



National  
Economics

# State of the Regions 1999

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## Preface

This is the second **State of the Regions** report. The report is prepared by National Economics for the Australian Local Government Association. The report is part of an ongoing partnership between the two organisations to collaborate on projects designed to improve our understanding about local economies and their performance and prospects. The partnership aims to develop ideas and strategies that may enhance the role of local government in local economic analysis and strategies that will improve economic outcomes.

The objectives of State of the Regions 99 are to:

- ❑ analyse economic change and performance of Australia's regional economies, focusing on changes in employment, incomes, population and financial stability of households;
- ❑ consider the impacts of national policy changes on Australia's regions, both regional and broader economic policies; and
- ❑ look at innovative regional economic development policies and directions that may strengthen the performance of dynamic regions and to stimulate revitalisation in slow growing regions.

The report breaks regional Australia into 57 regions, and looks at how these regions are performing and what are there prospects for the future. The report doesn't look at what is happening in indigenous communities. It is recognised that these are high priority areas for economic and social analysis. At this stage, however, we feel that there are too many statistical difficulties associated with comparing indigenous and non-indigenous communities and we therefore propose to address this in detail at a later time.

ALGA and National Economics sponsor an annual Regional Cooperation and Development Forum. The purpose of the Forum is to assess the economic performance and prospects for Australia's regions, bring together leading practitioners in the field of local and regional economic development and to consider themes and strategies to strengthen regional economic performance.

Over the past four years, National Economics has developed local area data bases, indicators and forecasts that are incorporated in a new software product called **YourPlace**, supported by ALGA. Developed as a CD Rom, **YourPlace** will become an essential economic development planning tool for local government and other agencies concerned with regional Australia. It provides detailed data and information about households, industry, employment and regional foundations that underpin growth for every local government area in Australia. It enables local government to compare their performance with similar localities or all localities in Australia and how well each region is positioned for future growth. National Economics medium term forecasts for states and the national economy are included, as are estimates of expenditures on 30 household spending items for every LGA.

The report includes the keynote address by Professor Ed Blakely, from New School University New York, a world leader in the field of local economic development who calls Australia his second home. His paper is reproduced in Appendix 1.

Some of the regional benchmarks developed in this report are based on aggregation of the local area data system of National Economics. Locality specific data and information is contained in **YourPlace**.

The report is divided into five sections.

In **Section 1**, we examine what we mean by regional Australia, and analyse the factors that are driving change at the regional level in Australia.

In **Section 2**, the report provides National Economics analysis the global and national economic environment and how they will impact regional performance.

**Section 3** provides a stock-take of socioeconomic performance regional Australia using the 57 regions classified by National Economics. In this year's report, particular emphasis is given to changes in population and demographic change, income distribution, household debt and financial security, employment change and the regional recovery rate in unemployment over the 1990's.

**Section 4** explores the regional impacts of major policy changes in Australia. We model the likely impact of the implementation of National Competition Policy and our estimates of the impact of the GST on regional Australia.

**Section 5** develops our work on regional policy agendas, taking into account recent developments at the national and state level and lessons emanating from regional policy developments in Europe and North America.

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## Executive summary

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The economic benefits of sustained economic recovery over the nineties were unevenly distributed across Australia. The winners are the global centres of Sydney and Melbourne, and a small group of resource based regions in northern Australia. The losers are rural regions based on traditional agriculture and industrial areas. The conclusions of the report are:

- ❑ Australia is experiencing an economic boom with geographically concentrated benefits;
- ❑ employment and income is diverging between regions;
- ❑ regional Australia is vulnerable to economic shocks such as increased interest rates;
- ❑ global centres are booming and leaving the rest of the country behind;
- ❑ the impacts of micro-economic and taxation reform are marginal;
- ❑ Australia is lagging behind North America and European countries in its commitment to regional development; and
- ❑ a new agenda to support regional economic development is urgently required.

**State of the Regions 1999** is the annual report prepared by National Economics for the Australian Local Government Association on the performance, prospects and policies for all Australian regions.

Regional income and wealth inequality is growing. The inequality in the distribution of wealth, infrastructure, skills, knowledge based workers, emerging industries and access to strong labor markets and commercial centres means that deprived regions are more likely to continue to lag behind.

Around half of our population live in communities that are equipped to handle the economic pressures of the early 21 century. The rest live in either marginalised communities or communities that without strong action to upgrade their economic fundamentals run a strong risk of becoming marginalised.

The objectives of **State of the Regions 1999** are to analyse economic change and performance of regional economies, and consider the impacts of national policy changes on regions, and look at innovative regional economic development policies that may stimulate regional development.

Australia's regions are experiencing unprecedented change. Despite high rates of economic growth throughout the decade and a recovery in employment in most regions, the evidence points to a widening gap in the economic performance of Australian regions. The report divides Australia into 57 regions and breaks them into six types of regions: core metropolitan, dispersed metropolitan, production regions, rural, resource and lifestyle regions. These regions are further classified or clustered according to similar characteristics including socioeconomic profiles. To assess how these regions are performing, the report examines 28 indicators impacting performance. This includes population growth, financial stability, ageing, income, household debt, wealth, household debt, vulnerability to macroeconomic change, skills and lifelong learning.

The report has the following conclusions.

### ***1. An economic boom with geographically concentrated benefits***

The Australian economy has performed well in the past five years with high rates of economic and employment growth. The economy withstood much of the pressure of the Asian economic crisis and slower economic growth is forecast. Although there is evidence of employment growth in most regions, the benefits of recovery remain narrowly based and many regions remain stuck in low growth, low income and low skilled development paths. Increasing employment and income disparities between regions documented in State of the Regions 1998 have intensified.

### ***2. Employment and income divergence between regions***

The evidence suggests a mixed story in relation to income distribution. Consistent with the divergent trends identified throughout the report, the high-income globally competitive metropolitan centres of Sydney and Melbourne are pulling away from the rest of Australia. A number of rural regions have experienced income growth off a low base since the early nineties including Midlands and Central Western Australia, Mallee Wimmera and Murraylands.

National Economics forecasts that over the next five years average household incomes will increase in well endowed regions (core metropolitan regions and resource regions) will be between \$4,000 and \$5,000 per household, and between \$6,000 and \$8,000 for the global city segments of Sydney and Melbourne.

Many regions will struggle to achieve income gains of up to \$1,000 between 1998-2004. By one measure there will be a further 16 percent decline in the inequality of the distribution of regional income over the next five years.

A further clear indicator of the inequality between regions is the estimate of the short term unemployment rate plus those who are defined as structurally unemployed. The well endowed regions have a rate as low as 5.4 per cent, while some less well endowed regions have rates in excess of 20 per cent

### ***3. Regional Australia is vulnerable to economic shocks***

High economic growth rates in Australia have been associated with an unprecedented build-up of household debt and fragility in external trade. The report assesses whether Australia's regions are becoming more financially secure. Because of the high level of household debt, many regions are vulnerable to increases in interest rates and a downturn in demand in the Australian economy. The analysis compares financial security in 1994 with the National Economics forecast in 2004 and finds that only 15 out of the 57 regions are likely to be more financially secure by 2004 compared with 1994. The more financially secure regions are the winners from globalisation. The top 7 regions are all core metropolitan regions of Sydney and Melbourne – Global Sydney (CBD, North Shore and gentrified inner areas), inner Western Sydney, Inner Melbourne, Southern Sydney, South Melbourne and East Melbourne. Many rural regions, on the other hand, are becoming financially insecure, with households having fewer assets to support them in 2004 compared to 1994. These regions include Murray and Murrumbidgee, Western Victoria, Mallee Wimmera, Darling Downs and Northern Adelaide.

#### **4. *Booming global centres***

The high skilled, high-income areas around the dynamic global cities have virtually returned to full employment. Property prices are high, per capita incomes and wealth have increased, and a high proportion of the workforce are in high paid jobs and are continually upgrading their skills. The job rich regions are continually generating more jobs. These include regions around the centre of Sydney and its high-income areas and inner Melbourne regions. These regions enjoy outstanding educational, entertainment and cultural amenities and are sought after by people who can afford to live there. Most inner metropolitan regions have shared in the boom of the 1990's, with the possible exceptions of Adelaide and Hobart. Older traditional production and many rural regions, on the other hand, are caught in low income, low job growth development paths.

The regional inequalities will be increased because the wealthy regions will capture much of the residual gross regional product in the form of profits, interest and dividends

#### **5. *Regional impacts of micro-economic and taxation reform***

The economic benefits of micro-economic and taxation reform have been oversold. Although some marginal benefits can be identified for rural areas – the introduction of the GST, diesel rebates and cuts in company tax – this is offset by the decline in government expenditure on infrastructure and services, the latter being a result of taxation reform. The impact of the household dimension of the GST reform is neutral in its impact on the distribution of regional income. The annual gain in household income ranges from \$530 for Wide-Bay Burnett to \$1,536 for Southern Northern Territory. In general the high income regions gain around \$1,000 while the low income regions gain between \$600 and \$750 a year. The GST will result in a similar percentage change in average household (discretionary) income in regional Australia. However, given the initial inequality in income levels, there is a widening of the absolute differentials in average household income.

The GST reform package will improve industry competitiveness. However the inequalities here are greater than on the income tax side. The industries that will benefit are disproportionately concentrated in the well-endowed regions. The potential household annual income capture of the increase in local activity from GST driven industry expansion will be between \$3,000 and \$4,500 for the well endowed regions and significantly less than \$1,000 for the overwhelming majority of regions. Some industry winners are complex manufacturing, electronics, wine, wool and sheep, pharmaceutical, mining and grains.

#### **6. *Australia lagging behind North America and European countries in its commitment to regional development***

A new regional policy framework is urgently required if the regional divergence is to be turned around. Growing regional inequalities have resulted in renewed involvement of European and North American governments in the development and implementation of policies that enable regions to restructure and attain their economic potential. Unlike top down strategies and programs of the past, innovative strategies focus on partnerships between communities, business and government with ideas emanating from the regions and government providing funding and organisational support.

## 7. *A new agenda to support regional economic development*

This report identifies eight themes for a reinvigorated regional economic development policy framework and makes a number of proposals that would enable regional Australia to attain its economic potential. New partnerships are required between business, government and community. This includes redistribution measures and the adoption of 8 themes to revitalise regional Australia.

- Business development and industry clusters
- Information and Communications Technologies
- Supporting SMEs and their technological capabilities
- Innovative regional economic strategies
- Labour markets and workforce development
- New approaches to learning
- Building social capital
- A new role for local government.

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# 1. Understanding Australian regions

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Internationally, regional development and revitalisation have become important priorities as governments, industry and communities seek to adjust, adapt and enhance development prospects in a period of unprecedented change. Major economic, technological and social forces – including globalisation, the digital revolution, government downsizing and structural economic change – all impact the capacity of regions to maintain living standards, create jobs and sustain a high quality of life for residents and their workforce.

Australia's regions are experiencing unprecedented change. The evidence points to increasing divergence in the performance of Australian regions. The increasing employment and income disparities between regions documented in State of the Regions 1998 have intensified. The high skilled, high-income areas around the dynamic global cities have virtually returned to full employment. Property prices are high, per capita incomes and wealth have increased, and a high proportion of the workforce are in high paid jobs. They enjoy outstanding educational, entertainment and cultural amenities and are sought after by people who can afford to live there. Most inner metropolitan regions have shared in the boom of the 1990's, with the possible exceptions of Adelaide and Hobart. Older traditional production and many rural regions, on the other hand, are caught in low income, low job growth development paths.

Over the past year, regional development issues have moved up the national agenda. The negative impact of economic change resulted in a political backlash against governments at state and national level. Many useful reports and some initiatives have been undertaken designed to address the increasing imbalances in regional development. The Australian Government organised the **Regional Summit** to bring together representatives predominantly from rural Australia to discuss and put forward strategies to revitalise these regions. The Senate conducted an inquiry into regional employment and unemployment, putting forward a number of recommendations to stimulate employment growth in regions.

Regional economic development is about improving the social and economic well being of people living and working in regions. It is not just about maximising regional economic growth, although strong growth can support core regional objectives. The major objectives of regional development strategies usually include increasing the number of good jobs, labour force skills, business investment and infrastructure within a framework that supports social cohesion and environmental protection.

The term region has undertaken on a range of meanings in the Australian context. For some, it means geographical areas located in rural and remote Australia. For others, it means non-metropolitan areas of Australia, with provincial and industrial cities added to rural and remote localities. Internationally, the concept of the region has become more confused by the use of the term to describe geographical concentrations of countries. Examples include the Asia-Pacific region and the North American region covered by NAFTA.

This report considers all Australia belongs to a region. It divides Australia in 57 regions. This is an extension of State of the Regions 1998, but there have been some marginal boundary changes following feedback from last year's report. A description of each region is set out below and the local government areas comprising each region is set out in Appendix 2. We define Australian regions as spatially delimited social and economic formations covering urban, rural and remote Australia. In other words, all territories are covered in the report, regardless of their function or location. In our view, it is inappropriate to isolate metropolitan regions from non-metropolitan regions. Within metropolitan cities, there can be significant differences in the structure and dynamics depending on the location of areas in relation to central economic functions, employment centres and infrastructure. Hence, we have defined a number of distinct regions within Australian metropolitan areas. The only exception to this is Brisbane, which is defined as one region because, despite its size, it covers only one local government area.

The report analyses broad regional trends in employment and income change. It builds on National Economics local areas databases and modelling systems and aggregates them into regions. It shows significant divergences in employment, incomes and education across regional Australia. Much of the change is occurring at the local government, indeed, at the sub local government level. This report doesn't pick some of the significant trends occurring at the local level or below. Some of the divergences occurring in Australia are more apparent at the local level than the regional level. This is an important caveat on this report.

Regional Australia has a number of dimensions. The prognosis for regions depends on their ability to restructure and adapt to major economic and technological forces and position themselves in the global economy. Simplistic notions of city versus the bush are insufficient to explain the structure and dynamics of regional change and to develop regional specific strategies.

National Economics has developed a typology of Australian regions showing the commonalities and complexities of urban and non-urban regions. For simplicity, the six types of region are defined around their geographical location and the predominant driver for economic and employment change. In non-metro Australia, we have categorised rural, resource and lifestyle based regions. For metropolitan and adjacent industrial centres we have developed a typology that supports analysis and policy formulation in cities, hence the concept of producer zones, core metro and dispersed metro.

## **1.1 Regional typology**

We divide the regions into six broad types.

The six types of regions are:

- core metro;
- dispersed metro;
- production zones;
- resource based;
- rural base; and
- lifestyle based

### **1.1.1 Core metro**

Many of the impacts of globalisation are most apparent in the city centres of our metropolitan cities. Australia's metropolitan centres are seeking new opportunities to attract investment in advanced services, information technology industries and tourism and recreation. Large investments have taken place in commercial buildings, hotels and entertainment centres, particularly casinos. State and local governments have invested heavily in restoring heritage buildings, open space and streetscapes to accommodate tourists and business travellers.

Changes in demography, lifestyle and urban policies have reversed population decline in centres and they are seeking to create vibrant residential precincts. These inner cities residential locations, with access to educational and cultural amenities, high paid jobs and high property prices, have become much sought after by the new knowledge workers. This group has been the big winner in regional Australia over the past decade. High property prices and redevelopment, on the other hand, is displacing many traditional residents, who are shifting to lower cost areas in dispersed metro areas or out of the centres all together.

The more globally oriented centres have become more specialised, experiencing significant increases in direct foreign investment in high value finance and business services and Information and Communications Technologies. The relative size, industry structure and position in the global economy can explain the differences in the economic performance of central city regions. Sydney has captured the dominant share of regional headquarters (RHQs) that have located in Australia over the past decade and has emerged as a significant global city in the Asia-Pacific region. Melbourne has had to work harder to attract international investment but has experienced an inner city property boom. Perth and Brisbane are experiencing significant population growth and the benefits associated with rapidly growing economies, whereas Adelaide and Hobart are not experiencing population growth and significant economic growth.

### **1.1.2 Dispersed metropolitan regions**

The dispersed metropolitan regions are: Southern Adelaide, North Brisbane, Moreton-Ipswich, Central Coast NSW, Outer South Western Sydney and Outer West Sydney. These areas accommodated most of Australia's population growth over the past 50 years. Along with a number of lifestyle regions, they remain the most rapidly growing regions in Australia. These areas include dormitory suburbs for the large cities. The "Great Australian Dream" of the quarter acre block originated in these areas. Initially, they provided residential opportunities for working class housing, through the provision of reasonably priced land and housing, as well as public housing estates.

The availability of land, improvements in transport infrastructure and the large labour pool created opportunities for relocation and new investment in manufacturing industries into these areas and adjacent production regions. With high labour force growth, long journey to work times, lower skills and slowing employment in manufacturing, many of these regions have experienced high unemployment.

Many of these regions attained a critical mass of population, leading to new employment opportunities in local and regional services – particularly in education, health and community services. Investment in education infrastructure including schools, vocational colleges and universities have pushed these regions up the skills value added chain, but not as quickly as core metro counterparts. Significant retail investment has taken place in the major regional and "stand alone" shopping centres. Almost every locality in dispersed metro regions (as well as every region in Australia) has developed a strategy to attract call centres.

Many dispersed metropolitan regions are doing well. Successful dispersed regions have developed vibrant educational, cultural and recreational centres. They offer quality of life opportunities. Adelaide and Perth have developed innovative rapid transit systems to provide better commuter access to their core metro regions.

On the other hand, many of these areas continue to struggle with high unemployment and low incomes. Low skilled workers in these regions are vulnerable to economic downturn and job displacement through technological change. Workers in travel services, clothes, publishing and food retail, and financial services and banking – are most vulnerable to job losses associated with E-Commerce.

The major challenges for dispersed metropolitan regions include:

- to ensure job growth exceeds labour force growth;
- developing outstanding employment centres as global nodes including business parks and regional centres;
- continuously create learning opportunities and upgrade skills;

- ❑ attracting investment in high order jobs in information technology and advanced manufacturing;
- ❑ investment in transport infrastructure to provide links to high value added employment centres;
- ❑ growing high value added export oriented small and medium-sized enterprises;
- ❑ building strong business networks to support business, training and export strategies; and
- ❑ build community networks to provide workforce development and training support for marginalised communities.

### **1.1.3 Production zones**

Production zones include heavy industrial cities and manufacturing regions in metropolitan regions. These regions comprise North Adelaide, Westernport, Western Melbourne, Sydney Producer region (much of Western Sydney), Northern Illawarra and the Lower Hunter. The population of the production regions is over 3.4 million people.

The production regions developed around a manufacturing base. These regions are characterised by a large manufacturing sector, an industrial workforce, many people from non-English speaking backgrounds, a low skills base and high rates of unemployment. The industrial workforce is ageing and there are relatively few opportunities for young people. Long term structural crisis has resulted in social stress and demoralisation, particularly for young people and redundant workers.

Low incomes, low job growth and low skills reinforce a downward economic spiral that becomes difficult to turn around. A dominance of branch plants constrained potential to accumulate capital and to develop an independent design capability in a number of key industries including automobiles, chemicals and engineering. Lack of investment in heavy engineering over a long period of time and an inward market focus resulted in a loss of competitiveness. Enterprises are vulnerable to loss of competitiveness and closure.

Developed around tariff barriers and bounties and distant from international competitors, these regions nurtured a range of metals and engineering firms and created strong networks of local suppliers and spin-offs from the core industries. Industries include shipbuilding, automotive components and metal fabrication. Innovation tends to be low. Production regions are in transition as the role of manufacturing declines. Long term structural problems have mobilised local and regional parties to focus on shifting their economic base to higher value added industries and services.

Despite a number of successes, particularly in educational attainment and growth of small medium enterprises, these regions experience growing marginalisation, both in terms of lack of employment opportunities and industry competitiveness. Business stagnation and disinvestment in these areas compound the devaluation of their economic spaces. Workers lack many of the skills to compete in the new knowledge economy.

The largest region is the Sydney Production Region, an east-west spine covering the industrial areas of Marrickville, Canterbury, Bankstown, Liverpool, Fairfield, Holroyd, Parramatta, Auburn and Blacktown. Real household incomes have declined by around 10 per cent over the decade, although Parramatta, Sydney's second CBD, and Blacktown, located in Western Economic Corridor along the M4 freeway, have on average performed better.

The Lower Hunter and Northern Illawarra are Australia's heavy industrial regions. Both faced an unemployment crisis over the past 15 years and remain vulnerable to further loss in industry competitiveness. In 1999, BHP closed its steel making plant in Newcastle. This will inevitably result in increased unemployment in a region with an above average unemployment rate. The region has a long history of addressing structural difficulties and putting in place new initiatives to stimulate employment growth. New knowledge based businesses have emerged in information technology,

defence, engineering, software development, project management, and environmental management. The Lower Hunter is a leader in the development of business networks.

Most job growth over the past decade is concentrated in Lake Macquarie and Lake Macquarie, driven by population growth and emerging lifestyle opportunities. The Northern Illawarra is increasingly a commuter region for Sydney, although educational infrastructure has expanded. Despite further concentration of national steel capacity in Wollongong, unemployment remains high. The area is focusing more on tourism and arts and cultural industries.

Northern Adelaide has specialised in manufacturing – automotive, pharmaceuticals, and clothing and footwear. High unemployment, low skills and low educational attainment, combined with demise in industrial competitiveness, led to high unemployment and out-migration from large centres such as Elizabeth.

Attempts to shift the industrial structure to high value added industries through the provision of subsidies to information technology and communications companies may not be the appropriate response to a long-term structural problem. Western Melbourne and Westernport experience many of the problems of the Sydney Production Region.

The major challenges are:

- strengthening R&D and technological capabilities and export orientation;
- improve transport links, where relevant, to major employment centres including rapid public transit;
- creating strong community networks with local government to support continuously learning and strengthening social capital;
- establishing strong networks of SME's in IT and advanced manufacturing linked to education institutions and leading corporates;
- workforce development and training initiatives to support marginalised communities and households; and
- upgrading environmental and lifestyle assets to improve liveability and investment prospects.

#### **1.1.4 Resource based regions**

The resource based regions developed around Australia's resource endowments in minerals and energy – including coal, oil and natural gas, iron ore, copper, alumina, lead and zinc, nickel, gold, timber and fisheries. The four regions considered here are Pilbara, Top end NT, Mersey Lyell and Gippsland. Many regions have strong resource based sub-regions.

The fortune of these regions depends on world price trends for minerals and energy. The commodity price index has continued to decline in 1998-99, falling by 12.7 per cent in \$US terms. In the first half of 1999 there has been an increase in some commodity prices, such as for oil, coal and iron ore. This partial recovery, has contributed to the renewed strength in the \$A in the first two quarters of 1999.

The upswing in the overall commodity prices is expected to continue in 1999-00. Growth in non-rural commodity prices in \$US will accelerate in 2000-01, as rural prices stagnate and then decline. The improvement in the demand for non-rural goods will occur in response to the partial economic recovery in Asia, increased industrial production in some countries and reduction in the relative supply of some commodities.

However, growth in commodity prices will not continue to accelerate in the medium term unless the outlook for the global economy improves significantly from the current forecast. Given the expected slowdown in global economic growth, commodity prices are expected to remain fairly subdued in the medium term. Other factors influencing the prospects for resource based regions include:

- ❑ the economic prospectivity of natural resources and cost of recovery;
- ❑ the policy regime: tax, infrastructure costs, environment and political processes (eg Uranium);
- ❑ adequacy of infrastructure;
- ❑ cost competitiveness compared with international competitors, including transport costs; and
- ❑ environmental constraints such as the possible global implementation of greenhouse gas targets, which may have substantial impacts on Australia's coal producing regions.

### 1.1.5 Rural based regions

Much of non-metropolitan Australia is comprised of rural-based regions. These are regions where agriculture and associated rural industries are central to economic structure. According to our definition of rural Australia, around 20 per cent of the total population live in rural regions. Much the debate about regional Australia has focused on rural regions, and particularly on the declining fortunes of small country towns. Rural production has been heavily based on commodities – particularly wheat, beef, wool, sugar and cotton. Many rural regions are experiencing long term structural difficulties – low commodity prices, competition from other countries and substitute products and declining employment opportunities. Many family farms continue to struggle and farmers engaged in marginal activities are leaving the land.

The growth of agri-business and the introduction of business methods and new technology on family farms enhance the competitiveness of rural industries. Farmers are getting involved in producer networks. Deregulation of statutory marketing authorities is creating new opportunities for product differentiation. The privatisation of the Australian Wheat Board in 1999 was a significant development.

Over the past year, the fortunes of rural regions have as always been associated with the fortunes of nature and world commodity prices. Wheat and beef prices improved significantly whereas sugar, wool and cotton are depressed. Some regions with climatic and natural resource advantages – water and soil – have successfully diversified into high value produce such as horticulture, wine and processed dairy foods. These regions are important to national economic performance, particularly because of the export orientation of the agricultural sector.

The rural based regions examined by state are:

<b>WA</b>	South Eastern, Midlands & Central, Great Southern, & South East WA.
<b>SA</b>	South East (SA), Murray Lands, Eyre and York.
<b>Victoria</b>	Ovens-Hume, Goulburn, Loddon, Mallee-Wimmera, Western District, Golden Region, Northern Tasmania.
<b>Queensland</b>	North Queensland, Mackay & Central Queensland, Darling Downs, South western Queensland.
<b>NSW</b>	Southern and Central, North & North western NSW.
<b>Northern Territory</b>	Southern NT

Rural Australia is lagging behind other regions. The population of rural Australia is 3.4 million people. Population is growing slowly, around 0.8 per cent per annum, compared to 1.37 per cent per annum nationally. Some rural areas have been doing well – particularly those with a diverse economy and productive natural resource base.

The Riverina in NSW, for example, is performing well. Farms are generally highly productive and centres such as Wagga have emerged as important education, administrative and cultural centres. North and North Western NSW have experienced difficult slow growth due to drought and low commodity prices. The proportion of people living in poverty is increasing. An important trend is the decline of small towns and the consolidation of growth in major provincial centres – such as Wagga, Dubbo, Tamworth, Toowoomba and Ballarat.

Unemployment and under-employment are high. Real incomes are declining. One of the major challenges for rural Australia is improving education attainment. Currently, the proportion of people with post-secondary qualifications is about 25-30 per cent of Global Sydney.

Drought has affected much of rural Australia over the past decade, though there has been a significant improvement over the past year. Real prices of commodities halved over the past 30 years – severely impacting the viability of farming operations. The terms of trade have continually moved against farmers, threatening the viability of farming operations and rural communities. Many country towns have experienced population decline and rationalisation of public and private services, particularly finance, health and education services.

The population of some inland regions is declining: Eyre-York and South East SA, and Mallee-Wimmera, while others are growing very slowly, such as North and north western NSW and Murray Lands in SA. The proportion of people living in poverty is increasing. A recent study shows poverty and social disadvantage in NSW and Victoria are concentrated in rural communities and old industrial areas of Newcastle<sup>1</sup>. Unemployment and under-employment are high. Real incomes are declining. One of the major challenges for rural Australia is low education attainment, with the proportion of people with post-secondary qualifications about 25-30 per cent of core city regions. Further divergence in education attainment is projected.

Drought has affected much of rural Australia over the past decade. Real prices of commodities halved over the past 30 years – severely impacting the viability of farming operations. The terms of trade have continually moved against farmers, threatening the viability of farming operations and rural communities. A number of country towns are declining. They have experienced population decline and rationalisation of public and private services, particularly finance, health and education services. Growth has consolidated around key provincial cities.

The capacity of rural regions to improve economic performance will always be influenced by factors outside the control of the specific regions. This includes world prices of agricultural commodities, global economic growth, terms of trade, macroeconomic stability (particularly for interest rates), supply constraints, policy actions by competitor nations and our cost competitiveness, and climate conditions. Rural regions will need to be more connected globally, not just in exporting to global markets, but linking into technologies and global knowledge flows and adapting them locally.

To succeed in future, rural regions need to respond to a number of challenges including:

- strengthening the connectedness of regional centres to global economic opportunities;
- improving ecological health of land and water resources;
- shifting production to high value crops and livestock production;

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<sup>1</sup> Professor Tony Vinson, **Unequal for Life**, a report for the Ignatius Centre, 1999.

- building knowledge intensity industries and farming sector;
- managing the exodus from less viable and ecologically damaging forms of agriculture;
- improving infrastructure in air and land transport, communications and education;
- improving cost and availability of online services including access to Internet to:
  - support market intelligence systems;
  - distance education;
  - trade and training networks; and
  - E-Commerce and technical support;
- increasing investment of rural-based communities in value added industries – including dairying, horticulture, meat, cereal products, arts and culture, eco-tourism and timber products;
- building opportunities for SME start-ups and expansion in rural based regions through expanding on local economic development initiatives such as building business and learning networks, improving business information and intelligence systems, and programs to support farmers upgrade business management skills such as Farm Start;
- strategies to stabilise and possibly increase population;
- cultural and eco-tourism strategies;
- strengthening social cohesion including reconciliation between indigenous and non-indigenous Australians;
- economic diversification eg Cultural and Eco-tourism, horticulture, processed foods, IT industries including Call Centres; and
- indigenous enterprise development.

### **1.1.6 Lifestyle base**

A number of areas are emerging as what we have termed lifestyle regions. Some are in fact sub-regions of larger regions. At this stage, they are all located in coastal areas with good all year round climate and scenic surroundings. The prime examples are in NSW and Queensland. In NSW, lifestyle areas are the Mid north Coast – based around the centres of Coffs Harbour and Port Macquarie – and Northern Rivers, which includes centres such as Byron Bay, Ballina, Lismore and Tweed Heads. Queensland lifestyle areas include the Gold Coast, Sunshine Coast, Wide Bay Burnett and Far North Queensland.

Although much of the wealth of these regions has been associated with its natural resource base, including timber or fertile soils, the main drivers of wealth are increasingly associated with lifestyle choices. Substantial population growth has taken place over the past 10 years in regions with attractive lifestyle attributes, specifically good climate, water, housing and, depending on personal preferences, proximity to entertainment and shopping facilities.

The regions are attractive to a wide range of socioeconomic groups, which creates diversity. This includes retirees, young creative people and increasingly highly skilled professional people. The drivers for change have been tourism and post-retirement, which in turn has attracted demand for support industries: building and construction, wholesale and retail and community services. Some of these areas have the fastest rates of population growth in regional Australia but also the highest unemployment rates.

The biggest challenges for lifestyle regions are:

- jobs and incomes growth and diversification strategies;
- improving educational attainment including commitment to lifelong learning;
- improving physical and social infrastructure;
- connecting households and businesses to Internet and provision of training support;
- targeted support for young people and low skilled workers; and
- commitment to ecological sustainable development principles to protect natural environment and the attributes that make the region attractive in the first place;

## **1.2 Economic drivers of regional change**

Complex and often interrelated economic, social and technological forces are restructuring regional Australia. Many of the terms used in discussions about regional development remain loosely defined, making it difficult to analyse the drivers of regional change and implement action. Australia's regions must respond to a number of challenges, including:

- globalisation;
- digitalisation;
- economic restructuring and the importance of knowledge; and
- the growth of networks.

The forces of globalisation, the digital economy and the restructuring of employment and work impact all regional economies. Their ability to adapt and create new opportunities depends on how successful they are in implementing strategies that focus on how they utilise these exogenous forces to build on their existing strengths.

### **1.2.1 Globalisation**

Globalisation entails acceleration and deepening of interaction between firms and regions with the global economy. It is characterised by accelerated global flows of products and services, capital, people, ideas and cultural influences. The term globalisation is used predominantly in an economic context to refer to global interactions and interdependencies in production, trade and financial flows. Indicators of globalisation includes increasing foreign direct investment, increased export and import orientation of national economies It can also refer to other processes such as a global cultural integration. Global markets and capital flows have resulted in an expansion of economic opportunities for industries and regions that can compete globally.

All regions are impacted by globalisation. At one end of the spectrum, economic opportunities of "global" Sydney – the inner core of Sydney around the CBD, the Northern Sydney high technology belt, and Sydney Airport – are increasingly driven by economic relationships between Australian based firms and the global market. Australian rural regions, because of their history of export orientation, have long been exposed to global economic cycles and competition.

Globally competitive regions are those regions that have distinct advantages and/or attributes that enable them to satisfy requirements of a global market. Competitive advantages may include technological leadership, a critical mass of industries such as business services and tourism, and high quality products and services.

Globalisation has led to greater centralisation of R&D, design and high skilled jobs around economic nodes in global cities and regions. At the same time, it leads to the dispersal of labour intensive manufacturing and assembly jobs to low wage countries, and marginalisation of traditional urban and rural regions. Intensified competition in primary commodities has resulted in the decline of a number of rural communities and towns. Regions that have lost competitiveness as a result of globalisation are experiencing high rates of unemployment, and those lacking in social support structures have experienced high levels of social stress – suicide, crime and rising levels of violence.

Within the global cities, the new international division of labour associated with globalisation is manifest in spatial changes in investment, employment and occupation. The traditional forces of concentration, dispersal and marginalisation are intensifying. The forces of concentration are derived from locating higher order financial and business services, stock exchange facilities and, more recently, multimedia services in the central business districts (CBD) of major cities. The central city provides an innovative milieu critical to innovation and continuing competitiveness of new business service clusters.

Paralleling the forces of concentration are strong forces of dispersal. Centres for higher learning, hospitals and health and personal services decentralise to meet the demands of the growing populations in the suburbs. New industrial and distribution centres relocate to cheaper outer employment zones as the city grows. Retail centres and the functional services of the city are drawn to the major areas of population growth. ICT developments facilitate the establishment of information technology parks and telecommuting. The opportunities for many workers are more dispersed and dependent on industries that decentralise.

The third dynamic within cities is the marginalisation of areas that are disconnected from the economic growth and development of the city. Marginalised areas are characterised by enterprises that are economically marginal and vulnerable to closure; growing informal economies; workers who lack the requisite skills to compete for jobs in the new knowledge economy; low incomes, and, residential zones of permanent poverty, welfare dependency and petty crime. They are disconnected from the knowledge flows of the city and do not share in the wealth generated from production, distribution, information processing and other specialist producer services allied with global markets and international gateways. Many residents within these areas are defenceless against structural change and economic downturns as the work that they do is automated and rationalised.

Globalisation processes are also important determinants of change outside of the metropolitan area, where the same processes of centralisation, dispersal and marginalisation can be observed, as well as a number of processes specific to non-metropolitan regions. In particular, a process of consolidation is occurring around major provincial cities, driven by the demise of smaller rural towns and improvements in education infrastructure. Marginalisation is a major concern in regional Australia – with a number of regions characterised by low incomes, unemployment and out-migration of the younger population.

Young rural people are attracted to the magnet of the "global city" for education, lifestyle and career opportunities. Low skilled rural workers are migrating to the provincial centres and metropolitan regions because of the loss of competitiveness in key primary industries. Transitional industrial regions are based on industries that find it harder to compete in the global economy and have been seeking to shift their industrial structure. Lifestyle regions are growing, spurred by population growth including post-retirement migration and new opportunities in tourism. Many young people with poor job prospects are also migrating from the global city to lifestyle regions.

## 1.2.2 The digital revolution

The digital revolution in information technology and telecommunications, and the convergence of these technologies, is the core driver changing the structure and dynamics of regions across the world. The development of the knowledge economy is fuelling demand for ICT infrastructure and services, and in turn ICTs are rapidly enhancing information gathering and knowledge flows. Digital technologies are potentially a force for decentralisation but currently, information intensive activities are concentrating around metro centres. Firms can coordinate and outsource production, distribution and marketing across a range of plants and regions. Households can be linked into "virtual" classrooms and telecommuting arrangements. Rapid and efficient movement of voice and data flows, faxes, images and TV and video signals has compacted time and space. Massive investment is taking place in telecommunications infrastructure: fibre optics, copper cable, wireless, microwave and satellite communications networks.

Firms are using electronic systems to improve information about products and prices, to gather technical information, sell products and exchange information with complementary firms and industry associations.

Australia has a great propensity to consume ICT products and services, including one of the highest rates of PC penetration, internet use and use of the world wide web to gather, store and interpret information. Australian farms have a high take-up rate of computers, with one third connected and the penetration rate growing quickly.

A recent draft report<sup>2</sup> to the Rural Industries Research and Development Corporation has identified a number of positive benefits associated with Internet use on farms:

- overcoming social isolation through Internet based communications;
- reduced transaction costs in gathering information and buying and selling;
- improved information resulting in better management decisions;
- improved education and training access;
- better environmental education and outcomes;
- improved access to public services; and
- improved terms of trade through opportunities to buy cheaply and sell ore profitably.

In a society where economic success depends increasingly on access to information and knowledge flows, ICT strategies are becoming important tools in regional economic development. Internationally, ICT strategies are being used to support other regional economic development initiatives such as support for SMEs, education and training, strengthening R&D and technological capabilities, investment in social and physical infrastructure, and access to finance.

The use of digital technology is growing exponentially in successful regions. New industries are emerging in information products and services such as multimedia, software development and applications, business services, and corporate knowledge services. In North America, many of the fastest growing high technology zones are located in rural areas of Oregon, Colorado and Wisconsin. Greater emphasis should be given to creating high value added zones in non-metropolitan regions of Australia.

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<sup>2</sup> Jim Groves and Jenny Da Rin, **Harvesting Internet Dollars: Farm Management Impacts of Farm Internet Use**, draft submitted to the RIDC, June 1999.

The digital revolution is having a dramatic impact on the workplace, households and education system. The future office environment will be based on flexibility and accessibility of employees, using advanced communications facilities. A growing number of people work from home. This has been driven in part by improvements in availability and affordability of information and communications technologies, particularly purchase of PCs and access to the Internet.

A number of factors are driving this including: growing professionalism, increased flexibility in work organisation, out-sourcing and contracting out, and the rise in part-time and casual work either forcing or encouraging workers to become more adaptable and flexible. Many examples abound regarding new business opportunities in remote areas.

The growth of E Commerce is likely to have a dramatic impact on regional employment over the next five years. New opportunities are emerging in tele-banking, tele-shopping, tele-learning and interactive entertainment.

### **1.2.3 The importance of the knowledge based regions**

To compete in the global economy, regional economies must become knowledge based. In the global economy, product development, coordination of production and distribution, management and marketing have become increasingly complex. The knowledge intensity of products, processes and most jobs has increased. Increasingly, value adding emanates from knowledge rather than physical assets. Successful regions are those where households, firms and institutions can create useable new knowledge faster than other regions.

Improvements in knowledge are usually associated with incremental changes brought about through learning by doing, experimenting and the interaction between firms and individuals. When firms, educationalists and households interact at the local or regional level and engage in a process of collective learning, they create one of the critical preconditions for competitiveness – and that is the transformation of local tacit and externally derived knowledge into new products and services.

By knowledge based regional economies, we are referring to the new relationships governing work, production, learning and employment at the local level where ongoing interaction and collective learning creates opportunities for knowledge driven innovation and job growth. Most regions can identify case studies of successful firms, but knowledge based regions are those where knowledge and innovation are widespread across firms, households and local institutions.

These regions usually can do a number of things well, including:

- an ability to access, incorporate and use externally derived information and knowledge;
- capability to learn and generate knowledge and information;
- competencies in technology and production;
- ability to solve problems; and
- capacity to respond to customers and changes in demand.

