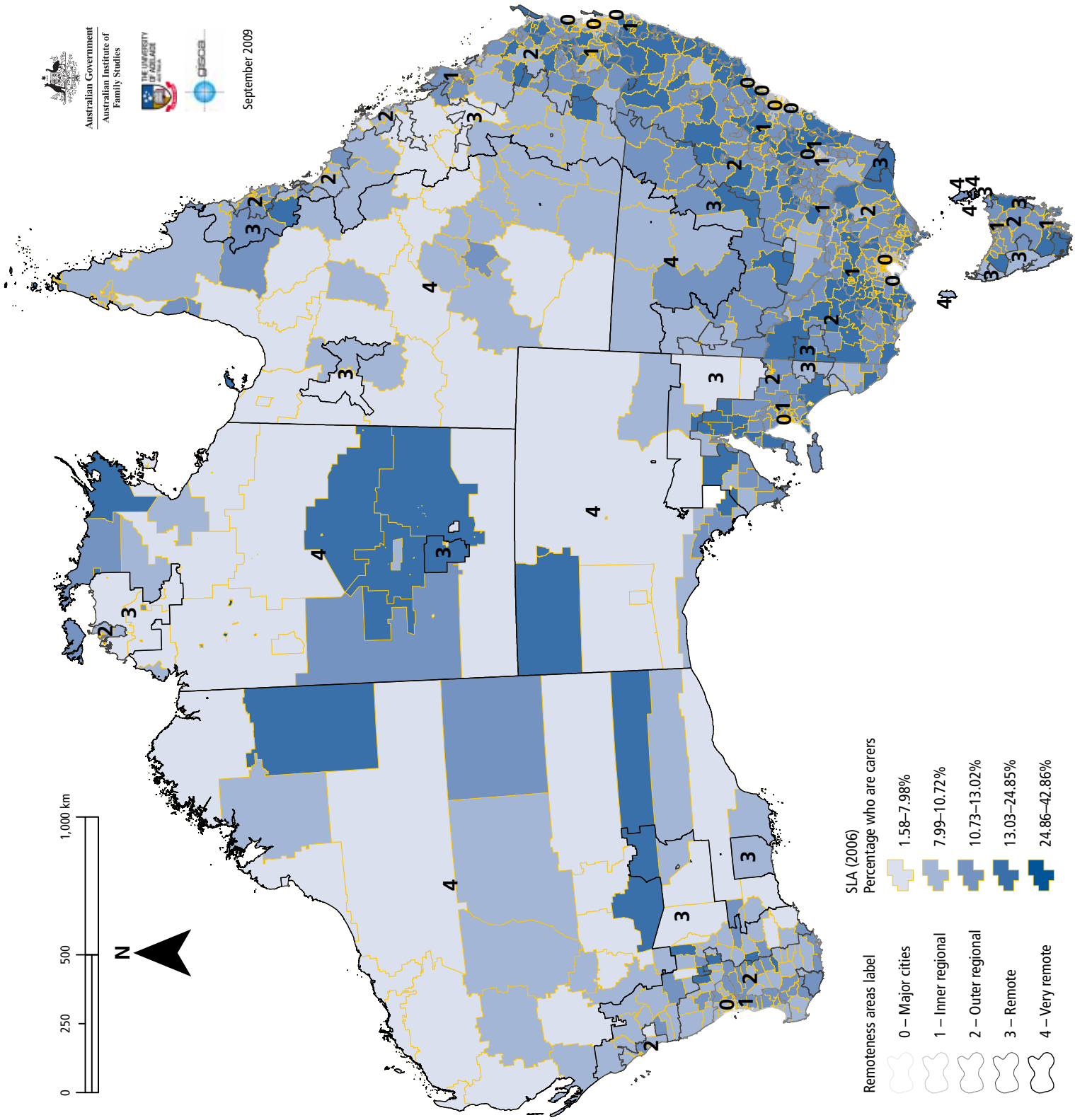
Region	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
					%				
Major cities	1.3	0.4	1.4	1.0	1.5	–	–	1.3	**1.0**
Inner regional	3.2	1.0	2.5	1.0	2.0	2.8	–	0.0	**2.2**
Outer regional	5.1	1.7	5.9	3.1	4.6	4.5	13.7	–	**4.6**
Remote	16.9	0.9	11.2	2.1	12.5	3.8	38.6	–	**12.5**
Very remote	27.6	–	38.2	29.8	43.2	12.2	81.6	–	**46.8**

Source: Census 2006

Figure 2 (on p. 8) provides further information on how the proportion of carers who were Indigenous varied across Australia[8]. It is clear that remote and very remote areas of the Northern Territory and Western Australia had a high proportion of carers who were Indigenous. For example, in the Northern Territory there were 10 remote or very remote SLAs where at least 15% of the population were carers. In all instances over 85% of the population in SLAs were Indigenous carers. In Western Australia, Halls Creek had a high percentage of carers (21%), and 84% of the total population in this area were Indigenous. Figure 3 (on p. 9) confirms that the high rates of Indigenous carers are related to the higher proportion of Indigenous people residing in these SLAs.

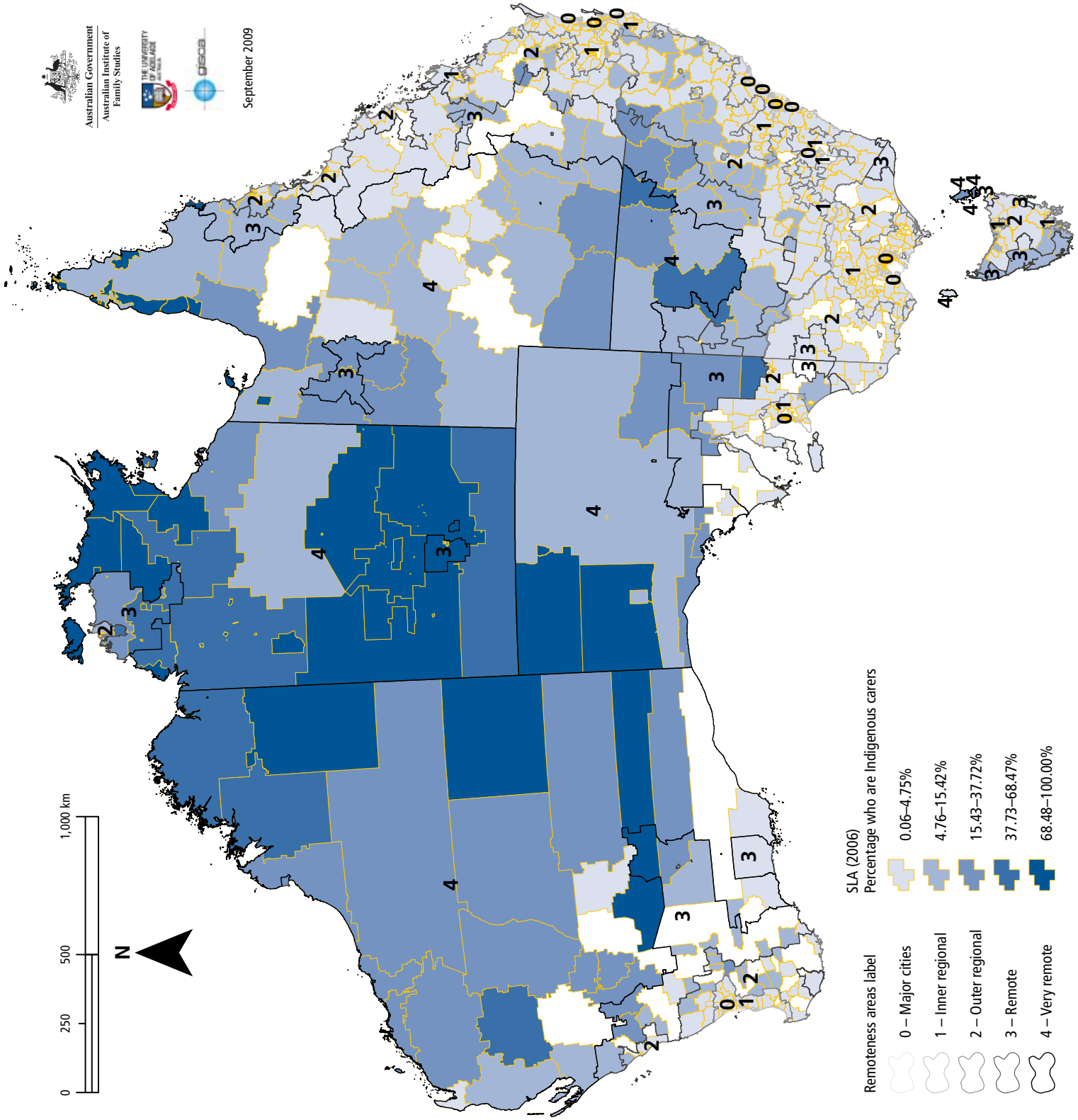
7 The 2006 Census data used to produce the maps of the geographic distribution of carers are based on calculations generated from data tables from the ABS CDATA online. The information in the maps are presented at the statistical local area (SLA) level, a general purpose spatial unit that covers the whole of Australia without gaps or overlaps. SLAs usually consist of one or more whole Census collector districts, which in urban areas average about 220 households. The number of people living in an SLA is smaller in regional and remote areas than in major cities. At the time of the 2006 Census there were 1,429 SLAs. In SLAs where the cell sizes are small, the ABS confidentialises the data, making it less reliable. When calculating the percentage of carers for each SLA we excluded all non-responses to the carers question.

8 It is important to keep in mind that the ABS randomises data with very small cell sizes and therefore readers should interpret the results in Figure 2 for specific SLAs with caution. Rather, the reader should interpret the patterns in Figure 2 in a more general fashion.



