National Economics

AUSTRALIAN LOCAL GOVERNMENT ASSOCIATION

State of the Regions 2007-08

Proudly Supported by:

JARDINE LLOYD THOMPSON

STATE OF THE REGIONS
2007-08

CELEBRATING 10 YEARS

OF STATE OF THE REGIONS REPORTS

Preface: The accumulated insights of *State of the Regions* reports

Core objectives

The core objectives of the *State of the Regions* reports (of which this is the tenth) are to:

1. present the latest statistical indicators (for this report to 2006-07) describing how Australian regions are performing;

2. analyse trends in equality and inequality between Australian regions;

3. make suggestions for the policy implications of current Australian regional performance;

4. steadily expand the indicators used to measure regional performance;

5. describe the reality of regional economics; and

6. assist local governments to understand their regions and to provide useful planning tools.

This report and previous *State of the Regions* reports, together, provide a coherent framework for analysis and understanding of regional development. The reports also provide the foundations for planning and policy direction. *The State of the Regions* reports reveal regional economic development issues and assess the effectiveness of policies in removing roadblocks to regional economic development.

The benchmarks used are derived from the concept of convergence and divergence. In order to understand the forces of divergence/convergence in economic performance successive reports have developed a list of Stylised Facts. Stylised Facts are "facts" which, in relation to a specific driver or influence regional development, describes its most probable effects. The "facts" do not apply to all regions.

Each successive *State of the Regions* report either adds to the list of Stylised Facts and/or adds additional validation to the operation of the "facts". This 2007-08 report adds evidence to reinforce previous conclusions as to the nature of the facts. Accordingly, the Stylised Facts of previous *State of the Regions* reports have been summarised with additional supporting evidence. This report adds four more Stylised Facts.

The Stylised Facts

Introduction

Over the years the conclusions of the successive *State of the Regions* (SOR) reports have been summarised as stylised facts. These conclusions do not apply to all regions and LGAs, but apply in the majority of LGAs and regions.

In general the stylized facts have been determined from Census data. The 2006 Census results have been used in this year's SOR.

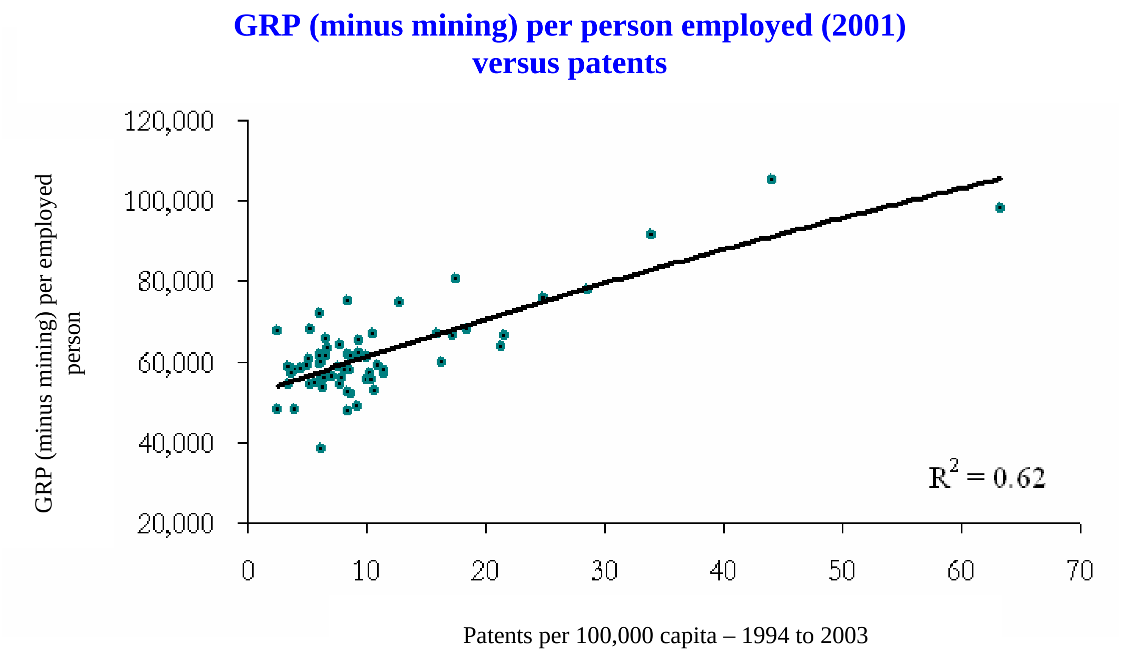
Stylized Fact One

High-income economies, apart from those with a unique and extensive natural resource base, now depend on sustained innovation as the core driver of long-term economic growth.

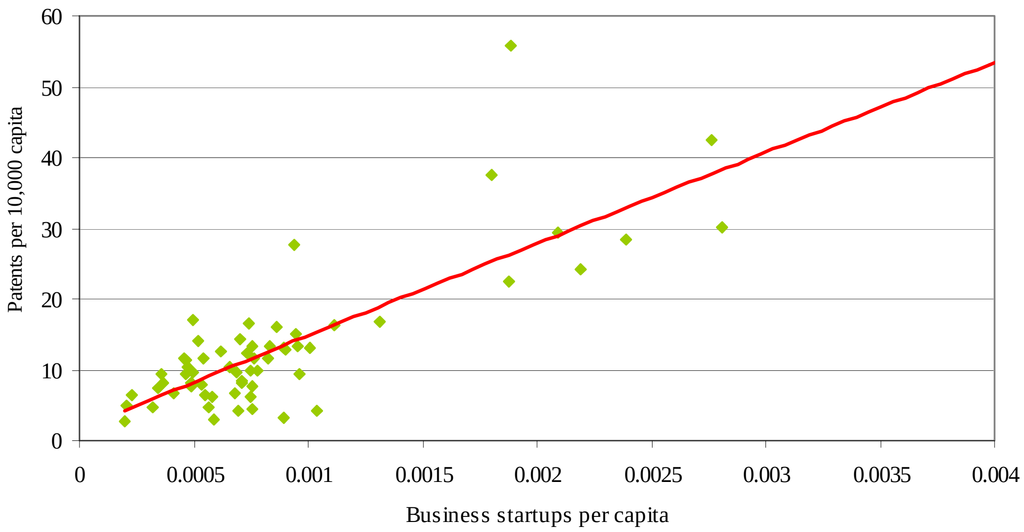
Stylized Fact Two

The capacity to innovate depends on knowledge and networks at the regional level. Most high-income countries which have maintained sustained growth have done so because they have established successful knowledge based regions.

The figures below demonstrate the relevance of this Stylized Fact in Australia. One indicator of capacity to create knowledge and innovation is patent activity. The figures below show that there is a good correlation between the economic success of a region measured in terms of non-mining gross regional product per person employed and patent activity. The data in the figure is for the regions of this report.



High Tech business startups versus patents per 100,000 capita

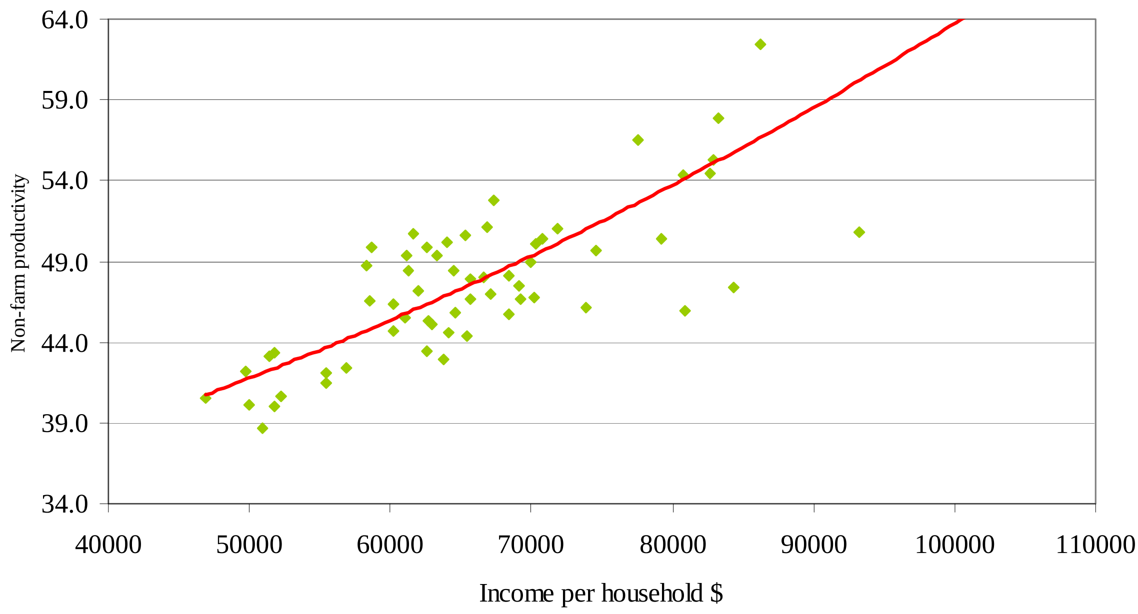


Stylised Fact Three

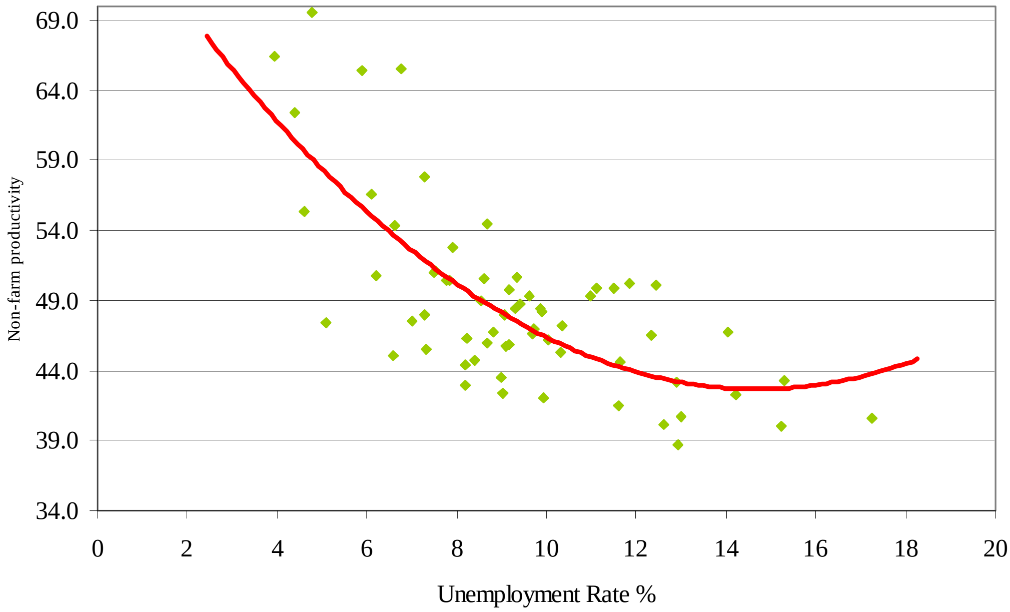
Regions with high productivity have high household incomes and low unemployment rates

The two figures below provide strong support for the stylised facts.

Non-farm productivity versus average household income 1998-2006



Non-farm productivity versus unemployment rate 1998-2006

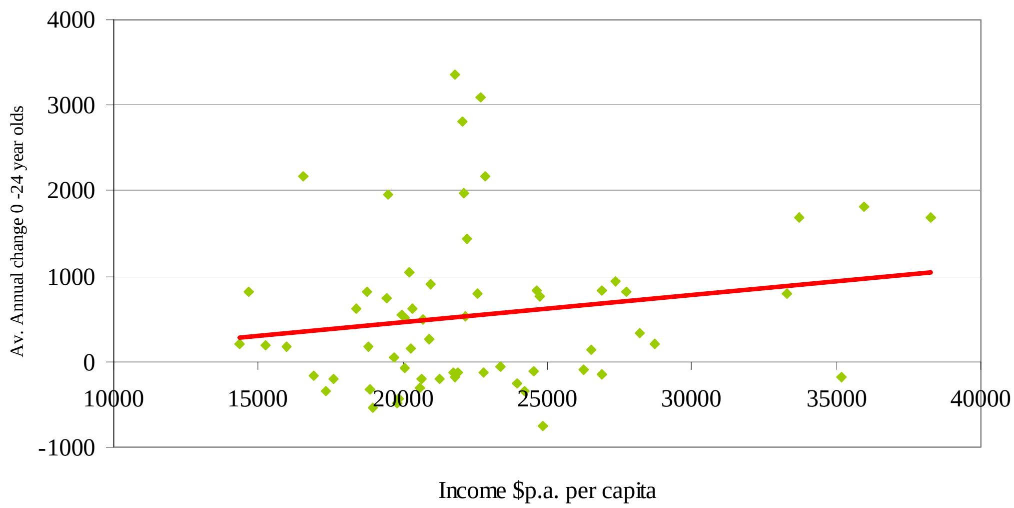


Stylised Fact Four

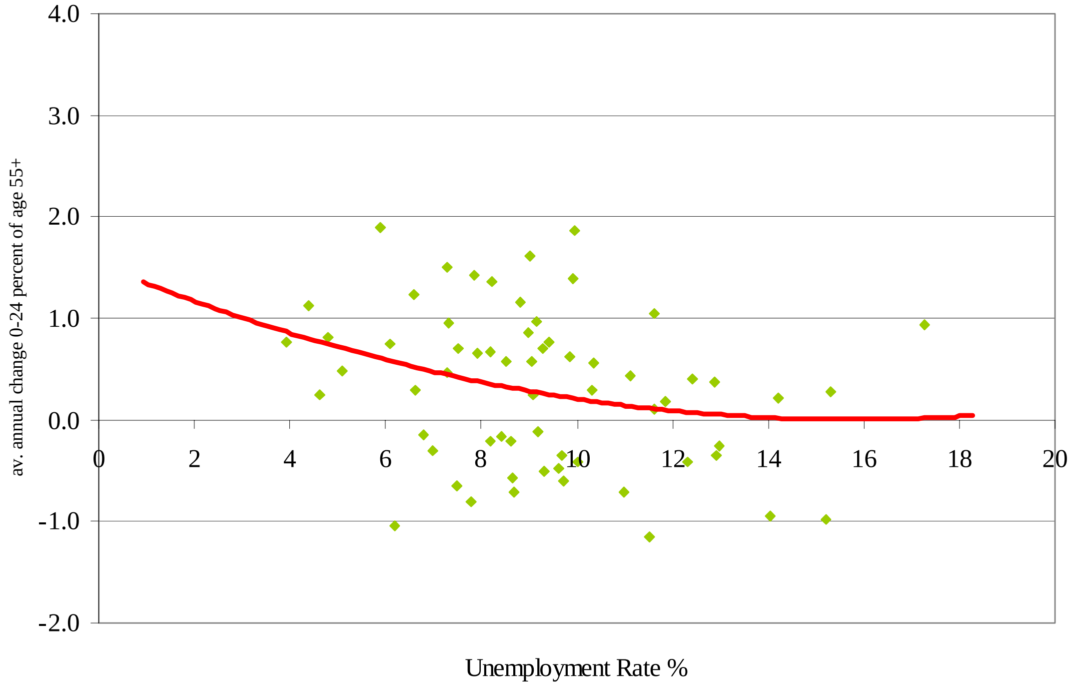
The young are leaving low-income, high unemployment regions and migrating to high-income, low unemployment regions.

The following two figures provide the support for this stylised fact.

Average annual change in population 0-24 year olds versus wages and business income 1998-2007



Average annual change 0-24 years per cent of age group versus unemployment rate 1998-2007

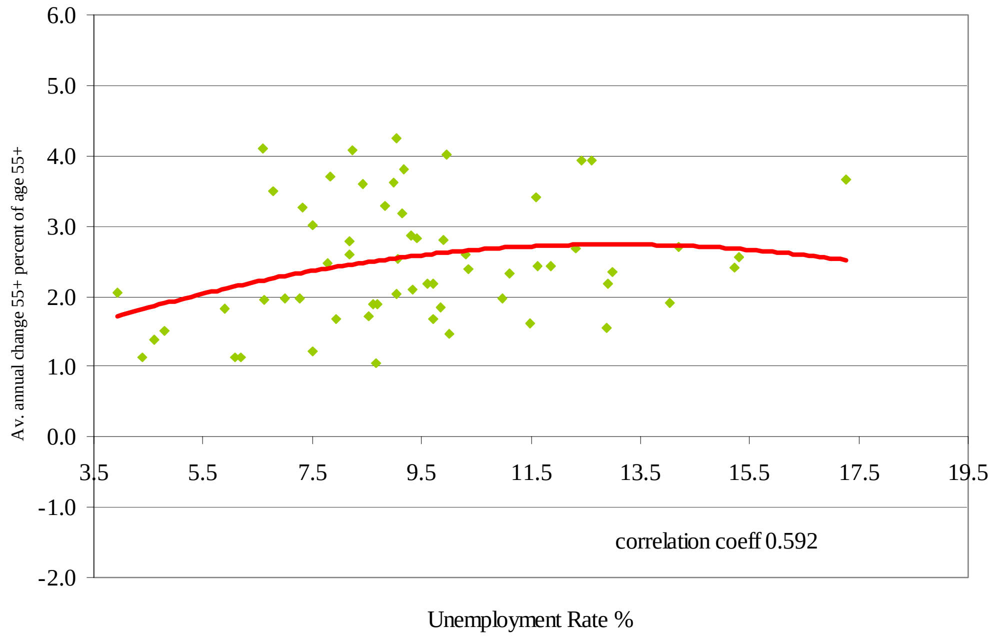


Stylised Fact Five

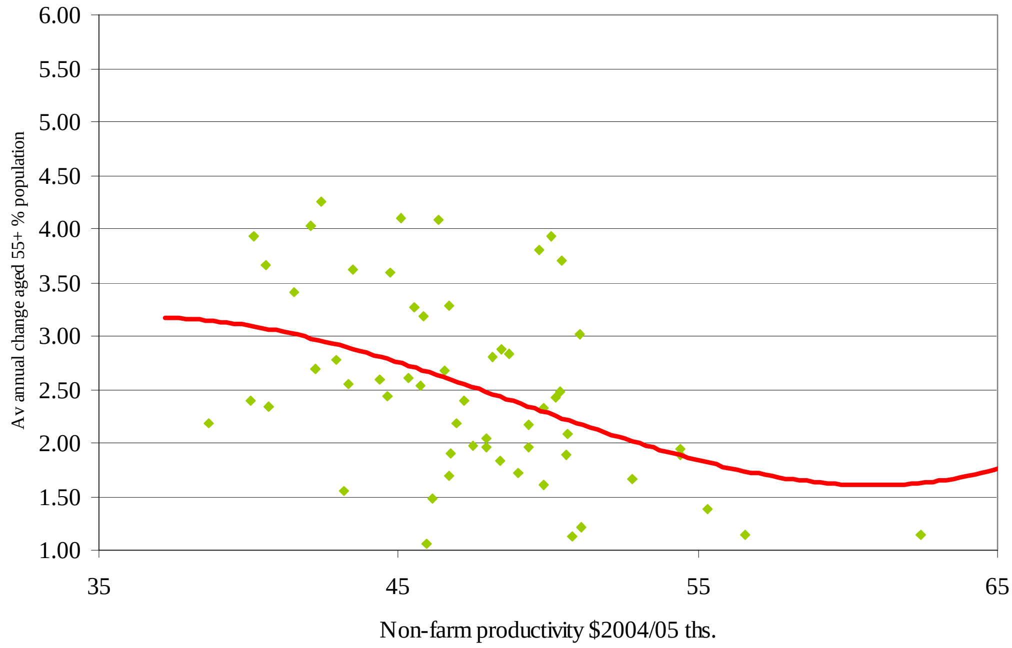
The old are leaving high-income (high cost regions) and low unemployment rate regions and migrating to low-income (low cost) and high unemployment regions.

The following two figures provide empirical support for this stylised fact.

Average annual change 55+ per cent of age group versus unemployment rate 1998-2007



Average annual change 55+ per cent of population versus non-farm productivity 1998-2007



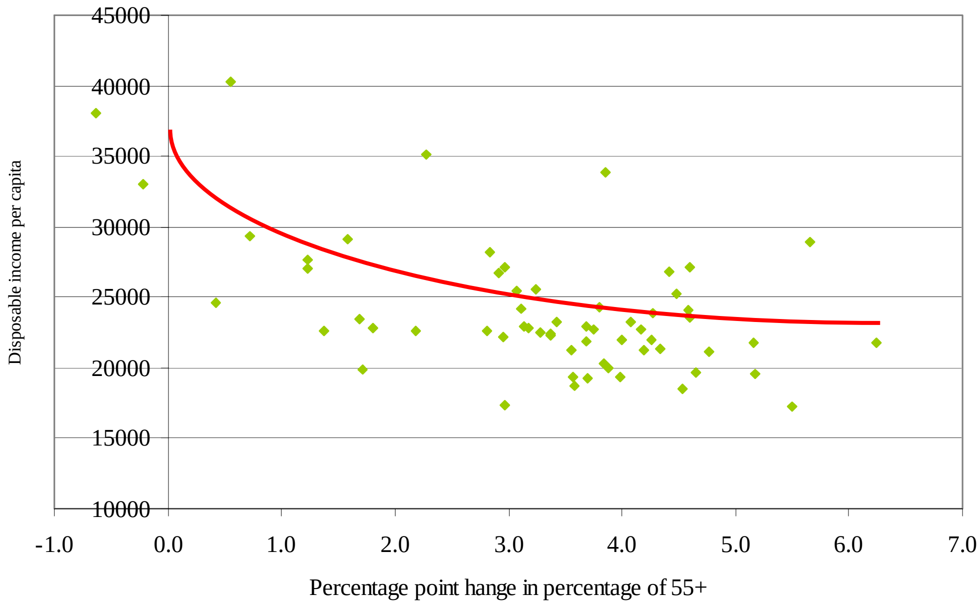
Stylised Fact Six

Low productivity regions are rapidly ageing, while high productivity regions are ageing relatively slowly.

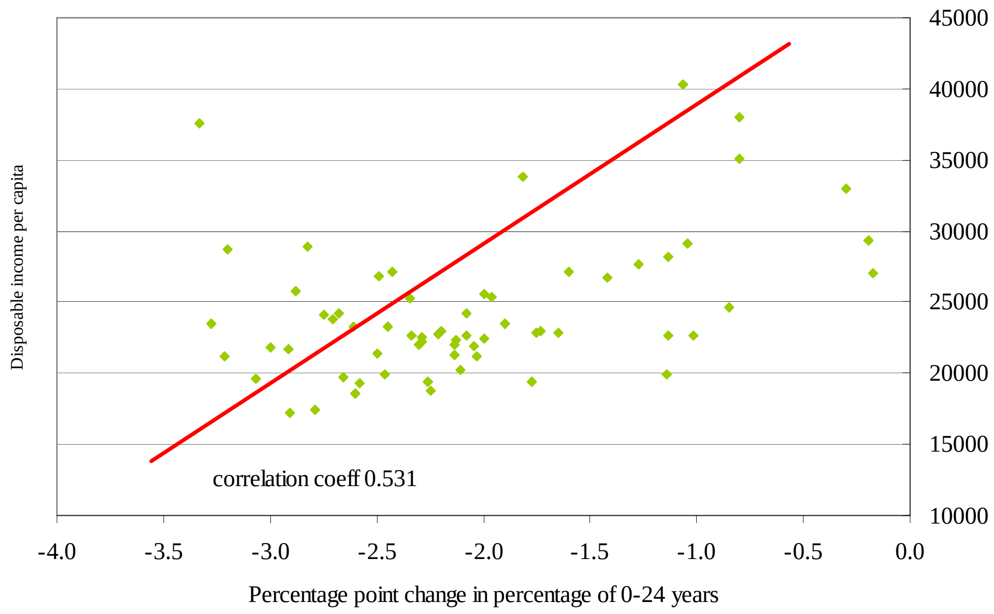
Because of the strong correlation between income and productivity, high productivity regions have low rates of decline in the share of population aged under 24 and slower rates of increase in the share of population aged over 55 (see the following two figures).

A corollary to stylised fact six is that low productivity/high unemployment regions may be locked into a vicious cycle of rising unemployment and rapid ageing. Currently this mechanism is being blunted by high levels of construction activity spreading across the nation. When the building cycle turns down, rapid ageing and rising unemployment could quickly return to these regions.

Average disposable income per capita versus change in percentage of population 55+ 1998-2007



Average disposable income per capita versus change in percentage of population 0-24 years 1998-2007



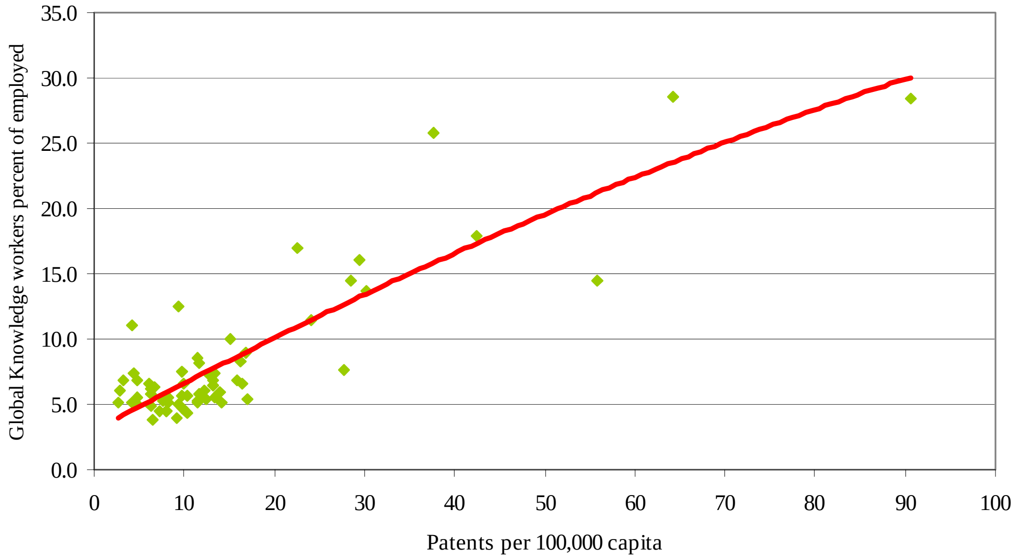
Stylised Fact Seven

Successful knowledge based regions have a high concentration of highly skilled (scientists, engineers, etc.) global knowledge workers. These workers tend to migrate to regions with scale and diversity of social and community infrastructure and cultural and lifestyle choices.

The figure below shows the strong relationship between global knowledge worker concentrations and knowledge creation (that is, patent activity). The 2002 *State of the Regions* also showed a high correlation coefficient between community infrastructure/lifestyle choice and concentrations of global knowledge workers across Australian regions.

The following figure shows the clear link between patents (and hence business productivity), therefore the inferred high correlation between high technology start-ups and the presence of global knowledge workers.

Patents per capita versus global knowledge worker



Stylised Fact Eight

The regional centres which have contributed strongly to the improved economic performance of the rural regional group have had high employment growth relative to population growth. This, in turn, has occurred in provincial cities that:

- maintained a population growth rate in excess of 0.3 per cent per annum;
- developed diversified lifestyle and cultural choices for residents;
- concentrated on attaining large-scale production in selected non-mining, non-agricultural industries; and
- developed inter-regional export capacity in business and/or education services.

Stylised Fact Nine

Regions are successful because enterprises in them are successful. To assist enterprises to grow, policy must explicitly focus on developing and strengthening the emerging flexible entrepreneurial supply lines of industry clusters on which knowledge based economies are founded.

Policies to establish a successful regional economy require complex policy strategies involving a whole of government approach. Important components are policies designed to strengthen the networks that link the institutions, organisations, enterprises and key personnel within regions and to strengthen regional supply chains.

Stylised Fact Ten

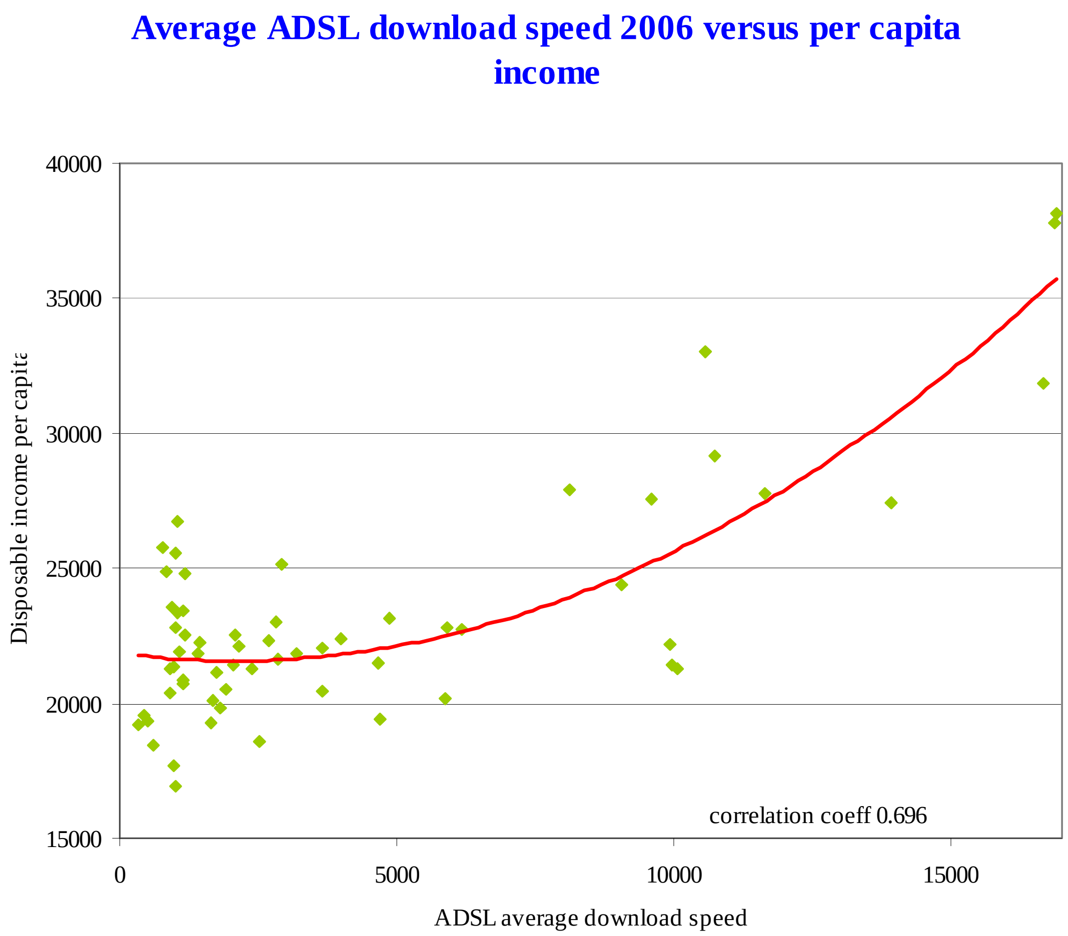
Unfortunately, current policies to encourage regions to develop and increase their productivity are acting perversely. They are imposing barriers preventing low productivity/high unemployment regions from increasing productivity.

Example 1

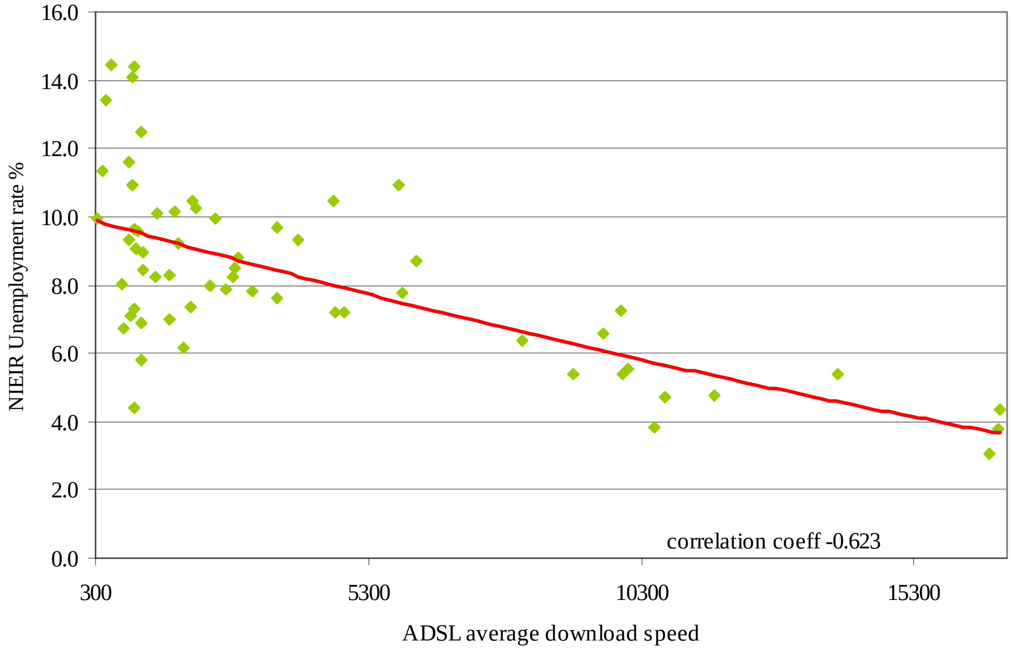
Lagging regions have poor access to quality telecommunications infrastructure, preventing efficient internet usage and, therefore, reducing the possibilities for exporting and attracting high technology firm start-ups.

The following two figures show that in mid 2006 average download speeds available to households and firms by industry was highly positively correlated with household income per capita and negatively correlated with NIEIR unemployment rate.

This report estimates that if download speed differentials are not equalised, the cost the lagging regions will be $2.7 billion in 2005 prices in foregone gross regional product and 30,000 employment positions will be lost.



Average ADSL download speed 2006 versus NIEIR unemployment rate



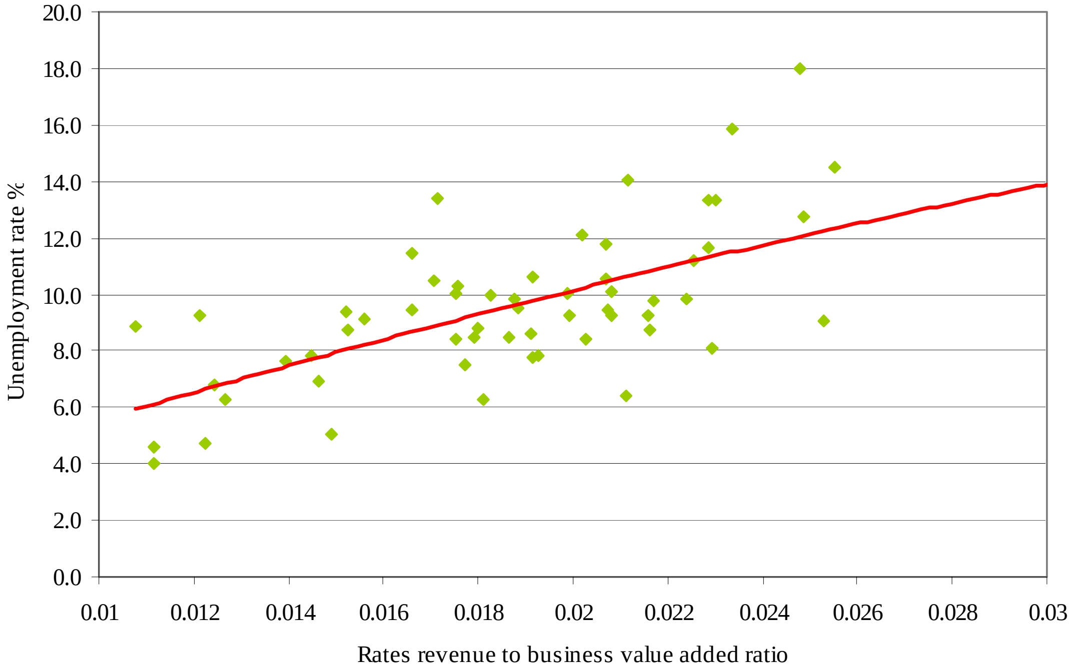
Example 2

Low productivity/economic regions have relatively high local government tax rates because the cost of delivering basic services to the community is relatively high.

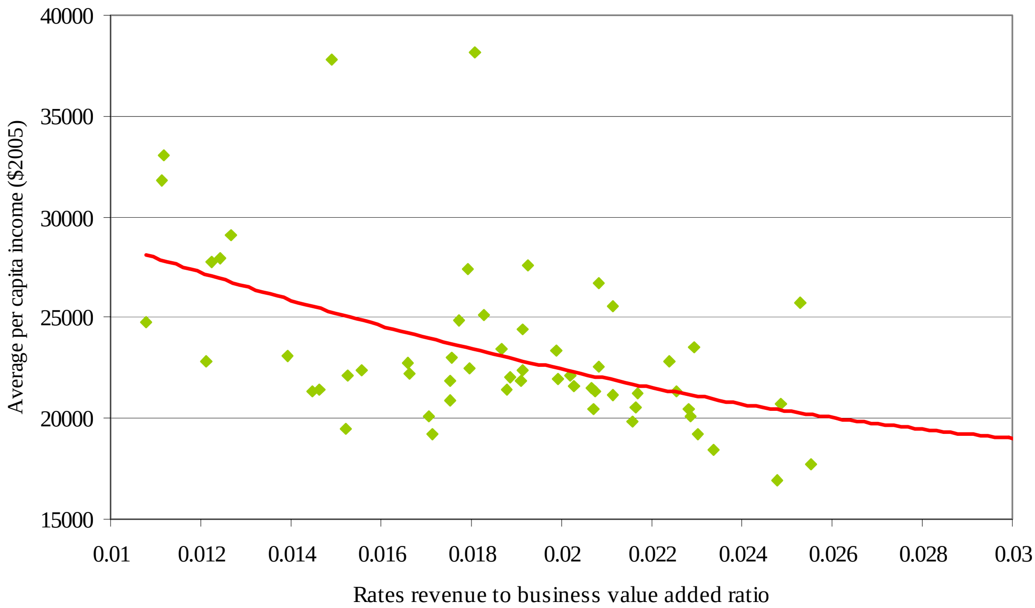
The following two figures provide the evidence of this. This report estimates that additional resources of $2.3 billion would be required to provide lagging councils with the resources to reach current average standards. In addition, another $112 million per annum (cumulating each year) will have to be found to prevent further increases in current local government financial imbalances.

The lack of local government resources for some councils means that they cannot effectively take the steps required to attract the skilled households in order to lift the productivity of their regions.

Rates revenue to business value added ratio average 2001-2005 versus unemployment rate - 2005



Rates revenue to business value added ratio average per capita income 2001-2005 versus average household per capita income - 2005

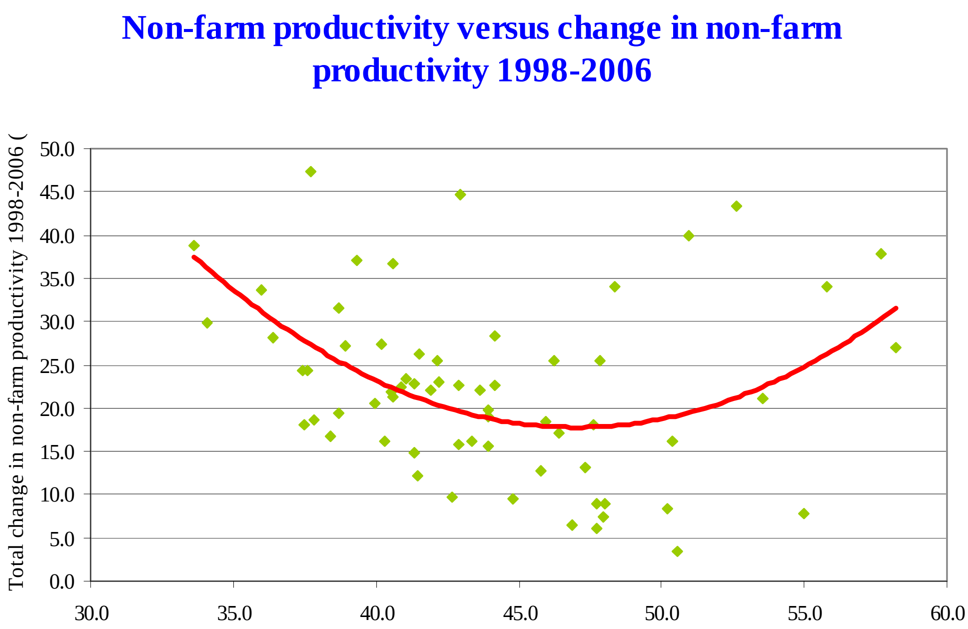


Stylised Fact Eleven

For much of the 19th and 20th centuries nations and regions tended to converge in economic performance. The rise of knowledge-based regional economies means that divergence in economic performance between regions is both possible and probable.

The rise of the knowledge based regional economy has meant that the classical mechanism for regional convergence in economic performance, namely real wage adjustment, has become a weak force. Low unemployment regions are high real wage regions.

The following figure shows there is no correlation between non-farm productivity in 1998 and the growth in non-farm productivity over the 1998 to 2006 period across the SOR regions.



Stylised Fact Twelve

Because of the weakening of market forces driving convergence in economic performance, government intervention to drive regional economic development is at least as fully justified as it was in the past.

Stylised Fact Thirteen

Innovation is constrained and economic opportunities are lost as a result of poorly performing telecommunications systems and by a laggardly response to climate change initiatives.

Stylised Fact Fourteen

High levels of debt apply generally to all regions.

Australia has one of the highest debt to income ratios in the world. High debt to income ratios apply to all regions with the highest debt ratio being concentrated in the middle and outer suburbs of the metropolitan areas and the provincial cities which currently have, or did have, a strong manufacturing base.

Stylised Fact Fifteen

Wealth is distributed unequally across Australian cities.

Those households with the highest wealth in Australia are concentrated in central metropolitan regions with almost double the wealth of households in non-metropolitan regions.

Stylised Fact Sixteen

The costs of climate change (enhanced water security costs, loss of production and carbon prices) will fall disproportionately on non-metropolitan regions. Non-metropolitan region households will have up to double the cost of climate change, compared to metropolitan regions, with only a quarter to half the capacity of metropolitan regions, in terms of income and wealth, to absorb the additional costs of climate change.

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Executive summary

E.1 Introduction

This is the tenth State of the Regions report (SOR) and this report adds to the accumulated knowledge of the previous State of the Regions reports in the critical area of climate change. The report, importantly, identifies the cost of climate change to households and SOR zones.

In this years SOR report we look at the impact of climate change on Australia's regions and provide an overview of State and Commonwealth policies. The issue of water supply and the impact of drought across Australia's regions are also covered in detail. The SOR includes a local government case study which identifies local government actions to help reduce the impact of greenhouse gas emissions as well as chapters on health and the legal implications of climate change.

E.2 Mitigation and adaptation

Two main strategies for managing climate change have emerged internationally, these strategies are mitigation and adaptation.

Mitigation strategies are concerned with reducing carbon emissions through the development and implementation of a range of actions such as improved energy efficiency, public and corporate education, offset programs and the like. Mitigation strategies are typically those that local governments have embraced over the last few years. The principle behind mitigation strategies, driven by the understanding of a range of long term climate change scenarios, is to act now to reduce the impact of climate change in the years to come.

Adaptation strategies, on the other hand, involve assessing, from the best information available, the likely changes in climate and responding to these changes in terms of amending plans and existing strategies. Adaptation strategies take into account the notion that an amount of climate change is already built into the system from past emissions and that, while mitigation strategies may modify long term changes, climate change will have to be managed by all levels of government. Such management will include the need to rethink water and land use planning, health related issues, the development of budgets and financial management and infrastructure planning.

Mitigation and adaptation strategies are, of course, closely linked as the degree to which mitigation strategies are adopted or not, will be directly correlated with the severity and scope of any adaptation policies that need to be implemented in the future.

Further discussions of these issues are best considered in the context of the current economic conditions prevailing in the Australian economy.

E.3 General economic conditions

As Table E.1 indicates, Australia has continued to perform strongly in terms of its economic growth. Incomes are continuing to increase while unemployment has continued to decrease across all the SOR zones of core metro, dispersed metro, lifestyle, rural, production and resource zones. In general, employment growth has been strong.

Table E.1	**Selected indicators – macro indicators**				
	NIEIR unemployment rate (%)			**Employment growth (% p.a.)**	**Real household disposable income (% p.a.)**
Zone	**2005**	**2006**	**2007**	**2005-2007**	**2005-2007**
Rural	10.0	9.7	9.3	2.2	1.3
Core Metro	5.6	5.0	4.5	3.7	7.5
Resource Based	8.2	7.4	6.5	3.7	4.6
Dispersed Metro	6.1	5.9	5.7	1.6	3.7
Production Zone	8.9	8.6	8.5	1.9	3.2
Lifestyle	9.4	9.0	8.5	3.6	6.1
Australia	**7.8**	**7.4**	**7.0**	**2.5**	**4.3**

Over the 2005 to 2007 period the highlights have been:

- ❑ the core metro zones, lifestyle resource regions and lifestyle zones have enjoyed employment growth of around 3.7 per cent per annum;
- ❑ real income growth in the core metro zone has been particularly strong at 7.5 per cent per annum, reflecting the concentration of wealth in that zone and the strong gains in equity prices over the period;
- ❑ the fall in the unemployment rate has been strongest in the resource zone, which is not surprising given the lift in construction activity in that zone over the period;
- ❑ the fall in the unemployment rate and the growth in real incomes have been weakest in the rural and production zones. Again, this is consistent with the drought in the rural zone over 2006-07 and the impact of the high exchange rate on manufacturing activity which is concentrated in the production zone; and
- ❑ the recent rapid growth in superannuation assets is reflected in the good economic conditions prevailing in the lifestyle zone, which has a strong concentration of retirees.

From Table E.2 the generally improved economic conditions have led to acceleration in the Australian population growth rate, which has particularly impacted on the population growth rate of the rural, core metro and resource based zones.

Table E.2	**Actual and projected population growth (per cent per annum)**		
Zone	**1996-2001**	**2001-2006**	**2007-2009**
Rural	0.6	0.9	1.2
Core Metro	1.0	1.5	1.5
Resource Based	1.2	1.4	2.0
Dispersed Metro	1.3	1.0	1.2
Production Zone	1.2	1.3	1.4
Lifestyle	2.2	2.3	2.0
Australia	**1.2**	**1.3**	**1.4**

The rural zones are benefiting from the spillover impacts of resource developments and the movement of metropolitan residents to rural regions for lifestyle reasons and to avoid the high cost of housing.

E.4 Debt and wealth

As is generally the case with sustained strong economic growth, there are negatives building up that will eventually bring the good times to an end.

Growth has occurred against a backdrop of increasing levels of debt, while consumer demand, buoyed up by debt accumulation, has increased economic activity and so generated employment and incomes. Over the past decade, Australian households have gone heavily into debt – mainly to the banks, but also to a variety of other financial institutions. The current level and spread of debt has no historic precedent, at least in Australia.

The build up of debt and the resulting debt servicing costs, if current trends continue, will seriously compromise Australia's capacity to grow real incomes into the future. In addition major problem arise when debt financed capital gains are based on the expectation of further capital gains. There are plenty of past examples where debt finance has boosted asset price booms – share booms, land booms – resulting in bankruptcies when the boom collapses, usually due to the asset prices getting out of line with the incomes generated by the assets.

As Table E.3 indicates, there has been near 50 per cent growth in Australia's household debt to income ratio over the last six years, with the strongest growth being in the core metro and dispersed metro regions. One reason for this is Australia's under-investment in transport infrastructure in the cities, forcing households to take an increasing debt to live closer to their place of work so as to avoid unacceptable travel costs.

It should be kept in mind that the data in Table E.3 is the average debt-income ratio. As about 40 to 50 per cent of households have significant levels of debt, it implies that the households that are carrying high levels of debt have debt-income ratios of at least double those shown in Table E.3

The build up in debt is becoming unsustainable. Australia's real household disposable income is growing at around $24 billion per annum. Household debt is growing at around $120 billion per annum. This means that additional debt service costs (repayments plus interest) imposed on households is growing at $18 billion, which will increase with future interest rate increases. Thus, the economy needs to absorb 75 per cent of income growth in additional debt service costs in order to grow at current rates.

This is providing political pressure for income tax cuts which, as will be seen below, will make it more difficult to adapt to climate change.

Table E.3 Debt and wealth in Australian regions

	Household debt to income ratio		Wealth per household	
Zone	**2007**	**Percentage change 2001-2007**	**2007 (2004-05 $'000)**	**Percentage change 2001-2007**
Rural	1.26	20.1	383	8.7
Core Metro	1.30	83.3	720	22.5
Resource Based	1.31	25.5	392	6.9
Dispersed Metro	1.60	57.1	586	12.7
Production Zone	1.58	42.9	368	13.5
Lifestyle	1.59	47.8	411	41.9
Australia	**1.46**	**49.6**	**497**	**16.5**

There are also issues relating to infrastructure and constraints in construction activity, for example in telecommunications and housing. In telecommunications there are still shortcomings and this years SOR again reviews progress towards improving telecommunications and particularly broadband service delivery.

What is of most concern is that the increase in the debt burden and shortcomings in knowledge economy telecommunications provision are occurring and increasing costs at a time when climate change impacts are also beginning to prove costly.

The pressure applied by the circumstances described above is increased by sustained upward pressure on Australian interest rates which is likely over the next 18 months. The reasons for this are:

- the return of inflation to the 3.0 to 3.6 per cent range;
- the economy, currently growing at 4 to 5 per cent, is well in excess of capacity growth;
- the return of accelerating price expectations in some housing markets; and
- expansionary fiscal policy.

Adding to the difficulties is the fact, from Table E.3, that wealth (value of assets minus liabilities) is already concentrated in core metro regions with recent trends indicating that this concentration will steadily increase. A typical household in a core metro region has nearly double the wealthy of a rural or production zone household.

E.5 Climate change, CO_2 abatement strategies and the impact on Australia's regions

Climate change is a global phenomenon, and much of the discussion has accordingly emphasised global effects. These include the probability that a moderate level of climate change will be favourable in some parts of the world – chiefly places where the plant growing season is currently limited by cold winters. For Australia, climate change is almost wholly bad news.

Current forecasts of the impacts of climate change in Australia are based on significant data collection both locally and world-wide, interpreted through climate change models. The major global models are those produced by the Intergovernmental Panel on Climate Change, while the leading Australian-based models are the series produced by the CSIRO.

In 2000 the Intergovernmental Panel produced a Special Report on Emission Scenarios. This report was based on global average warming of 1.4 to 5.8^{o}C by 2100 relative to 1990 – the wide range indicates the near-certainty of an increase in average temperature coupled with uncertainties as to the increase in emissions and the response of the climate system. These scenarios remain as the basis of world discussion of climate trends, but have been updated to take into account improved modelling capabilities.

To give abroad summary of the latest CSIRO predictions, the general drift within a wide range of risk could be as follows. It is noticeable that the greatest temperature increases are expected inland and on the east coast, while the largest increases in rainfall variability are expected in regions where variability is already high. The regions in which rainfall reductions are most certain are those of South West Western Australia – where a significant reduction in rainfall has already occurred – but reductions are also expected along the whole of the south coast except Tasmania. This is but the baldest summary of a burgeoning literature which is gradually narrowing the range of uncertainty and increasing the range of variables predicted.

It is important to note that the changes to average climatic conditions should not be confused with changes to weather and to seasonal cycles. Some of the major consequences of climate change are not so much changes to average conditions but to the probability of extreme events.

However, these models are focussed on the longer run outcomes. This report is focussed on the up-front costs which, after all, are how they are allocated and will determine the political and community commitment to climate change abatement strategies.

E.6 Climate change and the cost to the economy

This year's report identifies three outcomes, or components, of climate change which will, in the short run (where the short run extends over at least half a century) impose costs on the economy for benefits, some of which will not be realised for a century or more. The issue is, of course, that unless these costs are imposed many parts of the world could well become uninhabitable.

The three cost components considered in this report are:

- enhanced costs of water security from the fall off in rainfall;
- the costs of the loss of agricultural production from climate change; and
- the impact costs of a carbon price or tax.

E.7 Water security costs

Water is vital to public health, the economy and the environment. The substantial decline in rainfall in the Eastern and Southern States over the past ten years has resulted in water storages being at record low levels in 2006 and 2007 (Table E.4) for the major urban centres. The table also shows a recovery following rain in New South Wales. The increase in Adelaide's storage levels is as a result of the amount of water taken from the River Murray rather than any increase in rainfall.

Table E.4 Storage levels

City/Region	Storage levels (July 2007)	Storage levels (July 2006)	Level of water restrictions
Melbourne	48%	48%	Stage 3A
Perth	25%	31%	Hand watering sprinklers 2 x 2 hour sessions per week
Adelaide	75%	52%	Stage 3
Sydney	57%	42%	Stage 3
Hunter	97%	66%	No restrictions
Brisbane	17%	31%	Stage 5
Gold Coast	62%	92%	
Canberra	41%	51%	Stage 3
Hobart	77%	81%	No restrictions
Darwin	95%	100%	No restrictions

Source: Water Supply Association of Australia.

The impacts of the drought have been prolonged water restrictions in many areas and reduced irrigation allocations, particularly in the Murray Darling Basin. Urban consumers are questioning the need for continuous restrictions on garden watering, pointing out that healthy green gardens improve the amenity of the living environment, add to property values, provide shade, remove pollutants including carbon and provide habitat for birds. There is no doubt that more water can be provided, the question being whether consumers are willing to pay the increased costs.

Climate change is resulting in wider variability in rainfall patterns with longer periods of low inflows into storages. In Australia we are heavily reliant on surface storages for our water supply. For much of the 20th century the Australian states invested heavily in the construction of large dams. Thus the Murray-Darling system was provided with a number of dams, intended to harvest water during the winter for release to irrigators in summer, and to harvest water in wet years to guarantee minimum irrigation flows in dry years, with incidental generation of hydro electricity. Similarly the metropolitan water authorities built dams to guarantee urban water supply and, in the case of Brisbane, for flood control. However, this burst of dam building ended 20 to 30 years ago, partly due to environmental objections but mainly due to the utilisation of the most promising sites. Very little increased water supply capacity has been added following major dam construction works in the 1970s and early 1980s. Investment over the past couple of decades has principally been directed at improving water quality.

Major supply options being implemented by State and Local Governments around Australia are as follows.

- ❑ Desalination plants in Western Australia, Victoria, New South Wales and Queensland.
- ❑ Recycling of wastewater from sewerage plants principally for agriculture and industry with some saving in potable water.
- ❑ New dams in Queensland and raising the spillway levels of some existing dams.
- ❑ Promotion and subsidisation of water saving appliances and equipment such as rainwater tanks, showerheads and grey water recycling systems.
- ❑ Improving the efficiency of irrigation on farms and upgrading irrigation infrastructure to save water, including redirection of the saved water to higher value applications such as urban water supply.

Each of these options has its difficulties.

- ❑ Most large scale water supply projects attract wide criticism and are difficult to implement. In particular environmental issues are of concern for desalination plants and new dams.
- ❑ Recycling projects are generally uneconomic as the recycled water can cost three to four times the cost of river water or ground water due to the cost of treatment to meet environmental safeguards, to which is added the cost of pumps and duplicate pipes to convey the treated water to users. Most State governments have recycling targets but these targets are unlikely to be achieved without substantial subsidy.
- ❑ Transferring water allocations from the rural sector to urban use is also difficult, since it involves sacrificing rural industry with inevitable political repercussions.
- ❑ Despite its high operating costs, desalination currently represents the best option to meet future urban water supply requirements as it is a source of water that is independent of the climate and the environmental issues can be managed. To obviate the high greenhouse gas emissions attributable to desalination plants powered by coal-fired electricity, some States are using wind farms as the source of energy supply.

Overall to 2020, this report estimates that at least $40 to $50 billion will be needed to be spent on water security infrastructure, which will impose additional annual operating costs of the order of $5 billion on the economy.

This acceleration in the planning and construction of water supply infrastructure raises the following questions.

- Are there adequate resources and skills available to plan and manage the works program within the water industry having regard to the fact that water supply utilities have been focused on operations rather than expansion for the past twenty years? In particular, they lack skills and experience in desalination technology?
- Will so many plants being planned and constructed within the same timeframe create a supplier market so that costs escalate above estimates?
- How will this increased expenditure be funded? Will it result in an increase in State debt or will funds be diverted from other priority areas?
- How will this construction program and the consequent higher operating costs per unit volume be reflected in water supply tariffs?

E.8 Loss of agricultural production

Over the last five years adverse weather conditions have adversely impacted on agricultural production around Australia. On the assumption that 40 per cent of this outcome has been driven by climate change (and therefore 60 per cent by the normal cycle in weather patterns), then this report estimates that the loss of agricultural income to this point in time is around $3 billion annually. The additional expenditure in water infrastructure noted above will offset some of this cost. However, whatever benefit is achieved is likely to be offset by further climate deterioration to circa 2020.

E.9 Carbon price

In order to provoke a long term CO_2 abatement response that will make a significant long run impact on the rate of global warming, a carbon price of around A$35 per tonne is required. This report estimates that, in 2004-05 prices, such a carbon price will impose additional costs on households of the order of $8 billion.

E.10 Climate change costs: The regional impact

The impact of the above climate change costs are given in the body of the report. The zone impacts are given in the attached tables. It should be stressed that the zone impacts disguise substantial regional variation within zones.

Nevertheless, the impacts are not insignificant, with households in the rural and resource zones increasing additional costs of around $3,000 per annum, or twice the level of core metro zone households. Of course, as Tables E.5 and E.6 indicate, the households in the rural and resource zones have only a quarter to a half of the ability of households in the core metro zones to absorb these costs.

This outcome brings into question the economic rationability and the ethical nature of the recent and proposed income tax cuts that, in absolute terms at least, will benefit households in regions that already have a strong economic advantage and are least impacted on by climate change costs.

The inequality of climate change impacts can only be effectively reduced by using income tax revenues to support regional and household specifics.

The key issue is how the carbon price revenue is used. One model is for businesses to receive the benefits in the expectation that it will facilitate reduction. This then leaves the impact cost unchanged as calculated in this report. The other extreme position is to favour the household sector with the revenue, thereby compensating for distribution effect. This report is designed to facilitate the debate on where the balance will lie and how much general revenues (i.e. income tax) should be used to minimise inequalities.

Table E.5	Costs of climate change by component ($ 2004/05 prices cost per household)			
	Lost agriculture production	Carbon price $33 a tonne	Water security costs	Total
Rural	1414.2	1067.2	618.9	3100.3
Core Metro	77.1	1010.4	584.1	1671.6
Resource Based	1248.0	960.3	823.6	3031.9
Dispersed Metro	118.9	1084.6	564.7	1768.2
Production Zone	233.6	1042.9	579.7	1856.2
Lifestyle	188.1	1007.0	583.5	1778.6

Table E.6	Costs of climate change by component as a per cent of average disposable income (less debt repayments)			
	Lost agriculture production	Carbon price $33 a tonne	Water security costs	Total
Rural	2.5	1.9	1.1	5.4
Core Metro	0.1	1.4	0.8	2.3
Resource Based	2.0	1.5	1.3	4.8
Dispersed Metro	0.2	1.6	0.8	2.6
Production Zone	0.4	1.8	1.0	3.2
Lifestyle	0.4	2.2	1.3	3.8

Table E.7	Costs as a per cent of average household wealth			
	Lost agriculture production	Carbon price $33 a tonne	Water security costs	Total
Rural	0.37	0.28	0.16	0.81
Core Metro	0.01	0.14	0.08	0.23
Resource Based	0.32	0.24	0.21	0.77
Dispersed Metro	0.02	0.19	0.10	0.30
Production Zone	0.06	0.28	0.16	0.50
Lifestyle	0.05	0.25	0.14	0.43

E.11 Climate change and health and legal implications

In terms of health, the regional impacts of climate change remain uncertain. However, whatever the range and scale of effect in Australia it is local government that must co-ordinate the response of local communities. This places local government at the coal face of adaptation for climate change.

Local government will need to strengthen public health infrastructure, initiate health-oriented management of the built and natural environment, and plan specific 'climate change' medical care facilities. Programmes likely to be included under these general rubrics include immunisation, disease vector control, maintenance of sewer systems and water supply, and the upgrading of emergency service response.

In so far as the health impacts of future climate change are uncertain more research into dimensions of climate change, public health consequences and the organisation of community response is an obvious and urgent requirement. The joint consideration of the three dimensions of this policy model of climate change – cause, effect and response – is best organised through risk analysis.

The identification of vulnerable populations and locations, and the concomitant development of appropriate interventions, are priority steps in the protection of public health against the impacts of climate change. While local government can benefit from the efforts of universities and other research institutions, local government must take the lead in the central tasks of:

(i) risk assessment;
(ii) management and mitigation policy; and
(iii) remedial action.

In terms of legal matters relating to climate change, local governments are at the forefront of many activities that both contribute to climate change and are likely to be impacted upon by climate change. In the context of climate change, the decisions of local governments may be legally challenged on two general grounds.

1. Decisions that contribute to greenhouse gas emissions, for instance, development approvals for power stations or other polluting activities – are likely to come under increasing scrutiny.

2. Local Governments are at risk of incurring legal liability if they *unreasonably fail to take into account the likely effects of climate change* when exercising a wide range of their service, planning and development activities. Presently, the threshold of unreasonableness is high – but over time the range of actions that may qualify as highly unreasonable is likely to expand.

E.12 Construction

Climate impacts on construction activity can be due to longer term climate changes, such as, wetter conditions in Northern Australia constraining construction activity because of substantially wetter conditions, or from increased days of excessive heat in all regions of Australia, slowing building activity. Major climate events such as cyclones also have a major impact on construction in terms of drawing emergency labour from other regions, in increasing construction costs due to labour supply or creating shortages of materials. An example of this was Tropical Cyclone Larry's impact on the building stock in the region surrounding Innisfail. The impact was devastating with 50 per cent of homes and 35 per cent of private industry in Innisfail damaged by the Cyclone, many surrounding towns were also severely damaged. The repair of buildings and other infrastructure took many months. Cyclone Larry created a significant impact on resources, drawing many trades' people from other parts of Queensland to work in the cyclone effected area.

Common issues in the construction industry today

Major developments in terms of infrastructure or in the mining industry can have severe impacts on labour supply, not only in the immediate region, but far and wide. These major developments impact on both public and private sector labour supply and, at both, the professional and trade level, creating shortages of planners, engineers and across a broad range of trades. The domestic housing construction sector, in high growth areas, is perhaps the least able to compete in an environment of booming mining conditions and spiralling wage costs.

Issues of construction industry training have also been on the agenda with a hiatus of training in recent years in planning and engineering and trade skills causing significant skills shortages across Australia's regions. While it appears that the issue of trade skills is being addressed some emphasis on developing engineering skills and other professional skills is a prerequisite to ensure the ongoing development of the industry.

In remoter regions there tends to be a much higher volatility of demand and skills shortages tend to be far greater.

The figures for dwelling expenditure per capita are interesting, with Australian average growth at minus 7.6 per cent, down 10 points from last years table, with core and dispersed metro showing further declines in per capita expenditure, demonstrating the need for increased activity in metro areas to offset increasing housing stock shortages and affordability issues.

Resource based zones are performing the strongest and also, along with rural zones are the only zones still reflecting average growth in dwelling expenditure per capita. Given drought conditions in rural zones, rural dwelling expenditure per capita is likely to undergo decline as the impact of drought takes full effect.

In terms of domestic construction; changes in the composition of households, immigration, housing construction activity at below demand levels and increasing interest rates are driving shortages in housing and as a result, rental property in both metro and regional Australia.

1. The state of Australia's households

1.1 Introduction

The major theme of this chapter – the growth in household debt – follows on from the land boom theme of last year's *State of the Regions* report. In addition, the chapter summarises a selection of SOR zone indicators. All data is computed at LGA level and aggregated into National Economics SOR regions and SOR zones. Some of these indicators are incorporated into the discussion of incomes and debt, but some are also found in a section on the construction industry and a brief documentation of recent births.

1.2 Debt, wealth, income

Over the past decade, Australian households have gone heavily into debt – mainly to the banks, but also to a variety of other financial institutions. The current level and spread of debt has no historic precedent, at least in Australia, hence a certain disquiet. But what, precisely, is wrong with consumer debt?

1.2.1 The history of debt

Worries about debt have a long history. They lie behind the prohibitions against lending at interest that were current in medieval Christianity – lending at interest was not made legal in England till 1545. Over the 462 years since then much has been learnt about the costs and benefits of debt finance – including many lessons which have been learnt and forgotten only to be learnt all over again.

A very difficult lesson for lenders to learn is that there is no such thing as risk-free debt. Perhaps this is what the Prophet Mohammed had in mind when he prohibited interest but welcomed profit: his view was that lenders should always share risk. The classic case was the merchant who borrowed to finance a voyage, but could not repay because his vessels were wrecked. Lenders gradually learnt that it was not particularly useful to put such a person in the debtors' prison: far better to spread the risk by insuring the ships and as a last resort allowing hopeless debtors to go bankrupt. In 1842 imprisonment for debt was abolished in Britain.

Experience taught that debt worked best when it was used as a way to transfer control over cash from savers to people with business opportunities – savers being people who want to put resources aside for future use but have no present use for the funds. Both lender and borrower are rewarded if the business is profitable enough to cover interest payments and more. Where funds are flowing from savers to businesses in need of finance, the lenders are at least minimally exposed to the risks of the business, and frequently need help in managing their risks. Two major hazards of lending are the con-man who asks for a loan when in fact he is seeking a gift and the slightly more honest but equally hopeless business optimist. The assessment of risk, and the identification of those unlikely to be able to repay with interest, gives an important role to banks and other financial intermediaries.

One particular class of business proposition which is particularly hard to evaluate is the opportunity to make a capital gain; that is, to buy cheap, wait a while then sell essentially the same item dear. Because a wait is involved, capital gains can only be made on assets which can be held over time, such as land and shares. Capital gain and loss is a major mechanism by which risk is managed within the capitalist system. As always, there are degrees of risk. In some cases, such as land subdivision, it is normal for the value of improvements built during subdivision and to be recouped as a capital gain. Such business opportunities are not necessarily any more dangerous for debt finance than opportunities involving perishable products or services. The major problem arises when capital gains are based on the expectation of further capital gains. There are plenty of past examples where debt finance has boosted asset price booms – share booms, land booms – resulting in bankruptcies when the boom collapses, usually due to the asset prices getting out of line with the incomes generated by the assets.

1.2.2 Government debt

What about lending to governments? As with business borrowing, much depends on the propositions financed. Government borrowing to finance infrastructure investment can be as secure – or more so – than private business investments, because successful infrastructure investment by governments not only generates revenue in its own right but underpins private sector profits and so adds to general tax revenue. The classic case is the nineteenth century Australian railways, which were barely profitable but which opened up the land to agriculture, yielding tax revenues which allowed the construction loans to be serviced with cash flow to spare. However, governments do not necessarily use their loan revenues wisely. Let us consider two cases.

Wars consumed the resources of renaissance kings and continue to bedevil modern-day public finances, as well as yielding dividends of death and destruction. Even when victory holds prospects of plunder, wars are the opposite of sound business opportunities. When all is added up, the spoils of victory are inevitably outweighed by losses. Despite these negatives, to this day governments frequently borrow to finance war – sometimes out of desperation, and sometimes because loan finance is less unpopular than raising taxes. The debts of governments which lose wars tend to be repudiated, but even when the debtor government survives the war, whether as winner or loser, its war debts are likely to cast a long financial shadow. Taxes have to be raised to service the debt, or alternatively the burden may be reduced by inflation. In the all-too-common inflation case, the taxpaying public is a clear winner, the holders of fixed-interest securities are clear losers and there are many side-effects.

Even when not prompted by war, governments (particularly democratic governments afraid of losing the next election) easily succumb to the temptation to finance current services from loans rather than tax revenue (a current service being defined as government expenditure which does not yield future increases in income). It seems to be a win-win-win situation – service recipients benefit, taxpayers are relieved of their burden, and willing lenders can often be found. However, finance of current services from loans yields no productivity benefits, and the result is much the same as for war finance: either the debts are repudiated (generally by the indirect means of inflation) and lenders lose their money, or the debts are honoured and taxes have to be raised.

1.2.3 The rationale for household borrowing

Consider, now, the household sector – defined to exclude small business, and therefore lacking in business opportunities. What justification can be given for household borrowing? As with governments, justifications range from win-win to lose-lose. At the win-win end, taking a loan to finance home purchase is akin to going into debt to finance a business opportunity – the reward being rent-free accommodation plus the psychological rewards (and tax breaks) of ownership. Ideally, savings in rent provide the cash flow to service the loan and pay the rates and maintenance, with some left over, and earned income provides the cash flow. Whether this is in fact the case depends on the buyer's income, the price of the house and the interest rate on the loan, not to speak of the rate of inflation in rents and income, but generations of Australians have now benefited from home loans.

At the lose-lose end of the spectrum we find the downward spiral of debt. The upper class version was much debated in England in the nineteenth century. It concerned the spendthrift heir who mortgaged his lands and spent the proceeds on high living till eventually the estate was eliminated. While conservatives deplored this threat to the social order, the liberals of the day happily accepted such downward social mobility, and were not willing to restrain the moneylenders who assisted it. More serious, however, were the moneylenders who exploited the poor. Much popular indignation was expended on devils in human form who tempted poor families into debt. Folk wisdom borne of bitter experience advocated living within one's means, saving up for purchases, and above all else keeping out of the clutches of the moneylenders.

1.2.4 Recent government policy on debt

So what is wrong with debt? Nothing, when it is used carefully as a means to finance business ventures, soberly appraised. Nothing again, when used by governments to finance investment in infrastructure, again soberly appraised. Nothing again, when used by households to finance the purchase of homes they can afford, given their incomes and income prospects. However, debt can become a burden for the borrower and an uncertain asset for the lender. This is unfortunately likely when it is used to postpone paying for current expenditure (whether by governments, households or for that matter businesses) and when it is used to finance business ventures poorly appraised, including speculation.

From the traditional point of view so far considered, the current high level of household debt in Australia certainly gives cause for concern. However, the Australian government has no worries. This is not just because incomes are higher than they were a couple of generations ago; it reflects a change of attitude and ideology.

Sixty years – two generations – ago Western governments were acutely aware of the dangers of debt. They saw Germany 1919-1939 as an example of war debt crippling a country and leading to the election of a disastrously nationalist/populist government. They remembered the depressions of the 1890s and 1930s as examples of the dangers of debt-fuelled speculation. In the brave post-war world governments committed to full employment coupled with financial stability and economic development – a strategy which involved repressing consumer demand to make room for the burst of investment in infrastructure and equipment which was needed to catch up after decades of neglect. Fortunately consumer expectations had been chastened by depression and war, and as incomes rose, so did savings, yielding a flow of resources to finance the investment campaign. In Australia the Commonwealth government oversaw all this quite actively, and in particular ensured that bank lending to consumers was allocated mainly to housing, and was also rationed so that the boom in home-building was kept within the capacity of the building industry to construct houses and of home-buyers to service their loans. It helped that there was moderate inflation, so that debt fixed in nominal terms gradually became lighter in relation to rising cash incomes.

In the 1970s the Commonwealth lost its sense of direction. Incomes had risen, and the obvious infrastructure deficiencies of 1945 had been made good, more or less. A debate began over the purpose of economic growth: were its environmental costs too high? Did it make excessive use of limited resources? The resource-limits argument received an unexpected boost when a world shortage of crude oil precipitated a price increase which combined with other lurking problems – the Americans' debt finance of the Vietnam war, the increasing militancy of trade unions as expectations ratcheted upwards – to bring on the era of stagflation. The simple rules of post-war economic management seemed inapplicable when rapid price increases were coupled with high unemployment.

Though the Commonwealth of Australia responded to stagflation with various bravely experimental policies (notably the Accord), it eventually settled for a simple hands-off policy. It was argued that government had been too ambitious, and should instead stand aside and leave economic affairs to the magic of markets. Not surprisingly, this policy was applauded by the business sector and especially by the financial institutions, most of which were freed of irksome, profit-limiting government controls.

As part of the new policies, the Commonwealth gave up on full employment and on detailed direction of the finance sector, and after a period of experiment set one simple policy aim for the Reserve Bank – the control of inflation to within an acceptable range. Since about 1990 this range has been from 2 to 3 per cent a year as measured by the Consumer Price Index. Selecting the CPI as the indicator meant that asset prices (such as the prices of shares and land) were excluded from the target. A second major change from the regulated past was that the Reserve Bank restricted itself to one policy instrument: its influence over short-term interest rates. If the rate of increase in the CPI accelerates, the Bank raises its interest rate, but as long as the rate of increase in the CPI is acceptable the Bank keeps its interest rate steady. Once convinced of that markets should be given their head, the Reserve Bank gave up its controls over the issue of debt (which in any case applied chiefly to the banks, and were increasingly being circumvented by non-bank financial intermediaries – the alternative to giving up was to extend the controls to the finance sector more broadly). So long as the CPI behaved itself, and so long as the banks could make a case that they were not exceeding prudential limits, the Reserve Bank and the Commonwealth government stood by while indebtedness increased and asset (particularly land) prices boomed.

The increase in debt has had two, complementary aspects. Australian businesses – chiefly in the financial sector – have borrowed overseas, thus financing a balance of payments deficit and its counterpart, a low rate of national saving. The counterpart of this borrowing is that Australian households have borrowed, chiefly from the banks though also from other institutions, in the main to finance purchases of land and housing. By contrast, corporate business borrowing has been fairly subdued, at least until the resources boom of the past few years, and apart from the entrepreneurs who borrowed in order to finance leveraged buyouts by which, they claimed, the cost of capital would be reduced while maintaining an acceptable risk profile. An even greater contrast with the increase in bank and household debt was the behaviour of governments, which refused to borrow even for infrastructure works. The Commonwealth and some state and local governments loudly trumpeted their financial rectitude. Such self-congratulation only makes sense if government borrowing is necessarily unethical while private borrowing is virtuous.

1.2.5 The benefits of rising private indebtedness

From a macroeconomic viewpoint, the beauty of rapidly rising private debt has been its effect on current incomes.

- ❑ Consumer demand buoyed up by debt accumulation has increased economic activity and so generated employment and incomes, allowing governments to pursue a hands-off approach to economic management.
- ❑ Overseas borrowing involving the issue of debt has allowed the maintenance of a ‘high’ exchange rate, which, by encouraging the import of ‘low’ priced consumers’ goods, restrains inflation and raises household incomes by providing cheap consumers’ goods.

From a finance sector point of view, the beauty of rising debt has been, simply, rising profits. With developments in information technology bank profits were threatened by the improving ability of major lenders and borrowers to get in touch with each other directly, thus bypassing the financial system – a process known as disintermediation. This limits the margins which financial institutions can earn as lenders to big business, hence the emphasis on the alternative of lending to small business and households, and the aggressive selling of loans and debt. It also turned out that disintermediation did not mean that big finance no longer had any business with big corporations. Brokers, operating under various updated names and acting in the interests of corporate managements, have profited from the burgeoning of financial engineering, mostly involving innovative forms of debt.

Though the financial sector has profited from the issue of debt, it has not been the sole beneficiary. Governments have focused attention on the benefits of high employment coupled with low CPI-inflation. Corporate executives have shared the benefits of financial engineering with the financial sector. And households and small businesses have been willing borrowers. The fact that they borrowed voluntarily meant that they perceived net benefits from going into debt. In weighing up net benefit and so deciding whether to take a loan, households must first consider the cost, and here there was an element of illusion – interest rates seemed low, because they had come down from their inflation-induced peaks, though in real terms they were actually rather high. Potential borrowers must secondly consider benefits, which depend on the use to which the borrowings are put. Here again there was an element of illusion. A large proportion of the borrowing was put towards the purchase of property, which as already noted is a respectable business or quasi-business investment for households. However, a surge of debt-financed demand confronted a limited supply, resulting in the boom in land prices documented in the *State of the Regions* report for 2006-7. Whether as farmers trying to accumulate an economically-efficient property, home buyers chasing the great Australian dream, second-home buyers seeking a rural retreat or outright investors in rental property responding to tax concessions, the urge to borrow was fed by an undercurrent of hope for capital gains (or, in the case of first home buyers, a fear that if we don't buy now it will be completely impossible later, or that when rents catch up with land values we won't be able to afford them). In other words, there was a large speculative element.

When commentators warned of the dangers of speculation, the Australian government and its Reserve Bank found several sources of comfort.

- With prosperity combined with low CPI-inflation, the ideology of maximising market choice seemed vindicated. It was argued that the rise in debt meant that the financial sector was finding its way to its post-deregulation equilibrium.
- From a prudential point of view, both borrowers and lenders have taken comfort from the balance-sheet position of the borrowers, which in general shows an excess of assets over liabilities. By this standard, most small business and household borrowers are thoroughly solvent, with a cushion of equity against any decline in values – not that decline is expected when the market has been rising.
- Another source of comfort, to the lenders at least, has been the proliferation of risk management instruments in the world financial system. It is argued that risk is now far better apportioned to those able to bear it. However, the new financial instruments have not yet stood the test of a major world recession. When the test comes, one can only hope that they prove adequate to their promise of ensuring that losses are borne by people who are able to do so.

What, then, is wrong with a high level of household debt? What is wrong with high land prices? And what is wrong with a high level of overseas borrowing by the banks? The answers to these questions are inter-related, since the three highs are bound up together, with high household debt and high land prices defined in relation to income, while high overseas debt is defined in relation to export earnings. The answers fall into two groups, macroeconomic and distributional. For a report concentrating on regional performance, the distributional risks are the more important, so our coverage of the macroeconomic risks will be brief. The fundamental question concerns the relationship between asset prices and other prices.

1.2.6 The macroeconomic dangers of debt

Shares are claims on the future profits of the business which issues them, and in theory at least their price reflects the expected profits of the business. Other factors also enter in, such as the supply of funds to the share market, the profitability of business in general and the returns on alternative investments. While the share market has a remarkable record in the pricing of individual companies vis a vis others, it has shown itself prone to booms and busts. The story is familiar. Optimistic profit expectations feed rising share prices, which encourage people to buy so fulfilling the expectation, and so on in a speculative circle. Entrepreneurs rush to raise funds for speculative ventures. Share prices as a whole become high in relation to underlying realisable profits. Sooner or later the market wakes up to the divergence between optimistically-expected profits and soberly-realisable profits, and there is a bust. Busts have various financial consequences, such as the bankruptcy of people who have borrowed at fixed interest to buy shares in expectation of capital gains, and the bankruptcy of businesses which have borrowed excessively. Once the bankruptcies have been sorted out (which in the aftermath of the share bust of 1988 took several years) the system recovers and starts out again at a more sustainable level. One of the nagging worries facing the world financial system is that recent financial innovations will delay the sorting out of losses, so prolonging recessions.

Like shares, land is an asset the commercial value of which depends on the expected profits of using it (or, for residential land, the amounts which households are willing and able to pay to use it for housing). The value of particular parcels can change vis a vis other parcels, according to the estimation of future profitability – thus climate change is causing concerns about the value of farm land in some parts of Australia. Similarly, changed accessibility characteristics can permanently affect the prices of parcels of urban land, not to speak of hobby farm land, and again subdivision and the provision of urban services causes a jump in the value of the parcels involved. All of this is part of the normal working of the land market, in the same way as the evaluation of the future profit streams of various businesses is part of the normal working of the share market.

Like shares, land is liable to speculative demand, but it has several distinguishing characteristics.

- Unlike shares, land cannot be simply created by computer entry. Land booms tend not to be quite as frenetic as the final phase of a share boom. Fixed supply also means that it is possible that there can be permanent changes in the relationship between land prices and incomes.
- An increase in share prices tends to reduce business financing costs. By contrast, an increase in land prices raises costs for land-using businesses. While land prices are rising, these businesses, beguiled by capital gains, often overlook the rising costs, but sooner or later the higher land value has to be justified by commensurate profits. In the case of agricultural land, where product prices are determined on world markets, a rise in value leads to a frantic search for cost cuts, often to the detriment of land management. In the case of residential land held by landlords, who have no overseas competition to limit prices, cost increases translate into rent increases. In this way, the asset price boom eventually finds its way into the consumer price index. Only in the case of owner-occupied housing are there no cost pressures forcing change.
- In the case of shares, much of the trade is conducted by institutional investors operating on short time horizons. As soon as prices start to fall, they cut their losses, so that any bust generates a welter of selling which in turn exacerbates the bust. In the case of land, most of the stock is held by individual households, which tend not to react to declining prices. Whether as home owners or small rental investors, the bad news that values are declining does not prompt sale; rather people tend to bear their losses. In the case of agricultural properties, the land has often been in the family for generations, and it breaks the sense of continuity if it is sold. Even when forced sales are threatened due to problems with keeping up with the mortgage, the banks tend not to foreclose when they fear that a rush of mortgagee sales will depress the market to the point where they cannot recover their debts. In other words, share prices are free to plunge but land prices tend to be sticky downwards.

As a result of these differences, the aftermath of a land boom differs from the sharp downwards price correction which typifies the end of a share boom. After a boom, three land-price futures are held in tension.

- As future profits are reassessed, there will be strong pressure for the prices of commercial and agricultural land to fall. The price of residential land may also be undermined by forced sales and by the downgrading of landlord profit prospects, particularly if investors in rental property are unable to obtain expected rents. However, the fall in prices is likely to be sluggish compared with the precipitous falls that characterise the end of a stock exchange boom.
- Residential land prices may be brought back into their customary relationship with income by a burst of CPI-inflation. Increases in rents as landlords try to earn a return on the increase in land value feed directly into the CPI, thus providing a link to inflation. An additional, and related, source of inflation would be devaluation of the Australian dollar, brought about by overseas

concern at Australia's foreign borrowing. Either case constitutes a delayed reaction of the CPI to misaligned asset prices. Following its rule of thumb, the Reserve Bank would be obliged to raise nominal interest rates, with the possibility that the increased interest rates may generate sufficient distress sales that nominal land prices fall, speeding the adjustment. (When nominal interest rates are playing catch-up with a burst of inflation, real interest rates may go up or down, and further effects on investment are unpredictable.)

- Finally, residential land prices may stay up. In this case the urban system will slowly adjust by increasing dwelling densities – in other words, by replacing houses with flats, and if more rapid adjustment is required by subdividing existing dwellings. An increase in dwelling densities is on the agenda of various of the state governments, due to the difficulty of finding high-accessibility greenfield sites for new dwellings.

Similarly, three futures can be predicted for household debt.

- The financial disaster scenario is that significant amounts of debt become non-performing. This could be precipitated if many of the debt-holding households become unable to service their debt (interest plus repayments), due to some combination of increased interest rates, reduced incomes and business disappointments. Mortgagee sales lead to reduced land prices and fail to recover the amounts owing, and the run of spectacular bank profits ends with a run of losses. Various countries, notably Japan, have had recent experience of sick banks resulting from excess mortgage lending. There is a major economic cost, in that banks are impaired in their primary function as a conduit from savers to businesses with opportunities. Rather than a long drawn-out adjustment, it could be preferable to have a rapid series of household bankruptcies and bank reorganisations.
- In the inflation scenario, the real value of debt is eroded relatively painlessly, though at a cost to lenders.
- In a continuing high debt scenario (and in the short term in all scenarios) the high level of debt continues to burden household budgets – rather like a high level of taxation, but without either the quid pro quo of government services or the option of cuts in the event of a recession. Recessions become more severe, since it is harder for households to cushion them by dipping into savings or by taking out consumption loans. Household savings rates rise as repayments come to exceed new borrowings, and the financial system resumes its role of conveying savings to business and government borrowers (presuming that creditworthy borrowers are to be found). Industries dependent on consumer demand lose sales relative to those dependent on export demand.

The future of the third of our trio of imbalances – high overseas borrowing by the banks – is more difficult to predict. In classic economics a persistent excess of imports over exports results in a devaluation, which corrects the imbalance by making imported goods more expensive and making export production more profitable. This involves incidental inflation in the CPI – a case where the application of rule-of-thumb interest rate increases by the Reserve Bank would simply delay a market adjustment. Another incidental effect would be that on bank balance sheets, but the banks insist that they have the possibility of devaluation fully hedged, in which case the losses are spread over the international financial system and balanced by gains in appreciating currencies. A sober outlook is that high overseas debt contributes to the perpetuation of the high household debt scenario outlined above – barring some 'lucky country' windfall which enables significant repayments.

In summary, a land boom accompanied by an increase in consumer debt is like a party followed by a hangover. This raises a further question: who gets the hangover? Not necessarily those who partied the hardest.

1.2.7 Distributional effects of consumer debt

Identifying the beneficiaries of a debt-financed land boom involves the difficult task of imagining what would have happened in the absence of the boom. The various possible counterfactuals have one thing in common: consumption expenditure would have been less and there would have been less construction of new dwellings (or maybe the new dwellings would have been built, to house population growth, but they would have been smaller). Less construction, less consumption translates into a presumption of less employment and less income, meaning less growth but also less overseas borrowing. It is not an exciting scenario, but at least it avoids the present inheritance of household and overseas debt.

However, a low-growth scenario is not the only possibility. We may question whether less employment and less income are necessary components of a non-boom scenario (as distinct from less consumption – meaning that a coherent scenario with similar income but less consumption requires more saving). The construction of an alternative scenario with similar income but less consumption begins by asking: Where did the resources devoted to house construction come from? In real terms, they were diverted from infrastructure construction. A plausible alternative scenario therefore includes higher taxes, devoted to government saving and used to finance infrastructure investment – creating employment but restraining demand. Or perhaps the scenario could be based on more household saving – say a National Superannuation scheme that actually met its savings goals rather than falling dismally short, as over the past decade. These savings could then have been on-loaned to government for infrastructure investment. The sacrifice of current consumption – foregoing the party – would have left the country in much better shape than it is now.

Under both alternative scenarios, there is a clear loser: future generations – and not distant future generations either, but everybody who will be alive in the next couple of decades. The current position has something in common with that at the end of the Second World War, in that there is a strong need for remedial investment, just to stand still. Consider the investments required to respond to peak oil and the enhanced greenhouse effect.

- In the energy sector, a need to invest heavily in renewables.
- In telecommunications, a need to update to allow the dissemination of new technology.
- In transport, a need to adjust to significantly higher energy costs – to cut travel kilometres and to cut energy costs per passenger-kilometre and freight tonne-kilometre.
- In water, to conserve diminishing supplies, and perhaps augment them from expensive sources such as desalination.

The shape of the required investment program is gradually becoming clearer, as is the alarming fact that it will be large and require matching with similar savings – hence a reduction in the ratio of consumption to income.

This requirement for increased savings is being imposed on a country suffering the aftermath of a land boom, with high land prices and high household debt. High residential land prices in relation to income have different effects by population group.

- A whole cohort of owner-occupiers has received capital gains from the boom, and is sitting on them. As this generation ages, some will downsize (shift to a smaller dwelling in the same area) and some will engage in retirement migration (shift to an area where houses are cheaper because of lower land costs – which generally means a region with poor employment prospects). These winners from the boom are unlikely savers; they are more likely to want to splurge their capital gains.
- The recipients of capital gains shade into the indebted cohort – those who will be forced to save just in order to keep up with their debt servicing.

- And then the renters. Rents are now rising to generate a return on land-boom capital values. The result is that low-income earners cannot afford to live in regions of high job-accessibility – meaning that if employers in those areas are to attract workers they will have to raise wages. Pensioner tenants (other than those in the diminishing stock of public housing) are under pressure to move to towns that have not shared in the land boom, and all low-income tenants are under pressure to share their accommodation. The pressure of housing costs makes low-income renters unlikely as savers.

The dynamics, then, are that Australia is likely to depend on the forced savings of indebted households. This presents the rising generation with invidious choices.

- Young people with generous parents or grandparents – those who don't spend the kids' inheritance – are likely to be least affected, since parental or grandparental assistance can allow them to become home owners much like their parents, and in much the same time frame with much the same savings effort.
- Young people of low earnings capacity and without expectation of inheritance are locked out of home ownership, and will remain in the rental market, with the choice of crowded accommodation in a region with jobs or relatively high quality accommodation in a region of low land values.
- Young people of high earnings capacity, but without expectation of inheritance, will have an invidious choice. They can try to follow traditional expectations, but the cost of buying a house and garden in a city with high job accessibility will require them to work long and hard and devote much of their earnings to saving. They can cut their costs and go for a lower-priced strata-titled flat. Or, like their colleagues of low earning capacity, they can move to a region with low land values – and therefore poor job opportunities (though if enough talented people move in, these low-cost regions may be able to revive their economic base). For young people considering these options, emigration is likely to be increasingly appealing.

At the level of regional economies, what are the costs of high levels of household and small business debt coupled with high land prices?

- Because a high proportion of consumer budgets is pre-empted by debt servicing, consumer demand becomes depressed after initial buoyancy while the debts were being taken on and spent. The consequences for the local retail and service sectors are boom followed by bust.
- Small businesses can find themselves without borrowing leeway to tide them over poor seasons, or to take advantage of opportunities. This is, however, an eventual effect. In recent years, despite accumulating debt, the anxiety of lenders to lend has outweighed their prudent misgivings and finance has been readily available to anybody willing to pay high real interest rates. This introduces a third cost.
- The experience of the early 2000s (when banks were anxious to extend credit) contrasts with that of the early 1990s (when they were anxious to call in loans), and so to the long experience of the trade cycle. An uncontrolled finance sector behaves rather like the Australian climate; there is either flood or drought, and rarely the happy medium. If a period of credit drought follows the recent flood, there will be difficulty in financing even the soundest business propositions.
- High land costs raise costs to business – particularly farm businesses, which are land-intensive. (As explained in last years' *State of the Regions* report, the credit flood is not the only reason for the land boom, but was an important causative factor.)
- High residential land costs in regions with good job accessibility put upwards pressure on wage costs in those regions, and discourage good workers from applying for jobs in these regions – in other words, they detract from the regions' competitiveness. The converse is true in regions of low land costs, which, though they have poor job opportunities, are quite well placed to attract professional and other workers by offering affordable housing.

- In the major metropolitan areas there is a large backlog of potential retirement migrants. Regions which have been depending on retirement migration to support their construction industry should be able to do so for a while yet, provided they can maintain low land values.

We considered the regional pattern of land values in last year's *State of the Regions* report. This year we complement that investigation with a survey of regional patterns of indebtedness.

1.2.8 Estimating regional indebtedness

Though the burden of household debt at the regional level could be measured using various indicators, for present purposes we choose a simple indicator which is extensively used by lenders in the assessment of credit-worthiness, namely the ratio of debt-servicing costs to annual household disposable income. In other words, we answer the question: How many years of income would be required to extinguish the debt, if all income after tax and compulsory superannuation deductions was spent on debt reduction. In a sense this is a rather extreme measure, since very few people are in a position to devote their whole incomes to debt reduction, but it gives a good indication of the burden of debt servicing in relation to income.

This debt-servicing ratio is not the only possible measure: one could, for example, use debt per household, but this overlooks the greater capacity of high-income households to service debt. At the other extreme, where the concern is for the effects of debt on household options, it might be desirable to estimate the proportion of households close to bankruptcy, the problem here that this is more difficult to define than the average debt-service ratio and its calculation requires more data.

It goes without saying that data on household indebtedness is not collected at the regional level, and the incidence of debt must therefore be estimated. The NIEIR estimates presented in this report derive fundamentally on Census 2006 data supplemented by tax data. Our estimates rely on correlations between variables available from these regional sources and the (unobserved) debt-service ratio, which is constructed by estimating average debt per household and dividing this by an estimate of average disposable income per household.

The correlations used to estimate average household debt have been derived from the household expenditure survey, which includes measures of household disposable income, household debt and a complete range of census variables. The correlation coefficients are given in Table 1.1, along with a rough estimate of the contribution of each driver to the final estimate of average household debt. The following will be noted.

- The coefficients for the constant and for the age of household heads are all high and significant, but in practice largely cancel out and contribute little to the final estimate. (The constant is the same for every region by definition, and the estimates for age of heads vary little due to these ages being similar in all regions.)
- By far the largest contribution to the estimate of indebtedness comes, as one would expect, from the average mortgage per household, as reported in the Census. Note that this is not the average mortgage per mortgagee, but the average across all households in each region.
- The next most significant contribution comes from household disposable income, higher income regions being prone to borrow more. (In terms of our final indicator, this effect tends to cancel out when we divide by household disposable income to calculate the debt-service ratio.)
- Regions with high proportions of resident landlords tend to borrow more heavily, reflecting borrowing to finance investment housing. The dwellings financed by such borrowing are not necessarily in the same region.
- Other significant relationships are that regions where the households have large numbers of young children borrow more, those with high employment ratios also borrow more, borrowing tends to be higher where rents and house prices are higher, and also tends to be higher in areas with high proportions of flats. (This last relationship is probably a corrective, allowing for

borrowing by renters, who by definition do not have mortgages.) Other things being equal, borrowing tends to be less in regions where households are larger.

The denominator of the debt service ratio, household disposable income, has been estimated from Census income data, with deductions for income taxes and superannuation from tax data. As for debt levels, Census income has been adjusted upwards to National Accounts concepts. This involves both adjusting for under-statement in the Census returns and inclusion of items not covered by the Census question, such as the imputed rent (less depreciation) of owner-occupied housing and the return on superannuation assets.

A reasonably accurate all-Australia estimate of the debt service ratio is available from the national accounts, and this has been used to benchmark the present estimates.

Table 1.1 Drivers of regional household debt

Variable	Coefficient	Typical contribution (%)
Constant	-27350	0
Average mortgage per household	0.992	55
Average persons per household	-1032	3
Average age of household heads <65	1576	0
Ditto, squared	-19	0
Average age of household heads >64	258	0
Av. no. of children aged <15 per household	2733	3
Av. no. of dependents 15-24 per household	-3633	1
Average number employed per household	1456	2
Average household disposable income	11.1	14
Ditto, squared	.0021	3
Average business income per household	-7.4	0
Average pension income per household	-13.4	0
Average interest income per household	-12.6	0
Proportion of farm households	-4792	0
Average rent per household	28.5	2
Average landlord income per household	52320	9
Value of owner-occupied housing per household	.0468	7
Proportion of stand-alone dwellings	-2117	1

Source: NIEIR estimates from the Household Expenditure Survey.

1.2.9 Trends in household indebtedness

Australia's debt-financed land boom continued through the first half-decade of the 21st century. The increase in household debt was spectacular, as documented in Table 1.2. Ten per cent annual growth in household debt (adjusted for inflation) is rapid in anybody's language, and far exceeds the rate of growth of household income after tax (4.3 per cent).

As explained in last year's *State of the Regions* report, since financial deregulation there has been a close relationship between household borrowing and the purchase of properties. However, as the boom slows down this relationship has become less close, and the rate of increase in indebtedness over the past five years (10 per cent a year) was far in excess of the rate of increase in the value of household property assets (3.4 per cent a year). Further, there was a geographical decoupling between property values and debt. Average property value per household declined in the more fashionable parts of Sydney, yet these were among the regions to take on the largest increases in debt. At the other extreme, Perth was the star performer in the property market, and here debt likewise increased – closely followed by South East Queensland both as to the accumulation of debt and property assets. The inner and high-status parts of Melbourne followed a path in between these two extremes, with relatively moderate increases in property values accompanied by large increases in indebtedness.

Though household debt increased most rapidly in the inner and fashionable metropolitan regions, there were other regions which were less fashionable with lenders. Indebtedness increased fairly rapidly in the lifestyle regions with the Sunshine Coast, Gold Coast and Peel South West, all near rapidly growing metropolitan areas, leading the way. Indebtedness increased less rapidly in the dispersed metropolitan areas, due largely to these areas being already surfeited with debt. The rate of increase in indebtedness was least in some of the rural zones – particularly those where, for reasons of drought and industry adjustment, property values were falling. In most of the pastoral and drought-affected regions property values fell, and indebtedness was stable or rose only a little.

Lest it be thought that rapid growth in household debt is only an Australian phenomenon, we should note that it was a product of financial deregulation in a wide variety of countries, including the USA and UK. International comparisons have a lot to tell us about the causation of debt booms and land booms (including the comparison with Japan, where a land boom ushered in an era of low economic growth), but the subject will be conserved for future investigation.

Table 1.2 Value of household liabilities (2004-05 $'000)

	2001	2007	Annual growth 2001-2007
Rural	74.4	99.2	4.9
Core Metro	62.6	146.8	15.3
Resource Based	82.4	117.3	6.1
Dispersed Metro	90.2	165.9	10.7
Production Zone	83.0	137.5	8.8
Lifestyle	64.4	123.4	11.4
Australia	**77.3**	**137.0**	**10.0**

1.2.10 Trends in household wealth

Liabilities and property assets are only two of the items on household balance sheets. Though a relationship between liabilities and property assets is guaranteed by the fact that most household borrowing is on mortgage, financial analysts often prefer to compare the level of borrowing – financial liabilities – with the level of financial assets. Once again indebtedness grew the more rapidly of the two – indebtedness up at 10 per cent a year, financial assets at 5.5 per cent. Comparing Tables 1.2 and 1.3, the rate of growth of indebtedness was roughly double the rate of growth of financial assets except in the following zones.

- The resource-based zone, where financial assets grew very little and borrowing grew rather more. (This missing relationship could, however, reflect data deficiencies – it is difficult to calculate the superannuation assets of resource-zone residents accurately.)
- In the production and lifestyle zones the growth in indebtedness was a good deal less than double the growth in financial assets. This may be because in both these zones an ageing population (either ageing in situ or ageing by immigration) is sitting on its superannuation accumulations and borrowing relatively little – though even then people in these zones have borrowed hectically by historic standards.

Table 1.3 Value of financial assets per household (2004-05 $'000)

	2001	2007	Annual growth 2001-2007
Rural	237.6	269.3	2.1
Core Metro	250.5	388.6	7.6
Resource Based	255.4	265.3	0.6
Dispersed Metro	212.5	300.5	5.9
Production Zone	128.7	176.0	5.4
Lifestyle	121.0	205.5	9.2
Australia	**196.3**	**270.4**	**5.5**

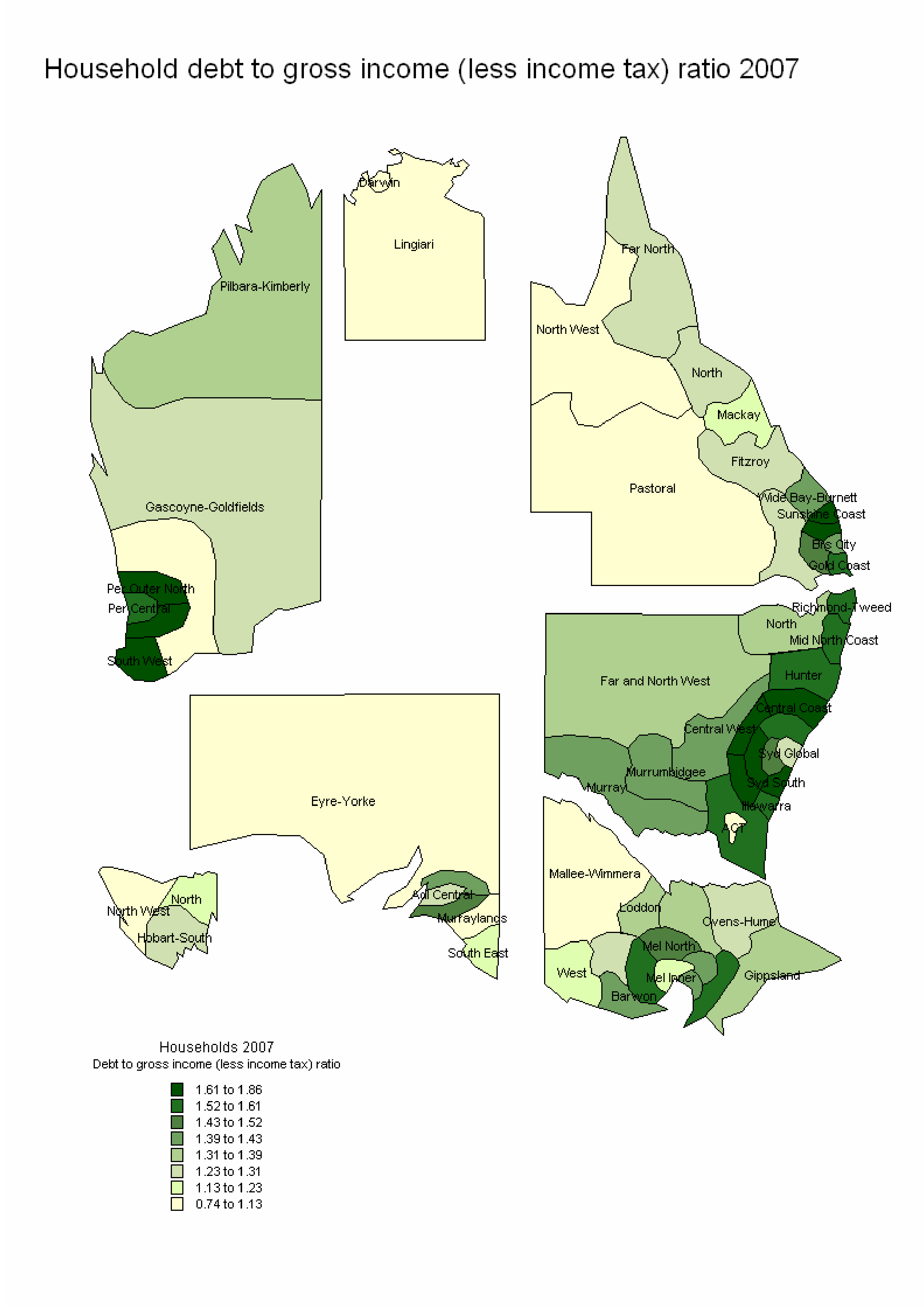
Offsetting assets against liabilities, net wealth per household grew most rapidly in the following regions.

- The outer suburbs of Perth (both northern and southern), reflecting the Western Australian resource boom. (This boom also affected the Pilbara/Kimberley, but had little net effect in the Gascoyne/Goldfields region.)
- The regions surrounding Brisbane.
- Mackay in Queensland.

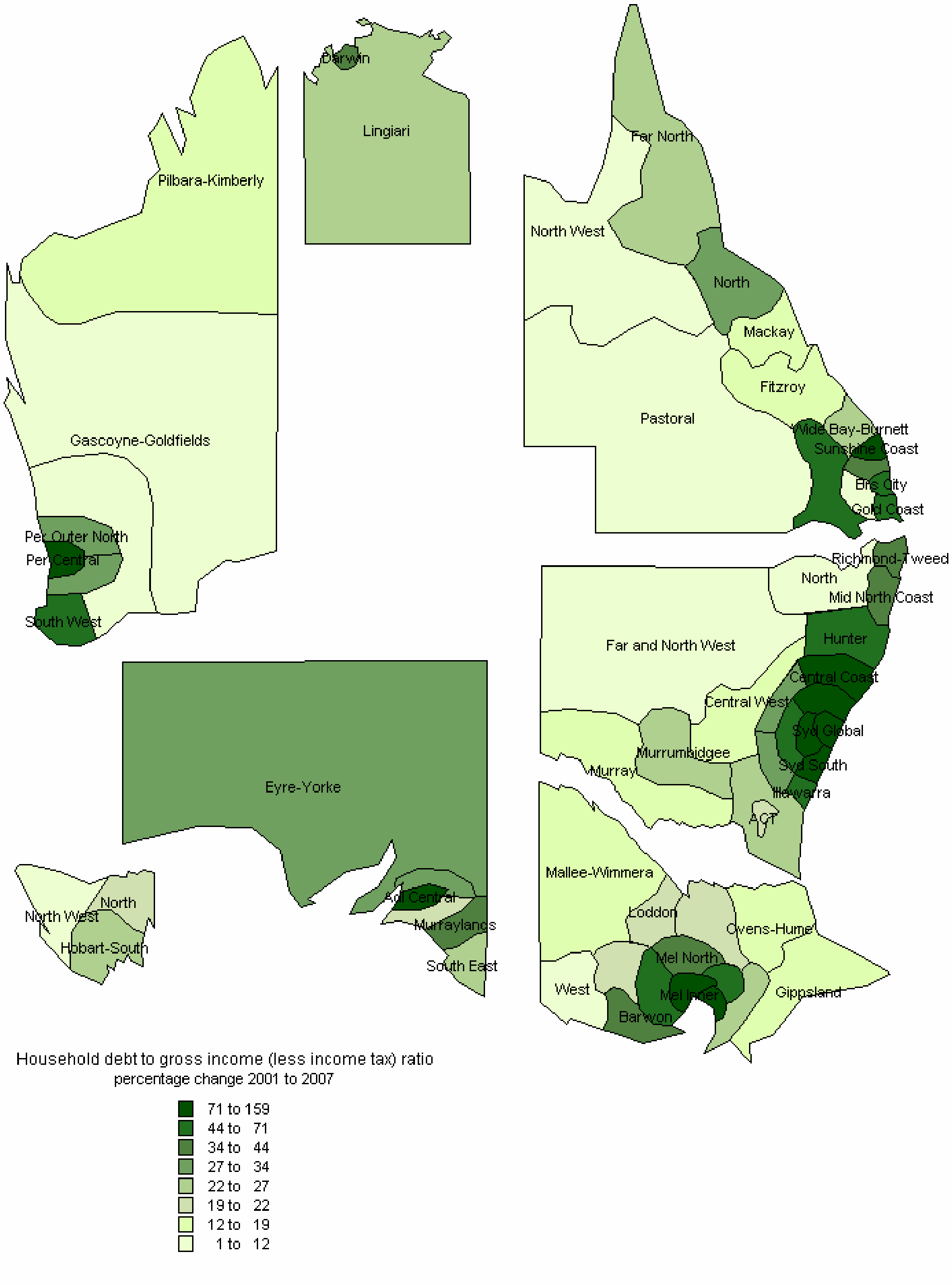
By contrast, net wealth per household fell in several regions, mostly inland – though a severe fall occurred in Eyre and Yorke, which has an extensive coastline. (The most severe fall was in drought-affected Mallee-Wimmera, Victoria.)

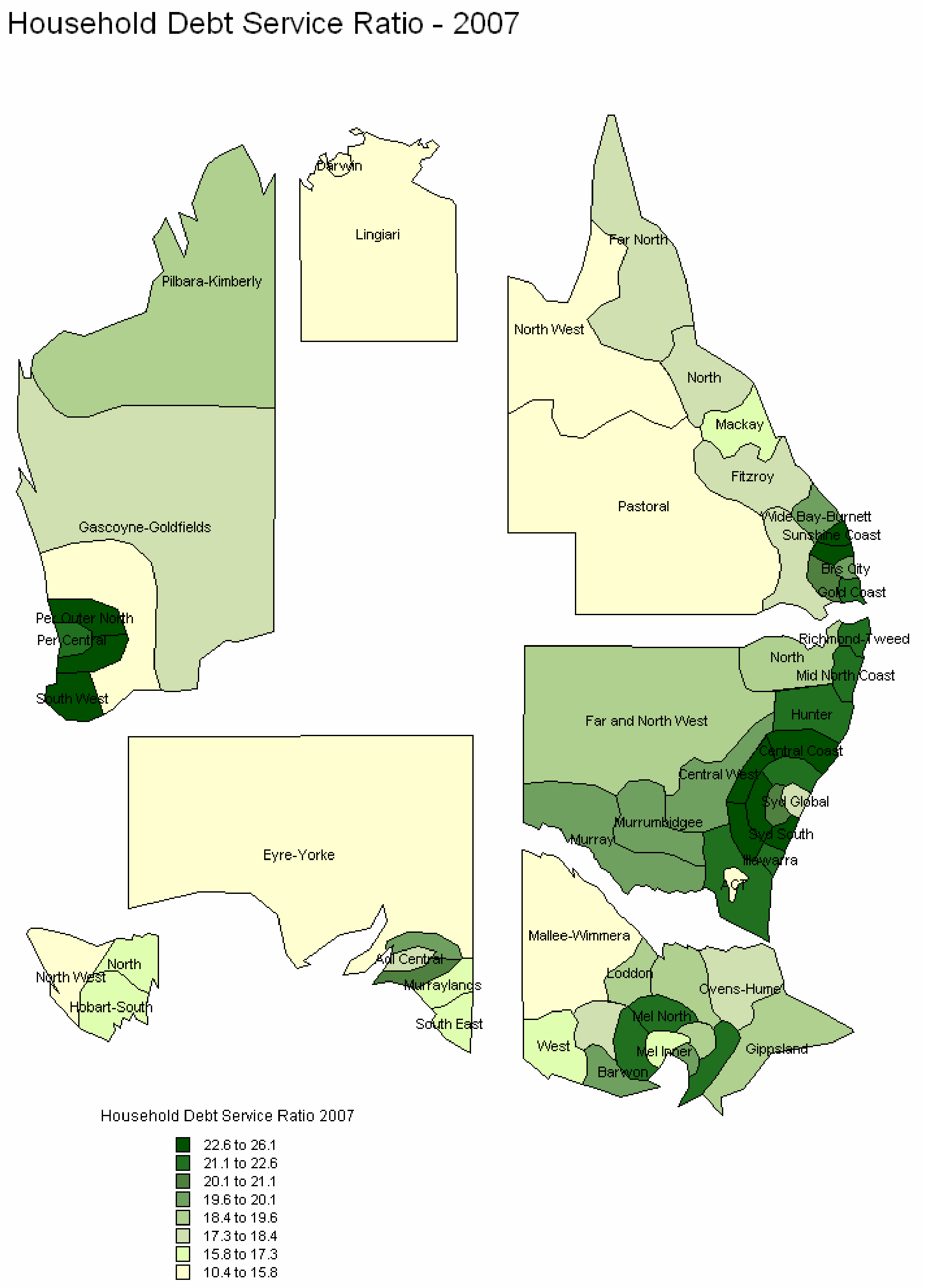
For Australian households as a whole, liabilities lay claim on approximately 22 per cent of gross wealth. The ratio is highest in West Moreton (35 per cent) and Outer South West Sydney (34 per cent) and exceeds 30 per cent in a further four regions, all of them suburbs of Sydney or Perth. Low ratios of debt to gross wealth are reported in a limited number of low-borrowing rural regions (notably Eyre and Yorke) and also in Global Sydney and Inner Melbourne – in these latter two cases due to high wealth rather than low borrowing.

Net wealth per household is estimated for the whole country as near enough to half a million 2004-05 dollars. The most wealth regions, with net wealth more than double the national average (that is, with more than a million dollars average wealth per household) are Global Sydney and Outer Northern Sydney. The poorest regions, with net wealth per household less than half the national average, are NT Lingiari, Queensland West Moreton, North and Far West NSW and the Adelaide Plains. Because of the prominence of housing as the chief asset in household balance sheets, this pattern closely resembles the pattern of housing values bequeathed by the land boom of 1996-2006.

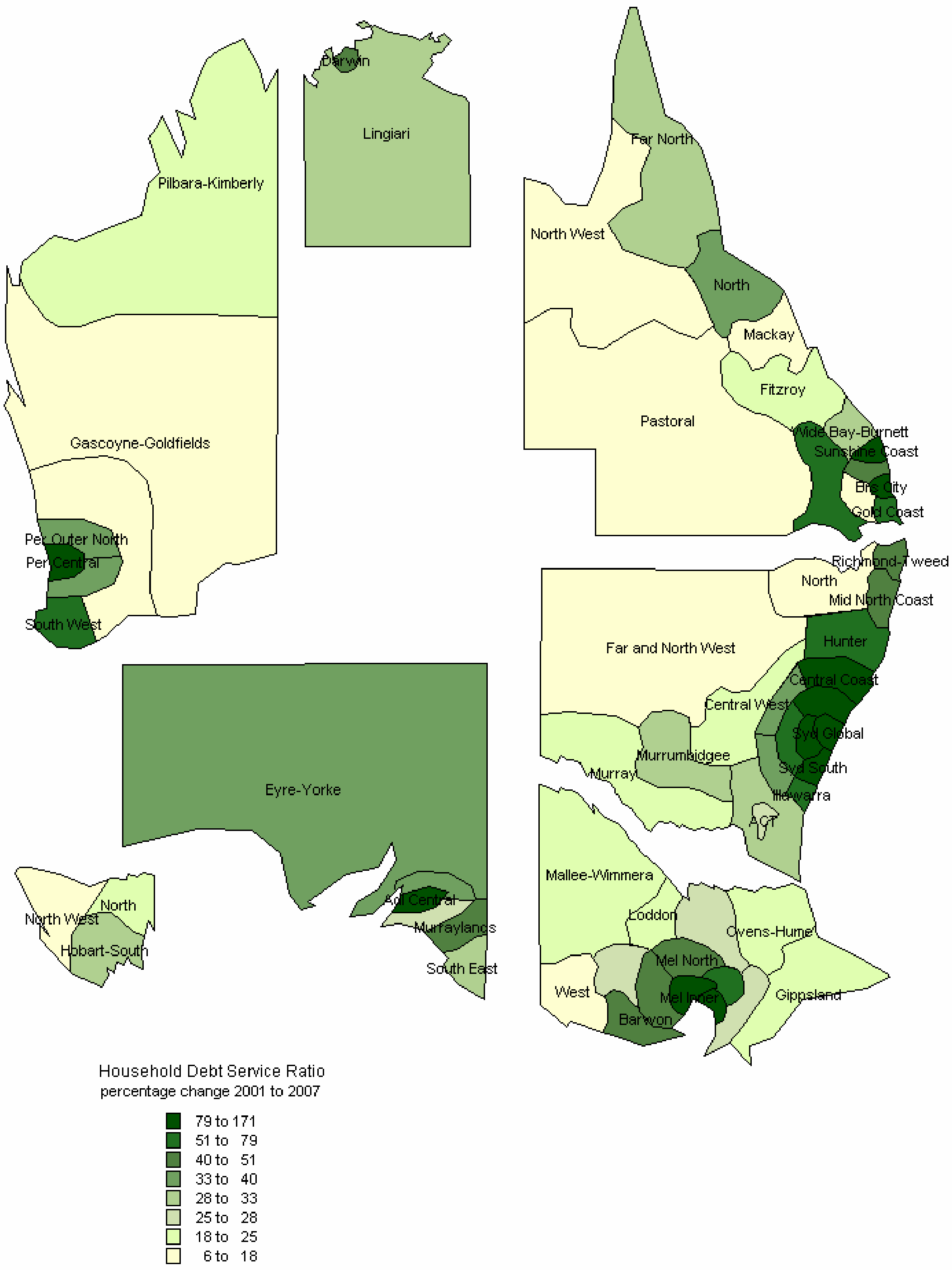

Household debt to gross income (less income tax) ratio 2007
Darwin
Lingiari
Pilbara-Kimberly
Gascoyne-Goldfields
Per Outer North
Per Central
South West
Far North
North West
North
Mackay
Fitzroy
Pastoral
Wide Bay-Burnett
Sunshine Coast
Bris City
Gold Coast
Richmond-Tweed
North
Mid North Coast
Far and North West
Hunter
Central Coast
Central West
Syd Global
Murrumbidgee
Murray
Syd South
Illawarra
ACT
Eyre-Yorke
Adl Central
Murraylands
South East
North West
North
Hobart-South
Mallee-Wimmera
Loddon
Ovens-Hume
Mel North
Mel Inner
West
Barwon
Gippsland
Households 2007
Debt to gross income (less income tax) ratio
1.61 to 1.86
1.52 to 1.61
1.43 to 1.52
1.39 to 1.43
1.31 to 1.39
1.23 to 1.31
1.13 to 1.23
0.74 to 1.13

Household debt to gross income (less income tax) ratio 2007 percentage change 2001 to 2007

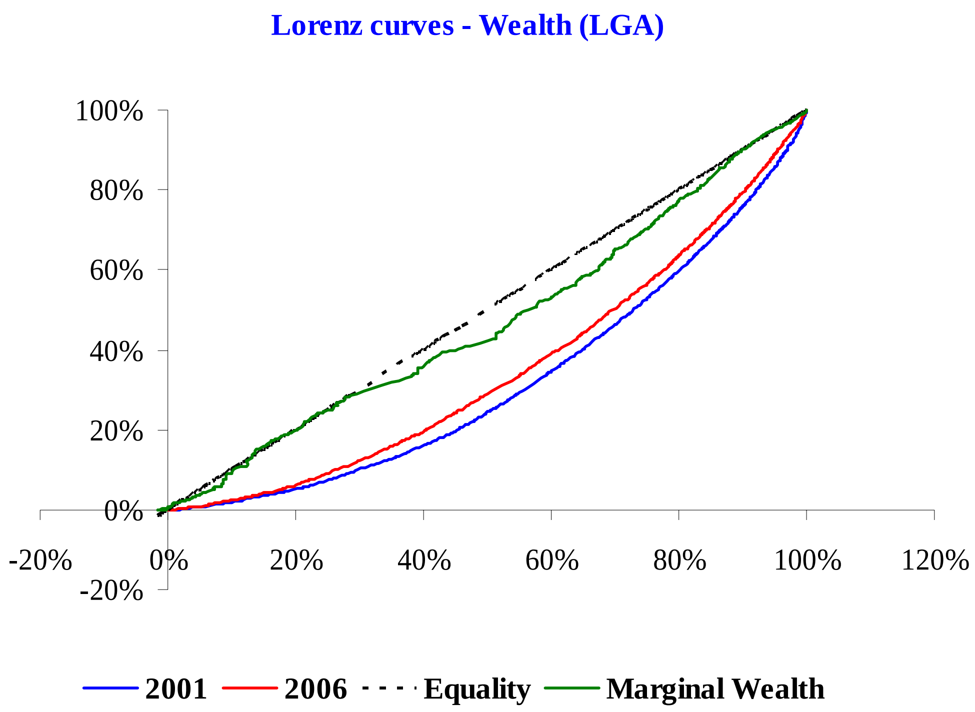



Household Debt Service Ratio - 2007
Darwin
Lingiari
Pilbara-Kimberly
Gascoyne-Goldfields
Per Outer North
Per Central
South West
Far North
North West
North
Mackay
Fitzroy
Pastoral
Wide Bay-Burnett
Sunshine Coast
Bris City
Gold Coast
Richmond-Tweed
North
Mid North Coast
Far and North West
Hunter
Central Coast
Central West
Syd Global
Murrumbidgee
Murray
Syd South
Illawarra
ACT
Eyre-Yorke
Adl Central
Murraylands
South East
North West
North
Hobart-South
Mallee-Wimmera
Loddon
Ovens-Hume
Mel North
Mel Inner
West
Barwon
Gippsland
Household Debt Service Ratio 2007
22.6 to 26.1
21.1 to 22.6
20.1 to 21.1
19.6 to 20.1
18.4 to 19.6
17.3 to 18.4
15.8 to 17.3
10.4 to 15.8

Household Debt Service Ratio percentage change 2001 to 2007



It will not escape notice that, with a regional range of from half to double the average, household wealth is distributed rather unequally. This can be demonstrated by drawing a Lorenz curve in which LGAs are ranked by household wealth and cumulative wealth is plotted. The more the plot diverges from the 45 degree line, the less equal the distribution. It can be seen from the graph below that, not only is Australian household wealth unequally distributed, but that the distribution for 2007 is somewhat more equal than that for 2001. A major contribution to this relative equalisation would have come from the reduction in property values, coupled with increased indebtedness, in the wealthier suburbs of Sydney.



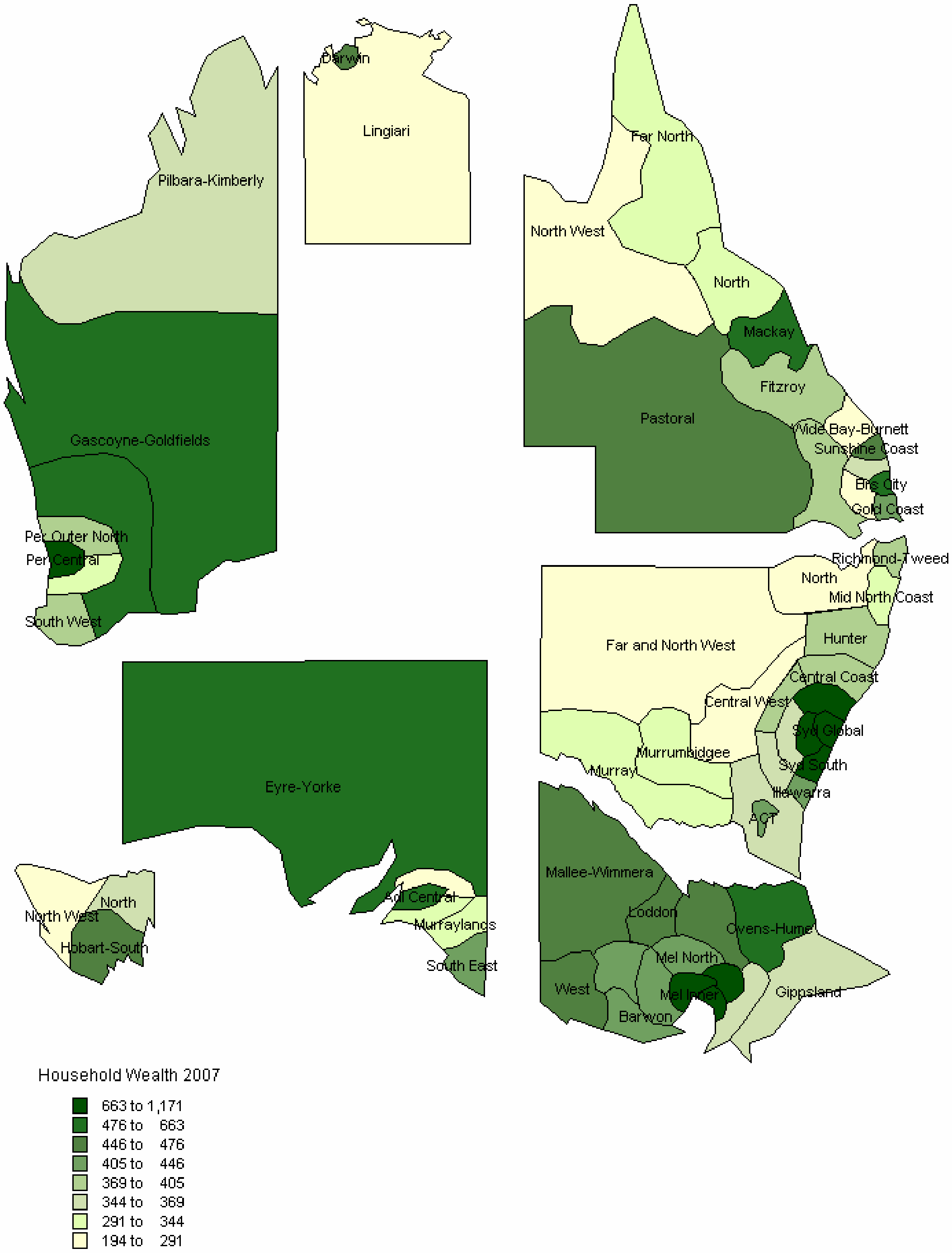
1.2.11 Trends in incomes

If the interest on debt is not paid, and if the borrower fails to repay the principal as it comes due, default occurs. Analysts of the significance of debt accordingly place great emphasis on the relationship between debt servicing costs and the cash flows from which they are to be met – broadly incomes. We therefore interrupt our account of the rise of indebtedness to describe recent trends in income formation, beginning with the fundamental income-earning resource: the workforce.

Workforce

Workforce growth has been fastest in core metro, lifestyle and resource based zones. In the period 2005-2007 working age population growth has slightly outpaced workforce growth reversing the trend from 2002-2005.

Household Wealth 2007



Household Wealth percentage change 2001 to 2007

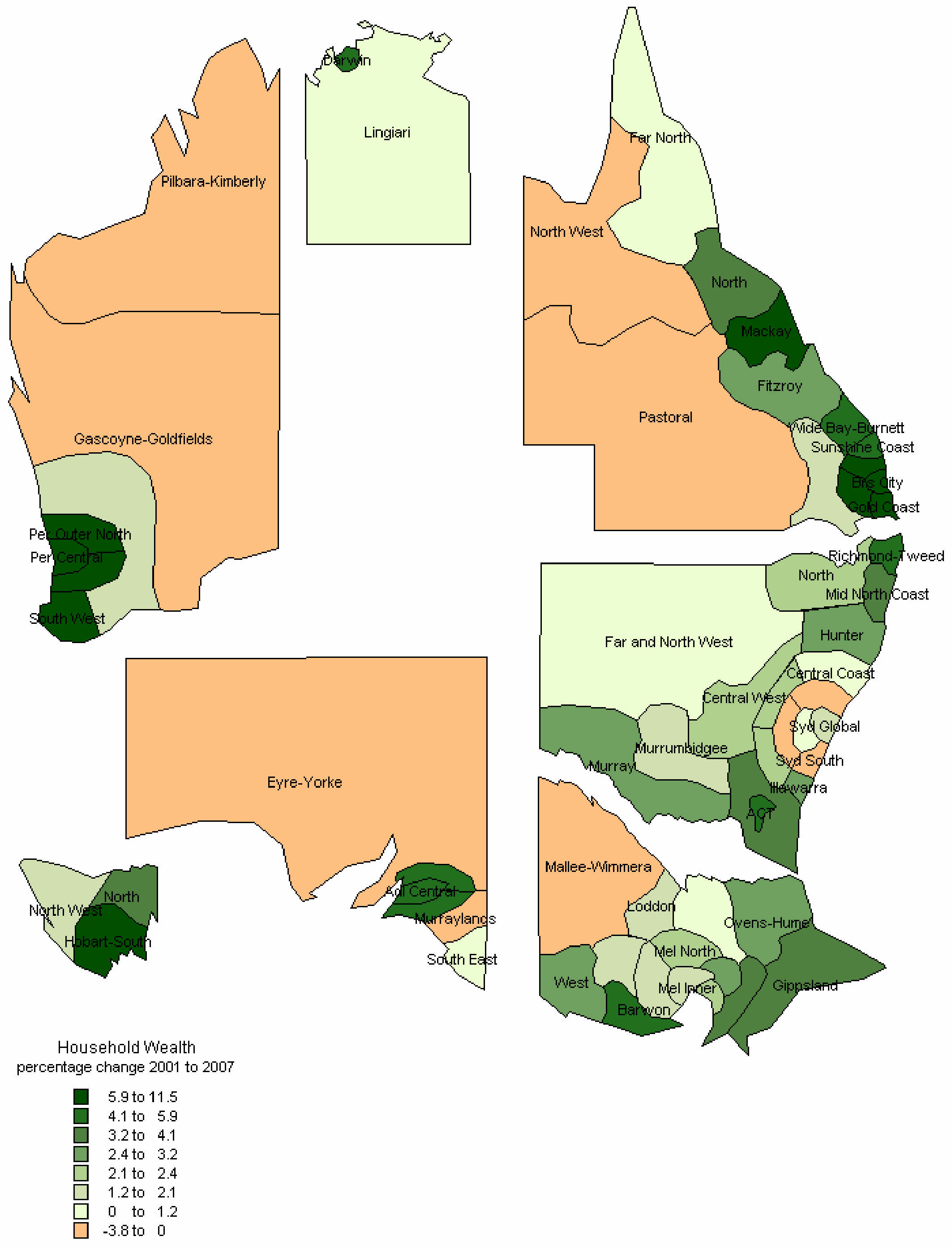


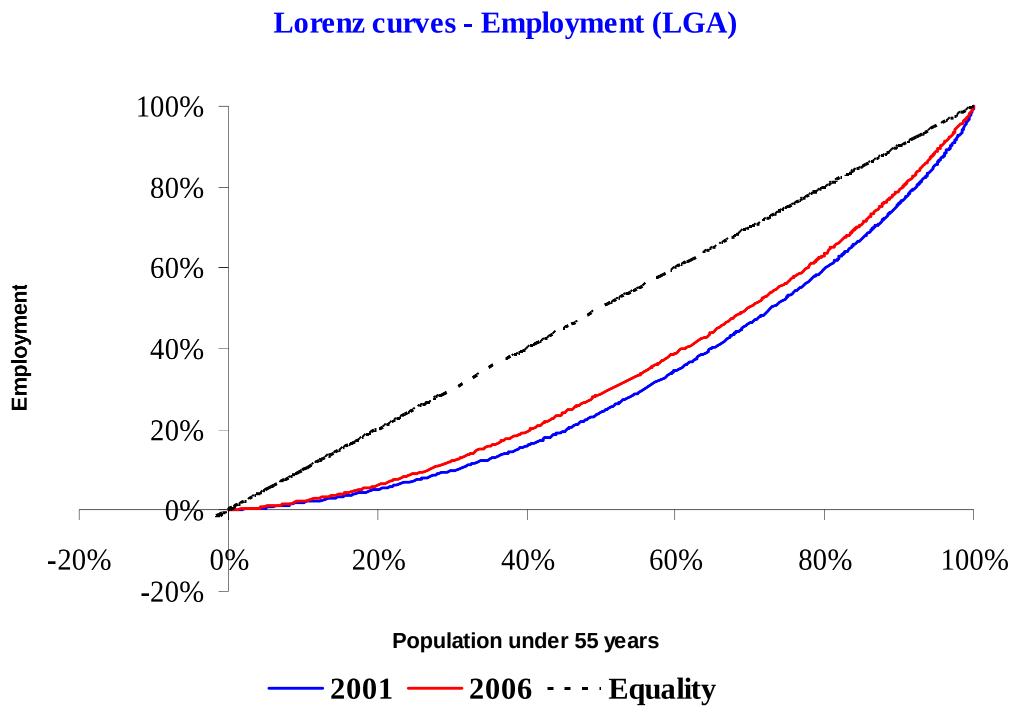
Table 1.4	Workforce (annual growth – per cent)		
	1999-2002	2002-2005	2005-2007
Rural	1.3	1.8	1.8
Core Metro	1.8	2.2	3.0
Resource Based	0.3	1.1	2.7
Dispersed Metro	1.4	1.4	1.4
Production Zone	1.7	1.7	1.7
Lifestyle	2.8	3.2	3.0
Australia	**1.6**	**1.8**	**2.1**

Table 1.5	Workforce and working age population growth rate (annual growth – per cent)					
	Workforce			Working age population		
	1999-2002	2002-2005	2005-2007	1999-2002	2002-2005	2005-2007
Rural	1.3	1.8	1.8	0.7	1.1	2.2
Core Metro	1.8	2.2	3.0	1.5	1.4	3.9
Resource Based	0.3	1.1	2.7	1.1	1.6	3.4
Dispersed Metro	1.4	1.4	1.4	1.4	1.0	1.8
Production Zone	1.7	1.7	1.7	1.5	1.5	2.2
Lifestyle	2.8	3.2	3.0	2.4	2.5	3.9
Australia	**1.6**	**1.8**	**2.1**	**1.4**	**1.4**	**2.6**

Employment

Table 1.6, as for last year's table, continues to indicate that employment has grown strongly in resource based zones. Core metro employment growth has picked up pace when compared to last year's findings and lifestyle zones also continue to perform well in terms of employment growth. The full impact of drought on rural regions, although employment growth is down from last year's table, is not flowing through to the figures in Table 1.6 – presumably some diversification is taking place. Dispersed metro and production zones have been less successful in growing employment.

