



## **REGIONAL DIVIDE? A STUDY OF INCOMES IN REGIONAL AUSTRALIA**

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**ABSTRACT** Regional diversity is a hot topic in Australia's policy agenda. The economic and social circumstances of Australians vary significantly by region. Analyses of income inequality in Australia have generally focused on national outcomes. In contrast, this paper uses regional modelling techniques to examine the incomes of households in regional Australia and how the distribution changed between 1991 and 1996. It considers the changes at three levels: regions, States and local government areas. The results suggest that there is a large and growing gap between the incomes of those Australians living in the capital cities and those living in the rest of Australia. However, regional Australia is not uniformly disadvantaged and not uniformly declining, with very different experiences in particular States and regions. The study also found that the proportion of households living in the middle income ranges has been declining across most regions.

### **1. INTRODUCTION**

Regional diversity is a hot topic in Australia's policy agenda. There is growing evidence that the economic and social circumstances of Australians vary significantly by region. As a result of this disparity, policies may increasingly need to target particular regions.

Income inequality in Australia has been analysed widely by social researchers, but this analysis has generally focused on the national picture (Harding, 1997). However, there has been increasing interest in income inequality and social disadvantage across neighbourhoods and regions (Gregory and Hunter, 1995; Vinson, 1999).

Cuts in government, banking and telecommunication services, coupled with low commodity prices and high unemployment rates, have prompted an outcry from those living in regional Australia about the growing divide between the cities and the bush. There has also been a shift in the political landscape following the Victorian state election in 1999. The Prime Minister's tour of regional Australia early this year and increased funding to regional Australia in the 2000-01 budget illustrate the growing government interest in regional issues.

This paper uses regional modelling techniques to examine household incomes in regional Australia and how their distribution changed between 1991

and 1996. It considers the changes at three levels: regions, States and local government areas.

The remainder of this paper is organised as follows. Section 2 describes the regional modelling methods used in this paper and section 3 describes the regional population distribution and how it has changed over time. In section 4, average household incomes in 1991 and 1996 are examined across Australia and in each of the States and Territories for five regional groupings using the 'Section of State' classifications defined by the Australian Bureau of Statistics. These are capital cities, other major urban areas, regional towns, rural towns and rural areas (Table 1). Section 5 examines the distribution of income in the States and regions. Section 6 looks at household incomes and income growth in the most affluent and least affluent local government areas (LGAs). It also examines whether income inequality between regions has been increasing. Section 7 provides details of indicators relevant to the income divide.

## 2. REGIONAL MODELLING METHODS

The data source for this analysis is the 1986, 1991 and 1996 census CDATA, issued by the Australian Bureau of Statistics (ABS). This information was amended by NATSEM to link census collectors districts (CCDs) and make variables comparable over time (for example, by aligning variable definitions over time). In addition, incomes were estimated for each CCD. In the original census data, incomes were grouped into ranges. We estimated the average incomes within each of these income ranges, based on the average incomes of those households within each of the census income ranges and captured in the most relevant ABS income surveys. The census analysis is based on the population on the census night.

The unit of analysis used is the household, defined as a group of people who usually reside and eat together. By definition, institutionalised people do not belong to a household and were not included.

Income is the gross annual income for the household from all sources, including government transfers. All incomes are given in 1996 dollars.

For the analysis using equivalent incomes within LGAs, the OECD equivalence scale was applied to the average gross household income of the LGA. This scale gives a value of 1 to the first adult, 0.7 to second and other adults, and 0.5 to dependent children. For this analysis, dependent children were defined as those children aged 0–14 years.

CCDs were classified by region according to the ABS Section of State (SOS) classification. In this paper the ABS terminology was replaced with less technical terms: 'other urban' was replaced with 'regional towns', 'bounded locality' with 'rural town', and 'rural balance' with 'rural areas'. One of the difficulties of regional analysis over time is that, as populations grow and move, many CCDs change their regional classification. Between 1991 and 1996, for example, about 6 per cent of CCDs changed their SOS status. Many CCDs that were rural in 1991 were part of capital cities or regional towns in 1996. To allocate these to one region or another can greatly affect the results. For this reason, and to make regions fully comparable, these changing CCDs (representing about 6.6 per cent of households) were *omitted* from this analysis.

**Table 1.** Regional Groupings Used in this Study

Grouping	Definition	Examples
Capital cities	State and territory capital cities and surrounding areas	Sydney, Darwin, Blue Mountains (NSW), Ipswich (Qld), Fremantle (WA)
Major urban areas	Major non-capital cities with populations of more than 100 000	Gold Coast (Qld), Townsville (Qld), Geelong (Vic), Wollongong (NSW)
Regional towns	Towns and cities with populations of 1000–99 999	Bourke (NSW), Toowoomba (Qld), Break O'Day (Tas), Bunbury (WA)
Rural towns	Towns with populations of 200–999	Tambo (Qld), Robertstown (SA), East Arm (NT), Broomehill (WA)
Rural areas	Other rural areas	

Source: ABS (1999); Department of Family and Community Services (1999).

**Table 2.** Proportion of Australian Population by Region, 1991 and 1996

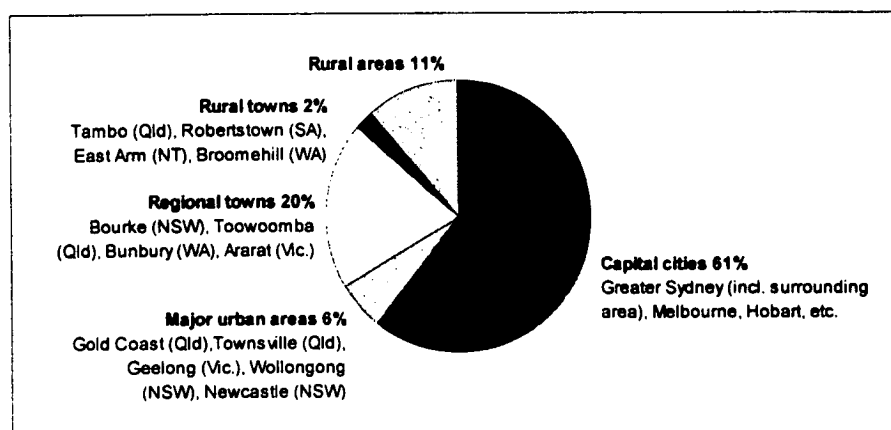
	1991	1996
	%	%
Capital cities	60.4	<b>60.5</b>
Major urban areas	5.8	<b>5.9</b>
Regional towns	19.3	<b>19.9</b>
Rural towns	2.5	<b>2.2</b>
Rural areas	12.0	<b>11.5</b>

Source: ABS CDATA 1991 and 1996 with NATSEM amendments.