Knowledge based regional economies are not only high technology regions like Silicon Valley and Boston Route 128 although these are well known examples. Regional economies that use knowledge and information to diversify into wine making, eco-tourism and health services can also be classified as knowledge based.

Further, knowledge-based regions are not only concerned with innovative production systems in enterprises. Households, schools and councils, for example, may be engaged in a process of continuous learning. For example, households used to be sites of consumption and investment in children's skills. They are now becoming work places as well as places of learning for both children

and adults. Enterprises are still the most important units of production. But production capacity as a whole now includes households and other sites outside the enterprise and their capacity to learn and use knowledge. Regional competitiveness depends on the innovative capacity of places and clusters of firms rather than individual enterprises.

A strong correlation exists between regional growth rates and the knowledge based skills of the workforce. Labour economist Robert Reich (1991) identifies three major types of workers in the 'knowledge economy'<sup>3</sup>.

Firstly, symbolic analysts who use ideas, language, applied mathematics, audiovisual and multimedia content to construct or interpret meaning. Their work is creative and high in intellectual content. They are highly remunerated and valued, and include, industrial designers, engineers, systems analysts, software engineers, biotechnology and medical scientists, materials engineering, automation specialists, multimedia product developers and financial analysts.

Secondly, in-person service workers who provide face-to-face contact with clients and customers. The critical aspect of their work is the quality of their public relations. The occupations among this group consist of two groups determined largely by their knowledge content. The first group includes medical professionals, teachers and social workers. Some job tasks performed by this group are not dissimilar to those of the symbolic analysts. The second group includes such workers as medical aides and customer service officers. There is a strong increase in demand for in-person service workers in both high and low level skills areas including personal service providers, nursing, customer service officers, security and hospitality workers.

The third are the routine production workers, these are workers who perform low knowledge and standardised tasks. Many entry level occupations in the manufacturing, public administration, storage and retailing typically represent this group. It is important to bear in mind that the knowledge economy doesn't only create highly paid and interesting jobs, but it also creates low paid and tedious jobs, including many who work in "back office" data processing occupations and "call centre" operators. Many of these workers are vulnerable to job loss through automation or process re-engineering. Workers amongst this group that lack language, literacy, numeracy, technical and communication skills will be most susceptible to becoming marginalised and disconnected from the knowledge economy.<sup>4</sup>

#### **1.2.4 The networked economy**

The basic change associated with the knowledge economy is a shift to networked and more flexible and knowledge intense production and employment. However the knowledge economy is not just transforming work and employment. Its effects reverberate throughout everyday life generating new social and spatial dynamics.

Both community and business networks are important to access information, share knowledge and undertake collaborative projects that couldn't be undertaken by one organisation alone. Community networks are sets of relations among persons, organisations, communities or other social units. A production network consists of a relationship and contracts linking multiple producers and recipients.

Successful regions are developing strong networks. Some but not all are developing around geographical clusters. A useful definition of a cluster is a geographical bounded concentration of

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<sup>3</sup> Mark Cole and Lucie Crawford, *Spatial Variations in Employment Opportunities: Case Examples in Sydney* (forthcoming); Graham Larcombe and Mark Cole, *Australian regional employment and growth trends, prospects and strategies*, National Economic Review, March 1998.

<sup>4</sup> *ibid.*

similar, related or complementary businesses with active channels for business transactions, communications that share specialised infrastructure, labour markets, and services that are faced with common opportunities and threats.<sup>5</sup> Clusters are predominantly focused at the regional level, but some of the most successful have links with broader networks of customers and suppliers. In fact, one of the objectives of strengthening inter-firm collaboration at the regional level is to provide access to the supply network of major companies.

Business and professional organisations provide forums and networks for information and knowledge exchange between firms and knowledge workers. They help build a cooperative business culture and communicate with governments and agencies on behalf of industry and professionals. In the networked economy these organisations are important intermediaries for the delivery of policy goals. They are also agents for small and medium enterprises to develop innovative capacity through mutual interaction. In regions they are important agents for collaborative development partnerships with government and community organisations.

They engage in a wide range of activities including forming firm networks, helping information and resource sharing between firms with similar interests, facilitating access to development capital, identifying and lobbying for development infrastructure, organising training and management services, formulating industry, employment, tax and social policy frameworks. They provide affordable knowledge intense management services for small and medium sized enterprises. And they facilitate inter firm learning and commercial partnerships by introducing members to each other and helping member enterprises become more familiar with each others capabilities.

All this activity involves flows of information and knowledge that can lever commercial benefit for members and develop improved approaches to governance and local development.

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<sup>5</sup> B. Bosworth, *Using regional economic analysis in urban job strategies*, Cambridge, MA; 1996.

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## **2. The international and national economic environment**

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The prognosis for Australia's regions depends not only on their own structure and actions but also on the economic environment. Macro-economic outcomes such as economic growth rates, balance of payments, investment and savings, inflation and unemployment have a major impact on regional performance. Government policy settings are critical. Taxation reform, national competition policy, industry, education and social security policies are key determinants influencing regional outcomes.

Along with most other developed economies, the Australian economy sustained a high rate of growth throughout much of the 1990's. The economy withstood much of the negative impact of the Asian economic crisis. The main economic policy settings over the past 15 years have emphasised market-oriented reforms and a reduced role for government in the economy through privatisation, low taxation and a tight control over spending. The dominant policy settings have underpinned high growth rates but resulted in growing employment and income disparities between regions.

The challenge for governments is how to maximise the economic benefits associated with globalisation and the digital revolution whilst providing support for regions, industries and households.

### **2.1 Baseline scenario: economic projections to 2005**

To analyse the economic environment and impacts on regional performance, National Economics has prepared a baseline projection for the next five years. The summary national indicator outcomes are given in Table 1.1 with the state GDP projections given in Table 1.2. The baseline scenario is dependent on the timing and extent of the Asian economic recovery, the extent of any slowdown of growth in Western economies such as the United States, general global economic growth outcomes and domestic factors. Several factors that have dominated the domestic economic environment in the last decade will continue to do so in the first decade of the new millennium.

Such issues include:

- ❑ the rate of productivity growth and Australia's ability to adapt its industry structure to the requirements of the world economy and globalisation of production;
- ❑ creating an economic environment which is conducive to the further development of value-added industry;
- ❑ Australia's ability to reduce risks and maintain a rate of sustained microeconomic reform consistent with creating the levels of investment required for satisfactory growth rates; and
- ❑ Australia's commitment and ability to maintain an immigration rate consistent with modest growth targets.

In Australia, the pick up in growth initiated in 1996-97 seems to be continuing in 1999, largely unabated by the economic turmoil in Asia. GDP growth of 4.5 per cent in 1998-99 exceeded most expectations and there seems to be little sign of a sharp slowdown in 1999-2000.

Although the Asian economic crisis has not yet resulted in a slowdown in growth in several key industrialised countries, most notably the United States and Australia, it has had a marked effect on the world economy over the past two years. Globally, the contagion effect of the crisis saw economic growth fall from over 3 per cent in 1997 to just over 1.5 per cent in 1998. Growth in world trade volume shrank from close to 10 per cent in 1997 to under 4 per cent the following year.

Gross domestic product (GDP) growth among Australia's major trading partners, including Japan, China, South Korea, Taiwan, Indonesia, the United States, the United Kingdom and Germany is expected to average around 3 per cent in 2000. GDP is forecast to grow at around 2.6 per cent between 1999-2005. Although a global slowdown is expected in 2000-01 to 2002-03, the pick-up in major trading partner growth in 1999-2000 and again in the period 2003-05, is expected to be sufficient to buoy overall GDP growth for the first five fiscal years of the forecast period.

After reasonably strong growth into 2000 the world economy should slow significantly over the 2001 and 2002 period. The main reason for this will be the slowdown in the United States economy. The balance sheet imbalances (the rapid increase in private sector debt relative to income) are such that even if the United States' growth rate over the next five years is halved to around 1.8 per cent per annum, the private sector debt to income ratio will increase from 150 to over 200 per cent of GDP. Even this outcome is implausible. That is, growth is likely to be less than this.

Some analysts now see a low United States' growth rate for a lengthy period over the first decade of the next century.

The current Asian recovery is being driven by unsustainable levels of government expenditure (or general fiscal pump priming) and cannibalisation of each other's export markets. In China and Japan the public sector deficit is reaching 10 per cent of GDP with net public sector debt at around 100 per cent of GDP. The South Korean export recovery is severely limiting China's ability to pursue export led growth.

The extent of a sustained economic recovery in Asian countries is reliant on the introduction of substantial reforms to financial and corporate sectors. Such reforms are a prerequisite for permanent growth improvements in Asia and the longer they are delayed the greater and more protracted will be the next slowdown in the early years of the new millennium.

For Australia, with business investment hit by the Asian crisis and housing investment in neutral, consumer spending is likely to remain the main driver of economic growth. This will be encouraged by increased Y2K expenditure, consumption related to the Sydney Olympic Games, continued low interest rates and ample availability of credit. The ease with which credit has been available in Australia has created a household sector that is saving less and borrowing more than ever before. For example, in the March quarter 1999, households spent approximately 99.6 per cent of their income on consumption.

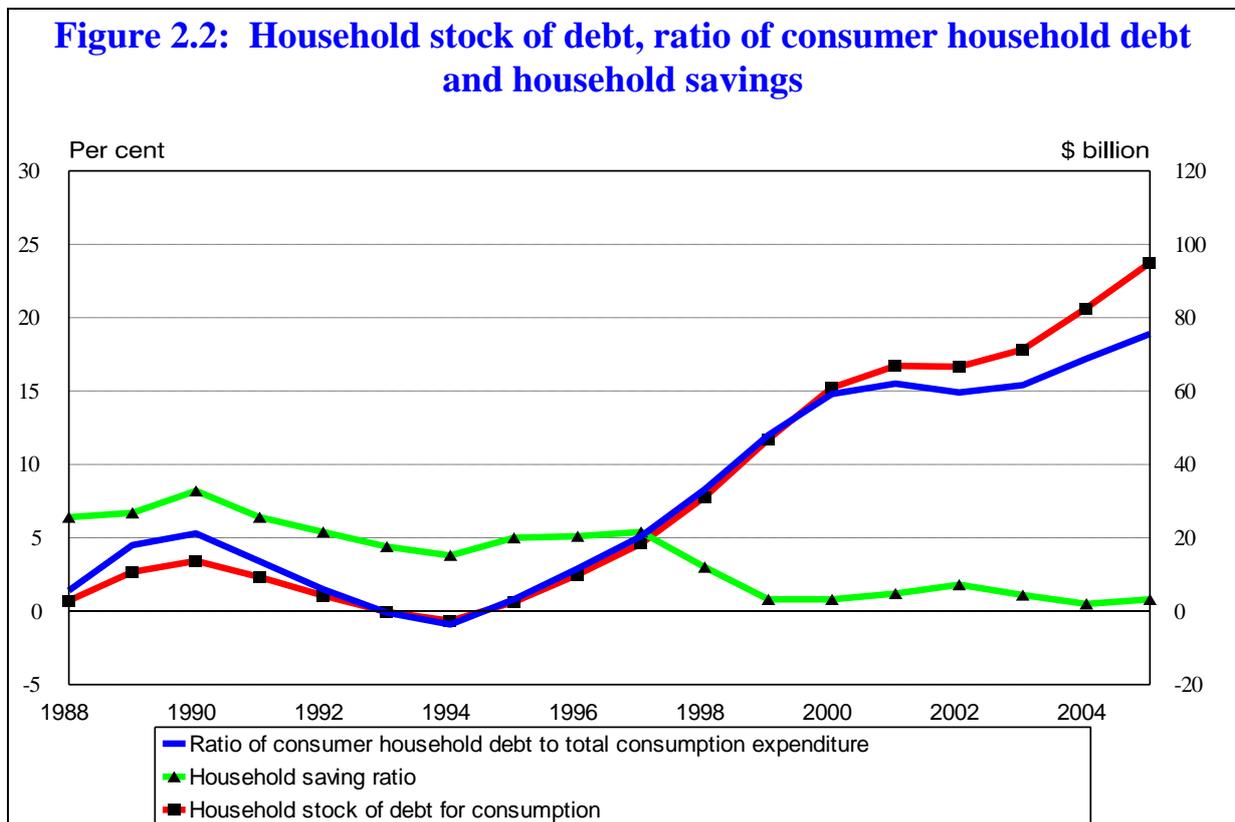
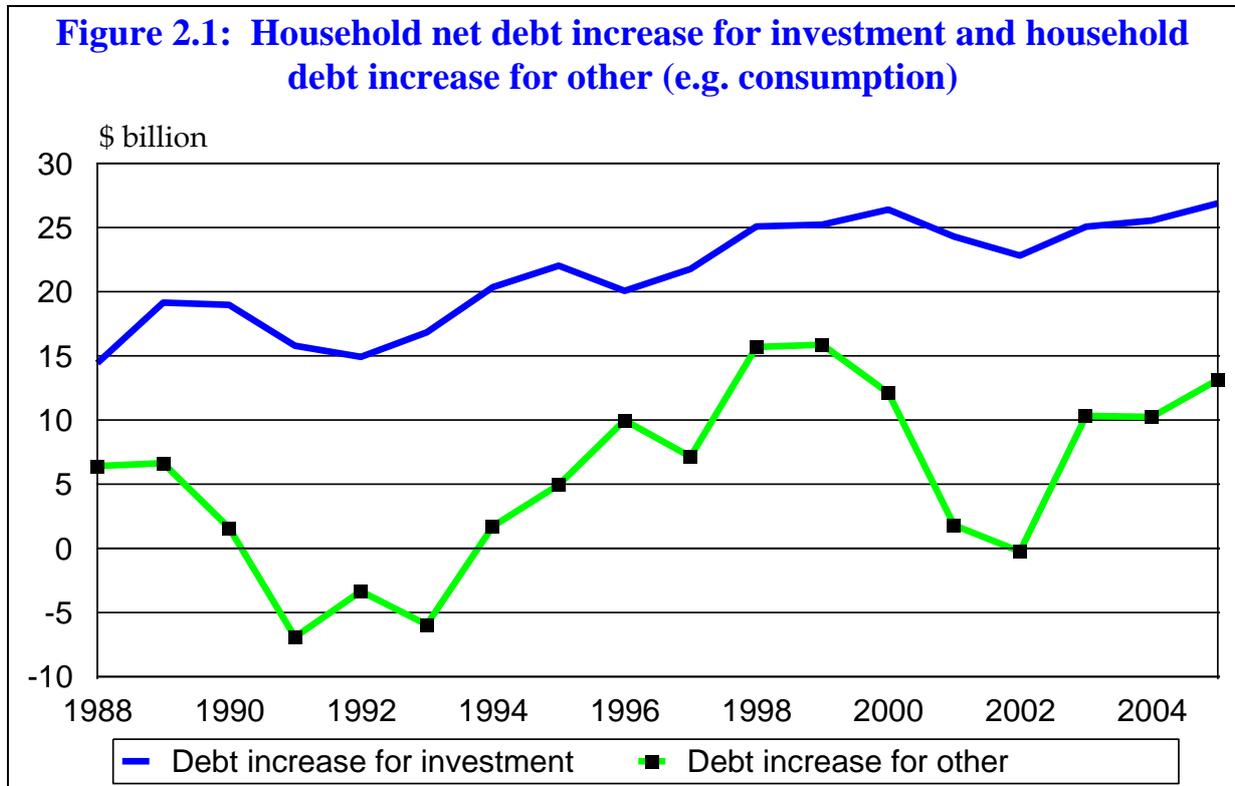
Consumption expenditure is expected to slow in the post-Olympic period, as the introduction of the GST initially increases some prices, adversely effecting inflationary expectations and consumer confidence. Rising interest rates, inflation and slowed growth in real incomes will compound these effects causing a sharp slowdown in private expenditure over 2000-01 and 2002-03. A recovery in private consumption levels is expected to occur by 2003-04, with confidence increasing and real incomes rising.

### **2.1.1 Debt service costs and consumption expenditure growth**

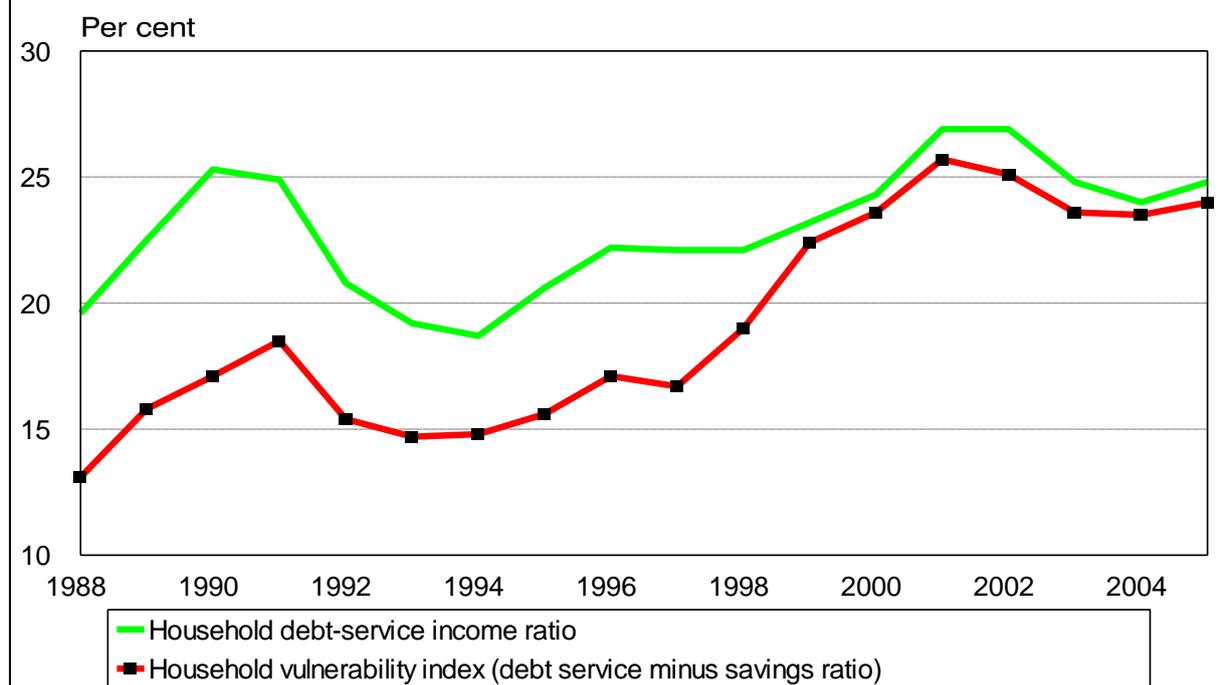
Like the United States, consumption expenditure will have to slow significantly in Australia over the next few years. Since 1994, the low household savings ratio has meant that Australian households have had to borrow to finance consumption expenditure. From Figure 2.2 the build up in household debt for consumption has now reached \$50 billion.

The current household debt service ratio is returning to levels that prevailed just before the last recession in 1989. The upward pressure in interest rates and the downward pressure on household income from increasing debt service costs will produce a significant slowdown in consumption expenditure over the next few years.

From current levels the household debt service ratio is expected to increase by a further 4 percentage points. The impact of this at the regional level is evaluated below.



**Figure 2.3: Household debt-service income ratio and vulnerability index**



### 2.1.2 Investment

In Australia in the post Olympic period, growth in private investment and employment is expected to slow considerably as demand weakens and profit margins narrow. Those industries in the trade exposed sector are expected to experience the greatest downturn, with manufacturing slowing after an initial upturn in 1999-2000 on the back of the partial Asian recovery. Housing construction is expected to commence a cyclical downturn in 2000-01 compounding the impact of slower consumption and investment expenditures. The Olympics will provide some support for the domestic economy. However, by 2000, Olympic related construction investment will be winding down and the impact will largely be through a temporary boost to consumption and the economic multipliers attached to the increased international arrivals.

Business credit growth is softening in line with the less robust business investment outlook. Growth in resource based investments, such as mining, may increase somewhat over 1999-00, as the beginnings of an Asian recovery place some upward pressure on commodity prices. However, non-mining investment is expected to remain subdued. This contraction in investment is expected to occur in 2000-01, as currently investment is being slightly bolstered by the bringing forward of investment plans to coincide with the increased consumption expenditure expected before the GST is introduced, and to cater for Olympic Games related consumption. However, this growth will not be sufficient to stop a downturn in business investment in 2000-01 to 2002-03.

### 2.1.3 Inflation and wages

The Australian economy does not appear to be subject to any strong price or wage pressures, and this situation is expected to continue throughout 1999-00. There may be some increased wage pressure prior to the introduction of the GST in July 2000. So far, however, there have been very few wage agreements that include a reference to the new taxation system or which demand compensation for any one off impact on inflation from the consumption tax. There may also be some increase in wage

pressures as interest rates rise and consumer debt servicing costs increase. Consumers have been borrowing to maintain consumption levels, and once this borrowing becomes unavailable or more costly, they may attempt to increase their income as a way of maintaining expenditure levels. Due to labour market deregulation, the increase in enterprise bargaining agreements and the tightening profit margins of businesses in the medium term, employers may vigorously resist such wage gains.

Inflation is currently very low and is unlikely to accelerate by much in the medium term. In 1998-99 inflation, as recorded by the CPI, was 1.3 per cent.

Some inflationary pressure may occur via the partial economic recovery in Asia, as currencies appreciate and marginal propensity to import remains strong in Australia. However, such pressures are not expected to be a threat in the medium term, as Asia is expected to slip back into an economic slowdown by early next century. The increasing expectation of the Chinese devaluation, which places pressure on other Asian countries to maintain low exchange rates, will also have an effect. Further inflationary pressures in the medium term may come from the introduction of the GST, forecast to increase inflation, as measured by the consumer price index, to over 5 per cent for 2000-01.

In many ways, the growth performance in Australia in the wake of the Asian economic crisis reflects strong economic fundamentals, the implementation of economic reform policies over the last decade and the ability of the external sector to respond with flexibility to changes in the world economy.

#### **2.1.4 Conclusion**

However, this growth has also come at a price. The fall in world commodity prices and devaluation of many major Asian currencies over the last two years has resulted in severe balance of payments problems in Australia. The current account deficit widened to record levels in early 1999, and is expected to remain at 6 per cent of GDP or over throughout 1999-00. If these figures spark off a selling of \$A or bonds, or indeed effect international confidence in the Australian financial system, then interest rates may need to increase by more than expected. When growth slows in Australia in 2001-02, with this kind of balance of payments constraint in effect, it may not be appropriate to use monetary policy to re-stimulate economic activity. The Australian economy may need to slow over this period in order for our external accounts to stabilise, even though the effects of a slowdown are likely to be increased unemployment, reduced investment and declining household disposable income.

As the world economy begins to recover in 2003-2004, Australian economic growth will also strengthen to over 3 per cent for the first time since 1999-2000. This return to moderate to strong growth will be driven largely by economic recovery overseas, but other influences will be:

- increased private investment;
- private consumption expenditure resuming strong growth;
- strengthening real wages;
- a recovery in the external sector; and
- upswing in the construction industry.

One of the forward looking indicators in the **YourPlace** data base is growth potential from national jobs. The current peaking of the construction and consumption cycle has a significant impact on regions. That is, some regions which did well in 1991 to 1998 now face more uncertain prospects, and vice versa.

**Table 2.1 Major economic aggregates: financial year averages – baseline scenario**

	1994- 95	1995- 96	1996- 97	1997- 98	1998- 99	1999- 00	2000- 01	2001- 02	2002- 03	2003- 04	2004- 05
<b>International</b>											
<b>GDP</b>											
Major trading partners	5.2	4.9	4.9	1.5	1.2	2.6	2.0	1.6	2.3	3.5	3.9
<b>Consumer prices</b>											
Major trading partners	3.5	3.1	2.6	3.3	5.3	4.2	3.2	2.9	2.8	3.3	3.5
<b>Demand</b>											
Private consumption	5.2	4.2	2.2	4.7	4.8	3.8	2.7	1.8	2.2	2.4	2.6
Business investment	19.2	10.1	17.6	9.8	0.0	4.5	-6.8	-7.1	10.8	1.6	4.7
Housing	4.6	-9.6	2.8	15.6	3.8	3.5	-10.9	-6.2	7.2	0.1	3.2
GDP	4.7	4.5	3.1	4.6	4.6	3.4	1.8	1.9	3.1	3.2	3.3
<b>External sector</b>											
Current account deficit (\$B)	-28.6	-22.1	-17.4	-23.7	-32.6	-38.5	-37.6	-36.7	-35.4	-34.8	-36.3
CAD as per cent of GDP	-6.0	-4.3	-3.3	-4.2	-5.5	-6.2	-6.0	-5.6	-5.4	-5.0	-5.0
<b>Labour market</b>											
Employment	4.0	2.6	1.1	1.4	2.5	1.9	0.0	1.0	2.2	1.4	1.8
Unemployment rate <sup>1</sup> (%)	8.9	8.5	8.6	8.3	7.3	7.3	8.8	9.3	8.7	8.4	8.3
Population	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.3	1.2	1.3	1.4
<b>Interest rates</b>											
90 day bank bill (%)	7.2	7.5	6.3	5.0	4.9	5.4	6.5	5.5	4.4	4.2	4.8
10 year bond rate (%)	9.9	8.7	7.6	5.8	5.3	6.1	7.2	6.7	5.2	5.0	5.6
<b>Wages and prices</b>											
Average weekly earnings	4.1	4.5	3.9	4.1	3.7	3.7	2.8	3.2	3.9	3.6	4.0
CPI	3.2	4.2	1.3	0.0	1.3	1.7	5.2	4.6	3.1	2.6	2.8
<b>Exchange rates</b>											
\$/US/\$A <sup>1</sup>	74.4	76.0	78.1	68.0	62.6	68.3	66.1	67.3	69.2	70.2	72.3

Notes: Percentage changes from previous year unless otherwise denoted.  
1. Year average.

**Table 2.2 Real gross domestic product by state (compound growth rate – per cent)**

	1990 – 1999	1999 – 2005
New South Wales	2.93	2.32
Victoria	2.25	2.41
Queensland	4.08	3.27
South Australia	1.67	2.15
Western Australia	3.58	2.90
Tasmania	1.63	1.72
Northern Territory	3.19	4.58
Australian Capital Territory	3.00	2.37
<b>Australia</b>	<b>2.88</b>	<b>2.60</b>

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### 3. State of the regions: performance measures and outcomes

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In order to improve the performance of measuring and monitoring regional performance National Economics has developed the **YourPlace** database. The geographical unit of the **YourPlace** database is 632 local government areas of Australia.

The indicators, benchmarks and cluster characteristics that come out of the **YourPlace** data base are aggregated in this State of the Regions to supply the measurement series used in this report. In all, 57 regions are considered. A description of the regions is set out in Attachment 3.1.

#### 3.1 The YourPlace database

The **YourPlace** database consists of hundreds of officially available and estimated (e.g. consumer expenditure patterns, industry output, gross regional product) data series and combines these into 28 indicators for each LGA. The indicators have been selected and designed to reflect a wide-ranging list of potential drivers of socioeconomic change and regional development.

In designing the indicators of the objective has been to capture the factors driving development. These include, inter alia:

- (i) the age structure of the population;
- (ii) household socio-demographic stability (marriage formation, house ownership status);
- (iii) liveability or quality of life of an area as reflected in lifestyle choice (available cultural, recreational and entertainment choice) and the quality and availability of community (health and education) infrastructure; and
- (iv) whether or not households have the skill set and learning characteristics required to effectively compete.

The 28 indicators are divided into three dimensions. The dimensions are:

- the household dimension;
- the regional foundations dimension; and
- the industry dimension.

There is a further quasi dimension covering the description of industry topology. The full list of indicators is shown in Table 3.1.

At the State of the Regions regional level a short description of each indicator is given in the tables and the appendix to this section. The appendix contains tables showing the regions with the bottom 15 and top 15 ranking for each of the indicators.

Indicator values have been prepared for 1991, 1996 and 1998.

**Table 3.1 The potential list of drivers of local area/regional socioeconomic outcomes**

<b>The household dimension</b>	
<ul style="list-style-type: none"> <li>• Household growth</li> <li>• Socio-economic prosperity potential</li> <li>• Socio-economic dynamism</li> <li>• Population growth</li> <li>• Income earning age profile</li> <li>• Aged services</li> <li>• Household wealth</li> </ul>	<ul style="list-style-type: none"> <li>• Resilience to interest rise and income loss</li> <li>• Debt affordability</li> <li>• Job Readiness</li> <li>• Work rate</li> <li>• Labour adaptiveness</li> <li>• Resident jobs from national growth</li> </ul>
<b>The industry dimension</b>	
<ul style="list-style-type: none"> <li>• Local employment provision</li> <li>• Retained retail spending</li> <li>• Industry growth</li> <li>• Industry structure for future growth</li> <li>• Structural employment dynamism</li> </ul>	<ul style="list-style-type: none"> <li>• Output per resident</li> <li>• Industry jobs from national growth</li> <li>• Knowledge driven growth potential</li> <li>• Global knowledge flows</li> </ul>
<b>The regional foundations dimension</b>	
<ul style="list-style-type: none"> <li>• Community welfare</li> <li>• Lifestyle choice</li> <li>• Human capital for growth</li> </ul>	<ul style="list-style-type: none"> <li>• Information Age Skills</li> <li>• Lifetime learning</li> <li>• Commercial infrastructure</li> </ul>
<b>Industry typology</b>	
<ul style="list-style-type: none"> <li>• Agriculture</li> <li>• Mining</li> <li>• Manufacturing – resource based</li> <li>• Manufacturing – broad</li> </ul>	<ul style="list-style-type: none"> <li>• Manufacturing – advanced</li> <li>• Business services</li> <li>• Tourism/smaller business services</li> <li>• Integrated value added production</li> </ul>

In developing the indicators considerable effort has been applied to removing backward looking estimates. The indicators have been designed to reflect:

- (i) where the LGA/region currently is in terms of its structural characteristics; and
- (ii) where it is likely to go over the medium term in terms of key drivers such as population growth, macroeconomic conditions, etc.

Thus, as can be seen from the descriptions given in the Appendix tables, some of the indicators have a projection component in their construction. This gives the indicators and resulting benchmark values the status of reflecting the current and immediate future prospects for a region.

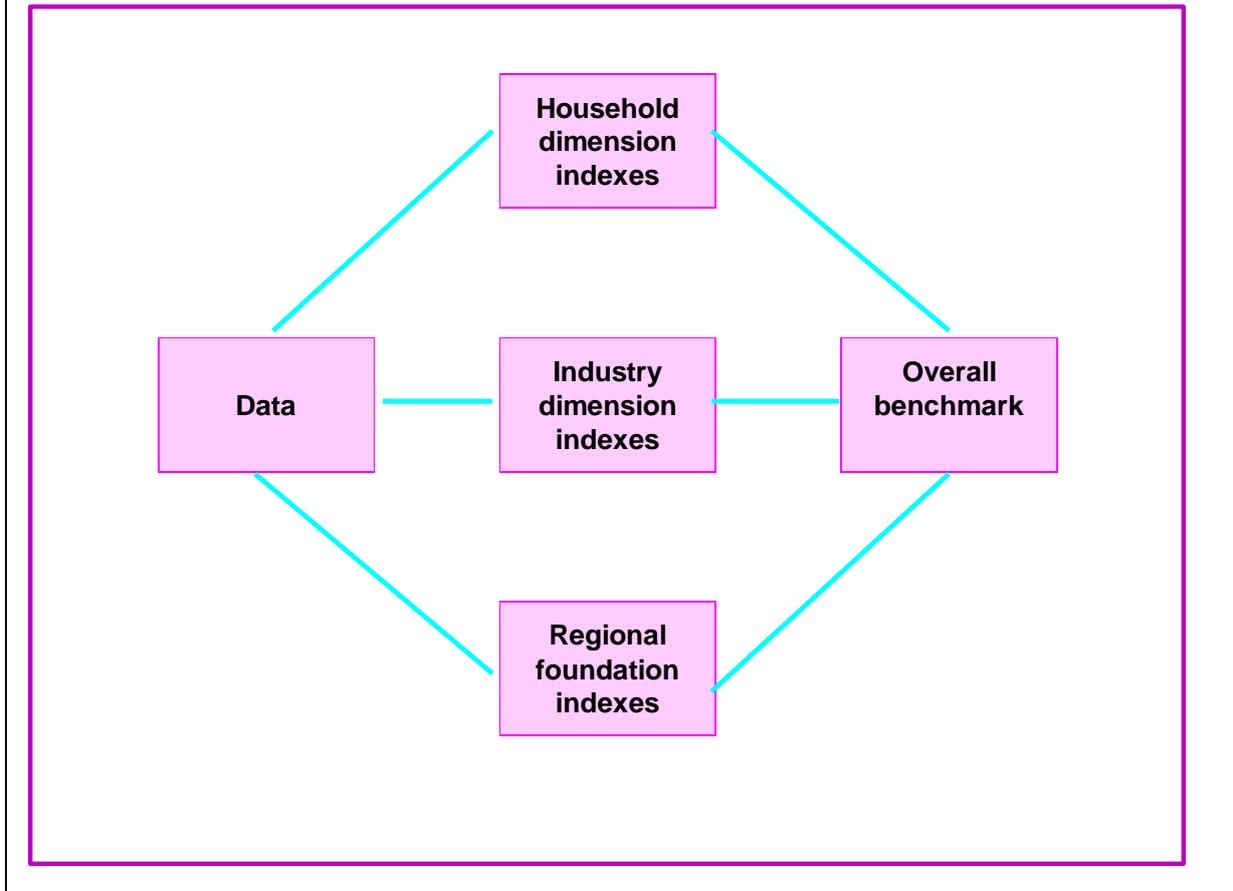
### 3.2 Total regional benchmarks

The objective is to use the available data to produce meaningful benchmarks for local government to utilise. An overview of the process is presented in the Figure 3.1 below.

The economic, demographic and environmental data is used to formulate the indexes, which belong to one of the three dimensions.

These indexes can be used as building blocks to understand the overall composition of a region. It is also desirable to aggregate the individual benchmarks to form an overall benchmark.

**Figure 3.1: Benchmark methodology**



### **3.3 Converting indexes to overall benchmarks**

- All indexes are positive – greatest total is best.
- However, double counting remains an issue, e.g. macro sensitivity and wealth are related.
- Principal component analysis allows only the independent (or orthogonal) components of each to be used.
- Final benchmark ranks are, therefore, based upon the sum of indexes, after removing double counting.
- The total regional benchmarks for 1991, 1996 and 1998 are shown in Section 3.5.

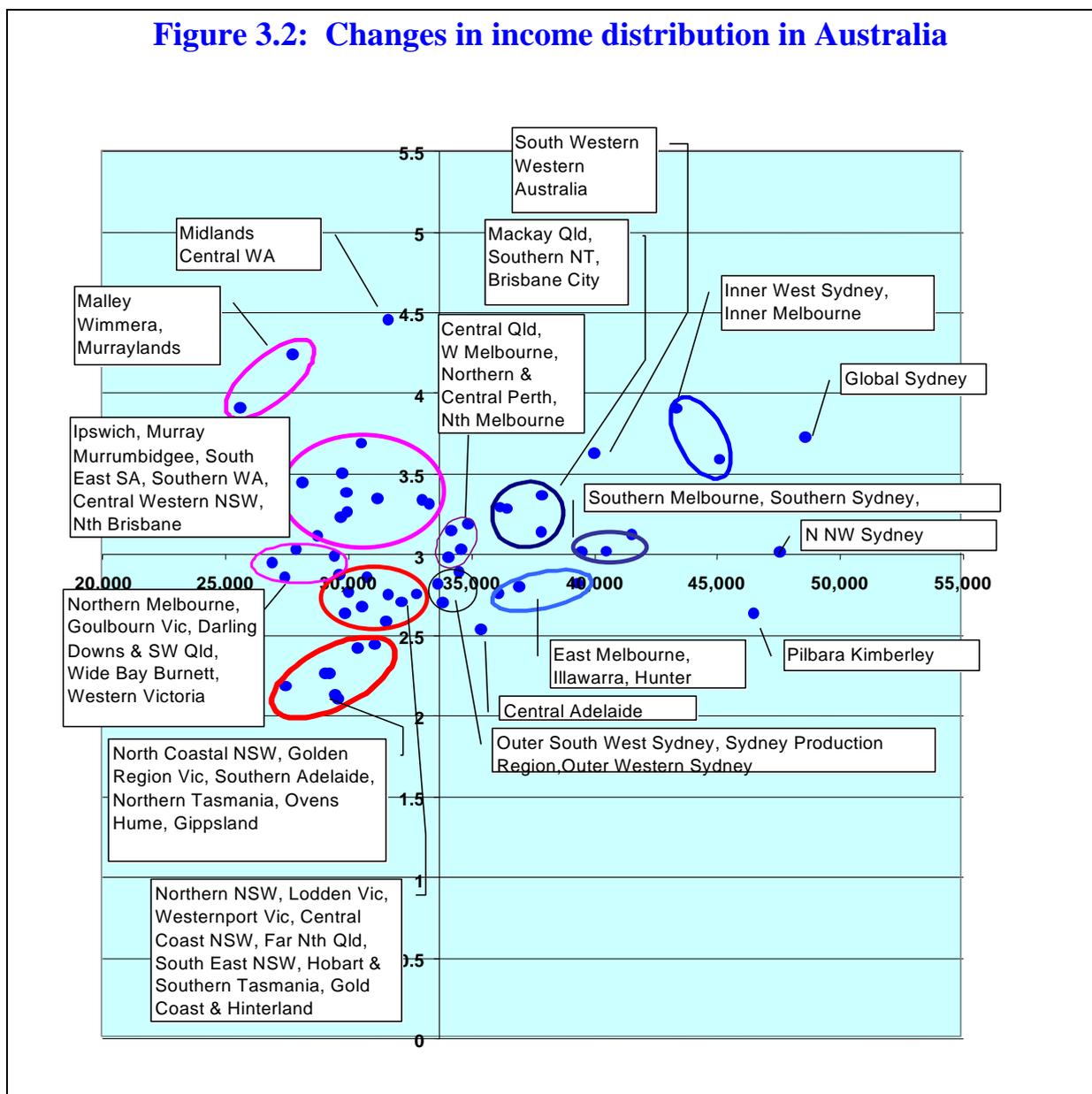
### **3.4 Core regional indicators**

This section uses quadrant analysis to consider changes in three indicators:

- income distribution in regional Australia;
- income and financial security; and
- labour utilisation and unemployment.

