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**RURAL LABOUR MARKETS IN AUSTRALIA**

**A REVIEW**

**Jeff Borland**

**DISCUSSION PAPER NO. 383**

**March 1998**

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**CEPR DISCUSSION PAPER NO. 383**

**RURAL LABOUR MARKETS IN AUSTRALIA - A REVIEW**

**Jeff Borland**

**March 1998**

**The Executive Summary and the Figures reproduced on the following pages were omitted in error from Discussion Paper No. 383**

**Please retain them with the Paper.**

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## EXECUTIVE SUMMARY

This paper reviews recent developments in rural labour markets in Australia. It examines trends in employment and unemployment in labour markets in capital city and non-capital city areas, and employment trends in the agriculture industry in Australia.

A number of main findings emerge from the study:

- From the mid-1970s onwards the share of population in rural areas in Australia has increased (thereby reversing a long-term trend towards greater urbanisation of the population).
- In the mid-1990s full-time employment/population rates and labour force participation rates in Australia are generally higher in urban areas than in rural areas. In most states, rates of unemployment are higher in rural than in urban areas.
- Differences in the employment/population rate and the rate of unemployment between urban and rural areas tend to be fairly stable over time. An exception is the most recent economic recovery (and in particular the period between August 1995 and August 1997) where changes in employment and unemployment outcomes have been noticeably worse in rural areas than urban areas in New South Wales and Victoria.
- There is considerable diversity in unemployment outcomes between disaggregated regions within rural areas and urban areas. In fact, differences across regions within rural areas and urban areas are much larger than differences in average rates of unemployment between urban and rural areas. Inter-regional differences in rates of unemployment tend to move counter-cyclically.
- Continuing a long-term trend the proportion of total employment in Australia in the agriculture industry decline in the 1980s and 1990s.
- The shares of female employment and part-time employment in agriculture have increased since the mid-1980s. And the composition of employment has shifted towards wage and salary earners and unpaid helpers and away from employers and self-employed.
- The trend towards an older workforce in agriculture had continued since the mid-1980s, and has been stronger in agriculture than in other industries.
- Average job tenure is longer workers in agriculture than in other industries although no long-term trend in job tenure is evident.