For the analysis dealing with LGAs, no CCDs were omitted as the problem of a CCD being defined as 'rural' in one year but 'metropolitan' in the next year did not exist. However, some CCDs cross LGA boundaries. In this case, the CCDs were cloned and counted as part of both LGAs. The analysis uses the 1996 definition of LGAs.

### 3. INCREASING URBANISATION

Australia has a highly urbanised population. Rapid urban growth saw the proportion of people living in urban areas increase from 62 per cent in 1921 to 86 per cent in 1971. Since then there has been a continuing slow drift from the country to the cities. Table 2 illustrates the regional distribution and continuing urbanisation between 1991 and 1996.



**Figure 1.** Proportion of Australian Population by Region, 1996

**Data Source:** ABS CDATA 1996 with NATSEM amendments.

**Table 3.** Proportion of State and Territory Populations by Region, 1996

	<b>Capital Cities</b>	<b>Major Urban Areas</b>	<b>Regional Towns</b>	<b>Rural Towns</b>	<b>Rural Areas</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
New South Wales	62.5	9.5	19.4	1.7	6.9
Victoria	72.1	2.9	15.6	1.5	7.9
Queensland	43.6	12.2	28.6	2.7	13.0
South Australia	73.6		15.1	2.5	8.8
Western Australia	73.4		17.1	2.1	7.4
Tasmania	40.5		37.3	4.5	17.6
Northern Territory	52.9		25.3	5.8	16.0
Australian Capital Territory	99.9				0.1

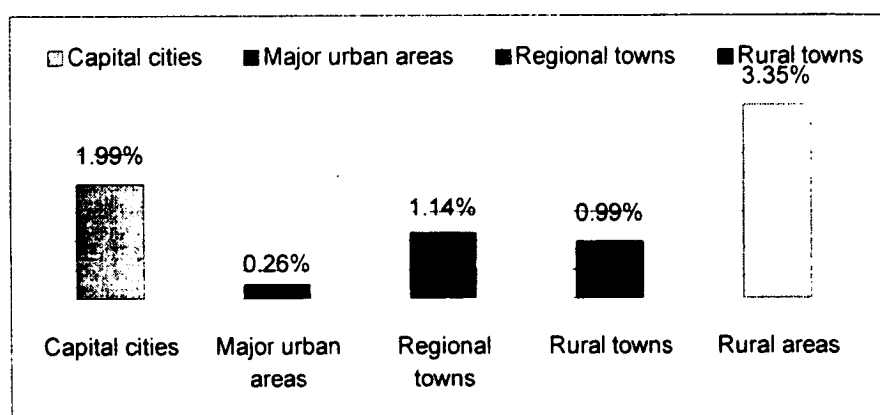
**Source:** ABS CDATA 1996 with NATSEM amendments.

In 1996 just over 60 per cent of Australians lived in capital cities and their surrounding areas, and almost 6 per cent lived in major urban areas (defined as non-capital cities with populations of more than 100 000). Another 20 per cent of the population lived in regional towns (with populations ranging from 1000 to 99 999). About 2 per cent lived in rural towns (small towns with populations of 200–999), and just over 11 per cent lived in other rural areas (Figure 1).

**Table 4.** Estimated Average Household Income, by Region, 1991 and 1996  
In 1996 Dollars

	1991	1996
	\$	\$
Capital cities	43 908	44 783
Major urban areas (population 100 000+)	37 468	37 567
Regional towns (urban areas with a population of 1000–99 999)	34 225	34 615
Rural towns (bounded rural locality with a population of 200–999)	30 308	30 609
Rural areas	34 895	36 063

Source: ABS CDATA 1991 and 1996 with NATSEM amendments.

**Figure 2.** Estimated Growth in Average Real Income per Household, by Region, 1991 to 1996

Data Source: ABS CDATA 1991 and 1996 with NATSEM amendments.

New South Wales and Victoria are the most urbanised States (Table 3). Most people in Queensland and Tasmania live outside the capital cities. In Tasmania and the Northern Territory a significant proportion of people live in rural towns and rural areas.

#### **4. REGIONAL ANALYSIS**

##### **4.1 Average Household Income by Region**

Average household incomes vary significantly by region (Table 4) and grew at different rates in each region between 1991 and 1996 (Figure 2).

On average, people living in the cities enjoy much higher incomes than people living elsewhere do. For example, in 1996 households in the capital cities had an average income of around \$44,785. This was about 30 per cent more than for households in regional towns, 20 per cent more than for households in other major urban areas and 24 per cent more than for households in rural areas.

##### **4.2 Changes in Average Household Income by Region**

The data suggest that the income gap between those living in cities and those living in regional and rural towns is increasing. In the capital cities real income per household grew from \$43,900 to \$44,800 — almost 2 per cent — between 1991 and 1996. For most of the rest of Australia, income growth was not as strong. For example, for the households in regional towns, income growth averaged 1.14 per cent. Households in small rural towns had the lowest average income — \$30,600 in 1996 — and income growth averaged just under 1 per cent during the five years. For those in major urban areas, many of which were profoundly affected by the decline of manufacturing enterprises, real income growth was negligible.

Yet rural households did particularly well as their incomes increased by 3.35 per cent during this period. However, rural incomes increased from a relatively low base (20 per cent below metropolitan incomes in 1991). In addition, farm incomes fluctuate significantly from year to year as yields and crop prices change, and 1996 was a good year for the agricultural sector in some parts of Australia. Since 1996 growth in agricultural incomes has slowed, suggesting that they have not grown as strongly as metropolitan incomes since the census was conducted.