### 3.4.1 Income distribution in regional Australia

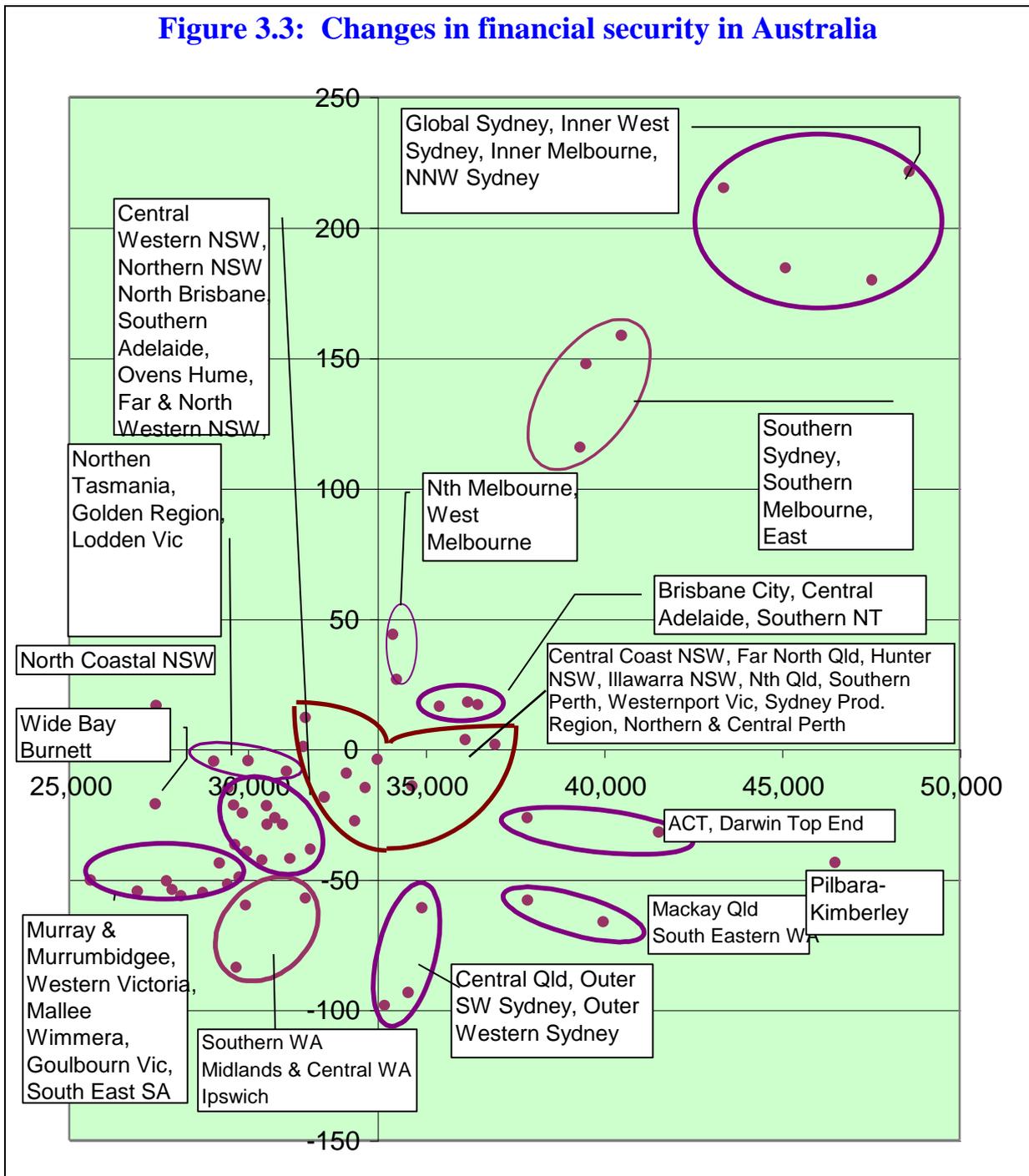
To examine income distribution in regional Australia, we look at changes in taxable income between 1990's. Figure 3.2 shows taxable income per taxpayer in each region in 1997 on the X-axis. This is plotted against the rate of growth per year of taxable income between 1991-1997 on the Y-axis. The graphic result shows that all regions experienced income growth over the 1990s but there are some significant different in growth rates. High income areas Global Sydney, Inner West Sydney, Inner Melbourne grew faster than average, and other high income regions such as Pilbara Kimberley and North North West Sydney held their own. Some low-income areas have improved their performance influenced by prices and climatic conditions, including Midlands Central Western Australia, Mallee Wimmera and Murraylands. Most low-income predominantly rural regions – those in the SE quadrant – are growing below average.



### 3.4.2 Income and financial security

One of the major concerns is the increase in household debt in Australia. Figure 3.3 looks at changes in security between 1994-2002. The analysis looks at the situation where the average household sells up all of its assets. Would the resulting weekly income be higher or lower in 2002 compared to 1994? What the study shows is that 15 out of 57 regions are likely to have more financial security by 2002 than they had in 1994. Three of the big winners are in Sydney – Global Sydney, Inner west Sydney and North North West Sydney. All of the seven regions sharing large gains in assets compared to 1994 are in and around Melbourne and Sydney. All rural and non-metropolitan regions can look forward to a deteriorating ability to manage their debt. This puts large number of Australians in a precarious position in the event of interest rate increases of job losses.

**Figure 3.3: Changes in financial security in Australia**

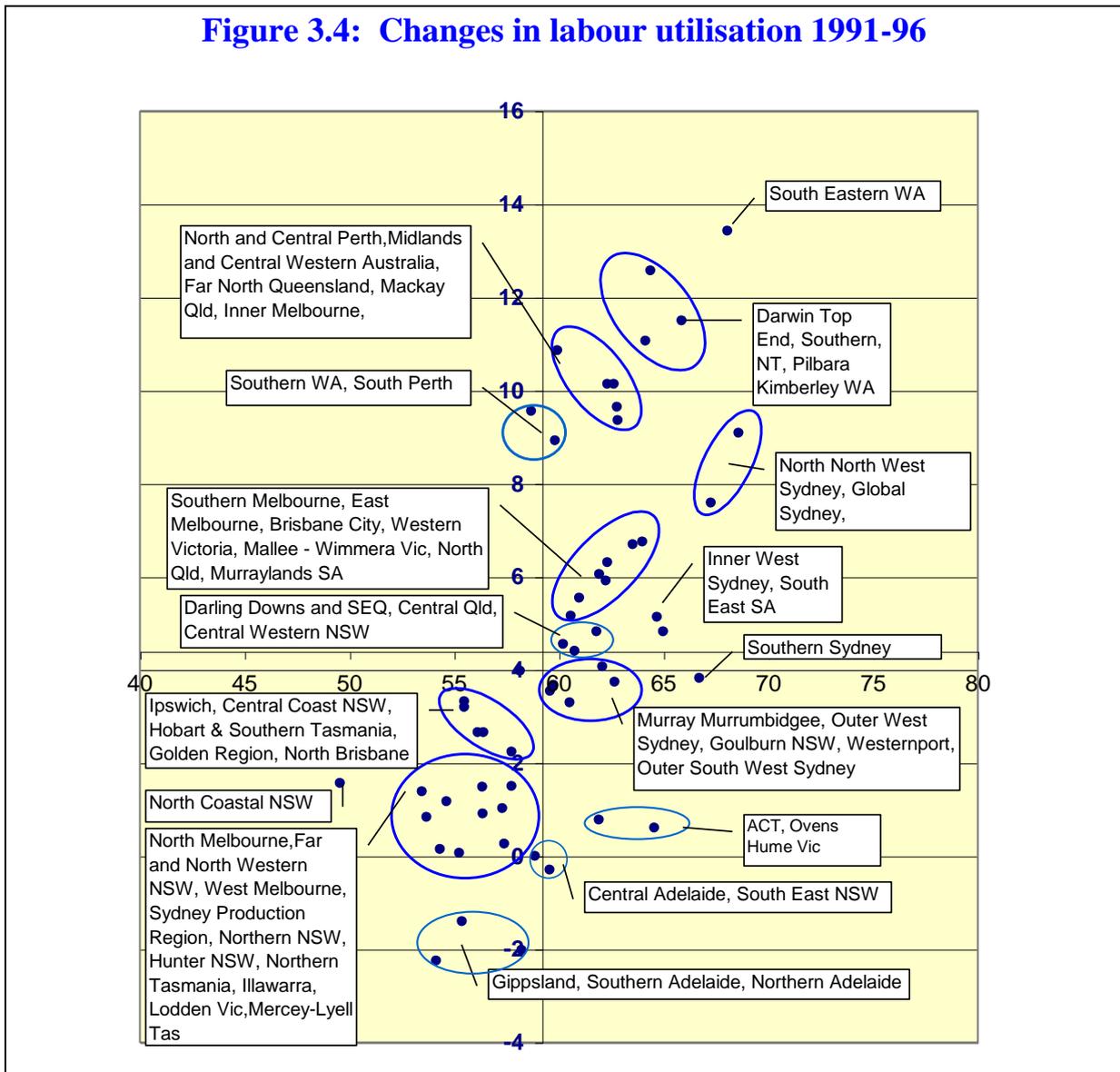


### 3.4.3 Labour utilisation and unemployment

Unemployment statistics are notoriously unreliable and are becoming more so. To address problem, the **YourPlace** database develops a measure of labour utilisation. This is a measure of hours worked by residential labour force compared to available working hours. Figure 3.4 measures progress towards full employment over the inter-Census period 1991-96. The X-axis measures the number of hours worked per week in a region in 1996. The Y-axis measures the change in hours worked as a percentage of available hours over the period 1991-96, calculated as 37.5 hours multiplied by the workforce. The quadrant shows that regions with high utilisation rates in 1996 – Darwin Top End, Southern NT, Pilbara Kimberley, North North West Sydney, Global Sydney – all increased their utilisation rates. On the other hand, many regions with low utilisation rates at the beginning of the decade made little progress in increasing hours worked – North Melbourne, Far and North Western NSW, West Melbourne, Sydney Production Region, Northern NSW, Hunter, Northern Tasmania, Illawarra, Loddon Victoria and Mercey- Lyell Tasmania. Three regions – Gippsland, North and Southern Adelaide – actually went backwards.

Another measure is job readiness, which we define as the proportion of the adult population ready for, or already undertaking, employment. The results of this analysis are set out in Table 3.2.

**Figure 3.4: Changes in labour utilisation 1991-96**



**Table 3.2 Non-job readiness plus short term unemployment rate**

Region	Non-job readiness	+ Unemployment rate	= Total constrained
ACT	8.1%	6.2%	11.7%
Brisbane City	9.7%	6.7%	13.5%
Central Adelaide	11.9%	7.9%	16.4%
Central Coast NSW	13.0%	8.7%	18.0%
Central QLD	10.6%	8.6%	15.6%
Central Western NSW	13.0%	5.7%	16.3%
Darling Downs and South West QLD	14.0%	6.7%	17.8%
Darwin Top End	7.2%	4.0%	9.5%
<b>East Melbourne</b>	<b>8.2%</b>	<b>6.1%</b>	<b>11.7%</b>
Eyre and Yorke SA	15.5%	10.7%	21.7%
Far and North Western NSW	16.0%	7.4%	20.2%
Far North QLD	9.6%	7.7%	14.0%
Gippsland VIC	15.9%	9.6%	21.5%
Global Sydney	6.1%	4.1%	8.5%
Gold Coast and Hinterlands	11.9%	10.3%	17.9%
<b>Golden Region VIC</b>	<b>18.3%</b>	<b>10.8%</b>	<b>24.5%</b>
Goulbourn VIC	15.5%	7.6%	19.8%
Hobart and Southern Tasmania	11.7%	9.1%	16.9%
Hunter NSW	14.0%	9.6%	19.5%
Illawarra NSW	14.0%	11.8%	20.8%
Inner Melbourne VIC	11.7%	7.3%	15.9%
Inner West Sydney	6.7%	2.9%	8.4%
Ipswich QLD	15.7%	9.4%	21.1%
Loddon VIC	16.3%	12.4%	23.4%
Mackay QLD	9.3%	7.4%	13.6%
Mallee – Wimmera	15.3%	5.8%	18.6%
Mallee – Wimmera VIC	16.6%	7.4%	20.9%
Mercy-Lyell TAS	17.2%	11.2%	23.7%
Midlands and Central WA	9.3%	6.3%	13.0%
Murray – Murrumbidgee NSW	11.9%	7.8%	16.3%
Murraylands SA	14.2%	11.3%	20.8%
<b>N.N. West Sydney</b>	<b>4.0%</b>	<b>2.5%</b>	<b>5.4%</b>
North Brisbane	14.0%	8.6%	18.9%
<b>North Coastal NSW</b>	<b>18.1%</b>	<b>13.0%</b>	<b>25.6%</b>
North Melbourne	14.3%	8.3%	19.1%
Northern Adelaide	15.6%	11.9%	22.5%
Northern and Central Perth	9.5%	6.6%	13.3%
Northern NSW	14.7%	7.0%	18.7%
Northern Tasmania	15.7%	10.8%	21.9%
Nth QLD	10.6%	7.5%	14.9%
Outer South West Sydney	10.1%	8.0%	14.7%
Outer West Sydney	8.5%	6.4%	12.2%

**Table 3.2 Non-job readiness plus short term unemployment rate (continued)**

Region	Non-job readiness	+ Unemployment rate	= Total constrained
Ovens – Hume VIC	13.7%	6.8%	17.6%
<b>Pilbara – Kimberley WA</b>	<b>7.0%</b>	<b>5.7%</b>	<b>10.3%</b>
South East NSW	11.7%	8.1%	16.3%
South East SA	9.5%	8.6%	14.5%
South Eastern WA	5.6%	5.4%	8.7%
Southern Adelaide	12.3%	8.4%	17.2%
Southern Melbourne	8.8%	6.6%	12.6%
Southern NT	8.5%	3.7%	10.6%
Southern Perth	10.3%	7.5%	14.6%
Southern Sydney	5.8%	3.8%	8.0%
Southern WA	10.6%	7.5%	14.9%
Sydney Production Region	12.6%	8.9%	17.7%
West Melbourne	14.2%	9.0%	19.4%
Western Victoria	15.4%	7.5%	19.8%
Westernport VIC	12.3%	7.2%	16.5%
<b>Wide-Bay Burnett QLD</b>	<b>18.4%</b>	<b>11.1%</b>	<b>24.8%</b>

*Notes:* Columns 1 and 3 percentage of working aged persons.  
Column 2 percentage of work force (DEETYA).

### 3.5 Regional indicators

The performance of individual regions in the 28 indicators are set out in the following tables.

#### 3.5.1 Household Growth

Income and employment growth for households. LGA with a rating of 100 has the highest estimated income and employment growth.

**Derivation:** The 1991 version of the indicator is based upon reported changes in Census income and employment. The 1996 version estimates actual changes using tax statistics and DEETYA employment estimates. The 1998 version is based on National Economics' projections.

<b>Region</b>	<b>1991</b>	<b>1996</b>	<b>1998</b>
<b>Top 15</b>			
Inner Melbourne VIC	83	91	89
Pilbara – Kimberley WA	73	72	88
Midlands and Central WA	62	59	87
South Eastern WA	86	87	85
Southern NT	58	74	78
Darwin Top End	73	85	76
Mackay QLD	78	84	76
Hobart and Southern Tasmania	44	46	75
Gold Coast and Hinterlands	52	52	75
Global Sydney	72	84	71
Northern Tasmania	34	36	70
N.N. West Sydney	62	74	70
Southern WA	65	50	69
Far North QLD	65	71	66
East Melbourne	43	55	64
Southern Melbourne	59	68	63
<b>Bottom 15</b>			
Westernport VIC	33	60	38
Golden Region VIC	39	30	35
Northern Adelaide	20	33	35
West Melbourne	34	68	34
Outer South West Sydney	43	43	33
Northern NSW	25	55	32
Sydney Production Region	33	56	32
Murray – Murrumbidgee NSW	52	39	25
ACT	35	57	24
South East NSW	30	49	22
Far and North Western NSW	36	57	22
Central Western NSW	54	66	21
Hunter NSW	33	65	20
Illawarra NSW	35	29	14
Unincorporated NSW	27	67	8

### 3.5.2 Household Prosperity Potential

Potential prosperity based on local socio-economic profile. LGA with a rating of 100 has the socioeconomic profile consistent with the highest growth in income and employment.

**Derivation:** Data used includes:

- (i) proportion of renters to home owners;
- (ii) English speaking skills;
- (iii) marriage/divorce rates;

- (iv) income disparity;
- (v) household lifestyle and propensity to spend;
- (vi) skills of workforce; and
- (vii) levels of education.

<b>Region</b>	<b>1991</b>	<b>1996</b>	<b>1998</b>
<b>Top 15</b>			
Southern NT	99	97	97
Inner Melbourne VIC	97	98	96
ACT	100	100	93
Darwin Top End	97	95	92
Global Sydney	90	92	87
Pilbara – Kimberley WA	92	82	86
Unincorporated NT	97	88	84
Unincorporated SA	95	72	83
Unincorporated NSW	50	71	81
South Eastern WA	81	76	79
N.N. West Sydney	90	91	75
Inner West Sydney	76	85	74
Brisbane City	58	65	65
Midlands and Central WA	70	59	64
Far North QLD	75	71	60
Mackay QLD	64	64	56
<b>Bottom 15</b>			
Illawarra NSW	61	62	32
Gippsland VIC	43	41	27
Mercy-Lyell TAS	17	17	27
Hunter NSW	48	54	25
Ipswich QLD	39	45	24
Northern Adelaide	25	25	24
North Brisbane	43	47	22
North Melbourne	30	35	21
Loddon VIC	27	31	20
Golden Region VIC	39	41	19
West Melbourne	24	29	17
Central Coast NSW	42	50	15
Westernport VIC	34	33	15
Wide-Bay Burnett QLD	17	21	13
North Coastal NSW	28	29	12

### 3.5.3 Socioeconomic Dynamism

Household prospects for change based on national growth trends related to socioeconomic factors. LGA with a rating of 100 has the socio-economic mix consistent with the fastest change in prosperity.

**Derivation:** Same as Prosperity potential.

**Context:** Many regions within Australia are characterised by slow transformation in household prosperity. If this slow transformation is coupled with poor prosperity potential this slowly decaying household prosperity is cause for concern. Hence, this indicator describes the speed of the change of the prosperity indicator. The indicator, therefore, captures the rate of change differentials between regions.

Region	1991	1996	1998
<b>Top 15</b>			
Unincorporated NSW	69	96	97
Southern NT	63	71	92
Unincorporated SA	83	89	92
Inner Melbourne VIC	70	93	90
Darwin Top End	51	61	84
Pilbara – Kimberley WA	92	70	84
South Eastern WA	86	54	76
ACT	42	65	73
Midlands and Central WA	86	60	69
Global Sydney	43	64	68
Unincorporated NT	36	35	62
Far North QLD	56	40	56
Mackay QLD	54	36	54
Ovens – Hume VIC	41	58	53
Eyre and Yorke SA	45	55	52
Inner West Sydney	32	51	52
<b>Bottom 15</b>			
North Brisbane	25	16	22
North Coastal NSW	16	28	22
Hunter NSW	10	18	22
Brisbane City	29	15	20
Central Coast NSW	10	22	19
Golden Region VIC	14	24	17
Wide-Bay Burnett QLD	30	17	16
Westernport VIC	12	21	16
East Melbourne	14	21	15
Ipswich QLD	25	10	15
Southern Sydney	7	11	13
Sydney Production Region	7	10	12
Illawarra NSW	5	9	12
North Melbourne	9	13	9
West Melbourne	7	13	8

### 3.5.4 Resident Jobs from National Growth

Estimated resident jobs flow-on from changing national employment to 2002. LGA with a rating of 100 has its residents working in industries with the highest jobs growth based on forecasts for each industry.

**Derivation:** National Economics' forecasts for the national annual growth rates for four digit ANZIC industries (covering approximately 500 different industries) for 1998-2002. The index is derived by calculating the weighted average LGA output growth rate using the LGA's four-digit output structure. Those LGAs with high overall weighted average growth rate (given the national trends) will have a high value for the index. The 1991 and 1996 index values are derived from the 1991 to 1996 and the 1996 to 1998 respective national industry changes in employment. The 1998 value of this index is derived from National Economics' projections.

**Context:** It is important to recognise that this measure is a potential measure rather than indicating a realised outcome. This is because its up to the region itself to capture similar trends that the industry experiences at a national level, or offset those trends if the national trends are adverse.

Region	1991	1996	1998
<b>Top 15</b>			
ACT	68	46	98
Unincorporated NT	31	41	96
Southern NT	82	60	88
Darwin Top End	79	45	88
Global Sydney	91	80	86
Inner West Sydney	92	78	85
Inner Melbourne VIC	95	92	84
Central Adelaide	88	78	84
Unincorporated NSW	46	12	81
Hobart and Southern Tasmania	75	72	81
Brisbane City	85	74	80
N.N. West Sydney	94	85	78
North Coastal NSW	82	73	76
South East NSW	66	57	73
Northern and Central Perth	87	82	73
Southern Adelaide	80	75	72
<b>Bottom 15</b>			
Hunter NSW	66	55	52
Central Western NSW	47	52	51
Outer South West Sydney	66	68	47
North Melbourne	65	78	47
Sydney Production Region	74	69	47
Central QLD	43	44	45
South East SA	59	64	44
Unincorporated SA	74	32	44
Pilbara – Kimberley WA	54	81	42
Mackay QLD	46	69	40
West Melbourne	60	75	39
Westernport VIC	73	86	38
Midlands and Central WA	42	50	36
Southern WA	53	67	35
South Eastern WA	74	71	25

### 3.5.5 Job Readiness

Proportion of the adult population ready for, or already undertaking, employment. LGA with a rating 100 has the fewest long term unemployed, migrant unemployed and recipients of other social security benefits associated with structural unemployment such as a disability payment.

**Derivation:** There is a direct relationship between the proportion of the population comprising unemployed migrants; long term unemployed; and recipients of sole parents, sickness and disability benefits and the employability of people not in work. Data is derived from Department of Social Security statistics and is a weighted measure of the number of recipients as a proportion of the workforce.

**Context:** The official unemployment statistics show a steady improvement since the early 1990 decade. The reality is that there are differential unemployment rates between regions because of structural barriers to employing some of those in the unemployed pool. More importantly, however, has been the practice of governments to reduce the headline unemployment rate by shifting social welfare recipients to other categories, such as disability support pensions.

Region	1991	1996	1998
<b>Top 15</b>			
N.N. West Sydney	95	92	94
South Eastern WA	65	50	85
Southern Sydney	79	78	84
Global Sydney	68	78	82
Inner West Sydney	54	70	79
Pilbara – Kimberley WA	63	61	77
Darwin Top End	42	65	76
ACT	83	83	71
East Melbourne	85	79	70
Southern NT	32	69	69
Outer West Sydney	79	64	69
Unincorporated SA	14	63	67
Southern Melbourne	70	69	67
Mackay QLD	61	67	64
Midlands and Central WA	51	48	64
Northern and Central Perth	47	25	63
<b>Bottom 15</b>			
Northern NSW	44	43	34
Western Victoria	61	62	30
Goulbourn VIC	54	51	30
Eyre and Yorke SA	27	29	30
Northern Adelaide	33	32	30
Northern Tasmania	40	37	29
Ipswich QLD	37	38	29
Gippsland VIC	48	38	28
Far and NW NSW	21	31	27
Loddon VIC	36	39	26
Mercy-Lyell TAS	33	36	21
North Coastal NSW	9	24	16
Golden Region VIC	44	40	15
Wide-Bay Burnett QLD	23	21	14
Unincorporated NSW	32	28	4

### 3.5.6 Progression to Full Employment

The speed of adjustment of a regions movement towards maximum utilisation of its labour resources. The LGA with a rating of 100 will have made the greatest progress in bridging the gap between its previous levels of utilisation and maximum capacity.

**Derivation:** This index involves a time series calculated on the data used for previous index, Labour Utilisation. This index compares rate at which an LGAs labour utilisation rate will converge with the current best performing LGAs, based on past labour market performance . This index adjusts for changes in the participation rate and internal factors causing different levels of labour utilisation across LGAs. Most importantly, this index shows how the region is coping with the casualisation of the workforce.

Region	1991	1996	1998
<b>Top 15</b>			
Mackay QLD	46	58	94
South Eastern WA	69	79	89
Unincorporated NSW	94	94	85
Central QLD	46	47	85
N.N. West Sydney	80	84	83
Inner Melbourne VIC	47	58	83
Nth QLD	43	47	82
Global Sydney	71	76	81
Darwin Top End	52	69	80
Outer West Sydney	60	60	77
Southern NT	63	73	76
Northern and Central Perth	24	42	75
Pilbara – Kimberley WA	54	63	75
ACT	78	71	74
Brisbane City	51	59	70
Inner West Sydney	70	66	68
<b>Bottom 15</b>			
Northern NSW	41	33	29
Western Victoria	51	53	27
Northern Tasmania	20	17	26
Eyre and Yorke SA	32	24	25
Darling Downs and South West QLD	48	49	25
Hobart and Southern Tasmania	26	24	24
Central Coast NSW	26	24	22
Ipswich QLD	34	30	21
North Coastal NSW	5	5	20
Mercy-Lyell TAS	15	14	18
Unincorporated SA	71	79	17
Northern Adelaide	29	22	15
Golden Region VIC	19	20	11
Illawarra NSW	17	14	9
Unincorporated NT	1	1	8

### 3.5.7 Labour Utilisation

Hours worked by residential labour force compared to available working hours. LGA with a rating of 100 is the most successful in employing the available pool of labour measured in hours of employment.

**Derivation:** This index measures total hours worked, divides them by the labour force and multiplies by 37.5 (average full time weekly hours) to provide the labour utilisation rate. A low rate will reflect lower levels of total income and spending within the region which will constrain local economic growth prospects. This index is derived from National Economics modelling, ABS labour force survey statistics, Census data and DEETYA information.

**Context:** Participation rate variations and the growing number of workers in part time and casual work has undermined the usefulness of the unemployment rate as a measure of a community's success in winning work. This is because a worker is counted as employed even if he/she is able to obtain 10 hours work per week. As much job growth is now in casual and part time work, and conversely many full time positions are being down scaled to part time, this measure is crucial in capturing these changes.

Region	1991	1996	1998
<b>Top 15</b>			
Mackay QLD	66	82	94
Inner Melbourne VIC	24	82	91
Nth QLD	60	62	89
Central QLD	51	53	87
South Eastern WA	74	87	84
Northern and Central Perth	20	90	83
Outer West Sydney	79	50	81
Darwin Top End	17	86	80
West Melbourne	13	35	80
Global Sydney	60	66	78
Brisbane City	48	67	77
Hunter NSW	69	26	76
Southern NT	33	85	76
ACT	32	31	74
N.N. West Sydney	73	73	74
Central Adelaide	50	26	73
<b>Bottom 15</b>			
Central Coast NSW	89	44	37
Unincorporated NSW	66	62	36
Southern WA	43	80	34
Outer South West Sydney	68	51	34
South East SA	55	56	32
Northern Adelaide	34	14	30
Murray – Murrumbidgee NSW	58	51	27
Illawarra NSW	56	29	27
Ipswich QLD	52	42	27
Southern Sydney	64	48	26
Murraylands SA	32	59	25
Golden Region VIC	21	50	24
Darling Downs and South West QLD	46	57	18
Western Victoria	17	62	17
Unincorporated SA	21	83	2

### 3.5.8 Debt Affordability

Household capacity to manage debt. LGA with a rating of 100 has the highest resilience compared to its asset base and, therefore, the lowest exposure to debt risk.

**Derivation:** This indicator compares the macro resilience position of a region with its wealth position.

**Context:** Current economic growth in Australia is largely driven by low income households or households with negative savings rates borrowing to undertake consumption and other expenditures. Eventually this must come to an end and those regions with the highest ratio of debt to their asset base will bear the brunt of adjustment.

Region	1991	1996	1998
<b>Top 15</b>			
Unincorporated NT	100	100	100
Unincorporated SA	97	99	98
Eyre and Yorke SA	61	77	83
Mercy-Lyell TAS	39	52	76
Unincorporated NSW	98	92	75
Pilbara – Kimberley WA	76	74	71
Northern Tasmania	52	59	71
Southern NT	72	71	70
Far and North Western NSW	63	66	68
Central Adelaide	60	67	68
North Coastal NSW	20	46	68
Southern Adelaide	57	58	66
Hobart and Southern Tasmania	48	56	66
Northern Adelaide	51	56	65
Northern NSW	54	60	63
Midlands and Central WA	64	64	61
<b>Bottom 15</b>			
North Melbourne	22	28	39
West Melbourne	19	26	35
Central QLD	30	29	35
Mackay QLD	30	29	32
Darling Downs and South West QLD	20	19	31
Westernport VIC	16	17	30
Gold Coast and Hinterlands	20	25	29
Central Coast NSW	7	10	21
Ovens – Hume VIC	14	19	20
Sydney Production Region	8	12	18
Goulbourn VIC	13	15	17
North Brisbane	8	8	16
Ipswich QLD	3	3	6
Outer West Sydney	8	3	5
Outer South West Sydney	5	3	4

### 3.5.9 Resilience to Interest Rises and Income Falls

Household capacity to weather increases in interest rates and reductions in income. LGA with a rating of 100 has the best capacity for maintaining investment and spending in the event of interest rate rises and reduced income.

**Derivation:** The core components of the index are:

- (i) estimated average debt service ratio;
- (ii) estimated savings ratio; and
- (iii) financial assets coverage ratio.

The higher the average household savings and financial assets to income ratio and the lower the debt service burden, the less vulnerable is the household sector to macroeconomic shocks such as a large interest rate increase. The lower the rating, the more likely it is that the households in the LGA will need to cut back consumption and investment to weather the economic shock. Index derived from National Economics Household Debt Model based on national accounts and ABS household expenditure survey.

Region	1991	1996	1998
<b>Top 15</b>			
N.N. West Sydney	97	97	98
ACT	98	97	96
Inner Melbourne VIC	91	93	96
Inner West Sydney	88	93	95
Global Sydney	87	92	94
Southern Sydney	87	92	94
Southern Melbourne	89	90	94
East Melbourne	90	89	93
Southern NT	92	92	91
Central Adelaide	86	85	86
Unincorporated NT	76	84	85
Darwin Top End	87	81	82
Pilbara – Kimberley WA	81	83	80
Brisbane City	76	80	79
South Eastern WA	79	76	72
North Melbourne	56	57	69
<b>Bottom 15</b>			
Northern NSW	34	38	41
Western Victoria	42	42	41
South East SA	43	41	41
Central QLD	37	37	39
Ovens – Hume VIC	33	34	39
Southern WA	38	36	38
Mercy-Lyell TAS	19	26	36
North Brisbane	24	27	33
Goulbourn VIC	28	28	32
Darling Downs and South West QLD	23	27	30
Outer West Sydney	41	26	29
Wide-Bay Burnett QLD	12	16	26
Murraylands SA	19	21	26
Outer South West Sydney	30	21	22
Ipswich QLD	11	9	11

### 3.5.10 Wealth

Household wealth held in financial assets, house values and unincorporated business assets. LGA with a rating of 100 has the highest estimated asset base for households.

**Derivation:** The total household wealth is calculated using National Economics household debt model. In this model asset values are based on typical rates of income yield or return. House prices are calculated using sources such as Census rental prices, industry data and published house prices. Superannuation is not included. The total value of assets is tracked through time in order to reflect changes over all asset classes.

**Context:** The wealth indicator is extremely important because, although the income differentials between regions are well known, in many ways the wealth differentials are more important. This is because wealthier regions have a much greater level of household resources to withstand income shocks and to exploit further wealth creating opportunities.

Region	1991	1996	1998
<b>Top 15</b>			
N.N. West Sydney	99	99	99
Inner West Sydney	97	97	97
Southern Sydney	97	97	97
Global Sydney	97	97	97
Inner Melbourne VIC	94	94	95
East Melbourne	95	93	94
Southern Melbourne	94	93	94
ACT	94	93	91
Outer West Sydney	85	86	87
Outer South West Sydney	77	81	81
Sydney Production Region	79	80	81
Brisbane City	84	84	81
North Melbourne	81	76	79
Westernport VIC	79	76	79
Central Coast NSW	77	76	77
West Melbourne	75	71	74
<b>Bottom 15</b>			
Midlands and Central WA	41	41	41
Murray – Murrumbidgee NSW	36	37	38
Southern WA	40	39	38
North Coastal NSW	37	35	37
Northern NSW	31	31	32
South East SA	36	34	32
Unincorporated NSW	22	31	32
Northern Adelaide	40	32	30
Far and NW NSW	24	27	27
Wide-Bay Burnett QLD	28	25	23
Murraylands SA	22	19	18
Mercy-Lyell TAS	21	22	18
Eyre and Yorke SA	22	17	16
Unincorporated SA	18	14	13
Unincorporated NT	8	11	10

### 3.5.11 Population Growth

Population growth expected to 2002. LGA with a rating of 100 has the highest projected population growth.

**Derivation:** The 1991 and 1996 versions of this indicator are the actual growth rates for the regions as detailed by the ABS. The 1998 version of this indicator is based on PopInfo population projection modelling. It captures the anticipated growth in population to 2002.

Region	1991	1996	1998
<b>Top 15</b>			
Gold Coast and Hinterlands	87	83	92
Outer West Sydney	75	63	87
Central Coast NSW	87	78	86
Unincorporated NT	26	70	86
North Brisbane	88	84	85
Outer South West Sydney	73	62	84
North Coastal NSW	69	64	77
Ipswich QLD	77	58	76
Far North QLD	50	72	72
Pilbara – Kimberley WA	10	78	71
Unincorporated SA	2	17	69
Wide-Bay Burnett QLD	77	64	67
Westernport VIC	69	66	66
ACT	73	40	65
South Eastern WA	68	70	65
West Melbourne	68	67	63
<b>Bottom 15</b>			
Southern Sydney	67	66	42
Northern Tasmania	52	34	39
East Melbourne	60	60	38
Gippsland VIC	49	45	38
Southern Melbourne	66	65	37
Unincorporated NSW	35	39	37
Eyre and Yorke SA	41	35	37
Mercy-Lyell TAS	45	31	36
Hobart and Southern Tasmania	55	37	36
Murray – Murrumbidgee NSW	50	43	34
Central Western NSW	51	44	33
Northern NSW	32	26	29
Inner West Sydney	52	63	28
Western Victoria	43	37	26
Central Adelaide	47	48	23

### 3.5.12 Income-Earning Age Profile

Rate of ageing as a pointer to shrinkage of a region's total income and spending capacity. LGA with a rating of 100 has highest total population growth compared to the growth of 65 and over.

**Derivation:** The 1991 and 1996 versions of this indicator uses the actual comparative growth rates for the regions as detailed by the ABS. The 1998 version of this indicator is based on PopInfo population projection modelling for both aged and general population growth up to 2002.

Region	1991	1996	1998
<b>Top 15</b>			
Darwin Top End	77	18	87
Outer South West Sydney	56	79	85
North Brisbane	60	61	84
Pilbara – Kimberley WA	85	1	83
Unincorporated NT	72	4	79
Outer West Sydney	41	67	78
Ipswich QLD	34	61	78
Southern NT	74	3	76
Gold Coast and Hinterlands	64	52	72
Wide-Bay Burnett QLD	46	50	70
ACT	57	84	70
Far North QLD	69	17	67
Mackay QLD	58	25	66
Northern and Central Perth	43	50	66
Nth QLD	61	33	61
Southern Perth	48	64	61
<b>Bottom 15</b>			
Eyre and Yorke SA	50	46	33
Central Coast NSW	23	55	29
Hobart and Southern Tasmania	38	58	25
Unincorporated NSW	27	22	24
South East SA	41	55	23
Mercy-Lyell TAS	41	55	23
Southern Sydney	25	41	22
Western Victoria	32	47	20
Global Sydney	14	25	16
Northern Tasmania	35	54	15
Inner West Sydney	16	21	13
Central Adelaide	29	35	12
Brisbane City	20	25	7
Inner Melbourne VIC	9	19	7
Southern Melbourne	17	41	6

### 3.5.13 Aged Services

Accommodation available for ageing population. LGA with a rating of 100 is the most prepared to house its ageing population.

**Derivation:** The index represents a demand equation, comparing the anticipated ageing characteristics of the population with the current availability of aged care housing including private and public nursing homes and hostel-type accommodation. Sources are National Economics PopInfo; government administrative services; ABS. This index will be developed further to include other aged services.

Region	1991	1996	1998
<b>Top 15</b>			
Inner West Sydney	78	86	88
N.N. West Sydney	65	72	74
Inner Melbourne VIC	62	71	73
South Eastern WA	57	71	73
Central Adelaide	62	69	72
Southern Melbourne	52	66	68
Ipswich QLD	55	63	65
Loddon VIC	55	65	65
Sydney Production Region	54	63	65
Outer South West Sydney	57	63	65
Global Sydney	51	62	64
Brisbane City	54	60	63
East Melbourne	54	59	61
Southern Sydney	48	58	61
Unincorporated NSW	67	51	60
Southern Perth	51	55	60
<b>Bottom 15</b>			
North Coastal NSW	39	43	45
Murray – Murrumbidgee NSW	41	42	45
Mackay QLD	35	44	44
Southern WA	41	37	44
Far North QLD	38	43	43
Northern NSW	42	40	43
South East NSW	36	39	41
Mercy-Lyell TAS	42	39	41
Gold Coast and Hinterlands	36	37	40
Eyre and Yorke SA	36	36	38
Far and NW NSW	36	36	38
Murraylands SA	27	24	27
Darwin Top End	18	31	26
South East SA	26	20	24
Pilbara – Kimberley WA	19	19	14

### 3.5.14 Household Growth

Income and employment growth for households. LGA with a rating of 100 has the highest estimated income and employment growth.

**Derivation:** The 1991 version of the indicator is based upon reported changes in Census income and employment. The 1996 version estimates actual changes using tax statistics and DEETYA employment estimates. The 1998 version is based on National Economics' projections.

Region	1991	1996	1998
<b>Top 15</b>			
Unincorporated NSW	0	48	99
Brisbane City	68	16	88
Inner Melbourne VIC	65	13	80
Northern and Central Perth	77	18	70
ACT	62	19	66
Southern Sydney	51	22	61
Global Sydney	60	20	57
Southern Adelaide	54	27	56
Southern Melbourne	53	17	55
East Melbourne	56	17	54
Loddon VIC	42	34	54
Southern NT	63	10	51
Gold Coast and Hinterlands	70	20	51
Far and North Western NSW	49	37	50
North Coastal NSW	46	29	50
Pilbara – Kimberley WA	92	7	50
<b>Bottom 15</b>			
Midlands and Central WA	40	49	33
South East SA	36	46	32
Darwin Top End	50	20	32
Outer West Sydney	55	23	30
Far North QLD	67	27	28
South Eastern WA	82	14	28
Nth QLD	57	31	27
Southern Perth	55	25	27
Southern WA	49	39	25
Illawarra NSW	67	16	24
Central QLD	66	24	24
North Brisbane	63	29	23
Mackay QLD	63	33	22
Central Coast NSW	55	22	20
Unincorporated NT	80	32	16

### 3.5.15 Local Employment Provision

Capacity of local industry to provide jobs for residents. LGA with a rating of 100 has the most jobs per resident.

**Derivation:** The index is expressed as a ratio of full time equivalent jobs within the LGA divided by the resident labour force. This index identifies places with job surpluses (more jobs than resident labour force) and deficits. LGAs which contain central city business districts or regional employment centres are identified by this index as are suburban LGAs containing many dormitory suburbs. Data derived from Census; Business Register Counts and National Economics modelling.