Figure 1a: Employment/Population Rate - NSW - 1983/1 to 1997/3

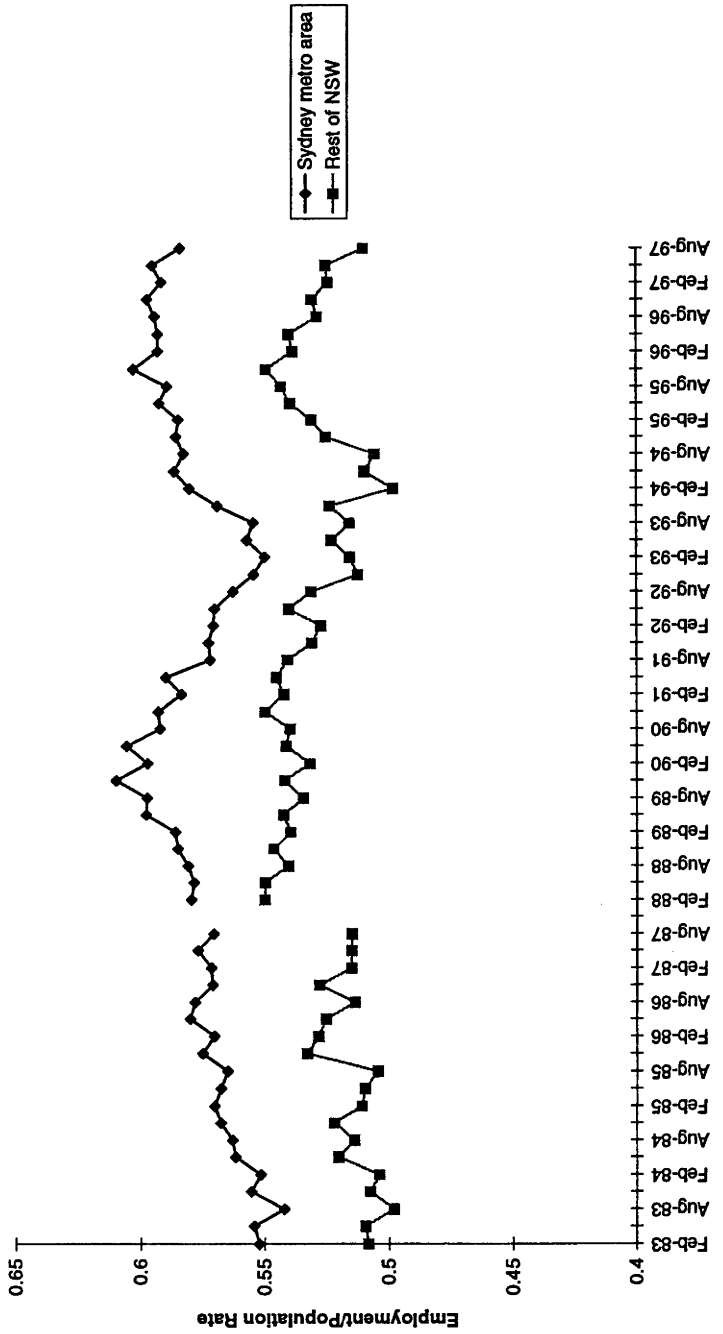


Figure 1b: Rate of Unemployment - NSW - 1983/1 to 1997/3

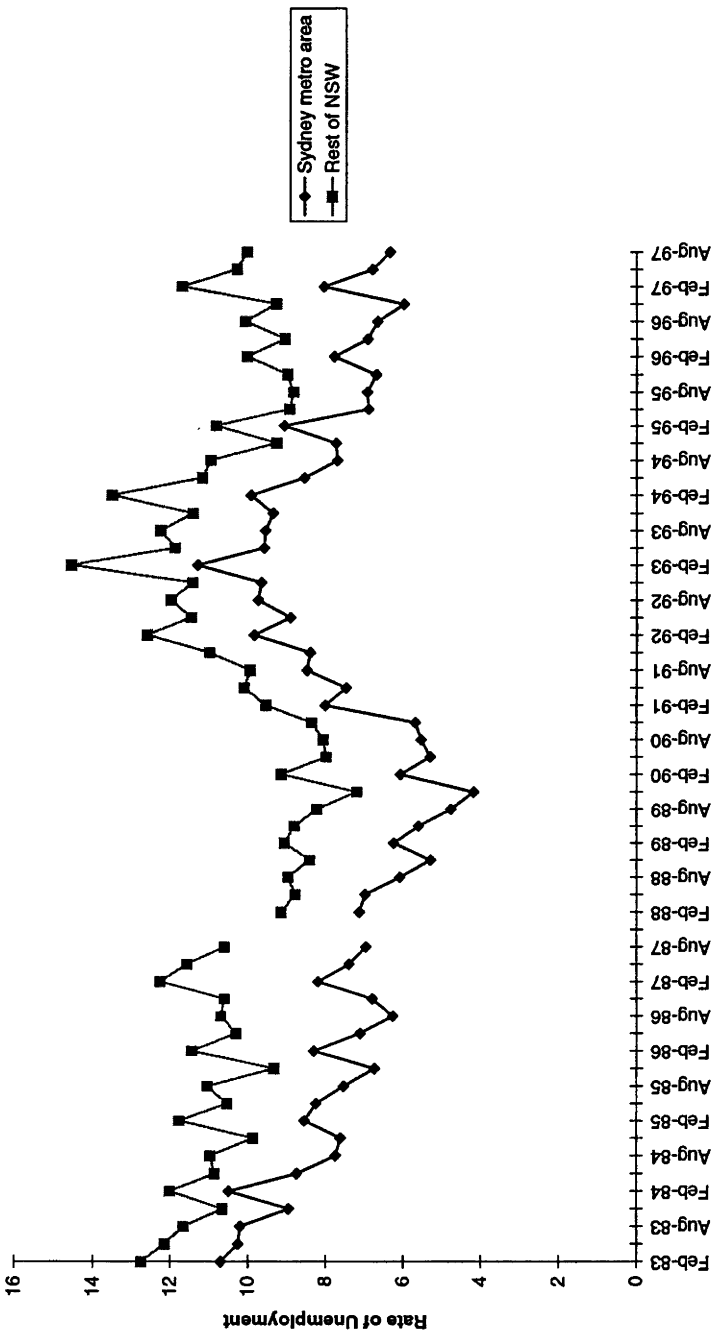
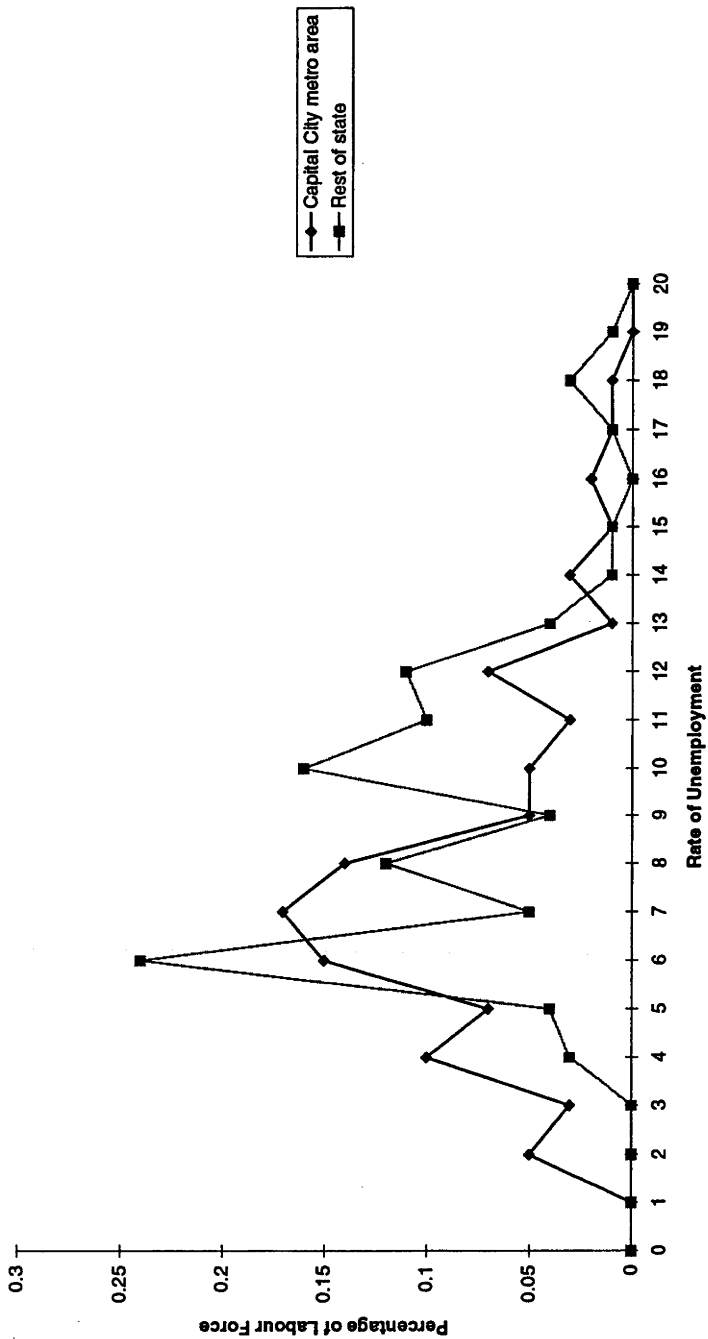
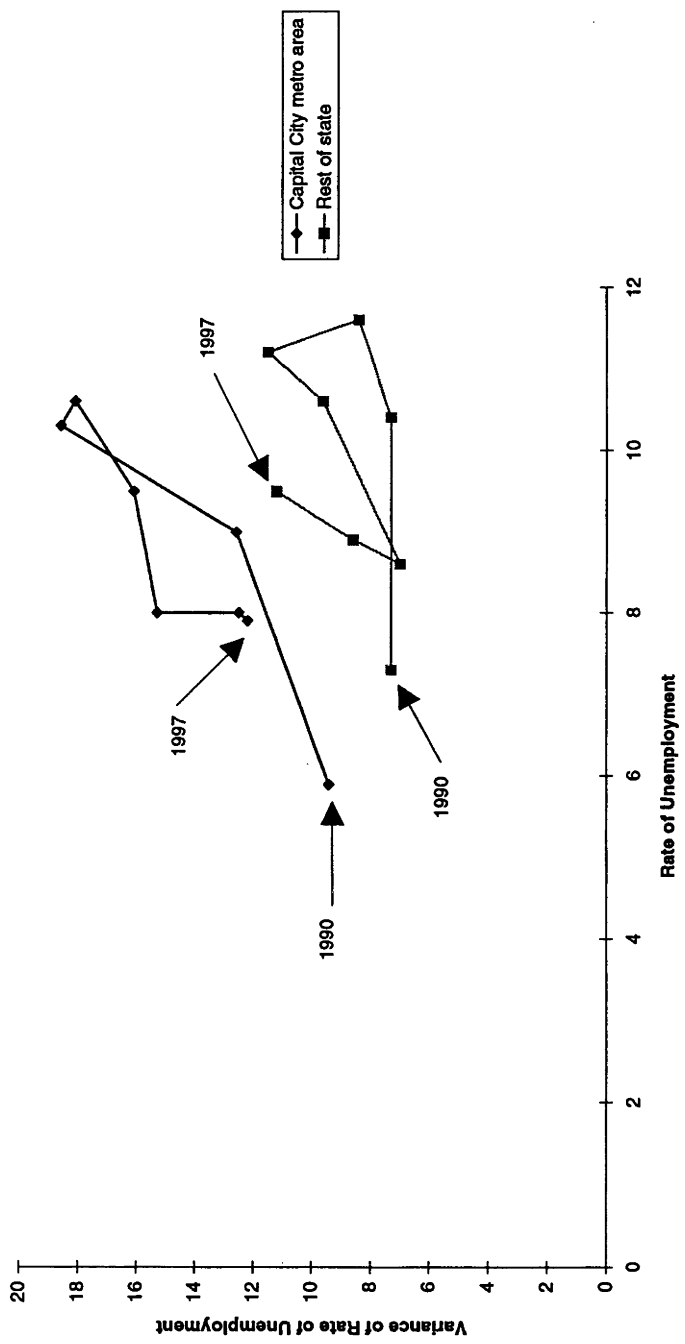