##### **4.3 Average Household Income by State and Region**

Analysis for Australia as a whole tends to mask the vastly different experiences of each State and Territory in Australia during the 1990s. Analysing broad heterogeneous regions across States means that positive performances in one State can cancel out negative performances in another, resulting in little overall change. In this section, changes in regional incomes are analysed by State.

Demographic changes and the shift from manufacturing to service and technology industries in the Australian economy have meant that the States have faced different experiences in terms of regional incomes. While Sydney benefited from increasing globalisation, and both Queensland and Western Australia enjoyed strong population and income growth, South Australia, Tasmania and regional Victoria lagged behind.

**Table 5.** Estimated Average Household Income by State and Region, 1996

	Capital Cities	Major Urban Areas	Regional Towns	Rural Towns	Rural Areas	All Regions
	\$	\$	\$	\$	\$	\$
New South Wales	49 003	38 044	33 309	30 360	35 232	<b>43 528</b>
Victoria	44 466	35 015	32 186	28 587	36 725	<b>41 363</b>
Queensland	41 898	37 708	36 926	31 646	35 948	<b>38 959</b>
South Australia	37 047		31 333	28 720	35 943	<b>35 868</b>
Western Australia	42 162		42 048	34 286	39 090	<b>41 787</b>
Tasmania	36 408		32 064	30 752	33 586	<b>34 037</b>
Northern Territory	52 856		52 252	39 155	38 863	<b>50 227</b>
Australian Capital Territory	54 726				37 469	<b>54 707</b>

Source: ABS CDATA 1996 with NATSEM amendments.

**Table 6.** Estimated Average Household Income by State and Region as a Percentage of Sydney Average Household Income, 1996

	Capital Cities	Major Urban Areas	Regional Towns	Rural Towns	Rural Areas	All Regions
	%	%	%	%	%	%
New South Wales	100	78	68	62	72	<b>89</b>
Victoria	91	71	66	58	75	<b>84</b>
Queensland	86	77	75	65	73	<b>80</b>
South Australia	76		64	59	73	<b>73</b>
Western Australia	86		86	70	80	<b>85</b>
Tasmania	74		65	63	69	<b>69</b>
Northern Territory	108		107	80	79	<b>102</b>
Australian Capital Territory	112				76	<b>112</b>

Source: ABS CDATA 1996 with NATSEM amendments.

Table 5 shows average household incomes in each region in each State and Territory in 1996. Table 6 illustrates how the average income in each region compares with the average income in Sydney.

In both 1991 and 1996 the average income in the capital city area of New South Wales (Sydney and surrounds) was significantly greater than in any other state region (Table 5). The average household incomes in the ACT and parts of the Northern Territory were higher, but both Territories have small and

**Table 7.** Estimated Percentage Change in Average Real Household Income, by State and Region, 1991 to 1996

	Capital Cities	Major Urban Areas	Regional Towns	Rural Towns	Rural Areas	<b>All Regions</b>
	%	%	%	%	%	%
New South Wales	2.4	0.3	-0.4	0.8	1.0	<b>1.6</b>
Victoria	1.3	-0.4	-1.9	-1.0	2.1	<b>1.0</b>
Queensland	3.9	0.3	3.7	1.4	2.9	<b>3.2</b>
South Australia	-2.3		0.2	0.7	10.5	<b>-1.0</b>
Western Australia	4.9		6.9	7.3	11.8	<b>5.7</b>
Tasmania	-0.4		-1.2	-1.5	2.5	<b>-0.2</b>
Northern Territory	8.8		5.6	-8.2	-2.3	<b>5.8</b>
Australian Capital Territory	-0.2				-31.6	<b>-0.2</b>

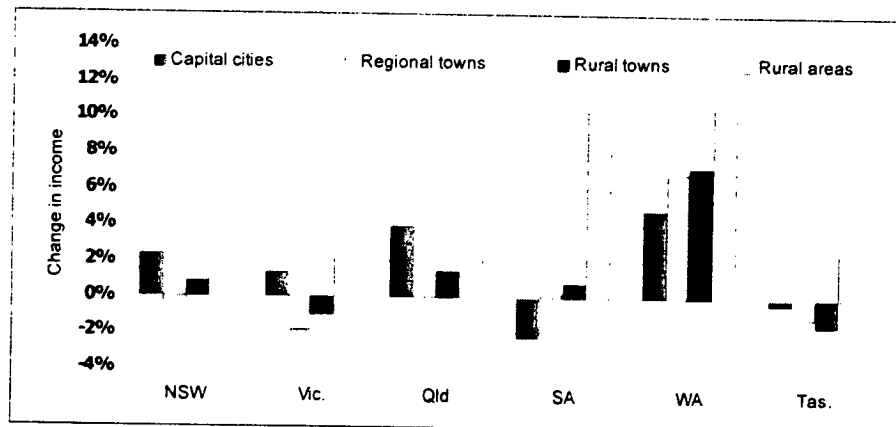
Source: ABS CDATA 1991 and 1996 with NATSEM amendments.

specialised populations and economies. In every State, the average household income was greater in the metropolitan area than in other urban and rural regions. However, the degree of income inequality between metropolitan areas and other areas varied significantly between States. In general, the urbanised States with high metropolitan incomes — particularly New South Wales and Victoria — showed the greatest income differences between the capital city and other areas of the State. States with larger regional populations and greater reliance on agriculture, mining and tourism, such as Queensland and Western Australia, had much smaller differences in household income between metropolitan and other areas.

In general, the larger and more urbanised a State, the higher the average income in the metropolitan area. Melbourne's average household income in 1996 was about 91 per cent of Sydney's; Brisbane's and Perth's about 86 per cent; and Adelaide's and Hobart's about 75 per cent. There is similar inequality in the other urban and rural incomes between States, but in this case the less urbanised States, such as Western Australia and Queensland, tended to have higher incomes in non-metropolitan areas than the other States have.

Both South Australia and Tasmania have relatively low average incomes. The shift in the economy away from manufacturing and certain primary industries has significantly affected these States. In 1996, the average household income in rural towns of South Australia was just 59 per cent of the average income in Sydney, and the average incomes in regional and rural towns of Tasmania were 65 per cent and 63 per cent of Sydney incomes respectively. Victoria's rural towns had the lowest average incomes — just 58 per cent of the average income in Sydney.