Region	1991	1996	1998
<b>Top 15</b>			
Unincorporated NSW	3	100	100
Inner Melbourne VIC	96	92	92
Global Sydney	88	86	84
Brisbane City	75	78	75
Central Adelaide	78	75	74
Unincorporated SA	97	79	73
South Eastern WA	62	70	68
Northern and Central Perth	62	66	66
Pilbara – Kimberley WA	75	64	65
Far North QLD	50	57	61
Hobart and Southern Tasmania	64	62	59
Unincorporated NT	18	26	59
ACT	59	63	59
Central QLD	49	58	58
Nth QLD	55	63	58
Mackay QLD	49	61	57
<b>Bottom 15</b>			
Golden Region VIC	34	31	32
Gold Coast and Hinterlands	17	27	31
West Melbourne	31	30	30
Illawarra NSW	32	33	29
Gippsland VIC	41	27	28
North Coastal NSW	27	29	27
Loddon VIC	26	26	26
Ipswich QLD	19	23	23
North Brisbane	13	20	23
N.N. West Sydney	24	22	21
Southern Adelaide	22	20	20
Outer West Sydney	17	20	19
Central Coast NSW	16	19	18
Southern Sydney	18	18	16
Outer South West Sydney	14	16	16

### 3.5.16 Industry Jobs from National Growth

Growth of jobs in local industries expected from trends in national industrial growth. LGA with rating of 100 is estimated to benefit from the strongest job creation based on national trends in its local industries.

**Derivation:** Based on same employment statistics as Resident Jobs from National Growth (Index 11). Growth in national employment is interpolated into local jobs based on the make up of industries at the local level. The index is based on where people work, rather than where they live as in the Resident Jobs from National Growth Index.

Region	1991	1996	1998
<b>Top 15</b>			
Unincorporated NT	45	42	98
ACT	68	46	94
Brisbane City	78	62	84
Ipswich QLD	42	60	84
Southern NT	81	62	84
Central Adelaide	85	62	80
Inner Melbourne VIC	75	51	79
Darwin Top End	79	45	78
Gold Coast and Hinterlands	92	72	77
Global Sydney	86	57	77
North Brisbane	85	72	75
Hobart and Southern Tasmania	72	66	75
Nth QLD	50	62	74
Northern and Central Perth	84	68	74
Unincorporated NSW	65	8	73
South East NSW	65	54	73
<b>Bottom 15</b>			
Northern Adelaide	57	78	47
Mercy-Lyell TAS	64	78	47
Westernport VIC	70	83	46
Outer South West Sydney	69	80	45
Southern Melbourne	86	94	44
Sydney Production Region	71	75	41
Central QLD	39	46	37
West Melbourne	53	78	35
Southern WA	51	59	31
Unincorporated SA	34	23	30
Mackay QLD	39	60	30
Midlands and Central WA	40	46	30
North Melbourne	57	82	28
South Eastern WA	82	73	18
Pilbara – Kimberley WA	57	75	17

### 3.5.17 Industry Structure for Future Growth

Proportion of workforce likely to benefit from structural changes in industry. LGA with a rating of 100 is predicted to have the best net change in employment due to changes in the industry structure based on national trends.

**Derivation:** This index shows the total net effect on employment of likely industry changes. The trends differ across industries: a heavy concentration of employment in some industries could lead to job loss, while a heavy concentration in others could be an advantage. The index measures the percentage of workers expected to win/lose from changes in the local industry structure in the short term. Data is derived from ABS business activity and size profiles and production parameters generated by National Economics' industry activity model.

The index should be read together with the following index, Structural Employment Stability.

Region	1991	1996	1998
<b>Top 15</b>			
Central Coast NSW	98	97	96
Outer West Sydney	91	86	94
North Brisbane	94	84	92
Ipswich QLD	87	83	89
Outer South West Sydney	82	80	89
Unincorporated SA	3	7	84
North Melbourne	72	95	82
Inner Melbourne VIC	76	67	80
N.N. West Sydney	77	92	76
Westernport VIC	70	92	73
West Melbourne	69	80	72
Northern Adelaide	56	76	70
Brisbane City	70	80	69
Loddon VIC	68	74	67
Southern Melbourne	61	96	66
Unincorporated NT	66	10	61
<b>Bottom 15</b>			
Northern and Central Perth	25	28	26
Northern Tasmania	28	29	26
Ovens – Hume VIC	23	17	25
Central Western NSW	26	24	24
ACT	3	0	24
Northern NSW	20	23	23
Central QLD	32	17	21
Hobart and Southern Tasmania	24	22	20
Pilbara – Kimberley WA	14	7	18
Darwin Top End	42	12	18
Western Victoria	18	25	18
Inner West Sydney	19	29	17
Central Adelaide	12	18	11
Southern NT	14	7	11
Unincorporated NSW	16	1	1

### 3.5.18 Structural Employment Dynamism

Proportion of workforce affected by changes in local industry structure based on national trends. LGA with a rating of 100 will have the highest proportion of employees affected by industry openings or closures.

**Derivation:** The index uses the same data as the previous index – Industry Structure for Future Growth – together with data from Census journey to work statistics. It measures how many people are affected by changes in the region’s industrial base. In the long run, the greater employment dynamism – higher proportions of people involved in structural change – the more positive the regional impact.

Region	1991	1996	1998
<b>Top 15</b>			
Gold Coast and Hinterlands	74	79	96
Unincorporated NSW	52	98	94
Central Coast NSW	92	91	89
North Brisbane	81	57	83
Outer West Sydney	59	38	78
South Eastern WA	33	80	77
Inner Melbourne VIC	77	74	76
Northern and Central Perth	71	79	76
ACT	81	99	75
Southern Perth	56	71	75
Central Adelaide	67	81	75
Southern NT	60	91	72
Outer South West Sydney	46	53	71
Ipswich QLD	73	61	68
Global Sydney	55	76	64
Hobart and Southern Tasmania	54	68	62
<b>Bottom 15</b>			
Far and North Western NSW	36	53	36
Ovens – Hume VIC	36	65	33
Gippsland VIC	36	36	30
Nth QLD	17	67	29
Hunter NSW	29	42	26
North Coastal NSW	24	30	26
East Melbourne	29	77	26
Mackay QLD	34	49	24
Wide-Bay Burnett QLD	24	38	21
Goulbourn VIC	25	20	19
Loddon VIC	15	24	18
Southern Melbourne	11	86	16
Golden Region VIC	28	26	13
Southern Sydney	9	43	13
Brisbane City	7	12	6

### 3.5.19 Retained Retail Spending

Ability to capture residents' expenditure and sales income from 'exports'. LGA with a rating of 100 has the best record in retaining resident expenditure.

**Derivation:** This index is defined as a ratio of total retail expenditure in the LGA, over total retail expenditure by residents. The measure uses potential residential expenditure generated from National Economics' SpendInfo and ABS data. A high rating will often capture the 'export' effect of residents of other regions purchasing goods and services locally.

**Context:** The internet and the category killer retail outlets is going to force concentration in distribution infrastructure. The concentration is likely to occur in either outer areas of metropolitan regions or in provincial centres with an existing high level of infrastructure.

Region	1991	1996	1998
<b>Top 15</b>			
Inner Melbourne VIC	88	87	86
Central Adelaide	75	74	76
Northern and Central Perth	64	74	72
Global Sydney	73	76	72
Brisbane City	70	71	70
Nth QLD	65	67	66
Hobart and Southern Tasmania	61	67	66
Unincorporated NT	17	25	65
South East SA	63	55	63
Central QLD	57	66	62
Darling Downs and South West QLD	61	64	60
Southern NT	63	72	60
Eyre and Yorke SA	58	49	59
Mercy-Lyell TAS	57	59	58
Murraylands SA	56	48	58
Far North QLD	55	59	58
<b>Bottom 15</b>			
Southern Melbourne	38	44	43
Unincorporated SA	80	46	43
Loddon VIC	40	46	41
Southern WA	40	47	41
West Melbourne	37	39	40
ACT	46	47	40
Midlands and Central WA	41	41	39
Ipswich QLD	38	40	39
North Melbourne	28	39	38
Outer West Sydney	31	40	36
Southern Sydney	33	40	35
N.N. West Sydney	31	39	33
Outer South West Sydney	27	36	32
Pilbara – Kimberley WA	34	34	27
Unincorporated NSW	2	0	2

### 3.5.20 Knowledge Driven Growth Potential

Potential for growth based on the ratio of skilled knowledge workers to routine workers. LGA with a rating of 100 has the highest ratio of knowledge workers to routine workers and therefore the highest potential for externally driven job growth.

**Derivation:** Census data on occupational structure is used to identify the ratio of knowledge workers to routine workers in local industry. Large numbers of creative knowledge workers are a positive for future externally driven jobs growth. On the other hand, a relatively large proportions of routine workers suggests that many in the local economy are vulnerable to future job losses through automation and codification.

Region	1991	1996	1998
<b>Top 15</b>			
ACT	71	87	91
Inner Melbourne VIC	60	79	84
Global Sydney	62	78	83
Unincorporated NSW	82	76	71
N.N. West Sydney	41	53	59
Northern and Central Perth	46	55	58
Central Adelaide	41	52	57
Western Victoria	55	56	56
Inner West Sydney	34	48	54
Southern NT	40	49	51
East Melbourne	33	45	51
Darwin Top End	42	48	50
Midlands and Central WA	53	50	49
Goulbourn VIC	50	48	48
Northern NSW	41	44	45
Hobart and Southern Tasmania	32	41	45
<b>Bottom 15</b>			
Mercy-Lyell TAS	18	18	20
Outer West Sydney	13	17	20
Westernport VIC	18	18	19
Brisbane City	30	22	19
Central Coast NSW	9	14	18
North Melbourne	13	14	17
West Melbourne	15	15	17
Pilbara – Kimberley WA	11	13	16
Outer South West Sydney	13	13	15
Far North QLD	23	14	15
Ipswich QLD	9	12	15
Unincorporated NT	24	15	13
Nth QLD	22	12	12
North Brisbane	14	6	6
Gold Coast and Hinterlands	16	5	6

### 3.5.21 Global Knowledge Flow

Indicates a place's connectedness to Global Flows of Knowledge and its innovative Capacity. LGA with the highest score of 100 is best to take advantage of global information flows and participate in innovative value creating enterprise networks.

**Derivation:** In the knowledge economy, dense flows of knowledge and learning within a region and between global centres is critical for innovation and regional competitiveness. This indicator is derived from the ratio of key occupational skills (associated with information technology, and innovation in finance, marketing, design and production) to other workers. Places with high scores are best equipped with the skills needed for the place to emerge as hubs and nodes in creative global networks.

Region	1991	1996	1998
<b>Top 15</b>			
ACT	99	99	97
Brisbane City	90	98	97
Inner Melbourne VIC	99	99	97
North Brisbane	35	92	96
Global Sydney	97	98	95
Ipswich QLD	50	94	95
Gold Coast and Hinterlands	52	93	94
N.N. West Sydney	87	91	87
East Melbourne	84	89	87
Central Adelaide	86	90	86
Inner West Sydney	87	90	85
Southern Melbourne	75	85	82
Northern and Central Perth	86	85	81
Darwin Top End	90	85	78
Sydney Production Region	68	78	75
Southern NT	87	80	73
<b>Bottom 15</b>			
Goulbourn VIC	45	45	43
Mackay QLD	41	43	42
Murray – Murrumbidgee NSW	56	46	41
Eyre and Yorke SA	47	43	40
North Coastal NSW	46	42	39
Central Western NSW	46	42	39
Northern NSW	56	43	38
Southern WA	60	43	37
South East SA	41	38	36
Midlands and Central WA	55	41	35
Unincorporated NT	76	43	34
Western Victoria	41	37	34
Far and North Western NSW	45	37	34
Murraylands SA	44	29	25
Unincorporated NSW	97	10	5

### 3.5.22 Life-Long Learning

Proportion of residents undertaking further training as a pointer to future prosperity and employability. LGA with a rating of 100 has the highest proportion of residents undertaking further training

**Derivation:** This index compares the rates of adult education with the resident population. It captures the ability of the LGA to supply the skills needed for economic growth.

Region	1991	1996	1998
<b>Top 15</b>			
Inner Melbourne VIC	97	98	98
Unincorporated SA	50	98	98
Brisbane City	92	97	97
ACT	96	95	95
Global Sydney	94	92	92
Inner West Sydney	93	90	90
Ovens – Hume VIC	60	88	88
East Melbourne	87	86	86
Central Adelaide	88	86	86
N.N. West Sydney	88	84	84
Darwin Top End	76	77	78
Southern Melbourne	82	78	78
North Melbourne	78	77	78
West Melbourne	72	74	74
Southern Sydney	82	74	74
Loddon VIC	64	73	73
<b>Bottom 15</b>			
North Coastal NSW	50	50	50
South East SA	38	47	47
North Brisbane	38	46	46
South East NSW	54	42	46
Mercy-Lyell TAS	48	40	41
South Eastern WA	59	40	39
Central Coast NSW	51	38	38
Wide-Bay Burnett QLD	27	38	38
Far North QLD	32	38	37
Eyre and Yorke SA	37	36	36
Southern WA	44	33	34
Midlands and Central WA	33	30	30
Murraylands SA	26	27	27
Unincorporated NSW	32	26	26
Unincorporated NT	19	23	23

### 3.5.23 Community Welfare

The standard of health and welfare. LGA with a rating of 100 has the highest number of community services workers and government spending on health and community services, per capita.

**Derivation:** This index is based on employment data, adjusted for large hospitals serving a particular geographical area. Inner city areas may reflect historical location of large teaching hospitals and their major investment in technology. The data is derived from a number of sources including Grants Commission data.

<b>Region</b>	<b>1991</b>	<b>1996</b>	<b>1998</b>
<b>Top 15</b>			
Unincorporated NSW	85	98	99
Unincorporated NT	9	72	84
Inner Melbourne VIC	89	83	83
Unincorporated SA	67	87	76
Brisbane City	77	77	76
Global Sydney	79	65	69
Central Adelaide	80	74	69
Inner West Sydney	78	72	67
Southern NT	70	65	66
Ovens – Hume VIC	62	62	62
Southern Adelaide	71	70	59
East Melbourne	64	58	59
Golden Region VIC	59	56	58
Outer West Sydney	46	54	57
Hobart and Southern Tasmania	59	57	57
Northern Tasmania	63	57	57
<b>Bottom 15</b>			
Northern Adelaide	62	56	45
Gold Coast and Hinterlands	30	44	44
Goulbourn VIC	51	42	44
Mercy-Lyell TAS	49	44	43
Gippsland VIC	51	39	40
South East SA	47	36	39
Midlands and Central WA	35	35	39
Sydney Production Region	45	40	39
Murraylands SA	32	39	39
Westernport VIC	38	35	38
Outer South West Sydney	29	45	36
Southern WA	46	33	36
South Eastern WA	40	38	35
Mackay QLD	32	38	35
West Melbourne	42	31	34

### 3.5.24 Lifestyle Choice

Significance of entertainment, cultural and recreational industries to future growth. LGA with rating of 100 has the economy married most strongly to providing lifestyle services to residents and visitors.

**Derivation:** This index is derived from National Economics industry output modelling. It compares the concentration of economic activity in recreational and lifestyle industries (restaurants, theme parks, clubs, hotels, caravan parks, theatres, cinemas, tourist activities) as a proportion of total output.

Region	1991	1996	1998
<b>Top 15</b>			
Unincorporated NT	56	47	91
Southern NT	86	93	91
Central Coast NSW	88	82	89
Inner Melbourne VIC	73	90	85
Gold Coast and Hinterlands	78	82	85
Outer West Sydney	86	78	85
Southern Sydney	78	85	84
Darwin Top End	82	78	84
N.N. West Sydney	83	79	81
Brisbane City	66	73	81
North Coastal NSW	85	84	79
ACT	82	80	79
North Brisbane	77	80	78
Inner West Sydney	79	70	78
Illawarra NSW	78	66	77
Global Sydney	77	81	77
<b>Bottom 15</b>			
Darling Downs and South West QLD	44	47	46
South Eastern WA	59	19	45
Wide-Bay Burnett QLD	43	48	44
North Melbourne	36	40	44
Gippsland VIC	41	45	41
Ipswich QLD	45	29	40
Mackay QLD	47	44	39
Eyre and Yorke SA	39	31	38
Southern WA	38	38	36
Ovens – Hume VIC	42	42	35
Goulbourn VIC	46	45	35
South East SA	37	37	32
Murraylands SA	37	23	30
Midlands and Central WA	26	25	26
Western Victoria	31	43	21

### 3.5.25 Commercial, Educational and Health Facility Construction

Shops, factories, offices, hotels and health and education buildings completed in the past three years. LGAs with a rating of 100 have the most completed construction and are likely to benefit through immediate employment growth.

**Derivation:** The index is derived from ABS completion data. It is possible to use the data in a time series manner to ascertain the intake and value of commercial establishments. It can also be used to test the relationship between a place's socio-economic characteristics and attractiveness to business.

Region	1991	1996	1998
<b>Top 15</b>			
Darwin Top End	61	62	86
Brisbane City	74	76	78
Outer South West Sydney	68	66	73
South Eastern WA	48	65	67
Darling Downs and SW QLD	42	51	65
Pilbara – Kimberley WA	50	54	65
Gold Coast and Hinterlands	60	70	64
Far North QLD	50	59	62
Southern Perth	51	61	61
Inner Melbourne VIC	55	45	60
Mackay QLD	45	60	60
Ovens – Hume VIC	39	38	59
West Melbourne	48	46	58
Nth QLD	60	56	57
Southern WA	49	56	56
Goulbourn VIC	39	43	55
<b>Bottom 15</b>			
Far and North Western NSW	34	43	39
North Melbourne	34	39	36
Hobart and Southern Tasmania	38	43	35
Eyre and Yorke SA	22	23	35
South East SA	34	34	33
Central Western NSW	41	39	33
Loddon VIC	32	28	32
Illawarra NSW	46	35	30
Central Adelaide	30	29	26
Unincorporated NT	40	38	23
N.N. West Sydney	26	28	21
Inner West Sydney	27	42	20
Southern Sydney	24	28	16
Unincorporated SA	50	11	9
Unincorporated NSW	7	2	6

### 3.5.26 Human Capital for Growth

Potential of a regions human capital to stimulate local prosperity and jobs growth. LGA with a rating of 100 has the highest proportion of knowledge workers to routine workers in their residential skills base.

**Derivation:** This index captures the relative skills of the residential workforce and corresponding local prosperity. Using the ABS occupational breakdown of the workforce, workers are grouped into three classifications: routine workers, symbolic analysts and person to person workers. The ratio of symbolic analysts (knowledge workers) to routine workers counterbalances skills in growing demand with the numbers of local residents in routine work who are vulnerable to job loss. In the long term, the higher the ratio the more prosperous an LGA is likely to be, especially as the proportion of knowledge workers teleworking increases. Person to person workers, such as teachers and doctors, increase in line with population growth. They are not included in the ratio.

Region	1991	1996	1998
<b>Top 15</b>			
Inner Melbourne VIC	75	93	96
ACT	68	82	86
Global Sydney	62	77	80
N.N. West Sydney	65	74	75
Inner West Sydney	44	63	70
Unincorporated NSW	80	71	66
Southern Melbourne	45	56	60
Brisbane City	33	52	58
East Melbourne	49	56	58
Central Adelaide	42	52	56
Western Victoria	55	53	53
Darwin Top End	39	43	47
Southern NT	37	44	46
Midlands and Central WA	47	45	45
Northern and Central Perth	35	38	43
Northern NSW	40	42	43
<b>Bottom 15</b>			
Central QLD	19	21	23
Outer West Sydney	20	21	21
Mackay QLD	17	19	21
Central Coast NSW	15	18	21
Unincorporated SA	20	20	20
Illawarra NSW	14	17	19
Mercy-Lyell TAS	17	18	19
West Melbourne	11	15	18
Hunter NSW	14	15	18
Westernport VIC	17	15	15
Sydney Production Region	8	11	14
Ipswich QLD	12	13	14
Outer South West Sydney	14	13	13
Northern Adelaide	11	11	12
Unincorporated NT	23	13	11

### 3.5.27 Information Age Skills

Capacity of locality to participate in the information economy. LGA with a rating of 100 has the highest concentration of employed residents engaged in global information transactions.

**Derivation:** This index defines the ratio of global knowledge workers to the total residential workforce. Data is derived from Census figures and National Economics employment modelling.

**Context:** The regions whose households have these skills are the regions most likely to get the high income and full time employment growth in the future globalised economy. This indicator, therefore, is a crucial one in determining future directions in wealth and local house and commercial property prices.

Region	1991	1996	1998
<b>Top 15</b>			
Inner Melbourne VIC	98	99	99
ACT	98	98	98
Global Sydney	94	96	97
Inner West Sydney	93	95	95
N.N. West Sydney	94	95	95
Brisbane City	86	92	93
East Melbourne	90	92	92
Southern Melbourne	89	91	91
Central Adelaide	85	88	88
Southern Sydney	83	87	86
Northern and Central Perth	81	82	82
Darwin Top End	84	81	80
North Melbourne	70	78	80
Southern NT	81	81	80
Southern Adelaide	72	75	75
West Melbourne	65	73	75
<b>Bottom 15</b>			
Darling Downs and South West QLD	43	44	42
Murray – Murrumbidgee NSW	49	43	41
Wide-Bay Burnett QLD	34	40	41
Central Western NSW	41	41	40
Northern NSW	49	42	39
Unincorporated NT	69	44	38
Eyre and Yorke SA	37	37	38
Western Victoria	36	37	36
Southern WA	54	40	36
Unincorporated SA	52	39	35
Far and North Western NSW	38	37	35
Midlands and Central WA	50	38	35
South East SA	36	35	34
Murraylands SA	36	26	24
Unincorporated NSW	94	8	3

### 3.5.28 Output Per Resident

LGA with a rating of 100 has the highest value of production per resident.

**Derivation:** The index is based on National Economics modelling. Production is measured by the dollar value of output produced within an LGA. It covers all forms of production including agriculture, mining, manufacturing and services. The index gives an indication of the LGA's economic worth measured in dollars and acts as a proxy for the amount of wealth creation an LGA's industry is providing for its residents.

Region	1991	1996	1998
<b>Top 15</b>			
Unincorporated NSW	27	96	96
Inner Melbourne VIC	89	89	86
Global Sydney	81	83	81
Central Adelaide	65	70	64
Northern and Central Perth	55	63	58
Midlands and Central WA	56	56	55
Mackay QLD	44	57	51
Southern WA	45	48	51
Western Victoria	43	33	51
Brisbane City	47	60	50
ACT	49	58	48
Central QLD	41	54	44
South Eastern WA	35	70	44
Darwin Top End	51	57	44
Inner West Sydney	43	51	43
Hobart and Southern Tasmania	42	50	41
<b>Bottom 15</b>			
Golden Region VIC	25	30	24
North Melbourne	19	31	23
Westernport VIC	18	24	21
Loddon VIC	18	19	19
West Melbourne	24	30	19
Northern Adelaide	20	28	18
Southern Sydney	19	25	16
Gold Coast and Hinterlands	8	18	15
North Coastal NSW	14	15	13
Southern Adelaide	13	19	13
Outer West Sydney	12	17	13
Central Coast NSW	11	15	12
Outer South West Sydney	12	13	11
North Brisbane	6	10	11
Ipswich QLD	8	24	11

### The characteristics of regional Australia

Core metro	Characteristics
ACT	<p><b>Household</b> – Wealthy, good prospects at low risk. Ageing is the only pressure.</p> <p><b>Industry</b> – High skill base and moderate output.</p> <p><b>Foundations</b> – High levels of learning, good lifestyle and community support.</p>
Brisbane City	<p><b>Household</b> – Wealthy good prospects at low risk.</p> <p><b>Industry</b> – High skills but needs to keep shifting towards high value added industries.</p> <p><b>Foundations</b> – Good infrastructure, lifestyle and community infrastructure</p>
Central Adelaide	<p><b>Household</b> – Diverse, with predominant wealthy and high knowledge groups, but significant groups with high unemployment, barriers to employment, and vulnerable to downturn.</p> <p><b>Industry</b> – Some high value added but also uncompetitive industries.</p> <p><b>Foundations</b> – Strong learning and community infrastructure, but in some localities it needs strengthening.</p>
N.N. West Sydney	<p><b>Household</b> – Wealthy, good prospects at low risk, with negligible macroeconomic, debt and employment risks.</p> <p><b>Industry</b> – Low local employment provision, but access to global Sydney jobs.</p> <p><b>Foundations</b> – Good regional infrastructure, with high levels of learning and community support.</p>
Global Sydney	<p><b>Household</b> – Wealthiest, with good prospects for growth and fewer debt and macroeconomic risks.</p> <p><b>Industry</b> – high value added, high skills workforce and high local employment provision.</p> <p><b>Foundations</b> – Exceptional regional infrastructure.</p>
Hobart and Southern Tasmania	<p><b>Household</b> – Includes metro but also some diverse rural areas. Low labour utilisation, poor job creation and poor prosperity prospects.</p> <p><b>Industry</b> – Small level of output per capita and low local employment provision.</p> <p><b>Foundations</b> – Generally inadequate.</p>
Inner Melbourne VIC	<p><b>Household</b> – Wealthy, good job prospects at low risk, negligible macro-economic High value added industry base.</p> <p><b>Industry</b> – High skilled workforce.</p> <p><b>Foundations</b> – High value and concentrated industry base and high expenditure capture. High skills workforce.</p>
Inner West Sydney	<p><b>Household</b> – Wealthy and good prospects at low risk, negligible macro-economic, debt or employment issues.</p> <p><b>Industry</b> – Low levels of industry output per capita, low levels of employment provision and low resident expenditure capture.</p> <p><b>Foundations</b> – Moderate infrastructure and adequate learning lifestyle and community welfare.</p>
Northern and Central Perth	<p><b>Household</b> – Wealthy, good prospects at low risk, negligible macro-economic risks.</p> <p><b>Industry</b> – Small level of output and high skill growth in some areas.</p> <p><b>Foundations</b> – Exceptional regional foundations providing high levels of learning and community infrastructure.</p>

Dispersed metropolitan	Characteristics
Central Coast NSW	<p><b>Household</b> – Population and income growth, but also high levels of debt.</p> <p><b>Industry</b> – Low levels of output, low resident expenditure capture, low local jobs but high skills growth.</p> <p><b>Foundations</b> – Moderate infrastructure but in some areas needs a stronger focus on skills development.</p>
East Melbourne	<p><b>Household</b> – Wealthy, good job prospects and not subject to high risks.</p> <p><b>Industry</b> – Areas with low levels, high growth skills.</p> <p><b>Foundations</b> – Exceptional.</p>
North Brisbane	<p><b>Household</b> – Good population and income growth and moderate labour utilisation, facing high debt risk.</p> <p><b>Industry</b> – Low levels of output and low employment provision.</p> <p><b>Foundations</b> – Below average regional foundations and low levels of industry output per capita.</p>
Northern Adelaide	<p><b>Household</b> – Low labour utilisation, poor job creation, low wealth and high risks and high barriers to future employment.</p> <p><b>Industry</b> – Small levels of output per capita and low employment provision.</p> <p><b>Foundations</b> – Moderate in some areas and poor in others.</p>
Outer South West Sydney	<p><b>Household</b> – Good population and income growth and moderate labour utilisation, but facing high debt and macroeconomic risk.</p> <p><b>Industry</b> – Small levels of output and low local employment provision.</p> <p><b>Foundations</b> – Moderate infrastructure providing learning lifestyle.</p>
Outer West Sydney	<p><b>Household</b> – Good population and income growth and moderate labour utilisation, but facing high debt and macroeconomic risk.</p> <p><b>Industry</b> – Low local employment self-containment.</p> <p><b>Foundations</b> – Moderate infrastructure providing adequate learning infrastructure, community welfare and lifestyle facilities.</p>
Southern Adelaide	<p><b>Household</b> – Some areas with wealthy and good prospects and other with low labour utilisation, poor job creation and higher than average barriers to employment.</p> <p><b>Industry</b> – Small level of output per capita. Low local employment provision with stable future outcomes for industries that require only low skills.</p> <p><b>Foundations</b> – Diverse, with some exceptional moderate and some below average foundations.</p>
Southern Melbourne	<p><b>Household</b> – Wealthy good prospects at low risk, negligible macro-economic, debt or employment risks.</p> <p><b>Industry</b> – Stable outcomes are likely and moderate job creation, and high levels of local employment provision.</p> <p><b>Foundations</b> – Good infrastructure with adequate learning lifestyle and community welfare returns.</p>
Southern Perth	<p><b>Household</b> – Diverse region with areas of good population and income growth with stable outcomes, and moderate labour utilisation.</p> <p><b>Industry</b> – Low labour utilisation, poor job creation and higher than average barriers to employment. Other areas of high labour utilisation.</p> <p><b>Foundations</b> – Poor traditional and emerging skills.</p>
Southern Sydney	<p><b>Household</b> – Wealthy, good prospects at low risk, and negligible macroeconomic risk, debt or employment risk.</p> <p><b>Industry</b> – Knowledge based jobs and moderate job creation.</p> <p><b>Foundations</b> – Reasonable infrastructure and adequate learning and community facilities.</p>
Gold Coast and Hinterlands	<p><b>Household</b> – Good population and income growth with stable outcomes, but high levels of debt and macroeconomic risk.</p> <p><b>Industry</b> – Low level of output per capita, high growth skills.</p> <p><b>Foundations</b> – Moderate regional foundations but localities where learning and community infrastructure is poor.</p>

Lifestyle	Characteristics
Far North QLD	<p><b>Household</b> – Good population and income growth, but high debt and macroeconomic risk. Some localities have low wealth and incomes.</p> <p><b>Industry</b> – Poor traditional and knowledge based skills but stable employment in industries requiring low skills.</p> <p><b>Foundations</b> – Generally inadequate but growing levels of commercial infrastructure.</p>
North Coastal NSW	<p><b>Household</b> – Low labour utilisation and job creation but improving.</p> <p><b>Industry</b> – Small level of output per capita and reasonable growth for low skilled jobs and niche opportunities for higher skilled jobs.</p> <p><b>Foundations</b> – Below average infrastructure provision.</p>
South East NSW	<p><b>Household</b> – Good population and income growth and moderate labour utilisation. Some areas of low wealth and low population growth.</p> <p><b>Industry</b> – Poor traditional skills and narrow economic base.</p> <p><b>Foundations</b> – Some areas with moderate infrastructure and other areas inadequately served.</p>
Wide-Bay Burnett QLD	<p><b>Household</b> – Low labour utilisation, poor job creation, low wealth and high macroeconomic risks.</p> <p><b>Industry</b> – Small level of output per capita and low local job provision, and low skill base.</p> <p><b>Foundations</b> – Poor infrastructure for learning, lifestyle and community.</p>
Production regions	Characteristics
Hunter NSW	<p><b>Household</b> – Diverse, industrial, rural and lifestyle with low wealth, low population growth and high macroeconomic and ageing risks, but some areas with high growth – eg Lake Macquarie and Port Stephens.</p> <p><b>Industry</b> – Poor traditional skills but high levels of investment in skills upgrading.</p> <p><b>Foundations</b> – Diverse with reasonable community and commercial infrastructure in Newcastle but poor social infrastructure in some areas.</p>
Illawarra NSW	<p><b>Household</b> – Good population and income growth but moderate labour utilisation. High debt and macroeconomic risks and only moderate wealth.</p> <p><b>Industry</b> – Low levels of industry output.</p> <p><b>Foundations</b> – Moderate infrastructure.</p>
North Melbourne	<p><b>Household</b> – Low labour utilisation, poor job creation and poor job prospects and higher than average barriers to employment.</p> <p><b>Industry</b> – Low local job provision and low levels of industry output per capita.</p> <p><b>Foundations</b> – Reasonable infrastructure and growing skills base.</p>
Sydney Production Region	<p><b>Household</b> – Good population growth and moderate labour utilisation. High debt and macroeconomic risk.</p> <p><b>Industry</b> – Traditional skill base and lower level of employment self-containment.</p> <p><b>Foundations</b> – Improving community and commercial infrastructure.</p>
West Melbourne	<p><b>Household</b> – Population and income growth and moderate labour utilisation but other areas with low labour utilisation.</p> <p><b>Industry</b> – Low levels of output per capita and low levels of local employment provision, and higher skills.</p> <p><b>Foundations</b> – Moderate regional infrastructure.</p>
Westernport VIC	<p><b>Household</b> – Good population and income growth with stable outcomes, but moderate labour utilisation.</p> <p><b>Industry</b> – Low local job provision and low levels of industry output per capita.</p> <p><b>Foundations</b> – Reasonable infrastructure and growing skills base.</p>

<b>Resource</b>	<b>Characteristics</b>
Pilbara – Kimberley WA	<p><b>Household</b> – Areas with above average wealth, and moderate population and job prospects and some areas have strong labour utilisation and jobs growth.</p> <p><b>Industry</b> – Instability in relation to industry structure.</p> <p><b>Foundations</b> – Below average regional foundations.</p>
South Eastern WA	<p><b>Household</b> – Areas with above average wealth, and moderate population growth and other areas with low labour utilisation.</p> <p><b>Industry</b> – Diverse industry base with low growth, moderate jobs and poor traditional skills.</p> <p><b>Foundations</b> – Generally inadequate.</p>
Southern NT	<p><b>Household</b> – A mixed story. High utilisation rates but low wealth and some high good opportunities.</p> <p><b>Industry</b> – Combination of low levels of industry output and employment provision and areas with growth in skilled base with job prospects.</p> <p><b>Foundations</b> – Moderate infrastructure.</p>
Darwin Top End	<p><b>Household</b> – Some wealthy areas, but other areas based on low incomes and poor job prospects.</p> <p><b>Industry</b> – Combination of higher and low skilled industry base, and reasonable job prospects.</p> <p><b>Foundations</b> – Moderate community infrastructure, but other areas have good infrastructure.</p>
<b>Rural</b>	<b>Characteristics</b>
Loddon VIC	<p><b>Household</b> – Low labour utilisation, poor job creation and poor prosperity prospects.</p> <p><b>Industry</b> – Small level of output per capita, low job provision and stable job growth in low skilled activities.</p> <p><b>Foundations</b> – Moderate infrastructure but in some areas it is inadequate.</p>
Mackay QLD	<p><b>Household</b> – Strong labour utilisation and reasonable growth prospects.</p> <p><b>Industry</b> – Poor traditional and emerging skill base and an unstable industry structure but other areas with good knowledge based skills.</p> <p><b>Foundations</b> – Generally inadequate.</p>
Mallee – Wimmera	<p><b>Household</b> – Low wealth, low population growth and not good prospects.</p> <p><b>Industry</b> – Poor traditional and emerging skills and a narrow economic base.</p> <p><b>Foundations</b> – Poor regional infrastructure.</p>
Mercy-Lyell TAS	<p><b>Household</b> – Low labour utilisation, poor job creation, poor prosperity prospects, low wealth and high macroeconomic risk.</p> <p><b>Industry</b> – Poor skills base and low level of output, with stable growth for low skill jobs.</p> <p><b>Foundations</b> – Generally inadequate.</p>
Midlands and Central WA	<p><b>Household</b> – Strong labour utilisation and job growth.</p> <p><b>Industry</b> – Low growth industry growth and stable industry structure.</p> <p><b>Foundations</b> – Generally inadequate.</p>
Murray Murrumbidgee NSW	<p><b>Household</b> – Low wealth and low population growth. High macroeconomic and ageing risks.</p> <p><b>Industry</b> – Combination of areas with poor skills and major centres with higher knowledge skills.</p> <p><b>Foundations</b> – Generally poor regional infrastructure.</p>
Murraylands SA	<p><b>Household</b> – Low labour utilisation and poor job creation, with high macroeconomic and ageing risks.</p> <p><b>Industry</b> – Poor skills and vulnerable to employment reduction, but areas of high value added industry and good growth prospects.</p> <p><b>Foundations</b> – Poor regional infrastructure but needs more emphasis on skills formation.</p>

Northern NSW	<p><b>Household</b> – Low wealth, low population and low prosperity.</p> <p><b>Industry</b> – Poor traditional and emerging skill base and possible job reduction.</p> <p><b>Foundations</b> – Poor regional infrastructure.</p>
Northern Tasmania	<p><b>Household</b> – Low labour utilisation, ageing risk and higher than average barriers to employment.</p> <p><b>Industry</b> – Low output per capita and low level of traditional skills but prospects for skill upgrading.</p> <p><b>Foundations</b> – Generally inadequate but reasonable in some areas.</p>
Nth QLD	<p><b>Household</b> – Lower wealth and income profiles and higher macroeconomic and ageing risks.</p> <p><b>Industry</b> – Lower levels of knowledge skills and some instability in industry structure, but skills base is improving.</p> <p><b>Foundations</b> – Good infrastructure in Townsville but poor elsewhere.</p>
Ovens – Hume VIC	<p><b>Household</b> – Good population and income growth in some areas and low wealth, population in other areas.</p> <p><b>Industry</b> – Poor traditional and emerging skills base and some instability in industry infrastructure.</p> <p><b>Foundations</b> – Moderate infrastructure for learning, lifestyle and community facilities.</p>
South East SA	<p><b>Household</b> – Low wealth and low population growth.</p> <p><b>Industry</b> – Poor traditional and emerging skills base creating uncertainty about industry prospects.</p> <p><b>Foundations</b> – Poor regional infrastructure.</p>
Southern WA	<p><b>Household</b> – Good prospects in a number of areas, and in others, stagnating population and poor job creation.</p> <p><b>Industry</b> – Low growth industry focus and lower levels of skills constrain growth.</p> <p><b>Foundations</b> – Poor regional infrastructure.</p>
Central QLD	<p><b>Household</b> – Combination of stagnating population growth, jobs growth and low barriers</p> <p><b>Industry</b> – Poor traditional and emerging skills, instability.</p> <p><b>Foundations</b> – Poor regional infrastructure, poor skills base, but reasonable in some areas.</p>
Central Western NSW	<p><b>Household</b> – Low wealth, low population change and prospects subdued.</p> <p><b>Industry</b> – Poor traditional skills and job instability.</p> <p><b>Foundations</b> – Generally inadequate infrastructure, but reasonable community infrastructure in centres such as Bathurst-Orange.</p>
Darling Downs and South West QLD	<p><b>Household</b> – Areas with population, job opportunities and income growth, but high debt. Other localities have low population growth.</p> <p><b>Industry</b> – Combination of areas with good knowledge skills and others with low wealth, slow population growth and poor prospects.</p> <p><b>Foundations</b> – Generally inadequate infrastructure.</p>
Eyre and Yorke SA	<p><b>Household</b> – Low wealth and low population growth. High macroeconomic and ageing risks.</p> <p><b>Industry</b> – Poor traditional skills and low output skills.</p> <p><b>Foundations</b> – Poor regional infrastructure.</p>
Far and North Western NSW	<p><b>Household</b> – Low wealth and low population growth. High macroeconomic and ageing risks.</p> <p><b>Industry</b> – Poor traditional skills and low output skills but good performances in Dubbo.</p> <p><b>Foundations</b> – Below average foundations and reasonable in centres.</p>

Gippsland VIC	<p><b>Household</b> – Diverse, with some areas of good population and income growth and others with low labour utilisation, poor job creation and high debt and macroeconomic risk.</p> <p><b>Industry</b> – Small level of output per capita but stable demand for jobs with few skills.</p> <p><b>Foundations</b> – Below average infrastructure.</p>
Golden Region VIC	<p><b>Household</b> – Good population and income growth in some areas and low labour utilisation, poor job creation and higher than average barriers to employment.</p> <p><b>Industry</b> – Small level of output per capita and low levels of employment provision and expected job reduction in some areas.</p> <p><b>Foundations</b> – Moderate infrastructure around major centres such as Ballarat and Geelong.</p>
Goulbourn VIC	<p><b>Household</b> – Good population and income growth but moderate labour utilisation.</p> <p><b>Industry</b> – Small level of output per capita and low levels of employment provision and expected job reduction in some areas.</p> <p><b>Foundations</b> – Generally inadequate.</p>
Ipswich QLD	<p><b>Household</b> – Good population and income growth with stable outcomes, moderate labour utilisation. Facing higher debts and macroeconomic risks and only moderate wealth.</p> <p><b>Industry</b> – Small level of output per capita and stable demand for jobs for industries that require low risks.</p> <p><b>Foundations</b> – Moderate regional foundations in some areas but inadequate in others.</p>
Western Victoria	<p><b>Household</b> – Low wealth, low population growth, ageing population.</p> <p><b>Industry</b> – Poor traditional and emerging skills but also growing knowledge based skills, with some areas with good growth prospects.</p> <p><b>Foundations</b> – Generally inadequate.</p>

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## 4. State of the regions: current policies and macroeconomic trends

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In terms of current policies and trends there are four issues which will be examined here. They are:

- (i) the natural regional income trends;
- (ii) the Government's GST tax reform;
- (iii) household trends in debt service costs; and
- (iv) issues with national competition policy.