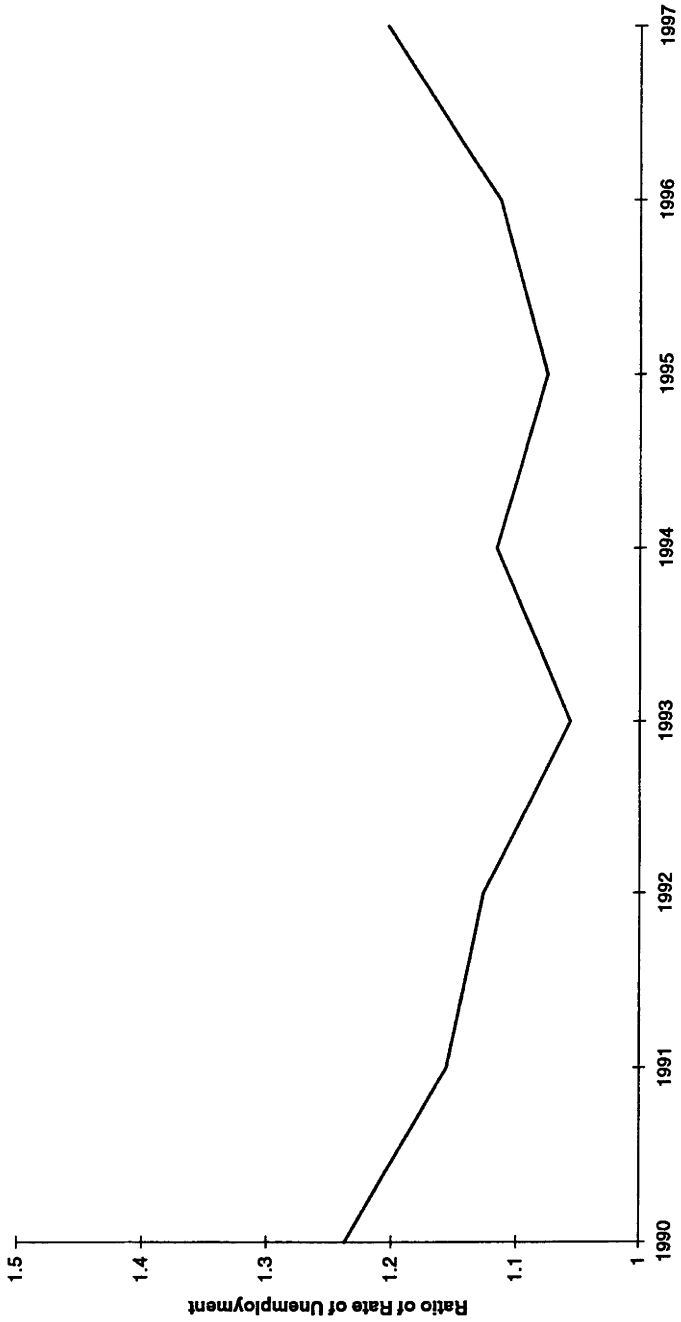
Figure 2: Distribution of Rates of Unemployment - DEETYA Region Labour Markets - Australia - 1997



**Figure 3: Rate of Unemployment and Variance of Rate of Unemployment - DEETYA Region Labour Markets - Australia - June 1990 to June 1997**



**Figure 4: Ratio of Rate of Unemployment in Rest of State to Rate of Unemployment in Capital City Area - Australia - June 1990 to June 1997**



**RURAL LABOUR MARKETS IN AUSTRALIA  
A REVIEW\***

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## 1. Introduction

The history of rural labour markets in Australia is a history of continuous adjustment to external pressures - most notably, labour-saving technological change. As a result of these external pressures aggregate farm employment decreased by about 25 per cent between the early 1950s and the early 1980s (NFF, 1996, p.6).

In the past 15 years there have been added external pressures on rural labour markets. First, trade liberalisation and a range of other factors have caused reductions in employment in the textile, clothing and footwear industries. A significant share of employment in these manufacturing industries has been located in rural regions, and hence the decline of those industries would be expected to affect rural labour markets. Second, reform of the government sector which has occurred in some states - such as amalgamations of local governments and reductions in public infrastructure employment in Victoria - is likely to have affected employment in rural labour markets. Third, product market reform, and in particular deregulation of agricultural markets, has caused pressures in rural labour markets.

All labour markets - urban and rural - have of course been subject to the same types of pressures from microeconomic reform. However, there is some reason to think that the impact is likely to have been greater, and adjustment to the pressures harder to accomplish, in rural than urban areas. Consider the example of the closure of a clothing production plant. The small size, and limited industrial composition of rural labour markets is likely to make adjustment to any plant closure a more prolonged and costly process than in an urban labour market (see Borland, 1998).

All this suggests that understanding recent developments in rural labour markets is a subject of considerable interest. This study has as its main objectives:

- To review existing literature on trends in rural labour markets prior to the mid-1980s; and
- To describe the main changes in characteristics of rural labour markets since the mid-1980s.

Two alternative approaches to defining the scope of rural labour markets are applied. The first approach is spatial or geographic. Primarily this approach involves adopting the Australian Bureau of Statistics (ABS) distinction between the metropolitan area around and including the capital city and the rest of the area in each state. The second approach is industry-based. It involves analysing the ABS industry groups 'agriculture' and 'services to agriculture'.

To what extent do these definitions provide the same or alternative representations of rural labour markets at an aggregate level? Table 1 illustrates the overlap between

the definitions using the example of NSW in 1996. It is evident that agricultural employment is concentrated in non-metropolitan areas. However, agricultural employment is only a small share of total non-metropolitan employment. In particular, wholesale/retail trade and government sectors account for a large proportion of total non-metropolitan employment.