**Figure 3.** Estimated Percentage Change in Average Real Household Income, by State and Region, 1991 to 1996

**Data Source:** ABS CDATA 1991 and 1996 with NATSEM amendments.

#### 4.4 Changes in Average Household Income by State and Region

Table 7 and Figure 3 show the regional changes in average real household incomes in the States and Territories between 1991 and 1996. These illustrate very different experiences.

The highest growth in state household incomes occurred in Western Australia, where all four regions experienced income growth of at least 5 per cent — the rural areas 11.8 per cent. Queensland households also had strong income growth, particularly in Brisbane, regional towns and rural areas. In New South Wales, metropolitan household incomes grew strongly but households in regional towns suffered a drop in real income. In Victoria, although metropolitan and rural incomes rose, there was a sharp drop in incomes in regional and rural towns. Those from Melbourne enjoyed an average real increase in income of almost \$600 per household between 1991 and 1996, while those living in regional towns in Victoria faced an average income fall of \$619. This amounted to a 1.3 per cent increase in the average real income of Melbournians and almost a 2 per cent fall in the income of those living in Victorian regional towns.

South Australia and Tasmania were the only States in which average real incomes fell between 1991 and 1996. The decline was driven by a fall in metropolitan incomes in South Australia and by a drop in average incomes in Hobart and regional and rural towns in Tasmania.

The decreases in incomes in South Australia and Tasmania, coupled with the increases in incomes in the other States, served to increase the divide between States with high and low incomes during the early 1990s.

**Table 8.** Proportion of Households with Income in Given Ranges, by Region, 1991 and 1996

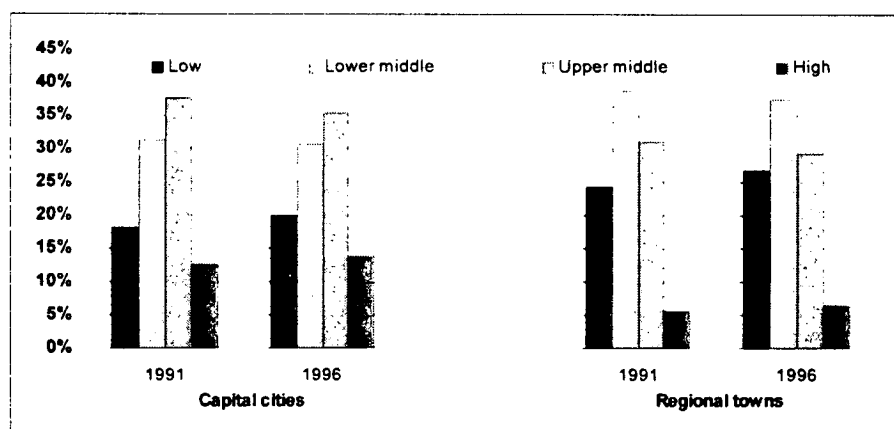
Income Group	Capital Cities	Major Urban Areas	Regional Towns	Rural Towns	Rural Areas	All Regions
	%	%	%	%	%	%
<b>Low (under \$15,600)</b>						
1991	18.2	22.3	24.2	27.1	22.9	20.2
1996	20.0	25.0	26.7	30.0	23.3	22.1
<b>Lower middle (\$15,600–\$36,400)</b>						
1991	31.5	36.0	38.9	43.1	41.3	34.3
1996	30.8	34.7	37.6	40.8	39.9	33.3
<b>Upper middle (\$36,400–\$78,000)</b>						
1991	37.7	33.7	31.2	26.2	29.3	35.2
1996	35.4	31.7	29.2	25.2	29.4	33.2
<b>High (over \$78,000)</b>						
1991	12.6	8.0	5.7	3.6	6.6	10.3
1996	13.9	8.6	6.5	4.1	7.4	11.3

Source: ABS CDATA 1991 and 1996 with NATSEM amendments.

The inequality between regions in each State increased in some States but decreased in others due to different experiences in metropolitan and non-metropolitan areas. In New South Wales and Queensland the divide between metropolitan and non-metropolitan regions widened as city incomes increased faster than those elsewhere. A widening gap between the city and non-metropolitan towns was evident in Victoria and Tasmania. In South Australia and Western Australia the inequality between metropolitan and non-metropolitan areas actually decreased a little, as incomes in Adelaide fell and those in non-metropolitan regions of Western Australia showed stronger growth than in Perth.

##### 5. INCOME DISTRIBUTION – THE DISAPPEARING MIDDLE

The average household income in a region is a single value that can be compared easily with the average income in another region or at another time. But averages cannot tell us about the regional distribution of income — how many people are rich or poor. To look at this we divided households into four income groups — low income (under \$15,600 a year), lower middle income (\$15,600 to \$36,400), upper middle income (\$36,400 to \$78,000) and high income (over \$78,000). Table 8 shows the proportion of households in each region with incomes in each of these groups in 1991 and 1996.



**Figure 4.** Proportion of Households in Capital Cities and Regional Towns, by Income Group, 1991 and 1996

**Data Source:** ABS CDATA 1991 and 1996 with NATSEM amendments.

The results echo those of other income distribution studies — a hollowing out of middle Australia, with accompanying increases in the proportions of both high and low income households. In all regions, between 65 and 70 per cent of households had incomes ranging from \$15,600 to \$78,000 in 1996. The cities had a predominance of households with upper middle incomes, while the other areas had a predominance of lower middle income households. There were also considerable regional differences in the proportion of low and high income households.