Table 1.6	Employment – annual growth (per cent)		
	1999-2002	2002-2005	2005-2007
Rural	1.4	2.2	2.2
Core Metro	2.2	2.8	3.7
Resource Based	0.2	1.4	3.7
Dispersed Metro	1.4	1.8	1.6
Production Zone	1.8	2.3	1.9
Lifestyle	3.2	4.4	3.6
Australia	**1.8**	**2.4**	**2.5**



The Lorenz curve shows that employment is more equally distributed than wealth, and that there has been an improvement over the past five years in the availability of jobs by LGA.

Unemployment

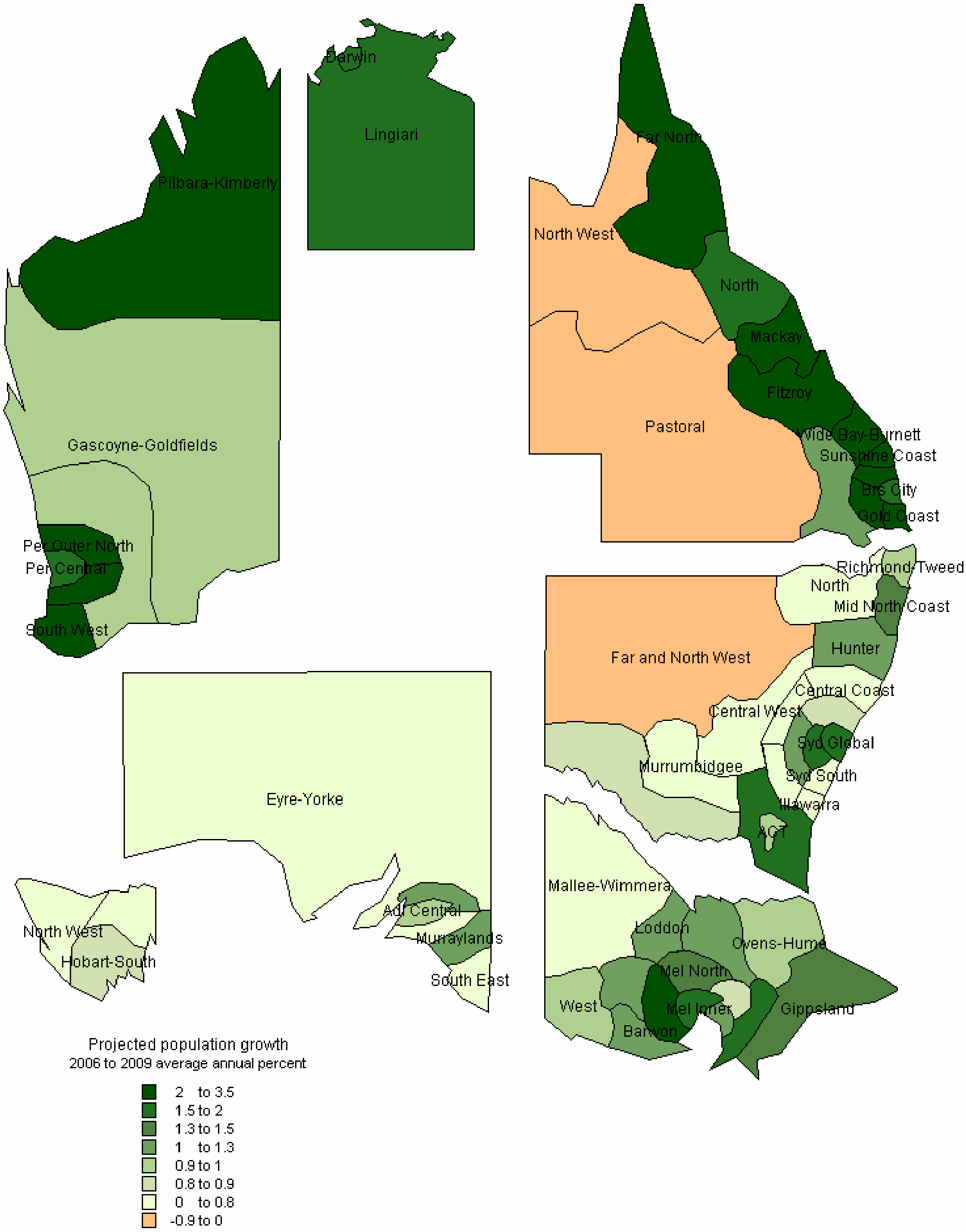
Table 1.7 shows the headline unemployment rate, which is lowest in core metro and highest in the production zone. The largest fall in the unemployment rate occurred in the resource based zone. Overall the headline unemployment rate estimate has declined by 0.7 per cent since 2005.

Table 1.7 Headline unemployment rate (per cent)

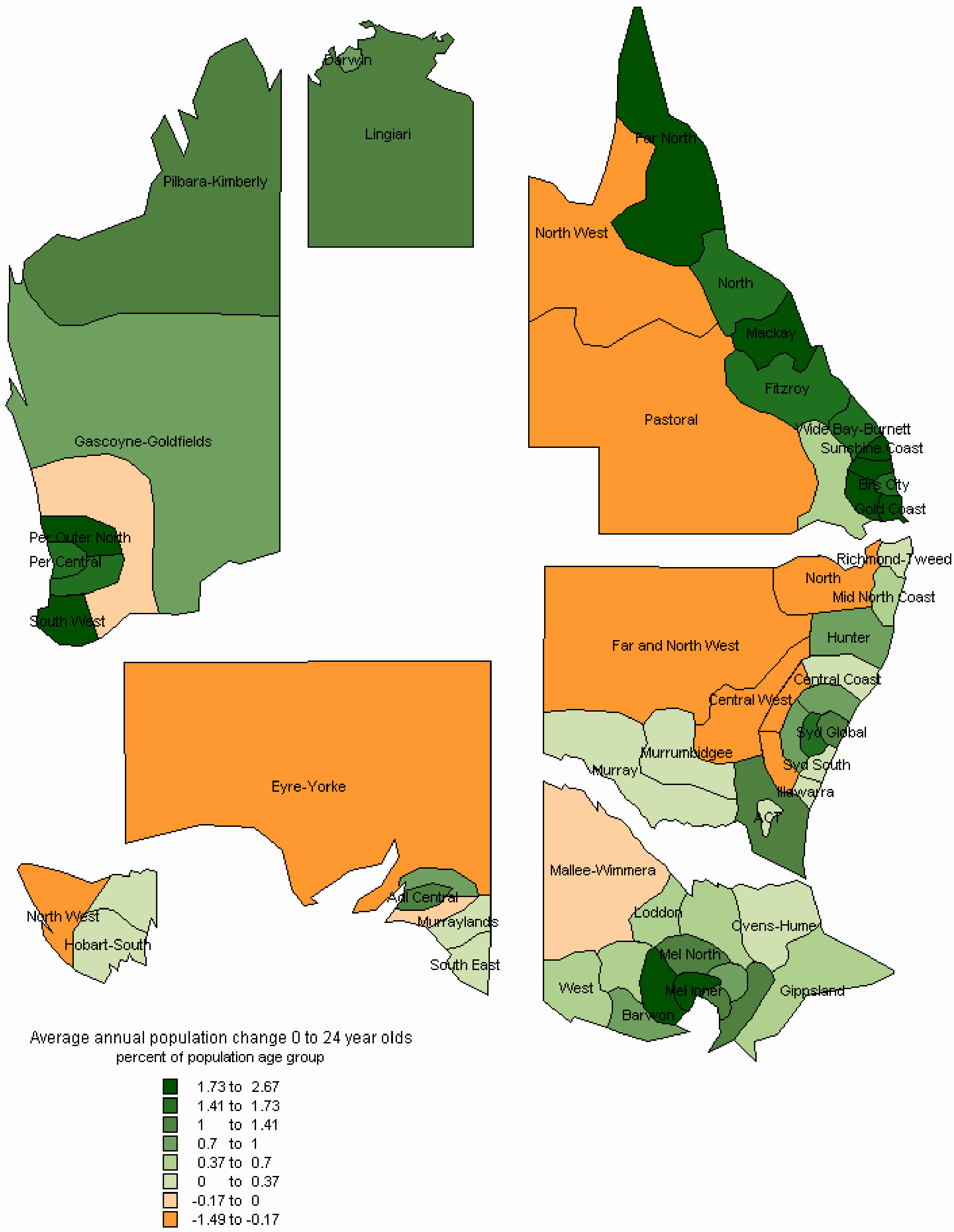
						Annual percentage point change		
	1999	2002	2005	2006	2007	1999-2002	2002-2005	2005-2006
Rural	7.2	7.0	6.0	5.7	5.4	-0.1	-0.3	-0.3
Core Metro	6.4	6.1	4.6	4.1	3.7	-0.1	-0.5	-0.5
Resource Based	6.4	6.8	5.6	5.0	4.0	0.1	-0.4	-0.8
Dispersed Metro	5.4	5.5	4.5	4.3	4.1	0.0	-0.3	-0.2
Production Zone	7.9	7.6	6.5	6.2	6.0	-0.1	-0.4	-0.2
Lifestyle	9.9	9.3	6.3	5.9	5.6	-0.2	-1.0	-0.4
Australia	**7.0**	**6.7**	**5.5**	**5.1**	**4.8**	**-0.1**	**-0.4**	**-0.3**

Table 1.8 shows the NIEIR unemployment rate which is derived from Centrelink data (see appendix 3). The NIEIR unemployment rate continues to show higher unemployment rates in those zones away from core metro with unemployment rates highest in rural, production and lifestyle zones. The largest falls in the NIEIR unemployment rate have occurred in the resource and core metro zones.

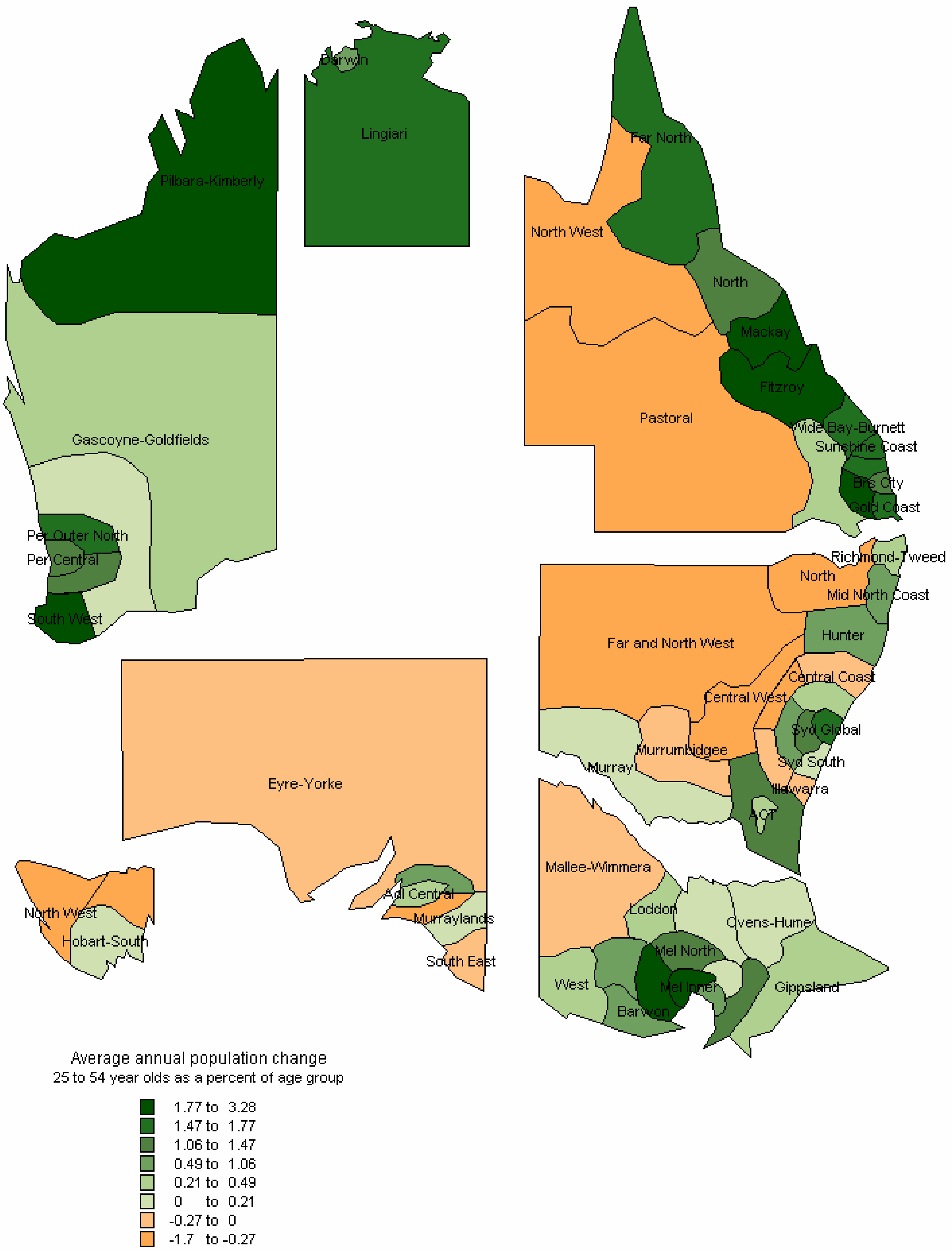
Average annual projected population growth 2006 to 2009



Average annual population change 0 to 24 year olds
percent of population age range 2006 to 2009



Average annual population change 25 to 54 year olds
percent of population age range 2006 to 2009



Average annual population change 55 years and over
percent of population age range 2006 to 2009

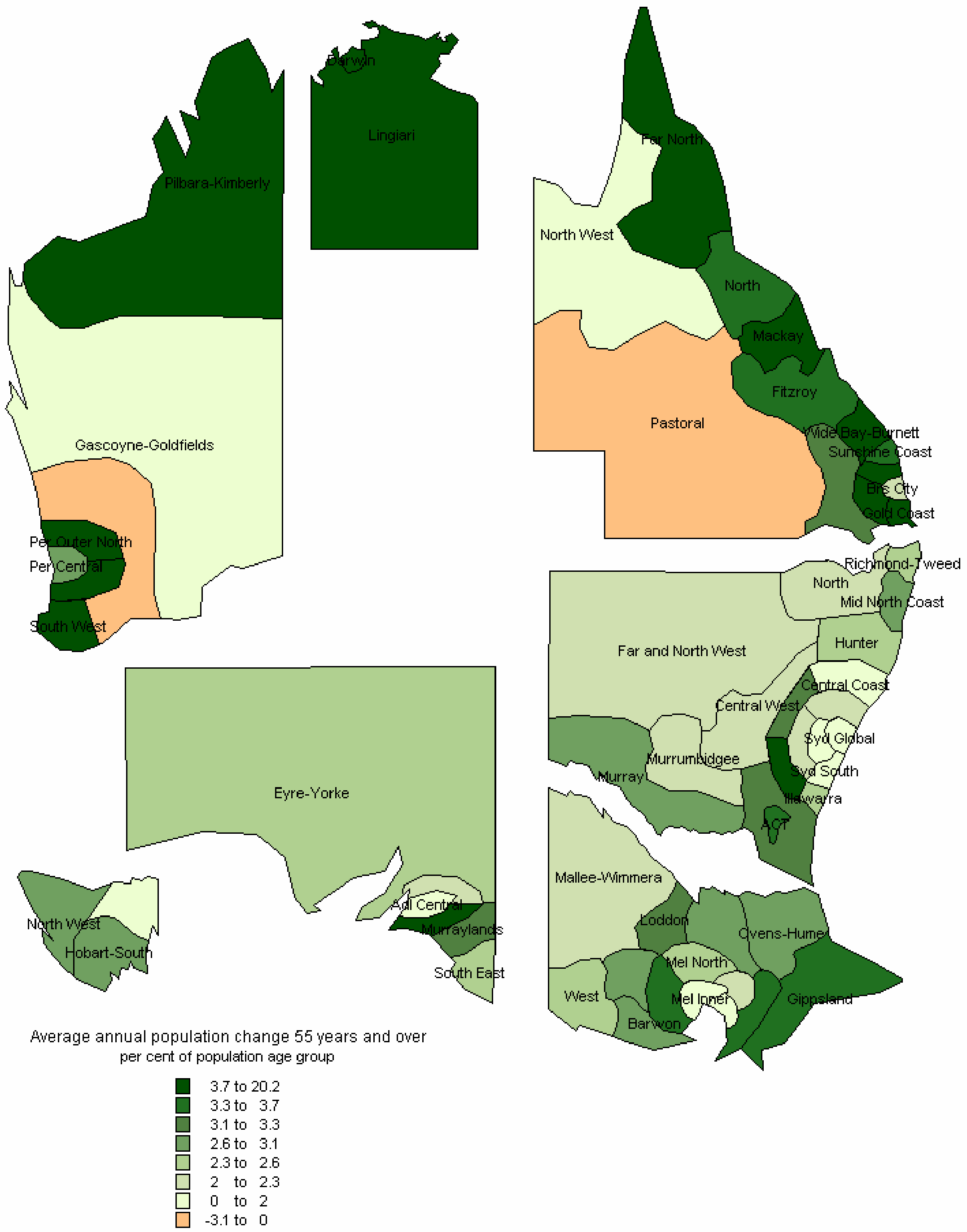


Table 1.8	NIEIR unemployment rate (per cent)							
						Annual percentage point change		
	1999	2002	2005	2006	2007	1999-2002	2002-2005	2005-2006
Rural	11.2	11.1	10.0	9.7	9.3	0.0	-0.4	-0.4
Core Metro	8.5	7.2	5.6	5.0	4.5	-0.4	-0.5	-0.6
Resource Based	8.9	9.2	8.2	7.4	6.5	0.1	-0.3	-0.8
Dispersed Metro	7.3	7.3	6.1	5.9	5.7	0.0	-0.4	-0.2
Production Zone	10.9	10.5	8.9	8.6	8.5	-0.1	-0.5	-0.2
Lifestyle	13.5	12.4	9.4	9.0	8.5	-0.4	-1.0	-0.5
Australia	**9.7**	**9.3**	**7.8**	**7.4**	**7.0**	**-0.1**	**-0.5**	**-0.4**

Wages and salaries

Trends in wages and salaries are closely tied to those in employment, the difference lying in changes in average earnings per employee. From 2005 to 2007, in Australia as a whole, the rate of growth in wages and salaries was roughly double the rate of growth of employment. Average earnings per employee increased more rapidly than national average in the rural, resource based and dispersed metropolitan zones, and less than national average in the core metropolitan zone. In the production and lifestyle zones average earnings per employee followed national trends.

Table 1.9	Wages and salaries (annual growth – per cent)		
	1999-2002	2002-2005	2005-2007
Rural	2.0	4.5	5.1
Core Metro	3.9	5.0	6.7
Resource Based	1.4	4.6	7.8
Dispersed Metro	2.4	3.7	3.8
Production Zone	2.2	4.2	3.8
Lifestyle	4.7	6.6	7.0
Australia	**2.8**	**4.4**	**5.0**

Following the previous trend, wages and salaries for the resource based zone had the highest rate of growth, escalating from last years SOR 2004-06 figure of 6.1 per cent. Wages growth was also higher in lifestyle and core metro zones. The general trend continues to be one of wages and salaries growth, up from an average annual growth of 2.8 per cent in 1999-2002 to 5 per cent in the period 2005-2007.

Business income

Drought and other problems has reduced farm income over the past two years so seriously that there has been a fall in total business income received by households – the fall in farm incomes outweighing solid growth in other business incomes.

Average Annual Employment growth 2004 to 2006

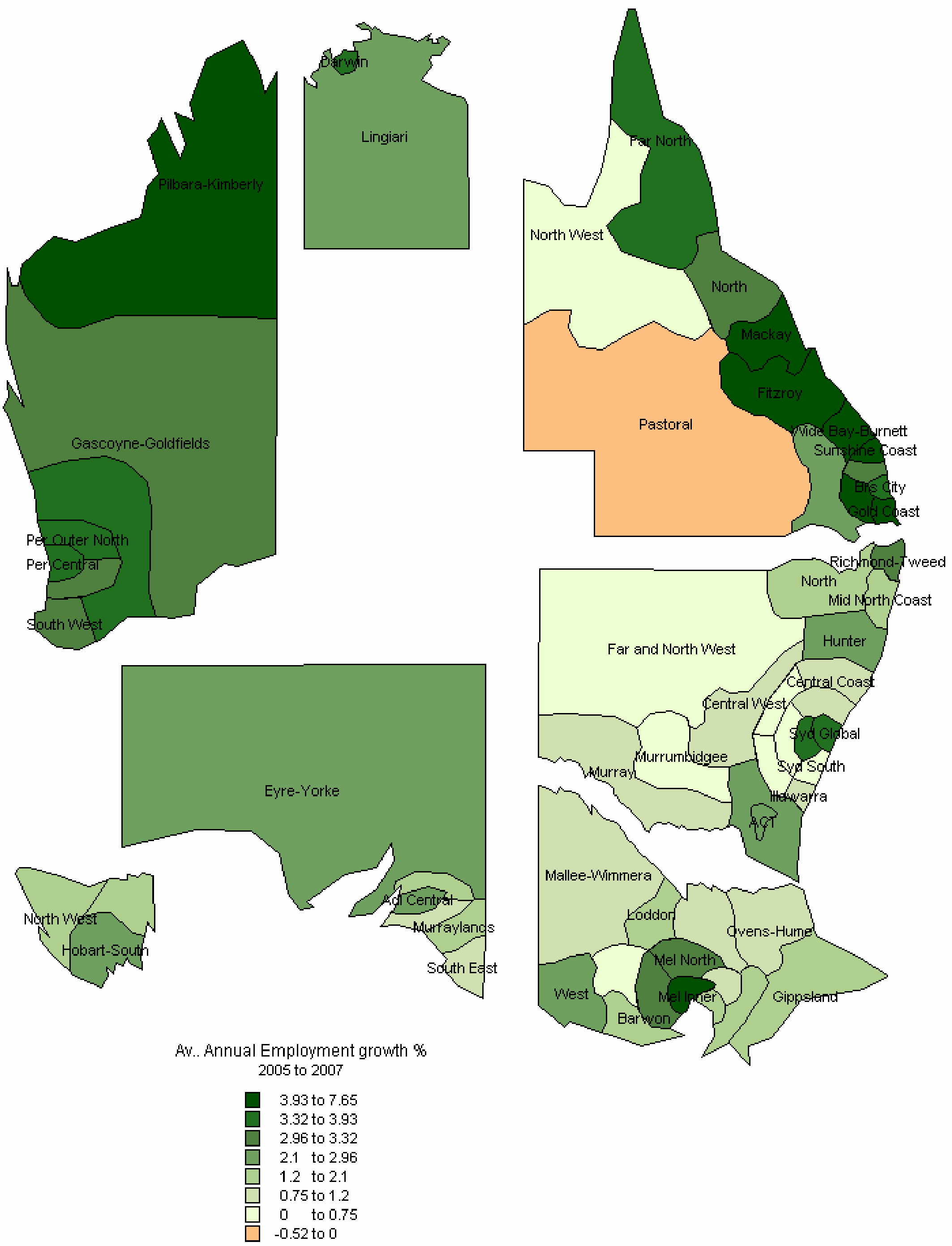


Table 1.10	Formation of business income (per cent)								
	Farm income annual growth			Non-farm business income growth			Total business income growth		
	1999-2002	2002-2005	2005-2007	1999-2002	2002-2005	2005-2007	1999-2002	2002-2005	2005-2007
Rural	20.4	-8.5	-30.3	-0.4	7.1	-0.4	12.9	-3.6	-17.6
Core Metro	10.2	-6.4	5.2	3.6	8.3	12.1	3.7	8.1	12.0
Resource Based	16.9	-5.2	-23.1	-6.0	5.9	4.8	5.9	-0.7	-9.3
Dispersed Metro	9.6	-5.1	-36.5	-1.2	6.6	3.1	-0.8	6.1	2.0
Production Zone	14.9	-4.7	-36.2	-1.8	5.9	2.3	-0.3	4.7	-0.6
Lifestyle	13.6	-6.7	-25.5	1.5	6.6	10.6	2.9	4.9	7.6
Australia	**18.9**	**-7.6**	**-29.4**	**0.1**	**7.0**	**6.0**	**4.4**	**3.1**	**-0.5**

Property income

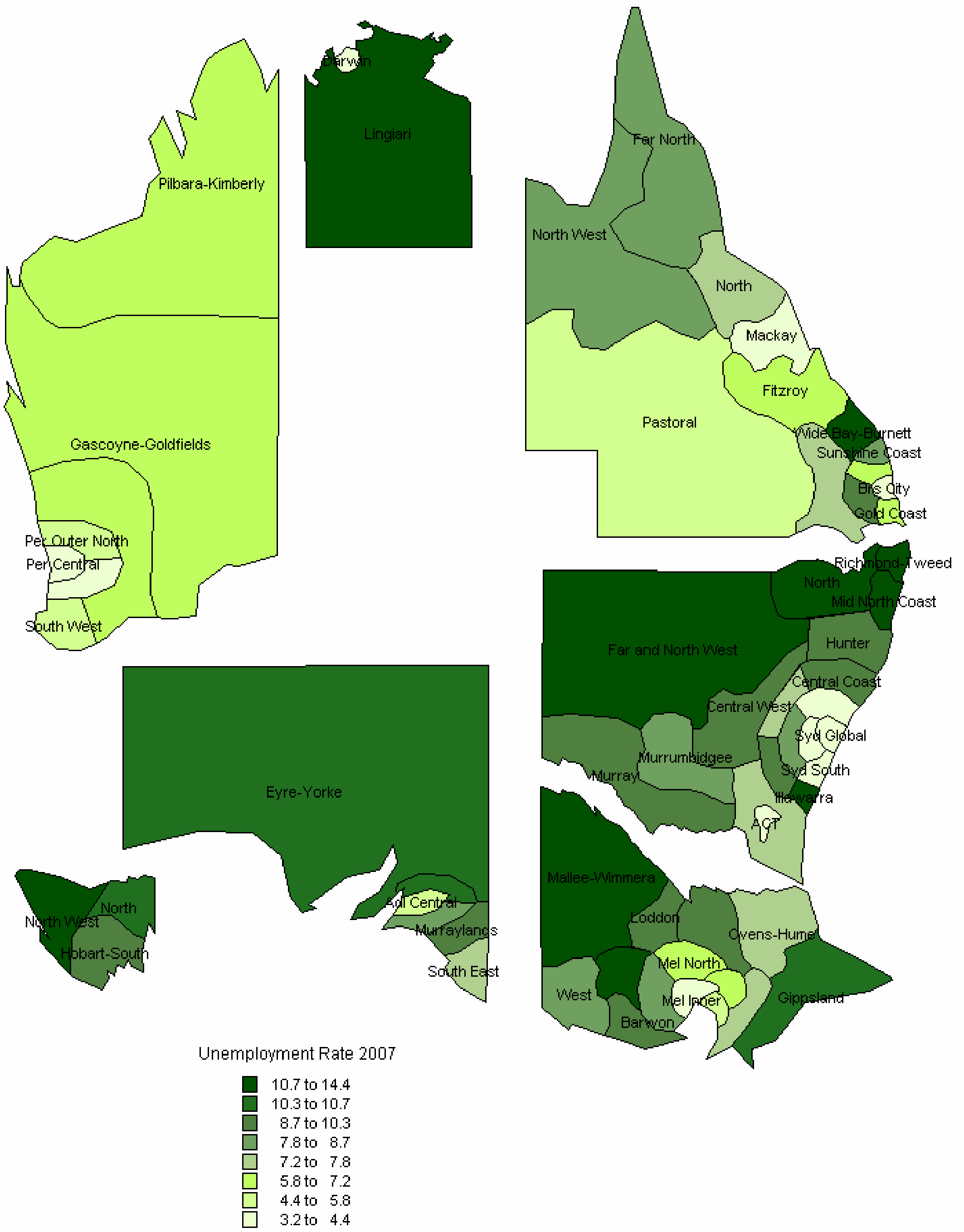
Property income includes not only landlord incomes and income from financial assets, but the imputed income from superannuation funds. Given the rapid forced accumulation of superannuation assets, it is not surprising to find continued growth in this source of household income, spread over all zones.

Table 1.11	Property income received including superannuation (annual growth – per cent)		
	1999-2002	2002-2005	2005-2007
Rural	2.6	4.1	8.6
Core Metro	0.0	11.5	12.4
Resource Based	0.0	4.5	10.2
Dispersed Metro	-0.1	9.6	10.6
Production Zone	0.5	8.3	10.2
Lifestyle	1.2	13.3	13.6
Australia	**0.6**	**8.8**	**10.9**

Social security

Finally, social security payments provide the major source of income for many households, not to speak of some regions. From 2005 to 2007 the buoyancy of employment reduced the need for social security payments, and incomes from this source were also reduced by the Commonwealth policy of tightening eligibility conditions. This applied in all regions, especially core metropolitan and lifestyle regions.

NIEIR Unemployment Rate 2007 - per cent



NIEIR Unemployment Rate percentage point change 2005-2007

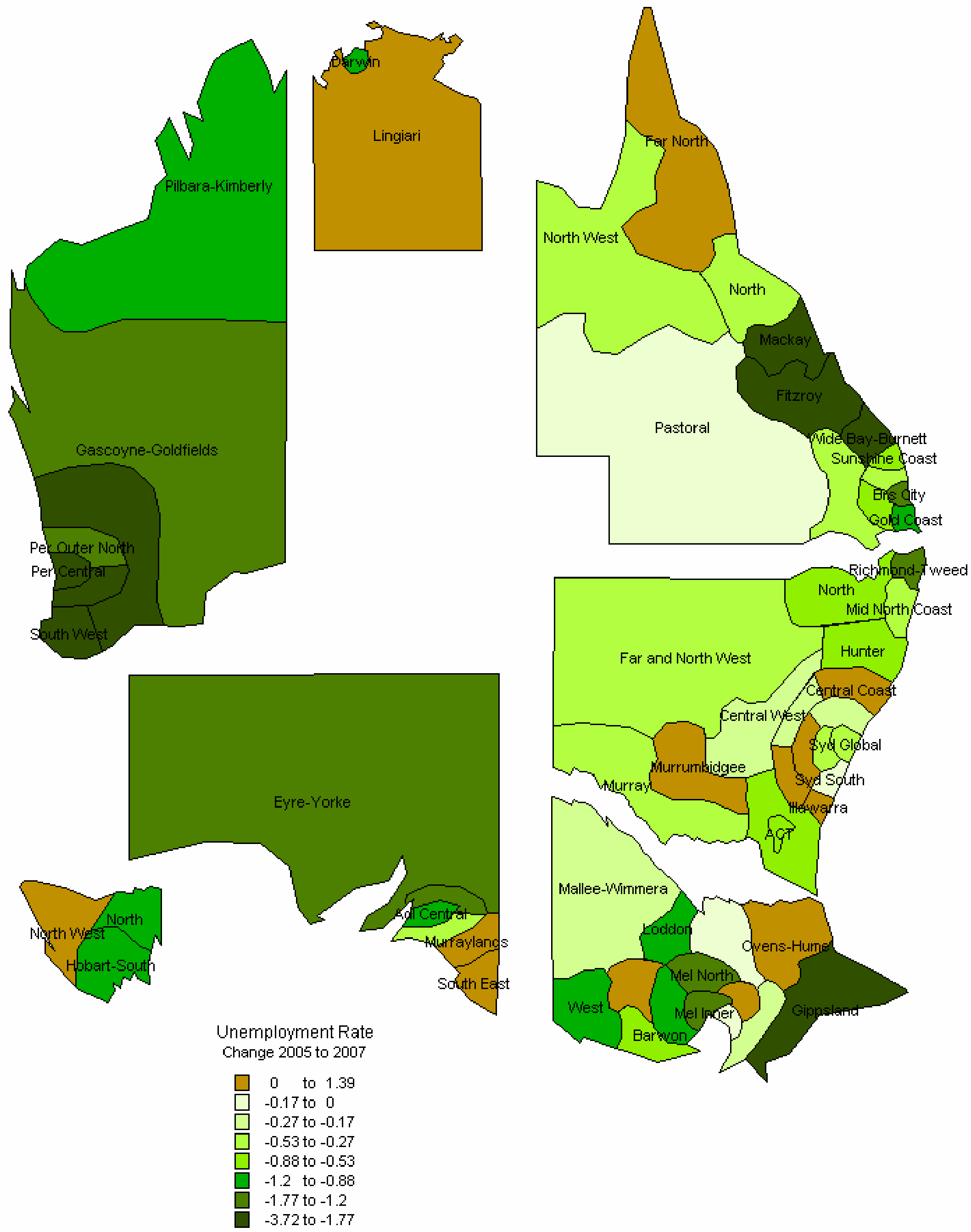


Table 1.12	Benefits as a per cent of disposable income (per cent)						
					Annual growth (%)		
	1999	2002	2005	2006	2007	1999-2002	2002-2005	2005-2007

	1999	2002	2005	2006	2007	Annual growth (%) 1999-2002	Annual growth (%) 2002-2005	Annual growth (%) 2005-2007
Rural	16.7	16.8	18.4	17.3	18.3	0.3	3.0	-0.4
Core Metro	10.3	10.8	10.5	9.8	9.3	1.4	-0.7	-6.1
Resource Based	13.6	15.3	16.2	14.3	14.9	4.0	1.9	-4.1
Dispersed Metro	11.7	12.8	13.6	13.0	12.8	3.1	1.8	-2.7
Production Zone	16.7	18.1	19.1	18.3	18.3	2.6	1.8	-2.0
Lifestyle	20.1	21.0	21.3	19.7	19.1	1.6	0.5	-5.4
Australia	**89.1**	**94.9**	**99.1**	**92.4**	**92.7**	**2.1**	**1.5**	**-3.3**

Disposable income

On a broad National Accounts measure of disposable income (essentially income received less income tax, and including imputed income from home ownership), the most rapid growth was in the core metropolitan regions, followed by the lifestyle regions. Growth was particularly rapid in the following regions.

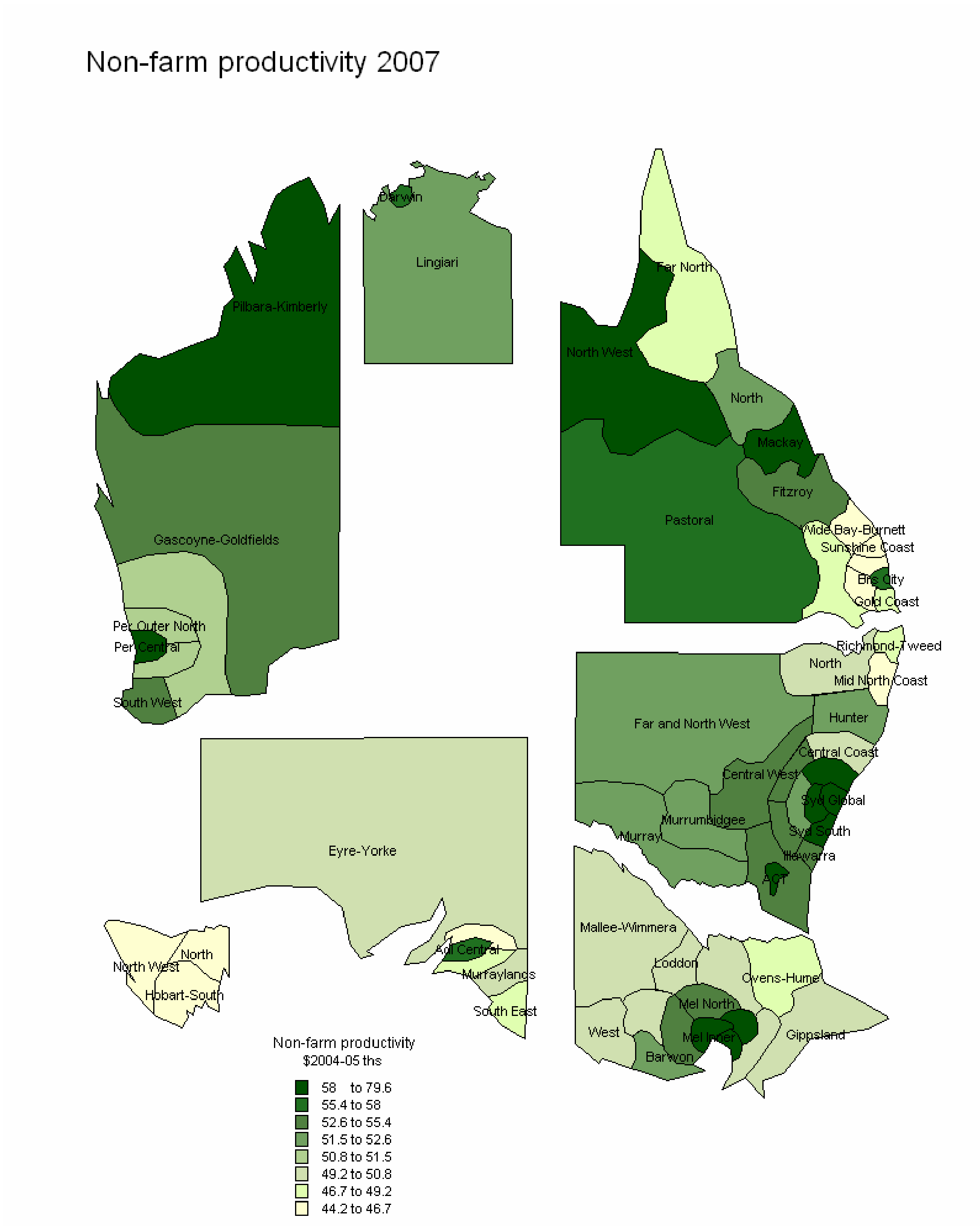
- Mackay, Queensland – presumably as a result of resource developments.
- The several Perth regions, and also Peel South West – again as a result of resource developments.
- South East Queensland (particularly Brisbane and the Gold Coast) also appear to have benefited from the resource developments in their state.
- Finally, Hobart makes the list.

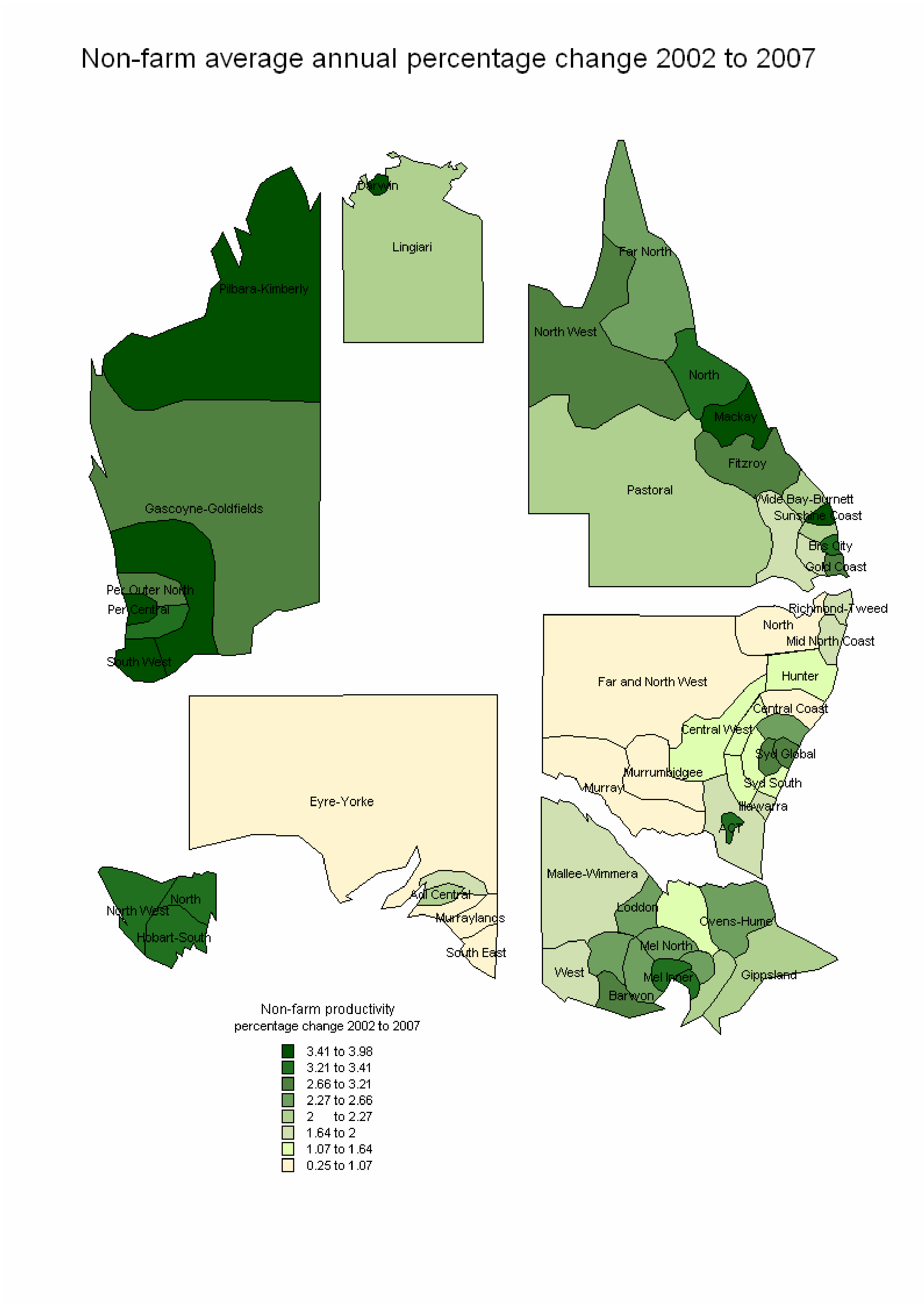
In the other inner metropolitan areas household income growth was above national average, but it was below average in the outer suburbs of Sydney and around average along the New South Wales coast and the other parts of the Queensland coast.

At the other end of the scale, drought depressed incomes in many of the rural regions, and it was also noticeable that incomes in the remote resource-based regions, while still high, failed to increase at all rapidly. It appears that income growth is being shifted from these regions to the metropolitan and resort areas of their states.

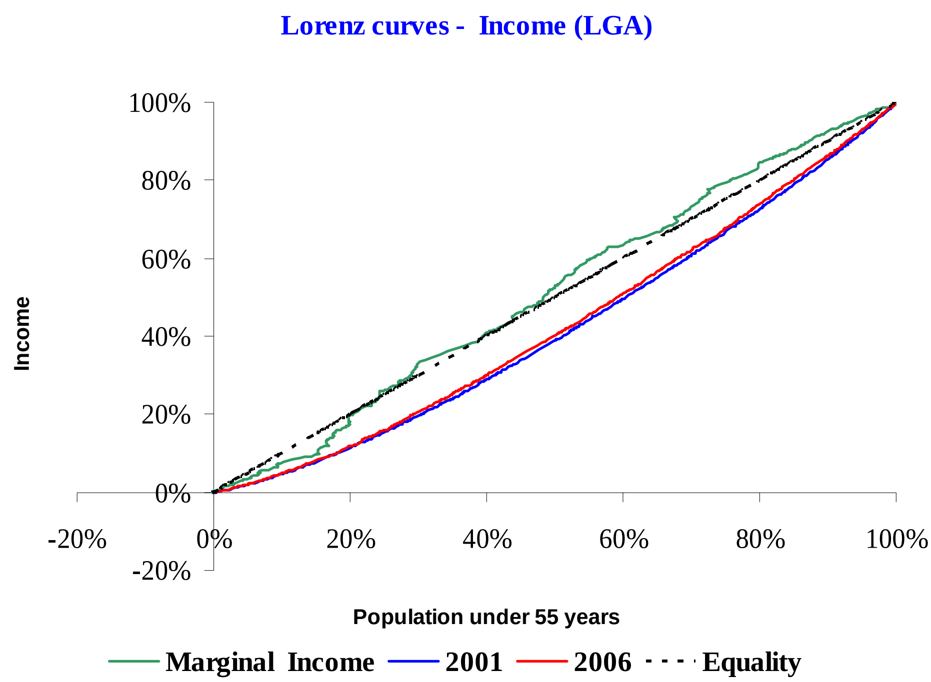
Table 1.13 Disposable income (annual growth – per cent)

	1999-2002	2002-2005	2005-2007
Rural	5.3	1.9	1.3
Core Metro	3.3	4.7	7.5
Resource Based	3.6	3.1	4.6
Dispersed Metro	2.4	3.2	3.7
Production Zone	3.2	3.2	3.2
Lifestyle	4.7	5.5	6.1
Australia	**3.5**	**3.5**	**4.3**


Non-farm productivity 2007
Darwin
Lingiari
Pilbara-Kimberly
Gascoyne-Goldfields
Per Outer North
Per Central
South West
Far North
North West
North
Mackay
Fitzroy
Pastoral
Wide Bay-Burnett
Sunshine Coast
Bris City
Gold Coast
Richmond-Tweed
North
Mid North Coast
Far and North West
Hunter
Central Coast
Central West
Syd Global
Syd South
Murrumbidgee
Murray
Illawarra
ACT
Eyre-Yorke
Adl Central
Murraylands
South East
North West
North
Hobart-South
Mallee-Wimmera
Loddon
Ovens-Hume
Mel North
Mel Inner
West
Barwon
Gippsland
Non-farm productivity
$2004-05 ths
58 to 79.6
55.4 to 58
52.6 to 55.4
51.5 to 52.6
50.8 to 51.5
49.2 to 50.8
46.7 to 49.2
44.2 to 46.7



Non-farm average annual percentage change 2002 to 2007
Darwin
Lingiari
Pilbara-Kimberly
Gascoyne-Goldfields
Per Outer North
Per Central
South West
Far North
North West
North
Mackay
Fitzroy
Pastoral
Wide Bay-Burnett
Sunshine Coast
Bris City
Gold Coast
Richmond-Tweed
North
Mid North Coast
Far and North West
Hunter
Central Coast
Central West
Syd Global
Murrumbidgee
Murray
Syd South
Illawarra
ACT
Eyre-Yorke
Adl Central
Murraylands
South East
North West
North
Hobart-South
Mallee-Wimmera
Loddon
Ovens-Hume
Mel North
West
Mel Inner
Gippsland
Barwon
Non-farm productivity
percentage change 2002 to 2007
3.41 to 3.98
3.21 to 3.41
2.66 to 3.21
2.27 to 2.66
2 to 2.27
1.64 to 2
1.07 to 1.64
0.25 to 1.07



Income is more equally distributed regionally, than both wealth and employment. This can be seen from its Lorenz curve, which also shows that there was a marginal but significant decrease in inequality from 2001 to 2007.

1.2.12 Debt service ratios

Having described the trends in household income and debt, we are now in a position to relate debt servicing costs (interest plus repayments) to income. The ratio for Australia as a whole is that debt servicing now accounts for 21 per cent of income after tax. The ratio is relatively constant across the regions – it is highest in Outer Northern Perth and Outer South West Sydney (at 25 per cent) and lowest in Pastoral Queensland (10 per cent) and in Eyre and Yorke and the ACT (at 13 per cent).

On a LGA basis, the debt-service ratio tends to be high in three types of region.

- Outer suburbs and exurban areas of the major capital cities (including Darwin and the overflow from Canberra into New South Wales, but excluding Hobart). These account for roughly half the LGAs with high debt-service ratios.
- Resort areas, ranging from Douglas in Far North Queensland south along the east coast then right round to Broome in Western Australia, and including the Sunshine Coast, the Gold Coast, parts of the NSW North Coast and the NSW ski resorts on the way. These account for roughly a third of the LGAs with high debt-service ratios.
- Outer developing areas of provincial cities account for most of the remainder. The count here is very sensitive to the way local government boundaries are drawn. Where provincial city boundaries are drawn wide, the outer suburbs average out against the older parts of town, resulting in average debt-service ratios. When Queensland local government boundaries are redrawn next year roughly half the LGA-count in this category may be expected to disappear, even though the concerned areas will not become any less indebted. Per contra, where the boundaries of provincial cities are widely drawn (as already in Cairns, Queensland, and in most of New South Wales and Victoria) few LGAs will be identified as having highly indebted households, though they include suburbs where this applies.

A fourth type of region of highly-indebted region can also be observed in low numbers. This is the low-income middle suburb where debt is relatively high, mainly due to people buying in. (These are suburbs originally developed post-war, and any original settlers who are left should have zero or low indebtedness.) Examples are Bankstown and Holroyd in Sydney and Kingston in Melbourne.

The incidence by metropolitan area of high-indebtedness LGAs depends on the way LGA boundaries are drawn, but provides a very rough indicator of the spread of debt. For the major metropolitan areas it is as follows.

- Brisbane SD: four out of eight LGAs (50 per cent).
- Perth SD: 12 out of 29 LGAs (40 per cent).
- Melbourne SD: 14 out of 45 LGAs (30 per cent).
- Sydney SD: 9 out of 31 LGAs (30 per cent).
- Adelaide SD: 3 out of 20 LGAs (15 per cent).

High debt-service LGAs are uncommon in Tasmania (which, it will be recalled from last year's *State of the Regions*, largely missed out on the land boom.

The outer suburbs tend to be high-debt regions for the traditional reason that they have a relatively high proportion of recent home-buyers, who have bought at land-boom prices. A less traditional reason is that they tend to report relatively low earned incomes: their residents may be in their prime earning years, but tend not to be the highest income-earners on a lifetime basis. We should also remember that the estimates reported here are averages for each region. There are two main reasons why inner metropolitan areas have lower debt-service ratios than the outer suburbs.

- Higher incomes counteract the effect of higher land prices.
- First-home buyers are in a relative minority, and many residents are full owners who do not have a home-purchase mortgage, though they may have borrowed for other reasons.

The non-metropolitan outer suburbs have much in common with their metropolitan equivalents save that both debt levels and incomes tend to be lower.

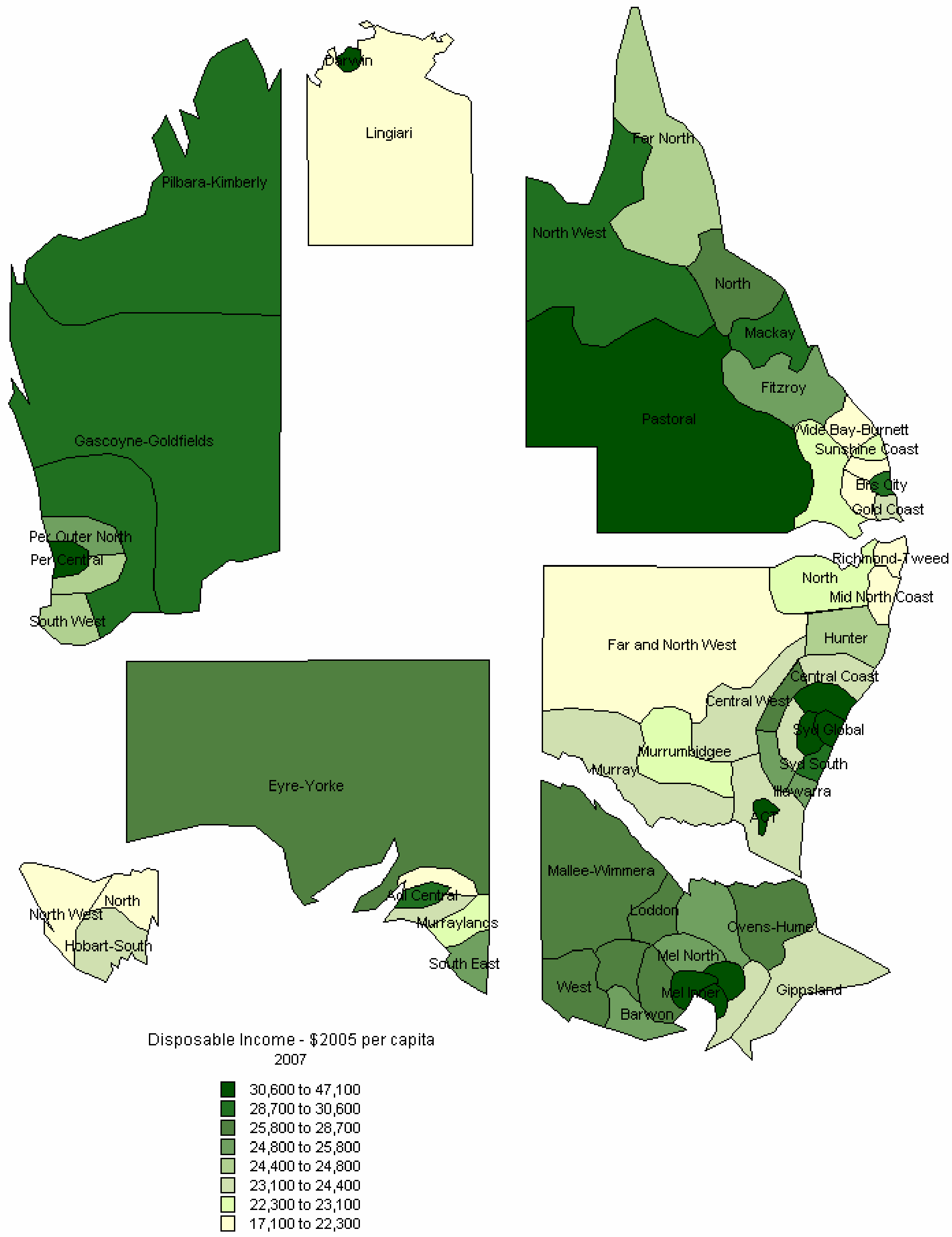
Two main explanations may be offered for the high average indebtedness of households living in the resorts.

- The resorts have achieved rapid economic growth (based mainly on construction and tourism) coupled with rising land prices. This places them in much the same position as outer suburbs as regards home purchase by people of workforce age: the people are attracted by accessibility to jobs, and thus willing to go into debt to secure a house despite the high land prices.
- It is also likely that there is significant indebtedness among the retired populations of the resorts. Typical examples are likely to be those who have entered into reverse mortgages to finance current consumption (also known as spending the kids' inheritance) and those who have gone into debt to finance the purchase of income-producing assets (chiefly as landlords, with the dwellings concerned quite possibly located in another region).

The other side of the coin is regions with low indebtedness. Once again Tasmania misses out; it has no LGAs with very low debt-service ratios. Instead, LGAs with low debt-service ratios are overwhelmingly in two types of areas.

- Remote areas, chiefly those relying on pastoral industries. This category also includes most Aboriginal and Torres Strait Islander councils. (Though separate indicators were not calculated for community councils, we may safely assume low debt levels outweigh low incomes to yield a low debt-service ratio.)
- Smaller shires in the wheat-sheep belts of Western Australia, South Australia, Victoria, New South Wales and even Queensland. As an example from each state, we may list Mukinbudin, Le Hunte, Buloke, Urana and Milmerran. The larger LGAs in these regions tend to include substantial towns, and to report moderate average debt-service ratios.

Household disposable income per capita 2007 (2005 $'000)



In interpreting this result, we should remember that household indebtedness includes debt contracted by unincorporated businesses, but excludes corporate debt, even when it is contracted by family firms. Hence the measure excludes nearly all farm debt, and for the low-debt regions is dominated therefore by the debt position of people living in small towns. The low debt-service ratio of people in these towns derives from low borrowing – incomes are low, but borrowing even lower. A major reason is that the land boom has hardly reached the remote and wheat-belt towns. It is not necessary to borrow much to finance home purchase, and there is very little prospect of capital gains to encourage speculative purchases.

These patterns reflect changes in the debt-service ratio over the past five years. Notable changes have been as follows.

- The largest increases have been in the Outer Northern Sydney, Melbourne West, Sydney Inner West, Melbourne Inner, Sydney South, NSW Central Coast and the Sunshine Coast. Had earlier patterns continued one would have expected to find more outer suburbs on this list, but it seems that many of these were already approaching debt saturation.
- The smallest increases have been in a range of rural regions, plus the ACT.

Despite the reining in of the rates of increase in indebtedness, debt-service ratios even in the low-borrowing regions are high by historic standards. Even these regions have no guarantee of shelter from macroeconomic disturbance such as increased interest rates, reduced incomes (as may result from climate change as well as from old-style economic disturbances such as a balance of payments crisis) or increased costs of living (as may result from the necessity to reduce greenhouse gas emissions). As for the regions with high indebtedness, a debt crisis could easily reduce the average standard of living well below current aspirations.

Deducting debt-service costs from income after tax gives a tight definition of disposable income of obvious interest to retailers. Owing to the growth in debt-servicing costs, it has been increasing much less rapidly than income after tax, with especially low increases in the production zone and the dispersed metropolitan zone. On a regional basis, over the past five years the most rapid growth in narrowly-defined disposable income has been several regions.

- All Queensland coastal regions have experienced growth, including the highest growth in the country (Mackay) and all of South East Queensland.
- The second most rapidly growing region was the ACT (due as much to low indebtedness as to a high rate of gross income growth).
- All Western Australian regions experienced growth, with Central Perth the most rapidly growing of them.
- Similarly all Tasmanian regions experienced growth – to some extent a reward for their low indebtedness.
- In Victoria, regions in Melbourne, along the coast and those including the major provincial cities experienced growth, but Mallee Wimmera and Goulburn suffered drought-related decline.
- In South Australia the three metropolitan regions experienced growth but the three rural regions suffered drought-related decline.
- New South Wales was the only state in which metropolitan regions suffered declining disposable income – the regions concerned being Outer North Sydney, Sydney South, Mid West Sydney, the Central Coast and Outer South West Sydney. Other regions along the New South Wales coast experienced growth, but three of the inland regions suffered drought-related decline.

After debt servicing costs, average household disposable income in 2007 was $67,100 (in 2004-5 dollars). The core metropolitan zone averaged an income well above this; dispersed metropolitan and the resource zone marginally above, rural and production regions marginally below and lifestyle regions well below. The region with the highest regional average disposable income was the ACT, well above all other contenders at $113,000 a year. Global Sydney, Outer Northern Sydney and Darwin and Inner Melbourne were well behind at $103,000, $98,000 and $95,000 respectively. After this came a mixture of inner urban (e.g. Inner Melbourne) and resource-based regions (e.g. Pastoral Queensland – where high earned incomes are minimally debt-committed). The lowest disposable incomes per household occur, as they have for some time now, in Wide Bay Burnett (Queensland) and the Central Coast (New South Wales).

Table 1.14 Average household disposable income after debt service costs (2004-05 $'000)

	2001	2007	Annual growth 2001-2007
Rural	57.3	60.4	1.1
Core Metro	72.1	83.0	2.9
Resource Based	63.4	69.1	1.7
Dispersed Metro	68.1	70.6	0.9
Production Zone	58.2	60.8	0.7
Lifestyle	46.4	53.9	3.1
Australia	**62.3**	**67.1**	**1.5**

1.3 The state of construction

This section reviews construction activity across the SOR zone types of rural, core metro, resource based, dispersed metro, production zone and lifestyle zone. The section will also discuss some of the common issues impacting construction activity across the nation.

1.3.1 Introduction

Construction and climate change

Changes in weather patterns impact on construction activity. In recent years wetter conditions in Northern Australia have constrained construction activity, while increased days of excessive heat in all regions of Australia have slowed building activity. In tropical North Queensland the construction industry has raised concerns about changing weather patterns increasing the pressure on construction activity in terms of time, quality and cost, as conditions are seen to be wetter than usual.

Major climate events such as cyclones also have a major impact on construction by drawing emergency labour from other regions, increasing construction costs due to labour supply or creating shortages of materials. An example of this was Tropical Cyclone Larry's impact on the building stock in the region surrounding Innisfail. The impact was devastating with 50 per cent of homes and 35 per cent of private industry in Innisfail damaged, plus buildings in many surrounding towns. The repair of buildings and other infrastructure took many months. Cyclone Larry created a significant impact on resources, drawing many tradespeople from other parts of Queensland to work in the cyclone affected area.

Common issues in the construction industry today

Major developments in terms of infrastructure or in the mining industry can have severe impacts on labour supply, not only in the immediate region, but far and wide. These major developments impact on both public and private sector labour supply and at both the professional and trade level, creating shortages of planners, engineers and across a broad range of trades. The domestic housing construction sector, in high growth areas, is perhaps the least able to compete in an environment of booming mining conditions and spiralling wage costs.

Issues of construction industry training have also been on the agenda with a hiatus of training in recent years in planning and engineering and trade skills causing significant skills shortages across Australia's regions. However it now appears that the issue of trade skills is being addressed. An emphasis on developing engineering skills and other professional skills is a prerequisite to ensure the ongoing development of the industry.

In remoter regions there tends to be a much higher volatility of demand and skills shortages tend to be far more severe when they occur.

What is increasingly important is that governments are beginning to think longer term. The Queensland Government, for example, has announced a $55 billion infrastructure expenditure program while the New South Wales infrastructure program is at about $20 billion.

In our discussion of debt we note the macroeconomic requirement that the government sector take over from the household sector in driving total investment, which means that public sector demand will become a more important driver of Australian growth. This will see governments in Australia sustaining growth by using their strong balance sheets to offset the decline in the capacity of the household sector to sustain growth by debt accumulation and resulting expenditures.

The capacity for governments to spend is significant, over the next 20 years and including a PPP (Public Private Partnership) strategy, Australian governments could spend between $700 billion and $1 trillion and still maintain acceptable debt to GDP ratios.

Interest rates and domestic construction

In terms of domestic construction, changes in the composition of households, immigration, housing construction activity at below demand levels and increasing interest rates are resulting in shortages in housing and (especially) rental property, both in the cities and away from them.

There will be sustained upward pressure on Australian interest rates over the next 18 months. The reasons for this are:

- the return of inflation to the 3.0 to 3.6 per cent range;
- the current rate of GDP growth, at 4 to 5 per cent, is well in excess of capacity;
- the return of accelerating price expectations in some housing markets; and
- expansionary fiscal policy (chiefly tax cuts).

In addition there will be additional upward pressure on the margin between the Reserve Bank cash interest rate and the 90 day bill rate. This will reflect the tightening lending standards of financial institutions as a result of the sub-prime mortgage crisis. It is easily possible that during the course of 2008 the 90 day bill rate will exceed 8 per cent particularly if expansionary fiscal policy continues on its current path.

1.3.2 A regional snapshot by SOR zones: comparison of average growth 2002-05 to 2006-08

Growth in dwelling expenditure per annum continues in resource based regions as a combination of resource driven demand and regional development strategies take hold. Growth in average rural dwelling expenditure per annum has slowed by nearly 20 points when compared to last year's table, reflecting drought conditions. The decline in metro average expenditures demonstrates a continuing trend for non-engineering building activity to shift out from its traditional strongholds in Melbourne and Sydney and related coastal regions to the rest of Australia.

Table 1.15 Dwelling expenditure per annum (2005 $ million)

	1997-2001	2002-2005	2006	2007	2008	Average growth 2002-05 to 2006-08 (%)
Rural	2937	4234	5136	5192	5362	23.5
Core Metro	6207	7609	6950	6628	6536	-11.9
Resource Based	950	1043	1337	1512	1460	37.8
Dispersed Metro	6228	6832	6042	6049	5904	-12.2
Production Zone	6015	8054	7539	7487	7525	-6.7
Lifestyle	3108	4234	4029	4050	4146	-3.8
Australia	**25445**	**32005**	**31033**	**30920**	**30933**	**-3.3**

The figures for dwelling expenditure per capita are interesting, with Australian average growth at minus 7.6 per cent, down 10 points from last years table, with core and dispersed metro showing further declines in per capita expenditure, demonstrating the need for increased activity in metro areas to offset increasing housing stock shortages and improve affordability. Resource based zones are performing the strongest and also, along with rural zones are the only zones still reporting growth in average dwelling expenditure per capita. Given drought conditions in rural zones, rural dwelling expenditure per capita is likely to decline as the impact of drought takes full effect.

Table 1.16 Dwelling expenditure per capita (2005 $ million)

	1997-2001	2002-2005	2006	2007	2008	Average growth 2002-05 to 2006-08 (%)
Rural	849	1182	1402	1396	1421	18.9
Core Metro	1782	2061	1808	1705	1667	-16.2
Resource Based	1311	1362	1683	1871	1774	30.4
Dispersed Metro	1358	1416	1221	1208	1169	-15.3
Production Zone	1185	1501	1361	1330	1319	-10.9
Lifestyle	1913	2338	2108	2085	2102	-10.2
Australia	**1343**	**1597**	**1499**	**1473**	**1456**	**-7.6**

In terms of non residential construction, lifestyle zones continue to provide the largest percentage increase in growth as these regions catch-up on facilities and infrastructure. In terms of average growth, resource based zones are performing strongly and rural zones have maintained their level of growth. A comparison of Tables 1.15 and 1.17 clearly demonstrates that average growth in non-residential construction across Australia contrasts strongly with average decline in residential construction.

Table 1.17 Non-residential construction per annum (2005 $ million)

	1997-2001	2002-2005	2006	2007	2008	Average growth 2002-05 to 2006-08 (%)
Rural	2145	2116	2745	2879	3045	36.6
Core Metro	7001	7166	8016	8483	8900	18.1
Resource Based	618	498	632	778	815	49.0
Dispersed Metro	2812	3018	3505	3625	3807	20.8
Production Zone	4034	4169	5337	5867	6078	38.2
Lifestyle	1160	1268	1902	1952	1921	51.8
Australia	**17770**	**18234**	**22137**	**23584**	**24567**	**28.5**

The largest non-residential construction per capita expenditures are still in the core metro zone, but other zone types are closing the gap, particularly the lifestyle and resource based zones which are showing more than 40 per cent average growth across the periods compared.

Table 1.18 Non-residential construction expenditure per capita ($ million)

	1997-2001	2002-2005	2006	2007	2008	Average growth 2002-05 to 2006-08 (%)
Rural	621	591	749	774	807	31.4
Core Metro	2013	1940	2085	2183	2270	12.3
Resource Based	854	651	796	962	991	40.7
Dispersed Metro	613	625	708	724	754	16.6
Production Zone	797	776	964	1042	1065	31.9
Lifestyle	717	698	995	1005	974	42.0
Australia	**939**	**909**	**1069**	**1123**	**1156**	**22.8**

Total construction expenditure per annum remains highest in core metro and production zones while resource based zones are showing the fastest average growth. Dispersed metro now shows negative growth in construction expenditure.

Growth in average building work done per capita
2006 to 2008 over 2003 to 2005 (%)

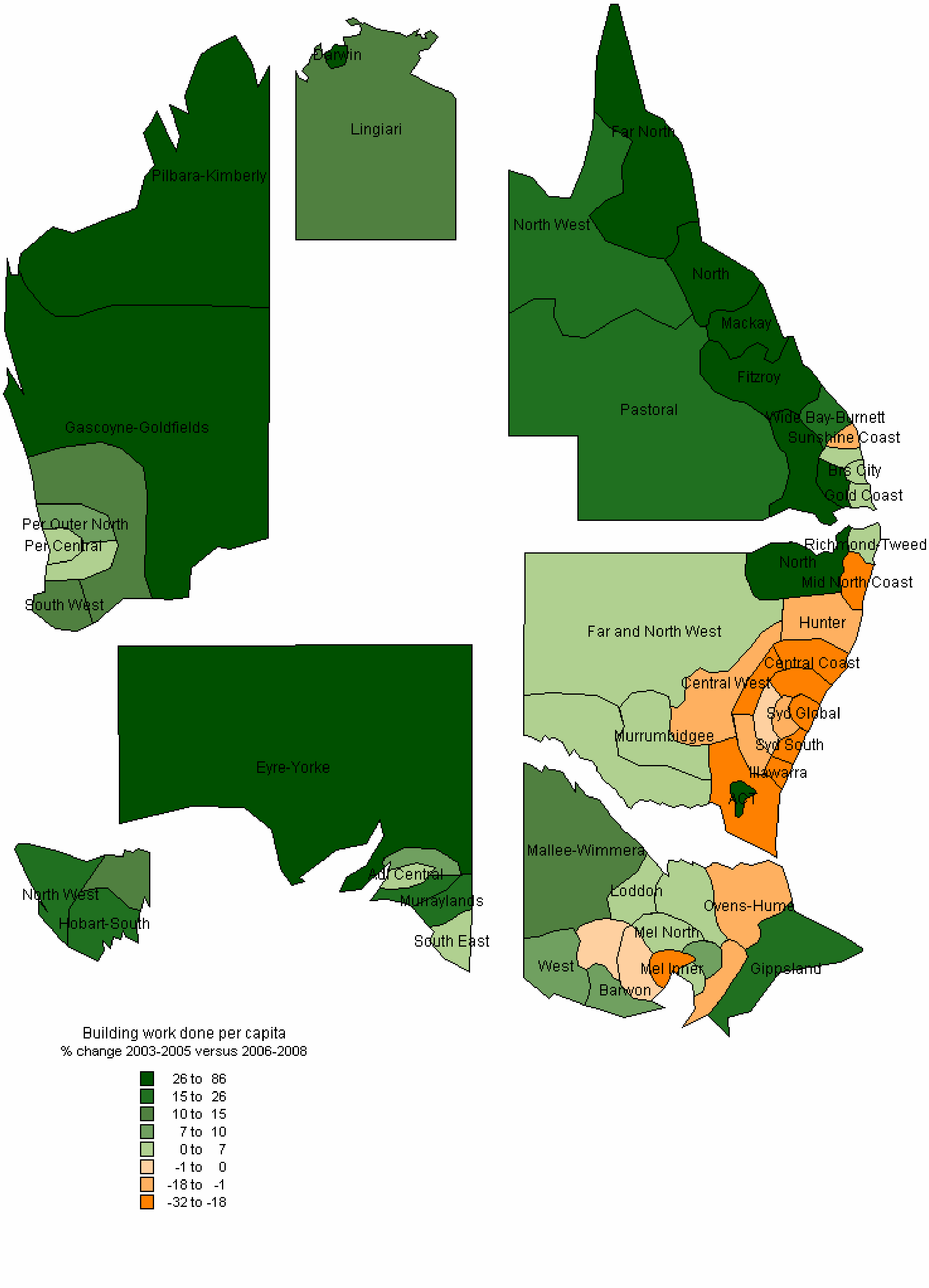


Table 1.19	Total construction expenditure per annum (2005 $ million)					
	1997-2001	**2002-2005**	**2006**	**2007**	**2008**	**Average growth 2002-05 to 2006-08 (%)**
Rural	5082	6349	7880	8072	8407	27.9
Core Metro	13209	14774	14966	15111	15436	2.7
Resource Based	1567	1540	1970	2290	2276	41.4
Dispersed Metro	9040	9849	9546	9675	9712	-2.1
Production Zone	10049	12223	12877	13354	13603	8.6
Lifestyle	4268	5502	5931	6002	6067	9.0
Australia	**43215**	**50239**	**53170**	**54504**	**55500**	**8.3**

While total construction expenditure per capita remains highest in core metro with this zone now showing a slight decline in average growth (off four points from last year), average growth in per capita expenditures has been highest in the resource based and rural zones. In terms of construction expenditure per capita dollar value, lifestyle and resource based zones are catching up with core metro expenditures. Per capita construction expenditures are the least in the dispersed metro zone.

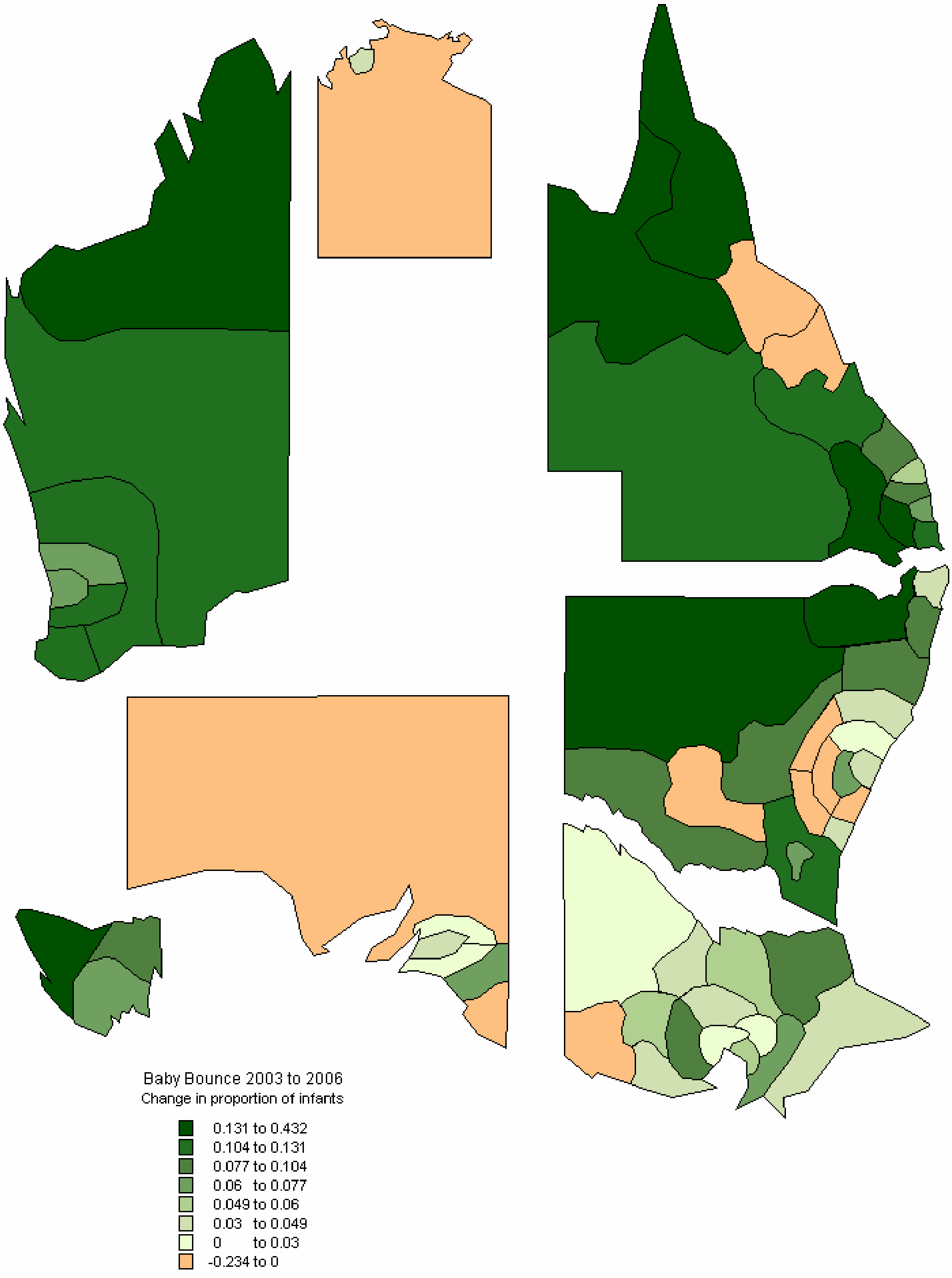
Table 1.20	Total construction expenditure per capita (2005 $ million)					
	1997-2001	**2002-2005**	**2006**	**2007**	**2008**	**Average growth 2002-05 to 2006-08 (%)**
Rural	1470	1774	2151	2170	2228	23.1
Core Metro	3795	4001	3893	3888	3937	-2.4
Resource Based	2165	2013	2479	2833	2765	33.7
Dispersed Metro	1971	2041	1929	1932	1922	-5.5
Production Zone	1982	2276	2325	2372	2384	3.7
Lifestyle	2630	3036	3104	3090	3077	1.8
Australia	**2282**	**2506**	**2569**	**2596**	**2612**	**3.4**

1.4 Baby bounce

The baby bounce indicator measures births as a percentage of population. Last years figures indicated that, at the national level, there had been no additional bounce although the level of births created by the bounce for 2003-2004 had been maintained. This year Table 1.21 indicates that the baby bounce is now most pronounced in resource based, rural and lifestyle zones with core metro, which in last year’s table contributed to the bounce by 0.02 per cent, slipping behind in the baby stakes.

Table 1.21	Baby bounce								
	Baby bounce – per cent of population							Bounce	
	1996	2001	2002	2003	2004	2005	2006	2005-2004	2006-2005
Rural	1.5	1.4	1.3	1.2	1.2	1.2	1.3	0.00	0.07
Core Metro	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.02	0.01
Resource Based	1.7	1.6	1.4	1.4	1.5	1.5	1.5	-0.03	0.09
Dispersed Metro	1.4	1.3	1.2	1.2	1.3	1.2	1.3	-0.01	0.03
Production Zone	1.5	1.4	1.4	1.3	1.4	1.4	1.4	-0.01	0.02
Lifestyle	1.4	1.2	1.2	1.1	1.1	1.2	1.2	0.03	0.05
Australia	**1.5**	**1.4**	**1.3**	**1.2**	**1.2**	**1.2**	**1.3**	**0.00**	**0.07**

Baby bounce percentage point change in proportion of infants 2003 to 2006



2. Climate change, CO_2 abatement strategies and the impact on Australia's regions

Part A: Climate change

This chapter explains greenhouse emissions and associated policies and issues. It begins with an overview of the science and economics, followed by a detailed account of Commonwealth and State policies. Internationally, Australia has a reputation as a greenhouse response laggard, while the United Kingdom has the opposite reputation as a leader in greenhouse emission abatement. The Chapter accordingly includes a case study that examines greenhouse policies in the United Kingdom. The background detail and case studies from this chapter can be used by local government as a reference tool and, in conjunction with the Mount Alexander case study in Chapter 4, to develop local area policy improvements to assist in developing abatement strategies to reduce Greenhouse gas emissions.

2.1 Greenhouse emissions

Spread across the planet earth for tens of thousands of years, humanity has lived in countless tribes and civilisations. Each tribe and civilisation has had its distinctive social structure and economic base, in turn related to its natural environment. For some tribes and some civilisations this relationship has been co-operative and complementary, but others have borne heavily on their resource base, sometimes damaging it to the point where the tribe or civilisation perished. History is replete with denuded hills and deserts which were once productive land – one need only instance the North African shore of the Mediterranean, which has a climate uncannily similar to southern Australia.

However, up until the past few decades tribes and civilisations lacked the technology to spread the damage much beyond their own resource bases and the resources they had conquered as colonial powers. Even when they polluted the atmosphere, their smoke or wind-borne dust tended not to carry very far, and to damage – or sometimes even benefit – identifiable local areas. So long as an environmental problem affects a local area, there is a reasonable chance that the people who are causing the problem and those who suffer its effects overlap, or at least come within the same jurisdiction, thus laying a basis for remedial action – particularly where the degradation is not the result of desperate poverty, and resources are available to counter it. As incomes rise and technical competence improves, political pressures arise to defend the environment. There is a long history of government intervention to counter local environmental costs.

2.1.1 Global environmental threats

In the past few decades people have become conscious of a new and much more intractable type of environmental problem: atmospheric damage which is global in its effects. This is difficult to address, because the people who cause the damage are acting locally, while the costs are global, and frequently also persistent. Such costs are not easily controlled in a world of independent nations and profit-maximising global corporations. Squabbles are inevitable about who is really causing the costs and who should be responsible for controlling them.

The first global environmental cost to be identified was the release of chlorofluorocarbons (CFCs), those seemingly innocent propellants and refrigeration chemicals whose destructive effect on the ozone layer admitted radiation from space to places completely unrelated to the original site of emission, with, as it happened, particularly serious effects in Patagonia. Fortunately CFCs had no more than a limited range of applications, and were crucial to the profitability of no more than a few corporations. Substitutes were found, admittedly at an increase in costs. One by one, national governments curbed the use of CFCs, and eventually international agreement was reached to phase them out.

The enhanced greenhouse effect is sometimes compared to the CFC episode, since both involve emissions with worldwide and long-lasting effects. However, there is a very important difference. CFCs were a synthesised chemical which, as it turned out, had such baleful environmental effects that there was little alternative but to cease production. By contrast, the advanced greenhouse effect is caused by excess emissions of naturally-occurring gases. There is no question of ceasing production of these gases. The task is to reduce rather than eliminate. However, it is a much more difficult task than the elimination of CFCs, because greenhouse gas emissions are deeply integrated into current practice in a wide range of industries. Rather than being a recent innovation, confined to a couple of relatively minor industries, greenhouse gas emissions arise every time we breathe out and every time we use fire. Greenhouse gas emissions from furnaces underlay the industrial revolution, and emissions are part of the heritage of that revolution, seemingly essential to the post-industrial way of life.

National Economics first took notice of the enhanced greenhouse effect in 1986, when at the Institute’s annual long-term conference it was raised as a potentially important consideration in planning for the decades ahead. At that time it was something of a scientific curiosity, and all discussion was prefaced with caveats about the uncertainty of the science; yet it was a plausible curiosity, enough to prompt people willing to think about the long-term future to ponder the two possible human responses. The two responses are adaptation, or learning to live with hotter weather and less rain, and abatement, or reducing emissions in order to avoid even more serious climate change.

At this point the enhanced greenhouse effect passed from a scientific theory to contested politics. As regards the effect itself, the major losers were fairly quickly identified as low-lying islands threatened with obliteration from a rise in sea levels, plus regions which are already fairly warm, with unreliable rainfall – in other words, the regions of Mediterranean climate, whether in Europe, North America or Australia. Potential winners were regions with cold climates, which could look forward to longer and more prolific growing seasons – unfortunately, none of them in Australia. Among the potential losers, only the small island states have so far made much political noise, though the insurance industry is increasingly expressing public concern that worsening weather risks will create uninsurable losses.

The politics are altogether different regarding the effect of abatement policies. Here there are major business interests, owners and suppliers of important technologies, which believe themselves to be seriously threatened by policies to reduce emissions. As is always the case when changes of technology are in prospect, these defending interests are opposed by the relatively minor vendors of low-emission technologies, who expect to benefit from abatement action. The threatened industries are most obviously those directly responsible for emissions; the potential beneficiaries are most obviously those selling low-emission substitutes, though there is a complication – in the energy sector a number of significant businesses straddle the divide. Add to this mix conservationists of various shades of green, with an emotional stake in changing both society and economy, and conservatives of various shades of blue with an emotional stake in defending our current emission-intensive way of life, and the politics of greenhouse gas abatement can become very noisy. Further add the simple fact that an effective greenhouse gas abatement program requires worldwide cooperation – to match the worldwide nature of the costs of climate change – and it is very difficult to avoid a political stalemate.

In Australia the stalemate was particularly pronounced at the Commonwealth level, so much so that the government came under criticism that it had been captured by vested interests which preferred to believe that the enhanced greenhouse effect was either unreal or, if real, was not the result of human actions (see Guy Pearse, *High and Dry,* Penguin 2007). Unfortunately for them, the science moved on, and those who disbelieve the reality of global warming now place themselves among the believers in a flat earth. In December 2006 the International Panel on Climate Change released its fourth assessment report, which documented the increase in the concentration of greenhouse gases in the atmosphere from 280 parts per million (carbon dioxide equivalent) to 430 parts per million now, growing at about two parts per million every year. The report reached two main conclusions.

- Global warming of at least two degrees Celsius is probable over the next hundred years, much of it the delayed consequence of the increase in greenhouse gas concentration which has already occurred.
- The dominant source of this warming is human activities, particularly the burning of fossil fuels.

Al Gore's documentary and book (*An Inconvenient Truth*) also highlighted climate change, and have had significant impacts on most governments, the business community and the general public internationally. These developments, coupled with the continuance of a severe drought, heightened concerns and political debate in Australia. For an Australian account of the enhanced greenhouse effect see CSIRO and the Bureau of Meteorology: *Climate Change in Australia, technical report 2007*. This report also contains an up to date and accessible account of climate change projections for Australia, and for this reason only a brief summary will be given here.

2.1.2 Climate change and Australia

Climate change is a global phenomenon, and much of the discussion has accordingly emphasised global effects. These include the probability that a moderate level of climate change will be favourable in some parts of the world – chiefly places where the plant growing season is currently limited by cold winters. The nearest of these places to Australia is Southland province of New Zealand; there are none in Australia itself unless one includes the snowfields, which are expected to contract. For Australia, climate change is almost wholly bad news.

Current forecasts of the impacts of climate change in Australia are based on significant data collection both locally and world-wide, interpreted through climate change models. The major global models are those produced by the Intergovernmental Panel on Climate Change, while the leading Australian-based models are the series produced by the CSIRO.

In 2000 the Intergovernmental Panel produced a Special Report on Emission Scenarios. This report was based on global average warming of 1.4 to 5.8^{o}C by 2100 relative to 1990 – the wide range indicates the near-certainty of an increase in average temperature coupled with uncertainties as to the increase in emissions and the response of the climate system. These scenarios remain as the basis of world discussion of climate trends, but have been updated to take into account improved modelling capabilities.

Climate change predictions focusing on temperature and rainfall in Australia have been derived from a number of climate models, using a range of assumptions regarding greenhouse gas emissions. The results are similar to the world results in that there is reasonable certainty that average temperature will increase and average rainfall reduce, with a wide range of uncertainty for each region. A further caveat is that the models predict changes in average climatic conditions, not the weather in any individual year, which will continue to be strongly variable.

Because of the wide range of uncertainty, climate change models still yield broad brush rather than detailed regional results. A further source of uncertainty is that the crucial changes are often particularly difficult to predict. For example, building damage from a cyclone depends on the velocity of the peak wind gusts, horticulture depends on frosts (presence or absence depending on the crop) and irrigation depends on catchment runoff, all of which depend on complexes of factors which make them harder to predict than average temperatures or rainfall. Importantly, many of these crucial changes are likely to be more extreme than the changes in temperature and average rainfall. A small increase in tropical average temperature is likely to produce very damaging increases in peak wind gust speeds in tropical cyclones. Similarly, in the major river catchments very small reductions in average rainfall are likely to produce very much larger percentage reductions in runoff, and hence in the supply of water for urban consumption and for irrigation.

To give a very bland flavour of what might be expected, Table 2.1 summarises the CSIRO (2007) projections for the regions. The table is confined to rainfall and temperature, and even then gives only the most summarised of predictions – the general drift within a wide range of risk. It is noticeable that the greatest temperature increases are expected inland and on the east coast, while the largest increases in rainfall variability are expected in regions where variability is already high. The regions in which rainfall reductions are most certain are those of South West Western Australia – where a significant reduction in rainfall has already occurred – but reductions are also expected along the whole of the south coast except Tasmania. This is but the baldest summary of a burgeoning literature which is gradually narrowing the range of uncertainty and increasing the range of variables predicted.

Table 2.1 Climate change projections for 2030

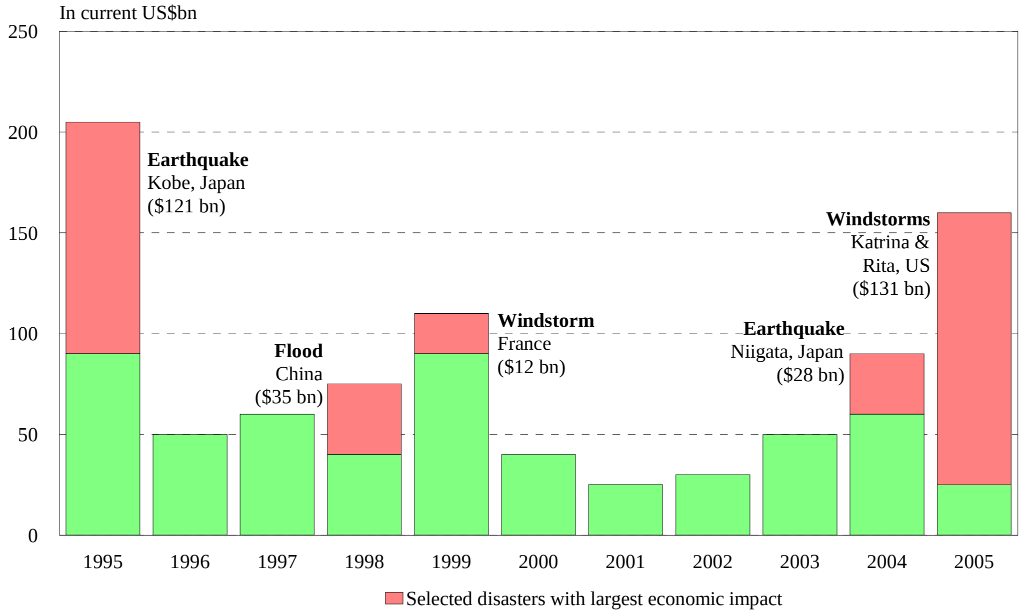
Region	Rainfall	Rainfall – first decile	Rainfall – 9th decile	Change in average temperature (degrees C)
Adelaide Central	Down say 4%	Down 12%	No change	Up say 0.6
Adelaide Outer	Down say 4%	Down 12%	No change	Up say 0.6
Adelaide Plains	Down say 4%	Down 12%	No change	Up say 0.7
Brisbane City	Down say 4%	Down 10%	Up 5%	Up say 0.9
Brisbane North	Down say 4%	Down 10%	Up 5%	Up say 0.8
Darwin	Not much change	Down 7%	Up 7%	Up say 1.0
Global Sydney	Down say 2%	Down 5%	Up 3%	Up say 0.9
Melbourne East	Down say 4%	Down 7%	No change	Up say 0.8
Melbourne North	Down say 4%	Down 7%	No change	Up say 0.8
Melbourne Inner	Down say 4%	Down 7%	No change	Up say 0.8
Melbourne South	Down say 4%	Down 7%	No change	Up say 0.7
Melbourne West	Down say 4%	Down 7%	No change	Up say 0.8
Melb Westernport	Down say 4%	Down 7%	No change	Up say 0.7
NSW Central Coast	Down say 2%	Down 5%	Up 3%	Up say 0.9
NSW Central West	Down say 2%	Down 7%	Up 5%	Up say 1.0
NSW Far W and NW	Down say 4%	Down 10%	Up 5%	Up say 1.1
NSW Hunter	Down say 2%	Down 7%	Up 3%	Up say 1.0
NSW Illawarra	Down say 4%	Down 5%	Up 3%	Up say 0.9
NSW Mid N Coast	Down say 2%	Down 5%	Up 3%	Up say 1.0
NSW Murray	Down say 4%	Down 7%	Up 2%	Up say 1.0
NSW Murrumbidgee	Down say 4%	Down 8%	Up 3%	Up say 1.0
NSW North	Down say 4%	Down 8%	Up 5%	Up say 1.0
NSW Richmond Tweed	Down say 4%	Down 7%	Up 3%	Up say 1.0
NSW South East	Down say 4%	Down 7%	Up 2%	Up say 0.9
NT Lingiari	More variable	Down 10%	Up 7%	Up say 1.1
Perth Central	Down say 6%	Down 13%	No change	Up say 0.9
Perth Outer North	Down say 6%	Down 13%	No change	Up say 0.9
Perth Outer South	Down say 6%	Down 13%	No change	Up say 0.9
Qld agricultural SW	Down say 4%	Down 12%	Up 7%	Up say 1.0
Qld Far North	Down say 2%	Down 7%	Up 7%	Up say 0.8
Qld Fitzroy	Down say 4%	Down 12%	Up 5%	Up say 0.8
Qld Gold Coast	Down say 4%	Down 10%	Up 5%	Up say 0.8
Qld Mackay	Down say 4%	Down 12%	Up 5%	Up say 0.8

Table 2.1 Climate change projections for 2030 (continued)				
Region	**Rainfall**	**Rainfall – first decile**	**Rainfall – 9th decile**	**Change in average temperature (degrees C)**
Qld North	Down say 2%	Down 10%	Up 7%	Up say 0.8
Qld North West	Not much change	Down 10%	Up 7%	Up say 1.1
Qld Pastoral	Down say 4%	Down 12%	Up 7%	Up say 1.1
Qld Sunshine Coast	Down say 4%	Down 10%	Up 5%	Up say 0.8
Qld West Moreton	Down say 4%	Down 12%	Up 7%	Up say 0.9
Qld Wide Bay Burnett	Down say 4%	Down 10%	Up 5%	Up say 0.8
SA Eyre and Yorke	Down say 4%	Down 12%	No change	Up say 0.8
SA Murraylands	Down say 4%	Down 12%	Up 2%	Up say 0.9
SA South East	Down say 4%	Down 10%	No change	Up say 0.7
Sydney Inner West	Down say 2%	Down 5%	Up 3%	Up say 0.9
Sydney Mid West	Down say 2%	Down 7%	Up 3%	Up say 1.0
Sydney Outer North	Down say 2%	Down 5%	Up 3%	Up say 0.9
Sydney Outer SW	Down say 2%	Down 7%	Up 3%	Up say 1.0
Sydney Outer West	Down say 2%	Down 7%	Up 3%	Up say 1.0
Sydney South	Down say 2%	Down 5%	Up 3%	Up say 0.9
Tas Hobart South	Not much change	Down 5%	Up 7%	Up say 0.6
Tas North	Down say 2%	Down 5%	Up 2%	Up say 0.6
Tas North West	Down say 2%	Down 7%	Up 2%	Up say 0.6
Vic Goulburn	Down say 4%	Down 7%	Up 2%	Up say 0.9
Vic Barwon	Down say 4%	Down 7%	No change	Up say 0.7
Vic Central Highlands	Down say 4%	Down 7%	No change	Up say 0.7
Vic Gippsland	Down say 4%	Down 7%	No change	Up say 0.8
Vic Loddon	Down say 4%	Down 7%	No change	Up say 0.9
Vic Mallee Wimmera	Down say 4%	Down 10%	Up 2%	Up say 0.9
Vic Ovens Hume	Down say 4%	Down 7%	Up 2%	Up say 0.9
Vic West	Down say 4%	Down 7%	No change	Up say 0.7
WA Gascoyne Goldfields	Down say 4%	Down 12%	Up 5%	Up say 1.1
WA Peel South West	Down say 6%	Down 12%	No change	Up say 0.8
WA Pilbara Kimberly	Down say 2%	Down 10%	Up 7%	Up say 1.2
WA Wheatbelt Gt Sthn	Down say 6%	Down 14%	Up 2%	Up say 1.0
ACT	Down say 4%	Down 7%	Up 3%	Up say 1.0

Note: The first decile represents a probable worst-case change in average rainfall – not a prediction of how low rainfall would go in a bad year. Similarly the ninth decile represents the probable best-case change in average rainfall predicted by the various climate change models. Strictly speaking these apply to a scenario in which economic growth continues rapidly accompanied by ‘business as usual’ growth in emissions. However, alternative scenarios with stronger abatement policies yield similar results, since the greater part of climate change expected to 2030 is a delayed effect of emissions to date, and is unavoidable.
Source: CSIRO (2007) Climate Change in Australia pp 54, 67, 68.

The insurance industry is very concerned about the impacts of climate change and advocates stronger action domestically and globally. An indication of the economic damage from natural disasters (not all connected with climate change) is provided below.

Economic damage from natural disasters



Source: Insurance Council of Australia.

2.1.3 Climate change and economic projections

Given the inevitability of climate change over the next few decades, economic activity in Australia can no longer be constructed on the time-honoured assumption of reversion to past average conditions following each flood and drought. However, given the wide range of variability in the results of climate change modelling, it is difficult to construct a scenario. For present purposes, we confine ourselves to the effect of climate change on the agricultural sector.

If we base the revised projections of agricultural income on the changes to average rainfall and temperature predicted by CSIRO in Table 2.1 above, the difference from previous projections is not very great. At the opposite extreme, one could argue that the low-rainfall, high-temperature experience over Australia as a whole over the past decade is not merely a taste of things to come, but represents the new norm. There are arguments against both these extreme positions.

Projections based on expected changes in average rainfall are likely to be too optimistic, given the expectation that crucial variables, such as runoff, will exhibit more serious adverse changes than average rainfall. On the other hand, projections based on the weather of the past decade are likely to be too pessimistic, given past experience of reversion to the mean after long droughts (though none as severe as this one). What is called for is assumptions somewhere between the named extremes.

For the present report, NIEIR has calculated the shortfalls in rural production due to the difference between the weather between the years 1998-2002 and the years 2003-2007, and assumed that half of this difference is due to climate change, and half due to variability which will be corrected by reversion towards the previous norm.

2.1.4 The Stern Review of the Economics of Climate Change

The global position was well summarised in 2006 by the Stern Review for the British government (N.Stern, *The Economics of Climate Change*, Cambridge 2007). This review built on previous studies in the field, but went further, particularly in calculating the costs of allowing continued growth in emissions. Under a business as usual scenario, the stock of greenhouse gases in the atmosphere could more than treble by 2100, giving at least a fifty per cent risk of exceeding a five degree Celsius increase in global average temperature. This would take the earth into unknown territory – an increase in temperature equivalent to the increase at the end of the last ice age.

Whereas most previous modelling has used as a starting point emissions which yield global average warming of 2-3^{o}C, Stern considered the likelihood (considered as at least a 50 per cent probability under business as usual) of warming of 5-6^{o}C over the next two centuries. He then took an important step and calculated the both the costs and benefits of climate change globally, with an emphasis on the risks associated with high rates of global warming. He also calculated the costs of avoiding the worst of these impacts.

As always in assessing costs and benefits, a line has to be drawn as to how many to include. Previous studies which reported relatively manageable business as usual costs of climate change were able to reach this conclusion by assuming optimistically low rates of change, adopting short time horizons and omitting some arguably relevant costs. After remedying these deficiencies, Stern concluded that the total cost of climate change over the next two centuries would be an average reduction in global per capita consumption of at least 5 per cent now and for ever.

The report noted that only a small portion of the climate change cost between now and 2050 can realistically be avoided because of inertia in the climate and economic systems. However, this does not mean that action need not be taken before 2050. On the contrary, it means that immediate action must be taken to reduce the climate change costs for later periods and to pay close attention to adaptation. Much, but not all, of the loss could be avoided through a strong abatement program, which the report indicates could be achieved at far lower cost.

The cost of business as usual would increase were the models to account for a further three factors.

- ❑ Inclusion of direct non-market impacts on the environment and human health would raise the assessed cost, even without including forced migration and political instability.
- ❑ Some recent scientific evidence indicates that the climate system may be more vulnerable to greenhouse gas emissions than thought even five years ago.
- ❑ A disproportionate burden is expected to fall on the people of low-income countries, and within all countries on low-income families. There are strong arguments for re-weighting the assessment to give greater emphasis to these costs.

Considering these additional factors the Stern Review concluded that the total cost of business as usual climate change should be re-estimated as around a 20 per cent reduction in current per capita consumption now and for ever. This estimate should, of course, be treated with caution, but the review insisted that the potential cost of climate change is ‘strikingly large’.

The Review proceeded to argue that halting climate change requires stabilisation of greenhouse gas concentrations at 450-550 parts per million, in turn requiring deep emission cuts of at least 25 per cent from existing levels by 2050, and ultimately back to less than 20 per cent of current levels. This implies even greater cuts for high-emission countries like Australia and the USA, in order to accommodate economic growth in currently low-emission countries. The Australia Institute is currently suggesting that Australian emissions need to be cut by at least 90 per cent by 2021.

The costs of doing this will depend on a number of factors, particularly progress in bringing down the cost of mitigation technologies. However, modelling estimates for the Stern Review suggested, at the world level, that the overall costs would be around 1 per cent of gross global product for stabilisation levels of between 500-550 parts per million of carbon dioxide equivalent. The costs will not be evenly distributed. Carbon intensive sectors will suffer relative to the rest, but opportunities will be created for carbon-substitute technologies. Costs may also be ameliorated through the side benefits of abatement, for example increasing energy productivity.

Stern's global cost estimate was produced after an examination of relevant technologies, and modelling the investment campaign required to substitute these technologies for existing high-emission activities. A comparison was carried out with other international modelling studies, in which costs ranged from 5 per cent of GDP down to -2 per cent (net gains), with a typical estimate similar to Stern's 1 per cent. Abatement costs vary substantially between studies depending on the assumed rate of technological change, the number of technologies included and the time frame considered. Induced technological change assumptions are very important, and can vary the estimated costs of stabilisation by one or two percentage points of GDP by 2030. A major conclusion was that costs can be moderated significantly if many options are pursued in parallel and new technologies are phased in gradually. Again, the sooner we start investing, the lower the eventual cost.

In summary, the Stern review reached the following conclusions.

- ❑ Climate change will have substantial impacts on growth and development, but there is still time to avoid the worst impacts if action is taken now.
- ❑ The costs of climate stabilisation are significant but manageable. Delay would be dangerous and much more costly.
- ❑ Action on climate change is required across all countries, but it need not cap growth aspirations. An international response is required, based on shared understanding of long-term goals and agreement on the framework for action.
- ❑ A range of options exists to cut emissions. Strong, deliberate policy action is required to motivate abatement.

Translated into economic terms, the Review emphasised that climate change is the most pervasive market failure the world has ever seen. Three policy elements are required for an effective response.

- ❑ The pricing of emissions, particularly carbon dioxide emissions, whether directly by a tax or by other means.
- ❑ Policy to support innovation and the deployment of low-emission technologies.
- ❑ Action to remove barriers to emission cuts and to inform, educate and persuade individuals and governments on what they should do to limit climate change.

2.2 Adaptation

Given the lags in the adjustment of climate to emissions, it is inevitable that Australia's climates will change over the next few decades. Studies on climate-sensitive sectors point to many adaptation options that will provide benefits in excess of costs. However, quantitative information on the costs and benefits of economy-wide adaptation policies is currently limited. Again, while adaptation will cushion the negative impacts of climate change, there will always be residual damage, often very large and very uncomfortable.

The impact reductions available from some adaptations are impressive, but the Stern Review notes that adaptation is only possible where individuals and economies have the capacity to adjust. Market forces are unlikely to lead to efficient adaptation due to:

- uncertainty and imperfect information;
- missing and misaligned markets in which benefits do not accrue to those taking action; and
- financial constraints, particularly those faced by poorer people and businesses.

Despite the existence of sophisticated financial markets in Australia, with every incentive to respond to climate change, progress on adaptation has scarcely begun. Governments have a role to advance this by the following means:

- collecting, interpreting and disseminating high-quality climate information;
- adapting land use planning;
- adapting equipment and building performance standards;
- developing long-term policies for climate-sensitive public assets such as the coast and other natural resources;
- enhancement of emergency preparedness; and
- providing financial support for poor groups affected by climate change.

The Stern Review estimated that making new infrastructure and buildings resilient to climate change in OECD countries would raise investment costs by 0.05 to 0.5 per cent of world GDP each year.

In Australia as elsewhere there is a need for effective information on adaptation, and the development of markets to respond to that information. Land use planning requires review (in conjunction with the review also required as part of abatement policy), and the emergency safety net also requires review in both these contexts. Growing water shortages will also require costly investments – water storages, reduction of evaporation, even desalination – to manage water stress and shortages. This *State of the Regions* report includes sections on local government responsibility for greenhouse response, and on the problems of water supply.

2.3 Abatement (mitigation)

Table 2.2 National Greenhouse Gas Inventory 2005: emissions by source

Emission type	1990	2005	Increase	Per cent, 2005
Energy	287	391	36.3	69.9
...Stationary	196	279.4	42.6	50
...Transport	61.9	80.4	29.9	14.4
...Fugitive	29.1	31.2	7.3	5.6
Industrial processes	25.3	29.5	16.5	5.3
Agriculture, forests	87.7	87.9	0.2	15.7
Land use change	128.9	33.7	-73.9	6.0
Waste	18.3	17.0	-6.9	3.0
Total	**547.1**	**559.1**	**2.2**	**100**

Source: National Greenhouse Gas Inventory 2005.

Table 2.3	National Greenhouse Gas Inventory 2005: emissions by industry sector			
Industry	**1990**	**2005**	**Increase**	**Per cent, 2005**
Agriculture, forestry and fisheries	220.1	128.2	-41.7	22.9
Mining	32.0	46.3	44.8	8.3
Manufacturing	67.1	69.0	2.9	12.3
Electricity, gas and water	135.5	199.0	46.9	35.6
Services, construction, transport	49.3	60.9	26.6	10.8
Residential	43.3	55.7	28.6	10.0
Total	**547.1**	**559.1**	**2.2**	**100**

Source: National Greenhouse Gas Inventory 2005.

Table 2.4	National Greenhouse Gas Inventory 2005: emissions by fuels	
Fuel	**Mt**	**Per cent**
Coal (including brown coal)	225	40
Petroleum products	122	22
Natural gas	66	12
All other emissions	145	26

Source: Estimated from NGGI 2005.

If the world is to avoid the worst effects of climate change, there is no option but to reduce emissions of greenhouse gases – to adopt abatement policies. Abatement means cutting emissions – not cutting them right out, as with CFCs, but reducing them to the point where they are no longer a threat to the world's climate systems. As noted above, Australia faces the prospect of cutting emissions by 90 per cent within 15 years.

An important aspect of greenhouse gas emissions is that they are by-products of industrial and domestic activities. Cutting them down, therefore, is not like cutting down on beer or tobacco – we do not necessarily have to go without the goods and services of which they are by-products. If we can find some other way of carrying on the industrial or domestic activities which currently produce emissions, we can switch to that way without direct loss of product or service. However, it is quite likely that the switch will raise costs.

Because emissions are a by-product, they can be cut in several ways:

- by switching from emission-intensive to lower-emission technologies without forgoing the product or service, for example, by switching from coal-based to renewable-based electricity, or by investing in better insulation to cut emissions from home heating;
- by research, development, demonstration and implementation of new technologies to provide products and services at lower emission intensity and
- by simply cutting back on the use of high-emission products and services, for example by forgoing overseas travel.

Most emission abatement programs involve a combination of all these tactics.

The National Greenhouse Gas Emission Inventory gives an audited statement of emissions, and is a compulsory first port of call in looking for cuts. The inventory directs attention to the following:

- carbon dioxide from burning of fossil fuels, chiefly coal, petroleum and natural gas;
- carbon dioxide from industrial process use of fossil fuels, chiefly in the manufacture of cement and steel;
- methane from ruminant animals, chiefly cattle and
- both methane and carbon dioxide from land clearing and various other agricultural and forestry processes.

Emissions are quantified using an internationally agreed methodology, known as Kyoto accounting. For the most part emissions are calculated from base data on fuel consumed, converted to emissions using carbon-content coefficients. Outside the energy sector, more indirect and contentious techniques have to be used.

2.3.1 The effects of trade

Greenhouse gas inventories are compiled on a national basis. They therefore include emissions incurred in the production of exports, but exclude the emissions incurred in the production of imports. An obvious way, therefore, for a country to get its emissions down is to import emission-intensive products and export low-emission products. This raises the question of the conventions adopted in Kyoto accounting. In dealing with imports and exports, there are two extreme possibilities.

- At one extreme, all emissions could be debited to the country of original production of the fuels concerned. Since Australia is a major exporter of a high-emission fuel, namely coal, this would result in a higher national total.
- At the other extreme, all emissions could be debited to the country of final consumption of goods and services of which the emissions are by-products. Under this rule, Australian exports of emission-intensive products such as aluminium would be debited to the destination country, but Australia would be debited with the emissions incorporated in its imports. Most probably the net result would be a reduction in emissions from those calculated in the national inventory.

These two possibilities point to the opportunities for international buck-passing in the control of emissions, and related financial flows. An interesting case is the politics of the coal trade. Let us suppose that coal-importing countries decide to discourage the use of coal by taxing it. The coal importing countries receive revenue, while the coal exporters lose sales with a tendency to depressed prices. There is an obvious opportunity here for the coal exporters to jump the gun and impose an export tax, thus gaining a share of the coal-tax revenue in compensation for the inevitable fall in production. However, at least until very recently, the Australian government has seemed oblivious to this option, preferring instead to exercise its diplomatic clout to maximise coal sales. International bargaining over abatement policies, which until recently concentrated on the setting of emission targets, is likely to become much more fraught as countries realise that it will involve the distribution of tax and commercial revenues. If serious conflict is to be avoided much more attention will have to be given to the co-ordination of emission abatement programs.

Another international aspect of greenhouse gas inventories is the omission of fuel consumed by international shipping and aviation. As domestic abatement policies tighten it will be necessary to address this issue, which will necessarily require international cooperation.

When attention turns to cutting domestic emissions, debate tends to rush straight towards the policy instruments by which cuts may be achieved. However, it pays first to review the areas in which cuts are needed before asking how they may be implemented.

2.3.2 Cutting emissions from coal

Coal accounts for approximately 40 per cent of Australian emissions (including fugitive emissions from coal mining and a share of emissions from electricity distribution). Coal is mainly used as a fuel in power generation, with secondary use in smelting. It is the source of such a high proportion of Australian emissions that it will necessarily be targeted in any abatement program.

Emissions from coal can be cut by switching electricity production to other, less emission-intensive sources. The obvious switch is to renewable sources, which involve emission-free electricity generation, though emissions are involved in construction of the plant and there may be other problems. (For example, hydro-electricity has the disadvantage of flooding upland country.) Given the lack of further hydro sites in Australia, electricity from renewable sources tends to be more expensive than that from coal, though the differential would narrow if a charge were made for emissions, and is also gradually narrowing as the result of a considerable research effort, nearly all of which has been carried out overseas. This said, switching electricity to renewable sources will require an increase in the price of electricity and a major investment program. Given the extent of the program required, a major switch within fifteen years would only be possible if total electricity usage was also curtailed.

Three other switches have been advocated: from coal to natural gas, from coal to nuclear power and the continued use of coal with carbon sequestration and storage.

Natural gas is already cost-competitive in peak-hour generation and emits less per kilowatt hour of electricity than coal, but the emissions are still significant. Another problem is that the fuel, though currently abundant, is likely to rise in price as demand for it increases. However, the technology is well-understood, reliable and available at reasonable capital cost, and electricity generation from natural gas is attractive as an interim solution while zero-emission alternatives are developed.

Nuclear power is now a fairly old and well-known technology, which has been supplying reliable base-load power in a number of countries for many decades. Reflecting this experience, its disadvantages are well-known. They include high capital cost (including high emission costs in the construction of plants), considerable danger (including danger that material will be used by terrorists and that nuclear power plants will become targets in war) and high plant decommissioning and by-product storage costs. Even if these risks are discounted and costing is limited to current cash costs, nuclear power is 30 to 50 per cent more expensive than coal-sourced electricity (in the absence of emission penalties). Since the technology is capital-intensive, this assessment depends heavily on the interest rates used – change the interest rate from five to ten per cent and the sent-out cost per kWh increases by around 80 per cent. A further problem is the requirement for large flows of cooling water, which makes a coastal location desirable – preferably close to a major load centre, to minimise power distribution losses. Given community concerns, such locations are likely to be hard to find. However, the Switkowski report for the Commonwealth government recommended, in 2006, that Australia should prepare for the introduction of nuclear power – which, given design and construction lags, could not be earlier than 2020.

The coal-based electricity industry has endeavoured to cut emissions using new designs of plant which burn coal more efficiently, but unfortunately the chemistry of burning coal places a natural limit on this endeavour. It is possible to move a small distance beyond this limit within conventional technology by capturing waste heat from the generators and using it for industrial or domestic heating, but this requires customers for co-generated heat located close to the powerhouse. This is seldom the case in Australia. Beyond the point where all heat from coal combustion is captured, further cuts in emissions can only take place through carbon capture, transport and storage. Given a certain optimism, this as-yet undeveloped suite of technologies is expected to allow electricity generation at a cost competitive with renewable sources and nuclear power – but these estimates are highly speculative. This cost will certainly be above the current cost of coal-sourced electricity, and requires secure storage for the captured gases, most obviously in old oilfields – which means that costs will be very site-specific.

The Australian coal industry is currently enjoying a boom, but is obviously vulnerable when the world as a whole decides to cut emissions. If India and China decide to cut back on coal imports as part of the world abatement program, Australia will simply have to adjust, in addition to domestic adjustments to electricity production. These domestic adjustments will require investment, with the rational route being to phase out coal-fired power stations, starting with the most emission-intensive, eventually replacing them with electricity from renewable sources, but perhaps with interim use of gas. In the process significant amounts of capital will have to be found and the price of electricity will rise, encouraging reductions in consumption.

Local governments have indirect influence over some of the uses of electricity, and direct responsibility for such uses as street lighting. Some of the major opportunities for councils to help their citizens to combine high standards of living with reduced consumption of electricity and other energy involve councils' powers over town planning and new buildings, both residential and commercial – such as requirements for building orientation, shading, glazing and the like, to reduce air-conditioning and heating demand. Councils have less influence over retro-fitting for building energy-efficiency, but may still be able to find ways to encourage it.

Cutting emissions from the metallurgical use of coal is likely to be more difficult than in power generation, since the coal is not just a source of heat but integral to the process. An adjustment will be required of the various smelting industries, one unlikely to concern local government except in cities where smelters are an important source of employment.

2.3.3 Cutting emissions from petroleum products

Petroleum and its products account for around 22 per cent of Australian emissions. About 65 per cent of petroleum emissions result from its use as a transport fuel, with the remainder split between power generation (about 2 per cent), petroleum refining (about 6 per cent) and stationary and off-road engines including agricultural equipment (about 28 per cent). Before the oil price shocks of the 1970s petroleum products were commonly used for heating and electricity generation, but were displaced from most of these uses by natural gas – a switch which required considerable investment in gas reticulation. Petroleum is still in use for electricity generation in remote areas, but this use is declining since conversion to renewable sources is being encouraged.

The 1975-78 oil price shock provided substantial incentives to seek alternatives to petroleum as a transport and tractor fuel, but it proved difficult to find substitutes which combine high energy density with convenience of handling. However, there is a now a double whammy, in that the need to curtail emissions from petroleum fuels is coinciding with 'peak oil' – the expectation that products based on crude oil will decline in availability and increase in price because they are increasingly produced by scrounging the last remaining crude from depleted oilfields or from low-quality sources like oil sands (in both cases at increasing emission cost). As the market runs its course, price increases due to peak oil will discourage emissions from petroleum fuels and direct attention towards substitutes.

Were it not for the need for emission abatement, peak oil would be an opportunity for the coal industry, but liquid fuel made from coal is necessarily so emission-intensive that it can now be counted out. There is also an opportunity for natural gas at a somewhat smaller increase in emissions – but this switch certainly does not yield emission cuts. There are two remaining candidates, namely:

- ❑ fuels from crops and
- ❑ energy from other renewable sources transferred to vehicles via batteries or hydrogen.

Fuels from crops involve tried technology, and can sometimes be produced at low cost from what are now waste products. However, mass production may be costly due to climate change and competition from food crops, and the potential for emission reduction is also limited by the emissions necessarily produced in the course of crop production. Batteries are also a well-developed technology, with possible potential as a power source for light vehicles, provided emission-free electricity is available.

The problems in using hydrogen lie not in designing a suitable engine but in storage on-vehicle of enough to travel a reasonable distance and in the manufacture of hydrogen from renewable sources. (Experimental hydrogen vehicles have used power from natural gas, and increase emissions compared to using natural gas directly.)

There is no workable substitute for aviation gasoline in prospect other than biofuel.

As peak oil and emission cuts compound one another, a significant increase in the cost of transport fuels will occur, which will motivate cuts in usage. How can these cuts be made without eating into standards of living? As regards freight transport, there are three possibilities.

- Make less use of transport – use local materials and seek local markets.
- Transfer freight from emission-intensive to less emission-intensive modes, meaning sea and rail freight in preference to road and air.
- Reduce the emission-intensity of existing transport modes.

The equivalent three possibilities for passenger transport are as follows.

- Travel less – not forgetting the potential for telecommunications to substitute for travel.
- Transfer travel from emission-intensive to less emission-intensive modes – from planes to trains, from cars to cycles and walking.
- Reduce the emission-intensity of existing transport modes. An extreme example is to switch from four-wheel-drive vehicles to motor scooters.

Local governments are both land-use planning authorities and major providers of roads, and accordingly are in a position to help or hinder their citizens' efforts to reduce transport emissions.

There is a burgeoning literature on pedestrian-friendly urban design – including not just making walking pleasant and safe, but ensuring that urban facilities are within walking distance of each other. This literature overlaps with that on transit-oriented activity centres. Transit derives its emissions-efficiency not only from lower emissions per passenger kilometre carried (provided vehicles are reasonably full) but from its encouragement of walking.

A second burgeoning literature deals with the encouragement of cycling. It is now a couple of decades since local government realised that trucks and fast cars make the roads unsafe for cyclists. Though there has now been significant remedial action in the construction of cycle paths, there are still plenty of opportunities to redesign urban areas so that it is safe for children to cycle to school and sport, not to speak of helping other energetic citizens cycling for transport as well as for exercise. A further way by which local government involvement may be able to encourage cycling is through involvement with cycle hire and cycle parking. There are European precedents for making cycles available for free or low-cost hire from ranks through each urban area, thus speeding local short-distance transport at no emission cost.

Like bicycles, low-emission motor vehicles such as motor scooters and low-powered lightweight cars are vulnerable in any collision with a truck or a large car. Like cycles, they would probably be much more popular if they could be used safely. This poses a challenge to councils, particularly in developed urban areas where meeting the challenge will probably involve denying street space to heavy vehicles. However, the combination of improved safety, emission cuts and reduced need for expensive fuels may change the politics from the present custom of allowing all registered vehicles access to all roads and streets in favour of much more selective access. There may also be opportunities to encourage the use of low-emission vehicles by providing convenient parking and through council-supported hire schemes.

As regards freight transport, local government has for decades borne the consequences of national policies which have strongly encouraged trucking, with the inevitable side excursions of large trucks onto local roads. The policies have included increases in permissible axle loads and vehicle length, highway investment policies, tolerance of the industry's poor safety record and a policy of minimal cost recovery for road capital expenditures. The road transport industry is sure to argue that even heavier and larger vehicles are required to reduce emissions and conserve fuel per tonne kilometre, but this is scarcely the case on inter-capital journeys where lower-emission, fuel-efficient rail and sea alternatives are available. It may take a long time for the Commonwealth to implement policies to reduce emissions from road freight, but when it does local government should be able to divert funds from the present priority for high-speed, high-axle load arterial roads towards investment in light-vehicle roads and cycle paths.

Stationery and off-road petroleum-powered engines are extensively used in the rural and mining industries, and as fuel prices increase these industries will be forced to economise on their use. However it is not yet apparent what, if anything, local government can do to assist.

2.3.4 Natural gas

Natural gas is responsible for approximately 12 per cent of Australian emissions, coming third after coal and the various derivatives of crude oil. Its major current uses are electricity generation (about a third of total gas usage) and heating (about 57 per cent). The remaining emissions arise from leakage during gas production and a small amount from gas-powered vehicles. As noted above, the use of natural gas in electricity generation in lieu of coal reduces emissions, while its use in vehicles saves crude oil without reducing emissions. Regulation to improve the thermal efficiency of buildings provides an opportunity to cut emissions from natural gas used in domestic and commercial heating.

An important opportunity in the natural gas sector is cogeneration – the use of gas to provide both heat and power. This increases the thermal efficiency of burning gas, and hence reduces emissions for a given amount of work. The main limitation for cogeneration plants is that they have to be designed according to the requirements of the heating customer – most commonly an industrial plant or a major user of steam, such as a hospital. This is most easily achieved when the cogeneration plant is installed at the same time as the heat-using plant – retrofitting is unusual. Nevertheless, there may be opportunities for councils to encourage cogeneration as part of their planning approval process.

It is possible that a carbon capture and storage technologies may be applied to power generation from gas, obviously at increased cost compared to straight gas generation. As remarked when considering coal, these technologies are speculative at this stage.

2.3.5 Agriculture and land use change

According to the National Greenhouse Gas Emission Inventory, in 2005 agriculture, forestry and fishing was responsible for 23 per cent of Australia's emissions. This percentage includes two main components:

- ❑ emissions of methane from livestock and agricultural soils, and emissions of carbon dioxide from controlled burning, chiefly of savannah pastures, totalled and expressed in equivalent tonnes of carbon dioxide and
- ❑ the net effect of land use change, which is a euphemism for the net balance between clearing forests and planting them, calculated in terms of carbon dioxide released by burning as against carbon dioxide fixed by photosynthesis.

Both quantities are rather harder to estimate than emissions from fossil fuels, where reliable coefficients connect fuel burnt and carbon dioxide emitted.

Emissions from agricultural equipment are not part of the 23 per cent, but are counted under petroleum fuels.

Emissions from ruminant livestock account for around half of sector net emissions. Apart from proposals that emissions can be reduced by altering the diet of the animals, the only way to cut these emissions is to reduce the number of cattle and sheep. With the falling profitability of wool production the number of sheep in Australia has been falling, partly compensated by an increase in the number of cattle – an indication that ruminant animal numbers respond to market trends.

The application of fertilisers and the cultivation of legumes release methane from the soil, and there is a small addition from paddy cultivation. Cuts here may be possible through changed techniques.

Control burning is responsible for around 7 per cent of agricultural sector emissions, but this is often carbon dioxide well spent, since it reduces emissions from wildfires – which, by a quirk of Kyoto accounting, are not included in the inventory.

Finally, in 2005 a net 28 per cent of emissions from agriculture, forestry and fishing came from land use change. Clearing of forests and woodlands yielded a gross 43 per cent, but an offset of 16 per cent was calculated to arise from reafforestation. The net figure for land use change, at 6 per cent, is a considerable reduction from the 24 per cent of emissions in 1990, a change which has considerably reduced the rate of growth of total Australian emissions. The reduction in emissions under this heading has been the result of two trends.

- The rate of land clearing has fallen, due mainly to restrictions imposed in NSW and Queensland (the other states having restricted the rate of clearing earlier). The restrictions apply to all land, including leasehold and freehold, and have resulted in unanticipated capital losses for the owners of potentially clearable land.
- The rate of reafforestation has increased, much of it a commercial response to the demand for timber, but some of it a response to the need for greenhouse emission abatement. Some of this response has been idealistic, but some of it was motivated by the hope of financial returns as a reward for greenhouse emission abatement (the phrase sometimes used is carbon credits).

Local governments are not farmers, but they can be in a position to help limit emissions from the agriculture, forests and fisheries sector as follows.

- There may be ways to support farmer efforts to limit emissions.
- Councils can manage their own lands – parks, reserves, road reserves – in ways which minimise emissions, including giving a lead in reafforestation.
- Rural councils already pay attention to wildfire control, but may be able to contribute further by reducing the risk of emissions from wildfires. The only pity is that such reductions do not count in Kyoto accounting.

2.3.6 Waste management

The final entry in the National Greenhouse Gas Inventory is methane from solid waste and sewage, which accounts for around 3 per cent (net) of national equivalent emissions. Most of this is from landfill, and so in large part a local government responsibility. Approximately 17 per cent of the methane generated in municipal landfills is now captured, with a higher percentage captured from wastewater treatment. Much of the non-captured methane is generated in old landfills which were not designed for capture, so the proportion captured is likely to rise provided local government maintains existing policies.

Part B: Commonwealth and State Government policies

2.4 Abatement and other policies

We now proceed to a much more detailed overview of recent and current Commonwealth and State emission abatement policies.

2.4.1 The Commonwealth's policies: Introduction

Future greenhouse associated policies in Australia remain uncertain but will undoubtedly include an emission trading scheme covering at least some industry sectors. Uncertainty derives from:

- increasing concern on the environmental and economic impacts of global warming in Australia and internationally;
- the Commonwealth Government's continued opposition to ratification of the Kyoto Protocol despite increased attention to climate change policies;
- the likelihood that Australia's existing Kyoto target for greenhouse emissions over 2008-12 will almost be met without the need for further policies;
- the continued development of greenhouse and associated policies by the States, Territories and local government; and
- the growing debate on global and regional policies beyond the first Kyoto commitment period (2008-12).

Whether it is an inconvenient truth or just inconvenient for greenhouse policy, particularly in Australia and the United States, the two non-Kyoto ratifiers, there has been a major shift in public and policy attitudes towards the need to seriously and immediately implement effective greenhouse gas abatement (GHGA) measures. As noted earlier in this chapter, Al Gore's film, *An Inconvenient Truth*, was widely acclaimed around the world as an accurate and frightening depiction of the likely impacts of climate change. Its message was reinforced when the Stern Review of the Economics of Climate Change presented a stark warning on the economic impacts of climate change and called for immediate action.

Until recently the Commonwealth's argument ran along the lines that Australia's greenhouse gas emissions were only a small proportion (approximately 1 per cent) of global emissions and if Australian emissions were reduced to zero, while the rest of the world took no action, climate change would not be perceptibly slowed, China and India were often cited in this debate. It is however important to understand that, Australia, with an energy intensive economy relying to a significant extent on coal fired electricity, is also a greenhouse gas intensive economy. These characteristics make Australia vulnerable in a world where climate change becomes a significant global policy concern.

The Commonwealth, by its very limited action on greenhouse gas abatement, is not signalling that it wishes to contribute to the global effort on climate change. More importantly, Australia is not adequately preparing itself for the high probability that more vigorous action will be taken globally.

The Commonwealth Government's stance has been that:

- ratifying the Kyoto Protocol would jeopardize Australia's economic performance;
- as developing countries, particularly China and India, do not have climate change commitments it is pointless for a minor emitter such as Australia to take more action; and

- the best policy response is to engage with other countries, and commit resources to, greenhouse gas abatement (GHGA) technology development through the Asia Pacific Partnership.

2.4.2 Kyoto Protocol ratification

The Australian Greenhouse Office, a federal body, in its 2005 Tracking to Kyoto projections, indicated that Australia will reach its Kyoto target under business as usual (BAU) conditions (no additional greenhouse gas abatement (GHGA) policies) of holding emissions to 108 per cent of 1990 emissions over 2008-12, the first Kyoto commitment period. If so in this period, there would be no negative economic impact if Australia ratified the Kyoto Protocol. If the target were attained Australia would be one of the few countries to attain a national Kyoto target. It is worth adding that if the target is achieved it will be because of a reduction in land clearing and because emissions from farms and agricultural activity have stabilised. Meanwhile, emissions in Australia from electricity generation and transport have increased significantly. Future success in reducing emissions will therefore depend on developing policies to mitigate the impact of electricity generation and transport activities in terms of their generation of greenhouse emissions.

Beyond 2012 there is no obligation at this time for any Kyoto ratifying country to set more stringent greenhouse gas abatement targets. Accordingly there do not appear to be any downside economic risks of ratifying Kyoto. The benefits would be having greater influence in post-Kyoto 1 policy discussions and full participation in the Kyoto flexibility mechanisms: Joint Implementation and the Clean Development Mechanism. It is also worth remembering that if it were not for dubious electoral processes in Florida in 2000, the United States would be a Kyoto ratifier.