Although the approach taken in this paper is to study aggregate labour market outcomes in rural and urban regions, it is of course important to note that these aggregate rural and urban regions in each state are composed of many smaller 'local' labour markets. Economists concerned with the microeconomics of labour markets would generally define a 'local' labour market as a geographic area within which some set of workers directly compete for jobs and firms compete for those workers. With this 'local' labour market definition areas such as Mt.Isa or Albury-Wodonga could be defined as independent labour markets. However, for the purposes of reviewing recent developments in rural labour markets on an Australia-wide basis, it is the approach of studying labour market outcomes in aggregate rural and urban regions in each state which is emphasised in this study.

Section 2 of the paper presents an overview of recent literature on rural labour markets. Section 3 summarises recent developments in rural labour markets using the spatial approach to defining rural labour markets. And Section 4 reviews developments using the industry-based definition of a rural labour market.

## **2. Review of literature**

This section describes the main characteristics of rural labour markets, and summarises key developments in rural labour markets between the 1960s and mid-1980s (see Powell, 1985a, Lewis, 1990, and NFF, 1995).

### **2a. Main characteristics**

A number of distinct characteristics of rural labour markets can be identified (for example, Powell, 1985b):

- Rural labour markets are highly diverse. Large differences exist between individual rural labour markets in, for example, size of population and in main economic activity.
- Most rural labour markets will have small population sizes and low population density relative to urban labour markets.

- A high level of specialisation exists in rural labour markets. Individual rural labour markets are likely to be mainly dependent on a single economic activity - for example, agriculture, mining, or tourism. The high level of specialisation means that total employment in a rural labour market is likely to vary seasonally, or according to supply and demand conditions which affect employment in the main economic activity. Together with the small size of rural labour markets, the lack of 'depth' in employment opportunities is likely to make it more difficult for adjustment to changes in external conditions to occur in rural labour markets.
- The composition of employment in rural labour markets differs from urban labour markets. For example, a much higher proportion of total employment in rural labour markets is accounted for by self-employment than in urban labour markets.

## **2b. Trends - 1960s to 1980s**

The proportion of the Australian population living in rural areas has increased slightly since the mid-1970s. This represents a reversal of a long-term trend towards greater urbanisation. Table 2 shows that between 1976 and 1991 the population share in urban areas in Australia has declined from 86.1 per cent to 85.3 per cent. Similar trends are evident in most states.

Aggregate employment in the agriculture industry has exhibited a long-term downward trend. Table 3 shows that the size of the farm labour force declined from the 1950s to 1970s before increasing slightly during the 1980s. Together with a decrease in the number of farms in Australia and an increase in the amount of land used for agriculture, the decline in farm employment means that there has been a decrease in labour input per unit of farm land.

The composition of the workforce in agriculture changed significantly between the 1960s and 1980s. First, the average age of the workforce and its average level of educational attainment increased (NFF, 1995, p.22, and Weinand, 1985, p.16). Second, the proportion of females employed in agriculture rose, and the importance of part-time employment grew. For example, Table 4 shows that the share of employment in agriculture accounted for by males in full-time jobs declined from 83.3 per cent to 63.4 per cent; whereas female part-time employment increased from 4.1 per cent to 15.6 per cent. Third, employment in agriculture shifted towards unpaid labour and away from self-employment. There was also an increase in casual labour, and an increase in off-farm work (NFF, 1995, p.17 and Powell, 1985b, p.303).

During the period between the 1960s and 1980s some degree of 'convergence' between rural and urban labour markets occurred. For example, the growth in female

participation in rural labour markets narrowed the gap between rural and urban regions in female labour force participation rates.

### **3. Recent developments in rural labour markets I - Spatial**

A first perspective on recent developments in rural labour markets can be obtained by adopting a spatial or geographic definition of a rural labour market. The main question which arises with this approach is of course - what spatial areas should be defined as rural? Unfortunately, there is not a straightforward answer to this question. A number of issues arise in seeking a spatial definition of rural labour markets - for example, should we define rural areas as anywhere outside a capital city, or only as those areas outside a capital city with population below some threshold?, and resolving each of these issues requires subjective judgements. If it is difficult to come up with an ideal theoretical definition of a rural labour market, it is even more difficult to undertake empirical analysis of a rural labour market using a spatial approach. This is because it is necessary to work with existing data which are likely to have been collected for regions which do not match exactly with the ideal theoretical definition of a rural labour market.

In this study - to match with available data sources - the definition of a rural labour market applied is the region outside the capital city metropolitan area in a state. Two main types of data are applied to study rural labour markets from this perspective:

- ABS Labour Force Survey - Information on employment, unemployment, labour force and population disaggregated by capital city metropolitan area and rest of state for NSW, Victoria, Queensland and SA between 1983 and 1997.
- DEETYA Small Area Labour Markets - Information on the rate of unemployment disaggregated by DEETYA regions (aggregated to capital city metropolitan area and rest of state) for NSW, Victoria, Queensland, SA and WA between June 1990 and June 1997.

An appendix provides further details on the data sources, and on the definition of capital city metropolitan area and rest of state for each data source.

Current labour market outcomes in rural and urban labour markets are characterised in Table 5 using the ABS Labour Force data. There is a somewhat - although not totally - general finding that the proportions of the population in full-time employment and in the labour force are higher in urban than rural areas. This is the case for males and females in NSW and Victoria and for females in Queensland, but not for males in Queensland or for males or females in SA. Large differences do not

appear to exist between urban and rural areas in the proportions of population in part-time employment or unemployed.

'Gaps' between employment and labour force outcomes in urban and rural areas in each state tend to be fairly stable over time. For example, Figures 1a and 1b show the employment/population rate and rate of unemployment in rural and urban areas in NSW between 1983 and 1997. It is evident that employment and the rate of unemployment in both urban and rural areas display a common cyclical pattern over time. However, the rural/urban 'gap' in each series appears to remain relatively constant in most time periods.

To examine in more detail how cyclical fluctuations might differ between rural and urban areas Table 6 shows changes in the employment/population rate, labour force participation rate, and rate of unemployment for rural and urban areas across cyclical phases in the Australian economy since the early 1980s. During the economic recovery of 1983 to 1989, and the recession of 1989 to 1993, rural and urban labour markets in each state display broadly similar trends in labour force outcomes. Perhaps the only difference is that the size of cyclical fluctuations in employment and the labour force are a little smaller in rural areas than urban areas over this period. In the recovery from 1993 onwards however the pattern of similarity between rural and urban areas appears to have broken down somewhat in NSW and Victoria (while remaining the same in Queensland). In those states increases in the employment/population rate since 1993 have been much less strong in rural than urban areas. This difference is most notable in the period from August 1995 to August 1997 where, for example, in NSW the employment/population rate in urban areas decreased by 0.5 per cent and in rural areas by 3.3 per cent.