### 4.1 The determinants of regional economic prospects

The **YourPlace** indicator set has been designed to capture the range of economic indicators that are likely to be important in driving regional development, both currently and in the future.

By covering such measures as:

- skills;
- household characteristics;
- liveability;
- the industry base;
- commercial and community infrastructure; and
- lifetime learning potential,

the **YourPlace** benchmark values are the appropriate indicators of how regions are placed for the globalised economy.

The main elements that will be important in influencing regional developments that are not currently included in the benchmark estimates are:

- (i) government policy;
- (ii) major infrastructure initiatives;
- (iii) unexpected natural resource extraction developments; and
- (iv) weather.

The overall benchmark score is called the state of the regions rating.

The regional rating or score underlies the overall regional rankings discussed in the previous section. The regional ratings are given in Table 4.1.

The usefulness of the ratings is that they can be used as indicators of the absolute differences in regional endowments as distinct to the relative difference as embodied in the benchmark rankings approach.

In the second column of Table 4.1, the percentage difference between the regional scores (which are weighted averages of LGA scores) and the top LGAs for 1996 are given.

To the extent that the overall rating is representative of the absolute differences between regions, then the results in Table 4.1 suggest large growth potential differences between the average region and the "global city" segments of Melbourne and Sydney.

The **YourPlace** data base indicates that the connection between an LGA's rating and its performance in terms of, for example, the ranking for the current growth path indicator is strong. The relationship is also strongly positive for a number of other performance outcome indicators. It is true that the current growth path (along with other indicators) are included in the determination of the overall rating. However, the weight given to any particular indicator is less than 8 per cent.

At the regional level, Figure 4.1 indicates that despite the relatively short time period, there is a strong relationship between the current growth path indicator outcome for the 1996 to 1998 period and the 1996 regional rating.

Figure 4.2 shows an even stronger relationship between wealth and the state of the region rating. Figure 4.3 shows the relationship between the state of the regions rating and the ranking for each region for the structural barriers to employment.

In terms of the future, Table 4.2 gives the projected average household income change for the 1998 to 2005 period. Thus, for example, the projected average household income growth rate for the ACT for the 1998 to 2005 period is 1.5 per cent per annum with an increase of \$6,018 in 1998 prices in average household income between 1998 and 2005.

These projections have been prepared from the more traditional regional econometric models used by National Economics. Over the next year these econometric models will be revised to include the data in **YourPlace** which will produce a richer and more powerful forecasting framework.

Nevertheless, as Figure 4.4 shows, there is a strong relationship between the projected average household income growth rate and the 1996 regional rating.

In Figure 4.4 the rating is expressed as the deviation from the regional average.

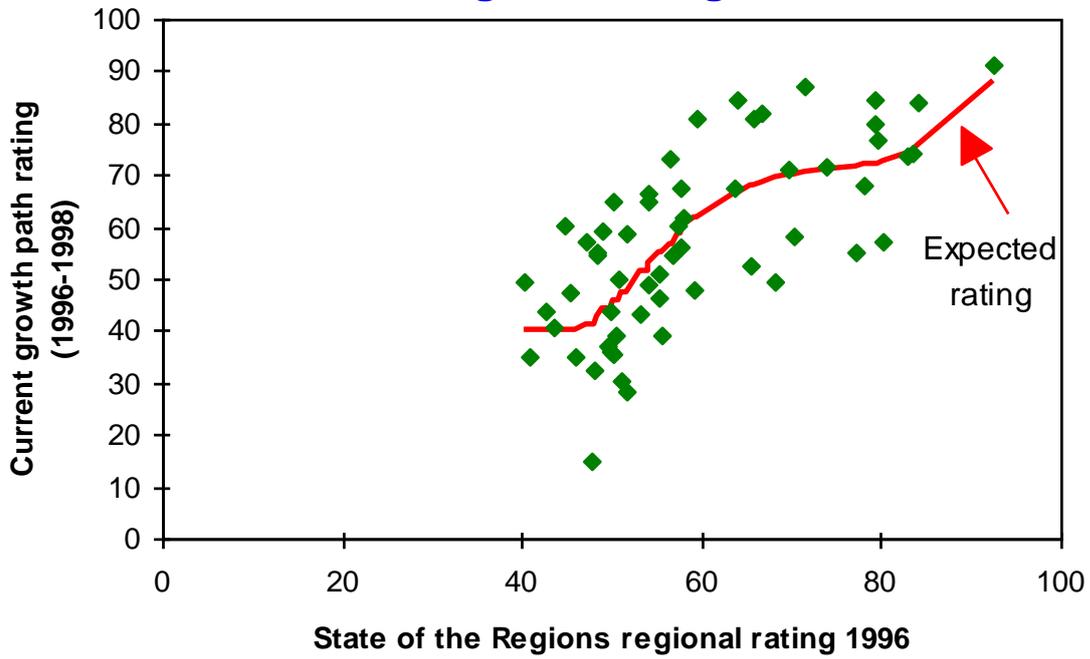
From Table 4.2 (columns one and three) it can be seen that natural growth leads to a widening of the income differentials between regions.

One measure of income inequality (or income dispersion around the mean) is the regional income range given by one standard deviation around the mean. From Table 4.3 this income range increases from \$14,453 per household in 1998 to \$16,842 by 2005.

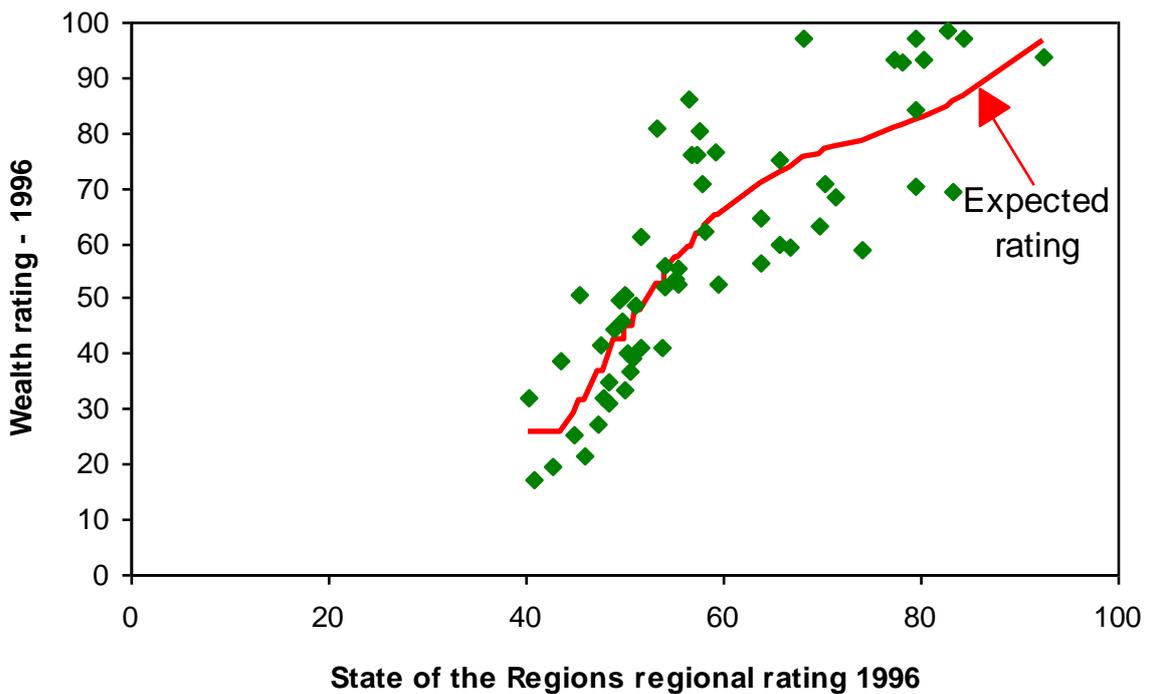
**Table 4.1 State of the region rating – 1996**

Region	Rating	Relative to top LGA
ACT	80.3	-17.3
Brisbane City	79.4	-18.2
Central Adelaide	70.2	-27.7
Central Coast NSW	56.7	-41.6
Central QLD	59.4	-38.8
Central Western NSW	53.9	-44.4
Darling Downs and South West QLD	49.7	-48.8
Darwin Top End	79.4	-18.2
East Melbourne	77.3	-20.4
Eyre and Yorke SA	40.8	-57.9
Far and North Western NSW	47.2	-51.4
Far North QLD	69.8	-28.0
Gippsland VIC	43.5	-55.2
Global Sydney	84.2	-13.2
Gold Coast and Hinterlands	65.6	-32.4
Golden Region VIC	51.1	-47.3
Goulbourn VIC	45.4	-53.2
Hobart and Southern Tasmania	55.1	-43.2
Hunter NSW	54.1	-44.3
Illawarra NSW	51.6	-46.8
Inner Melbourne VIC	92.4	-4.8
Inner West Sydney	79.5	-18.1
Ipswich QLD	49.5	-49.0
Loddon VIC	49.0	-49.4
Mackay QLD	63.8	-34.2
Mallee – Wimmera VIC	50.2	-48.2
Mercy-Lyell TAS	45.9	-52.7
Midlands and Central WA	51.7	-46.8
Murray – Murrumbidgee NSW	50.4	-48.0
Murraylands SA	42.8	-55.9
N.N. West Sydney	82.8	-14.7
North Brisbane	58.0	-40.2
North Coastal NSW	48.4	-50.1
North Melbourne	59.2	-38.9
Northern Adelaide	47.9	-50.6
Northern and Central Perth	66.7	-31.2
Northern NSW	48.3	-50.2
Northern Tasmania	49.9	-48.5
Nth QLD	65.8	-32.2
Outer South West Sydney	53.2	-45.2
Outer West Sydney	56.4	-41.8
Ovens – Hume VIC	55.3	-43.0
Pilbara – Kimberley WA	74.0	-23.7
South East NSW	54.0	-44.4
South East SA	50.0	-48.5
South Eastern WA	71.4	-26.4
Southern Adelaide	55.4	-42.9
Southern Melbourne	78.2	-19.4
Southern NT	83.4	-14.0
Southern Perth	63.8	-34.3
Southern Sydney	68.1	-29.8
Southern WA	50.8	-47.6
Sydney Production Region	57.7	-40.6
West Melbourne	57.8	-40.4
Western Victoria	47.7	-50.8
Westernport VIC	57.3	-40.9
Wide-Bay Burnett QLD	44.7	-53.9

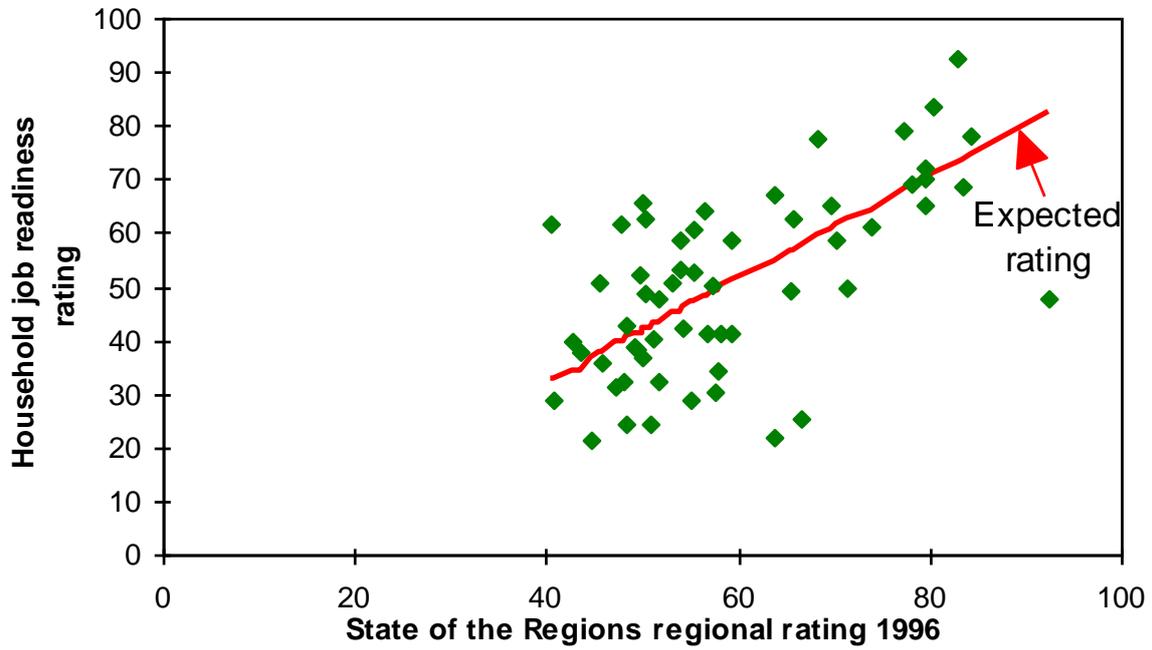
**Figure 4.1: Current growth path versus regional rating**



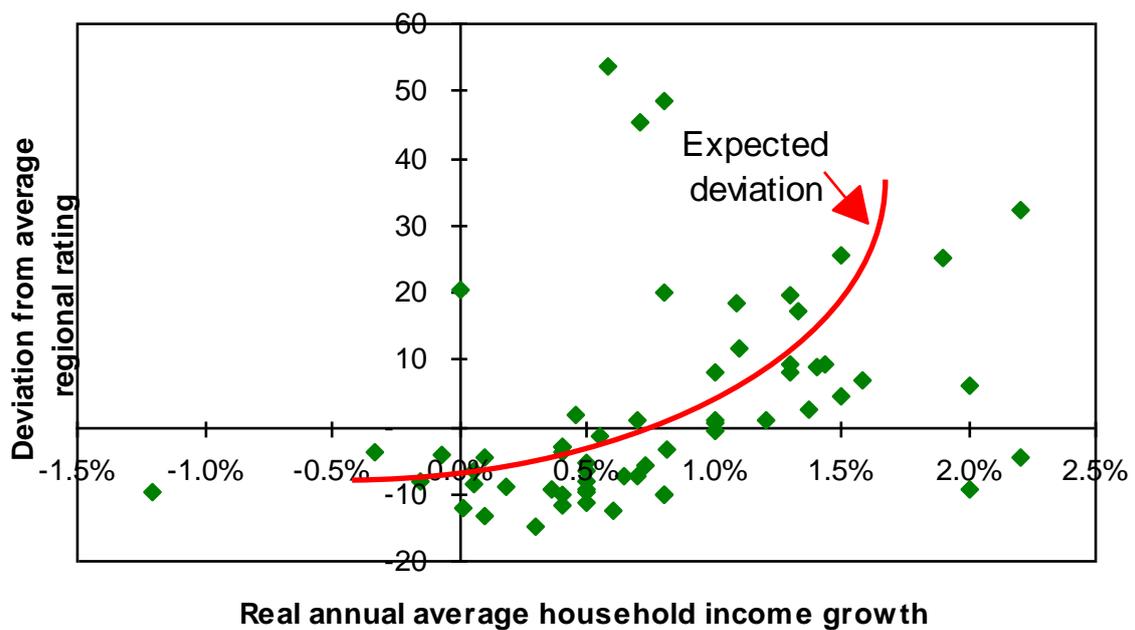
**Figure 4.2: Wealth versus regional rating**



**Figure 4.3: Household job readiness versus regional rating**



**Figure 4.4: Projected household income growth and State of the Regions rating - 1996**



**Table 4.2 State of the regions: the determinants of average household income change 1998-2005**

Regions	Ratio of average household income to simple average 1998	Projected average household income growth 1998-2005 (% p.a.)	Ratio of average household income to simple average 2005	Change in average income 1998-2005 \$/year	Direct household impact GST \$/year	Ratio of average household income to simple average after GST 1998	Change in debt - service costs 1998-2003	Total change in household discretionary income	Ratio of average household income to simple average after GST and debt service 2005
ACT	1.35	1.50	1.41	6018	1063	1.35	-2435	4646	1.41
Brisbane City	1.12	1.30	1.15	4298	850	1.12	-1809	3340	1.16
Central Adelaide	0.99	1.10	1.01	3198	794	0.99	-1451	2541	1.02
Central Coast NSW	0.80	0.82	0.79	1907	654	0.80	-1290	1271	0.80
Central QLD	1.05	1.37	1.08	4245	754	1.05	-1847	3152	1.08
Central Western NSW	0.84	0.05	0.79	126	646	0.84	-1556	-784	0.78
Darling Downs and South West Qld	0.86	0.50	0.83	1231	606	0.85	-1653	184	0.82
Darwin Top End	1.32	0.80	1.31	3067	976	1.32	-2327	1716	1.31
East Melbourne	1.26	1.30	1.30	4852	933	1.26	-2207	3577	1.30
Eyre and Yorke SA	0.80	0.40	0.77	918	614	0.80	-1350	182	0.77
Far and North Western NSW	0.82	0.02	0.77	44	636	0.82	-1452	-771	0.77
Far North QLD	1.10	1.58	1.15	5163	752	1.09	-1934	3982	1.15
Gippsland VIC	0.83	0.50	0.81	1199	600	0.83	-1406	393	0.81
Global Sydney	1.13	1.90	1.22	6445	1124	1.14	-2182	5386	1.22
Gold Coast and Hinterlands	0.98	1.44	1.02	4172	658	0.97	-1741	3089	1.02
Golden Region VIC	0.88	0.41	0.85	1027	882	0.89	-1387	522	0.86
Goulbourn VIC	0.87	0.80	0.87	2029	594	0.87	-1687	936	0.86
Hobart and Southern Tasmania	0.91	0.56	0.88	1454	670	0.91	-1395	730	0.89
Hunter NSW	0.93	0.05	0.87	141	724	0.93	-1398	-533	0.88
Illawarra NSW	0.91	-0.15	0.84	-390	717	0.91	-1397	-1070	0.84
Inner Melbourne VIC	1.26	2.20	1.39	8417	1058	1.26	-2176	7299	1.40
Inner West Sydney	1.05	1.09	1.06	3356	1024	1.06	-1851	2530	1.07

**Table 4.2 State of the regions: the determinants of average household income change 1998-2005 (continued)**

Regions	Ratio of average household income to simple average 1998	Projected average household income growth 1998-2005 (% p.a.)	Ratio of average household income to simple average 2005	Change in average income 1998-2005 \$/year	Direct household impact GST \$/year	Ratio of average household income to simple average after GST 1998	Change in debt - service costs 1998-2003	Total change in household discretionary income	Ratio of average household income to simple average after GST and debt service 2005
Ipswich QLD	0.93	0.70	0.91	1879	630	0.92	-1634	875	0.91
Loddon VIC	0.85	0.65	0.84	1604	604	0.85	-1374	833	0.84
Mackay QLD	1.24	1.00	1.25	3626	850	1.24	-2234	2242	1.25
Mallee - Wimmera VIC	0.81	0.40	0.78	935	563	0.81	-1649	-152	0.78
Mercy-Lyell TAS	0.83	0.10	0.78	227	617	0.83	-1241	-398	0.78
Midlands and Central WA	1.06	2.20	1.16	7045	702	1.05	-2121	5626	1.16
Murray - Murrumbidgee NSW	0.84	0.19	0.80	453	626	0.84	-1595	-515	0.79
Murraylands SA	0.77	0.30	0.74	661	530	0.77	-1502	-312	0.73
N.N. West Sydney	1.37	1.33	1.42	5375	1157	1.37	-2804	3728	1.41
North Brisbane	0.92	0.46	0.89	1209	622	0.91	-1531	301	0.89
North Coastal NSW	0.76	0.36	0.73	778	560	0.76	-1092	246	0.73
North Melbourne	1.05	0.74	1.04	2239	764	1.05	-1673	1330	1.04
Northern Adelaide	0.85	0.50	0.83	1227	620	0.85	-1391	456	0.83
Northern and Central Perth	1.06	1.50	1.11	4734	784	1.06	-1916	3602	1.11
Northern NSW	0.83	0.80	0.82	1925	600	0.83	-1523	1003	0.82
Northern Tasmania	0.83	0.40	0.80	949	611	0.83	-1272	289	0.80
Nth QLD	1.01	1.40	1.05	4184	749	1.01	-1649	3284	1.05
Outer South West Sydney	1.00	0.50	0.97	1441	731	1.00	-1953	219	0.97
Outer West Sydney	1.02	0.70	1.00	2067	769	1.02	-2008	828	1.00
Ovens - Hume VIC	0.95	1.00	0.96	2780	616	0.95	-1677	1719	0.96
Pilbara - Kimberley WA	1.59	2.00	1.72	9576	1187	1.59	-2683	8080	1.73
South East NSW	0.94	0.10	0.88	266	630	0.93	-1668	-773	0.88
South East SA	0.90	0.50	0.88	1300	610	0.90	-1745	165	0.87
South Eastern WA	1.56	1.00	1.57	4552	1055	1.55	-3097	2510	1.56

**Table 4.2 State of the regions: the determinants of average household income change 1998-2005 (continued)**

Regions	Ratio of average household income to simple average 1998	Projected average household income growth 1998-2005 (% p.a.)	Ratio of average household income to simple average 2005	Change in average income 1998-2005 \$/year	Direct household impact GST \$/year	Ratio of average household income to simple average after GST 1998	Change in debt - service costs 1998-2003	Total change in household discretionary income	Ratio of average household income to simple average after GST and debt service 2005
Southern Adelaide	0.92	0.40	0.89	1056	668	0.92	-1553	171	0.89
Southern Melbourne	1.16	1.30	1.19	4437	886	1.16	-1976	3348	1.19
Southern NT	1.23	0.00	1.15	0	1536	1.24	-2052	-516	1.16
Southern Perth	1.01	1.20	1.04	3582	735	1.01	-1790	2527	1.04
Southern Sydney	1.13	1.00	1.14	3297	913	1.13	-2010	2200	1.14
Southern WA	0.92	1.70	0.98	4673	639	0.92	-1796	3516	0.97
Sydney Production Region	0.98	0.50	0.95	1414	766	0.98	-1548	632	0.96
West Melbourne	1.02	0.80	1.01	2371	765	1.02	-1646	1490	1.02
Western Victoria	0.86	0.50	0.83	1236	614	0.86	-1739	111	0.83
Westernport VIC	1.00	0.58	0.98	1674	663	1.00	-1859	478	0.97
Wide-Bay Burnett QLD	0.77	0.40	0.74	886	556	0.77	-1231	212	0.75

Initial position	1998	14 453
National growth	2005	16 842
GST – household	1998	14 494
Total (after GST and debt services)	2005	16 867
GST household and industry	1998	15 203

*Source:* The range is measured by multiplying one standard deviation from mean household income by two.

## 4.2 The GST reform program

The Government's Goods and Services Tax Reform program is modelled in two parts, namely:

- (i) the direct impact on the household sector; and
- (ii) the industry impact.

### *The household impact*

The essential features of the GST reform program are:

- (i) income tax reductions with the top marginal tax rate cutting in at \$60,000;
- (ii) 2 to 3 per cent real increase in social security payments; and
- (iii) a GST impact offset by reductions in sales and other indirect taxes.

Microsimulation modelling is used to evaluate the GST program. That is, unit record data (the ABS Household Expenditure Survey) is used to evaluate how different types of households are affected by the changes to income taxes, and the changes to the absolute and relative prices of consumer goods. The results from this modelling are then mapped to regions in accordance with household structures.

The changes in the absolute and relative prices is obtained from National Economics' input-output based models. The overall short term price increase in consumer is 2.95 per cent. This outcome incorporates the GST exemption on selected food items. It is higher than the Government's estimate. This is because the Government's estimate is a long run estimate (may be up to 10 years), which also included an allowance for the appreciation of the currency which offsets part of the direct effect of the tax.

The structure of price increases across the individual consumption expenditures is varied. The price changes vary from a fall in the cost of health expenditures to a rise of 16 per cent for tobacco expenditures. These price changes are the net effect of all the indirect tax changes. At the regional level the price changes are weighted by the structure of the region's household expenditure patterns to obtain the overall net cost impact of the indirect tax changes.

The social security income changes by region are based on the level and the structure of social security recipients. The effective rise in social security payments is estimated at 6 per cent. The components of this increase include the announced 4 per cent rise, plus the guarantee of a real 2 per cent rise, plus other changes to the social security eligibility structure.

The overall impact of the household dimension of the GST reform program is given in Table 4.2. The annual gain in household income ranges from \$530 for Wide-Bay Burnett to \$1,536 for Southern Northern Territory. In general the high income regions gain around \$1,000 while the low income regions gain between \$600 and \$750 a year.

The impact of the household dimension of the GST reform is neutral in its impact on the distribution of regional income. This can be seen by comparing columns one and six in Table 4.2, or by noting from Table 4.3 that the regional income range is largely unchanged after the GST, compared to the initial 1998 case.

This is another way of saying that under the GST household dimension each region receives a similar percentage change in average household (discretionary) income. However, given the initial inequality in income levels, there is a widening of the absolute differentials in average household income. The maximum widening in income differential is of the order of \$600.

### **4.3 Debt service costs**

The projected aggregate 4 to 5 percentage point rise in Australia-wide debt service costs is also mapped down to the regional level in Table 4.2. Like the GST impact this is carried out using Microsimulation techniques.

The results show that the high income regions have a large absolute rise in debt service costs with the regions experiencing a similar percentage change in debt service costs.

It is likely that the low income regions will experience a more adverse reaction to the rise in debt service costs than what is shown in Table 4.2. This is because the wealth and macroeconomic resilience indicators are, in general, low for poor regions. That is, they have little resources, other than income, to meet debt service costs. The wealthier regions can reduce debt service costs by reducing assets.

### **4.4 The total outcome**

The total change in average household discretionary income after national growth, GST (household) and debt service costs is shown in Table 4.2. As can be seen from Table 4.3 there is little change in the distribution of regional income from the natural income expansion case.

### **4.5 The GST – industry impact**

Table 4.4 shows the relative benefit achieved by industries from the GST reform program. The benefit is estimated from National Economics' national econometric models. On the optimistic case (that is of zero inflation flow-on and unchanged exchange rate) national GDP expands by 5 per cent (compared to what it would otherwise have been in 2005) and by 11 per cent by 2010.

**Table 4.4 GST reform: industry longer term impact on sales**  
(above 0 better than average, below 0 less than average)

Other manufacturing	10.00	Road transport	-0.05
Other machinery and equipment	6.95	Publishing; recorded media etc	-0.06
Wine and spirits	6.26	Poultry	-0.12
Non-ferrous metal ores	6.09	Other agriculture	-0.35
Water transport	5.98	Furniture	-0.36
Grains	5.84	Scientific research etc	-0.48
Other construction	5.55	Plaster; other concrete products	-0.55
Iron ores	5.48	Textile fibres, yarns etc	-0.56
Sheep	5.36	Water, sewerage and drainage	-0.66
Electronic equipment	4.37	Glass and glass products	-0.67
Services to mining	3.92	Rail, pipeline, other transport	-0.67
Basic non-ferrous metals etc	3.77	Gas	-0.69
Sport, gambling etc	3.73	Legal, accounting etc services	-0.80
Services to agric.; hunting	3.60	Confectionery	-0.83
Leather and leather products	3.43	Other electrical equipment	-0.84
Other mining	3.16	Other repairs	-1.04
Banking	2.84	Dairy products	-1.05
Soft drinks, cordials, syrups	2.73	Dairy cattle	-1.08
Agricultural, mining etc machinery	2.63	Community services	-1.16
Iron and steel	2.48	Wholesale trade	-1.20
Commercial fishing	2.41	Printing; services to printing	-1.28
Prefabricated buildings	2.34	Other wood products	-1.28
Non-bank finance	2.32	Oils and fats	-1.31
Fabricated metal products	2.26	Other business services	-1.35
Cosmetics and toiletries	2.21	Household appliances	-1.45
Pharmaceuticals etc	2.14	Motion picture, radio etc.	-1.48
Aircraft	2.12	Forestry and logging	-1.54
Air and space transport	2.02	Textile products	-1.74
Insurance	2.00	Other chemical products	-1.87
Communication services	1.50	Bakery products	-2.00
Motor vehicles and parts etc	1.48	Services to transport; storage	-2.03
Scientific etc equipment	1.34	Plastic products	-2.22
Other food products	1.32	Retail trade	-2.30
Railway equipment	1.07	Health services	-2.37
Beef cattle	1.06	Electricity	-2.39
Meat and meat products	1.02	Mechanical repairs	-2.49
Pigs	0.97	Ceramic products	-2.62
Cement, lime and concrete slurry	0.93	Personal services	-3.00
Structural metal products	0.92	Beer and malt	-3.43
Paints	0.88	Education	-3.60
Accommodation, cafes & restaurants	0.86	Other services	-3.71
Non-metallic min. products nec	0.74	Libraries, museums, arts	-3.85
Petroleum and coal products	0.73	Defence	-4.04
Ownership of dwellings	0.71	Government administration	-4.08
Other property services	0.64	Residential building	-4.24
Sheet metal products	0.63	Pulp, paper and paperboard	-4.34
Soap and detergents	0.62	Knitting mill products	-7.29
Coal; oil and gas	0.55	Rubber products	-7.39
Paper bags and products	0.48	Clothing	-7.40
Financial asset investors	0.43	Footwear	-10.03
Fruit and vegetable products	0.43	Tobacco products	-11.31
Services to finance etc	0.33		
Basic chemicals	0.23		
Flour and cereal foods	0.17		
Ships and boats	0.15		
Sawmill products	0.08		

The regional expansion in gross regional product is obtained by applying the national industry expansion rates to the local industry structure. This is translated into a per household basis and multiplied by 0.6 to achieve an approximate increase in regional average income. This enables the results in Table 4.5 to be compared to the results in Table 4.2.

The table shows that all regions have the potential to enhance the GST household dimension impact with the expansion of industry. However, as can be noted from Table 4.3, the industry impact widens inequality. This is because in the main the core metropolitan and resource endowed country regions benefit disproportionately from the change.

In reality, the GST industry benefit is likely to be more heavily concentrated in metropolitan and provincial centres. This is because of:

- (i) small to medium businesses are likely to be more adversely affected by the change than large businesses;
- (ii) the GST industry effect is likely to reinforce the regional concentration effect of globalisation as businesses search for improved economies of scale and scope; and
- (iii) the regional household gain from the GRP increase is likely in most country regions to be considerably less than 60 per cent.

## 4.6 National competition policy

The Productivity Commission in its report "*Impact of Competition Policy Reforms on Rural and Regional Australia*", contends that whatever employment losses may have resulted from national competition policies, this would have been offset by gains in average income per person employed.

This conclusion is arrived at by:

- (i) largely assuming that regional change in industry output reflects national trends;
- (ii) measuring the real movement in GRP by real output changes; and
- (iii) assuming that the local region captures a significant part of the increase in GRP per person employed.

The most appropriate measurement of real GRP at the regional level is in terms of the use of a general price deflator and not quantum indexes of production. Thus, in Gippsland for example, electricity production may increase by 10 per cent but the real value added (in terms of a general price index) generated by the industry may fall by 20 per cent. This is how GRP is measured in **YourPlace** as what is important for a region is the volume of cash flow generated not physical quantities of output.

Secondly, the across the board regional capture of national industry trends is an invalid assumption for national competition policy assessment. The essence of the outcomes from national competition policies are, concentration, specialisation and the maximisation of the economies of scale and scope. By definition this requires differential (positive/negative) impacts at the regional level.

**Table 4.5 Household income and GST industry impact**

	Gross regional product increase per household 2005	Ratio of household income to simple average after
GST industry impact		
ACT	703.64	1.34
Brisbane City	1043.93	1.12
Central Adelaide	1080.80	1.00
Central Coast NSW	307.26	0.79
Central QLD	1005.36	1.05
Central Western NSW	596.04	0.84
Darling Downs and South West QLD	633.29	0.85
Darwin Top End	817.62	1.31
East Melbourne	568.32	1.25
Eyre and Yorke SA	972.58	0.81
Far and North Western NSW	720.96	0.82
Far North QLD	881.46	1.09
Gippsland VIC	474.11	0.83
Global Sydney	2818.84	1.18
Gold Coast and Hinterlands	336.12	0.96
Golden Region VIC	431.82	0.88
Goulbourn VIC	474.82	0.86
Hobart and Southern Tasmania	537.03	0.90
Hunter NSW	597.73	0.93
Illawarra NSW	606.80	0.91
Inner Melbourne VIC	4626.79	1.36
Inner West Sydney	701.31	1.05
Ipswich QLD	384.91	0.92
Loddon VIC	367.79	0.84
Mackay QLD	1070.73	1.24
Mallee – Wimmera VIC	669.14	0.81
Mercy-Lyell TAS	644.77	0.83
Midlands and Central WA	1509.60	1.07
Murray – Murrumbidgee NSW	635.29	0.84
Murraylands SA	578.62	0.77
N.N. West Sydney	553.99	1.36
North Brisbane	251.50	0.90
North Coastal NSW	327.01	0.75
North Melbourne	374.27	1.04
Northern Adelaide	361.71	0.84
Northern and Central Perth	766.74	1.06
Northern NSW	647.51	0.83
Northern Tasmania	524.54	0.82
Nth QLD	600.47	1.00
Outer South West Sydney	296.27	0.99
Outer West Sydney	316.56	1.01
Ovens – Hume VIC	563.91	0.94
Pilbara – Kimberley WA	4268.33	1.66
South East NSW	521.67	0.93
South East SA	630.88	0.90
South Eastern WA	1685.00	1.53
Southern Adelaide	333.87	0.91
Southern Melbourne	499.68	1.15
Southern NT	719.94	1.24
Southern Perth	606.07	1.01
Southern Sydney	406.37	1.12
Southern WA	913.55	0.92
Sydney Production Region	490.83	0.97
West Melbourne	376.65	1.01
Western Victoria	631.08	0.86
Westernport VIC	324.31	0.99
Wide-Bay Burnett QLD	425.11	0.77

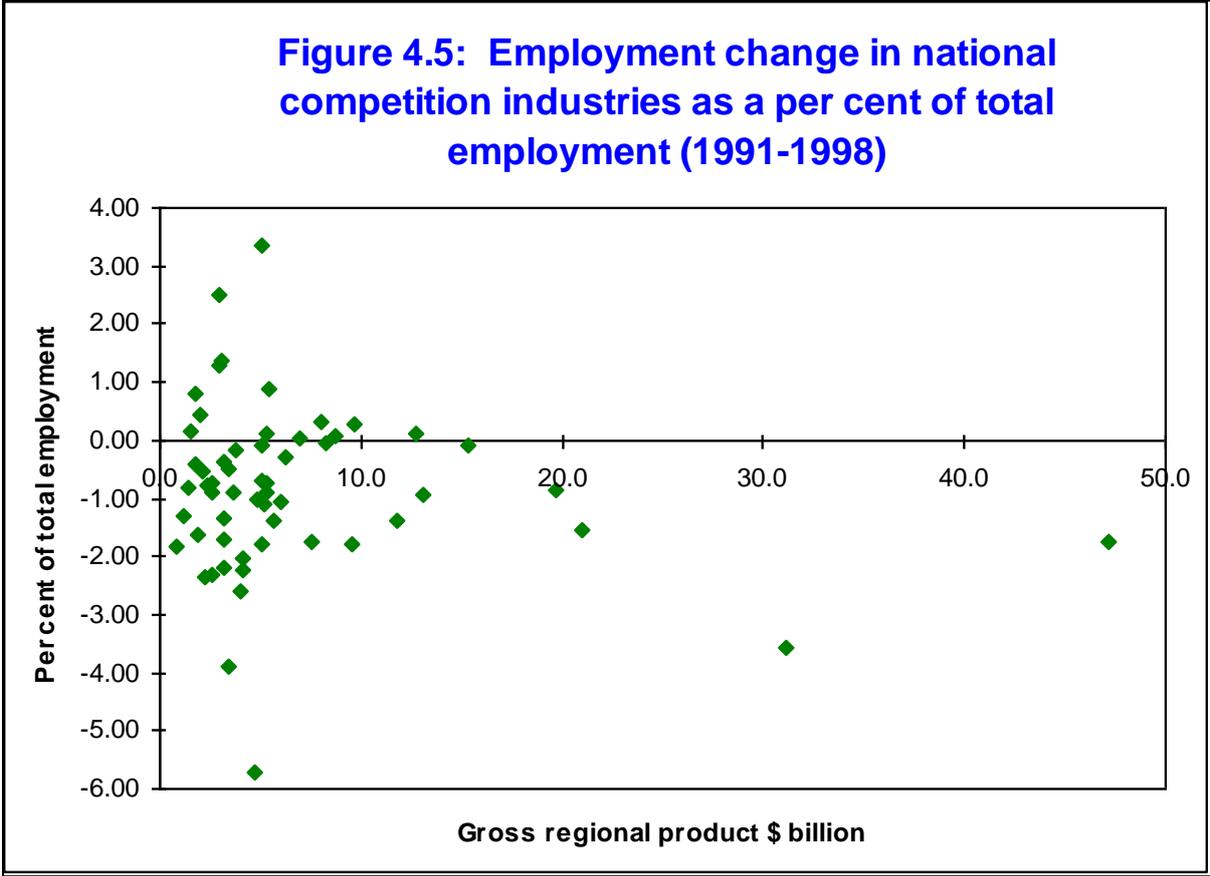
Note: Column 1 is the estimated gross regional product increase scaled by 0.6.

Finally, in the country areas the regional capture of productivity gains is likely to be less than the metropolitan areas.

Given this, the best way perhaps to measure the regional impact of national competition policies is simply to look at the regional employment and output changes in national competition industries compared to the regional macroeconomic totals. This is done in Table 4.6 for the period 1991 to 1998. The national competition industries are electricity, gas, water, road transport, rail transport, telecommunications and services to agriculture.