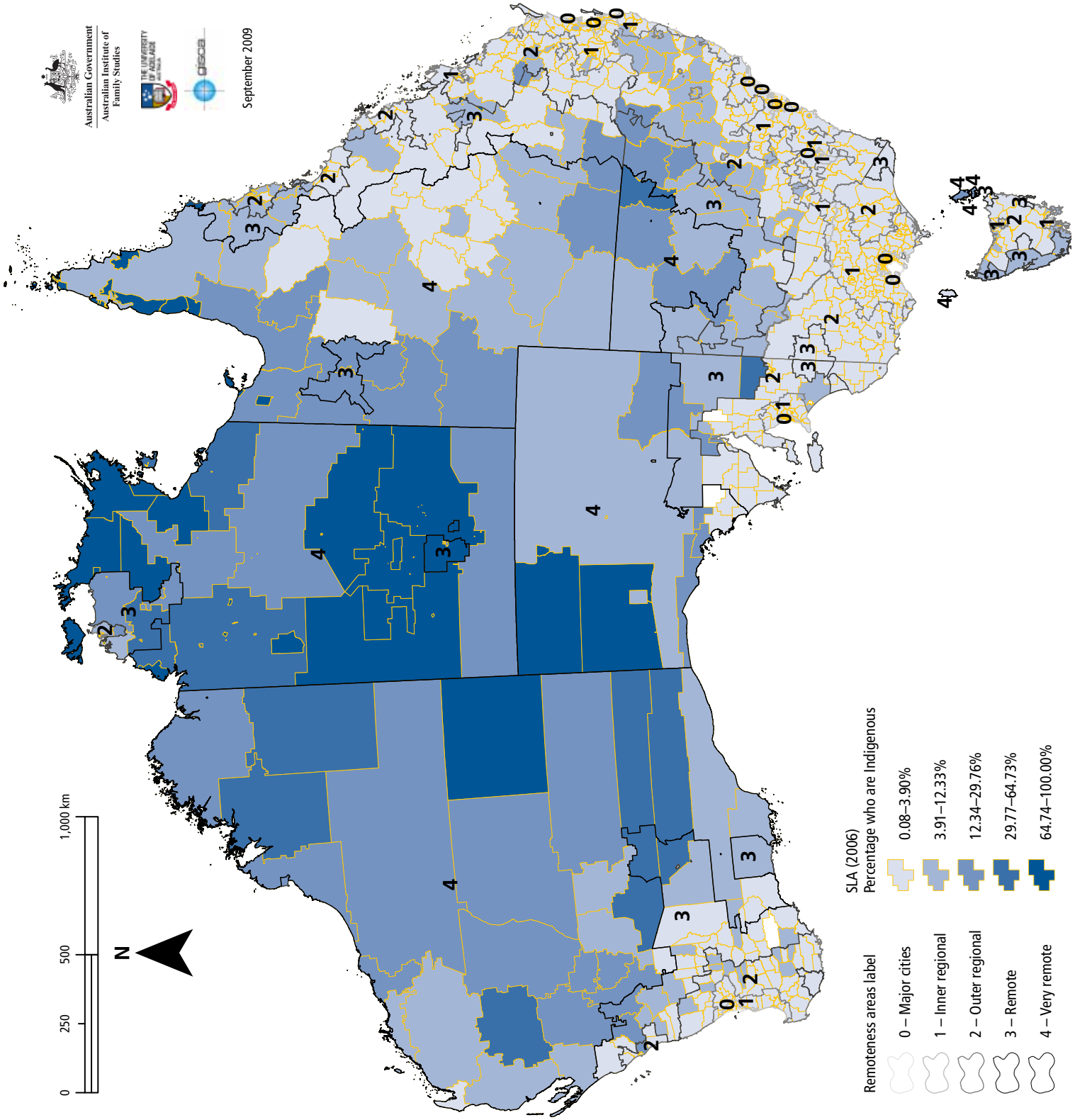
Data source: Census 2006

Figure 1 Proportion of population who were carers, by SLA and region, 2006



Data source: Census 2006

Figure 2 Proportion of carers who were Indigenous, by SLA and region, 2006



Data source: Census 200

Figure 3 Proportion of population who were Indigenous, by SLA and region, 2006

3.3 The age profile of carers

The age profile of the carer population may vary depending on the area in which they live, and this may affect the services that are most appropriate for their needs. Table 6 shows the age distribution of carers by region. Australia-wide, 7.6% of carers were aged 15–24 years, 30.8% were aged 25–44 years, 44.5% were aged 45–64 years and 16.7% were aged 65 years and over. The age profile of carers in major cities, inner regional and outer regional areas were very similar. The age profile in remote areas was slightly younger and in very remote areas was much younger, with around double the proportion of carers being aged 15–24 years in very remote areas compared to other areas. Correspondingly, in remote areas, a lower proportion of carers were aged 65 years or older. The different age distribution is likely to be due to a greater percentage of Indigenous people residing in remote areas. For instance, in very remote areas there was a larger percentage of young carers who were Indigenous.

Table 6 Age distribution of carers, by region, 2006

Region	Age			
	15–24 years	25–44 years	45–64 years	65 years and over
	%			
Major cities	7.7	31.6	43.8	16.5
Inner regional	6.9	28.0	46.5	17.9
Outer regional	7.2	29.7	46.0	16.5
Remote	8.3	34.4	43.9	13.0
Very remote	15.7	40.7	34.7	8.8
Australia	**7.6**	**30.8**	**44.5**	**16.7**

Source: Census 2006

3.4 Summary

The largest numbers of carers in inner regional and outer regional areas resided in the most populous states—New South Wales, Victoria and Queensland. Queensland, Western Australia and the Northern Territory were the states with the most carers in remote areas. However, when we look at the proportion of the total population who were carers in a particular area, a very different picture emerges. There were large proportions of the population who were carers living in areas in the Northern Territory and very remote areas of Western Australia. These areas also had a large proportion of Indigenous people, who comprised a very large percentage of the total caring population for these particular areas. The age structure of the carer population in these very remote areas was also much younger than other regions of Australia, with far more carers aged 24 years or less and fewer aged 65 years and over. Again, the large numbers of Indigenous people living in very remote areas largely explains the differences in the age structure of the population in the very remote areas.

4. The impact of living in rural and remote areas on carers' wellbeing and economic and social participation

This section provides information on the wellbeing and social and economic participation of carers in outer regional and remote areas and compares this to carers living in inner regional areas and major cities. Differences between non-carers and carers in outer regional and remote locations are also examined.

Given that the analysis is based on the GSS 2006, the geographic categories that can be analysed are limited to major cities, inner regional, and a third category that combines outer regional areas and remote areas. We did not use weighting in this section because we are interested in regional differences, and the population weights explicitly down-weight estimates in outer regional and remote areas (as these were over-sampled in the GSS 2006).

In this section, we analyse how carers in outer regional and remote areas compare to non-carers in these areas and both carers and non-carers in major cities and outer regional areas for the following topics:

- access to services and support;
- health and general wellbeing; and
- financial position and labour force status.

The analysis in this section does not take into account differences in the age, educational attainment or country of birth that could potentially explain any differences between carers and non-carers living in areas that differ by geographic remoteness. The extent to which geographic differences in the wellbeing and economic circumstances of carers can be explained by differences in the demographic and socio-economic characteristics of carers is analysed in section 5.

4.1 Access to services and support

This section provides information on the extent to which carers report difficulties accessing services, and if they do experience difficulties, the reasons for this and whether this varies according to geographic remoteness. Carers and those without caring responsibilities are compared in an attempt to separate out the impact of geographic remoteness from having caring responsibilities.

Information is also provided on difficulties in accessing services because of communication issues and the extent to which, and from whom, carers can get support in a time of crisis.

Accessing services

The measure of difficulty in accessing services was based upon a GSS question about whether the respondent had problems accessing, understanding or being understood by services. Examples of services are doctors, employment services, telecommunication services, Centrelink, banks and other financial institutions, disability services, the Family Assistance Office and Medicare. This question captured a mixture of availability of services and the appropriateness of available services. Respondents who reported having difficulty accessing services were asked why they had difficulties. We have grouped the reasons into four categories—affordability; distance from service (transport difficulties, distance, no services in the area and services inadequate in the area); disability restricts access (either of person requiring care or the carer); and difficulty understanding or being understood by service providers.

Overall, almost one-third (30.4%) of carers reported having problems accessing services, higher than the one-quarter of those without caring responsibilities who reported having difficulties accessing services (25.3%). There were substantial differences between regions in the extent to which both carers and those without caring responsibilities had difficulties accessing services.

Carers living in major cities (Table 7) were the least likely to report having difficulties accessing services (25.7%), followed by those in inner regional areas (29.4%). Carers living in outer regional and remote areas were the most likely to report having difficulties accessing services (45.3%). Similarly, among those without caring responsibilities, those living in major cities were the least likely to report having problems accessing services and those in outer regional and remote the greatest difficulties. However, carers were more likely to report having difficulties accessing services than non-carers in all geographic areas.

Table 7 Service use difficulties, by carer status and region, 2006

	Carer			Non-carer		
	Major city	Inner regional	Outer regional & remote	Major city	Inner regional	Outer regional & remote
	%			%		
Difficulty accessing services	25.7	29.4	45.3	19.8	26.7	38.6
Reason for difficulties:						
Affordability	7.3	6.3	11.2	5	4.7	7.8
Distance from services/ difficulty getting to services	17.1	22.9	39.5	12.1	19.1	31.9
Disability restricts access	1.8	0.9	4.2	1.7	1.9	1.7
Difficulty understanding or being understood by service providers	25.7	25.9	32.9	20.9	22.1	27.3

Notes: Estimates are unweighted. Percentages in the table are calculated as percentages of all respondents.
Source: GSS 2006

Respondents could provide a number of reasons for having difficulties in accessing services. Carers in outer regional and remote areas were more likely to have difficulties for all the reasons provided than carers in inner regional areas or major cities. A major difficulty in accessing services in outer regional and remote areas was difficulties due to distance, inadequate services or lack of services in the area. Almost forty per cent (39.5%) of carers in outer regional or remote areas reported this as a difficulty in accessing services, compared to 17.1% of carers in major cities. Among carers in inner regional areas, 22.9% gave distance from services as a reason. In all areas, carers were more likely than those without caring responsibilities to say that distance from services or difficulty getting to services made it difficult to use services. For example, in outer regional and remote areas, 31.9% of those without caring responsibilities said that distance, inadequate services or lack of services in their area made it difficult to access services. A higher percentage of carers living in outer regional and remote areas reported affordability of services to be a difficulty (11.2%) than non-carers in outer regional and remote areas (7.8%). Irrespective of caring responsibilities, those living in major cities were slightly less likely to say affordability of services was an issue than those living in more remote areas.

Difficulty understanding or being understood by service providers was commonly cited as a reason for having difficulty accessing services, particularly in outer regional and remote areas.[9] In outer regional or remote areas, one in three carers reported this as a difficulty, compared to 27.3% of those without caring responsibilities. In major cities, 25.7% of carers reported difficulty understanding or being understood by services providers, compared to 20.9% of those without caring responsibilities.

9 The relevant question was "When you contact a service, do you find it hard to understand what they say? Do they find it hard to understand you?"

The final reason examined was whether the person's or their relative's disability restricted access to the service. As will be shown in section 4.2, a higher proportion of carers in outer regional and remote areas have a disability or a long-term health condition and this in turn may restrict their access to services. Disability restricting access is a relatively uncommon reason given for having difficulty in accessing services, but is higher for carers in outer regional and remote areas (4.2%) than for carers living in less remote areas (Table 7).

Support in times of crisis

Being able to access support, particularly in times of crisis, is very important for the ability of carers to cope with their caring role and for their wellbeing (Edwards & Higgins, 2009; Edwards et al., 2008; Pinquart & Sorenson, 2007). The GSS 2006 included questions about whether carers had support available to them in a time of crisis if needed and, if so, who would provide them with that support. The types of support asked about were: advice on what to do, emotional support, help out when you have a serious illness or injury, help in maintaining family or work responsibilities, provide emergency money, provide emergency accommodation, and provide emergency food.

Across all areas, over 90% of people said that they could get support in times of crisis (Table 8). There were no differences apparent between carers and those without caring responsibilities.

Table 8 Availability of support in times of crisis and types of support available, by carer status and region, 2006

	Carer			Non-carer		
	Major city	Inner regional	Outer regional & remote	Major city	Inner regional	Outer regional & remote
	%			%		
Able to get support in times of crisis	94.1	95.5	94.5	93.5	93.7	92.6
Sources of support available						
Family	82.0	81.2	77.3	80	78.8	74.9
Friend	67.6	70.4	67.6	66.3	65.9	69.8
Neighbour	37.7	38.8	37.9	29.8	34.7	31.2
Work colleague	22.7	21.3	26.7	22.3	19.8	30.3
Community, charity or religious organisation	18.2	17.7	17.0	11.1	10.7	11.6
Local council or other government service	7.8	6.6	10.1	5.0	4.6	6.6
Health, legal or financial professional	12.6	16.0	17.0	8.8	7.6	10.4

Notes: Estimates are unweighted. Multiple sources of support could be reported, so column percentages sum to more than 100%.
Source: GSS 2006

Irrespective of region of residence, the most common source of support available to carers was family, followed by friends, neighbours, work colleagues, and community, charity or religious organisations. There were relatively few differences in the sources of support available to carers between those in major cities, inner regional areas, and outer regional and remote areas. The main difference was that carers in outer regional and remote areas were a little less likely to have family available to provide support in a time of crisis (77.3% in outer regional and remote areas, 81.2% in inner regional areas and 82.0% in major cities).

Although the percentage of carers and non-carers who are able to get support in times of crisis was similar, the sources of support varied by carer status and region. Respondents in the GSS indicated whether they relied on a range of informal supporters, such as friends, neighbours, family and work

colleagues, and/or service providers, such as community, charities or religious organisations, local council or other government services, and health, legal or financial professionals. The most striking differences between carers and non-carers arose in their relative reliance on service providers in times of crisis (see Table 8). A higher percentage of carers relied on crisis support from community, charity or religious organisations (17.0% to 18.2%) when compared to non-carers (10.7% to 11.6%). Regardless of the area in which carers lived, they relied on support from community, charity or religious organisations at almost twice the rate of non-carers. The largest difference between carers and non-carers was for those living in inner regional areas, where 17.7% of carers said they get support while 10.7% of non-carers in the area get support from community, charity or religious organisations.

Carers living outside major cities were also more likely to rely on health, legal or financial professionals in times of crisis (17.0% in outer regional and remote areas and 16.0% in inner regional areas) than carers living in major cities (12.6%) or those without caring responsibilities (between 7.6% and 10.4%, depending upon remoteness of the area). The proportion of carers in inner regional, outer regional and remote areas who relied on these professionals was twice as great as their non-caring counterparts, although the proportion relying on this group was 17.0%. In part, this greater reliance on services by carers may reflect the nature of the crises carers experience, as assistance for serious illness or injury and providing emergency services are not things that families and friends generally do. The reliance on services is particularly notable as many carers in the outer regional and remote areas of Australia also reported that that they had difficulties accessing services because they were unaffordable, unavailable and inadequate in their area. Perhaps crisis support was one aspect of service provision that was satisfactory or perhaps these results reflect that only formal services are capable of providing some types of support.