2.4.3 India and China: Lack of Kyoto commitments

Although the USA is still the largest emitter of greenhouse gases, India and China are catching up. These two rapidly growing economies, along with other developing economies, have ratified Kyoto but do not have abatement targets and their emissions are growing rapidly. However, under the Clean Development Mechanism of the Kyoto agreement, which allows ratifying countries to reduce their emission liabilities by investing in abatement projects in developing countries, substantial abatement is occurring in these countries. In China Clean Development Mechanism projects delivered 190 Mt CO_2 and in India 115 Mt CO_2 of emission reductions in 2006 (Point Carbon), about 50 per cent of current Australian emissions. Also both countries are building high efficiency super critical and ultra-super critical black coal generators and investing significantly in energy efficiency and renewable energy.

In global policies for the post-2015 period, the major point of discussion is how to effectively include these economies in a new global greenhouse agreement.

2.4.4 Addressing climate change through technology development

While it is undoubtedly correct that technology development must play a major role in reducing greenhouse gas emissions, three aspects of Commonwealth Government policy response must be noted.

(i) Currently available technologies can be deployed to reduce the growth of greenhouse emissions at relatively low cost. **Firstly**, energy efficiency improvement in energy production, transport/transmission and end-use could make a significant contribution, although rising incomes, commercial and industrial growth will partly offset these effects.

Secondly, significant abatement could come from fuel switches, including greater use of gas and lower cost renewables to replace coal in electricity generation, and gas and renewables to displace electricity in heating applications.

Thirdly, there are abatement opportunities in agricultural and forestry practices.

(ii) The deployment of new technologies will not be costless[1]. Thus, most of the technologies being developed under the Asia Pacific Partnership will not be commercially viable unless prices rise in the areas where these technologies will be deployed. For example, carbon capture and storage or geosequestration, being supported by the federal government, is unlikely to be viable in conjunction with electricity generation unless the price of carbon is at least $30/tonne of CO_2. Such a price would require a wholesale electricity price increase of $20-30/MWh to prices greater than 50 per cent above current levels. A similar situation could arise with nuclear power as currently it seems that wholesale electricity prices would need to rise by 30 to 50 per cent for nuclear electricity to be viable. These issues of commercial viability, under current market conditions, suggest the Commonwealth Government implicitly accepts that carbon pricing is inevitable.

(iii) As it may be at least 2015 before these Commonwealth-promoted technologies become technically mature, what policies will be adopted before then? The Commonwealth Government's view that a business-as-usual approach may be less costly than an early action approach creates the risk of additional costs in the event that global events may force earlier action.

Recent Commonwealth announcements indicate that, by no later than 2012, emissions trading will be introduced to efficiently allocate resources in a carbon constrained environment. While action is being taken at the State level, for example in Queensland (Clean Energy Policy) and New South Wales (Greenhouse Gas Abatement Scheme) a more uniform national approach is required. Also it is important to note that a growing number of businesses are "hedging against contingent liabilities" by voluntarily buying registered carbon credits. Some are moving towards carbon neutrality.

2.4.5 Commonwealth/national programs

Commonwealth and national programs include the following. These programs are subject to change, and readers who do not require detailed information on current program specifications are advised to skip to Section 2C.

National Greenhouse Strategy

A **National Greenhouse Strategy** was released in 2001. The Strategy comprised a range of initiatives: some State based, some Federal and some joint initiatives. The most significant Federal initiatives were the Mandated Renewable Electricity Target, the Greenhouse Challenge program (voluntary business commitments to reduce greenhouse gas emissions), Generator Efficiency Standards (for new and refurbished electricity generators) which are now being reviewed, and the now terminated Greenhouse Gas Abatement Program which provided grants for major greenhouse gas abatement projects which would not have proceeded without the grant. The strategy also included continuation of the National Appliance Energy Efficiency Program, which sets Minimum Energy Performance Standards and star ratings for a range of domestic appliances, and commercial and

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[1] Support for **demonstration** projects by State and Federal Governments, such as a solar power station and brown coal drying with geosequestration projects are laudable, but significant market penetration of these and other high cost GHGA technologies will not occur in the absence of CO_2e pricing.

industrial equipment. The standards continue to be upgraded and their coverage expanded (for example to gas appliances and TVs).

In the Federal Government's *Securing Australia's Energy Future* White Paper in June 2004, measures included a Solar Cities Program to demonstrate integrated low greenhouse intensity measures in up to four centres, a Low Energy Technology Fund to support new greenhouse gas abatement technologies, a measure to mandate energy audits and reporting in firms using over 0.5 PJ of energy per year (Energy Efficiency Opportunities Assessment), and mandatory participation in the Greenhouse Challenge Program by large energy users. The announced measures are now being implemented. However, the White Paper indicated that the Mandatory Renewable Electricity Target would not be augmented post-2010, effectively stalling future renewable electricity expansion. In lieu, New South Wales, Victoria and South Australia are developing their own renewable electricity targets.

In a cooperative effort between the Federal and State/Territory governments, a National Framework for Energy Efficiency is being developed which will integrate various Federal and State/Territorial energy efficiency programs and develop new initiatives in two phases: the first phase to mainly cover building standards and minimum performance standards for equipment and appliances, and the second phase to assess the introduction of more stringent measures.

Mandated Renewable Electricity Target

The Mandated Renewable Energy Target requires electricity retailers and large direct users to purchase renewable electricity through the acquisition of renewable electricity certificates from eligible sources. The purchases are in proportion to each retailer's share of defined national electricity consumption. The national target builds from 300 GWh in 2001 to 9,500 GWh in 2010 and is to be held at this level until 2020.

Eligible renewable electricity sources under the Mandated Target are new plants commissioned after 1996, output from pre-1996 plants above a defined pre-1997 baseline output and defined electricity displacement by solar water heaters. Over 2005 and 2006, renewable electricity certificate prices declined from about $35/MWh to less than $15/MWh, due mainly to the Federal Government's 2004 decision not to raise the target any further. However, prices have risen to about $28/MWh (April 2007) as some projected plants are now likely to proceed under State schemes.

The Asia-Pacific Partnership on Clean Development

Australia has committed $20 million per year to this initiative over the five years 2006-2010.

The **Asia-Pacific Partnership on Clean Development**, announced in 2005, although not viewed by partners as an alternative to Kyoto, will be a factor, in future global policy discussions. Current members of the Partnership are the United States, Australia, China, Japan, South Korea and India, but Canada has announced its intention to join. Together they account for about half the world's population, gross domestic product and greenhouse gas emissions. Of the countries only Japan is an Annex B Kyoto Protocol ratifier (Canada is also an Annex B ratifier). (Annex B ratifiers have formally agreed to meet their Kyoto targets.)

The **primary** aim of the Partnership, as set out in the group's Vision Statement, **is to achieve regional cooperation in developing and adopting cleaner (lower emission) energy technologies**, including those based on coal, natural gas, nuclear (fission and fusion) and renewables, and technologies to capture and store greenhouse gas emissions.

The Partnership's inaugural Ministerial Meeting in January 2006 established eight government and business taskforces on:

1. cleaner fossil energy;
2. renewable energy and distributed generation;
3. power generation and transmission;
4. steel (48 per cent);
5. aluminium (37 per cent);
6. cement (61 per cent);
7. coal mining (65 per cent), and
8. buildings and appliances.

Figures in brackets reflect the proportion of world production by members of this group.

Cooperative work in these areas has continued through 2007.

Technology development, though essential for reducing global greenhouse gas emissions, does not alone lead to implementation of these technologies to actually reduce greenhouse gas emissions. Market signals complemented by market responsive regulations are a necessary adjunct to technology development. Without carbon pricing most new low emission technologies will not become commercially viable.

Lighting

In February 2007 the Federal Government announced the intention to phase out low efficiency incandescent globes by 1 July 2009. The electricity demand and greenhouse impacts of this policy will depend on whether and how it will apply to low voltage halogen downlights which, on average, use about 10 per cent more electricity than a lumen equivalent incandescent globe. Thus, if the incandescent globes are partly replaced by currently available LV halogen downlights rather than compact fluorescent lights which use 60-80 per cent less electricity than incandescents, the reduction in electricity usage and greenhouse gas emissions will be lower. Compact fluorescents which fit into downlight spaces are now available with the added advantage that they do not require a heat dissipating transformer and can therefore be covered with insulation, thus reducing heating and cooling losses in ceilings.

Federal Task Group on Emissions Trading

In January 2007, the Commonwealth Government released a brief (9 pages) Issues Paper prepared by its Task Group on Emissions Trading. The Terms of Reference for the Task Group are set out below.

> *"Australia enjoys major competitive advantages through the possession of large reserves of fossil fuels and uranium. In assessing Australia's further contribution to reducing greenhouse gas emissions, these advantages must be preserved.*
>
> *Against this background the Task Group will be asked to advise on the nature and design of a workable global emissions trading system in which Australia would be able to participate. The Task Group will advise and report on additional steps that might be taken, in Australia, consistent with the goal of establishing such a system."*

The main underlying theme of the Issues Paper was preservation of Australia's competitiveness but, in a departure from Commonwealth statements over the past five years, the paper stated "*emissions trading is a more flexible market-based policy tool than imposing a carbon tax*" and should be seriously considered. The paper also admitted that a carbon price could play a useful role in encouraging the commercial deployment of 'greener' technologies and early adoption of such a signal could provide some competitive advantages. It stressed that a workable global system should be established, but failed to discuss the introduction of a domestic system in advance of a global system. The issues paper noted that global warming will impose economic costs, having an adverse impact on infrastructure and other industries.

Comment on the paper by the business community was split. For example, the Minerals Council of Australia indicated that an emissions trading system in Australia should only be introduced if a firm commitment on a global scheme was undertaken at the international level. Rio Tinto stated that Australia should show international leadership by phasing in a carbon pricing mechanism. The report from the Task Force is discussed below.

Report of the Australian Prime Ministerial Task Group on Emissions Trading

This report was released on 31 May 2007. Key conclusions of the report are as follows.

- On balance there would be benefits in the Australian Government now setting a post-2012 constraint on emissions. (That is, a cap is proposed for post-2012.)
- Market based approaches (emissions trading systems, carbon taxes) that deliver a price on carbon will achieve greenhouse gas abatement at least cost for a given target.
- Of the market based instruments, emissions trading should be preferred to a carbon tax.
- An emissions trading scheme with a carbon price set by the market would improve business certainty.
- Introduction of an Australian emissions trading system will require careful planning and implementation which must take into account the trade-exposed nature of emissions intensive industries.
- The key design features of an Australian emissions trading system should be based on a cap and trade model.
- There should be a safety valve (cap) emissions on permit costs to limit economic impacts;
- There should be maximum practical coverage of all sources and sinks and of all greenhouse gases; about 900 firms (emitting more than 25 kt per year) would be liable parties covering 55 per cent of total emissions.
- However, agriculture and land use would initially be omitted.
- There would be a mixture of free allocation (for compensation of impacts) and auctioning of single-year dated emission permits.
- A wide range of credible carbon offsets should be recognised.
- There should be incentives for firms to undertake abatement in the lead up to start of the emissions trading system.
- Revenue from permits and fees should be used to support the emergence of low emissions technologies and energy efficiency initiatives.
- Abatement policies for should be technology neutral, allowing the market to determine least-cost solutions.
- However, complementary policies are needed to improve energy efficiency and support for research, development and demonstration.

- The scheme would allow the phasing out of targeted support for low emissions technologies (particularly renewables).
- About four years would be needed to begin a full-scale emissions trading system, so that the initial start-up would be 2012 at the earliest.
- Even so, adaptation policies are likely to be needed.

Key issues in relation to this paper are:

- No specific target is recommended, so until the Government decides on a target (or targets) no permit price can be estimated and hence uncertainty for affected industries will continue. The Government has announced a target cap will be set in 2008. Internationally countries, particularly in Europe, are setting ambitious targets for 2020, 2030 and 2050.
- Virtually no mention is made of the detailed emissions trading system design work undertaken by the States and Territories over 2005-07. This work is very impressive and should be carefully considered.
- Winding-up renewable energy support measures would stall development of the renewable energy industries unless the target induced a permit price of A$30-40/t CO_2e.
- The wide coverage of the proposed emissions trading system, as distinct from the relatively narrow coverage of the States/Territories proposed system, is admirable.
- Starting the system in 2012-13 is probably reasonable given the complexities of designing a scheme; the opposition proposes a start-up in 2010 which could be feasible if based on the more narrow coverage States/Territories prototype.
- Recognition of the importance of offsets and complementary energy efficiency initiatives and research-related measures is admirable **but**:
    - offsets accreditation standards must be credible and stringent;
    - effective energy efficiency measures must be rigorous, soundly based and may require significant incentives; and
    - research-related support measures must be very carefully designed.

2.4.6 State and Territorial programs

Introduction

The States and Territories operate a variety of programs that produce greenhouse gas abatement, mainly through energy efficiency improvement and renewable energy support measures. For example, Victoria, Queensland, South Australia and Western Australia offer conditional rebates for the installation of solar water heaters. These measures, combined with the eligibility of solar water heaters for mandatory renewable energy target support and new housing standards and restrictions on the installation of electric resistance water heaters are reducing the use of electricity for residential water heating.

New South Wales mandates, under its Greenhouse Gas Abatement Scheme, reduction of per capita greenhouse gas emissions from electricity through the purchase of greenhouse gas abatement certificates by electricity retailers operating in the state. New South Wales has also established an Energy Savings Fund of $40 million per year financed by a levy on electricity distributors.

Victoria mandates, for firms using over 500 GJ of energy per year, energy efficiency auditing and investment in energy efficiency projects of up to three year paybacks revealed by the audits.

In Queensland the Clean Energy Policy is promoting enhanced use of gas and renewables in electricity generation.

The States and Territories are also jointly engaged in developing an Emissions Trading System and stimulating renewable electricity generation beyond the Commonwealth program, for example Victoria has announced a Victorian Renewable Electricity Target which will require an additional 3,274 GWh from Victorian renewable electricity generation by 2016.

In December 2004 Victoria issued a Greenhouse Challenge for Energy Position Paper which proposed six major initiatives:

1. Support for development, with other States and the Territories, of a national emissions trading system.
2. Mandatory emission reporting and disclosure for large emitters.
3. A Victorian Energy Technology Innovation Strategy.
4. Expansion of the Mandatory Renewable Electricity Target in cooperation with other States and Territories.
5. Development of a Renewable Energy Strategy to promote expansion of renewable energy production and use in Victoria.
6. Development of a Victorian Energy Efficiency Strategy to promote energy efficiency improvement in Victoria, building on existing initiatives and introducing new initiatives.

These initiatives are now being developed. The energy technology innovation strategy is now being implemented concentrating on the development of low greenhouse gas intensity brown coal electricity generation.

National Emissions Trading Taskforce

The National Emissions Trading Taskforce established by the States to develop a National Emissions Trading System continues its work, concentration on consideration of comments on the Discussion Paper by submissions from generators, the overall business sector, other organisations and the community at large. Work is also being undertaken on emission caps out to 2050, refinement of allocation issues (compensation to existing generators and energy intensive, trade exposed industries and auctioning), offset concepts and rules, and modelling refinements (including treatment of complementary measures).

State developments

New initiatives which will be, or are proposed to be, introduced over 2007-10 include mandatory renewable energy targets (additional to the non-expanded Commonwealth scheme) in Victoria, New South Wales and South Australia, and a Victorian Energy Efficient Target which covers energy efficiency improvements and fuel switching.

New South Wales

The NSW Renewable Energy Target is for 10 per cent of New South Wales end-use consumption by 2010 and 15 per cent by 2020. The target refers to electricity consumed in New South Wales and can draw on electricity from the National Electricity Market. This means that renewable electricity can be generated in New South Wales, Victoria, Queensland, South Australia, Tasmania or the Australian Capital Territory. The scheme will impose a target on electricity retailers and will include renewable energy certificate trading and an enforceable penalty for non-compliance where retailers fail to meet their targets. Trade-exposed energy intensive users will be exempt from bearing the costs of the scheme.

As about 6.1 per cent of electricity consumed in New South Wales is from renewable energy sources application of target in 2006 will require approximately an additional 3.9 per cent of electricity consumption will need to be generated from renewable energy sources by 2010 and 8.9 per cent by 2020. The target translates into additional 1,317 GWh by 2010 and 7,250 GWh by 2020 and will be held at this level until 2030. Over the life of the scheme (to 2030) the amount of renewable electricity generated will accumulate to 120,929 GWh.

The New South Wales scheme is designed to be consistent with the equivalent Commonwealth and Victorian targets. In addition, the New South Wales Government is to initiate discussions with the Victorian Government to determine whether the Victorian scheme administrator (the Essential Services Commissioner) could also administer the NSW scheme.

An enforceable penalty for non-compliance will be established under the scheme legislation. The penalty will e set at a level to encourage compliance. The level will be set above the generation cost of the majority of renewable generation technologies, and will effectively act as a cap on the cost of the scheme. The penalty will be automatically adjusted for movements in the consumer price index.

The criteria for additional renewable electricity will be new renewable electricity generators that commence commercial sales after 1 January 2007 and a baseline will be established for existing plants based on the existing level of renewable energy being purchased in New South Wales to ensure there is no double counting. Renewable Energy Certificates under the scheme will not be able to be acquitted as certificates under the Commonwealth or Victorian schemes for the same MWh generated. The first target level to be met is in 2008.

Victoria

The Essential Services Commission has provided the following outline of the Victorian Renewable Energy Target Scheme, which aims to encourage additional generation of electricity from renewable sources. Under the target, all electricity retailers and wholesale buyers in Victoria (relevant parties) will have a legal liability to contribute towards the generation of additional renewable energy and meet their obligation of acquiring renewable energy certificates.

The *Victorian Renewable Energy Act* was assented to on 19 September 2006. The Act mandates that Victoria's consumption of electricity generated from renewable sources be increased to 10 per cent by 2016. The scheme involves the creation, acquisition and surrender of renewable energy certificates in order to meet the legislative objectives of:

1. encouraging additional generation of electricity from renewable energy sources;
2. encouraging investment in the generation of renewable energy;
3. further development of renewable energy technology;
4. increased regional investment and employment;
5. diversification of Victoria's energy supplies; and
6. reduction in greenhouse gas emissions.

The scheme commenced on 1 January 2007. It operates by imposing a legal liability on relevant entities to support renewable energy electricity generation on, generally, large wholesale purchases of electricity. An example of a relevant entity under the legislation would be an electricity retailer acquiring wholesale electricity to meet the sale obligations to customers (scheme acquisition). The relevant entities are directly responsible for supporting an increase in the amount of electricity generated from renewable energy sources, which is implemented through the surrender of Victorian renewable energy certificates in proportion to their acquisitions of electricity. Each certificate represents one megawatt hour (MWh) of eligible renewable electricity.

Interim annual targets have been set to ensure that there will be a consistent progress towards achieving the 3,274 gigawatt hour (GWh) target by 2016 and that all of the investment does not occur in the final years of the scheme.

The Victorian Energy Efficiency Target

The Government committed to introducing a Victorian Energy Efficiency Target as part of its election commitments in November 2006. Planning for the target is now underway led by the Energy Division, Department of Primary Industries. This measure, which will initially apply to the residential sector, will require gas and electricity retailers to facilitate the reduction of greenhouse gas emissions in residences.

Eligible activities to reduce emissions are likely to include installation of space heaters that produce lower greenhouse gas emissions (for example, 5 star gas heaters), residential retrofits that improve insulation levels and reduce air leakage and the replacement of electric water heaters with solar or high efficiency gas water heaters. Eligible activities will create accredited and tradeable certificates denominated in tCO_2e. This is expected to make a significant contribution to the State target of reducing residential sector greenhouse emissions (direct and indirect) by 10 per cent by 2011. Depending on the target set a significant impact is expected towards reducing residential electricity use in Victoria.

South Australia

The Premier of South Australia, Mike Rann, announced in December 2006 that South Australia will "increase renewable electricity generated so it makes up at least 20 per cent of electricity generated in the State by the end of 2014". "A major priority of South Australia's Strategic Plan is to achieve the Kyoto target by limiting the State's greenhouse gas emissions to 108 per cent of 1990 levels during 2008-12, as a first step towards reducing emissions by 60 per cent (to 40 per cent of 1990 levels) by 2050".

Part C: The cost of carbon

2.5 Carbon pricing and regulation

After this very rapid tour through some of the areas in which greenhouse gas emissions may be cut, and specification of current government policies, we move on to a general account of the mechanisms by which cuts should be implemented. There are, broadly, two groups of measures.

- Emissions can be made more expensive, so imposing a market mechanism to discourage them.
- Emissions can be cut by regulation – perhaps directly, by disallowing some kinds or quantities of emission, or indirectly, by imposing emission standards on emission-producing equipment. Examples of such standards include vehicle fuel efficiency standards and building insulation standards.

In the present age, with its strong emphasis on market measures, it would be expected that the first group of measures would predominate in policy discussion. There are two ways by which government can make emissions more expensive.

- Tax them. The simplest way to tax carbon dioxide emissions is to put a tax on fuels graded according to their carbon content – an option known as the carbon tax. Because of the uncertainties in calculating carbon equivalents, it is difficult to extend this tax to such areas as fire control and land clearing. There is less debate about the carbon equivalent of methane emissions, but difficulties have arisen in estimating emissions, particularly in the agricultural sector.
- Alternatively, quotas can be imposed on the carbon content of fuel consumption (one may call this emission rationing). If the quotas are auctioned, the result will be an increase in the cost of using carbon-intensive fuels, much the same as a carbon tax. The difference is that, with quotas, the government sets the quota and the market sets the price; in the carbon tax case the government sets the price and the market determines how much is used. Given competitive markets, the two techniques should yield the same combinations of prices and quantities. Like carbon taxes, quotas are hard to extend to methane, land clearing and the like.

To avoid disadvantaging local producers, both tax and quotas would have to apply to imports as well as local production. This implies that tax rebates or free quotas would be given for export producers. There may, however, be room for tax/quota agreements with trade partners, to allow tax revenue and/or quotas to be shared on a basis other than local consumption.

As with all price measures, the effectiveness of carbon pricing in reducing emissions depends on how much notice buyers take of the change in price – technically the elasticity of demand. In the case of energy markets, the response over a period of months is usually much less than the response over a period of years, since it takes years to change the mix of energy-using equipment by scrapping high-emission plant and substituting low-emission.

Apart from the potential for slow response, there are various potential problems with carbon pricing.

- Carbon taxation raises revenue, and so does the sale of quotas – quite possibly significant revenue, if the emission cut is to be large and immediate. The very idea of a significant new tax arouses political opposition, even if the revenue is to be handed back to taxpayers by cuts in other taxes.
- The imposition of carbon pricing will raise the general level of prices, which is contrary to the policy of low inflation (not that this was an objection when the GST was introduced). Given Australia's dependence on coal-based electricity, the major initial price effect of a carbon tax is likely to be on electricity prices, which some would see as an unfair singling out of a particular industry.

- Carbon pricing is expected to impact more on low-income households than on high-income, thus exacerbating inequality. Once again this was true of the GST, which required a compensation package. The same will be true of carbon pricing.
- Carbon pricing will also change capital values, for example, reducing the value of high-emission power stations and raising the value of low-emission stations. Much of the opposition to carbon taxation comes from investors in high-emission equipment. (We may speculate on whether this backlash would have been so strong had the National Electricity Market not been instituted – in the days of state ownership of power stations the state, if it changed its policies, was expected to absorb the resulting capital losses without complaint.) This is not a fatal objection – it is common for changes in government policies to change asset values – but like the effects on low-wealth households may again require compensation.
- It has also been argued that carbon pricing may not bring about the rapid emission-cuts required by climate change policy. It takes time to replace old power stations; it takes time to replace the vehicle fleet, and in the meantime costs are high, and the owner has a reduced cash flow out of which to make replacement investments. This is not so much an argument against carbon pricing as an argument that some of the proceeds of the tax should be devoted to assisting with the investment program implied by emission cuts.
- Finally, for practical reasons carbon pricing is unlikely to cover some of the important emission sources. To be fair, these sectors must be required to contribute to the national abatement effort by other means, inevitably forms of regulation.

It is noticeable that three of these objections are arguments for increased government expenditure:

- compensation for low-income households;
- compensation for asset owners and
- assistance for investment in emission abatement.

Under a carbon tax such compensation and investment assistance would have to be via direct government expenditure, but under a quota system there is an alternative, the allocation of free quotas to low-income households, existing asset owners and investors who promise to invest in emission-abating equipment. Of the three groups, existing asset owners have perhaps the weakest claim – after all, investors are supposed to bear the risks of their investment, and they have been on notice for two decades that abatement policies are a strong possibility. However, the affected parties are few, their assets are currently valuable, and their lobbying power is great.

Those lobbying for free quotas for industry, particularly existing emitters seeking 'grandfathered' quotas, are liable to claim that free allocation will avoid the price increases inherent in a carbon tax or in fully-auctioned quotas. This claim is simply wrong. So long as the supply of quotas is limited, their imposition will result in a rise in price. If quotas are grandfathered, the rise in price will increase the profits of the recipients rather than increasing government revenue – possibly even to the point where the increased profits over-compensate for the fall in value of the recipient's high-emission equipment. Similarly, if quotas are allocated to those who promise to invest in low-emission equipment (quite possibly the same people who receive grandfathered quotas – perhaps as a condition of allocation) the contract needs to be tightly drawn. There have already been allegations, in Europe, that industries have been rorting the system (see European Trade Union Confederation, *Climate Change and Employment*). Even so, among strong believers in small government, a major attraction of allocated quotas is that the government receives no revenue from them, so avoiding the suggestion that they involve imposing a tax – this despite the fact that their effect on prices is the same as for a tax. Suffice to say that the allocation of quotas must be transparent – and that the most transparent means of allocation is auction.

Carbon pricing may be condemned on distributional grounds, for allowing the rich to continue in their bad old ways (they can easily afford the higher prices of emission-intensive goods and services) while visiting the costs of abatement on the poor, who cannot afford to pay the tax. The equitable alternative would seem to be an equal emission allocation to each citizen, such that people who want buy products or services which generate emissions would have to pay, not only in cash, but in emission points. Under such a system it is inevitable that a market in points will develop – if not an official market, then a black market – so that the rich can still have their emission-intensive services, but at least they would have to buy these from (presumably) poorer citizens. A rationing system in which entitlements are allocated to final consumers would require a lot of administration, hence proposals that rationing should be imposed more on business. At this point we have come back to the proposal for auctioned quotas, with some of the revenue used to compensate low-income households – much as for the GST.

A further variant in the list of proposals involves the additional provision that the quotas be tradable – tradable emission permits. Tradable emission permits only make sense under one or both of two conditions.

- The permits are allocated rather than auctioned. Trade between permit recipients and potential emitters substitutes for the auction as a way of setting the price. If, in a corrupt country, the permits are initially allocated to the government's mates, this can be a very effective way to enrich them.
- The permits are long-lived, in which case trade will allow redistribution of permits from those who find they don't need them to those who find they do, in the process establishing a market price.

In current discussions there it is commonly assumed that long-life, tradable permits are preferable to short-life auctioned permits. The case for long-life tradable permits is that they can potentially reduce the risk inherent in investment in long-life emission-related assets – whether emitting assets or emission-reducing assets. However, this is not the only way to manage these risks. A system in which all emissions require short-term auctioned quotas can be supplemented by futures trading, in much the same way as the risks of fluctuating exchange rates are managed. The case against long-life permits is that they involve setting emission targets far in advance. In the present state of scientific knowledge about the greenhouse effect, it is likely that quite soon – say within five years – evidence will appear which will indicate that the targets should change. If the evidence indicates that the targets should be tightened, governments will be involved in buying them back; if the evidence indicates that the targets should be loosened, the permit-owners will complain about the dilution of their property. A second potential problem is the potential for monopolisation of permits, hence the common recommendation that governments issuing permits should always keep a stock in reserve for issue to new entrants. A related consideration is that of the costs of trade. The financial sector is very keen on tradable permits, but this arises from a vested interest in brokering the trade. (However, the sector would also benefit from a system of short-term permit futures.)

In summary, much of the current approval of a tradable emissions permit scheme probably derives from the positive connotations of the word 'tradable' coupled with the negative connotations of the word 'tax', whether used directly, as in a carbon tax, or even indirectly, as in a quota auction. However, there can be legitimate arguments for using permit distribution to ease the distributional effects of the transition to an economy with high carbon costs.

From an Australian point of view, an interesting difference between carbon taxation and permits, whether tradable or not, is that under the constitution carbon taxes can only be imposed federally, but permits are not a Commonwealth monopoly. They can be issued by any government with authority to licence and enforce – certainly state governments (several of the states already have tradable emission permit schemes of one sort or another) and possibly by local government.

A further debate is about the role of carbon pricing, however the price is generated, versus other approaches to abatement. The Commonwealth has undoubted authority to impose a carbon tax or an emissions quota scheme, either of which would generate a price signal. However, it has been reluctant to proceed either way, preferring to place great emphasis on voluntary abatement. By contrast, the states cannot impose carbon taxes and have but limited authority over quotas, but have tended to be quite heavily involved with regulations in such areas as equipment and building efficiency standards as responses to the greenhouse effect.

2.5.1 The impact of a tradable emissions permit scheme

Given that both major political parties are committed to tradable emissions permits, it is expected that Australia will adopt such a scheme in the near future, say by 2010. The fundamental idea is to cut emissions with maximum economic efficiency. At least theoretically, the creation of a market in emissions will ensure that those which are cut are those which have least economic worth. In determining which emissions should be sacrificed, the general rule of markets applies: a rich person's dollar is worth exactly the same as a poor person's; a rich region's dollar is worth the same as a poor region's. Whatever the benefits of market determination of emission cuts, proposed schemes should also be assessed with regard to their equity between households and regions.

It is not as though there is just one possible, rational emissions trading scheme. Instead, there are many possible designs, with the effects of each schemes depending uncomfortably on the fine print. Important scheme attributes will include the following.

- Coverage.
- The total quota.
- Penalties for unpermitted emissions.
- The treatment of imports and exports.
- The relationship between the quota/permit scheme and other regulations, such as efficiency standards.
- The relationship between the quota/permit scheme and other taxes, notably fuel taxes.

To illustrate the regional significance of tradable emission permits, it is necessary to construct a hypothetical scheme. We adopt the following definitions.

Coverage

We consider a scheme which is as broad-based as is currently considered feasible. This would cover all burning of carbon fuels (coal, petroleum, gas) plus fugitive emissions associated with these fuels. (Most fugitive emissions are methane leaks occurring in the production, transport and processing of coal, petroleum and gas. Some can be fairly directly measured; others will have to be estimated.) The scheme thus covers emissions from the energy sector, but not from rural production, land use or waste management. Any business responsible for emissions will be required to acquit permits for the appropriate time period and quantity. In the case of fuels on-sold to consumers (including electricity, petroleum and gas) the responsible businesses will be those producing the fuels.

The quota

We consider a scheme which puts Australia on the Stern abatement track. This will come as something of shock to businesses which have so far considered climate change to be a furphy, but will be no great surprise to those which have kept up to date with their appreciation of climate science. Through the market process of trade in permits the quota expresses itself in a carbon price, conventionally denominated in dollars per tonne CO_2 equivalent. We have selected a quota which will result in a price of around AUD 35 per tonne CO_2e. This is assessed as a price at which significant abatement will occur, due in particular to the substitution of gas and renewable for coal in electricity generation, but also to more general consumer and industry responses to the incentive to greater energy efficiency. (It is not easy to calculate the CO_2e price required to produce significant abatement, since this involves ghosting a market which will only develop after tradeable permits have been imposed. However, a price of this order should be sufficient to cause a major switch of base-load electricity generation from coal-fired plants (even the most efficient of them) to gas-fired plants (particularly combined cycle gas turbines). It is also sufficient to produce an increase in the cost of base-load electricity from the present level of around 3.5 cents a kWh to around 6 cents a kWh.

Penalties

We simply assume that the scheme is enforced, and that penalties for over-quota emissions are high enough for them not to occur.

Imports and exports

We assume that the carbon-equivalent content of imports is calculated, and that importers have to discharge permits to cover this content. We also assume that exporters do not require permits, but that the prices they receive are likely to be subject to similar quota schemes and/or carbon taxes in importing countries. In both cases there are possibilities, to be explored, of international offsets: i.e. of importers not having to discharge permits if equivalent permits have been discharged in the country of origin, and similarly of permit credits for exporters if they discharge Australian rather than overseas permits.

The relationship to regulation

The efficiency of a quota system is undoubtedly increased if the price signals within the system are reinforced by regulation, particularly energy efficiency standards. We assume, however, that Australia chooses to rely heavily on its emissions trading scheme, simply because it is fashionably market-based.

The relationship to other taxes

We simply assume that other taxes remain constant.

Methodology

We assume that businesses which incur permit costs as they discharge carbon dioxide and methane pass on these costs to their customers, whether businesses or households. We follow this pattern of passing-on through the input-output tables to calculate the change in price of each type of consumer's good as a result of the permit system. In so doing, we allow for fuel switching where-ever this reduces costs after the imposition of permit costs.

2.6 The impact of carbon prices on households

This section attempts to assess the consequences for households in Australia of the adoption of a universal carbon pricing scheme as a core instrument in combating global warming. By universal is meant a common carbon price imposed on Australia and the rest of the world. By carbon price is meant either a tax levied on the CO_2 content of any product, e.g. $25 a tonne of carbon, or a cost of carbon that is imposed from the market clearing price of an emissions trading system.

In this case study National Economics has:

(i) estimated the carbon content of different categories of expenditure that constitute household budgets;

(ii) estimated the expenditure patterns of different household types; and

(iii) combined (i) and (ii) to obtain estimates of the carbon consumption of different household types and, therefore, the impact of carbon taxes on different household types.

The impact of a $25 and $50 a tonne carbon price on different household types is shown in Table 2.5 for Australia. The additional carbon cost as a per cent of expenditure is regressive, either in terms of total expenditure or equivalised expenditures).

For Australian households it is estimated that, a $25 per tonne carbon price would represent (from Table 2.5) 2.3 per cent of expenditures for the poor household type, while for the high income tertiary educated households it would represent 1.5 per cent. The all household average for Australia is 1.6 per cent for a $25 per tonne carbon price and 3.2 per cent for $50 a tonne. This analysis was initially undertaken as part of a study for the Brotherhood of St Laurence and NIEIR would like to acknowledge their contribution in the development of the material on the impact on households.

Table 2.5 Australian household types – Impact of carbon price

Household type	Utility scale	Carbon cost – $2006		Carbon cost – % of annual expenditure			Utility adjusted carbon costs – $2006		Utility adjusted carbon costs – % of annual expenditure	
		$25	$50	$25	$50		$25	$50	$25	$50
Working age social security dependant family type one	0.98	584.7	1169.4	2.2	4.4	206	571.7	1143.3	2.2	4.3
Working age social security dependant family type two	0.82	657.7	1315.5	2.0	4.0	245	540.3	1080.7	1.6	3.3
Poor family households	1.00	557.7	1115.4	2.3	4.6	201	557.7	1115.4	2.3	4.6
Non working income dependant families of working age	0.69	734.0	1467.9	1.8	3.6	290	507.9	1015.8	1.3	2.5
Age pension households	0.49	623.5	1247.0	1.7	3.3	414	303.0	606.0	0.8	1.6
Employed families	0.45	1052.8	2105.7	1.6	3.1	447	473.6	947.2	0.7	1.4
Other non retired households	0.36	801.5	1603.1	1.7	3.3	551	292.4	584.8	0.6	1.2
Home owning households	0.42	816.6	1633.2	1.6	3.3	476	345.1	690.1	0.7	1.4
Home renter households	0.62	622.8	1245.6	2.0	4.0	326	384.4	768.8	1.2	2.5
Households with mortgages	0.43	967.9	1935.9	1.6	3.3	471	413.2	826.4	0.7	1.4
Low income working age households	0.56	714.6	1429.1	1.8	3.6	362	397.1	794.2	1.0	2.0
DINK households	0.33	838.4	1676.9	1.5	3.0	614	274.6	549.2	0.5	1.0
Wage and salary households	0.40	949.8	1899.5	1.6	3.2	501	381.0	762.0	0.6	1.3
Self employed households	0.35	1098.1	2196.2	1.5	3.0	578	382.2	764.4	0.5	1.1
Low skilled households	0.55	673.0	1346.1	1.8	3.5	369	366.8	733.6	1.0	1.9
Intermediate skilled households	0.44	841.2	1682.5	1.6	3.3	457	370.0	740.1	0.7	1.4
Trade occupation households	0.43	946.9	1893.8	1.6	3.2	467	408.0	815.9	0.7	1.4
High skilled households	0.34	999.8	1999.5	1.6	3.1	590	340.7	681.3	0.5	1.1
Management-professional households	0.31	1194.8	2389.5	1.5	3.0	656	365.9	731.8	0.5	0.9
High income tertiary educated households	0.26	1445.5	2890.9	1.5	2.9	788	368.7	737.4	0.4	0.7
All households	**0.44**	**804.7**	**1609.3**	**1.6**	**3.2**	**461**	**351.1**	**702.3**	**0.7**	**1.4**

The key point for local government to recognise is that poor households clearly have less room for adjustment to the imposition of carbon costs. The United Kingdom HM Treasury's "*The Green Book: Appraisal and Evaluation in Central Government*", guidelines require that each monetary cost and benefit should be weighted according to the relative prosperity of those receiving the benefit or bearing the cost. The formula they recommend for doing this is:

$$U = \log C$$

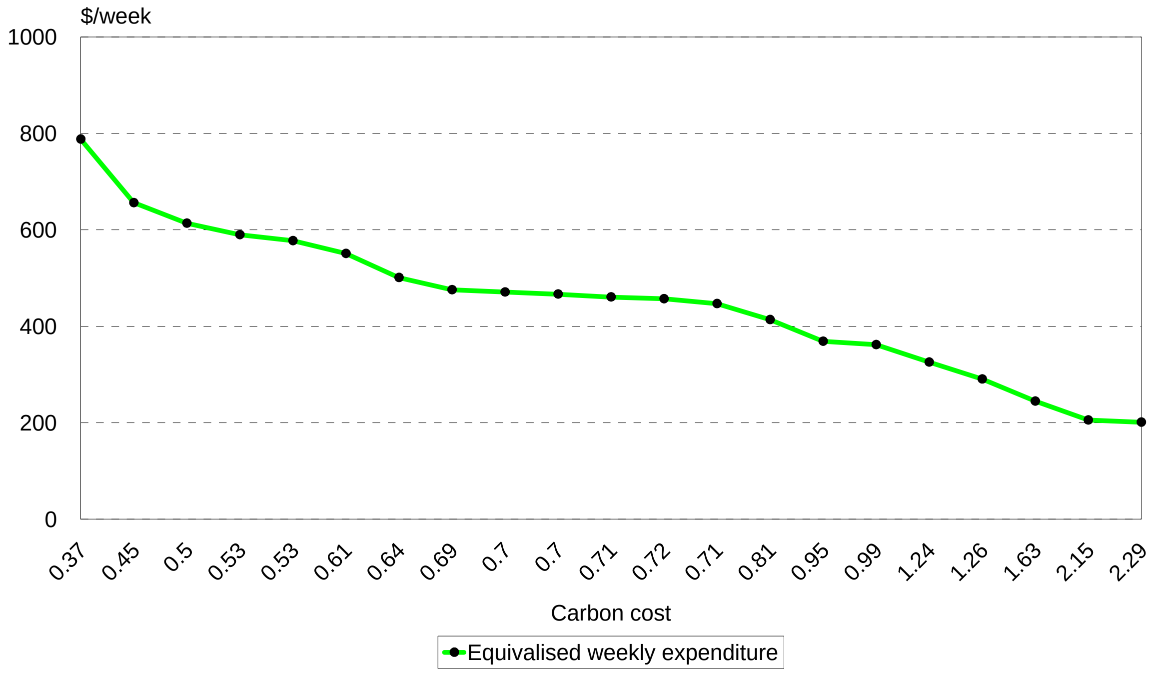
Where:

C = household consumption; and

U = household utility good from consumption.

This implies a marginal utility of consumption of 1/C. Hence, the utility scale derived in Table 2.5 is relative to the poorest household. It implies the utility cost of the high income tertiary educated households of an extra dollar of carbon cost is only a little over one quarter of the dollar cost imposed on poor households.

Australian households – utility adjusted carbon cost at $25 as per cent of income versus equivalised weekly expenditure



This differential is reflected in the utility adjusted carbon costs as a per cent of expenditure estimates given in the last two columns of Table 2.5 for Australia. The regressive nature of the tax is shown in the above figure for Australia. For Australia, on a utility adjusted carbon cost, the poor household average carbon cost of 2.3 per cent for the $25 case stays the same. However, for the high income tertiary educated households the rate declines to 0.37, or 16 per cent of the poorest household. The all household average on a utility adjusted basis goes from 1.8 per cent to 0.8 per cent, or a decline of 56 per cent.

These findings are reminiscent of the GST debate of the 1980s and 1990s, and call for a similar policy response: that is, the imposition of carbon pricing, whether by tax or quotas, should be accompanied by measures to counter the distributional effect. At the local government level, these could include measures to assist low-income families to walk, cycle and use fuel-economic vehicles, and to ensure that rental accommodation is energy-efficient.

2.7 Climate change: The impact on Australian regions

This report quantifies the impact of three components of climate change on Australian regions. The three components are:

(i) climate change, rainfall loss and variability and loss of agricultural production;

(ii) the climate change driver introduction of a carbon price (ctax); and

(iii) the loss of rainfall and increased water security costs.

Components (i) and (ii) are evaluated in this chapter, while water security costs are evaluated in Chapter 3. However, for presentation efficiency (from the reader's point of view) the water security costs are included in the tables of this section.

2.7.1 The agricultural income loss scenario

The impact of climate change on agricultural production will be complex. It is not just a matter of low rainfall. Perhaps more important is greater rainfall variability throughout the year. The average rainfall could remain the same, but if the rainfall was concentrated in November-January with little rain over the May-September period, then large parts of the continent would have to cease agricultural crop production.

The scenario adopted for this report is as follows. Firstly, it is assumed that since 2001-02 (but not including 2001-02) the unstable weather pattern does reflect an element of climate change, as well as a normal agricultural variation. This proposition would be accepted by most scientists.

Next, using a long time series of rainfall by LGA and agricultural production, the sensitivity of agricultural production to rainfall, as a per cent of average household wealth, is estimated. For the rural zone the costs represent 0.4 per cent of total household wealth.

The tables below also contain the cost of water security which is discussed in detail in Chapter 3.

2.7.2 The impact of a carbon price on Australian regions

Earlier in this chapter it was noted that $35 per tonne of carbon in $A worldwide was probably the maximum required to stimulate the abatement responses required to significantly reduce the rate of increase in CO_2 in the atmosphere.

In order to quantify the impact on Australian regions, NIEIR has built on two studies on the CO_2 content of household expenditures and a study carried out for the National Emissions Trading Taskforce (NETT), estimating the carbon content of Australian industry. The NETT study supplied the national CO_2 carbon content estimates that were combined with the household microsimulation modelling to estimate the carbon content of household expenditures for each LGA in Australia.

An example of the outcome of such modelling indicated above from the work NIEIR carried out for the Brotherhood of St Laurence estimated the CO_2 content of expenditures for different household types. In general poorer households have higher carbon content expenditures, as a per cent of total expenditures, compared to higher income households and, therefore, the expectation would be that poorer regions would be more adversely impacted on compared to higher income regions. One reason for this is because heating, lighting and automobile transport are “necessities” which are relatively insensitive to changes in income.

2.7.3 Estimating the carbon content of expenditures

Estimating the carbon content of expenditures is a complex task, requiring resort to the use of input-output tables. The carbon content of a product is not simply the CO_2 content of energy used in a product’s production. A product (or service) will use imports and components that also directly use energy and that also are components and services from other industries. Hence, there is a carbon “multiplier” for an industry which will vary with the complexity of the industry’s linkages with other industries.

Domestic production for an industry will also use imported goods and/or services and hence the structure of importance in the economy is important for determining the CO_2 content of domestic production as is the structure of use of domestic energy sources by industry.

In 2005 the direct and indirect CO_2 content of Australian goods and services used in Australian consumption expenditures for CO_2 input-output industries (excluding direct energy use in households) of the ABS 2001-02 input-output tables updated to 2004-05, came to 104 million tonnes. This includes all “multipliers” for imports and domestic products and services used in Australian production.

Imports are also allocated directly to Australian consumption. When direct imports are added, the total national CO_2 content of private household expenditures comes to 134 million tonnes. Adding the direct use of energy by Australian households (coal, oil, petroleum products, gas, electricity) brings the total to 248 million tonnes. Hence, a $35 carbon tax (or $33 in 2004-05 prices), will add $8.6 billion ($8 billion in 2004-05 prices) to the costs of Australian consumption on the assumption that it is based on a world-wide basis.

Household microsimulation expenditure modelling for the 106 input-output industries is then used to allocate the $8.6 billion cost to the expenditures of each LGA. Australia by estimating the carbon content of household expenditures by LGA so that the sum across all LGAs sums to the 248 million tonnes.

State effects, in terms of CO_2 content of energy, are taken into account. Hence, Tasmania, because of its reliance on hydro energy, will have a relatively low overall CO_2 content of expenditures compared to other States. However, this conclusion may have to be altered due to the energy connections across Bass Strait and Tasmania’s participation in the National Electricity Market.

2.7.4 The cost of carbon prices by region

The cost of carbon pricing (at $33 a tonne in 2004-05 prices) by SOR region is given in the appendix indicators. The tables in this section give the impact at the zone level.

From Table 2.6, $1.4 billion of the cost accrues to the Rural zone, $1.5 billion to the Core metro zone, $1.9 billion to the Dispersed metro zone and $2.0 billion to the Production zone.

As the map of SOR regions shows, the cost per household tends to rise the further from the metropolitan central regions. Similar to the Brotherhood of St Laurence study, the carbon costs tend to increase as a per cent of income the lower the income levels of a region. Thus, for the rural regions a carbon price will increase consumption costs by 1.9 per cent of income, compared to 1.4 per cent for core metro regions. As a per cent of wealth (Table 2.9), the range is wider still.

It should be noted that the carbon price estimates in this report represents the direct cost on current consumption patterns and CO2 content. The longer run abatement response is another matter. However, the first step must be to be able to estimate the direct impact effects and this has been done here.

The next chapter considers water security costs.

Table 2.6 Costs of climate change: Agriculture income loss and carbon price (2004/05 $ million)

	Lost agricultural production	Carbon price – $33 a tonne	Number of households (million)
Rural	1912.1	1443.0	1.35
Core Metro	117.3	1538.5	1.52
Resource Based	339.5	261.2	0.27
Dispersed Metro	207.0	1887.8	1.74
Production Zone	453.4	2024.1	1.94
Lifestyle	134.2	718.6	0.71

Table 2.7 Costs of climate change by component ($ 2004/05 prices cost per household)

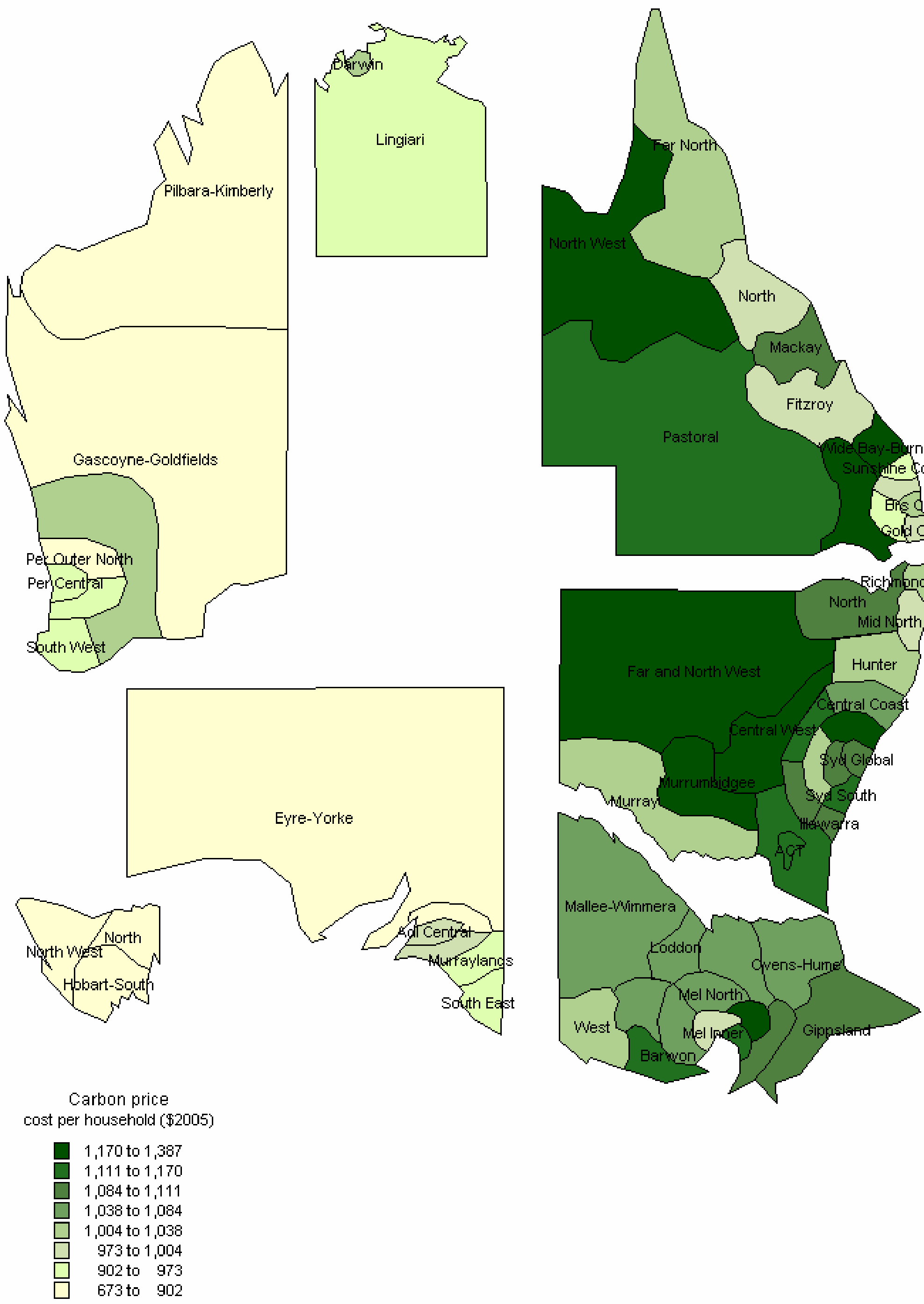
	Lost agriculture production	Carbon price – $33 a tonne	Water security costs	Total
Rural	1414.2	1067.2	618.9	3100.3
Core Metro	77.1	1010.4	584.1	1671.6
Resource Based	1248.0	960.3	823.6	3031.9
Dispersed Metro	118.9	1084.6	564.7	1768.2
Production Zone	233.6	1042.9	579.7	1856.2
Lifestyle	188.1	1007.0	583.5	1778.6

Table 2.8 Costs of climate change by component as a per cent of average disposable income (less debt repayments)

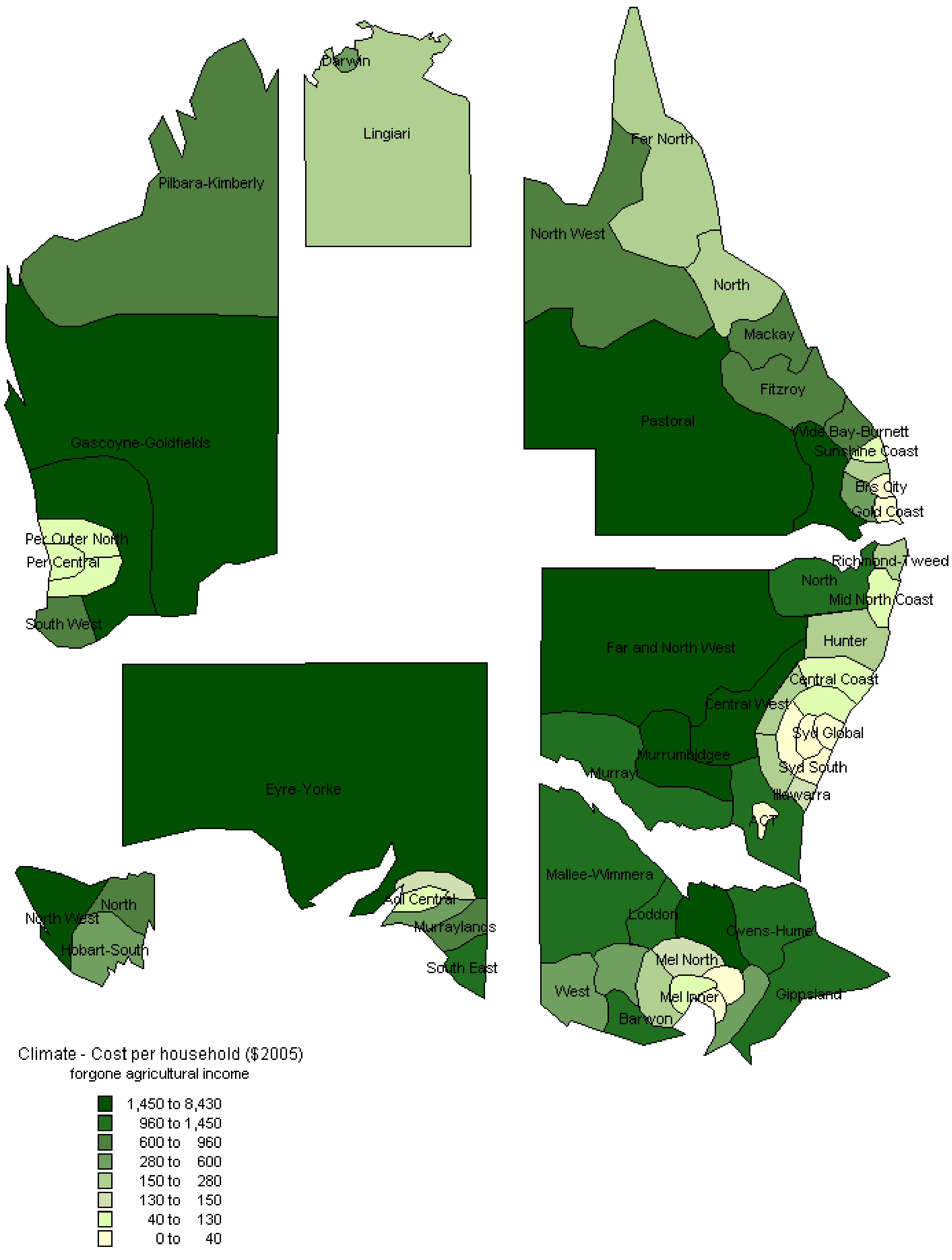
	Lost agriculture production	Carbon price – $33 a tonne	Water security costs	Total
Rural	2.5	1.9	1.1	5.4
Core Metro	0.1	1.4	0.8	2.3
Resource Based	2.0	1.5	1.3	4.8
Dispersed Metro	0.2	1.6	0.8	2.6
Production Zone	0.4	1.8	1.0	3.2
Lifestyle	0.4	2.2	1.3	3.8

Table 2.9	**Costs as a per cent of average household wealth**			
	Lost agriculture production	**Carbon price $33 a tonne**	**Water security costs**	**Total**
Rural	0.37	0.28	0.16	0.81
Core Metro	0.01	0.14	0.08	0.23
Resource Based	0.32	0.24	0.21	0.77
Dispersed Metro	0.02	0.19	0.10	0.30
Production Zone	0.06	0.28	0.16	0.50
Lifestyle	0.05	0.25	0.14	0.43

Climate: Carbon price cost per household



Climate - Cost per household of forgone agricultural income



Part D: United Kingdom case study

2.8 United Kingdom: Climate change strategies and policy

The United Kingdom's response to the enhanced greenhouse effect is of interest to Australians as an example of an active government approach to emission abatement, widely regarded as a world leader. The UK Government published its Climate Change Program (CCP) in November 2000. This set out how it intended to meet its Kyoto target and domestic goal. The United Kingdom's strategy for greenhouse gases abatement employs a combination of increased fuel switching and greater energy efficiency.[2]

Measures to encourage fuel switching have focused on developing renewable energy sources rather than encouraging further switching from coal to gas. However, the UK Government has also provided substantial support for combined heat and power (cogeneration)[3], which tends to be fuelled by natural gas.

The UK Government set a target for renewables of 10 per cent of all electricity generation by 2010. Key to achieving this target is a legally binding obligation on electricity suppliers that requires 10 per cent of sales to be generated from eligible renewable sources by 2010. Further, the UK Government has exempted electricity generated from the climate change levy (see below for more on this levy) and has provided considerable funding for the development of renewable technologies.

The UK Government has also set a target for cogeneration of 10 GW capacity by 2010. The Government has resisted calls to set a cogeneration obligation along the line of the renewable obligation but has exempted electricity generated from cogeneration from the climate change levy and has provided other incentives for investment in the technology.

The UK Government has introduced a number of measures to improve energy efficiency. These include:

- ❑ a climate change levy package;
- ❑ a UK-wide emissions trading scheme;
- ❑ the European-level agreements with car manufacturers to improve the fuel efficiency of new cars by at least 25 per cent by 2008-09;
- ❑ better energy efficiency in the residential sector; and
- ❑ improving performance standards in the Building Regulations.

The key measures have been the climate change levy package and the emission-trading scheme. The climate change levy, which was introduced in 2001, is applies to electricity (including nuclear), oil, gas and coal use by industry, commerce and public sectors. Household, energy and the transport sector are exempted from the levy. Further, energy-intensive industries have received a discount on the full levy rates in exchange for legally binding abatement targets. The levy is not a carbon tax, but a higher levy rate is applied to electricity use. The revenue raised from the levy is partly returned in the form of a reduction in employer's contribution to national insurance (a superannuation type levy), in line with the UK Government's pledge to tax 'bads' and reduce taxes on 'goods' such as labour.

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[2] There are few measure to encourage use and development of cleaner technologies, mainly toward coal-fired electricity generation. Also, a large amount of the reduction in greenhouse gases is expected to come from reduce methane as result of better management of landfill.

[3] Combined heat and power is an efficient form of providing heating at the same time. Its overall fuel efficiency is around 70-80 per cent of the input fuel – much higher than most power stations which are only up to around 40-50 per cent efficient.

The emission-trading scheme, which was launched in 2002, is the world's first economy-wide greenhouse gas emissions trading scheme. The scheme has two parts. There is the voluntary part where companies (called ‘direct participants’) bid for government funds by taken on a legally binding obligation to reduce emissions below a baseline. These direct participants can either:

- reduce their emissions by the agreed amount and keep the government funds or
- can pay other companies (indirect participants) to reduce their emissions.

The auction for direct participants took place in early 2002. The auction cleared at a price of £53.37 – the Government will pay £53.37 per tonne of additional CO_2 emission reductions delivered.

The second part of the trading scheme is for energy-intensive industries that have received a discount on the climate change levy in exchange for abatement targets. Companies in these industries can fulfill their targets by purchasing credit (that is, emission savings above the targets) from other companies in this part of the scheme. The two part of the emission-trading scheme are largely separate, although the companies in the latter part can sell their credits to direct participants (the converse is not possible).

In its May 2007 White Paper on energy, *Meeting the energy challenge*, the UK’s Department of Trade and Industry defines its current view of the development of new nuclear power stations. Extracts from the white paper provide some insight into current thinking.

> *“The Government believes that, based on the significant evidence available, the lifecycle carbon emissions from nuclear power stations are about the same as wind generated electricity with significantly lower carbon emissions than fossil fuel fired generation. As an illustration, if our existing nuclear power stations were all replaced with fossil fuel fired power stations, our emissions would be between 8 and 16 MtC (million tonnes of carbon) a year higher as a result (depending on the mix of gas and coal fired power stations). This would be equivalent to about 30-60 per cent of the total carbon savings we project to achieve under our central scenario from all the measures we are bringing forward in the Energy White Paper. Therefore, the Government believes that new nuclear power stations could make a significant contribution to tackling climate change. We recognise that nuclear power alone cannot tackle climate change, but these figures show that it could make an important contribution as part of a balanced energy policy.”*
>
> *“The Government believes that the best way to achieve secure energy supplies is by encouraging a diversified mix of generating technologies, and that energy companies should have the widest choice of technologies in which to invest. We know that our nuclear power stations are coming to the end of their lives; not allowing energy companies to invest in new nuclear power stations would increase our dependence on fewer technologies and expose the UK to risks to the security of our energy supplies.”*
>
> *“The Government believes that allowing energy companies the option of investing in nuclear power stations would make a contribution to maintaining a diverse generating mix, with the flexibility to respond to future developments that we cannot yet envisage. Allowing energy companies the option of investing would therefore make an important contribution to the security of our energy supplies*.”

The above paragraphs indicate that, during the last decade there has been a shift in policy direction towards the inclusion and acceptance of the notion of further investment in nuclear energy. This shift in thinking has been driven by two main concerns:

1. energy security as gas requirements rely heavily on imports; and
2. climate change considerations.

These two factors will probably drive a net expansion of nuclear generating capacity in the UK.

2.8.1 The United Kingdom's longer term climate change goals and strategies

In the White Paper, *Our Energy Future – creating a low carbon economy (Feb 2003)*, the UK Government sets out its longer-term goals and strategies for energy policy. The focus is largely beyond 2010, to 2020 and further ahead, to 2050. Little is mentioned in the document about the Kyoto protocol.

The White Paper is arguably an attempt by the UK Government to set the debate for climate change going beyond Kyoto. The UK Government wants the world's developed economies to cut emissions of greenhouse gases by 60 per cent by 2050. The document is a measure of their commitment to this aim.

Policy goals

Climate change target

The key new initiative of the White Paper is to put the United Kingdom economy on a path to a 60 per cent reduction in carbon dioxide emissions by 2050. A 60 per cent reduction would bring carbon dioxide emissions down from roughly 160 MtC in 1990 to 95 MtC in 2050. We may note that this is a fairly relaxed target compared with those advocated in the Stern Review.

As a medium-term milestone, the UK Government aims to cut carbon dioxide emissions to 110-120 MtC by 2020. This suggests a further 15-25 MtC in abatement would need to be achieved, on top of abatement stemming from existing Climate Change Program measures.

The UK Government expects half of the additional abatement will come from household, industry and business sectors in the form of greater energy efficiency and half will come from energy and transport sectors in form of fuel switching (namely towards more renewables) and greater energy efficiency.

Table 2.10 How cuts of 15-25 MtC could be achieved by 2020

	Estimated MtC reductions
Energy efficiency in households	4-6
Energy efficiency in industry, commerce and the public sector	4-6
Transport: continuing voluntary agreements on vehicles; use of biofuels for road transport	2-4
Increasing renewables	3-5
EU carbon trading scheme	2-4

The UK Government provides few specifics on where the additional abatement will come from, going beyond 2020. However, it points to renewables as a likely source of the additional abatement. The Government suggested that renewable electricity generation may need to account for 30-40 per cent of all electricity supplied in order to achieve the goal of a 60 per cent reduction in CO_2 emissions by 2050. The Government estimates the cost of effectively tackling climate change would be very small – equivalent in 2050 to 0.5-2 per cent of the GDP, which by then the economy would have tripled as compared to now.

Reliable, competitive and affordable energy targets

The key impetus for the White Paper was climate change. This is evident by the document's title '*Our Energy Future – creating a low carbon economy*'. However, the Government recognises that by tackling the challenge of climate change, it may impact on other policy objectives.

The White Paper identifies four main goals of energy policy. They are:

- to put the United Kingdom on a path to cut CO_2 emissions by 60 per cent by 2050;
- to maintain the reliability of energy supplies;
- to promote competitive markets in the United Kingdom and Europe; and
- to ensure that every home is adequately and affordably heated.

The need to ensure secure supplies of energy stems from the decline of the United Kingdom's indigenous energy – oil, gas and coal – and the planned closure of the ageing nuclear plants. By 2020, the United Kingdom could be dependent on imported energy for three quarters of total primary energy needs. Further, the expansion of nuclear generation as a significant contributor to energy needs has been all but ruled out.

The promotion of competitive markets is consistent with the UK Government philosophy that liberalised market, through forward prices, will provide the necessary signals, for future investment in energy infrastructure in the United Kingdom and Europe. As the United Kingdom shift to become a net importer and becomes more integrated with the mainland European energy markets, it could become potentially more vulnerable to price fluctuations and interruptions to supply caused by regulatory failures in mainland Europe where markets are less liberalised than the United Kingdom.

The final goal is to ensure that every home is adequately heated. The UK Government measures fuel poverty as spending more than 10 per cent of household income on energy. In 1996, 5.5 million households were in fuel poverty. This has since dropped to around 3 million, helped by lower energy prices and higher social security benefits.

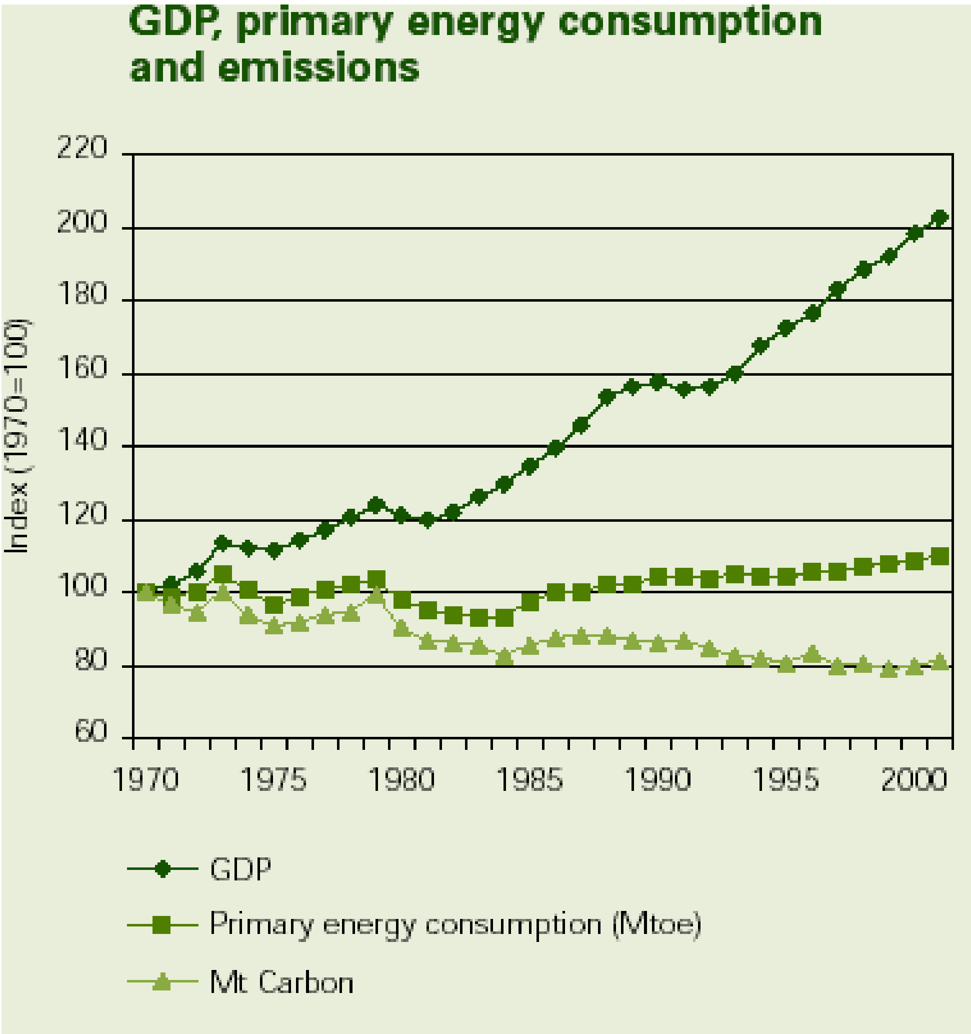
Strategies

To put the United Kingdom on a path to a 60 per cent reduction in emissions by 2050 and ensure reliable, competitive and affordability energy, the UK Government argues in the White Paper there needs to be a fundamental long-term shift in the way energy is supplied and used. Their proposed strategy will include a combination of greater energy efficiency and further fuel switching.

Energy efficiency strategy

The UK Government has identified greater end-use energy efficiency of households, industry and business as the cheapest, safest way of achieve all four objectives. They see it as win-win situation, as it will deliver lower energy bills and lower carbon emissions.

Over the last 30 years, the economy's energy intensity – the ratio of energy consumption and GDP – has improved by around 1.8 per cent per year. To meet the government targets of a 60 per cent reduction by 2050, the rate of improvement in energy intensity need to be much higher and the UK Government believes there is room for improvement. In term of energy intensity, the United Kingdom is ranked 13th in the OECD and is over 60 per cent more energy inefficient than Switzerland.



The UK Government already has in place a number of measures to improve energy efficiency. The White Paper sets out examples on how to accelerate the energy savings. For the households and business, the additional savings are expected to come from improved building standards, heating systems (including micro cogeneration) and lighting and appliances energy rating. These will be achieved through better building and product design regulations and improved advice on energy services.

For industry, the sources of additional savings are expected to build on those already achieved as result of the measures in the Climate Change Programme such as climate change levy package, combined heat and power incentives, and the emission trading scheme.

The key new policy measure for industry is the EU emission-trading scheme. In January 2005 the European Union Greenhouse Gas Emission Trading Scheme (EU ETS) commenced operation as the largest multi-country, multi-sector Greenhouse Gas emission trading scheme world-wide.

In the EU scheme, each participant is set a cap – as a target level of emissions. Each will then receive tradeable allowance equal to its cap. To comply with scheme, each participant must hold allowances at least equal to it emissions. Participants will therefore have three choices:

- ❑ meet their cap by reducing their own emissions;
- ❑ reduce emissions below their cap and sell or bank the excess allowances; or
- ❑ let their emissions remain above their cap and buy allowances from the other participants.

Fuel switching strategy

The UK Government's proposed strategy for fuel switching has focused largely on encouraging the development of renewable energy. Renewables currently contribute less than 2 per cent of total electricity generated in the United Kingdom and has expanded far less in the United Kingdom than in some other European countries. Yet the potential is huge. For example, the United Kingdom has over one third of Europe's entire potential for offshore wind energy.

The UK Government already has a target of producing 10 per cent of electricity from renewable sources by 2010. The White Paper sets out the UK Government's intention to extend this to 20 per cent by 2020 (although they postponed making this decision to 2005-06 after a progress review). There has been considerable government support for renewables announced already. Measures to date will provide the renewables industry with support worth around £1 billion a year.

As well encouraging the development of renewables, the UK Government has provided substantial financial support for cogeneration, the overall fuel efficiency of which is around 70-80 per cent of the input fuel – much higher than most power stations, which are only up to around 40-50 per cent efficient.[4] While it has traditionally been used by heavy heat users to generate small amount of electricity for own use, recent developments in the technologies has made it possible for much large amount of electricity to be generated. The UK Government has encouraged the uptake of cogeneration by making it possible for these relatively small generators to put their excess electricity on the transmission network and by making the economics of doing so more attractive through exempting it from the climate change levy.

Encouraging renewable energy and combined heat and power have the added benefit of strengthen energy security and diversifying energy sources. Interestingly, the expansion of nuclear generation as a significant contributor to energy policy was all but ruled out in the 2003 White Paper which suggested that, although nuclear power produces no carbon dioxide, the UK Government believes its current economics make new nuclear build an unattractive option and there are still important issues of nuclear waste management to be resolved. By 2025, there is likely to be only one nuclear plant operating. The change in thinking from the 2003 White Paper to current UK policy utterances, which are far more positive toward the development or upgrading of nuclear power generation facilities, are extremely interesting in terms of the current debate on this matter in Australia.

2.8.2 UK Survey of business views on international climate and energy policy

This survey was undertaken for the UK Government in 2006 by the UK Business Council for Sustainable Energy and the Climate Group. Fourteen companies were interviewed from the utility, financial services, oil and gas, aviation and energy intensive sectors.

While all respondents considered a carbon price essential for business attention to climate change, the current EU carbon market is insufficiently stable to be a major driver of investments in lower carbon intensive technologies. And the uncertainty in post-2012 policies is creating a "wait and see" approach. Current carbon prices (actual, outlook) are too low to bridge the cost gap for many renewable technologies.

[4] CHP is arguably an energy efficiency strategy. However, it also will lead to some displacement of coal-fired electricity generation as the fuel of choice for CHP is natural gas and therefore, represents an important source of fuel switching.

Respondents considered the following factors of much larger importance than carbon in their energy technology investment decisions:

- national energy policy;
- security of energy supply; and
- high and volatile gas and oil prices which increase interest in renewables and coal.

The survey showed that concerns about competitiveness impacts of carbon pricing distinguish between intra and extra EU factors. Intra EU concerns depend on the equity of EU member national allocation plans, while extra EU concerns cover global policies and the ability to make border tax adjustments with countries that do not have carbon constraints. Other issues, besides carbon pricing, affect competitiveness. That is, there are clearly broader industrial policy issues that must be addressed. For example, EU policies on industries that may be looking to migrate or expand overseas, and market based approaches to productivity improvements across the EU.

Overall the respondents view the Clean Development Mechanism of the Kyoto Protocol as a positive carbon trading force but its current short term horizon (to 2012) does constrain project opportunities. Some viewed the mechanism as "a dangerous waste of time", others saw the project approval process as a participation constraint.

2.8.3 Post-2012

The main message was that long term policy certainty is needed: needing to align commitment periods with investment horizons (targets out to 2020-25 needed) and the need for early clarification of Clean Development Mechanism certified emission reduction units post-2012.

Governments need to listen to early carbon market movers in order to understand how policy translates into business decisions and identify the elements that are most likely to accelerate investment in lower carbon intensive technologies.

Key lessons from the survey for both domestic and international post-2012 policy are that:

- it is unwise to radically change the architecture of the international regime now that business is just getting used to Kyoto as a driver of new markets and as a driver of domestic policy making;
- companies need certainty regarding longer term policies so that they can build their investment decisions on these; and
- consistency with other regimes and policies, such as national or regional responses to energy security concerns, are essential to avoid sending mixed signals.

Part E: Boxes defining key terms

Emissions trading systems (ETS)

Tradable permit schemes have been applied in many applications for protecting the environment or limiting access to natural resources. In particular, emissions trading has been used in several applications with air pollutants (SOx, NOx, etc.).

Under an emissions trading scheme, a limit (or cap) is set on the amount of emissions allowed to be emitted by sectors subject to the scheme. In the case of greenhouse gas emissions, the limit could be related to a country's Kyoto target.

Permits are then allocated among participants consistent with the limit on total emissions. There are different ways of allocating permits – for example, they could be allocated free of charge based on the historical emissions of participants in the scheme ('grandfathering'); they could be auctioned; or a combination of grandfathering and auctioning could be used.

The permit is a right to emit that is a tradable commodity. A permit market ensues from the tradability provision producing a greenhouse emissions price, which reflects the cost of reducing emissions. Permit tradability provides an incentive to find innovative ways of reducing emissions to the cap level. Permit prices will emerge from this process and least cost.

At the end of each liability period, participants in the scheme are required to hold emissions permits equivalent to their actual emissions for the period and provide (acquit) them to the ETS administrator. If they do not, a penalty is imposed.

Firms can reduce their emissions to a level below their allocation and emissions liability. If they do so, they have excess permits that they can sell to other firms whose emissions exceed their allocation.

A firm will decide whether it wants to reduce its own emissions or buy permits on the trading market depending on the relative costs of taking abatement action versus buying permits. For example, if emissions permit prices on the market are $10 per tonne of CO_2, a firm would reduce its emissions (e.g. through adopting new technologies or improving energy efficiency) if it costs less than $10 per tonne to do so. If it would cost more than $10 per tonne to reduce its emissions, the firm would be better off buying permits from other participants.

Studies of the potential cost savings of emissions trading programs and simulations found that costs are over 20 per cent lower than if emitters were required to reduce emissions through regulated (i.e. by a fixed amount) measures.

Key emissions trading scheme design issues include:

- **the level of the emissions limit and the possible phasing of its application over time;**
- **the scope of the scheme (i.e. coverage of sectors and gases) and the liable parties;**
- **the approach to permit allocation;**
- **means of dealing with new businesses entering the market after emissions trading has commenced; and**
- **how best to address the impacts of emissions trading on potentially vulnerable sectors and groups.**

Bioenergy

Bioenergy is the term for the conversion of biomass into heat, power and energy products, such as liquid biofuels. It is essentially a form of solar energy, where biomass is formed through photosynthesis, a natural process whereby solar energy and atmospheric carbon dioxide combine to produce biomass.

Globally some 220 billion dry tonnes of biomass are produced per annum.

Bioenergy is the most widely used source of renewable energy. Biomass provides 10.8 per cent of the world's total primary energy supplies.

Bioelectricity provides 1.1 per cent of global electricity (IEA Renewables Information 2004).

There is approximately 25 GW of installed bioelectricity capacity in OECD countries.

The world's largest individual bioelectricity power plant is the Alholmens Kraft unit in Finland. Its 550 MW (thermal) boiler provides 240 MW electricity.

Biomass is co-fired with fossil fuels (mainly coal) at over 150 power stations world-wide (IEA Bioenergy). Co-firing biomass obviates the need for a dedicated bioenergy plant, and is one of the lowest cost forms of renewable energy.

Benefits of bioenergy projects often extend to co-values and co-products. An example of this is Western Power Corporation's plant at Narrogin, Western Australia, which includes co-production of eucalyptus oil (as an industrial solvent), activated carbon (filtration medium) and bioelectricity. The feedstock, oil mallees also mitigate dryland salinity and provide agricultural shelter belts.

Bioenergy Australia is the vehicle for Australia's participation in the International Energy Agency's Bioenergy program (see www.bioenergyaustralia.org).

Source: BCSE, April/May 2005.

Business Responses to Global Climate Change

Nowadays, the vast majority of multi-nationals no longer question the reality of global climate change nor the risks that accompany it. The book *Business Responses to Global Climate Change* examines what kind of strategies and activities multi-nationals have pursued in responding to climate change. It is concluded that firms do not only adopt strategies for climate change to anticipate future regulations or public pressure, but also increasingly to create a competitive advantage.

Nevertheless, this study shows that mere formulation of Government strategy towards climate change is not sufficient to trigger such a response. Rather, the true implementation of such policies elicits clear corporate climate policy strategy.

Source: Pinkse, J.M. (2006), *Business Responses to Global Climate Change*, Amsterdam: Universal Press, April 2005.

Emission drivers

Greenhouse gas emissions growth is determined by increasing activity in the economy, which has been particularly strong over the past ten years and the greenhouse emission intensity of the economy. The intensity changes, as are overall emissions, are mainly driven by the energy sector.

The aggregate energy intensity of the Australian economy, measured as total primary energy consumption per dollar of GDP, fell by an average 1.1 per cent a year during the 1990s, after remaining more or less stable during the 1970s and 1980s. ABARE projects that energy intensity is forecast to continue to decline by 1.1 per cent a year over the 2001-02 to 2019-20 period. This suggests that 18 per cent less energy will be needed to produce a dollar of economic output (measured in 2001-02 dollars) in 2019-20.

Reductions in energy intensity are driven by structural change towards the services sector, some by energy efficiency improvements, and some by a continued switch to natural gas in, and as a substitute for, electricity. These reductions are offset, to some extent, by continued output of energy intensive industries whose growth rates are presented below.

Output of energy intensive industries

	Production (Mt)			Annual growth (%)	
	2001-02	2008-09	2019-20	2001-02 to 2008-09	2001-02 to 2019-20
Direct reduced iron	1.0	3.7	6.8	19.8	11.0
Other iron and steel	7.3	10.2	11.9	5.0	2.8
Primary aluminium	1.8	2.5	2.7	4.8	2.2
Alumina	16.4	20.8	22.2	3.4	1.7

Source: Australian Energy Trends, ABARE, 2004.

The Asia-Pacific Partnership on Clean Development

The recently announced Asia-Pacific Partnership on Clean Development, although not viewed by partners as an alternative to Kyoto, will be a factor in future global policy discussions. An inaugural meeting of the group was to be held in Adelaide in November, but has now been postponed till March 2006. Current members of the Partnership are the United States, Australia, China, Japan, South Korea and India. Together they account for about half the world's population, gross domestic product and greenhouse gas emissions. Of the countries only Japan is an Annex B KP ratifier.

The primary aim of the Partnership, as set out in the group's Vision Statement, is to achieve regional cooperation in developing and adopting cleaner (lower emission) energy technologies, including those based on coal, natural gas, nuclear (fission and fusion) and renewables, and technologies to capture and store GHG emissions.

Essentially the Partnership is a multi-lateral extension of existing clean technology agreements, for example that between Australia and India on clean coal.

The main implication for States of the Partnership is that, in conjunction with the federal Low Emission Technology Fund, State development of low emission technologies could receive a further boost, depending on how the Commonwealth intends to act on progressing the aims of the Partnership.

Technology development, though essential for reducing global greenhouse gas emissions, does not alone lead to implementation of these technologies to actually reduce greenhouse gas emissions. Market signals complemented by market responsive regulations are a necessary adjunct to technology development. In this respect the plans and proposal outlined in Victoria's Greenhouse Challenge for Energy (2004), and now being implemented, represent an exemplary integrated approach to future greenhouse policy development.

Thus, the Energy Technology Innovation Strategy (ETIS) and the earlier establishment of the Centre for Energy and Greenhouse Technology (CEGT), support for provision of market signals through development (with other jurisdictions) of an Emissions Trading System (ETS) and the development of Victorian Energy Efficiency and Renewable Energy Strategies (VEES and VRES), represent a balanced and responsible approach to the great challenges posed by global warming to global energy systems.

Kyoto Protocol

1. **The Kyoto Protocol (KP) was developed in 1997 by two major groups of countries: Annex B and non-Annex B (see below for definitions). Since 1997 the countries party to the Agreement have met regularly as the Conference of the Parties (COP) to clarify and refine the Articles of the KP.**

2. **Annex B countries comprise developed economies and economies in transition (mostly eastern European countries) who have made commitments to reduce greenhouse gas (GHG) emissions to the levels set out in Annex B of the Kyoto Protocol document. The specified levels are for the first commitment period, 2008-12, where emissions levels are compared with a 1990 base. Non-Annex B countries, loosely called developing economies, comprise all other countries signatory to the KP.**

3. **Annex B countries were called on to ratify the KP, that is to be legally bound by their commitments in Annex B. When countries comprising 55 per cent of emissions covered by total Annex B emissions had ratified the treaty the KP came into force. This occurred on 16 February 2005 following ratification by the Russian Federation.**

As of 1 July 2005, the percentage of Annex B emissions covered by ratifying countries had reached 61.6 per cent with 0.2 per cent of emissions from countries likely to ratify.

The countries opposing ratification, the United States and Australia, comprise 38.2 per cent of emissions (USA 36.1 per cent, Australia 2.1 per cent).

4. **Australia and the United States continue to oppose ratification for two main reasons: potential damage to their economies and the non-inclusion in Annex B of major and rapidly growing emitters, particularly India and China.**

It is important to note that:

- **Projections by the Australian Greenhouse Office (AGO) continue to indicate Australia will meet its Kyoto target, but mainly through reduction of emissions from land clearing;**
- **All Australian States and a significant number of USA States support KP ratification; and**
- **Close neighbours and trading partners of the United States and Australia, Canada and New Zealand, have ratified the KP and are implementing strategies to meet their Kyoto commitments.**

5. **COP meetings and discussions in countries around the globe are increasingly looking towards policies and programs to address greenhouse (global warming climate change) in the post Kyoto period, that is beyond 2012. The two major issues are:**

- **how to include Annex B ratifiers in Annex B and non-Annex B countries in a post 2012 agreement; and**
- **what form post 2012 agreements should take.**

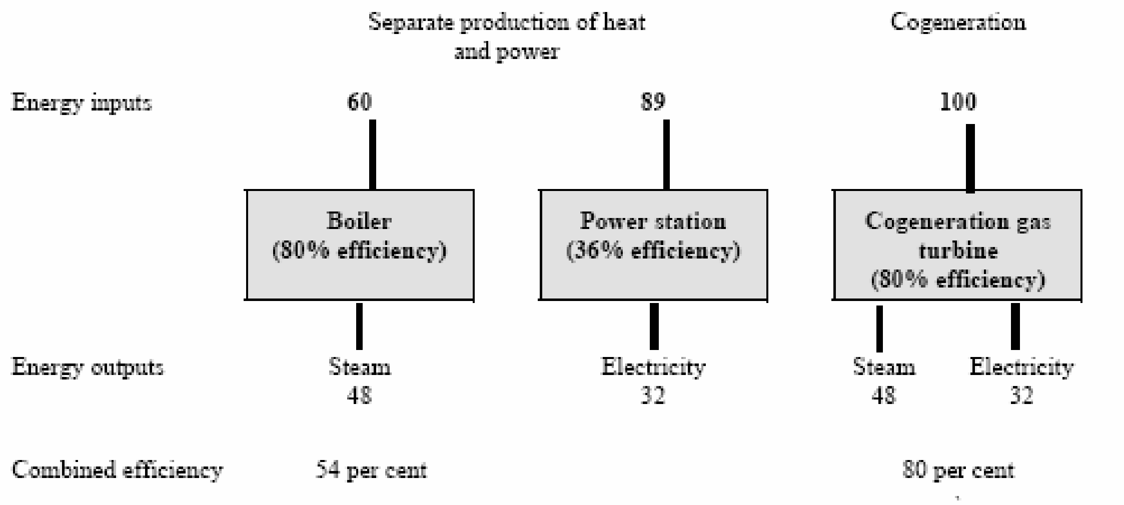
Post-2012 global policy discussions are likely to dominate the COP-10 meeting in Montreal, Canada, in December 2005.

6. **The United States and Australia (depending on future government make-ups), and some major non-Annex B countries, are likely to oppose targets and timetables for the post 2012 era, whereas most Annex B ratifiers appear to favour continuation of the Kyoto Protocol targets and timetables approach. However, there is broad global agreement that major GHG emissions reductions ("deep-cuts") will eventually be required.**

Cogeneration

Cogeneration, the combined production of electricity and useful heat, can achieve conversion efficiencies of 65-85 per cent compared with 30-55 per cent if the required heat and electricity were produced in separate facilities.

Illustration of energy flows from cogeneration and separate production of heat and electricity



Source: Australian Gas Association (AGA), Cogeneration in Australia, 1997.

Although not always the case, cogeneration plants are mainly located in entities (host plants) in major centres in locations where there are significant demands for heat and power and network costs might be reduced. Sizes of cogeneration plants varies from <1 MW to over 200 MW (the largest plants in Australia are at Penrice Soda Products at Osborne, South Australia (180 MW), and at the Smithfield (Sydney) paper plant of Visy (160 MW), both fired by natural gas. Hospitals and the chemical industries are significant locations for cogeneration plants. In urban areas emissions add to air shed load, although from a greenhouse perspective emissions intensities (tCO_2e/MWh) are low compared with other generation technologies. For dedicated generation plants intensities are about 1.25-1.55t CO_2/MWh for brown coal, 0.8-1.1t CO_2/MWh for black coal, 0.4-0.7t CO_2e/MWh for gas and 0.25-0.50t CO_2e for cogeneration systems. Cogeneration plants typically (very variable) operate at 40-90 plus per cent capacity factors and generally export power to network.

Emissions from "typical" (significant variations) cogeneration systems are presented below.

	Emissions per MWh (kg/MWh)[1]			Emissions saved by heat recovery per MWh (kg/MWh)[2]			Net impact (kg/MWh)[3]		
	CO	NO_x	CO_2	CO	NO_x	CO_2	CO	NO_x	CO_2
Natural gas steam turbine	0.224	3.45	704	0.127	0.516	414	0.117	2.93	290
Gas turbine	0.218	3.08	630	0.114	0.465	373	0.104	2.62	257
Diesel engine	0.186	2.32	805	0.102	0.413	333	0.084	1.91	472

Notes:
1. The environmental cost of generating electricity using the specified technology.
2. The emissions that would have been produced by the combustion of natural gas to produce the quantity of heat that is recovered by the specified cogeneration process. Natural gas heating was used in the comparison because it is the current heating fuel of choice due to its low cost and the high efficiency of natural gas combustion equipment.
3. The net impact is the difference between the actual emissions and the emissions that are reduced by heat recovery on a kg/MWh basis.

Source: Australian Gas Association, Research Paper No. 4, 1997.

Cogeneration plants are subject to air quality regulations which consider the plant's emission characteristics and the air shed load.

International greenhouse abbreviations and acronyms

AAU	**Assigned Amount Unit**
AIJ	**Activities Implemented Jointly under the pilot phase**
Annex A	**Kyoto Protocol Annex listing GHGs and sector/source categories**
Annex B	**Annex to the Kyoto Protocol listing the quantified emission limitation or reduction commitment per Party**
Non-Annex B Parties	**Countries without a quantified CO_2 target (also referred to as non-Annex B)**
CDM	**Clean Development Mechanism**
CDM EB	**CDM Executive Board**
CEE	**Central and Eastern Europe**
CER	**Certified emission reduction (Article 12 Kyoto Protocol), CDM**
COP	**Conference of the Parties to the UNFCCC**
COP/MOP	**COP serving as the Meeting of the Parties to the Kyoto Protocol**
ERPA	**Emissions Reduction Purchase Agreement**
ERU	**Emission reduction unit (Article 6 Kyoto Protocol), JI**
ERUPT	**Emission Reduction Unit Procurement Tender (in the Netherlands)**
EU ETS	**European Union Emissions Trading Scheme**
GHG	**Greenhouse Gas**
IET	**International Emissions Trading**
JI	**Joint Implementation**
KP	**Kyoto Protocol**
LULUCF	**Land Use, Land-Use Change and Forestry**
MethPanel	**Methodology Panel to the CDM Executive Board**
MoU	**Memorandum of Understanding**
PCF	**Prototype Carbon Fund (World Bank)**
PPD	**CDM Project Design Document**
SBSTA	**UNFCCC Subsidiary Body for Scientific and Technological Advice**
SBI	**UNFCCC Subsidiary Body for Implementation**
UNFCCC	**UN Framework Convention on Climate Change**

3. Water security costs and total climate change costs

3.1 Summary of the water supply trends throughout Australia

Since the mid 1990s the Southern and Eastern regions of Australia have been impacted by an extended drought. While there have been droughts recorded over the past 150 years, never has there been a drought for such an extended period. The drought is consistent with the predictions of the climate change forecasters, both the prediction of a warmer, drier climate, and the prediction of increased variability in the weather. The drought is therefore, at the very least, a wake-up call.

Since 1996 much of Australia has been impacted by significantly lower rainfall than the long term average, which has resulted in substantial reductions in average stream flows into surface storages. The most extreme example is the inflow into the Murray River which was 11,830 Gl a year on average prior to 1996 but since 1996 has averaged 5938 Gl a year. The worst year by far was 2005-06 when the inflow fell to 925 Gl., around 8 per cent of the long term average. As there has been no increase in storage capacity in most regions at least since the early 1980s, the lower stream flows have been reflected in declining storage levels in the reservoirs serving most of the major cities and rural communities.

Governments throughout Australia have initially reacted to the declining water supply by introducing progressively harsher water restrictions and promoting water conservation. However, with the rainfall in most areas still below average, governments have announced some large projects during the last year, many of which (such as desalination plants and recycling) will reduce the reliance on surface storages.

The situation can change relatively quickly with good rainfalls. For example in July and August 2007 in New South Wales and Queensland there were significant rain events which substantially improved storage levels. Nevertheless as at the end of August 2007 there were still a number of areas that were critically short of water supply, namely:

- metropolitan Melbourne, where storages were at a level of 38 per cent which was 10 per cent below the same time in 2006;
- all country regions in Victoria with the exception of parts of Gippsland and the Western region;
- the Murray Darling Basin where initial irrigation allocations this year are likely to be zero. Zero allocations are also expected for irrigators on the Broken, Campaspe and Loddon systems in the Victorian part of the basin; and
- Tasmanian Hydro electricity storages where the electricity normally generated is being replaced by imports of electricity via the Bass Link cable.

While nothing can be done about lack of rainfall beyond stoic acceptance, there are opportunities to increase the harvest of water, store more of it, recycle it and as a last resort desalinate it. Some of this effort is in private hands – particularly urban rain water tanks and grey water recycling – but most of it involves strategic planning for entire catchments, not to speak of connections between catchments. This is inevitably a government activity, and about $25 billion of additional water supply projects have recently been announced over and above the normal capital program of water utilities throughout Australia. The annual cost of these works when implemented is estimated to be about $2.3 billion as shown by the following Table 3.1.

Table 3.1	Consumption, revenue and costs: an overview							
State/City	Population (million)	Expected population growth	Capital expend-iture on water sources ($m)	Approx. water used (Gl/year)	Estimated 2005-06 water revenue ($m)	Extra annual costs Cap	Optg	Total
Melbourne	3740	49,000/year	3900	390	472	390	67.5	457.5
Country Vic	1425		1800	2933		180	10	190
Perth	1520	30,000/year	3000	230	255	300	42.5	342.5
Adelaide	1140	10,000/year	500	325	217	50	10	60
Sydney	4280	37,000/year	3000	526	630	300	60	360
Country NSW	2570							0
Hunter	517	3,500/year	300	75		30	5	35
SE Queensland	2335	43,000/year	9000	450	555	900	61.25	961.25
Canberra	334	3,000/year	200	60		20	5	25
Darwin	114	2,800/year	0	55				0
Hobart	205	2,000/year	0	11				0
Total			**21700**	**5055**	**2129**	**2170**	**261.25**	**2431.25**

3.2 Current water supply issues at the national level

Water is vital to public health, the economy and the environment. The substantial decline in rainfall in the Eastern and Southern States over the past ten years has resulted in water storages being at record low levels in 2006 and 2007 (Table 3.2) for the major urban centres. The table also shows a recovery following rain in New South Wales. The increase in Adelaide's storage levels is as a result of the amount of water taken from the River Murray rather than any increase in rainfall.

Table 3.2	Storage levels		
City/Region	Storage levels (July 2007)	Storage levels (July 2006)	Level of water restrictions
Melbourne	48%	48%	Stage 3A
Perth	25%	31%	Hand watering sprinklers 2 x 2 hour sessions per week
Adelaide	75%	52%	Stage 3
Sydney	57%	42%	Stage 3
Hunter	97%	66%	No restrictions
Brisbane	17%	31%	Stage 5
Gold Coast	62%	92%	
Canberra	41%	51%	Stage 3
Hobart	77%	81%	No restrictions
Darwin	95%	100%	No restrictions

Source: Water Supply Association of Australia.

The impacts of the drought have been prolonged water restrictions in many areas and reduced irrigation allocations, particularly in the Murray Darling Basin. Urban consumers are questioning the need for continuous restrictions on garden watering, pointing out that healthy green gardens improve the amenity of the living environment, add to property values, provide shade, remove pollutants including carbon and provide habitat for birds. There is no doubt that more water can be provided, the question being whether consumers are willing to pay the increased costs.

Climate change is resulting in wider variability in rainfall patterns with longer periods of low inflows into storages. In Australia we are heavily reliant on surface storages for our water supply. For much of the 20th century the Australian states invested heavily in the construction of large dams. Thus the Murray-Darling system was provided with a number of dams, intended to harvest water during the winter for release to irrigators in summer, and to harvest water in wet years to guarantee minimum irrigation flows in dry years, with incidental generation of hydro electricity. Similarly the metropolitan water authorities built dams to guarantee urban water supply and, in the case of Brisbane, for flood control. However, this burst of dam building ended 20 to 30 years ago, partly due to environmental objections but mainly due to the utilisation of the most promising sites. Very little increased water supply capacity has been added following major dam construction works in the 1970s and early 1980s. Investment over the past couple of decades has principally been directed at improving water quality.

Climate change and the drought have now highlighted that urgent action is needed to expand water supply capacity to meet population growth and provide reserves for extended periods of low inflow. Governments are also recognising a need for greater diversity in the water supply sources to reduce dependence on rainfall runoff into surface storages. As a result a major investment program is planned – a program which in part reflects the inevitable problems of ensuring secure water supply for growing populations in a land of unreliable rainfall, and in part can be interpreted as an adjustment (or adaptation) to climate change. How much of which does not really matter.

Major supply options being implemented by State and Local Governments around Australia are as follows.

- Desalination plants in Western Australia, Victoria, New South Wales and Queensland.
- Recycling of wastewater from sewerage plants principally for agriculture and industry with some saving in potable water.
- New dams in Queensland and raising the spillway levels of some existing dams.
- Promotion and subsidisation of water saving appliances and equipment such as rain water tanks, showerheads and grey water recycling systems.
- Improving the efficiency of irrigation on farms and upgrading irrigation infrastructure to save water, including redirection of the saved water to higher value applications such as urban water supply.

Each of these options has its difficulties.

- Most large scale water supply projects attract wide criticism and are difficult to implement. In particular environmental issues are of concern for desalination plants and new dams.
- Recycling projects are generally uneconomic as the recycled water can cost three to four times the cost of river water or ground water due to the cost of treatment to meet environmental safeguards, to which is added the cost of pumps and duplicate pipes to convey the treated water to users. Most State governments have recycling targets but these targets are unlikely to be achieved without substantial subsidy.
- Transferring water allocations from the rural sector to urban use is also difficult, since it involves sacrificing rural industry with inevitable political repercussions.

- Despite its high operating costs, desalination currently represents the best option to meet future urban water supply requirements as it is a source of water that is independent of the climate and the environmental issues can be managed. To obviate the high greenhouse gas emissions attributable to desalination plants powered by coal-fired electricity, some States are using wind farms as the source of energy supply.

Overall investment planned on water supply infrastructure over the next 10 years is $25 to $30 billion with about $10 billion spent on desalination plants. The desalination plants will require about 400 MW of base load electricity generation. The majority of the remaining $20 billion will be spent on pipelines. The average rate of spending of around $3 billion per year is around 4 times the historical annual expenditure over the past 10 years on water supply infrastructure.

This acceleration in the planning and construction of water supply infrastructure raises the following questions.

- Are there adequate resources and skills available to plan and manage the works program within the water industry having regard to the fact that water supply utilities have been focused on operations rather than expansion for the past twenty years? In particular, they lack skills and experience in desalination technology?
- Will so many plants being planned and constructed within the same timeframe create a supplier market so that costs escalate above estimates?
- How will this increased expenditure be funded? Will it result in an increase in State debt or will funds be diverted from other priority areas?
- How will this construction program and the consequent higher operating costs per unit volume be reflected in water supply tariffs?

A further important consideration is that water restrictions and Government subsidies has promoted substantial growth in private expenditure on rain water tanks and grey water recycling. People are concerned that the only way they can support a garden is by way of supplying the water through their own initiatives.

In some areas the growth in “behind the meter systems” has been dramatic and it is expected that either a rain water tank and or a grey water system will be installed in 20-30 per cent of all residences by 2012. At an average cost of $2,000 per unit this amounts to substantial expenditure.

It is also expected that rain water tanks/grey water will become mandatory for new homes within the next five years. Consequently the penetration of these behind the meter systems to 2025 will continue to increase.

3.3 Water supply in Victoria

Most of Victoria, with the exception of the South West and East Gippsland, has been heavily impacted by the drought. The extent of the drought can be shown by the average recorded stream flows into Melbourne’s storages. This averaged 590,000 ml per year for the period 1913 to 2006 compared with 387,000 ml per year for the period 1997 to 2006.

3.3.1 Metropolitan Melbourne

Melbourne has not had a major expansion of its water supply since the construction of the Thomson Dam in 1984. The combination of population growth since 1984 and lower than normal rainfall since 1996 has resulted in dam levels falling from a minimum level of 60 per cent in 1999 to around 29 per cent in June 2007. Restrictions on the usage of water were progressively extended over the period from 2005 to 2007. These restrictions generally apply to external use of water for garden watering and car washing. There has been very little impact to date on commercial and industrial use of water. The response from domestic water consumers has been good with an excellent take up of government subsidies for water saving appliances including rain water tanks and grey water recycling systems. The restrictions have undoubtedly had a significant impact on maintaining dam levels which, without the restrictions, would have been in crisis condition.

The Victorian government announced in June 2007 two major water supply capital projects to augment water supply to Melbourne.

- ❑ A desalination plant to be located at Wonthaggi to the east of Melbourne. The desalination plant will supply 150,000 Ml of water per year (37 per cent of Melbourne's annual requirements) and it will also supply urban communities at Phillip Island and West Gippsland.

  The capital cost of the plant and connections to the Melbourne system will be $3.1 billion. This represents a cost of water produced of over $2/kl. The plant will be operating in 2011.

- ❑ A pipeline connection from the Goulburn River north of Yea to Melbourne Water's Sugarloaf Reservoir. The pipeline will deliver an average of 75 Gl/year to the Melbourne system at a capital cost of $750 million with an annual operating cost of $17.5 million, and will be operational in 2010. This connection will connect water systems south and north of the Great Dividing Range and offers the opportunity of trading water between regions. The project represents a cost of water transferred of around $1.25/kl.

The government has also identified water recycling from Melbourne's wastewater plants as having potential but to date only fairly small projects have been implemented. Large volumes of secondary treated wastewater of over 200,000 Ml per year are discharged to the ocean at Cape Schanck and Port Phillip Bay at Werribee. The problem with recycled water to date has been the cost to treat the water to meet environmental and health requirements and distribute it to industry and farms that can utilise it. However if recycled water could be used to replace irrigation water the irrigation water could potentially be made available for urban consumption. Another option is to treat the wastewater to drinking quality standards but this is currently deemed to be not politically acceptable. Typical costs of recycled water are over $1/Kl, which compares unfavourably with the cost of irrigation water (if available) of about 15c/Kl.

These water supply announcements entail two main consequences.

- ❑ There will be no substantial increase in water supply until 2010. If average inflows do not recover but continue at the same level as over the past 10 years there will be an annual deficiency between supply and demand of about 50 Gl/year. Continuation of lower than average rainfall over the period 2007 to 2010 would result in further deterioration in dam levels resulting in emergency actions to restrict demand. The only supply to be added over the next four years is the reinstatement of the Tarago Dam near Warragul which will supply up to 15 Gl per year. However this requires construction of a treatment plant with a lead time of two years and consequently this supply will not be ready until 2009.
- ❑ The proposed capital program will substantially increase water supply costs. In 2005-06 water supply revenue was about $500 million split as follows:

Wholesale	$175 million (Melbourne Water)
Retail	$297 million (overall revenue of $472 million less paid to wholesaler)

The projects proposed will add about $460 million per year to the wholesaler's interest and operating costs, split as follows:

Tarago	$ 15 million
Goulburn/Sugarloaf	$ 95 million
Desalination	$350 million

This will increase Melbourne Water's water supply costs by 285 per cent. The government has indicated that water bills will increase by 50 per cent over five years to pay for this work. With an overall retail revenue of $1 billion (including wastewater) this means that the price increases will just cover the new water project costs without any allowance for inflation and other proposed capital works such as water recycling projects. This means that the government will either have to increase prices at a faster rate than foreshadowed or reduce their dividend take by about $150 million per year.

3.3.2 Country Victoria

While the water supply situation in Melbourne from 2000 to 2007 has been serious it has been far worse in most country urban areas. These include towns and cities in the Barwon, Central Highlands, Loddon, Mallee-Wimmera and Ovens-Hume regions. The only regions to have largely escaped the drought are Gippsland (east of Bairnsdale) and the Western region from the South Australian Border to Lorne. In July 2007 Eildon Weir, which supplies the Goulburn system and cities such as Shepparton was at a level of 16.9 per cent of capacity compared with 23 per cent at the same time in 2006. Overall all the storage levels in the Goulburn Basin collectively were 18.2 per cent of capacity compared with 37.3 per cent in 2006. In the Loddon region, Eppalock Dam that supplies Bendigo was 3.5 per cent full, and in the adjacent Central Highlands Ballarat's storages were only at 10 per cent of capacity. All these centres had Stage 4 restrictions, which prohibit all outdoor water use.

The government has announced the following water supply projects that will benefit country urban supplies.

- A number of irrigation systems will be upgraded. For instance in the Goulburn Murray (Food Bowl) system 3,500 Gl of water is supplied annually for irrigation and urban supplies. About 900 Gl is lost due to leakage, seepage and outdated irrigation infrastructure. The government proposes to spend $1 billion in this system to save 450 Gl/year which will be shared between irrigators, the environment through increased river flow and Melbourne urban area through the Sugarloaf pipeline referred to above.
- A Victorian Water Grid will be constructed involving the following interconnections.
    - The Hamilton/Grampians interconnector will bring water from south to the north of the Grampians range and so improve water supply to the Mallee-Wimmera.
    - A Goldfields Superpipe will transfer some of the gains from the Food Bowl to augment supply to Bendigo and Ballarat.
    - Pipelines in the Mallee-Wimmera region will replace open earthen irrigation channels.
    - The Campaspe Pipeline to Waranga Channel will transfer water from the Goulburn Murray System to the Food Bowl Irrigation System and the Mallee-Wimmera system
    - An interconnecting pipeline will be provided between Melbourne and Geelong (Barwon region).
    - The Sugarloaf Pipeline already discussed.
    - A pipeline from the new desalination plant to Cardinia Dam will link Melbourne to Westenport and South Gippsland

To meet the cost of these works, the overall cost of water in country urban areas is likely to increase about the same rate as for Metropolitan Melbourne over the next five to ten years.

Approximately 81 per cent of all water consumed in Victoria is for irrigation. Consequently this sector has the most potential for water management, conservation and reform. Irrigators have an annual allocation of water that can be reduced when the overall water supply is unavailable through drought. There is now scope for irrigators to trade their allocations and for the Government to buy back the allocations. The prices charged for irrigation water are extremely low by urban supply standards, indicating heavy government subsidy to this sector.

In the medium term the shortage of irrigation water will have a major impact on irrigators, who will have to make changes on their farms to more efficiently utilise the limited water available. They may also have to reduce their production or change their product lines. In the longer term, as the projects to increase the efficiency of supply of irrigation water and the interconnection projects are completed, the cost of irrigation water is likely to increase at least at the rate of increase in Metropolitan prices. For example, the Food Bowl project is expected to increase water available by 265 GL at a cost of $1 billion. Even without allowance for any increase in operating costs, this represents a cost of about 40c/Kl. As irrigation prices are in the range 15 to 20c/Kl the Government subsidy for this project alone is around $55 million per year. If these costs are passed on to irrigators it will lead to substantial real increases in food production costs, and may also precipitate a fall in the sale price of water rights and irrigable land.

3.4 Western Australia

Western Australia is physically the largest State, with substantially different climate zones from tropical in the Kimberley through arid in the Pilbara and Goldfields to temperate in the Wheatbelt-Great Southern and Peel-South West regions. Overall there are approximately 2 million people spread out over 2.5 million square kilometres.

Climate change has had a major impact on water supply particularly in the Wheatbelt-Great Southern and Peel-South West. This is shown by the following dramatic decline (Table 3.3) over the past hundred years in stream flow into Perth's dams:

Table 3.3 Stream flows into Perth's dams

Years	Average stream flow (Gl/pa)
1911 to 1974	388
1975 to 1996	177
1997 to 2005	114

The predominant user of water is the agricultural sector at 37 per cent of the State's water resources with the mining and energy sector consuming a substantial 26 per cent. Household consumption is 18 per cent. Except in the Kimberley groundwater is the major source of water representing about 75 per cent of the water consumed.

3.4.1 Perth Metropolitan

Perth's demand of about 250 Gl in 2005 is supplied from the Integrated Water Supply Scheme (IWSS). Population growth in the Perth metropolitan area has been substantial, with the properties being serviced, growing by about 25 per cent over five years. With the decline in surface water supplies Perth has been relying heavily on groundwater from the Perth aquifer as its principal source of water. In June 2005 Perth's dams were at 27.9 per cent of capacity even though restrictions on external watering had been in force for several years. To meet the growing demand for water and the reduced supply due to the drought, the WA government announced in 2005 that it would build a desalination plant at Kwinana. The plant would produce 45 Gl a year for a capital cost of $387 million, which works out at about 90c/kl of water produced. The Water Corporation has indicated that the desalination plant will cost householders $1/week.

To address the concern about the energy consumption of the desalination plant the Government announced that a wind farm to be constructed at Cervantes would supply the energy consumed by the desalination plant. This would negate the argument that desalination adds greenhouse gases to the environment.

The government's Water Plan also indicated that the supply capacity of the IWSS would be further expanded to 60 Gl/annum and this would require another major project. The options considered were another desalination plant, a groundwater supply from Yarragadee in the South West or a supply from the Kimberley region. Having investigated these options, the government announced in May 2007 that a further large scale desalination plant would be constructed at Binningup, south of Perth. Construction will commence in 2009 and be completed in 2011. The capacity of the plant will be 45 Gl/per annum with the potential to expand the plant to 100 gl/per annum.

3.4.2 Non-metropolitan Western Australia

Overall water supply to urban centres in Western Australia is about 342 Gl/year. This consumption is divided between the regions as shown in Table 3.4.

Table 3.4 Urban centre consumption by region

	Annual supply Gl/year
Perth	230
Peel South West	24
Wheatbelt Great Southern	15
Gascoyne-Goldfields	32
Pilbara-Kimberley	31
Total	**342**

The Water Corporation of Western Australia is paid for a subsidy by the Government to distribute water to remote townships. The extent of this subsidy is $288 million in 2004-05.

The Peel South West region is supplied principally from groundwater, with the Water Corporation providing treatment and distribution for urban supplies. Irrigation within the region is inefficient and the government has committed to reducing losses within the irrigation system.

The northern part of the Wheatbelt Great Southern region is supplied off the G&AWS (Goldfields and Agricultural Water Supply) pipeline from Perth to Kalgoorlie, which was first constructed in 1900 to supply the goldfields with incidental supply to the agricultural areas en route. The southern part of the region is supplied from groundwater, with the Water Corporation providing treatment and distribution in the townships. As rainfall has been falling this region has suffered severely from the drought.

In the northern part of the Goldfields Gascoyne region groundwater is the principal source of water although there are some small desalination plants operated by the Water Corporation and private developers. Further south, around Kalgoorlie, the mines are still principally supplied by groundwater (under licence from the government) but they also rely to a small extent on the G&AWS, which provides town water. The overall demand on groundwater to supply the mines is in the order of 80 Gl/year. The groundwater supply around Kalgoorlie is heavily contaminated with salt and this causes difficulties for the mines with corrosion and other production problems. In parts the groundwater supply is showing signs of drying up while in other areas, particularly in the north, there appears to be an abundance of water in the aquifers.

Augmentation of the G&AWS would be uneconomic and the government has sought other supply options for the southern part of the region. The best option considered was freshwater supply from Esperance, 400 kilometres south of Kalgoorlie. The cost of supply for this scheme would be over $3/kl. A number of mines have been interested in obtaining a freshwater supply but to date the project has lacked support.

While the position in the Pilbara is similar to the northern goldfields, the Kimberley has adequate water supply due to high tropical rainfall. The Ord River Dam is within this region and supplies Kunnunnurra in the Shire of Wyndham East Kimberley. The Ord River Dam has been full, or almost full, in July for the past two years and is the second largest dam in Australia with a capacity of 10760 cubic metres.

3.5 South Australia

South Australia is the driest state in the country and is very heavily dependent on one water resource - the River Murray. With declining rainfall in its catchments, the river is becoming increasingly stressed due to excessive extraction for irrigation and reduced runoff due to increasing number of farm dams. This has caused increasing salinity levels, the dieback of dependent ecosystems and increasing pollution.

A reliable and adequate water supply is a basic requirement to meet South Australia’s growth strategy of increasing its population from 1.5 million people to 2 million by 2050.

Actions taken to meet the drought are as follows.

- Restrictions have been in force since 2003.
- The government has introduced campaigns to encourage water efficiency and the installation of water efficient appliances. This appears to have been effective, particularly for water tanks as South Australia has maintained its lead in tank ownership over all other states.
- A desalination plant is to be built at Port Augusta in conjunction with BHP.
- Stormwater recycling is being encouraged.
- The state is evaluating some large capital options including a weir on the Murray, a desalination plant and expanding the capacity of Mt Bold Reservoir.

To date the South Australian Government has adopted a very different strategy to the other States in response to climate change and the current drought. Rather than embark on a major infrastructure project, such as a desalination plant for Adelaide, the government appears to date, to be relying on a large number of small initiatives to meet the imbalance between supply and demand. They also are underutilizing their allocation from the Murray River but are concerned about the declining availability of traditional sources of water.

3.5.1 Adelaide region

The aggregate water supply requirements of the Adelaide Central, Adelaide Plains and Adelaide Outer regions vary from a wet year to a dry year as follows:

Table 3.5 Aggregate water supply requirements, wet and dry year

Source	Dry year (Gl/annum)	Wet year (Gl/annum)
Murray River	179	88
Adelaide Hill Catchments	43	137
Groundwater Metro	9	9
Groundwater Rural	72	53
Stormwater, and recycled water	22	22
Rain water Tanks	1	1
Total	**326**	**310**

The importance of the Murray River as a source of water in dry years is shown in this table. An extra 50 Gl/year is required from a river that is already in a stressed condition. All of the potable water supply to Adelaide is fully treated by standard filtration and disinfection. Obviously the Murray River water is more costly to pump and treat than the supply from the dams in the Adelaide Hills.

The Government estimates that, to meet supply requirements, action needs to be taken to supply or save an additional amount of 37 Gl/year by 2025. Consequently they expect demand to grow by 12 per cent in 20 years. Actions planned to meet this extra demand are as follows.

- Conservation will be pursued through more efficient appliances and water efficient gardens. The majority saving will be through compulsory rain water tanks for new homes and increased urban consolidation, which will reduce the size of gardens. The Government expects to achieve an eight per cent saving over ten years.
- Consumption-based charging, water auditing and more water efficient appliances will be introduced into industry and commerce and save 2 Gl/year or about 0.6 per cent.
- Replacing groundwater supplies with recycled supplies for agriculture will save 2 Gl/year.
- In the community sector, 3 Gl a year will be saved through more efficient use of water by councils and Government bodies, implemented via a Code of Practice for water use in the public sector.
- Leakage from major distribution pipelines currently represents 26 Gl a year. This is to be reduced, one initiative being to replace the aquaduct from the Adelaide Hills to Hope Valley Reservoir with a pipeline.
- Utilisation of recycled water from wastewater plants is to be increased in urban subdivisions. A grey water system has been installed in a new residential area at Mawson Lakes north of Adelaide;
- Currently Adelaide’s water is priced on an increasing two tier structure but the rates are substantially less than in Victoria; these are for review. It is also proposed to increase the consumption charge for groundwater.
- Greater use is to be made of stormwater for urban and rural supplies including actively charging aquifers with stormwater.

3.5.2 Non-metropolitan South Australia

Much of non-metropolitan South Australia is supplied with water pumped through long pipelines from the Murray River. The besetting problem with these supplies has been poor water quality. Over the period 1995 to 1999 a total of 10 water treatment plants were installed along the Murray River to improve water quality. These treatment plants supply potable water to towns in the Murraylands and Eyre and Yorke as far as Whyalla. There are still many communities that have a poor quality water supply and the Government has in progress Stage 2 of the Water quality Improvement Program which will improve supplies to parts of Adelaide Outer and to Eyre Peninsula. This will involve the construction of additional small water treatment plants.

South Australia is working with the Murray Darling Commission to reduce the salinity of the Murray. This involves the construction of salt traps which are deep bores to capture saline groundwater and pump it to disposal sites. This prevents large quantities of saline groundwater reaching the Murray. This work is funded by the Commonwealth.

The drought has had a major impact on allocations for irrigation in South Australia. Inflows to the River Murray for the 8 months to February 2007 were 660 Gl compared to the long term average of 11,200 Gl. In 2006-07 South Australia's entitlement from the Murray River of 1850 Gl was cut by 380 Gl. As a result irrigation allocations were cut by 40 per cent.

3.6 New South Wales

Water in New South Wales is supplied by two large water corporations in Sydney and Newcastle with the balance of the state supplied by a multitude of local government bodies. Apart from Sydney, coastal communities have not suffered from the drought to the same extent as in some other states. This is reflected in the restrictions. While they have been applied throughout New South Wales they appear to be relatively light in many areas particularly along the coast outside Sydney.

3.6.1 Sydney region

In Sydney, as in Melbourne, water is supplied from surface storages. The capacity of the storages is 2,600 Gl and in this respect the capacity is 14 per cent greater per head of population than in Melbourne. If the dams were full there would be four years supply available without any inflow. The extended drought reduced the volume of water held in the storages as shown in Table 3.6.

Table 3.6 Storage level, Sydney region

Date	Storage level (% of capacity)
30 June 2004	47.9
30 June 2005	38.3
30 June 2006	41.8
30 June 2007	53.1

Typically over the previous 30 years the storages have operated in the range from 80 to 100 per cent of capacity except for three occasions in the early 1980-s and 1990s when for relatively short periods the storages fell to the 50-60 per cent range. The above levels are the lowest recorded since the completion of the Warragamba dam, but the concern is the extended duration of the drought. As can be seen there has been a moderate recovery in the levels since June 2005 as a result of some heavy rain events. The rainfall patterns in Sydney are typically more tropical than Melbourne and therefore recovery from droughts is generally more rapid.

Water consumption is split between domestic and commercial/industrial use in the ratio of 70/30 whereas Melbourne is closer to 50/50. The domestic sector is more responsive to water conservation than industry/commerce and this probably explains the gratifying response from conservation initiatives in Sydney where consumption per head of population has declined from 506 litres per person per day to 400 litres per person per day since 1991. Water restrictions were first imposed in 2003 and have been increased in severity to level 3, which currently applies. This limits garden watering to two days per week with no hosing of vehicles or hard surfaces.

The NSW Government has completed a number of studies involving industry experts culminating in Metropolitan Water Plans being issued in 2004 and 2006. The following major uncertainties have affected the modelling.

- Understanding the impact of climate change.
- The impact of urban consolidation and fewer people per household.
- The impact of water saving initiatives.
- The impact of water pricing.

This modelling work has shown that without action to increase supply and/or reduce demand there will be water shortages within the next thirty years. The current Water Plan outlines supply and demand initiatives that will be implemented to provide a secure and reliable water supply. Initiatives include the following.

- A number of actions to conserve industrial water use.
- Leakage reduction in the water distribution system.
- Appliance savings including labelling, etc.
- Savings due to changes in building regulations.
- Pricing changes including a stepped tariff structure and rebates for water efficient appliances including rain water tanks.

Overall these actions are expected to save 145 Gl per annum by 2015 giving an expected bulk-supply demand of 542 Gl per year. The following actions were proposed to increase bulk supply.

- Expansion of water recycling from wastewater plants with a number of new schemes to be implemented. Currently 30 Gl/year is being recycled and this will be expanded to 70 Gl/year by 2015.
- Work is being undertaken to increase the yield from dams so that dams can be operated to a lower level. This involves new infrastructure to be able to pump water from deep in the dams and is expected to yield 40 Gl/year.
- A groundwater supply at Kangaloon is being investigated to supply 7 Gl/year.
- A desalination plant investigation has been proceeding so that action can be fast tracked to build a new plant if the drought persists.

These actions would add over 575 Gl/year in supply capacity. Since the report was released the government has announced that a new desalination plant will be constructed on the coast at Kurnell. It will have a capacity of 250 Ml/day (90 Gl/year) with the potential for expansion to 500 ml/day. As in the case of the Western Australian plant it is proposed that this plant will be powered by wind. The overall cost of the plant is $1.5 billion plus a $500 million pipeline to connect it to the Sydney system. The cost of water supplied will be around $1/Kl.

The New South Wales regulator IPART argues that Sydney water tariffs already reflect the long marginal cost – the tariff is currently $1.264/Kl. Consequently it is not expected that there will be a major price increase as a result of this new infrastructure.

3.6.2 The Hunter region and Central Coast

The Hunter Water Corporation supplies about 570,000 people in Newcastle and the surrounds. They supply about 75 Gl/year from surface dams in the Region.

While most of the major cities have declining storage levels as a result of the drought, the Hunter has not had a supply problem since the 1979 to 1981 drought. As at 31 July the Hunter storages were 96 per cent full and, with a capacity of 254 Gl, store over 3 years supply.

The Hunter Water Corporation has, since the 1980s, been an innovative water utility. They were the first Australian utility to introduce consumption based pricing for water. This caused a large reduction in consumption and has deferred major augmentation investment for 25 years. Perhaps because it was so early in the field, it now has relatively low water charges at about $1/Kl.

Despite their current excellent supply situation the Corporation plans to construct a new dam at Tillegra costing $300 million. This will more than double storage capacity in the Region. The cost of this investment is only about 25c/kl which is relatively small compared with the investments in most of the capital cities. The Corporation is also active in promoting water recycling and are substantially advanced with a scheme that will deliver 3 Gl/years of recycled water to industry. The outlook for this area looks sound with stable prices and adequate supply.

3.6.3 Mid North Coast and Richmond-Tweed

A similar situation exists on the Mid-Coast and North Coast of New South Wales. In Coffs Harbour for instance the storages were 98 per cent full in mid 2007. The major issue facing many of the towns along the coast was water quality, rather than quantity, and additional water treatment is planned. MidCoast Water plans to lift the height of the dam wall on one of its dams, but no large scale investment in augmentation works is expected.

3.6.4 NSW inland

In New South Wales there are 129 separate water supply utilities compared with 15 in Victoria. Most of these utilities are council operated and are a Department within the Council's engineering department.

Most of the regions west of the Blue Mountains have suffered severely with the drought. In Bourke for instance the average annual rainfall is 400 to 500 ml/year but in 2001 the rainfall was 168 ml and in 2002 it was 57 ml. This has resulted in severe restrictions in the urban communities and reduced allocations for agriculture. Groundwater has been used to supplement river water supplies.

In the Murrumbidgee region the drought situation does not appear to be as deep as elsewhere in the Murray-Darling basin.

3.7 Queensland

Queensland has been one of the worst drought-affected states. In particular South East Queensland has been impacted, not only by the drought, but also by rapid population growth. The population in South East Queensland is expected to increase from 2.7 million in 2006 to 3.96 million by 2026 and to 5.08 million by 2050. This results in water supply requirements growing from 450 Gl/year in 2007 to 750 Gl/year.

As is the case with Western Australia, the severity of the drought increases from north to south. For instance storages in Far North, North and North West Queensland were 60-100 per cent full in mid-2007, being 83 per cent full for Cairns and 96 per cent full for Mt Isa. In general the tropical rainfall zones have been less impacted by the drought than more temperate climates, and may indeed be less impacted by climate change.

The structure of the industry is complex with councils controlling distribution and retail as well as owning some dams. The state has two principal entities controlling water. The South East Queensland Water Commission operates some of the major dams in SE Queensland and Sunwater controls the majority of dams in the State and manages irrigation supplies in all areas except SE Queensland. Brisbane City Council distributes bulk water purchased from the South East Queensland Water Commission. The Gold Coast City Council is also a large supplier. It buys bulk water from the Queensland Water Commission as well owning dams such as the Hinze Dam.

3.7.1 South East Queensland

The South East Queensland system is not wholly an urban supply, since 26 per cent of water provided is for rural use.

In August 2007 the water supply situation was extremely serious with storage down to 16.9 per cent of capacity. The largest dam supplying the region, Wivenhoe Dam was full in 2001 but the annual inflows since than have averaged 32 per cent of normal, falling in 2005-06 to 16.8 per cent of normal. Restrictions have been progressively extended to Level 5, the most severe in Australia. Level 5 restrictions involve the restrictions on external use as well as larger consumers having to produce a water plan that will target reduced consumption. In the case of domestic users this is for consumers using over 800 litres/day and for industry 20 Ml/year.

To meet the demand of 750 Gl/year in 2050 the Queensland Government has outlined the following strategy:

- 42 per cent will be met by existing dams and weirs;
- 3 per cent will be met by existing groundwater supplies;
- 17 per cent will be met by recycled water supplies which offset potable water supply;
- 4 per cent will come from rain water tanks and other stormwater supplies promoted by Government subsidy;
- 2 per cent will be gained from leakage reduction on networks;
- 7 per cent will come from conservation initiatives such as appliance efficiencies and building regulations; and
- 25 will be met from new supplies.

In total, it is planned that 30 per cent will be met from conservation and recycling. Without these measures demand in 2050 would be 950 Gl/year.

The new supplies being proposed are as follows.

- A desalination plant at Tugun on the Gold Coast. The desalination plant will be jointly constructed by the Gold Coast City Council and the Queensland Government. It will have a capacity of 125 Ml/day (45 Gl/year) at a capital cost of $1.2 billion. This will provide 5-6 per cent of water supply requirements in 2050. It will be commissioned in 2008. The cost of water produced will be over $2/Kl depending on assumptions on capital recovery.
- An additional two dams are planned plus some additions to existing infrastructure such as raising dam walls. The major dam proposed is the Traveston Crossing Dam which will be progressively expanded to 150 Gl/year providing 20 per cent of annual requirements. The capital cost of this project is estimated to be $2.5 billion which represents a cost of water produced of around $1.7/Kl. A second dam is proposed, Wyaralong Dam, as an extension to the construction of Cedar Grove Weir. The cost of this dam is estimated to be $500 million to produce about 20 Gl/year. The construction of dams to meet water supply requirements is an extremely controversial solution due to environmental and social impacts. It is interesting that Queensland is the only government is Australia that is proposing large scale surface storages.

To increase supply security in the SE Queensland a water supply grid will connect the desalination plant in the Gold Coast with Cedar Grove Weir, Wivenhoe Dam and ultimately with the proposed Traveston Crossing Dam, which is located in Wide Bay Burnett. This pipeline will enable water transfers of 130 Ml/day between the Gold Coast and the southern part of Wide Bay Burnett at a cost of $600 million.

The Queensland Government is proposing to change the institutional arrangements for water supply by segregating the system into components as follows:

- bulk supply – dams, treatment plants and desalination;
- bulk transfer including management of the water grid;
- distribution; and
- retail.

This is a competitive model similar to electricity and provides the opportunity for competition at the bulk supply and retail levels.

The overall expenditure proposed prior to 2012 is $1.2 million for the desalination plant, about $3 billion for various dam works and $600 million for the SE Water Grid. With current demand of 450 Gl/year the cost to consumers could be as high as an extra $1/Kl to service the cost of this infrastructure, resulting in an average domestic bill increase of $145 in a full year.

3.7.2 Non-metropolitan Queensland

Outside SE Queensland, the current drought has affected the Pastoral Queensland, Agricultural South West, Wide Bay Burnett, Fitzroy and Mackay regions. Dams in the drought regions were typically 0 to 35 per cent full in August 2007.

The Fitzroy region is typical of the problems caused by the drought. Annual average rainfall in this region has steadily declined over the past 100 years from 1,100 mm in 1900 to about 800 mm in 2000. This has been attributed to fewer tropical cyclones. Demand for water in the Region in 2006 was 293 Gl for high priority and medium priority uses. End users of water were classified as follows.

Agriculture	65 per cent
Power Stations	10 per cent
Industry	6 per cent
Mining	7 per cent
Urban	12 per cent

Water supplied has been very close to the 293 Gl requirement over the past three years. Water users have coped with the drought using the following strategies.

- Water is now used far more efficiently throughout the region particularly for irrigation, in mines and in urban communities.
- Large sections of the agricultural sector have been able to trap overland flows on their properties to the detriment of stream flows for storages and the environment. In recent times regulations have been put in place to control this practice.
- Initial irrigation allocations in a year are in some cases only 40 per cent of the normal allocation. In most cases this is increased to the full allocation during the wet season.
- Farmers and some urban suppliers, such as Rockhampton Council, are not using their full allocations. Trading of allocations is in place and managed by Sunwater.
- In some areas additional groundwater has been used but this is not a large resource in the region and usage is about twice the sustainable yield in some places.

A Government Report (*The Central Region Water Supply Strategy*) indicates that demand is expected to grow about 20 per cent but the major growth will be over the period to 2015 after which growth is expected to stabilise. The major reason for the growth is mining and the associated urban growth. To meet the demand various projects are being planned and implemented. A major project being implemented in the Mackay region is a 220 kilometre pipeline to bring water from the Burdekin Falls Dam in North Queensland to the Bowen Basin which will enable the expansion of coal mining capacity in the area. Other projects include plans to raise the height of dam walls and to capture water which is a by-product of seam gas in coal mines. Wastewater pumped from sewerage treatment plants is being used in agriculture and in power stations.

One obvious area that needs examination is the tariff system for irrigation water which is a 2 part tariff, with 70 per cent of the costs recouped from a fixed charge based on the allocation and a flat usage charge that can vary between $10/Ml and $40/Ml.(1-4c/Kl). This schedule provides little incentive to save water, with pricing signals that are mainly directed at trading the allocation.