To identify more accurately where the recent slow-down in rural employment in NSW and Victoria has occurred, Table 7 presents information on the employment/population rate, and rate of unemployment in disaggregated rural areas in August 1995 and August 1997 in those states. In NSW the main sources of the decrease in the employment/population rate and increase in unemployment have been the Richmond-Tweed/Mid-north coast, Murray/Murrumbidgee, and Northern/Far west/Central west areas. In Victoria declines in the employment/population rate and increases in unemployment have been concentrated in the Barwon-Western and All Gippsland areas.

The apparent slow-down in employment in rural areas in NSW and Victoria could be explained by a number of factors. First, it may be that region-specific factors affecting agricultural output in those rural areas (for example, adverse weather conditions) have had a negative impact on employment. Second, it may be that some

of the factors discussed in the introductory section - such as reform of the government sector - have had a particular impact on the regions identified in NSW and Victoria. Third, the slower rate of growth in employment in rural than urban areas over the past two years may be evidence that the impact of the business cycle has a lagged effect on rural labour markets relative to urban labour markets in NSW and Victoria. Further investigation would of course be required to draw definitive conclusions on employment trends in urban areas and rural areas, and to identify explanations for those trends.

Disaggregated information on rates of unemployment within urban and rural areas is also available from the DEETYA Small Area Labour Markets data. Table 8 presents descriptive information on rates of unemployment in disaggregated DEETYA regions in urban and rural areas in June 1997. Perhaps the most notable feature is the extent of diversity in rates of unemployment in DEETYA regions within both urban and rural labour markets. Differences in rates of unemployment across DEETYA regions in either urban or rural areas are much larger than differences in average rates of unemployment between those areas. For example, in June 1997 average rates of unemployment in urban and rural areas of NSW were 7.0 per cent and 9.2 per cent. At the same time, within the rural area of NSW rates of unemployment varied from 4.9 per cent in the Goulburn region to 13.5 per cent in the Coffs Harbour region. The extent of dispersion in the distribution of rates of unemployment within urban and rural areas is also evident from Figure 2 which presents labour force-weighted frequency distributions for rates of unemployment in DEETYA regions in urban areas and rural areas.

One factor which appears to have an important effect on the extent of dispersion in rates of unemployment across urban areas and rural labour markets is the state of the business cycle. Figure 3 presents the average rate of unemployment and variance of rates of unemployment for urban areas and rural areas in Australia from 1990 to 1997. It is evident that the extent of differences in rates of unemployment between DEETYA region labour markets is counter-cyclical; that is, in both urban and rural labour markets in Australia the variance of the rate of unemployment is positively related to the average rate of unemployment.

The issue of movements over time in relative rates of unemployment in rural and urban areas can also be addressed using the DEETYA region data. Figure 4 shows the ratio of the rate of unemployment in rural areas to urban areas in Australia between 1990 and 1997. It appears that the ratio has increased between 1995 and 1997 - although this trend must be considered in the context of a decline in the ratio of rates of unemployment from 1990 to 1993. Information on the rate of unemployment in

rural areas relative to urban areas at the state-level is presented in Table 9. Consistent with the Labour Force Survey data it appears that most of the upward movement in the rate of unemployment in rural areas relative to urban areas in Australia between 1995 and 1997 has been due to changes in NSW and Victoria.

#### **4. Recent developments in rural labour markets II - Agriculture**

A second perspective on rural labour markets can be obtained from analysis of trends in employment in the 'agriculture' and 'services to agriculture' industries. Trends in employment outcomes in those industries are examined for time periods between 1983 and 1996.

The proportion of total employment in Australia in the agriculture industry has declined steadily in the 1980s and 1990s. Table 10 shows that between 1983 and 1986 the share of total employment in agriculture and services to agriculture declined from 6.2 per cent to 4.8 per cent.

The direction of changes in the composition of the workforce and in the types of jobs in the agriculture industry have been much the same in the period since the mid-1980s as in the preceding decades.

The share of employment in agriculture accounted for by full-time male employment has decreased, whereas the shares of part-time male, and part-time and full-time female employment have increased. For example, Table 11 shows that between 1983 and 1996 the share of male employment declined from 74.8 per cent to 69.1 per cent. These changes in workforce composition are not however unique to agriculture. From Table 11 it is evident that changes in workforce composition in the agriculture industry have been broadly similar to changes in all industry groups in Australia.

The distribution of employment between different job categories has also changed quite dramatically in the agriculture industry since the mid-1980s. Most notably, Table 12 shows that the proportion of self-employed persons in agriculture declined from 50.7 per cent to 42.4 per cent, whereas the proportion of wage and salary earners increased from 31.1 per cent to 39.8 per cent. There was also a small decrease from 13.9 per cent to 11.5 per cent in the proportion of employers, and a similar increase from 4.3 per cent to 6.3 per cent in the proportion of unpaid helpers. From Table 12 it is evident that these trends in employment have not occurred in other industries where there has been little change in the proportions of employed persons in different job categories.

The workforce in agriculture is older on average than in other industries. Moreover, the period since the mid-1980s has seen a further increase in the average age of the workforce in agriculture - both in absolute terms and relative to all industries. For example, Table 13 shows that the proportion of employed persons aged 45 years and above increased between 1983 and 1996 from 39.5 per cent to 46.5 per cent in agriculture, but from only 25.7 per cent to 29.7 per cent in all industries.

Workers in the agriculture industry have a longer average job tenure than in other industries. Table 14 shows that in 1996 the percentage of workers who had been in their current job for more than 10 years was 45.7 per cent in agriculture compared to 23.3 per cent for all industries. At the opposite end of the tenure profile only 15.6 per cent of workers in agriculture had been in their current job for less than one year compared to 23.4 per cent for all industries. There does not appear to be any strong trend in job tenure evident for workers in agriculture or in all industry groups in the period since the mid-1980s.

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**Table 1: Share of Employment by Industry by Region - NSW - 1996**

Industry	a. Share of Employment in Region by Industry:		b. Share of Employment in Industry by Region:	
	Sydney Metro	Non-Metro	Sydney Metro	Non-Metro
Agriculture	0.7	10.8	10.7	89.3
Mining	0.2	2.1	15.7	84.3
Manufacturing	14.0	11.9	68.5	31.5
Wholesale/ Retail Trade	21.4	21.0	65.2	34.8
Health/Education/ Community Service/Govt.	19.2	21.2	62.5	37.5
Finance/Property/ Business Services	17.9	8.6	79.3	20.7
Accommodation	4.4	5.3	60.2	39.8
Transport/Storage	7.6	5.8	70.8	29.2
Other	14.6	13.3		
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>64.8</b>	<b>35.6</b>

Note: Percentages are averages over February, May, August and November.