By far the most common source of support to carers was family and friends. Social contacts or social networks can be a source of information and advice in addition to providing emotional support (Granovetter, 1973; Stone & Hughes, 2002). The GSS 2006 asked respondents whether they personally knew someone whom they would feel comfortable contacting for information or advice.[10]

Carers reported having particularly strong social networks for information and advice. Compared to non-carers, fewer carers reported that they did not personally know anyone whom they felt comfortable to contact for advice or information. This was true in all regions. For example, 84.2% of carers living in outer regional and remote areas said that they personally knew someone whom they could contact for information or advice, compared to 72.6% of those who were not carers. Both carers and non-carers in outer regional and remote areas were more likely to personally know someone they could ask for information or advice (84.2% and 72.6% respectively) than carers in major cities (77.7% and 68.8%).

These findings suggest that, at least in terms of information or advice, carers, in particular carers in non-metropolitan areas, had more sources of personal information or advice from people in a variety of organisations than non-carers.

10 The GSS 2006 question was: "Do you personally know someone in any of the following types of organisations that you would feel comfortable contacting for information: state or territory government department; federal government department; local council; legal system; healthcare; trade union; political party; media; university/TAFE/business college; religious/spiritual group; school-related group; big business; or small business?

4.2 Health and wellbeing

There is strong evidence that carers have poorer physical and mental health than those without caring responsibilities.[11] The GSS 2006 collected information on respondents' overall rating of their health and whether they had any disability or long-term health condition. This section documents regional differences in carers' health, as well as differences between the health of carers and those without caring responsibilities.

Self-rated health

Self-rated health was measured by the question: "In general, would you say your health is excellent, very good, good, fair or poor?"[12] Using the answers to this question we created a variable that measures whether the respondent has fair or poor health. According to this measure, carers were slightly more likely to have fair or poor health than those without caring responsibilities (Table 9). The percentage of carers who had fair or poor health was 18.0% in major cities, 18.3% in inner regional areas and 22.1% in outer regional and remote areas. For those without caring responsibilities who had fair or poor health, 16.2% lived in major cities, 17.8% in inner regional areas and 17.7% in outer regional and remote areas. The "gap" between carers and non-carers in fair or poor health was greatest for people living in outer regional and remote areas of Australia.

Table 9 Fair or poor health, by carer status and region, 2006

Region	Carer	Not a carer
	%	
Major cities	18.0	16.2
Inner regional	18.3	17.8
Outer regional & remote	22.1	17.8

Note: Estimates are unweighted.
Source: GSS 2006

Disability or long-term health condition

The GSS 2006 collected information about whether the respondent had a disability or long-term health condition. The ABS definition is: "A disability or long-term health condition exists if a limitation, restriction, impairment, disease or disorder had lasted or was likely to last for at least six months, and which restricted everyday activities. It is classified by whether or not a person has a specific limitation or restriction" (ABS, 2006a).

In this report, disability or long-term health problem is captured using a variable that measures having profound, severe or moderate core limitations.[13] Table 10 shows the proportion of carers and those without caring responsibilities who had profound, severe or moderate disability or long-term health problem, by region. Carers had higher rates of disability or long-term health problems than non-carers in all regional categories examined, but this was particularly the case in outer regional and remote areas of Australia, where the percentage of carers that had a profound, severe or

11 See, for example, Cummins, Hughes, Tomyn, Gibson, Woerner, and Lai (2008), Edwards et al. (2008), Edwards and Higgins (2009), Pinquart and Sorenson (2003), Schofield et al. (1998), and Vitaliano, Zhang, and Scanlan (2003).

12 This question is drawn from the Medical Outcomes Study Short Form 36 (SF-36) and is widely used in social surveys. Self-rated health has been found to be highly predictive of subsequent morbidity and mortality, independent of other factors (e.g., Jenkinson & McGee, 1998).

13 The ABS distinguishes between four levels of core activity limitations based on the degree of assistance required, difficulties or the need to use aids or equipment for core activities. The four levels are: profound—always needs help/supervision with core activities; severe—does not always need help with core activities; moderate—has difficulty with core activities; and mild—uses aids to assist with core activities. Core activity limitations include: self-care, for example: bathing/showering, dressing/undressing, eating/feeding, going to toilet, and bladder/bowel control; mobility, for example: moving around away from home, moving around at home, and getting in or out of a bed or chair; and communication in own language, for example: understanding/being understood by strangers, friends or family, including use of sign language/lip reading (ABS, 2006b).

moderate disability or long-term health problems was 7.7 percentage points higher than non-carers. In this instance, the rate of disability for carers was 1.6 times that of non-carers. Perhaps this is due to the higher numbers of Indigenous people living in outer regional and remote areas, however further research in this area is required to understand this finding.

Table 10 Profound, severe or moderate disability or long-term health condition, by carer status and region, 2006

Region	Carer	Not a carer
	%	
Major cities	14.3	10.5
Inner regional	14.8	11.5
Outer regional & remote	20.0	12.3

Note: Estimates are unweighted.
Source: GSS 2006

Stressful life events

The number of stressful life events that an individual experiences is, on average, associated with poorer mental and physical health outcomes.[14] Stressful life events experienced by the individual can directly impact on their levels of mental health or if these life events are experienced by relatives or close friends, they will have an indirect impact.

The GSS 2006 asked people whether they or someone close to them experienced any of the following in the last 12 months: serious illness, serious accident, death of a family member or close friend, mental illness or serious disability, divorce or separation, not able to get a job, involuntary loss of job, alcohol- or drug-related problems, witness to violence, abuse or violent crime, trouble with the police, or a gambling problem.

Some of these events may also lead to caring responsibilities (e.g., a serious accident to someone close) or occur during the process of caring (e.g., serious illness to the care recipient), but nevertheless they are stressful. We examine the number and type of stressful life events to see whether there are regional differences between carers and differences between carers and non-carers.

Table 11 shows the average number of stressful life events in the last 12 months for carers and non-carers in the three regions. There is a clear difference between the number of stressful life events experienced by carers and non-carers. On average, carers experienced 1.71 to 1.80 life events in the last 12 months compared to between 1.03 and 1.07 for non-carers.

Given that many carers experience more than one stressful life event in a 12-month period, they are likely to have complex needs that are not easily addressed by any single service provider.

Table 11 Average number of stressful life events in the last 12 months, by carer status and region, 2006

Region	Carer	Not a carer
	%	
Major cities	1.80	1.03
Inner regional	1.71	1.07
Outer regional & remote	1.79	1.07

Note: Estimates are unweighted.
Source: GSS 2006

The types of stressful life events carers commonly experienced are among the most significant: death of a relative or friend, serious illness to themselves or a close friend or relative, a serious accident,

14 See, for example, Hatch and Dohrenwend (2007) and Holmes and Rahe (1967).

mental illness and a serious disability. Many of these events are inherently stressful experiences that may indirectly result from the caring experience but still take a psychological toll.

A particularly noteworthy difference is that 20% of carers had experienced themselves or someone close to them having a mental illness, compared to 9% of those without caring responsibilities (Table 12). Another difference of note is that 38% of carers had someone close to them, or personally experienced a serious illness compared to 19% of those without caring responsibilities. There are no real differences in the types of life events experienced between those living in the different regions for either carers and those without caring responsibilities and therefore these figures are not included in the table.

Table 12 Type of stressful life events experienced in the last 12 months by carer status (%), 2006

Type of stressful life event	Carer	Non-carer
	%	
Divorce or separation	15	12
Death of family member or friend	26	20
Serious illness	38	19
Serious accident	10	4
Alcohol or drug problems	13	8
Mental illness	20	9
Serious disability	15	5
Not able to get a job	14	11
Involuntary loss of job	6	5
Witness to violence	5	3
Abuse or violent crime	6	4
Trouble with police	5	4
Gambling problem	5	3

Note: Estimates are unweighted.
Source: GSS 2006

4.3 Financial position and labour force status

Financial hardship

Australian studies of carers have found that households with a person with a disability, mental illness, long-term illness or is frail aged face greater financial hardship than the general population (Edwards et al., 2008; Saunders, 2006). For example, a study of carers receiving Carer Payment or Carer Allowance found that 30% were experiencing financial hardship, compared to 14.6% of the general population (Edwards et al., 2008).

In this section, we examine the extent to which carers' experience of financial hardship differs between regions of Australia. We contrast this with the experience of those without caring responsibilities.

Two different types of financial hardship are examined. The first type of financial hardship is cash flow problems and information was collected using the following question:

> In the last 12 months, have any of these happened to [you/members of this household] because [any of] you were short of money: could not pay electricity, gas or telephone bills on time; could not pay mortgage or rent payments on time; could not pay for car registration or insurance on time; could not make minimum payment on credit card; pawned or sold something because you needed cash; went without meals; were unable to heat your home; sought financial assistance from friends or family; or sought assistance from welfare or community organizations?

In this report, if a respondent indicated yes to any of these indicators they were defined as having cash flow problems.

The second measure is based on a number of indicators where the household has to draw on existing savings—referred to as "dis-saving" actions. Dis-saving actions were measured by the following question:

> In the last 12 months, did [you/members of this household] do any of these things because[any of] you needed money for basic living expenses: reduced home loan payments; drew on accumulated savings or term deposits; increased the balance owing on credit cards by $1,000 or more; entered into a loan agreement with family or friends; took out a personal loan; sold household goods or jewellery; sold shares, stocks or bonds; sold other assets; or other source?

If the respondent answered yes to any of the above they were considered to have engaged in a dis-saving action.

Table 13 shows the proportion of carers and non-carers living in the three regions who had cash flow problems or who dis-saved. A slightly higher proportion of carers living in outer regional and remote areas and major cities had cash flow problems than non-carers living in the same areas. There was no difference in the extent to which carers living in inner regional areas experienced cash flow problems compared to non-carers.

When we consider dis-saving activities, the comparison between carers and non-carers living in the same area is somewhat different (see Table 13). In this instance, the biggest difference between carers and non-carers is in relation to inner regional areas, with carers in inner regional areas engaging in more dis-saving actions. If we consider that there were very little differences between carers and non-carers in the rates of cash flow problems in inner regional areas, then this finding suggests that carers are drawing on savings, assets and investments to reduce their cash flow problems. Given that there is a finite pool of savings that carers would be able to draw on, it is likely that carers in these inner regional areas will have higher rates of cash flow problems in the future.

Carers in major cities were also more likely to be engaging in dis-saving actions than their non-caring counterparts. In outer regional and remote areas, carers also engaged in more dis-saving actions than non-carers living in the area but to a lesser degree than in other areas.

Table 13 Financial hardship in the last 12 months by carer status and region, 2006

	Carer	Not a carer
	%	
Region	**Cash-flow problems**	
Major cities	20.7	18.0
Inner regional	17.1	17.9
Outer regional & remote	23.2	20.9
	Dis-saving	
Major cities	23.8	19.8
Inner regional	22.8	16.7
Outer regional & remote	23.2	20.8

Note: Estimates are unweighted.
Source: GSS 2006

Labour force status

In this section, we focus on regional differences in the employment and rate of jobless households of carers, and contrast these with non-carers in the same areas. The estimates here are restricted to the working-age population (aged 18–64 years).

Employment

The lower employment rates of carers when compared to non-carers are well documented in Australia and internationally (Carmichael & Charles, 2003; Ettner, 1996). Several Australian studies have reported that carers have lower rates of employment than non-carers and this is related to their caring role (Bittman, Hill, & Thomson, 2007; Gray, Edwards & Zmijewski, 2008; Gray & Edwards, 2009); however, regional differences in the employment rates of carers have not been the focus of much research (but see Hill et al., 2009).

The categories of labour force status used are: employed (usually works 1 or more hours per week); unemployed; and not in the labour force.[15]

Table 14 provides information on the labour force status of carers and non-carers according to geographic remoteness. According to the GSS 2006, there were few differences in labour force status between regions of Australia. This was true both for carers and those without caring responsibilities.

Carers had a lower employment rate than those without caring responsibilities. The employment rate of carers was 70.3% in outer regional and remote areas, 70.5% in inner regional areas and 72.1% in major cities. For those without caring responsibilities, the employment rate was 77.9% in major cities, 77.5% in inner regional areas and 76.6% in outer regional and remote areas.