While the cost of water is expected to increase with the works needed to expand water availability and to meet growth the extent to which these costs are passed on to consumers will depend on the degree to which the government wants to subsidise water users, particularly farmers.

3.8 Australian Capital Territory (ACT)

The ACT has experienced drought as severe as in Melbourne and Sydney. Inflows to the three main dams supplying the ACT have declined from the long term average prior to 1993 of 208 Gl/year to 103 Gl/year since 1993. The 2006 year was extremely dry with inflows of 26 Gl causing storages to fall from 50 per cent in August 2006 to 30 per cent of capacity in June 2007. After the good rainfall in June/July 2007 and other emergency actions taken the storages increased to 42 per cent of capacity in August 2007. Stage 3 restrictions were imposed in December 2006 and are still in force. Stage 4 restrictions would have been introduced in July 2007 but the increase in storages following the June/July rainfall caused this to be deferred.

The ACT Electricity and Water Corporation has been able to extract additional water from the Murrumbidgee River which has acted as an emergency source of water. They have also invested in pumping and water treatment facilities to obtain access to deep water in their dams and to provide more flexibility in the sources of supply.

With reduced average inflows to the dams and the need to provide for wider fluctuations in inflows as well as to meet expected population growth, water requirements are expected to increase from 53 Gl/year in 2006 (65 Gl/year without restrictions) to 75 Gl/year in 2027. In preparing these estimates it has been assumed that increased end use water efficiency will compensate for population growth. Allowing for losses due to evaporation ACTEW has calculated that its water storages should have the capacity to harvest 100 Gl/year. It has formulated two strategies to achieve this capacity.

- Expand the Cotter Dam to provide a capacity of 78 Gl. Currently the capacity is about 30 Gl of water which is being fully treated at the Mt Stromlo Water Treatment Plant. The capital cost to expand the capacity of Cotter Dam is about $145 million and the annual operating cost about $1 million. This gives a cost of water produced of about 50c/Kl
- Negotiate with the Commonwealth and NSW Government to purchase an allocation of the Snowy Scheme from irrigators. This would mean that Canberra could be partially supplied from Tantangara Reservoir in the Snowy via the Murrumbidgee River.

Currently ACTEW favour the first of these options but have not discounted the second option.

Water tariffs in the ACT are reasonably high when compared with other capital cities. Canberra has a 3 block tariff with all consumption with the first block at 77.5c/Kl and all consumption above 300 Kl at $2.57/Kl.

3.9 Tasmania

Tasmania has 12 per cent of Australia‘s water resources but only 1 per cent of Australia’s land area and 2.5 per cent of its population.

From a water supply perspective Tasmania has not been greatly impacted by the drought with storages for water supply typically over 80 per cent full in 2005-06. Consequently there have been no restrictions on water usage. On the other hand the large water storages controlled by Hydro Tasmania have been severely impacted. Overall these storages were only 22 per cent full in June 2007. This has meant Tasmania has needed to import electricity from Victoria via the Bass cable and to run its thermal electricity plants. The anomaly that Hydro Tasmania has suffered from the drought while other water supplies are plentiful is due to the fact that Hydro Tasmania does not consume the water but releases more than adequate quantities for irrigation and for potable water use

Tasmania’s water supply is managed by a multitude of local government bodies overseen by the State Department of Primary Industries and Water. The state has three bulk water suppliers that are controlled by groups of councils. Each individual Council within the Group distributes and retails the water to customers. The bulk suppliers are as follows.

- Hobart Water supplies bulk water to eight councils in the Hobart-South Region. The major issue has been water quality rather than quantity and is recent times there has been an expansion of the Bryn Estyn Water Treatment Plant.
- Esk Water supplies water to four Councils in the North Tasmania Region. Again water supply has not been an issue and major effort has been expended in recent times on water quality
- Cradle Coast Water supplies water to six councils in North West Tasmania.

Overall charges for water are relatively low with water usage charges at levels typically around 55c/kl.

Irrigation is controlled by either the Bulk Water supply Authorities or the Rivers and Water Supply Commission. Water trading is still in its infancy in Tasmania.

3.10 Northern Territory

The Northern Territory has a range of hot and often dry climates with wide fluctuations in rainfall.

Darwin has not experienced the drought conditions of the other mainland capitals. The city is supplied by a large surface storage on the Darwin River that has a capacity of 265 Gl. Over the past three years the dam has operated in the range 53 to 100 per cent per cent capacity. Average consumption per head in Darwin is much higher than in the other cities, perhaps because water is priced low at a flat rate of 72c/Kl.

The rest of Northern Territory relies mainly on groundwater, with stock watering by far the largest water use. In Alice Springs, for instance, the main town supply is from the Amadeus Aquifer. Generally the capacity of the aquifer is large compared to the consumption with aquifers in the Alice Springs area having a potential capacity of 6,000 Gl compared with annual usage of 10 Gl. Despite this apparent large differential between supply and demand there are localised areas that are depleted.

Tables 3.7 and 3.8 summarise the likely water infrastructure requirements in Australia, Table 3.7 to 2012 and Table 3.8 from 2012 to 2025. These tables include big ticket items such as desalination plants but also point to a trend of increasing expenditures on rain water and grey water systems.

While Tasmania's water supply remains largely untroubled by the drought and consequently there have been no restrictions on water usage, there are still associated problems related to drought. The large water storages controlled by Hydro Tasmania have been severely impacts. Overall these storages were only 22 per cent full in June 2007. This has meant Tasmania has needed to import electricity from Victoria via the Bass cable and to run its thermal electricity plants, reducing any greenhouse benefits that may have otherwise been provided by the hydro generation of electricity.

- Capital expenditures on water related infrastructure include the following.
- Desalination plants in Western Australia, Victoria, New South Wales and Queensland.
- Recycling of waste water from sewerage plants, principally for agriculture and industry, with some saving in potable water.
- New dams in Queensland and raising the spillway levels of some existing dams.
- Promotion and subsidisation of water saving appliances and equipment, such as rain water tanks, shower heads and grey water recycling systems.
- Improving the efficiency of irrigation on farms and upgrading irrigation infrastructure to save water, including redirection of the saved water to higher value applications such as urban water supply.

Overall, investment planned on water supply infrastructure to 2025 could reach $36 billion, more than $10 billion of which is to be spent on desalination plants. The majority of the remaining $26 billion will be spent on pipelines, although some dam/dam improvement projects are included. The average rate of spending over this period is likely to be as much as four times the historical annual expenditure.

Table 3.7 State of the regions 2007: Water infrastructure requirements to 2012

	Region	Gl required	Infrastructure requirement	Capital to 2012 ($m)	Operating to 2012 ($m)	Capital and operating to 2012 ($m annual)		Rain water tanks and grey water systems to 2012 (cumulative cost)	Comments
						State funded	User funded		
Lithgow/Bathurst/ Orange	NSW Central West	3	Dam Wall Raising User Initiatives (20%)	6.5			0.65	27	
Dubbo/Broken Hill	NSW Far and North West		Water from Darling and other sources User Initiatives (30%)	20	2		4	100	Country Energy supplies majority of the area
Newcastle	NSW Hunter	120	Tillegra Dam (user Initiatives 20%)	300	3		33	93	
Wagga/Griffith	NSW Murrumbidgee		Sales 411 Gl Compared with 829 Gl normal, User Initiatives (30%)	500		50		34	Supplied from Burrunjuck and Blowering Dams Irrigation restriction rather than towns
Albury/Deniliquin	NSW Murray		Deniliquin new bore to supplement river. User Initiatives (30%)	1000		75	25	55	Albury supplied by Lake Hume, Assumed Irrigation upgrade
Coffs Harbour/ Port Macquarie	NSW Mid North Coast	15	Shannon Dam, User Initiatives (20%)	150			15	65	Supply to Coffs Harbour Port Macquarie OK
Tamworth/Armidale/ Moree	NSW North		Dumaresq Dam and Other upgrades. User Initiatives (30%)	20			5	42	Ozonation also required
Richmond/Tweed Heads	NSW Richmond Tweed		Mainly Tweed Heads, User Initiatives (20%)	50	3		8	36	Treatment for Growth
Merimbula/Goulburn	NSW South East		Possible pipeline to ACT, User Initiatives (15%)	30	5		8	35	Goulburn desperate for augmentation
Gosford Wyong	NSW Central Coast	11	Pipeline to Hunter, User Initiatives (20%)	40	2		6	46	
Wollongong/Nowra	NSW Illawarra								
	Global Sydney								
	Sydney Inner West								
	Sydney Outer North								
	Sydney Outer South West	90	Desal Plant	1500	20		170		
	Sydney Outer West	27	Recycling Initiatives	600	20		80		
	Sydney Mid West		Urban Sustainability Program	80			8		
	Sydney South		User Initiatives					600	Rain water tanks to 20% penetration by 2012

Table 3.7 State of the regions 2007: Water infrastructure requirements to 2012 (continued)

	Region	Gl required	Infrastructure requirement	Capital to 2012 ($m)	Operating to 2012 ($m)	Capital and operating to 2012 ($m annual)		Rain water tanks and grey water systems to 2012 (cumulative cost)	Comments
						State funded	User funded		
Ballarat	Vic Central Highlands	8	Goldfields Superpipe/User Initiatives (30%)	50	6.2	7	5	35	Split costs 50/50 between Ch & Loddon and assumed pay 40c/Kl for Goulburn Water
Warragul/Traralgon/ Bairnsdale	VIC Gippsland	3	Gippsland Water Factory, User Initiatives (15%)	75	3		11	30	
Shepparton/Benalla/ Echuca	Vic Goulburn	265	Foodbowl project, User Initiatives (30%)	2000	10	180	30	47	Operating costs probably similar to open channels
Wodonga/Wangaratta	Vic Ovens Hume	10	Reservoir and treatment/User Initiatives (15%)	23	2		5	11	Most reservoirs are full
Bendigo/Castlemaine	Vic Loddon	8	Goldfields Superpipe/User Initiatives (30%)	50	6.2	7	5	42	Split costs 50/50 between Ch & Loddon and assumed pay 40c/Kl for Goulburn Water
Mildura/Swan Hill/ Horsham	Vic Mallee Wimmera		Mallee Wimmera Pipeline/User Initiatives (30%)	500			50	35	Operating costs probably similar to open channels
Warrnambool/ Hamilton/Portland	Vic West		No extra requirement/User Initiatives (10%)					8	
	Melbourne North								
	Melbourne Inner		User Initiatives (20%)					260	Rain water/Grey water to 20 % penetration by 2012
	Melbourne East	225	Desal Plant	4500	50	250	250		Includes associated pipelines to Cardinia and local Gippsland towns
	Melbourne South	75	Pipeline from Goulburn	750	8	47	49		
	Melbourne West		to Sugarloaf						
	Melbourne Westport								
	VIC Barwon		Pipeline to Geelong/User Initiatives 20%	500	5	10	45	42	

Table 3.7 State of the regions 2007: Water infrastructure requirements to 2012 (continued)

	Region	Gl required	Infrastructure requirement	Capital to 2012 ($m)	Operating to 2012 ($m)	Capital and operating to 2012 ($m annual)		Rain water tanks and grey water systems to 2012 (cumulative cost)	Comments
						State funded	User funded		
Roma/Longreach/ Charleville	Qld Pastoral		Mainly groundwater No Major requirement (user Initiatives (20%)					7	
Towoomba/Warwick/ Darby	Qld Agricultural SW		Shortage of Water/User Initiatives (30%)	33	4		8	50	Groundwater supply looked at Recycling wastewater
Cairns	Qld Far North		No extra requirement						
Rockhampton/ Gladstone	Qld Fitzroy		Pipeline to Gladstone/User Initiatives (15%)	500	20	60	10	22	
Mackay	Qld Mackay		Wastewater recycling project/user Initiatives (15%)	150	5		20	15	To protect Barrier Reef
Mt Isa/Hughenden	Qld North West		Raising Dam levels, reducing losses/User Initiatives (15%)	20			2	4	
Townsville/Bowen/ Charters Towers	Qld North		Water supply OK Sewerage Upgrades/User Initiatives (10%)	65	5		12	16	Included because of recycling
Bundaberg/Maryborough/ Gympie	Qld Wide Bay-Burnett	1	Bundaberg purchasing extra water /user Initiatives (25%)		2.4			55	
Caloundra/Nambour/ Noosa	Qld Sunshine Coast	45	Desal Plant	1200	10	70	60		
	Qld West Moreton	150	Traveston Crossing Dam	2500	1	130	120		Sunshine Coast, Gold Coast, Brisbane to be linked by pipeline
	Qld Gold Coast	20	Wyaralong dam	500	0.5	30	20		
	Brisbane North		Pipeline	600	5	65	0		
	Brisbane City	6	Raising Dam Wall Hinze dam	110			11		
		30	Recycling Project	641	30	65	30		
			User Initiatives (30%)					555	Level 5 Restrictions in place

Table 3.7 State of the regions 2007: Water infrastructure requirements to 2012 (continued)

	Region	Gl required	Infrastructure requirement	Capital to 2012 ($m)	Operating to 2012 ($m)	Capital and operating to 2012 ($m annual)		Rain water tanks and grey water systems to 2012 (cumulative cost)	Comments
						State funded	User funded		
	Adelaide Outer		Water proofing Adelaide project	150	10		25		Multitude of projects including recycling, pipes to replace aqueducts, sewer mining etc
	Adelaide Plains		User Initiatives (25%)					262	
Port Pirie/Port Augusta/Whyalla	SA Eyre & Yorke		Water quality improvement/User Initiatives (25%)	100	7		17	42	Groundwater system increasingly saline
Renmark/Murray Bridge	SA Murraylands		Murray River Works/User Initiatives (25%)	1000	19	100	19	15	Save the River Murray levy
Mt Gambier	SA South East		No extra requirement /User Initiatives (15%)		2.5		2.5	9	study of Blue Lake Hydrology
Karratha/Port Hedland/ Broome	WA Pilbara-Kimberley		No extra requirement						
Carnarvon/Geraldton/ Kalgoorlie	WA Gascoyne-Goldfields	100	No commitment yet, User Initiatives (50%)	2000	50	225	75	5	Extra supplied needed
Albany/Northam	WA Wheatbelt –Great Southern		Groundwater Supply, User Initiatives (50%)	300			30	50	reducing Irrigation Losses
Mandurah/Bunbury	WA Peel- South West		User Initiatives (20%)					9	
	Perth Central	90	Desalination Plants	1000	10		20		
	Perth Outer North		User Initiatives (20%)					232	
	Perth Outer South								
	Tas Hobart South		No Impact On water supplies but big		100		100		Cost of Drought on Hydro Tasmania
Burnie/Davenport	Tas North West		Impact on electricity supply costs ($100m/year)						
Launceston	Tas North		User Initiatives (10%)					40	

Table 3.7 State of the regions 2007: Water infrastructure requirements to 2012 (continued)

	Region	Gl required	Infrastructure requirement	Capital to 2012 ($m)	Operating to 2012 ($m)	Capital and operating to 2012 ($m annual)		Rain water tanks and grey water systems to 2012 (cumulative cost)	Comments
						State funded	User funded		
	Darwin		No extra requirement						
Alice Springs/Katherine	NT Lingiari								
Canberra	ACT	48	Considering Options (user Initiatives (20%)	150	3		18	131	Expand Cotter Dam
TOTAL				**23763.5**	**929.8**	**1371**	**1412.15**	**3162**	

Table 3.8 State of the regions 2007: Water infrastructure requirements from 2012 to 2025

	Region	Infrastructure requirement	Capital to 2012-2025 ($m)	Operating to 2012 ($m)	Capital and operating to 2012 ($m annual)		Rain water tanks and grey water systems to 2012-2025 (cumulative cost)
					State funded	User funded	
Lithgow/Bathurst/Orange	NSW Central West	Unspecified works User Initiatives(1000/year)	10			1	26
Dubbo/Broken Hill	NSW Far and North West	Unspecified Works, User Initiatives(1000/year)	20	2		4	26
Newcastle	NSW Hunter	Unspecified works (user Initiatives 4000/year)	50	2		5	104
Wagga/Griffith	NSW Murrumbidgee	Unspecified works User Initiatives(1000/year)	10			1	26
Albury/Deniliquin	NSW Murray	Unspecified works. User Initiatives (1000/year)	1000		100		26
Coffs Harbour/Port Macquarie	NSW Mid North Coast	Unspecified works, User Initiatives(2000/yr)	20			2	52
Tamworth/Armidale/Moree	NSW North	Unspecified works. User Initiatives(1000/year)	20			2	26
Richmond/Tweed Heads	NSW Richmond Tweed	Unspecified works, User Initiatives (1000/year)	30	3		6	26
Merimbula/Goulburn	NSW South East	Unspecified works, User Initiatives (1000/year)	30	5		8	26
Gosford Wyong	NSW Central Coast	Unspecified works, User Initiatives(2000/year)	30	2		5	54
Wollongong/Nowra	NSW Illawarra						
	Global Sydney						
	Sydney Inner West						
	Sydney Outer North						
	Sydney Outer South West	Second Desal Plant	1500	20		170	
	Sydney Outer West	Recycling Initiatives	1000	30		130	
	Sydney Mid West	Urban Sustainability Program	100			10	
	Sydney South	User Initiatives(30000/year)					780

Table 3.8 State of the regions 2007: Water infrastructure requirements from 2012 to 2025 (continued)

	Region	Infrastructure requirement	Capital to 2012-2025 ($m)	Operating to 2012 ($m)	Capital and operating to 2012 ($m annual)		Rain water tanks and grey water systems to 2012-2025 (cumulative cost)
					State funded	User funded	
Ballarat	Vic Central Highlands	Unspecified headworks, User Initiatives(2000/year)	50	6.2	7	5	52
Warragul/Traralgon/ Bairnsdale	VIC Gippsland	Unspecified Headworks User Initiatives(4000/year)	75	3		11	104
Shepparton/Benalla/Echuca	Vic Goulburn	Unspecified Headworks, User Initiatives(4000/year)	75	3		11	104
Wodonga/Wangaratta	Vic Ovens Hume	Unspecified Headworks, User Initiatives (1000/year)	75	3		11	26
Bendigo/Castlemaine	Vic Loddon	Unspecified Headworks, User Initiatives(2000/year)	50	6.2	7	5	52
Mildura/Swan Hill/Horsham	Vic Mallee Wimmera	Unspecified further works, User Initiatives(2000/year)	100		10	0	52
Warrnambool/Hamilton/ Portland	Vic West	No extra requirement/User Initiatives (1000/year)					26
	Melbourne North						
	Melbourne Inner	User Initiatives(40000/year)					1040
	Melbourne East						
	Melbourne South	Recycling Werribee and Carrum	2000	50	125	125	
	Melbourne West						
	Melbourne Westport						
	VIC Barwon	User Initiatives 4000/year, Recycling	100	5	53	53	104
Roma/Longreach/Charleville	Qld Pastoral	Mainly groundwater No Major requirement (user Initiatives (500/year)					13
Towoomba/Warwick/Darby	Qld Agricultural SW	Unspecified works, User Initiatives (1000/year)	50	5	5	5	26
Cairns	Qld Far North	No extra requirement/User Initiatives(1000/year)					26
Rockhampton/Gladstone	Qld Fitzroy	Unspecified works, User Initiatives(2000/year)	20	2		4	52

Table 3.8 State of the regions 2007: Water infrastructure requirements from 2012 to 2025 (continued)

	Region	Infrastructure requirement	Capital to 2012-2025 ($m)	Operating to 2012 ($m)	Capital and operating to 2012 ($m annual)		Rain water tanks and grey water systems to 2012-2025 (cumulative cost)
					State funded	User funded	
Mackay	Qld Mackay	Unspecified works, user Initiatives(1000/year)	50	2		7	26
Mt Isa/Hughenden	Qld North West	Unspecified works, User Initiatives (500 year)	20			2	13
Townsville/Bowen/Charters Towers	Qld North	Unspecified works/User Initiatives(1000/year)	20			2	26
Bundaberg/Maryborough/ Gympie	Qld Wide Bay-Burnett	Unspecified works, user Initiatives(4000/year)	20	3		5	104
Caloundra/Nambour/Noosa	Qld Sunshine Coast						
	Qld West Moreton	Unspecified works	500			50	
	Qld Gold Coast						
	Brisbane North	Recycling Project	1000	25	63	63	
	Brisbane City	User Initiatives (35000/year)					910
	Adelaide Central						
	Adelaide Outer	Desalination Plant	1000	10		110	
	Adelaide Plains	User Initiatives(16000/year)					416
Port Pirie/Port Augusta/ Whyalla	SA Eyre & Yorke	Unspecified works, User Initiatives (1000/year)	50	3		8	26
Renmark/Murray Bridge	SA Murraylands	Murray River Works/User Initiatives (1000/year)	1000	19	100	19	26
Mt Gambier	SA South East	Unspecified works/User Initiatives(1000/year)	20	2		4	26
Karratha/Port Hedland/ Broome	WA Pilbara-Kimberley	No extra requirement User Initiatives (500/year)					13
Carnarvon/Geraldton/ Kalgoorlie	WA Gascoyne-Goldfields	Unspecified works User Initiatives(500/year)	1000	25	95	30	13
Albany/Northam	WA Wheatbelt -Great Southern	Unspecified works User Initiatives(2000/year))	20	2		4	52

Table 3.8 State of the regions 2007: Water infrastructure requirements from 2012 to 2025 (continued)

					Capital and operating to 2012 ($m annual)		
	Region	**Infrastructure requirement**	**Capital to 2012-2025 ($m)**	**Operating to 2012 ($m)**	**State funded**	**User funded**	**Rain water tanks and grey water systems to 2012-2025 (cumulative cost)**
Mandurah/Bunbury	WA Peel- South West	Unspecified works, User Initiatives(6000/year)	50	2		7	156
	Perth Central	Further Desal Plant	1000	10		110	
	Perth Outer North	User Initiatives(26000/year)					676
	Perth Outer South						
	Tas Hobart South	No Impact On water supplies but big					
Burnie/Davenport	Tas North West	Impact on electricity supply costs ($100m /year)					
Launceston	Tas North	User Initiatives (6000/year)					156
	Darwin	No extra requirement user Initiatives (500/year)					13
Alice Springs/Katherine	NT Lingiari						
Canberra	ACT	Unspecified work (user Initiatives (8000/year)	150	3		18	208
TOTAL			**12315**	**1553.4**	**565**	**1013**	**5683**

3.11 The regional impact of water security costs

The data in Table 3.7 is mapped down to the regional level by applying the following methodology. The State funded operating costs are levied uniformly on all households in the State of the project. The user funded annual and operating costs are levied uniformly on the households of the region of the project.

The project costs assessed in this report are:

- all projects listed to 2012; and
- one half of the project costs listed for the 2012-2025 period.
- the water tank and grey water costs are assumed to be financed at an annual debt service cost of 1.5 per cent.

The total annual operating costs of the projects, therefore, come to $5.3 billion, which is likely to apply by circa 2020.

From Table 3.8, the $5.3 billion water security costs are reasonably evenly distributed across the zones in terms of average cost per household. The resource based regions have the highest cost of $824 per household, while the lowest is the dispersed metro at $565 per household. From Table 3.9 the highest costs are for the resource zone at 1.3 per cent of income, with the lowest being 0.8 per cent for the metro regions.

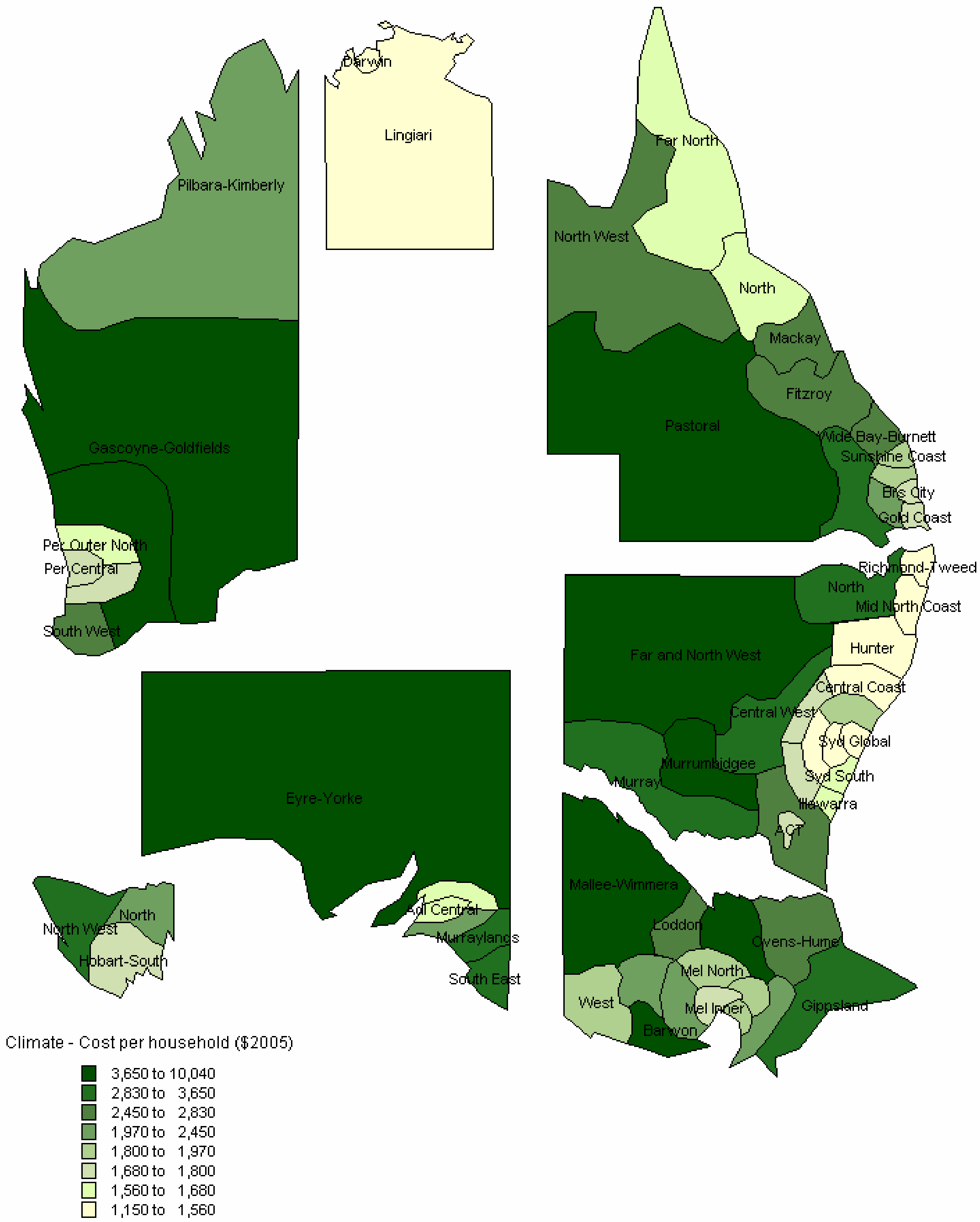
Table 3.9 Costs of climate change by component as a per cent of average disposable income (less debt repayments)

	Lost agriculture production	Carbon price – $33 a tonne	Water security costs	Total
Rural	2.5	1.9	1.1	5.4
Core Metro	0.1	1.4	0.8	2.3
Resource Based	2.0	1.5	1.3	4.8
Dispersed Metro	0.2	1.6	0.8	2.6
Production Zone	0.4	1.8	1.0	3.2
Lifestyle	0.4	2.2	1.3	3.8

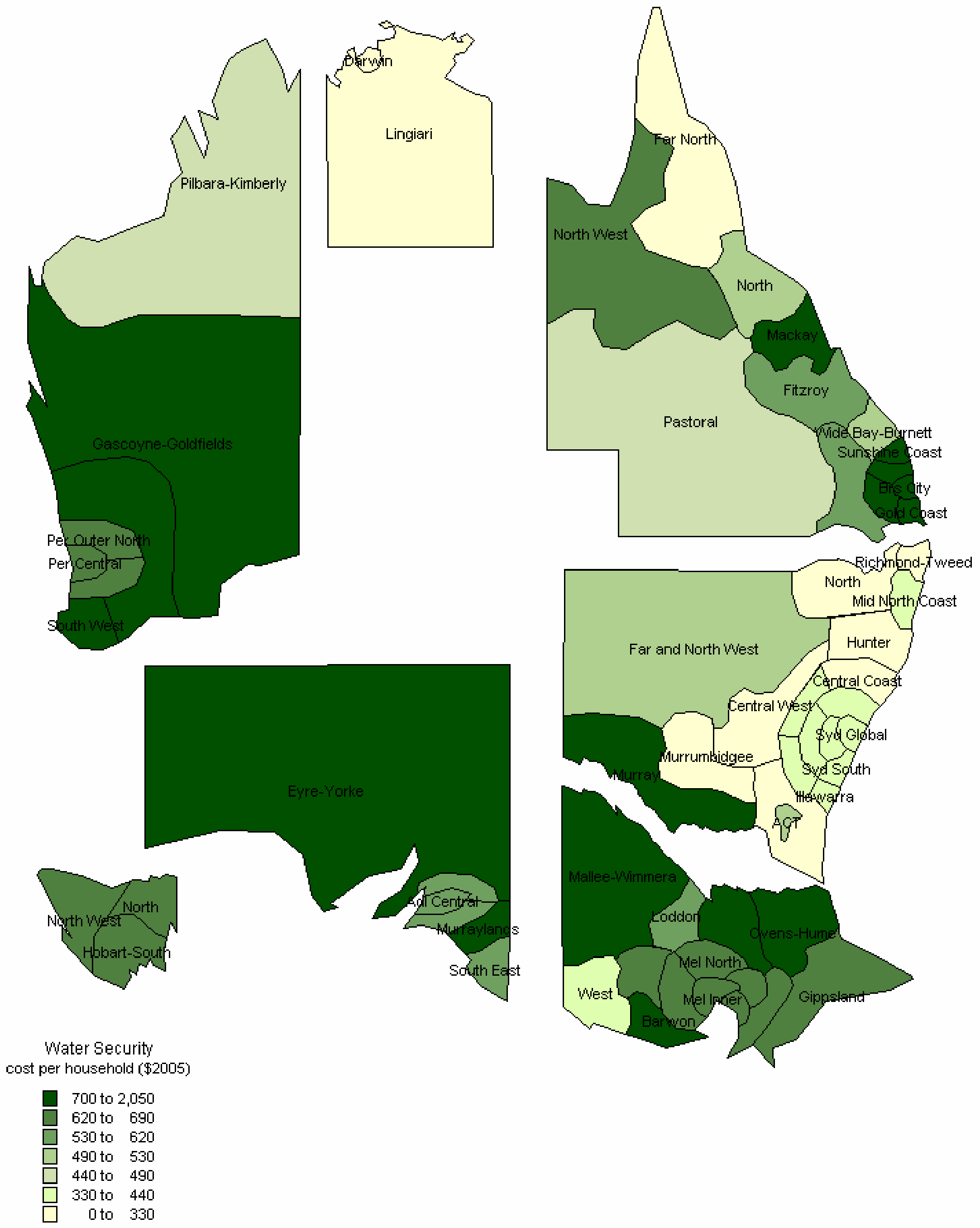
3.12 Total climate change costs

Total climate change costs for this report are the sum of agricultural income less carbon price and water security costs. The combined costs range from a low of $1,672 per annum for core metro households to a high of 3,100 for rural zone households. As a per cent of income, the impact on core metro households is 43 per cent of the impact on rural households, while in terms of wealth the impact on core metro households is just over a quarter of the impact on rural zone households.

Climate: total cost per household



Climate: Water security cost per household



4. Case study: Local government and climate change

Chapter two explained greenhouse emissions and its associated policies and issues, the next three chapters will discuss some practical examples of the kind of responses and challenges that climate change presents to local government.

Chapter 4 is a case study from the Victorian community of Mount Alexander. It details a range of practical strategies that local government can utilise to address climate change, in particular mitigation strategies to reduce greenhouse emissions. Chapter 5, written by Katrina Lowe, Stephen Horton and Scott Baum, examines some of the health implications of climate change and Chapter 6, written by Philippa England, examines some potential liabilities that could confront local government as a consequence of the impacts of climate change.

Mitigation and adaptation

Two main strategies for managing climate change have emerged internationally, these strategies are mitigation and adaptation. To provide some clarity as to the differences between these two strategies a brief explanation is necessary.

Mitigation strategies are concerned with reducing carbon emissions through the development and implementation of a range of actions such as improved energy efficiency, public and corporate education, offset programs and the like. Mitigation strategies are typically those that local governments have embraced over the last few years. The principle behind mitigation strategies, driven by the understanding of a range of long term climate change scenarios, is to act now to reduce the impact of climate change in the years to come.

Adaptation strategies, on the other hand, involve assessing, from the best information available, the likely changes in climate and responding to these changes in terms of amending plans and existing strategies. Adaptation strategies take into account the notion that an amount of climate change is already built into the system from past emissions and that, while mitigation strategies may modify long term changes, climate change will have to be managed by all levels of government. Such management will include the need to rethink water and land use planning, health related issues, the development of budgets and financial management and infrastructure planning.

Mitigation and adaptation strategies are, of course, closely linked as the degree to which mitigation strategies are adopted or not, will be directly correlated with the severity and scope of any adaptation policies that need to be implemented in the future.

4.1 Introduction

Local governments across Australia have shown leadership in relation to climate change and greenhouse issues. Their performance, including the communication of the likely impacts of local area climate change to residents, demonstrates aspects of community leadership that should be supported by state/territory and the Commonwealth Governments. NIEIR recognises the diversity of contributions by local government across the nation, for example, coastal councils are studying possible cyclone and storm surge impacts and reviewing such things as emergency response procedures, building codes and locational planning strategies. In this year's SOR we have selected the Mount Alexander Shire for the case study to demonstrate that a relatively small shire can make a proportionally larger contribution to slowing climate change.

This chapter also contains brief examples of a range of projects by local government aimed at reducing greenhouse gas emissions, covering:

- ❑ built environment;
- ❑ informing households and driving household action;
- ❑ small business energy efficiency;
- ❑ transport systems; and
- ❑ lighting.

4.2 Mount Alexander Shire, punching above their weight

In its 2007 strategic plan *The Mount Alexander Sustainability Group Inc* states:

> "*Climate change is the major challenge facing our communities and the natural environment. It is already heating and drying our region. Further climate change will threaten our regional economy. Lack of water and increasing energy costs will make it more difficult for our agricultural and manufacturing industries and other enterprises. Our ecological systems will have trouble adapting over short time frames leading to species endangerment and extinctions. We have a moral obligation to ensure that future generations of humans and other species survive in a habitable world*".

4.3 A brief economic and social snapshot of Mount Alexander Shire

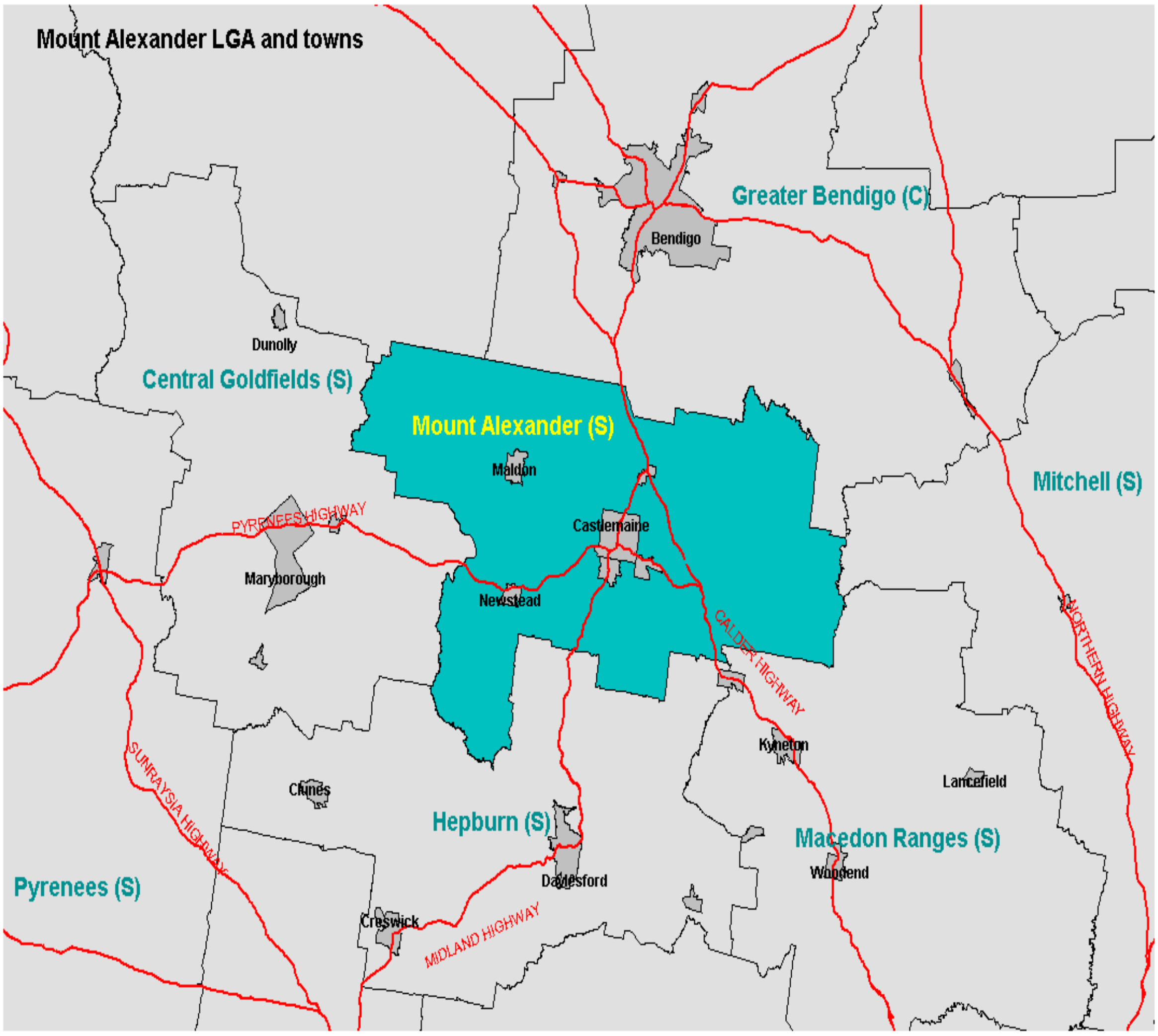
On its website the Mount Alexander Shire Council describes the shire as:

> "*the home to Castlemaine and Maldon, is fast gaining note as a relaxed and friendly place to live and do business. Situated just 120 kilometres north- west of Melbourne, less than an hour from the Melbourne airport via the Calder Freeway/Highway, the Mount Alexander Shire is an accessible, well-serviced, and future focussed location. Bushland, farm land, gracious buildings, stunning gardens, great schools, art galleries, strong industries, a skilled labour force, transport, towns and cities, restaurants, cafes, accommodation to meet your personal preferences…..Mount Alexander has it all*".

The economic profile of the shire describes a developing lifestyle region which is focussed around Castlemaine, the administrative centre of the shire. Castlemaine has many cafes, restaurants and a strong, arts based culture. Castlemaine hosts the Castlemaine State (Arts) Festival every two years which attracts many visitors from Melbourne.

Agriculture is important to the shire in areas outside of Castlemaine and manufacturing still plays an extremely important role, particularly in local employment. Health services and tourism are also key contributors to the Castlemaine economy.

A number of the major employers in Castlemaine are long standing, local companies or organisations that were founded either early in the last century, or earlier still, in the period following on from the gold rush. These core employment businesses have provided cluster opportunities for newer companies in manufacturing and construction and the shire has been home to the development of various manufacturing and engineering businesses with automotive businesses developing in specialised areas of that sector.



Recent waves of in-migration have increasingly been driven by the move to the shire of knowledge-based workers from Melbourne; including IT specialists, editors, artist, writers and publishers, many of whom run small businesses servicing clients in Melbourne. A cluster of arts activity has developed around the Castlemaine State Festival and the Mount Alexander Shire is recognised as a centre for arts practice and has become the home of many artists, writers and others involved in the creative industries. This group of workers has joined the established agricultural, trade and engineering skilled worker group, who, for generations formed the backbone of the shire's economy.

Future economic growth in the shire will include major contributions from the services sector including personal, property and businesses services.

In terms of commuting patterns, the rule of thumb is that, in general, people will find work within half an hour's travelling time of home. When journey durations get longer than this, people tend to seek alternative jobs or, if they are too committed to the job for this, seek alternative accommodation. This means that Castlemaine has been traditionally outside of commuting range of Melbourne, but well within commuting range of Bendigo. Melbourne, historically therefore, has not been an important source of direct employment for Mount Alexander Shire residents; although this is starting to change as a result of the high costs of Melbourne housing, Melbourne 2030 and improved access via freeway and fast rail developments and improved timetables.

The proportion of the Mt Alexander workforce working locally is highest for labourers, and lowest for professional people. In general, the higher income occupations have the longer commuting ranges, but managers and administrators are an exception: many of these are business owners who live on the job, especially farmers.

Traditionally, the great majority of the Mount Alexander workforce drove to work, although cycling was still an option for a smaller number of workers until fairly recently. Within Castlemaine the proportion walking to work is probably significant, and generally in the shire a proportion will work at home. Public transport probably carries a few workers to Kyneton and increasingly more to the Melbourne CBD.

The development patterns of the shire, since the gold rush era, have created a diverse community. A community that embodies a growing awareness of climate change issues and an understanding of the local and global responsibilities that these changes bring.

4.4 The Mount Alexander Shire cluster of climate change related organisations and activities

The Mayor of Mount Alexander Shire, Jim Norris, says lots can be done to help mitigate greenhouse gas emissions at the local level. Even though our capacity to act, because of our relatively small scale, is small in terms of matching the larger and wealthier city based local government organisations, we do have the capacity to lead and inform the local community. By acting in collaboration with adjoining shires, our community groups and local business we can make a significant contribution to future outcomes, doing our bit for the regional and global environment.

The shire is a member of The Central Victorian Greenhouse Alliance (CVGA). CVGA is an organisation of regional councils, regional businesses, state government departments, not for profit organisations and educational institutions, formed in 2000 to ensure that Central Victoria was in a position to contribute to the global imperative of reducing greenhouse emissions.

Central Victoria has also recently become the fifth Solar City, the Central Victorian Solar City Consortium will receive up to $15 million from the Commonwealth Government to help change attitudes towards energy use.

Jim Norris believes that council's role is to provide:

- leadership;
- advocacy;
- enforcement;
- partnerships, community, business and regional; and
- influence.

> "*Getting residents and businesses to adapt to climate change is also very important, we can make a significant local area contribution to reducing greenhouse gas emissions if the community and small business embrace the need to change the way we think and act*".
>
> "*The shire is very lucky, because it has a cluster of people who understand the huge significance of the climate change issue. A cluster that is large enough to develop, support and drive a range of activities*".

The Mount Alexander Shire has set an objective of reducing the shire's greenhouse gas emissions by 30 per cent on 2000 levels by 2010. These are also the targets of the Mount Alexander Sustainability Group and The Central Victorian Greenhouse Alliance.

The report, *Opportunities, implications and strategies for achieving zero net emissions, a Mount Alexander Shire Case study*, Trevor Budge et al, was completed in June 2007. Funded partly by Sustainability Victoria and the Central Victorian Greenhouse Alliance, this report provides advice on how the shire could achieve zero net emissions of greenhouse gases by 2020. The report stresses the need for council to develop partnerships with a range of organisations and community groups and to provide strong leadership and advocacy on global warming and greenhouse issues. Also of significance the report emphasises the positive impacts of a zero net emissions approach in terms of strengthening the local economy and increasing employment.

The Mount Alexander Shire has benefited from media attention and the resulting marketing of the shire as an increasingly forward looking place to be. This developing image of the shire is starting to attract the interest of ‘green’ businesses so the prospects of establishing a cluster of new economy businesses in the shire are looking positive. It is early days yet, however, the shire, through its own efforts and those of some of its insightful residents, has begun the journey of adapting to climate change.

In 2007, The Mount Alexander Shire were winners of the Environs Australia Award category for Outstanding Sustainability Partnerships for its Footprints project. The shire was recognised for establishing partnerships community groups and government agencies. The Footprints programme also received the United Nations Association of Australia special commendation for the best specific local government environmental initiative. Footprints was a project at the 2007 Castlemaine State Festival which attracted 35,000 visits that featured a series of artworks that challenged people to think of their daily actions and impact on the environment.

4.5 Improving the carbon footprint

Key actions by local government include the following.

- ❑ Review the suitability of planning regulations in terms of sustainable buildings.
- ❑ Review town planning policies including the orientation of buildings.
- ❑ Transport including, pedestrian friendliness, bicycle and light vehicle friendliness and links to town planning in terms of location of bicycle and light vehicle pathways and the relative position of origins and destinations including the spatial planning of residential estates, shops and schools etc.
- ❑ Waste management – updating to best practice in terms of land fill and management and collection technologies.
- ❑ Encourage community green energy initiatives
- ❑ Review all council managed energy use via audits and monitoring.
- ❑ To take a new look at the budgeting process to ensure council’s budget fully takes into account the cost of actions to be undertaken to combat climate change.
- ❑ Through leadership and advocacy, educate and inform staff to ensure the highest standards of compliance in relation to greenhouse related policy.

Bicycle Victoria wants councils to spend minimum of $5 per resident on constructing dedicated bike paths and on road bicycle lanes. The figure of $5 was a responsible benchmark. While there is significant investment in the development of bike paths investment across urban councils is uneven. Comments from Bicycle Victoria suggest that, in Melbourne, the Melbourne City Council, Mornington Peninsula Shire, City of Maribyrnong and the City of Casey were examples of local governments who were spending significant amounts on developing bike paths. Councils have created many kilometres of new bike paths, encouraging the use of bicycles for recreation and as a means of transport to work. In August 2007, the Melbourne Age, commissioned Professor Nick Low from the Australian Centre for Governance and Transport, to assess Melbourne's bike plan. Professor Low found that, if the aim that 30 per cent of all city trips by 2030 should be made by bike, funding by State Government would need to be increased fivefold to $100 million annually.

Given the shire's activities in developing partnerships and policies, what kind of organisations and activities have developed in the shire? Three examples have been selected for this case study.

4.6 The Mount Alexander Sustainability Group

Late in 2005 a group from the shire met to establish The Mount Alexander Sustainability Group (MASG). The group believed that action at the local level was required to show the way for the nation as a whole. There was recognition by the group that lack of action in regard to climate change would have serious implications, not only for the region, but for the quality of life for future generations around the world.

What transpired from that meeting was remarkable. MASG was incorporated in February 2006 and since that time things have moved quickly. The group could see that the communities around the world, who were taking action to mitigate greenhouse impacts, had the opportunity to make their communities 'more resilient and more sustainable and in doing so, to inspire other communities, prompt governments to action and attract investment'.

An office was established in Castlemaine in mid 2006 and a project co-ordinator was employed to speed up the development of the organisation and to manage the development of a range of community based projects. Another important development occurred in August 2006 when MASG took its place on the Register of Environmental Organisations, making donations to MASG tax deductible.

As MASG is so closely connected to the local community, the group has played a major role in informing the community about climate change issues and contributing greatly to local awareness.

MASG describes four key strategic objectives as:

1. to build a committed, flexible, influential, efficient and effective organisation with networks, knowledge and capacity to undertake activities needed to address climate change issues in the shire;

2. to influence a wide range of people and groups to become carbon neutral through effective communication and advocacy of the groups ideas, practices, insights and successes;

3. to identify, initiate or facilitate activities, events and projects that will achieve the organisations vision, and to encourage and support the activities of others in the shire and elsewhere with the same goals; and

4. to ensure that appropriate tools, systems and processes are in place to enable the organisation to undertake its activities within clearly articulated ethical objectives, with financial responsibility and in an accountable management and reporting framework.

The community activities conducted by MASG since the group was established include:

1. communicating issues and actions to the community;

2. forums such as the Open Space Technology Forum;

3. encouraging the use of bicycles and development of bicycle paths;

4. assisting events to become carbon neutral. Activities included encouraging local shops to use green energy during the Castlemaine State Festival period (seeding) and establishing a carbon hub to encourage the production of local food;

5. encouraging the development of alternative energy;

6. encouraging the growth of energy efficient households by organising tours of energy efficient housing and encouraging local builders to learn about the construction of energy efficient housing;

7. engage the community in a range of projects through volunteering;

8. encouraging local schools to engage with sustainability issues and encourage a local primary school to aim for carbon neutral status; and

9. raising funds through donations and from government grants to empower a range of projects covering transport, housing, solar energy, local food production and a range of community projects.

By raising substantial funds (significant amounts from outside of the shire) which are being used in the community, MASG are creating benefits for the community within the shire which it would not have had without the establishment of the group, these benefits include:

1. to make a local and hands on contribution to reducing greenhouse gas emissions and helping to reduce the impact of climate change;

2. assisting the community to understand the likely consequences of climate change thereby helping with adaptation strategies and encouraging innovation;

3. creating local employment in a skilled and information rich environment (the group now employs four salaried staff and many volunteers);

4. expenditures and investment in projects in the shire that would not have been possible without MASG funds; and

5. creating a positive community which engages a diverse group of people to act in positive ways to assist in protecting the global village and to prompt government action.

MASG initiatives include the following.

1. A participant in national projects such as the CSIRO's Sustainable Communities Initiative. Industrial and commercial energy use, The power smart future of Mt Alexander Shire: This project is part of the Sustainable Communities Initiative which will undertake projects that create solutions and benefits for local communities while creating the building blocks for larger scale sustainable development policy across the nation. The power smart future project aims to

work towards zero net emissions by 2020 through partnering with large energy users in the shire with the aim of reducing consumption while maintaining productivity, exploring the opportunities to incorporate technologies such as co-generation and renewable energy generation and managing energy demand to reduce peak loads. Project partners, as well as including the energy intensive industries and energy providers from the shire, also include government organisations such as the Australian Greenhouse Office and NGOs such as WWF. ICLEI, Local Governments for sustainability and the Mount Alexander Shire are also participants in the project.

2. Festival and event management: MASG has encouraged the Castlemaine State Festival Board and its executive to plan for the festival to become a carbon neutral event. At the 2007 event the following initiatives were introduced:

    - encouraging the use of **green power** at all festival venues to reduce greenhouse emissions from electricity used at the festival;
    - by encouraging the use of low energy transport such as bicycles and walking and by providing cycling maps and better co-ordination of public transport systems to reduce the use of cars throughout the duration of the festival;
    - a waste management programme to decrease the amount of food and organic material going to landfill, and hence reduce greenhouse gas emissions, from the festival;
    - recycling, ensure recycled and segmented bin supply in Castlemaine streets for duration of the festival; and
    - a local food programme with local food producer networks to promote locally produced products and to reduce food miles.

3. A solar power initiative which aims to 20 solar farms at schools and public buildings in the shire. Funding applications for projects are closely coordinated with Mount Alexander Shire.

4. A transport project to encourage people to ride to work and a project to change behaviour towards more walking and more cycling.

5. Planning towards better buildings by engaging local developers and working with the shire to improve the energy efficiency of new developments within the shire.

6. Encouraging local engagement of the community and local industry by encouraging a group of households and local businesses to become carbon neutral.

7. Facilitating a solar hot water initiative established by a Ballarat based sustainability group.

8. A micro-wind project investigating the potential for grid interactive micro-wind turbines to be used on urban infrastructure within the Mount Alexander Shire.

9. Development of a community based investment model that will allow individuals to invest in solar installations on community buildings.

10. The LoCO2 project, a MASG initiative, funded by the Australian Greenhouse Office, provides free energy audits to local businesses. Cost savings from this project are donated to a community carbon fund, the aim of which is to sponsor further business audits and advice to low income households. MASG says these audits have the potential to reduce energy costs by 10-30 per cent.

11. A community expo to showcase renewable energy and raise awareness of the renewable energy initiatives developed locally by MASG.

12. Plans for biomass projects within the shire.

13. Developing relationships and sharing knowledge with communities around the world. MASG is sharing knowledge and ideas with the village of Ashton Hayes in Cheshire, England. Ashton Hayes Parish Council voted to embark on its Going Carbon Neutral Project at its November 2005 meeting. MASG points to the success of Ashton Hayes in partnership with Chester University in identifying the levels of its emissions and tracking reduction targets. At the end of the first year of the project the village had reduced its emission by 20 per cent.

MASG can be contacted via www.masg.org.au. MASG would encourage local governments to make contact as MASG intends to develop a community template for sustainable organisations which can be developed using the MASG model.

4.7 Challenge to change project

The Challenge to change project was established to work with schools, churches, households and businesses across the shire to measure energy use by these kinds of premises and to reduce consumption by ongoing monitoring. For example schools are able to compare their per student energy consumption with other schools in the programme as well as with a best practice green school.

The Challenge to change project was developed by the partnership between Terry White & Associates, Sustainability Victoria and MASG.

4.8 Castlemaine 500

Castlemaine's energy savings programme began in July 2006. The Castlemaine 500 programme involves a planned 500 households participating in energy measuring and subsequent reduction in energy use. The goal of the trial project is to make it easy for households to access products, information, advice and services that are needed to reduce electricity and gas consumption.

The project has included a series of energy smart workshops and the free distribution of energy efficient light bulbs.

4.9 Five examples of local government actions to reduce greenhouse emissions

A growing number of local governments and local government associations across Australia have shown considerable leadership in terms of developing strategies to reduce greenhouse emissions. Here are five examples covering both ambitious and modest projects showing that, large or small, all local governments can make a difference.

EXAMPLE ONE The Built Environment
Council House 2: Melbourne City Council

An extraordinary building in terms of its scope and vision, Council House 2 is situated at 218 – 242 Collins Street in the City of Melbourne. This office building is now home to over 500 City of Melbourne staff and the building also provides retail space at the ground level. There is also underground parking. Council House 2 is the first building in Australia to achieve the six Green Star rating.

The total development cost of Council House 2 was just over $51 million, of this amount about 22 per cent was for sustainability features, which include many energy and water saving features such as:

- light harvesting devices;
- timber shutters;
- solar hot water collectors;
- chilled water cooling systems;
- co-generation plant; and
- numerous other features to enhance the buildings sustainability.

Melbourne City Council estimate that it will take about ten years for the sustainability features to pay for themselves in terms of direct cost of construction. The environmental benefits are significant and it is estimated that Council House 2 emissions will be 64 per cent less than from a five star building and when compared to the previous council office accommodation will:

- reduce electricity consumption by 85 per cent;
- reduce gas consumption by 87 per cent;
- reduce water consumption from mains supply by 72 per cent; and
- produce only 13 per cent of the emissions of the previous council accommodation.

Energy related features of the building include a gas-fired co-generation plant will meet 40 per cent of the buildings electricity needs and with significantly reduced carbon emissions as well as providing 40 per cent of the buildings heating and cooling needs. Solar panels and photovoltaic cells heat water and provide solar power.

Water use from the mains is substantially reduced by a water mining plant that draws and recycles water from the public sewer. This process in conjunction with rain water tanks, provides all the water for non drinking functions including cooling, flushing and plant watering.

The building incorporates T5 light fittings and the office is equipped with new LCD computer monitors, reducing energy consumption by 65 and 77 per cent respectively.

Sustainable buildings are also healthy buildings and the City of Melbourne estimate the '*happier healthier*' Council house 2 building will save more than one million each year through increased productivity and reduced levels of sickness among staff.

Importantly, Council House 2 has become the focus of attention from around Australia and overseas and serves as a model of innovation and local government leadership. As a concept the building developed from council and related policies and programs including:

- council's zero net emissions 2020 strategy;
- Cities for Climate Protection activities;
- the Sustainable Melbourne Fund; and
- the Victorian Greenhouse Strategy.

EXAMPLE 2 The importance of local government in informing households and driving household action

The Tweed Shire Council's sustainable households project; encouraging the use of green power, the provision of AAA rated shower heads and compact fluorescent light globes. Savings for the 2000 households that took part are estimated at $100 per household annually. Cost of project was $270,000 funded by the NSW Greenhouse Gas Abatement Scheme.

EXAMPLE 3 Small business energy efficiency

The Port Fairy Energise Business Programme, Moyne Shire Council. A main component of the program was to explore the use of energy performance contracting and the delivery and funding of energy audits and retrofitting small business premises.

EXAMPLE 4 Transport systems

Village environments
Cycling paths
Public transport
Parking restrictions
Education

Campbelltown City Council, in its effort to reduce greenhouse emissions.

Pedestrian amenity and safety, has initiated a programme that encourages the local community to think about alternative transport choices. Participants in the TravelSmart program are schools, workplaces and the general community.

Key messages include:

- drive smoothly; avoid start-stop traffic;
- avoid short car trips; a car generates around 40 per cent more greenhouse gas per kilometre when the engine is cold;
- plan your journey and combine multiple tasks into one trip;
- avoid higher speeds until proper working temperatures have been reached; and
- reduce speed to save fuel, which also reduces wear on your car and saves money.

EXAMPLE 5 Lighting

The Coffs Harbour City Council energy efficient street lighting project, the first energy efficient entire area street lighting scheme introduced by any council, is expected to create savings of $690,000 over the next decade, reducing greenhouse gas emission by 650 tonnes.

5. Local government and health in a climate of change[1]

5.1 Introduction

In Australia, as discussion about climate change begins to turn to action, public authorities are moving more and more to centre stage. The Commonwealth Government faces a tide of social pressure to develop policy that addresses the causes of global warming. The reality is however, that responsibility for redressing the effects of climate change, will in many cases devolve to state and local governments.

The likely impact of climate change is extensive; ranging from the loss of biodiversity to agricultural disruption and to landed property devaluation. For the average individual, however, the most immediate concern is the effect of climate change on personal health.

This section examines climate change, public health and local government. Its immediate aim is to succinctly review those dimensions of climate change with public health ramifications, that is:

- ❑ to suggest the probable forms of climate related illness;
- ❑ to begin consideration of possible mitigation measures; and
- ❑ how these ramifications relate to and concern local government.

Given the extensive literature and consensus in relation to climate change, it is apparent, therefore, that the challenge of climate change is no longer primarily in the science of global warming. In the realm of mitigation and adaptation the challenge is the development of a coherent, prioritised understanding of the health risks of climate change and, likewise, a set of coherent, prioritised options for local government.

5.2 Global warming: what we think we know

In the past century global temperatures have risen approximately 0.6°C with the greatest increases occurring in the last 50 years. The scientific consensus is that most of this global warming is due to greenhouse gas emissions brought about by anthropogenic practices. Climate models project that average surface temperatures in Australia will increase by between 0.4° and 2°C by 2030 with the potential for severe ecological, economic and social impacts (IPCC, 2007).

5.3 Health effects of a changing Australian climate

5.3.1 Heat

Since 1910, and particularly since the mid 20th century, Australian mean annual maximum and minimum surface temperatures have increased. This rise in temperature has been accompanied by a higher frequency of extreme events (or heat waves) often exacerbated by increased humidity and urban air pollution. The compound result is an ongoing rise in heat-related deaths and illness associated with respiratory and cardiovascular disease.

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[1] This chapter has been written by Katrin Lowe, Stephen Horton and Scott Baum.

In the two week European heat wave of August 2003 between 22,000 – 45,000 people died. This, it was estimated, was a 50 per cent increase over the number that could have been expected without the extreme event. Tony McMichael of the Australian National University reports research showing deaths associated with temperature rise will increase in Brisbane and Sydney by 41 and 34 per cent, respectively, by 2020, when compared to benchmark 1999 levels. If unchecked climate change will, by 2100, double heat related deaths for Australians over 65 years of age.

A future of more frequent and more severe heat waves will require coordinated and sustained state and local programmes to reduce the gross impact of heat on resident communities and, as a priority, to target the needs of vulnerable populations. Such programmes have two major dimensions: pre-event adaptation and during-event intervention.

Pre-event adaptation has a physical and social dimension. In the first instance renewal through urban design coupled with innovative engineering and landscape solutions can produce a less heat intensive urban structure. For example, appropriate modifications of large car parks and shopping centres can reduce the contextual impact of such ‘heat mats’ on surrounding populations.

The social dimension of adaptation arises from the differential impact of heat stress. The elderly, the young, the sick and the poor are particularly vulnerable. Effective pre-event planning will, therefore, carefully identify high risk households and tailor adaptation and mitigation strategies to meet their needs.

During-event intervention will require more if not larger health facilities tailored to treat not only a surge in numbers but the likely demographic profile of heat stressed patients. These facilities will, in turn, require appropriate staff. Neither the facilities nor the additional staff need be permanent. In the best case scenario appropriate structures, temporarily converted to health care use, will be staffed by trained but non-permanent personnel drawn from the immediate community.

Community resilience and adaptability will, therefore, be decisive in any local response to the health impacts of climate change. Such resilience must be built before the cataclysmic event, before it is needed, by programmes of community self-education, through the gathering of resources and emergency equipment, and readiness exercises.

5.3.2 Other natural disasters

Climate change will also manifest itself in more severe and more frequent weather events such as storm surges, floods, drought, cyclones and bush fires. Increase in flooding is predicted to impact at least twice the area at present affected in some parts of the country (McInnes et al., 2003); with attended risks of drowning, sanitation collapse, diarrhoeal and respiratory disease.

Beyond these risks regional cyclones can have major economic effects, devastating agriculture production and farmer income (e.g. Cyclone Larry of March 2006). At the other extreme, with droughts becoming more severe and the number of extremely hot days increasing, there is every likelihood of increased frequency and intensity of bush fires (Hennessy et al., 2005).

All extreme weather events can injure and kill people. An increase in the intensity and frequency of these events will place additional pressure on emergency services, adding to the already high costs associated with natural disasters ($240 million per year in Queensland alone - DNMR, 2005). Follow on health problems arising from natural disasters include failure of sanitation systems, the loss of electric power and a shortage of potable water. Sewage overflow following a flood or storm, accompanied by a lack of clean water, creates an ideal culture for the spread of infectious and gastrointestinal diseases.

Improved construction and building design in at risk regions bordering canals, rivers and coastal areas, as well as upgrading dams and other water retention structures will reduce the risk associated with flooding. Other adaptive strategies include planning for increased health service demand, the development of relief plans, the installation of early warning systems and the building of public awareness/readiness. All these strategies aid in both reducing the immediate impact of natural disasters and mitigating their attendant health risks.

5.3.3 Vector- and water-borne disease

Many vector and water-borne pathogens that spread human infectious disease are sensitive to changes in climatic conditions, in particular changes to temperature and rainfall. Wetter, warmer weather extends both aquatic habitats and the active 'season' of invertebrate hosts such as mosquitoes and ticks. Sea-level rise and the gradual inundation of coastal regions will, similarly, extend the salt marsh habitat of invertebrate hosts. Such changes have the potential to greatly increase the risk that malaria, Ross River virus, Barmah Forest virus, Murray Valley encephalitis virus and Dengue fever, may re-emerge in areas previously cleared and, even, develop in new areas across Australia.

Priority control of vector and water-borne pathogens will target insect host breeding and survival (e.g. mosquito spraying). Other adaptive measures include the modification of sewer systems and the upgrade of water supply systems to reduce aquatic habitats; and vaccination programs to mitigate the effect of increased vector presence.

Public education and vigilant control of domestic water tank construction and maintenance is an emerging priority. Prior to the construction of reticulated residential water supply domestic water tanks were, in warm latitudes, significant mosquito habitats.

Finally, while severe rainfall followed by flooding can displace bacterial life to previously uninhabited areas, drought, on the other hand, concentrates bacterial populations in evaporating pools of water. In either case secure water supply is essential if the risk of gastro-enteritis is to be minimised. A structure of water tanks, sited above flood lines and adequately maintained, are an integral resource in times of water crises. Plans for the distribution of water purification tablets during times of water supply shortage and power outage is another clear necessity.

5.3.4 Vulnerable populations

There are a number of socioeconomic groups who are particularly vulnerable to climate change and associated health risk. Exposure to extreme heat, dust and smoke, and a constrained supply of fresh water and food supply, puts immediate child health and future physiological development at risk Other vulnerable sub-populations include isolated communities, the elderly and those with pre-existing medical conditions (especially cardiovascular and respiratory disease). Beyond the immediate adverse health impacts of catastrophic weather events, climate change brings the possibility of systemic health risk to certain populations. The poor, defined in this context by lack of income and poor access to public health care, risk entrenched, general health decline. In addition, it has even been found that long run climate related stress can erode the mental health of rural households. Finally, and significantly, indigenous Australians are likely to be over-represented in the all above categories of risk.

5.3.5 Implications for local governments

The regional impacts of climate change remain uncertain. However, whatever the range and scale of effect in Australia it is local government that must co-ordinate the response of local communities. This places local government at the coal face of adaptation for climate change.

Local government will need to strengthen public health infrastructure, initiate health-oriented management of the built and natural environment, and plan specific ‘climate change’ medical care facilities. Programmes likely to be included under these general rubrics include immunisation, disease vector control, maintenance of sewer systems and water supply, and the upgrading of emergency service response.

In so far as the health impacts of future climate change are uncertain more research into dimensions of climate change, public health consequences and the organisation of community response is an obvious and urgent requirement. The joint consideration of the three dimensions of this policy model of climate change – cause, effect and response – is best organised through risk analysis.

The identification of vulnerable populations and locations, and the concomitant development of appropriate interventions, are priority steps in the protection of public health against the impacts of climate change. While local government can benefit from the efforts of universities and other research institutions, local government must take the lead in the central tasks of:

(i) risk assessment;

(ii) management and mitigation policy; and

(iii) remedial action.

5.3.6 Linking local government

At present 214 councils across Australia, representing 80 per cent of the population, have joined the Cities for Climate Protection (CCP^{TM}) Program. The CCP^{TM} Program is an international initiative. It is designed to help local governments and their communities achieve quantifiable reductions in greenhouse gas emissions and to build capacity to address climate change through a strategic milestone framework (DEH, 2006). (web link: <http://www.greenhouse.gov.au/local/ccp/index.html>)

5.4 Conclusion

There is a general consensus internationally that climate change is an entrenched reality and that its impact on Australia is likely to be significant. While the extent of climate change impacts on public health is still relatively undefined, local government cannot wait. In the current context of what we know now, it is essential that local government develops prioritised, flexible and effective programmes to deal with the challenges of climate change. More than ever before we need to think globally and act locally if Australia is to live with climate change without suffering substantial social dislocation. Climate change adaptation response needs, above all, to be grounded – that is to say, responsive to the particularities of the environmental and social context. In short responses need to be practical.

For further reading material on this and related subjects please refer to Appendix 4.

6. Climate change: what could local governments be liable for?[1]

6.1 Introduction

Local governments are at the forefront of many activities that both contribute to climate change and are likely to be impacted upon by climate change. In the context of climate change, the decisions of local governments may be legally challenged on two general grounds.

First, decisions that contribute to greenhouse gas emissions, for instance, development approvals for power stations or other polluting activities – are likely to come under increasing scrutiny.

Second, local governments are at risk of incurring legal liability if they *unreasonably fail to take into account the likely effects of climate change* when exercising a wide range of their service, planning and development activities. Presently, the threshold of unreasonableness is high – but over time the range of actions that may qualify as highly unreasonable is likely to expand.

This section explores the current state of play in these areas of potential legal liability for local governments. The over-riding message is that the situation in relation to climate change and legal liability is moving very rapidly and so, undoubtedly, is the relevant law. Local governments, therefore, need to be vigilant to ensure their policies and programs, across a wide range of activities, reflect a reasonable response to the risks of climate change.

6.2 Local government liability for decisions contributing to climate change

Why sue local governments for causing climate change? Surely there are bigger fish to fry? The Commonwealth, state governments and big multinational companies spring to mind. In the past, these players have evaded responsibility for their contributions towards climate change. The reasons normally given relate to either – insufficient evidence of causation and /or judicial abstention from legislative policy- making.

This assumed position must now be viewed with extreme caution in the light of the decision in *Gray v the Minister for Planning* (2006) NSW. In this case, a private individual successfully challenged the adequacy of an environmental impact assessment for a proposed major new coal mine. The plaintiff successfully argued that, in failing to take into account the downstream/eventual contributions to greenhouse gas emissions that would result from the burning of coal produced at the mine, the environmental assessment report was inadequate.

The impact of the Gray decision is, as yet, uncertain. A 2007 case in Queensland, *Queensland Conservation Council (QCC) v Xstrata*, seems not to have followed the logic of the decision in Gray's case. On the contrary, in this case, in which the QCC contested an application to extend an existing coal mine, Koppenol P, determined there was insufficient evidence to demonstrate any discernible harm arising from this particular mine's impact on greenhouse gas emissions. An appeal on that decision has been lodged.

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[1] This chapter has been written by Philippa England.

Clearly, the law in this area is in a state of flux. Local governments may not yet be legally obliged to consider the indirect impacts on climate change of their development decisions. Nevertheless, that position may change at any time and the decision in *Gray's* case suggests that change is already occurring.

6.3 Local government actions and decisions affected by climate change

In addition to making decisions that may contribute to greenhouse gas emissions, local governments are responsible for many decisions, policies and programs that may be affected by the impacts of climate change. In this respect, the relevant risk for local governments is that, if they unreasonably fail to take into account the likely effects of climate change, their actions – or inactions – may cause or contribute to harm against individuals or the property of individuals.

The issue here will be: have local governments, in their licensing, authorising and emergency procedures, adequately taken into account our growing vulnerability to the increasingly certain impacts of climate change? If they have not, individuals affected by their decisions may eventually seek redress against them.

6.4 How might climate change impacts affect local governments' liabilities?

Typical of recent predictions about the effects of climate change are those reported in a recent Queensland Government Discussion Paper, *Climate Smart Adaptation: What Does Climate Change Mean for You?* (Department of Natural Resources and Mines, 2005)

Of all the anticipated climate change impacts, those that may affect local governments most directly (or which are most likely to lead to individual law suits against them) are:

- sea level rise;
- flooding; and
- extreme weather events.

More obscure or discrete lawsuits could arise from the impacts of:

- temperature rise; and
- increased risk of vector-borne diseases.

It is not hard to envisage the type of law suits that may eventuate or increase in incidence. These may challenge:

- the appropriateness of development approvals in flood prone, coastal zone or at risk areas;
- the adequacy of building standards to withstand extreme weather events - as their area of activity expands and their frequency increases;
- responsibility for erosion, land slides etc, resulting from extreme weather events;
- the adequacy of emergency procedures when more frequently put to the test;
- failure to undertake disease prevention programmes; and
- failure to preserve 'public' natural assets in the face of climate change – if and when the technology becomes available etc, etc.

How exposed are local governments to lawsuits in these areas and how "at risk" are they?

6.5 Potential legal liabilities

Areas of potential legal liability for local governments include:

- private nuisance;
- public nuisance; and
- negligence.

The relevant legal principles, as they may affect local governments, are summarised below.

6.5.1 Claims in nuisance: key ingredients

A nuisance is defined as an "unlawful interference with a person's use or enjoyment of land, or some right over, or in connection with it". It is an indirect interference with a person's land or reasonable enjoyment of it. A trespass is a direct, intentional interference with land or property (see McGlone & Stickley, 2005).

Not every interference with the use of land is unlawful. The courts recognise the need to balance between competing uses of land – that is, between the right of an occupier to do what he likes with his own land and the right of his neighbour not to be interfered with.

Normally the suit is between landowners or occupiers of land but a claim in nuisance may also lie against people or authorities vested with management and control of a premises or asset. For instance, in *Halsey v Esso Petroleum Co Ltd* (1961), the use of heavy trucks outside the defendant's premises created a private nuisance for a neighbour.

Points to note include:

- if the nuisance would have arisen anyway you cannot be liable. The respondent must be shown to have been responsible for the nuisance or a significant extension of it;
- nowadays, a claim in nuisance may lie for acts of nonfeasance (i.e. failure to prevent a nuisance occurring) as well as misfeasance (actively creating a nuisance); and
- if the claim is one of misfeasance – that is, improper performance of a positive act – then a degree of fault is now usually required. For instance, the consequence of the action must be reasonably foreseeable.

The requirement of fault in cases based on misfeasance provides scope for statutory defences such as those under Queensland's *Civil Liability Act 2003*.

- despite the above, it is not necessary in a case of nuisance to prove the defendant was under a duty to take care (c.f. claims in negligence, discussed below); and
- nuisance claims relate to actual damage to property.

A public nuisance is a nuisance that materially affects the comfort and convenience of a class of people that may be described as a section of the public. The main additional ingredient to note is that anyone who is affected may complain regardless of any property interests, provided they have suffered some special damage (or have a special interest in the matter). Remedies for all types of nuisance include abatement, injunction and damages.

Activities that cause an unreasonable interference with another person's land by way of – landslides, bush fires, flooding, coastal erosion, etc. – could give rise to claims in nuisance against a local government if that local government was 'in control' of the premises (or resources) from which the nuisance emanated. 'Control' could be either as the landowner/principal manager or, for instance, action during emergency operations.

Local governments could be liable in nuisance for failing to deal with the impacts of any of these activities regardless of any climate change, provided they were reasonably foreseeable. What climate change brings into the equation is a rapidly evolving test of what is 'reasonably foreseeable'.

6.5.2 Negligence

The tort of negligence provides a remedy for a person's failure to take care not to injure someone else. It provides a remedy for damage to the person (whereas nuisance provides a remedy for damage to property). In negligence cases the courts impose liability for actual damage caused if:

- a reasonable person in the defendant's position could have avoided the damage by exercising reasonable care; and
- the defendant was in such a relationship to the plaintiff that he or she ought to have acted with that degree of reasonable care.

Put simply, an action in negligence lies when:

- a duty of reasonable care was owed to the plaintiff;
- that reasonable standard of care was not followed; and
- personal or economic harm or loss occurred as a result of the defendant's failure to exercise that reasonable standard of care.

How does this relate to the work of local governments? Recent case law establishes that a duty of care may only be established against a local government if it has adopted a significant and special measure of control over the activity or property giving rise to a dispute (*Graham Barclay Oysters P/L v Ryan* (2002) 125 LGERA 1; *Brodie v Singleton Shire Council* (2001) 206 CLR 512). However, there are many areas in which local governments appear to be operating with just such measure of control – approving development applications; controlling foreshores, managing public land, conducting emergency relief operations, etc.

Fortunately for local governments, there are several defences and exceptions that will help to reduce local governments' exposure to law suits based in negligence (and sometimes nuisance too). Principal among these is the statutory defence provided by the various Civil Liability Acts now in place across Australia In general, these state that an act or omission of the authority does not constitute a wrongful exercise or failure unless the act or omission was in the circumstances *so unreasonable that no public or other authority having the functions of the authority in question could properly consider the act or omission to be a reasonable exercise of its functions* (Civil Liability Act 2003 (Qld), s.36. See also - Civil Law (Wrongs) Act 2002, (ACT), s.111; Civil Liability Act, 2002 (NSW), s.44; Civil Liability Act 2002 (Tas), s.40; Wrongs Act 1958 (Vic), s.84; Civil Liability Act 2002 (WA) s.5X) .

This legislation offers a degree of security for local governments (although there is some debate about how well these sections cover claims in nuisance as well as negligence). The main outstanding risk for local governments is that, with respect to climate change, the range of actions – or inactions – that may amount to a *wholly unreasonable response* is likely to expand rapidly in the next few years as more information about the impacts of climate change becomes readily available.

6.6 Protection against climate change litigation: four suggestions for local government

What should local governments be doing to protect themselves against climate change litigation? Some of the actions local governments may wish to consider are:

1. Take into account relevant documents, policies, guidelines and expert advice so far as possible

There is already a host of information, recommendations and guidelines in circulation that local governments can, and ideally should, be following. By keeping abreast of these reports and applying them as best they can, given their resource constraints, local governments will protect themselves from claims of unreasonableness.

Relevant reports and policies might include state planning policies, documented advice of state referral agencies; government climate change strategies (e.g., National Greenhouse Strategy (1998); Queensland Greenhouse Strategy (2004); and the forthcoming Council of Australian Governments climate change policy and participation in the *Cities for Climate Protection Program*.

Are local governments obliged to follow all report and policy recommendations? Obviously that will depend on the legal status of each type of document or advice. However, in general, for all non-binding documents, the rule of thumb is that they should be weighed up sensibly and balanced against any other legitimate concerns of local government.

2. Adopt integrated risk management

Ultimately climate risks and liabilities are best considered as part of an overall, integrated risk management strategy in which local governments review their actions as broadly as possible and monitor new developments and guidelines as they arise.

3. Consider reasonable adaptations to conditions in development approvals

Local governments are entitled to balance climate change issues against competing considerations. For instance, courts will accept that:

- limited resources will constrain decision-making and this will be taken into account in settling liability issues; and
- conditions in development approvals must be reasonable and relevant.

In some recent case law, the potential impacts of climate change have been acknowledged and conditions more onerous than in the past have been upheld as reasonable and relevant - as required by law. This trend is not universal, however, local governments wishing to establish new benchmarks for what are “reasonable and relevant” conditions in development approvals are advised to include provisions to that effect in their planning schemes. Any consideration of climate change impacts within planning schemes is easily justified (if not necessitated) by reference to the objectives of state or territory planning legislation and to the principles of ecologically sustainable development including inter-generational equity and the precautionary principle.

4. Be vigilant!

The main problem for local governments in this area is the rate of change. Climate change concerns are gathering momentum and this makes keeping up with the standard of what is reasonable care (or not wholly unreasonable) an ongoing task. The law is in a state of flux. Perhaps the best that can be said is that the issues are evolving and the speed of change is increasing. Given this rapidly evolving policy context, local governments should take care to ensure their actions, decisions and policy responses to matters that may either contribute to, or be affected by, climate change remain current and reasonable.

6.7 Conclusions

This review examined some potential legal liabilities of local governments when making decisions about matters *affecting* climate change as well as matters *affected* by climate change. Local governments currently have available to them a statutory defence that seems likely to protect them from claims based on a failure to recognize and respond to information about climate change but it is important that councils continue to remain vigilant. As understanding of the localized impacts of climate change increases and general awareness grows, the range of actions and responses that may constitute a wholly unreasonable response (and so give rise to liability) will grow.

For further reading material on this and related subjects please refer to Appendix 4.

7. Telecommunications update

Chapter 5 in the 2006-07 SOR gave an overview of the current state of telecommunications at that time, and particularly broadband in Australia. Last year's chapter still forms a useful reference regarding telecommunications in Australia.

The purpose of this year's telecommunications chapter is to provide a quick snapshot of current issues and to review the lack of progress over the last 12 months. Last year, Australia was behind the OECD standard, and the gap has widened. Being behind now is much worse than being behind last year.

7.1 Broadband update

Last year's SOR indicated that the take-up of broadband in Australia had gathered pace, with numbers increasing from 829,000 in March 2004 to 1.8 million in March 2005 and to 3.2 million by March 2006. By far the greatest part of this growth was in ADSL services. The number using satellite services declined over the same period.

The 2006 Census results show that 58 per cent of Australian households had access to the internet. As expected broadband, at 37 per cent, was the most common form of connection and was almost double the proportion of dial up connections, at 20 per cent. At the end of 2005 the proportion of households connected to the internet was estimated at 28 per cent. At that time dial-up was still the most popular form of access to the internet for Australian households.

Data from the 2006 ABS Census showed that 42.3 per cent of dwellings in capital cities across Australia had a broadband connection at the time of the Census. This figure falls to 28.6 per cent for regions outside of Australia's capital cities.

In 2006, South Australian non-metropolitan households had the lowest level of household broadband connectivity with South Australian country households relying on a dial up connection as the most common form of connecting to the internet.

Taking into account both urban and rural communities, Tasmania, South Australia and the Northern Territory had the lowest levels of connection to the internet. ACT households had the highest level of connectivity.

Table 7.1 2006 Census: Internet connections of dwellings (per cent)

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	AUST
Capital city									
With internet connection									
Broadband connection	45.0	42.8	44.4	31.1	41.1	31.2	31.9	50.3	42.3
Dial-up connection	16.5	17.7	19.3	24.5	20.3	22.6	23.1	19.9	18.7
Other connection	0.7	0.5	0.5	0.6	0.6	0.7	1.1	0.6	0.6
Total with internet	62.1	61.0	64.3	56.3	62.0	54.4	56.1	70.8	61.6
No internet connection	29.0	31.5	29.1	37.7	30.5	39.4	31.1	23.6	30.8
Remainder of State/Territory									
With internet connection									
Broadband connection	28.1	32.2	27.8	19.4	29.1	23.7	22.0	6.0	28.6
Dial-up connection	23.8	22.0	23.9	29.1	22.2	25.2	17.1	56.0	23.5
Other connection	0.6	0.6	0.5	0.7	0.8	0.6	0.9	3.6	0.6
Total with internet	52.4	54.8	52.3	49.2	52.0	49.5	40.0	65.5	52.7
No internet connection	41.3	36.8	41.9	44.3	38.4	44.8	45.7	31.0	40.2
Total State/Territory									
With internet connection									
Broadband connection	38.5	38.6	37.6	28.0	37.9	26.8	28.0	50.3	37.2
Dial-up connection	19.3	19.4	20.8	25.7	20.8	24.1	20.7	19.9	20.4
Other connection	0.6	0.5	0.6	0.6	0.6	0.7	1.0	0.6	0.6
Total with internet	58.4	58.6	59.0	54.4	59.4	51.6	49.8	70.8	58.3
No internet connection	33.7	34.4	33.4	39.5	32.5	42.5	36.9	23.6	34.3

Source: ABS 2006 Census. 2914.0.55.002

In its Internet Activity Survey (IAS) the ABS figures show that, at the end of the March quarter 2007, there were 6.43 million internet subscribers in Australia. There were 761,000 subscribers from the government and business sectors and 5.67 million individual subscribers. The number of non-dial up subscribers (mostly broadband subscribers) was 4.34 million.

The survey showed that the number of broadband subscribers (non-dial up) increased by 16 per cent in the six months to March 2007, while dial-up subscribers numbers saw a corresponding fall. This change was driven by the household sector rather that business and government which already had higher connectivity standards.

The survey also indicates that the number of connections with download speeds of 1.5 Mbps or greater increased by 43 per cent to 1.56 million in the six months to March 2007.

Table 7.2 Internet subscribers by subscriber type and download speed, for large and very large ISPs

	September quarter 2006		March quarter 2007	
	Number of subscribers ('000)	Proportion of subscribers (%)	Number of subscribers ('000)	Proportion of subscribers (%)
Business and government subscribers				
Less than 256 kbps	237	33	249	33
Broadband[(a)]				
256 kbps to less than 512 kbps	152	21	160	21
512 kbps to less than 1.5 Mbps	188	27	190	25
Total broadband (256 kbps or greater)	471	67	512	67
Total all access speeds	**708**	**100**	**761**	**100**
Household subscribers				
Less than 256 kbps	2,273	41	1,848	33
Broadband[(a)]				
256 kbps to less than 512 kbps	1,101	20	1,240	22
512 kbps to less than 1.5 Mbps	1,187	22	1,186	21
1.5 Mbps or greater	957	17	1,394	24
Total broadband (256 kbps or greater)	3,245	59	3,820	67
Total all access speeds	**5,519**	**100**	**5,668**	**100**
All subscribers				
Less than 256 kbps	2,510	40	2,097	33
Broadband[(a)]				
256 kbps to less than 512 kbps	1,254	20	1,399	22
512 kbps to less than 1.5 Mbps	1,375	22	1,376	21
1.5 Mbps or greater	1,088	17	1,556	24
Total broadband (256 kbps or greater)	3,717	60	4,331	67
Total all access speeds	**6,227**	**100**	**6,429**	**100**

Note: (a) An 'always on' internet connection with an access speed equal to or greater than 256 kbps.
Source: ABS. 8153.0

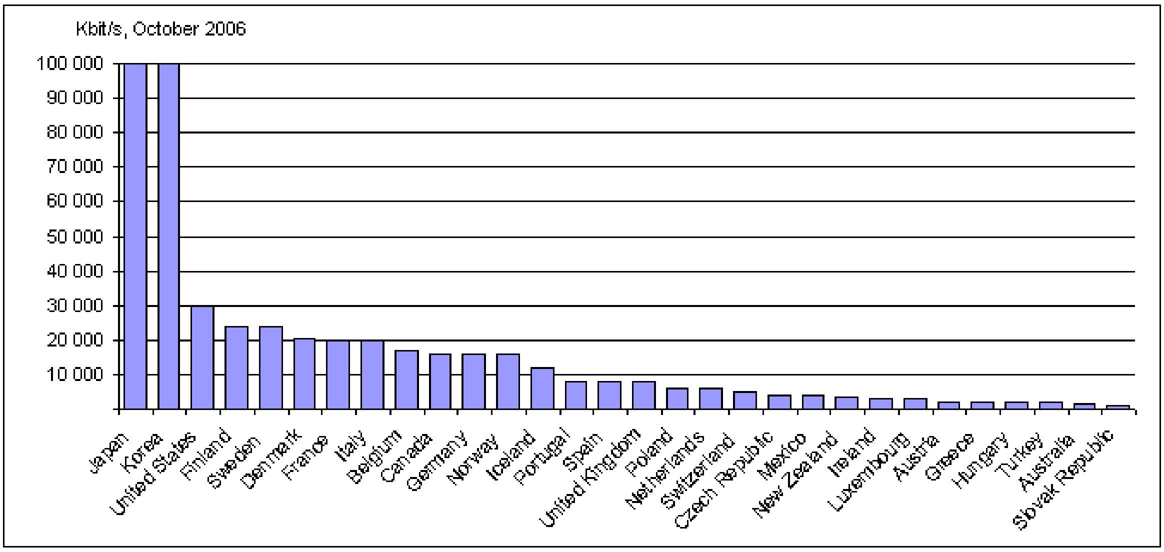
The following table shows the approximate number of broadband connections in countries with historically strong growth in internet activity. In terms of the number of broadband connections as a percentage of total population Australia has levels of connectivity very close to those in Japan and the United Kingdom. Australians, clearly use and rely on the internet for education, research, business, communication and entertainment at similar levels as competing nations. Broadband speeds are what set Australia apart from competing nations.

Table 7.3 Approximate number of broadband connections		
	Number of connections	Connections as a percentage of total population (%)
United States	60,362,830	20.04
China	56,258,499	4.26
Japan	26,533,000	20.82
Germany	16,142,750	19.59
France	15,304,900	24.02
South Korea	14,102,888	28.76
United Kingdom	13,953,000	22.96
Italy	9,348,250	16.08
Canada	8,010,139	23.99
Spain	7,185,932	17.77
Australia	4,340,000	21.24

In the United Kingdom the regulator, Ofcom, has called for the telecommunications industry to develop next generation networks so that the nation remains competitive with the Japan, Korea, the United States, Germany and France. In the United Kingdom average broadband speeds are now 4.6 megabits per second, more than 80 times the speed of older style dial up connections, common a few years earlier. The next generation of networks will be more than ten times faster than speeds currently available. Consumer demand for high definition online TV, rapid movie downloads, video on demand and other online entertainment is driving rapid change. Competitive pressure has also been applied by Japan and Korea where providers KT and NTT offer speeds of 100 megabits per second. Likewise the United States, Germany and France are already investing in networks to deliver 100 megabits per second. In terms of developments in the United Kingdom, Ed Richards, the CEO of Ofcom, said “There will be an issue of differential delivery, but let’s get it underway first”.

Clearly broadband penetration rates in Australia have grown but what is at issue, still, are broadband speeds and the differential between city and regional access. Australia’s lack of competitiveness is not only related to broadband speed but also to price. In its 2007 *Communications Outlook Report*, the OECD ranks Australia 14th out of the 26 nations reviewed. As well as identifying price issues the report places Australia second to last, before Slovakia, out of 26 countries in terms of top broadband speeds.

Fastest broadband download speeds offered by the incumbent telecommunications operator

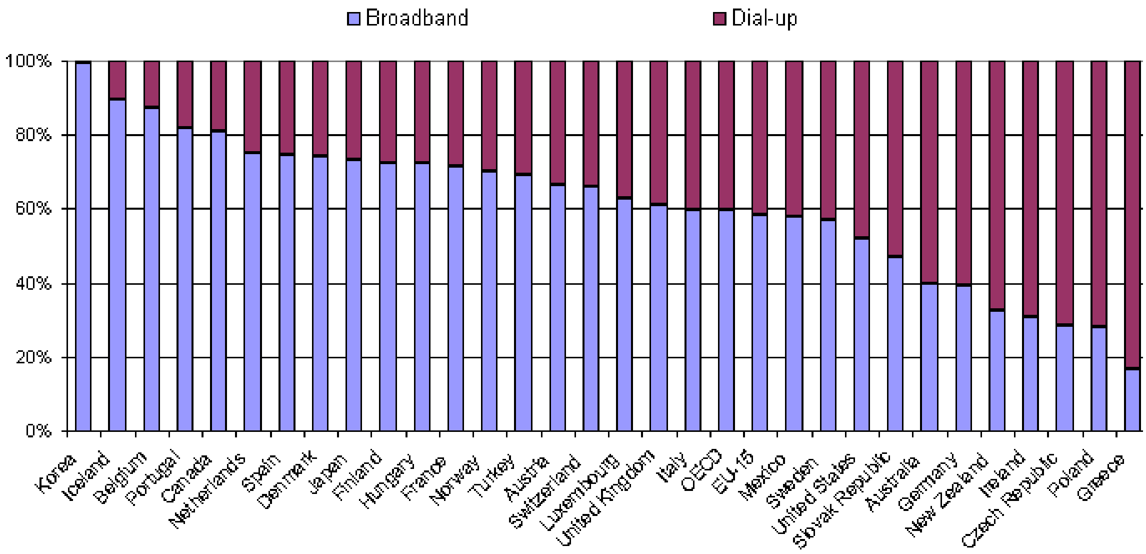


Note: The connections represented are either over DSL or fibre and they refer to the fastest consumer speed available in October 2006 from the incumbent operator on the date the data was gathered. Operators in countries such as Portugal increased speeds before the end of 2006 but after the collection date. The top speed plan in the United States is from Verizon.

Source: OECD Communications Outlook 2007

The OECD report also states that, internationally, investment in telecommunications is continuing to rise, driven by fibre based broadband technologies, higher speed mobile and next generation networks.

Dial-up and broadband shares of total fixed internet subscribers, December 2005



Note: Excludes mobile phone access to the internet.
Source: OECD Communications Outlook 2007

The key issues to come from all this, whatever the reasons for Australia's continued poor overall performance, are as follows.

- Business opportunities are constrained by this lack of competitiveness. The longer it takes to improve broadband speeds and reduce prices, the relative disadvantage of Australian business worsens.
- The development of the knowledge economy is constrained by lack of high speed broadband connectivity in terms of creating new services. These include public sector services which will save billions of dollars of taxpayers' money and reduce costs, including at local government level. Services such as e-medicine and e-education are examples of these services.
- Poor standards of connectivity also constrain innovation. An example is smart network grids, which have a major role to play in managing levels of greenhouse emissions, both for households and industry.

These issues are discussed more fully in the section, Lost business use of ICT, later in this chapter.

7.1.1 Voice over Internet Protocol (VoIP)

The 2006-7 SOR reviewed the growth of VoIP activity in Australia and internationally. One of the issues raised was that an increasing proportion of internet voice traffic would require improved regional connectivity, so as not to disadvantage business in non-metropolitan Australia, and faster speeds of broadband connectivity to create acceptable voice quality standards. This still remains an issue.

The use of VoIP is growing rapidly and, in many new economy SME businesses, is rapidly becoming the standard form of voice communication. Pacific Internet's Broadband Barometer 2006 report estimates that around $600 million-worth of annual voice costs were saved by SMEs, in terms of revenue that was lost to VoIP from traditional telecommunications companies in the 12 months prior to September 2006.

VoIP has the potential to decrease regional telecommunications costs and to create new business opportunities. VoIP continues to promise employment opportunities as telecommuting and teleworking become far more affordable and integrated with global company systems. Slow broadband speeds are likely to continue to constrain innovation and new business development in non-metropolitan Australia.

7.1.2 Communication access pathways and convergence

Two interesting trends in the telecommunications industry are that the significance of fixed lines in the total mix of communication pathways is diminishing, and secondly that convergence in terms of technologies and product offerings is blurring the distinction between analogue, DSL, mobile and cable. The mix of fibre cable and mobile are likely to become increasingly prominent in voice, image and data communication.

Apple's iPhone and developments including Google's 'GPhone' will also change patterns of mobile communications use and impact business models.

7.2 The 3G network

3G is the third generation network of mobile telephony. The 3G network, because its greater capacity and network efficiency, creates an opportunity for telecommunications companies, media and internet based businesses to provide, as well as voice, a much greater range of services to its customers.

In one sense 3G creates additional complexity for telecommunications providers in terms of developing sustainable business models, in a very similar way that the internet did a few years earlier.

The 3G network roll-out, in many countries, has been complicated by anxiety about sustainable business models for the new service and the very high costs of spectrum licensing fees. Telecommunications companies, from their historical base of providing infrastructure for voice services, are not necessarily best positioned to understand issues of content and services development and delivery.

Convergence issues, the introduction of 3G, the failure to develop consistent telecommunication strategies and the fraught relationships between the Commonwealth Government and the telecommunications industry have combined to create something of a telecommunications imbroglio. Though recent administrative failures have worsened the imbroglio, it has its origin in the free-market policies adopted by the Commonwealth more than 20 years ago. Two aspects of these policies are relevant.

- The disregard of spin-off benefits to infrastructure investment means that businesses invest only where this changed revenue makes opportunities for profit. This policy has resulted in failure to invest in infrastructure which yields more general benefits, such as improvements in research and education.

- The policy of targeting interest rates to the Consumer Price Index while allowing unrestricted lending to households has resulted in high real interest rates (as distinct from nominal rates before inflation adjustment). This policy has directed funds into land speculation rather than infrastructure assets such as telecommunications. It is no accident that Japan, a country with very low real interest rates, has a much better telecommunications system than Australia.

It should, however, be recognised that the introduction of 3G networks is a useful advance in telecommunications in Australia. Technical and roll-out issues aside, the major barrier to the use of 3G networks at this time is the cost of current services. It is unlikely that 3G will become a substitute for broadband ADSL connections to the internet in areas not serviced by higher broadband speeds until costs of using 3G data services are affordable and competitive. As a guide it would currently cost just under $100 to download an average movie using the 3G network. Obviously 3G will not be a driver of demand or a useful business tool while these price levels continue. However, one carrier at the date of writing this chapter, is offering a capped $79 monthly call plan including $500 worth of free data downloads, which is starting to bring 3G into a competitive space for small business use and it could be a useful tool for SMEs and the farming community.

The availability of both 3G and high speed broadband fibre connections, or at least ADSL2, in combination should be considered to be the base scenario for acceptable standards of connectivity across Australia.

7.3 Lost business use of ICT, the huge cost of Australia's telecommunications imbroglio

From the analysis earlier in this chapter, the key issues are as follows.

7.3.1 Constraint of business activities and opportunities

The World Bank has estimated that firms that use ICT grow faster, invest more and are more productive and profitable than firms that do not. They quantify this improvement as, for example, sales growing 3.4 per cent faster and value added per employees being $3,400 greater among developing country firms that use email to communicate with clients and suppliers. As a result profits are substantially higher among firms using ICT.

The costs of inferior internet access

The costs of poor access to the internet for Australian businesses have risen as Australia's telecommunications imbroglio continues to constrain business activity. To make matters worse, progress towards delivering cost competitive, world best practice broadband speeds to non-metropolitan Australia over the last 12 months can, at best, be described as slow.

Table 7.4 shows updated costs to SOR regions for mid 2007 for inferior internet access compared to best practice regions of Melbourne Inner and Global Sydney. The estimates were obtained by reviewing last years calculations in terms of the relative internet access quality and reviewing these against the likelihood of business opportunities lost. Not surprisingly, the economic cost of sustained inferior internet access continues to rise with a total economic cost of $3.2 billion in 2006 prices and an employment loss of 33,000. These jobs would tend to be in more skilled forms of employment and assist with 21C skills formation.

Table 7.4 SOR region economic cost of sustained inferior quality internet access as at September 2007

	Value added impact (2006 $m)	Total direct and indirect employment
NSW Far and North West	89.6	1160
NSW Hunter	67.0	738
NSW Illawarra	18.3	212
NSW Murrumbidgee	91.7	1200
NSW Murray	51.9	668
NSW Mid North Coast	64.1	885
NSW North	110.4	1491
NSW Richmond-Tweed	61.1	853
NSW South-East	39.0	556
NSW Central Coast	17.2	207
Global Sydney	0.0	0
Sydney Inner West	0.0	0
Sydney Outer North	1.7	17
Sydney Outer South West	9.1	114
Sydney Outer West	9.1	117
Sydney Mid West	4.5	53
Sydney South	0.2	3
Melbourne East	1.5	16
VIC Gippsland	202.4	1665
VIC Barwon	25.5	318
VC Goulburn	137.1	1776
Melbourne Inner	0.0	0
VIC Loddon	32.9	434
VIC Mallee-Wimmera	96.9	1093
Melbourne North	7.1	88
VIC Ovens-Hume	29.9	396
Melbourne South	0.0	0
Melbourne West	8.2	101
VIC West	78.1	1018
Melbourne Westport	22.3	297
VIC Central Highlands	20.7	283
QLD Pastoral	46.8	610
QLD Agricultural SW	93.1	1309
QLD Far North	63.8	855
QLD Fitzroy	68.9	674
QLD Mackay	130.7	1160
QLD North West	34.0	218
QLD North	20.1	248
QLD Wide Bay-Burnett	94.6	1322
QLD West Moreton	26.6	353
QLD Gold Coast	18.2	239
QLD Sunshine Coast	13.4	182
Brisbane North	1.2	19
Brisbane City	0.0	0

Table 7.4	SOR region economic cost of sustained inferior quality internet access as at September 2007 (continued)	
	Value added impact (2006 $m)	**Total direct and indirect employment**
Adelaide Central	0.4	2
SA Eyre and Yorke	133.0	924
SA Murraylands	66.0	569
Adelaide Plains	9.6	79
SA South East	62.4	470
Adelaide Outer	34.3	278
WA Pilbara-Kimberly	235.0	586
WA Gascoyne-Goldfields	162.7	1282
WA Wheatbelt-Great Southern	166.9	2097
WA Peel-South West	73.2	816
Perth Central	0.0	0
Perth Outer North	4.5	63
Perth Outer South	2.5	33
TAS Hobart-South	38.8	486
TAS North West	42.4	622
TAS North	40.1	551
Darwin	54.7	551
NT Lingiari	142.2	826
ACT	0.2	2
Australia	**3177.8**	**33180**

The knowledge economy is constrained by lack of high speed broadband

High speeds and world's best practice standards in terms of broadband connectivity will make possible new services that will save billions of dollars of tax payers' money and reduce costs, including costs to local government. Services such as e-medicine and e-education are examples of services that have the capacity to create enormous benefits in terms of cost savings and improvements in social equality and education.

For both health services and education the need for change is driven by the cost of traditional infrastructure and by increasing demand. The ageing population and access to health services is a particular issue of concern. The need for greater flexibility in the delivery of health services and education will continue to grow because of the benefits that flexibility will deliver in terms of cost savings and service improvements.

In education, the changing nature of employment and technology continues to drive the increasing importance of lifelong learning. Dr Marvin Cetron in the United States estimates that, on average, people change careers every ten years, making lifelong learning strategies increasingly relevant to individuals and business alike. The pace of change is likely to increase.

In health, ageing is increasing pressure on existing health services. Improved online medical information systems have the capacity to improve the quality of many lives.

Paul Budde, Australia's leading telecommunications analyst, estimates that 3,600 people die each year in Australia because of the difficulty in accessing information in terms of complex or rare health emergencies. Paper based information files are hard to access quickly so it is likely that e-medicine information services would have the capacity to improve the standard of response to many health emergencies. He goes on to argue that cost savings provided by online video monitoring of, and medical communications for, home based patients would save billions of dollars in health costs, and estimates that these and other health related savings could be as high as $30 billion over a ten year period . Such services need high speeds and 100 per cent coverage, but savings would quickly overtake the costs of providing high standard telecommunications links.

To date, there has been a failure to deliver equitable broadband coverage and the adjustments needed in the health and related insurance systems to encourage the development of effective e-health / e-medicine services. The implications for local government will also become increasingly stark if these issues are not resolved. Inevitably there will be cost shifting issues associated with failure to adapt to the information age. For patients, improved telecommunications promise major benefits in terms of convenience, safety and the ability to receive medical advice and monitoring at home. Other benefits for the patient will include cost savings and reduced need to travel to distant hospitals. There is also a considerable, but unmeasured benefit, in reducing the levels of greenhouse emissions from the reduction in health related travel.

Paul Budde also notes that chronically ill people tend to suffer financial hardship and, and a result, are the least likely to be able to afford broadband connections. The policy issue here is that medical insurance and government policy do not recognise the need for subsidy of broadband services to the chronically ill. This subsidy would cost far less than the traditional ways of treating such patients with frequent visits to hospitals. Such policy shortcomings are all part of Australia's telecommunications imbroglio.

7.3.2 Poor standards of connectivity also constrain innovation in adapting to climate change and reducing greenhouse emissions

The telecommunications sector, through the deployment of smart grids, has a major role to play in managing levels of greenhouse emissions, both for households and industry. Paul Budde describes a smart grid as "something that can be compared with a modern IP-based broadband telecommunications network. It is an intelligent, managed, controlled, and ultimately self-healing IP overlay on top of the existing electric distribution network, capable of closely matching supply with demand while improving efficiency and reliability".

Smart grids create the following advantages.

1. Provide the opportunity to produce intelligence reports and information.

2. Smart meters for improved management of energy use including demand side management, allow customers to adjust energy use to the current national electricity market price.

3. Customer management of energy portfolio across renewable and other energy suppliers can become more rational.

4. Excess capacity on smart grids can be used to deliver high speed broadband services.

Telstra too, has recognised the importance of telecommunications systems in delivering reduced greenhouse emissions. In its report, *Towards a high-bandwidth, low carbon future* (released in mid October 2007), Telstra estimates that telecommunications networks have the capacity to reduce national emissions by around 5 per cent with cost savings in the order of $6.6 billion each year with the value of carbon credits created somewhere between $270 million and $1.2 billion depending on the price of carbon.

Telstra's carbon opportunity types	Percentage of national emissions saved
Increased use of renewable energy	1.81
Personalised public transport	0.70
De-centralised business district	0.55
Presence based power	0.53
Real time freight management	0.52
On live high definition video conferencing	0.43
Remote appliance power management	0.33
TOTAL	**4.87**

Briefly, the definitions of Telstra's carbon opportunity types in telecommunications use are:

- increased use of renewable energy – links to renewable energy suppliers to manage types of energy supply and loads;
- personalised public transport – Wireless-broadband facilitation of multi-network, multi-user public transport, extending the catchment of other public transport systems such as bus and rail;
- de-centralised business district – because of improved telecommunications systems improved options to work from home office or in regional micro-offices to minimise commuting;
- presence based power – devices that deactivate power in empty offices and meeting rooms etc when the occupant leaves;
- real time freight management – using wireless-broadband to monitor freight vehicles to ensure most efficient loading of freight;
- on live high definition video conferencing – more meetings online, reducing at least some long distance short duration travel; and
- remote appliance power management – central control of energy systems such as switching off standby mode.

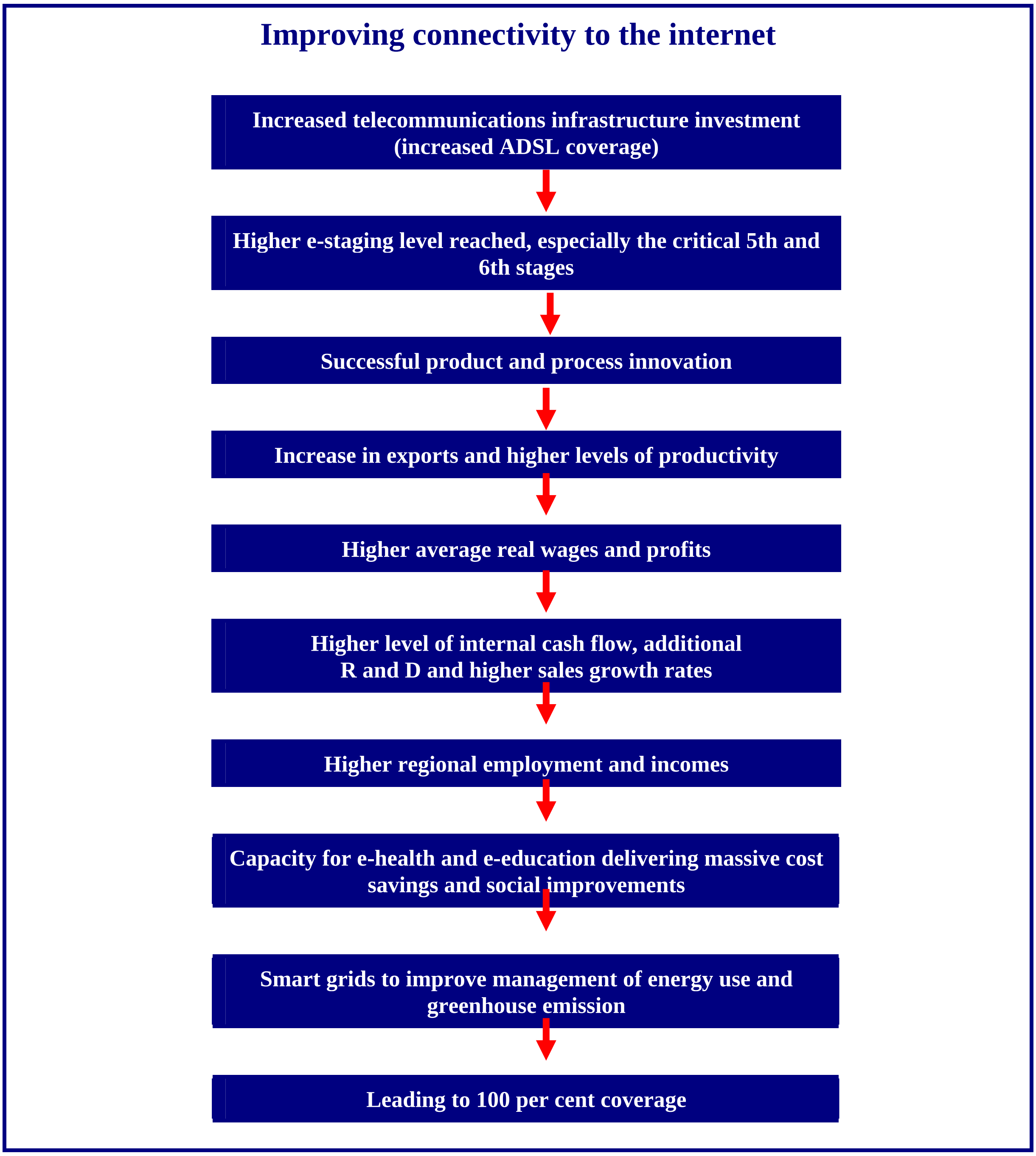
The report, Towards a high-bandwidth, low carbon future, can be obtained from Telstra.

***Do not leave appliances on standby*. The increasing number of electrical appliances available to consumers is driving up domestic energy use. Televisions, if we assume they are used actively for an average of three hours per day, will use an additional 40 per cent of energy in standby mode during remaining 21 hours. Think about all other appliances on standby.**

7.3.3 What's in store over the next few months?

It is probably correct to say that Australia is positioned, once the outstanding issues between the Commonwealth Government and telecommunications providers are resolved, to improve broadband speeds fairly quickly. This particularly relates to the roll-out of ADSL2 services for which much of the infrastructure already exists. This would bring Australia's broadband speeds closer to those currently available in the UK. It is frustrating and extremely costly that policy issues, rather than infrastructure issues, are delaying this next step. Work will need to be done in delivering the next step after ADSL2.

The diagram below demonstrates the compounding impact of high quality broadband infrastructure.



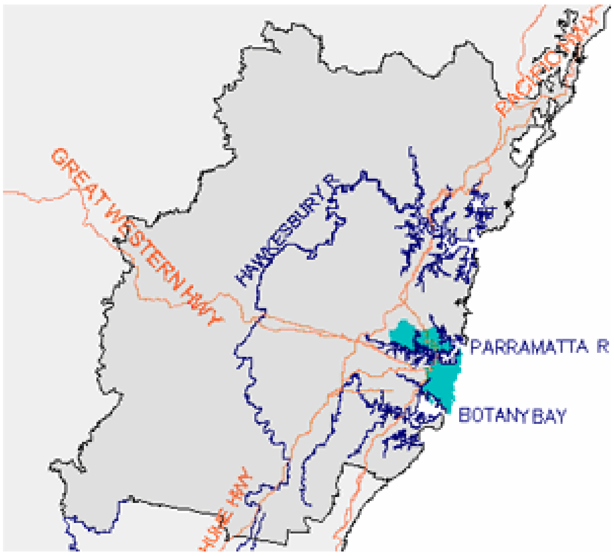
This year's SOR has identified $3.2 billion and 33,000 jobs lost to Australian businesses in 12 months due to inadequate broadband infrastructure and the possibility of an estimated $40 to $50 billion in savings from e-health/e-medicine and smart networks over 10 years. There are also lost opportunities to reduce greenhouse emissions because of the failure to implement knowledge economy advances to lower levels of health related transport and to introduce smart grids to reduce energy consumption. SOR finds that telecommunications issues are still core to the strategic needs of the nation, and not as policy has suggested, a sector in which mums and dads invest.

This means the cost to the nation of inadequate broadband distribution and speeds is approximately $8 billion per annum. This figure represents just under 1 per cent of Australia's GDP.

APPENDIX 1

REGIONAL INDICATORS

Global Sydney



Global Sydney comprises the CBD, the inner North Shore, the eastern suburbs and the inner southern suburbs. The inner North Shore includes a spine of city-centre activity along the ridge from North Sydney to Chatswood, and otherwise comprises high-status suburbs. The eastern suburbs are nearly all high-status and include many areas with high dwelling densities. Some of the inner southern suburbs are still low status, but at high-status land values and with office invasion proceeding. The port has been moved from its proximity to the city centre, but is still within the region, sharing a crowded site with the airport. Global Sydney is Australia's provider of central city services par excellence.

Major centres:

Sydney, Chatswood, Bondi Junction

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	699	711	719	726	737	748	1.7%	1.2%	1.0%	1.4%	1.5%	1.3%	1.5%
No. Households	291	295	299	302	303	303	1.4%	1.2%	1.0%	0.4%	0.1%	1.2%	0.3%
NIEIR Workforce	390	399	405	415	427	433	2.3%	1.6%	2.4%	3.0%	1.4%	2.1%	2.2%
NIEIR Employment	370	379	387	398	412	417	2.4%	2.1%	2.9%	3.4%	1.3%	2.5%	2.3%
NIEIR Unemployment	19.7	19.6	18.0	16.7	15.6	16.3	-0.4%	-8.4%	-7.0%	-6.4%	4.4%	-5.4%	-1.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	5.1%	4.9%	4.4%	4.0%	3.7%	3.8%	-0.1	-0.5	-0.4	-0.4	0.1	-0.3	-0.1
Headline U/E	5.0%	4.8%	4.3%	3.7%	3.5%	3.6%	-0.3	-0.5	-0.6	-0.2	0.1	-0.4	0.0
NIEIR Structural U/E	6.7%	6.9%	6.6%	6.3%	5.8%	5.8%	0.2	-0.3	-0.3	-0.5	0.0	-0.2	-0.2

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	22,516	22,694	23,597	25,494	27,219	28,460	32,229	31,927	32,820	35,102	36,949	38,112	4.2%	5.7%
Taxes Paid	6,651	7,141	7,436	8,287	8,855	9,376	9,521	10,046	10,342	11,410	12,021	12,556	7.6%	6.4%
Benefits	1,948	1,966	2,134	2,203	2,187	2,258	2,789	2,765	2,968	3,033	2,968	3,024	4.2%	1.2%
Business Income	3,628	4,069	4,396	4,642	5,162	5,948	5,193	5,725	6,115	6,392	7,007	7,965	8.6%	13.2%
Interest Paid	1,222	1,624	2,146	2,684	3,221	3,910	1,749	2,285	2,985	3,695	4,372	5,236	30.0%	20.7%
Property Income	6,052	6,494	7,377	8,272	9,221	10,403	8,663	9,137	10,260	11,390	12,518	13,931	11.0%	12.1%
Disposable Income	27,231	27,361	28,805	30,623	32,943	35,169	38,979	38,494	40,062	42,163	44,719	47,096	4.0%	7.2%
Rank							1	1	1	1	1	1		
%Rank #1							100%	100%	100%	100%	100%	100%		
Business Value Added	26,144	26,763	27,994	30,136	32,381	34,408	37,422	37,652	38,934	41,493	43,956	46,077	4.9%	6.9%
Rank							1	1	1	1	1	1		
%Rank #1							100%	100%	100%	100%	100%	100%		
Business Productivity							69,677	69,661	71,371	74,813	76,470	79,536	2.4%	3.1%
Rank							1	1	1	1	1	1		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.06%	0.08%
Disability Support (aged 20-24)	0.09%	0.14%
Disability Support (aged 25+)	1.92%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.09%	0.21%
Parenting Payment - Single (aged 25+)	0.65%	1.64%
Unemployed Long Term	0.70%	1.20%
Unemployed Short Term	0.57%	0.79%
Youth Allowance - Non Student	0.09%	0.32%
Youth Allowance - Student	0.89%	1.27%

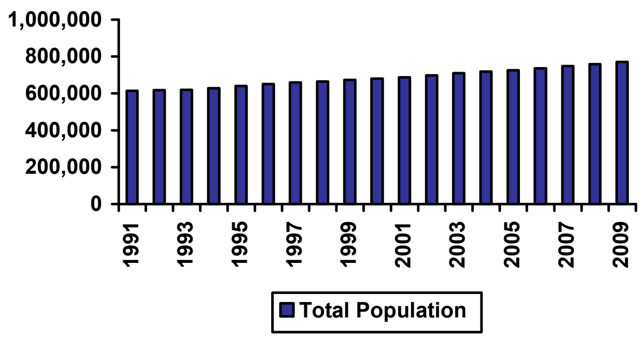
Cash Benefits Share of Disposable Income	Share	Rank
2002	7.2%	63
2003	7.2%	63
2004	7.4%	63
2005	7.2%	63
2006	6.6%	64
2007	6.4%	63

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	82.6	36
Share of population under 55	77.8	20
Aged migration	5.5	12
Population growth rate, 55+	1.5	56
Demographic stress	19.9	23
Dominant locations	100.0	1
Family / Youth migration	8.4	2
Fertility bounce, 1996-2005	0.1	2
Fertility, babies % pop, 2005	1.2	50
Fertility, babies % pop, 2005	66.8	12
Working elderly	31.2	11

Local Government Level		Score	Rank
Most Sustainable	Sydney (C)	86.7	3
Least Sustainable	Waverley (A)	45.8	390

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.13%	61
2002	1.10%	59
2003	1.15%	48
2004	1.16%	52
2005	1.22%	34
2006	1.19%	50
Bounce 2004-05	0.06%	11
Actual Change 2004-05 (Number)	495	2
Bounce 2005-06	-0.02%	61
Actual Change 2005-06 (Number)	-42	60

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$5	62
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,100	17
Water Security Cost	$434	45
Total	$1,540	59

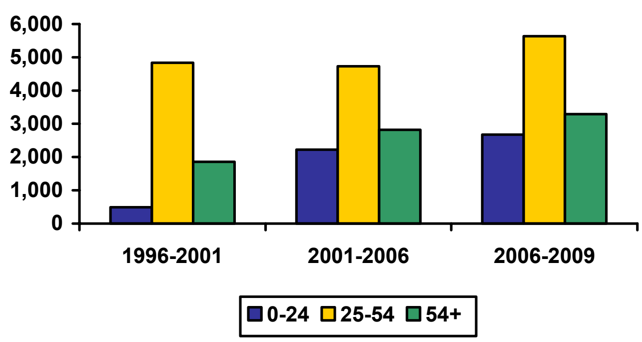
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.01%	62
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.07%	62
Water Security Cost	0.42%	60
Total	1.50%	63

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.00%	62
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.09%	64
Water Security Cost	0.04%	62
Total	0.13%	64

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	29.3%	28.1%	27.7%	27.5%
Age 25-55	49.2%	50.2%	50.0%	50.0%
Age 55+	21.5%	21.8%	22.2%	22.5%
Population Change (average between years)				
Age 0-24		495	2,219	2,676
Age 25-55		4,839	4,729	5,631
Age 55+		1,856	2,815	3,293
Average Age	38.3	38.6	38.9	38.1
Average Annual Growth		1.1%	1.4%	1.6%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	1081	1171	2	1	93%	100%
Value of Property and Unincorporated Business	658	631	2	2	91%	97%
Value of Financial Assets	488	722	5	1	73%	100%
Value of Household Liabilities	65	182	49	4	53%	80%
Disposable Income after Debt Service Costs	94	103	3	2	91%	91%
Household Debt Service Ratio	8%	18%	63	41	40%	69%
Household Debt to Gross Income Ratio	0.57	1.29	63	41	40%	69%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	1,477	1,565	1,186	1,046	990	-31%
Non Residential	2,706	1,946	1,957	1,769	1,856	-4%
Total	4,182	3,526	3,143	2,815	2,846	-17%
Value per capita $2004/05						
Residential	2,157	2,148	1,610	1,413	1,331	-32%
Non Residential	4,022	2,727	2,656	2,390	2,496	-8%
Total	6,267	4,909	4,266	3,803	3,827	-19%
Rank (value per capita)						
Residential	5	5	23	27	31	
Non Residential	2	2	2	4	4	
Total	2	2	2	6	6	

RAINFALL

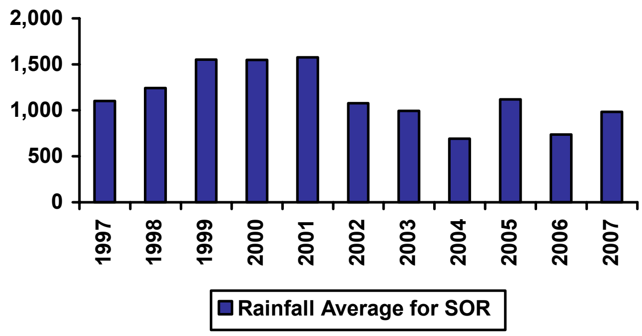
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,101	1,244	1,552	1,547	1,575	1,075	994	692	1,116	736	984
Rank	11	4	9	16	10	5	7	24	7	20	8

PATENT APPLICATIONS

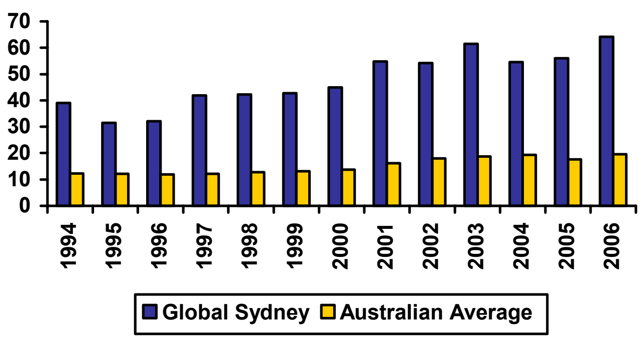
	No	Aust Avg	Rank
Average p.a. (1994-2005)	328.67	46.04	1
Average p.a. per capita	47.68	12.17	2
Hi Tech p.a. (1994-2005)	139.94	12.38	1
Hi Tech p.a. per capita	20.23	2.98	2
Info. Tech p.a. (1994-2005)	58.50	4.75	1
Info. Tech p.a. per capita	8.38	1.13	3
Average per capita (1994-2000)	41.17	10.48	2
Average per capita (2000-2005)	57.55	14.53	3
2000-05 avg./1994-00 avg.	1.40	1.36	25

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



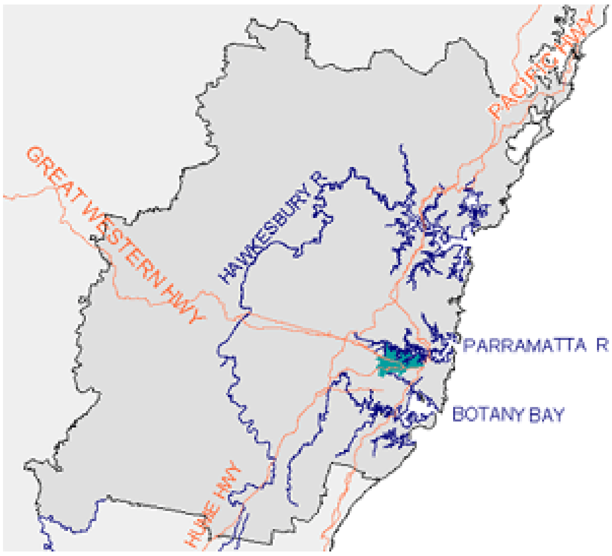
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	22.8	22.8	23.0	22.0
Rank	33	33	29	44
Days Over 35C	7	8	4	7
Rank	53	40	56	50

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	4121
Rank	1

Sydney Inner West



The Inner West of Sydney comprises a group of suburbs immediately west of the CBD, south of the Harbour, and east of the north-south belt of cemeteries and former industries which now houses Olympic Park. Though it had its share of port functions and manufacturing, the Inner West was not as intensely devoted to manufacturing as the LGAs to its immediate south. Leichhardt has high residential densities because it was originally developed when walking was the main means of transport. By contrast, Strathfield was originally developed with large lots for mansions. The region has gentrified and gained a modest overflow of central city functions from Global Sydney.

Major centres:

Burwood

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
	229	232	235	239	242	246	1.4%	1.4%	1.4%	1.6%	1.5%	1.4%	1.5%
No. Households	89	91	92	94	95	95	1.4%	1.7%	1.4%	1.0%	0.7%	1.5%	0.8%
NIEIR Workforce	123	125	127	128	130	134	1.2%	1.7%	0.9%	1.8%	2.9%	1.3%	2.4%
NIEIR Employment	117	119	121	123	126	130	2.0%	1.3%	1.9%	2.4%	2.5%	1.7%	2.5%
NIEIR Unemployment	6.1	5.2	5.8	4.7	4.0	4.5	-14.3%	11.4%	-19.8%	-14.8%	14.3%	-8.5%	-1.4%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	5.0%	4.2%	4.6%	3.6%	3.1%	3.4%	-0.8	0.4	-0.9	-0.6	0.3	-0.4	-0.1
Headline U/E	4.3%	3.9%	4.4%	3.5%	3.0%	3.4%	-0.4	0.5	-0.9	-0.5	0.4	-0.3	0.0
NIEIR Structural U/E	7.9%	8.1%	7.6%	7.4%	7.1%	6.9%	0.2	-0.4	-0.2	-0.3	-0.2	-0.1	-0.3

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	6,569	6,607	6,851	7,291	7,761	8,100	28,674	28,457	29,111	30,561	32,032	32,980	3.5%	5.4%
Taxes Paid	1,788	1,923	1,992	2,149	2,302	2,419	7,803	8,281	8,463	9,010	9,500	9,848	6.3%	6.1%
Benefits	727	732	795	827	827	848	3,175	3,154	3,378	3,468	3,414	3,453	4.4%	1.2%
Business Income	880	1,009	1,079	1,124	1,269	1,478	3,840	4,347	4,587	4,712	5,236	6,019	8.5%	14.7%
Interest Paid	419	520	693	849	1,003	1,216	1,828	2,241	2,947	3,557	4,141	4,952	26.6%	19.7%
Property Income	1,351	1,387	1,560	1,708	1,893	2,140	5,898	5,974	6,631	7,159	7,812	8,713	8.1%	11.9%
Disposable Income	7,530	7,482	7,774	8,142	8,685	9,201	32,873	32,224	33,033	34,128	35,846	37,463	2.6%	6.3%
Rank							6	5	6	6	5	5		
%Rank #1							84%	84%	82%	81%	80%	80%		
Business Value Added	7,448	7,617	7,930	8,415	9,029	9,578	32,513	32,803	33,698	35,272	37,269	38,999	4.2%	6.7%
Rank							5	5	5	5	4	4		
%Rank #1							87%	87%	87%	85%	85%	85%		
Business Productivity							62,581	62,753	64,492	66,938	68,564	71,367	2.3%	3.3%
Rank							5	5	5	5	5	5		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.06%	0.08%
Disability Support (aged 20-24)	0.09%	0.14%
Disability Support (aged 25+)	2.08%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.09%	0.21%
Parenting Payment - Single (aged 25+)	0.82%	1.64%
Unemployed Long Term	0.76%	1.20%
Unemployed Short Term	0.60%	0.79%
Youth Allowance - Non Student	0.10%	0.32%
Youth Allowance - Student	1.08%	1.27%

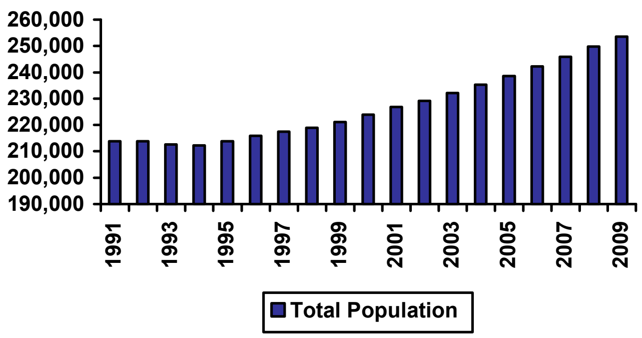
Cash Benefits Share of Disposable Income	Share	Rank
2002	9.7%	58
2003	9.8%	59
2004	10.2%	59
2005	10.2%	58
2006	9.5%	58
2007	9.2%	59

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	83.7	32
Share of population under 55	77.8	20
Aged migration	5.0	17
Population growth rate, 55+	1.0	63
Demographic stress	32.7	6
Dominant locations	100.0	2
Family / Youth migration	5.3	7
Fertility bounce, 1996-2005	0.1	1
Fertility, babies % pop, 2005	1.3	29
Fertility, babies % pop, 2005	70.5	8
Working elderly	26.5	38

Local Government Level		Score	Rank
Most Sustainable	Concord (A)	79.0	24
Least Sustainable	Ashfield (A)	43.6	406

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.16%	56
2002	1.22%	39
2003	1.24%	28
2004	1.24%	30
2005	1.31%	20
2006	1.31%	29
Bounce 2004-05	0.07%	4
Actual Change 2004-05 (Number)	212	9
Bounce 2005-06	0.00%	55
Actual Change 2005-06 (Number)	50	52

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$0	64
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,111	16
Water Security Cost	$434	46
Total	$1,545	58

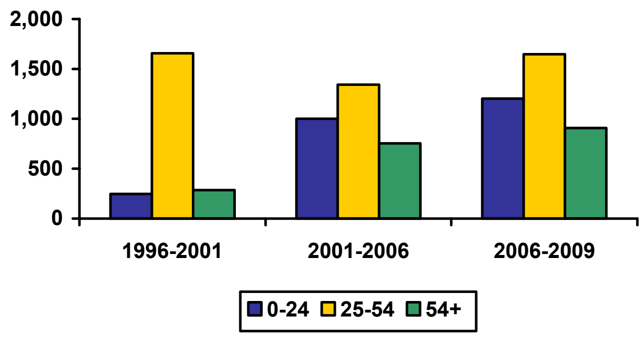
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.00%	64
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.30%	53
Water Security Cost	0.51%	55
Total	1.80%	61

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.00%	64
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.14%	59
Water Security Cost	0.06%	60
Total	0.20%	62

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	28.9%	28.1%	28.4%	28.5%
Age 25-55	48.6%	49.9%	49.5%	49.2%
Age 55+	22.5%	22.0%	22.2%	22.3%
Population Change (average between years)				
Age 0-24		245	999	1,201
Age 25-55		1,657	1,344	1,648
Age 55+		286	753	907
Average Age	38.6	38.9	39.0	38.7
Average Annual Growth		1.0%	1.3%	1.5%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	758	779	4	4	65%	67%
Value of Property and Unincorporated Business	557	551	4	5	77%	84%
Value of Financial Assets	280	413	14	7	42%	57%
Value of Household Liabilities	79	185	29	3	64%	82%
Disposable Income after Debt Service Costs	82	86	7	7	79%	76%
Household Debt Service Ratio	10%	21%	56	22	54%	81%
Household Debt to Gross Income Ratio	0.77	1.50	56	22	54%	81%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	402	441	387	368	353	-16%
Non Residential	229	182	205	232	240	24%
Total	632	659	591	599	593	-10%
Value per capita $2004/05						
Residential	1,675	1,941	1,596	1,498	1,422	-22%
Non Residential	1,033	780	844	945	966	18%
Total	2,704	2,774	2,440	2,443	2,388	-13%
Rank (value per capita)						
Residential	12	10	24	23	26	
Non Residential	9	17	29	21	23	
Total	12	10	22	22	22	

RAINFALL

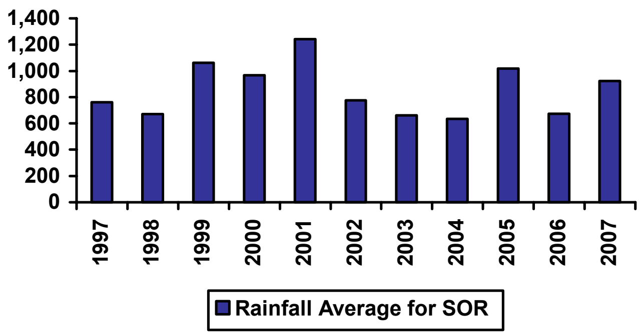
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	760	671	1,061	967	1,243	774	661	635	1,017	674	923
Rank	30	31	19	41	27	24	23	34	11	30	9

PATENT APPLICATIONS

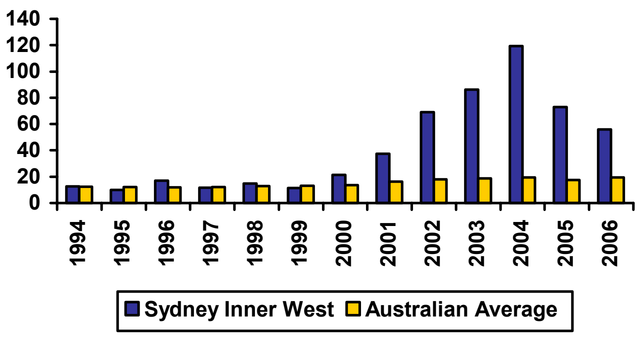
	No	Aust Avg	Rank
Average p.a. (1994-2005)	96.11	46.04	10
Average p.a. per capita	41.53	12.17	3
Hi Tech p.a. (1994-2005)	33.41	12.38	9
Hi Tech p.a. per capita	14.45	2.98	4
Info. Tech p.a. (1994-2005)	27.18	4.75	3
Info. Tech p.a. per capita	11.66	1.13	1
Average per capita (1994-2000)	17.07	10.48	9
Average per capita (2000-2005)	73.46	14.53	2
2000-05 avg./1994-00 avg.	4.30	1.36	1

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



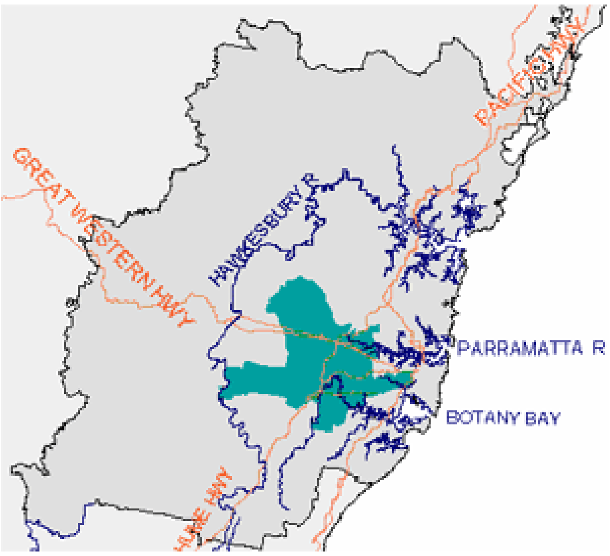
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	23.1	23.1	23.5	22.7
Rank	31	31	26	36
Days Over 35C	8	8	4	6
Rank	47	40	58	53

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	462
Rank	18

Sydney Mid West



The Mid West of Sydney is a large region, stretching west from Marrickville, and including several important urban centres which are important centres of retailing. There has been some office development particularly in Parramatta. Dates of urbanisation range from the nineteenth century to the late twentieth, but socio-economic status runs middle to low throughout, with considerable ethnic diversity. The region includes a number of important manufacturing areas, but also generates considerable commuter traffic to Global Sydney.