Table 4.6 indicates that at the very least, Central and Western New South Wales, Eyre and Yorke, Gippsland, Tasmania, Northern New South Wales and Northern Queensland would have been significantly adversely affected by national competition policy measures. This conclusion is unlikely to change if the gross benefits to these regions from national competition policies were taken into account.

It should be noted, from both Table 4.6 and Figure 4.5, that global Sydney and Melbourne were also adversely affected by the policies.



**Table 4.6 State of the regions: national competition industries – employment and output change 1991-98**

	Employment loss in national competition as a % of total employment (1991)	Output change in national competition industries 1991-1998 as % of 1991 GRP
ACT	0.32	0.58
Brisbane City	-1.56	0.08
Central Adelaide	-0.93	1.42
Central Coast NSW	-0.73	0.60
Central QLD	-0.10	3.82
Central Western NSW	-2.21	0.09
Darling Downs and South West QLD	0.13	2.74
Darwin Top End	-0.35	0.66
East Melbourne	-0.09	1.48
Eyre and Yorke SA	-3.91	-1.84
Far and North Western NSW	-2.33	-0.54
Far North QLD	0.87	3.20
Gippsland VIC	-5.72	-4.56
Global Sydney	-1.75	0.56
Gold Coast and Hinterlands	3.35	7.45
Golden Region VIC	-1.06	0.60
Goulbourn VIC	-0.48	1.21
Hobart and Southern Tasmania	-2.24	-1.00
Hunter NSW	-1.79	-0.31
Illawarra NSW	-1.04	-0.10
Inner Melbourne VIC	-3.59	-0.24
Inner West Sydney	-1.08	2.71
Ipswich QLD	0.14	6.30
Loddon VIC	-0.54	1.46
Mackay QLD	1.30	3.04
Mallee – Wimmera VIC	-0.89	0.10
Mercy-Lyell TAS	-0.41	2.37
Midlands and Central WA	-0.91	0.38
Murray – Murrumbidgee NSW	-1.78	-0.27
Murraylands SA	-1.30	3.03
N.N. West Sydney	-1.38	-1.00
North Brisbane	2.52	4.07
North Coastal NSW	-0.73	1.12
North Melbourne	0.06	0.86
Northern Adelaide	-0.69	1.08
Northern and Central Perth	0.12	2.36
Northern NSW	-2.59	-0.87
Northern Tasmania	-2.36	-0.76
Nth QLD	-2.05	0.45
Outer South West Sydney	-0.79	-0.19
Outer West Sydney	-1.33	-0.89
Ovens – Hume VIC	0.43	2.98
Pilbara – Kimberley WA	-1.61	-3.08
South East NSW	-1.69	0.28
South East SA	-0.82	2.50
South Eastern WA	0.79	1.67
Southern Adelaide	-0.17	1.78
Southern Melbourne	-0.28	0.73
Southern NT	-1.82	-0.65
Southern Perth	0.27	0.48
Southern Sydney	-1.40	-1.32
Southern WA	0.05	1.29
Sydney Production Region	-0.85	-0.26
West Melbourne	-1.73	-1.15
Western Victoria	-0.89	0.18
Westernport VIC	-0.03	0.91
Wide-Bay Burnett QLD	1.39	5.98



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## 5. Innovative regional economic development

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Regional economic development policy has shifted up the policy agenda in most developed countries. Over the 1990's, regional economic disparities have become an increasing concern. Globally competitive regions with knowledge based workforces have boomed, with high rates of job and income growth. Other regions are stuck in a process of declining wealth creating opportunities, low skills, poor infrastructure and uncompetitive firms. A driving force for regional policy intervention formulation is to ensure that all regions broadly share opportunities and poorer regions don't fall further behind richer regions. A conclusion from the economic reform path of the past decade is that reliance on market mechanisms alone will lead to deterioration in the economic performance of poorer regions.

Growing regional inequality has resulted in a significant involvement of government in the development and implementation of policies that enable regions to restructure and attain their economic potential. The European Community, for example, now spends about one third of its annual budget on regional initiatives, a massive proportion of total expenditures, and almost twice the proportion spent on regions in 1988. The aim is to stimulate economic development and employment growth in the poorer regions, through infrastructure development, promoting private sector investment and building industry networks, technology transfer, and education and training. It is recognised that to shift poorer regions on a dynamic development path will take a long time, but the focus is on creating the conditions for growth and not subsidies.

The booming US economy created economic divergences between regions, leading to a greater commitment to regional development in both poor urban and rural regions. The Federal Administration supported the establishment of rural development partnerships in many states, with funding support for collaborative initiatives involving all tiers of government and local stakeholders. The Empowerment Zone/Enterprise Community Program is another federal program that:

- targets at distressed rural and urban communities;
- provides assistance to eligible regional communities; and
- requires that recipient regions demonstrate that they have injected resources into strategic plans, capacity building, involvement of low-income communities, and the development of partnerships.

The objectives of regional development policy are to enable regions to attain their economic potential. Most successful regions have a number of common core competencies, and hence innovative regional policies have sought to strengthen the core competencies of poorly performing regions. These core competencies include competitive firms that operate in clusters and networks, knowledge based workers continually upgrades skills, good quality lifestyle and innovation and collaboration between business, government and community.

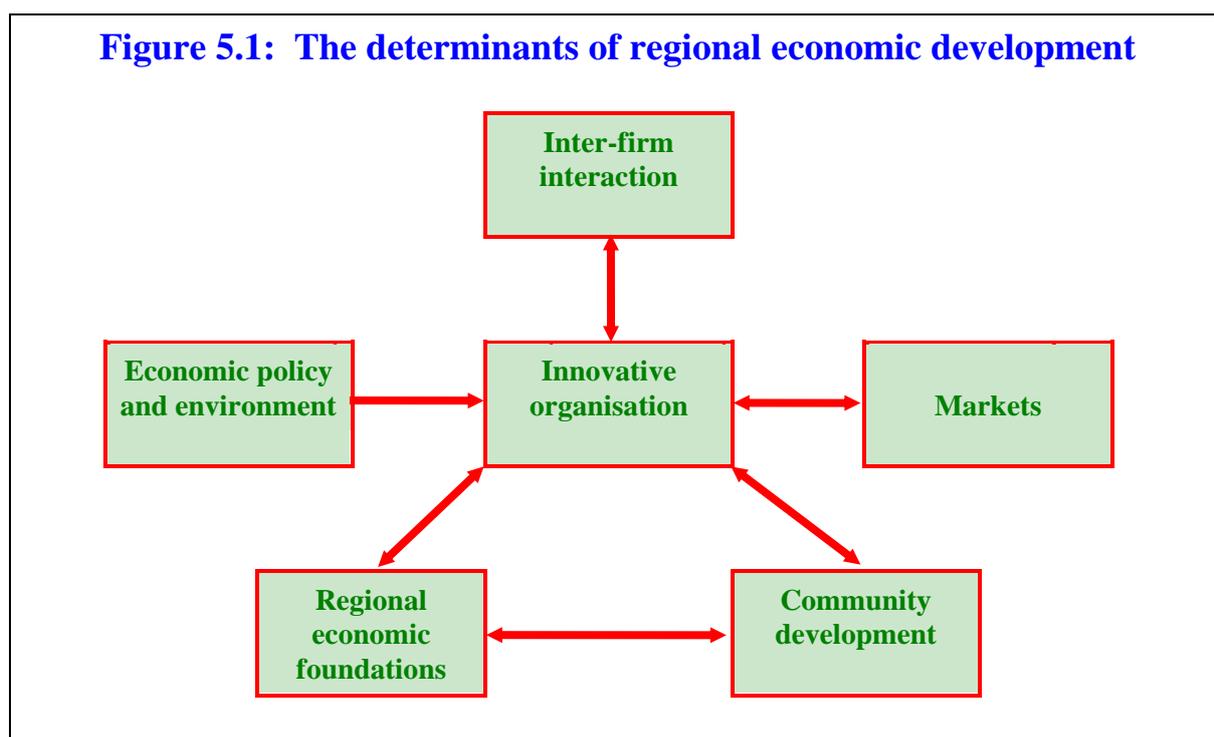
New instruments of regional policy have emerged to meet these challenges. The broad features of innovative regional policies are as follows. Firstly, the focus has shifted from business attraction towards enhancing the competencies of firms, households and organisations. Secondly, the generation and exchange of knowledge has become central to the innovation process. Thirdly, greater emphasis is given to developing business and community networks and bonds and trust between groups. Fourthly, government involvement has shifted from a top down approach to a bottom up approach with initiative and direction set from within the region and government responding with financial and human resource support to projects that lead to positive economic and social outcomes. The broad shift in policy is set out in Table 5.1.

**Table 5.1 Broad shifts in regional economic policy**

Traditional regional industry policy	Innovative regional industry policy
<input type="checkbox"/> Industry firm location	<input type="checkbox"/> Strengthen existing business, mainly SMEs
<input type="checkbox"/> Image promotion	<input type="checkbox"/> Building networks of firms
<input type="checkbox"/> Cheap industrial land	<input type="checkbox"/> Sharing R&D, training and marketing
<input type="checkbox"/> Tax concessions	<input type="checkbox"/> Global infrastructure
<input type="checkbox"/> Access to semi-skilled labour pool	<input type="checkbox"/> Building human capabilities
<input type="checkbox"/> Tax concessions eg payroll tax rebates	<input type="checkbox"/> Data and information systems
<input type="checkbox"/> Physical infrastructure	<input type="checkbox"/> Focus on natural and social environment
	<input type="checkbox"/> Social capital and lifelong learning

The framework developed by National Economics to analyse the determinants of regional economic development are set out in Diagram 1. It concentrates on three dimensions: building inter-firm networks, strengthening regional foundations and expanding social capital. This section elaborates on eight themes of regional economic development in these dimensions requiring initiative from within regions working in partnership with government.

1. Business development and industry clusters
2. Information and communications technologies
3. Supporting SMEs and their technological capabilities
4. Innovative regional economic strategies
5. Labour markets and workforce development
6. New approaches to learning
7. Building social capital
8. A new role for local government



## 5.1 Business development and industry clusters

A major development in regional policy is the integration of industry and regional development policies through fostering the development of industry clusters. A strong case can be made for shifting the emphasis of industry policy in Australia towards the creation of industry clusters, and away from support from individual firms.

The arguments supporting government involvement in clusters are as follows:

Firstly, regionally based business networks are emerging as a driving force for economic development. Regional competitiveness depends not so much on individual enterprises, but on their interaction with each other and with government, workers, households, educational institutions and councils. Virtuous cycles of development are nurtured by the flow of ideas, data and knowledge between firms, households and government. Government doesn't have to be the dominant partner but it is always there. Collaboration between government and the private sector has very important regional implications. The development of new partnerships between regionally based industries, different tiers of government and the community, has been critical in charting out new development paths for regions. The merit of "bottom-up" approaches is that it incorporates concrete experiences and innovations from the local and regional level.

Secondly, many of the activities to establish clusters do not take place in markets. It may involve forums for companies to exchange information and ideas. Government funded regional agencies often provide secretariat and administrative support for local networks.

Thirdly, many regionally based SMEs are too small to bid for major projects, undertake major R&D projects or market globally. Working in partnership with government, small firms can obtain the economies of scale and breadth of expertise to enable them to compete internationally.

Fourthly, successful regional industry clusters involve government. Participation includes using procurement policies to require firms to work together, specific programs to foster business networks and research and development programs requiring cooperation between firms. Silicon Valley is the classic case of a successful industry cluster. Business, the Stanford Research Institute (SRI) and national and Californian governments facilitated high technology industry growth in the region. Government generated demand side for IT hardware and software through procurement, predominantly military orders for the Department of Defence. The human capital and research capabilities of SRI, itself relying on government funding, produced new high technology products and services. The private sector provided the entrepreneurial talent and high risk venture capital. In Silicon Valley, growth of the high technology cluster has enormous impetus through the private sector. Government has reduced its role but remains important in procurement, sharing risks for major projects, research and skills formation and promoting the Valley.

Another success story industry clusters that emerged around SMEs in clothing and engineering industries in Emilia-Romagna. Small networks of small family businesses have created one of Europe's most globally competitive regional economies. Entrepreneurialism and creative talent has been nurtured for decades by supporting local government. The public sector, principally local government, provided support in stages starting with land for industry development, and moving to technology transfer through local technical colleges, data and market intelligence and participation for industry networks.

## Strengthening industry clusters in Washington State<sup>6</sup>

The Economic Development Council's strategy focused on three clusters

<b>Strategic</b>	Aerospace, technology, trade & manufacturing.
<b>Value added service</b>	Tourism, health care, education & research.
<b>Basic sectors</b>	Maritime and military.

To support the clusters, actions are pursued in five areas:

1. **Building excellent foundations in a highly skilled work force** – programs in school-to-work transition, basic skills in the school system, more occupational and professional education in the post-secondary system, and continuous skills upgrading.
2. **Infrastructure development** – particularly transportation, industrial land, housing, telecommunications systems and public amenities.
3. **Public policy and business climate** – emphasis is given on regulatory reform in areas such as building codes, safety regulations and environmental clean-up regulations.
4. **Business services** (retention, development, recruitment) – the strategy recognises that the capacity to retain and grow SMEs is dependent on a network of local resources in marketing and trade information, licensing and permitting assistance and loan programs.
5. **Internationalisation** – a series of activities designed to create a cohesive regional plan and image that would be consistently projected in all inbound and outbound initiatives.

Industry network programs, most of them with a regional dimension, have become more central to the European Union (EU) policies. The "Innovation and SME Programme" provides assistance for SMEs to innovate, develop and market new technology. It offers information services through a network of providers, and provides funding for pilot actions in areas of innovation.

Funds are also provided for Exploratory Awards for two or more SMEs to prepare full proposals for funding. The Cooperative Research (CRAFT) projects provide funds for consortia of SMEs to enable third parties to carry out research on their behalf.

Industry clusters in Australia are becoming more significant at the regional level, although we don't have the systematic government support compared to North American and European countries.

Firms, educational institutions and regional agencies in the Hunter have put a lot of effort into the creation of clusters. The Hunter Regional Development Organisation implemented a major program to conduct research and build industry clusters in the region, linked to research and educational institutions<sup>7</sup>. Industry clusters have emerged as a response to the closure of the steel industry and as a way to build a strong national and global presence for local SMEs. Hunter Tech is a grouping of 40 IT

<sup>6</sup> Rosabeth Moss Kanter: **Many Magnets, Little Clue: Strengthening the infrastructure for collaboration, Summary report on Greater Boston's Challenges in the Global Economy**, Harvard Business School, Cambridge, 11 May 1994.

<sup>7</sup> C. Martinez, **Industry Clusters: Competitive Advantage through Innovation**, Number 1, July 1998.

firms whose members meet regularly to develop collaborative initiatives, in conjunction with the School of Technology at Newcastle University and the Hunter Institute of Technology.<sup>8</sup>

HunterNet is a grouping of 30 complementary metals and engineering firms engaged in design, refurbishment, general engineering and specialist services. This collaborative network shares information, seeks joint opportunities, builds on core competencies and continually seeks to upgrade skills. It also provides a first contact point for major clients. The lesson of the HunterNet project indicates that it takes time to get the focus right and to develop a new collaborative and cooperative culture between competitor firms. The catalyst for the group was participation of members in a Quality Assurance Certification process.<sup>9</sup>

If the successes of the Hunter are to have relevance to other regions, more resources are required from government to support industry clusters and networks. In all successful clusters and networks, the relationship between government and business will change over time.

Local and regional policies to strengthen business networks and industry clusters:

- coordinated between different tiers of government to provide resources for strengthen Industry Networks;
- increased funding support for market intelligence, feasibility studies, administrative support and business forums;
- initiatives to strengthen supply chains within industry clusters;
- improving access from major export oriented clusters to airport and seaport gateways;
- encouragement for SMEs to share R&D, new produce/product development, training, infrastructure development and electronic networks; and
- greater emphasis on SME collaboration in procurement and import replacement strategies.

## 5.2 Information and communications technologies

A major concern is that the socio-economic gaps in regional Australia will widen if some regions are disadvantaged in terms of accessibility, affordability and use of ICT networks and services.

One of the highest government priorities for rural and remote Australia is to get communities connected at a reasonable cost and level of service. The Federal Government has funded **Networking the Nation**, a five year program designed to meet the telecommunication needs of people living in non metropolitan regions. For these areas, the objectives of the program include improving telecommunications infrastructure and services, increasing access to and promoting services and reducing disparities in services between regions.

Information technology and telecommunications underpin the shift towards the knowledge-based economy. They are the infrastructure to enable local and global electronic networking. Accessible, affordable and quality ICTs are a necessary but not sufficient infrastructure to link regions to the global economy, information and learning systems. They enable communities to get connected and their impacts of regional Australia is omnipresent – in schools, hospitals, households, shops and business enterprises. People are likely to be using ICTs for e-mail – text based but becoming increasingly sophisticate with the availability of multimedia documents. Increasingly, households will engage in tele-shopping and tele-banking. Local information systems, networks and databases enable rapid spreading of information about regional capacities and opportunities. They enable fast

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<sup>8</sup> Stephen Long, *Australian Financial Review*, 30 October 1999.

<sup>9</sup> Harvey Knox, HunterNet CEO, personal communication.

and efficient knowledge and resource sharing between government agencies, communities, households, learning facilities and enterprises.

Australia has one of the highest take-up rates of ICTs in the world, including PCs, mobile phones and the Internet.<sup>10</sup> A commitment by the Commonwealth Government to provide universal digitalisation will enable all regions to have quality access to facsimile, voice, email, video, data and electronic applications. Affordable and universal local ICT infrastructure enables households, farms and firms to function well as sites for work and learning.

Infrastructure capacity depends on the quality, capacities and distribution of communication links, terminals and peripherals and cabling as well as the capacity and connectivity of local information silos. Regions must have the telecommunications infrastructure that enables good global connectivity for households, enterprises and community organisations.

ICTs – hardware such as optic fibre cables or satellite communications systems and software such as the Internet – are creating significant economic opportunities and as such will become increasingly important tools to support regional development strategies. Firstly, they provide firms with instantaneous links to markets, customers and suppliers. Tourist operators can market their facilities with high quality graphics on the Internet. Farmers can track movements in prices, sales and stocks on a daily base and network with other producers.

The growth of E-Commerce is likely to have a dramatic impact on trade and employment in regional Australia. Enterprises that develop their capabilities in E-Commerce will be in a position to restructure their internal operations, automate dealings with their business service providers and freight forwarders and access global markets.

On the other hand, there are of course potentially significant downside risks to regions associated with E-Commerce – particularly people working in banks, retail shops, car yards, travel agencies and video shops. There are likely to be short term job losses amongst less computer literate groupings in regions.

Secondly, ICTs open up new opportunities for interactive learning for households, firms, farms and community organisations. They create opportunities to redefine the role of educational institutions and the method of delivery of education and training. ICT's are significantly expanding opportunities for business and community networks, and the growth of these networks is increasing demand for ICT applications.

Thirdly, they create new business opportunities including attracting locationally footloose tele-centres and the establishment and growth of home-based businesses. Currently, there are over 200,000 workers employed in tele-centres in Australia, which can be located anywhere with access to advanced telecommunications infrastructure and where there are sufficient workers.

The growth of home-based businesses is emerging as a major development offering significant opportunities for people living away from major centres. Regions with outstanding environmental attributes and ICT infrastructure are likely to significantly expand employment in home-based businesses.

Fourthly, they are creating a new drive for decentralisation because of the high proportion of service based tasks can be delivered electronically.

ICTs will enhance but not guarantee the following in regional Australia:

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<sup>10</sup> Department of Foreign Affairs and Trade, **Driving Forces on the New Silk Road – The use of electronic commerce by Australian business**, Commonwealth of Australia, 1999.

- linkages between provincial cities and global networks.
- knowledge intensive workforce.
- global connectedness to knowledge flows.
- electronic networks and shared information platforms
- capacity to adapt locally.

### **Teleworking in remote islands of Scotland**

Business and community groups got together to use advanced telecommunications to improve opportunities for workers by focusing on putting high skilled workers in touch with long distance clients. Since it was set up in May 1994, the Information, Communications and Technology Advisory Service of the Western Isles, Skye & Lochalsh group has created about 100 teleworking jobs in the Hebrides, in North-West Scotland.

The starting point was to assemble a file of potential teleworkers. A list of some 500 people, either residents or people wanting to move back to the islands, was drawn up and their skills categorised. The European Union provided funds under its Leader program to train workers. The second step was for the action group to establish a limited liability company, "Lasair Ltd", capable of managing contracts concluded with principals from anywhere in the world. The third step was to pursue contracts. The group has been very successful in winning global projects, specialising in conversion of text into electronic mediums such as CD Rom and Internet.

The emphasis on ICTs is shifting from the development and diffusion to the organisational and social changes required to maximise economic and social benefits associated with ICTs. To date, most of the focus of government policy in developed economies is to invest in networks, services and equipment in lagging regions as a means to reduce the gap between them and information intensive regions.

Recent policy evaluations by the European Commission have led to the development of new initiatives to link regions into the information economy. Rather than concentrating on hardware infrastructure alone, the new approaches emphasise improving awareness, encouraging local leadership through a reinvigorated role for local and regional government, building local partnerships and applications, and incorporating ICT strategies into broader regional economic development strategies. The Commission's Inter-Regional Information Society Initiative, a pilot program to bring lagging regions into the knowledge economy. The objective of the program is to stimulate a collective working program. The program adopts a "bottom-up approach to ICT involving:

- regional action plans to create awareness, stimulate cooperation and build a critical mass of users;
- facilitating discussions and partnerships with the private sector, with the objective of securing active private sector involvement;
- identification of ICT applications that will contribute to regional development and employment. To date, most local web sites have been promotional, but they are evolving towards interactive services; and
- the exchange of experiences between regions, through which pilot regions will benefit from each other.

### 5.3 Supporting SMEs and their technological capabilities

Traditional regional policy concentrated on attracting investment to regions from outside, but this has limited relevance. The new model emphasises encouragement of local small medium enterprises and strengthening their capabilities to innovative and compete. SMEs are the major generators of jobs in regional economies. Priorities include establishing clusters, improving the business environment, encouraging entrepreneurship, improving knowledge flows and technological capabilities (see box). Regions have different capacities to upgrade knowledge and technology, depending on their existing industrial structure, regional leadership, skills and culture.

Specialist production technology is essential for regions to lever advantage from technical knowledge particularly in those areas in which they are, or might be, globally competitive. The character and quality of local technical knowledge will correspond to the types and levels of technologies. And technology is used in the development of new knowledge. So the depth and quality of technology at the regions disposal partly helps it develop new and better technical production solutions – practical knowledge.

Technological capability is the sum of the working technology stock, the specialist technical knowledge and skills necessary for its operation, and, the capacities of technology research and development institutes. The stock of working technology is inseparable from the stock of human technical skills since one without the other is, in commercial and practical terms, useless.

Technology capability can be strengthened by:

- ❑ strategic technology alliances linking local research and development institutes and enterprises with sources of technology outside the region. These relationships can accelerate technology transfer and development. They may involve subsidiaries, parent companies, joint venture partners, overseas customers and research institutes;
- ❑ flexible capital markets and innovative ways of providing access to funds for developing and purchasing technology. This can speed the formation of new technology ventures and make it easier for local firms to stay technologically competitive; and
- ❑ innovative regional science and technology policy targeting product or process technologies for which the region is, or could be, globally competitive.

Strategies to upgrade technological capabilities depend on the type of regions. Investing in technological strategies must bear a relationship with regional economic structure and dynamics.

Three types are considered here:

- ❑ globally competitive regions;
- ❑ globally vulnerable industrial regions; and
- ❑ technological deficit regions.

In globally competitive regions, priorities include building technology parks, with the aim of bringing together leading edge research in outstanding universities with knowledge based start-up firms. International models range from private sector led models based around an existing high technology base to public sector models in greenfields site, seeking to provide a catalyst for change – such as CyberCity in Malaysia. The Australian Technology Park in Sydney, for example, shows significant promise because of its strategic location in global Sydney. The project involves up-front government investment through the Better Cities Program, and has brought together research arms of three universities, NSW Institute of Technology, high technology incubators and firms. The relationship between the ATP and non-metropolitan regions may be based on the development of a regional network

Globally vulnerable regions require different strategies to strengthen technological capabilities. These regions may have strong technological capabilities but are facing intensified price and technological competition. In production regions where industry has become less competitive, emphasis might be on technology diffusion and training to enable firms to upgrade capabilities.

The US Government introduced a number of programs in the late 1980s to improve competitiveness, much of it focused on industrial areas. The Department of Commerce created the Manufacturing Extension Program (MEP) to provide small manufactures with access to new technologies, production methods and manufacturing expertise. The rationale for the program was the slow adoption of new technologies and methods by small US manufacturers.

The program required a commitment of regional resources and delivery, involving the establishment of a national network of locally based manufacturing extension centres. Currently, there are 60 centres in 42 states and Puerto Rico. These are broken into larger Manufacturing Technology Centres, with an annual budget of around \$3 million and smaller manufacturing centres. These centres were designed to "bridge a technology gap between sources of improved manufacturing technology and the small and mid-sized companies that need it". The aims are practical. Manufacturing experts made available through the centres work with local manufacturers to assess their current technology needs, their competitive position, propose changes to company operations and develop company-specific technology and business projects.

The European Union (EU) has implemented a range of measures to improve knowledge and technological capabilities at the regional level. The focus of the current strategy is to increase European competitiveness by strengthening the science and technology base. Funds from the Community Structural Funds are allocated directly to support research and technological development. Between 1994-1999, around 4 per cent of total funds have been budgeted to develop the technological potential in the less advanced regions.

The EU provides funds to support SMEs by providing assistance for new products and production methods, encouraging cooperation between them and providing grants for innovative new projects. Over 60 per cent of EU funds to support businesses were allocated to those regions experiencing industrial decline. Emphasis has been given to a decentralised approach, with support for intermediaries at the local and regional level. One of the key strategies is to transform European Information Centres into "first-stop-shops".

The Japanese government has developed programs to strengthen regional technological capabilities. The kosetsushi centres have been organised and sponsored by the Small and Medium Enterprise Agency of MITI but administration is through prefecture and delivery is at the local level. The centres provide support for technological adaptation and training, research, testing and management assistance for enterprises with less than 300 workers. The kosetsushi centres employ around 6,900 people, including 5,300 engineers.

Another mechanism used by Japanese policy makers is to promote knowledge exchange between regions. The Japan External Trade Organisation has established an industrial exchange program to encourage cooperation between overseas corporations and Japanese corporations engaged in similar activities. The program is focused on region to region exchanges. It aims to create business opportunities by introducing overseas corporations from specific regions to corresponding industrial regions in Japan. In Japan, the program functions as a partnership between JETRO and local government.

Technology deficit regions require different strategies including promoting awareness about technology, sharing ideas, pilot projects to improve products and processes, and the use of regional universities and TAFEs in the diffusion of useful technologies and knowledge.

## **European Union business development programs**

### ***Simplify and improve business environment***

Consideration of the interests of SMEs in all initiatives  
Simplify and improving legislation  
Increase the spread of best practice in administration and regulation  
Improve the framework for transnational operations of SMEs.

### ***Improving the financial environment for enterprises***

Improve access to loan financing  
Initiatives to reduce late payment  
Development of specific financial instruments  
Development of capital markets to support fast growing SME

### ***Assist SMEs internationalise***

Develop Euro-Info-Centres  
Promotion of SME policy actions  
Co-operation through business search networks  
Expand partnership programs (Europartenariat/Interprise)  
Develop sub-contracting partnerships  
Promote access to new markets

### ***Enhance SME competitiveness***

Increase innovative potential of SMEs  
Stimulate management training  
Adaptation to environmental requirements

### ***Promote entrepreneurship and support for special target groups***

Business culture and entrepreneurship  
Women and young entrepreneurs and enterprises owned by minorities  
Craft and small enterprises  
Enterprises in commerce and distributive trades

## **5.4 Innovative regional economic strategies**

Regional economic strategies can have a positive impact on local jobs and investment. Good strategies provide information about how a region is performing, a vision about where it wants to go and steps about how to attain its vision. Over the past decade, funds have been provided by governments that assist regions' undertake strategies. The Regional Development Program, prior to its disbanding generated detailed information about Australia's regions. Area Consultative Committees have taken over some, but not all, of the functions of the previous program, focussing more on labour market programs.

The result is a mixed one. Some strategies have resulted in a more detailed understanding about regional challenges and opportunities and a shared vision about future directions. They focus on practical outcomes, getting people working together, emphasis on devolution of responsibilities and have a careful conceptualisation of where their regions want to go.

Three problems are identified with regional strategies – poor quality research, weakness in organisational capacity at the regional level to guide, lead and implement strategies; and lack of funding support from governments. Regional strategies can degenerate into motherhood statements with few actionable recommendations. Some strategies reproduce information provided by stakeholders without subjecting it to analysis. Poor quality research can lead to scepticism and inertia amongst regional stakeholders. The second problem is lack of regional leadership in strategy formulation and implementation. The capacity of regional Australia to create implement economic strategies depends on the capacity of all regional stakeholders to consciously work together towards agreed goals and in the process to develop organisational capacities and knowledge – learning by doing. The third problem is the lack of resources provided by government to support the design, more importantly, the implementation of strategies.

Although there is no singular formula for an innovative strategy, they would generally be based on the following principles:

### ***Vision***

A vision must be based on the capacity identify what it would like to be like in future, taking account of its structure and dynamics. It needs to articulate the common values that binds people together and incorporate social and environmental as well as economic objectives.

### ***Feasible***

Goals, strategies and projects must be designed and implemented within a framework that sets out what is achievable given resource, technology, growth, skills and environmental constraints.

### ***Inclusive***

Outstanding strategies involve the participation of all stakeholders – business, community, unions, councils as well of views of different cultural groupings including ethnicity, gender and age differences. All stakeholders must have an opportunity to participate in the formulation of the strategy and its implementation. Rural Development Partnership funding in USA is contingent, amongst other things, on the attempt by a region to develop a shared vision amongst different groups.

### ***Broader economic perspective***

A broader economic context needs to be analysed and understood – including macroeconomic environment, emerging opportunities and threats, and linkages with other regions.

### ***Flexible***

Given the range of exogenous variables, good strategies have a capacity to adapt to unforeseen developments and to prepare contingency plans.

## *Priorities and action plan*

Regional plans need to provide the steps required achieving desired outcomes. They need to articulate what are the priorities, resource requirements, who is responsible for implementation and project management schedules.

Australia is falling behind other developed countries in the development and implementation of economic strategies. There is a lack of coordination between tiers of government, few resources are available for implementation and the private sector has demonstrated a reluctance to become involved. To consider world best practice in innovative economic development strategies, a number of case studies could be cited. We have used the case study of Oregon because it shows how quickly an economy can be transformed with outstanding leadership and a strategy to implement change.

## *The Oregon model*

Innovative regional strategies can make a big difference. A good case study is Oregon. In the late 1980's, the state economy faced serious economic, social and environmental challenges associated with declining opportunities for traditional industries, regional inequalities, high unemployment, poverty and environmental degradation of forests and water systems. To address the crisis, the Oregon state government, business and community leaders initiated an economic development strategy. Groups were established to look at strategic industries and policies impacting the economic environment. The outcome was a 20 year economic development strategy that set out clear goals and actions that have effectively guided the state and its regions over the past decade. Major achievements include the highest education outcomes in the US, export growth at twice the national average, better environmental outcomes and high employment growth in knowledge based industries. Funds come from multiple sources, with core funding reallocated from the state lottery to support industry and regional initiatives. The strategy has been very effective. The features of the Oregon model are innovative strategic design, the central focus of government and private sector in initiative, devolution of responsibility and resources to designated regions and industries, and mechanisms to measure and monitor progress.

Three other features of the Oregon model are relevant to Australian regional development. Firstly, the government focused on creating an outstanding economic development agency. that is required by law to operate efficiently and accessibly. The Oregon Economic Development Department uses the bond raising capacity of the Oregon Bond Bank to provide additional capital for community infrastructure projects funded by lottery income. The Department sells revenue bonds on behalf of local government and pools the needs of a number of communities, resulting in a capacity to obtain lower interest rates. Similarly, it uses lottery funds to increase capital available to small businesses through the banking system.

Secondly, strategic industries are organised into flexible networks to design and implement strategies, solve problems and pursue opportunities. The networks have been particularly useful for firms in rural areas. The Department contracts qualified individuals in the private sector to act as lead brokers. Each industry is required to develop an industry action plan setting out priorities for education and training, market development, research, business climate, business finance and services and infrastructure.

Thirdly, there is a major commitment by government to regional development. One of the major concerns identified by the Strategy was the lag in rural incomes and employment compared to metropolitan Portland. To address regional inequalities, more funds per capita have been directed to non-metropolitan regions. Emphasis is given to supporting "bottom-up" initiatives, greater private sector participation in regional decision making and linking regional strategies to industry strategies. Resources are provided for capacity building in regional communities and to support the design and implementation of regional specific economic development strategies. Each region has developed six-

year strategies, including three two year action plans. Funds are provided to support industry initiatives in three industries including feasibility studies, development projects, training, financing, facility development and technical assistance. The Government has established a Rural Investment Fund to provide direct aid to distressed rural communities, and to co-ordinate funding with federal initiatives. Further, the Department has contributed lottery funds to two non-profit organisations that work with small cities to protect liveability and improve their economic potential. Assistance has been in the form of technical assistance and educational services.

**Table 5.2 Oregon economic development strategy**

Strategic initiative	Actions
1. To create the best educated and trained workforce in the US by 2000, and a workforce competitive with any country in the world by 2010.	<p>Involves the establishment of targets for literacy, skills attainment, initiatives to achieve these skills, and tested and benchmarked against others.</p> <p><b>Children's Agenda</b> Basic knowledge and skill, a sense of self-worth and security, and priority for single-parent low-income families.</p> <p><b>Stable schools, essential skills</b> Well financed schools, with ambitious targets for student retention, skills development and career preparation.</p> <p><b>Business-education ties</b> Improved co-ordination of design and delivery on continuing education and retraining programs.</p> <p><b>A world view</b> Emphasis on science and maths, international languages and culture.</p>
2. Maintain environmental quality, protect against congestion and enhance quality of life.	<p><b>Urban and environmental planning</b> to create an environment that anticipates and solves problems.</p> <p><b>Focus on attracting people to the area</b> who bring jobs through attractive neighbourhoods, affordable housing, good schools, uncongested roads, pristine vistas, and outdoor recreation.</p>
3. An international orientation	<p><b>Support to enable residents and business</b> become familiar with world cultures and languages.</p> <p><b>State agencies to support SMEs get into export markets</b> through market intelligence, country evaluation, and missions.</p>
4. Strong partnerships to build competitive advantage.	<p><b>Government leadership</b> to forge partnerships.</p> <p><b>Establishment and support</b> for 13 key industry and 12 regional groups.</p> <p><b>The creation of the Oregon Progress Board</b> to facilitate a consensus around the state's vision and measure progress towards achieving it.</p> <p><b>Building local and regional capacity</b> to initiate and implement economic development strategies.</p>
5. Invest in public facilities and services	<p><b>Substantial investment</b> in airport and port, road and rail infrastructure and services.</p> <p><b>Improved planning of infrastructure</b> and a review of financing alternatives.</p> <p><b>Focused investment</b> in rural regions, with funding from the lottery generated economic development budget running three times greater per capita in rural areas than in Portland.</p>
6. Contain the cost of business	<p><b>Low taxes</b> No sales tax, no inventory tax, no worldwide unitary tax, no business and occupation taxes.</p> <p><b>Property tax exemptions</b> in 35 designated enterprise zones.</p> <p><b>Customised workforce assistance and innovative industry driven training programs</b>, such as the Semiconductor Workforce Consortium.</p> <p><b>Low-cost loans</b> and enhanced access to private capital.</p>

## 5.5 Labour markets and workforce development

Labour markets are undergoing constant change, driven by the changing nature of work and jobs as the knowledge economy takes hold. The demand for jobs is changing, as is the supply of the workforce to the labour market, creating difficulties in maintaining balance in labour markets. Job descriptions are more likely to reflect organisational outcomes and competencies rather than specific tasks. Many routine and low skilled service jobs are becoming automated.

The emergence of E-Commerce is predicted to have a major impact on service jobs in a short period of time. In general, jobs require the use of more knowledge. These jobs require improved skills in communication, literacy and numeracy. Workers and managers must continually adapt and develop new skills. Other major characteristics of labour markets include increased flexibility in working hours, growing income disparities, the weakening of the award system, the growth of female employment and part-time work, and higher regional unemployment.

Labour market programs are essential because labour markets don't always work well. The rationale for labour market programs includes structural unemployment concentrated at the regional level, mismatch between jobs and skills, and poor quality information.

In Australia, labour market programs have been overhauled. Reforms under the Coalition government include:

- ❑ disbanding of the Commonwealth Employment Service and the establishment of Job Network, a national network of around 300 private, community and government organisations contracted by the government to find jobs for unemployed people;
- ❑ new apprenticeship centres to provide "one stop shops" to provide apprenticeship and traineeship services to employers and job seekers;
- ❑ introduction of Work for the Dole program, a co-responsibility program requires unemployed people to undertake labour market obligations in return for unemployed benefits; and
- ❑ reinforcing the role and funding support for 58 Area Consultative Committees. ACCs represent local business, community, and aim to identify and facilitate opportunities for job growth, skills and regional development.

The regional level provides a critical focus for improving labour market opportunities. The region is important two reasons.

Firstly, unemployment is concentrated in certain regions – industrial, rural and lifestyle regions, as well as outlying metropolitan regions such as the Central Coast in New South Wales.

Secondly, regional specific conditions that exacerbate unemployment – structural decline of industry, rapid growth of the labour force and a "skill gap" mismatch between demand for jobs and capabilities of local workers – suggest that action to stimulate employment growth must emanate at least in part from the local level. Creating jobs in regions with high unemployment has been exceedingly difficult. Some groups are particularly badly affected. Vulnerable groups include young school leavers, workers without formal education particularly those with language and literacy difficulties and older workers living in depressed regions.

Regional specific policies and initiatives to create jobs and provide opportunities for vulnerable workers are very important. They are not a substitute for action at national and state level to stimulate job creation. Macro-economic policy settings, R&D and technology, industry and education policy have significant impacts in terms of job outcomes. Much can be done at local level, however, to understand the functioning of the local labour market, secure commitments from firms, community-based organisations and local government and implement initiatives to improve access to jobs for local workers.

Some examples of regional specific initiatives include:

- ❑ development and maintenance of outstanding databases and information systems on firms, contact persons and occupations, and mechanisms to improve the flow of labour market data and communications about job opportunities;
- ❑ design, development and continuous updating of firm-specific data including address, industry classification, employment numbers, occupation profile, contact details for people responsible for recruitment and training, training profile and export orientation;
- ❑ building on firm databases, regional firms should be systematically surveyed to assess their support for participation in structured workplace training programs;
- ❑ protocols for data and information between education and training providers and improved data on placement opportunities;
- ❑ upgrading regional websites to provide information on job and training opportunities;
- ❑ initiatives to upgrade the commitment of regional firms to providing training opportunities for structured workplace learning. For this transformation to occur, a co-ordinated approach across all education providers to both marketing and the organisation of placements would be required. Without such an approach the organisation of placements will be left to the under-resourced and fragmented efforts of teachers and vocational education co-ordinators; and
- ❑ greater emphasis should be given at the local and regional level to support workers lacking work skills or demoralised by experiences in the labour market. This may involve an extension of the job network concept – specialising on job searching and training, to a broader approach to workforce development . Workforce development initiatives "constellation of activities from orientation to the work world, placement, and mentoring to follow-up counselling and crisis intervention" offer a holistic and supportive case management to getting workers back into good jobs.