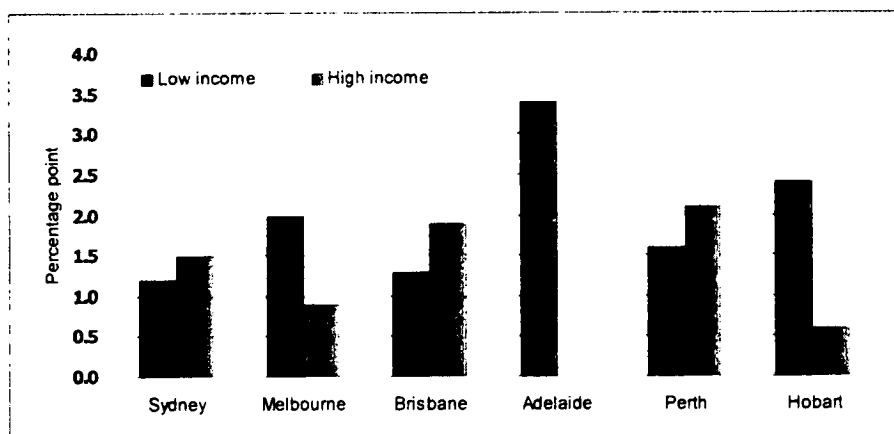
The results for the four-fifths of all Australians living in capital cities and regional towns illustrate the main findings clearly (Figure 4). There were about twice as many high income households in the cities as in regional towns, and there was a much smaller proportion of low income households in the cities. Both the cities and the regional towns show similar falls in the proportion of middle income households between 1991 and 1996. In the cities, for example, the proportion of households with incomes between \$36,400 and \$78,000 fell by a striking 2.3 percentage points between 1991 and 1996. At the same time, the proportion of households with high incomes rose by 1.3 percentage points in the cities.

Between 1991 and 1996 both the proportion of households with low incomes and the proportion of households with high incomes increased in all regions, suggesting increasing inequality. The biggest change was in rural towns, where the proportion of households with low incomes increased from 27 per cent to 30 per cent and the proportion with high incomes increased only marginally.

**Table 9.** Proportion of Households with Real Incomes in Given Ranges, by State and Region, 1991 and 1996

	Low Income (under \$15,600)		Lower Middle Income (\$15,600–36,400)		Upper Middle Income (\$36,400–78,000)		High Income (over \$78,000)	
	1991	1996	1991	1996	1991	1996	1991	1996
	%	%	%	%	%	%	%	%
<b>Metropolitan</b>								
NSW	17.4	18.6	28.4	28.1	38.0	35.7	16.1	17.6
Vic.	17.6	19.6	31.4	31.0	38.6	36.1	12.4	13.3
Qld	18.7	20.0	34.9	33.1	37.2	35.8	9.2	11.1
SA	21.9	25.3	35.4	34.9	34.6	31.7	8.1	8.1
WA	19.6	21.2	34.7	32.4	36.2	34.7	9.5	11.6
Tas.	22.8	25.2	36.7	36.1	33.4	30.9	7.1	7.7
NT	12.4	11.5	27.6	26.7	44.9	42.4	15.1	19.4
ACT	10.9	13.4	22.6	24.4	45.0	40.5	21.5	21.8
<b>Major Urban</b>								
NSW	23.0	26.2	34.3	32.8	34.1	31.6	8.7	9.3
Vic.	24.3	27.6	36.6	35.0	32.7	30.8	6.3	6.6
Qld	20.4	22.3	38.4	37.6	33.6	32.0	7.5	8.2
<b>Regional Towns</b>								
NSW	25.4	28.1	39.3	38.1	30.0	27.9	5.4	5.8
Vic.	25.3	28.2	39.3	39.1	30.8	27.9	4.6	4.8
Qld	22.3	24.1	39.2	37.2	32.2	30.9	6.3	7.8
SA	27.3	30.7	40.1	37.8	28.6	27.1	4.0	4.4
WA	19.7	21.8	35.0	32.1	36.7	34.6	8.5	11.5
Tas.	26.4	29.7	39.5	37.9	29.5	27.4	4.7	4.9
NT	10.2	9.6	27.9	27.7	47.5	45.2	14.4	17.5
<b>Rural Towns</b>								
NSW	27.3	29.8	43.4	41.6	25.7	24.4	3.6	4.1
Vic.	29.6	33.6	42.1	40.3	25.5	22.7	2.8	3.3
Qld	26.0	28.7	43.9	41.0	25.7	25.5	4.3	4.8
SA	29.5	32.6	43.8	40.3	24.0	24.4	2.8	2.7
WA	23.7	24.7	42.4	39.4	30.3	30.5	3.6	5.5
Tas.	26.1	30.7	42.0	39.5	28.3	25.7	3.6	4.1
NT	10.3	13.0	37.6	40.7	42.6	40.6	9.5	5.7
<b>Rural Areas</b>								
NSW	23.8	25.1	40.8	40.0	28.3	27.4	7.0	7.5
Vic.	21.8	22.4	39.6	39.4	31.7	30.6	6.9	7.6
Qld	22.0	22.9	42.9	40.1	28.6	29.8	6.4	7.1
SA	25.3	22.3	41.7	40.8	27.8	29.9	5.2	7.0
WA	23.3	20.8	42.2	39.0	27.8	30.9	6.7	9.4
Tas.	23.8	25.0	42.4	41.0	29.1	28.5	4.7	5.5
NT	16.9	20.2	38.3	38.9	35.9	31.8	8.9	9.2
ACT	14.2	13.2	33.9	44.7	30.5	38.2	21.4	3.9

Source: ABS CDATA 1991 and 1996 with NATSEM amendments.



**Figure 5.** Percentage Point Change in the Proportion of Households with Low and High Real Incomes Between 1991 and 1996, by Capital City

**Data Source:** ABS CDATA 1991 and 1996 with NATSEM amendments.

Table 9 gives the proportion of households in each of the income groups by region and State in 1991 and 1996. In general, the metropolitan areas of each State had the smallest proportion of households with low incomes and the highest proportion with high incomes. In 1996, about 20 per cent of the households in Canberra and Darwin had incomes greater than \$78,000 and less than 14 per cent had incomes under \$15,600. Among the state capital cities, Sydney had the greatest proportion of high income households (17.6 per cent) and the smallest proportion of low income households (18.6 per cent). About a quarter of the households in Hobart, Adelaide and Perth had incomes under \$15,600 in 1996.

In the non-metropolitan areas of most States, the 1996 income distribution was strongly skewed to low income households. In Victoria, Tasmania and South Australia, around 30 per cent of households in regional towns and in rural towns had low incomes, while less than 5 per cent of households earned more than \$78,000. Apart from the capital cities, regional towns and rural areas in the Northern Territory and Western Australia had the greatest proportion of high income households and a relatively small proportion of low income households.