Major centres:

Bankstown, Parramatta, Liverpool, Blacktown

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	1,305	1,311	1,319	1,331	1,340	1,356	0.4%	0.6%	0.9%	0.7%	1.1%	0.6%	0.9%
No. Households	425	429	432	435	437	438	0.8%	0.8%	0.7%	0.4%	0.3%	0.8%	0.3%
NIEIR Workforce	627	634	638	641	643	651	1.1%	0.6%	0.5%	0.4%	1.2%	0.7%	0.8%
NIEIR Employment	569	580	584	593	596	599	1.9%	0.7%	1.5%	0.5%	0.5%	1.4%	0.5%
NIEIR Unemployment	57.6	54.0	53.8	47.7	47.4	52.2	-6.3%	-0.4%	-11.2%	-0.8%	10.3%	-6.1%	4.6%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.2%	8.5%	8.4%	7.5%	7.4%	8.0%	-0.7	-0.1	-1.0	-0.1	0.7	-0.6	0.3
Headline U/E	7.1%	6.8%	6.8%	6.1%	6.0%	6.6%	-0.2	0.0	-0.7	-0.1	0.6	-0.3	0.2
NIEIR Structural U/E	15.3%	15.3%	15.1%	14.8%	14.7%	14.5%	0.0	-0.2	-0.3	-0.1	-0.2	-0.1	-0.2

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	25,873	26,049	26,762	27,940	28,414	28,971	19,824	19,874	20,287	20,999	21,197	21,392	2.6%	1.8%
Taxes Paid	5,781	6,151	6,206	6,502	6,521	6,523	4,429	4,693	4,704	4,887	4,865	4,817	4.0%	0.2%
Benefits	5,098	5,160	5,678	5,878	5,714	5,955	3,906	3,937	4,304	4,418	4,263	4,397	4.9%	0.7%
Business Income	2,379	2,582	2,741	2,742	2,717	2,834	1,823	1,970	2,078	2,061	2,027	2,092	4.9%	1.7%
Interest Paid	2,147	2,540	3,227	3,710	4,165	4,943	1,645	1,938	2,446	2,789	3,107	3,650	20.0%	15.4%
Property Income	3,548	3,589	3,843	4,110	4,374	4,820	2,719	2,738	2,913	3,089	3,263	3,559	5.0%	8.3%
Disposable Income	29,864	29,506	30,333	31,235	31,408	32,026	22,882	22,512	22,994	23,476	23,431	23,648	1.5%	1.3%
Rank							34	33	40	45	47	46		
%Rank #1							59%	58%	57%	56%	52%	50%		
Business Value Added	28,251	28,631	29,503	30,682	31,130	31,805	21,647	21,844	22,365	23,060	23,223	23,484	2.8%	1.8%
Rank							30	26	31	31	30	27		
%Rank #1							58%	58%	57%	56%	53%	51%		
Business Productivity							48,893	48,634	49,778	51,144	51,406	52,286	1.5%	1.1%
Rank							23	24	26	26	28	30		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.13%	0.14%
Disability Support (aged 25+)	3.21%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.22%	0.21%
Parenting Payment - Single (aged 25+)	1.98%	1.64%
Unemployed Long Term	1.63%	1.20%
Unemployed Short Term	1.09%	0.79%
Youth Allowance - Non Student	0.35%	0.32%
Youth Allowance - Student	1.75%	1.27%

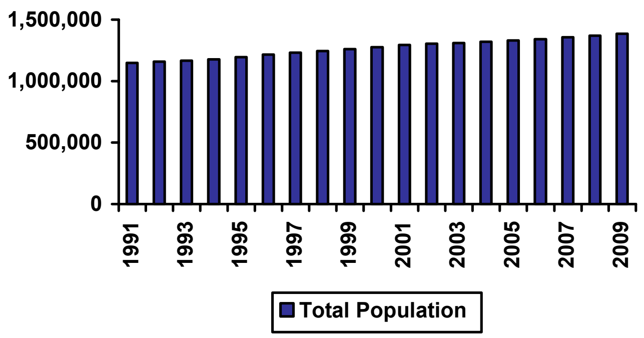
Cash Benefits Share of Disposable Income	Share	Rank
2002	17.1%	26
2003	17.5%	26
2004	18.7%	24
2005	18.8%	21
2006	18.2%	19
2007	18.6%	21

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	75.9	43
Share of population under 55	80.2	9
Aged migration	3.7	51
Population growth rate, 55+	2.0	47
Demographic stress	26.8	13
Dominant locations	100.0	2
Family / Youth migration	3.3	18
Fertility bounce, 1996-2005	-0.1	19
Fertility, babies % pop, 2005	1.5	8
Fertility, babies % pop, 2005	63.5	22
Working elderly	22.2	50

Local Government Level		Score	Rank
Most Sustainable	Liverpool (C)	81.9	14
Least Sustainable	Fairfield (C)	42.6	415

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.50%	14
2002	1.53%	5
2003	1.57%	5
2004	1.56%	5
2005	1.56%	4
2006	1.53%	8
Bounce 2004-05	0.00%	30
Actual Change 2004-05 (Number)	120	18
Bounce 2005-06	-0.03%	62
Actual Change 2005-06 (Number)	-199	64

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$28	58
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,033	33
Water Security Cost	$433	47
Total	$1,495	61

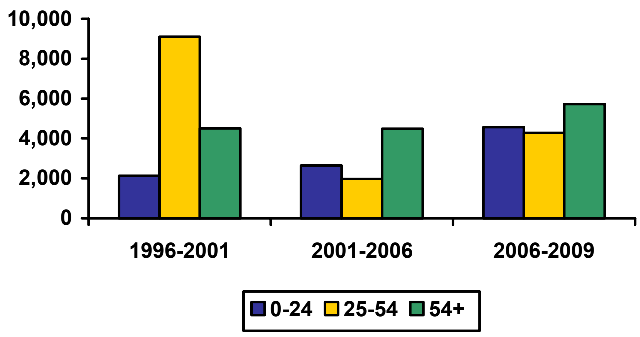
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.05%	56
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.67%	31
Water Security Cost	0.70%	43
Total	2.42%	53

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.01%	55
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.28%	22
Water Security Cost	0.12%	38
Total	0.41%	46

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	37.6%	36.2%	35.9%	35.8%
Age 25-55	44.3%	45.1%	44.3%	43.8%
Age 55+	18.1%	18.7%	19.8%	20.4%
Population Change (average between years)				
Age 0-24		2,132	2,645	4,566
Age 25-55		9,108	1,978	4,287
Age 55+		4,508	4,489	5,720
Average Age	34.6	35.3	36.3	36.4
Average Annual Growth		1.3%	0.7%	1.1%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	381	369	23	40	33%	32%
Value of Property and Unincorporated Business	330	361	9	19	46%	55%
Value of Financial Assets	139	168	43	51	21%	23%
Value of Household Liabilities	89	160	11	9	73%	71%
Disposable Income after Debt Service Costs	65	62	21	35	63%	55%
Household Debt Service Ratio	14%	24%	30	6	75%	94%
Household Debt to Gross Income Ratio	1.07	1.74	30	6	75%	94%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	1,471	1,417	1,196	1,144	1,096	-19%
Non Residential	1,378	1,049	1,392	1,444	1,484	37%
Total	2,849	2,466	2,588	2,588	2,580	5%
Value per capita $2004/05						
Residential	1,181	1,049	892	843	798	-20%
Non Residential	1,095	797	1,038	1,064	1,080	33%
Total	2,346	1,792	1,931	1,907	1,878	6%
Rank (value per capita)						
Residential	31	40	56	55	56	
Non Residential	7	15	17	15	15	
Total	16	37	42	43	45	

RAINFALL

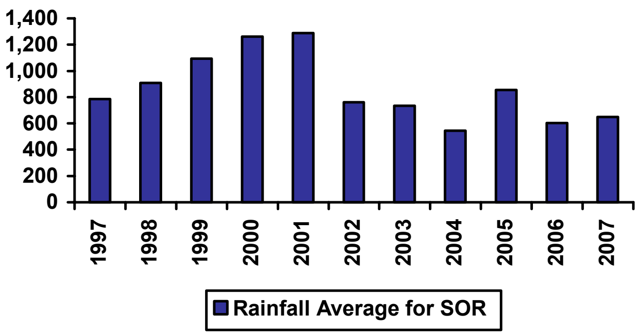
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	786	910	1,093	1,262	1,288	761	734	545	855	602	649
Rank	28	15	18	24	22	26	17	44	20	39	16

PATENT APPLICATIONS

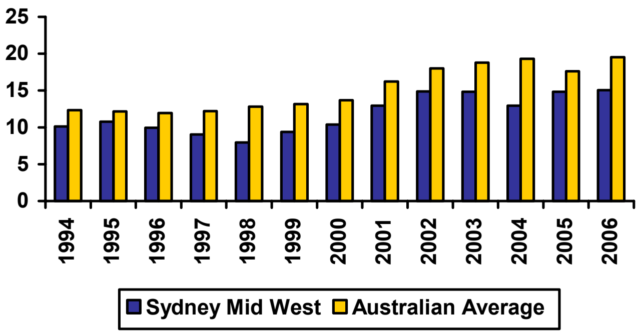
	No	Aust Avg	Rank
Average p.a. (1994-2005)	150.47	46.04	6
Average p.a. per capita	11.78	12.17	17
Hi Tech p.a. (1994-2005)	33.67	12.38	8
Hi Tech p.a. per capita	2.63	2.98	14
Info. Tech p.a. (1994-2005)	12.18	4.75	9
Info. Tech p.a. per capita	0.94	1.13	14
Average per capita (1994-2000)	10.06	10.48	19
Average per capita (2000-2005)	14.26	14.53	15
2000-05 avg./1994-00 avg.	1.42	1.36	22

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



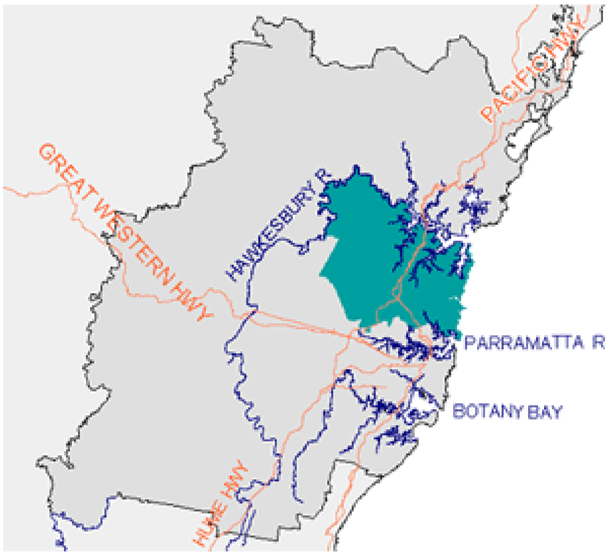
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	23.5	23.6	23.9	23.7
Rank	25	28	22	30
Days Over 35C	15	13	13	15
Rank	31	28	34	35

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	1288
Rank	6

Sydney Outer North



Geographically, the Outer North of Sydney splits into three sub-regions:

- Manly-Warringah-Pittwater are beach suburbs cut-off from the rest of Sydney by Middle Harbour. The attractive location means that these suburbs are generally of high socio-economic status, and a source of commuters to Global Sydney, but the limitations of transport to and from the rest of the metropolitan area mean that these suburbs are to a remarkable degree self-contained as regards retail and other consumer-service functions.
- The classic high-status North Shore rail-commuter suburbs of Ku Ring Gai and Hornsby.
- The rather newer, heavily car-dependent commuter suburbs in Baulkham Hills.

Overall, the region is of high socio-economic status, and its economic base depends on commuting.

Major centres:

Manly, Hornsby, Baulkham Hills

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	645	650	654	660	665	671	0.9%	0.6%	0.8%	0.7%	1.0%	0.8%	0.9%
No. Households	217	221	224	226	227	228	1.8%	1.3%	0.8%	0.3%	0.3%	1.3%	0.3%
NIEIR Workforce	332	336	337	341	343	347	1.2%	0.3%	1.2%	0.6%	1.1%	0.9%	0.9%
NIEIR Employment	318	322	324	329	330	335	1.2%	0.7%	1.3%	0.5%	1.4%	1.1%	0.9%
NIEIR Unemployment	14.1	14.1	13.0	12.8	13.4	12.5	0.0%	-7.5%	-1.4%	4.1%	-6.8%	-3.0%	-1.5%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	4.2%	4.2%	3.9%	3.8%	3.9%	3.6%	0.0	-0.3	-0.1	0.1	-0.3	-0.2	-0.1
Headline U/E	3.4%	3.3%	3.0%	3.1%	3.2%	2.7%	-0.1	-0.3	0.1	0.1	-0.5	-0.1	-0.2
NIEIR Structural U/E	3.7%	3.8%	3.8%	3.6%	3.5%	3.7%	0.1	0.0	-0.1	-0.1	0.2	0.0	0.0

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	18,695	18,720	19,148	20,169	20,443	21,239	28,995	28,779	29,263	30,577	30,762	31,693	2.6%	2.6%
Taxes Paid	5,194	5,559	5,671	6,077	6,121	6,384	8,055	8,546	8,667	9,213	9,210	9,526	5.4%	2.5%
Benefits	1,577	1,602	1,767	1,843	1,816	1,870	2,446	2,462	2,701	2,794	2,732	2,790	5.3%	0.7%
Business Income	2,480	2,776	3,041	3,106	3,258	3,693	3,847	4,268	4,647	4,710	4,902	5,511	7.8%	9.0%
Interest Paid	1,236	1,592	2,086	2,527	2,921	3,545	1,917	2,447	3,188	3,831	4,396	5,290	26.9%	18.4%
Property Income	5,024	5,305	5,834	6,458	6,996	7,789	7,791	8,155	8,915	9,790	10,527	11,623	8.7%	9.8%
Disposable Income	22,019	21,864	22,589	23,575	24,170	25,446	34,149	33,612	34,523	35,742	36,370	37,970	2.3%	3.9%
Rank							5	4	4	5	4	4		
%Rank #1							88%	87%	86%	85%	81%	81%		
Business Value Added	21,176	21,496	22,188	23,275	23,700	24,933	32,842	33,047	33,911	35,287	35,664	37,204	3.2%	3.5%
Rank							4	4	4	4	5	5		
%Rank #1							88%	88%	87%	85%	81%	81%		
Business Productivity							65,707	65,902	67,617	70,228	71,496	73,880	2.2%	2.6%
Rank							2	3	4	3	3	4		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.06%	0.08%
Disability Support (aged 20-24)	0.09%	0.14%
Disability Support (aged 25+)	1.02%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.09%	0.21%
Parenting Payment - Single (aged 25+)	0.59%	1.64%
Unemployed Long Term	0.28%	1.20%
Unemployed Short Term	0.30%	0.79%
Youth Allowance - Non Student	0.04%	0.32%
Youth Allowance - Student	0.77%	1.27%

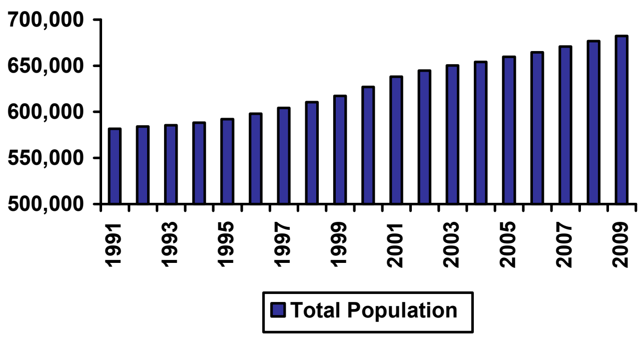
Cash Benefits Share of Disposable Income	Share	Rank
2002	7.2%	62
2003	7.3%	62
2004	7.8%	62
2005	7.8%	62
2006	7.5%	61
2007	7.3%	61

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	90.2	21
Share of population under 55	75.5	27
Aged migration	4.0	37
Population growth rate, 55+	2.2	39
Demographic stress	17.7	27
Dominant locations	100.0	2
Family / Youth migration	4.2	9
Fertility bounce, 1996-2005	0.1	4
Fertility, babies % pop, 2005	1.2	45
Fertility, babies % pop, 2005	66.1	13
Working elderly	36.3	2

Local Government Level		Score	Rank
Most Sustainable	Baulkham Hills (A)	78.8	26
Least Sustainable	Ku-ring-gai (A)	51.1	337

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.20%	52
2002	1.12%	54
2003	1.18%	41
2004	1.20%	41
2005	1.18%	43
2006	1.20%	45
Bounce 2004-05	-0.02%	41
Actual Change 2004-05 (Number)	-43	52
Bounce 2005-06	0.02%	44
Actual Change 2005-06 (Number)	185	23

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$120	49
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,251	4
Water Security Cost	$432	50
Total	$1,804	39

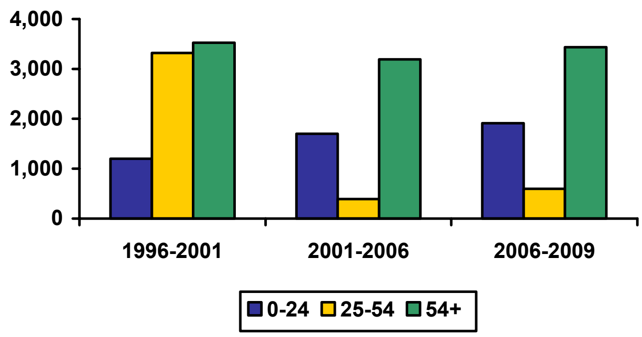
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.12%	53
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.27%	56
Water Security Cost	0.44%	59
Total	1.83%	60

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.01%	54
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.11%	63
Water Security Cost	0.04%	61
Total	0.16%	63

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	34.5%	33.3%	33.2%	33.2%
Age 25-55	43.8%	43.7%	42.2%	41.4%
Age 55+	21.7%	23.0%	24.5%	25.4%
Population Change (average between years)				
Age 0-24		1,197	1,697	1,913
Age 25-55		3,319	394	598
Age 55+		3,523	3,191	3,434
Average Age	37.5	38.1	38.7	38.8
Average Annual Growth		1.3%	0.8%	0.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	1163	1135	1	2	100%	97%
Value of Property and Unincorporated Business	722	653	1	1	100%	100%
Value of Financial Assets	532	709	3	2	80%	98%
Value of Household Liabilities	92	226	9	1	75%	100%
Disposable Income after Debt Service Costs	103	98	1	3	100%	88%
Household Debt Service Ratio	10%	22%	58	13	50%	85%
Household Debt to Gross Income Ratio	0.71	1.57	58	13	50%	85%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	972	1,304	701	690	686	-47%
Non Residential	398	472	493	485	475	3%
Total	1,370	1,656	1,194	1,176	1,160	-29%
Value per capita $2004/05						
Residential	1,545	1,784	1,055	1,033	1,023	-42%
Non Residential	640	724	742	726	708	0%
Total	2,137	2,491	1,797	1,759	1,731	-29%
Rank (value per capita)						
Residential	15	14	48	47	47	
Non Residential	34	25	34	38	45	
Total	22	13	46	48	52	

RAINFALL

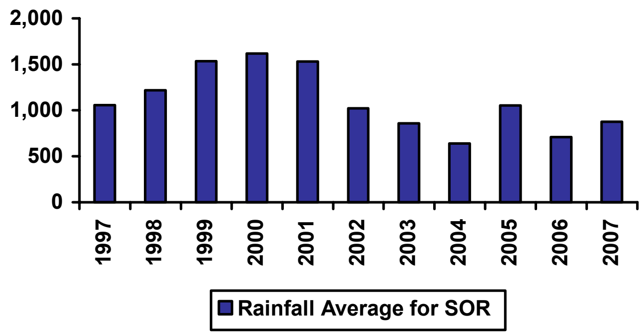
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,055	1,217	1,534	1,616	1,532	1,023	858	641	1,052	707	875
Rank	13	5	10	13	11	7	12	33	9	23	11

PATENT APPLICATIONS

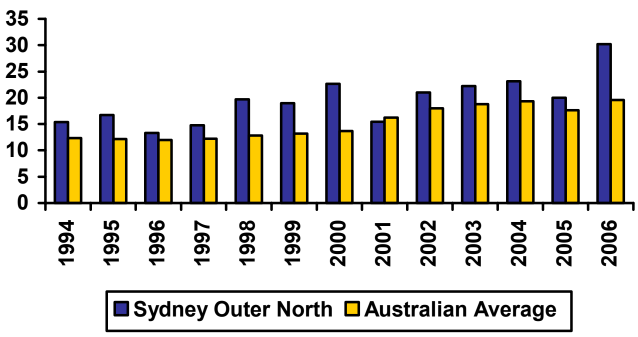
	No	Aust Avg	Rank
Average p.a. (1994-2005)	123.12	46.04	7
Average p.a. per capita	19.50	12.17	9
Hi Tech p.a. (1994-2005)	35.50	12.38	7
Hi Tech p.a. per capita	5.59	2.98	9
Info. Tech p.a. (1994-2005)	14.71	4.75	7
Info. Tech p.a. per capita	2.29	1.13	8
Average per capita (1994-2000)	17.11	10.48	8
Average per capita (2000-2005)	22.01	14.53	11
2000-05 avg./1994-00 avg.	1.29	1.36	35

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



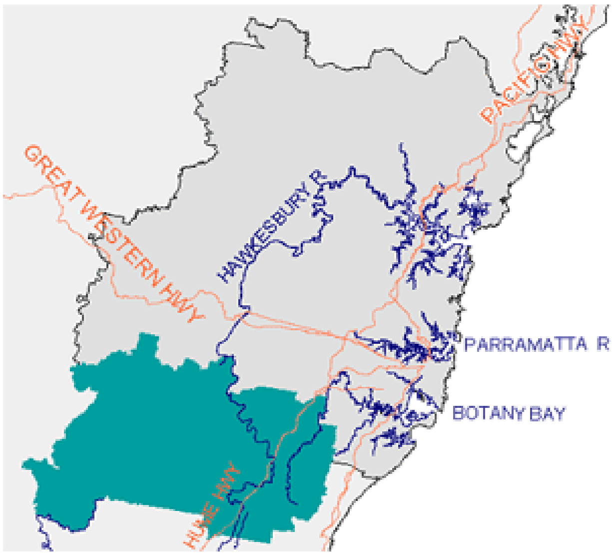
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	22.8	22.8	23.0	21.8
Rank	32	34	30	46
Days Over 35C	11	11	7	11
Rank	41	34	49	40

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	1878
Rank	5

Sydney Outer South West



The Sydney Outer South West, centred on Campbelltown/Macarthur, began its suburban life as a planned and balanced development of housing and manufacturing, and still bears some of the marks of this origin. However, it is mainly a commuter and hobby farm area, with a couple of large collieries for diversity. It shares campuses of the University of Western Sydney with the Sydney Outer West.

Major centres:

Campbelltown

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	236	238	238	239	239	241	0.6%	0.1%	0.4%	0.3%	0.6%	0.4%	0.4%
No. Households	75	76	77	78	78	78	1.3%	1.0%	1.1%	0.7%	0.5%	1.1%	0.6%
NIEIR Workforce	126	126	128	129	132	134	0.5%	1.4%	1.0%	1.8%	1.7%	0.9%	1.7%
NIEIR Employment	113	115	116	118	121	122	1.6%	0.8%	1.8%	2.6%	0.1%	1.4%	1.3%
NIEIR Unemployment	12.3	11.0	11.8	10.9	10.1	12.2	-10.2%	7.0%	-7.3%	-7.4%	20.6%	-3.8%	5.7%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.8%	8.7%	9.2%	8.5%	7.7%	9.1%	-1.0	0.5	-0.7	-0.8	1.4	-0.4	0.3
Headline U/E	7.6%	6.8%	7.2%	6.6%	5.7%	6.8%	-0.8	0.4	-0.6	-0.9	1.1	-0.3	0.1
NIEIR Structural U/E	11.0%	11.0%	10.8%	10.5%	10.3%	10.3%	0.0	-0.2	-0.3	-0.2	0.0	-0.2	-0.1

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	5,288	5,343	5,509	5,731	5,800	5,878	22,386	22,488	23,153	24,003	24,225	24,430	2.7%	1.3%
Taxes Paid	1,204	1,285	1,305	1,354	1,343	1,317	5,097	5,406	5,485	5,671	5,611	5,473	4.0%	-1.4%
Benefits	814	834	937	971	928	975	3,447	3,511	3,936	4,068	3,875	4,051	6.1%	0.2%
Business Income	429	449	475	468	432	392	1,816	1,891	1,995	1,960	1,803	1,628	2.9%	-8.5%
Interest Paid	501	571	693	772	847	989	2,120	2,403	2,914	3,234	3,537	4,109	15.5%	13.1%
Property Income	631	651	709	763	822	910	2,673	2,741	2,979	3,195	3,431	3,782	6.5%	9.2%
Disposable Income	5,632	5,585	5,782	5,959	5,959	6,016	23,842	23,506	24,301	24,957	24,887	25,002	1.9%	0.5%
Rank							26	25	28	29	32	34		
%Rank #1							61%	61%	61%	59%	56%	53%		
Business Value Added	5,717	5,793	5,983	6,199	6,232	6,270	24,203	24,379	25,148	25,963	26,028	26,059	2.7%	0.6%
Rank							18	15	18	18	19	20		
%Rank #1							65%	65%	65%	63%	59%	57%		
Business Productivity							49,671	49,600	50,794	52,210	52,111	52,627	1.7%	0.4%
Rank							18	17	19	19	21	26		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.10%	0.08%
Disability Support (aged 20-24)	0.16%	0.14%
Disability Support (aged 25+)	2.65%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.05%	0.04%
Parenting Payment - Single (aged 20-24)	0.37%	0.21%
Parenting Payment - Single (aged 25+)	2.34%	1.64%
Unemployed Long Term	1.15%	1.20%
Unemployed Short Term	0.93%	0.79%
Youth Allowance - Non Student	0.47%	0.32%
Youth Allowance - Student	1.05%	1.27%

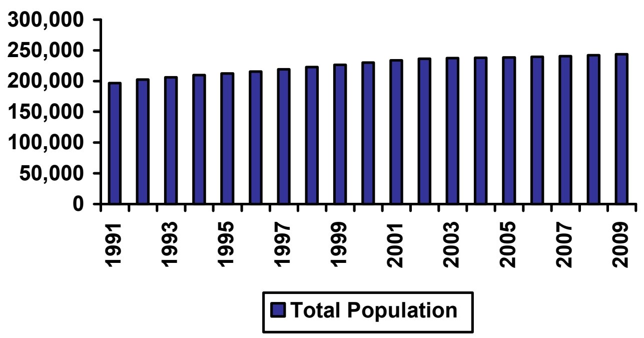
Cash Benefits Share of Disposable Income	Share	Rank
2002	14.5%	44
2003	14.9%	46
2004	16.2%	42
2005	16.3%	40
2006	15.6%	38
2007	16.2%	38

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	79.7	39
Share of population under 55	82.6	5
Aged migration	3.6	52
Population growth rate, 55+	6.9	1
Demographic stress	31.7	8
Dominant locations	84.7	28
Family / Youth migration	2.1	25
Fertility bounce, 1996-2005	-0.2	53
Fertility, babies % pop, 2005	1.5	7
Fertility, babies % pop, 2005	63.8	21
Working elderly	29.8	17

Local Government Level		Score	Rank
Most Sustainable	Camden (A)	84.2	8
Least Sustainable	Campbelltown (C) (NSW)	55.7	287

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.57%	8
2002	1.46%	8
2003	1.58%	4
2004	1.53%	6
2005	1.51%	6
2006	1.54%	7
Bounce 2004-05	-0.02%	47
Actual Change 2004-05 (Number)	-38	50
Bounce 2005-06	0.03%	38
Actual Change 2005-06 (Number)	85	45

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$248	37
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,100	18
Water Security Cost	$433	49
Total	$1,780	41

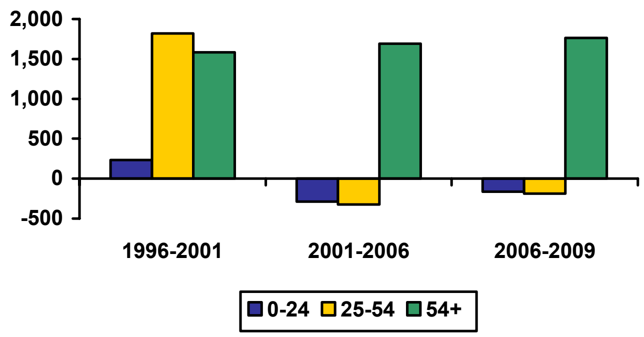
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.38%	40
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.69%	29
Water Security Cost	0.66%	46
Total	2.73%	43

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.07%	37
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.31%	16
Water Security Cost	0.12%	37
Total	0.51%	35

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	44.1%	41.2%	39.7%	38.8%
Age 25-55	44.1%	44.6%	42.9%	41.9%
Age 55+	11.8%	14.2%	17.4%	19.3%
Population Change (average between years)				
Age 0-24		231	-289	-164
Age 25-55		1,818	-324	-189
Age 55+		1,582	1,690	1,764
Average Age	30.9	32.7	34.5	35.4
Average Annual Growth		1.6%	0.5%	0.6%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	307	351	39	44	26%	30%
Value of Property and Unincorporated Business	285	346	17	23	39%	53%
Value of Financial Assets	144	187	40	48	22%	26%
Value of Household Liabilities	122	182	1	5	100%	80%
Disposable Income after Debt Service Costs	66	65	19	25	64%	58%
Household Debt Service Ratio	19%	26%	3	1	98%	100%
Household Debt to Gross Income Ratio	1.39	1.85	3	1	98%	100%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	320	311	220	200	193	-34%
Non Residential	170	168	266	227	212	40%
Total	489	463	487	427	405	-5%
Value per capita $2004/05						
Residential	1,426	1,270	919	826	790	-33%
Non Residential	751	707	1,113	938	869	38%
Total	2,244	1,889	2,032	1,765	1,659	-4%
Rank (value per capita)						
Residential	17	32	55	56	57	
Non Residential	23	27	11	22	27	
Total	18	33	36	47	54	

RAINFALL

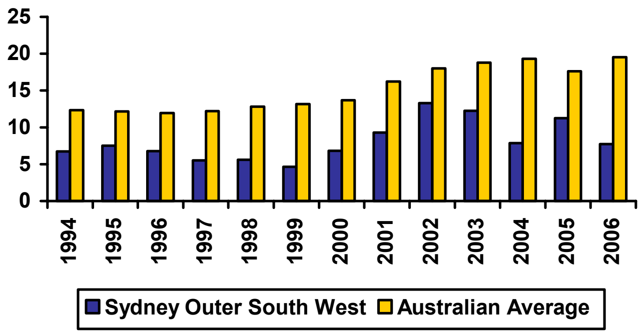
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	812	839	1,001	1,461	1,288	870	534	400	708	650	305
Rank	26	20	24	20	23	14	34	59	31	32	45

PATENT APPLICATIONS

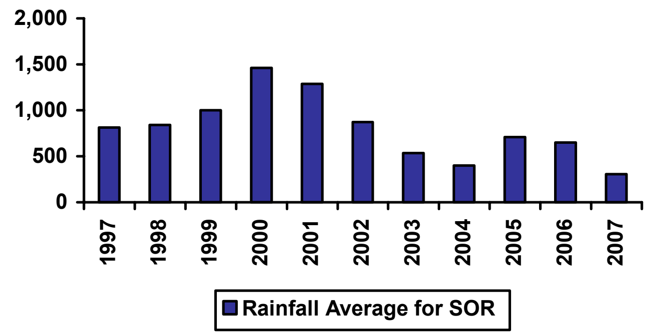
	No	Aust Avg	Rank
Average p.a. (1994-2005)	18.59	46.04	34
Average p.a. per capita	8.10	12.17	37
Hi Tech p.a. (1994-2005)	3.41	12.38	33
Hi Tech p.a. per capita	1.47	2.98	35
Info. Tech p.a. (1994-2005)	1.12	4.75	30
Info. Tech p.a. per capita	0.48	1.13	33
Average per capita (1994-2000)	6.61	10.48	41
Average per capita (2000-2005)	10.27	14.53	32
2000-05 avg./1994-00 avg.	1.55	1.36	12

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



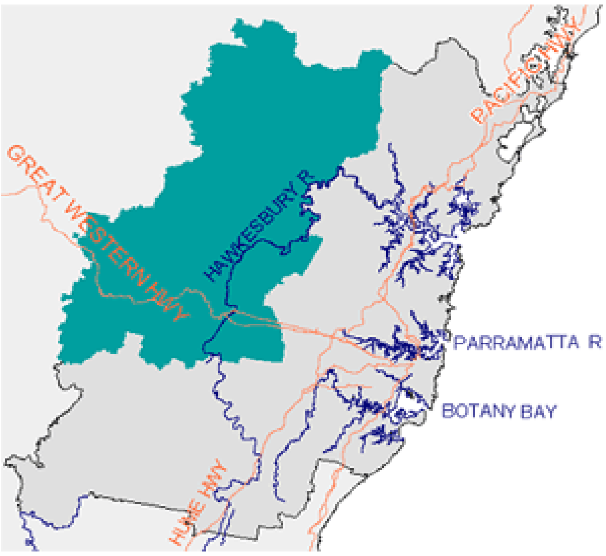
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	23.4	23.9	24.3	24.6
Rank	26	23	20	23
Days Over 35C	17	14	18	21
Rank	28	26	21	23

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	182
Rank	30

Sydney Outer West



The Outer West of Sydney is centred on Penrith. It comprises two sub-regions.

- The Western part of the Cumberland plain includes new manufacturing areas and several defence facilities (particularly airfields). Its educational infrastructure is integrated into the local economy. There are extensive new housing estates, whose residents are employed locally or in Mid West Sydney, with a few commuting as far as Global Sydney.
- The strip of settlement across the Blue Mountains has more of a resort character, with a tradition of long-distance commuting and retirement.

The north west part of the region consists of national parks, which are both inaccessible and bushfire prone.

Major centres:

Penrith, Katoomba

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	318	318	316	315	315	315	-0.1%	-0.5%	-0.3%	-0.2%	0.0%	-0.3%	-0.1%
No. Households	108	109	110	111	111	111	0.9%	0.8%	0.6%	0.1%	0.0%	0.8%	0.1%
NIEIR Workforce	165	165	167	167	168	169	0.2%	0.7%	0.3%	0.6%	0.7%	0.4%	0.7%
NIEIR Employment	152	153	153	155	156	157	1.0%	0.1%	0.7%	1.0%	0.7%	0.6%	0.8%
NIEIR Unemployment	13.3	12.2	13.3	12.6	12.1	12.3	-7.9%	8.3%	-5.2%	-3.5%	1.3%	-1.9%	-1.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	8.1%	7.4%	8.0%	7.5%	7.2%	7.2%	-0.7	0.6	-0.4	-0.3	0.0	-0.2	-0.1
Headline U/E	4.6%	4.3%	4.8%	4.5%	4.2%	4.1%	-0.3	0.6	-0.3	-0.3	-0.1	0.0	-0.2
NIEIR Structural U/E	10.2%	10.4%	10.1%	10.0%	9.9%	9.9%	0.1	-0.3	-0.1	-0.1	0.0	-0.1	-0.1

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	7,048	7,054	7,220	7,463	7,539	7,689	22,153	22,198	22,827	23,657	23,950	24,455	1.9%	1.5%
Taxes Paid	1,636	1,721	1,741	1,800	1,787	1,783	5,141	5,415	5,504	5,704	5,676	5,670	3.2%	-0.5%
Benefits	1,068	1,087	1,207	1,240	1,200	1,249	3,358	3,420	3,816	3,932	3,813	3,973	5.1%	0.4%
Business Income	724	742	783	767	739	755	2,277	2,335	2,475	2,431	2,347	2,402	1.9%	-0.8%
Interest Paid	703	796	967	1,052	1,126	1,317	2,209	2,504	3,057	3,336	3,578	4,189	14.4%	11.9%
Property Income	1,008	1,018	1,085	1,184	1,270	1,409	3,168	3,204	3,431	3,752	4,035	4,480	5.5%	9.1%
Disposable Income	7,735	7,586	7,768	7,984	8,033	8,200	24,314	23,871	24,561	25,308	25,521	26,079	1.1%	1.3%
Rank							24	24	26	26	26	24		
%Rank #1							62%	62%	61%	60%	57%	55%		
Business Value Added	7,772	7,796	8,003	8,231	8,278	8,445	24,430	24,533	25,303	26,089	26,298	26,856	1.9%	1.3%
Rank							16	13	15	17	18	16		
%Rank #1							65%	65%	65%	63%	60%	58%		
Business Productivity							50,743	50,516	51,801	53,275	53,489	54,365	1.6%	1.0%
Rank							14	13	13	13	16	19		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.15%	0.14%
Disability Support (aged 25+)	2.85%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.05%	0.04%
Parenting Payment - Single (aged 20-24)	0.28%	0.21%
Parenting Payment - Single (aged 25+)	1.91%	1.64%
Unemployed Long Term	0.98%	1.20%
Unemployed Short Term	0.81%	0.79%
Youth Allowance - Non Student	0.34%	0.32%
Youth Allowance - Student	1.01%	1.27%

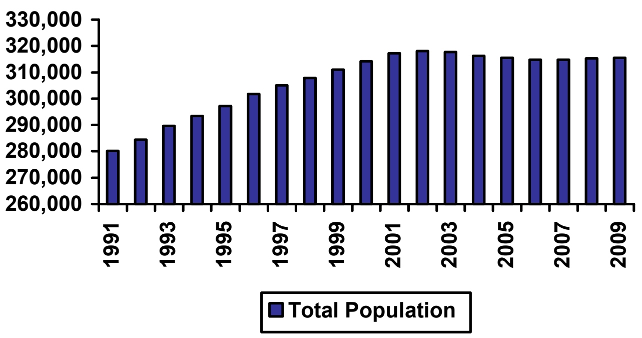
Cash Benefits Share of Disposable Income	Share	Rank
2002	13.8%	47
2003	14.3%	48
2004	15.5%	48
2005	15.5%	46
2006	14.9%	42
2007	15.2%	42

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	76.3	42
Share of population under 55	80.1	10
Aged migration	3.5	54
Population growth rate, 55+	3.5	15
Demographic stress	19.1	24
Dominant locations	88.6	24
Family / Youth migration	1.4	34
Fertility bounce, 1996-2005	-0.2	51
Fertility, babies % pop, 2005	1.4	14
Fertility, babies % pop, 2005	61.2	28
Working elderly	30.2	16

Local Government Level		Score	Rank
Most Sustainable	Penrith (C)	62.0	202
Least Sustainable	Blue Mountains (C)	58.9	236

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.53%	10
2002	1.43%	9
2003	1.46%	9
2004	1.45%	8
2005	1.44%	10
2006	1.45%	14
Bounce 2004-05	-0.02%	42
Actual Change 2004-05 (Number)	-63	57
Bounce 2005-06	0.01%	51
Actual Change 2005-06 (Number)	23	54

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$150	43
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,149	11
Water Security Cost	$430	52
Total	$1,729	44

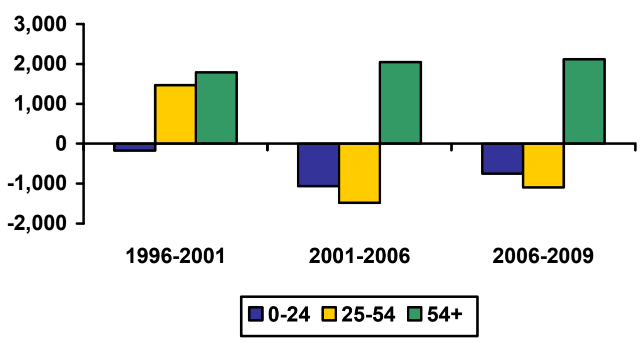
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.23%	44
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.80%	16
Water Security Cost	0.67%	45
Total	2.71%	44

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.04%	44
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.30%	21
Water Security Cost	0.11%	40
Total	0.44%	41

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	40.7%	38.5%	37.1%	36.3%
Age 25-55	44.8%	45.0%	43.0%	41.8%
Age 55+	14.4%	16.5%	19.9%	21.9%
Population Change (average between years)				
Age 0-24		-172	-1,065	-749
Age 25-55		1,467	-1,480	-1,098
Age 55+		1,789	2,050	2,121
Average Age	32.7	34.3	35.9	36.8
Average Annual Growth		1.0%	-0.2%	0.1%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	339	389	31	35	29%	33%
Value of Property and Unincorporated Business	304	349	14	22	42%	53%
Value of Financial Assets	155	214	38	40	23%	30%
Value of Household Liabilities	120	173	2	6	98%	77%
Disposable Income after Debt Service Costs	63	64	24	28	61%	57%
Household Debt Service Ratio	19%	25%	2	3	100%	98%
Household Debt to Gross Income Ratio	1.43	1.81	2	3	100%	98%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	345	296	130	130	122	-57%
Non Residential	209	176	200	174	179	5%
Total	554	438	330	304	301	-29%
Value per capita $2004/05						
Residential	1,144	889	413	413	388	-54%
Non Residential	673	556	636	552	566	5%
Total	1,902	1,390	1,049	965	955	-29%
Rank (value per capita)						
Residential	32	49	62	62	63	
Non Residential	28	46	49	57	56	
Total	29	51	62	62	62	

RAINFALL

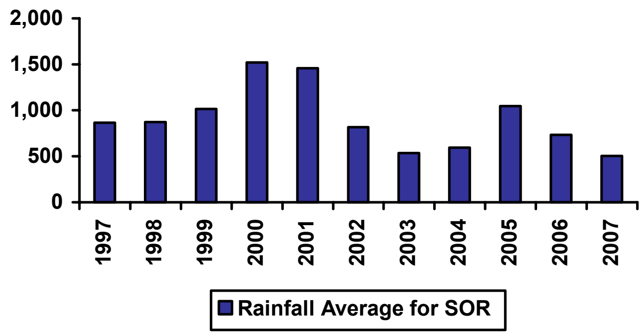
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	865	872	1,014	1,520	1,458	818	536	594	1,044	732	505
Rank	21	18	22	18	13	19	33	38	10	22	23

PATENT APPLICATIONS

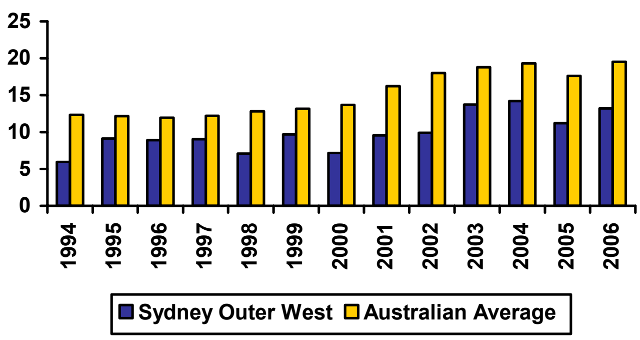
	No	Aust Avg	Rank
Average p.a. (1994-2005)	30.80	46.04	24
Average p.a. per capita	9.90	12.17	26
Hi Tech p.a. (1994-2005)	6.76	12.38	23
Hi Tech p.a. per capita	2.17	2.98	20
Info. Tech p.a. (1994-2005)	2.86	4.75	20
Info. Tech p.a. per capita	0.91	1.13	15
Average per capita (1994-2000)	8.31	10.48	29
Average per capita (2000-2005)	11.96	14.53	26
2000-05 avg./1994-00 avg.	1.44	1.36	19

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



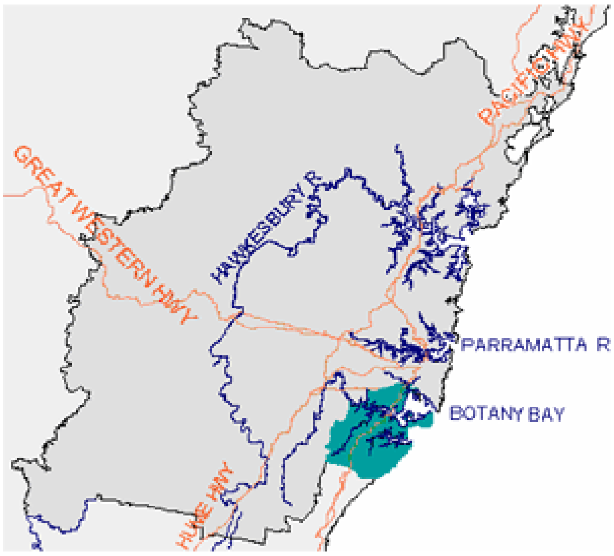
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	22.2	22.1	22.3	22.6
Rank	39	40	39	37
Days Over 35C	16	12	15	14
Rank	29	30	30	36

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	317
Rank	21

Sydney South



Apart from the Shire of Sutherland, the Sydney South region was mainly built up in the first half of the last Century; the Shire followed in the second half. Though mainly a middle-status commuter zone, it has areas of manufacturing employment, and the usual suburban retail centres. Its frontage to Botany Bay does not have the social éclat of the harbour side further north – the foreshore is naturally less attractive, and much of it is devoted to the airport, the port and industry. Like Sydney north, the region abuts onto bush land which is a marvellous natural amenity when it is not the cause of bushfire scares.

Major centres:

Hurstville, Miranda

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	435	437	438	440	441	444	0.4%	0.3%	0.5%	0.3%	0.6%	0.4%	0.5%
No. Households	154	154	155	156	156	155	0.5%	0.5%	0.2%	0.0%	-0.3%	0.4%	-0.1%
NIEIR Workforce	226	230	230	233	237	237	1.6%	-0.1%	1.6%	1.7%	-0.2%	1.0%	0.8%
NIEIR Employment	215	219	220	223	226	226	1.7%	0.3%	1.3%	1.6%	0.2%	1.1%	0.9%
NIEIR Unemployment	11.0	10.9	10.0	10.8	11.3	10.5	-0.8%	-8.2%	7.9%	4.6%	-7.0%	-0.6%	-1.4%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	4.9%	4.7%	4.4%	4.6%	4.8%	4.4%	-0.1	-0.4	0.3	0.1	-0.3	-0.1	-0.1
Headline U/E	4.1%	3.8%	3.4%	3.6%	3.8%	3.5%	-0.3	-0.3	0.2	0.2	-0.3	-0.2	-0.1
NIEIR Structural U/E	6.9%	7.0%	6.9%	6.6%	6.5%	6.5%	0.1	-0.2	-0.2	-0.2	0.0	-0.1	-0.1

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	10,916	11,008	11,206	11,726	11,895	12,116	25,093	25,199	25,588	26,650	26,944	27,322	2.4%	1.7%
Taxes Paid	2,590	2,776	2,786	2,963	2,935	2,924	5,953	6,355	6,362	6,734	6,649	6,594	4.6%	-0.7%
Benefits	1,365	1,382	1,519	1,570	1,550	1,594	3,139	3,163	3,468	3,569	3,511	3,595	4.8%	0.8%
Business Income	1,109	1,230	1,282	1,319	1,227	1,204	2,550	2,816	2,927	2,998	2,779	2,715	5.9%	-4.5%
Interest Paid	827	992	1,283	1,509	1,721	2,061	1,901	2,272	2,929	3,429	3,898	4,649	22.2%	16.9%
Property Income	2,223	2,312	2,482	2,718	2,907	3,202	5,111	5,293	5,668	6,178	6,585	7,220	6.9%	8.5%
Disposable Income	12,599	12,517	12,729	13,208	13,313	13,544	28,963	28,656	29,066	30,018	30,155	30,542	1.6%	1.3%
Rank							10	7	10	10	13	12		
%Rank #1							74%	74%	73%	71%	67%	65%		
Business Value Added	12,025	12,238	12,488	13,045	13,122	13,320	27,643	28,015	28,516	29,649	29,723	30,037	2.8%	1.1%
Rank							8	6	10	10	11	12		
%Rank #1							74%	74%	73%	71%	68%	65%		
Business Productivity							54,956	54,970	55,924	57,870	57,811	58,492	1.7%	0.5%
Rank							7	8	10	8	10	11		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.06%	0.08%
Disability Support (aged 20-24)	0.09%	0.14%
Disability Support (aged 25+)	1.76%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.09%	0.21%
Parenting Payment - Single (aged 25+)	1.10%	1.64%
Unemployed Long Term	0.66%	1.20%
Unemployed Short Term	0.57%	0.79%
Youth Allowance - Non Student	0.13%	0.32%
Youth Allowance - Student	0.93%	1.27%

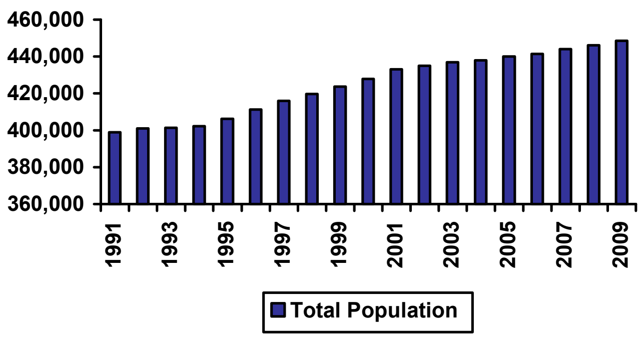
Cash Benefits Share of Disposable Income	Share	Rank
2002	10.8%	57
2003	11.0%	58
2004	11.9%	56
2005	11.9%	55
2006	11.6%	50
2007	11.8%	52

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	89.0	23
Share of population under 55	75.3	30
Aged migration	3.7	49
Population growth rate, 55+	1.5	56
Demographic stress	20.4	22
Dominant locations	100.0	2
Family / Youth migration	3.2	19
Fertility bounce, 1996-2005	0.0	10
Fertility, babies % pop, 2005	1.3	35
Fertility, babies % pop, 2005	64.9	17
Working elderly	27.4	33

Local Government Level		Score	Rank
Most Sustainable	Hurstville (C)	73.4	64
Least Sustainable	Sutherland Shire (A)	59.6	227

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.30%	33
2002	1.27%	25
2003	1.29%	20
2004	1.31%	19
2005	1.29%	25
2006	1.28%	35
Bounce 2004-05	-0.01%	37
Actual Change 2004-05 (Number)	-23	42
Bounce 2005-06	-0.01%	59
Actual Change 2005-06 (Number)	-46	61

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$0	63
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,129	13
Water Security Cost	$431	51
Total	$1,561	55

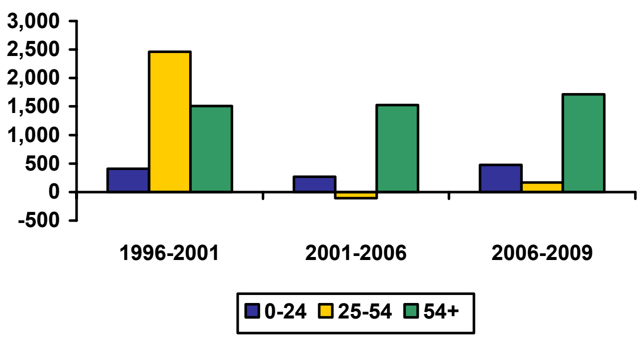
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.00%	63
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.54%	36
Water Security Cost	0.59%	48
Total	2.13%	57

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.00%	63
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.15%	56
Water Security Cost	0.06%	59
Total	0.21%	60

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	33.4%	32.2%	31.8%	31.7%
Age 25-55	43.8%	44.4%	43.5%	42.9%
Age 55+	22.8%	23.4%	24.7%	25.5%
Population Change (average between years)				
Age 0-24		406	268	476
Age 25-55		2,460	-109	170
Age 55+		1,510	1,526	1,717
Average Age	37.7	38.3	39.0	38.9
Average Annual Growth		1.0%	0.4%	0.5%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	756	738	5	6	65%	63%
Value of Property and Unincorporated Business	575	559	3	4	80%	86%
Value of Financial Assets	274	366	15	9	41%	51%
Value of Household Liabilities	93	186	8	2	76%	82%
Disposable Income after Debt Service Costs	78	73	8	15	76%	65%
Household Debt Service Ratio	12%	23%	47	7	64%	90%
Household Debt to Gross Income Ratio	0.92	1.67	47	7	64%	90%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	624	591	432	363	335	-36%
Non Residential	295	236	206	189	204	-15%
Total	919	813	638	552	540	-29%
Value per capita $2004/05						
Residential	1,458	1,325	979	816	748	-36%
Non Residential	694	539	466	424	455	-17%
Total	2,158	1,872	1,446	1,240	1,202	-31%
Rank (value per capita)						
Residential	16	27	52	58	59	
Non Residential	27	49	61	63	63	
Total	21	34	58	60	61	

RAINFALL

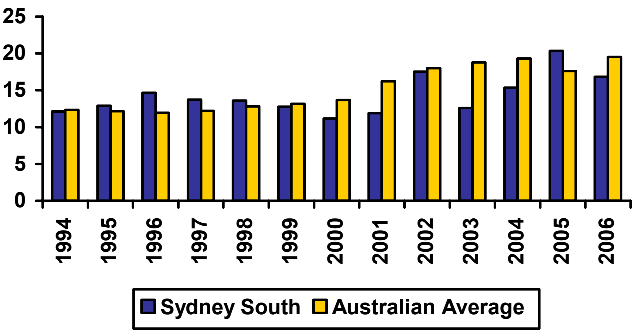
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	939	999	1,373	1,315	1,394	940	777	538	854	606	767
Rank	16	11	14	21	15	12	14	45	21	38	13

PATENT APPLICATIONS

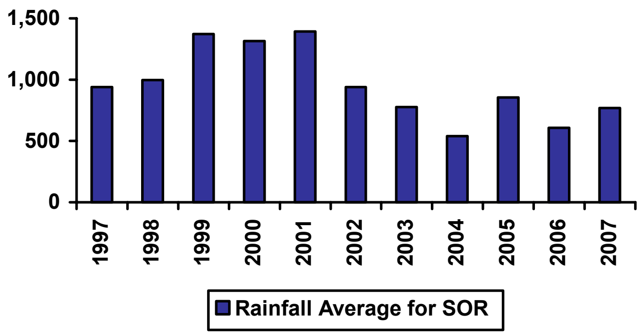
	No	Aust Avg	Rank
Average p.a. (1994-2005)	60.86	46.04	16
Average p.a. per capita	14.27	12.17	13
Hi Tech p.a. (1994-2005)	11.09	12.38	17
Hi Tech p.a. per capita	2.58	2.98	15
Info. Tech p.a. (1994-2005)	4.44	4.75	15
Info. Tech p.a. per capita	1.02	1.13	13
Average per capita (1994-2000)	12.85	10.48	13
Average per capita (2000-2005)	15.76	14.53	14
2000-05 avg./1994-00 avg.	1.23	1.36	46

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



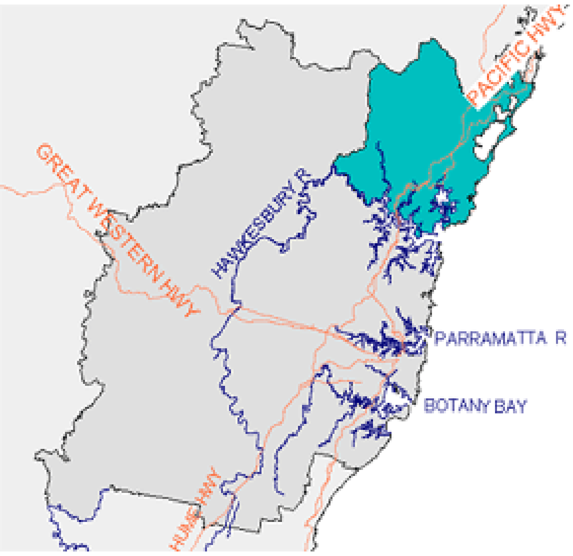
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	23.2	23.2	23.5	22.8
Rank	29	29	25	34
Days Over 35C	9	10	8	9
Rank	46	35	47	47

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	583
Rank	14

NSW Central Coast



Historically, the Central Coast was neither Sydney nor Newcastle; an area of holiday and retirement homes beside beaches and backing into infertile sandstone hills. Over recent decades it has received overflow from Sydney: initially long-distance commuters and increasingly manufacturing, and its population now includes many young families.

Major centres:

Gosford, Wyong, The Entrance

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	299	301	302	303	305	306	0.5%	0.3%	0.5%	0.5%	0.6%	0.4%	0.5%
No. Households	112	113	114	115	116	115	1.0%	1.1%	0.6%	0.3%	-0.1%	0.9%	0.1%
NIEIR Workforce	136	138	141	142	143	145	1.6%	1.7%	0.8%	0.9%	1.5%	1.4%	1.2%
NIEIR Employment	121	125	127	129	131	132	2.9%	1.6%	1.3%	2.0%	0.3%	1.9%	1.1%
NIEIR Unemployment	14.6	13.2	13.6	13.1	11.8	13.5	-9.1%	2.8%	-4.0%	-9.8%	14.5%	-3.6%	1.6%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.7%	9.6%	9.7%	9.2%	8.2%	9.3%	-1.1	0.1	-0.5	-1.0	1.1	-0.5	0.0
Headline U/E	8.3%	7.5%	7.5%	7.2%	6.1%	6.6%	-0.8	0.0	-0.3	-1.1	0.5	-0.4	-0.3
NIEIR Structural U/E	15.6%	15.6%	15.1%	15.1%	14.7%	14.6%	0.1	-0.6	0.0	-0.3	-0.2	-0.2	-0.2

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	5,290	5,375	5,568	5,767	5,877	5,981	17,677	17,864	18,455	19,020	19,284	19,540	2.9%	1.8%
Taxes Paid	1,227	1,327	1,364	1,408	1,406	1,395	4,099	4,410	4,521	4,643	4,615	4,556	4.7%	-0.5%
Benefits	1,290	1,314	1,460	1,533	1,511	1,550	4,312	4,367	4,838	5,056	4,959	5,062	5.9%	0.5%
Business Income	683	746	788	771	718	711	2,281	2,481	2,611	2,543	2,357	2,322	4.2%	-4.0%
Interest Paid	470	570	724	854	981	1,156	1,569	1,896	2,400	2,818	3,220	3,778	22.1%	16.3%
Property Income	957	991	1,086	1,176	1,278	1,415	3,199	3,295	3,598	3,879	4,194	4,622	7.1%	9.7%
Disposable Income	6,743	6,738	7,015	7,206	7,243	7,365	22,533	22,393	23,251	23,764	23,769	24,058	2.2%	1.1%
Rank							41	35	36	40	43	43		
%Rank #1							58%	58%	58%	56%	53%	51%		
Business Value Added	5,973	6,122	6,356	6,538	6,595	6,692	19,958	20,345	21,065	21,564	21,641	21,862	3.1%	1.2%
Rank							45	39	44	44	45	38		
%Rank #1							53%	54%	54%	52%	49%	47%		
Business Productivity							48,455	48,324	49,396	50,372	50,238	50,737	1.3%	0.4%
Rank							26	25	29	32	36	39		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.10%	0.08%
Disability Support (aged 20-24)	0.15%	0.14%
Disability Support (aged 25+)	3.82%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.27%	0.21%
Parenting Payment - Single (aged 25+)	2.36%	1.64%
Unemployed Long Term	1.40%	1.20%
Unemployed Short Term	0.99%	0.79%
Youth Allowance - Non Student	0.45%	0.32%
Youth Allowance - Student	1.14%	1.27%

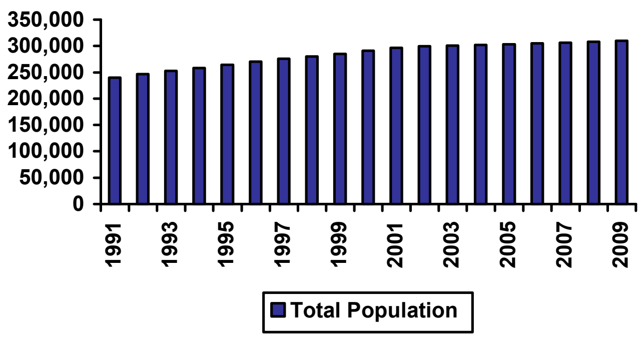
Cash Benefits Share of Disposable Income	Share	Rank
2002	19.1%	12
2003	19.5%	14
2004	20.8%	13
2005	21.3%	10
2006	20.9%	8
2007	21.0%	9

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	90.9	18
Share of population under 55	71.1	59
Aged migration	7.3	2
Population growth rate, 55+	2.2	39
Demographic stress	30.8	9
Dominant locations	100.0	2
Family / Youth migration	2.1	26
Fertility bounce, 1996-2005	-0.2	56
Fertility, babies % pop, 2005	1.2	42
Fertility, babies % pop, 2005	67.5	11
Working elderly	17.0	64

Local Government Level		Score	Rank
Most Sustainable	Wyong (A)	71.6	79
Least Sustainable	Gosford (C)	63.9	173

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.29%	35
2002	1.16%	48
2003	1.19%	38
2004	1.20%	42
2005	1.22%	33
2006	1.23%	42
Bounce 2004-05	0.02%	19
Actual Change 2004-05 (Number)	80	21
Bounce 2005-06	0.01%	49
Actual Change 2005-06 (Number)	56	51

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$77	53
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,063	29
Water Security Cost	$241	60
Total	$1,380	63

Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.14%	52
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.96%	9
Water Security Cost	0.44%	58
Total	2.55%	49

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.02%	51
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.26%	28
Water Security Cost	0.06%	58
Total	0.34%	53

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	34.1%	33.0%	32.6%	32.4%
Age 25-55	39.6%	39.8%	38.4%	37.7%
Age 55+	26.3%	27.2%	28.9%	29.9%
Population Change (average between years)				
Age 0-24		1,142	321	341
Age 25-55		2,133	-126	-108
Age 55+		1,896	1,502	1,551
Average Age	38.5	39.5	40.7	41.4
Average Annual Growth		1.8%	0.6%	0.6%

Population Change by Age Group

HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	393	405	20	32	34%	35%
Value of Property and Unincorporated Business	287	310	16	27	40%	48%
Value of Financial Assets	178	237	26	26	27%	33%
Value of Household Liabilities	72	143	41	15	59%	63%
Disposable Income after Debt Service Costs	56	54	41	56	55%	48%
Household Debt Service Ratio	14%	25%	39	5	71%	96%
Household Debt to Gross Income Ratio	1.02	1.77	39	5	71%	96%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	474	483	295	261	253	-44%
Non Residential	179	291	297	246	247	-9%
Total	654	736	592	507	500	-28%
Value per capita $2004/05						
Residential	1,671	1,521	968	851	818	-42%
Non Residential	627	965	975	802	800	-11%
Total	2,381	2,376	1,943	1,653	1,618	-27%
Rank (value per capita)						
Residential	13	18	53	53	55	
Non Residential	36	8	21	32	37	
Total	14	15	41	53	55	

RAINFALL

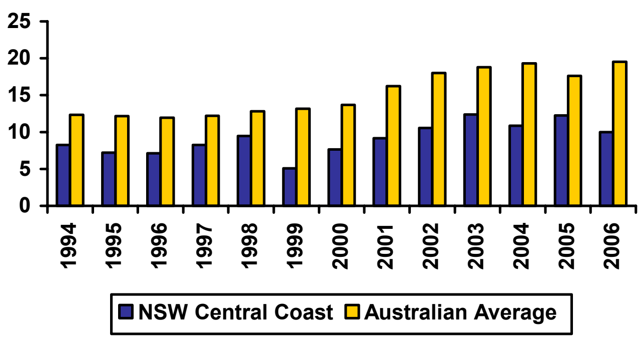
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,133	1,184	1,453	1,654	1,482	1,054	927	659	1,291	760	1,118
Rank	8	7	11	9	12	6	9	31	5	17	6

PATENT APPLICATIONS

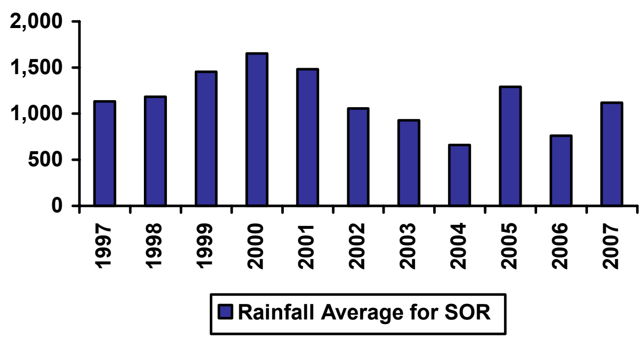
	No	Aust Avg	Rank
Average p.a. (1994-2005)	26.30	46.04	27
Average p.a. per capita	9.09	12.17	32
Hi Tech p.a. (1994-2005)	5.40	12.38	27
Hi Tech p.a. per capita	1.87	2.98	26
Info. Tech p.a. (1994-2005)	1.74	4.75	26
Info. Tech p.a. per capita	0.59	1.13	27
Average per capita (1994-2000)	7.77	10.48	34
Average per capita (2000-2005)	10.86	14.53	30
2000-05 avg./1994-00 avg.	1.40	1.36	26

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	22.1	21.0	22.5	21.9
Rank	40	44	35	45
Days Over 35C	11	7	10	6
Rank	38	44	42	51

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	240
Rank	26

NSW Central West

The Central West of NSW consists mainly of hilly country, beginning just past the Blue Mountains and ending with the last of the slopes. Its principal towns include Lithgow, Bathurst, Orange, Cowra, Parkes and Forbes. The agricultural base varies from orchards in the high country round Orange to extensive wheat/sheep farming. Lithgow was first developed as a manufacturing town because of its coal mines, and coal is still mined for power generation and export. The Bathurst/Orange growth centre also has some manufacturing, particularly that gained as a result of Commonwealth growth-centre policies in the 1970s. The region is outside commuter range from Sydney, but there have been weekender and tourist developments in the hills.

Major centres:

Lithgow, Bathurst, Orange

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	178	178	178	178	178	179	-0.1%	0.0%	0.2%	0.2%	0.2%	0.0%	0.2%
No. Households	65	66	66	67	67	68	0.7%	0.8%	1.0%	0.9%	0.6%	0.8%	0.7%
NIEIR Workforce	80	81	81	82	83	85	0.9%	0.6%	1.1%	1.3%	2.4%	0.8%	1.8%
NIEIR Employment	72	73	73	74	76	77	1.2%	0.4%	1.0%	2.1%	2.1%	0.8%	2.1%
NIEIR Unemployment	8.0	7.8	8.1	8.2	7.8	8.1	-1.9%	3.0%	1.6%	-5.2%	4.9%	0.9%	-0.3%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.9%	9.7%	9.9%	9.9%	9.3%	9.5%	-0.3	0.2	0.1	-0.6	0.2	0.0	-0.2
Headline U/E	5.5%	5.2%	5.1%	5.1%	4.5%	4.8%	-0.4	0.0	-0.1	-0.6	0.3	-0.2	-0.2
NIEIR Structural U/E	16.2%	16.8%	16.4%	16.0%	15.6%	15.2%	0.6	-0.4	-0.4	-0.4	-0.3	-0.1	-0.4

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,955	2,968	3,049	3,177	3,203	3,291	16,616	16,703	17,161	17,848	17,958	18,356	2.4%	1.8%
Taxes Paid	791	794	815	865	855	813	4,446	4,470	4,590	4,857	4,795	4,535	3.0%	-3.0%
Benefits	726	744	837	855	832	868	4,082	4,184	4,711	4,805	4,665	4,841	5.6%	0.7%
Business Income	851	647	708	724	716	502	4,782	3,640	3,985	4,067	4,013	2,801	-5.2%	-16.7%
Interest Paid	300	336	387	413	434	493	1,686	1,889	2,180	2,320	2,432	2,751	11.2%	9.3%
Property Income	500	492	526	592	637	687	2,812	2,770	2,961	3,328	3,573	3,833	5.8%	7.7%
Disposable Income	4,058	3,828	4,028	4,182	4,228	4,167	22,815	21,539	22,671	23,497	23,704	23,240	1.0%	-0.2%
Rank							35	46	43	44	44	48		
%Rank #1							59%	56%	57%	56%	53%	49%		
Business Value Added	3,806	3,615	3,757	3,900	3,919	3,793	21,398	20,343	21,146	21,915	21,971	21,157	0.8%	-1.4%
Rank							34	40	42	41	41	44		
%Rank #1							57%	54%	54%	53%	50%	46%		
Business Productivity							50,693	50,019	51,094	53,069	52,925	53,542	1.5%	0.4%
Rank							15	14	17	14	19	22		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.15%	0.14%
Disability Support (aged 25+)	4.27%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.05%	0.04%
Parenting Payment - Single (aged 20-24)	0.30%	0.21%
Parenting Payment - Single (aged 25+)	1.76%	1.64%
Unemployed Long Term	1.60%	1.20%
Unemployed Short Term	0.89%	0.79%
Youth Allowance - Non Student	0.56%	0.32%
Youth Allowance - Student	1.51%	1.27%

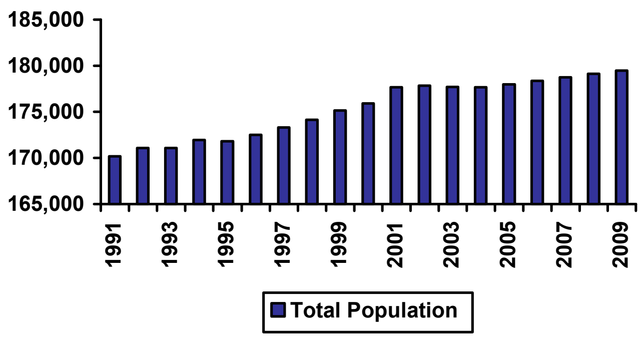
Cash Benefits Share of Disposable Income	Share	Rank
2002	17.9%	21
2003	19.4%	15
2004	20.8%	14
2005	20.5%	15
2006	19.7%	12
2007	20.8%	11

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	73.7	46
Share of population under 55	73.3	40
Aged migration	3.9	41
Population growth rate, 55+	2.2	39
Demographic stress	7.1	44
Dominant locations	65.7	44
Family / Youth migration	-0.7	51
Fertility bounce, 1996-2005	-0.1	27
Fertility, babies % pop, 2005	1.3	25
Fertility, babies % pop, 2005	52.9	48
Working elderly	29.2	21

Local Government Level		Score	Rank
Most Sustainable	Oberon (A)	67.0	134
Least Sustainable	Forbes (A)	31.9	523

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.40%	18
2002	1.22%	36
2003	1.24%	30
2004	1.26%	28
2005	1.21%	35
2006	1.34%	25
Bounce 2004-05	-0.04%	57
Actual Change 2004-05 (Number)	-74	59
Bounce 2005-06	0.12%	7
Actual Change 2005-06 (Number)	223	18

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,612	7
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,179	6
Water Security Cost	$181	62
Total	$2,973	14

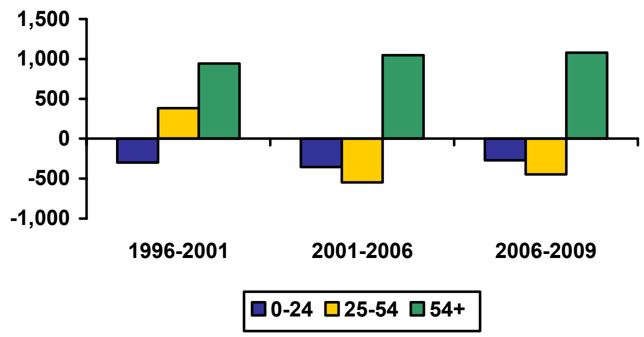
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	2.85%	8
Carbon Price Loss Cost (@$33 a tonne of carbon)	2.08%	4
Water Security Cost	0.32%	62
Total	5.25%	16

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.56%	5
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.41%	6
Water Security Cost	0.06%	57
Total	1.04%	7

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	37.7%	35.8%	34.7%	34.0%
Age 25-55	40.4%	40.3%	38.6%	37.7%
Age 55+	21.9%	23.9%	26.7%	28.4%
Population Change (average between years)				
Age 0-24		-300	-354	-272
Age 25-55		383	-546	-446
Age 55+		944	1,046	1,079
Average Age	36.0	37.5	39.0	39.6
Average Annual Growth		0.6%	0.1%	0.2%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	253	287	54	58	22%	25%
Value of Property and Unincorporated Business	183	181	49	57	25%	28%
Value of Financial Assets	156	214	37	41	23%	30%
Value of Household Liabilities	87	108	15	42	71%	48%
Disposable Income after Debt Service Costs	55	57	44	48	54%	50%
Household Debt Service Ratio	17%	20%	7	25	87%	77%
Household Debt to Gross Income Ratio	1.24	1.43	7	25	87%	77%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	145	172	175	163	164	-2%
Non Residential	116	102	126	117	101	13%
Total	261	287	301	279	266	-2%
Value per capita $2004/05						
Residential	852	939	982	902	901	-1%
Non Residential	662	572	705	648	556	11%
Total	1,488	1,616	1,687	1,550	1,457	-3%
Rank (value per capita)						
Residential	46	45	51	52	52	
Non Residential	31	43	39	50	58	
Total	44	42	51	54	58	

RAINFALL

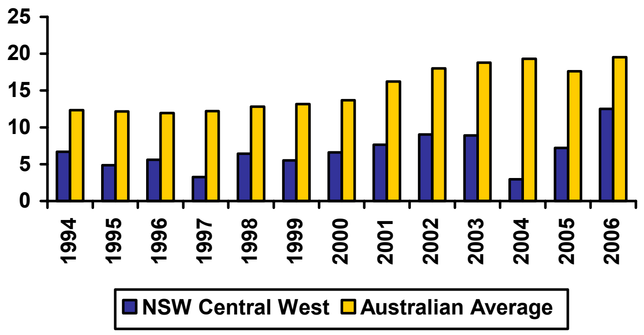
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	675	620	739	1,194	1,065	581	346	560	653	682	295
Rank	41	38	39	30	43	46	53	43	36	29	47

PATENT APPLICATIONS

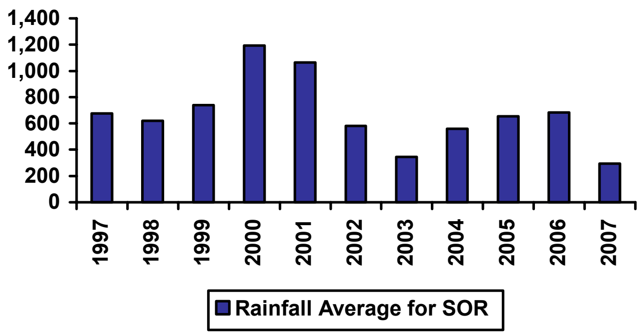
	No	Aust Avg	Rank
Average p.a. (1994-2005)	11.79	46.04	43
Average p.a. per capita	6.70	12.17	48
Hi Tech p.a. (1994-2005)	1.71	12.38	44
Hi Tech p.a. per capita	0.97	2.98	48
Info. Tech p.a. (1994-2005)	0.58	4.75	39
Info. Tech p.a. per capita	0.33	1.13	38
Average per capita (1994-2000)	5.81	10.48	50
Average per capita (2000-2005)	8.04	14.53	44
2000-05 avg./1994-00 avg.	1.38	1.36	27

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	20.2	20.3	20.5	22.1
Rank	47	49	50	43
Days Over 35C	20	14	20	18
Rank	25	25	20	27

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	112
Rank	43

NSW Far and North West

- he Far and North West puts together two NSW planning regions, including the sparsely-populated Far West. The result is a large and diverse region, with the following sub-regions.
- In the east of the region the country is hilly and in many ways resembles the Central West. The centre for this part of the region is Mudgee, which is well known for its wineries.
- Dubbo lies just beyond the hills, and is the centre for the plains beyond. The plains north and west of Dubbo produce cotton and a variety of cereal crops integrated with livestock production.
- Beyond Nyngan the country becomes pastoral, with small areas under intensive irrigation from the Darling. This is classic sheep country, though low wool prices have forced some diversification. There are two historic mining centres, Cobar and Broken Hill.

Major centres:

Dubbo, Broken Hill

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	143	142	141	140	139	139	-1.0%	-0.9%	-0.6%	-0.6%	-0.1%	-0.8%	-0.3%
No. Households	55	55	55	55	56	56	0.5%	0.5%	0.6%	0.6%	0.5%	0.5%	0.5%
NIEIR Workforce	61	59	60	60	60	62	-2.5%	0.8%	0.4%	0.4%	1.8%	-0.4%	1.1%
NIEIR Employment	54	52	53	53	53	54	-2.6%	0.6%	0.4%	1.1%	2.0%	-0.6%	1.6%
NIEIR Unemployment	7.2	7.1	7.3	7.4	7.0	7.1	-1.4%	2.9%	0.9%	-4.6%	0.6%	0.8%	-2.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	11.8%	11.9%	12.2%	12.2%	11.6%	11.5%	0.1	0.2	0.1	-0.6	-0.1	0.1	-0.4
Headline U/E	6.8%	6.7%	6.8%	6.6%	5.8%	5.9%	0.0	0.0	-0.2	-0.8	0.1	-0.1	-0.3
NIEIR Structural U/E	21.6%	23.1%	22.5%	21.9%	21.1%	19.8%	1.5	-0.6	-0.6	-0.9	-1.3	0.1	-1.1

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,074	2,017	2,056	2,162	2,164	2,219	14,473	14,218	14,620	15,470	15,586	16,003	1.4%	1.3%
Taxes Paid	604	553	565	607	585	552	4,214	3,898	4,018	4,347	4,213	3,983	0.2%	-4.7%
Benefits	666	689	792	761	696	771	4,646	4,857	5,627	5,449	5,012	5,562	4.6%	0.6%
Business Income	883	566	610	637	573	415	6,158	3,990	4,335	4,559	4,125	2,992	-10.3%	-19.3%
Interest Paid	226	248	279	289	296	332	1,573	1,745	1,982	2,070	2,132	2,397	8.7%	7.2%
Property Income	382	358	379	423	448	479	2,663	2,526	2,695	3,025	3,226	3,455	3.5%	6.5%
Disposable Income	3,267	2,907	3,071	3,165	3,088	3,083	22,795	20,489	21,835	22,650	22,238	22,239	-1.1%	-1.3%
Rank							37	52	52	52	55	55		
%Rank #1							58%	53%	55%	54%	50%	47%		
Business Value Added	2,957	2,583	2,666	2,799	2,737	2,633	20,631	18,208	18,955	20,029	19,711	18,995	-1.8%	-3.0%
Rank							40	55	55	55	58	60		
%Rank #1							55%	48%	49%	48%	45%	41%		
Business Productivity							49,517	48,301	50,020	51,338	51,335	51,524	1.2%	0.2%
Rank							20	26	22	25	29	34		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.14%	0.14%
Disability Support (aged 25+)	5.04%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.07%	0.04%
Parenting Payment - Single (aged 20-24)	0.40%	0.21%
Parenting Payment - Single (aged 25+)	2.23%	1.64%
Unemployed Long Term	2.05%	1.20%
Unemployed Short Term	0.99%	0.79%
Youth Allowance - Non Student	0.78%	0.32%
Youth Allowance - Student	1.04%	1.27%

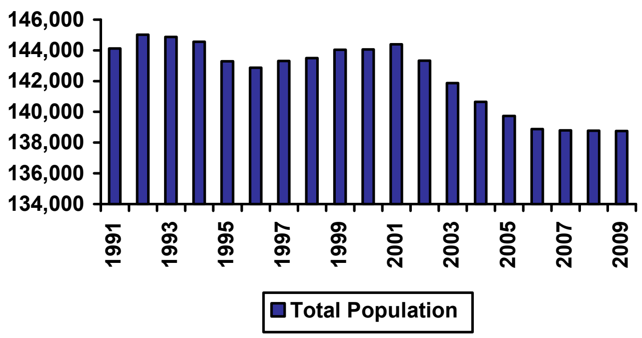
Cash Benefits Share of Disposable Income	Share	Rank
2002	20.4%	10
2003	23.7%	5
2004	25.8%	4
2005	24.1%	5
2006	22.5%	6
2007	25.0%	3

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	49.0	59
Share of population under 55	73.2	43
Aged migration	3.8	47
Population growth rate, 55+	1.8	52
Demographic stress	-2.4	57
Dominant locations	65.6	46
Family / Youth migration	-2.3	62
Fertility bounce, 1996-2005	-0.2	43
Fertility, babies % pop, 2005	1.5	11
Fertility, babies % pop, 2005	45.6	58
Working elderly	28.6	26

Local Government Level		Score	Rank
Most Sustainable	Dubbo (C)	64.7	157
Least Sustainable	Coonamble (A)	26.3	579

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.58%	7
2002	1.32%	22
2003	1.28%	23
2004	1.30%	21
2005	1.28%	28
2006	1.47%	11
Bounce 2004-05	-0.02%	44
Actual Change 2004-05 (Number)	-38	49
Bounce 2005-06	0.19%	2
Actual Change 2005-06 (Number)	248	15

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$3,064	4
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,170	8
Water Security Cost	$518	40
Total	$4,752	3

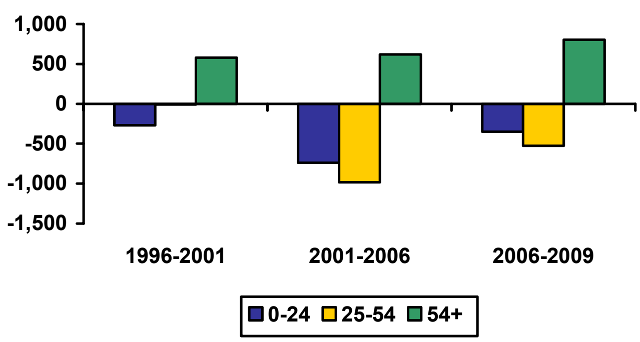
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	5.72%	3
Carbon Price Loss Cost (@$33 a tonne of carbon)	2.19%	3
Water Security Cost	0.97%	30
Total	8.87%	2

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	1.28%	2
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.49%	3
Water Security Cost	0.22%	11
Total	1.99%	2

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.7%	35.4%	34.2%	33.4%
Age 25-55	41.4%	41.0%	39.0%	37.9%
Age 55+	21.9%	23.7%	26.9%	28.6%
Population Change (average between years)				
Age 0-24		-269	-739	-351
Age 25-55		-8	-983	-526
Age 55+		578	620	803
Average Age	35.8	37.3	39.2	39.9
Average Annual Growth		0.2%	-0.8%	0.0%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	232	239	58	62	20%	20%
Value of Property and Unincorporated Business	157	139	61	64	22%	21%
Value of Financial Assets	157	192	36	46	24%	27%
Value of Household Liabilities	82	92	25	55	67%	41%
Disposable Income after Debt Service Costs	55	54	47	57	53%	48%
Household Debt Service Ratio	16%	19%	11	36	84%	72%
Household Debt to Gross Income Ratio	1.20	1.32	11	36	84%	72%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	84	86	94	91	91	7%
Non Residential	71	76	109	78	78	16%
Total	155	168	203	169	170	7%
Value per capita $2004/05						
Residential	611	580	674	652	653	14%
Non Residential	492	540	785	563	560	18%
Total	1,125	1,031	1,459	1,215	1,213	26%
Rank (value per capita)						
Residential	58	59	60	60	61	
Non Residential	54	48	31	56	57	
Total	56	60	57	61	60	

RAINFALL

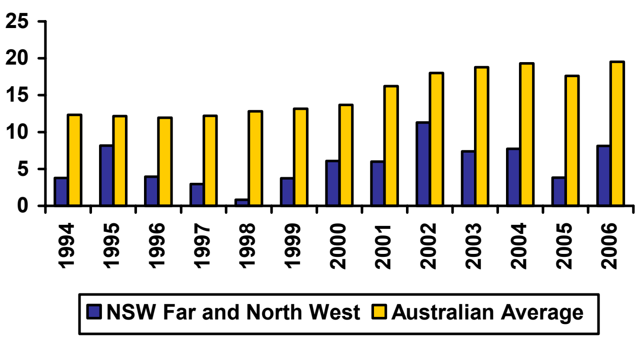
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	526	472	669	1,110	838	370	270	416	397	389	239
Rank	51	52	45	34	51	59	57	56	58	58	54

PATENT APPLICATIONS

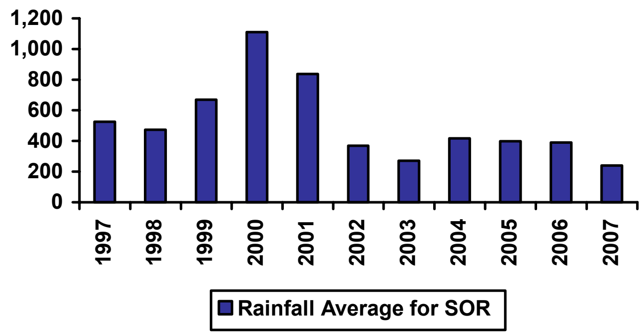
	No	Aust Avg	Rank
Average p.a. (1994-2005)	8.08	46.04	53
Average p.a. per capita	5.67	12.17	55
Hi Tech p.a. (1994-2005)	1.06	12.38	54
Hi Tech p.a. per capita	0.75	2.98	55
Info. Tech p.a. (1994-2005)	0.33	4.75	45
Info. Tech p.a. per capita	0.24	1.13	45
Average per capita (1994-2000)	4.43	10.48	57
Average per capita (2000-2005)	7.38	14.53	51
2000-05 avg./1994-00 avg.	1.67	1.36	4

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	24.8	24.7	25.0	25.2
Rank	17	18	18	18
Days Over 35C	55	47	65	55
Rank	6	6	5	7

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	51
Rank	57

NSW Hunter

The Hunter region centres on the City of Newcastle, which, despite its picturesque location, was always overshadowed by Sydney as a financial and administrative centre. The Port of Newcastle handles a wide variety of bulk freight, particularly coal mined within the region but also rural exports from the northern half of NSW. The region was also known for heavy industry, but this has shared in the general decline of Australian manufacturing. Parts of the region like Port Stephens and Scone are perhaps best thought of as extensions of the North Coast; hobby farm and retirement areas related directly to Sydney. The Hunter Valley vineyards have also been expanding.

Major centres:

Newcastle, Maitland, Singleton

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	595	600	605	612	619	626	0.9%	0.9%	1.1%	1.1%	1.2%	1.0%	1.1%
No. Households	222	225	227	230	232	233	1.1%	1.2%	1.2%	0.8%	0.7%	1.1%	0.7%
NIEIR Workforce	277	284	287	290	295	298	2.5%	1.0%	1.0%	1.8%	1.1%	1.5%	1.5%
NIEIR Employment	243	251	255	259	265	269	3.3%	1.7%	1.6%	2.4%	1.4%	2.2%	1.9%
NIEIR Unemployment	34.5	33.4	31.9	30.7	29.7	29.2	-3.3%	-4.3%	-3.9%	-3.0%	-1.7%	-3.9%	-2.4%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	12.4%	11.7%	11.1%	10.6%	10.1%	9.8%	-0.7	-0.6	-0.5	-0.5	-0.3	-0.6	-0.4
Headline U/E	8.8%	7.8%	7.0%	6.5%	6.2%	6.0%	-1.0	-0.8	-0.5	-0.4	-0.1	-0.7	-0.2
NIEIR Structural U/E	18.6%	18.5%	17.8%	17.3%	16.6%	16.0%	-0.1	-0.7	-0.5	-0.7	-0.6	-0.4	-0.7

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	10,916	11,129	11,522	12,195	12,527	12,960	18,352	18,541	19,032	19,928	20,250	20,669	3.8%	3.1%
Taxes Paid	2,602	2,817	2,891	3,071	3,087	3,121	4,374	4,694	4,775	5,019	4,990	4,977	5.7%	0.8%
Benefits	2,678	2,702	2,950	3,064	3,013	3,117	4,503	4,502	4,873	5,007	4,870	4,972	4.6%	0.9%
Business Income	1,166	1,269	1,371	1,378	1,267	1,259	1,961	2,113	2,264	2,252	2,049	2,008	5.7%	-4.4%
Interest Paid	930	1,105	1,357	1,564	1,766	2,054	1,563	1,841	2,242	2,556	2,855	3,276	18.9%	14.6%
Property Income	1,850	1,872	2,049	2,279	2,455	2,704	3,110	3,119	3,385	3,724	3,968	4,312	7.2%	8.9%
Disposable Income	13,453	13,428	14,033	14,704	14,913	15,426	22,618	22,371	23,179	24,030	24,108	24,601	3.0%	2.4%
Rank							39	36	38	36	42	36		
%Rank #1							58%	58%	58%	57%	54%	52%		
Business Value Added	12,082	12,398	12,893	13,573	13,794	14,219	20,313	20,654	21,296	22,181	22,299	22,677	4.0%	2.4%
Rank							42	37	38	37	38	33		
%Rank #1							54%	55%	55%	53%	51%	49%		
Business Productivity							49,279	48,965	50,161	51,627	51,509	51,984	1.6%	0.3%
Rank							22	22	21	22	26	31		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.10%	0.08%
Disability Support (aged 20-24)	0.18%	0.14%
Disability Support (aged 25+)	4.49%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.25%	0.21%
Parenting Payment - Single (aged 25+)	1.92%	1.64%
Unemployed Long Term	1.63%	1.20%
Unemployed Short Term	0.90%	0.79%
Youth Allowance - Non Student	0.54%	0.32%
Youth Allowance - Student	1.25%	1.27%

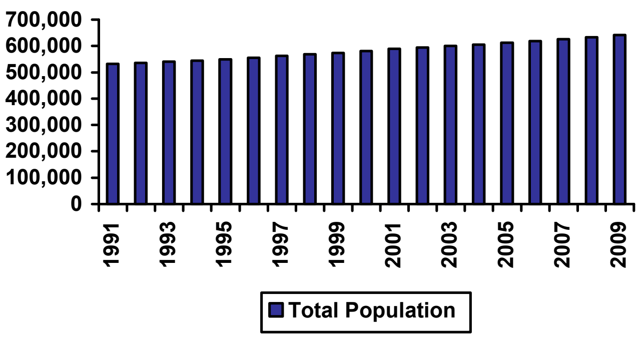
Cash Benefits Share of Disposable Income	Share	Rank
2002	19.9%	11
2003	20.1%	11
2004	21.0%	12
2005	20.8%	12
2006	20.2%	11
2007	20.2%	14

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	93.8	10
Share of population under 55	72.8	47
Aged migration	4.8	20
Population growth rate, 55+	2.5	33
Demographic stress	16.6	31
Dominant locations	87.0	25
Family / Youth migration	1.6	31
Fertility bounce, 1996-2005	-0.1	22
Fertility, babies % pop, 2005	1.3	38
Fertility, babies % pop, 2005	61.3	26
Working elderly	18.9	59

Local Government Level		Score	Rank
Most Sustainable	Port Stephens (A)	70.3	99
Least Sustainable	Murrurundi (A)	31.8	525

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.28%	37
2002	1.15%	52
2003	1.18%	42
2004	1.16%	53
2005	1.19%	40
2006	1.26%	38
Bounce 2004-05	0.04%	13
Actual Change 2004-05 (Number)	302	6
Bounce 2005-06	0.06%	21
Actual Change 2005-06 (Number)	475	4

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$154	42
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,038	32
Water Security Cost	$323	56
Total	$1,515	60

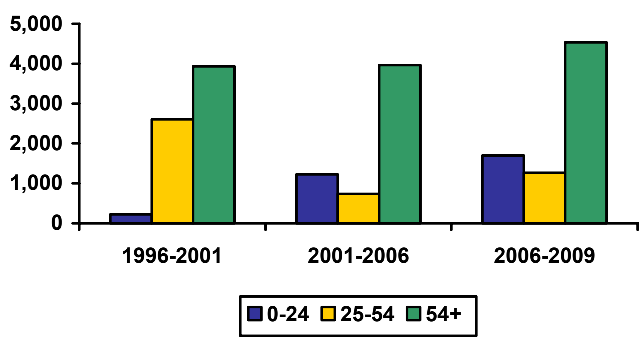
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.26%	42
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.76%	20
Water Security Cost	0.55%	52
Total	2.57%	48

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.04%	43
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.27%	24
Water Security Cost	0.08%	53
Total	0.40%	47

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	35.5%	33.7%	33.1%	32.7%
Age 25-55	41.3%	41.1%	39.7%	38.9%
Age 55+	23.2%	25.2%	27.2%	28.4%
Population Change (average between years)				
Age 0-24		224	1,229	1,696
Age 25-55		2,607	736	1,264
Age 55+		3,936	3,962	4,533
Average Age	37.2	38.5	39.8	40.0
Average Annual Growth		1.2%	1.0%	1.2%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	322	381	34	37	28%	33%
Value of Property and Unincorporated Business	228	275	29	33	32%	42%
Value of Financial Assets	168	235	32	27	25%	33%
Value of Household Liabilities	74	128	38	25	61%	57%
Disposable Income after Debt Service Costs	56	59	43	42	55%	52%
Household Debt Service Ratio	14%	22%	32	16	74%	84%
Household Debt to Gross Income Ratio	1.06	1.55	32	16	74%	84%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	713	794	730	733	722	-8%
Non Residential	443	496	626	676	643	31%
Total	1,156	1,335	1,356	1,408	1,365	3%
Value per capita $2004/05						
Residential	1,277	1,287	1,180	1,168	1,136	-10%
Non Residential	771	822	1,013	1,077	1,010	26%
Total	2,062	2,058	2,192	2,245	2,146	7%
Rank (value per capita)						
Residential	29	29	39	42	46	
Non Residential	20	13	19	14	20	
Total	25	22	31	30	32	

RAINFALL

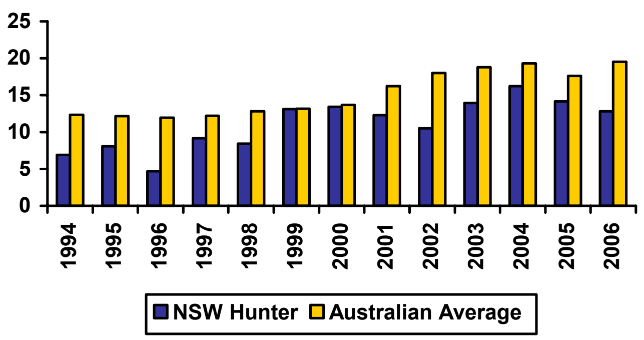
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	938	871	1,150	1,625	1,370	819	655	735	1,083	625	713
Rank	17	19	17	12	17	18	24	18	8	35	15

PATENT APPLICATIONS

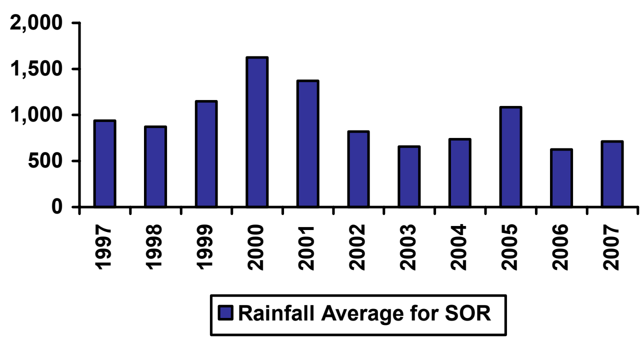
	No	Aust Avg	Rank
Average p.a. (1994-2005)	64.82	46.04	15
Average p.a. per capita	11.05	12.17	20
Hi Tech p.a. (1994-2005)	10.74	12.38	18
Hi Tech p.a. per capita	1.81	2.98	28
Info. Tech p.a. (1994-2005)	3.09	4.75	19
Info. Tech p.a. per capita	0.52	1.13	31
Average per capita (1994-2000)	9.50	10.48	23
Average per capita (2000-2005)	13.31	14.53	19
2000-05 avg./1994-00 avg.	1.40	1.36	23

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	23.1	22.6	22.5	23.5
Rank	30	35	36	31
Days Over 35C	21	13	18	16
Rank	22	29	23	31

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	567
Rank	15

NSW Illawarra

During the last century, the Illawarra developed as a coal-based manufacturing area. Coal is still mined, though the deposits are now a long way back from the mine adits in the Illawarra range, and there is still heavy manufacturing industry, but it no longer employs as many people. There is an important bulk port, but its trade is hampered by the lack of a natural corridor inland. The region is relatively close to Sydney, and commuter traffic has developed. The part of the region over the top of the Illawarra escarpment comprises water reserves and hobby farms. South of Kiama there are dairy farms, hobby farms and retirement villages. Nowra has factories which process rural products.

Major centres:

Wollongong, Nowra

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	404	407	409	412	415	417	0.6%	0.5%	0.7%	0.7%	0.7%	0.6%	0.7%
No. Households	148	150	152	153	154	155	1.5%	1.2%	1.0%	0.6%	0.5%	1.2%	0.6%
NIEIR Workforce	186	190	190	192	198	200	2.1%	-0.1%	1.1%	2.9%	1.2%	1.0%	2.1%
NIEIR Employment	162	167	169	172	178	178	2.9%	1.3%	1.9%	3.1%	0.3%	2.0%	1.7%
NIEIR Unemployment	23.8	23.1	20.8	19.7	20.0	21.9	-2.9%	-10.0%	-5.3%	1.2%	10.0%	-6.1%	5.5%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	12.8%	12.2%	11.0%	10.3%	10.1%	11.0%	-0.6	-1.2	-0.7	-0.2	0.9	-0.8	0.4
Headline U/E	9.1%	9.6%	8.4%	7.7%	7.8%	8.6%	0.5	-1.2	-0.7	0.1	0.9	-0.5	0.5
NIEIR Structural U/E	16.5%	16.4%	15.9%	15.6%	15.0%	14.7%	-0.1	-0.5	-0.3	-0.6	-0.3	-0.3	-0.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	7,389	7,546	7,830	8,200	8,441	8,624	18,289	18,559	19,159	19,917	20,362	20,626	3.5%	2.6%
Taxes Paid	1,725	1,878	1,931	2,038	2,066	2,070	4,269	4,618	4,725	4,950	4,984	4,951	5.7%	0.8%
Benefits	1,714	1,744	1,937	2,016	1,991	2,048	4,243	4,291	4,738	4,896	4,803	4,898	5.5%	0.8%
Business Income	793	871	919	1,002	966	1,018	1,962	2,142	2,249	2,435	2,329	2,434	8.1%	0.8%
Interest Paid	620	740	922	1,077	1,222	1,434	1,534	1,821	2,256	2,616	2,949	3,430	20.2%	15.4%
Property Income	1,281	1,332	1,493	1,610	1,741	1,923	3,171	3,277	3,653	3,911	4,201	4,600	7.9%	9.3%
Disposable Income	9,111	9,144	9,592	10,008	10,196	10,487	22,549	22,490	23,470	24,309	24,596	25,081	3.2%	2.4%
Rank							40	34	35	34	36	31		
%Rank #1							58%	58%	59%	58%	55%	53%		
Business Value Added	8,182	8,417	8,749	9,202	9,407	9,642	20,250	20,701	21,407	22,352	22,691	23,060	4.0%	2.4%
Rank							44	35	37	36	34	31		
%Rank #1							54%	55%	55%	54%	52%	50%		
Business Productivity							49,716	49,760	51,177	52,619	53,163	54,386	1.9%	1.7%
Rank							17	16	16	17	17	18		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.10%	0.08%
Disability Support (aged 20-24)	0.17%	0.14%
Disability Support (aged 25+)	3.87%	3.13%
Mature Age Allowance	0.04%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.24%	0.21%
Parenting Payment - Single (aged 25+)	1.97%	1.64%
Unemployed Long Term	1.59%	1.20%
Unemployed Short Term	0.91%	0.79%
Youth Allowance - Non Student	0.47%	0.32%
Youth Allowance - Student	1.21%	1.27%

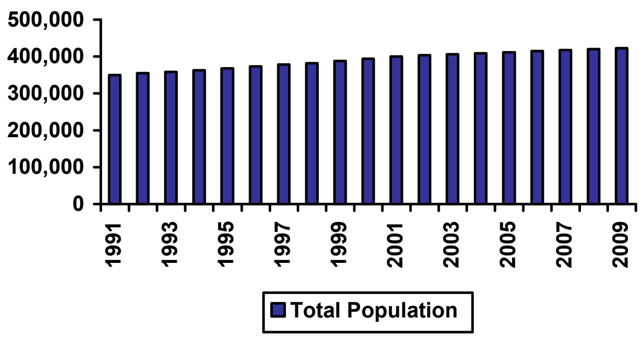
Cash Benefits Share of Disposable Income	Share	Rank
2002	18.8%	13
2003	19.1%	16
2004	20.2%	17
2005	20.1%	16
2006	19.5%	13
2007	19.5%	18

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	96.6	5
Share of population under 55	72.0	52
Aged migration	5.0	18
Population growth rate, 55+	2.8	26
Demographic stress	16.5	32
Dominant locations	74.7	35
Family / Youth migration	2.2	24
Fertility bounce, 1996-2005	-0.2	37
Fertility, babies % pop, 2005	1.2	47
Fertility, babies % pop, 2005	60.8	31
Working elderly	18.4	61

Local Government Level		Score	Rank
Most Sustainable	Shellharbour (C)	65.3	145
Least Sustainable	Wollongong (C)	57.9	247

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.27%	41
2002	1.17%	47
2003	1.17%	44
2004	1.17%	49
2005	1.18%	45
2006	1.20%	47
Bounce 2004-05	0.01%	28
Actual Change 2004-05 (Number)	61	24
Bounce 2005-06	0.02%	43
Actual Change 2005-06 (Number)	125	39

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$137	45
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,096	20
Water Security Cost	$433	48
Total	$1,666	50

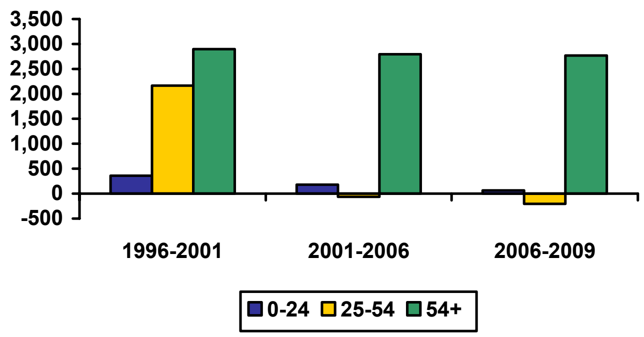
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.23%	46
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.82%	14
Water Security Cost	0.72%	42
Total	2.76%	42

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.03%	46
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.25%	36
Water Security Cost	0.10%	47
Total	0.38%	52

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	35.8%	33.8%	32.9%	32.3%
Age 25-55	40.7%	40.7%	39.1%	38.3%
Age 55+	23.5%	25.5%	28.0%	29.4%
Population Change (average between years)				
Age 0-24		361	181	63
Age 25-55		2,165	-66	-208
Age 55+		2,899	2,797	2,772
Average Age	36.9	38.4	39.9	40.4
Average Annual Growth		1.4%	0.7%	0.6%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	374	444	25	25	32%	38%
Value of Property and Unincorporated Business	275	334	20	24	38%	51%
Value of Financial Assets	174	245	27	25	26%	34%
Value of Household Liabilities	74	136	39	21	61%	60%
Disposable Income after Debt Service Costs	58	60	33	40	56%	54%
Household Debt Service Ratio	14%	22%	38	14	72%	85%
Household Debt to Gross Income Ratio	1.02	1.57	38	14	72%	85%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	531	658	443	421	414	-35%
Non Residential	238	230	247	304	339	29%
Total	769	857	690	724	753	-16%
Value per capita $2004/05						
Residential	1,401	1,486	1,068	1,006	981	-31%
Non Residential	613	565	596	726	803	25%
Total	2,044	2,032	1,665	1,732	1,784	-15%
Rank (value per capita)						
Residential	19	21	46	48	49	
Non Residential	37	44	52	39	36	
Total	26	23	52	50	48	

RAINFALL

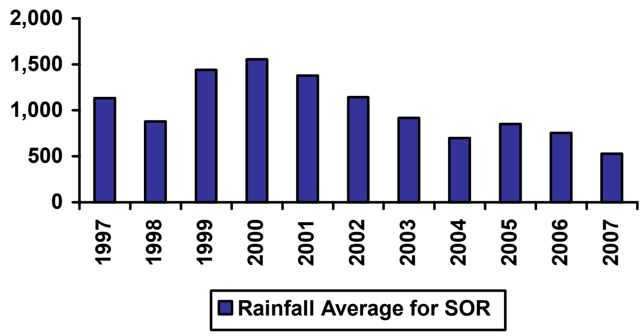
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,133	880	1,441	1,555	1,379	1,144	916	699	849	754	529
Rank	7	17	12	15	16	4	10	22	23	19	22

PATENT APPLICATIONS

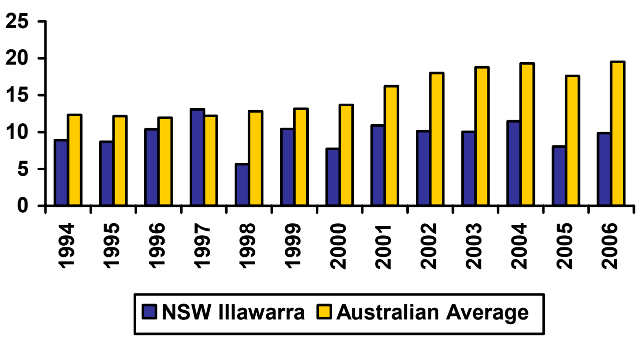
	No	Aust Avg	Rank
Average p.a. (1994-2005)	37.72	46.04	21
Average p.a. per capita	9.63	12.17	27
Hi Tech p.a. (1994-2005)	7.50	12.38	21
Hi Tech p.a. per capita	1.90	2.98	25
Info. Tech p.a. (1994-2005)	2.04	4.75	25
Info. Tech p.a. per capita	0.51	1.13	32
Average per capita (1994-2000)	9.46	10.48	24
Average per capita (2000-2005)	10.06	14.53	34
2000-05 avg./1994-00 avg.	1.06	1.36	57

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	21.1	21.4	20.6	22.2
Rank	43	43	47	42
Days Over 35C	3	6	3	4
Rank	60	49	59	55

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	312
Rank	22

NSW Mid North Coast

The Mid North Coast comprises:

- a coastal belt of retirement and tourist developments including Port Macquarie and Coffs Harbour, and
- a series of well-watered valleys most of which have an important but flood-prone town located somewhat up-river from the coast (Taree, Kempsey, Grafton). Each of these towns is the supply centre for its valley, which includes areas of intensive river-flat agriculture.

With the retirement exodus from Sydney, the coastal belt is gradually coming to dominate the region.

Major centres:

Coffs Harbour, Port Macquarie, Grafton

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	283	286	289	293	297	301	1.1%	1.0%	1.2%	1.3%	1.4%	1.1%	1.4%
No. Households	111	112	114	116	117	118	1.4%	1.6%	1.5%	1.2%	0.8%	1.5%	1.0%
NIEIR Workforce	112	116	119	120	122	124	3.2%	2.7%	1.4%	1.7%	1.6%	2.4%	1.7%
NIEIR Employment	95	100	103	104	105	108	4.3%	3.4%	0.8%	1.2%	2.6%	2.8%	1.9%
NIEIR Unemployment	16.6	16.1	15.8	16.7	17.5	16.8	-3.2%	-1.7%	5.5%	5.1%	-4.1%	0.1%	0.4%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	14.8%	13.9%	13.3%	13.9%	14.3%	13.5%	-0.9	-0.6	0.5	0.5	-0.8	-0.3	-0.2
Headline U/E	9.8%	8.5%	8.0%	8.5%	9.0%	7.9%	-1.3	-0.5	0.5	0.5	-1.1	-0.4	-0.3
NIEIR Structural U/E	26.8%	26.9%	25.6%	24.8%	24.1%	23.4%	0.1	-1.3	-0.8	-0.7	-0.6	-0.7	-0.7

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	3,336	3,462	3,647	3,832	3,902	4,079	11,771	12,085	12,601	13,077	13,145	13,567	4.7%	3.2%
Taxes Paid	736	823	865	905	921	962	2,597	2,873	2,990	3,089	3,103	3,201	7.1%	3.1%
Benefits	1,443	1,479	1,662	1,735	1,705	1,762	5,090	5,162	5,743	5,921	5,744	5,861	6.3%	0.8%
Business Income	626	676	750	735	783	893	2,208	2,359	2,592	2,510	2,636	2,971	5.5%	10.2%
Interest Paid	370	436	529	618	708	824	1,305	1,522	1,829	2,110	2,384	2,741	18.7%	15.5%
Property Income	737	783	849	945	1,040	1,170	2,599	2,733	2,934	3,225	3,503	3,892	8.7%	11.3%
Disposable Income	5,175	5,280	5,659	5,883	5,988	6,330	18,258	18,433	19,552	20,077	20,174	21,054	4.4%	3.7%
Rank							63	63	61	62	62	61		
%Rank #1							47%	48%	49%	48%	45%	45%		
Business Value Added	3,962	4,138	4,397	4,567	4,684	4,972	13,979	14,444	15,193	15,586	15,781	16,538	4.9%	4.3%
Rank							64	64	63	63	63	62		
%Rank #1							37%	38%	39%	38%	36%	36%		
Business Productivity							41,789	41,907	43,057	44,023	44,751	46,138	1.8%	2.4%
Rank							56	57	57	59	59	60		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.17%	0.14%
Disability Support (aged 25+)	5.23%	3.13%
Mature Age Allowance	0.04%	0.02%
Parenting Payment - Single (aged 15-19)	0.05%	0.04%
Parenting Payment - Single (aged 20-24)	0.29%	0.21%
Parenting Payment - Single (aged 25+)	2.51%	1.64%
Unemployed Long Term	2.62%	1.20%
Unemployed Short Term	1.23%	0.79%
Youth Allowance - Non Student	0.70%	0.32%
Youth Allowance - Student	1.56%	1.27%

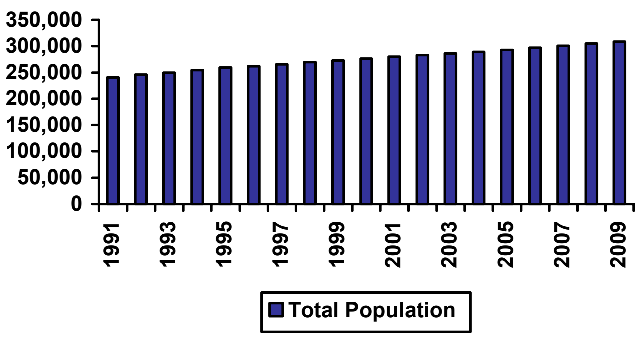
Cash Benefits Share of Disposable Income	Share	Rank
2002	27.9%	1
2003	28.0%	1
2004	29.4%	1
2005	29.5%	1
2006	28.5%	1
2007	27.8%	1

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	91.7	15
Share of population under 55	67.4	64
Aged migration	7.1	3
Population growth rate, 55+	2.9	24
Demographic stress	18.8	25
Dominant locations	44.5	61
Family / Youth migration	-0.3	49
Fertility bounce, 1996-2005	-0.2	46
Fertility, babies % pop, 2005	1.1	62
Fertility, babies % pop, 2005	57.5	44
Working elderly	17.1	63

Local Government Level		Score	Rank
Most Sustainable	Hastings (A)	67.7	122
Least Sustainable	Grafton (C)	41.9	420

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.15%	58
2002	0.99%	63
2003	0.99%	63
2004	0.96%	64
2005	1.02%	63
2006	1.08%	62
Bounce 2004-05	0.07%	7
Actual Change 2004-05 (Number)	229	8
Bounce 2005-06	0.05%	27
Actual Change 2005-06 (Number)	198	20

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$79	52
Carbon Price Loss Cost (@$33 a tonne of carbon)	$987	46
Water Security Cost	$334	54
Total	$1,400	62

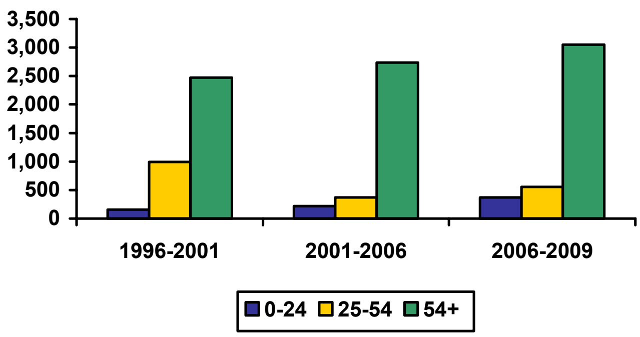
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.16%	49
Carbon Price Loss Cost (@$33 a tonne of carbon)	2.02%	6
Water Security Cost	0.69%	44
Total	2.87%	40

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.02%	49
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.31%	18
Water Security Cost	0.10%	42
Total	0.44%	43

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	34.0%	32.1%	30.7%	29.8%
Age 25-55	39.0%	38.3%	36.7%	35.9%
Age 55+	27.0%	29.6%	32.6%	34.3%
Population Change (average between years)				
Age 0-24		155	221	373
Age 25-55		991	371	556
Age 55+		2,472	2,735	3,052
Average Age	38.8	40.5	42.3	43.3
Average Annual Growth		1.3%	1.2%	1.3%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	262	320	51	51	23%	27%
Value of Property and Unincorporated Business	182	210	50	50	25%	32%
Value of Financial Assets	142	214	41	39	21%	30%
Value of Household Liabilities	62	104	53	46	50%	46%
Disposable Income after Debt Service Costs	44	49	62	63	42%	43%
Household Debt Service Ratio	15%	21%	19	19	78%	83%
Household Debt to Gross Income Ratio	1.12	1.53	19	19	78%	83%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	370	486	459	417	410	-12%
Non Residential	154	200	192	203	203	0%
Total	524	713	652	620	612	-12%
Value per capita $2004/05						
Residential	1,393	1,630	1,547	1,382	1,332	-13%
Non Residential	564	693	648	671	658	-5%
Total	2,007	2,293	2,195	2,052	1,990	-9%
Rank (value per capita)						
Residential	21	16	26	30	30	
Non Residential	46	29	48	48	53	
Total	28	16	29	37	40	

RAINFALL

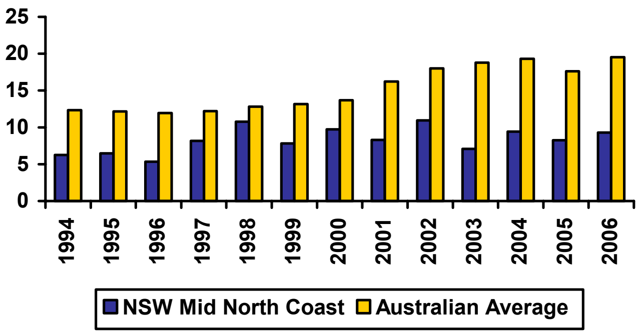
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,232	910	1,644	1,858	1,922	774	955	940	1,330	1,265	1,241
Rank	5	14	7	8	4	23	8	8	2	5	4

PATENT APPLICATIONS

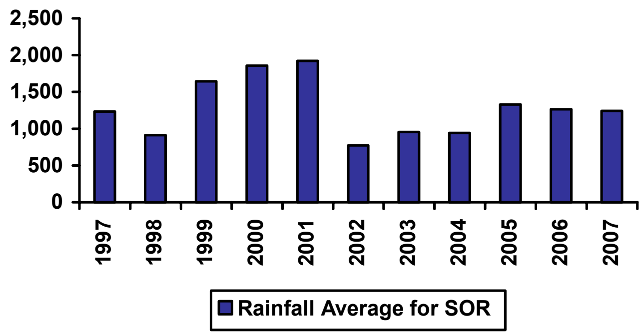
	No	Aust Avg	Rank
Average p.a. (1994-2005)	23.00	46.04	30
Average p.a. per capita	8.29	12.17	36
Hi Tech p.a. (1994-2005)	4.32	12.38	29
Hi Tech p.a. per capita	1.55	2.98	31
Info. Tech p.a. (1994-2005)	0.87	4.75	35
Info. Tech p.a. per capita	0.31	1.13	39
Average per capita (1994-2000)	7.84	10.48	32
Average per capita (2000-2005)	8.88	14.53	40
2000-05 avg./1994-00 avg.	1.13	1.36	53

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	24.1	23.7	24.1	23.1
Rank	22	25	21	32
Days Over 35C	11	5	6	3
Rank	38	50	52	57

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	140
Rank	34

NSW Murray

The Murray planning region of NSW comprises a strip running from the edge of the Snowy Mountains to the SA border. The region is within the economic hinterland of Melbourne rather than Sydney, and were it not for the state boundary would be divided into three parts and added to the adjacent Victorian regions. The hilly country east of Albury concentrates on livestock with gradually expanding timber plantations. Between Albury and Deniliquin the strip comprises classic wheat/sheep country, now diversifying. West of this lies dry pastoral country apart from irrigation areas, some of which are known their rice, while those across the Murray from Mildura are more involved with intensive vine and fruit cultivation. Albury has several resource-processing industries.

Major centres:

Albury, Deniliquin

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	114	114	114	115	116	117	0.1%	0.3%	0.5%	0.7%	0.9%	0.3%	0.8%
No. Households	43	44	44	45	46	46	0.9%	1.2%	1.4%	1.5%	1.2%	1.2%	1.4%
NIEIR Workforce	54	55	55	56	56	57	1.5%	0.3%	0.2%	1.0%	1.0%	0.7%	1.0%
NIEIR Employment	49	50	50	50	51	52	1.7%	0.9%	0.2%	0.5%	1.9%	1.0%	1.2%
NIEIR Unemployment	5.5	5.4	5.1	5.2	5.5	5.1	-0.9%	-5.6%	0.7%	5.5%	-7.1%	-2.0%	-1.0%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.1%	9.9%	9.3%	9.3%	9.7%	9.0%	-0.2	-0.6	0.0	0.4	-0.8	-0.3	-0.2
Headline U/E	5.8%	6.0%	5.5%	5.5%	6.2%	5.3%	0.1	-0.5	0.0	0.7	-0.9	-0.1	-0.1
NIEIR Structural U/E	13.7%	13.7%	13.5%	13.3%	12.8%	12.6%	0.0	-0.2	-0.2	-0.4	-0.3	-0.1	-0.4

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,853	1,893	1,932	2,008	2,036	2,090	16,292	16,622	16,919	17,488	17,613	17,874	2.7%	2.0%
Taxes Paid	537	537	564	577	575	522	4,723	4,715	4,939	5,024	4,977	4,468	2.4%	-4.8%
Benefits	468	478	536	546	527	555	4,114	4,199	4,691	4,755	4,561	4,745	5.3%	0.8%
Business Income	780	593	713	675	667	432	6,856	5,212	6,240	5,882	5,773	3,694	-4.7%	-20.0%
Interest Paid	198	222	256	273	289	329	1,744	1,949	2,240	2,381	2,498	2,813	11.3%	9.7%
Property Income	343	337	375	405	438	471	3,015	2,960	3,287	3,524	3,792	4,024	5.7%	7.8%
Disposable Income	2,797	2,624	2,823	2,867	2,901	2,785	24,583	23,042	24,715	24,973	25,096	23,816	0.8%	-1.5%
Rank							22	28	24	28	31	44		
%Rank #1							63%	60%	62%	59%	56%	51%		
Business Value Added	2,633	2,486	2,645	2,683	2,704	2,522	23,147	21,833	23,158	23,369	23,386	21,567	0.6%	-3.1%
Rank							27	27	25	29	29	41		
%Rank #1							62%	58%	59%	56%	53%	47%		
Business Productivity							49,429	49,180	49,997	51,402	51,234	51,582	1.3%	0.2%
Rank							21	20	23	23	32	33		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.15%	0.14%
Disability Support (aged 25+)	3.39%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.22%	0.21%
Parenting Payment - Single (aged 25+)	1.82%	1.64%
Unemployed Long Term	1.34%	1.20%
Unemployed Short Term	0.95%	0.79%
Youth Allowance - Non Student	0.42%	0.32%
Youth Allowance - Student	1.49%	1.27%

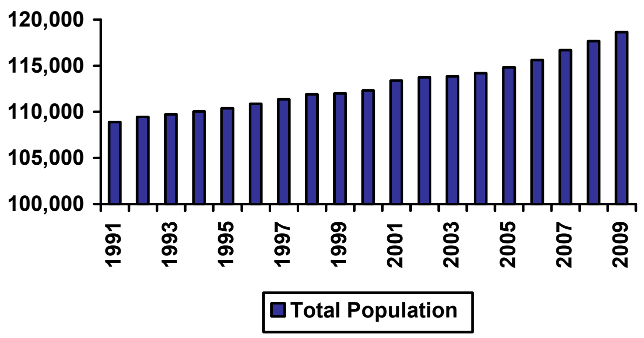
Cash Benefits Share of Disposable Income	Share	Rank
2002	16.7%	29
2003	18.2%	20
2004	19.0%	22
2005	19.0%	19
2006	18.2%	20
2007	19.9%	16

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	72.4	49
Share of population under 55	72.0	52
Aged migration	4.8	21
Population growth rate, 55+	2.3	37
Demographic stress	2.6	51
Dominant locations	65.7	45
Family / Youth migration	-0.9	52
Fertility bounce, 1996-2005	-0.2	50
Fertility, babies % pop, 2005	1.3	36
Fertility, babies % pop, 2005	51.7	51
Working elderly	29.1	23

Local Government Level		Score	Rank
Most Sustainable	Murray (A)	70.5	97
Least Sustainable	Urana (A)	14.0	628

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.28%	38
2002	1.22%	38
2003	1.17%	43
2004	1.20%	40
2005	1.17%	47
2006	1.27%	36
Bounce 2004-05	-0.03%	53
Actual Change 2004-05 (Number)	-31	44
Bounce 2005-06	0.11%	11
Actual Change 2005-06 (Number)	131	38

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,412	13
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,025	37
Water Security Cost	$883	6
Total	$3,319	11

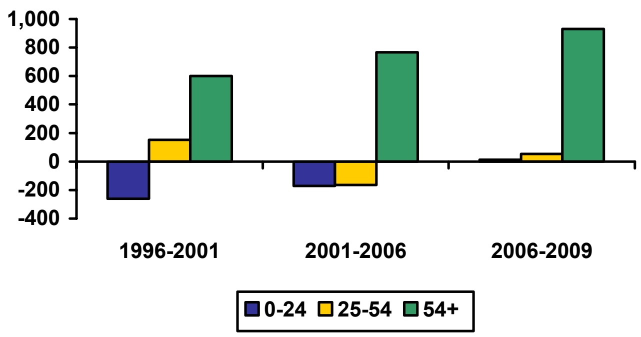
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	2.49%	11
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.81%	15
Water Security Cost	1.56%	6
Total	5.86%	8

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.47%	9
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.34%	11
Water Security Cost	0.29%	5
Total	1.09%	5

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.3%	34.4%	33.0%	32.1%
Age 25-55	40.8%	40.5%	39.1%	38.2%
Age 55+	23.1%	25.2%	28.0%	29.7%
Population Change (average between years)				
Age 0-24		-261	-172	12
Age 25-55		151	-164	54
Age 55+		601	767	930
Average Age	36.6	38.2	39.7	39.7
Average Annual Growth		0.4%	0.4%	0.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	261	303	52	53	22%	26%
Value of Property and Unincorporated Business	177	187	53	54	25%	29%
Value of Financial Assets	171	224	29	35	26%	31%
Value of Household Liabilities	87	108	12	43	72%	48%
Disposable Income after Debt Service Costs	58	57	31	49	57%	50%
Household Debt Service Ratio	16%	20%	12	28	84%	77%
Household Debt to Gross Income Ratio	1.20	1.42	12	28	84%	77%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	96	124	166	152	152	26%
Non Residential	61	69	81	91	98	30%
Total	157	212	247	243	250	16%
Value per capita $2004/05						
Residential	862	1,079	1,439	1,296	1,283	24%
Non Residential	543	605	700	781	824	27%
Total	1,455	1,630	2,139	2,077	2,107	29%
Rank (value per capita)						
Residential	45	37	28	34	36	
Non Residential	47	36	40	34	34	
Total	46	41	33	36	36	

RAINFALL

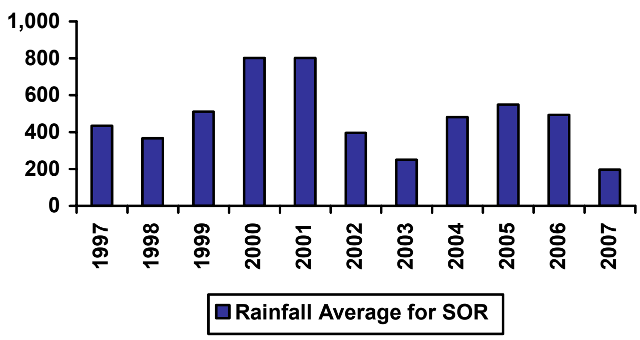
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	433	367	511	802	803	395	250	481	548	493	197
Rank	57	60	57	55	54	56	64	50	48	51	61

PATENT APPLICATIONS

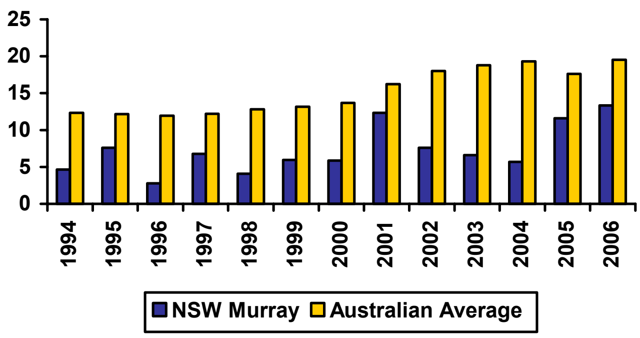
	No	Aust Avg	Rank
Average p.a. (1994-2005)	8.25	46.04	51
Average p.a. per capita	7.30	12.17	42
Hi Tech p.a. (1994-2005)	1.38	12.38	49
Hi Tech p.a. per capita	1.21	2.98	42
Info. Tech p.a. (1994-2005)	0.24	4.75	49
Info. Tech p.a. per capita	0.22	1.13	48
Average per capita (1994-2000)	6.26	10.48	45
Average per capita (2000-2005)	9.52	14.53	38
2000-05 avg./1994-00 avg.	1.52	1.36	14

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	22.2	22.1	22.7	23.8
Rank	38	38	34	29
Days Over 35C	29	21	29	31
Rank	14	22	16	16

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	88
Rank	50

NSW Murrumbidgee

The Murrumbidgee planning region of NSW is similar to the Murray region in that it comprises a strip of LGAs running east-west, from the ACT, border to Hay; however, it is generally within the hinterland of Sydney. The largest city is Wagga Wagga, which has defence and educational facilities in addition to its role in regional servicing, but there are several other large towns. The pastoral hills east of Wagga are gaining pine plantations, while west of Wagga lies wheat/sheep country and the Murrumbidgee Irrigation Area, with its rice and vines. The outermost part of the region merges with the pastoral Far West. Towns like Wagga, Leeton and Griffith have significant agricultural processing industries.