## **5.6 New approaches to learning**

In the knowledge economy, individuals, households and organisations must have the capacity to acquire new knowledge, skills and to adapt to continual change associated with technological innovation, shifts in employment and occupation and new methods of learning. Good education provides the building block for individuals to continually acquire new skills. Skills development, training, learning-by-doing and adapting to change are hallmarks of the new economy. The formal education system remains important but other sources of knowledge and methods of learning are becoming increasingly important. A feature of knowledge is that the more an individual possesses, the easier it is to acquire more knowledge. In the knowledge-based economy, however, formal education is one element of a lifelong process of learning.

Knowledge based regions don't have to be dominated by high technology firms, although of course it may help. The knowledge-based region focuses on developing its core competencies, both through accessing codified knowledge and integrating it with the tacit knowledge specific to organisations and geographic locations.

Information and communications technologies, through the Internet and Intranet, are opening new possibilities for productive and creative learning. The shift towards knowledge intensive production of goods and services and the development of networked production systems has enhanced the performance of regions that have the capacity to innovate and continually develop new products and ways of working. Competitive regions are characterised by continuous flows of useful knowledge between households, firms and organisations.

Innovative regional education and training systems, involving both formal education and non-formal acquisition of knowledge, will arguably be the most critical determinants of regional economic development in the 21st Century. In the past decade, there have been a number of significant developments regional education and training. These include:

- the regional TAFE system has been strengthened;
- significant investment has taken place in regional universities;
- an increased proportion of school children stay at school until Year 12;
- the private training system has become more competitive; and
- new apprenticeship arrangements are sparking a revival in apprenticeships, and new relationships developed between education providers and industries.

Despite the consensus about the importance of education and training, significant resource cutbacks by governments and increasing tuition fees are countering many of the positive developments that have taken place.

**Table 5.3 Knowledge based education and training systems**

How learning will occur	<input type="checkbox"/> Team building
	<input type="checkbox"/> Modular and customised to meet the needs of individuals
	<input type="checkbox"/> Active rather than passive
	<input type="checkbox"/> Goal and competency based rather curricula based approaches
	<input type="checkbox"/> Self paced learning
	<input type="checkbox"/> More informal learning and learning by doing
	<input type="checkbox"/> Community centred and project based
	<input type="checkbox"/> Sympathetic to cultural and value differences
What will drive demand for learning	<input type="checkbox"/> Acceleration of learning technologies particularly internet and multimedia
	<input type="checkbox"/> Increasing innovation in product and process technologies
	<input type="checkbox"/> Demand for reskilling and life transition skills
	<input type="checkbox"/> Rising skill levels and specialist knowledge requirements
	<input type="checkbox"/> Demand for team based, problem solving skills and improved communications.
	<input type="checkbox"/> Shift to team, household, enterprise and place competencies.
	<input type="checkbox"/> Learning places, regions and organisations as well as individuals
Why is learning becoming more important	<input type="checkbox"/> Learning will be the source of economic security
	<input type="checkbox"/> A more highly valued activity socially
	<input type="checkbox"/> Increasingly be associated with entertainment and recreation
	<input type="checkbox"/> More purposeful context in household and individuals learning and life strategies
What is learnt	<input type="checkbox"/> Shift to responsibility, trust, teamwork, information sharing, and love of learning.
	<input type="checkbox"/> Emphasis on "Learning Skills" and gaining self understanding of "Learning Styles"
	<input type="checkbox"/> Foundation learning skills, analytical, meta cognitive and social skills
	<input type="checkbox"/> Technology awareness eg keyboard skills and basic computer literacy
	<input type="checkbox"/> Interpersonal and team skills
	<input type="checkbox"/> Strategic task oriented goal justified learning
Function	<input type="checkbox"/> An enabler of human and technological capabilities
	<input type="checkbox"/> A form of organisational innovation
	<input type="checkbox"/> Learning infrastructure and learning networks underpin competitive regions
	<input type="checkbox"/> A source of enterprise wealth, employability and household income
Where	<input type="checkbox"/> Households, community spaces, enterprises and learning institutions
	<input type="checkbox"/> Within multi centred and distributed learning networks
	<input type="checkbox"/> Public Spaces eg Libraries, Child Care Centres and museums
	<input type="checkbox"/> Household as site of learning via electronic networks and cyberspace
	<input type="checkbox"/> Public sector support for marginalised enterprises and neighbourhoods
	<input type="checkbox"/> Cyber Space learning interactivity increasingly important
When	<input type="checkbox"/> Throughout life as opposed to life cycle stage constrained
	<input type="checkbox"/> Interspersed with work- "Just in Time" Training
	<input type="checkbox"/> When household learning and income plans allow it
	<input type="checkbox"/> earning through doing and structured on the job training
	<input type="checkbox"/> A part of leisure and recreation especially for those without access to workplace learning

## 5.7 Building social capital

One of the important determinants of regional economic development is the capacity of people to live, learn and work together in a happy and constructive environment. Social capital comprises all the formal and informal social relationships, institutions and groupings that build systems of values, trust, and mutual support. Social capital can also be defined as the sum of values and constructive social relationships that express and generate the culture of a place. It is one of the great intangibles of regional economic development, but in many cases, it can be the most important. International research points to the central role of social capital as a determinant of regional economic success. A leader in this field, Robert Putnam<sup>11</sup>, explains the long-term divergence in economic performance between high growth northern Italian provinces with stagnant southern provinces in terms of the vigorous civic life of the former and mistrust and of lack of social cohesion in the south.

A healthy and happy civic life is an important objective in its own right. It also happens to be good economics. A strong civic society creates opportunities for closer bonds and trust between businesses and promotes flows of information and knowledge between people, a pre-requisite for an innovative economy. On the other hand, some regions can sustain high rates of economic growth without a strong civic society for some period of time, but normally this creates pressure for change. Given the increasing mobility of capital and labour, successful regions are likely to be those that are characterised by a dynamic economy, social capital, innovative learning systems and a protected natural environment.

Social capital can't be proclaimed by government, or by throwing large amounts of money at communities. It can really only be created by communities and its stakeholders working together over a long period of time to create civic organisations. Social and sporting clubs, school parents and friends committees, neighbourhood development associations, community organisations and churches are all crucial components of social capital. It also includes kinship links, extended families and informal supports between households generated by face to face contact within neighbourhoods. These institutions and relationships reflect community aspirations and values and provide mutual support systems around common and special local needs. They are agents for information flows within local communities of interest or kinship that crossover into schools, households, enterprises and systems of local governance.

Information sharing and organising capacities of social groups can be useful in achieving economic, as well as social and neighbourhood goals. Social organisations are important intermediaries in the development of public-private sector partnerships and networks which strive to find new local solutions to issues facing communities such as commercial centre revitalisation, improved housing, learning resources, recreation facilities and family support networks. These partnerships can exploit local knowledge, human and financial resources to develop new products and services catering for special social needs or culturally specific market niches.

Social organisation can support and sponsor household and community based systems of learning and even the formation of community based enterprises. So resilient mutual support and information networks help places and households meet the challenges of networked production and flexible labour systems.

Social capital alone doesn't guarantee economic success. Some poor rural and industrial regions have a strong civic society but a weak economy. In this case, social capital can provide support mechanisms for people on low incomes, unemployed, or for those experiencing non-economic difficulties, such as grief or family breakdown. Hence, social capital provides local support for people experiencing hardship. In many instances, the support structures are not extended to outsiders.

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<sup>11</sup> Robert D. Putnam, *Making Democracy Work*, Princeton University Press, New York, 1993.

Social capital is important in both economically successful and marginalised communities. In high growth knowledge based communities, the creation of social institutions and meeting places, vibrant business and professional organisations, and community-based networks for childcare often underpin continuous innovation. In marginalised communities strong social capital is crucial to successful revitalisation of local business centres and self help for households struggling to patch together the resources for learning and employment.

The new emphasis on social capital is leading to the emergence of innovative approaches to local economic development. Whereas the orthodox approach to local economic development emphasises subsidies for businesses to relocate, the community economic development approach starts with the presumption that the community itself is the most important resource to support economic development (see box).

In North America, there is a long history of support for community economic development particularly through Community Development Corporations that offer a range of local services, including affordable housing and urban revitalisation, employment and training and community support services. These organisations attract resources from government, private sector funds with tax incentives and they also create revenue streams from their own activities. Building social capital and, more specifically – community based economic development strategies – will become more central to economic development in Australia.

There are two weaknesses in relation to current community economic development strategies in Australia. Firstly, many community development strategies lack substance. They are based on using outside consultants facilitating a process to get a small town or a locality to pull its socks up. It substitutes optimism for analysis and is based on the premise that government participation impedes community and regional revitalisation. This is in fact an ideological response to crisis in localities and regions and legitimises the withdrawal of government support for struggling communities.

Secondly, although it is the community itself that has responsibility for building social capital, government has an important role in providing strategic resources to support strengthening of social capital.

Regional and local economic policy should focus on providing resources to enable communities to build local capacity and networks geared on outcomes such as jobs and learning. This requires financial resources from national and state governments and an extended role for local government in delivery.

Local and regional policies to strengthen social capital include:

- reinvented libraries, civic and community centres functioning as multimedia nodes of learning, creativity and information exchange;
- public spaces for recreation and entertainment such as parks and gardens, amphitheatres, murals, promenades, civic squares and adventure playgrounds;
- cafes and restaurants, theatres, clubs, and conferencing facilities;
- galleries and museums that exclaim and exhibit the creativity and diverse personalities of local culture;
- local grants to support community economic development strategies and the building of community networks. An example includes programs in Liverpool such as the Working Proudly and the Living Streets project. The latter focused on upgrading open space, building community links and improved urban design in collaboration with the multicultural community of South Liverpool; and

- community-based programs to systematically upgrade capacity to collectively achieve goals through teamwork by using the ongoing action learning cycle of planning, acting and evaluating and redesigning. This entails action research at the local level as well as acquiring knowledge from other places and regions of the world on successful development pathways.

### **Community Building Themes for the 21st Century**

In the mid-1990's, leading US agencies – Annie E. Casey Foundation, Rockefeller Foundation and the US Department of Housing and Urban Development – collaborated in a project to identify community building in the 21 Century. The resulting seminal report<sup>12</sup> identified 7 key themes for innovative community development.

1. **Implementing specific initiatives that reinforce community values and builds social and community capital.** More emphasis is given to building friendships, mutual trust, and institutions and capacity that builds social capital in communities.
2. **Community-driven with broad involvement of local residents.** "Community participation" is not enough. The community must play a central role in devising and implementing programs. Community leaders must consistently reach out for broad involvement and avoid becoming a remote elite.
3. **Comprehensive, strategic and entrepreneurial.** Good strategies combine identifying and tackling one or two priority issues with a capacity to develop broader long term visions and strategies.
4. **Asset-based.** Planning community initiatives from the perspective of "solving problems" or "meeting needs" casts a negative tone on what should be an exciting capacity building venture. The alternative is to identify the community's assets and develop plans that build on them.
5. **Tailored to local scale and conditions.** Local economic strategies need to be developed at a scale that is conducive to face-to-face interactions and account for specific local development issues.
6. **Collaboratively linked to the broader society to strengthen community institutions and enhance outside opportunities for residents.** The new community development models look to strengthening links with other communities.
7. **Constantly challenging institutional barriers.**

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<sup>12</sup> G. Thomas Kingsley, Joseph B. McNeely and James O. Gibson, **Community Building Coming of Age**, Development Training Institute, Inc. 1995.

## **5.8 A new role for local government**

The efficiency and effectiveness of governance and strategic leadership underpins successful regions. This includes efficiency of local government handling approval processes, the capacity of different tiers of government to adopt a whole of government approach, local taxes and charges, and the ability of government to develop and implement regulatory reforms. Dynamic local and regional agencies that are well resourced can be catalytic organisations in transforming local and regional economies. They provide an important forum and management unit capable of bringing together key stakeholders and forging new directions for the region.

Local government needs resources and support from the other tiers of government if it is to play a more effective role in regional economic development. The political cycles associated with state and national government initiated regional programs has made local government cautious. If local development strategies are to be effective, resource commitments are required over a reasonable period of time.

Some of the areas where local government can play a leadership role.

### ***Strengthening local learning centres***

Libraries and early childhood development centres will be important facilities in the learning communities of the future. Local Governments manage both types of facility.

The role of early childhood centres in forming social competencies, group interaction and foundation learning skills will be increasingly valued. They are at the beginning of the lifelong learning chain.

As well as their primary functions, libraries, museums and early childhood centres can play a crucial role as fundamental nodes within the community for the delivery of family and household support services and learning advice.

### ***Provider of strategic learning information***

Local government and regional organisations of councils are central to the collation and maintenance of local and data information systems covering socio-economic profiles, investment, jobs, firm databases, community services, land resources and social and environmental assets. They can be extended or linked to corporate profiles and career opportunities. Increasingly, local government web sites will shift from promotional aids to informative and interactive services for businesses, residents, local children and visitors. Regions without access to these advanced data and information systems will decline.

Local government should actively work with Area Consultative Committees to maintain data and information about local employment opportunities, employment pathways and opportunities for private public collaboration around pre vocational training and entry level training opportunities.

### ***Leadership and vision within learning communities***

Local government can facilitate open dialogue between educational leaders and business to establish framework and priorities for a local learning community. This includes:

- strategic partnerships to pursue new learning opportunities;
- sharing information on job placements;

- ❑ sponsoring and facilitating broader community learning networks;
- ❑ organising mentoring and literacy programs for street kids, workers needing support with language and literacy and organising lively forums;
- ❑ promoting lifelong learning within the community; and
- ❑ actively seeking to become a best practice trainer with staff and more broadly within the community.

### ***Resourcing learning households and networks***

Councils have social services and community development roles either planning or service delivery support functions for community organisations. Refocussing of these functions and priorities may support households and groups of learners to participate in knowledge economy. The aim is to link learning objectives with household support mechanisms and strategies that enhance quality and access to learning opportunities.

On behalf of community groups local government can broker service learning arrangements with places of higher learning enhancing capacities of community organisations.

### ***Arts and cultural revitalisation***

Arts and culture industries are emerging as important drivers of regional economic and employment opportunities. These industries of course have innate value and don't need to be judged in economic terms. But they do have significant economic benefits. Firstly, arts and cultural industries are emerging as important job creators in their own right. This includes people working in theatres, galleries, visual and performing arts, multimedia and graphic design. Secondly, these industries have significant impacts on other major growth industries including tourism and hospitality, information technology and education. Regions that concentrated on lifestyle and recreational attributes to grow their tourism and recreational industries are now competing with regions that have invested in cultural industries – including performing arts, cultural tourism and galleries. Thirdly, arts and cultural activities are essential to creating communities. Councils are supporting local cultural workers to undertake sculptures, murals and performing. Arts and cultural activities offer an important learning pathway for young people marginalised by change in regional Australia.

Convivial and connected urban spaces that reflect local culture, values, and aspirations stimulate social interaction and reinforce positive aspects of local life. Urban design is important for the creation of people friendly, safe and sociable places. High quality civic architecture and standards can transform places and inspire creativity, proclaims local culture and creates a sense of belonging. There is a seamless continuum between democratic governance, civic participation, urban design reflecting local human values, valuing cultural diversity, and the productive exchange of knowledge and information.

# Appendix 1

## Globalisation, Employment And Economic Development

By

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### Globalised work: Here to today-gone today!!

As the century ends, globalisation is clearly the new paradigm for economic development. Global commerce is central to even the smallest community's job base. Goods are moved through the air, telecommunications or computer technology. Ideas are the new product of the world. In cyber space the dot.com is of greater importance than any new fabricated product. In fact, a site on the web can command more value than a new 747 aircraft. How do communities develop jobs for their workforce under such circumstances? What is work?

These are not merely rhetorical questions. Economic development has depended on the clear links between place resources and people for the generation of work. In the last several years, all of us in economic development have attempted to adjust to global circumstances by developing technology parks or other science centers to trap new ideas in our communities. We have increased funding to universities in order to increase our ability to have competitive human resources. We have spent billions of dollars on new optic cable and other infrastructure to insure that our communities are technologically competitive. It now seems that we have made large investments that may or may not pay off. It is increasingly clear that the world of work has globalised in unpredictable ways. Moreover, globalisation has not been uniformly good for all workers or all communities.

The divergence in incomes across nations and around the world is driven by a new information gulf that is widening the income gap both among nations and within nations. People and communities with wealth have increased capacity to dominate their environments via telecommunications and information. Microsoft is not the sole example of this transformation. In almost every aspect of commerce giant global institutions are controlling production of goods through the control of the distribution chains. A relatively few food retailers now control nearly one third of the world supermarket retailing outlets. As a result, food production is dictated by retailers and not by food producers. This control is possible because of the capacity of these firms to distribute on a worldwide basis via their advanced market knowledge and production controls. In this situation workers are far less powerful today than they were in the recent past. Union membership is declining world wide in the private sector and weakening in the public sectors. Thus, we are face with new issues with respect to economic development that aims at job creation and not job capture as the central goal. Technology will determine the type and form of work not resources that local communities control.

Unfortunately, the pace and direction of technological innovation are well beyond any nation or community to manage alone. Our economic development rules for globalisation of only five to ten years ago are obsolete. As a result, the field of economic development must be revised to deal with the changed circumstances. In this talk I will focus on how the changing globalisation of economic activity is changing the nature and location of work and its implications for economic development and its implications for Australia in particular today and tomorrow.

## Electronic migrants

For most of the last century Australia has been concerned with the tide of Asian refugees from Vietnam and other parts of South East Asia arriving on its shores in record numbers in search of the opportunity to make a living. Economic and war driven migration is well understood. People move from war torn nations and hard back breaking unstable agricultural work to modern factory based clean work in an economically and politically stable nation. This has been the pattern for most all of the last four decades. In fact, there remains a raging debate about how many immigrants Australia can sustain and whether cultural pluralism is beneficial to the nation. Fortunately, the forces of a mono-cultural society have gained little ground among this nation's enlightened electorate. Now, the tide of immigration may even be flowing in the other direction as Asian nations prosperity increases again. Young people who migrated to Australia and the United States with their parents are finding greater opportunities in the newly emerging economies of Asia. This is greatly aided by a new form of factory and labor migration moving to lower wage countries with technology.

Now, workers almost anywhere can compete with one another over the vast power of the Internet with computerised central control systems. The European Union is closer as workers are increasingly freed to move across borders within the Union. As the common currency emerges so will the movement of jobs around Europe from West to East and North to South.

Ireland has benefited from the migration of American and Canadian firms to its shores. Increasingly North and South American trade barriers are being reduced along with inter-continental migration of Spanish speaking workers from south to north. Some economists suggest that the expansion of the European and American economies has been aided by worker and capital mobility. Similarly, the movement of Japanese firms around the Pacific has had a profound impact on Australia and all of Asia. Clearly, the computer is the backbone of this economic mobility. But, it now clear that the movement of firms was the beginning of a much larger transformation of the locus of work.

We are now entering a new age of electronic migration. No longer will a migrant leave his or her home country work in a far land. Furthermore, firms will not set up remote locations in the way the once did. No, it will be easier for the firm to employ the worker over the Internet to do work in cyber space with generic factories that will make nearly any commodity in a sector. So, we will see auto factories that make Fords one year and Toyotas the next year from the same assembly lines.

Another example of this new electronic migration can be seen in the software industry. Both the United States and Europe are nearly a million workers short of computer software workers. Many firms cannot hire the staff to upgrade and monitor their computer systems at any price. On the other hand, India is producing many thousand's more software engineers than it can absorb. The solution to these problems in the near future will be to move the work via cyber-space to the workers. Similarly, the Australian software industry can only expand with the resources of the India's vast engineering labor base.

Electronic migrants will work for countries around the globe from their home nation. It is easy enough for software workers in Delhi to monitor the local area network for a small graphics firm in Seattle, Washington or Sydney, Australia. The Delhi worker can examine problems by computer diagnostics form anywhere and communicate with anyone in the firm from anywhere.

Electronic migrants will increasingly compete with local workers both domestically and internationally. Domestically, a university can hire a professor to teach at two universities via distance learning at the same time. Moreover, the same professor might teach students in several countries via different universities simultaneously. This is already being done. Thus, it is relatively easy to see how jobs that require little direct personal interaction can be performed anywhere. For example, printing and editing of text materials can be completed at any site in the world and the final copies delivered in both cyberspaces via the web or hardcopy through the nearest copy center to the end user. Thus, it

will be possible for workers in Sri Lanka, who speak excellent English, to edit books for any Australian firm, and print the books on demand via computer for the customer at the closest location. A delivery company can deliver the book anywhere in the world or it can be picked up at the nearest copy shop in hard or soft cover binding.

The application of electronic work transfer is slim today but growing. In fields like insurance, finance and graphics the transition to a global based work force will be evident soon. Workstations for the electronic migrants may be any place from home based to telework centers. One might say, retailing and similar face to face industries are exempt from this trend. Not so. Increasingly, the web is being used as a purchasing bazaar of enormous power since it has no hours and few unfriendly and unhelpful clerks. On a wider scale many more industries will embrace the out-sourcing of work to electronic migrants over hiring local staff. The electronic migrants have no legal standing and no worker rights. Thus, many industries will look to finding ways to employ both routine and highly technical items through the Internet.

The implications for this trend are only now being understood. Clearly, the idea of workers in other countries being integrated to a firm's environment via cyber-space is monumental. But here is little doubt that this trend is well underway.

## **The perma-temp workforce**

Planning for a career with a single employer for 20 or more years is unlikely for today's workers. Few workers within a decade will ever find long term permanent employment. Employers will not offering long-term jobs. Increasingly, workers will be expected to be self-employed. As a result, the employment market will change dramatically. The very notion of temporary worker will disappear because all workers will be temporary.

Employers large and small are beginning to understand the half-life of a skilled worker today is too short to make a full time permanent commitment. Worker skills will be the basis for employment arrangements. When the workers skills do not meet the firms needs or situation, the employment will end. Moreover, the workers will be forming a global pool not just a local pool. This will provide the employer and employees with maximise flexibility. It will allow a worker to hone deep skills in an area of expertise rather than being tied to the skill development process of an employer. It will also create an open competition for the workers skills.

While this form of employment seems extreme and unsatisfactory, it is the new approach Microsoft and similar firms. These leading edge firms are defining work or a task as the entity not the worker. So, worker organisation will have to change to meet this new situation.

Not only will the worker be less permanent; they will be more mobile. A firm's location will not define where the worker lives either. As stated above, the work can come to the worker no matter where they are located. This will also mean that fixed investment such as tech parks will have to be re-thought by local governments. Since firms will not need large spaces to house growing workforces, the need for fixed space will be transformed into a need for flex-space. Communities will need to create work-centers that can be come temporary workspaces for workers for varying periods of time.

Finally, to gain this flexibility will mean the standardisation of cyber-communications. As a consequence, entire languages will be threatened because they will not be world computer languages. The consequences of this on world cultures are profound a work becomes globally based.

## **Work hubbing**

Airlines have created a very clear hierarchical network of travel hubs. One must travel via certain cities to reach much of the world. The hubbing concept has not been lost on major global firms. By hubbing, that is placing certain essential personnel in a few world centers all of work can be channelled through a worldwide network. This system allows the company to work around the clock every day of the year. It also creates an ideal decentralised corporate environment. On the other hand, it makes the notion of a headquarters less fashionable. For economic developers, the concept of not having the company decision making structure in your city is difficult. Economic development depends on firm attraction. What happens, when firms only select a set of global locations. From this new network corporation with no central headquarters but a set of inter-related entities business is conducted.

The virtue of the new Network Company is that is not hostage to a single set of national or local constraints. Another advantage is that the firm can grow or contract, as it needs at any of the units. As a result, the cost of growing a company and retracting it are diminished. These firms will employ perma-temps for all but the most senior staff. The company in this configuration will have less interest in the local governmental and social aspects of the community. Consequently, the network firm will have little local loyalty.

Sydney is already emerging as a world work hub as the control point for much of South Asia, New Zealand and the Philippines. As Sydney increases its hub status work will flow to all of Australia. It is no accident that even New Zealand Airlines must serve Australia to survive. Increasingly, Sydney's dominance in the world markets may mean even more unevenness in development of other Australian capitals. As a result, the notion of internal development nodes or internal hubs will have to be discussed if other communities beyond Sydney are to be competitive.

Economic developers in large cities and small towns will have to re-design the development tools to handle this situation. Network firms will have scant interest in local tax inducement for location. That is, because their location decisions are driven by the geography of the firms' capital and technology requirements and not its resource needs. Communities will have to form new strategic network regions to compete with the international hubs. Network regions can focus their development agendas on areas or sectors where they can add value to the central hubs by providing goods or services.

Thus, economic developers will have to see what firms are likely to hub in or near them. This will mean that the hubbing capacity for certain types of firms will need to be developed for the community to be competitive for selection as a hub. For example, a biotechnology hub might require the presence of certain hospital clinical testing environment and university capacities as well as high quality international communications. In essence, cities will be required to develop deep capacities for certain groups of firms and not merely providing cheap land or tax inducements for any groups of firms. This will require economic developers and communities to re-think the notion of diversification. Instead of being so diverse that the community has no depth in any field, the new diversity will require a technological edge in a global industry. Thus, a new network of firms or clusters of firms along with clusters of resources such as universities and communications will need to be forged for any community to be competitive.

## **Government: From regulator to stimulator**

As we enter a new century the role of government with respect to economic development has to be totally re-thought. Government has attempted to regulate and shape economic activity. This was an important role when the land was the basic resource. As cyberspace becomes increasing the prime resource government has to alter its strategies. Economic activity is increasingly mobile as a result, governments must develop tools to promote and stimulate economic outcomes. Government will

become a partner in the development of new technology resources just as it was a partner in the development of spatial resources. People forget that important role of the Australian government in settling the outback was in the provision of social and physical infrastructure. The local and state governments opened pubs and provided roads as well as telephone and other communications to sustain the station life. So, today, much of the same partnership is required. Government has to become a planner and not a reactor to the new opportunities for localities. This will require local governments to have much better knowledge of the capacity of local industry and the potential for that industrial base to become international competitive. This will mean the creation of new institutions within local government charged with innovation and stimulation of economic activity in every form. Local governments will transform economic development department into innovation and development departments. This will necessitate the development of new skilled professionals with technology innovation and transfer backgrounds as their core skills. Some communities will identify opportunities in the design and promotion of e-commerce center as a regional locus for economic stimulation. The e-commerce shell can assist local firms take advantage of the Internet to market their wares both nationally and internationally. The local government might own or be a partner in the purchase or leasing of high-powered telecommunications switching systems and servers for a region. In some instances local government might help form new forms of capital investment institutions like micro-lending forms to assist new small firms emerge or assist farmers in developing or reaching new markets for improved products or processes.

The larger role for government will be for the government to form new regional institutional arrangements that build the regions competitive capacity similar to Joint Venture Silicon Valley in San Jose and the San Diego Dialogue that are new government and private firm sponsored organisations that act as a new governance system. Regionalism will not mean regional government but regional economic collaboratives. These collaboratives will become the central work of government not merely an added activity. Government's role will be transformed to making certain services are provided rather than providing them. For example, roads and bridges and rubbish removal are necessary for a community, but government does not have to deliver them. Smart governments will develop new programs for electronic utilities that companies and housing areas can hook on to for the creation of new wealth. In fact, the smart community will give away these services because to the added value they will create will generate the taxes and other necessary income. In essence, local governments will be entrepreneurial in devising services that can sustain themselves rather than services that require constant government intervention.

The real role to local government will be to increase the liveability of communities as an attractor of talent as the prime resource to generate new wealth and new firms. Every aspect of community service will be examined for new delivery techniques that can be exported or altered to generate opportunities for citizens. Communities will find opportunities to use their skills to solve wider problems for the homeless, mental ill etc. by creative problems solving. Many communities with outstanding cultural resources will be able to develop them for Internet export as well as tourism options. Government as planner and problems solver will be a central role in the next decades. The role of government regulation will not die but it will take a secondary role to the more creative options. For example, local areas with good schools will be able to sell their curriculum to other schools around the world via government clearinghouses. Non traditional health and other community attributes can be magnified to world scale through regional cooperative government development institutions. In sum, government policy makers will be of a different breed as we use government as a resource to stimulate and create wealth rather than as an instrument to control wealth.

## **What next?**

All of us in economic development know that our old tools are increasingly less relevant. We moved away from industrial attraction many years ago. We have become involved in the development of knowledge as the key resource for economic expansion and not natural resources or manufacturing. We now stand at the beginning of a new era where we have to redefine our profession. Creating jobs

will be come our goal not planting people in jobs. As I see it, the task of economic development in formulating new employment options will be as follows:

1. Economic Capacity Building – As the New World network cities emerge, the communities that build the infrastructure to connect to this network will thrive. These communities will develop international transportation and telecommunications capacities. In developing economic development infrastructure each city will have to be mindful that it must be part of a wider regional strategy. No city can go it alone. Not only must a community develop it near links; it must develop its far links as well. Communities will have to forge long term economic development strategies with counterparts across the globe and around the world. Communities that develop their own networks of collaborative economic exchanges will flourish. Each city needs to develop international linkages based on the formation of a network of complementary trade of ideas and goods from their own hubs.
2. Global Education--Smart communities will prepare for entering the global century by internationalising their educational systems. Real international education will require an entire review of the curriculum with an emphasis on language and technology. As communities produce international knowledge workers economic activity will migrate to them. Moreover, these communities will be a better position to develop and control knowledge as well. Communities that integrate the currently flawed and compartmentalised education environment into their entire fabric will be competitive. The distinctions of elementary, high and college must disappear to a system based on knowledge acquisition and development. This model is designed to develop a creative continually learning community.
3. Institution building and not job searching will be the target of the future. As jobs become more temporary, the role of economic developer will be to maintain the job base not a particular factory. Economic development and job training have to be closely inter-related to create new jobs. Too much attention is being placed on actual job skills rather than flexible life skills. No job preparation will be significant without the ability to relate well to people. This is the core of the new work world. Economic developers will be creating new jobs and new opportunities for jobs.

## **Conclusion**

Australia enters a new century with many of the attributes of success. The nation has a very able population with the capacity to develop as a central resource to the Asian Pacific. Australian communities are generally good places to live and work. Now, the Australian inventiveness must be put to creating a new regional collaboratives across the nation. Government must play a critical role at every level in forging new partnerships across sectors so that new wealth is stimulated. The future will not be in moving firms but creating environments in which new firms can grow. As a result, a new incubating environment must be created in every community across the nation. Local government is the closest government to provide the base for this new direction. However, single local governments will not be competitive. Local governments that form regional collective development institutions, with deep capacity with be the survivors and thrivers in the new global economy. As the world becomes smaller, good cities can offer a full range of economic activities to their citizens. Inventive governance will replace regulating government. We have cross the divide of a new globally based economic development. We will never turn back. We have to devise a set of practices that will provide the people in our communities with the information and the resources to compete with world by creating new wealth not merely moving it around the nation or the world. Now is the time for Australian communities to move beyond being vacation resorts to becoming a knowledge node for the Pacific century. Let's make certain that Australia is not only known as the place where one comes to get away form work but it is also the place where one comes to see the new work of the world taking place in the communities of tomorrow.

## Appendix 2.1 Index of localities

Local Government Area	Region
Adelaide (C)	Central Adelaide
Adelaide Hills (DC)	Central Adelaide
Albany (C)	Southern WA
Albury (C)	Murray - Murrumbidgee NSW
Alexandrina (DC)	Southern Adelaide
Alice Springs (T)	Southern NT
Alpine (S)	Ovens - Hume VIC
Aramac (S)	Central QLD
Ararat (RC)	Golden Region VIC
Armadale (C)	Southern Perth
Armidale (C)	Northern NSW
Ashburton (S)	Pilbara - Kimberley WA
Ashfield (A)	Inner West Sydney
Atherton (S)	Far North QLD
Auburn (A)	Sydney Production Region
Augusta-Margaret River (S)	Southern WA
Aurukun (S)	Far North QLD
Ballarat (C)	Golden Region VIC
Ballina (A)	North Coastal NSW
Balonne (S)	Darling Downs and South West QLD
Balranald (A)	Murray - Murrumbidgee NSW
Banana (S)	Central QLD
Bankstown (C)	Sydney Production Region
Banyule (C)	North Melbourne
Barcaldine (S)	Central QLD
Barcoo (S)	Central QLD
Barossa (DC)	Northern Adelaide
Barraba (A)	Northern NSW
Bass Coast (S)	Gippsland VIC
Bassendean (T)	Northern and Central Perth
Bathurst (C)	Central Western NSW
Bauhinia (S)	Central QLD
Baulkham Hills (A)	N.N. West Sydney
Baw Baw (S)	Gippsland VIC
Bayside (C)	Southern Melbourne
Bayswater (C)	Northern and Central Perth
Beaudesert (S)	Gold Coast and Hinterlands
Bega Valley (A)	South East NSW
Bellingen (A)	North Coastal NSW
Belmont (C)	Southern Perth
Belyando (S)	Mackay QLD

Local Government Area	Region
Bendemere (S)	Darling Downs and South West QLD
Berri and Barmera (DC)	Murraylands SA
Berrigan (A)	Murray - Murrumbidgee NSW
Beverley (S)	Midlands and Central WA
Biggenden (S)	Wide-Bay Burnett QLD
Bingara (A)	Northern NSW
Blackall (S)	Central QLD
Blacktown (C)	Sydney Production Region
Bland (A)	Central Western NSW
Blayney (A)	Central Western NSW
Blue Mountains (C)	Outer West Sydney
Boddington (S)	Southern WA
Bogan (A)	Far and North Western NSW
Bombala (A)	South East NSW
Boonah (S)	Ipswich QLD
Booringa (S)	Darling Downs and South West QLD
Boorowa (A)	South East NSW
Boroondara (C)	East Melbourne
Botany (A)	Global Sydney
Boulia (S)	Central QLD
Bourke (A)	Far and North Western NSW
Bowen (S)	Nth QLD
Boyup Brook (S)	Southern WA
Break O'Day (M)	Northern Tasmania
Brewarrina (A)	Far and North Western NSW
Bridgetown-Greenbushes (S)	Southern WA
Brighton (M)	Hobart and Southern Tasmania
Brimbank (C)	West Melbourne
Brisbane (C)	Brisbane City
Broadsound (S)	Mackay QLD
Broken Hill (C)	Far and North Western NSW
Brookton (S)	Southern WA
Broome (S)	Pilbara - Kimberley WA
Broomehill (S)	Southern WA
Bruce Rock (S)	Midlands and Central WA
Bulloo (S)	Darling Downs and South West QLD
Buloke (S)	Mallee - Wimmera VIC
Bunbury (C)	Southern WA
Bundaberg (C)	Wide-Bay Burnett QLD

Local Government Area	Region
Bungil (S)	Darling Downs and South West QLD
Buranga West (DC)	Eyre and Yorke SA
Burdekin (S)	Nth QLD
Burke (S)	Far North QLD
Burnett (S)	Wide-Bay Burnett QLD
Burnie (C)	Mercy-Lyell TAS
Burnside (C)	Central Adelaide
Burwood (A)	Inner West Sydney
Busselton (S)	Southern WA
Byron (A)	North Coastal NSW
Cabonne (A)	Central Western NSW
Caboolture (S)	North Brisbane
Cairns (C)	Far North QLD
Calliope (S)	Central QLD
Caloundra (C)	North Brisbane
Cambooya (S)	Darling Downs and South West QLD
Cambridge (T)	Northern and Central Perth
Camden (A)	Outer South West Sydney
Campaspe (S)	Goulbourn VIC
Campbelltown (C) (NSW)	Outer South West Sydney
Campbelltown (C) (SA)	Central Adelaide
Canning (C)	Southern Perth
Canterbury (C)	Sydney Production Region
Capel (S)	Southern WA
Cardinia (S)	Westernport VIC
Cardwell (S)	Far North QLD
Carnamah (S)	Midlands and Central WA
Carnarvon (S)	Midlands and Central WA
Carpentaria (S)	Far North QLD
Carrathool (A)	Murray - Murrumbidgee NSW
Casey (C)	Westernport VIC
Casino (A)	North Coastal NSW
Ceduna (DC)	Eyre and Yorke SA
Central Coast (M)	Mercy-Lyell TAS
Central Darling (A)	Far and North Western NSW
Central Goldfields (S)	Loddon VIC
Central Highlands (M)	Hobart and Southern Tasmania
Cessnock (C)	Hunter NSW
Chapman Valley (S)	Midlands and Central WA
Charles Sturt (C)	Central Adelaide
Charters Towers (C)	Nth QLD
Chinchilla (S)	Darling Downs and South West QLD
Chittering (S)	Midlands and Central WA
Circular Head (M)	Mercy-Lyell TAS

Local Government Area	Region
Clare and Gilbert Valleys (DC)	Eyre and Yorke SA
Claremont (T)	Northern and Central Perth
Clarence (C)	Hobart and Southern Tasmania
Cleve (DC)	Eyre and Yorke SA
Clifton (S)	Darling Downs and South West QLD
Cloncurry (S)	Far North QLD
Cobar (A)	Far and North Western NSW
Cockburn (C)	Southern Perth
Coffs Harbour (C)	North Coastal NSW
Colac-Otway (S)	Golden Region VIC
Collie (S)	Southern WA
Conargo (A)	Murray - Murrumbidgee NSW
Concord (A)	Inner West Sydney
Cooper Pedy (DC)	Eyre and Yorke SA
Cook (S)	Far North QLD
Coolah (A)	Far and North Western NSW
Coolamon (A)	Murray - Murrumbidgee NSW
Coolgardie (S)	South Eastern WA
Cooloolah (S)	Wide-Bay Burnett QLD
Coomalie (CGC)	Southern NT
Cooma-Monaro (A)	South East NSW
Coonabarabran (A)	Far and North Western NSW
Coonamble (A)	Far and North Western NSW
Coorow (S)	Midlands and Central WA
Cootamundra (A)	Murray - Murrumbidgee NSW
Copmanhurst (A)	North Coastal NSW
Copper Coast (DC)	Eyre and Yorke SA
Corangamite (S)	Western Victoria
Corowa (A)	Murray - Murrumbidgee NSW
Corrigin (S)	Southern WA
Cottesloe (T)	Northern and Central Perth
Cowra (A)	Central Western NSW
Cranbrook (S)	Southern WA
Crookwell (A)	South East NSW
Crow's Nest (S)	Darling Downs and South West QLD
Croydon (S)	Far North QLD
Cuballing (S)	Southern WA
Cue (S)	Midlands and Central WA
Culcairn (A)	Murray - Murrumbidgee NSW
Cunderdin (S)	Midlands and Central WA
Dalby (T)	Darling Downs and South West QLD
Dalrymple (S)	Nth QLD
Dalwallinu (S)	Midlands and Central WA
Dandaragan (S)	Midlands and Central WA
Dardanup (S)	Southern WA