A higher proportion of carers were not in the labour force compared to those without caring responsibilities, irrespective of geographic remoteness.

Table 14 Labour force status, by carer status and region, 2006

Region	Carer			Non-carer		
	Employed	Unemployed	Not in the labour force	Employed	Unemployed	Not in the labour force
Major city	72.1	2.8	25.1	77.9	4.1	18.0
Inner regional	70.5	3.9	25.6	77.5	3.0	19.5
Outer regional & remote	70.3	1.6	28.2	76.6	4.2	19.2

Note: Working-age population only (18–64 years of age).
Source: GSS 2006

Jobless households

Having a person with a job in the household is an important means of avoiding poverty (Hayes, Gray & Edwards, 2008). The analysis in this report and in other studies of carers suggests that caring directly reduces carers' capacity to work through the limiting of time the carer can allocate to paid employment, but also indirectly through the impact that caring has on the health of the carer (Gray & Edwards, 2009). The impact on the financial wellbeing of families with carers and a person with a disability, mental illness, long-term illness or is frail aged will be mitigated if other members of the household are in paid work.

Based on the GSS 2006, a much higher percentage of carers than non-carers lived in a jobless household in Australia (Table 15). In the major cities, 17.8% of carers lived in a jobless household,

15 In the GSS 2006, a person was classified as being "employed" if they had a job or business, or undertook work without pay in a family business in the week prior to the survey, including being absent from a job or business they had. The definition of being "unemployed" is: not employed and actively looking for work in the four weeks prior to the survey and available to start work in the week before the survey. "Not in the labour force" includes people who are retired or are not employed or unemployed.

compared to 12.3% of non-carers. In inner regional and outer regional and remote areas, even more carers were living in a jobless household. The most striking difference between carers and non-carers can be seen for the outer regional and remote areas, where there was a 9.2% gap between carers and non-carers.

Table 15 Jobless households, by carer status and region, 2006

Region	Carer	Non-carer
	%	
Major city	17.8	12.3
Inner regional	21.1	16.9
Outer regional & remote	21.4	12.2

Note: Working-age population only (18–64 years of age).
Source: GSS 2006

4.4 Summary

Carers had lower employment rates than non-carers living in the same area, with the greatest differences being between carers and non-carers in inner regional areas. The rates of jobless households were also higher for carers compared to non-carers, with the greatest differences also being evident in outer regional and remote areas of Australia. The high rate of jobless households, in particular, means that carers in outer regional and remote areas were likely to have higher rates of financial hardship.

5. Are the differences really due to geographic remoteness?

Interpreting differences between individuals as being the effect of living in different regions can be challenging. How do we know that regional differences in carer outcomes are due to the effect of living in the area rather than the increased likelihood that particular individuals live in particular areas? The differences in the wellbeing and circumstances of carers in different areas of Australia may be explained by differences in socio-economic and demographic characteristics rather than geographic remoteness.

These differences can, at least to some extent, be taken into account using multivariate statistical techniques (regression modelling) to adjust for differences in observable characteristics between carers and non-carers and those living in different geographic areas (see Box 2 for details). Appendix B provides information on how the socio-economic and demographic characteristics of carers differ between regions and between carers and non-carers.

While the regression modelling attempts to adjust for differences in socio-economic or demographic characteristics that may explain differences in outcomes between carers and non-carers, it is important to bear in mind that there may be other differences that are not measured in the GSS survey that are not taken into account. What we can say with confidence in this analysis is that any regional differences that were observed were not due to differences in gender, age or education, or whether the person was born in Australia or overseas.

The coefficients estimated from the regression models were used to estimate "predicted probabilities", which show the effects of region of residence and carer status while holding constant all other explanatory variables at the sample mean.

Box 2: Statistical analysis used

Depending on the nature of the outcome variable, logistic or ordinary least squares (OLS) regression models were used (logistic with binary and OLS regression with continuous outcomes). The regression models take into account some of the sampling design of the GSS 2006, including clustering, but not the use of weights. We did not use weights because we are interested in regional differences, and the population weights explicitly down-weight estimates in the outer regional and remote areas (as these were over-sampled in the GSS 2006) and therefore increase statistical imprecision in this instance.

All of the regression models include the following explanatory variables—gender, age, highest level of educational attainment and whether the person was born in Australia or overseas.* In addition, carer status and region of residence (major city, inner regional area and "other", which includes outer regional, remote and very remote areas of Australia) are included. The models were estimated using the entire sample, except for the models of employment, which were estimated using the working-age population (18–64 years).

The coefficient estimates in the statistical modelling were used to produce adjusted predictions of the outcomes for carers and non-carers by region, holding constant the socio-economic and demographic differences.

To enable an assessment of statistical significance, we also estimated confidence intervals at the 95% level of confidence for all the predicted percentages. We present graphs with predicted percentages and 95% confidence intervals, which are presented as "I" bars in the graphs. Non-overlapping confidence intervals on two columns in a graph suggest that we can be 95% confident that the two values represented in the columns are significantly different.

* Indigenous status was not included in the analysis as this variable was not included on the 2006 GSS sample file.

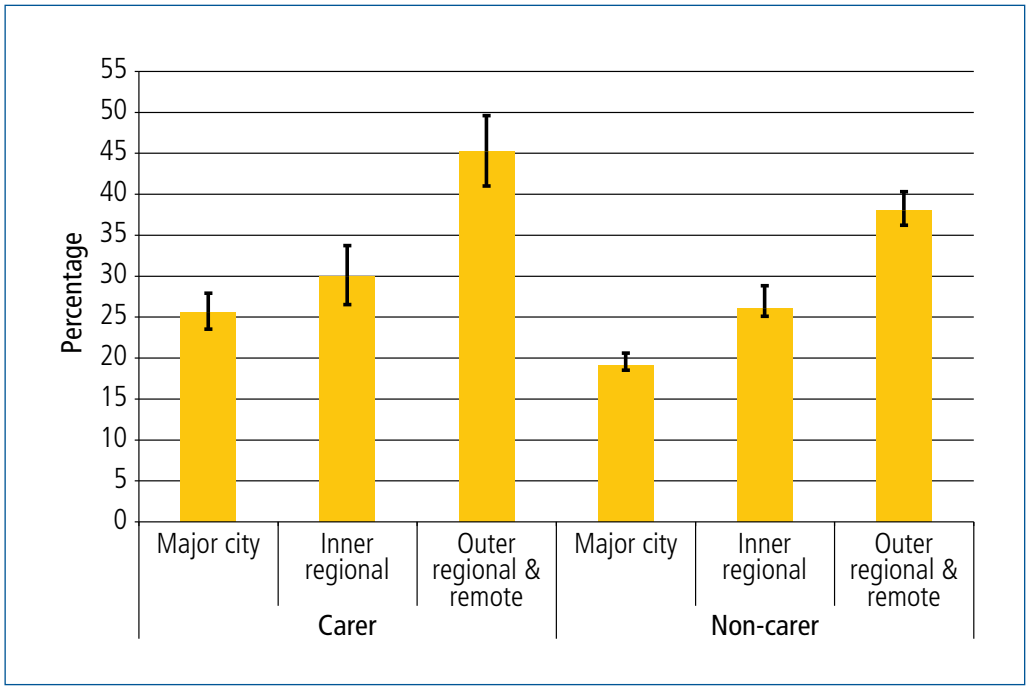
5.1 Access to services

The higher level of difficulty accessing services among those living in outer regional and remote areas compared to those in other areas of Australia cannot be explained by differences in socio-economic and demographic characteristics between regions. The predicted probabilities from the regression analysis produced very similar results (Figure 4) to that produced by the analysis of the relationship between regions and difficulty in accessing services that did *not* take into account socio-economic and demographic characteristics (section 4.1).

The differences between carers and non-carers in outer regional remote areas were statistically significant at the 95% level of confidence. There were also statistically significant differences between carers and non-carers in major cities. However, although a greater percentage of carers than non-carers reported having difficulty in accessing services in inner regional areas, the difference was not statistically significant.

Similarly, controlling for socio-economic and demographic characteristics did not affect the differences in reasons given for having difficulty in accessing services and how they varied between carers and non-carers living in different regions (Figures 5 and 6).

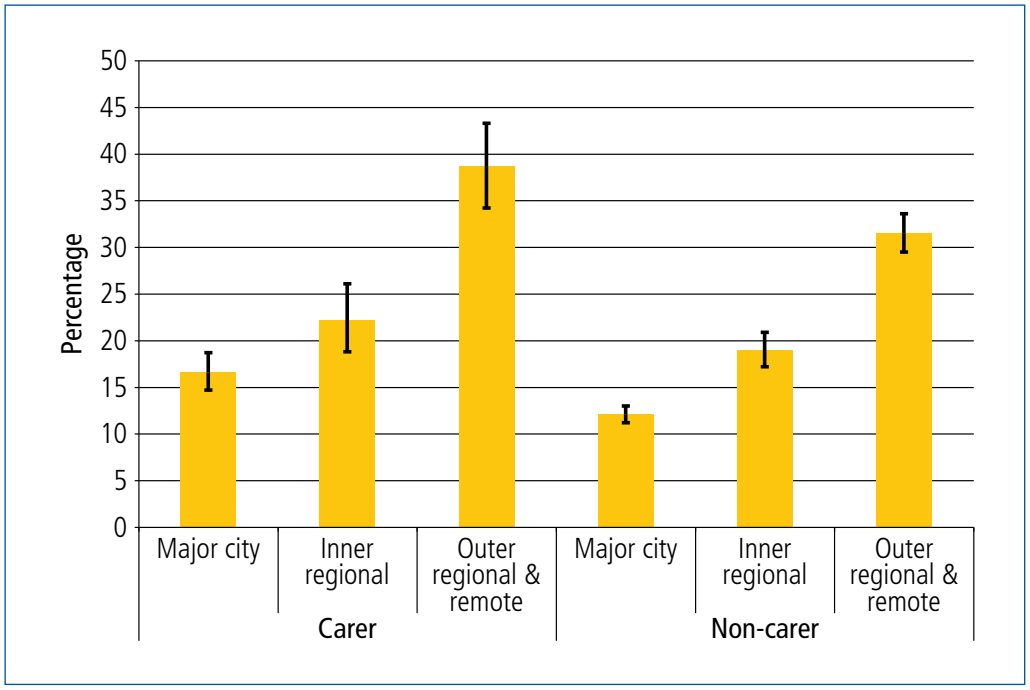
Overall, there is good evidence to suggest that in outer regional and remote areas the differences between carers and non-carers experiencing difficulties accessing services (and for reasons such as transport or distance, availability of services, inadequacy of services, and affordability) were not due to demographic differences.



Note: Estimates derived from logistic regression with 95% confidence interval.

Source: GSS 2006.

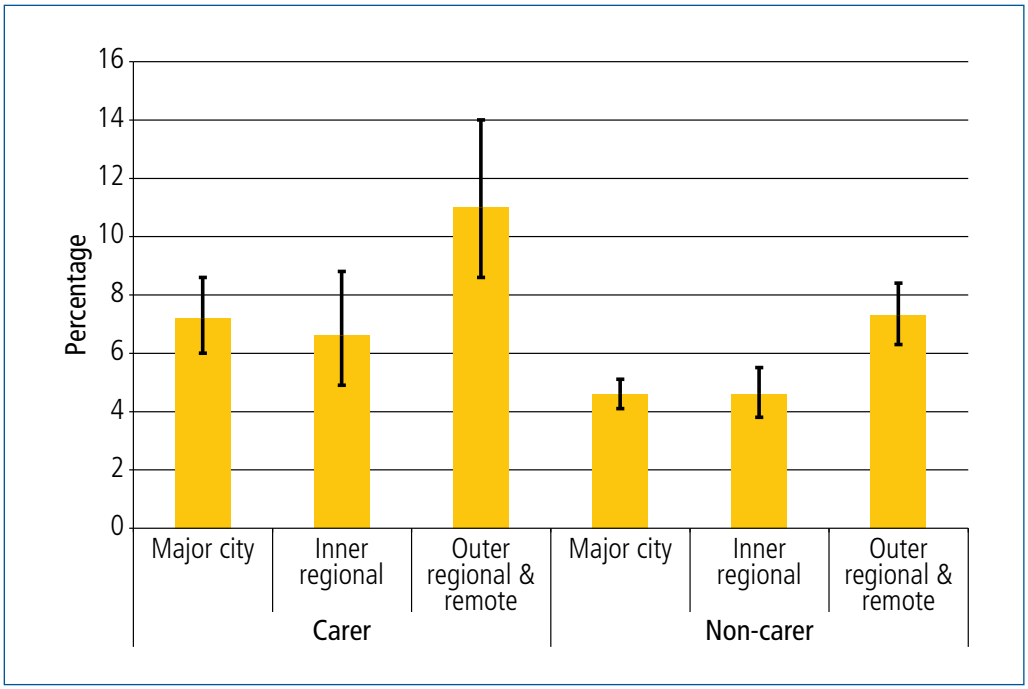
Figure 4 Difficulty accessing services, by carer status and region, 2006 (predicted probabilities)



Note: Estimates derived from logistic regression with 95% confidence interval.