The trend in almost all States and regions between 1991 and 1996 was an increasing proportion of households with low incomes and an increasing proportion of households with high incomes, suggesting increased inequality of gross household income. It should be emphasised here that we are looking at *gross* household income (income before the payment of income tax). Income distributional analysts normally regard *disposable* household income as a better measure of the resources available to households, and there is some evidence that the income tax system has become more progressive and provided a countervailing force to growing inequality of gross income (Harding, 1997).

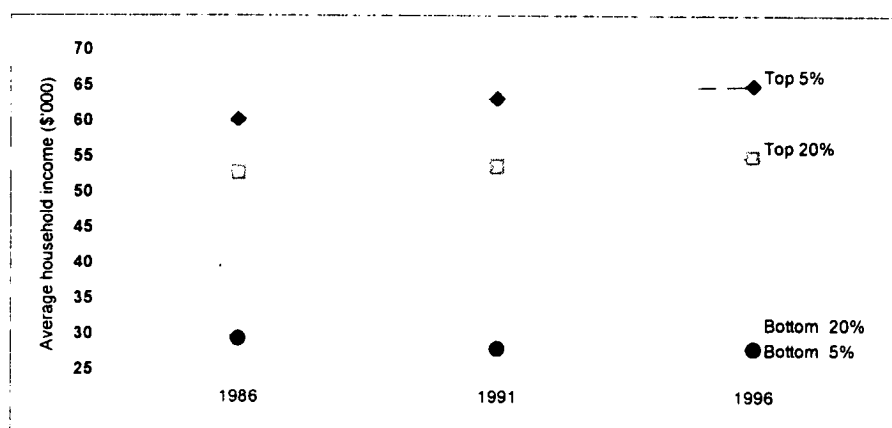
Figure 5 illustrates the change between 1991 and 1996 in the proportion of households with low and high incomes in each of the capital cities. During the five years ended 1996, slow economic growth and industry restructuring in

**Table 10.** Estimated Average Household Incomes and Income Growth in the Most Affluent and Least Affluent Local Government Areas, 1986, 1991 and 1996

	Average Household Income <sup>a</sup>			Income Growth		
	1986	1991	1996	1986-91	1991-96	1986-96
	\$	\$	\$	%	%	%
Top 5%	60 478	63 325	65 246	4.7%	3.0%	7.9%
Top 20%	52 978	53 689	55 311	1.3%	3.0%	4.4%
Bottom 20%	32 503	30 956	31 265	-4.8%	1.0%	-3.8%
Bottom 5%	29 566	28 157	28 090	-4.8%	-0.2%	-5.0%

<sup>a</sup> In 1996 dollars.

Source: ABS CDATA 1986, 1991 and 1996 with NATSEM amendments.



**Figure 6.** Estimated Average Household Incomes in the Most Affluent and Least Affluent Local Government Areas, 1986, 1991 and 1996

Data Source: ABS CDATA 1991 and 1996 with NATSEM amendments.

low incomes — close to 3.5 and 2.5 percentage points respectively. Melbourne also fared relatively poorly in the first half of the 1990s, with the proportion of households with low incomes increasing by 2 percentage points.

All state capitals except Adelaide, where the proportion of households with high incomes was stable, showed increases in the proportions of households with high incomes. In Sydney, Brisbane and Perth growth was particularly strong — 1.5 percentage points or more.

In the top 5 per cent of LGAs average real household income grew by about 8 per cent from around \$60,500 in 1986 to \$65,250 in 1996 (Figure 6), with strong growth in both the second half of the 1980s and the first half of the 1990s. In the top 20 per cent of LGAs average household income grew by 4.4 per cent in the same period. The average household income in the bottom 5 per cent of LGAs

decreased by 5 per cent from about \$29,550 in 1986 to \$28,100 in 1996. There was a particularly large fall in income between 1986 and 1991 and a smaller drop over the subsequent five years. LGAs in the bottom quintile suffered a significant income fall between 1986 and 1991 but recovered slightly by 1996.

These figures suggest that households in the most affluent LGAs got significantly richer while those in the poorest LGAs suffered a strong decline in income.

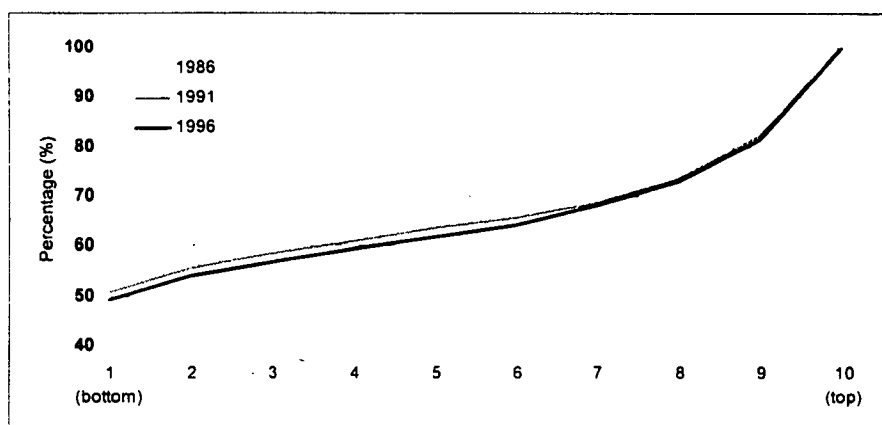
### **6.2 Is There Growing Income Inequality *Between* Regions?**

Answering this question is a complex task and the results of the analysis can be regarded as only broadly indicative. For the analysis we have calculated the average needs-adjusted gross household income in each LGA in Australia. We used the OECD equivalence scale to adjust incomes, so that we could compare the incomes of LGAs with higher than average household sizes with those with a predominance of single person households. The population was then ranked by the average equivalent gross household income of the LGA in which they lived and divided into ten groups of equal size (deciles), so that the bottom decile consists of the 10 per cent of Australians who lived in the poorest LGAs.

The results suggest that during the first half of the 1990s there was an increase in the share of total household income accruing to the 10 per cent of Australians living in the most affluent LGAs. Figure 7 expresses the income share of each decile as a percentage of the top decile's share of total gross household equivalent income in 1986, 1991 and 1996. For example, in 1986 the income share of the poorest 10 per cent of the population, which was 7.44 per cent (Table 11), amounted to 54 per cent of the 13.70 per cent share held by the top decile.