Local Government Area	Region
Darebin (C)	North Melbourne
Darwin (C)	Darwin Top End
Delatite (S)	Goulbourn VIC
Deniliquin (A)	Murray - Murrumbidgee NSW
Denmark (S)	Southern WA
Derby-West Kimberley (S)	Pilbara - Kimberley WA
Derwent Valley (M)	Hobart and Southern Tasmania
Devonport (C)	Mercy-Lyell TAS
Diamantina (S)	Central QLD
Donnybrook-Balingup (S)	Southern WA
Dorset (M)	Northern Tasmania
Douglas (S)	Far North QLD
Dowerin (S)	Midlands and Central WA
Drummoyne (A)	Inner West Sydney
Duaringa (S)	Central QLD
Dubbo (C)	Far and North Western NSW
Dumaresq (A)	Northern NSW
Dumbleyung (S)	Southern WA
Dundas (S)	South Eastern WA
Dungog (A)	Hunter NSW
Eacham (S)	Far North QLD
East Fremantle (T)	Southern Perth
East Gippsland (S)	Gippsland VIC
East Pilbara (S)	Pilbara - Kimberley WA
Eidsvold (S)	Wide-Bay Burnett QLD
Elliston (DC)	Eyre and Yorke SA
Emerald (S)	Central QLD
Esk (S)	Ipswich QLD
Esperance (S)	South Eastern WA
Etheridge (S)	Far North QLD
Eurobodalla (A)	South East NSW
Evans (A)	Central Western NSW
Exmouth (S)	Midlands and Central WA
Fairfield (C)	Sydney Production Region
Fitzroy (S)	Central QLD
Flinders (M)	Northern Tasmania
Flinders (S)	Far North QLD
Flinders Ranges (DC)	Eyre and Yorke SA
Forbes (A)	Central Western NSW
Franklin Harbor (DC)	Eyre and Yorke SA
Frankston (C)	Westernport VIC
Fremantle (C)	Southern Perth
Gannawarra (S)	Mallee - Wimmera VIC
Gatton (S)	Ipswich QLD
Gawler (M)	Northern Adelaide
Gayndah (S)	Wide-Bay Burnett QLD

Local Government Area	Region
George Town (M)	Northern Tasmania
Geraldton (C)	Midlands and Central WA
Gilgandra (A)	Far and North Western NSW
Gingin (S)	Midlands and Central WA
Gladstone (C)	Central QLD
Glamorgan/Spring Bay (M)	Hobart and Southern Tasmania
Glen Eira (C)	Southern Melbourne
Glen Innes (A)	Northern NSW
Glenelg (S)	Western Victoria
Glenorchy (C)	Hobart and Southern Tasmania
Gloucester (A)	Hunter NSW
Gnowangerup (S)	Southern WA
Gold Coast (C)	Gold Coast and Hinterlands
Golden Plains (S)	Golden Region VIC
Goomalling (S)	Midlands and Central WA
Goondiwindi (T)	Darling Downs and South West QLD
Gosford (C)	Central Coast NSW
Gosnells (C)	Southern Perth
Goulburn (C)	South East NSW
Goyder (DC)	Eyre and Yorke SA
Grafton (C)	North Coastal NSW
Grant (DC)	South East SA
Great Lakes (A)	Hunter NSW
Greater Bendigo (C)	Loddon VIC
Greater Dandenong (C)	Westernport VIC
Greater Geelong (C)	Golden Region VIC
Greater Lithgow (C)	Central Western NSW
Greater Shepparton (C)	Goulbourn VIC
Greater Taree (C)	North Coastal NSW
Greenough (S)	Midlands and Central WA
Griffith (C)	Murray - Murrumbidgee NSW
Gundagai (A)	Murray - Murrumbidgee NSW
Gunnedah (A)	Northern NSW
Gunning (A)	South East NSW
Guyra (A)	Northern NSW
Halls Creek (S)	Pilbara - Kimberley WA
Harden (A)	South East NSW
Harvey (S)	Southern WA
Hastings (A)	North Coastal NSW
Hawkesbury (C)	Outer West Sydney
Hay (A)	Murray - Murrumbidgee NSW
Hepburn (S)	Golden Region VIC
Herberton (S)	Far North QLD
Hervey Bay (C)	Wide-Bay Burnett QLD

Local Government Area	Region
Hinchinbrook (S)	Nth QLD
Hindmarsh (S)	Mallee - Wimmera
Hobart (C)	Hobart and Southern Tasmania
Hobsons Bay (C)	West Melbourne
Holbrook (A)	Murray - Murrumbidgee NSW
Holdfast Bay (C)	Southern Adelaide
Holroyd (C)	Sydney Production Region
Hornsby (A)	N.N. West Sydney
Horsham (RC)	Mallee - Wimmera VIC
Hume (A)	Murray - Murrumbidgee NSW
Hume (C)	North Melbourne
Hunter's Hill (A)	Global Sydney
Huon Valley (M)	Hobart and Southern Tasmania
Hurstville (C)	Southern Sydney
Ilfracombe (S)	Central QLD
Indigo (S)	Ovens - Hume VIC
Inglewood (S)	Darling Downs and South West QLD
Inverell (A)	Northern NSW
Ipswich (C)	Ipswich QLD
Irwin (S)	Midlands and Central WA
Isis (S)	Wide-Bay Burnett QLD
Isisford (S)	Central QLD
Jabiru (T)	Darwin Top End
Jericho (S)	Central QLD
Jerilderie (A)	Murray - Murrumbidgee NSW
Jerramungup (S)	Southern WA
Johnstone (S)	Far North QLD
Jondaryan (S)	Darling Downs and South West QLD
Jundalup (C)	Northern and Central Perth
Junea (A)	Murray - Murrumbidgee NSW
Kalamunda (S)	Northern and Central Perth
Kalgoorlie/Boulder (C)	South Eastern WA
Kangaroo Island (DC)	Southern Adelaide
Karoonda East Murray (DC)	Murraylands SA
Katanning (S)	Southern WA
Katherine (T)	Darwin Top End
Kellerberrin (S)	Midlands and Central WA
Kempsey (A)	North Coastal NSW
Kent (S)	Southern WA
Kentish (M)	Mercy-Lyell TAS
Kiama (A)	Illawarra NSW
Kilcoy (S)	North Brisbane
Kilkivan (S)	Wide-Bay Burnett QLD
Kimba (DC)	Eyre and Yorke SA
King Island (M)	Mercy-Lyell TAS

Local Government Area	Region
Kingaroy (S)	Wide-Bay Burnett QLD
Kingborough (M)	Hobart and Southern Tasmania
Kingston (C)	Southern Melbourne
Knox (C)	East Melbourne
Kogarah (A)	Southern Sydney
Kojonup (S)	Southern WA
Kolan (S)	Wide-Bay Burnett QLD
Kondinin (S)	Southern WA
Koorda (S)	Midlands and Central WA
Kulin (S)	Southern WA
Ku-ring-gai (A)	N.N. West Sydney
Kwinana (T)	Southern Perth
Kyogle (A)	North Coastal NSW
La Trobe (S)	Gippsland VIC
Lacepede (DC)	South East SA
Lachlan (A)	Central Western NSW
Laidley (S)	Ipswich QLD
Lake Grace (S)	Southern WA
Lake Macquarie (C)	Hunter NSW
Lane Cove (A)	Global Sydney
Latrobe (M)	Mercy-Lyell TAS
Launceston (C)	Northern Tasmania
Laverton (S)	South Eastern WA
Le Hunte (DC)	Eyre and Yorke SA
Leeton (A)	Murray - Murrumbidgee NSW
Leichhardt (A)	Inner West Sydney
Leonora (S)	South Eastern WA
Light (DC)	Northern Adelaide
Lismore (C)	North Coastal NSW
Litchfield (S)	Darwin Top End
Liverpool (C)	Sydney Production Region
Livingstone (S)	Central QLD
Lockhart (A)	Murray - Murrumbidgee NSW
Loddon (S)	Loddon VIC
Logan (C)	Gold Coast and Hinterlands
Longreach (S)	Central QLD
Lower Eyre Peninsula (DC)	Eyre and Yorke SA
Loxton Waikerie (DC)	Murraylands SA
Macedon Ranges (S)	Loddon VIC
Mackay (C)	Mackay QLD
Maclean (A)	North Coastal NSW
Maitland (C)	Hunter NSW
Mallala (DC)	Northern Adelaide
Mandurah (C)	Southern WA
Manilla (A)	Northern NSW
Manjimup (S)	Southern WA
Manly (A)	N.N. West Sydney

Local Government Area	Region
Manningham (C)	East Melbourne
Mareeba (S)	Far North QLD
Maribyrnong (C)	West Melbourne
Marion (C)	Southern Adelaide
Maroochy (S)	North Brisbane
Maroondah (C)	East Melbourne
Marrickville (A)	Sydney Production Region
Maryborough (C)	Wide-Bay Burnett QLD
McKinlay (S)	Far North QLD
Meander Valley (M)	Northern Tasmania
Meekatharra (S)	Midlands and Central WA
Melbourne (C)	Inner Melbourne VIC
Melton (S)	West Melbourne
Melville (C)	Southern Perth
Menzies (S)	South Eastern WA
Merredin (S)	Midlands and Central WA
Merriwa (A)	Hunter NSW
Mid Murray (DC)	Murraylands SA
Mildura (RC)	Mallee - Wimmera VIC
Millmerran (S)	Darling Downs and South West QLD
Mingenew (S)	Midlands and Central WA
Mirani (S)	Mackay QLD
Miriam Vale (S)	Wide-Bay Burnett QLD
Mitcham (C)	Southern Adelaide
Mitchell (S)	Goulbourn VIC
Moira (S)	Goulbourn VIC
Monash (C)	East Melbourne
Monto (S)	Wide-Bay Burnett QLD
Moonee Valley (C)	West Melbourne
Moora (S)	Midlands and Central WA
Moorabool (S)	Golden Region VIC
Morawa (S)	Midlands and Central WA
Moree Plains (A)	Northern NSW
Moreland (C)	North Melbourne
Mornington (S)	Far North QLD
Mornington Peninsula (S)	Westernport VIC
Mosman (A)	Global Sydney
Mosman Park (T)	Northern and Central Perth
Mount Alexander (S)	Loddon VIC
Mount Barker (DC)	Southern Adelaide
Mount Gambier (C)	South East SA
Mount Isa (C)	Far North QLD
Mount Magnet (S)	Midlands and Central WA
Mount Marshall (S)	Midlands and Central WA
Mount Morgan (S)	Central QLD

Local Government Area	Region
Mount Remarkable (DC)	Eyre and Yorke SA
Moyne (S)	Western Victoria
Mudgee (A)	Far and North Western NSW
Mukinbudin (S)	Midlands and Central WA
Mullewa (S)	Midlands and Central WA
Mulwaree (A)	South East NSW
Mundaring (S)	Northern and Central Perth
Mundubbera (S)	Wide-Bay Burnett QLD
Murchison (S)	Midlands and Central WA
Murgon (S)	Wide-Bay Burnett QLD
Murilla (S)	Darling Downs and South West QLD
Murray (A)	Murray - Murrumbidgee NSW
Murray (S)	Southern WA
Murray Bridge (RC)	Murraylands SA
Murrindindi (S)	Goulbourn VIC
Murrumbidgee (A)	Murray - Murrumbidgee NSW
Murrurundi (A)	Hunter NSW
Murweh (S)	Darling Downs and South West QLD
Muswellbrook (A)	Hunter NSW
Nambucca (A)	North Coastal NSW
Nanango (S)	Wide-Bay Burnett QLD
Nannup (S)	Southern WA
Naracoorte and Lucindale (DC)	South East SA
Narembene (S)	Midlands and Central WA
Narrabri (A)	Northern NSW
Narrandera (A)	Murray - Murrumbidgee NSW
Narrogin (S)	Southern WA
Narrogin (T)	Southern WA
Narromine (A)	Far and North Western NSW
Nebo (S)	Mackay QLD
Nedlands (C)	Northern and Central Perth
Newcastle (C)	Hunter NSW
Ngaanyatjarraku (S)	South Eastern WA
Nillumbik (S)	North Melbourne
Noosa (S)	North Brisbane
North Midlands (M)	Northern Tasmania
North Sydney (A)	Global Sydney
Northam (S)	Midlands and Central WA
Northam (T)	Midlands and Central WA
Northampton (S)	Midlands and Central WA
Northern Areas (DC)	Eyre and Yorke SA
Northern Grampians (S)	Mallee - Wimmera VIC
Norwood Payneham St Peters (C)	Central Adelaide

Local Government Area	Region
Nundle (A)	Northern NSW
Nungarin (S)	Midlands and Central WA
Nymboida (A)	North Coastal NSW
Oberon (A)	Central Western NSW
Onkaparinga (C)	Southern Adelaide
Orange (C)	Central Western NSW
Orroroo/Carrieton (DC)	Eyre and Yorke SA
Palmerston (T)	Darwin Top End
Paringa Renmark (DC)	Murraylands SA
Parkes (A)	Central Western NSW
Paroo (S)	Darling Downs and South West QLD
Parramatta (C)	Sydney Production Region
Parry (A)	Northern NSW
Peak Downs (S)	Central QLD
Penrith (C)	Outer West Sydney
Peppermint Grove (S)	Northern and Central Perth
Perenjori (S)	Midlands and Central WA
Perry (S)	Wide-Bay Burnett QLD
Perth (C)	Northern and Central Perth
Peterborough (DC)	Eyre and Yorke SA
Pine Rivers (S)	North Brisbane
Pingelly (S)	Southern WA
Pittsworth (S)	Darling Downs and South West QLD
Pittwater (A)	N.N. West Sydney
Plantagenet (S)	Southern WA
Playford (C)	Northern Adelaide
Port Adelaide Enfield (C)	Northern Adelaide
Port Augusta (C)	Eyre and Yorke SA
Port Hedland (T)	Pilbara - Kimberley WA
Port Lincoln (C)	Eyre and Yorke SA
Port Phillip (C)	Inner Melbourne VIC
Port Pirie & Dists (M)	Eyre and Yorke SA
Port Stephens (A)	Hunter NSW
Prospect (C)	Central Adelaide
Pyrenees (S)	Golden Region VIC
Quairading (S)	Midlands and Central WA
Queanbeyan (C)	South East NSW
Queenscliffe (B)	Golden Region VIC
Quilpie (S)	Darling Downs and South West QLD
Quirindi (A)	Northern NSW
Randwick (C)	Global Sydney
Ravensthorpe (S)	South Eastern WA
Redcliffe (C)	North Brisbane

Local Government Area	Region
Redland (S)	Gold Coast and Hinterlands
Richmond (S)	Far North QLD
Richmond River (A)	North Coastal NSW
Robe (DC)	South East SA
Rockdale (C)	Southern Sydney
Rockhampton (C)	Central QLD
Rockingham (C)	Southern Perth
Roebourne (S)	Pilbara - Kimberley WA
Roma (T)	Darling Downs and South West QLD
Rosalie (S)	Darling Downs and South West QLD
Roxby Downs (M)	Eyre and Yorke SA
Ryde (C)	Global Sydney
Rylstone (A)	Central Western NSW
Salisbury (C)	Northern Adelaide
Sandstone (S)	Midlands and Central WA
Sarina (S)	Mackay QLD
Scone (A)	Hunter NSW
Serpentine-Jarrahdale (S)	Southern Perth
Severn (A)	Northern NSW
Shark Bay (S)	Midlands and Central WA
Shellharbour (A)	Illawarra NSW
Shoalhaven (C)	Illawarra NSW
Singleton (A)	Hunter NSW
Snowy River (A)	South East NSW
Sorell (M)	Hobart and Southern Tasmania
South Gippsland (S)	Gippsland VIC
South Perth (C)	Southern Perth
South Sydney (C)	Global Sydney
Southern Grampians (S)	Western Victoria
Southern Mallee (DC)	Murraylands SA
Southern Midlands (M)	Hobart and Southern Tasmania
Stanthorpe (S)	Darling Downs and South West QLD
Stirling (C)	Northern and Central Perth
Stonnington (C)	Inner Melbourne VIC
Strathbogie (S)	Goulbourn VIC
Strathfield (A)	Inner West Sydney
Streaky Bay (DC)	Eyre and Yorke SA
Subiaco (C)	Northern and Central Perth
Surf Coast (S)	Golden Region VIC
Sutherland Shire (A)	Southern Sydney
Swan (S)	Northern and Central Perth
Swan Hill (RC)	Mallee - Wimmera VIC
Sydney (C)	Global Sydney

Local Government Area	Region
Tallaganda (A)	South East NSW
Tambellup (S)	Southern WA
Tambo (S)	Central QLD
Tammin (S)	Midlands and Central WA
Tamworth (C)	Northern NSW
Tara (S)	Darling Downs and South West QLD
Taroom (S)	Darling Downs and South West QLD
Tasman (M)	Hobart and Southern Tasmania
Tatiara (DC)	South East SA
Tea Tree Gully (C)	Northern Adelaide
Temora (A)	Murray - Murrumbidgee NSW
Tennant Creek (T)	Southern NT
Tenterfield (A)	Northern NSW
The Coorong (DC)	Murraylands SA
Three Springs (S)	Midlands and Central WA
Thuringowa (C)	Nth QLD
Tiaro (S)	Wide-Bay Burnett QLD
Toodyay (S)	Midlands and Central WA
Toowoomba (C)	Darling Downs and South West QLD
Torres (S)	Far North QLD
Townsville (C)	Nth QLD
Towong (S)	Ovens - Hume VIC
Trayning (S)	Midlands and Central WA
Tumbarumba (A)	Murray - Murrumbidgee NSW
Tumby Bay (DC)	Eyre and Yorke SA
Tumut (A)	Murray - Murrumbidgee NSW
Tweed (A)	North Coastal NSW
Ulmarra (A)	North Coastal NSW
Unincorporated ACT	ACT
Unincorporated ACT	South East NSW
Unincorporated NSW	Unincorporated_NSW
Unincorporated NT	Unincorporated_NT
Unincorporated SA	Unincorporated_SA
Unincorporated Vic	Unincorporated_Vic
Unley (C)	Central Adelaide
Upper Gascoyne (S)	Midlands and Central WA
Uralla (A)	Northern NSW
Urana (A)	Murray - Murrumbidgee NSW
Victor Harbor (DC)	Southern Adelaide
Victoria Park (T)	Southern Perth
Victoria Plains (S)	Midlands and Central WA
Vincent (T)	Northern and Central Perth
Wagga Wagga (C)	Murray - Murrumbidgee NSW
Waggamba (S)	Darling Downs and South West QLD
Wagin (S)	Southern WA

Local Government Area	Region
Wakefield (DC)	Eyre and Yorke SA
Wakool (A)	Murray - Murrumbidgee NSW
Walcha (A)	Northern NSW
Walgett (A)	Far and North Western NSW
Walkerville (M)	Central Adelaide
Wambo (S)	Darling Downs and South West QLD
Wandering (S)	Southern WA
Wangaratta (RC)	Ovens - Hume VIC
Wanneroo (S)	Northern and Central Perth
Waratah/Wynyard (M)	Mercy-Lyell TAS
Warroona (S)	Southern WA
Warren (A)	Far and North Western NSW
Warringah (A)	N.N. West Sydney
Warrnambool (C)	Western Victoria
Warroo (S)	Darling Downs and South West QLD
Warwick (S)	Darling Downs and South West QLD
Wattle Range (DC)	South East SA
Waverley (A)	Global Sydney
Weddin (A)	Central Western NSW
Wellington (A)	Far and North Western NSW
Wellington (S)	Gippsland VIC
Wentworth (A)	Murray - Murrumbidgee NSW
West Arthur (S)	Southern WA
West Coast (M)	Mercy-Lyell TAS
West Tamar (M)	Northern Tasmania
West Torrens (C)	Central Adelaide
West Wimmera (S)	Mallee - Wimmera VIC
Westonia (S)	Midlands and Central WA
Whitehorse (C)	East Melbourne
Whitsunday (S)	Mackay QLD
Whittlesea (C)	North Melbourne
Whyalla (C)	Eyre and Yorke SA
Wickepin (S)	Southern WA
Williams (S)	Southern WA
Willoughby (C)	Global Sydney
Wiluna (S)	Midlands and Central WA
Windouran (A)	Murray - Murrumbidgee NSW
Wingecarribee (A)	Outer South West Sydney
Winton (S)	Central QLD
Wodonga (RC)	Ovens - Hume VIC
Wollondilly (A)	Outer South West Sydney
Wollongong (C)	Illawarra NSW
Wondai (S)	Wide-Bay Burnett QLD
Wongan-Ballidu (S)	Midlands and Central WA
Woocoo (S)	Wide-Bay Burnett QLD

<b>Local Government Area</b>	<b>Region</b>
Woodanilling (S)	Southern WA
Woollahra (A)	Global Sydney
Wyalkatchem (S)	Midlands and Central WA
Wyndham (C)	West Melbourne
Wyndham-East Kimberley (S)	Pilbara - Kimberley WA
Wyong (A)	Central Coast NSW
Yalgoo (S)	Midlands and Central WA
Yallaro (A)	Northern NSW
Yankalilla (DC)	Southern Adelaide
Yarra (C)	Inner Melbourne VIC
Yarra Ranges (S)	Westernport VIC
Yarriambiack (S)	Mallee - Wimmera VIC
Yarrowluma (A)	South East NSW
Yass (A)	South East NSW
Yilgarn (S)	Midlands and Central WA
York (S)	Midlands and Central WA
Yorke Peninsula (DC)	Eyre and Yorke SA
Young (A)	South East NSW

## Appendix 2.2

### Index of region membership

Region	Local Government Area	Region	Local Government Area	
ACT	Unincorporated ACT		Forbes (A)	
Brisbane City	Brisbane (C)		Greater Lithgow (C)	
Central Adelaide	Adelaide (C)		Lachlan (A)	
	Adelaide Hills (DC)		Oberon (A)	
	Burnside (C)		Orange (C)	
	Campbelltown (C) (SA)		Parkes (A)	
	Charles Sturt (C)		Rylstone (A)	
	Norwood Payneham St Peters (C)		Weddin (A)	
	Prospect (C)		Balonne (S)	
	Unley (C)			
	Walkerville (M)		Bendemere (S)	
	West Torrens (C)		Booringa (S)	
	Central Coast NSW	Gosford (C)	Darling Downs and South West QLD	Bulloo (S)
		Wyong (A)		Bungil (S)
	Central QLD	Aramac (S)		Cambooya (S)
Banana (S)		Chinchilla (S)		
Barcaldine (S)		Clifton (S)		
Barcoo (S)		Crow's Nest (S)		
Bauhinia (S)		Dalby (T)		
Blackall (S)		Goondiwindi (T)		
Boulia (S)		Inglewood (S)		
Calliope (S)		Jondaryan (S)		
Diamantina (S)		Millmerran (S)		
Duaringa (S)		Murilla (S)		
Emerald (S)		Murweh (S)		
Fitzroy (S)		Paroo (S)		
Gladstone (C)		Pittsworth (S)		
Ilfracombe (S)		Quilpie (S)		
Isisford (S)		Roma (T)		
Jericho (S)		Rosalie (S)		
Livingstone (S)		Stanthorpe (S)		
Longreach (S)	Tara (S)			
Mount Morgan (S)	Taroom (S)			
Peak Downs (S)	Toowoomba (C)			
Rockhampton (C)	Waggamba (S)			
Tambo (S)	Wambo (S)			
Winton (S)	Warroo (S)			
Central Western NSW	Bathurst (C)	Darwin Top End	Warwick (S)	
	Bland (A)		Darwin (C)	
	Blayney (A)		Jabiru (T)	
	Cabonne (A)		Katherine (T)	
	Cowra (A)		Litchfield (S)	
	Evans (A)		Palmerston (T)	
			Boroondara (C)	
	East Melbourne			

Region	Local Government Area	
Eyre and Yorke SA	Knox (C)	
	Manningham (C)	
	Maroondah (C)	
	Monash (C)	
	Whitehorse (C)	
	Buranga West (DC)	
	Ceduna (DC)	
	Clare and Gilbert Valleys (DC)	
	Cleve (DC)	
	Coober Pedy (DC)	
	Copper Coast (DC)	
	Elliston (DC)	
	Flinders Ranges (DC)	
	Franklin Harbor (DC)	
	Goyder (DC)	
	Kimba (DC)	
	Le Hunte (DC)	
	Lower Eyre Peninsula (DC)	
	Mount Remarkable (DC)	
	Northern Areas (DC)	
	Orroroo/Carrieton (DC)	
	Peterborough (DC)	
	Port Augusta (C)	
	Port Lincoln (C)	
	Port Pirie & Dists (M)	
	Roxby Downs (M)	
	Streaky Bay (DC)	
	Tumby Bay (DC)	
	Wakefield (DC)	
	Whyalla (C)	
	Yorke Peninsula (DC)	
	Far and North Western NSW	Bogan (A)
Bourke (A)		
Brewarrina (A)		
Broken Hill (C)		
Central Darling (A)		
Cobar (A)		
Coolah (A)		
Coonabarabran (A)		
Coonamble (A)		
Dubbo (C)		
Gilgandra (A)		
Mudgee (A)		
Narromine (A)		
Walgett (A)		
Warren (A)		
Wellington (A)		
Far North QLD		Atherton (S)

Region	Local Government Area	
Gippsland VIC	Aurukun (S)	
	Burke (S)	
	Cairns (C)	
	Cardwell (S)	
	Carpentaria (S)	
	Cloncurry (S)	
	Cook (S)	
	Croydon (S)	
	Douglas (S)	
	Eacham (S)	
	Etheridge (S)	
	Flinders (S)	
	Herberton (S)	
	Johnstone (S)	
	Mareeba (S)	
	McKinlay (S)	
	Mornington (S)	
	Mount Isa (C)	
	Richmond (S)	
	Torres (S)	
	Bass Coast (S)	
	Baw Baw (S)	
	East Gippsland (S)	
	La Trobe (S)	
	South Gippsland (S)	
	Wellington (S)	
	Global Sydney	Botany (A)
		Hunter's Hill (A)
		Lane Cove (A)
		Mosman (A)
		North Sydney (A)
		Randwick (C)
		Ryde (C)
		South Sydney (C)
		Sydney (C)
		Waverley (A)
		Willoughby (C)
	Gold Coast and Hinterlands	Woollahra (A)
		Beaudesert (S)
		Gold Coast (C)
		Logan (C)
		Redland (S)
	Golden Region VIC	Ararat (RC)
Ballarat (C)		
Colac-Otway (S)		
Golden Plains (S)		
Greater Geelong (C)		
Hepburn (S)		

Region	Local Government Area
Goulbourn VIC	Moorabool (S)
	Pyrenees (S)
	Queenscliffe (B)
	Surf Coast (S)
	Campaspe (S)
	Delatite (S)
	Greater Shepparton (C)
	Mitchell (S)
	Moira (S)
	Murrindindi (S)
Hobart and Southern Tasmania	Strathbogie (S)
	Brighton (M)
	Central Highlands (M)
	Clarence (C)
	Derwent Valley (M)
	Glamorgan/Spring Bay (M)
	Glenorchy (C)
	Hobart (C)
	Huon Valley (M)
	Kingborough (M)
Hunter NSW	Sorell (M)
	Southern Midlands (M)
	Tasman (M)
	Cessnock (C)
	Dungog (A)
	Gloucester (A)
	Great Lakes (A)
	Lake Macquarie (C)
	Maitland (C)
	Merriwa (A)
Illawarra NSW	Murrurundi (A)
	Muswellbrook (A)
	Newcastle (C)
	Port Stephens (A)
	Scone (A)
	Singleton (A)
	Kiama (A)
	Shellharbour (A)
	Shoalhaven (C)
	Wollongong (C)
Inner Melbourne VIC	Melbourne (C)
	Port Phillip (C)
	Stonnington (C)
Inner West Sydney	Yarra (C)
	Ashfield (A)
	Burwood (A)
	Concord (A)

Region	Local Government Area	
Ipswich QLD	Drummoyne (A)	
	Leichhardt (A)	
	Strathfield (A)	
	Boonah (S)	
	Esk (S)	
	Gatton (S)	
	Ipswich (C)	
	Laidley (S)	
	Loddon VIC	Central Goldfields (S)
		Greater Bendigo (C)
Loddon (S)		
Macedon Ranges (S)		
Mount Alexander (S)		
Mackay QLD	Belyando (S)	
	Broadsound (S)	
	Mackay (C)	
	Mirani (S)	
	Nebo (S)	
	Sarina (S)	
	Whitsunday (S)	
	Mallee - Wimmera VIC	Hindmarsh (S)
		Buloke (S)
	Mercy-Lyell TAS	Gannawarra (S)
Horsham (RC)		
Mildura (RC)		
Northern Grampians (S)		
Swan Hill (RC)		
West Wimmera (S)		
Yarriambiack (S)		
Burnie (C)		
Central Coast (M)		
Circular Head (M)		
Midlands and Central WA	Devonport (C)	
	Kentish (M)	
	King Island (M)	
	Latrobe (M)	
	Waratah/Wynyard (M)	
	West Coast (M)	
	Beverley (S)	
	Bruce Rock (S)	
	Carnamah (S)	
	Carnarvon (S)	
Chapman Valley (S)		
Chittering (S)		
Coorow (S)		
Cue (S)		
Cunderdin (S)		

Region	Local Government Area
	Dalwallinu (S)
	Dandaragan (S)
	Dowerin (S)
	Exmouth (S)
	Geraldton (C)
	Gingin (S)
	Goomalling (S)
	Greenough (S)
	Irwin (S)
	Kellerberrin (S)
	Koorda (S)
	Meekatharra (S)
	Merredin (S)
	Mingenew (S)
	Moora (S)
	Morawa (S)
	Mount Magnet (S)
	Mount Marshall (S)
	Mukinbudin (S)
	Mullewa (S)
	Murchison (S)
	Narembeen (S)
	Northam (S)
	Northam (T)
	Northampton (S)
	Nungarin (S)
	Perenjori (S)
	Quairading (S)
	Sandstone (S)
	Shark Bay (S)
	Tammin (S)
	Three Springs (S)
	Toodyay (S)
	Trayning (S)
	Upper Gascoyne (S)
	Victoria Plains (S)
	Westonia (S)
	Wiluna (S)
	Wongan-Ballidu (S)
	Wyalkatchem (S)
	Yalgoo (S)
	Yilgarn (S)
	York (S)
Murray - Murrumbidgee NSW	Albury (C)
	Balranald (A)
	Berrigan (A)

Region	Local Government Area
	Carrathool (A)
	Conargo (A)
	Coolamon (A)
	Cootamundra (A)
	Corowa (A)
	Culcairn (A)
	Deniliquin (A)
	Griffith (C)
	Gundagai (A)
	Hay (A)
	Holbrook (A)
	Hume (A)
	Jerilderie (A)
	Junee (A)
	Leeton (A)
	Lockhart (A)
	Murray (A)
	Murrumbidgee (A)
	Narrandera (A)
	Temora (A)
	Tumbarumba (A)
	Tumut (A)
	Urana (A)
	Wagga Wagga (C)
	Wakool (A)
	Wentworth (A)
	Windouran (A)
Murraylands SA	Berri and Barmera (DC)
	Karoonda East Murray (DC)
	Loxton Waikerie (DC)
	Mid Murray (DC)
	Murray Bridge (RC)
	Paringa Renmark (DC)
	Southern Mallee (DC)
	The Coorong (DC)
N.N. West Sydney	Baulkham Hills (A)
	Hornsby (A)
	Ku-ring-gai (A)
	Manly (A)
	Pittwater (A)
	Warringah (A)
North Brisbane	Caboolture (S)
	Caloundra (C)
	Kilcoy (S)
	Maroochy (S)
	Noosa (S)
	Pine Rivers (S)
	Redcliffe (C)

Region	Local Government Area	
North Coastal NSW	Ballina (A)	
	Bellingen (A)	
	Byron (A)	
	Casino (A)	
	Coffs Harbour (C)	
	Copmanhurst (A)	
	Grafton (C)	
	Greater Taree (C)	
	Hastings (A)	
	Kempsey (A)	
	Kyogle (A)	
	Lismore (C)	
	Maclean (A)	
	Nambucca (A)	
	Nymboida (A)	
	Richmond River (A)	
	Tweed (A)	
	Ulmarra (A)	
	North Melbourne	Banyule (C)
		Darebin (C)
Hume (C)		
Moreland (C)		
Nillumbik (S)		
Northern Adelaide	Whittlesea (C)	
	Barossa (DC)	
	Gawler (M)	
	Light (DC)	
	Mallala (DC)	
	Playford (C)	
	Port Adelaide Enfield (C)	
	Salisbury (C)	
Northern and Central Perth	Tea Tree Gully (C)	
	Bassendean (T)	
	Bayswater (C)	
	Cambridge (T)	
	Claremont (T)	
	Cottesloe (T)	
	Jundalup (C)	
	Kalamunda (S)	
	Mosman Park (T)	
	Mundaring (S)	
	Nedlands (C)	
	Peppermint Grove (S)	
	Perth (C)	
	Stirling (C)	
	Subiaco (C)	
	Swan (S)	
	Vincent (T)	

Region	Local Government Area	
Northern NSW	Wanneroo (S)	
	Armidale (C)	
	Barraba (A)	
	Bingara (A)	
	Dumaresq (A)	
	Glen Innes (A)	
	Gunnedah (A)	
	Guyra (A)	
	Inverell (A)	
	Manilla (A)	
	Moree Plains (A)	
	Narrabri (A)	
	Nundle (A)	
	Parry (A)	
	Quirindi (A)	
	Severn (A)	
	Tamworth (C)	
	Tenterfield (A)	
	Northern Tasmania	Uralla (A)
		Walcha (A)
Yallaro (A)		
Break O'Day (M)		
Dorset (M)		
Flinders (M)		
George Town (M)		
Launceston (C)		
Nth QLD	Meander Valley (M)	
	North Midlands (M)	
	West Tamar (M)	
	Bowen (S)	
	Burdekin (S)	
	Charters Towers (C)	
	Dalrymple (S)	
	Hinchinbrook (S)	
	Thuringowa (C)	
	Townsville (C)	
Outer South West Sydney	Camden (A)	
	Campbelltown (C) (NSW)	
	Wingecarribee (A)	
	Wollondilly (A)	
Outer West Sydney	Blue Mountains (C)	
	Hawkesbury (C)	
	Penrith (C)	
Ovens - Hume VIC	Alpine (S)	
	Indigo (S)	
	Towong (S)	
	Wangaratta (RC)	
	Wodonga (RC)	

Region	Local Government Area	
Pilbara - Kimberley WA	Ashburton (S)	
	Broome (S)	
	Derby-West Kimberley (S)	
	East Pilbara (S)	
	Halls Creek (S)	
	Port Hedland (T)	
	Roebourne (S)	
	Wyndham-East Kimberley (S)	
	South East NSW	Bega Valley (A)
		Bombala (A)
Boorowa (A)		
Cooma-Monaro (A)		
Crookwell (A)		
Eurobodalla (A)		
Goulburn (C)		
Gunning (A)		
Harden (A)		
Mulwaree (A)		
Queanbeyan (C)		
Snowy River (A)		
Tallaganda (A)		
Unincorporated ACT		
Yarrowlumla (A)		
Yass (A)		
Young (A)		
South East SA		Grant (DC)
	Lacepede (DC)	
	Mount Gambier (C)	
	Naracoorte and Lucindale (DC)	
	Robe (DC)	
	Tatiara (DC)	
	Wattle Range (DC)	
	South Eastern WA	Coolgardie (S)
Dundas (S)		
Esperance (S)		
Kalgoorlie/Boulder (C)		
Laverton (S)		
Leonora (S)		
Menzies (S)		
Ngaanyatjarraku (S)		
Ravensthorpe (S)		
Southern Adelaide		Alexandrina (DC)
	Holdfast Bay (C)	
	Kangaroo Island (DC)	
	Marion (C)	
	Mitcham (C)	
	Mount Barker (DC)	
	Onkaparinga (C)	

Region	Local Government Area
Southern Melbourne	Victor Harbor (DC)
	Yankalilla (DC)
	Bayside (C)
	Glen Eira (C)
Southern NT	Kingston (C)
	Alice Springs (T)
	Coomalie (CGC)
Southern Perth	Tennant Creek (T)
	Armadale (C)
	Belmont (C)
	Canning (C)
	Cockburn (C)
	East Fremantle (T)
	Fremantle (C)
	Gosnells (C)
	Kwinana (T)
	Melville (C)
	Rockingham (C)
	Serpentine-Jarrahdale (S)
	South Perth (C)
	Victoria Park (T)
	Southern Sydney
Kogarah (A)	
Rockdale (C)	
Sutherland Shire (A)	
Southern WA	Albany (C)
	Augusta-Margaret River (S)
	Boddington (S)
	Boyup Brook (S)
	Bridgetown-Greenbushes (S)
	Brookton (S)
	Broomehill (S)
	Bunbury (C)
	Busselton (S)
	Capel (S)
	Collie (S)
	Corrigin (S)
	Cranbrook (S)
	Cuballing (S)
	Dardanup (S)
	Denmark (S)
	Donnybrook-Balingup (S)
	Dumbleyung (S)
	Gnowangerup (S)
	Harvey (S)
	Jerramungup (S)
Katanning (S)	
Kent (S)	

Region	Local Government Area
	Kojonup (S)
	Kondinin (S)
	Kulin (S)
	Lake Grace (S)
	Mandurah (C)
	Manjimup (S)
	Murray (S)
	Nannup (S)
	Narrogin (S)
	Narrogin (T)
	Pingelly (S)
	Plantagenet (S)
	Tambellup (S)
	Wagin (S)
	Wandering (S)
	Waroona (S)
	West Arthur (S)
	Wickepin (S)
	Williams (S)
	Woodanilling (S)
Sydney Production Region	Auburn (A)
	Bankstown (C)
	Blacktown (C)
	Canterbury (C)
	Fairfield (C)
	Holroyd (C)
	Liverpool (C)
	Marrickville (A)
	Parramatta (C)
Unincorporated NSW	Unincorporated NSW
Unincorporated NT	Unincorporated NT
Unincorporated SA	Unincorporated SA
Unincorporated Vic	Unincorporated Vic
West Melbourne	Brimbank (C)
	Hobsons Bay (C)
	Maribyrnong (C)
	Melton (S)
	Moonee Valley (C)
	Wyndham (C)
Western Victoria	Corangamite (S)
	Glenelg (S)
	Moyne (S)
	Southern Grampians (S)
	Warrnambool (C)
Westernport VIC	Cardinia (S)
	Casey (C)
	Frankston (C)

Region	Local Government Area
	Greater Dandenong (C)
	Mornington Peninsula (S)
	Yarra Ranges (S)
Wide-Bay Burnett QLD	Biggenden (S)
	Bundaberg (C)
	Burnett (S)
	Coolooloa (S)
	Eidsvold (S)
	Gayndah (S)
	Hervey Bay (C)
	Isis (S)
	Kilkivan (S)
	Kingaroy (S)
	Kolan (S)
	Maryborough (C)
	Miriam Vale (S)
	Monto (S)
	Mundubbera (S)
	Murgon (S)
	Nanango (S)
	Perry (S)
	Tiaro (S)
	Wondai (S)
	Woocoo (S)