Source: GSS 2006.

Figure 5 Difficulty accessing services because of service availability, transport or distance difficulties, or inadequacy of services, by carer status and region, 2006 (predicted probabilities)



Note: Estimates derived from logistic regression with 95% confidence interval.
Source: GSS 2006.

Figure 6 Difficulty accessing service because of affordability, by carer status and region, 2006 (predicted probabilities)

5.2 Health and wellbeing

Self-rated health

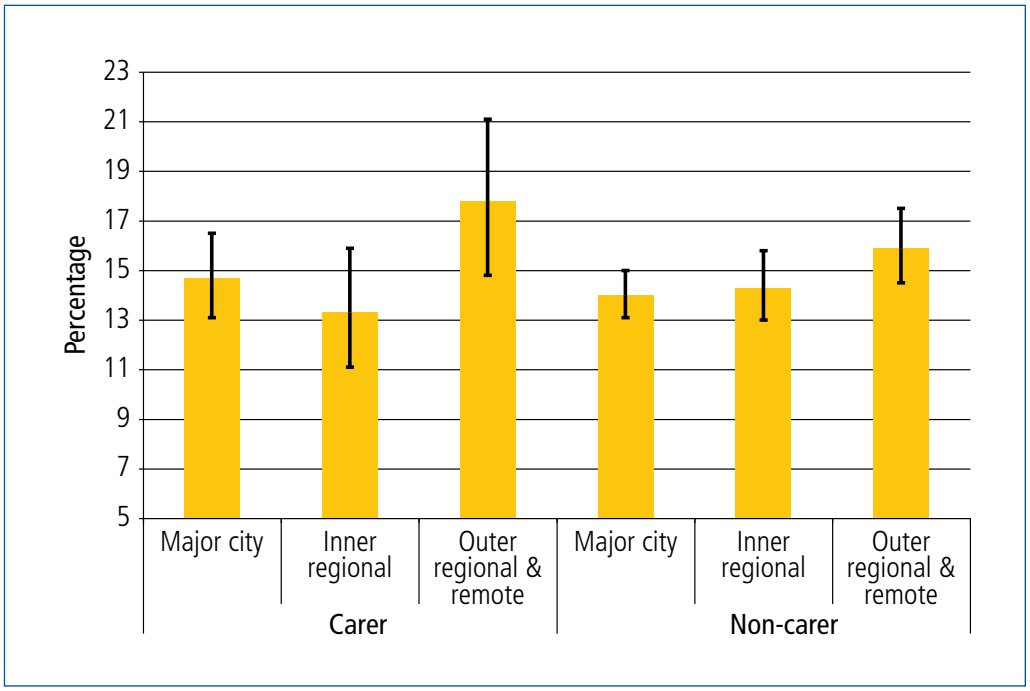
The finding that carers are more likely to have fair or poor health than non-carers was not statistically significant when demographic differences were taken into account (see Figure 7). Compared to non-carers, carers in all three areas had a greater percentage experiencing fair or poor health, but this was not statistically significant at the 95% level of confidence. This finding does not mean that the physical health problems of carers are not worthy of additional support. Rather, it suggests that the act of caring itself and regional differences are not the source of these problems. As was shown earlier in section 3, Table 6, carer populations are concentrated in certain older age groups, and hence are more prone to physical health problems, and it is likely that this is the explanation for carers' poorer health.

Disability or long-term health condition

After taking into account demographic differences between carers and non-carers, the difference is reduced for those living in outer regional and remote areas (9.2% to 5.3%) and is statistically significant at the 95% level of confidence (Figure 8). Moreover, carers had significantly higher rates of disability or long-term health problems than non-carers in major cities, but not in inner regional areas.

Stressful life events

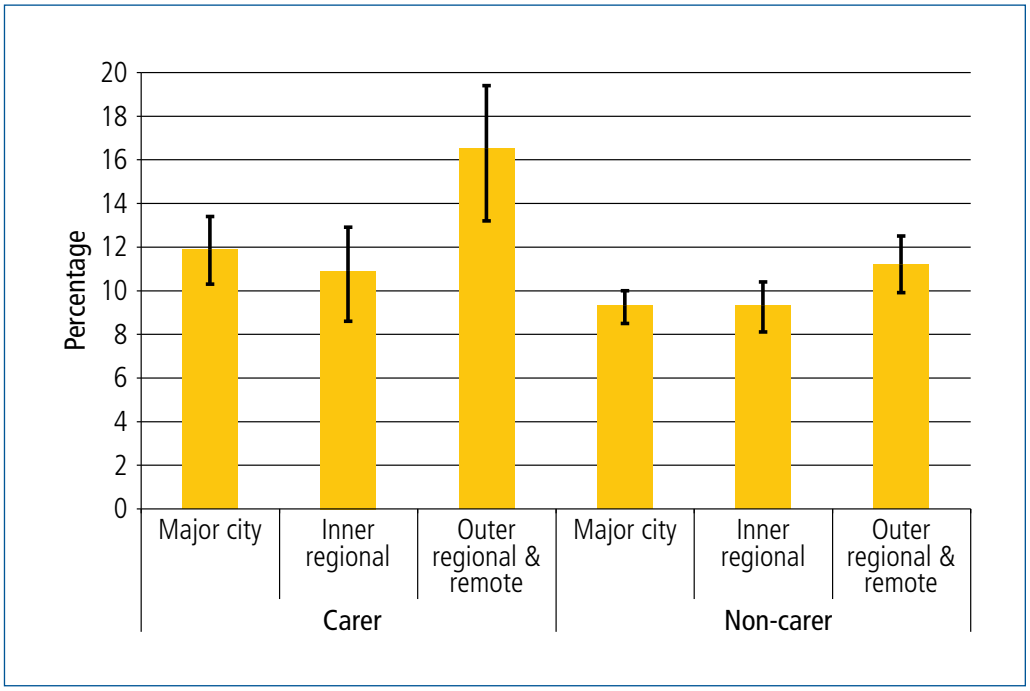
There were also statistically significant differences between the number of stressful life events experienced by carers and non-carers, regardless of the area in which they lived in (see Figure 9). This finding mirrored the large differences that were evident in the raw cross-tabulations reported above, and hence this suggests that these differences were not due to differences in the composition of gender, age or education, or whether the person was born in Australia or overseas.



Note: Estimates derived from logistic regression with 95% confidence interval.

Source: GSS 2006.

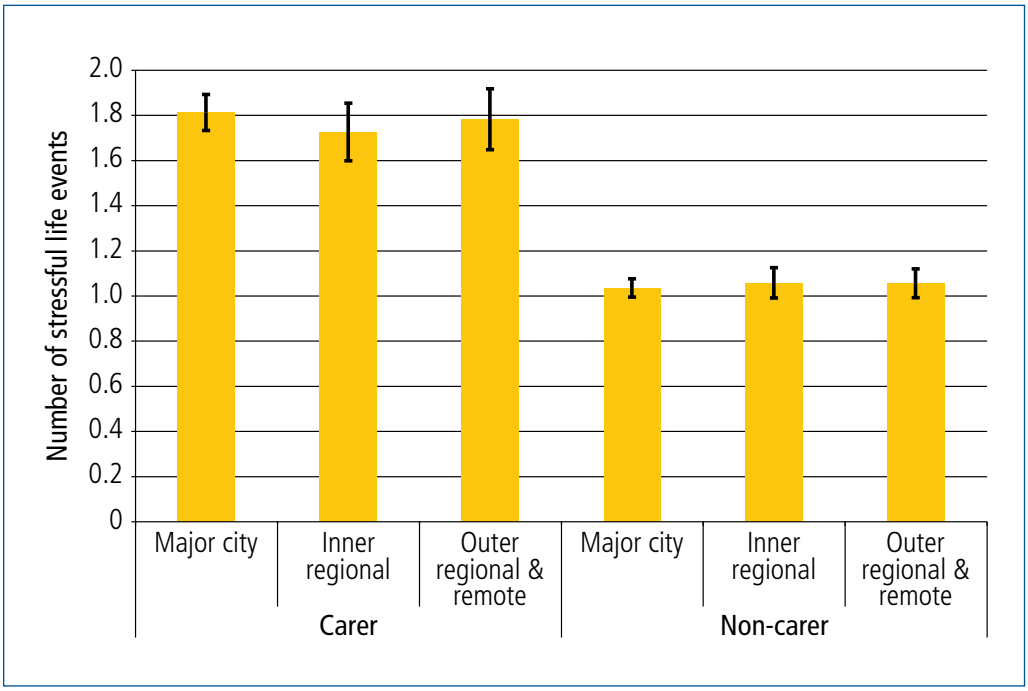
Figure 7 Fair or poor health, by carer status and region, 2006 (predicted probabilities)



Note: Estimates derived from logistic regression with 95% confidence interval.

Source: GSS 2006.

Figure 8 Profound, severe or moderate disability, by carer status and region, 2006 (predicted probabilities)



Note: Estimates derived from OLS regression with 95% confidence interval.

Source: GSS 2006.

Figure 9 Number of stressful life events, by carer status and region, 2006 (predicted probabilities)

5.3 Financial position and labour force status

Cash flow problems

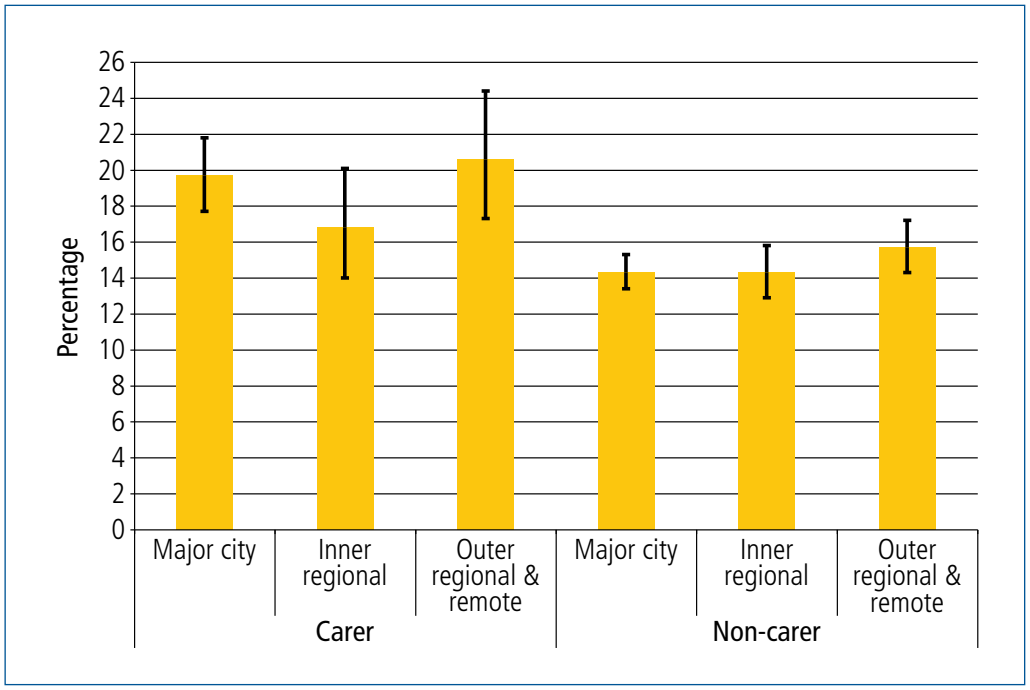
When the percentage of cash flow problems was estimated using statistical modelling that took into account demographic differences, there were statistically significant differences between carers and non-carers living in major cities and outer regional and remote areas, but not in inner regional areas (Figure 10). Lack of statistically significant differences between carers and non-carers with cash flow problems in inner regional areas is explained by the much higher rates of dis-saving activities of carers in this area (see below).