By 1996 the income share of the bottom decile had decreased marginally to 7.35 per cent of the total pie. But the share of the top decile had increased substantially to 14.96 per cent. As a result, the bottom decile's share fell to less than half of the share of the top decile. In the decade to 1996, those in the middle income LGAs generally lost ground. Although the boom in incomes at the top end meant that people in all other LGAs lost ground relative to the top, the decline was generally greater for those living in the middle ranking LGAs. Interestingly, the change appears to have been much greater over the 1986–91 period than over the 1991–96 period. This is in line with studies of income inequality at the national level that found growing inequality during the 1980s in Australia (for example, Saunders, 1993 and Harding, 1996).

Overall these results suggest a widening income gap between those living in affluent LGAs and those living in middle ranking LGAs. Although there is also a growing gap between those living in the poorest and richest LGAs, those at the very bottom appear to have fared somewhat better than those in the middle.



**Figure 7.** Share of Total Gross Household Equivalent Income Received by each Decile as a Percentage of the Share Received by Top Decile

**Note:** Individuals were ranked by the equivalent gross household income (in 1996 dollars) of the LGA in which they lived.

**Data Source:** ABS CDATA 1991 and 1996 with NATSEM amendments.

**Table 11.** Share of Total Equivalent Gross Household Income Received by Each Decile of Australians

Decile	1986	1991	1996
	%	%	%
1 (bottom)	7.44	7.46	7.35
2	8.28	8.17	8.07
3	8.86	8.62	8.49
4	9.17	8.98	8.92
5	9.48	9.36	9.28
6	9.86	9.69	9.60
7	10.41	10.11	10.20
8	10.85	10.81	10.94
9	11.95	12.10	12.19
10 (top)	13.70	14.70	14.96

**Note:** Individuals were ranked by the equivalent gross household income of the LGA in which they lived.



**Table 12.** Unemployment Rates in 1996 and Changes in Rates from 1991 to 1996, by State and Region

	<b>Capital Cities</b>	<b>Major Urban Areas</b>	<b>Regional Towns</b>	<b>Rural Towns</b>	<b>Rural Areas</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
<b>Unemployment Rates, 1996</b>					
New South Wales	7.6	12.1	11.6	13.8	9.7
Victoria	9.3	12.6	11.5	11.2	7.5
Queensland	9.0	12.0	10.6	10.2	8.9
South Australia	10.7		11.5	10.8	7.3
Western Australia	8.4		8.4	7.3	5.6
Tasmania	10.4		12.7	11.2	11.4
Northern Territory	7.5		5.8	11.3	8.2
Australian Capital Territory	7.5				7.1
Australia	8.7	12.1	11.0	11.3	8.5
<b>Percentage Point Change in Rates, 1991 to 1996</b>					
New South Wales	-2.9	-1.0	-1.6	-2.0	-2.2
Victoria	-2.9	-1.5	-1.6	-2.1	-2.4
Queensland	-1.7	-1.4	-1.5	-2.6	-1.9
South Australia	-1.1		-2.2	-2.0	-2.8
Western Australia	-4.6		-3.9	-5.7	-3.3
Tasmania	-2.4		-2.0	-2.4	-3.7
Northern Territory	-4.9		-3.7	-2.6	-3.7
Australian Capital Territory	0.1				0.1
Australia	-2.7	-1.2	-1.9	-2.5	-2.4

Source: ABS CDATA 1991 and 1996 with NATSEM amendments.

These results are similar to those of a NATSEM analysis of disposable income trends at the *national* level between 1982 and 1996-97, which were published in the newspaper *The Australian* from 17 to 23 June 2000 (Harding, 2000). This suggested that the bottom and top deciles had fared better than the middle deciles during this period. As a result, overall income inequality indexes suggested no change in income inequality during this period. While there are technical differences between the studies, the results in this paper suggest that the lack of change in *national* income inequality has been masking growing *spatial* inequality.

### 6.3 Regional Indicators of Inequality

An obvious question that follows from a study of regional income inequality is why the regional and state variation exists and what factors are causing the gap

**Table 13.** Proportion of Workers in Each Region by the Industry in Which They Were Employed in 1996 and Changes from 1991 to 1996

	<b>Capital Cities</b>	<b>Major Urban Areas</b>	<b>Regional Towns</b>	<b>Rural Towns</b>	<b>Rural Areas</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
<b>Proportions in Selected Industries, 1996</b>					
Agriculture	0.6	0.6	3.7	9.6	32.1
Mining	0.4	1.3	3.0	1.8	2.0
Manufacturing	13.6	13.1	11.6	11.1	8.3
Electricity, gas and water	1.1	1.3	2.1	1.9	1.0
Construction	6.0	7.5	6.8	6.2	5.4
Retail and wholesale trade	19.8	20.5	21.1	17.3	12.6
Transportation and storage	4.5	4.1	4.3	4.6	3.1
Communication	2.3	1.5	1.6	1.8	0.9
Financial, property and business services	13.5	10.4	7.6	5.0	4.2
Public administration	4.9	4.6	4.6	7.6	3.8
Private and government services	27.4	30.2	29.6	28.7	21.4
<b>Percentage Point Change in Proportions in Selected Industries, 1991 to 1996</b>					
Communication	0.5	0.2	0.1	0.2	0.0
Financial, property and business services	2.5	5.1	1.7	0.6	0.0
Public administration	-1.1	-0.5	-0.6	0.9	-0.2
Private and government services	2.4	3.9	2.9	1.5	3.2

Source: ABS CDATA 1991 and 1996 with NATSEM amendments.

to grow. A conclusive empirical study is beyond the scope of this paper, but in this section we present indicators that may be related to the income divide.

### *Unemployment*

In 1996 unemployment was highest in the major urban areas outside capital cities — 12.1 per cent. Regional and rural towns also had unemployment rates greater than 11 per cent. Unemployment rates were lowest in rural areas (8.5 per cent) and in the capital cities (8.7 per cent) (Table 12).