Major centres:

Wagga Wagga, Griffith

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	153	153	153	153	154	155	-0.1%	0.1%	0.3%	0.4%	0.6%	0.1%	0.5%
No. Households	55	56	56	57	57	58	0.8%	1.0%	1.2%	0.9%	0.7%	1.0%	0.8%
NIEIR Workforce	71	72	71	71	72	72	0.1%	-0.2%	-0.1%	0.6%	0.7%	0.0%	0.6%
NIEIR Employment	65	65	65	66	65	66	0.1%	0.5%	0.7%	-0.9%	1.7%	0.4%	0.4%
NIEIR Unemployment	6.6	6.6	6.1	5.6	6.6	6.0	0.3%	-6.8%	-8.7%	17.5%	-9.2%	-5.2%	3.3%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.2%	9.2%	8.6%	7.9%	9.2%	8.3%	0.0	-0.6	-0.7	1.3	-0.9	-0.4	0.2
Headline U/E	5.3%	5.3%	4.9%	4.5%	5.7%	4.8%	0.0	-0.4	-0.4	1.2	-1.0	-0.3	0.1
NIEIR Structural U/E	13.1%	13.7%	13.3%	13.0%	12.8%	12.5%	0.6	-0.4	-0.4	-0.2	-0.3	0.0	-0.2

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,526	2,511	2,573	2,680	2,671	2,764	16,537	16,459	16,852	17,491	17,356	17,841	2.0%	1.6%
Taxes Paid	728	716	723	746	744	665	4,767	4,696	4,737	4,871	4,838	4,290	0.8%	-5.6%
Benefits	582	595	669	681	661	692	3,809	3,901	4,379	4,447	4,294	4,466	5.4%	0.8%
Business Income	1,023	797	836	799	839	458	6,696	5,222	5,472	5,218	5,453	2,954	-7.9%	-24.3%
Interest Paid	253	284	332	350	363	416	1,659	1,863	2,172	2,282	2,362	2,685	11.3%	9.1%
Property Income	450	441	472	517	558	595	2,943	2,892	3,094	3,377	3,626	3,841	4.8%	7.3%
Disposable Income	3,713	3,448	3,601	3,687	3,742	3,537	24,311	22,604	23,583	24,062	24,318	22,832	-0.2%	-2.0%
Rank							25	32	33	35	40	51		
%Rank #1							62%	59%	59%	57%	54%	48%		
Business Value Added	3,548	3,307	3,409	3,479	3,510	3,222	23,233	21,681	22,323	22,709	22,809	20,795	-0.7%	-3.8%
Rank							26	29	32	33	32	48		
%Rank #1							62%	58%	57%	55%	52%	45%		
Business Productivity							50,361	49,435	50,622	51,985	52,027	52,330	1.1%	0.3%
Rank							16	19	20	20	23	29		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.14%	0.14%
Disability Support (aged 25+)	3.25%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.05%	0.04%
Parenting Payment - Single (aged 20-24)	0.28%	0.21%
Parenting Payment - Single (aged 25+)	1.70%	1.64%
Unemployed Long Term	1.22%	1.20%
Unemployed Short Term	0.75%	0.79%
Youth Allowance - Non Student	0.42%	0.32%
Youth Allowance - Student	1.35%	1.27%

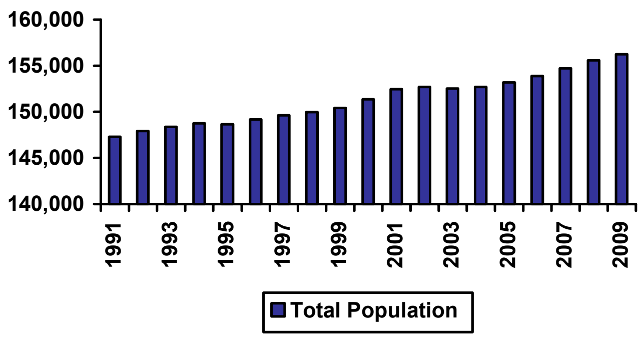
Cash Benefits Share of Disposable Income	Share	Rank
2002	15.7%	35
2003	17.3%	30
2004	18.6%	26
2005	18.5%	26
2006	17.7%	25
2007	19.6%	17

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	70.2	50
Share of population under 55	75.5	27
Aged migration	3.0	62
Population growth rate, 55+	1.9	49
Demographic stress	5.0	47
Dominant locations	68.2	39
Family / Youth migration	0.1	46
Fertility bounce, 1996-2005	-0.2	58
Fertility, babies % pop, 2005	1.4	23
Fertility, babies % pop, 2005	51.9	50
Working elderly	30.4	13

Local Government Level		Score	Rank
Most Sustainable	Griffith (C)	67.0	135
Least Sustainable	Hay (A)	26.7	577

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.52%	12
2002	1.33%	21
2003	1.38%	12
2004	1.35%	14
2005	1.35%	16
2006	1.36%	23
Bounce 2004-05	0.00%	29
Actual Change 2004-05 (Number)	9	36
Bounce 2005-06	0.01%	52
Actual Change 2005-06 (Number)	20	55

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$3,134	3
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,177	7
Water Security Cost	$209	61
Total	$4,519	4

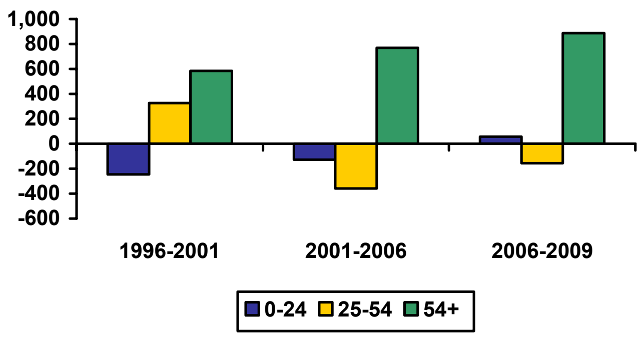
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	5.51%	4
Carbon Price Loss Cost (@$33 a tonne of carbon)	2.07%	5
Water Security Cost	0.37%	61
Total	7.94%	4

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	1.05%	3
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.39%	7
Water Security Cost	0.07%	56
Total	1.52%	3

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	38.7%	37.1%	36.3%	35.9%
Age 25-55	40.5%	40.7%	39.1%	38.2%
Age 55+	20.8%	22.3%	24.6%	25.9%
Population Change (average between years)				
Age 0-24		-246	-129	56
Age 25-55		325	-359	-155
Age 55+		585	770	888
Average Age	35.1	36.5	37.9	38.0
Average Annual Growth		0.4%	0.2%	0.5%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	277	298	48	54	24%	25%
Value of Property and Unincorporated Business	191	183	43	56	26%	28%
Value of Financial Assets	172	223	28	36	26%	31%
Value of Household Liabilities	87	108	17	44	71%	48%
Disposable Income after Debt Service Costs	61	57	27	47	59%	51%
Household Debt Service Ratio	15%	20%	15	29	80%	77%
Household Debt to Gross Income Ratio	1.15	1.42	16	29	80%	77%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	115	135	160	145	151	13%
Non Residential	90	89	112	124	139	41%
Total	205	255	272	269	291	9%
Value per capita $2004/05						
Residential	782	912	1,041	934	964	7%
Non Residential	600	581	726	799	885	38%
Total	1,413	1,453	1,766	1,733	1,850	23%
Rank (value per capita)						
Residential	49	47	49	51	51	
Non Residential	39	41	35	33	26	
Total	49	50	49	49	46	

RAINFALL

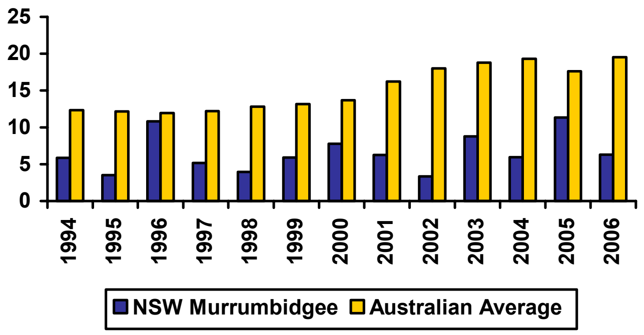
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	494	417	578	924	807	422	255	439	484	485	174
Rank	54	56	51	47	53	54	61	54	54	53	63

PATENT APPLICATIONS

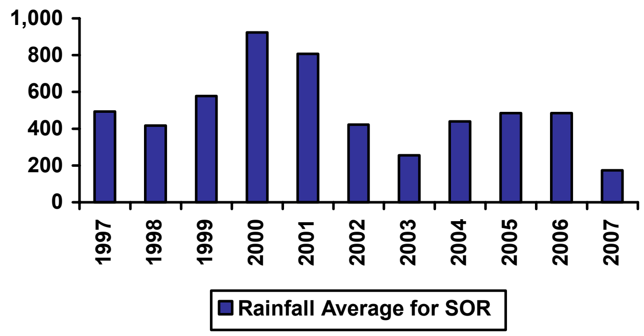
	No	Aust Avg	Rank
Average p.a. (1994-2005)	9.88	46.04	47
Average p.a. per capita	6.53	12.17	49
Hi Tech p.a. (1994-2005)	1.59	12.38	47
Hi Tech p.a. per capita	1.06	2.98	45
Info. Tech p.a. (1994-2005)	0.24	4.75	50
Info. Tech p.a. per capita	0.16	1.13	53
Average per capita (1994-2000)	6.15	10.48	48
Average per capita (2000-2005)	6.98	14.53	52
2000-05 avg./1994-00 avg.	1.13	1.36	52

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	22.4	21.8	22.7	24.1
Rank	36	41	32	26
Days Over 35C	33	24	37	37
Rank	11	16	9	14

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	90
Rank	49

NSW North

The NSW North comprises three distinct sub-regions.

- Around Tamworth is a mixed-farming region, and Tamworth itself has significant commercial and resource-processing activity.
- The New England sub-region is a high plateau, devoted mainly to pasture for beef and wool. Armidale stands out as an academic centre.
- The North-West plains comprise black-soil country which is farmed quite intensively. Crops include wheat, sorghum and cotton. Much of this agriculture depends on pumping from the local rivers. Sadly, flow is unreliable: the rivers sometimes flood, and in other years run dry.

Major centres:

Tamworth, Armidale, Moree

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	180	179	179	179	179	180	-0.4%	-0.3%	0.0%	0.0%	0.3%	-0.2%	0.2%
No. Households	67	68	69	69	70	71	0.8%	0.8%	0.9%	1.1%	1.2%	0.9%	1.1%
NIEIR Workforce	80	79	79	80	81	83	-1.3%	1.0%	0.9%	0.7%	2.7%	0.2%	1.7%
NIEIR Employment	70	70	70	71	72	74	-1.1%	0.7%	0.8%	1.6%	2.7%	0.1%	2.1%
NIEIR Unemployment	9.1	8.9	9.2	9.3	8.8	9.0	-2.3%	2.8%	1.6%	-5.9%	2.8%	0.7%	-1.6%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	11.5%	11.4%	11.6%	11.7%	10.9%	10.9%	-0.1	0.2	0.1	-0.8	0.0	0.1	-0.4
Headline U/E	7.1%	6.6%	6.7%	6.4%	5.6%	5.8%	-0.5	0.1	-0.2	-0.8	0.2	-0.2	-0.3
NIEIR Structural U/E	17.6%	18.9%	18.4%	18.1%	17.5%	16.7%	1.2	-0.5	-0.3	-0.6	-0.8	0.2	-0.7

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,616	2,561	2,599	2,725	2,758	2,826	14,521	14,276	14,526	15,236	15,414	15,679	1.4%	1.8%
Taxes Paid	789	737	739	815	764	730	4,378	4,106	4,131	4,556	4,273	4,049	1.1%	-5.4%
Benefits	761	781	882	893	860	906	4,225	4,351	4,927	4,993	4,808	5,027	5.5%	0.7%
Business Income	1,272	904	946	1,061	882	717	7,058	5,040	5,286	5,931	4,929	3,980	-5.9%	-17.8%
Interest Paid	286	316	358	377	390	440	1,587	1,764	2,000	2,107	2,179	2,440	9.6%	8.0%
Property Income	531	511	535	615	654	708	2,948	2,851	2,990	3,436	3,658	3,925	5.0%	7.3%
Disposable Income	4,231	3,813	3,976	4,220	4,128	4,115	23,482	21,253	22,219	23,594	23,076	22,827	-0.1%	-1.3%
Rank							28	49	47	41	50	52		
%Rank #1							60%	55%	55%	56%	52%	48%		
Business Value Added	3,888	3,465	3,545	3,786	3,639	3,544	21,579	19,316	19,812	21,167	20,343	19,659	-0.9%	-3.3%
Rank							32	47	52	48	55	55		
%Rank #1							58%	51%	51%	51%	46%	43%		
Business Productivity							49,643	48,033	49,314	50,540	50,458	50,665	0.6%	0.1%
Rank							19	27	30	31	34	40		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.15%	0.14%
Disability Support (aged 25+)	4.13%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.07%	0.04%
Parenting Payment - Single (aged 20-24)	0.37%	0.21%
Parenting Payment - Single (aged 25+)	2.07%	1.64%
Unemployed Long Term	2.00%	1.20%
Unemployed Short Term	0.90%	0.79%
Youth Allowance - Non Student	0.68%	0.32%
Youth Allowance - Student	1.44%	1.27%

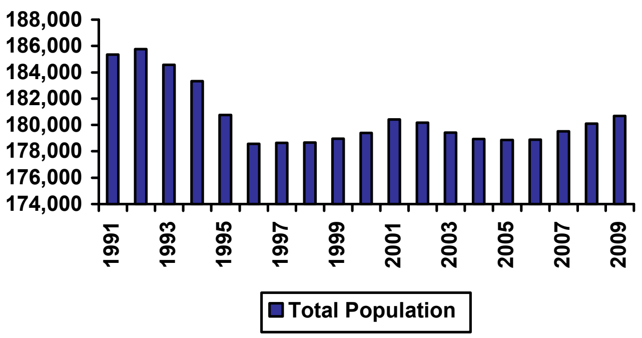
Cash Benefits Share of Disposable Income	Share	Rank
2002	18.0%	19
2003	20.5%	10
2004	22.2%	10
2005	21.2%	11
2006	20.8%	9
2007	22.0%	8

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	45.2	60
Share of population under 55	72.8	47
Aged migration	3.9	42
Population growth rate, 55+	2.1	43
Demographic stress	-5.4	59
Dominant locations	64.1	47
Family / Youth migration	-1.1	55
Fertility bounce, 1996-2005	-0.1	16
Fertility, babies % pop, 2005	1.4	16
Fertility, babies % pop, 2005	45.2	59
Working elderly	30.4	14

Local Government Level		Score	Rank
Most Sustainable	Tamworth (C)	57.1	265
Least Sustainable	Gunnedah (A)	25.1	591

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.37%	23
2002	1.22%	37
2003	1.25%	27
2004	1.21%	34
2005	1.23%	31
2006	1.40%	16
Bounce 2004-05	0.01%	26
Actual Change 2004-05 (Number)	20	30
Bounce 2005-06	0.18%	5
Actual Change 2005-06 (Number)	316	8

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,445	11
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,098	19
Water Security Cost	$288	58
Total	$2,831	17

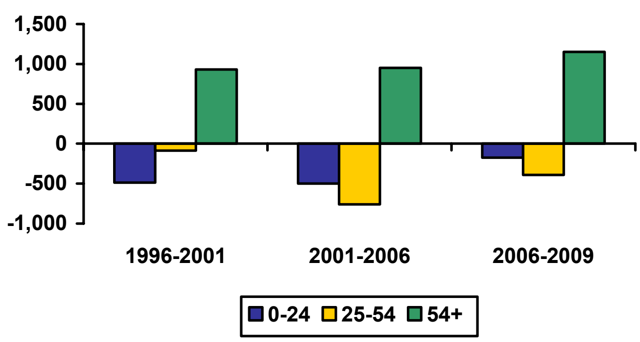
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	2.59%	9
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.97%	8
Water Security Cost	0.52%	54
Total	5.07%	17

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.50%	7
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.38%	8
Water Security Cost	0.10%	45
Total	0.98%	10

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	37.3%	35.6%	34.5%	33.8%
Age 25-55	40.8%	40.1%	38.3%	37.3%
Age 55+	22.0%	24.3%	27.2%	28.8%
Population Change (average between years)				
Age 0-24		-486	-498	-177
Age 25-55		-86	-760	-391
Age 55+		930	951	1,150
Average Age	36.1	37.6	39.3	39.6
Average Annual Growth		0.2%	-0.2%	0.3%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	252	288	55	57	22%	25%
Value of Property and Unincorporated Business	164	153	59	62	23%	23%
Value of Financial Assets	170	230	30	32	25%	32%
Value of Household Liabilities	82	95	26	53	67%	42%
Disposable Income after Debt Service Costs	55	56	45	53	54%	50%
Household Debt Service Ratio	16%	18%	14	39	83%	71%
Household Debt to Gross Income Ratio	1.19	1.31	14	39	83%	71%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	82	98	139	153	149	49%
Non Residential	71	72	81	108	120	43%
Total	153	184	221	261	269	36%
Value per capita $2004/05						
Residential	473	540	779	850	823	51%
Non Residential	398	403	454	604	665	42%
Total	903	925	1,233	1,454	1,488	51%
Rank (value per capita)						
Residential	62	61	59	54	54	
Non Residential	61	60	63	54	52	
Total	63	61	61	56	57	

RAINFALL

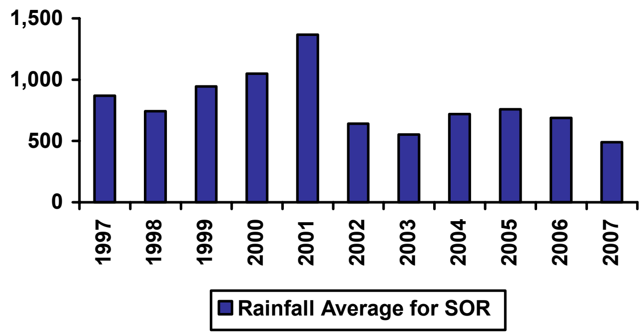
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	870	742	946	1,048	1,368	641	553	719	757	688	489
Rank	20	26	25	35	18	39	32	21	28	27	27

PATENT APPLICATIONS

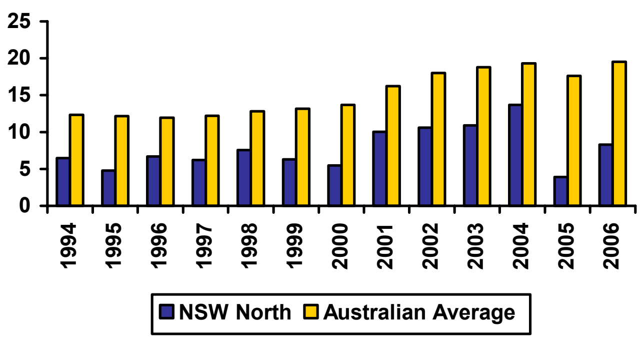
	No	Aust Avg	Rank
Average p.a. (1994-2005)	13.93	46.04	39
Average p.a. per capita	7.76	12.17	40
Hi Tech p.a. (1994-2005)	2.47	12.38	37
Hi Tech p.a. per capita	1.38	2.98	38
Info. Tech p.a. (1994-2005)	0.54	4.75	42
Info. Tech p.a. per capita	0.30	1.13	40
Average per capita (1994-2000)	6.68	10.48	40
Average per capita (2000-2005)	9.57	14.53	36
2000-05 avg./1994-00 avg.	1.43	1.36	21

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	22.4	22.5	22.5	22.6
Rank	35	36	37	38
Days Over 35C	15	9	18	16
Rank	30	38	22	32

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	128
Rank	35

NSW Richmond-Tweed

Richmond/Tweed is much closer to Brisbane than Sydney, and has increasingly become an extension of the Gold Coast. Its chief centre was and remains Lismore, which is located inland, but recent development has mostly been along the coast and in the nearby high-rainfall hills. Its economic base remains a mixture of retirement and agriculture, but there are signs of employment diversification as the economy of the Gold Coast extends southwards.

Major centres:

Lismore, Tweed Heads

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	219	222	224	227	230	232	1.4%	1.0%	1.2%	1.1%	1.0%	1.2%	1.0%
No. Households	86	88	89	89	90	91	1.2%	1.2%	0.9%	1.1%	1.0%	1.1%	1.1%
NIEIR Workforce	91	94	96	98	100	101	3.5%	2.6%	1.4%	2.0%	1.1%	2.5%	1.5%
NIEIR Employment	76	80	83	83	85	88	4.9%	3.3%	1.1%	1.9%	2.9%	3.1%	2.4%
NIEIR Unemployment	14.5	13.9	13.7	14.1	14.4	13.1	-3.9%	-1.7%	3.2%	2.2%	-9.7%	-0.8%	-3.9%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	16.0%	14.8%	14.2%	14.5%	14.5%	13.0%	-1.1	-0.6	0.3	0.0	-1.5	-0.5	-0.8
Headline U/E	10.9%	9.2%	8.5%	8.6%	8.8%	7.4%	-1.7	-0.8	0.1	0.2	-1.5	-0.8	-0.6
NIEIR Structural U/E	25.8%	25.5%	24.3%	23.5%	22.2%	21.0%	-0.3	-1.1	-0.9	-1.3	-1.2	-0.8	-1.2

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,616	2,713	2,860	3,024	3,103	3,270	11,933	12,208	12,743	13,310	13,506	13,984	5.0%	4.0%
Taxes Paid	598	658	694	734	759	793	2,726	2,963	3,090	3,233	3,304	3,392	7.1%	3.9%
Benefits	1,066	1,093	1,227	1,278	1,241	1,295	4,861	4,917	5,467	5,624	5,403	5,539	6.2%	0.7%
Business Income	640	674	715	736	814	895	2,917	3,031	3,187	3,239	3,541	3,827	4.8%	10.3%
Interest Paid	296	351	428	513	603	703	1,352	1,579	1,906	2,257	2,623	3,005	20.1%	17.1%
Property Income	607	646	717	803	892	1,009	2,768	2,907	3,195	3,534	3,883	4,316	9.8%	12.1%
Disposable Income	4,148	4,230	4,515	4,728	4,852	5,161	18,922	19,038	20,117	20,809	21,118	22,075	4.5%	4.5%
Rank							60	61	60	58	59	58		
%Rank #1							49%	49%	50%	49%	47%	47%		
Business Value Added	3,255	3,386	3,576	3,760	3,916	4,164	14,850	15,239	15,930	16,549	17,047	17,811	4.9%	5.2%
Rank							62	62	61	61	61	61		
%Rank #1							40%	40%	41%	40%	39%	39%		
Business Productivity							42,844	42,758	43,763	44,502	45,267	46,805	1.3%	2.6%
Rank							54	53	55	54	57	53		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.10%	0.08%
Disability Support (aged 20-24)	0.18%	0.14%
Disability Support (aged 25+)	5.11%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.22%	0.21%
Parenting Payment - Single (aged 25+)	2.52%	1.64%
Unemployed Long Term	2.18%	1.20%
Unemployed Short Term	1.17%	0.79%
Youth Allowance - Non Student	0.54%	0.32%
Youth Allowance - Student	1.69%	1.27%

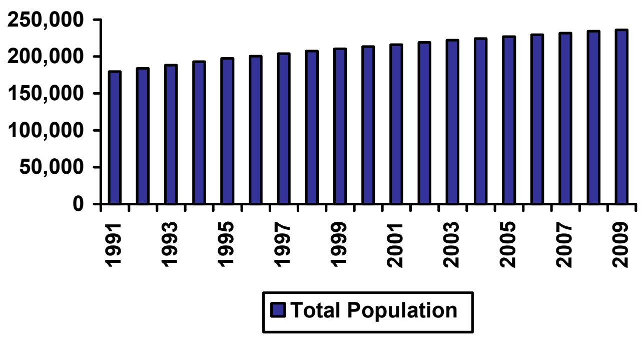
Cash Benefits Share of Disposable Income	Share	Rank
2002	25.7%	3
2003	25.8%	2
2004	27.2%	2
2005	27.0%	2
2006	25.6%	2
2007	25.1%	2

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	77.0	41
Share of population under 55	70.3	62
Aged migration	6.7	5
Population growth rate, 55+	2.7	30
Demographic stress	26.0	15
Dominant locations	50.8	58
Family / Youth migration	0.7	39
Fertility bounce, 1996-2005	-0.2	30
Fertility, babies % pop, 2005	1.1	61
Fertility, babies % pop, 2005	58.2	41
Working elderly	19.1	58

Local Government Level		Score	Rank
Most Sustainable	Byron (A)	68.5	117
Least Sustainable	Kyogle (A)	33.2	503

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.18%	54
2002	1.06%	61
2003	1.07%	60
2004	1.04%	62
2005	1.05%	61
2006	1.12%	61
Bounce 2004-05	0.01%	27
Actual Change 2004-05 (Number)	52	25
Bounce 2005-06	0.07%	18
Actual Change 2005-06 (Number)	190	22

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$235	39
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,029	35
Water Security Cost	$283	59
Total	$1,546	57

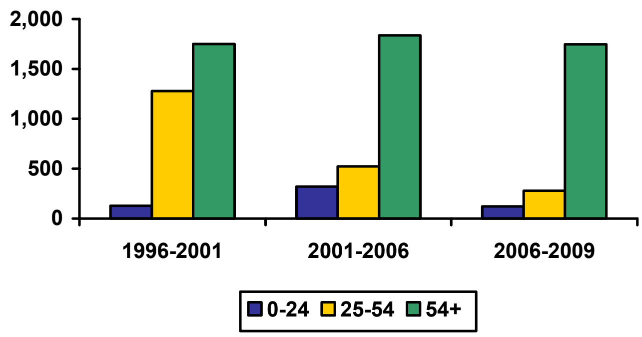
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.46%	35
Carbon Price Loss Cost (@$33 a tonne of carbon)	2.01%	7
Water Security Cost	0.55%	51
Total	3.02%	37

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.06%	40
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.26%	33
Water Security Cost	0.07%	55
Total	0.39%	48

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	34.7%	32.4%	31.3%	30.6%
Age 25-55	40.2%	40.2%	39.0%	38.3%
Age 55+	25.1%	27.3%	29.7%	31.1%
Population Change (average between years)				
Age 0-24		128	319	121
Age 25-55		1,280	523	280
Age 55+		1,751	1,838	1,745
Average Age	38.1	39.7	41.4	41.7
Average Annual Growth		1.5%	1.2%	0.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	299	397	42	33	26%	34%
Value of Property and Unincorporated Business	213	276	36	31	29%	42%
Value of Financial Assets	150	235	39	28	22%	33%
Value of Household Liabilities	64	115	51	33	52%	51%
Disposable Income after Debt Service Costs	45	51	58	60	44%	46%
Household Debt Service Ratio	15%	22%	22	15	78%	85%
Household Debt to Gross Income Ratio	1.11	1.57	22	15	78%	85%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	341	354	330	325	322	-8%
Non Residential	126	148	247	236	246	65%
Total	467	499	577	562	568	14%
Value per capita $2004/05						
Residential	1,765	1,475	1,437	1,400	1,364	-5%
Non Residential	600	660	1,073	1,018	1,045	58%
Total	2,462	2,000	2,511	2,419	2,409	22%
Rank (value per capita)						
Residential	8	22	29	28	28	
Non Residential	40	33	14	17	19	
Total	13	28	21	23	21	

RAINFALL

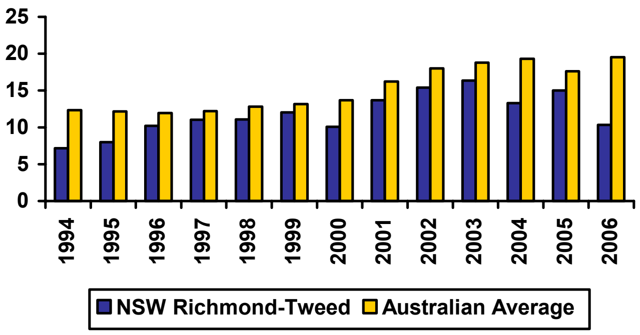
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,250	1,096	2,100	2,328	1,693	983	1,298	1,025	1,281	1,444	1,153
Rank	4	9	4	6	6	8	3	5	6	3	5

PATENT APPLICATIONS

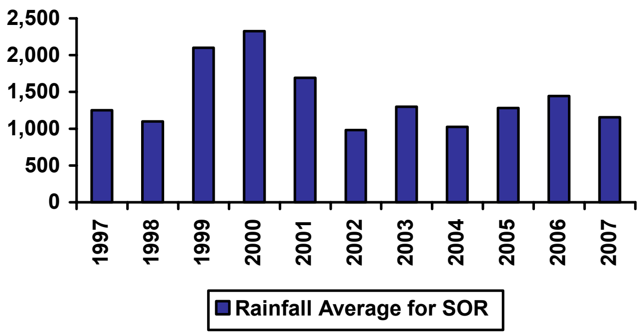
	No	Aust Avg	Rank
Average p.a. (1994-2005)	25.37	46.04	28
Average p.a. per capita	11.82	12.17	16
Hi Tech p.a. (1994-2005)	2.99	12.38	36
Hi Tech p.a. per capita	1.39	2.98	37
Info. Tech p.a. (1994-2005)	1.42	4.75	28
Info. Tech p.a. per capita	0.65	1.13	24
Average per capita (1994-2000)	10.40	10.48	17
Average per capita (2000-2005)	14.02	14.53	16
2000-05 avg./1994-00 avg.	1.35	1.36	33

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



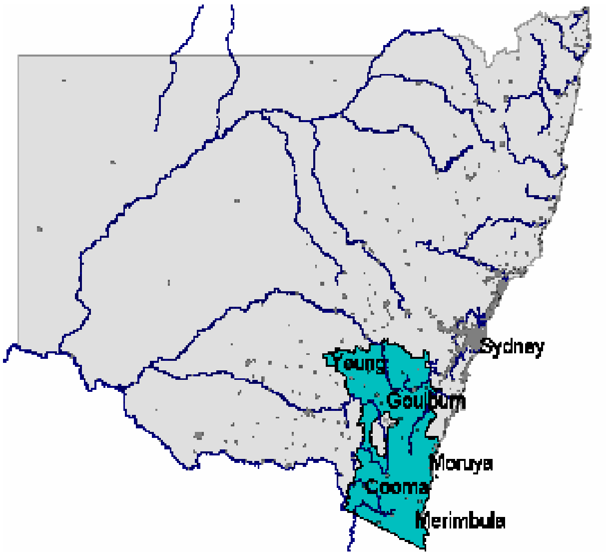
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	22.3	24.6	24.7	22.4
Rank	37	19	19	39
Days Over 35C	9	4	6	2
Rank	44	53	51	58

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	153
Rank	32

NSW South-East



The South East of NSW is a complex region, with the following major component parts.

- The South Coast, a strip of retirement and tourist developments populated not only from Sydney but from Canberra and to some extent from Melbourne. Behind the beaches country originally cleared for dairy farming is reverting to plantation forestry.
- A belt of high plains stretching from Goulburn to the Victorian Border. Until recently this was fine-wool merino country. It now includes the Canberra suburb of Queanbeyan, the Canberra hobby-farm belt and Sydney's winter playground in the Snowy Mountains.
- An area of 'slopes' country reaching as far as Young. This has much in common with the Central West, but accesses Sydney via Goulburn rather than via the Blue Mountains.

Major centres:

Goulburn, Queanbeyan, Bega

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	196	199	202	204	207	211	1.6%	1.2%	1.4%	1.6%	1.8%	1.4%	1.7%
No. Households	76	78	79	81	82	83	2.1%	2.0%	1.9%	1.5%	1.3%	2.0%	1.4%
NIEIR Workforce	91	94	95	96	97	99	2.9%	1.1%	1.0%	1.5%	1.4%	1.7%	1.4%
NIEIR Employment	82	85	86	88	90	91	3.5%	2.0%	1.8%	1.9%	1.7%	2.4%	1.8%
NIEIR Unemployment	9.5	9.3	8.7	8.1	7.8	7.6	-2.5%	-6.6%	-7.2%	-3.4%	-2.1%	-5.5%	-2.8%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.4%	9.9%	9.1%	8.4%	8.0%	7.7%	-0.5	-0.8	-0.7	-0.4	-0.3	-0.7	-0.3
Headline U/E	6.2%	5.4%	4.8%	4.5%	4.3%	4.3%	-0.8	-0.6	-0.4	-0.1	-0.1	-0.6	-0.1
NIEIR Structural U/E	15.5%	15.4%	14.8%	14.3%	13.8%	13.2%	-0.1	-0.6	-0.5	-0.5	-0.6	-0.4	-0.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	3,242	3,359	3,491	3,721	3,871	4,052	16,534	16,860	17,322	18,216	18,662	19,217	4.7%	4.4%
Taxes Paid	827	911	932	985	1,020	1,019	4,216	4,575	4,627	4,824	4,918	4,831	6.0%	1.7%
Benefits	793	814	916	959	939	974	4,045	4,088	4,547	4,696	4,525	4,618	6.5%	0.8%
Business Income	735	761	760	718	760	659	3,748	3,819	3,771	3,517	3,665	3,127	-0.8%	-4.2%
Interest Paid	331	381	454	514	573	661	1,690	1,914	2,252	2,517	2,763	3,137	15.8%	13.4%
Property Income	641	651	709	792	877	975	3,268	3,266	3,518	3,878	4,228	4,626	7.3%	11.0%
Disposable Income	4,368	4,410	4,609	4,814	5,005	5,140	22,276	22,136	22,872	23,568	24,127	24,374	3.3%	3.3%
Rank							44	40	42	43	41	40		
%Rank #1							57%	58%	57%	56%	54%	52%		
Business Value Added	3,977	4,119	4,250	4,439	4,631	4,712	20,282	20,680	21,093	21,733	22,327	22,345	3.7%	3.0%
Rank							43	36	43	43	37	34		
%Rank #1							54%	55%	54%	52%	51%	48%		
Business Productivity							48,494	48,797	49,643	51,348	51,889	53,261	1.9%	1.8%
Rank							25	23	27	24	25	23		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.12%	0.14%
Disability Support (aged 25+)	3.65%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.22%	0.21%
Parenting Payment - Single (aged 25+)	1.66%	1.64%
Unemployed Long Term	1.32%	1.20%
Unemployed Short Term	0.90%	0.79%
Youth Allowance - Non Student	0.42%	0.32%
Youth Allowance - Student	0.99%	1.27%

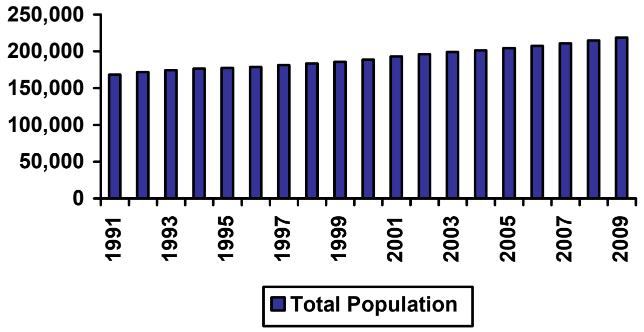
Cash Benefits Share of Disposable Income	Share	Rank
2002	18.2%	18
2003	18.5%	18
2004	19.9%	18
2005	19.9%	18
2006	18.8%	17
2007	18.9%	20

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	84.2	30
Share of population under 55	71.7	54
Aged migration	6.2	7
Population growth rate, 55+	3.2	18
Demographic stress	24.2	18
Dominant locations	51.3	57
Family / Youth migration	0.4	42
Fertility bounce, 1996-2005	-0.2	31
Fertility, babies % pop, 2005	1.2	44
Fertility, babies % pop, 2005	60.9	29
Working elderly	27.7	31

Local Government Level		Score	Rank
Most Sustainable	Queanbeyan (C)	76.5	43
Least Sustainable	Bombala (A)	19.8	622

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.24%	45
2002	1.11%	57
2003	1.08%	58
2004	1.13%	56
2005	1.15%	50
2006	1.22%	44
Bounce 2004-05	0.02%	20
Actual Change 2004-05 (Number)	70	23
Bounce 2005-06	0.06%	25
Actual Change 2005-06 (Number)	166	28

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,033	18
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,122	15
Water Security Cost	$317	57
Total	$2,471	23

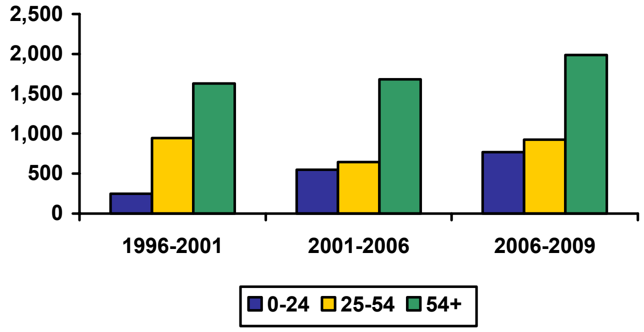
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.81%	18
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.96%	10
Water Security Cost	0.55%	50
Total	4.32%	20

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.30%	15
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.32%	13
Water Security Cost	0.09%	49
Total	0.71%	19

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	34.4%	32.5%	31.6%	31.0%
Age 25-55	42.0%	41.4%	40.1%	39.3%
Age 55+	23.6%	26.1%	28.4%	29.7%
Population Change (average between years)				
Age 0-24		247	548	771
Age 25-55		944	647	926
Age 55+		1,630	1,684	1,985
Average Age	37.3	39.0	40.7	41.1
Average Annual Growth		1.5%	1.4%	1.8%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	278	350	46	45	24%	30%
Value of Property and Unincorporated Business	190	221	46	45	26%	34%
Value of Financial Assets	169	248	31	24	25%	34%
Value of Household Liabilities	81	120	27	31	66%	53%
Disposable Income after Debt Service Costs	51	57	52	45	50%	51%
Household Debt Service Ratio	17%	21%	8	20	87%	82%
Household Debt to Gross Income Ratio	1.24	1.52	8	20	87%	82%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	246	369	292	273	275	-24%
Non Residential	95	98	117	129	135	30%
Total	342	465	409	402	410	-12%
Value per capita $2004/05						
Residential	1,323	1,741	1,408	1,299	1,288	-24%
Non Residential	511	488	565	615	635	24%
Total	1,873	2,201	1,974	1,914	1,923	-12%
Rank (value per capita)						
Residential	24	15	30	33	35	
Non Residential	51	54	55	53	54	
Total	32	19	38	41	43	

RAINFALL

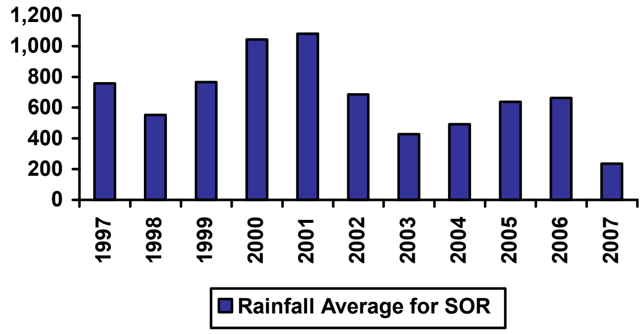
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	758	552	766	1,044	1,082	685	426	491	638	663	235
Rank	31	44	36	37	41	37	45	49	37	31	55

PATENT APPLICATIONS

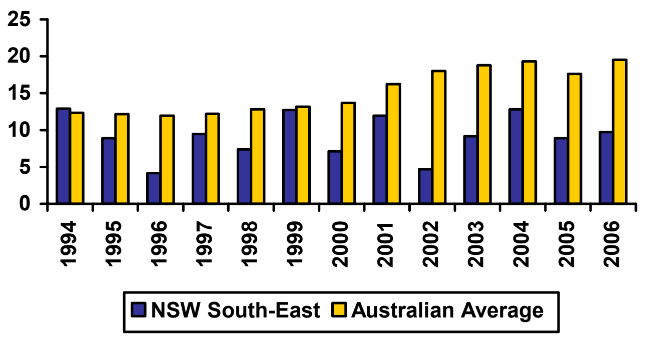
	No	Aust Avg	Rank
Average p.a. (1994-2005)	17.58	46.04	35
Average p.a. per capita	9.22	12.17	31
Hi Tech p.a. (1994-2005)	3.88	12.38	31
Hi Tech p.a. per capita	2.04	2.98	24
Info. Tech p.a. (1994-2005)	1.16	4.75	29
Info. Tech p.a. per capita	0.59	1.13	28
Average per capita (1994-2000)	9.33	10.48	25
Average per capita (2000-2005)	9.54	14.53	37
2000-05 avg./1994-00 avg.	1.02	1.36	58

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	20.0	20.0	20.3	21.4
Rank	49	53	52	47
Days Over 35C	11	6	12	10
Rank	42	46	38	46

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	144
Rank	33

Melbourne Inner

Since World War II, central city functions in Melbourne have spilled into adjacent LGAs, which have gentrified considerably in the process. Inner Melbourne thus comprises the CBD, the formerly industrial but now largely gentrified inner northern and eastern suburbs, and the formerly residential but now office-invaded inner southern suburbs. Its economic base is mainly city centre functions (administration, finance, cultural and educational services, tourism). However, Inner Melbourne still houses the Port of Melbourne and there is some remaining manufacturing.

Major centres:

Melbourne, St Kilda

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	299	307	315	324	336	343	2.9%	2.6%	2.8%	3.7%	2.0%	2.8%	2.8%
No. Households	138	143	149	152	154	156	3.7%	3.5%	2.2%	1.5%	1.1%	3.1%	1.3%
NIEIR Workforce	167	171	176	184	189	196	2.3%	2.9%	4.5%	2.6%	3.5%	3.2%	3.1%
NIEIR Employment	158	162	167	174	181	188	2.8%	2.9%	4.5%	3.6%	3.8%	3.4%	3.7%
NIEIR Unemployment	9.5	9.0	9.2	9.5	8.0	7.8	-5.3%	1.3%	4.0%	-15.5%	-3.0%	-0.1%	-9.5%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	5.7%	5.3%	5.2%	5.2%	4.3%	4.0%	-0.4	-0.1	0.0	-0.9	-0.3	-0.2	-0.6
Headline U/E	5.2%	4.9%	4.9%	5.0%	4.1%	3.9%	-0.3	0.1	0.1	-1.0	-0.2	-0.1	-0.6
NIEIR Structural U/E	11.2%	11.2%	10.7%	10.0%	9.3%	8.7%	0.0	-0.6	-0.6	-0.7	-0.6	-0.4	-0.7

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	8,411	8,664	9,136	9,839	11,011	11,656	28,175	28,194	28,975	30,366	32,783	34,037	5.4%	8.8%
Taxes Paid	2,663	2,936	3,150	3,450	3,905	4,221	8,922	9,553	9,991	10,648	11,627	12,326	9.0%	10.6%
Benefits	917	922	1,001	1,035	1,039	1,086	3,070	3,001	3,174	3,193	3,093	3,171	4.1%	2.4%
Business Income	1,907	2,128	2,339	2,452	2,930	3,487	6,387	6,924	7,418	7,567	8,724	10,182	8.7%	19.3%
Interest Paid	385	513	696	971	1,258	1,538	1,291	1,670	2,206	2,998	3,745	4,492	36.1%	25.9%
Property Income	2,434	2,740	3,079	3,450	3,902	4,502	8,153	8,916	9,764	10,646	11,618	13,147	12.3%	14.2%
Disposable Income	10,882	11,288	12,012	12,704	14,189	15,519	36,452	36,733	38,095	39,208	42,246	45,317	5.3%	10.5%
Rank							4	3	3	4	2	2		
%Rank #1							94%	95%	95%	93%	94%	96%		
Business Value Added	10,317	10,792	11,475	12,291	13,941	15,143	34,562	35,118	36,393	37,933	41,507	44,218	6.0%	11.0%
Rank							2	3	3	3	2	2		
%Rank #1							92%	93%	93%	91%	94%	96%		
Business Productivity							64,392	65,558	67,751	69,347	72,192	75,509	2.5%	4.3%
Rank							3	4	3	4	2	2		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.06%	0.08%
Disability Support (aged 20-24)	0.10%	0.14%
Disability Support (aged 25+)	2.65%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.10%	0.21%
Parenting Payment - Single (aged 25+)	0.79%	1.64%
Unemployed Long Term	1.31%	1.20%
Unemployed Short Term	0.80%	0.79%
Youth Allowance - Non Student	0.13%	0.32%
Youth Allowance - Student	1.66%	1.27%

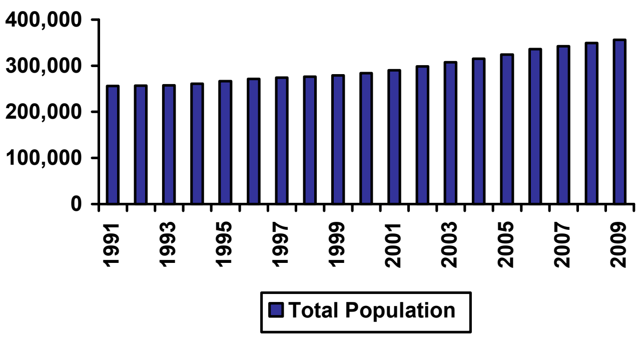
Cash Benefits Share of Disposable Income	Share	Rank
2002	8.4%	61
2003	8.2%	61
2004	8.3%	61
2005	8.1%	61
2006	7.3%	63
2007	7.0%	62

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	92.3	13
Share of population under 55	80.9	7
Aged migration	5.5	11
Population growth rate, 55+	1.5	56
Demographic stress	53.1	3
Dominant locations	100.0	2
Family / Youth migration	12.0	1
Fertility bounce, 1996-2005	0.0	6
Fertility, babies % pop, 2005	1.0	63
Fertility, babies % pop, 2005	73.3	3
Working elderly	31.3	10

Local Government Level		Score	Rank
Most Sustainable	Melbourne (C)	86.0	4
Least Sustainable	Stonnington (C)	59.9	226

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.04%	63
2002	1.03%	62
2003	1.03%	62
2004	1.08%	61
2005	1.06%	60
2006	1.05%	63
Bounce 2004-05	-0.03%	50
Actual Change 2004-05 (Number)	13	34
Bounce 2005-06	-0.01%	57
Actual Change 2005-06 (Number)	107	40

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$40	55
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,003	41
Water Security Cost	$677	23
Total	$1,720	45

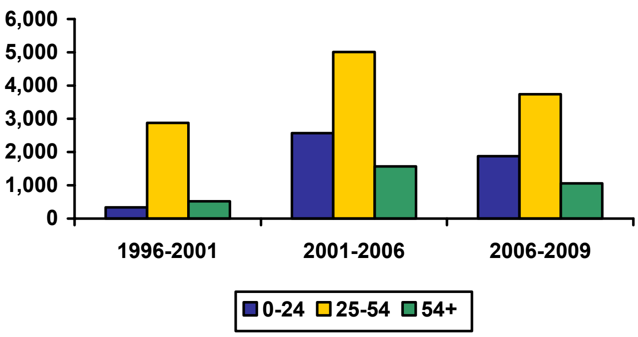
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.04%	57
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.09%	61
Water Security Cost	0.73%	41
Total	1.87%	58

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.00%	57
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.12%	62
Water Security Cost	0.08%	54
Total	0.21%	61

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	29.1%	27.8%	27.9%	27.9%
Age 25-55	51.1%	52.7%	53.0%	53.2%
Age 55+	19.8%	19.4%	19.1%	18.9%
Population Change (average between years)				
Age 0-24		338	2,563	1,879
Age 25-55		2,872	5,013	3,743
Age 55+		519	1,568	1,055
Average Age	37.7	37.8	37.6	37.1
Average Annual Growth		1.3%	3.0%	1.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	728	823	6	3	63%	70%
Value of Property and Unincorporated Business	422	438	7	9	58%	67%
Value of Financial Assets	350	529	8	4	52%	73%
Value of Household Liabilities	44	144	64	14	36%	64%
Disposable Income after Debt Service Costs	82	92	5	5	80%	82%
Household Debt Service Ratio	6%	17%	64	51	32%	64%
Household Debt to Gross Income Ratio	0.46	1.19	64	51	32%	64%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	842	1,348	933	740	744	-40%
Non Residential	1,397	1,893	1,898	2,076	2,168	8%
Total	2,239	3,236	2,830	2,817	2,912	-12%
Value per capita $2004/05						
Residential	2,529	4,309	2,777	2,176	2,181	-45%
Non Residential	4,972	6,075	5,650	6,101	6,353	-1%
Total	7,400	10,162	8,427	8,277	8,534	-17%
Rank (value per capita)						
Residential	2	1	3	7	6	
Non Residential	1	1	1	1	1	
Total	1	1	1	1	1	

RAINFALL

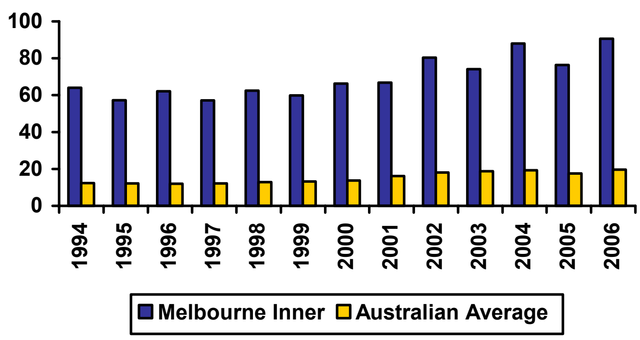
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	445	489	558	880	1,056	566	370	500	695	570	323
Rank	56	50	52	52	45	47	49	48	32	45	42

PATENT APPLICATIONS

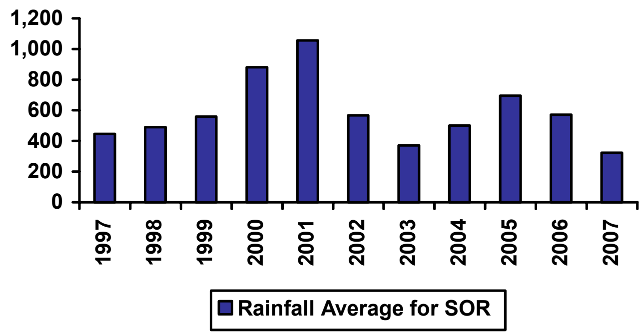
	No	Aust Avg	Rank
Average p.a. (1994-2005)	204.99	46.04	3
Average p.a. per capita	69.67	12.17	1
Hi Tech p.a. (1994-2005)	71.23	12.38	2
Hi Tech p.a. per capita	23.98	2.98	1
Info. Tech p.a. (1994-2005)	30.19	4.75	2
Info. Tech p.a. per capita	10.09	1.13	2
Average per capita (1994-2000)	62.04	10.48	1
Average per capita (2000-2005)	79.36	14.53	1
2000-05 avg./1994-00 avg.	1.28	1.36	37

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	20.3	20.8	21.0	20.8
Rank	46	47	44	50
Days Over 35C	11	9	12	18
Rank	38	37	38	26

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	2227
Rank	2

Melbourne East

The Melbourne East region is solidly suburban. The parts nearest the City date from the nineteenth century land boom, while the parts furthest away were not built up till the 1970s, but most of the region comprises garden suburbs of middle to high socio-economic status. Its economic base is largely commuting, though there has been some infusion of city centre functions, and the region has a major university and a belt of manufacturing.

Major centres:

Camberwell, Box Hill, Glen Waverley

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	835	840	844	849	854	861	0.5%	0.5%	0.7%	0.5%	0.9%	0.6%	0.7%
No. Households	302	306	309	312	315	318	1.2%	1.1%	1.0%	0.9%	0.9%	1.1%	0.9%
NIEIR Workforce	428	430	431	441	444	449	0.6%	0.1%	2.3%	0.7%	1.2%	1.0%	1.0%
NIEIR Employment	398	401	402	415	416	422	0.7%	0.5%	3.0%	0.3%	1.5%	1.4%	0.9%
NIEIR Unemployment	30.0	29.8	28.4	26.3	28.2	27.2	-0.6%	-4.5%	-7.6%	7.2%	-3.3%	-4.3%	1.8%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	7.0%	6.9%	6.6%	6.0%	6.3%	6.1%	-0.1	-0.3	-0.6	0.4	-0.3	-0.3	0.0
Headline U/E	4.8%	4.9%	4.6%	4.2%	4.6%	4.3%	0.1	-0.3	-0.4	0.4	-0.2	-0.2	0.1
NIEIR Structural U/E	7.2%	7.4%	7.3%	7.1%	6.8%	6.6%	0.2	-0.1	-0.2	-0.3	-0.2	0.0	-0.2

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	18,599	18,790	19,580	20,513	21,359	22,066	22,271	22,381	23,203	24,147	25,013	25,629	3.3%	3.7%
Taxes Paid	4,722	5,068	5,323	5,669	5,801	5,934	5,654	6,037	6,308	6,673	6,794	6,892	6.3%	2.3%
Benefits	2,555	2,576	2,830	2,879	2,871	2,987	3,060	3,069	3,354	3,390	3,362	3,470	4.1%	1.9%
Business Income	2,902	3,172	3,404	3,519	3,529	3,698	3,475	3,778	4,034	4,142	4,133	4,295	6.6%	2.5%
Interest Paid	1,470	1,748	2,185	2,510	2,779	3,289	1,760	2,082	2,589	2,954	3,254	3,821	19.5%	14.5%
Property Income	4,217	4,505	5,056	5,614	6,066	6,828	5,050	5,366	5,992	6,609	7,103	7,930	10.0%	10.3%
Disposable Income	22,628	22,737	23,834	24,891	25,873	27,037	27,095	27,082	28,244	29,302	30,300	31,402	3.2%	4.2%
Rank							15	12	13	12	12	10		
%Rank #1							70%	70%	71%	69%	68%	67%		
Business Value Added	21,501	21,962	22,984	24,031	24,888	25,764	25,746	26,159	27,237	28,289	29,146	29,924	3.8%	3.5%
Rank							13	11	11	11	12	13		
%Rank #1							69%	69%	70%	68%	66%	65%		
Business Productivity							53,057	53,824	56,073	57,338	58,716	60,060	2.6%	2.3%
Rank							9	10	9	9	8	9		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.12%	0.14%
Disability Support (aged 25+)	1.91%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.09%	0.21%
Parenting Payment - Single (aged 25+)	0.94%	1.64%
Unemployed Long Term	0.64%	1.20%
Unemployed Short Term	0.52%	0.79%
Youth Allowance - Non Student	0.11%	0.32%
Youth Allowance - Student	1.32%	1.27%

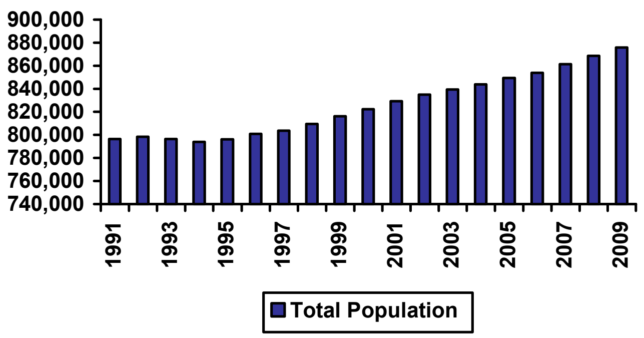
Cash Benefits Share of Disposable Income	Share	Rank
2002	11.3%	56
2003	11.3%	57
2004	11.9%	57
2005	11.6%	56
2006	11.1%	55
2007	11.0%	53

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	81.0	38
Share of population under 55	74.2	35
Aged migration	4.0	39
Population growth rate, 55+	2.1	43
Demographic stress	5.4	46
Dominant locations	100.0	2
Family / Youth migration	3.8	11
Fertility bounce, 1996-2005	0.0	9
Fertility, babies % pop, 2005	1.1	60
Fertility, babies % pop, 2005	58.5	39
Working elderly	29.5	19

Local Government Level		Score	Rank
Most Sustainable	Knox (C)	65.2	147
Least Sustainable	Manningham (C)	49.8	350

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.13%	60
2002	1.11%	56
2003	1.11%	54
2004	1.12%	58
2005	1.12%	59
2006	1.12%	60
Bounce 2004-05	-0.01%	34
Actual Change 2004-05 (Number)	14	33
Bounce 2005-06	0.00%	53
Actual Change 2005-06 (Number)	85	46

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$6	61
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,189	5
Water Security Cost	$672	26
Total	$1,867	36

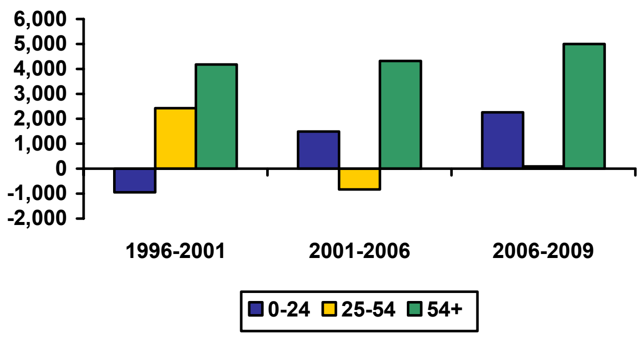
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.01%	61
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.50%	40
Water Security Cost	0.85%	37
Total	2.36%	54

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.00%	61
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.17%	52
Water Security Cost	0.09%	48
Total	0.26%	57

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	34.3%	32.5%	32.5%	32.4%
Age 25-55	43.5%	43.5%	41.8%	40.7%
Age 55+	22.2%	24.0%	25.8%	26.8%
Population Change (average between years)				
Age 0-24		-943	1,489	2,252
Age 25-55		2,421	-832	93
Age 55+		4,179	4,317	5,000
Average Age	37.4	38.5	39.7	39.6
Average Annual Growth		0.7%	0.6%	0.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	616	712	9	7	53%	61%
Value of Property and Unincorporated Business	463	507	6	7	64%	78%
Value of Financial Assets	239	361	19	10	36%	50%
Value of Household Liabilities	87	156	14	11	71%	69%
Disposable Income after Debt Service Costs	74	79	12	11	72%	70%
Household Debt Service Ratio	12%	20%	46	33	64%	75%
Household Debt to Gross Income Ratio	0.92	1.39	46	33	64%	75%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	896	837	847	833	832	0%
Non Residential	536	685	747	872	989	27%
Total	1,432	1,524	1,594	1,705	1,822	12%
Value per capita $2004/05						
Residential	1,038	994	992	971	971	-2%
Non Residential	657	813	875	1,017	1,155	25%
Total	1,678	1,765	1,866	1,988	2,126	13%
Rank (value per capita)						
Residential	38	43	50	50	50	
Non Residential	33	14	26	18	12	
Total	37	39	44	39	34	

RAINFALL

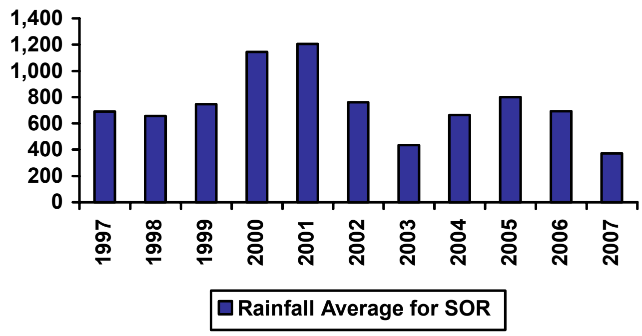
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	690	655	747	1,146	1,205	760	435	664	800	692	372
Rank	40	33	38	32	30	27	44	30	25	25	37

PATENT APPLICATIONS

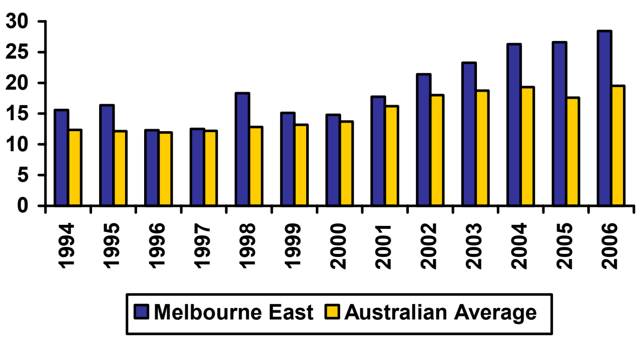
	No	Aust Avg	Rank
Average p.a. (1994-2005)	158.39	46.04	5
Average p.a. per capita	19.14	12.17	11
Hi Tech p.a. (1994-2005)	48.46	12.38	5
Hi Tech p.a. per capita	5.84	2.98	8
Info. Tech p.a. (1994-2005)	20.49	4.75	4
Info. Tech p.a. per capita	2.46	1.13	6
Average per capita (1994-2000)	15.34	10.48	11
Average per capita (2000-2005)	23.98	14.53	7
2000-05 avg./1994-00 avg.	1.56	1.36	10

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	19.4	19.9	20.4	19.9
Rank	52	54	51	54
Days Over 35C	8	6	10	12
Rank	52	48	44	38

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	2047
Rank	4

Melbourne North

Like Melbourne West, this region begins with suburbs developed during the nineteenth century land boom and extends to the urban fringe. Melbourne airport is located within the region but on the boundary of Melbourne West, and is becoming a nucleus for transport-related industries. The older parts of the region were established manufacturing areas, but with the decline of manufacturing the region is becoming a commuter zone for Central Melbourne. By and large socio-economic status is low to middling with high ethnic mix, but there has been some gentrification, and in Heidelburg-Eltham the region also includes hilly commuter suburbs which, in socio-economic composition, resemble Melbourne East. They are, however, cut off from the Eastern suburbs by a string of nature reserves along the Yarra river.

Major centres:

Preston, Broadmeadows, Heidelberg

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	705	713	722	732	741	752	1.1%	1.2%	1.3%	1.3%	1.5%	1.2%	1.4%
No. Households	249	254	258	263	267	271	1.9%	1.9%	1.7%	1.6%	1.5%	1.8%	1.6%
NIEIR Workforce	349	353	359	369	375	382	1.2%	1.5%	2.8%	1.6%	2.0%	1.8%	1.8%
NIEIR Employment	316	322	326	336	342	354	1.8%	1.4%	2.9%	1.9%	3.5%	2.1%	2.7%
NIEIR Unemployment	33.2	31.7	32.4	32.9	32.6	28.0	-4.4%	2.2%	1.4%	-0.9%	-14.0%	-0.3%	-7.7%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.5%	9.0%	9.0%	8.9%	8.7%	7.3%	-0.5	0.1	-0.1	-0.2	-1.4	-0.2	-0.8
Headline U/E	6.9%	6.3%	6.2%	6.5%	6.2%	5.0%	-0.6	0.0	0.2	-0.3	-1.2	-0.1	-0.7
NIEIR Structural U/E	14.5%	14.6%	14.7%	14.0%	13.3%	12.9%	0.1	0.1	-0.7	-0.6	-0.4	-0.2	-0.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	13,309	13,668	14,453	15,232	16,033	16,972	18,866	19,158	20,020	20,820	21,644	22,593	4.6%	5.6%
Taxes Paid	3,005	3,271	3,469	3,699	3,831	4,018	4,260	4,585	4,805	5,056	5,172	5,348	7.2%	4.2%
Benefits	2,693	2,723	3,003	3,073	3,035	3,187	3,818	3,817	4,159	4,201	4,097	4,242	4.5%	1.8%
Business Income	1,659	1,798	1,924	1,954	1,997	2,131	2,352	2,520	2,664	2,671	2,696	2,837	5.6%	4.4%
Interest Paid	1,202	1,419	1,754	1,986	2,187	2,543	1,704	1,988	2,430	2,715	2,952	3,386	18.2%	13.2%
Property Income	1,923	2,053	2,263	2,488	2,674	3,029	2,727	2,878	3,134	3,400	3,609	4,032	9.0%	10.3%
Disposable Income	15,779	15,935	16,775	17,463	18,183	19,268	22,368	22,335	23,235	23,869	24,546	25,649	3.4%	5.0%
Rank							43	37	37	37	37	28		
%Rank #1							57%	58%	58%	57%	55%	54%		
Business Value Added	14,968	15,466	16,377	17,186	18,030	19,103	21,218	21,678	22,684	23,491	24,339	25,430	4.7%	5.4%
Rank							37	30	28	28	27	25		
%Rank #1							57%	58%	58%	57%	55%	55%		
Business Productivity							46,444	47,180	49,290	50,200	51,483	52,641	2.6%	2.4%
Rank							36	32	31	33	27	25		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.14%	0.14%
Disability Support (aged 25+)	3.63%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.14%	0.21%
Parenting Payment - Single (aged 25+)	1.58%	1.64%
Unemployed Long Term	1.34%	1.20%
Unemployed Short Term	0.84%	0.79%
Youth Allowance - Non Student	0.26%	0.32%
Youth Allowance - Student	1.78%	1.27%

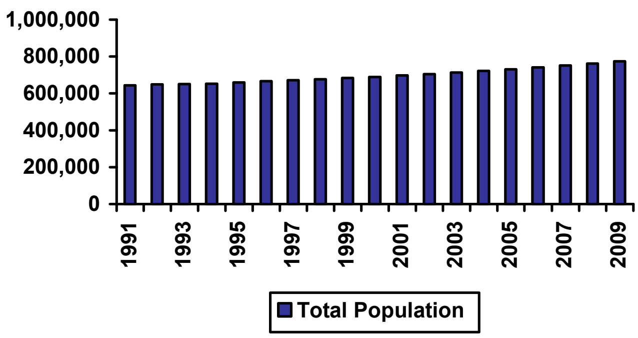
Cash Benefits Share of Disposable Income	Share	Rank
2002	17.1%	27
2003	17.1%	31
2004	17.9%	32
2005	17.6%	31
2006	16.7%	31
2007	16.5%	36

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	72.6	48
Share of population under 55	78.3	19
Aged migration	3.1	61
Population growth rate, 55+	2.1	43
Demographic stress	13.5	36
Dominant locations	100.0	2
Family / Youth migration	3.1	20
Fertility bounce, 1996-2005	-0.1	15
Fertility, babies % pop, 2005	1.4	20
Fertility, babies % pop, 2005	59.4	36
Working elderly	22.2	51

Local Government Level		Score	Rank
Most Sustainable	Hume (C)	71.2	86
Least Sustainable	Banyule (C)	47.3	376

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.34%	24
2002	1.34%	18
2003	1.33%	17
2004	1.37%	13
2005	1.34%	17
2006	1.37%	20
Bounce 2004-05	-0.03%	51
Actual Change 2004-05 (Number)	-72	58
Bounce 2005-06	0.03%	39
Actual Change 2005-06 (Number)	338	7

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$136	46
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,068	27
Water Security Cost	$678	22
Total	$1,882	35

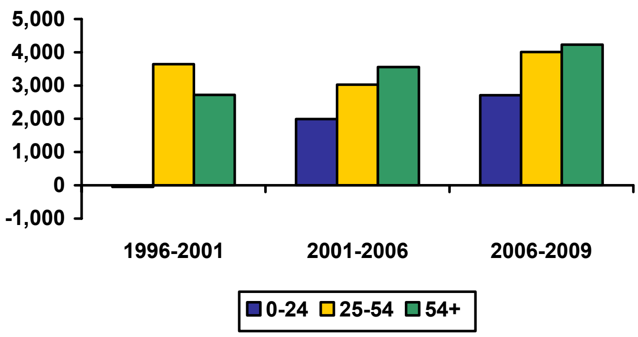
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.21%	47
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.64%	33
Water Security Cost	1.04%	25
Total	2.89%	38

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.03%	45
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.26%	30
Water Security Cost	0.17%	24
Total	0.46%	40

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.0%	34.4%	33.7%	33.3%
Age 25-55	44.6%	45.1%	44.6%	44.2%
Age 55+	19.4%	20.5%	21.7%	22.4%
Population Change (average between years)				
Age 0-24		-44	1,994	2,707
Age 25-55		3,640	3,034	4,008
Age 55+		2,716	3,554	4,226
Average Age	35.4	36.5	37.6	37.8
Average Annual Growth		0.9%	1.2%	1.5%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	359	410	28	29	31%	35%
Value of Property and Unincorporated Business	342	398	8	13	47%	61%
Value of Financial Assets	104	153	56	56	16%	21%
Value of Household Liabilities	87	141	13	17	71%	62%
Disposable Income after Debt Service Costs	60	65	28	26	58%	58%
Household Debt Service Ratio	15%	21%	20	21	78%	81%
Household Debt to Gross Income Ratio	1.12	1.51	21	21	78%	81%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	681	931	940	971	979	3%
Non Residential	478	545	575	743	805	30%
Total	1,159	1,503	1,515	1,714	1,785	11%
Value per capita $2004/05						
Residential	906	1,264	1,269	1,293	1,294	2%
Non Residential	701	760	777	990	1,064	24%
Total	1,643	1,999	2,046	2,282	2,358	12%
Rank (value per capita)						
Residential	42	34	35	36	34	
Non Residential	25	19	32	19	16	
Total	39	29	35	27	23	

RAINFALL

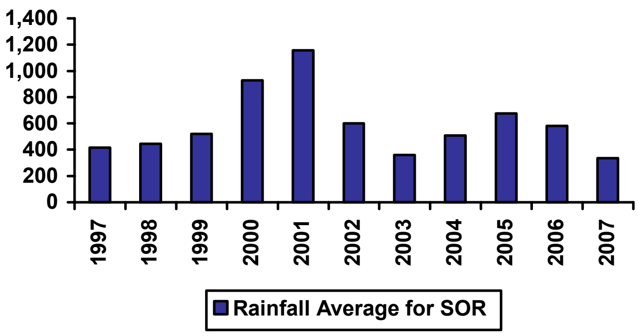
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	415	445	521	929	1,156	600	360	508	675	582	335
Rank	60	55	55	46	35	45	50	47	33	41	39

PATENT APPLICATIONS

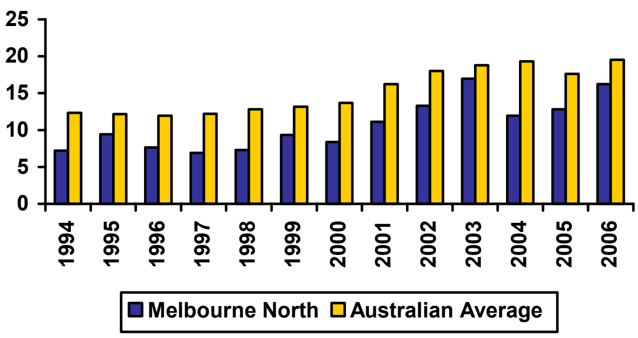
	No	Aust Avg	Rank
Average p.a. (1994-2005)	74.59	46.04	12
Average p.a. per capita	10.65	12.17	21
Hi Tech p.a. (1994-2005)	19.67	12.38	12
Hi Tech p.a. per capita	2.79	2.98	13
Info. Tech p.a. (1994-2005)	5.96	4.75	13
Info. Tech p.a. per capita	0.84	1.13	18
Average per capita (1994-2000)	8.41	10.48	28
Average per capita (2000-2005)	13.72	14.53	18
2000-05 avg./1994-00 avg.	1.63	1.36	5

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	19.6	20.2	20.5	20.5
Rank	51	51	48	51
Days Over 35C	10	8	12	18
Rank	43	39	37	25

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	834
Rank	9

Melbourne South

Melbourne South is very similar to Melbourne East. Its older parts date from the nineteenth century, and its newest were developed a mere 20 or 30 years ago. The parts nearer the city are high status commuter suburbs, but further away the status gradient declines and there are manufacturing areas as well as golf courses.

Major centres:

Brighton, Cheltenham

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	349	352	355	358	361	366	0.8%	0.8%	0.9%	0.8%	1.2%	0.8%	1.0%
No. Households	137	139	141	142	143	145	1.2%	1.2%	1.0%	0.9%	0.9%	1.1%	0.9%
NIEIR Workforce	177	178	182	185	187	191	1.1%	1.7%	2.0%	0.8%	2.5%	1.6%	1.6%
NIEIR Employment	165	168	171	175	178	181	1.5%	1.7%	2.5%	1.7%	1.6%	1.9%	1.7%
NIEIR Unemployment	11.4	10.8	10.9	10.3	8.7	10.5	-5.2%	1.2%	-5.1%	-16.0%	20.8%	-3.1%	0.8%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	6.4%	6.0%	6.0%	5.6%	4.7%	5.5%	-0.4	0.0	-0.4	-0.9	0.8	-0.3	0.0
Headline U/E	4.7%	4.2%	4.3%	4.1%	3.2%	4.1%	-0.5	0.1	-0.2	-0.9	0.9	-0.2	0.0
NIEIR Structural U/E	8.7%	8.9%	8.4%	8.2%	7.8%	7.4%	0.2	-0.5	-0.3	-0.4	-0.4	-0.2	-0.4

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	7,902	8,078	8,538	9,008	9,592	9,922	22,611	22,922	24,043	25,135	26,549	27,157	4.5%	5.0%
Taxes Paid	2,019	2,200	2,365	2,537	2,693	2,803	5,776	6,242	6,659	7,078	7,455	7,671	7.9%	5.1%
Benefits	1,149	1,149	1,239	1,265	1,261	1,314	3,288	3,259	3,490	3,531	3,490	3,596	3.3%	1.9%
Business Income	1,362	1,487	1,618	1,666	1,845	2,095	3,897	4,220	4,556	4,649	5,107	5,734	7.0%	12.1%
Interest Paid	565	724	933	1,130	1,310	1,566	1,615	2,054	2,628	3,154	3,627	4,285	26.0%	17.7%
Property Income	1,796	1,965	2,238	2,502	2,725	3,093	5,139	5,575	6,302	6,982	7,542	8,465	11.7%	11.2%
Disposable Income	9,871	9,986	10,549	11,034	11,727	12,393	28,245	28,334	29,707	30,788	32,459	33,918	3.8%	6.0%
Rank							13	8	8	9	9	8		
%Rank #1							72%	74%	74%	73%	73%	72%		
Business Value Added	9,264	9,566	10,156	10,674	11,437	12,018	26,508	27,143	28,599	29,784	31,656	32,891	4.8%	6.1%
Rank							11	8	9	9	8	8		
%Rank #1							71%	72%	73%	72%	72%	71%		
Business Productivity							55,126	56,101	58,578	59,986	62,336	64,842	2.9%	4.0%
Rank							6	7	7	7	6	7		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.06%	0.08%
Disability Support (aged 20-24)	0.09%	0.14%
Disability Support (aged 25+)	2.22%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.09%	0.21%
Parenting Payment - Single (aged 25+)	0.95%	1.64%
Unemployed Long Term	0.74%	1.20%
Unemployed Short Term	0.53%	0.79%
Youth Allowance - Non Student	0.10%	0.32%
Youth Allowance - Student	1.14%	1.27%

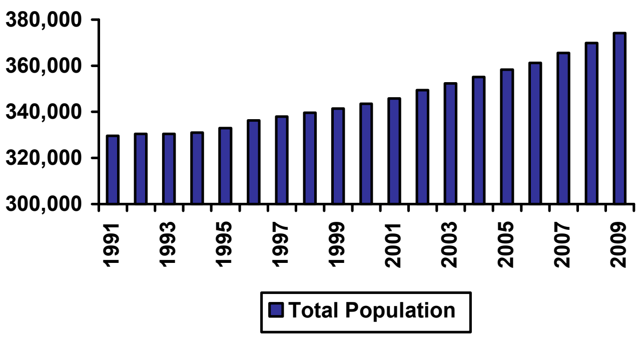
Cash Benefits Share of Disposable Income	Share	Rank
2002	11.6%	55
2003	11.5%	56
2004	11.7%	58
2005	11.5%	57
2006	10.8%	57
2007	10.6%	56

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	87.9	25
Share of population under 55	73.4	39
Aged migration	4.5	23
Population growth rate, 55+	0.8	64
Demographic stress	12.9	37
Dominant locations	100.0	2
Family / Youth migration	3.4	16
Fertility bounce, 1996-2005	0.1	3
Fertility, babies % pop, 2005	1.3	39
Fertility, babies % pop, 2005	63.5	23
Working elderly	25.7	40

Local Government Level		Score	Rank
Most Sustainable	Glen Eira (C)	64.5	161
Least Sustainable	Bayside (C)	62.7	196

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.17%	55
2002	1.18%	45
2003	1.20%	34
2004	1.23%	31
2005	1.22%	32
2006	1.25%	39
Bounce 2004-05	-0.01%	39
Actual Change 2004-05 (Number)	-11	39
Bounce 2005-06	0.03%	37
Actual Change 2005-06 (Number)	151	31

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$30	57
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,130	12
Water Security Cost	$673	25
Total	$1,833	38

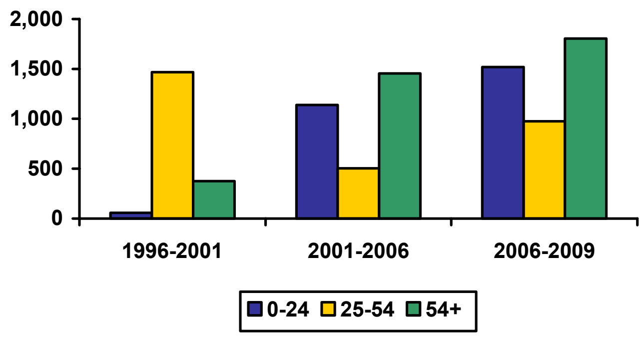
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.04%	58
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.42%	48
Water Security Cost	0.85%	38
Total	2.31%	56

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.00%	58
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.15%	58
Water Security Cost	0.09%	50
Total	0.24%	59

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	30.6%	29.9%	30.1%	30.3%
Age 25-55	43.5%	44.4%	43.2%	42.5%
Age 55+	25.9%	25.7%	26.6%	27.1%
Population Change (average between years)				
Age 0-24		59	1,137	1,518
Age 25-55		1,468	504	975
Age 55+		375	1,455	1,805
Average Age	39.6	40.0	40.5	40.4
Average Annual Growth		0.6%	0.9%	1.2%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	666	760	8	5	57%	65%
Value of Property and Unincorporated Business	506	567	5	3	70%	87%
Value of Financial Assets	228	356	21	13	34%	49%
Value of Household Liabilities	68	163	45	8	56%	72%
Disposable Income after Debt Service Costs	72	79	13	10	70%	71%
Household Debt Service Ratio	10%	20%	57	26	52%	77%
Household Debt to Gross Income Ratio	0.74	1.43	57	26	52%	77%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	480	534	494	508	505	-6%
Non Residential	209	209	246	259	274	25%
Total	689	732	741	767	779	4%
Value per capita $2004/05						
Residential	1,304	1,494	1,368	1,397	1,387	-7%
Non Residential	611	589	682	712	754	22%
Total	1,881	2,071	2,051	2,109	2,141	1%
Rank (value per capita)						
Residential	26	19	31	29	27	
Non Residential	38	39	42	42	40	
Total	31	21	34	35	33	

RAINFALL

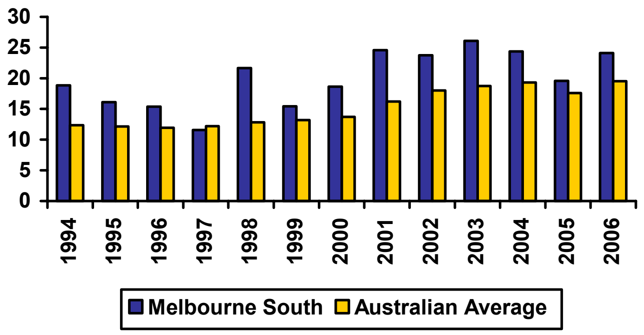
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	567	570	663	959	1,101	621	408	685	740	707	305
Rank	48	42	46	43	36	42	46	25	30	24	46

PATENT APPLICATIONS

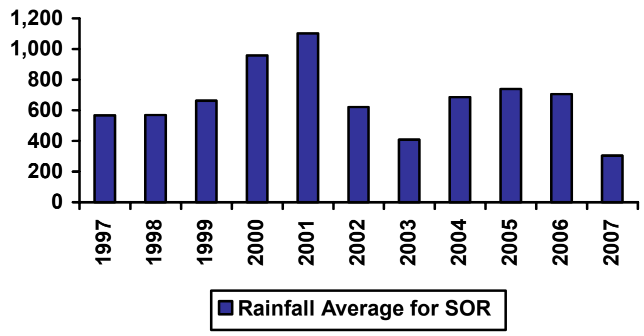
	No	Aust Avg	Rank
Average p.a. (1994-2005)	69.29	46.04	14
Average p.a. per capita	20.01	12.17	8
Hi Tech p.a. (1994-2005)	14.20	12.38	14
Hi Tech p.a. per capita	4.09	2.98	10
Info. Tech p.a. (1994-2005)	7.09	4.75	12
Info. Tech p.a. per capita	2.03	1.13	10
Average per capita (1994-2000)	17.77	10.48	7
Average per capita (2000-2005)	23.75	14.53	9
2000-05 avg./1994-00 avg.	1.34	1.36	34

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	18.8	19.8	20.1	19.9
Rank	55	55	53	55
Days Over 35C	8	8	11	14
Rank	48	40	41	37

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	797
Rank	10

Melbourne West

Melbourne West starts the other side of the Port from the CBD, and extends to the edge of the metropolitan area. Its economic base emphasises manufacturing industries (particularly chemicals and engineering) and it is also known for transport depots. In the twentieth century many of its residents worked locally, and in the post-war period the region became decidedly multicultural, a tradition which is maintained. Some parts have gentrified, partly by the social mobility of post-war immigrants. The decline of manufacturing as an employer has led to an increase in commuting to Inner Melbourne, which is conveniently close.

Major centres:

Footscray, Werribee, Sunshine

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	577	592	606	620	634	649	2.7%	2.3%	2.4%	2.3%	2.3%	2.4%	2.3%
No. Households	200	205	211	216	220	224	2.8%	2.6%	2.3%	2.2%	1.9%	2.6%	2.0%
NIEIR Workforce	294	300	308	319	328	339	2.0%	2.6%	3.8%	2.6%	3.4%	2.8%	3.0%
NIEIR Employment	264	271	278	291	301	312	2.9%	2.5%	4.5%	3.5%	3.7%	3.3%	3.6%
NIEIR Unemployment	30.5	28.6	29.6	28.6	26.7	26.9	-6.0%	3.3%	-3.1%	-6.6%	0.4%	-2.0%	-3.2%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.4%	9.5%	9.6%	9.0%	8.2%	7.9%	-0.8	0.1	-0.6	-0.8	-0.2	-0.5	-0.5
Headline U/E	8.1%	7.3%	7.3%	7.0%	6.3%	6.3%	-0.8	0.0	-0.3	-0.8	0.0	-0.4	-0.4
NIEIR Structural U/E	15.2%	15.2%	15.1%	14.5%	14.0%	13.5%	0.0	0.0	-0.6	-0.5	-0.5	-0.2	-0.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	11,331	11,889	12,688	13,579	14,264	15,168	19,641	20,076	20,947	21,904	22,492	23,379	6.2%	5.7%
Taxes Paid	2,605	2,906	3,097	3,365	3,465	3,625	4,516	4,907	5,113	5,427	5,464	5,587	8.9%	3.8%
Benefits	2,223	2,262	2,511	2,626	2,591	2,718	3,853	3,820	4,145	4,236	4,085	4,189	5.7%	1.7%
Business Income	1,218	1,353	1,434	1,453	1,406	1,409	2,111	2,284	2,368	2,344	2,217	2,171	6.1%	-1.5%
Interest Paid	949	1,130	1,428	1,683	1,925	2,262	1,645	1,908	2,358	2,715	3,036	3,486	21.1%	15.9%
Property Income	1,841	1,960	2,143	2,416	2,671	3,071	3,191	3,309	3,538	3,897	4,211	4,733	9.5%	12.7%
Disposable Income	13,400	13,758	14,560	15,378	15,941	16,913	23,227	23,231	24,038	24,806	25,136	26,069	4.7%	4.9%
Rank							31	27	30	30	28	25		
%Rank #1							60%	60%	60%	59%	56%	55%		
Business Value Added	12,549	13,242	14,122	15,032	15,670	16,576	21,753	22,360	23,315	24,248	24,709	25,551	6.2%	5.0%
Rank							29	24	24	25	24	23		
%Rank #1							58%	59%	60%	58%	56%	55%		
Business Productivity							46,616	47,869	49,849	50,826	51,969	52,871	2.9%	2.0%
Rank							34	28	25	28	24	24		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.13%	0.14%
Disability Support (aged 25+)	3.33%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.19%	0.21%
Parenting Payment - Single (aged 25+)	2.04%	1.64%
Unemployed Long Term	1.67%	1.20%
Unemployed Short Term	1.03%	0.79%
Youth Allowance - Non Student	0.31%	0.32%
Youth Allowance - Student	1.71%	1.27%

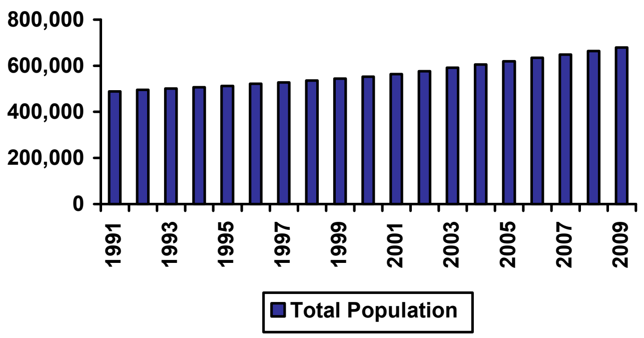
Cash Benefits Share of Disposable Income	Share	Rank
2002	16.6%	30
2003	16.4%	37
2004	17.2%	37
2005	17.1%	33
2006	16.3%	33
2007	16.1%	39

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	82.6	35
Share of population under 55	80.1	10
Aged migration	3.4	57
Population growth rate, 55+	3.0	23
Demographic stress	26.4	14
Dominant locations	100.0	2
Family / Youth migration	3.5	15
Fertility bounce, 1996-2005	-0.1	17
Fertility, babies % pop, 2005	1.4	13
Fertility, babies % pop, 2005	65.7	15
Working elderly	21.9	54

Local Government Level		Score	Rank
Most Sustainable	Melton (S)	85.7	5
Least Sustainable	Moonee Valley (C)	47.0	381

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.37%	21
2002	1.43%	10
2003	1.37%	13
2004	1.42%	9
2005	1.41%	12
2006	1.45%	13
Bounce 2004-05	-0.01%	35
Actual Change 2004-05 (Number)	166	14
Bounce 2005-06	0.03%	36
Actual Change 2005-06 (Number)	423	6

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$275	35
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,059	30
Water Security Cost	$684	19
Total	$2,018	32

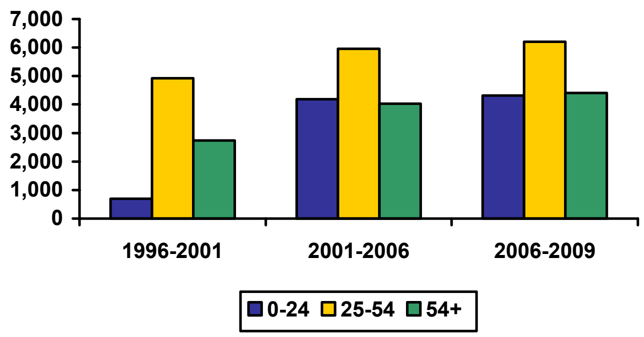
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.41%	37
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.59%	35
Water Security Cost	1.03%	26
Total	3.04%	36

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.07%	38
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.26%	29
Water Security Cost	0.17%	22
Total	0.50%	38

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	37.1%	35.0%	34.4%	34.0%
Age 25-55	45.3%	46.3%	45.8%	45.5%
Age 55+	17.7%	18.8%	19.9%	20.5%
Population Change (average between years)				
Age 0-24		701	4,188	4,323
Age 25-55		4,921	5,959	6,208
Age 55+		2,735	4,023	4,409
Average Age	34.6	35.7	36.6	37.0
Average Annual Growth		1.6%	2.4%	2.3%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	366	406	26	31	32%	35%
Value of Property and Unincorporated Business	313	364	12	18	43%	56%
Value of Financial Assets	138	187	45	47	21%	26%
Value of Household Liabilities	84	146	21	13	69%	64%
Disposable Income after Debt Service Costs	62	66	25	24	60%	59%
Household Debt Service Ratio	14%	22%	31	18	75%	83%
Household Debt to Gross Income Ratio	1.07	1.54	31	17	75%	83%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	784	1,263	1,275	1,243	1,263	0%
Non Residential	536	571	718	817	882	41%
Total	1,319	1,871	1,993	2,060	2,145	10%
Value per capita $2004/05						
Residential	1,290	2,022	2,011	1,910	1,901	-4%
Non Residential	986	952	1,132	1,254	1,328	30%
Total	2,337	2,900	3,143	3,164	3,228	10%
Rank (value per capita)						
Residential	28	7	10	13	14	
Non Residential	12	10	9	11	11	
Total	17	9	11	15	15	

RAINFALL

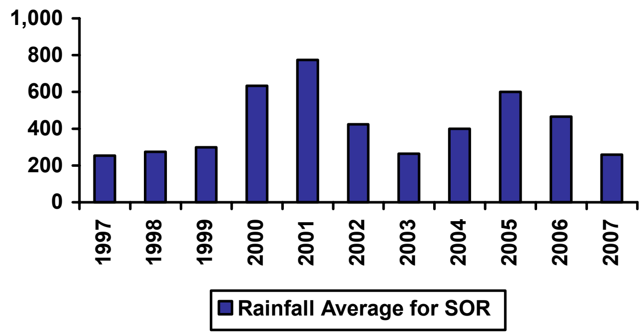
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	253	274	298	634	774	423	264	400	600	466	258
Rank	64	64	64	61	55	53	60	58	41	55	52

PATENT APPLICATIONS

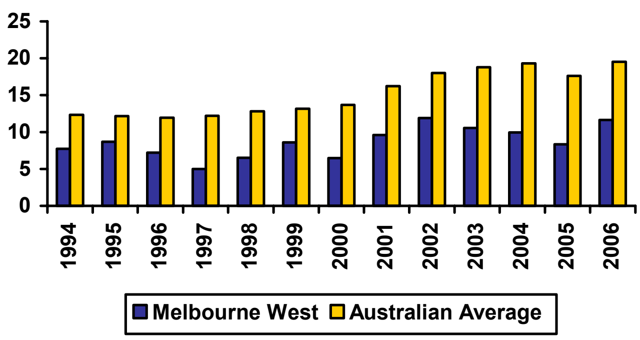
	No	Aust Avg	Rank
Average p.a. (1994-2005)	48.92	46.04	18
Average p.a. per capita	8.63	12.17	35
Hi Tech p.a. (1994-2005)	9.07	12.38	19
Hi Tech p.a. per capita	1.58	2.98	30
Info. Tech p.a. (1994-2005)	3.25	4.75	18
Info. Tech p.a. per capita	0.56	1.13	30
Average per capita (1994-2000)	7.48	10.48	36
Average per capita (2000-2005)	10.32	14.53	31
2000-05 avg./1994-00 avg.	1.38	1.36	29

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	19.4	20.1	20.5	20.2
Rank	53	52	49	52
Days Over 35C	11	12	12	17
Rank	37	33	38	29

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	538
Rank	17

Melbourne Westernport

The Westernport region lies more than 25 km from Melbourne CBD, and includes three distinct segments:

- the ranges east of Melbourne, with their conservation areas, water reserves, hobby farms and wine industry,
- the industrial area centred on Dandenong and extending to the Western shore of Westernport Bay, with its attendant new industrial suburbs and considerable ethnic mix, and
- the Mornington Peninsula, with its regional centre at Frankston, its commuters and large retired population.

Major centres:

Dandenong, Frankston, Lilydale

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	762	778	791	805	819	835	2.1%	1.7%	1.8%	1.7%	1.9%	1.9%	1.8%
No. Households	265	271	277	283	288	293	2.5%	2.3%	1.9%	1.8%	1.6%	2.3%	1.7%
NIEIR Workforce	379	388	394	406	412	426	2.4%	1.7%	3.1%	1.4%	3.3%	2.4%	2.3%
NIEIR Employment	342	352	359	375	379	394	2.8%	2.0%	4.3%	1.2%	3.9%	3.1%	2.5%
NIEIR Unemployment	36.1	35.5	34.8	31.5	32.6	31.5	-1.7%	-1.9%	-9.4%	3.4%	-3.4%	-4.4%	-0.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.5%	9.2%	8.8%	7.8%	7.9%	7.4%	-0.4	-0.3	-1.1	0.2	-0.5	-0.6	-0.2
Headline U/E	6.3%	6.2%	5.8%	5.0%	5.0%	4.6%	-0.1	-0.5	-0.8	0.0	-0.4	-0.4	-0.2
NIEIR Structural U/E	12.4%	12.5%	12.4%	12.0%	11.8%	11.4%	0.1	-0.2	-0.4	-0.2	-0.3	-0.1	-0.3

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	13,547	14,084	14,929	15,752	16,213	17,036	17,786	18,106	18,877	19,567	19,797	20,415	5.2%	4.0%
Taxes Paid	3,237	3,532	3,751	4,006	4,022	4,125	4,249	4,541	4,743	4,976	4,911	4,943	7.4%	1.5%
Benefits	2,768	2,836	3,188	3,337	3,284	3,440	3,635	3,646	4,031	4,145	4,010	4,122	6.4%	1.5%
Business Income	2,496	2,542	2,684	2,744	2,672	2,617	3,277	3,267	3,394	3,409	3,263	3,137	3.2%	-2.3%
Interest Paid	1,426	1,639	1,949	2,219	2,459	2,830	1,873	2,107	2,465	2,757	3,002	3,392	15.9%	12.9%
Property Income	2,136	2,294	2,600	2,876	3,155	3,595	2,805	2,948	3,287	3,573	3,852	4,308	10.4%	11.8%
Disposable Income	16,778	17,064	18,170	18,993	19,406	20,324	22,028	21,937	22,974	23,592	23,695	24,356	4.2%	3.4%
Rank							47	41	41	42	45	41		
%Rank #1							57%	57%	57%	56%	53%	52%		
Business Value Added	16,043	16,625	17,613	18,497	18,886	19,653	21,063	21,373	22,271	22,975	23,060	23,552	4.9%	3.1%
Rank							38	32	33	32	31	26		
%Rank #1							56%	57%	57%	55%	52%	51%		
Business Productivity							45,558	46,310	48,199	48,879	49,890	50,800	2.4%	1.9%
Rank							41	39	37	37	38	38		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.13%	0.14%
Disability Support (aged 25+)	2.96%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.18%	0.21%
Parenting Payment - Single (aged 25+)	1.99%	1.64%
Unemployed Long Term	1.20%	1.20%
Unemployed Short Term	0.91%	0.79%
Youth Allowance - Non Student	0.27%	0.32%
Youth Allowance - Student	1.44%	1.27%

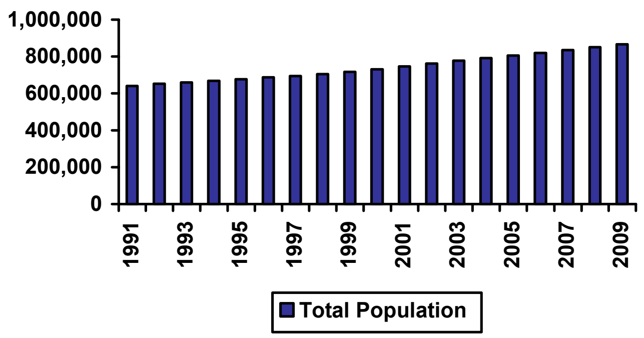
Cash Benefits Share of Disposable Income	Share	Rank
2002	16.5%	31
2003	16.6%	34
2004	17.5%	35
2005	17.6%	32
2006	16.9%	29
2007	16.9%	31

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	86.8	28
Share of population under 55	77.4	24
Aged migration	4.8	19
Population growth rate, 55+	3.7	12
Demographic stress	24.6	17
Dominant locations	100.0	2
Family / Youth migration	2.4	23
Fertility bounce, 1996-2005	-0.2	39
Fertility, babies % pop, 2005	1.3	24
Fertility, babies % pop, 2005	65.8	14
Working elderly	27.5	32

Local Government Level		Score	Rank
Most Sustainable	Casey (C)	80.4	17
Least Sustainable	Greater Dandenong (C)	39.3	439

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.34%	25
2002	1.36%	16
2003	1.29%	21
2004	1.34%	16
2005	1.31%	21
2006	1.35%	24
Bounce 2004-05	-0.03%	54
Actual Change 2004-05 (Number)	-90	60
Bounce 2005-06	0.04%	34
Actual Change 2005-06 (Number)	513	3

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$317	34
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,093	22
Water Security Cost	$681	21
Total	$2,091	30

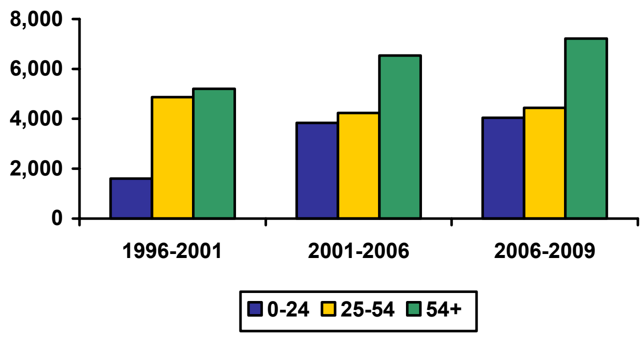
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.51%	34
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.77%	19
Water Security Cost	1.10%	21
Total	3.38%	31

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.09%	35
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.30%	19
Water Security Cost	0.19%	15
Total	0.57%	31

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	37.8%	35.9%	35.0%	34.5%
Age 25-55	43.9%	43.7%	42.4%	41.6%
Age 55+	18.4%	20.4%	22.6%	23.9%
Population Change (average between years)				
Age 0-24		1,596	3,830	4,044
Age 25-55		4,874	4,225	4,439
Age 55+		5,210	6,533	7,222
Average Age	34.7	36.2	37.5	38.3
Average Annual Growth		1.6%	1.9%	1.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	302	365	41	42	26%	31%
Value of Property and Unincorporated Business	264	314	22	25	37%	48%
Value of Financial Assets	138	193	44	45	21%	27%
Value of Household Liabilities	100	142	6	16	82%	63%
Disposable Income after Debt Service Costs	58	62	34	32	56%	55%
Household Debt Service Ratio	18%	23%	6	12	92%	87%
Household Debt to Gross Income Ratio	1.32	1.61	6	12	92%	87%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	1,088	1,635	1,440	1,423	1,440	-12%
Non Residential	477	583	754	768	797	33%
Total	1,565	2,196	2,194	2,190	2,238	1%
Value per capita $2004/05						
Residential	1,369	1,996	1,758	1,705	1,703	-14%
Non Residential	663	741	921	920	943	25%
Total	2,019	2,694	2,679	2,625	2,646	-2%
Rank (value per capita)						
Residential	23	8	17	19	19	
Non Residential	30	20	24	24	24	
Total	27	11	18	20	20	

RAINFALL

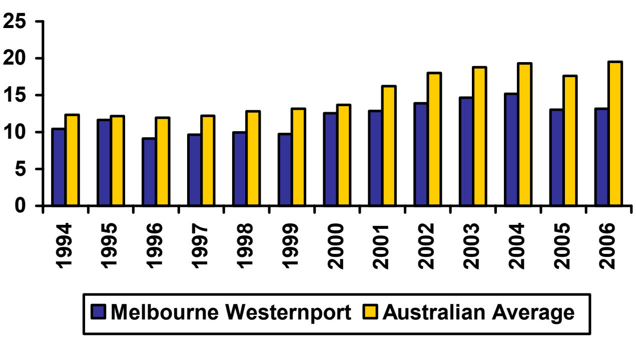
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	806	752	838	1,213	1,355	822	583	678	638	778	396
Rank	27	25	29	26	19	17	29	28	38	16	35

PATENT APPLICATIONS

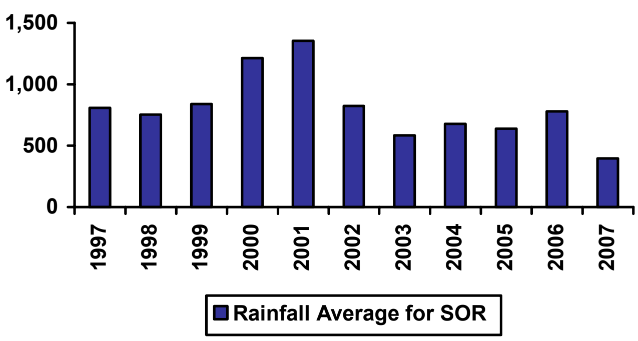
	No	Aust Avg	Rank
Average p.a. (1994-2005)	89.07	46.04	11
Average p.a. per capita	11.98	12.17	15
Hi Tech p.a. (1994-2005)	17.49	12.38	13
Hi Tech p.a. per capita	2.34	2.98	18
Info. Tech p.a. (1994-2005)	5.59	4.75	14
Info. Tech p.a. per capita	0.75	1.13	19
Average per capita (1994-2000)	10.73	10.48	15
Average per capita (2000-2005)	13.80	14.53	17
2000-05 avg./1994-00 avg.	1.29	1.36	36

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



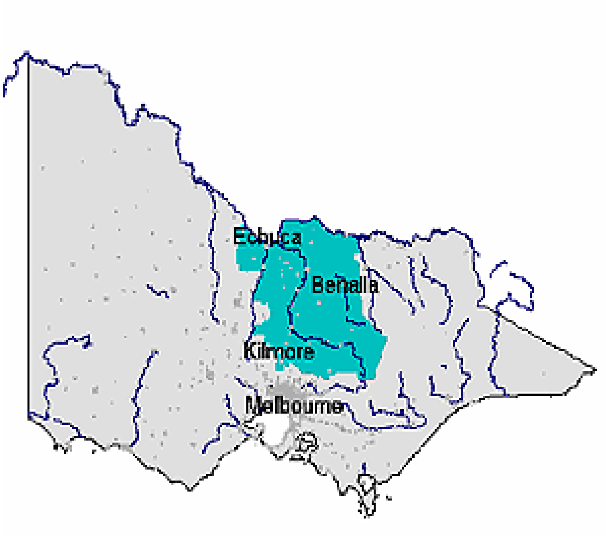
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	17.8	17.9	19.0	19.0
Rank	59	59	56	57
Days Over 35C	6	2	8	8
Rank	56	58	48	48

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	747
Rank	11

VIC Goulburn



The Goulburn region has two main parts.

- The hill country 'north of the divide' includes the headwaters of the Goulburn. Economic activity is a mixture between high-rainfall grazing and forest reserves, with some tourism. The area is within the Melbourne hobby-farm belt, and indeed some of it is within commuter range.
- The Goulburn Valley proper is the plain north of Seymour. The important agricultural areas are irrigated, with intensive dairy and orchard production. The chief city of the Valley, Shepparton, is noted for its food processing industries. Food processing also takes place in other towns in the region, and Echuca adds tourism based on its old river port.

Major centres:

Shepparton, Benalla, Echuca

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	195	196	198	200	202	204	0.8%	0.8%	1.0%	0.9%	1.1%	0.9%	1.0%
No. Households	72	74	75	77	79	80	2.1%	2.1%	2.0%	2.1%	1.8%	2.1%	2.0%
NIEIR Workforce	89	90	90	93	95	97	1.5%	0.0%	2.8%	2.5%	1.8%	1.4%	2.1%
NIEIR Employment	81	82	82	84	86	88	1.3%	0.7%	2.5%	1.8%	2.8%	1.5%	2.3%
NIEIR Unemployment	8.2	8.5	7.9	8.4	9.2	8.4	4.0%	-6.9%	6.0%	9.6%	-8.1%	0.9%	0.4%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.2%	9.4%	8.8%	9.0%	9.7%	8.7%	0.2	-0.7	0.3	0.6	-0.9	0.0	-0.2
Headline U/E	5.3%	5.3%	4.4%	4.7%	5.8%	4.7%	0.0	-0.8	0.3	1.1	-1.1	-0.2	0.0
NIEIR Structural U/E	14.7%	15.3%	15.3%	14.6%	13.8%	13.5%	0.6	0.0	-0.8	-0.8	-0.3	0.0	-0.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,846	2,922	3,035	3,211	3,243	3,409	14,608	14,875	15,325	16,055	16,069	16,710	4.1%	3.0%
Taxes Paid	881	880	921	1,006	975	879	4,523	4,479	4,650	5,030	4,830	4,311	4.5%	-6.5%
Benefits	763	781	878	904	889	933	3,919	3,973	4,434	4,522	4,403	4,572	5.8%	1.6%
Business Income	1,343	1,054	1,162	1,262	1,116	620	6,893	5,366	5,868	6,309	5,531	3,040	-2.1%	-29.9%
Interest Paid	326	367	431	469	498	569	1,671	1,866	2,176	2,346	2,469	2,789	13.0%	10.1%
Property Income	1,047	1,050	1,092	1,249	1,362	1,434	5,377	5,345	5,513	6,248	6,748	7,028	6.1%	7.1%
Disposable Income	4,951	4,708	4,966	5,312	5,311	5,106	25,414	23,963	25,069	26,561	26,313	25,029	2.4%	-2.0%
Rank							21	22	22	21	23	32		
%Rank #1							65%	62%	63%	63%	59%	53%		
Business Value Added	4,188	3,976	4,198	4,472	4,360	4,029	21,500	20,241	21,193	22,363	21,600	19,750	2.2%	-5.1%
Rank							33	42	40	35	47	53		
%Rank #1							57%	54%	54%	54%	49%	43%		
Business Productivity							45,766	45,443	47,322	47,623	48,750	49,247	1.3%	1.7%
Rank							40	45	41	47	42	48		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.14%	0.14%
Disability Support (aged 25+)	3.64%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.22%	0.21%
Parenting Payment - Single (aged 25+)	1.85%	1.64%
Unemployed Long Term	1.33%	1.20%
Unemployed Short Term	0.85%	0.79%
Youth Allowance - Non Student	0.42%	0.32%
Youth Allowance - Student	1.37%	1.27%

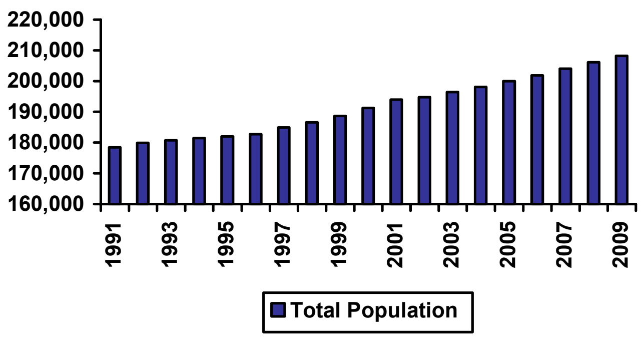
Cash Benefits Share of Disposable Income	Share	Rank
2002	15.4%	38
2003	16.6%	35
2004	17.7%	34
2005	17.0%	34
2006	16.7%	30
2007	18.3%	23

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	91.1	17
Share of population under 55	72.6	49
Aged migration	4.4	27
Population growth rate, 55+	2.8	26
Demographic stress	20.6	21
Dominant locations	37.8	63
Family / Youth migration	0.1	45
Fertility bounce, 1996-2005	-0.2	44
Fertility, babies % pop, 2005	1.3	37
Fertility, babies % pop, 2005	59.6	33
Working elderly	28.3	28

Local Government Level		Score	Rank
Most Sustainable	Mitchell (S)	67.4	128
Least Sustainable	Strathbogie (S)	49.6	352

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.27%	40
2002	1.24%	33
2003	1.21%	32
2004	1.21%	35
2005	1.20%	38
2006	1.26%	37
Bounce 2004-05	-0.01%	40
Actual Change 2004-05 (Number)	-6	38
Bounce 2005-06	0.06%	23
Actual Change 2005-06 (Number)	149	33

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$2,147	6
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,058	31
Water Security Cost	$1,012	5
Total	$4,217	7

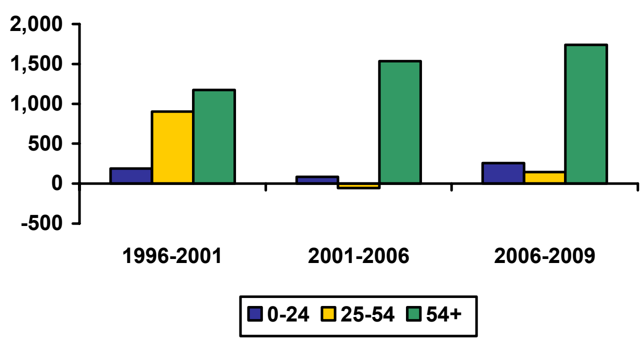
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	3.46%	5
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.70%	26
Water Security Cost	1.63%	5
Total	6.79%	5

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.47%	8
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.23%	39
Water Security Cost	0.22%	9
Total	0.92%	12

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.0%	34.3%	33.2%	32.6%
Age 25-55	41.2%	41.1%	39.4%	38.4%
Age 55+	22.8%	24.5%	27.4%	29.0%
Population Change (average between years)				
Age 0-24		189	85	256
Age 25-55		904	-54	147
Age 55+		1,175	1,535	1,739
Average Age	36.6	38.0	39.4	40.6
Average Annual Growth		1.2%	0.8%	1.0%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	453	457	14	21	39%	39%
Value of Property and Unincorporated Business	205	218	38	46	28%	33%
Value of Financial Assets	335	350	9	14	50%	49%
Value of Household Liabilities	87	111	16	36	71%	49%
Disposable Income after Debt Service Costs	63	62	23	31	61%	55%
Household Debt Service Ratio	15%	19%	24	35	78%	73%
Household Debt to Gross Income Ratio	1.11	1.35	24	35	78%	73%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	193	290	341	307	317	11%
Non Residential	107	115	135	139	148	22%
Total	300	424	475	446	465	9%
Value per capita $2004/05						
Residential	963	1,410	1,687	1,494	1,519	11%
Non Residential	567	585	668	674	708	17%
Total	1,557	1,952	2,355	2,168	2,226	15%
Rank (value per capita)						
Residential	40	23	22	24	22	
Non Residential	44	40	44	47	46	
Total	42	31	24	33	29	

RAINFALL

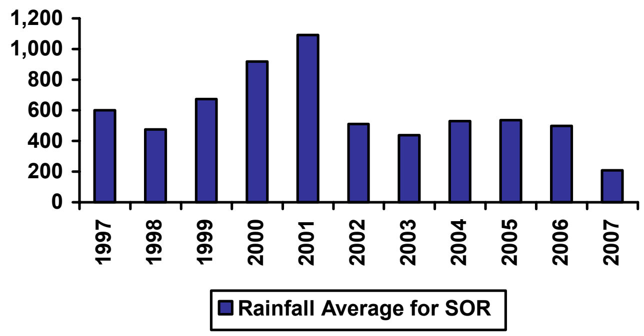
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	599	474	674	919	1,091	511	438	529	534	497	208
Rank	46	51	44	48	38	51	43	46	51	50	58

PATENT APPLICATIONS

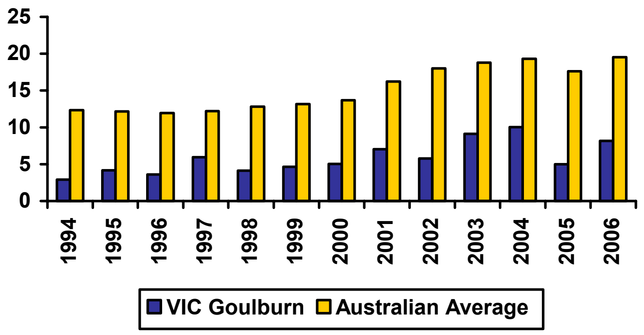
	No	Aust Avg	Rank
Average p.a. (1994-2005)	11.21	46.04	44
Average p.a. per capita	5.81	12.17	54
Hi Tech p.a. (1994-2005)	1.57	12.38	48
Hi Tech p.a. per capita	0.81	2.98	54
Info. Tech p.a. (1994-2005)	0.79	4.75	36
Info. Tech p.a. per capita	0.41	1.13	35
Average per capita (1994-2000)	4.69	10.48	56
Average per capita (2000-2005)	7.53	14.53	50
2000-05 avg./1994-00 avg.	1.61	1.36	6

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	21.0	21.4	21.1	22.4
Rank	44	42	43	40
Days Over 35C	19	12	18	23
Rank	26	32	24	20

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	101
Rank	47

VIC Barwon

Much of the Barwon region, including its urban centre in Geelong, is within commuting range of Melbourne, and the commuter traffic has increased considerably over the past several decades. Even so, Geelong is a manufacturing centre in its own right, though it has suffered from the decline of the textile industry, and is exposed to the fortunes of the chemical and automotive industries. Along the coast, around the Belarine Peninsula and extending down the Great Ocean Road there are resort and retirement communities, while inland there are agricultural areas. The region includes the Otway forests in its south-west corner.

Major centres:

Geelong

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	258	261	263	267	270	273	1.0%	1.1%	1.2%	1.3%	1.2%	1.1%	1.2%
No. Households	97	99	101	103	105	107	2.2%	2.2%	2.1%	1.9%	1.5%	2.2%	1.7%
NIEIR Workforce	121	123	126	129	131	135	1.1%	2.2%	2.8%	1.8%	2.4%	2.1%	2.1%
NIEIR Employment	108	111	114	116	119	122	2.5%	2.1%	2.2%	2.5%	2.7%	2.3%	2.6%
NIEIR Unemployment	13.0	11.6	12.0	13.0	12.4	12.4	-10.6%	3.3%	8.3%	-4.3%	0.4%	0.0%	-2.0%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.7%	9.4%	9.5%	10.0%	9.4%	9.2%	-1.2	0.1	0.5	-0.6	-0.2	-0.2	-0.4
Headline U/E	6.7%	6.2%	6.3%	7.4%	6.7%	6.2%	-0.5	0.1	1.0	-0.7	-0.4	0.2	-0.6
NIEIR Structural U/E	14.5%	14.4%	13.9%	13.4%	12.8%	12.5%	-0.1	-0.5	-0.5	-0.6	-0.3	-0.4	-0.4

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	4,302	4,482	4,767	5,052	5,212	5,465	16,675	17,195	18,097	18,949	19,303	20,010	5.5%	4.0%
Taxes Paid	1,045	1,158	1,241	1,322	1,329	1,357	4,051	4,444	4,711	4,960	4,924	4,970	8.2%	1.3%
Benefits	1,022	1,036	1,147	1,192	1,187	1,232	3,961	3,974	4,354	4,469	4,398	4,512	5.3%	1.7%
Business Income	846	878	967	956	937	906	3,279	3,370	3,669	3,585	3,469	3,318	4.2%	-2.6%
Interest Paid	386	451	555	645	724	849	1,498	1,731	2,108	2,418	2,682	3,107	18.6%	14.7%
Property Income	798	868	967	1,100	1,205	1,370	3,092	3,332	3,671	4,124	4,463	5,017	11.3%	11.6%
Disposable Income	5,684	5,801	6,197	6,494	6,668	6,959	22,034	22,257	23,526	24,357	24,696	25,480	4.5%	3.5%
Rank							46	38	34	33	34	29		
%Rank #1							57%	58%	59%	58%	55%	54%		
Business Value Added	5,148	5,360	5,734	6,008	6,148	6,371	19,954	20,565	21,766	22,535	22,772	23,329	5.3%	3.0%
Rank							46	38	35	34	33	30		
%Rank #1							53%	55%	56%	54%	52%	51%		
Business Productivity							45,812	46,927	48,856	49,948	51,255	52,429	2.9%	2.5%
Rank							38	34	33	34	31	27		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.11%	0.08%
Disability Support (aged 20-24)	0.19%	0.14%
Disability Support (aged 25+)	3.25%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.19%	0.21%
Parenting Payment - Single (aged 25+)	1.80%	1.64%
Unemployed Long Term	1.41%	1.20%
Unemployed Short Term	0.84%	0.79%
Youth Allowance - Non Student	0.35%	0.32%
Youth Allowance - Student	1.57%	1.27%

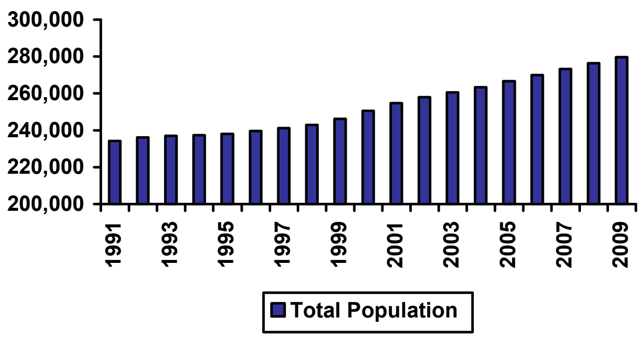
Cash Benefits Share of Disposable Income	Share	Rank
2002	18.0%	20
2003	17.9%	23
2004	18.5%	27
2005	18.3%	27
2006	17.8%	24
2007	17.7%	27

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	95.4	6
Share of population under 55	73.2	43
Aged migration	3.9	40
Population growth rate, 55+	2.6	31
Demographic stress	17.5	28
Dominant locations	85.5	27
Family / Youth migration	1.6	32
Fertility bounce, 1996-2005	-0.1	24
Fertility, babies % pop, 2005	1.2	52
Fertility, babies % pop, 2005	60.7	32
Working elderly	21.0	56

Local Government Level		Score	Rank
Most Sustainable	Surf Coast (S)	74.0	61
Least Sustainable	Queenscliffe (B)	29.3	554

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.19%	53
2002	1.21%	40
2003	1.13%	52
2004	1.18%	48
2005	1.17%	46
2006	1.18%	52
Bounce 2004-05	-0.01%	32
Actual Change 2004-05 (Number)	23	29
Bounce 2005-06	0.01%	48
Actual Change 2005-06 (Number)	75	48

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,344	15
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,125	14
Water Security Cost	$1,182	4
Total	$3,650	9

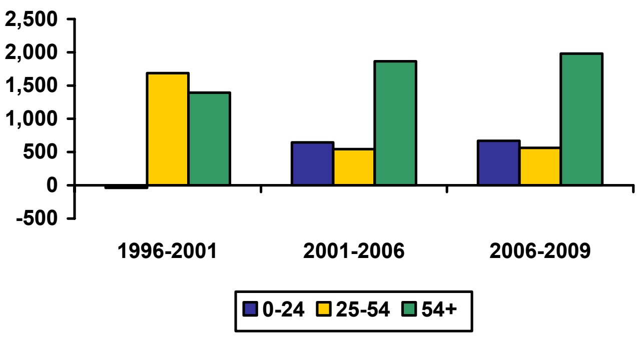
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	2.19%	14
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.83%	13
Water Security Cost	1.92%	4
Total	5.95%	6

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.33%	14
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.28%	23
Water Security Cost	0.29%	6
Total	0.90%	14

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	35.6%	33.4%	32.8%	32.3%
Age 25-55	40.9%	41.8%	40.4%	39.6%
Age 55+	23.4%	24.8%	26.8%	28.0%
Population Change (average between years)				
Age 0-24		-37	644	669
Age 25-55		1,687	543	561
Age 55+		1,393	1,863	1,983
Average Age	37.2	38.5	39.8	40.3
Average Annual Growth		1.2%	1.2%	1.2%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	312	406	37	30	27%	35%
Value of Property and Unincorporated Business	246	314	26	26	34%	48%
Value of Financial Assets	139	214	42	38	21%	30%
Value of Household Liabilities	73	121	40	29	60%	54%
Disposable Income after Debt Service Costs	55	61	46	36	53%	55%
Household Debt Service Ratio	14%	20%	33	27	74%	77%
Household Debt to Gross Income Ratio	1.05	1.42	33	27	74%	77%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	354	535	551	511	518	-2%
Non Residential	146	191	295	363	420	88%
Total	499	747	846	874	937	19%
Value per capita $2004/05						
Residential	1,277	1,969	2,039	1,856	1,855	-3%
Non Residential	591	728	1,094	1,320	1,503	79%
Total	1,899	2,561	3,133	3,176	3,358	26%
Rank (value per capita)						
Residential	30	9	8	15	15	
Non Residential	41	24	12	10	7	
Total	30	12	12	14	13	

RAINFALL

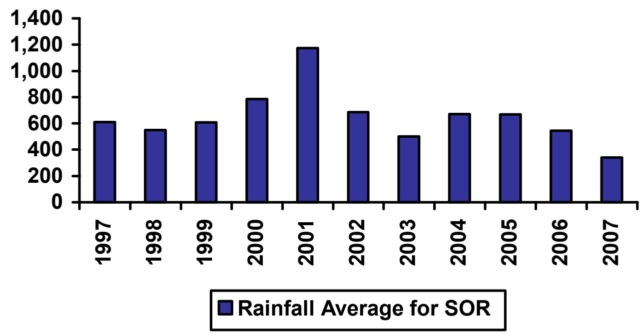
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	610	549	608	786	1,174	686	500	670	669	545	339
Rank	45	45	49	57	33	36	37	29	34	48	38

PATENT APPLICATIONS

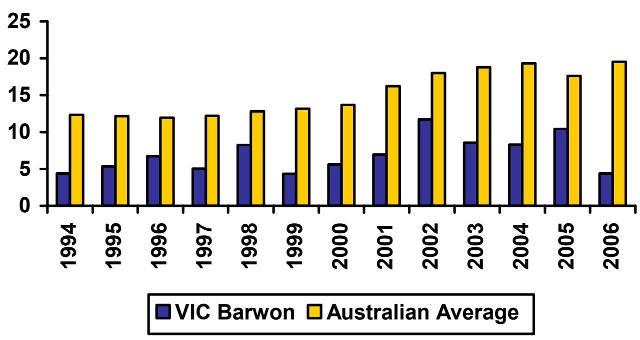
	No	Aust Avg	Rank
Average p.a. (1994-2005)	17.52	46.04	36
Average p.a. per capita	6.92	12.17	44
Hi Tech p.a. (1994-2005)	3.05	12.38	35
Hi Tech p.a. per capita	1.22	2.98	41
Info. Tech p.a. (1994-2005)	0.40	4.75	44
Info. Tech p.a. per capita	0.16	1.13	52
Average per capita (1994-2000)	5.83	10.48	49
Average per capita (2000-2005)	8.38	14.53	43
2000-05 avg./1994-00 avg.	1.44	1.36	20

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	18.2	18.6	19.0	18.7
Rank	57	57	58	58
Days Over 35C	8	4	7	11
Rank	48	54	50	43

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	208
Rank	27

VIC Central Highlands

The Central Highlands are centred on Ballarat. The urban structure of the region dates from the gold rushes 150 years ago; Ballarat itself and many of the smaller towns were kept going by industries and institutions (such as psychiatric hospitals) founded in the nineteenth century, and now in a state of gradual decay. The region includes areas of intensive farming, and its nineteenth century heritage has become the basis of a tourism, hobby farm and retirement revival. Ballarat has also diversified its economic base.