Dis-saving activities

Figure 11 shows that there were large and statistically significant differences between carers and non-carers in inner regional areas and major cities, once the demographic characteristics were taken into account by the statistical modelling (7.8 percentage points).

If we consider that there were no differences between carers and non-carers in the rates of cash flow problems, then this finding suggests that carers in inner regional areas are drawing on savings, assets and investments to reduce their cash flow problems. Given that there is a finite pool of savings that carers would be able to draw on, it is likely that carers in these inner regional areas will have higher rates of cash flow problems in the future.

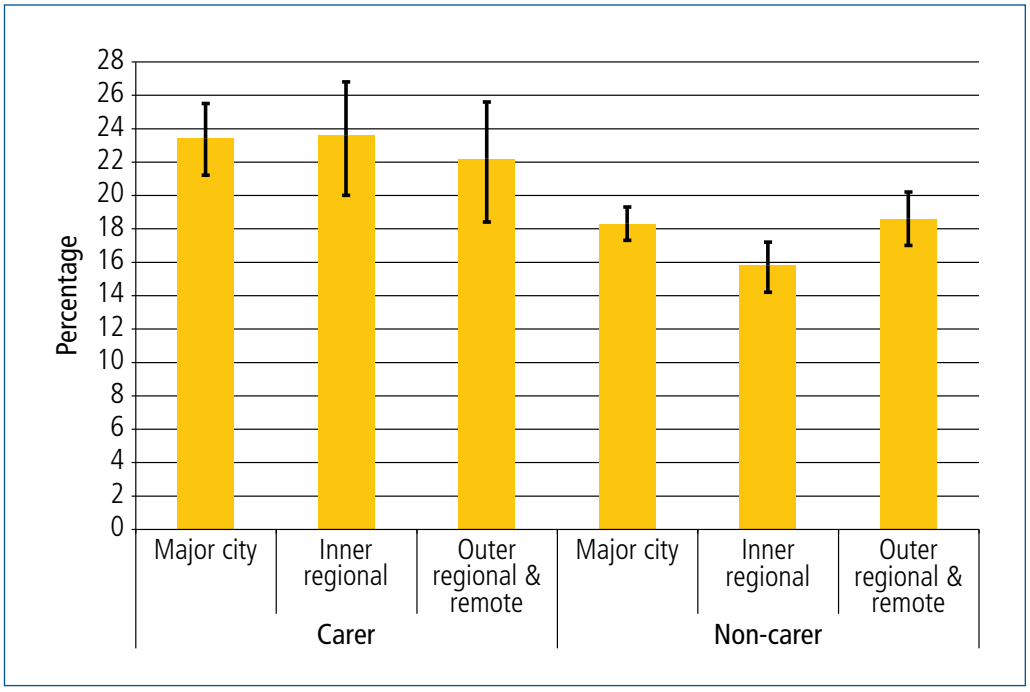
A greater percentage of carers than non-carers living in outer regional and remote areas had engaged in at least one dis-saving activity, but this difference was not statistically significant. However, a greater percentage of carers than non-carers in major cities had engaged in at least one dis-saving activity, and this was statistically significant.



Note: Estimates derived from logistic regression with 95% confidence interval.

Source: GSS 2006.

Figure 10 Cash flow problems, by carer status and region, 2006 (predicted probabilities)



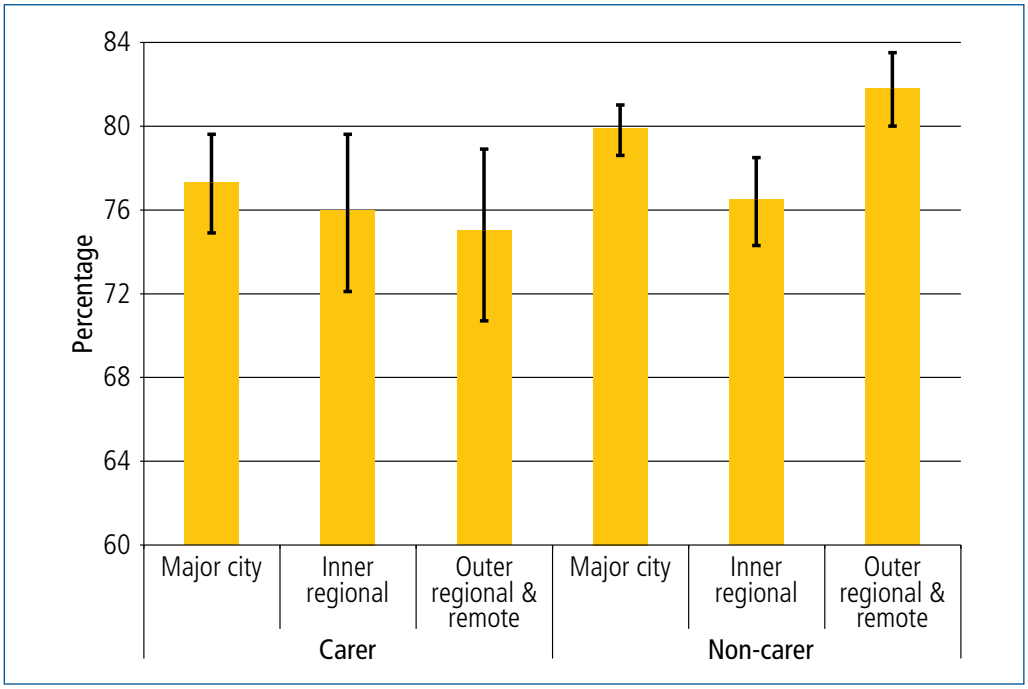
Note: Estimates derived from logistic regression with 95% confidence interval.

Source: GSS 2006.

Figure 11 Dis-saving activities, by carer status and region, 2006 (predicted probabilities)

Employment

Given that very few carers were unemployed (Table 14), we modelled the percentage of carers and non-carers employed in major cities, inner regional and outer regional or remote areas. As with the other statistical models we used, we accounted for differences due to sex, age, education and whether the person was born in Australia or overseas. Carers living in outer regional or remote areas had lower rates of employment than non-carers (6.8% lower) and this difference is statistically significant at the 95% level of confidence. The employment rates of carers in outer regional or remote areas were also significantly different from those of non-carers in major cities (4.9% percentage points lower).



Note: Estimates derived from logistic regression with 95% confidence interval.

Source: GSS 2006.

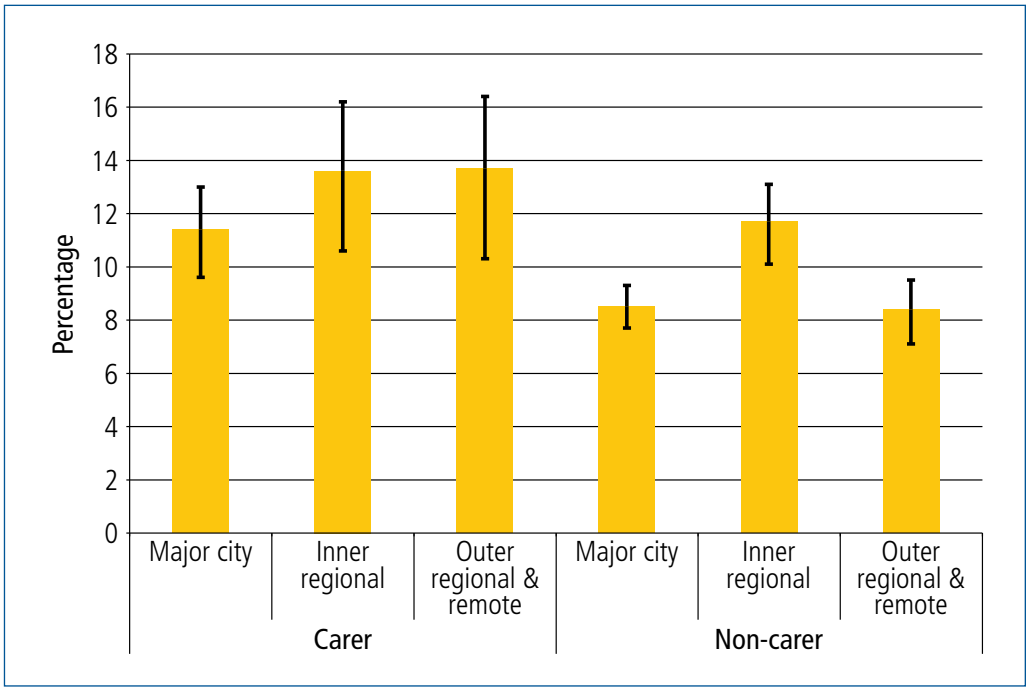
Figure 12 Employment rates, by carer status and region, 2006 (predicted probabilities)

Jobless households

Figure 13 shows the estimated percentages of jobless households by carer status and region from a statistical model that takes account of differences in demographic characteristics. The estimated percentages are lower than the raw percentages and they are statistically significant between carers and non-carers in outer regional and remote areas and in major cities, but not in inner regional areas. The gap between carers and non-carers is greatest in outer regional and remote areas (at 5 percentage points).

6. Drought and carers

It is projected that the frequency and severity of drought in Australia will increase as a result of climate change. A recent report from the Bureau of Meteorology and CSIRO concluded that the extent and frequency of exceptionally hot years has increased and that this trend will continue (Hennessy et al., 2008). This report also projected that exceptionally low rainfall years are likely to become more frequent in Victoria, Tasmania, the southwest of Western Australia, and agricultural regions of South Australia.



Note: Estimates derived from logistic regression with 95% confidence interval.

Source: GSS 2006.

Figure 13 Jobless households, by carer status and region, 2006 (predicted probabilities)

Despite the prevalence of drought in Australia over the years, there have been few studies that examine the impact of drought upon the financial living standards and employment of families or households in regional and rural Australia—most studies have produced estimates of the impact of drought at the regional or industry sector level. Some studies (e.g., Australian Bureau of Agricultural and Resource Economics, 2008) have provided estimates of the economic impacts of drought on farmers, but have not considered the flow-on economic effects to those who are not farmers but live in rural and regional areas. Other studies have been restricted to a small number of communities in specific locations, with relatively small sample sizes. Moreover, most of these studies have been cross-sectional or have not collected information from similar communities that are not in drought, which makes identifying the effects of drought very difficult (Alston & Kent, 2004; Stehlik et al., 1999). The Australian Institute of Family Studies Rural and Regional Families study was designed to address some of these shortcomings.

Using this survey of 8,000 people in rural and regional areas, Edwards, Gray, and Hunter (2009) reported that the Australian drought of 2004–07 has had significant negative economic impacts, with large effects on the experience of financial hardship and significant deterioration in household financial position—especially for farmers and farm managers, who also reported that the current drought had substantially reduced property output. When farmers were excluded from the analysis (because by definition they cannot be not employed), Edwards et al. found that there was a statistically significant impact of drought on employment rates. The employment rate was up to 5 percentage points lower in drought-affected areas than in areas of above average rainfall. Rates of employment were similar in below average rainfall areas and drought-affected areas. Unfortunately, the Rural and Regional Families study did not ask respondents whether they were carers.

There has been some discussion of how drought has the potential to widen social inequality and increase social exclusion (Alston, 2005), but to our knowledge no research has been conducted on the impact of drought on disadvantaged groups like carers, even though the most vulnerable are likely to be most affected by climate change. In this section, we fill this gap in the research evidence

by examining whether drought affects carers more than non-carers, using information from the 2006 Census of Population and Housing, which has been linked to information about rainfall deficits in the local area.

First, we describe the demographic characteristics of carers living in drought-affected areas and compare these to non-carers. The differences in demographic composition of the characteristics between carers and non-carers was relatively constant across drought-affected and non–drought affected areas. There were a few notable exceptions, however. The gap between employment population ratios of carers and non-carers is twice as great in drought areas (8 percentage points lower for carers) than it is in above average rainfall areas (4 percentage points lower for carers). Most of these differences are due to reductions in the full-time employment population ratios of carers in drought-affected areas.

6.1 Methodology

Following Hunter and Biddle (2009), as the basis for our analyses we used demographic information about carers and non-carers (such as the percentage who were employed) from the 2006 Census of Population and Housing, aggregated at the statistical local area. The SLAs used were those rural and regional areas that had at least 10% of the population employed in agriculture at the time of the 2001 Census of Population and Housing (which was prior to the last drought).