Source: ABS, Labour Force, New South Wales, catalogue no.6203.1, February, May, August, November 1997.

**Table 2: Proportion of Population in Urban Areas - Australia - 1961-1991**

a. AUSTRALIA								
Census Year								
1961	81.9							
1966	83.1							
1971	85.7							
1976	86.1							
1981	85.8							
1986	85.5							
1991	85.3							

b. STATE								
Census Year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
1961	85.4	85.0	76.0	79.1	73.5	70.5	39.8	96.0
1966	86.5	85.6	76.5	82.5	76.0	70.4	53.7	96.1
1971	88.7	87.8	79.5	84.7	81.7	74.3	64.4	97.8
1976	88.9	87.9	80.3	85.0	83.7	75.1	66.8	98.4
1981	88.2	87.9	79.2	84.9	84.7	75.2	74.6	99.0
1986	88.0	87.5	79.0	84.7	84.9	74.5	72.1	99.1
1991	87.7	87.0	79.9	85.1	85.7	72.3	67.6	98.6

Source: ABS, Australian Demographic Trends 1997, catalogue no.3102.0.

**Table 3: Rate of Change in the Farm Labour Force -  
Australia - 1950s to 1980s**

<b>Decade</b>	<b>Annual average rate of change:</b>
1950s	-0.51
1960s	-1.23
1970s	-1.38
1980s	0.58

Source: NFF (1995, Table 1.1).

**Table 4: The Composition of the Farm Workforce -  
Australia - 1968-1988**

<b>Year:</b>	<b>1968</b>	<b>1988</b>
<b>a) Share of Employment by Gender and Hours of Work:</b>		
<b>Males:</b>		
Full-Time	83.3	65.4
Part-Time	3.4	5.2
<b>Females</b>		
Full-Time	9.2	13.8
Part-Time	4.1	15.6
<b>b) Share of Employment by Type of Job:</b>		
<b>Males:</b>		
Employer and Self-employed	54.3	42.6
Wage and salary earner	31.0	24.8
Unpaid helper	1.4	3.2
<b>Females:</b>		
Employer and Self-employed	6.5	19.0
Wage and salary earner	4.3	7.5
Unpaid helper	2.5	2.9

Source: Author's calculations from NFF (1995, Table 1.5).

**Table 5: Composition of Population by Area of State -  
NSW, Victoria, Queensland and SA**

**Panel A - Percentage of population in capital city metro area and rest of state:**

	Capital City Metro Area	Rest of State
NSW (1996)	62.3	37.7
Victoria (1996)	72.1	27.9
Queensland (1996)	45.7	54.3
SA (1993)	73.7	26.3

**Panel B - Percentage of population by area of state by employment status:**

	Males:		Females:	
	Capital city metro area	Rest of state	Capital city metro area	Rest of state
<b>A. NSW (1996)</b>				
Full-time employment	61.1	55.6	32.2	23.6
Part-time employment	7.5	7.3	18.4	20.7
Unemployed	5.4	6.9	3.4	4.5
In labour force	74.0	69.8	54.0	48.8
<b>B. Victoria (1996)</b>				
Full-time employment	60.6	57.5	29.7	22.6
Part-time employment	7.4	8.2	20.2	23.6
Unemployed	6.6	6.8	4.8	4.9
In labour force	74.6	72.5	54.7	51.1
<b>C. Queensland (1996)</b>				
Full-time employment	60.5	59.6	30.7	26.2
Part-time employment	8.8	7.1	21.6	21.5
Unemployed	6.1	6.4	4.8	4.8
In labour force	75.4	73.1	57.1	52.5
<b>D. SA (1993)</b>				
Full-time employment	55.4	61.5	25.0	24.1
Part-time employment	7.3	7.1	20.8	23.3
Unemployed	9.1	6.9	5.3	3.8
In labour force	71.8	75.5	51.1	51.2

Note: Percentages are averages over February, May, August and November in each year.

Source: ABS, Labour Force, New South Wales and Australian Capital Territory, catalogue no.6201.1; ABS, Labour Force, Victoria, catalogue no.6202.0; ABS, Labour Force, Queensland, catalogue no.6201.3; and ABS, Labour Force, South Australia, catalogue no.6201.4.

Table 6: Changes in Labour Force by Area of State - NSW, Victoria, Queensland and SA - 1983 to 1997

	Employment/Population rate:		Labour Force Participation rate:		Rate of Unemployment:	
	Capital city metro area	Rest of state	Capital city metro area	Rest of state	Capital city metro area	Rest of state
<b>A. NSW</b>						
1983/2-1989/3	+4.3	+2.5	+1.0	+0.3	-5.5	-3.9
1989/3-1993/3	-4.3	-1.8	-1.4	+0.6	+4.8	+4.0
1993/3-1997/3	+3.0	-0.6	+1.0	-2.1	-3.2	-2.2
1995/3-1997/3	-0.5	-3.3	-1.0	-2.9	-0.6	+1.7
<b>B. Victoria</b>						
1983/2-1989/3	+6.4	+3.8	+3.0	+1.6	-5.8	-3.8
1989/3-1993/3	-6.9	-3.4	-1.9	+0.6	+8.4	+6.6
1993/3-1997/3	+2.9	-0.8	+0.7	-2.1	-3.8	-2.0
1995/3-1997/3	-0.3	-3.5	-0.2	-2.3	+1.0	+2.3
<b>C. Queensland</b>						
1983/2-1989/3	+6.0	+5.2	+3.9	+3.2	-3.7	-3.7
1989/3-1993/3	-2.8	-2.6	-0.2	-0.3	+4.3	+3.7
1993/3-1997/3	+2.4	+2.9	+1.4	+2.0	-1.9	-1.8
1995/3-1997/3	-0.3	+0.2	-0.3	+0.2	+0.1	0
<b>D. SA</b>						
1983/2-1989/3	+5.8	+2.5	+2.8	+1.1	-5.4	-2.5
1989/3-1993/3	-4.5	-0.6	-2.0	-0.2	+4.4	+0.6

Sources: ABS, Labour Force, New South Wales and Australian Capital Territory, catalogue no.6201.1; ABS, Labour Force, Victoria, catalogue no.6202.0; ABS, Labour Force, Queensland, catalogue no.6201.3; and ABS, Labour Force, South Australia, catalogue no.6201.4.