Major centres:

Ballarat, Ararat

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	142	143	145	146	148	149	0.7%	0.9%	1.0%	1.0%	1.2%	0.9%	1.1%
No. Households	54	55	56	57	58	59	2.0%	2.1%	2.1%	2.0%	1.8%	2.0%	1.9%
NIEIR Workforce	68	69	70	71	72	74	1.6%	0.8%	2.3%	1.7%	2.2%	1.6%	2.0%
NIEIR Employment	60	61	62	63	65	65	2.5%	1.5%	1.6%	2.2%	1.0%	1.8%	1.6%
NIEIR Unemployment	8.0	7.6	7.3	7.9	7.7	8.7	-4.8%	-4.5%	8.5%	-1.9%	12.4%	-0.4%	5.0%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	11.8%	11.0%	10.4%	11.1%	10.7%	11.7%	-0.7	-0.6	0.6	-0.4	1.1	-0.2	0.3
Headline U/E	8.5%	7.9%	7.1%	7.9%	7.1%	8.1%	-0.6	-0.8	0.8	-0.8	1.0	-0.2	0.1
NIEIR Structural U/E	16.2%	16.3%	15.9%	15.2%	15.1%	14.8%	0.1	-0.3	-0.7	-0.1	-0.3	-0.3	-0.2

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,257	2,338	2,477	2,600	2,676	2,755	15,875	16,329	17,143	17,809	18,139	18,465	4.8%	2.9%
Taxes Paid	584	629	672	712	719	709	4,108	4,396	4,652	4,879	4,872	4,751	6.8%	-0.2%
Benefits	585	594	659	678	675	703	4,117	4,146	4,561	4,646	4,576	4,712	5.0%	1.8%
Business Income	503	483	543	534	514	455	3,541	3,376	3,759	3,654	3,482	3,048	2.0%	-7.7%
Interest Paid	219	250	297	334	364	419	1,538	1,746	2,056	2,284	2,470	2,808	15.1%	12.1%
Property Income	669	670	725	807	892	962	4,707	4,675	5,019	5,526	6,043	6,446	6.4%	9.2%
Disposable Income	3,301	3,293	3,526	3,671	3,785	3,861	23,216	22,995	24,401	25,137	25,654	25,872	3.6%	2.6%
Rank							32	29	27	27	25	26		
%Rank #1							60%	60%	61%	60%	57%	55%		
Business Value Added	2,761	2,822	3,020	3,134	3,190	3,210	19,416	19,705	20,901	21,463	21,621	21,513	4.3%	1.2%
Rank							49	45	46	45	46	42		
%Rank #1							52%	52%	54%	52%	49%	47%		
Business Productivity							43,641	44,291	46,357	46,998	48,227	49,450	2.5%	2.6%
Rank							48	51	49	49	47	47		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.12%	0.08%
Disability Support (aged 20-24)	0.22%	0.14%
Disability Support (aged 25+)	4.23%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.24%	0.21%
Parenting Payment - Single (aged 25+)	2.02%	1.64%
Unemployed Long Term	1.51%	1.20%
Unemployed Short Term	0.79%	0.79%
Youth Allowance - Non Student	0.47%	0.32%
Youth Allowance - Student	1.86%	1.27%

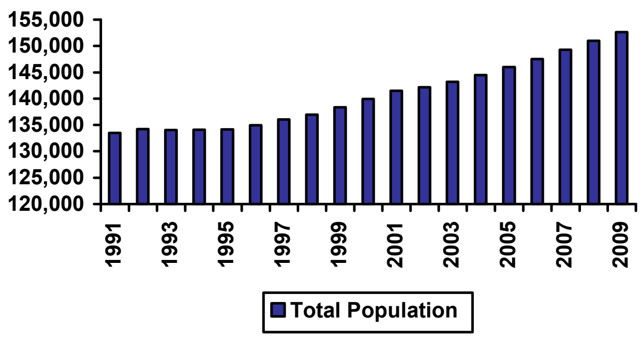
Cash Benefits Share of Disposable Income	Share	Rank
2002	17.7%	23
2003	18.0%	21
2004	18.7%	25
2005	18.5%	24
2006	17.8%	22
2007	18.2%	24

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	82.2	37
Share of population under 55	74.0	36
Aged migration	4.2	33
Population growth rate, 55+	2.5	33
Demographic stress	15.3	34
Dominant locations	77.1	33
Family / Youth migration	1.6	33
Fertility bounce, 1996-2005	-0.2	55
Fertility, babies % pop, 2005	1.2	46
Fertility, babies % pop, 2005	58.6	38
Working elderly	23.7	48

Local Government Level		Score	Rank
Most Sustainable	Moorabool (S)	63.7	177
Least Sustainable	Pyrenees (S)	28.3	564

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.23%	47
2002	1.16%	50
2003	1.14%	49
2004	1.16%	51
2005	1.16%	49
2006	1.20%	46
Bounce 2004-05	-0.01%	31
Actual Change 2004-05 (Number)	10	35
Bounce 2005-06	0.05%	31
Actual Change 2005-06 (Number)	84	47

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$507	31
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,064	28
Water Security Cost	$628	28
Total	$2,199	27

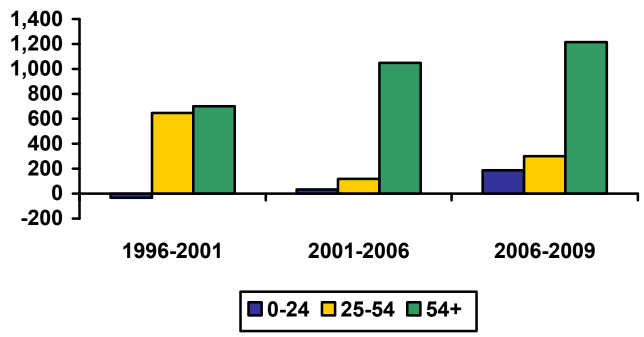
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.81%	29
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.69%	27
Water Security Cost	1.00%	28
Total	3.49%	29

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.12%	31
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.25%	34
Water Security Cost	0.15%	29
Total	0.52%	34

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	37.3%	35.4%	34.1%	33.3%
Age 25-55	40.8%	41.2%	39.9%	39.1%
Age 55+	22.0%	23.4%	26.0%	27.5%
Population Change (average between years)				
Age 0-24		-34	35	188
Age 25-55		647	118	299
Age 55+		700	1,049	1,214
Average Age	36.3	37.6	38.9	39.9
Average Annual Growth		1.0%	0.8%	1.1%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	380	426	24	27	33%	36%
Value of Property and Unincorporated Business	197	234	40	41	27%	36%
Value of Financial Assets	260	301	18	20	39%	42%
Value of Household Liabilities	77	109	32	41	63%	48%
Disposable Income after Debt Service Costs	57	63	36	30	56%	56%
Household Debt Service Ratio	14%	18%	26	40	76%	71%
Household Debt to Gross Income Ratio	1.08	1.31	26	40	76%	71%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	128	190	232	222	223	19%
Non Residential	91	102	97	110	122	7%
Total	219	314	329	332	346	7%
Value per capita $2004/05						
Residential	884	1,286	1,572	1,473	1,462	17%
Non Residential	657	711	658	733	799	3%
Total	1,479	2,023	2,230	2,206	2,261	10%
Rank (value per capita)						
Residential	43	30	25	25	24	
Non Residential	32	26	46	36	38	
Total	45	25	28	31	28	

RAINFALL

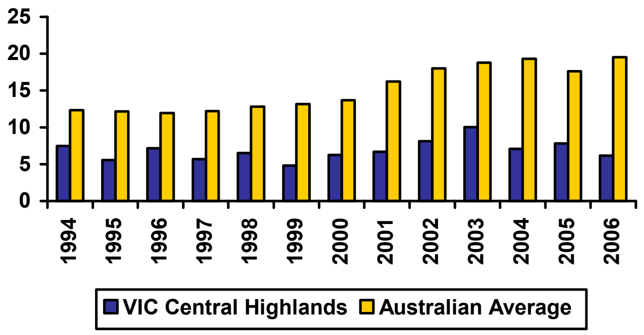
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	599	583	650	919	1,089	626	475	571	582	466	327
Rank	47	41	47	49	39	41	40	40	43	56	41

PATENT APPLICATIONS

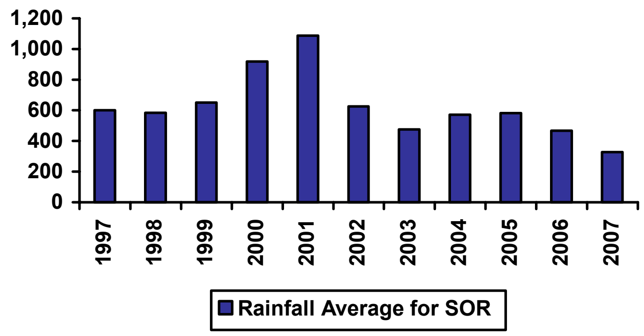
	No	Aust Avg	Rank
Average p.a. (1994-2005)	9.63	46.04	49
Average p.a. per capita	6.87	12.17	45
Hi Tech p.a. (1994-2005)	1.70	12.38	45
Hi Tech p.a. per capita	1.20	2.98	43
Info. Tech p.a. (1994-2005)	0.08	4.75	56
Info. Tech p.a. per capita	0.06	1.13	59
Average per capita (1994-2000)	6.26	10.48	44
Average per capita (2000-2005)	7.64	14.53	48
2000-05 avg./1994-00 avg.	1.22	1.36	47

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



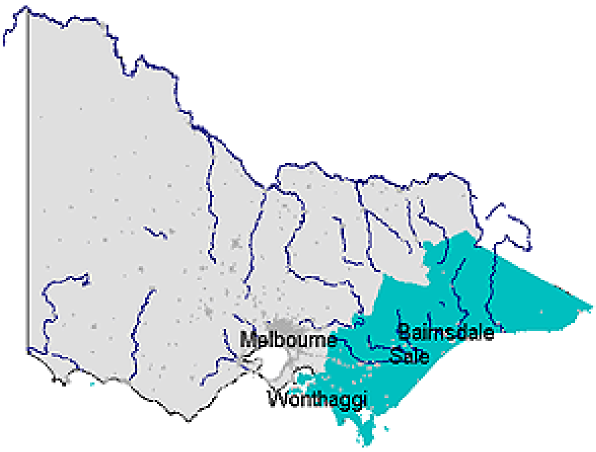
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	18.3	18.5	19.0	19.7
Rank	56	58	57	56
Days Over 35C	9	3	9	11
Rank	45	57	46	41

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	113
Rank	41

VIC Gippsland



Gippsland is a clearly-defined region east of Melbourne and south of the ranges. Its production statistics are dominated by oil and gas from Bass Strait, but these yield little in the way of local employment or income. It has four sub-regions.

- West Gippsland – intensive dairy farming, some timber milling and commuting to Melbourne. Its main centre is Warragul.
- South Gippsland – intensive dairy farming, timber plantations, coastal retirement areas and resorts.
- The Latrobe Valley – centre of Victorian power and an important plantation based paper industry. The Valley has suffered a difficult transition following the cessation of construction of new power plants.
- East Gippsland – patches of intensive agriculture with retirement areas around the Lakes and along the coast. The forested hills support a timber industry with an uncertain future.

Major centres:

Warragul, Traralgon, Bairnsdale

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	240	241	243	245	248	251	0.4%	0.8%	1.0%	1.0%	1.5%	0.7%	1.2%
No. Households	94	95	98	100	102	104	2.0%	2.2%	2.3%	2.2%	2.0%	2.1%	2.1%
NIEIR Workforce	107	108	111	114	114	114	1.8%	2.0%	2.8%	0.2%	0.2%	2.2%	0.2%
NIEIR Employment	93	96	97	99	99	102	3.2%	1.6%	1.7%	0.3%	2.8%	2.2%	1.5%
NIEIR Unemployment	13.5	12.5	13.1	14.6	14.6	12.0	-7.7%	5.1%	11.3%	0.0%	-17.9%	2.6%	-9.4%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	12.7%	11.5%	11.9%	12.9%	12.8%	10.5%	-1.2	0.3	1.0	0.0	-2.3	0.0	-1.2
Headline U/E	8.0%	6.3%	6.6%	7.2%	7.3%	5.0%	-1.7	0.2	0.6	0.1	-2.3	-0.3	-1.1
NIEIR Structural U/E	17.3%	17.7%	17.0%	16.5%	16.1%	15.8%	0.4	-0.7	-0.5	-0.4	-0.3	-0.3	-0.3

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	3,424	3,561	3,774	3,936	4,027	4,242	14,235	14,749	15,497	16,001	16,207	16,740	4.7%	3.8%
Taxes Paid	970	1,005	1,074	1,133	1,146	1,085	4,034	4,164	4,412	4,605	4,611	4,283	5.3%	-2.1%
Benefits	1,012	1,027	1,141	1,177	1,169	1,218	4,207	4,251	4,686	4,784	4,706	4,807	5.2%	1.8%
Business Income	1,281	1,042	1,158	1,169	1,185	773	5,323	4,315	4,755	4,752	4,770	3,049	-3.0%	-18.7%
Interest Paid	366	416	492	535	568	653	1,523	1,721	2,020	2,173	2,286	2,576	13.4%	10.5%
Property Income	857	892	956	1,095	1,211	1,352	3,563	3,693	3,925	4,453	4,872	5,337	8.5%	11.1%
Disposable Income	5,392	5,246	5,613	5,863	6,057	6,021	22,413	21,726	23,047	23,839	24,378	23,760	2.8%	1.3%
Rank							42	44	39	38	39	45		
%Rank #1							58%	56%	58%	57%	55%	50%		
Business Value Added	4,705	4,603	4,932	5,104	5,212	5,015	19,558	19,064	20,252	20,753	20,977	19,789	2.8%	-0.9%
Rank							48	48	49	49	51	52		
%Rank #1							52%	51%	52%	50%	48%	43%		
Business Productivity							45,377	46,005	47,767	48,534	49,564	50,312	2.3%	1.8%
Rank							42	40	39	39	39	42		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.12%	0.08%
Disability Support (aged 20-24)	0.17%	0.14%
Disability Support (aged 25+)	4.31%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.21%	0.21%
Parenting Payment - Single (aged 25+)	1.86%	1.64%
Unemployed Long Term	1.41%	1.20%
Unemployed Short Term	0.79%	0.79%
Youth Allowance - Non Student	0.40%	0.32%
Youth Allowance - Student	1.39%	1.27%

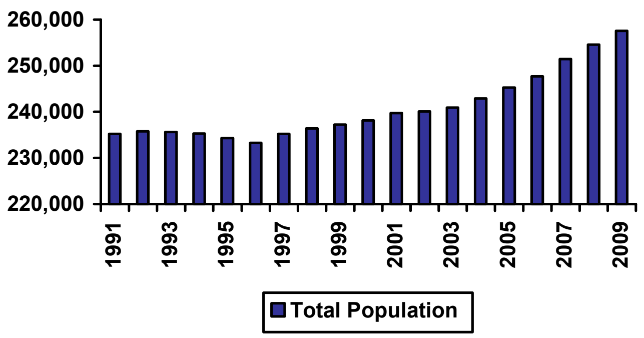
Cash Benefits Share of Disposable Income	Share	Rank
2002	18.8%	14
2003	19.6%	13
2004	20.3%	16
2005	20.1%	17
2006	19.3%	15
2007	20.2%	13

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	67.0	52
Share of population under 55	70.5	61
Aged migration	5.1	16
Population growth rate, 55+	3.1	20
Demographic stress	7.4	43
Dominant locations	28.1	64
Family / Youth migration	-1.0	54
Fertility bounce, 1996-2005	-0.2	54
Fertility, babies % pop, 2005	1.1	59
Fertility, babies % pop, 2005	47.7	55
Working elderly	23.9	46

Local Government Level		Score	Rank
Most Sustainable	Bass Coast (S)	70.6	94
Least Sustainable	Wellington (S)	39.0	444

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.14%	59
2002	1.10%	58
2003	1.11%	55
2004	1.14%	55
2005	1.04%	62
2006	1.15%	59
Bounce 2004-05	-0.10%	62
Actual Change 2004-05 (Number)	-220	64
Bounce 2005-06	0.11%	10
Actual Change 2005-06 (Number)	295	9

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,357	14
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,092	23
Water Security Cost	$640	27
Total	$3,089	13

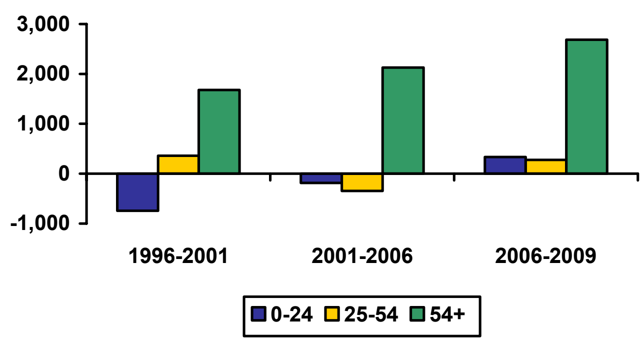
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	2.37%	12
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.90%	11
Water Security Cost	1.12%	16
Total	5.39%	14

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.39%	10
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.32%	14
Water Security Cost	0.19%	17
Total	0.90%	15

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.1%	33.6%	32.1%	31.3%
Age 25-55	40.7%	40.4%	38.4%	37.2%
Age 55+	23.2%	26.1%	29.5%	31.5%
Population Change (average between years)				
Age 0-24		-742	-185	336
Age 25-55		361	-348	275
Age 55+		1,677	2,128	2,686
Average Age	36.8	38.9	40.8	41.8
Average Annual Growth		0.5%	0.7%	1.3%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	278	345	47	47	24%	29%
Value of Property and Unincorporated Business	168	194	58	53	23%	30%
Value of Financial Assets	184	250	25	23	28%	35%
Value of Household Liabilities	75	99	36	48	61%	44%
Disposable Income after Debt Service Costs	52	57	49	44	51%	51%
Household Debt Service Ratio	15%	18%	17	38	80%	71%
Household Debt to Gross Income Ratio	1.14	1.32	17	38	80%	71%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	215	334	446	445	448	33%
Non Residential	137	144	211	238	276	68%
Total	352	530	657	683	724	30%
Value per capita $2004/05						
Residential	873	1,368	1,795	1,750	1,720	28%
Non Residential	579	592	847	935	1,062	60%
Total	1,494	1,848	2,642	2,685	2,782	46%
Rank (value per capita)						
Residential	44	24	16	18	18	
Non Residential	42	37	28	23	17	
Total	43	36	20	18	18	

RAINFALL

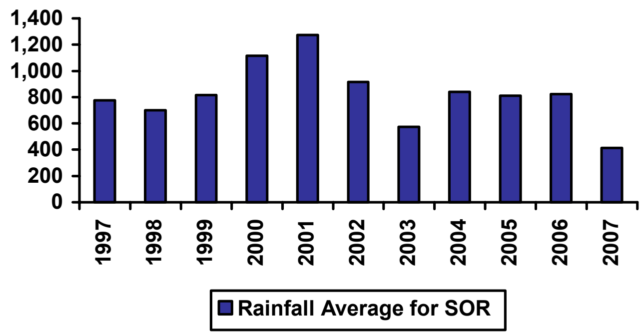
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	777	701	816	1,115	1,275	917	575	841	812	825	414
Rank	29	29	31	33	25	13	31	12	24	12	34

PATENT APPLICATIONS

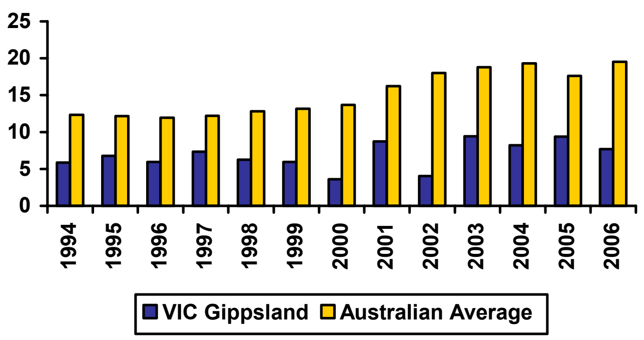
	No	Aust Avg	Rank
Average p.a. (1994-2005)	16.45	46.04	37
Average p.a. per capita	6.86	12.17	46
Hi Tech p.a. (1994-2005)	1.98	12.38	41
Hi Tech p.a. per capita	0.82	2.98	52
Info. Tech p.a. (1994-2005)	0.57	4.75	40
Info. Tech p.a. per capita	0.24	1.13	46
Average per capita (1994-2000)	6.31	10.48	43
Average per capita (2000-2005)	7.91	14.53	45
2000-05 avg./1994-00 avg.	1.25	1.36	42

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	17.4	17.6	18.3	18.2
Rank	60	60	60	61
Days Over 35C	5	2	6	6
Rank	58	61	54	52

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	124
Rank	38

VIC Loddon

The Loddon region has much in common with the Central Highlands, but is centred on Bendigo. In Bendigo itself and in many other towns the region has a heritage of nineteenth century architecture. Its engineering industries were originally started to serve the mining industry, the railways and latterly defence; recent times have not been kind to them. However, the heritage buildings underpin tourism, and proximity to Melbourne keeps land values up for hobby farms. North of Bendigo the plains are devoted to mixed farming similar to that carried out in the Mallee-Wimmera.

Major centres:

Bendigo, Castlemaine

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	168	170	171	173	175	177	0.9%	1.0%	1.1%	1.1%	1.3%	1.0%	1.2%
No. Households	63	65	66	67	69	70	2.1%	2.1%	2.1%	2.0%	1.8%	2.1%	1.9%
NIEIR Workforce	76	77	79	81	82	84	1.9%	2.0%	2.4%	1.6%	2.5%	2.1%	2.0%
NIEIR Employment	68	70	71	72	74	76	2.8%	1.8%	1.1%	2.6%	2.9%	1.9%	2.8%
NIEIR Unemployment	7.8	7.3	7.6	8.7	8.1	8.0	-6.6%	3.7%	14.0%	-6.6%	-1.6%	3.4%	-4.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.3%	9.5%	9.6%	10.7%	9.9%	9.5%	-0.9	0.2	1.1	-0.9	-0.4	0.1	-0.6
Headline U/E	6.4%	5.6%	5.8%	7.4%	6.6%	5.7%	-0.8	0.1	1.6	-0.8	-0.9	0.3	-0.9
NIEIR Structural U/E	16.1%	16.4%	16.0%	15.3%	14.8%	14.3%	0.2	-0.4	-0.7	-0.5	-0.5	-0.3	-0.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,503	2,612	2,764	2,909	2,996	3,150	14,896	15,401	16,130	16,786	17,099	17,758	5.1%	4.1%
Taxes Paid	661	705	759	807	813	822	3,936	4,157	4,429	4,658	4,641	4,632	6.9%	0.9%
Benefits	678	690	772	795	786	822	4,033	4,070	4,504	4,586	4,484	4,634	5.5%	1.7%
Business Income	624	556	653	650	622	566	3,712	3,276	3,814	3,751	3,552	3,190	1.4%	-6.7%
Interest Paid	262	300	359	402	439	505	1,562	1,771	2,095	2,322	2,504	2,846	15.3%	12.0%
Property Income	824	818	887	1,009	1,120	1,235	4,905	4,821	5,176	5,824	6,395	6,962	7.0%	10.6%
Disposable Income	3,814	3,775	4,065	4,269	4,404	4,585	22,694	22,257	23,725	24,633	25,135	25,846	3.8%	3.6%
Rank							38	39	31	31	29	27		
%Rank #1							58%	58%	59%	58%	56%	55%		
Business Value Added	3,127	3,168	3,417	3,559	3,618	3,716	18,608	18,677	19,944	20,537	20,651	20,948	4.4%	2.2%
Rank							53	53	50	51	53	46		
%Rank #1							50%	50%	51%	49%	47%	45%		
Business Productivity							44,177	44,719	46,694	47,443	48,537	49,455	2.4%	2.1%
Rank							45	47	47	48	45	46		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.11%	0.08%
Disability Support (aged 20-24)	0.20%	0.14%
Disability Support (aged 25+)	3.85%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.23%	0.21%
Parenting Payment - Single (aged 25+)	1.86%	1.64%
Unemployed Long Term	1.49%	1.20%
Unemployed Short Term	0.80%	0.79%
Youth Allowance - Non Student	0.40%	0.32%
Youth Allowance - Student	1.72%	1.27%

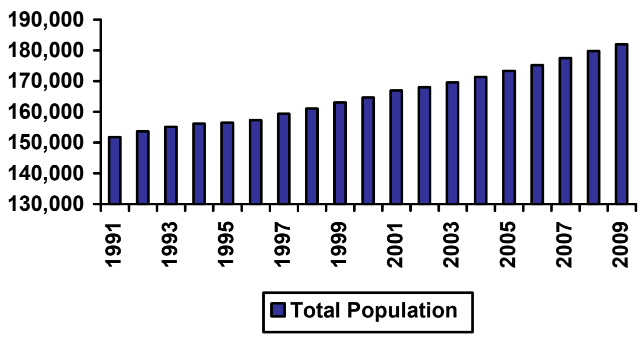
Cash Benefits Share of Disposable Income	Share	Rank
2002	17.8%	22
2003	18.3%	19
2004	19.0%	21
2005	18.6%	22
2006	17.8%	23
2007	17.9%	26

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	86.3	29
Share of population under 55	73.0	46
Aged migration	4.4	26
Population growth rate, 55+	2.9	24
Demographic stress	18.3	26
Dominant locations	67.1	42
Family / Youth migration	0.9	36
Fertility bounce, 1996-2005	-0.2	36
Fertility, babies % pop, 2005	1.2	54
Fertility, babies % pop, 2005	59.5	34
Working elderly	23.7	47

Local Government Level		Score	Rank
Most Sustainable	Greater Bendigo (C)	65.2	146
Least Sustainable	Loddon (S)	21.7	619

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.23%	48
2002	1.16%	49
2003	1.14%	51
2004	1.17%	50
2005	1.13%	55
2006	1.18%	54
Bounce 2004-05	-0.03%	55
Actual Change 2004-05 (Number)	-38	48
Bounce 2005-06	0.04%	32
Actual Change 2005-06 (Number)	99	41

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,149	17
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,069	26
Water Security Cost	$597	32
Total	$2,815	18

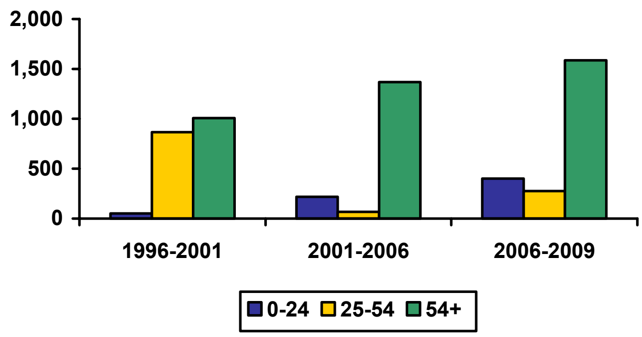
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.82%	17
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.69%	28
Water Security Cost	0.95%	32
Total	4.45%	19

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.24%	20
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.23%	42
Water Security Cost	0.13%	36
Total	0.60%	28

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.6%	34.6%	33.6%	33.0%
Age 25-55	41.0%	41.2%	39.4%	38.4%
Age 55+	22.5%	24.2%	27.0%	28.6%
Population Change (average between years)				
Age 0-24		51	217	400
Age 25-55		866	67	277
Age 55+		1,007	1,370	1,588
Average Age	36.8	38.2	39.7	40.5
Average Annual Growth		1.2%	1.0%	1.3%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	417	470	17	19	36%	40%
Value of Property and Unincorporated Business	203	249	39	37	28%	38%
Value of Financial Assets	292	333	11	17	44%	46%
Value of Household Liabilities	78	111	30	35	64%	49%
Disposable Income after Debt Service Costs	56	63	42	29	55%	56%
Household Debt Service Ratio	15%	19%	23	37	78%	71%
Household Debt to Gross Income Ratio	1.11	1.32	23	37	78%	71%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	157	235	262	253	259	10%
Non Residential	80	101	149	159	154	53%
Total	237	357	411	413	414	16%
Value per capita $2004/05						
Residential	929	1,326	1,495	1,419	1,432	9%
Non Residential	494	590	850	892	853	47%
Total	1,445	1,860	2,344	2,311	2,284	24%
Rank (value per capita)						
Residential	41	26	27	26	25	
Non Residential	53	38	27	28	29	
Total	47	35	26	25	26	

RAINFALL

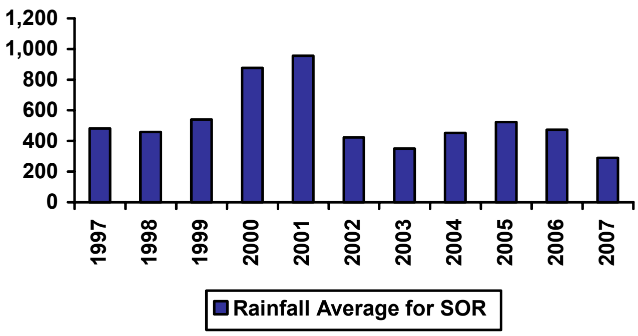
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	481	459	539	877	957	423	349	453	523	473	291
Rank	55	54	53	53	48	52	51	53	52	54	48

PATENT APPLICATIONS

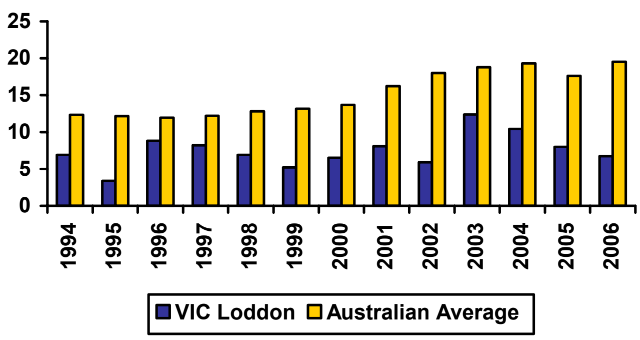
	No	Aust Avg	Rank
Average p.a. (1994-2005)	12.40	46.04	41
Average p.a. per capita	7.49	12.17	41
Hi Tech p.a. (1994-2005)	2.17	12.38	40
Hi Tech p.a. per capita	1.32	2.98	39
Info. Tech p.a. (1994-2005)	1.00	4.75	33
Info. Tech p.a. per capita	0.59	1.13	29
Average per capita (1994-2000)	6.75	10.48	38
Average per capita (2000-2005)	8.58	14.53	42
2000-05 avg./1994-00 avg.	1.27	1.36	39

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



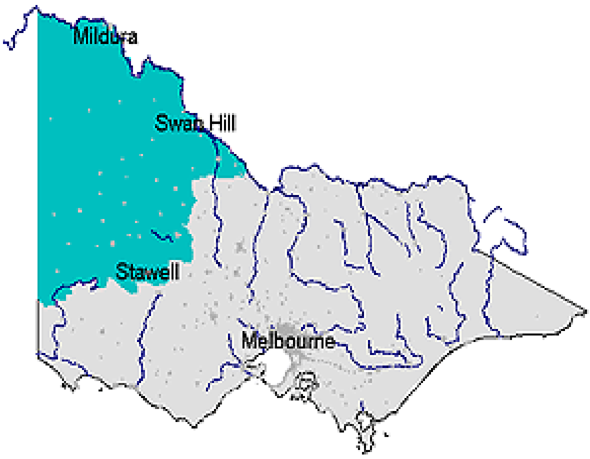
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	20.1	20.4	20.6	21.2
Rank	48	48	46	48
Days Over 35C	13	6	13	19
Rank	35	45	36	24

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	121
Rank	39

VIC Mallee-Wimmera



The Mallee-Wimmera comprises the plains north of the Grampians and the Dundas hills. The region is classic wheat/sheep country. Rainfall diminishes northward, as does the reliability of the harvest. The region includes several dry-country national parks. The region's rain-fed agriculture, originally concentrating on wheat, has diversified considerably. Intensive viticulture is practised in several irrigation areas which pump water from the Murray. Horsham is the chief town in the Wimmera, and Swan Hill and Mildura serve irrigation areas along the Murray, including adjacent parts of NSW.

Major centres:

Mildura, Swan Hill, Horsham

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	142	141	141	142	142	143	-0.4%	0.1%	0.2%	0.1%	0.6%	0.0%	0.3%
No. Households	55	56	57	57	58	59	1.2%	1.3%	1.3%	1.3%	1.3%	1.2%	1.3%
NIEIR Workforce	60	60	60	62	62	63	-1.2%	1.4%	2.0%	0.2%	1.8%	0.7%	1.0%
NIEIR Employment	54	54	54	55	55	56	-1.2%	1.2%	0.6%	1.2%	1.2%	0.2%	1.2%
NIEIR Unemployment	6.0	5.9	6.2	7.1	6.5	7.0	-1.3%	3.7%	14.6%	-7.2%	7.0%	5.5%	-0.4%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.0%	10.0%	10.2%	11.4%	10.6%	11.1%	0.0	0.2	1.3	-0.9	0.5	0.5	-0.2
Headline U/E	5.0%	5.0%	5.4%	6.9%	6.2%	6.1%	0.0	0.5	1.4	-0.6	-0.1	0.6	-0.4
NIEIR Structural U/E	15.6%	17.0%	16.7%	16.3%	15.6%	15.3%	1.4	-0.4	-0.3	-0.7	-0.3	0.2	-0.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,703	1,721	1,802	1,887	1,951	2,012	12,016	12,187	12,752	13,317	13,749	14,111	3.5%	3.3%
Taxes Paid	772	626	729	709	759	635	5,446	4,430	5,159	5,006	5,353	4,452	-2.8%	-5.4%
Benefits	565	574	641	653	643	674	3,988	4,066	4,535	4,609	4,531	4,727	4.9%	1.6%
Business Income	1,653	964	1,333	1,135	1,242	760	11,662	6,824	9,430	8,014	8,754	5,331	-11.8%	-18.2%
Interest Paid	227	249	287	296	299	338	1,603	1,766	2,028	2,087	2,107	2,373	9.2%	7.0%
Property Income	1,277	980	1,120	1,172	1,364	1,295	9,011	6,942	7,925	8,270	9,615	9,078	-2.8%	5.1%
Disposable Income	4,365	3,486	4,023	3,972	4,300	3,901	30,793	24,682	28,466	28,037	30,310	27,355	-3.1%	-0.9%
Rank							8	21	12	15	11	20		
%Rank #1							79%	64%	71%	66%	68%	58%		
Business Value Added	3,357	2,685	3,135	3,022	3,193	2,772	23,678	19,011	22,182	21,331	22,503	19,441	-3.4%	-4.2%
Rank							22	49	34	46	35	56		
%Rank #1							63%	50%	57%	51%	51%	42%		
Business Productivity							46,001	45,963	47,244	48,585	49,352	50,050	1.8%	1.5%
Rank							37	41	42	38	40	43		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.17%	0.14%
Disability Support (aged 25+)	3.83%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.22%	0.21%
Parenting Payment - Single (aged 25+)	1.66%	1.64%
Unemployed Long Term	1.52%	1.20%
Unemployed Short Term	0.93%	0.79%
Youth Allowance - Non Student	0.48%	0.32%
Youth Allowance - Student	1.57%	1.27%

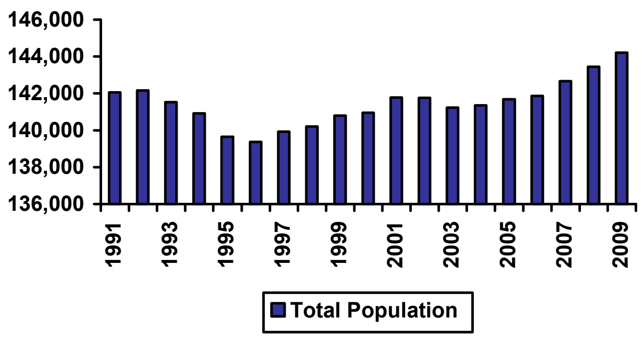
Cash Benefits Share of Disposable Income	Share	Rank
2002	13.0%	52
2003	16.5%	36
2004	15.9%	44
2005	16.4%	39
2006	14.9%	41
2007	17.3%	28

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	62.1	54
Share of population under 55	71.2	58
Aged migration	3.5	55
Population growth rate, 55+	1.5	56
Demographic stress	3.0	49
Dominant locations	50.0	59
Family / Youth migration	-1.7	58
Fertility bounce, 1996-2005	-0.3	62
Fertility, babies % pop, 2005	1.2	49
Fertility, babies % pop, 2005	47.6	56
Working elderly	28.4	27

Local Government Level		Score	Rank
Most Sustainable	Mildura (RC)	63.5	179
Least Sustainable	West Wimmera (S)	19.4	625

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.37%	22
2002	1.20%	43
2003	1.17%	45
2004	1.18%	47
2005	1.15%	51
2006	1.20%	49
Bounce 2004-05	-0.03%	52
Actual Change 2004-05 (Number)	-37	47
Bounce 2005-06	0.05%	30
Actual Change 2005-06 (Number)	66	50

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,260	16
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,078	25
Water Security Cost	$1,430	3
Total	$3,768	8

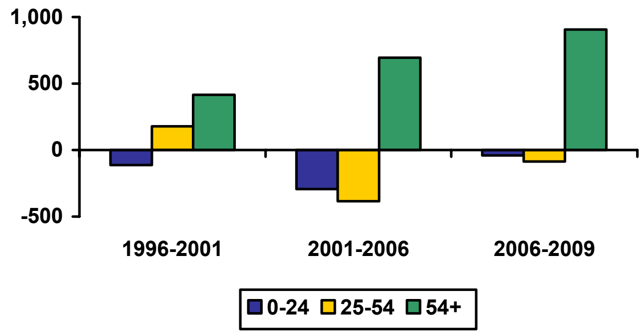
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.89%	16
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.61%	34
Water Security Cost	2.14%	3
Total	5.64%	12

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.27%	17
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.23%	43
Water Security Cost	0.30%	4
Total	0.79%	17

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	34.7%	33.7%	32.6%	32.0%
Age 25-55	40.0%	40.0%	38.6%	37.8%
Age 55+	25.3%	26.3%	28.8%	30.2%
Population Change (average between years)				
Age 0-24		-113	-292	-42
Age 25-55		179	-385	-87
Age 55+		415	696	907
Average Age	37.7	38.9	40.3	41.3
Average Annual Growth		0.3%	0.0%	0.5%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	600	476	10	16	52%	41%
Value of Property and Unincorporated Business	170	164	57	60	24%	25%
Value of Financial Assets	512	402	4	8	77%	56%
Value of Household Liabilities	82	90	24	56	67%	40%
Disposable Income after Debt Service Costs	75	67	11	23	73%	59%
Household Debt Service Ratio	12%	15%	45	58	65%	59%
Household Debt to Gross Income Ratio	0.93	1.09	45	58	65%	59%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	97	128	162	163	168	28%
Non Residential	74	91	107	110	120	24%
Total	171	231	270	274	288	20%
Value per capita $2004/05						
Residential	643	891	1,145	1,140	1,165	29%
Non Residential	523	642	756	770	836	23%
Total	1,144	1,483	1,900	1,910	2,000	31%
Rank (value per capita)						
Residential	54	48	40	44	44	
Non Residential	50	34	33	35	30	
Total	54	47	43	42	39	

RAINFALL

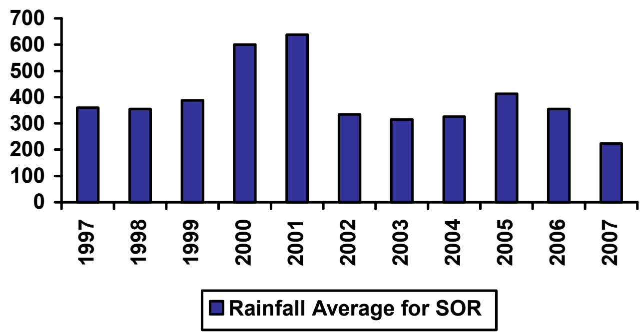
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	360	354	388	600	638	334	315	325	413	355	224
Rank	62	61	61	63	59	62	56	61	57	60	56

PATENT APPLICATIONS

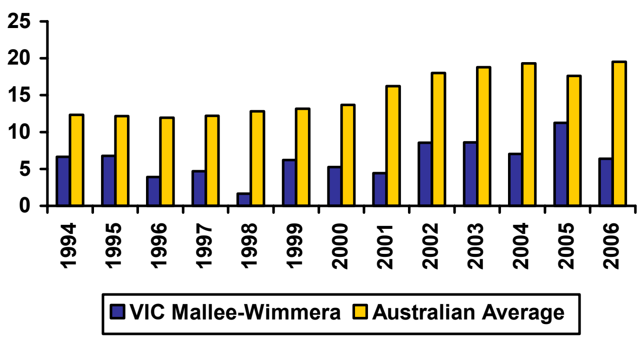
	No	Aust Avg	Rank
Average p.a. (1994-2005)	8.82	46.04	50
Average p.a. per capita	6.25	12.17	52
Hi Tech p.a. (1994-2005)	1.21	12.38	51
Hi Tech p.a. per capita	0.86	2.98	50
Info. Tech p.a. (1994-2005)	0.08	4.75	58
Info. Tech p.a. per capita	0.06	1.13	61
Average per capita (1994-2000)	4.94	10.48	54
Average per capita (2000-2005)	7.70	14.53	47
2000-05 avg./1994-00 avg.	1.56	1.36	11

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	21.7	22.1	22.3	23.0
Rank	42	39	40	33
Days Over 35C	25	20	23	29
Rank	18	23	18	17

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	33
Rank	59

VIC Ovens-Hume

The Ovens-Hume region lies on the other side of the ranges from Gippsland, and includes high country with winter snowfields, hills with plantation forestry, intensively-cultivated valleys and Victoria's share of the upper part of the Murray River plains. The major towns, Wangaratta and Wodonga (Victoria's counterpart to Albury) have significant manufacturing, mainly based on rural inputs, and the region's centrality on Australia's road system is generating investments in wholesale distribution. Though the region is beyond commuting range from Melbourne, its natural attractions, in addition to old towns like Beechworth, form the basis of a growing tourist industry.

Major centres:

Wodonga, Wangaratta

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	94	94	95	95	96	97	0.6%	0.6%	0.8%	0.6%	0.9%	0.7%	0.8%
No. Households	36	36	37	38	38	39	2.0%	2.0%	1.8%	1.7%	1.6%	1.9%	1.7%
NIEIR Workforce	45	46	46	48	48	49	2.0%	0.8%	2.8%	1.1%	2.0%	1.9%	1.6%
NIEIR Employment	41	42	43	44	44	45	2.2%	1.9%	2.4%	0.1%	3.1%	2.2%	1.6%
NIEIR Unemployment	3.8	3.8	3.4	3.7	4.1	3.8	-0.2%	-10.5%	7.2%	12.7%	-9.2%	-1.4%	1.2%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	8.5%	8.3%	7.4%	7.7%	8.6%	7.7%	-0.2	-0.9	0.3	0.9	-0.9	-0.3	0.0
Headline U/E	5.0%	4.8%	3.9%	4.1%	5.3%	4.2%	-0.2	-0.9	0.3	1.2	-1.1	-0.3	0.0
NIEIR Structural U/E	12.9%	12.9%	12.7%	12.1%	11.4%	11.3%	0.0	-0.2	-0.6	-0.7	-0.1	-0.2	-0.4

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,483	1,544	1,627	1,701	1,727	1,815	15,858	16,400	17,184	17,823	17,989	18,741	4.7%	3.3%
Taxes Paid	392	427	446	479	477	472	4,186	4,537	4,705	5,015	4,973	4,868	6.9%	-0.7%
Benefits	363	368	409	418	410	431	3,882	3,912	4,314	4,383	4,272	4,453	4.8%	1.5%
Business Income	365	345	364	386	365	277	3,907	3,670	3,840	4,047	3,799	2,864	1.9%	-15.2%
Interest Paid	151	173	202	223	239	273	1,619	1,833	2,138	2,338	2,494	2,821	13.8%	10.7%
Property Income	475	493	520	590	653	726	5,083	5,241	5,486	6,181	6,800	7,491	7.5%	10.9%
Disposable Income	2,205	2,212	2,332	2,459	2,513	2,582	23,570	23,497	24,619	25,763	26,169	26,660	3.7%	2.5%
Rank							27	26	25	24	24	22		
%Rank #1							60%	61%	61%	61%	59%	57%		
Business Value Added	1,849	1,889	1,991	2,087	2,092	2,093	19,765	20,071	21,023	21,870	21,789	21,604	4.1%	0.1%
Rank							47	43	45	42	44	40		
%Rank #1							53%	53%	54%	53%	50%	47%		
Business Productivity							43,074	44,405	45,900	46,435	47,390	48,191	2.5%	1.9%
Rank							51	50	50	50	50	50		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.16%	0.14%
Disability Support (aged 25+)	3.19%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.22%	0.21%
Parenting Payment - Single (aged 25+)	1.72%	1.64%
Unemployed Long Term	1.16%	1.20%
Unemployed Short Term	0.81%	0.79%
Youth Allowance - Non Student	0.39%	0.32%
Youth Allowance - Student	1.39%	1.27%

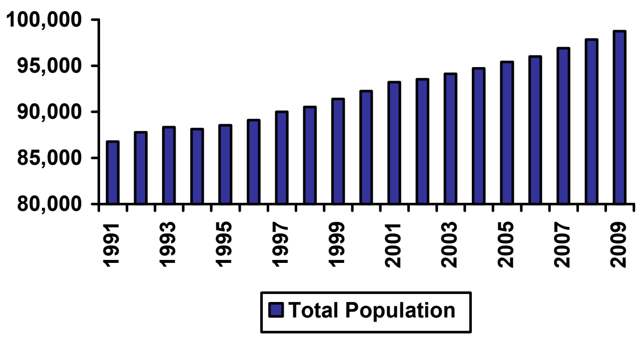
Cash Benefits Share of Disposable Income	Share	Rank
2002	16.5%	32
2003	16.6%	33
2004	17.5%	36
2005	17.0%	35
2006	16.3%	32
2007	16.7%	34

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	87.5	27
Share of population under 55	73.5	38
Aged migration	4.1	35
Population growth rate, 55+	3.1	20
Demographic stress	16.8	30
Dominant locations	56.5	54
Family / Youth migration	-0.1	47
Fertility bounce, 1996-2005	-0.2	48
Fertility, babies % pop, 2005	1.2	41
Fertility, babies % pop, 2005	58.0	43
Working elderly	28.6	25

Local Government Level		Score	Rank
Most Sustainable	Wodonga (RC)	67.6	125
Least Sustainable	Towong (S)	26.9	574

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.32%	28
2002	1.17%	46
2003	1.15%	47
2004	1.21%	38
2005	1.14%	53
2006	1.23%	41
Bounce 2004-05	-0.07%	61
Actual Change 2004-05 (Number)	-56	56
Bounce 2005-06	0.09%	15
Actual Change 2005-06 (Number)	96	42

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$961	19
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,084	24
Water Security Cost	$719	15
Total	$2,763	19

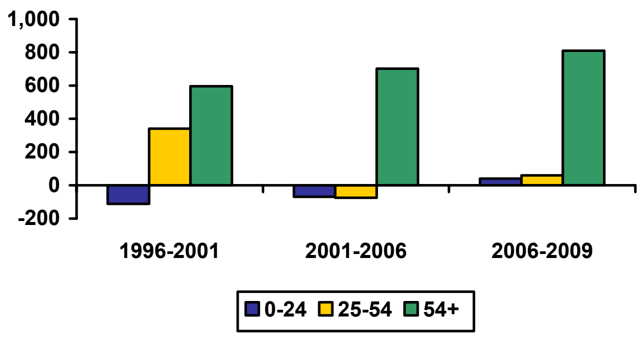
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.48%	20
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.67%	32
Water Security Cost	1.10%	20
Total	4.25%	21

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.20%	26
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.23%	44
Water Security Cost	0.15%	28
Total	0.58%	30

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.8%	34.6%	33.2%	32.4%
Age 25-55	41.9%	41.8%	40.2%	39.3%
Age 55+	21.3%	23.6%	26.5%	28.3%
Population Change (average between years)				
Age 0-24		-112	-69	41
Age 25-55		340	-74	59
Age 55+		597	703	810
Average Age	36.0	37.7	39.5	40.3
Average Annual Growth		0.9%	0.6%	0.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	402	478	19	15	35%	41%
Value of Property and Unincorporated Business	194	230	41	43	27%	35%
Value of Financial Assets	288	357	12	12	43%	49%
Value of Household Liabilities	80	109	28	38	66%	48%
Disposable Income after Debt Service Costs	57	65	37	27	56%	58%
Household Debt Service Ratio	15%	18%	18	43	79%	69%
Household Debt to Gross Income Ratio	1.12	1.28	18	43	79%	69%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	99	132	125	126	131	-4%
Non Residential	64	73	101	84	81	22%
Total	163	208	226	210	212	4%
Value per capita $2004/05						
Residential	1,061	1,336	1,299	1,296	1,332	-2%
Non Residential	698	772	1,055	861	831	19%
Total	1,742	2,030	2,354	2,156	2,163	10%
Rank (value per capita)						
Residential	35	25	32	35	29	
Non Residential	26	18	16	30	32	
Total	36	24	25	34	31	

RAINFALL

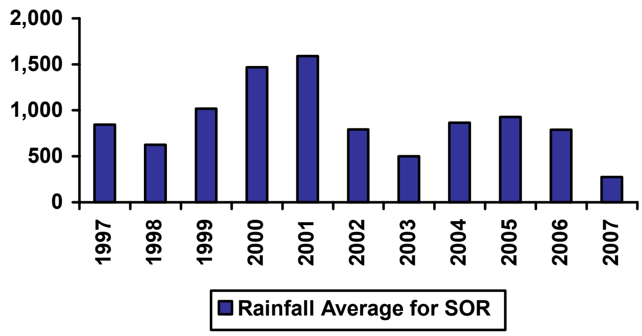
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	842	625	1,016	1,469	1,590	791	500	864	928	787	273
Rank	23	35	21	19	9	21	36	11	16	14	50

PATENT APPLICATIONS

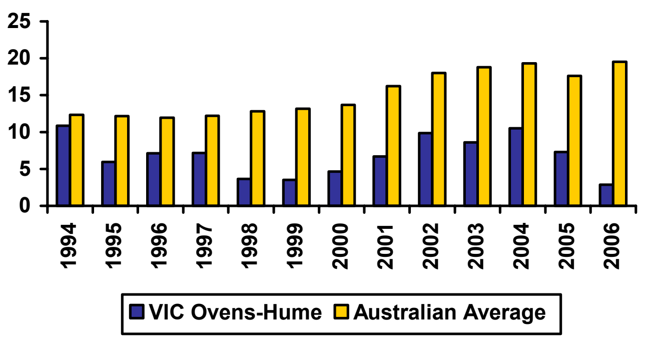
	No	Aust Avg	Rank
Average p.a. (1994-2005)	6.27	46.04	56
Average p.a. per capita	6.82	12.17	47
Hi Tech p.a. (1994-2005)	0.40	12.38	59
Hi Tech p.a. per capita	0.44	2.98	61
Info. Tech p.a. (1994-2005)	0.08	4.75	58
Info. Tech p.a. per capita	0.08	1.13	58
Average per capita (1994-2000)	6.19	10.48	46
Average per capita (2000-2005)	7.63	14.53	49
2000-05 avg./1994-00 avg.	1.23	1.36	45

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



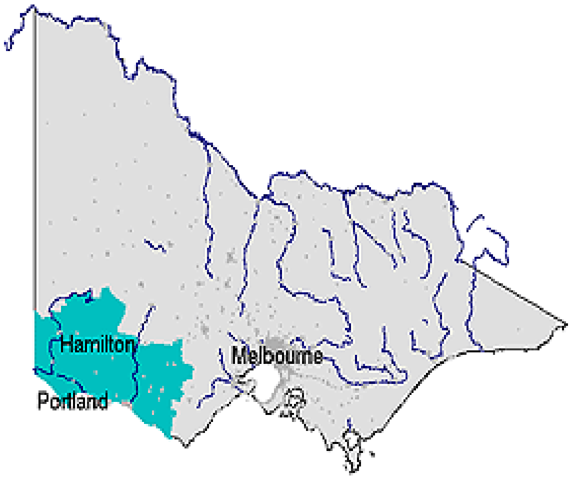
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	16.0	15.4	16.0	17.4
Rank	63	64	64	62
Days Over 35C	14	4	15	16
Rank	33	52	32	33

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	57
Rank	55

VIC West



The Western District in Victoria is beyond commuter range from Melbourne, and is hence primarily an agricultural region. The plains were renowned as fine wool country, but with falling wool prices there has been pressure to diversify. The southern part of the region, in Colac, Corangamite and Moyne Shires, has long engaged in more intensive agriculture, including dairying. The region has three main centres, Warrnambool, which following the decline of the textile and clothing industry is mainly a commercial centre, Portland, which combines a bulk port, heavy industry and tourism, and Hamilton, a gracious town founded on old wealth.

Major centres:

Warrnambool, Hamilton, Portland

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	101	101	101	102	102	103	0.0%	0.5%	0.6%	0.6%	0.9%	0.4%	0.7%
No. Households	39	39	40	40	41	42	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
NIEIR Workforce	46	47	47	49	49	50	1.2%	1.8%	2.4%	0.7%	1.9%	1.8%	1.3%
NIEIR Employment	41	42	43	44	44	45	2.0%	1.7%	1.6%	1.6%	2.2%	1.8%	1.9%
NIEIR Unemployment	4.5	4.3	4.4	4.8	4.4	4.4	-6.3%	2.8%	10.2%	-7.6%	-0.5%	2.0%	-4.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.9%	9.1%	9.2%	9.9%	9.1%	8.9%	-0.7	0.1	0.7	-0.8	-0.2	0.0	-0.5
Headline U/E	5.2%	5.1%	5.5%	6.4%	5.8%	5.4%	-0.1	0.3	0.9	-0.5	-0.4	0.4	-0.5
NIEIR Structural U/E	13.2%	13.7%	13.1%	12.6%	12.0%	11.6%	0.4	-0.5	-0.5	-0.7	-0.3	-0.2	-0.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,358	1,400	1,478	1,573	1,645	1,715	13,495	13,913	14,609	15,448	16,067	16,609	5.0%	4.4%
Taxes Paid	503	491	523	587	558	515	4,992	4,876	5,175	5,769	5,451	4,986	5.3%	-6.4%
Benefits	390	394	436	443	434	458	3,870	3,914	4,310	4,355	4,240	4,434	4.4%	1.6%
Business Income	1,003	795	861	961	800	582	9,963	7,900	8,513	9,439	7,814	5,635	-1.4%	-22.2%
Interest Paid	166	184	211	224	233	265	1,647	1,832	2,091	2,204	2,277	2,566	10.6%	8.7%
Property Income	529	519	549	642	698	757	5,252	5,160	5,424	6,304	6,821	7,327	6.7%	8.6%
Disposable Income	2,701	2,514	2,670	2,895	2,880	2,820	26,830	24,981	26,401	28,439	28,128	27,303	2.3%	-1.3%
Rank							17	20	20	13	18	21		
%Rank #1							69%	65%	66%	67%	63%	58%		
Business Value Added	2,361	2,195	2,339	2,534	2,445	2,297	23,458	21,813	23,122	24,887	23,881	22,244	2.4%	-4.8%
Rank							24	28	26	21	28	36		
%Rank #1							63%	58%	59%	60%	54%	48%		
Business Productivity							46,537	46,781	48,776	49,767	50,280	50,663	2.3%	0.9%
Rank							35	36	34	35	35	41		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.10%	0.08%
Disability Support (aged 20-24)	0.15%	0.14%
Disability Support (aged 25+)	3.15%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.17%	0.21%
Parenting Payment - Single (aged 25+)	1.59%	1.64%
Unemployed Long Term	1.28%	1.20%
Unemployed Short Term	0.76%	0.79%
Youth Allowance - Non Student	0.34%	0.32%
Youth Allowance - Student	1.46%	1.27%

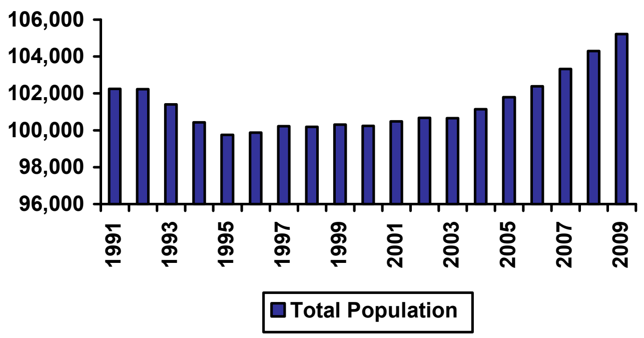
Cash Benefits Share of Disposable Income	Share	Rank
2002	14.4%	45
2003	15.7%	40
2004	16.3%	41
2005	15.3%	47
2006	15.1%	40
2007	16.2%	37

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	54.2	57
Share of population under 55	72.4	50
Aged migration	3.8	45
Population growth rate, 55+	1.7	55
Demographic stress	-4.0	58
Dominant locations	53.7	56
Family / Youth migration	-1.4	57
Fertility bounce, 1996-2005	-0.2	57
Fertility, babies % pop, 2005	1.2	53
Fertility, babies % pop, 2005	44.4	61
Working elderly	29.6	18

Local Government Level		Score	Rank
Most Sustainable	Warrnambool (C)	64.6	158
Least Sustainable	Corangamite (S)	32.2	518

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.29%	34
2002	1.18%	44
2003	1.19%	40
2004	1.18%	45
2005	1.12%	57
2006	1.18%	53
Bounce 2004-05	-0.06%	60
Actual Change 2004-05 (Number)	-54	55
Bounce 2005-06	0.06%	26
Actual Change 2005-06 (Number)	67	49

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$492	32
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,030	34
Water Security Cost	$404	53
Total	$1,926	34

Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.73%	31
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.54%	39
Water Security Cost	0.60%	47
Total	2.88%	39

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.10%	33
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.22%	46
Water Security Cost	0.09%	52
Total	0.41%	44

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.0%	34.2%	33.4%	32.9%
Age 25-55	40.1%	40.4%	39.0%	38.2%
Age 55+	23.8%	25.4%	27.6%	28.9%
Population Change (average between years)				
Age 0-24		-327	-37	147
Age 25-55		101	-124	91
Age 55+		348	543	708
Average Age	37.1	38.5	39.9	40.8
Average Annual Growth		0.1%	0.4%	0.9%

Population Change by Age Group

HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	408	473	18	18	35%	40%
Value of Property and Unincorporated Business	188	214	47	48	26%	33%
Value of Financial Assets	303	358	10	11	45%	50%
Value of Household Liabilities	83	99	23	49	68%	44%
Disposable Income after Debt Service Costs	63	67	22	22	62%	60%
Household Debt Service Ratio	14%	16%	29	53	75%	63%
Household Debt to Gross Income Ratio	1.07	1.16	29	53	75%	63%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	63	100	126	131	131	30%
Non Residential	53	67	74	75	82	15%
Total	115	179	200	206	214	15%
Value per capita $2004/05						
Residential	625	935	1,235	1,266	1,262	34%
Non Residential	524	667	721	729	792	12%
Total	1,155	1,538	1,956	1,995	2,054	30%
Rank (value per capita)						
Residential	57	46	36	38	39	
Non Residential	49	32	36	37	39	
Total	53	44	39	38	38	

RAINFALL

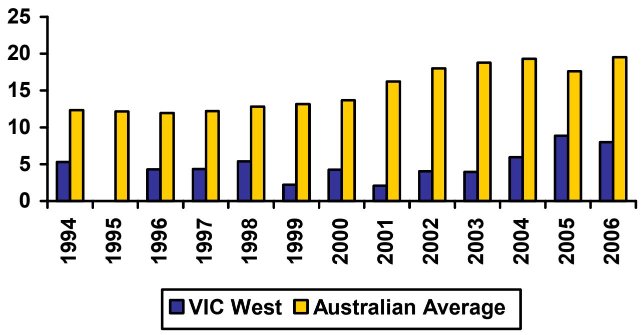
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	709	619	614	945	1,087	757	653	763	634	612	484
Rank	35	39	48	44	40	28	25	15	39	37	29

PATENT APPLICATIONS

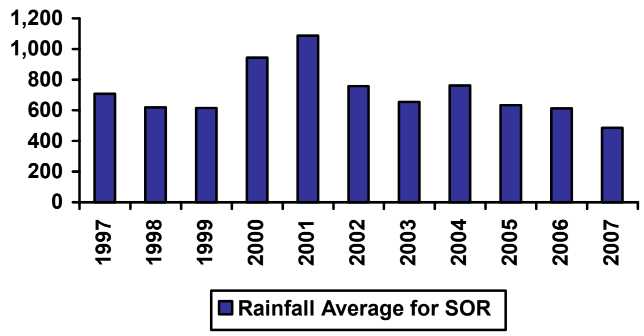
	No	Aust Avg	Rank
Average p.a. (1994-2005)	4.55	46.04	58
Average p.a. per capita	4.51	12.17	61
Hi Tech p.a. (1994-2005)	0.48	12.38	57
Hi Tech p.a. per capita	0.48	2.98	59
Info. Tech p.a. (1994-2005)	0.15	4.75	55
Info. Tech p.a. per capita	0.14	1.13	54
Average per capita (1994-2000)	3.48	10.48	61
Average per capita (2000-2005)	5.48	14.53	60
2000-05 avg./1994-00 avg.	1.58	1.36	8

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	17.9	18.7	18.7	18.6
Rank	58	56	59	59
Days Over 35C	5	6	9	11
Rank	57	47	45	42

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	55
Rank	56

Brisbane City

Given the choice not to split LGAs in defining regions, it is inevitable that Brisbane will form a region of its own. Had Brisbane been divided among LGAs in the same way as the other state capitals, it would have been possible to distinguish a smaller CBD region. Even so, the geography of Brisbane, with its alternation of hills and marshy flats, would have created different patterns of development from all other Australian capitals: Brisbane is unique, even without its metropolitan local government. In comparing the City of Brisbane with other central city regions, it should be remembered that the region is more diverse than most, with rather more manufacturing activity and low-status suburbs than the others. Even so, central city functions are an important part of its economic base.

Major centres:

Brisbane

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	919	942	960	976	992	1,008	2.5%	2.0%	1.7%	1.6%	1.6%	2.0%	1.6%
No. Households	349	355	361	367	371	375	1.7%	1.8%	1.5%	1.2%	1.0%	1.7%	1.1%
NIEIR Workforce	494	505	517	541	563	581	2.3%	2.4%	4.6%	4.1%	3.2%	3.1%	3.7%
NIEIR Employment	453	469	483	509	533	557	3.5%	3.0%	5.5%	4.8%	4.4%	4.0%	4.6%
NIEIR Unemployment	41.3	36.5	34.7	32.1	29.7	24.5	-11.5%	-5.0%	-7.6%	-7.3%	-17.5%	-8.1%	-12.6%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	8.4%	7.2%	6.7%	5.9%	5.3%	4.2%	-1.1	-0.5	-0.8	-0.6	-1.1	-0.8	-0.9
Headline U/E	7.2%	5.9%	5.5%	4.9%	4.4%	3.6%	-1.4	-0.4	-0.6	-0.5	-0.9	-0.8	-0.7
NIEIR Structural U/E	9.8%	9.8%	9.1%	8.5%	7.7%	7.2%	0.0	-0.7	-0.7	-0.7	-0.5	-0.5	-0.6

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	18,620	19,257	20,682	22,318	24,378	26,127	20,271	20,453	21,540	22,865	24,570	25,990	6.2%	8.2%
Taxes Paid	4,623	4,827	5,301	5,760	6,239	6,591	5,033	5,127	5,521	5,901	6,288	6,556	7.6%	7.0%
Benefits	2,832	2,837	3,070	3,161	3,114	3,176	3,083	3,013	3,197	3,239	3,138	3,159	3.7%	0.2%
Business Income	3,010	3,346	3,594	3,753	4,125	4,653	3,277	3,554	3,743	3,845	4,158	4,629	7.6%	11.3%
Interest Paid	1,255	1,569	2,104	2,592	3,017	3,601	1,366	1,667	2,191	2,656	3,040	3,583	27.4%	17.9%
Property Income	2,447	3,008	3,429	3,742	4,380	4,696	2,664	3,194	3,571	3,834	4,414	4,671	15.2%	12.0%
Disposable Income	21,481	22,523	23,869	25,264	27,604	29,482	23,385	23,922	24,859	25,883	27,821	29,328	5.6%	8.0%
Rank							29	23	23	23	21	17		
%Rank #1							60%	62%	62%	61%	62%	62%		
Business Value Added	21,631	22,603	24,277	26,072	28,503	30,781	23,548	24,007	25,284	26,711	28,728	30,619	6.4%	8.7%
Rank							23	17	16	16	14	11		
%Rank #1							63%	64%	65%	64%	65%	66%		
Business Productivity							47,050	47,520	49,630	50,607	53,069	55,436	2.5%	4.7%
Rank							32	29	28	30	18	16		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.11%	0.14%
Disability Support (aged 25+)	2.32%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.14%	0.21%
Parenting Payment - Single (aged 25+)	1.15%	1.64%
Unemployed Long Term	0.74%	1.20%
Unemployed Short Term	0.58%	0.79%
Youth Allowance - Non Student	0.18%	0.32%
Youth Allowance - Student	1.35%	1.27%

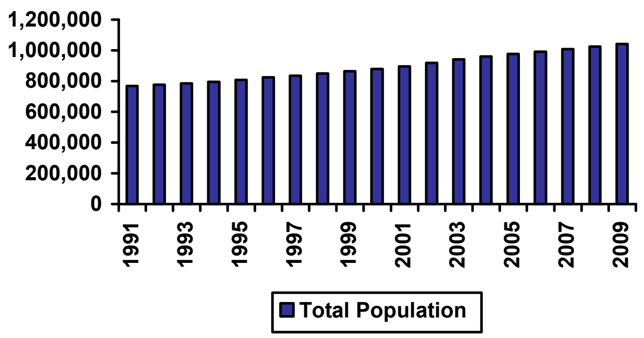
Cash Benefits Share of Disposable Income	Share	Rank
2002	13.2%	50
2003	12.6%	53
2004	12.9%	52
2005	12.5%	53
2006	11.3%	52
2007	10.8%	54

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	100.0	1
Share of population under 55	78.6	18
Aged migration	3.0	63
Population growth rate, 55+	2.2	39
Demographic stress	23.0	20
Dominant locations	100.0	2
Family / Youth migration	7.3	3
Fertility bounce, 1996-2005	0.1	5
Fertility, babies % pop, 2005	1.3	34
Fertility, babies % pop, 2005	70.7	7
Working elderly	27.0	34

Local Government Level		Score	Rank
Most Sustainable	Brisbane (C)	70.7	93
Least Sustainable	Brisbane (C)	70.7	93

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.26%	43
2002	1.24%	31
2003	1.21%	33
2004	1.25%	29
2005	1.29%	27
2006	1.28%	34
Bounce 2004-05	0.04%	12
Actual Change 2004-05 (Number)	564	1
Bounce 2005-06	0.00%	56
Actual Change 2005-06 (Number)	176	25

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$17	59
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,004	40
Water Security Cost	$750	14
Total	$1,772	42

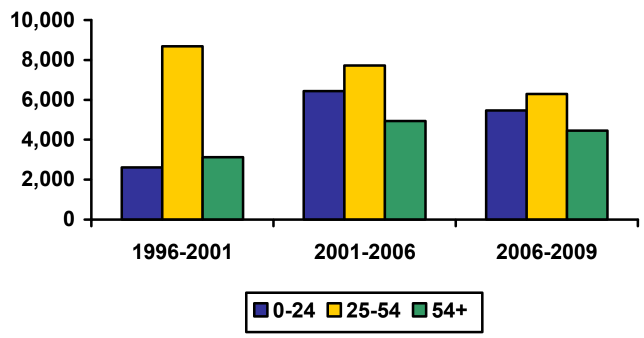
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.03%	59
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.44%	46
Water Security Cost	1.08%	22
Total	2.55%	50

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.00%	60
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.18%	51
Water Security Cost	0.14%	32
Total	0.32%	55

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	35.2%	33.9%	33.8%	33.8%
Age 25-55	44.0%	45.3%	44.8%	44.5%
Age 55+	20.8%	20.9%	21.4%	21.6%
Population Change (average between years)				
Age 0-24		2,617	6,445	5,470
Age 25-55		8,688	7,718	6,305
Age 55+		3,127	4,942	4,459
Average Age	36.9	37.2	37.6	37.3
Average Annual Growth		1.7%	2.0%	1.6%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	383	546	22	13	33%	47%
Value of Property and Unincorporated Business	316	454	10	8	44%	70%
Value of Financial Assets	127	229	48	33	19%	32%
Value of Household Liabilities	60	137	55	20	49%	61%
Disposable Income after Debt Service Costs	58	69	30	17	57%	62%
Household Debt Service Ratio	11%	20%	53	31	58%	76%
Household Debt to Gross Income Ratio	0.82	1.41	53	31	58%	76%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	1,470	1,818	1,919	1,843	1,860	3%
Non Residential	1,244	1,507	1,774	2,045	2,163	32%
Total	2,715	3,398	3,693	3,888	4,022	14%
Value per capita $2004/05						
Residential	1,683	1,851	1,934	1,831	1,822	1%
Non Residential	1,436	1,588	1,788	2,033	2,119	25%
Total	3,077	3,418	3,722	3,864	3,941	12%
Rank (value per capita)						
Residential	10	12	12	16	16	
Non Residential	4	3	4	5	5	
Total	5	4	6	5	4	

RAINFALL

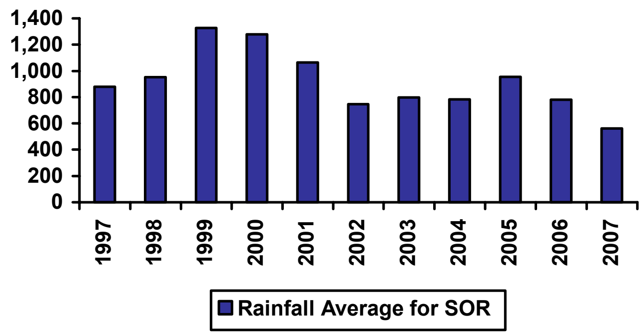
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	880	952	1,327	1,277	1,066	746	798	783	954	781	562
Rank	19	12	15	22	42	30	13	14	13	15	18

PATENT APPLICATIONS

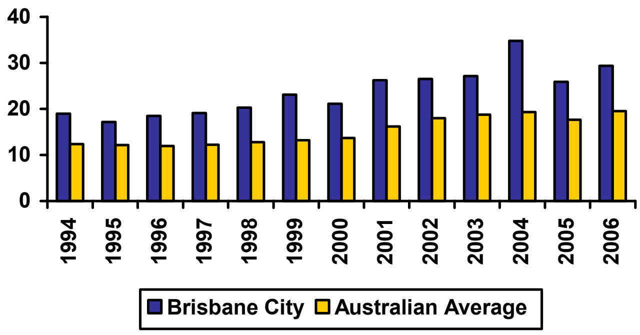
	No	Aust Avg	Rank
Average p.a. (1994-2005)	213.26	46.04	2
Average p.a. per capita	23.71	12.17	6
Hi Tech p.a. (1994-2005)	59.39	12.38	3
Hi Tech p.a. per capita	6.47	2.98	7
Info. Tech p.a. (1994-2005)	19.49	4.75	5
Info. Tech p.a. per capita	2.11	1.13	9
Average per capita (1994-2000)	20.56	10.48	5
Average per capita (2000-2005)	28.33	14.53	6
2000-05 avg./1994-00 avg.	1.38	1.36	30

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	26.9	26.8	26.2	26.3
Rank	12	12	12	12
Days Over 35C	8	3	4	3
Rank	48	56	57	56

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	2108
Rank	3

Brisbane North

Over the past few decades the population of Brisbane has spilled beyond the City boundaries. The spill to the north is now large enough to generate two regions: North Brisbane and the Sunshine Coast. North Brisbane is largely a commuter area, with a few surviving rural industries and some manufacturing. Redcliffe, on the coast, was originally a seaside retirement area somewhat like the Central Coast in NSW, but has become incorporated into suburban Brisbane.

Major centres:

Caboolture, Redcliffe

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	298	308	318	327	336	345	3.4%	3.2%	2.8%	2.8%	2.6%	3.2%	2.7%
No. Households	106	109	113	117	120	124	3.0%	3.7%	3.3%	2.8%	2.9%	3.3%	2.8%
NIEIR Workforce	149	155	161	167	173	180	4.1%	3.9%	4.2%	3.6%	3.9%	4.1%	3.7%
NIEIR Employment	133	140	147	155	161	168	5.3%	4.8%	5.7%	3.8%	4.4%	5.2%	4.1%
NIEIR Unemployment	15.6	14.7	14.0	12.5	12.6	12.2	-6.1%	-4.5%	-11.0%	1.2%	-3.3%	-7.2%	-1.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.5%	9.5%	8.7%	7.4%	7.3%	6.8%	-1.0	-0.8	-1.3	-0.2	-0.5	-1.0	-0.3
Headline U/E	7.9%	6.7%	6.1%	5.0%	4.9%	4.6%	-1.2	-0.6	-1.1	-0.2	-0.3	-1.0	-0.2
NIEIR Structural U/E	14.0%	13.7%	12.9%	12.1%	11.4%	10.6%	-0.3	-0.9	-0.8	-0.7	-0.8	-0.6	-0.7

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	4,879	5,149	5,621	6,075	6,404	6,963	16,374	16,706	17,666	18,568	19,038	20,160	7.6%	7.1%
Taxes Paid	1,072	1,143	1,272	1,352	1,383	1,435	3,599	3,709	3,998	4,131	4,110	4,155	8.0%	3.0%
Benefits	1,067	1,092	1,227	1,284	1,267	1,294	3,579	3,542	3,855	3,924	3,767	3,747	6.4%	0.4%
Business Income	719	806	876	870	800	753	2,412	2,615	2,752	2,659	2,379	2,180	6.6%	-7.0%
Interest Paid	464	559	718	834	929	1,098	1,558	1,814	2,258	2,548	2,763	3,180	21.5%	14.8%
Property Income	489	588	675	724	862	940	1,642	1,907	2,123	2,214	2,562	2,722	14.0%	13.9%
Disposable Income	5,744	6,064	6,548	6,948	7,242	7,676	19,279	19,677	20,579	21,233	21,530	22,222	6.5%	5.1%
Rank							57	55	57	57	57	56		
%Rank #1							49%	51%	51%	50%	48%	47%		
Business Value Added	5,598	5,954	6,497	6,945	7,204	7,716	18,786	19,321	20,417	21,226	21,417	22,340	7.5%	5.4%
Rank							52	46	47	47	48	35		
%Rank #1							50%	51%	52%	51%	49%	48%		
Business Productivity							41,650	42,178	43,941	44,299	45,504	46,578	2.1%	2.5%
Rank							57	56	54	55	55	58		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.15%	0.14%
Disability Support (aged 25+)	3.12%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.27%	0.21%
Parenting Payment - Single (aged 25+)	1.92%	1.64%
Unemployed Long Term	0.90%	1.20%
Unemployed Short Term	0.69%	0.79%
Youth Allowance - Non Student	0.32%	0.32%
Youth Allowance - Student	0.89%	1.27%

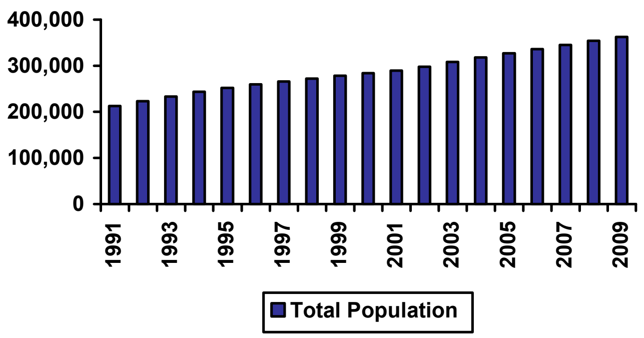
Cash Benefits Share of Disposable Income	Share	Rank
2002	18.6%	15
2003	18.0%	22
2004	18.7%	23
2005	18.5%	25
2006	17.5%	27
2007	16.9%	32

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	94.3	7
Share of population under 55	76.7	25
Aged migration	5.8	8
Population growth rate, 55+	5.0	3
Demographic stress	34.4	5
Dominant locations	99.4	19
Family / Youth migration	2.8	21
Fertility bounce, 1996-2005	-0.2	33
Fertility, babies % pop, 2005	1.4	18
Fertility, babies % pop, 2005	71.5	4
Working elderly	25.8	39

Local Government Level		Score	Rank
Most Sustainable	Pine Rivers (S)	76.7	40
Least Sustainable	Redcliffe (C)	50.8	343

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.40%	19
2002	1.36%	17
2003	1.29%	19
2004	1.31%	18
2005	1.37%	15
2006	1.38%	18
Bounce 2004-05	0.06%	8
Actual Change 2004-05 (Number)	319	4
Bounce 2005-06	0.01%	46
Actual Change 2005-06 (Number)	173	26

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$220	40
Carbon Price Loss Cost (@$33 a tonne of carbon)	$984	47
Water Security Cost	$762	11
Total	$1,966	33

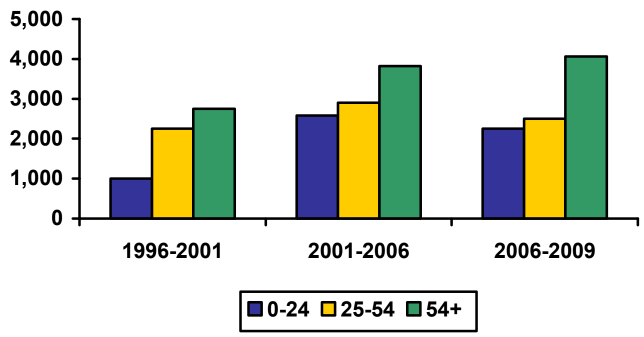
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.39%	38
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.76%	21
Water Security Cost	1.36%	10
Total	3.51%	28

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.06%	39
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.27%	26
Water Security Cost	0.21%	13
Total	0.54%	32

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	38.7%	36.5%	35.2%	34.5%
Age 25-55	43.7%	43.1%	41.5%	40.5%
Age 55+	17.5%	20.4%	23.3%	25.0%
Population Change (average between years)				
Age 0-24		1,002	2,580	2,253
Age 25-55		2,251	2,904	2,497
Age 55+		2,746	3,822	4,066
Average Age	34.6	35.9	37.2	38.3
Average Annual Growth		2.2%	3.0%	2.6%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	247	365	57	41	21%	31%
Value of Property and Unincorporated Business	245	373	27	15	34%	57%
Value of Financial Assets	79	125	61	61	12%	17%
Value of Household Liabilities	78	133	31	23	64%	59%
Disposable Income after Debt Service Costs	49	56	54	51	48%	50%
Household Debt Service Ratio	16%	23%	9	10	84%	87%
Household Debt to Gross Income Ratio	1.20	1.62	9	10	84%	87%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	344	619	693	788	806	23%
Non Residential	136	132	199	239	263	77%
Total	479	833	892	1,027	1,068	20%
Value per capita $2004/05						
Residential	1,315	1,884	2,060	2,268	2,251	16%
Non Residential	490	420	593	689	735	60%
Total	1,845	2,276	2,653	2,956	2,986	26%
Rank (value per capita)						
Residential	25	11	7	5	5	
Non Residential	55	59	53	45	41	
Total	33	17	19	17	17	

RAINFALL

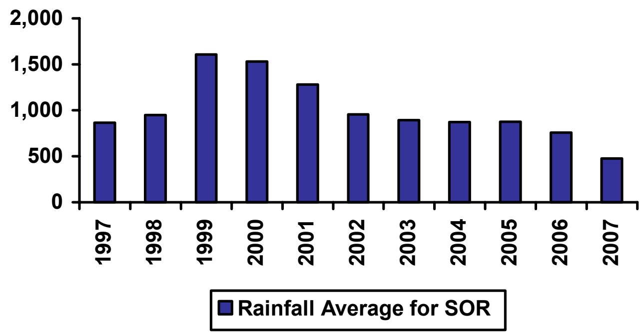
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	865	949	1,608	1,530	1,282	956	891	872	877	758	474
Rank	22	13	8	17	24	11	11	10	19	18	30

PATENT APPLICATIONS

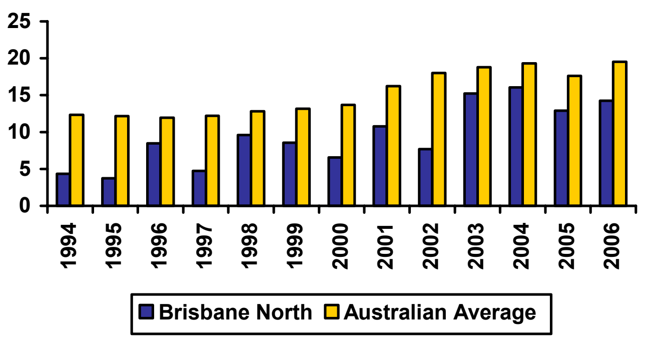
	No	Aust Avg	Rank
Average p.a. (1994-2005)	28.11	46.04	25
Average p.a. per capita	9.45	12.17	30
Hi Tech p.a. (1994-2005)	5.50	12.38	26
Hi Tech p.a. per capita	1.83	2.98	27
Info. Tech p.a. (1994-2005)	2.71	4.75	22
Info. Tech p.a. per capita	0.90	1.13	16
Average per capita (1994-2000)	7.09	10.48	37
Average per capita (2000-2005)	12.81	14.53	20
2000-05 avg./1994-00 avg.	1.81	1.36	3

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



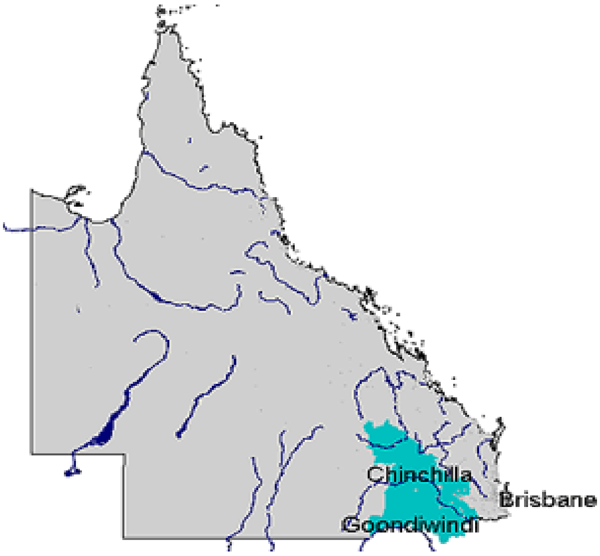
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	24.1	25.6	25.5	24.5
Rank	21	16	16	24
Days Over 35C	5	2	2	1
Rank	59	59	60	59

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	244
Rank	25

QLD Agricultural SW



The Agricultural South West of Queensland is centred on the Darling Downs, but the cropping frontier now extends well beyond the Downs into former brigalow country. Toowoomba is the main regional centre, but Warwick and Dalby are also important. The Darling Downs is one of Australia's premier agricultural regions, with a wide variety of crops grown. The New England massif extends across the Queensland border into the region, and the resulting granite belt is known for its orchards. The main towns of the region have agricultural processing industries. Export coal mining has commenced, and the region hosts several new coal-fired power stations.

Major centres:

Toowoomba, Warwick, Dalby

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	213	216	220	224	227	230	1.4%	1.8%	1.5%	1.5%	1.3%	1.6%	1.4%
No. Households	78	79	80	82	83	85	1.5%	1.8%	1.9%	2.1%	1.8%	1.7%	1.9%
NIEIR Workforce	99	100	104	106	106	110	0.4%	4.0%	2.1%	0.1%	3.8%	2.2%	2.0%
NIEIR Employment	90	91	94	98	99	102	1.0%	3.6%	3.7%	0.8%	3.4%	2.7%	2.1%
NIEIR Unemployment	9.2	8.8	9.5	8.2	7.5	8.2	-4.9%	7.6%	-13.3%	-8.0%	9.0%	-3.9%	0.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.3%	8.8%	9.1%	7.7%	7.1%	7.5%	-0.5	0.3	-1.4	-0.6	0.4	-0.5	-0.1
Headline U/E	5.3%	4.9%	5.2%	4.3%	3.7%	4.1%	-0.3	0.3	-0.9	-0.5	0.4	-0.3	-0.1
NIEIR Structural U/E	13.3%	14.3%	13.8%	13.2%	12.6%	12.0%	1.0	-0.5	-0.6	-0.6	-0.6	0.0	-0.6

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	3,026	3,058	3,266	3,501	3,733	3,961	14,176	14,127	14,814	15,644	16,438	17,200	5.0%	6.4%
Taxes Paid	894	822	966	1,046	1,041	914	4,188	3,795	4,384	4,673	4,585	3,967	5.4%	-6.5%
Benefits	774	784	871	888	872	895	3,626	3,624	3,953	3,969	3,838	3,886	4.7%	0.4%
Business Income	1,326	1,021	1,398	1,456	1,264	654	6,210	4,714	6,341	6,507	5,567	2,839	3.2%	-33.0%
Interest Paid	269	322	404	443	471	554	1,260	1,489	1,830	1,979	2,075	2,404	18.1%	11.8%
Property Income	790	794	915	981	1,109	1,009	3,699	3,666	4,151	4,383	4,885	4,382	7.5%	1.4%
Disposable Income	4,869	4,616	5,203	5,477	5,626	5,195	22,811	21,320	23,602	24,474	24,775	22,559	4.0%	-2.6%
Rank							36	48	32	32	33	53		
%Rank #1							59%	55%	59%	58%	55%	48%		
Business Value Added	4,352	4,079	4,664	4,957	4,997	4,614	20,386	18,841	21,155	22,151	22,005	20,038	4.4%	-3.5%
Rank							41	52	41	39	40	51		
%Rank #1							54%	50%	54%	53%	50%	43%		
Business Productivity							42,963	42,803	44,677	44,900	46,046	46,797	1.5%	2.1%
Rank							52	52	52	53	53	54		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.15%	0.14%
Disability Support (aged 25+)	3.57%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.05%	0.04%
Parenting Payment - Single (aged 20-24)	0.28%	0.21%
Parenting Payment - Single (aged 25+)	1.65%	1.64%
Unemployed Long Term	0.91%	1.20%
Unemployed Short Term	0.68%	0.79%
Youth Allowance - Non Student	0.36%	0.32%
Youth Allowance - Student	1.14%	1.27%

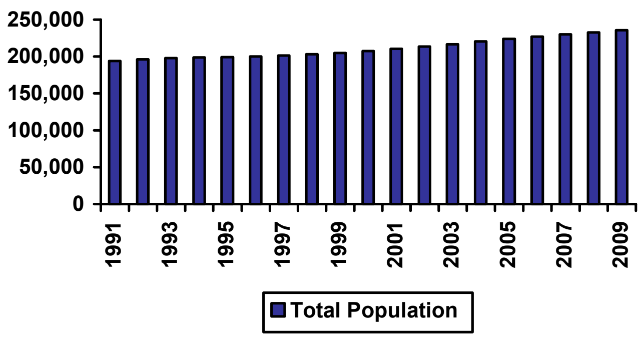
Cash Benefits Share of Disposable Income	Share	Rank
2002	15.9%	33
2003	17.0%	32
2004	16.7%	39
2005	16.2%	41
2006	15.5%	39
2007	17.2%	29

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	90.5	19
Share of population under 55	74.8	31
Aged migration	4.7	22
Population growth rate, 55+	2.5	33
Demographic stress	23.9	19
Dominant locations	67.9	40
Family / Youth migration	1.7	29
Fertility bounce, 1996-2005	0.0	11
Fertility, babies % pop, 2005	1.4	15
Fertility, babies % pop, 2005	64.7	19
Working elderly	30.3	15

Local Government Level		Score	Rank
Most Sustainable	Cambooya (S)	81.5	15
Least Sustainable	Inglewood (S)	23.5	603

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.45%	17
2002	1.34%	19
2003	1.26%	25
2004	1.28%	24
2005	1.33%	19
2006	1.44%	15
Bounce 2004-05	0.06%	10
Actual Change 2004-05 (Number)	170	12
Bounce 2005-06	0.11%	9
Actual Change 2005-06 (Number)	291	11

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,507	9
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,311	3
Water Security Cost	$552	37
Total	$3,370	10

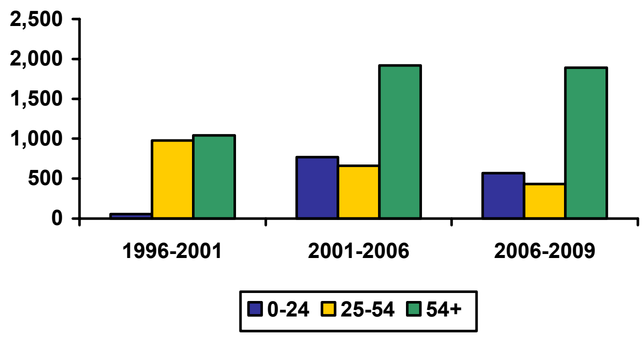
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	2.59%	10
Carbon Price Loss Cost (@$33 a tonne of carbon)	2.25%	2
Water Security Cost	0.95%	31
Total	5.79%	9

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.39%	11
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.34%	10
Water Security Cost	0.14%	30
Total	0.88%	16

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	38.5%	36.7%	35.7%	35.1%
Age 25-55	40.2%	40.6%	39.0%	38.1%
Age 55+	21.3%	22.7%	25.3%	26.7%
Population Change (average between years)				
Age 0-24		56	767	570
Age 25-55		977	661	434
Age 55+		1,042	1,920	1,890
Average Age	35.7	36.8	37.9	38.8
Average Annual Growth		1.0%	1.5%	1.3%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	343	383	30	36	29%	33%
Value of Property and Unincorporated Business	214	247	35	38	30%	38%
Value of Financial Assets	191	234	24	29	29%	32%
Value of Household Liabilities	62	99	52	50	51%	44%
Disposable Income after Debt Service Costs	57	58	38	43	56%	52%
Household Debt Service Ratio	12%	18%	50	44	62%	69%
Household Debt to Gross Income Ratio	0.89	1.28	50	44	62%	69%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	138	185	290	268	283	51%
Non Residential	145	113	153	166	166	44%
Total	283	324	443	434	449	37%
Value per capita $2004/05						
Residential	676	820	1,279	1,160	1,198	48%
Non Residential	709	515	674	719	704	36%
Total	1,444	1,348	1,953	1,880	1,901	42%
Rank (value per capita)						
Residential	52	54	34	43	43	
Non Residential	24	50	43	41	47	
Total	48	52	40	45	44	

RAINFALL

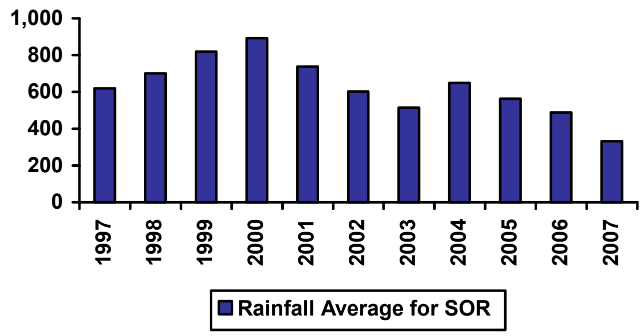
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	620	702	819	892	738	602	514	649	562	488	332
Rank	44	28	30	51	57	44	35	32	45	52	40

PATENT APPLICATIONS

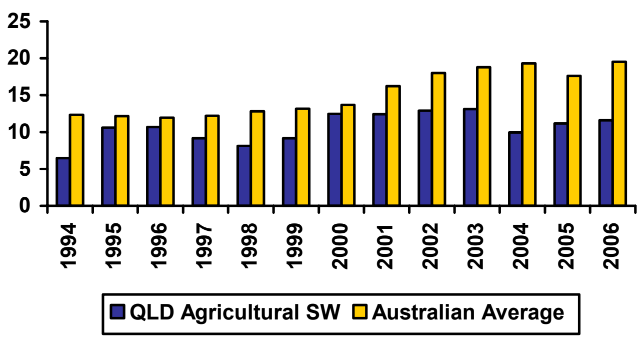
	No	Aust Avg	Rank
Average p.a. (1994-2005)	22.31	46.04	31
Average p.a. per capita	10.59	12.17	23
Hi Tech p.a. (1994-2005)	3.08	12.38	34
Hi Tech p.a. per capita	1.48	2.98	33
Info. Tech p.a. (1994-2005)	0.71	4.75	38
Info. Tech p.a. per capita	0.33	1.13	37
Average per capita (1994-2000)	9.87	10.48	20
Average per capita (2000-2005)	11.86	14.53	27
2000-05 avg./1994-00 avg.	1.20	1.36	49

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



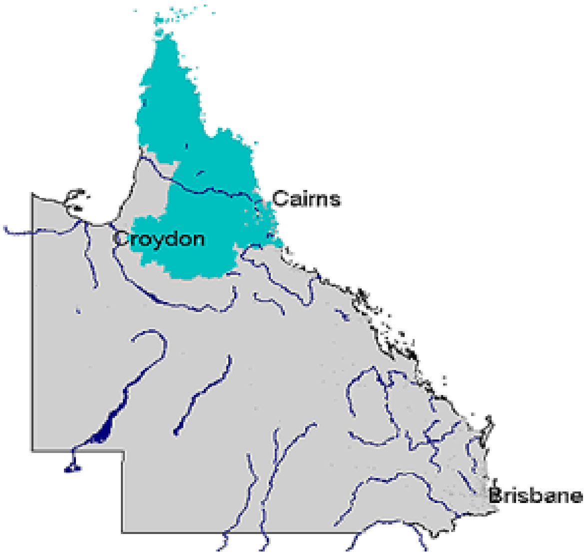
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	25.3	25.9	25.8	25.4
Rank	16	14	15	17
Days Over 35C	24	24	31	23
Rank	21	15	12	21

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	126
Rank	36

QLD Far North



The Far North of Queensland comprises Cairns and its hinterland. Around Cairns retirement and resort developments are crowding out the established sugar industry, but further south around Innisfail and Tully the industry remains the dominant land use. Intensive agriculture is pursued on the Atherton Tableland above Cairns, but beyond this the pastoral zone extends west to the Gulf of Carpentaria and north to the tip of Cape York. With its high indigenous population this sparsely-populated area has affinities with NW Queensland, but is included here in deference to the Queensland planning regions and because it is serviced from Cairns rather than Mt Isa.

Major centres:

Cairns

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	227	232	237	242	246	252	2.1%	2.2%	1.8%	1.8%	2.5%	2.0%	2.1%
No. Households	88	89	91	92	94	96	1.2%	1.5%	1.9%	1.8%	2.3%	1.5%	2.0%
NIEIR Workforce	107	110	109	114	117	120	2.5%	-0.6%	4.4%	2.4%	3.1%	2.1%	2.8%
NIEIR Employment	97	100	100	105	106	110	2.6%	0.1%	5.1%	0.9%	4.4%	2.6%	2.6%
NIEIR Unemployment	10.0	10.1	9.3	9.1	10.9	9.9	1.6%	-7.8%	-2.8%	20.6%	-9.6%	-3.1%	4.4%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.3%	9.2%	8.5%	7.9%	9.4%	8.2%	-0.1	-0.7	-0.6	1.4	-1.2	-0.4	0.1
Headline U/E	6.9%	6.4%	5.5%	4.9%	6.5%	5.6%	-0.5	-0.9	-0.6	1.6	-0.9	-0.7	0.3
NIEIR Structural U/E	16.3%	16.6%	16.5%	14.7%	12.8%	11.7%	0.4	-0.1	-1.9	-1.8	-1.1	-0.5	-1.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	3,316	3,425	3,580	3,816	4,073	4,473	14,582	14,752	15,097	15,798	16,568	17,730	4.8%	8.3%
Taxes Paid	957	945	988	1,060	1,152	1,159	4,209	4,070	4,165	4,389	4,686	4,592	3.5%	4.5%
Benefits	809	822	913	910	863	917	3,559	3,539	3,851	3,766	3,509	3,636	4.0%	0.4%
Business Income	1,033	971	1,042	1,102	1,178	989	4,543	4,183	4,395	4,561	4,794	3,919	2.2%	-5.3%
Interest Paid	344	406	494	542	574	660	1,515	1,751	2,085	2,243	2,335	2,617	16.3%	10.4%
Property Income	1,255	1,313	1,154	1,146	1,476	1,464	5,519	5,654	4,866	4,744	6,004	5,801	-3.0%	13.0%
Disposable Income	5,235	5,295	5,318	5,498	6,033	6,204	23,021	22,807	22,426	22,764	24,541	24,592	1.7%	6.2%
Rank							33	31	46	51	38	37		
%Rank #1							59%	59%	56%	54%	55%	52%		
Business Value Added	4,349	4,396	4,623	4,917	5,251	5,462	19,125	18,936	19,492	20,359	21,362	21,649	4.2%	5.4%
Rank							50	50	53	52	49	39		
%Rank #1							51%	50%	50%	49%	49%	47%		
Business Productivity							41,898	42,625	44,736	45,170	46,430	47,471	2.5%	2.5%
Rank							55	54	51	52	51	52		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.06%	0.08%
Disability Support (aged 20-24)	0.11%	0.14%
Disability Support (aged 25+)	2.89%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.07%	0.04%
Parenting Payment - Single (aged 20-24)	0.33%	0.21%
Parenting Payment - Single (aged 25+)	2.10%	1.64%
Unemployed Long Term	1.15%	1.20%
Unemployed Short Term	0.93%	0.79%
Youth Allowance - Non Student	0.46%	0.32%
Youth Allowance - Student	0.64%	1.27%

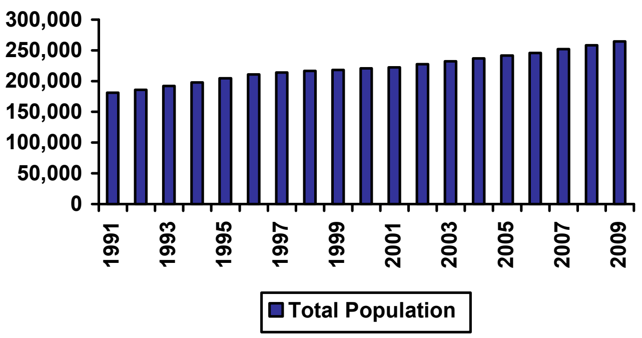
Cash Benefits Share of Disposable Income	Share	Rank
2002	15.5%	37
2003	15.5%	42
2004	17.2%	38
2005	16.5%	37
2006	14.3%	44
2007	14.8%	44

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	91.7	14
Share of population under 55	79.0	16
Aged migration	4.2	32
Population growth rate, 55+	3.2	18
Demographic stress	10.3	40
Dominant locations	57.3	53
Family / Youth migration	2.0	28
Fertility bounce, 1996-2005	-0.1	25
Fertility, babies % pop, 2005	1.5	10
Fertility, babies % pop, 2005	60.9	30
Working elderly	29.2	20

Local Government Level		Score	Rank
Most Sustainable	Aurukun (S)	83.5	11
Least Sustainable	Johnstone (S)	33.9	492

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.53%	9
2002	1.40%	12
2003	1.37%	14
2004	1.35%	15
2005	1.45%	9
2006	1.52%	10
Bounce 2004-05	0.10%	3
Actual Change 2004-05 (Number)	305	5
Bounce 2005-06	0.07%	19
Actual Change 2005-06 (Number)	231	17

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$267	36
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,022	38
Water Security Cost	$329	55
Total	$1,617	53

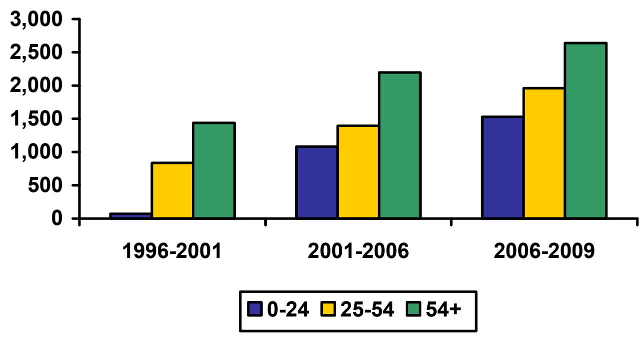
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.44%	36
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.69%	30
Water Security Cost	0.54%	53
Total	2.67%	46

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.08%	36
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.32%	15
Water Security Cost	0.10%	44
Total	0.50%	37

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	38.1%	36.3%	35.0%	34.3%
Age 25-55	46.1%	45.5%	44.0%	43.2%
Age 55+	15.9%	18.3%	21.0%	22.5%
Population Change (average between years)				
Age 0-24		74	1,084	1,530
Age 25-55		836	1,396	1,963
Age 55+		1,438	2,197	2,638
Average Age	33.9	35.1	36.6	37.6
Average Annual Growth		1.1%	2.0%	2.5%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	302	324	40	50	26%	28%
Value of Property and Unincorporated Business	217	241	34	40	30%	37%
Value of Financial Assets	159	186	35	49	24%	26%
Value of Household Liabilities	74	102	37	47	61%	45%
Disposable Income after Debt Service Costs	57	61	39	39	55%	54%
Household Debt Service Ratio	14%	18%	36	42	73%	69%
Household Debt to Gross Income Ratio	1.04	1.29	36	42	73%	69%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	274	248	449	517	556	105%
Non Residential	265	172	246	228	239	38%
Total	539	486	694	744	795	53%
Value per capita $2004/05						
Residential	1,413	1,069	1,825	2,061	2,180	89%
Non Residential	1,218	732	999	909	934	29%
Total	2,871	1,781	2,824	2,970	3,114	67%
Rank (value per capita)						
Residential	18	38	14	9	7	
Non Residential	6	22	20	26	25	
Total	9	38	16	16	16	

RAINFALL

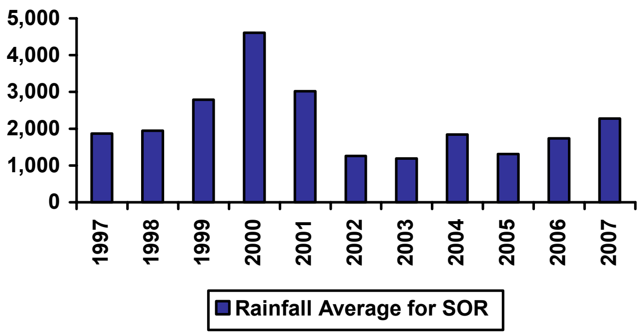
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,863	1,945	2,785	4,609	3,023	1,260	1,186	1,840	1,309	1,736	2,271
Rank	2	1	1	1	1	2	5	1	3	1	1

PATENT APPLICATIONS

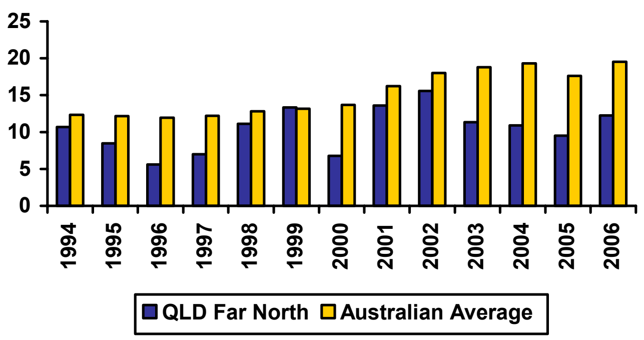
	No	Aust Avg	Rank
Average p.a. (1994-2005)	23.38	46.04	29
Average p.a. per capita	10.46	12.17	24
Hi Tech p.a. (1994-2005)	3.52	12.38	32
Hi Tech p.a. per capita	1.54	2.98	32
Info. Tech p.a. (1994-2005)	1.67	4.75	27
Info. Tech p.a. per capita	0.72	1.13	20
Average per capita (1994-2000)	9.56	10.48	22
Average per capita (2000-2005)	12.19	14.53	24
2000-05 avg./1994-00 avg.	1.28	1.36	38

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	28.4	28.4	27.9	27.5
Rank	6	6	7	7
Days Over 35C	30	27	29	23
Rank	13	11	15	19

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	184
Rank	29

QLD Fitzroy

The Fitzroy region comprises the Eastern part of Central Queensland. In the nineteenth century much of the Fitzroy region was regarded as useless scrub, but it is now more intensively developed. The region includes two belts of productive downs (Peak Downs and much of Banana Shire) and much of the rest of it has been cleared for extensive grazing. Production statistics are, however, dominated by black coal mining and power production, for the region includes the southern part of the Bowen Basin. Rockhampton is its oldest town and administrative and commercial capital, but Gladstone, with its natural harbour, continues to develop as a coal export port and heavy industrial centre.

Major centres:

Rockhampton, Gladstone

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	185	189	193	197	201	205	2.0%	2.3%	2.0%	1.8%	2.1%	2.1%	1.9%
No. Households	68	69	70	71	72	73	1.1%	1.3%	1.2%	1.4%	1.9%	1.2%	1.7%
NIEIR Workforce	89	90	91	94	96	99	0.8%	1.6%	3.7%	1.7%	2.8%	2.0%	2.2%
NIEIR Employment	80	81	82	86	89	93	1.6%	1.3%	4.8%	3.1%	3.9%	2.6%	3.5%
NIEIR Unemployment	8.9	8.4	8.7	8.1	7.0	6.2	-5.9%	3.9%	-6.5%	-13.9%	-11.6%	-3.0%	-12.7%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.0%	9.3%	9.6%	8.6%	7.3%	6.3%	-0.7	0.2	-0.9	-1.3	-1.0	-0.5	-1.2
Headline U/E	7.6%	6.9%	6.6%	5.7%	4.7%	3.7%	-0.7	-0.2	-0.9	-1.0	-0.9	-0.6	-1.0
NIEIR Structural U/E	13.0%	13.2%	13.3%	12.5%	11.0%	10.6%	0.2	0.1	-0.9	-1.5	-0.4	-0.2	-0.9

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	3,256	3,366	3,593	3,848	4,278	4,673	17,578	17,826	18,597	19,524	21,327	22,785	5.7%	10.2%
Taxes Paid	946	930	1,030	1,099	1,190	1,229	5,109	4,923	5,330	5,576	5,930	5,991	5.1%	5.7%
Benefits	627	635	704	713	686	718	3,384	3,363	3,645	3,617	3,421	3,500	4.4%	0.3%
Business Income	803	637	732	737	669	559	4,334	3,375	3,789	3,738	3,333	2,726	-2.8%	-12.9%
Interest Paid	277	324	398	437	461	533	1,497	1,714	2,062	2,217	2,297	2,598	16.4%	10.4%
Property Income	598	675	705	720	870	938	3,227	3,574	3,650	3,654	4,336	4,576	6.4%	14.2%
Disposable Income	4,100	4,095	4,353	4,541	4,939	5,225	22,132	21,682	22,532	23,039	24,618	25,478	3.5%	7.3%
Rank							45	45	45	47	35	30		
%Rank #1							57%	56%	56%	55%	55%	54%		
Business Value Added	4,059	4,004	4,325	4,585	4,947	5,232	21,912	21,201	22,386	23,262	24,660	25,512	4.1%	6.8%
Rank							28	34	30	30	25	24		
%Rank #1							59%	56%	57%	56%	56%	55%		
Business Productivity							46,805	47,504	49,924	50,729	52,597	54,196	2.7%	3.4%
Rank							33	30	24	29	20	20		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.13%	0.14%
Disability Support (aged 25+)	2.78%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.06%	0.04%
Parenting Payment - Single (aged 20-24)	0.31%	0.21%
Parenting Payment - Single (aged 25+)	1.66%	1.64%
Unemployed Long Term	1.09%	1.20%
Unemployed Short Term	0.70%	0.79%
Youth Allowance - Non Student	0.36%	0.32%
Youth Allowance - Student	0.62%	1.27%

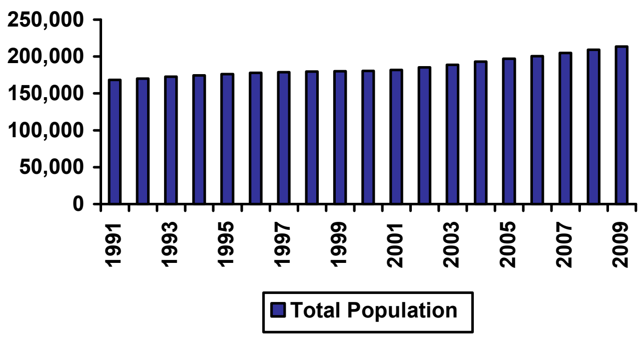
Cash Benefits Share of Disposable Income	Share	Rank
2002	15.3%	40
2003	15.5%	43
2004	16.2%	43
2005	15.7%	45
2006	13.9%	45
2007	13.7%	48

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	74.3	45
Share of population under 55	79.4	14
Aged migration	3.9	43
Population growth rate, 55+	2.6	31
Demographic stress	0.1	53
Dominant locations	70.4	38
Family / Youth migration	0.9	37
Fertility bounce, 1996-2005	-0.1	21
Fertility, babies % pop, 2005	1.5	12
Fertility, babies % pop, 2005	56.1	46
Working elderly	27.9	30

Local Government Level		Score	Rank
Most Sustainable	Livingstone (S)	71.6	78
Least Sustainable	Duaringa (S)	31.2	533

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.52%	13
2002	1.40%	11
2003	1.35%	15
2004	1.38%	12
2005	1.40%	13
2006	1.47%	12
Bounce 2004-05	0.02%	18
Actual Change 2004-05 (Number)	95	19
Bounce 2005-06	0.07%	17
Actual Change 2005-06 (Number)	192	21

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$870	20
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,001	42
Water Security Cost	$581	33
Total	$2,452	25

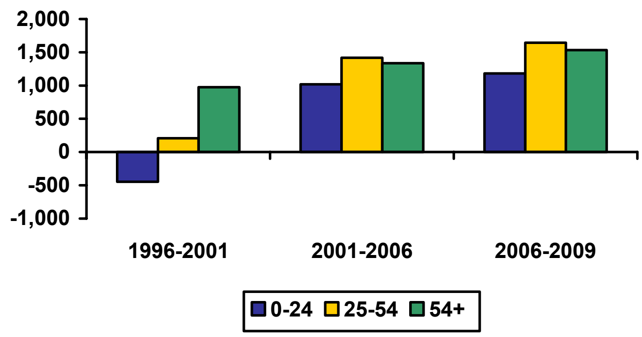
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.29%	23
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.48%	42
Water Security Cost	0.86%	36
Total	3.63%	27

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.24%	24
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.27%	25
Water Security Cost	0.16%	27
Total	0.66%	22

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	40.1%	38.0%	37.0%	36.4%
Age 25-55	43.2%	42.9%	42.4%	42.1%
Age 55+	16.8%	19.1%	20.6%	21.5%
Population Change (average between years)				
Age 0-24		-445	1,018	1,183
Age 25-55		208	1,419	1,643
Age 55+		977	1,338	1,532
Average Age	33.7	35.0	36.4	37.0
Average Annual Growth		0.4%	2.0%	2.1%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	312	369	38	39	27%	32%
Value of Property and Unincorporated Business	181	214	51	49	25%	33%
Value of Financial Assets	207	264	22	22	31%	37%
Value of Household Liabilities	77	109	33	40	63%	48%
Disposable Income after Debt Service Costs	58	68	35	21	56%	60%
Household Debt Service Ratio	14%	18%	27	46	75%	68%
Household Debt to Gross Income Ratio	1.07	1.25	27	46	75%	68%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	138	169	257	327	338	82%
Non Residential	166	105	114	139	148	28%
Total	304	298	371	467	485	48%
Value per capita $2004/05						
Residential	838	847	1,280	1,612	1,635	78%
Non Residential	923	549	568	685	715	19%
Total	1,801	1,485	1,849	2,298	2,350	46%
Rank (value per capita)						
Residential	47	51	33	21	20	
Non Residential	13	47	54	46	44	
Total	34	46	45	26	24	

RAINFALL

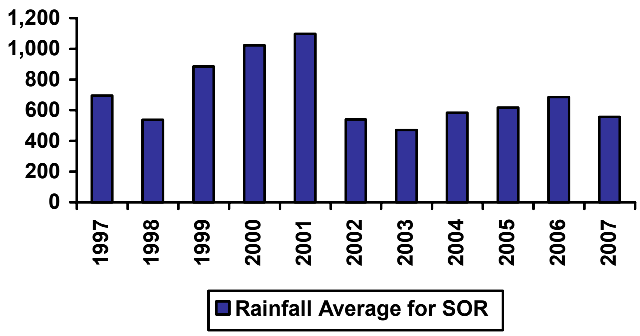
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	696	538	885	1,023	1,097	540	471	584	617	685	557
Rank	39	46	28	39	37	48	42	39	40	28	19

PATENT APPLICATIONS

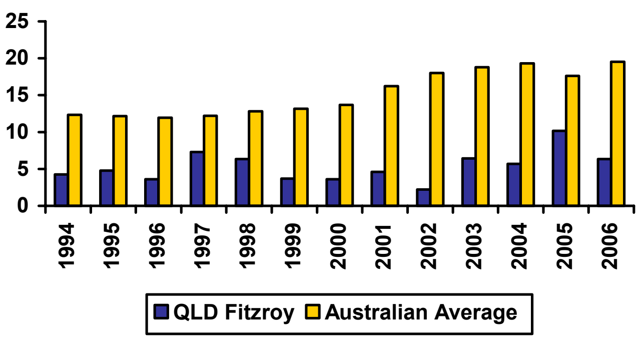
	No	Aust Avg	Rank
Average p.a. (1994-2005)	9.85	46.04	48
Average p.a. per capita	5.30	12.17	56
Hi Tech p.a. (1994-2005)	1.75	12.38	43
Hi Tech p.a. per capita	0.93	2.98	49
Info. Tech p.a. (1994-2005)	0.32	4.75	46
Info. Tech p.a. per capita	0.17	1.13	51
Average per capita (1994-2000)	4.76	10.48	55
Average per capita (2000-2005)	5.91	14.53	55
2000-05 avg./1994-00 avg.	1.24	1.36	43

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



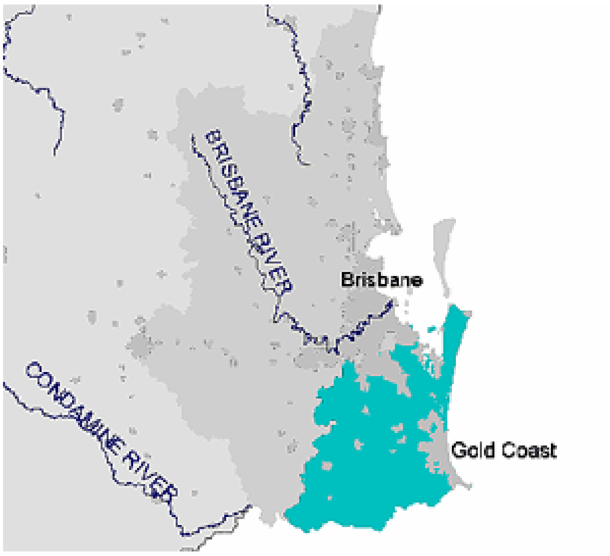
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	27.9	28.2	27.8	25.9
Rank	8	7	9	13
Days Over 35C	31	35	49	21
Rank	12	9	6	22

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	112
Rank	43

QLD Gold Coast



The Gold Coast region comprises two main sub-regions.

- The Gold Coast proper began as a tourist and retirement strip, but has diversified its economic base and has a fairly youthful population. The urban area now extends across the backwaters into the rain-forested ranges which complement the beaches as a tourist attraction.
- Between Brisbane City and the Gold Coast proper lies a belt of outer suburbs, fading into hobby farms in the valleys round Beaudesert. In this area manufacturing contributes to the economic base, but commuting to Brisbane is also very important.

Major centres:

Surfers Paradise, Coolangatta, Beenleigh

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	788	816	839	860	882	903	3.5%	2.9%	2.5%	2.5%	2.4%	3.0%	2.4%
No. Households	293	301	309	316	322	328	2.6%	2.8%	2.1%	1.8%	2.0%	2.5%	1.9%
NIEIR Workforce	392	403	418	438	449	469	2.7%	3.9%	4.6%	2.6%	4.6%	3.7%	3.6%
NIEIR Employment	348	364	379	403	418	438	4.5%	4.3%	6.3%	3.6%	4.8%	5.0%	4.2%
NIEIR Unemployment	44.1	39.0	39.1	34.3	31.1	31.6	-11.6%	0.2%	-12.4%	-9.1%	1.5%	-8.1%	-4.0%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	11.3%	9.7%	9.3%	7.8%	6.9%	6.7%	-1.6	-0.3	-1.5	-0.9	-0.2	-1.1	-0.6
Headline U/E	9.0%	7.2%	7.0%	5.5%	4.7%	4.7%	-1.8	-0.2	-1.5	-0.8	0.0	-1.1	-0.4
NIEIR Structural U/E	14.1%	13.8%	12.8%	11.8%	11.0%	10.1%	-0.3	-1.0	-0.9	-0.8	-0.9	-0.7	-0.8

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	12,057	12,668	13,819	14,900	16,185	17,603	15,299	15,532	16,470	17,320	18,354	19,493	7.3%	8.7%
Taxes Paid	2,740	2,931	3,244	3,471	3,734	3,975	3,478	3,594	3,866	4,035	4,235	4,402	8.2%	7.0%
Benefits	2,789	2,830	3,128	3,267	3,196	3,280	3,539	3,470	3,728	3,797	3,624	3,632	5.4%	0.2%
Business Income	2,478	2,743	2,888	2,945	3,164	3,505	3,144	3,363	3,442	3,423	3,588	3,882	5.9%	9.1%
Interest Paid	1,148	1,428	1,839	2,221	2,568	3,031	1,457	1,751	2,192	2,581	2,912	3,357	24.6%	16.8%
Property Income	1,419	1,814	2,153	2,300	2,769	3,033	1,800	2,224	2,566	2,673	3,140	3,358	17.5%	14.8%
Disposable Income	15,304	16,150	17,371	18,300	19,744	21,265	19,421	19,802	20,703	21,271	22,389	23,548	6.1%	7.8%
Rank							56	53	54	55	53	47		
%Rank #1							50%	51%	52%	50%	50%	50%		
Business Value Added	14,534	15,411	16,707	17,845	19,350	21,108	18,444	18,895	19,912	20,743	21,942	23,375	7.1%	8.8%
Rank							54	51	51	50	43	29		
%Rank #1							49%	50%	51%	50%	50%	51%		
Business Productivity							41,179	41,840	43,540	44,092	46,100	48,104	2.3%	4.5%
Rank							58	58	56	57	52	51		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.14%	0.14%
Disability Support (aged 25+)	2.86%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.05%	0.04%
Parenting Payment - Single (aged 20-24)	0.26%	0.21%
Parenting Payment - Single (aged 25+)	1.98%	1.64%
Unemployed Long Term	0.98%	1.20%
Unemployed Short Term	0.88%	0.79%
Youth Allowance - Non Student	0.31%	0.32%
Youth Allowance - Student	1.12%	1.27%

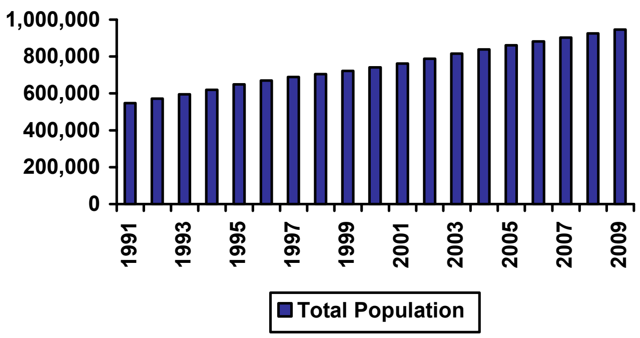
Cash Benefits Share of Disposable Income	Share	Rank
2002	18.2%	17
2003	17.5%	25
2004	18.0%	31
2005	17.9%	29
2006	16.2%	34
2007	15.4%	40

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	100.0	1
Share of population under 55	76.7	25
Aged migration	5.6	10
Population growth rate, 55+	4.5	6
Demographic stress	32.2	7
Dominant locations	100.0	2
Family / Youth migration	5.6	6
Fertility bounce, 1996-2005	-0.1	20
Fertility, babies % pop, 2005	1.3	30
Fertility, babies % pop, 2005	73.5	2
Working elderly	25.4	41

Local Government Level		Score	Rank
Most Sustainable	Gold Coast (C)	77.7	33
Least Sustainable	Logan (C)	60.9	213

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.31%	31
2002	1.26%	28
2003	1.20%	35
2004	1.23%	32
2005	1.25%	30
2006	1.31%	30
Bounce 2004-05	0.01%	24
Actual Change 2004-05 (Number)	373	3
Bounce 2005-06	0.06%	24
Actual Change 2005-06 (Number)	824	1

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$31	56
Carbon Price Loss Cost (@$33 a tonne of carbon)	$996	44
Water Security Cost	$756	13
Total	$1,783	40

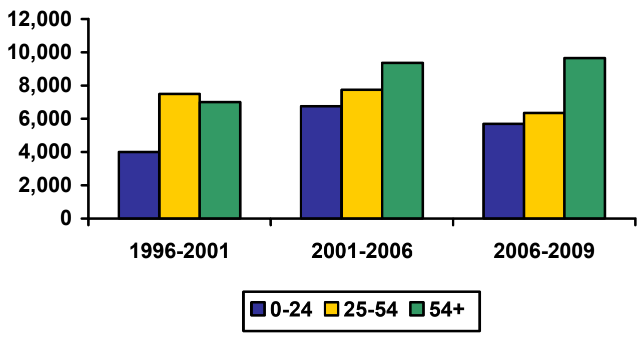
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.05%	55
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.75%	23
Water Security Cost	1.33%	11
Total	3.13%	34

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.01%	56
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.23%	41
Water Security Cost	0.17%	21
Total	0.41%	45

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	37.3%	35.4%	34.4%	33.9%
Age 25-55	44.2%	43.8%	42.3%	41.4%
Age 55+	18.5%	20.8%	23.3%	24.8%
Population Change (average between years)				
Age 0-24		4,002	6,759	5,692
Age 25-55		7,500	7,757	6,349
Age 55+		6,997	9,366	9,655
Average Age	35.3	36.6	37.7	38.3
Average Annual Growth		2.6%	3.0%	2.4%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	283	438	45	26	24%	37%
Value of Property and Unincorporated Business	257	397	24	14	36%	61%
Value of Financial Assets	92	175	58	50	14%	24%
Value of Household Liabilities	67	134	47	22	55%	59%
Disposable Income after Debt Service Costs	48	57	55	46	46%	51%
Household Debt Service Ratio	14%	23%	28	11	75%	87%
Household Debt to Gross Income Ratio	1.07	1.61	28	11	75%	87%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	1,491	1,948	2,121	2,229	2,315	14%
Non Residential	607	608	1,033	1,056	1,015	70%
Total	2,098	2,691	3,154	3,285	3,331	21%
Value per capita $2004/05						
Residential	2,132	2,287	2,405	2,486	2,544	8%
Non Residential	845	731	1,172	1,177	1,116	58%
Total	3,049	2,936	3,577	3,663	3,659	24%
Rank (value per capita)						
Residential	6	4	4	3	3	
Non Residential	16	23	8	12	13	
Total	6	8	8	9	9	

RAINFALL

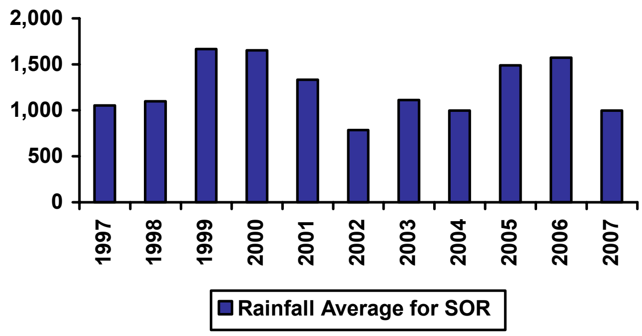
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,054	1,097	1,666	1,652	1,334	785	1,111	997	1,490	1,573	997
Rank	14	8	6	10	20	22	6	6	1	2	7

PATENT APPLICATIONS

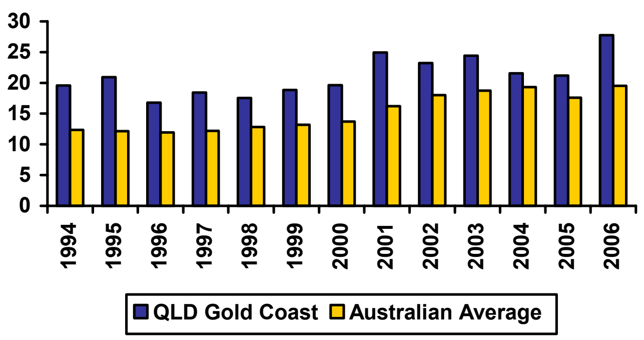
	No	Aust Avg	Rank
Average p.a. (1994-2005)	160.14	46.04	4
Average p.a. per capita	21.14	12.17	7
Hi Tech p.a. (1994-2005)	29.02	12.38	10
Hi Tech p.a. per capita	3.79	2.98	11
Info. Tech p.a. (1994-2005)	14.62	4.75	8
Info. Tech p.a. per capita	1.85	1.13	11
Average per capita (1994-2000)	19.59	10.48	6
Average per capita (2000-2005)	23.84	14.53	8
2000-05 avg./1994-00 avg.	1.22	1.36	48

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



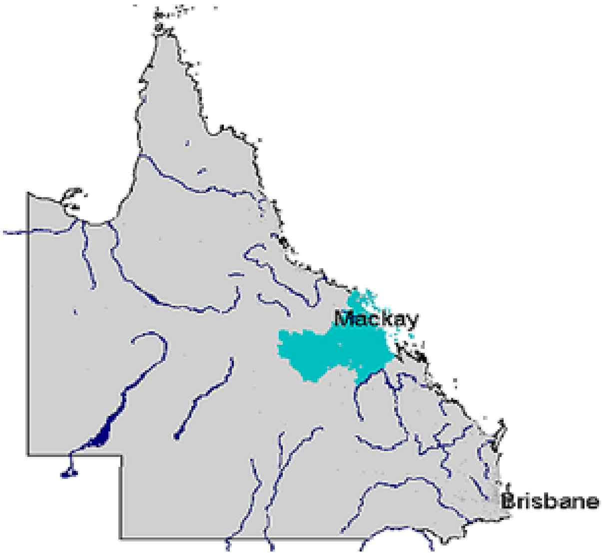
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	25.6	25.4	25.3	24.6
Rank	15	17	17	21
Days Over 35C	3	2	1	1
Rank	61	59	62	61

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	844
Rank	8

QLD Mackay



Production statistics for the Mackay region are dominated by coal mines in the Bowen Basin, but even after including rail transport and the export port (Hay Point) these generate relatively little employment and income. The immediate hinterland of Mackay is high-rainfall sugar country, while Whitsunday Shire adds tourism to the basic sugar of its economic base. Given the uncertain future of the sugar industry, there is pressure to diversify, with the high-rainfall fields capable of growing a variety of alternative crops.