The Bureau of Rural Sciences provided SLA level data on rainfall deficiency throughout Australia. This rainfall deficit definition of drought is based upon rainfall deficits in the area in the last three years compared to the last 100 years. The groups were:

- drought (0 to 10th percentile of rainfall over the last three years compared to rainfall over the last 100 years);
- below average rainfall (11th to 49th percentile); and
- above average rainfall (50th to 100th percentile).

An additional caveat when interpreting the results in this section is that the information examined are percentages of the population in statistical local areas with particular characteristics (e.g., employment population ratios). Data are not available to analyse the impact of the drought on individual carers and we cannot interpret them as such.

6.2 The demographic profile of carers and non-carers in drought-affected areas

Table 16 shows the demographic composition of carers and non-carers in above average rainfall, below average rainfall and drought-affected areas. The right-hand column shows the difference between the average percentage of carers and non-carers for that demographic characteristic. In this way, the differences in demographic composition between carers and non-carers in above average rainfall, below average rainfall and drought-affected areas can be compared. In general, we can see that for the demographic characteristics presented in Table 16, the differences between carers and non-carers in the three rainfall areas were remarkably similar. For example, the percentage of carers who were partnered was approximately 9 percentage points higher in all three areas, and there was less than two percentage points difference in the differences in the percentage of carers and non-carers who had completed Year 12 in each of the three rainfall areas. The difference between the proportion of carers and non-carers who were female was slightly higher in drought-affected areas compared with above average rainfall areas, while the difference in the percentage of Indigenous carers compared to non-carers in each of the three areas was greatest in above average rainfall areas (1.5 percentage points) and lowest in drought-affected areas (0.5 percentage points).

Table 16 Demographic characteristics, by carer status and rainfall, 2006

Rainfall	Carer	Non-carer	Difference (carer minus non-carer)
		%	
Female			
Above average	58.0	46.4	11.7
Below average	60.6	47.3	13.3
Drought	61.3	47.4	13.9
Partnered			
Above average	66.6	57.9	8.7
Below average	68.3	59.4	8.9
Drought	70.8	61.2	9.6
Completed Year 12			
Above average	31.2	32.7	–1.6
Below average	30.8	30.6	0.2
Drought	30.2	30.8	–0.6
Indigenous			
Above average	7.1	5.6	1.5
Below average	3.9	3.2	0.7
Drought	2.3	1.7	0.5
Have not changed address during last five years			
Above average	55.7	50.9	4.8
Below average	58.0	53.3	4.7
Drought	53.0	47.5	5.5

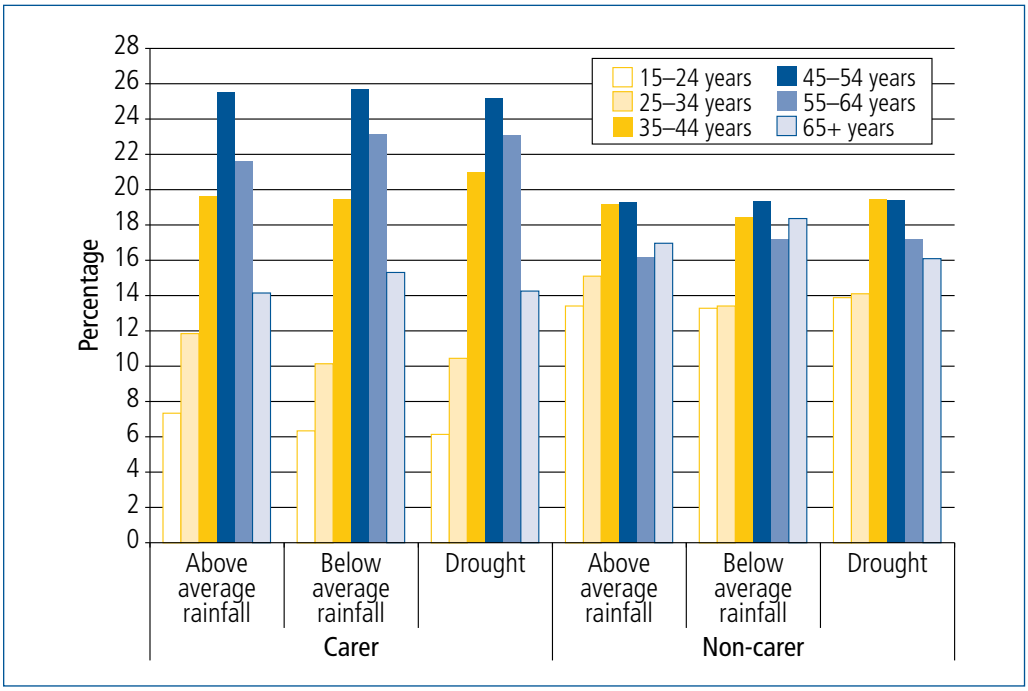
Source: Customised data from the 2006 Census of Population and Housing and rainfall data from the Bureau of Rural Sciences

When considering the impact of drought, it is also important to consider whether rates of residential stability differ between carers and non-carers because there may be selective migration out of drought affected areas to "greener pastures". In this study, we find no evidence of selective migration. Rates of residential stability were higher for carers than non-carers in all three areas, but the differences in the percentage of carers compared to non-carers who had not changed address in the last five years were similar across all areas. This finding gives us confidence that, based on differences in rainfall, there are unlikely to be differences in the composition of the population.

The age distribution of carers and non-carers by rainfall in the area is shown in Figure 14. There are several points to note. The first is of particular relevance when considering employment population ratios—the percentage who were of retirement age (65 years or more) was higher for non-carers compared to carers in all three rainfall areas. Second, there was very little difference in the percentage of retirement-age carers across the three rainfall areas. Third, there was a greater percentage of carers in the prime working-age categories of 45–54 years and 55–64 years of age than non-carers across the three different types of rainfall areas. Fourth, across all three rainfall areas a smaller percentage of carers were aged 15–24 years than non-carers.

Overall, the differences in demographic characteristics of carers and non-carers were similar across the three rainfall areas.[16] This gives us confidence that differences by rainfall areas on other variables, such as employment population ratios, were not due to differences in the demographic composition of the area. In fact, if there are differences in employment population ratios they may be an underestimate of the differences between carers and non-carers.

16 One exception is that there were fewer carers of retirement age than non-carers.



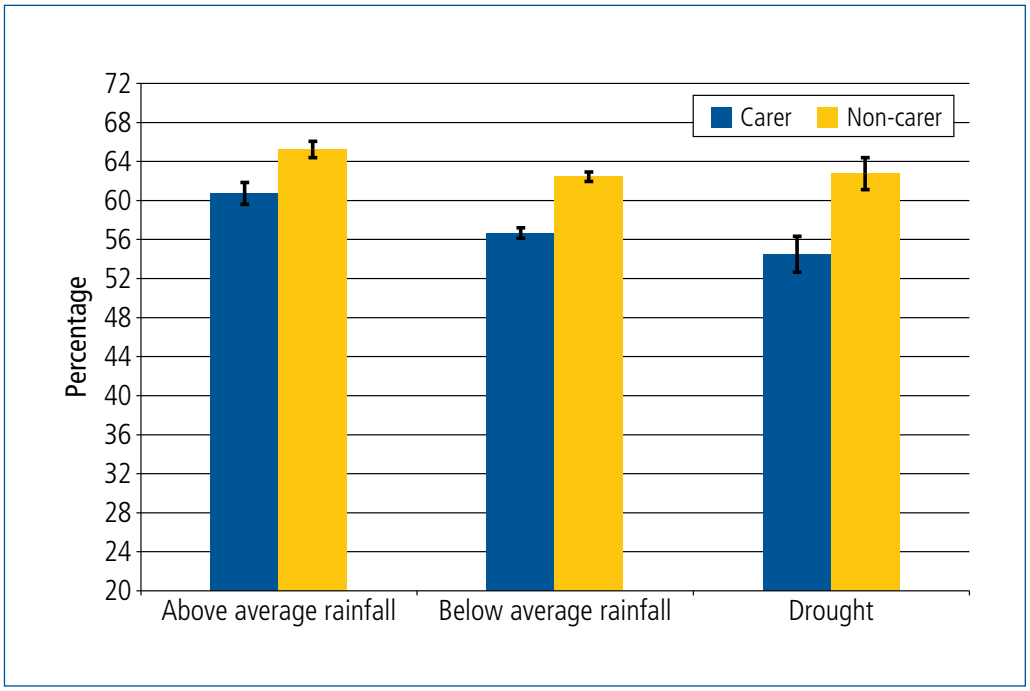
Source: Customised data from the 2006 Census of Population and Housing

Figure 14 Age, by carer status and rainfall, 2006

6.3 The impact of drought on employment of carers

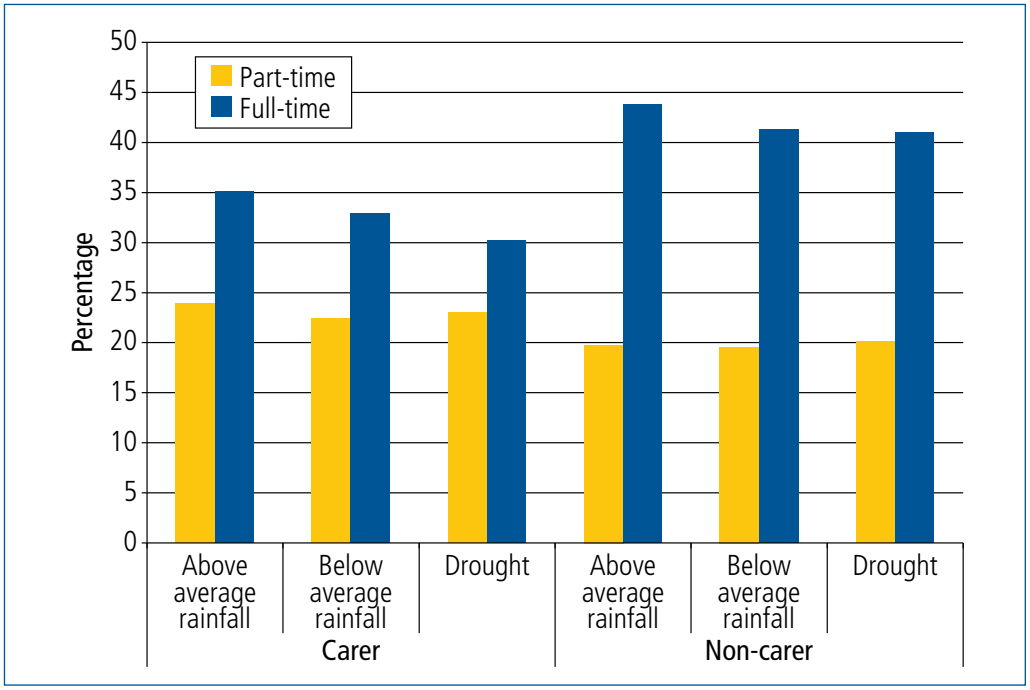
Figure 15 shows the percentage of carers and non-carers employed in above average rainfall, below average rainfall and drought-affected areas. There are a few points to note. First, consistent with findings of Edwards et al. (2009), the employment population ratios of non-carers were lower in below average rainfall and drought-affected areas than in above average rainfall areas (statistically significant at the 95% level of confidence). Second, the employment population ratios of carers were lower than those of non-carers in each of the three rainfall areas (also statistically significant at the 95% level of confidence). The third and key point is that the differences in employment population ratios between carers and non-carers was larger in drought-affected and below average rainfall areas than in above average rainfall areas. In above average rainfall areas, the difference between carers' and non-carers' employment population ratios was 4.5 percentage points, in above average rainfall areas the difference was 5.8 percentage points and in drought-affected areas the difference was 8.2 percentage points. These are large differences that do not disappear when statistical modelling takes into account the demographic composition of the area (results not shown). They suggest that employment population ratios of carers are more affected by drought than those of non-carers.

The lower employment population ratios for carers in particular in drought-affected and below average rainfall areas were due to a smaller percentage of carers being engaged in full-time employment (see Figure 16). The full-time employment population ratio of carers was 35% in above average rainfall areas but was 33% in below average rainfall areas and 30.2% in drought-affected areas. In contrast, non-carers' full-time employment population ratios were 43.8% in above average rainfall areas and 41% in below average rainfall and drought-affected areas. The difference in part-time employment for carers was not as great (23.9% in above average rainfall areas to 23% in drought-affected areas) and for non-carers the percentage in part-time employment in drought-affected areas was slightly higher (20.1%) than in above average rainfall areas (19.8%).