The 1996 unemployment picture varied greatly among the States and Territories. In Tasmania, the unemployment rate was in double figures in all regions. With the exception of rural areas, the situation was the same in South Australia. Although unemployment rates were relatively low in Sydney, Melbourne and Brisbane, the other areas of New South Wales, Victoria and Queensland suffered high levels of unemployment. The unemployment rates in regional and rural New South Wales were higher than the corresponding regions of every other State or Territory except Tasmania. The prosperity in most regions of Western Australia and in the Territories is again reflected in low unemployment rates.

**Table 14.** Proportion Employed in Managerial or Professional Positions and Adults with Post-secondary Education by Region in 1996, and Percentage Point Changes from 1991 to 1996

	<b>Capital Cities</b>	<b>Major Urban Areas</b>	<b>Regional Towns</b>	<b>Rural Towns</b>	<b>Rural Areas</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
Proportion of people employed as managers & professionals in 1996	<b>27.9</b>	22.3	<b>20.8</b>	20.5	<b>40.5</b>
Percentage point change, 1991 to 1996	<b>1.9</b>	1.1	<b>-0.2</b>	-2.1	<b>-3.3</b>
Proportion of adults with post-secondary education in 1996	<b>10.3</b>	8.8	<b>6.3</b>	3.8	<b>4.9</b>
Percentage point change, 1991 to 1996	<b>0.2</b>	0.1	<b>-0.1</b>	0.0	<b>-0.3</b>

**Source:** ABS CDATA 1991 and 1996 with NATSEM amendments of Western Australia and in the Territories is again reflected in low unemployment rates.

Between 1991 and 1996, unemployment decreased in all regions except the ACT, but overall the drop was largest in the capital cities (Table 12). Rural regions also had significant drops in unemployment but, in the case of rural towns, the drops were from very high figures in 1991. Most major urban areas and regional towns had much smaller decreases in unemployment rates.

The picture by State again shows significant variation. There tends to be a negative correlation between the change in real household income and the change in the unemployment rate — regions with strong income growth have also had sharp falls in their unemployment rates. The strongest falls occurred in all regions of Western Australia and the Northern Territory, and rural Tasmania. While both Sydney and Melbourne had strong falls in unemployment, the other areas of both New South Wales and Victoria, particularly the major urban areas and regional towns, did not fare as well.

### **Regional Industries**

The capital cities have relatively large (and growing) shares of people employed in 'new economy' industries such as communication and finance, property and business services (Table 13). In other regions, traditional industries such as agriculture, mining and retail and wholesale trade are more dominant. Surprisingly, in 1996 the proportion of people employed in public administration and private and government services was not significantly different between capital cities and other regions, though it was somewhat less in rural areas. Between 1991 and 1996 there was no clear trend in the proportion of people employed in these industries (Table 13). The figures do not seem to support claims of a decline in government services in regions outside metropolitan areas.

Indeed, on this basis it seems that capital cities have not done any better.

#### 6.4 Other Variables

Two socioeconomic variables — the proportion of managers and professionals and the proportion of adults with post-secondary qualifications — show significant differences between the capital cities and other regions.

Almost 28 per cent of workers in capital cities in 1996 were managers and professionals (Table 14). In regional and rural towns, only one-fifth of workers were in this category. The proportion was much higher in rural areas, as farmers manage their own properties. Managers and professionals generally have higher incomes than other workers. The fact that fewer people in non-metropolitan regions are managers or professionals is a significant factor in the income gap between cities and the regions. Also significant was the change in the proportion of managers and professionals by region between 1991 and 1996. In capital cities, the proportion of managers and professionals increased by almost 2 per cent, but in regional and rural towns and rural areas the proportion declined.

In 1996 over 10 per cent of adults in capital cities had post-secondary education, compared with 6.3 per cent in regional towns and 4.9 per cent in rural areas (Table 14). Capital cities also have a much higher proportion of people with tertiary qualifications. Between 1991 and 1996, the proportion of people with post-secondary education in capital cities and other major urban areas increased, while in other regions it decreased.

### 7. SUMMARY AND CONCLUSIONS

There is a large and growing gap between the incomes of those Australians living in the capital cities and those living in the rest of Australia. The incomes of metropolitan residents increased at about double the rate of those living in major urban centres and regional and rural towns in the five years to 1996. However, people living in rural areas (not rural towns) enjoyed by far the strongest income increase between 1991 and 1996.

The results indicate that 'regional Australia' is not uniformly disadvantaged and not uniformly declining. The biggest losers appear to be the residents of small rural towns rather than residents of rural areas.

The picture for regions aggregated across Australia hides the very different experiences of particular States and regions. Income inequality between regions becomes more apparent when the States and Territories are analysed separately. While incomes grew strongly in Sydney and Melbourne between 1991 and 1996, the growth was not as strong in most other areas of New South Wales and Victoria. Both Western Australia and Queensland had strong growth in most regions. In rural South Australia and Tasmania incomes increased substantially, but in other areas of both States real incomes were stagnant or even declined. These results mirror those found by the Department of Family and Community Services (1999).

Not only did the income gaps between regions increase in the 1990s, income inequality within regions also increased. The proportion of households in the middle income ranges declined while the proportions in the high and low income ranges rose — evidence again of the hollowing out of 'the middle' found in other

income distribution studies.

Non-metropolitan areas had a much higher proportion of low income households than did the capital cities and a lower proportion of high income households. The proportion of low income households grew more slowly in the capital cities than in the rest of Australia (except rural areas) during the 1991–96 period, while the proportion of high income households grew more rapidly.

An analysis of high and low income local government areas suggested that spatial income inequality increased in Australia between 1991 and 1996. Average household income grew strongly in the most affluent LGAs and declined in the poorest LGAs.

Between 1986 and 1996 the share of income received by the 10 per cent of the population living in the most affluent LGAs increased sharply, while the share of total income received by the bottom 70 per cent declined.

It should be added, of course, that income levels and income distribution form only part of a measure of economic and social disadvantage. This paper examined some indicators related to income inequality but extensive analysis is beyond the scope of this paper. It is important to note that average household income is not necessarily a good measure of quality of life. Costs for some items in rural regions are much lower than in the cities. For example, renters in rural towns paid an average weekly rent of \$90 in 1996 compared with an average of \$140 in the capital cities (\$168 in Sydney). Conversely, other items such as petrol and some food can cost more in rural and regional centres than in the cities. Factors such as health status and crime rates are also important factors to consider when examining social disadvantage.

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