Table 7: Changes in Labour Force by Statistical Divisions -  
NSW, Victoria and Queensland - 1995/3 to 1997/3

	Average Share of Labour Force in Rest of State	Employment/ Population Rate - 1995/3	Employment/ Population Rate - 1997/3	Rate of Unemployment - 1995/3	Rate of Unemployment - 1997/3
<b>A. NSW</b>					
Hunter	14.9	50.9	51.0	9.6	10.7
Newcastle	12.8	50.4	49.3	10.4	11.2
Illawarra/South Eastern	18.0	52.9	53.1	10.7	9.3
Illawarra	11.7	49.6	49.7	13.0	10.2
Wollongong	9.0	53.3	51.6	13.0	10.3
Richmond-Tweed/Mid-north Coast	11.3	49.6	41.5	7.5	13.7
Northern/Far west/Central west	14.2	59.2	54.5	8.1	8.7
Murray-Murrumbidgee	8.1	64.8	58.7	5.9	7.9
<b>B. Victoria</b>					
Barwon-Western Central	27.7	56.6	51.1	9.7	13.1
Highlands/Wimmera	15.3	53.0	54.3	8.7	10.0
Loddon/Campaspe/Mallee	19.3	54.7	48.9	10.9	9.3
Goulburn/Ovens/Murray	20.5	59.8	58.0	5.4	7.2
All Gippsland	17.2	54.4	50.9	6.3	12.8
<b>C. Queensland</b>					
South & East Moreton	20.8	57.3	58.3	8.3	7.0
North & West Moreton	16.1	53.1	50.5	13.0	13.9
Wide Bay/Burnett	12.9	47.1	49.6	14.9	14.1
Darling Downs/South west	13.1	60.0	64.5	6.5	6.0
Mackay/Fitzroy/Central west	18.7	57.4	54.9	8.3	10.8
Northern/North-west	12.1	63.8	62.7	7.6	6.1
Far North	6.3	66.9	67.3	6.1	6.8

Sources: ABS, Labour Force, New South Wales and Australian Capital Territory, catalogue no.6201.1; ABS, Labour Force, Victoria, catalogue no.6202.0; ABS, Labour Force, Queensland, catalogue no.6201.3; and ABS, Labour Force, South Australia, catalogue no.6201.4.

**Table 8: Rates of Unemployment by State  
by DEETYA Region Labour Market - Australia - June 1997**

	Weighted Mean	Weighted SD	Min.	Max.	Number of Areas
<b>Australia</b>					
Capital city	8.0	3.3	2.5	18.1	100
Rest of state	9.6	3.2	4.6	19.4	72
<b>NSW</b>					
Capital city	7.0	3.6	2.5	16.8	38
Rest of state	9.2	2.4	4.9	13.5	14
<b>Victoria</b>					
Capital city	8.5	2.9	4.8	13.3	31
Rest of state	9.8	1.1	5.7	12.7	13
<b>Queensland</b>					
Capital city	9.5	2.7	4.8	16.1	14
Rest of state	11.2	2.4	5.3	19.4	23
<b>SA</b>					
Capital city	9.0	3.3	5.8	17.8	12
Rest of state	9.4	0.5	6.2	11.7	9
<b>WA</b>					
Capital city	6.6	1.4	4.2	10.4	5
Rest of state	7.3	1.0	4.6	11.2	13

Source: Department of Employment, Education, Training and Youth Affairs, Small Area Labour Markets, 1990-1997.

**Table 9: Rate of Unemployment - Ratio of Capital City Area to Rest of State -  
Australia - June 1990 to June 1997**

	NSW	Victoria	Queensland	SA	WA
1990	1.36	1.04	1.09	1.04	0.91
1991	1.35	0.95	1.19	0.97	0.95
1992	1.22	1.03	1.31	1.00	1.03
1993	1.22	0.99	1.20	0.96	0.99
1994	1.27	1.08	1.24	1.07	1.13
1995	1.12	1.08	1.17	0.93	1.03
1996	1.14	1.06	1.09	1.04	1.13
1997	1.31	1.15	1.17	1.04	1.09

Source: Department of Employment, Education, Training and Youth Affairs, Small Area Labour Markets, 1990-1997.

**Table 10: Percentage of Employment in Agriculture -  
Australia - 1983 to 1996**

Year	1983	1988	1993	1996
Males	7.4	6.5	6.0	5.8
Females	4.2	4.1	3.6	3.4
Persons	6.2	5.5	5.0	4.8

Note: a) Agriculture = agriculture + services to agriculture; and  
b) Percentages are averages over February, May, August and November in each year.

Source: ABS, Labour Force, Australia, catalogue no.6203.0.

**Table 11: Composition of Employment by Gender and Hours of Work -  
Agriculture and All Industries - Australia - 1983 to 1996**

**Share of Employment by Gender and Hours of Work:**

Year	1983	1988	1993	1996
<b>Agriculture</b>				
<b>Males</b>				
Full-Time	69.5	64.6	62.1	61.0
Part-Time	5.3	5.5	7.5	8.1
<b>Females</b>				
Full-Time	11.9	14.1	14.9	14.9
Part-Time	13.3	15.8	15.5	16.0
<b>All Industries</b>				
<b>Males</b>				
Full-Time	59.5	55.5	52.0	50.5
Part-Time	3.1	4.2	5.7	6.5
<b>Females</b>				
Full-Time	23.6	24.6	24.6	24.7
Part-Time	13.8	15.7	17.7	18.3

Note: a) Agriculture = agriculture + services to agriculture; and  
b) Percentages are averages over February, May, August and November in each year.

Source: ABS, Labour Force, Australia, catalogue no.6203.0.

**Table 12: Composition of Employment by Type of Job -  
Agriculture and All Industries - Australia - 1983 to 1996**

Share of total employment by type of job:

Year:	1983	1988	1993	1996
<b>Employer</b>				
Agriculture	13.9	14.6	12.2	11.5
All Industries	5.1	5.1	4.5	4.3
<b>Self-employed</b>				
Agriculture	50.7	46.3	48.2	42.4
All Industries	10.0	9.8	10.9	10.1
<b>Wage and salary earner</b>				
Agriculture	31.1	32.5	32.3	39.8
All Industries	84.0	84.2	83.5	85.2
<b>Unpaid helper</b>				
Agriculture	4.3	6.6	7.3	6.3
All Industries	0.9	0.9	1.1	0.4

Note: a) Agriculture = agriculture + services to agriculture; and  
b) Percentages are averages over February, May, August and November in each year.

Source: ABS, Labour Force, Australia, catalogue no.6203.0.

**Table 13: Composition of Employment by Age of Worker -  
Agriculture and All Industries - Australia - 1983 to 1996**  
Share of Employment by Age group:

Year	1983	1988	1993	1996
<b>15-24</b>				
Agriculture	16.9	16.7	12.9	13.5
All Industries	25.1	22.4	19.8	19.3
<b>25-34</b>				
Agriculture	20.4	18.6	18.4	17.9
All Industries	26.2	27.0	26.0	25.3
<b>35-44</b>				
Agriculture	23.2	22.6	22.2	22.1
All Industries	23.0	25.7	26.1	25.7
<b>45-54</b>				
Agriculture	19.3	18.9	22.5	22.1
All Industries	15.9	15.8	19.4	20.4
<b>55+</b>				
Agriculture	20.2	23.2	24.0	24.4
All Industries	9.8	9.1	8.7	9.3

Note: a) Agriculture = agriculture + services to agriculture; and  
b) Percentages are averages over February, May, August and November in each year.