Source: Customised data from the 2006 Census of Population and Housing and rainfall data from the Bureau of Rural Sciences.

Figure 15 Employment population ratio, by carer status and rainfall



Source: Customised data from the 2006 Census of Population and Housing and rainfall data from the Bureau of Rural Sciences

Figure 16 Part-time and full-time employment population ratios, by carer status and rainfall

6.4 Summary

We find evidence that employment population ratios were lower in drought-affected areas but that drought had a greater impact on the employment population ratios of carers than non-carers. The difference in employment population ratios of carers and non-carers—already 4.5 percentage points lower for carers in above average rainfall areas—was 8.2 percentage points in drought-affected areas. The lower employment population ratios of carers in drought-affected areas were mainly due to a smaller proportion of carers being in full-time employment in these areas. These findings suggest that drought has a differential impact on carers' employment prospects and can be seen as a factor exacerbating the processes of social exclusion.

7. The geography of caring revisited

This report provides considerable insight into the geography of carers, using several recent datasets with a particular focus on remote and regional areas. Carers are found in all parts of Australia, but there are some important differences between the areas. The largest numbers of carers in inner regional and outer regional areas reside in the most populous states—New South Wales, Victoria and Queensland. Queensland, Western Australia and the Northern Territory are the states with the most carers in remote areas. Carers are more likely to be Indigenous in remote and regional Australia—largely a result of the distinctive geographic distribution of the Indigenous population and the high level of caring required for many in that most disadvantaged sector of Australian society. This is an important and underdeveloped aspect of our understanding of caring that needs to be explored in more detail in another analysis where more space can be devoted to the complex issues involved—especially the cross-cultural context and the deeply entrenched nature of Indigenous disadvantage (Hunter, 2006).

Carers play an important role in looking after the needs of others. To a certain extent this reflects their circumstances, as they are significantly more likely to experience poor health and stressful events in their lives. But it may also partially reflect a desire, willingness and ability to help others. Whatever the relative merits of such factors, the geography of caring is most apparent in differential patterns of access to services between carers and non-carers. Many carers in the outer regional and remote areas of Australia reported that formal service providers were unaffordable, unavailable and inadequate in their area. Carers living in these outer regional and remote areas also experienced higher rates of disability or long-term health conditions and lower rates of employment than non-carers living in the same area and carers in major cities.

Carers living in all areas were more likely to be living in a jobless household and experiencing more financial hardship. However, carers in outer regional and remote areas had more sources of personal information and advice than non-carers in these areas. Future research needs to tease out the specific services that carers and their families need. Particular attention must be paid to the economic and social factors that inhibit access to such services.

Another geographic aspect of caring is how it is related to drought and, by implication, climate change. We show that the difference in employment population ratios of carers and non-carers is almost twice as great in drought-affected areas (8.2 percentage points lower) as it is in above average rainfall areas (4.5 percentage points lower). This is mainly due to a lower percentage of carers being in full-time employment. There may be several reasons for this. First, where there is a substantial level of activity in agriculture, drought leads to substantial economic losses for the region and subsequently local authorities may have a lower tax base from which to fund services. Second, whatever services are available in a given area are likely to be in more demand during drought, as other economically stressed groups will have to

compete to use the existing services. This second explanation reflects findings in section 4 of this report; however, further research is needed to identify where services are required and what factors inhibit access to such services.

The evidence presented in this report suggests that carers in outer regional and remote Australia do experience a "tyranny of distance" (Blainey, 1966). Some parts of remote and very remote areas of Australia have high rates of carers per head of the population and a large proportion of these carers are Indigenous. Many carers in outer regional and remote areas have difficulties accessing services and struggle to find employment. They have higher rates of disability or long-term health conditions than carers in inner regional areas and major cities. When they are employed, it appears as though their jobs are also more vulnerable to shocks to the local economy brought on by drought. While the rural communities in which these carers live provide informal supports by way of information and advice, carers do seem to struggle to access services. The immediate task ahead is to insure unpaid family carers in rural and remote areas of Australia have better access to appropriate support and services. This is the challenge for a civilised and caring society.

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Appendix A: How were carers identified?

This appendix provides information on how carers were identified and defined in the GSS 2006 and the Census 2006.

General Social Survey (GSS) 2006

The GSS 2006 collected information about whether respondents were carers in 2006. Personal interviews were conducted with a household member 18 years and over at selected dwellings using a computer assisted interviewing questionnaire. People were identified as carers by the following:

> I am now going to ask you about the help you may provide to others. Do not include any help you give through an organization, or any paid help. In the last four weeks, have you spent time providing unpaid care, help or assistance to someone with a disability, long-term illness or problem related to old age?

Census 2006

For the first time in 2006, the Australian Bureau of Statistics Census of Population and Housing collected information on whether a person was a carer in the household. The Census requires a person 18 years or older household to complete the questionnaire on behalf of the household. People were identified as carers if, in the two weeks prior to the Census night, they provided unpaid care, help or assistance to family members or others because of a disability, a long-term illness or problems related to old age. This included people who received Carer Allowance or Carer Payment. It does not include caring work done through a voluntary organisation or group. The following was used to identify carers:

> In the last two weeks, did the person spend time providing unpaid care, help or assistance to family members or others because of a disability, a long term illness or problems related to old age?
>
> Recipients of Carer Allowance or Carer Payment should state that they provide unpaid care.
>
> Ad hoc help or assistance, such as shopping, should only be included if the person needs this sort of assistance because of his/her condition.
>
> Do not include work done through a voluntary organization or group.

There were 1.5 million fewer carers identified when using the 2006 Census than when using the GSS 2006 (1.6 million compared to 3.1 million). In the GSS, respondents were asked to report on caring activities over a four-week period, compared to the 2006 Census, which had a two-week time frame. In part, this difference explains the higher rates of carers in the GSS.

Appendix B: Characteristics of carers in rural areas compared to inner regional and metropolitan areas

Table B1 provides information on the socio-economic and demographic characteristics of carers and non-carers estimated from the Census 2006 and the GSS 2006. The characteristics of carers and non-carers between the two datasets are broadly similar.

Table B2 provides information on the socio-economic and demographic characteristics of carers and non-carers by region. The table is based on GSS 2006.

The percentage of carers and non-carers in each of the three regions was very similar. The percentage of female carers was greatest in major cities (59.5%), followed by outer regional and remote areas (57.9%) and then inner regional areas (54.7%). For non-carers, there was a greater percentage of males in inner regional areas (53.4%) than in any other region. For both carers and non-carers, the percentage of people born overseas in major cities was at twice the rate of inner regional and outer regional and remote areas. In the main, the age distribution for carers was similar across all the regions but, as was described earlier (in Table 1), carers tended to be older than non-carers.

Labour force participation was similar across the regions, with carers having lower rates of employment and higher rates of being not in the labour force than non-carers. The percentage of people employed in the inner regions was lower for carers compared to the major cities and outer regional and remote areas. This pattern was also reflected in the data for non-carers.

There were little regional differences in part-time employment hours for carers and non-carers. Similar to the findings with respect to the whole of Australia, about the same percentage of carers and non-carers were employed part-time (34 hours per week or less). As with the findings for the whole of Australia, there was also a general trend across all the regions for carers to be much less likely to be working full-time than non-carers. Again, the only exception was in the case of carers and non-carers working 50 or more hours per week, which in this instance was very similar across the regions. There were differences between regions, however, with a general trend to working longer hours in the inner regional, outer regional and remote areas compared to the major cities.

There was a general trend across the regions for people to have higher levels of education in the major cities than in the inner regional areas and in outer regional and remote areas. Any regional differences in the level of education between carers and non-carers were relatively small.

Table B1 Socio-economic and demographic characteristics of carers and non-carers, Census 2006 and GSS 2006

	Census 2006		GSS 2006	
	Carers	Non-carers	Carers	Non-carers
Number	1,582,777[a]	11,842,563	3,105,200	12,201,800
Percentage	11.2	83.8	20.5	79.5
		%		
Region				
Major cities	67.6	68.8	66.2	67.9
Inner regional	20.8	19.0	22.2	21.5
Outer regional & remote	11.6	12.1	11.7	10.5
Gender				
Male	38.0	49.7	41.8	51.3
Female	62.0	50.3	58.2	48.7
Cultural and linguistic background				
Aboriginal or Torres Strait Islander	1.8	1.5	–	–
Other Australian-born	69.2	67.3	75.6	70.9
Overseas-born	29.0	31.3	24.4	29.1
Age group				
18–24 years	5.4	13.1	6.7	14.2
25–34 years	12.2	19.0	9.6	20.6
35–44 years	20.4	20.5	18.7	19.7
45–54 years	25.0	18.5	25.6	16.4
55–64 years	21.4	13.9	22.3	12.7
65–74 years	8.8	7.8	9.4	9.0
74+ years	6.7	7.2	7.7	7.3
Labour force status				
Employed	55.7	66.0	60.7	66.7
Unemployed	3.6	3.3	2.4	3.3
Not in the labour force	40.0	30.3	36.9	30.0
Hours worked				
1–15 hours	7.3	6.0	7.7	6.6
16–24 hours	6.8	5.9	6.2	5.3
25–34 hours	6.7	6.6	6.5	6.4
35–39 hours	8.3	11.9	9.1	12.6
40 hours	8.5	13.0	8.8	11.4
41–49 hours	5.7	8.0	7.5	9.4
50+ hours	9.7	11.9	15.1	15.1
Education				
No post-school qualifications	53.6	54.7	50.9	54.2
Other post-secondary	28.3	27.1	27.8	25.5
Bachelor or higher	18.2	18.2	21.3	20.3

Notes: GSS estimates are weighted to reflect the population. The GSS 2006 did not collect information on respondents' Indigenous status.

[a] 5.3% of households in the Census2006 did not state whether there was a carer in the household or not. We have assumed that the "not stated" response was essentially random, so in our estimates of the numbers of carers we have included the "not stated" in our estimates by assuming they reflect the same proportion of carers and non-carers that were reported in the Census household form.

Table B2 Characteristics of carers and non-carers by region, GSS 2006

	Carers			Non-carer		
	Major city	Inner regional	Outer regional & remote	Major city	Inner regional	Outer regional & remote
Number	2,054,968	688,460	361,792	8,290,317	2,626,151	1,285,378
Percentage	66.2	22.2	11.7	67.9	21.5	10.5
	%					
Gender						
Male	40.6	45.3	42.2	50.6	53.4	51.3
Female	59.5	54.7	57.9	49.4	46.7	48.7
Cultural and linguistic background						
Australian-born	70.5	85.2	86.7	64.2	85.2	84.9
Overseas-born	29.5	14.8	13.3	35.8	14.8	15.2
Age group						
18–24 years	7.0	6.4	5.6	14.8	12.9	12.9
25–34 years	11.6	4.0	9.3	21.0	19.9	19.6
35–44 years	18.5	18.9	19.4	20.0	19.0	19.5
45–54 years	24.7	26.8	28.5	16.2	16.7	17.6
55–64 years	22.1	22.8	22.7	11.9	14.3	14.8
65–74 years	8.2	12.0	10.6	8.9	9.4	9.0
74+ years	7.9	9.1	4.0	7.2	7.8	6.7
Labour force status						
Employed	61.5	58.1	61.1	67.0	65.6	67.3
Unemployed	2.4	3.1	1.3	3.5	2.5	3.6
Not in the labour force	36.1	38.9	37.5	29.5	32.0	29.2
Hours worked						
1–15 hours	7.7	7.4	8.3	6.4	7.4	6.9
16–24 hours	6.4	5.4	5.9	5.2	5.7	4.7
25–34 hours	6.9	7.1	3.0	6.4	5.4	8.1
35–39 hours	9.9	5.9	10.7	13.5	11.6	8.9
40 hours	8.9	9.2	7.4	11.9	10.5	10.5
41–49 hours	7.8	7.3	6.0	9.7	8.6	8.9
50+ hours	13.9	15.9	19.8	14.0	16.4	19.3
Education						
No post-school qualifications	48.7	55.2	54.8	52.0	59.4	57.5
Other post-secondary	26.0	31.1	31.9	24.3	26.8	29.9
Bachelor or higher	25.3	13.7	13.3	23.7	13.8	12.6

Notes: GSS estimates are weighted to reflect the population.