Source: ABS, Labour Force, Australia, catalogue no.6203.0.

**Table 14: Job Tenure - Agriculture and All Industries -  
Australia - 1983 to 1996**

**Job Tenure -Proportions of workers in job:**

	<b>Less than 1 year</b>	<b>1 to 5 years</b>	<b>5 to 10 years</b>	<b>More than 10 years</b>
<b>1983</b>				
Agriculture	13.3	25.0	17.0	44.7
All Industries	21.3	40.0	18.6	20.1
<b>1988</b>				
Agriculture	15.1	21.2	16.0	47.7
All Industries	25.9	34.6	15.8	23.7
<b>1993</b>				
Agriculture	13.7	21.7	15.4	49.2
All Industries	22.4	34.0	20.1	23.5
<b>1996</b>				
Agriculture	15.6	23.0	15.7	45.7
All Industries	23.4	33.8	19.5	23.3

Notes: a) Job tenure is for workers currently in employment at the time of survey;  
and  
b) Agriculture = Agriculture, forestry and fishing.

Source: ABS, Labour Mobility, Australia, catalogue no.6209.0.

## Appendix - Data Description

### A. ABS - Labour Force Survey

Data are from ABS, Labour Force, New South Wales and Australian Capital Territory, catalogue no.6201.1; ABS, Labour Force, Victoria, catalogue no.6202.0; ABS, Labour Force, Queensland, catalogue no.6201.3; and ABS, Labour Force, South Australia, catalogue no.6201.4.

The definitions of capital city metropolitan area and rest of state area for each state (on the basis of ABS Statistical Divisions) are as follows:

- NSW - Capital city: Inner Sydney and Inner Western Sydney, Inner Sydney, Eastern Suburbs, St.George-Sutherland, Canterbury-Bankstown, Fairfield-Liverpool and Outer South western Sydney, Fairfield-Liverpool, Central Western Sydney, Outer Western Sydney, Blacktown-Baulkham Hills, Lower Northern Sydney, Hornsby-Kuringai, Northern Beaches, and Gosford-Wyong; and Rest of state - Hunter, Newcastle, Illawarra and South Eastern, Illawarra, Wollongong, Richmond-Tweed and Mid-North Coast, Northern, Far-West North Western and Central West, and Murray-Murrumbidgee.
- Victoria - Capital city: North West Melbourne, Outer West Melbourne, Inner Melbourne, North Eastern Melbourne, Inner Eastern Melbourne, Southern Melbourne, Outer Eastern Melbourne, South Eastern Melbourne, and Mornington Peninsula; and Rest of state: Barwon-Western District, Central Highlands-Wimmera, Loddon-Campaspe-Mallee, Goulburn-Ovens-Murray, and All Gippsland.
- Queensland - Capital city: Brisbane City Inner Ring, Brisbane City Outer Ring, South and East BSD Balance, and North and West BSD Balance; and Rest of state: South and East Moreton, North and West Moreton, Wide Bay-Burnett, Darling Downs and South-West, Mackay, Fitzroy and Central-West, Northern and North West, and Far North.
- SA - Capital city: Northern Adelaide, Western Adelaide, Eastern Adelaide, and Southern Adelaide; and Rest of state: Northern and Western SA, and Southern and Eastern SA.

### b. DEETYA - Small Area Labour Markets

Data are from Department of Employment, Education, Training and Youth Affairs, Small Area Labour Markets, 1990-1997.

The definitions of capital city metropolitan area and rest of state area for each state (on the basis of DEETYA regions) are as follows:

- NSW - Capital city: Wyong, Gosford, Sydney CBD, City Central, Bondi Junction, Maroubra, Northern Beaches, Ku-ring-ai, North Sydney, Petersham, Marrickville, Ryde, Penrith, St.Marys, Blacktown, Mount Druitt, Auburn, Burwood, Parramatta, Windsor, Merrylands, Hurstville, Rockdale, Fairfield, Cabramatta, Liverpool, Macarthur, Ingleburn, Canterbury, and Bankstown; and Rest of state: Coffs Harbour, Port Macquarie, Taree, Upper Hunter, Newcastle, Lake Macquarie, Sutherland, Wollongong, Shellharbour, Nowra, South Coast, Bega, Goulburn, Queanbeyan, Moree, Armidale, Tamworth, Dubbo, Orange, Bathurst, Griffith/Leeton, and Wagga.

- Victoria - Capital city: Dandenong, Peninsula, Spingvale, Cheltenham, Oakleigh, Caulfield, Prahran, St.Kilda, Knox, Boronia, Ringwood, Box Hill, Camberwell, Richmond, Collingwood, Heidelberg, Greensborough, Preston, Epping, Melbourne CBD, Brunswick, Coburg, Moonee Ponds, Glenroy, Footscray, St. Albans, Sunshine, and Newport; ; and Rest of state: East Gippsland, La Trobe, Werribee, Geelong, Bendigo, Echuca, Albury, Wangaratta, Shepparton, Seymour, Ballarat, Warnambool, Horsham, Ararat, Mildura, and Swan Hill.
- Queensland - Capital city: Caboolture, Redcliffe, North Brisbane, Nundah, Fortitude Valley, Brisbane CBD, Indooroopilly, Ipswich, South East Brisbane, South West Brisbane, Mount Gravatt, Bayside, Logan, and Beenleigh; and Rest of state: Torres Strait, Far North Queensland, Tablelands, Townsville, Thuringowa, Mackay, Rockhampton, Central West, Gladstone, Mt.Isa, Bundaberg, Fraser Coast, Gympie, Nambour, Warwick, Toowoomba, Gold Coast North, Nerang, Palm Beach, Tweed, Northern Rivers, and Grafton.
- SA - Capital city: Adelaide CBD, Adelaide East, Parkside, Glenelg, South Western (Adelaide), Woodville, Port Adelaide, Enfield, Modbury, Salisbury, Northern, and Gawler; and Rest of state: Flerieu, Murrylands, Riverland, South East (SA), Port Pirie, Port Augusta, Whyalla, Port Lincoln, and Broken Hill.
- WA - Capital city: Fremantle, Cannington, Victoria Park, Perth CBD, and Perth; and Rest of state: Rockingham, Maddington, Armadale, Albany, Bunbury, Midland, Morley, Mirrabooka, Inaloo, Joondalup, Kalgoorlie, and Geraldton.

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