Major centres:

Mackay

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	129	133	138	142	147	152	2.9%	3.7%	3.4%	3.1%	3.5%	3.3%	3.3%
No. Households	47	48	48	49	50	52	1.0%	1.5%	2.0%	2.2%	2.3%	1.5%	2.2%
NIEIR Workforce	65	67	70	73	74	76	3.1%	4.3%	4.4%	2.2%	2.5%	3.9%	2.4%
NIEIR Employment	59	61	64	67	70	73	3.8%	4.1%	5.3%	4.3%	4.4%	4.4%	4.4%
NIEIR Unemployment	5.9	5.6	5.9	5.6	4.3	3.1	-4.2%	5.9%	-5.6%	-23.6%	-27.6%	-1.4%	-25.6%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.0%	8.4%	8.5%	7.7%	5.8%	4.1%	-0.6	0.1	-0.8	-1.9	-1.7	-0.4	-1.8
Headline U/E	7.0%	6.4%	6.5%	5.6%	4.3%	3.0%	-0.6	0.1	-0.9	-1.3	-1.3	-0.5	-1.3
NIEIR Structural U/E	11.9%	12.0%	11.3%	10.2%	8.3%	7.7%	0.1	-0.7	-1.1	-1.9	-0.7	-0.6	-1.3

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,471	2,584	2,848	3,236	3,709	4,160	19,150	19,464	20,680	22,727	25,281	27,359	9.4%	13.4%
Taxes Paid	674	671	771	899	998	1,098	5,226	5,058	5,601	6,315	6,804	7,224	10.1%	10.5%
Benefits	412	419	467	472	449	478	3,194	3,155	3,390	3,316	3,063	3,143	4.6%	0.6%
Business Income	545	447	529	571	558	600	4,225	3,368	3,843	4,013	3,800	3,948	1.6%	2.5%
Interest Paid	198	240	306	345	377	442	1,532	1,804	2,222	2,426	2,568	2,907	20.5%	13.1%
Property Income	415	472	511	572	690	757	3,214	3,557	3,712	4,015	4,702	4,982	11.3%	15.1%
Disposable Income	2,999	3,040	3,316	3,661	4,120	4,572	23,243	22,895	24,078	25,712	28,082	30,072	6.9%	11.8%
Rank							30	30	29	25	19	13		
%Rank #1							60%	59%	60%	61%	63%	64%		
Business Value Added	3,016	3,031	3,377	3,807	4,267	4,760	23,375	22,832	24,523	26,740	29,081	31,307	8.1%	11.8%
Rank							25	19	21	14	13	9		
%Rank #1							62%	61%	63%	64%	66%	68%		
Business Productivity							48,656	48,987	51,757	53,811	56,008	58,046	3.4%	3.9%
Rank							24	21	14	12	12	12		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.13%	0.14%
Disability Support (aged 25+)	2.25%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.19%	0.21%
Parenting Payment - Single (aged 25+)	1.20%	1.64%
Unemployed Long Term	0.68%	1.20%
Unemployed Short Term	0.70%	0.79%
Youth Allowance - Non Student	0.26%	0.32%
Youth Allowance - Student	0.49%	1.27%

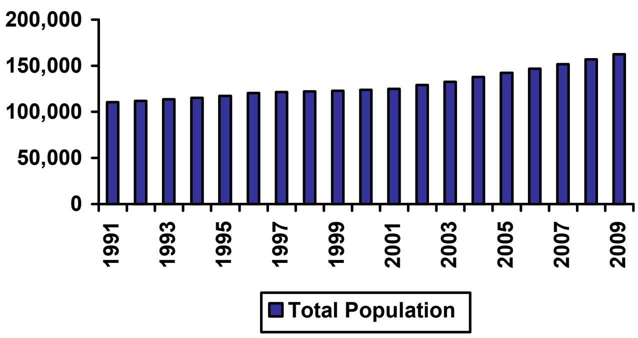
Cash Benefits Share of Disposable Income	Share	Rank
2002	13.7%	48
2003	13.8%	50
2004	14.1%	51
2005	12.9%	51
2006	10.9%	56
2007	10.5%	58

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	90.3	20
Share of population under 55	80.8	8
Aged migration	3.7	50
Population growth rate, 55+	3.6	13
Demographic stress	3.4	48
Dominant locations	59.8	50
Family / Youth migration	0.3	43
Fertility bounce, 1996-2005	-0.2	47
Fertility, babies % pop, 2005	1.4	19
Fertility, babies % pop, 2005	61.2	27
Working elderly	28.7	24

Local Government Level		Score	Rank
Most Sustainable	Whitsunday (S)	71.1	88
Least Sustainable	Broadsound (S)	31.4	528

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.52%	11
2002	1.37%	14
2003	1.39%	11
2004	1.34%	17
2005	1.48%	7
2006	1.38%	19
Bounce 2004-05	0.14%	1
Actual Change 2004-05 (Number)	268	7
Bounce 2005-06	-0.10%	64
Actual Change 2005-06 (Number)	-89	63

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$690	25
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,094	21
Water Security Cost	$857	8
Total	$2,641	21

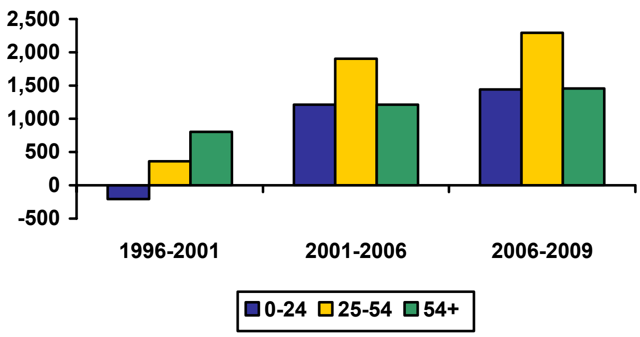
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.84%	28
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.34%	50
Water Security Cost	1.05%	24
Total	3.23%	32

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.14%	29
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.21%	48
Water Security Cost	0.17%	23
Total	0.52%	33

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	39.0%	36.7%	35.4%	34.7%
Age 25-55	45.9%	45.6%	45.3%	45.2%
Age 55+	15.1%	17.7%	19.3%	20.1%
Population Change (average between years)				
Age 0-24		-206	1,211	1,443
Age 25-55		362	1,904	2,291
Age 55+		805	1,212	1,459
Average Age	33.4	34.9	36.5	37.1
Average Annual Growth		0.8%	3.2%	3.4%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	344	510	29	14	30%	44%
Value of Property and Unincorporated Business	255	355	25	21	35%	54%
Value of Financial Assets	166	279	33	21	25%	39%
Value of Household Liabilities	77	124	34	26	63%	55%
Disposable Income after Debt Service Costs	58	82	32	8	56%	73%
Household Debt Service Ratio	14%	16%	35	52	73%	63%
Household Debt to Gross Income Ratio	1.04	1.17	35	52	73%	63%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	164	172	304	329	353	91%
Non Residential	100	93	136	157	173	67%
Total	264	300	439	486	526	61%
Value per capita $2004/05						
Residential	1,377	1,290	2,071	2,177	2,258	68%
Non Residential	813	686	924	1,037	1,103	49%
Total	2,207	1,947	2,995	3,214	3,361	64%
Rank (value per capita)						
Residential	22	28	6	6	4	
Non Residential	17	30	23	16	14	
Total	19	32	15	13	12	

RAINFALL

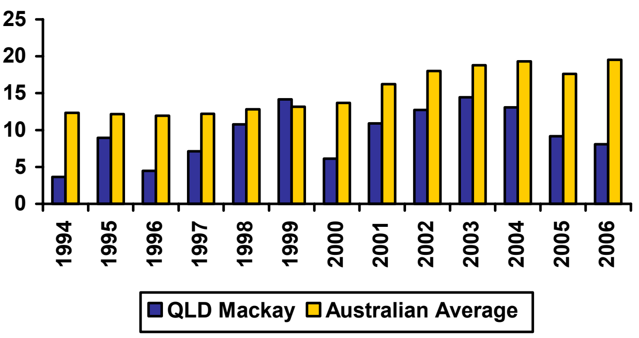
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,206	897	1,688	2,902	1,884	792	634	679	972	1,008	1,923
Rank	6	16	5	4	5	20	27	27	12	8	2

PATENT APPLICATIONS

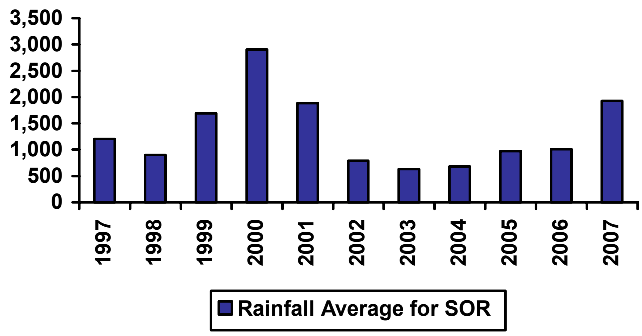
	No	Aust Avg	Rank
Average p.a. (1994-2005)	12.22	46.04	42
Average p.a. per capita	9.50	12.17	28
Hi Tech p.a. (1994-2005)	1.92	12.38	42
Hi Tech p.a. per capita	1.46	2.98	36
Info. Tech p.a. (1994-2005)	0.23	4.75	52
Info. Tech p.a. per capita	0.17	1.13	50
Average per capita (1994-2000)	8.26	10.48	31
Average per capita (2000-2005)	11.40	14.53	28
2000-05 avg./1994-00 avg.	1.38	1.36	28

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



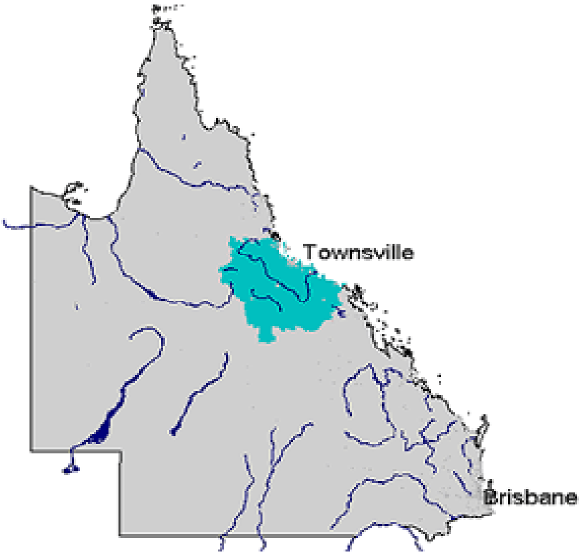
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	28.3	28.1	27.8	26.3
Rank	7	8	8	11
Days Over 35C	27	25	34	12
Rank	15	13	10	39

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	107
Rank	45

QLD North



North Queensland is centred on Townsville. The region has two intensive agricultural areas, both originally developed for sugar: the Burdekin Delta (Home Hill, Ayr) and the Herbert River Valley (Ingham). Much of the rest of the region has recently been cleared to provide low-quality pasture. The region produces coal from the north end of the Bowen Basin, and has its own coal export port at Abbot Point. The economic base of Townsville includes education, defence and the processing of minerals originating in NW Queensland. Despite the existence of Magnetic Island, the region is less involved in tourism than the other Queensland east coast regions.

Major centres:

Townsville, Bowen, Charters Towers

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	207	210	215	219	223	227	1.8%	2.1%	1.8%	1.8%	1.9%	1.9%	1.8%
No. Households	75	77	78	79	81	83	1.4%	1.8%	2.0%	2.1%	2.1%	1.7%	2.1%
NIEIR Workforce	105	108	109	113	115	119	2.1%	0.9%	3.7%	2.2%	3.2%	2.2%	2.7%
NIEIR Employment	95	98	99	104	106	110	2.9%	1.1%	5.0%	2.4%	3.5%	3.0%	3.0%
NIEIR Unemployment	10.4	9.9	9.8	8.9	8.8	8.8	-5.1%	-1.1%	-9.2%	-0.4%	-0.1%	-5.2%	-0.3%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.9%	9.2%	9.0%	7.9%	7.7%	7.4%	-0.7	-0.2	-1.1	-0.2	-0.2	-0.7	-0.2
Headline U/E	8.5%	7.3%	6.9%	5.6%	5.3%	5.2%	-1.2	-0.4	-1.3	-0.3	-0.1	-1.0	-0.2
NIEIR Structural U/E	12.4%	12.4%	12.1%	11.4%	10.8%	9.9%	0.0	-0.3	-0.6	-0.6	-0.9	-0.3	-0.7

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	3,614	3,763	3,970	4,302	4,634	5,024	17,472	17,877	18,467	19,651	20,804	22,109	6.0%	8.1%
Taxes Paid	887	909	1,004	1,119	1,186	1,242	4,287	4,321	4,670	5,111	5,325	5,464	8.1%	5.3%
Benefits	690	698	771	790	773	796	3,337	3,315	3,587	3,607	3,471	3,501	4.6%	0.4%
Business Income	798	751	876	1,015	1,044	1,059	3,859	3,567	4,076	4,637	4,686	4,658	8.3%	2.1%
Interest Paid	288	350	441	489	524	612	1,394	1,661	2,050	2,235	2,353	2,691	19.3%	11.8%
Property Income	479	550	598	620	721	758	2,316	2,613	2,780	2,833	3,235	3,338	9.0%	10.6%
Disposable Income	4,479	4,577	4,851	5,218	5,591	5,933	21,655	21,743	22,563	23,838	25,103	26,109	5.2%	6.6%
Rank							49	43	44	39	30	23		
%Rank #1							56%	56%	56%	57%	56%	55%		
Business Value Added	4,412	4,514	4,846	5,317	5,677	6,083	21,331	21,444	22,542	24,289	25,489	26,767	6.4%	7.0%
Rank							35	31	29	24	21	18		
%Rank #1							57%	57%	58%	59%	58%	58%		
Business Productivity							43,973	44,493	46,894	47,980	50,064	51,865	2.9%	4.0%
Rank							46	49	45	45	37	32		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.13%	0.14%
Disability Support (aged 25+)	2.72%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.33%	0.21%
Parenting Payment - Single (aged 25+)	1.80%	1.64%
Unemployed Long Term	1.09%	1.20%
Unemployed Short Term	0.87%	0.79%
Youth Allowance - Non Student	0.36%	0.32%
Youth Allowance - Student	0.91%	1.27%

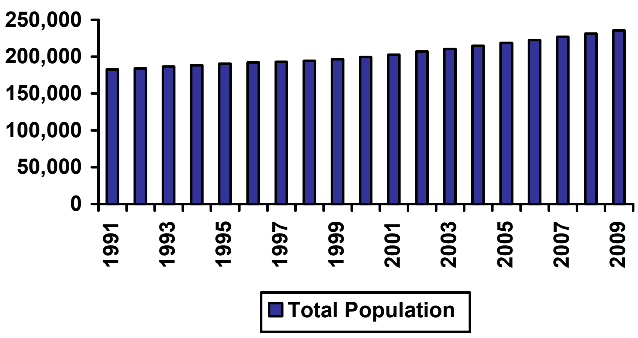
Cash Benefits Share of Disposable Income	Share	Rank
2002	15.4%	39
2003	15.2%	44
2004	15.9%	45
2005	15.1%	48
2006	13.8%	46
2007	13.4%	49

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	83.2	34
Share of population under 55	79.1	15
Aged migration	3.6	53
Population growth rate, 55+	2.8	26
Demographic stress	27.6	12
Dominant locations	73.6	36
Family / Youth migration	3.8	10
Fertility bounce, 1996-2005	-0.2	40
Fertility, babies % pop, 2005	1.4	17
Fertility, babies % pop, 2005	63.8	20
Working elderly	26.8	36

Local Government Level		Score	Rank
Most Sustainable	Thuringowa (C)	78.9	25
Least Sustainable	Hinchinbrook (S)	25.5	587

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.47%	16
2002	1.37%	15
2003	1.40%	10
2004	1.28%	25
2005	1.34%	18
2006	1.39%	17
Bounce 2004-05	0.07%	6
Actual Change 2004-05 (Number)	198	10
Bounce 2005-06	0.05%	29
Actual Change 2005-06 (Number)	154	30

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$155	41
Carbon Price Loss Cost (@$33 a tonne of carbon)	$973	48
Water Security Cost	$525	39
Total	$1,654	51

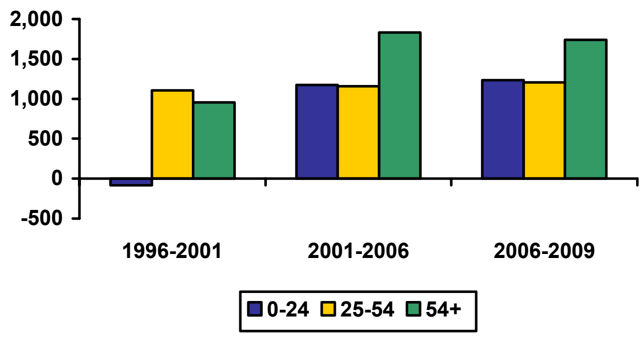
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.23%	45
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.44%	47
Water Security Cost	0.78%	40
Total	2.44%	51

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.05%	42
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.30%	20
Water Security Cost	0.16%	26
Total	0.50%	36

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	39.9%	37.7%	36.9%	36.4%
Age 25-55	43.2%	43.7%	42.4%	41.6%
Age 55+	16.9%	18.4%	20.9%	22.0%
Population Change (average between years)				
Age 0-24		-84	1,173	1,234
Age 25-55		1,108	1,157	1,205
Age 55+		955	1,832	1,741
Average Age	33.8	34.9	35.9	36.8
Average Annual Growth		1.1%	1.9%	1.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	269	329	50	49	23%	28%
Value of Property and Unincorporated Business	221	273	32	34	31%	42%
Value of Financial Assets	117	167	53	53	17%	23%
Value of Household Liabilities	69	110	44	37	56%	49%
Disposable Income after Debt Service Costs	56	68	40	20	55%	60%
Household Debt Service Ratio	13%	18%	44	47	68%	67%
Household Debt to Gross Income Ratio	0.98	1.25	44	48	68%	67%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	205	272	429	446	465	64%
Non Residential	216	203	249	318	339	48%
Total	420	525	677	764	804	43%
Value per capita $2004/05						
Residential	1,055	1,266	1,925	1,960	1,989	55%
Non Residential	1,091	957	1,116	1,395	1,451	38%
Total	2,092	2,275	3,041	3,356	3,440	44%
Rank (value per capita)						
Residential	36	33	13	11	10	
Non Residential	8	9	10	8	9	
Total	23	18	14	11	11	

RAINFALL

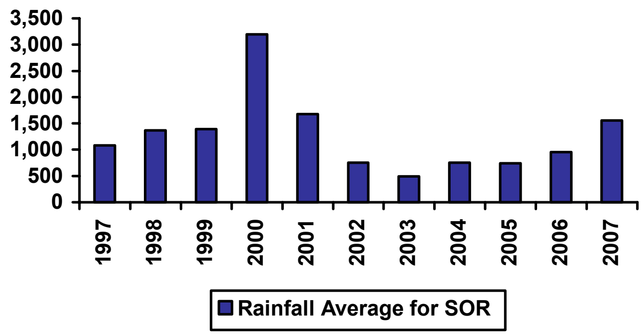
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,082	1,366	1,391	3,196	1,674	751	493	756	740	952	1,554
Rank	12	3	13	3	8	29	38	16	29	9	3

PATENT APPLICATIONS

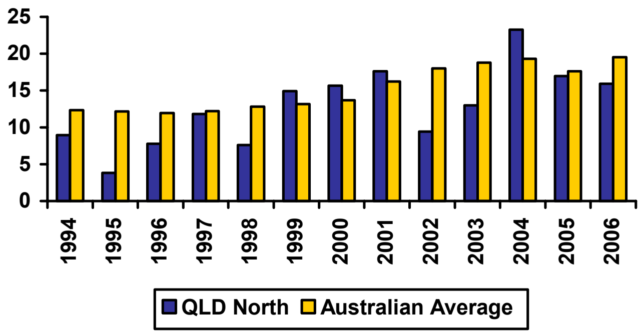
	No	Aust Avg	Rank
Average p.a. (1994-2005)	26.35	46.04	26
Average p.a. per capita	12.83	12.17	14
Hi Tech p.a. (1994-2005)	5.78	12.38	25
Hi Tech p.a. per capita	2.80	2.98	12
Info. Tech p.a. (1994-2005)	2.35	4.75	23
Info. Tech p.a. per capita	1.12	1.13	12
Average per capita (1994-2000)	11.02	10.48	14
Average per capita (2000-2005)	16.03	14.53	13
2000-05 avg./1994-00 avg.	1.45	1.36	17

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



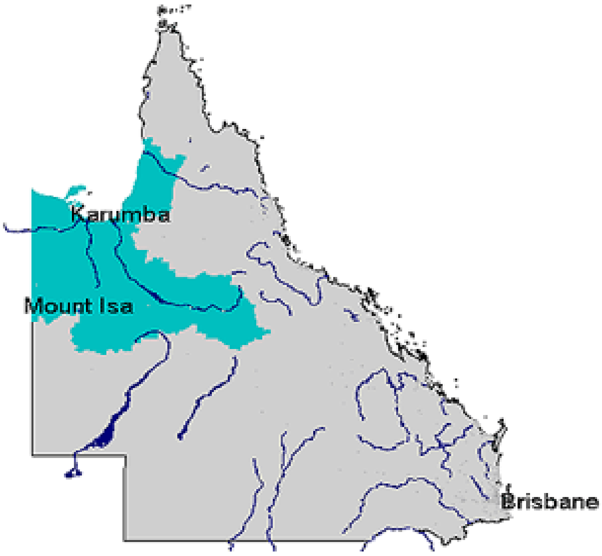
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	29.3	29.4	28.7	27.6
Rank	5	5	5	6
Days Over 35C	26	22	26	11
Rank	16	21	17	44

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	197
Rank	28

QLD North West



North West Queensland is a belt of tropical savannah divided into hard country and soft. The hard country, with rock underfoot, has proved to be a major mineral province. Mt Isa is the main city and supply centre. There are few other towns since the newer mines are mostly fly-in fly-out, and mining now generates few jobs in relation to the value of output. The soft country supports extensive grazing, but has sufficient rainfall to give potential for intensification in some places. There is a significant Aboriginal population.

N.B Unemployment figures in remote regions can display excess variation.

Major centres:

Mt Isa, Hughenden

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	35	35	35	35	35	35	0.3%	0.1%	-0.2%	-0.6%	-0.5%	0.0%	-0.6%
No. Households	13	13	13	13	13	13	0.1%	0.0%	0.1%	0.2%	0.4%	0.1%	0.3%
NIEIR Workforce	17	16	16	16	16	17	-2.3%	-0.7%	0.3%	0.4%	2.2%	-0.9%	1.3%
NIEIR Employment	15	15	15	15	15	15	-2.6%	-0.7%	1.9%	1.0%	2.5%	-0.5%	1.7%
NIEIR Unemployment	1.7	1.7	1.7	1.5	1.4	1.4	0.9%	0.0%	-13.5%	-5.2%	-1.0%	-4.4%	-3.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.2%	10.5%	10.6%	9.1%	8.6%	8.4%	0.3	0.1	-1.5	-0.5	-0.3	-0.4	-0.4
Headline U/E	7.4%	7.4%	7.3%	6.0%	5.8%	5.7%	0.0	-0.1	-1.3	-0.2	-0.1	-0.5	-0.2
NIEIR Structural U/E	14.6%	15.5%	15.5%	14.5%	11.6%	11.1%	0.9	0.0	-1.0	-2.9	-0.5	0.0	-1.7

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	675	661	672	736	770	803	19,192	18,755	19,048	20,901	22,008	23,053	2.9%	4.5%
Taxes Paid	220	190	201	213	236	217	6,256	5,389	5,695	6,057	6,736	6,239	-1.0%	1.0%
Benefits	153	160	186	158	118	156	4,364	4,530	5,266	4,497	3,363	4,468	1.0%	-0.8%
Business Income	306	202	239	207	274	183	8,716	5,717	6,777	5,883	7,837	5,263	-12.3%	-5.9%
Interest Paid	58	64	74	74	71	81	1,659	1,810	2,095	2,104	2,044	2,332	8.3%	4.7%
Property Income	151	141	140	141	177	162	4,306	3,988	3,965	4,010	5,049	4,665	-2.3%	7.3%
Disposable Income	1,018	916	971	961	1,045	1,017	28,947	25,969	27,511	27,295	29,869	29,202	-1.9%	2.9%
Rank							11	18	15	18	14	18		
%Rank #1							74%	67%	69%	65%	67%	62%		
Business Value Added	981	863	911	943	1,044	986	27,908	24,472	25,826	26,784	29,845	28,316	-1.3%	2.3%
Rank							7	14	14	13	10	14		
%Rank #1							75%	65%	66%	65%	68%	61%		
Business Productivity							51,768	52,421	54,021	55,560	57,672	59,230	2.4%	3.2%
Rank							10	11	11	11	11	10		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.12%	0.14%
Disability Support (aged 25+)	2.19%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.15%	0.04%
Parenting Payment - Single (aged 20-24)	0.44%	0.21%
Parenting Payment - Single (aged 25+)	1.88%	1.64%
Unemployed Long Term	1.63%	1.20%
Unemployed Short Term	1.17%	0.79%
Youth Allowance - Non Student	0.70%	0.32%
Youth Allowance - Student	0.21%	1.27%

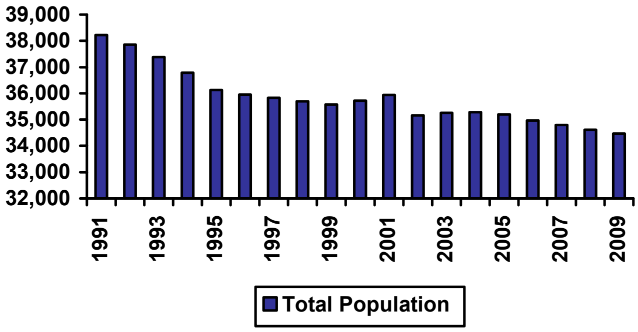
Cash Benefits Share of Disposable Income	Share	Rank
2002	15.1%	41
2003	17.4%	27
2004	19.1%	20
2005	16.5%	38
2006	11.3%	53
2007	15.3%	41

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	40.5	63
Share of population under 55	85.3	3
Aged migration	3.2	59
Population growth rate, 55+	1.9	49
Demographic stress	-34.8	64
Dominant locations	78.0	31
Family / Youth migration	-2.2	61
Fertility bounce, 1996-2005	-0.2	35
Fertility, babies % pop, 2005	1.9	2
Fertility, babies % pop, 2005	44.6	60
Working elderly	35.3	4

Local Government Level		Score	Rank
Most Sustainable	Burke (S)	79.4	22
Least Sustainable	Flinders (S)	27.1	570

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	2.27%	1
2002	1.73%	1
2003	1.64%	3
2004	1.71%	3
2005	1.85%	2
2006	1.86%	2
Bounce 2004-05	0.13%	2
Actual Change 2004-05 (Number)	46	26
Bounce 2005-06	0.02%	45
Actual Change 2005-06 (Number)	1	58

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$604	27
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,386	1
Water Security Cost	$689	17
Total	$2,679	20

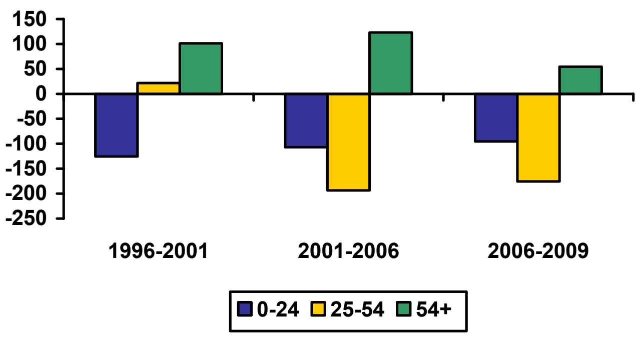
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.77%	30
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.76%	22
Water Security Cost	0.87%	35
Total	3.40%	30

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.23%	25
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.52%	1
Water Security Cost	0.26%	7
Total	1.01%	8

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	43.0%	41.2%	40.8%	40.6%
Age 25-55	45.7%	46.0%	44.5%	43.6%
Age 55+	11.6%	13.0%	15.1%	15.8%
Population Change (average between years)				
Age 0-24		-126	-107	-96
Age 25-55		22	-193	-175
Age 55+		101	123	55
Average Age	30.5	31.6	32.8	33.7
Average Annual Growth		0.0%	-0.5%	-0.5%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	296	264	43	59	25%	23%
Value of Property and Unincorporated Business	267	234	21	42	37%	36%
Value of Financial Assets	128	127	47	60	19%	18%
Value of Household Liabilities	99	97	7	52	81%	43%
Disposable Income after Debt Service Costs	82	79	6	12	80%	70%
Household Debt Service Ratio	13%	14%	42	59	69%	54%
Household Debt to Gross Income Ratio	0.99	1.00	42	59	69%	54%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	15	10	6	9	11	-10%
Non Residential	28	17	12	17	19	-6%
Total	42	24	18	26	30	2%
Value per capita $2004/05						
Residential	405	242	180	268	329	7%
Non Residential	772	473	330	475	541	-5%
Total	1,175	779	510	742	870	-9%
Rank (value per capita)						
Residential	63	64	64	64	64	
Non Residential	19	56	64	62	59	
Total	52	63	64	64	63	

RAINFALL

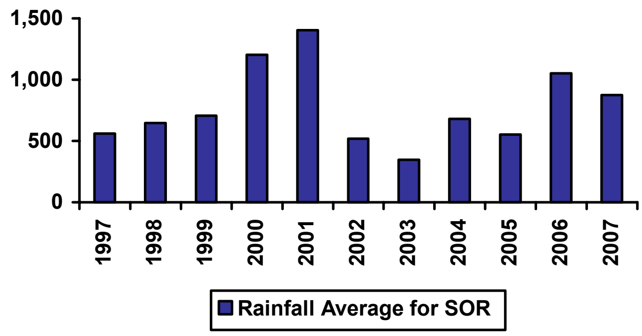
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	559	647	705	1,204	1,402	518	348	681	553	1,053	876
Rank	49	34	42	29	14	49	52	26	46	7	10

PATENT APPLICATIONS

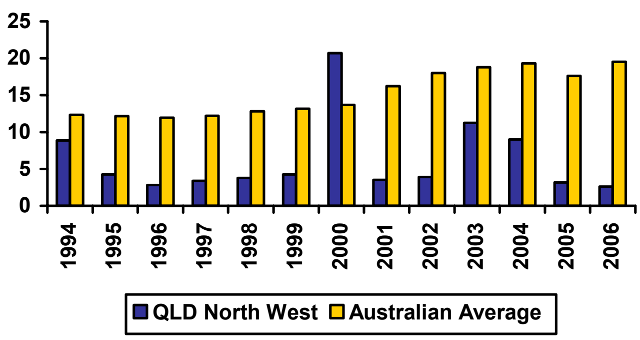
	No	Aust Avg	Rank
Average p.a. (1994-2005)	2.24	46.04	62
Average p.a. per capita	6.27	12.17	51
Hi Tech p.a. (1994-2005)	0.40	12.38	60
Hi Tech p.a. per capita	1.12	2.98	44
Info. Tech p.a. (1994-2005)	0.23	4.75	51
Info. Tech p.a. per capita	0.67	1.13	22
Average per capita (1994-2000)	6.45	10.48	42
Average per capita (2000-2005)	5.58	14.53	58
2000-05 avg./1994-00 avg.	0.87	1.36	62

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



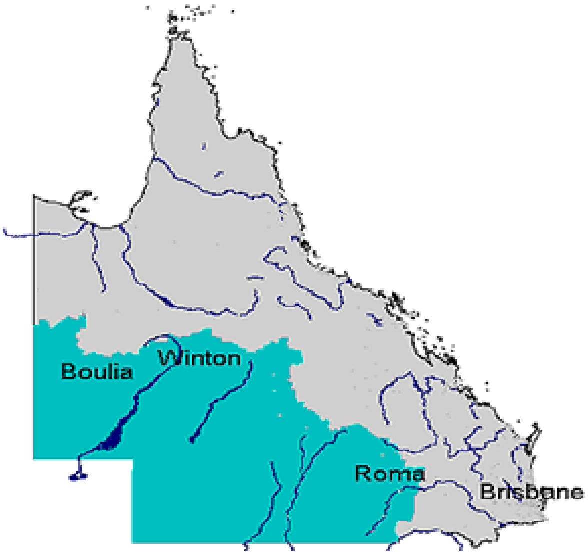
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	32.1	32.4	31.1	29.8
Rank	2	2	2	2
Days Over 35C	121	125	118	96
Rank	1	2	1	2

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	7
Rank	64

QLD Pastoral



Pastoral Queensland comprises two state planning zones, grouped together because of low population and similarity of economic base. The region has no large towns, though it is gradually developing an ‘outback’ tourist trade. Much of the region is alluvial Channel country or low-rainfall black-soil downs, divided into extensive pastoral stations. Unlike the region to the north, this pastoral zone is not known for hard-rock mining, but has natural gas fields. North of Roma, extending into the Fitzroy region, coal seam methane fields are rising in importance.

Major centres:

Roma, Longreach, Charleville

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	39	39	39	38	38	38	-0.9%	-0.7%	-1.0%	-1.0%	-0.9%	-0.9%	-0.9%
No. Households	16	16	16	16	17	17	1.4%	1.4%	1.4%	1.4%	1.5%	1.4%	1.5%
NIEIR Workforce	18	18	18	18	18	18	-2.8%	-0.1%	1.8%	-0.4%	1.9%	-0.4%	0.7%
NIEIR Employment	17	17	17	17	17	17	-2.7%	0.0%	2.8%	0.6%	1.1%	0.0%	0.9%
NIEIR Unemployment	1.2	1.2	1.1	1.0	0.8	0.9	-3.4%	-1.7%	-12.9%	-19.0%	18.8%	-6.1%	-1.9%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	6.6%	6.5%	6.4%	5.5%	4.5%	5.2%	0.0	-0.1	-0.9	-1.0	0.7	-0.4	-0.1
Headline U/E	3.3%	3.1%	3.3%	2.6%	2.3%	2.5%	-0.3	0.2	-0.6	-0.3	0.2	-0.2	-0.1
NIEIR Structural U/E	9.7%	11.6%	11.3%	11.0%	9.0%	8.7%	1.9	-0.2	-0.4	-2.0	-0.2	0.4	-1.1

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	523	513	535	558	579	596	13,286	13,147	13,812	14,564	15,250	15,832	2.2%	3.3%
Taxes Paid	608	369	459	639	449	597	15,450	9,463	11,853	16,657	11,826	15,854	1.6%	-3.3%
Benefits	130	137	162	148	124	146	3,304	3,506	4,195	3,855	3,255	3,865	4.4%	-0.8%
Business Income	669	378	468	687	440	412	16,981	9,681	12,071	17,917	11,575	10,942	0.9%	-22.5%
Interest Paid	56	61	71	71	69	79	1,423	1,572	1,830	1,850	1,813	2,087	8.2%	5.3%
Property Income	475	363	388	508	451	523	12,053	9,313	10,029	13,240	11,888	13,886	2.3%	1.5%
Disposable Income	1,479	1,141	1,267	1,557	1,304	1,381	37,551	29,243	32,717	40,594	34,353	36,654	1.7%	-5.8%
Rank							2	6	7	3	6	6		
%Rank #1							96%	76%	82%	96%	77%	78%		
Business Value Added	1,192	891	1,003	1,246	1,019	1,009	30,267	22,828	25,883	32,481	26,825	26,773	1.5%	-10.0%
Rank							6	20	13	6	15	17		
%Rank #1							81%	61%	66%	78%	61%	58%		
Business Productivity							51,098	49,532	52,112	52,629	54,899	56,679	1.0%	3.8%
Rank							12	18	12	16	13	13		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.11%	0.14%
Disability Support (aged 25+)	2.37%	3.13%
Mature Age Allowance	0.01%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.18%	0.21%
Parenting Payment - Single (aged 25+)	1.31%	1.64%
Unemployed Long Term	0.82%	1.20%
Unemployed Short Term	0.67%	0.79%
Youth Allowance - Non Student	0.31%	0.32%
Youth Allowance - Student	0.67%	1.27%

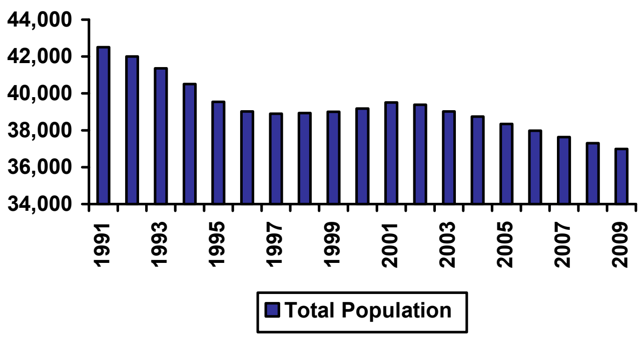
Cash Benefits Share of Disposable Income	Share	Rank
2002	8.8%	59
2003	12.0%	55
2004	12.8%	53
2005	9.5%	59
2006	9.5%	59
2007	10.5%	57

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	43.9	61
Share of population under 55	77.5	23
Aged migration	3.8	44
Population growth rate, 55+	1.5	56
Demographic stress	10.1	41
Dominant locations	63.5	48
Family / Youth migration	-3.9	64
Fertility bounce, 1996-2005	-0.1	14
Fertility, babies % pop, 2005	1.6	5
Fertility, babies % pop, 2005	49.9	53
Working elderly	37.6	1

Local Government Level		Score	Rank
Most Sustainable	Balonne (S)	72.7	70
Least Sustainable	Quilpie (S)	23.3	608

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.74%	4
2002	1.48%	7
2003	1.52%	7
2004	1.42%	10
2005	1.40%	14
2006	1.64%	5
Bounce 2004-05	-0.02%	46
Actual Change 2004-05 (Number)	-13	41
Bounce 2005-06	0.24%	1
Actual Change 2005-06 (Number)	88	44

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$8,425	1
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,165	9
Water Security Cost	$441	44
Total	$10,031	1

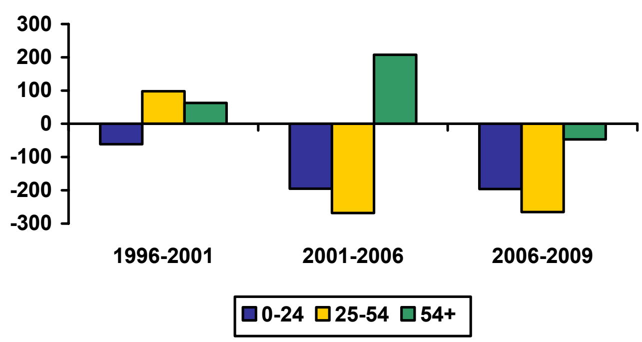
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	9.33%	1
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.29%	54
Water Security Cost	0.49%	56
Total	11.11%	1

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	1.88%	1
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.26%	32
Water Security Cost	0.10%	46
Total	2.24%	1

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	37.8%	36.6%	35.5%	34.9%
Age 25-55	43.4%	44.1%	42.4%	41.3%
Age 55+	19.5%	20.0%	23.6%	23.8%
Population Change (average between years)				
Age 0-24		-62	-195	-196
Age 25-55		98	-268	-265
Age 55+		62	207	-47
Average Age	34.5	35.7	37.2	38.4
Average Annual Growth		0.2%	-0.8%	-0.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	486	448	13	22	42%	38%
Value of Property and Unincorporated Business	190	184	44	55	26%	28%
Value of Financial Assets	371	341	7	16	56%	47%
Value of Household Liabilities	76	77	35	61	62%	34%
Disposable Income after Debt Service Costs	96	90	2	6	94%	80%
Household Debt Service Ratio	9%	10%	62	64	48%	40%
Household Debt to Gross Income Ratio	0.69	0.74	62	64	48%	40%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	14	15	13	15	16	0%
Non Residential	29	15	20	15	15	15%
Total	43	28	33	30	31	13%
Value per capita $2004/05						
Residential	340	326	343	399	419	19%
Non Residential	752	375	514	406	404	18%
Total	1,060	739	857	805	823	12%
Rank (value per capita)						
Residential	64	63	63	63	62	
Non Residential	22	63	59	64	64	
Total	61	64	63	63	64	

RAINFALL

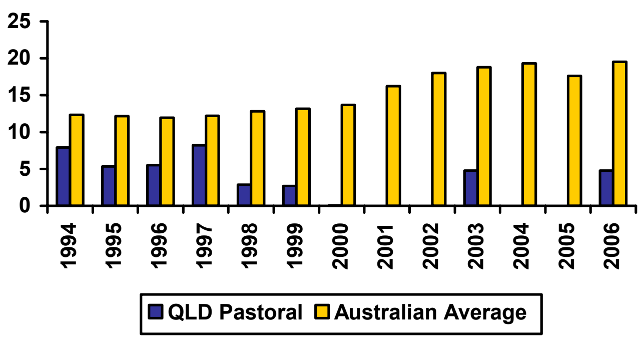
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	550	465	601	867	767	348	252	438	369	312	490
Rank	50	53	50	54	56	60	63	55	59	64	26

PATENT APPLICATIONS

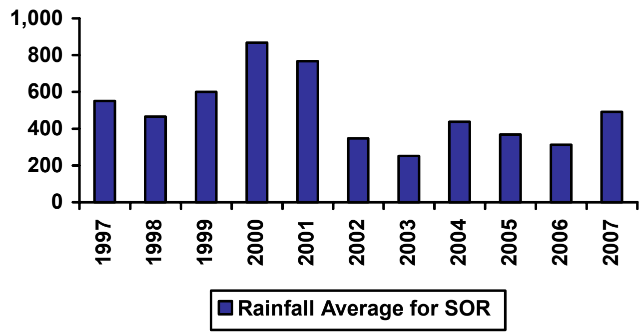
	No	Aust Avg	Rank
Average p.a. (1994-2005)	1.27	46.04	64
Average p.a. per capita	3.24	12.17	62
Hi Tech p.a. (1994-2005)	0.08	12.38	64
Hi Tech p.a. per capita	0.20	2.98	63
Info. Tech p.a. (1994-2005)	0.00	4.75	62
Info. Tech p.a. per capita	0.00	1.13	62
Average per capita (1994-2000)	4.07	10.48	58
Average per capita (2000-2005)	1.60	14.53	64
2000-05 avg./1994-00 avg.	0.39	1.36	64

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



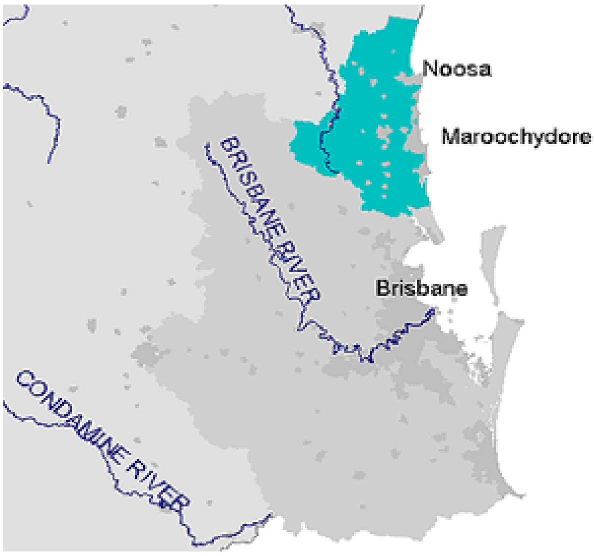
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	30.0	29.5	29.8	28.5
Rank	3	4	4	4
Days Over 35C	103	107	116	81
Rank	3	3	2	3

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	12
Rank	63

QLD Sunshine Coast



The Sunshine Coast is a resort and retirement strip, newer than the Gold Coast and with more room; hence not so intensively developed, but growing much more rapidly. Back from the strip is a row of older towns, the chief of which is Nambour. Some intensive farming survives (including pineapples), but the region's sugar industry has recently collapsed. This has increased the supply of land available for urban conversion.

Major centres:

Caloundra, Nambour, Noosa

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	256	268	277	286	295	302	4.4%	3.5%	3.1%	3.3%	2.3%	3.7%	2.8%
No. Households	101	104	108	110	112	114	2.9%	3.4%	2.3%	1.4%	1.4%	2.9%	1.4%
NIEIR Workforce	117	124	128	134	139	144	5.7%	3.4%	5.1%	3.2%	3.9%	4.7%	3.5%
NIEIR Employment	100	108	115	123	127	132	7.9%	5.9%	7.1%	3.7%	4.0%	7.0%	3.8%
NIEIR Unemployment	16.7	15.4	13.2	11.6	11.5	11.7	-7.4%	-14.3%	-12.1%	-1.5%	1.9%	-11.3%	0.2%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	14.3%	12.5%	10.4%	8.7%	8.3%	8.1%	-1.8	-2.1	-1.7	-0.4	-0.2	-1.9	-0.3
Headline U/E	11.0%	9.9%	8.1%	6.4%	6.0%	6.1%	-1.1	-1.7	-1.8	-0.4	0.1	-1.5	-0.1
NIEIR Structural U/E	17.4%	16.5%	14.8%	13.6%	12.6%	11.5%	-0.9	-1.8	-1.2	-1.0	-1.0	-1.3	-1.0

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	3,130	3,400	3,763	4,079	4,432	4,826	12,209	12,705	13,585	14,273	15,017	15,958	9.2%	8.8%
Taxes Paid	726	795	919	982	1,061	1,122	2,831	2,971	3,316	3,437	3,597	3,709	10.6%	6.9%
Benefits	1,016	1,036	1,151	1,216	1,201	1,223	3,963	3,871	4,156	4,255	4,069	4,043	6.2%	0.3%
Business Income	910	966	1,104	1,088	1,179	1,247	3,550	3,610	3,983	3,808	3,993	4,125	6.1%	7.1%
Interest Paid	283	346	471	646	815	983	1,104	1,293	1,700	2,259	2,763	3,252	31.6%	23.4%
Property Income	594	766	890	971	1,191	1,311	2,318	2,862	3,212	3,399	4,035	4,336	17.8%	16.2%
Disposable Income	4,771	5,154	5,660	5,910	6,352	6,758	18,611	19,262	20,430	20,681	21,523	22,349	7.4%	6.9%
Rank							62	58	58	60	58	54		
%Rank #1							48%	50%	51%	49%	48%	47%		
Business Value Added	4,040	4,366	4,867	5,167	5,610	6,073	15,759	16,316	17,568	18,082	19,010	20,083	8.5%	8.4%
Rank							61	61	60	60	60	50		
%Rank #1							42%	43%	45%	44%	43%	44%		
Business Productivity							39,311	40,094	42,183	42,260	44,478	46,675	2.4%	5.1%
Rank							62	61	61	62	60	56		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.11%	0.14%
Disability Support (aged 25+)	2.97%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.18%	0.21%
Parenting Payment - Single (aged 25+)	1.99%	1.64%
Unemployed Long Term	1.14%	1.20%
Unemployed Short Term	0.94%	0.79%
Youth Allowance - Non Student	0.35%	0.32%
Youth Allowance - Student	1.21%	1.27%

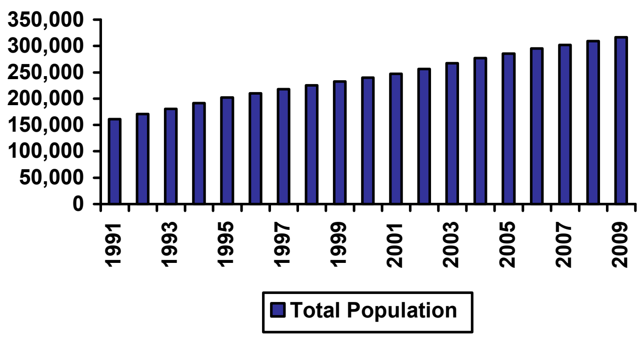
Cash Benefits Share of Disposable Income	Share	Rank
2002	21.3%	8
2003	20.1%	12
2004	20.3%	15
2005	20.6%	14
2006	18.9%	16
2007	18.1%	25

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	100.0	4
Share of population under 55	71.1	59
Aged migration	8.5	1
Population growth rate, 55+	4.5	6
Demographic stress	55.9	2
Dominant locations	67.4	41
Family / Youth migration	3.6	12
Fertility bounce, 1996-2005	-0.1	23
Fertility, babies % pop, 2005	1.1	58
Fertility, babies % pop, 2005	75.3	1
Working elderly	18.7	60

Local Government Level		Score	Rank
Most Sustainable	Maroochy (S)	75.9	46
Least Sustainable	Caloundra (C)	74.4	57

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.15%	57
2002	1.12%	55
2003	1.10%	57
2004	1.09%	60
2005	1.12%	56
2006	1.15%	58
Bounce 2004-05	0.03%	15
Actual Change 2004-05 (Number)	190	11
Bounce 2005-06	0.03%	41
Actual Change 2005-06 (Number)	181	24

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$123	48
Carbon Price Loss Cost (@$33 a tonne of carbon)	$962	49
Water Security Cost	$758	12
Total	$1,843	37

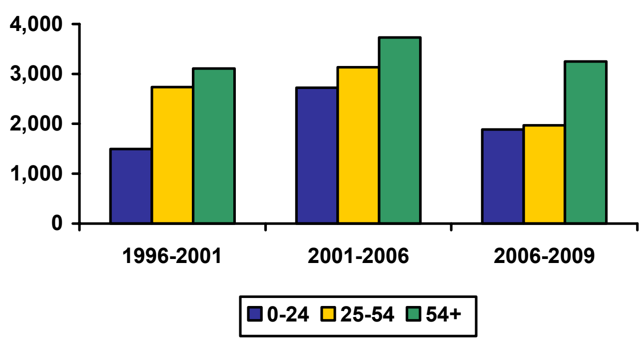
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.24%	43
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.90%	12
Water Security Cost	1.50%	7
Total	3.65%	26

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.03%	48
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.20%	49
Water Security Cost	0.16%	25
Total	0.39%	50

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	33.7%	31.7%	31.2%	30.9%
Age 25-55	42.0%	41.3%	39.9%	39.1%
Age 55+	24.3%	27.0%	28.9%	30.1%
Population Change (average between years)				
Age 0-24		1,493	2,727	1,883
Age 25-55		2,738	3,132	1,970
Age 55+		3,108	3,732	3,251
Average Age	38.2	39.5	40.8	41.4
Average Annual Growth		3.3%	3.6%	2.4%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	337	474	32	17	29%	41%
Value of Property and Unincorporated Business	264	366	23	16	37%	56%
Value of Financial Assets	122	230	52	31	18%	32%
Value of Household Liabilities	49	122	63	27	40%	54%
Disposable Income after Debt Service Costs	43	51	63	61	42%	45%
Household Debt Service Ratio	12%	23%	49	8	62%	88%
Household Debt to Gross Income Ratio	0.89	1.63	49	8	62%	88%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	659	828	826	805	824	-1%
Non Residential	178	215	313	328	321	49%
Total	837	1,134	1,139	1,133	1,146	0%
Value per capita $2004/05						
Residential	3,024	3,028	2,799	2,673	2,703	-10%
Non Residential	768	789	1,060	1,088	1,053	35%
Total	3,840	3,761	3,860	3,762	3,756	1%
Rank (value per capita)						
Residential	1	2	2	2	2	
Non Residential	21	16	15	13	18	
Total	4	3	5	8	7	

RAINFALL

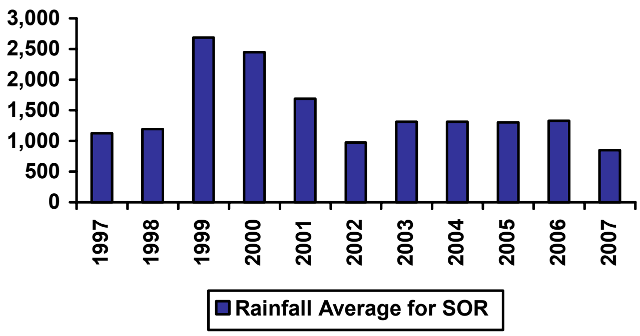
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,125	1,191	2,686	2,447	1,690	974	1,311	1,311	1,300	1,328	850
Rank	9	6	2	5	7	9	2	2	4	4	12

PATENT APPLICATIONS

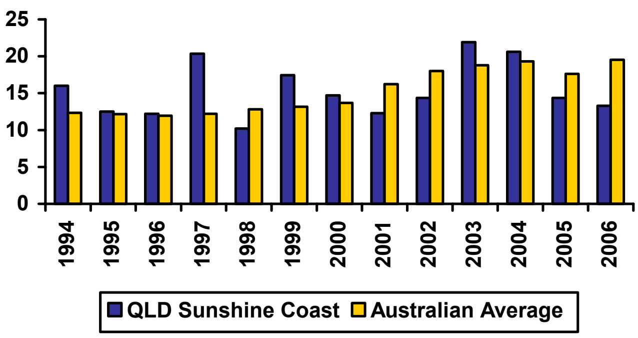
	No	Aust Avg	Rank
Average p.a. (1994-2005)	37.55	46.04	22
Average p.a. per capita	15.41	12.17	12
Hi Tech p.a. (1994-2005)	6.39	12.38	24
Hi Tech p.a. per capita	2.54	2.98	16
Info. Tech p.a. (1994-2005)	2.24	4.75	24
Info. Tech p.a. per capita	0.85	1.13	17
Average per capita (1994-2000)	14.47	10.48	12
Average per capita (2000-2005)	16.14	14.53	12
2000-05 avg./1994-00 avg.	1.12	1.36	55

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	25.7	25.6	25.8	24.6
Rank	14	15	14	22
Days Over 35C	7	4	6	1
Rank	55	55	55	59

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	250
Rank	24

QLD West Moreton

The West Moreton region centres on Ipswich, which has long regarded itself as independent of Brisbane 40 km to the east. Manufacturing industry and power production were originally based on local coal mines, and the region also attracted defence facilities. In more recent times commuting has increased, but the hills are hot in summer and have not proved attractive to hobby farmers. Intensive agriculture is practised in the several fertile valleys of tributaries of the Brisbane river, though drought has threatened their groundwater supply.

Major centres:

Ipswich

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	182	185	191	196	201	206	1.9%	3.1%	2.7%	2.5%	2.8%	2.5%	2.6%
No. Households	63	64	65	67	69	71	0.6%	2.1%	2.8%	2.9%	2.6%	1.8%	2.8%
NIEIR Workforce	90	93	95	98	100	104	3.1%	3.0%	2.7%	2.2%	3.9%	3.0%	3.0%
NIEIR Employment	77	80	84	88	90	94	3.9%	4.1%	4.6%	2.5%	4.2%	4.2%	3.4%
NIEIR Unemployment	12.2	12.1	11.6	10.3	10.2	10.3	-1.4%	-4.0%	-11.1%	-0.6%	0.8%	-5.6%	0.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	13.6%	13.0%	12.1%	10.5%	10.2%	9.9%	-0.6	-0.9	-1.6	-0.3	-0.3	-1.0	-0.3
Headline U/E	7.4%	7.7%	6.7%	5.6%	5.5%	5.4%	0.3	-1.0	-1.1	-0.1	0.0	-0.6	-0.1
NIEIR Structural U/E	18.0%	17.9%	17.1%	16.5%	16.0%	15.1%	-0.1	-0.8	-0.7	-0.5	-0.9	-0.5	-0.7

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,782	2,881	3,119	3,369	3,599	3,919	15,314	15,569	16,355	17,206	17,927	18,976	6.6%	7.9%
Taxes Paid	633	636	704	755	786	789	3,483	3,434	3,689	3,853	3,914	3,820	6.0%	2.3%
Benefits	698	708	790	812	805	825	3,840	3,828	4,145	4,149	4,010	3,993	5.2%	0.8%
Business Income	549	499	566	569	552	384	3,024	2,697	2,970	2,904	2,749	1,857	1.2%	-17.9%
Interest Paid	293	339	407	438	460	530	1,615	1,831	2,132	2,237	2,293	2,567	14.3%	10.0%
Property Income	220	256	279	292	333	351	1,211	1,385	1,464	1,489	1,661	1,699	9.8%	9.7%
Disposable Income	3,392	3,437	3,717	3,935	4,152	4,279	18,671	18,572	19,491	20,095	20,681	20,718	5.1%	4.3%
Rank							61	62	62	61	61	62		
%Rank #1							48%	48%	49%	48%	46%	44%		
Business Value Added	3,332	3,380	3,685	3,938	4,151	4,303	18,338	18,266	19,325	20,110	20,676	20,833	5.7%	4.5%
Rank							55	54	54	54	52	47		
%Rank #1							49%	49%	50%	48%	47%	45%		
Business Productivity							40,898	40,934	42,602	42,999	44,091	44,923	1.7%	2.2%
Rank							59	60	60	60	61	61		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.13%	0.08%
Disability Support (aged 20-24)	0.24%	0.14%
Disability Support (aged 25+)	4.70%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.08%	0.04%
Parenting Payment - Single (aged 20-24)	0.42%	0.21%
Parenting Payment - Single (aged 25+)	2.28%	1.64%
Unemployed Long Term	1.09%	1.20%
Unemployed Short Term	0.81%	0.79%
Youth Allowance - Non Student	0.43%	0.32%
Youth Allowance - Student	1.02%	1.27%

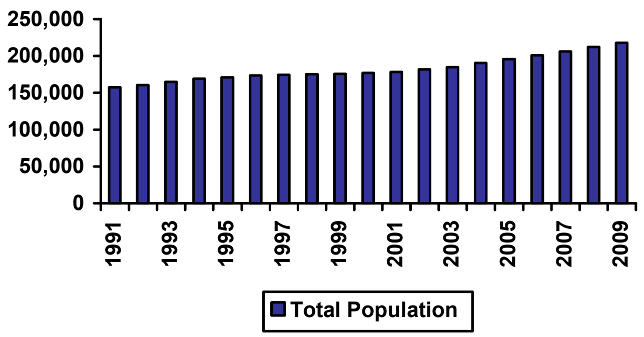
Cash Benefits Share of Disposable Income	Share	Rank
2002	20.6%	9
2003	20.6%	9
2004	21.3%	11
2005	20.6%	13
2006	19.4%	14
2007	19.3%	19

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	93.5	12
Share of population under 55	78.7	17
Aged migration	3.7	48
Population growth rate, 55+	3.6	13
Demographic stress	2.7	50
Dominant locations	77.5	32
Family / Youth migration	1.2	35
Fertility bounce, 1996-2005	-0.2	38
Fertility, babies % pop, 2005	1.5	9
Fertility, babies % pop, 2005	58.2	42
Working elderly	25.1	44

Local Government Level		Score	Rank
Most Sustainable	Esk (S)	60.5	217
Least Sustainable	Boonah (S)	56.3	276

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.49%	15
2002	1.39%	13
2003	1.32%	18
2004	1.38%	11
2005	1.42%	11
2006	1.52%	9
Bounce 2004-05	0.04%	14
Actual Change 2004-05 (Number)	140	17
Bounce 2005-06	0.10%	12
Actual Change 2005-06 (Number)	279	12

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$563	28
Carbon Price Loss Cost (@$33 a tonne of carbon)	$953	51
Water Security Cost	$764	10
Total	$2,280	26

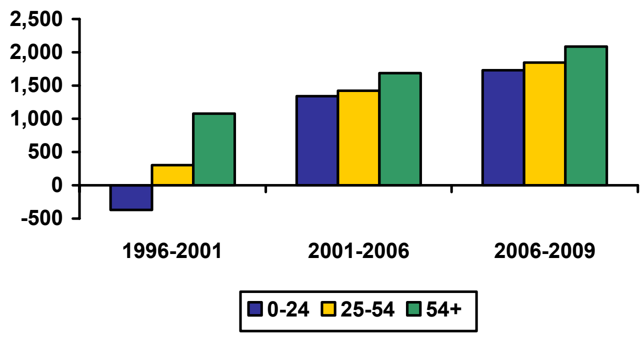
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.03%	26
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.75%	24
Water Security Cost	1.40%	9
Total	4.18%	23

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.28%	16
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.47%	5
Water Security Cost	0.38%	2
Total	1.12%	4

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	40.3%	38.2%	37.3%	36.7%
Age 25-55	43.0%	42.6%	41.5%	40.8%
Age 55+	16.7%	19.2%	21.3%	22.5%
Population Change (average between years)				
Age 0-24		-370	1,341	1,731
Age 25-55		302	1,425	1,848
Age 55+		1,076	1,686	2,086
Average Age	33.5	35.0	36.4	37.1
Average Annual Growth		0.6%	2.4%	2.7%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	132	204	64	63	11%	17%
Value of Property and Unincorporated Business	173	245	55	39	24%	37%
Value of Financial Assets	44	68	64	64	7%	9%
Value of Household Liabilities	85	109	19	39	70%	48%
Disposable Income after Debt Service Costs	47	54	56	55	46%	48%
Household Debt Service Ratio	18%	21%	4	23	96%	79%
Household Debt to Gross Income Ratio	1.37	1.46	4	23	96%	79%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	106	169	403	403	428	144%
Non Residential	100	94	219	291	294	184%
Total	205	355	622	694	722	91%
Value per capita $2004/05						
Residential	639	1,003	2,007	1,923	1,954	96%
Non Residential	566	500	1,091	1,389	1,342	155%
Total	1,194	1,468	3,097	3,312	3,296	120%
Rank (value per capita)						
Residential	55	42	11	12	12	
Non Residential	45	52	13	9	10	
Total	51	49	13	12	14	

RAINFALL

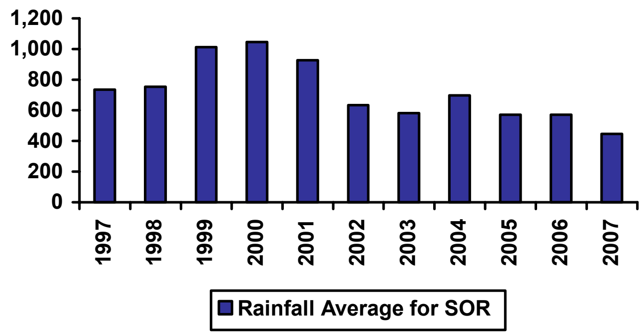
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	735	755	1,013	1,046	926	634	581	697	571	571	447
Rank	34	24	23	36	49	40	30	23	44	43	32

PATENT APPLICATIONS

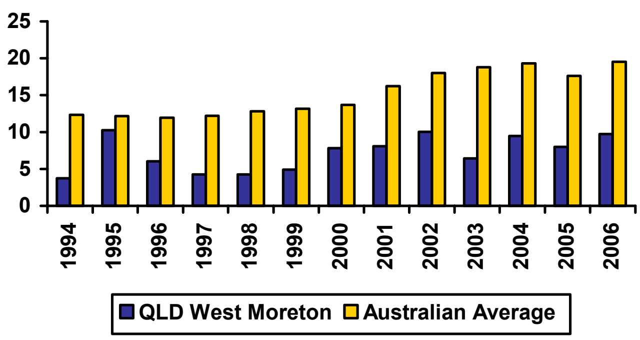
	No	Aust Avg	Rank
Average p.a. (1994-2005)	13.03	46.04	40
Average p.a. per capita	7.15	12.17	43
Hi Tech p.a. (1994-2005)	2.40	12.38	38
Hi Tech p.a. per capita	1.32	2.98	40
Info. Tech p.a. (1994-2005)	0.46	4.75	43
Info. Tech p.a. per capita	0.25	1.13	43
Average per capita (1994-2000)	6.16	10.48	47
Average per capita (2000-2005)	8.62	14.53	41
2000-05 avg./1994-00 avg.	1.40	1.36	24

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



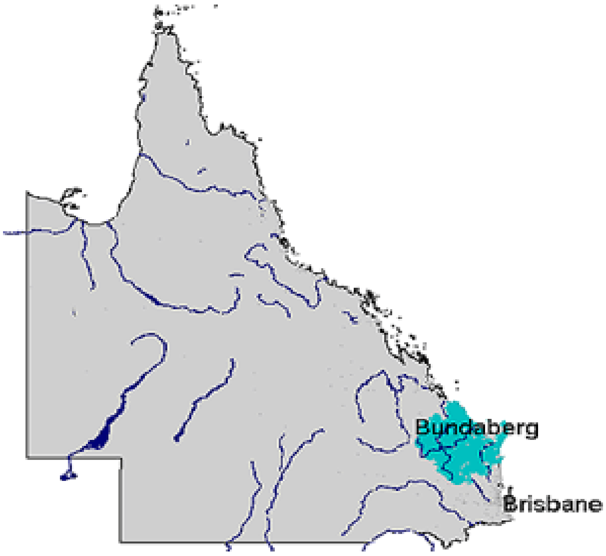
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	27.6	28.0	28.0	26.8
Rank	9	9	6	9
Days Over 35C	25	24	30	16
Rank	17	18	13	30

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	104
Rank	46

QLD Wide Bay-Burnett



Wide Bay-Burnett comprises several sub-regions.

- The retirement and resort developments around Hervey Bay are the northerly outposts of a settlement type familiar on the NSW coast. The old industrial town of Maryborough provides a commercial centre.
- Around and behind Bundaberg is a region of intensive agriculture, growing mainly sugar cane. Bundaberg has developed as a regional centre and has manufacturing industries based on agricultural processing.
- The rural hinterland, beyond reach of the sea breeze, has missed out on retirement migration. Round Kingaroy and in several other places intensive agriculture is practised.

Major centres:

Bundaberg, Maryborough, Gympie

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	241	247	255	262	269	276	2.5%	3.1%	2.8%	2.7%	2.6%	2.8%	2.7%
No. Households	95	97	99	102	104	107	1.8%	2.6%	2.7%	2.7%	2.5%	2.4%	2.6%
NIEIR Workforce	103	107	111	114	117	121	3.6%	3.6%	3.2%	2.1%	3.4%	3.5%	2.7%
NIEIR Employment	83	87	92	97	100	105	4.7%	5.3%	5.2%	3.3%	4.8%	5.1%	4.0%
NIEIR Unemployment	19.9	19.7	18.9	17.7	16.9	16.0	-1.2%	-3.7%	-6.7%	-4.6%	-4.9%	-3.9%	-4.8%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	19.3%	18.4%	17.1%	15.4%	14.4%	13.3%	-0.9	-1.3	-1.6	-1.0	-1.2	-1.3	-1.1
Headline U/E	12.8%	12.8%	11.3%	9.0%	7.6%	7.1%	0.0	-1.5	-2.2	-1.4	-0.5	-1.3	-0.9
NIEIR Structural U/E	24.8%	25.1%	23.6%	22.5%	21.9%	20.8%	0.3	-1.5	-1.1	-0.7	-1.0	-0.8	-0.9

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,609	2,729	3,007	3,225	3,537	3,861	10,815	11,032	11,786	12,301	13,132	13,956	7.3%	9.4%
Taxes Paid	640	668	758	790	845	822	2,652	2,699	2,970	3,014	3,139	2,971	7.3%	2.0%
Benefits	1,071	1,099	1,246	1,278	1,273	1,300	4,438	4,444	4,885	4,873	4,727	4,699	6.1%	0.9%
Business Income	904	929	1,000	955	950	669	3,748	3,757	3,920	3,644	3,529	2,418	1.9%	-16.3%
Interest Paid	295	349	434	489	533	623	1,221	1,410	1,700	1,865	1,977	2,253	18.4%	12.9%
Property Income	413	491	538	572	682	713	1,711	1,987	2,108	2,180	2,531	2,575	11.5%	11.6%
Disposable Income	4,152	4,320	4,695	4,863	5,205	5,245	17,212	17,462	18,402	18,545	19,327	18,956	5.4%	3.8%
Rank							64	64	63	63	63	63		
%Rank #1							44%	45%	46%	44%	43%	40%		
Business Value Added	3,513	3,658	4,007	4,181	4,487	4,530	14,563	14,788	15,706	15,944	16,661	16,373	6.0%	4.1%
Rank							63	63	62	62	62	63		
%Rank #1							39%	39%	40%	38%	38%	36%		
Business Productivity							39,576	39,719	42,009	42,200	43,305	44,228	2.2%	2.4%
Rank							60	63	62	63	63	64		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.12%	0.08%
Disability Support (aged 20-24)	0.19%	0.14%
Disability Support (aged 25+)	5.60%	3.13%
Mature Age Allowance	0.05%	0.02%
Parenting Payment - Single (aged 15-19)	0.06%	0.04%
Parenting Payment - Single (aged 20-24)	0.32%	0.21%
Parenting Payment - Single (aged 25+)	2.15%	1.64%
Unemployed Long Term	1.80%	1.20%
Unemployed Short Term	1.17%	0.79%
Youth Allowance - Non Student	0.58%	0.32%
Youth Allowance - Student	1.09%	1.27%

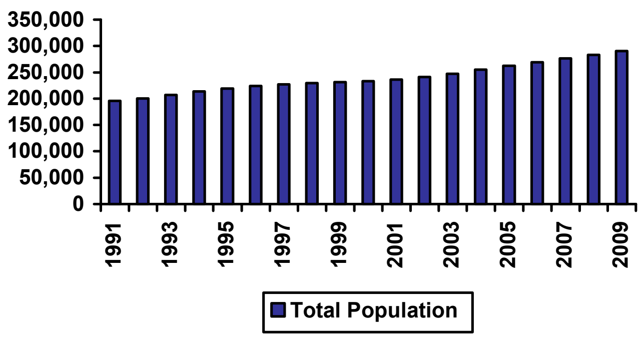
Cash Benefits Share of Disposable Income	Share	Rank
2002	25.8%	2
2003	25.4%	3
2004	26.5%	3
2005	26.3%	3
2006	24.5%	3
2007	24.8%	4

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	93.8	9
Share of population under 55	68.9	63
Aged migration	7.1	4
Population growth rate, 55+	3.5	15
Demographic stress	10.7	39
Dominant locations	59.1	52
Family / Youth migration	-0.4	50
Fertility bounce, 1996-2005	-0.3	63
Fertility, babies % pop, 2005	1.2	56
Fertility, babies % pop, 2005	57.5	45
Working elderly	20.2	57

Local Government Level		Score	Rank
Most Sustainable	Burnett (S)	69.3	109
Least Sustainable	Monto (S)	22.3	617

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.22%	49
2002	1.15%	53
2003	1.06%	61
2004	1.11%	59
2005	1.14%	52
2006	1.16%	56
Bounce 2004-05	0.03%	17
Actual Change 2004-05 (Number)	151	16
Bounce 2005-06	0.02%	42
Actual Change 2005-06 (Number)	145	35

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$630	26
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,331	2
Water Security Cost	$492	42
Total	$2,452	24

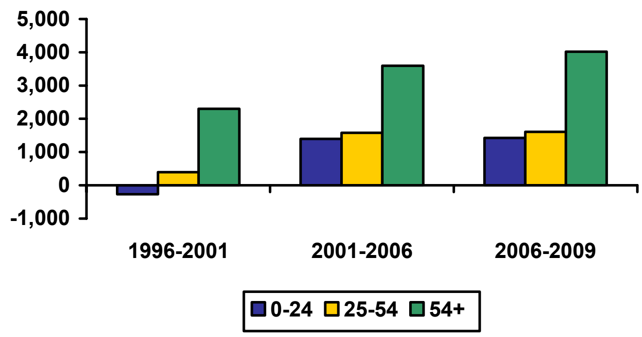
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.37%	21
Carbon Price Loss Cost (@$33 a tonne of carbon)	2.90%	1
Water Security Cost	1.07%	23
Total	5.34%	15

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.24%	22
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.50%	2
Water Security Cost	0.19%	16
Total	0.93%	11

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	35.4%	33.0%	31.5%	30.7%
Age 25-55	40.5%	39.2%	37.4%	36.3%
Age 55+	24.2%	27.8%	31.1%	33.0%
Population Change (average between years)				
Age 0-24		-267	1,390	1,420
Age 25-55		399	1,581	1,608
Age 55+		2,299	3,601	4,020
Average Age	37.6	39.2	41.0	42.5
Average Annual Growth		1.1%	2.6%	2.6%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	206	264	59	60	18%	23%
Value of Property and Unincorporated Business	174	216	54	47	24%	33%
Value of Financial Assets	91	136	59	58	14%	19%
Value of Household Liabilities	59	88	57	57	48%	39%
Disposable Income after Debt Service Costs	41	46	64	64	40%	41%
Household Debt Service Ratio	15%	20%	21	30	78%	76%
Household Debt to Gross Income Ratio	1.12	1.41	20	30	78%	76%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	222	287	544	570	586	98%
Non Residential	124	119	185	174	172	49%
Total	345	503	729	743	758	48%
Value per capita $2004/05						
Residential	1,054	1,183	2,021	2,053	2,047	72%
Non Residential	536	471	686	627	601	35%
Total	1,646	1,640	2,707	2,680	2,648	63%
Rank (value per capita)						
Residential	37	36	9	10	9	
Non Residential	48	57	41	52	55	
Total	38	40	17	19	19	

RAINFALL

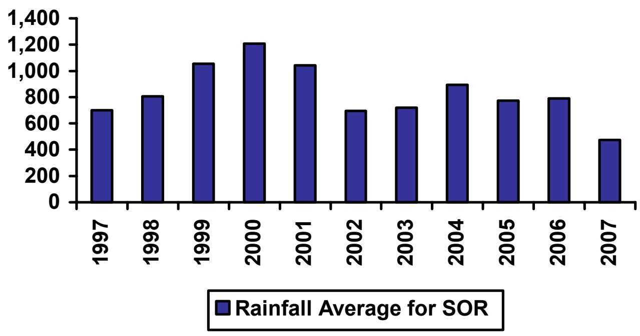
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	699	806	1,055	1,208	1,042	695	719	894	772	789	473
Rank	37	21	20	28	46	34	21	9	26	13	31

PATENT APPLICATIONS

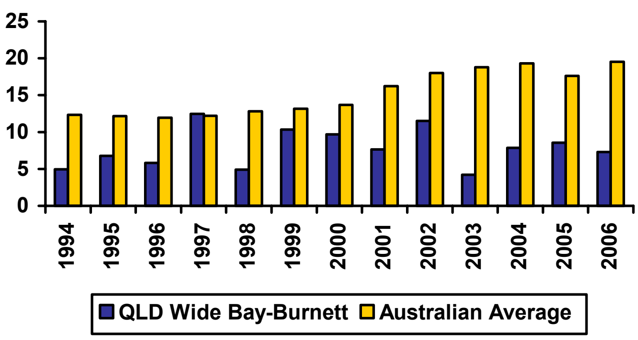
	No	Aust Avg	Rank
Average p.a. (1994-2005)	18.68	46.04	33
Average p.a. per capita	7.84	12.17	38
Hi Tech p.a. (1994-2005)	2.38	12.38	39
Hi Tech p.a. per capita	0.98	2.98	47
Info. Tech p.a. (1994-2005)	1.00	4.75	32
Info. Tech p.a. per capita	0.40	1.13	36
Average per capita (1994-2000)	7.82	10.48	33
Average per capita (2000-2005)	7.84	14.53	46
2000-05 avg./1994-00 avg.	1.00	1.36	59

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	27.1	26.5	27.4	26.7
Rank	10	13	10	10
Days Over 35C	14	12	17	7
Rank	34	31	26	49

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	96
Rank	48

Adelaide Central

The founding fathers of Adelaide picked a site where the Adelaide plain began to slope upwards towards Mt Lofty, though still well short of the main escarpment. This choice resulted in the City having essentially industrial suburbs to the immediate west, while leafy garden suburbs developed to the east and south, between the City and the escarpment. The Adelaide Central region groups the City with these garden suburbs. The economic base of the region lies in its City; the rest of the region consists of suburbs into which a few city centre functions are slowly infusing, plus the gracious resorts of the Holdfast Bay coastline.

Major centres:

Adelaide, Glenelg

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	378	381	384	387	390	394	0.9%	0.7%	0.9%	0.9%	1.0%	0.8%	1.0%
No. Households	160	162	164	166	168	170	1.3%	1.5%	1.2%	1.2%	1.2%	1.3%	1.2%
NIEIR Workforce	190	194	198	201	203	206	2.1%	2.2%	1.5%	1.2%	1.1%	1.9%	1.2%
NIEIR Employment	174	179	184	187	190	193	2.9%	2.7%	1.7%	1.5%	1.8%	2.4%	1.7%
NIEIR Unemployment	15.5	14.5	14.0	13.7	13.4	12.1	-6.2%	-3.9%	-1.7%	-2.2%	-9.7%	-4.0%	-6.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	8.2%	7.5%	7.1%	6.8%	6.6%	5.9%	-0.7	-0.4	-0.2	-0.2	-0.7	-0.4	-0.5
Headline U/E	5.6%	4.9%	4.7%	4.6%	4.5%	4.0%	-0.7	-0.2	-0.1	-0.1	-0.5	-0.3	-0.3
NIEIR Structural U/E	11.3%	11.4%	10.6%	10.3%	9.8%	9.4%	0.1	-0.8	-0.4	-0.5	-0.4	-0.3	-0.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	7,660	7,699	7,879	8,236	8,560	9,017	20,282	20,212	20,543	21,288	21,927	22,864	2.4%	4.6%
Taxes Paid	1,863	1,948	2,129	2,282	2,363	2,513	4,933	5,113	5,552	5,899	6,052	6,373	7.0%	4.9%
Benefits	1,416	1,414	1,532	1,568	1,547	1,588	3,748	3,711	3,995	4,053	3,964	4,027	3.5%	0.6%
Business Income	1,365	1,529	1,642	1,728	1,845	2,068	3,615	4,013	4,281	4,466	4,726	5,243	8.2%	9.4%
Interest Paid	477	588	766	945	1,102	1,297	1,263	1,545	1,999	2,443	2,822	3,289	25.6%	17.1%
Property Income	1,562	1,800	2,061	2,337	2,519	2,906	4,136	4,726	5,374	6,040	6,453	7,369	14.4%	11.5%
Disposable Income	9,757	9,999	10,307	10,782	11,218	12,054	25,835	26,249	26,876	27,870	28,735	30,567	3.4%	5.7%
Rank							20	16	18	16	17	11		
%Rank #1							66%	68%	67%	66%	64%	65%		
Business Value Added	9,025	9,228	9,520	9,964	10,405	11,084	23,897	24,225	24,824	25,754	26,652	28,108	3.4%	5.5%
Rank							20	16	20	19	16	15		
%Rank #1							64%	64%	64%	62%	61%	61%		
Business Productivity							50,892	50,630	50,918	52,859	53,957	56,213	1.3%	3.1%
Rank							13	12	18	15	14	14		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.12%	0.14%
Disability Support (aged 25+)	3.03%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.11%	0.21%
Parenting Payment - Single (aged 25+)	1.00%	1.64%
Unemployed Long Term	0.94%	1.20%
Unemployed Short Term	0.65%	0.79%
Youth Allowance - Non Student	0.18%	0.32%
Youth Allowance - Student	1.54%	1.27%

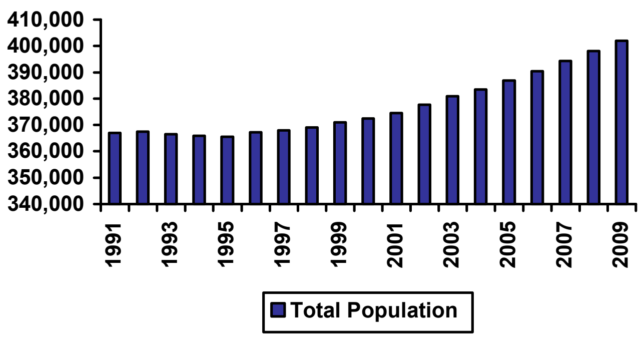
Cash Benefits Share of Disposable Income	Share	Rank
2002	14.5%	43
2003	14.1%	49
2004	14.9%	49
2005	14.5%	49
2006	13.8%	47
2007	13.2%	51

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	83.2	33
Share of population under 55	71.3	56
Aged migration	5.4	13
Population growth rate, 55+	3.3	17
Demographic stress	6.8	45
Dominant locations	100.0	2
Family / Youth migration	4.4	8
Fertility bounce, 1996-2005	0.0	8
Fertility, babies % pop, 2005	1.0	64
Fertility, babies % pop, 2005	58.7	37
Working elderly	22.4	49

Local Government Level		Score	Rank
Most Sustainable	Holdfast Bay (C)	69.5	106
Least Sustainable	Unley (C)	50.9	340

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	0.98%	64
2002	0.97%	64
2003	0.94%	64
2004	0.98%	63
2005	0.96%	64
2006	0.99%	64
Bounce 2004-05	-0.02%	45
Actual Change 2004-05 (Number)	-43	51
Bounce 2005-06	0.03%	40
Actual Change 2005-06 (Number)	138	36

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$129	47
Carbon Price Loss Cost (@$33 a tonne of carbon)	$991	45
Water Security Cost	$551	38
Total	$1,670	49

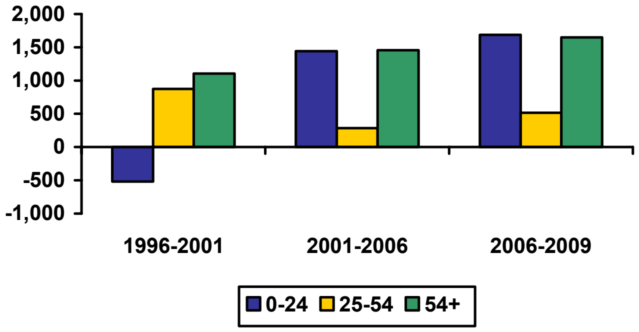
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.19%	48
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.45%	45
Water Security Cost	0.80%	39
Total	2.44%	52

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.02%	50
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.16%	54
Water Security Cost	0.09%	51
Total	0.27%	56

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	30.7%	29.4%	30.1%	30.5%
Age 25-55	42.2%	42.6%	41.2%	40.4%
Age 55+	27.1%	28.0%	28.7%	29.1%
Population Change (average between years)				
Age 0-24		-517	1,440	1,687
Age 25-55		876	285	515
Age 55+		1,104	1,455	1,650
Average Age	40.3	41.1	41.7	40.9
Average Annual Growth		0.4%	0.8%	1.0%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	491	625	12	11	42%	53%
Value of Property and Unincorporated Business	314	399	11	12	44%	61%
Value of Financial Assets	230	344	20	15	34%	48%
Value of Household Liabilities	54	118	62	32	44%	52%
Disposable Income after Debt Service Costs	62	69	26	18	60%	61%
Household Debt Service Ratio	9%	18%	60	48	49%	67%
Household Debt to Gross Income Ratio	0.70	1.25	60	47	49%	67%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	334	400	480	501	512	24%
Non Residential	296	386	376	383	397	0%
Total	630	813	857	884	909	9%
Value per capita $2004/05						
Residential	824	1,066	1,230	1,274	1,300	19%
Non Residential	798	1,010	964	974	1,009	-3%
Total	1,604	2,013	2,194	2,249	2,310	12%
Rank (value per capita)						
Residential	48	39	37	37	33	
Non Residential	18	7	22	20	21	
Total	40	27	30	29	25	

RAINFALL

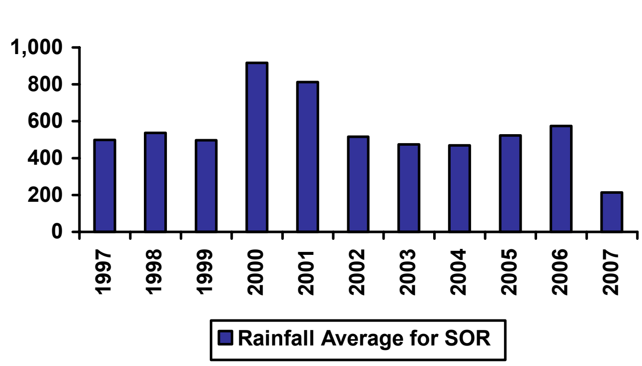
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	499	537	496	916	812	515	475	468	522	575	213
Rank	53	47	59	50	52	50	41	51	53	42	57

PATENT APPLICATIONS

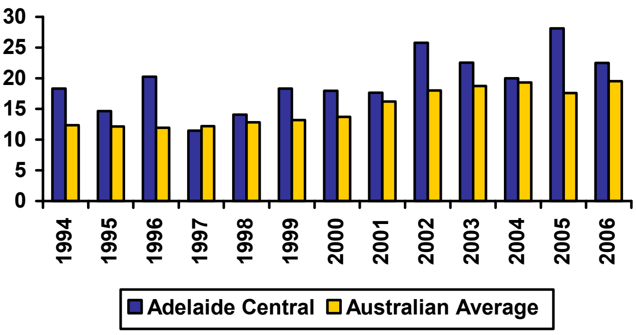
	No	Aust Avg	Rank
Average p.a. (1994-2005)	72.80	46.04	13
Average p.a. per capita	19.35	12.17	10
Hi Tech p.a. (1994-2005)	25.55	12.38	11
Hi Tech p.a. per capita	6.77	2.98	6
Info. Tech p.a. (1994-2005)	9.49	4.75	11
Info. Tech p.a. per capita	2.52	1.13	5
Average per capita (1994-2000)	16.58	10.48	10
Average per capita (2000-2005)	22.77	14.53	10
2000-05 avg./1994-00 avg.	1.37	1.36	32

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	21.9	22.2	21.8	22.7
Rank	41	37	42	35
Days Over 35C	20	18	17	25
Rank	24	24	25	18

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	739
Rank	12

Adelaide Outer

The Outer Adelaide region comprises the Mt Lofty Ranges and the Fleurieu Peninsula. It is separated from Central Adelaide and the Adelaide Plains by a scarp which angles across from behind Gawler to the sea at Marino. To the east the rainfall drops off and the Mallee begins. The region includes a number of national parks and conservation areas, but there are also extensive post-1960s suburbs. Beyond these suburbs, to the south and north, are the established wine areas (the Barossa Valley and Southern Vales), and beyond again to the south are the resorts and retirement areas of Encounter Bay. The wine industry combines agriculture, manufacturing and tourism but the region is mainly a commuter zone.

Major centres:

Angaston, Mt Barker, Noarlunga Centre

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	369	372	374	378	381	384	0.8%	0.7%	0.9%	0.8%	0.8%	0.8%	0.8%
No. Households	139	142	145	148	151	154	2.2%	2.2%	2.1%	2.0%	1.8%	2.2%	1.9%
NIEIR Workforce	187	191	194	197	199	201	2.1%	1.7%	1.4%	1.1%	1.0%	1.7%	1.1%
NIEIR Employment	170	175	178	181	184	186	2.9%	1.7%	1.4%	1.7%	0.9%	2.0%	1.3%
NIEIR Unemployment	17.0	15.9	16.2	16.4	15.6	15.9	-6.5%	2.1%	1.2%	-4.6%	1.7%	-1.1%	-1.5%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.1%	8.3%	8.3%	8.3%	7.8%	7.9%	-0.8	0.0	0.0	-0.5	0.1	-0.2	-0.2
Headline U/E	5.5%	4.7%	4.9%	4.8%	4.4%	4.4%	-0.8	0.2	-0.1	-0.4	0.0	-0.2	-0.2
NIEIR Structural U/E	12.3%	12.5%	12.0%	11.7%	11.4%	11.1%	0.2	-0.6	-0.2	-0.3	-0.3	-0.2	-0.3

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	6,755	6,814	6,890	7,195	7,337	7,596	18,302	18,317	18,401	19,052	19,266	19,786	2.1%	2.7%
Taxes Paid	1,480	1,522	1,618	1,714	1,686	1,692	4,011	4,092	4,322	4,539	4,426	4,408	5.0%	-0.6%
Benefits	1,392	1,416	1,587	1,638	1,590	1,644	3,772	3,805	4,237	4,339	4,176	4,282	5.6%	0.2%
Business Income	1,092	1,111	1,155	1,167	1,029	919	2,960	2,987	3,084	3,092	2,703	2,395	2.2%	-11.3%
Interest Paid	596	682	821	910	968	1,098	1,615	1,833	2,191	2,410	2,541	2,861	15.2%	9.8%
Property Income	791	900	993	1,122	1,194	1,382	2,143	2,419	2,651	2,971	3,135	3,599	12.4%	11.0%
Disposable Income	8,056	8,129	8,267	8,606	8,636	8,915	21,829	21,853	22,078	22,789	22,678	23,223	2.2%	1.8%
Rank							48	42	51	50	52	49		
%Rank #1							56%	57%	55%	54%	51%	49%		
Business Value Added	7,847	7,925	8,045	8,362	8,366	8,515	21,262	21,304	21,485	22,144	21,969	22,180	2.1%	0.9%
Rank							36	33	36	40	42	37		
%Rank #1							57%	57%	55%	53%	50%	48%		
Business Productivity							44,880	44,494	44,497	45,724	45,832	46,768	0.6%	1.1%
Rank							43	48	53	51	54	55		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.14%	0.14%
Disability Support (aged 25+)	3.37%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.18%	0.21%
Parenting Payment - Single (aged 25+)	1.75%	1.64%
Unemployed Long Term	1.13%	1.20%
Unemployed Short Term	0.76%	0.79%
Youth Allowance - Non Student	0.33%	0.32%
Youth Allowance - Student	1.23%	1.27%

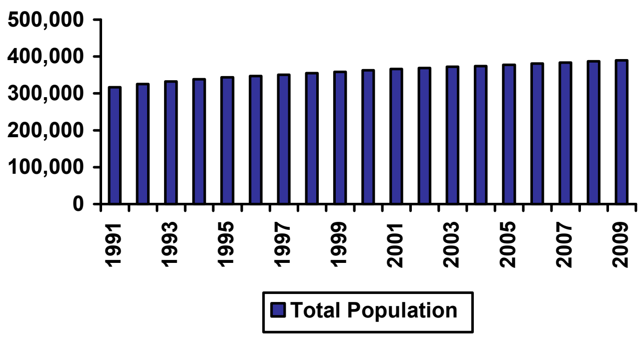
Cash Benefits Share of Disposable Income	Share	Rank
2002	17.3%	25
2003	17.4%	28
2004	19.2%	19
2005	19.0%	20
2006	18.4%	18
2007	18.4%	22

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	88.2	24
Share of population under 55	74.4	34
Aged migration	4.4	28
Population growth rate, 55+	4.2	9
Demographic stress	15.3	33
Dominant locations	85.5	26
Family / Youth migration	0.7	40
Fertility bounce, 1996-2005	-0.2	45
Fertility, babies % pop, 2005	1.2	55
Fertility, babies % pop, 2005	58.3	40
Working elderly	27.0	35

Local Government Level		Score	Rank
Most Sustainable	Mount Barker (DC)	70.9	91
Least Sustainable	Tea Tree Gully (C)	52.1	326

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.21%	50
2002	1.16%	51
2003	1.14%	50
2004	1.13%	57
2005	1.12%	58
2006	1.16%	55
Bounce 2004-05	-0.01%	33
Actual Change 2004-05 (Number)	14	32
Bounce 2005-06	0.04%	33
Actual Change 2005-06 (Number)	200	19

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$538	29
Carbon Price Loss Cost (@$33 a tonne of carbon)	$998	43
Water Security Cost	$553	36
Total	$2,090	31

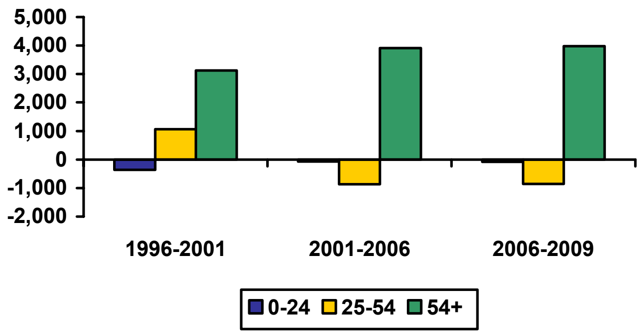
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.96%	27
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.79%	18
Water Security Cost	0.99%	29
Total	3.74%	25

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.17%	28
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.31%	17
Water Security Cost	0.17%	19
Total	0.65%	24

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.8%	34.4%	32.9%	32.1%
Age 25-55	45.2%	44.3%	41.4%	39.8%
Age 55+	18.0%	21.3%	25.6%	28.1%
Population Change (average between years)				
Age 0-24		-363	-68	-78
Age 25-55		1,062	-861	-855
Age 55+		3,126	3,909	3,978
Average Age	35.3	37.1	39.0	39.9
Average Annual Growth		1.1%	0.8%	0.8%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	247	319	56	52	21%	27%
Value of Property and Unincorporated Business	224	278	31	30	31%	43%
Value of Financial Assets	106	153	55	55	16%	21%
Value of Household Liabilities	84	112	22	34	69%	49%
Disposable Income after Debt Service Costs	54	56	48	52	52%	50%
Household Debt Service Ratio	16%	20%	13	24	84%	77%
Household Debt to Gross Income Ratio	1.19	1.43	13	24	83%	77%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	351	401	424	451	481	13%
Non Residential	104	126	188	188	193	51%
Total	454	535	612	639	674	20%
Value per capita $2004/05						
Residential	971	1,036	1,113	1,171	1,243	14%
Non Residential	290	336	494	487	498	47%
Total	1,267	1,326	1,607	1,658	1,741	26%
Rank (value per capita)						
Residential	39	41	44	41	42	
Non Residential	64	64	60	61	62	
Total	50	53	53	52	51	

RAINFALL

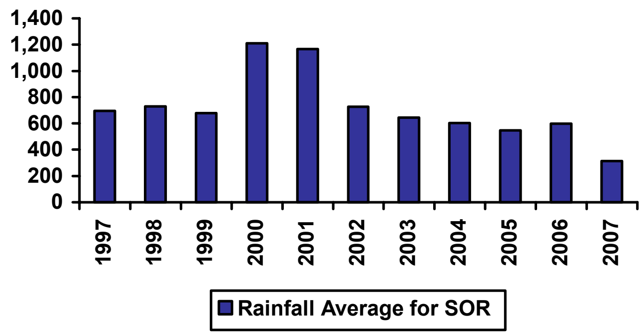
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	696	728	679	1,212	1,166	728	645	603	548	598	312
Rank	38	27	43	27	34	31	26	37	49	40	44

PATENT APPLICATIONS

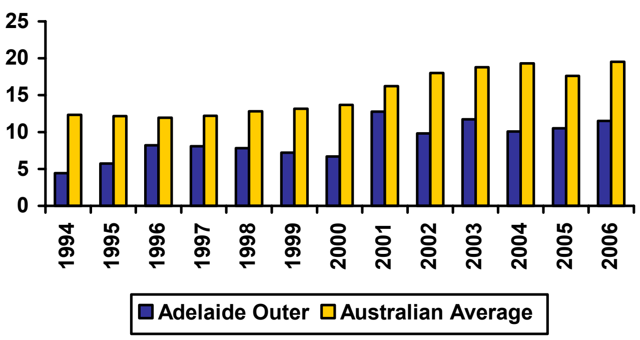
	No	Aust Avg	Rank
Average p.a. (1994-2005)	32.05	46.04	23
Average p.a. per capita	8.80	12.17	34
Hi Tech p.a. (1994-2005)	7.48	12.38	22
Hi Tech p.a. per capita	2.05	2.98	23
Info. Tech p.a. (1994-2005)	0.96	4.75	34
Info. Tech p.a. per capita	0.26	1.13	42
Average per capita (1994-2000)	7.61	10.48	35
Average per capita (2000-2005)	11.05	14.53	29
2000-05 avg./1994-00 avg.	1.45	1.36	18

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	19.8	20.8	20.0	21.0
Rank	50	46	54	49
Days Over 35C	14	14	13	18
Rank	32	27	35	28

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	177
Rank	31

Adelaide Plains

The Adelaide Plains region includes the southern or urbanised part of the plain which begins with Adelaide airport and extends north. The region includes old-established inner suburbs, old-established towns now incorp-orated into the metropolitan area (particularly Port Adelaide and Gawler), and an extensive area of post-war planned development in which public housing was provided to accommodate workers in new manufacturing industries. The region has suffered severely from employment reductions in automotive manufacturing over the past several decades, and the rate of generation of office jobs in Central Adelaide has not been sufficient to provide opportunities for commuting. The region now pins its hopes on port-related developments and on high technology investments, particularly at Mawson Lakes.

Major centres:

Port Adelaide, Salisbury, Elizabeth

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	481	485	489	494	499	505	0.9%	0.8%	1.0%	1.1%	1.2%	0.9%	1.1%
No. Households	195	199	203	207	212	216	2.0%	2.1%	2.1%	2.0%	2.0%	2.1%	2.0%
NIEIR Workforce	227	231	240	242	245	250	1.7%	3.8%	0.8%	1.1%	2.1%	2.1%	1.6%
NIEIR Employment	195	203	209	213	218	223	3.9%	3.2%	1.6%	2.4%	2.3%	2.9%	2.4%
NIEIR Unemployment	32.2	28.4	30.7	29.3	26.8	27.0	-11.7%	8.0%	-4.4%	-8.5%	0.6%	-3.0%	-4.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	14.1%	12.3%	12.8%	12.1%	11.0%	10.8%	-1.9	0.5	-0.7	-1.2	-0.2	-0.7	-0.7
Headline U/E	9.7%	8.0%	8.9%	8.2%	6.9%	6.9%	-1.7	0.9	-0.7	-1.3	0.0	-0.5	-0.6
NIEIR Structural U/E	21.3%	21.1%	19.7%	19.3%	18.9%	18.3%	-0.1	-1.4	-0.4	-0.4	-0.6	-0.7	-0.5

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	7,679	7,841	8,134	8,523	8,856	9,297	15,954	16,153	16,624	17,251	17,735	18,403	3.5%	4.4%
Taxes Paid	1,550	1,620	1,777	1,884	1,926	2,001	3,221	3,336	3,632	3,814	3,857	3,961	6.7%	3.1%
Benefits	2,239	2,246	2,456	2,527	2,460	2,545	4,653	4,627	5,020	5,114	4,927	5,037	4.1%	0.4%
Business Income	898	939	1,003	994	1,030	1,079	1,867	1,935	2,049	2,012	2,063	2,135	3.4%	4.2%
Interest Paid	634	751	941	1,070	1,170	1,337	1,317	1,548	1,923	2,165	2,343	2,646	19.1%	11.8%
Property Income	723	823	946	1,030	1,085	1,255	1,502	1,695	1,934	2,085	2,173	2,483	12.5%	10.4%
Disposable Income	9,472	9,589	9,922	10,255	10,523	11,074	19,679	19,755	20,279	20,758	21,073	21,920	2.7%	3.9%
Rank							53	54	59	59	60	60		
%Rank #1							50%	51%	51%	49%	47%	47%		
Business Value Added	8,578	8,780	9,136	9,517	9,887	10,376	17,821	18,088	18,673	19,263	19,798	20,538	3.5%	4.4%
Rank							57	56	56	58	57	49		
%Rank #1							48%	48%	48%	46%	45%	45%		
Business Productivity							42,879	42,442	42,876	44,063	44,882	46,520	0.9%	2.7%
Rank							53	55	58	58	58	59		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.18%	0.14%
Disability Support (aged 25+)	5.21%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.06%	0.04%
Parenting Payment - Single (aged 20-24)	0.34%	0.21%
Parenting Payment - Single (aged 25+)	2.26%	1.64%
Unemployed Long Term	1.88%	1.20%
Unemployed Short Term	1.12%	0.79%
Youth Allowance - Non Student	0.52%	0.32%
Youth Allowance - Student	1.60%	1.27%

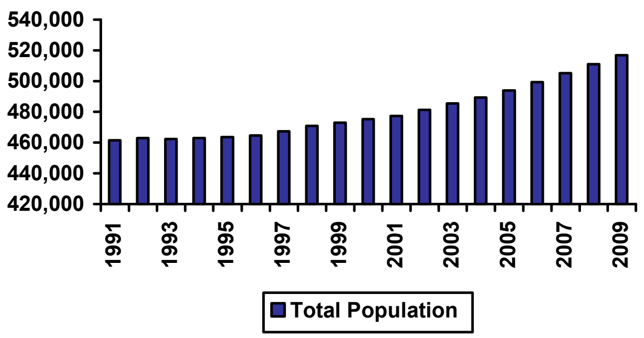
Cash Benefits Share of Disposable Income	Share	Rank
2002	23.6%	6
2003	23.4%	7
2004	24.8%	6
2005	24.6%	4
2006	23.4%	4
2007	23.0%	6

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	91.4	16
Share of population under 55	74.7	33
Aged migration	3.8	46
Population growth rate, 55+	1.5	56
Demographic stress	12.7	38
Dominant locations	98.5	21
Family / Youth migration	2.1	27
Fertility bounce, 1996-2005	-0.1	29
Fertility, babies % pop, 2005	1.2	40
Fertility, babies % pop, 2005	59.5	35
Working elderly	18.1	62

Local Government Level		Score	Rank
Most Sustainable	Light (DC)	77.7	34
Least Sustainable	Charles Sturt (C)	51.9	328

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.21%	51
2002	1.24%	32
2003	1.22%	31
2004	1.22%	33
2005	1.20%	39
2006	1.23%	40
Bounce 2004-05	-0.02%	48
Actual Change 2004-05 (Number)	-53	54
Bounce 2005-06	0.04%	35
Actual Change 2005-06 (Number)	249	14

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$140	44
Carbon Price Loss Cost (@$33 a tonne of carbon)	$896	59
Water Security Cost	$554	35
Total	$1,590	54

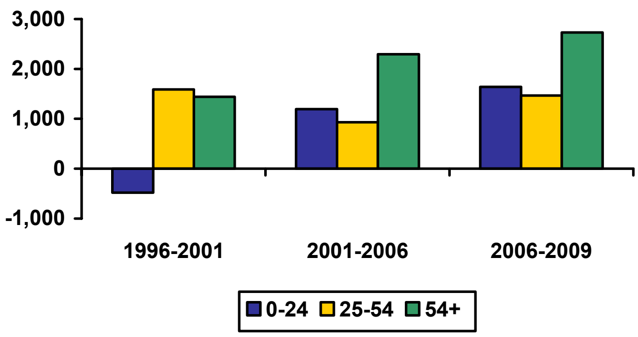
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.28%	41
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.79%	17
Water Security Cost	1.11%	18
Total	3.18%	33

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.06%	41
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.37%	9
Water Security Cost	0.23%	8
Total	0.66%	23

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	34.2%	32.8%	32.5%	32.4%
Age 25-55	42.7%	43.2%	42.2%	41.6%
Age 55+	23.1%	24.0%	25.3%	26.0%
Population Change (average between years)				
Age 0-24		-482	1,194	1,641
Age 25-55		1,590	927	1,471
Age 55+		1,443	2,294	2,732
Average Age	37.2	38.2	39.1	39.3
Average Annual Growth		0.5%	0.9%	1.2%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	176	242	63	61	15%	21%
Value of Property and Unincorporated Business	180	255	52	35	25%	39%
Value of Financial Assets	57	84	63	63	9%	12%
Value of Household Liabilities	61	98	54	51	50%	43%
Disposable Income after Debt Service Costs	46	50	57	62	45%	44%
Household Debt Service Ratio	14%	20%	34	32	74%	76%
Household Debt to Gross Income Ratio	1.05	1.40	34	32	74%	76%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	288	430	562	639	664	45%
Non Residential	238	408	510	463	415	13%
Total	526	892	1,072	1,101	1,079	21%
Value per capita $2004/05						
Residential	579	859	1,125	1,262	1,302	43%
Non Residential	505	835	1,022	914	813	10%
Total	1,090	1,522	2,146	2,176	2,115	41%
Rank (value per capita)						
Residential	59	50	42	39	32	
Non Residential	52	12	18	25	35	
Total	58	45	32	32	35	

RAINFALL

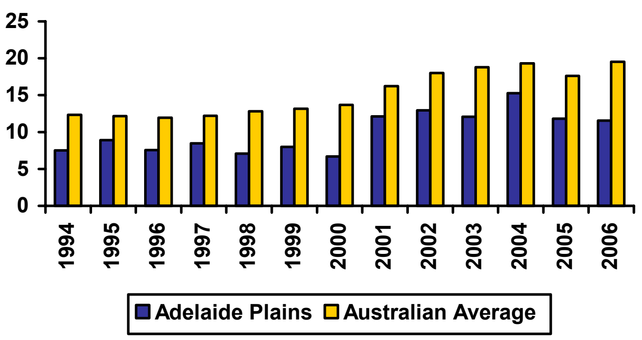
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	420	503	409	758	615	419	385	354	419	464	207
Rank	58	49	60	58	60	55	47	60	56	57	59

PATENT APPLICATIONS

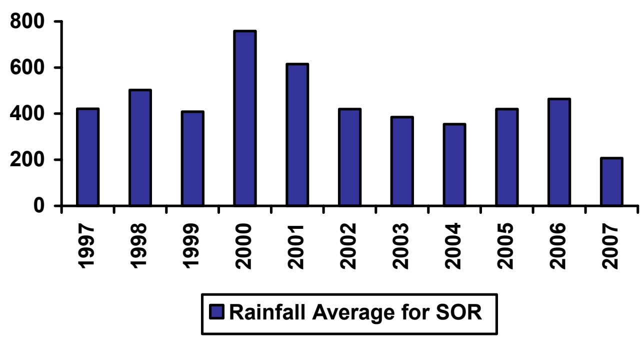
	No	Aust Avg	Rank
Average p.a. (1994-2005)	47.90	46.04	20
Average p.a. per capita	9.99	12.17	25
Hi Tech p.a. (1994-2005)	11.30	12.38	16
Hi Tech p.a. per capita	2.34	2.98	17
Info. Tech p.a. (1994-2005)	3.36	4.75	16
Info. Tech p.a. per capita	0.69	1.13	21
Average per capita (1994-2000)	8.28	10.48	30
Average per capita (2000-2005)	12.62	14.53	22
2000-05 avg./1994-00 avg.	1.52	1.36	13

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



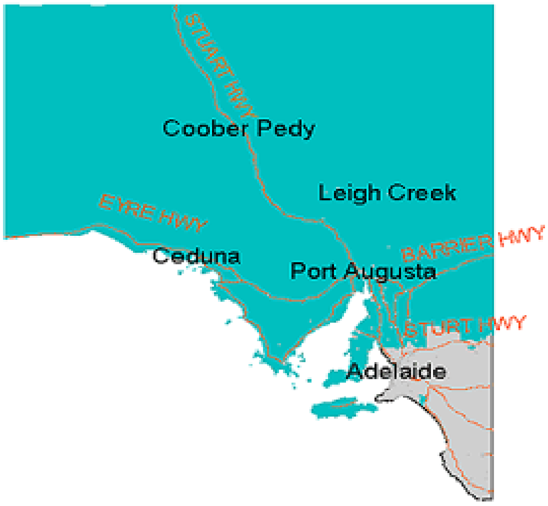
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	22.8	23.0	22.7	23.9
Rank	34	32	33	28
Days Over 35C	35	27	29	36
Rank	10	12	14	15

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	386
Rank	19

SA Eyre and Yorke



Eyre and Yorke comprise five distinct sub-regions.

- Kangaroo Island – an agricultural shire increasingly involved in tourism.
- Eyre Peninsula and the SA West Coast is wheat/sheep country. Port Lincoln is the major centre, known for its fishing and grain export port.
- The Upper Spencer Gulf comprises the three industrial cities of Whyalla, Port Augusta and Port Pirie. All are involved in the processing of minerals railed from the interior, with steel production at Whyalla, base metals smelting at Port Pirie, and electric power at Port Augusta.
- The SA Outback comprises the northern two-thirds of the state. It has scattered pastoral stations, mines, Aboriginal communities and tourist attractions including the Flinders Ranges.
- The Mid and Upper North is again wheat/sheep country. The Clare Valley is slightly higher than the rest and is wet enough to support viticulture.

Major centres:

Port Pirie, Port Augusta, Whyalla, Port Lincoln

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	162	162	163	163	164	165	0.1%	0.1%	0.3%	0.4%	0.6%	0.2%	0.5%
No. Households	66	67	68	69	70	71	1.1%	1.2%	1.3%	1.4%	1.4%	1.2%	1.4%
NIEIR Workforce	69	70	69	68	69	70	1.6%	-1.7%	-0.2%	0.2%	1.4%	-0.1%	0.8%
NIEIR Employment	59	60	59	60	62	62	2.8%	-2.3%	1.6%	3.2%	0.4%	0.7%	1.8%
NIEIR Unemployment	10.2	9.7	9.9	8.8	7.1	7.8	-5.2%	2.2%	-10.9%	-19.8%	10.1%	-4.8%	-6.1%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	14.8%	13.9%	14.4%	12.9%	10.3%	11.2%	-1.0	0.5	-1.5	-2.6	0.9	-0.7	-0.8
Headline U/E	8.6%	7.8%	7.9%	6.3%	4.2%	4.7%	-0.8	0.1	-1.6	-2.1	0.5	-0.8	-0.8
NIEIR Structural U/E	21.5%	22.3%	21.8%	21.7%	20.1%	19.3%	0.8	-0.5	-0.1	-1.6	-0.8	0.1	-1.2

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,173	2,210	2,185	2,356	2,510	2,631	13,393	13,608	13,437	14,448	15,340	15,984	2.7%	5.7%
Taxes Paid	943	790	838	848	909	838	5,813	4,865	5,156	5,204	5,555	5,093	-3.5%	-0.6%
Benefits	701	709	788	793	768	800	4,319	4,363	4,846	4,866	4,691	4,862	4.2%	0.4%
Business Income	1,704	1,002	1,120	929	932	616	10,502	6,170	6,890	5,698	5,693	3,741	-18.3%	-18.6%
Interest Paid	188	219	259	285	296	336	1,158	1,348	1,591	1,747	1,810	2,042	14.9%	8.6%
Property Income	1,642	1,355	1,370	1,457	1,704	1,749	10,122	8,340	8,427	8,938	10,413	10,621	-3.9%	9.5%
Disposable Income	5,175	4,320	4,429	4,466	4,808	4,722	31,899	26,599	27,242	27,389	29,378	28,681	-4.8%	2.8%
Rank							7	14	17	17	15	19		
%Rank #1							82%	69%	68%	65%	66%	61%		
Business Value Added	3,876	3,212	3,305	3,285	3,442	3,247	23,894	19,778	20,327	20,146	21,033	19,725	-5.4%	-0.6%
Rank							21	44	48	53	50	54		
%Rank #1							64%	53%	52%	49%	48%	43%		
Business Productivity							47,346	46,887	46,488	47,959	48,184	49,925	0.4%	2.0%
Rank							30	35	48	46	48	44		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.10%	0.08%
Disability Support (aged 20-24)	0.18%	0.14%
Disability Support (aged 25+)	4.74%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.06%	0.04%
Parenting Payment - Single (aged 20-24)	0.28%	0.21%
Parenting Payment - Single (aged 25+)	1.78%	1.64%
Unemployed Long Term	2.00%	1.20%
Unemployed Short Term	0.88%	0.79%
Youth Allowance - Non Student	0.64%	0.32%
Youth Allowance - Student	0.98%	1.27%

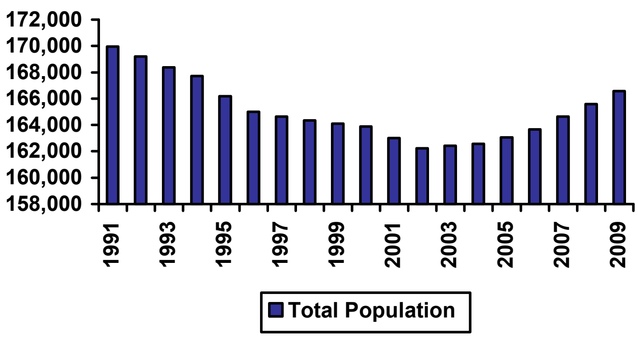
Cash Benefits Share of Disposable Income	Share	Rank
2002	13.5%	49
2003	16.4%	38
2004	17.8%	33
2005	17.8%	30
2006	16.0%	37
2007	17.0%	30

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	42.5	62
Share of population under 55	71.5	55
Aged migration	4.4	25
Population growth rate, 55+	1.8	52
Demographic stress	-10.0	60
Dominant locations	59.1	51
Family / Youth migration	-2.1	60
Fertility bounce, 1996-2005	-0.2	60
Fertility, babies % pop, 2005	1.2	51
Fertility, babies % pop, 2005	40.4	63
Working elderly	24.8	45

Local Government Level		Score	Rank
Most Sustainable	Roxby Downs (M)	87.1	2
Least Sustainable	Orroroo/Carrieton (DC)	18.3	626

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.28%	36
2002	1.23%	35
2003	1.19%	37
2004	1.20%	39
2005	1.18%	44
2006	1.19%	51
Bounce 2004-05	-0.02%	49
Actual Change 2004-05 (Number)	-35	46
Bounce 2005-06	0.01%	50
Actual Change 2005-06 (Number)	26	53

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$4,376	2
Carbon Price Loss Cost (@$33 a tonne of carbon)	$892	60
Water Security Cost	$702	16
Total	$5,970	2

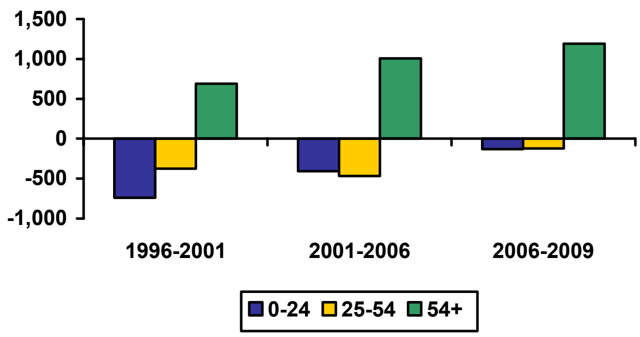
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	6.42%	2
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.31%	52
Water Security Cost	1.03%	27
Total	8.76%	3

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.67%	4
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.14%	60
Water Security Cost	0.11%	41
Total	0.92%	13

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	34.9%	33.1%	31.7%	30.9%
Age 25-55	42.0%	41.4%	39.8%	38.9%
Age 55+	23.2%	25.6%	28.5%	30.2%
Population Change (average between years)				
Age 0-24		-739	-405	-131
Age 25-55		-373	-467	-124
Age 55+		690	1,006	1,193
Average Age	36.9	38.5	40.3	41.4
Average Annual Growth		-0.2%	0.1%	0.6%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	768	652	3	9	66%	56%
Value of Property and Unincorporated Business	155	162	62	61	22%	25%
Value of Financial Assets	669	564	1	3	100%	78%
Value of Household Liabilities	57	74	60	63	46%	33%
Disposable Income after Debt Service Costs	71	68	14	19	69%	61%
Household Debt Service Ratio	9%	13%	61	63	49%	49%
Household Debt to Gross Income Ratio	0.70	0.90	61	63	49%	49%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	110	118	183	197	207	65%
Non Residential	71	63	104	119	120	81%
Total	181	196	287	316	327	58%
Value per capita $2004/05						
Residential	648	713	1,118	1,199	1,258	67%
Non Residential	433	387	633	722	727	79%
Total	1,084	1,058	1,751	1,921	1,985	78%
Rank (value per capita)						
Residential	53	56	43	40	40	
Non Residential	58	62	50	40	42	
Total	59	59	50	40	42	

RAINFALL

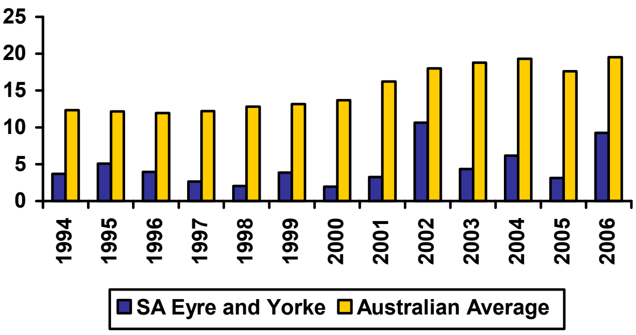
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	375	402	322	553	595	341	270	277	280	349	200
Rank	61	59	62	64	61	61	58	64	63	62	60

PATENT APPLICATIONS

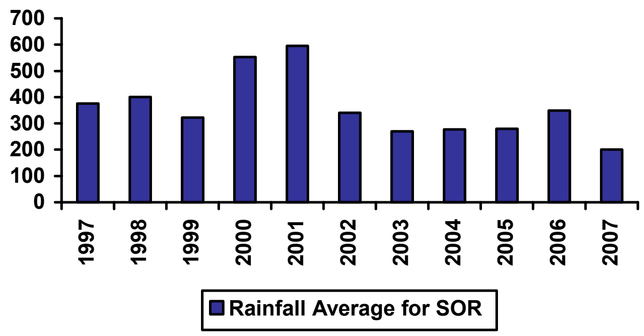
	No	Aust Avg	Rank
Average p.a. (1994-2005)	7.57	46.04	55
Average p.a. per capita	4.62	12.17	59
Hi Tech p.a. (1994-2005)	1.11	12.38	53
Hi Tech p.a. per capita	0.68	2.98	56
Info. Tech p.a. (1994-2005)	0.30	4.75	48
Info. Tech p.a. per capita	0.19	1.13	49
Average per capita (1994-2000)	3.32	10.48	62
Average per capita (2000-2005)	6.13	14.53	54
2000-05 avg./1994-00 avg.	1.85	1.36	2

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



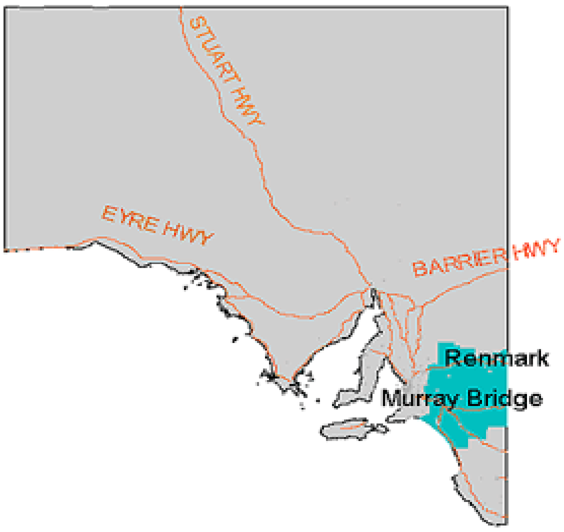
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	24.0	24.3	23.8	24.3
Rank	23	20	23	25
Days Over 35C	45	37	40	40
Rank	7	7	8	12

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	59
Rank	53

SA Murraylands



The Murray Mallee of SA adjoins the Mallee of Victoria, and has a similar pattern of development: intensive irrigated agriculture along the river, and extensive wheat/sheep farming away from it. The Riverland has a number of industries processing farm products.

Major centres:

Renmark, Murray Bridge

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	69	69	69	69	69	70	-0.1%	0.3%	0.5%	0.4%	0.9%	0.2%	0.7%
No. Households	28	28	28	29	29	29	1.1%	1.2%	1.1%	1.2%	1.5%	1.2%	1.4%
NIEIR Workforce	30	31	30	31	31	31	1.2%	-0.5%	0.5%	1.0%	0.6%	0.4%	0.8%
NIEIR Employment	27	27	27	28	28	28	1.0%	0.5%	0.5%	2.2%	-0.7%	0.7%	0.7%
NIEIR Unemployment	3.2	3.3	3.0	3.0	2.7	3.1	2.9%	-8.8%	1.2%	-9.9%	14.5%	-1.7%	1.6%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.4%	10.6%	9.7%	9.8%	8.7%	10.0%	0.2	-0.9	0.1	-1.1	1.2	-0.2	0.1
Headline U/E	6.3%	5.8%	5.0%	5.0%	4.3%	5.2%	-0.4	-0.9	0.1	-0.7	0.8	-0.4	0.1
NIEIR Structural U/E	18.3%	19.1%	18.5%	18.3%	17.6%	17.4%	0.8	-0.5	-0.2	-0.8	-0.1	0.0	-0.4

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	893	886	896	940	969	1,008	13,028	12,930	13,040	13,605	13,975	14,398	1.7%	3.6%
Taxes Paid	362	310	343	348	361	275	5,281	4,522	4,986	5,044	5,209	3,933	-1.3%	-11.1%
Benefits	295	298	331	338	327	339	4,301	4,344	4,809	4,890	4,715	4,851	4.6%	0.3%
Business Income	940	664	754	704	749	347	13,711	9,689	10,970	10,200	10,804	4,956	-9.2%	-29.8%
Interest Paid	90	101	120	128	129	146	1,313	1,480	1,744	1,852	1,856	2,093	12.4%	7.0%
Property Income	265	250	262	289	313	313	3,863	3,649	3,812	4,191	4,512	4,471	3.0%	4.0%
Disposable Income	1,977	1,715	1,812	1,824	1,909	1,614	28,837	25,021	26,360	26,416	27,527	23,057	-2.6%	-6.0%
Rank							12	19	21	22	22	50		
%Rank #1							74%	65%	66%	63%	62%	49%		
Business Value Added	1,834	1,550	1,650	1,644	1,718	1,354	26,739	22,618	24,010	23,805	24,779	19,354	-3.6%	-9.2%
Rank							10	22	22	26	23	58		
%Rank #1							71%	60%	62%	57%	56%	42%		
Business Productivity							48,358	46,950	47,012	48,493	48,485	49,679	0.1%	1.2%
Rank							28	33	44	40	46	45		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.15%	0.14%
Disability Support (aged 25+)	4.72%	3.13%
Mature Age Allowance	0.01%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.19%	0.21%
Parenting Payment - Single (aged 25+)	1.86%	1.64%
Unemployed Long Term	1.65%	1.20%
Unemployed Short Term	1.01%	0.79%
Youth Allowance - Non Student	0.52%	0.32%
Youth Allowance - Student	1.09%	1.27%

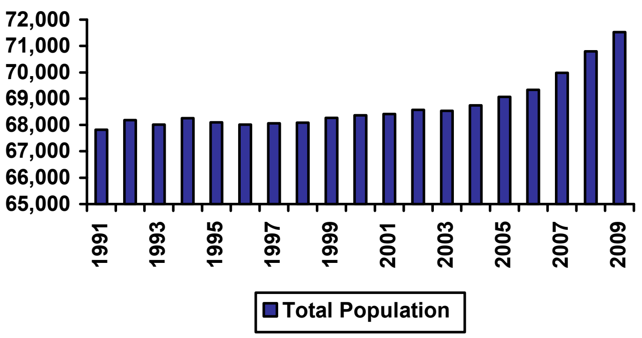
Cash Benefits Share of Disposable Income	Share	Rank
2002	14.9%	42
2003	17.4%	29
2004	18.2%	30
2005	18.5%	23
2006	17.1%	28
2007	21.0%	10

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	50.0	58
Share of population under 55	71.3	56
Aged migration	4.2	31
Population growth rate, 55+	2.0	47
Demographic stress	-2.3	56
Dominant locations	45.0	60
Family / Youth migration	-0.9	53
Fertility bounce, 1996-2005	-0.2	52
Fertility, babies % pop, 2005	1.2	48
Fertility, babies % pop, 2005	44.0	62
Working elderly	28.3	29

Local Government Level		Score	Rank
Most Sustainable	Murray Bridge (RC)	54.2	309
Least Sustainable	Karoonda East Murray (DC)	24.9	594

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.24%	46
2002	1.28%	24
2003	1.13%	53
2004	1.19%	43
2005	1.18%	42
2006	1.20%	48
Bounce 2004-05	-0.01%	36
Actual Change 2004-05 (Number)	-3	37
Bounce 2005-06	0.01%	47
Actual Change 2005-06 (Number)	13	56

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$721	23
Carbon Price Loss Cost (@$33 a tonne of carbon)	$962	50
Water Security Cost	$1,479	2
Total	$3,162	12

Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.30%	22
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.74%	25
Water Security Cost	2.68%	2
Total	5.72%	10

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.25%	19
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.33%	12
Water Security Cost	0.51%	1
Total	1.08%	6

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	34.4%	32.7%	31.4%	30.6%
Age 25-55	42.2%	41.9%	39.9%	38.7%
Age 55+	23.4%	25.4%	28.7%	30.7%
Population Change (average between years)				
Age 0-24		-201	-122	46
Age 25-55		-13	-200	15
Age 55+		290	508	667
Average Age	37.3	38.7	40.2	41.2
Average Annual Growth		0.1%	0.3%	1.0%

Population Change by Age Group

HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	361	292	27	55	31%	25%
Value of Property and Unincorporated Business	155	149	63	63	21%	23%
Value of Financial Assets	273	221	16	37	41%	31%
Value of Household Liabilities	66	78	48	60	54%	35%
Disposable Income after Debt Service Costs	68	55	16	54	66%	49%
Household Debt Service Ratio	11%	16%	52	55	59%	61%
Household Debt to Gross Income Ratio	0.83	1.13	52	55	58%	61%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	49	48	66	79	90	62%
Non Residential	27	42	39	45	49	6%
Total	76	95	106	124	139	30%
Value per capita $2004/05						
Residential	710	689	959	1,128	1,283	63%
Non Residential	390	606	565	639	703	5%
Total	1,071	1,199	1,524	1,767	1,986	47%
Rank (value per capita)						
Residential	50	57	54	45	37	
Non Residential	62	35	56	51	48	
Total	60	57	55	46	41	

RAINFALL

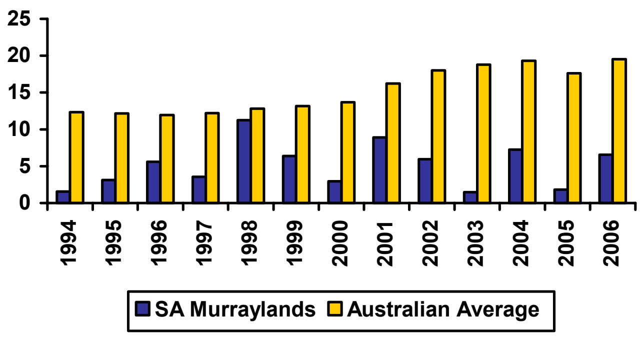
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	309	353	307	619	474	314	264	300	367	349	170
Rank	63	62	63	62	63	63	59	63	60	61	64

PATENT APPLICATIONS

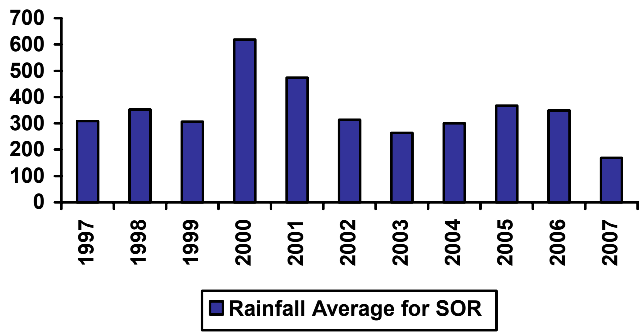
	No	Aust Avg	Rank
Average p.a. (1994-2005)	3.49	46.04	59
Average p.a. per capita	5.11	12.17	57
Hi Tech p.a. (1994-2005)	0.32	12.38	61
Hi Tech p.a. per capita	0.47	2.98	60
Info. Tech p.a. (1994-2005)	0.07	4.75	61
Info. Tech p.a. per capita	0.10	1.13	57
Average per capita (1994-2000)	5.41	10.48	53
Average per capita (2000-2005)	5.33	14.53	61
2000-05 avg./1994-00 avg.	0.98	1.36	61

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



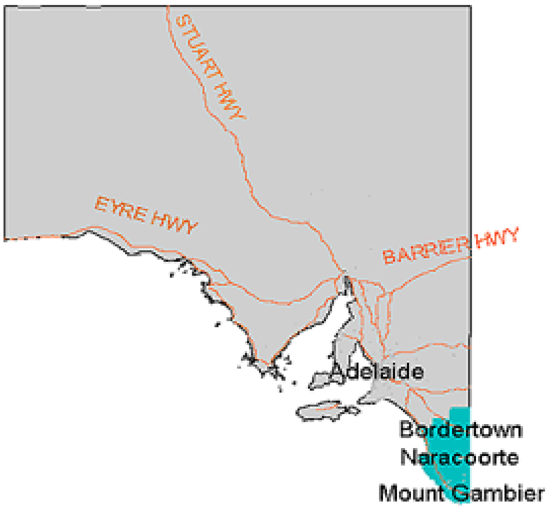
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	23.6	24.0	23.6	24.0
Rank	24	22	24	27
Days Over 35C	36	32	34	40
Rank	8	10	11	13

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	29
Rank	61

SA South East



Though quite flat, the South East of South Australia is limestone country with the remnants of recent volcanic activity round Mt Gambier. It has been a grazing rather than a grain-growing area, but lately has developed viticulture round Penola and a plantation-based timber products industry centred on Mt Gambier.

Major centres:

Mt Gambier

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	63	63	64	64	65	65	0.6%	0.6%	0.8%	0.8%	0.6%	0.6%	0.7%
No. Households	25	25	25	26	26	27	1.6%	1.8%	1.7%	1.7%	1.4%	1.7%	1.5%
NIEIR Workforce	31	31	31	31	32	32	2.5%	-0.2%	0.6%	1.7%	0.5%	1.0%	1.1%
NIEIR Employment	28	29	29	29	30	30	2.4%	0.5%	0.6%	2.1%	-0.5%	1.2%	0.8%
NIEIR Unemployment	2.3	2.3	2.1	2.1	2.0	2.4	2.9%	-9.4%	1.0%	-3.7%	16.0%	-2.0%	5.7%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	7.4%	7.4%	6.7%	6.8%	6.4%	7.4%	0.0	-0.7	0.0	-0.4	1.0	-0.2	0.3
Headline U/E	4.4%	4.1%	3.5%	3.5%	3.3%	4.1%	-0.3	-0.6	0.0	-0.2	0.8	-0.3	0.3
NIEIR Structural U/E	11.7%	12.0%	11.8%	11.9%	11.6%	11.9%	0.4	-0.2	0.1	-0.3	0.3	0.1	0.0

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,041	1,048	1,057	1,095	1,125	1,151	16,546	16,561	16,615	17,082	17,416	17,700	1.7%	2.5%
Taxes Paid	338	331	352	356	325	306	5,380	5,231	5,531	5,551	5,031	4,701	1.7%	-7.3%
Benefits	242	243	266	273	264	274	3,850	3,839	4,177	4,265	4,085	4,213	4.1%	0.1%
Business Income	589	508	524	469	318	221	9,362	8,026	8,235	7,315	4,922	3,396	-7.3%	-31.4%
Interest Paid	89	100	118	128	133	150	1,409	1,576	1,851	1,992	2,051	2,302	12.9%	8.3%
Property Income	263	287	297	340	360	405	4,177	4,530	4,661	5,299	5,570	6,234	8.9%	9.2%
Disposable Income	1,735	1,680	1,699	1,719	1,639	1,627	27,583	26,558	26,709	26,817	25,371	25,018	-0.3%	-2.7%
Rank							14	15	19	20	27	33		
%Rank #1							71%	69%	67%	64%	57%	53%		
Business Value Added	1,630	1,555	1,581	1,564	1,443	1,372	25,908	24,587	24,850	24,397	22,338	21,096	-1.4%	-6.3%
Rank							12	12	19	22	36	45		
%Rank #1							69%	65%	64%	59%	51%	46%		
Business Productivity							48,433	47,295	47,224	48,411	48,100	49,048	0.0%	0.7%
Rank							27	31	43	42	49	49		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.16%	0.14%
Disability Support (aged 25+)	3.10%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.08%	0.04%
Parenting Payment - Single (aged 20-24)	0.21%	0.21%
Parenting Payment - Single (aged 25+)	1.62%	1.64%
Unemployed Long Term	1.54%	1.20%
Unemployed Short Term	0.77%	0.79%
Youth Allowance - Non Student	0.42%	0.32%
Youth Allowance - Student	0.93%	1.27%

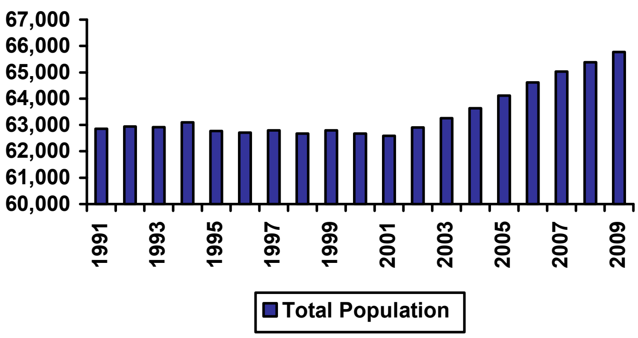
Cash Benefits Share of Disposable Income	Share	Rank
2002	14.0%	46
2003	14.5%	47
2004	15.6%	47
2005	15.9%	43
2006	16.1%	35
2007	16.8%	33

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	68.9	51
Share of population under 55	75.4	29
Aged migration	3.3	58
Population growth rate, 55+	1.8	52
Demographic stress	-0.3	54
Dominant locations	62.2	49
Family / Youth migration	-1.4	56
Fertility bounce, 1996-2005	-0.2	34
Fertility, babies % pop, 2005	1.3	32
Fertility, babies % pop, 2005	49.0	54
Working elderly	31.1	12

Local Government Level		Score	Rank
Most Sustainable	Mount Gambier (C)	56.1	280
Least Sustainable	Wattle Range (DC)	35.9	475

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.34%	26
2002	1.34%	20
2003	1.34%	16
2004	1.28%	26
2005	1.31%	22
2006	1.30%	32
Bounce 2004-05	0.03%	16
Actual Change 2004-05 (Number)	27	27
Bounce 2005-06	-0.01%	58
Actual Change 2005-06 (Number)	2	57

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,413	12
Carbon Price Loss Cost (@$33 a tonne of carbon)	$937	52
Water Security Cost	$567	34
Total	$2,917	15

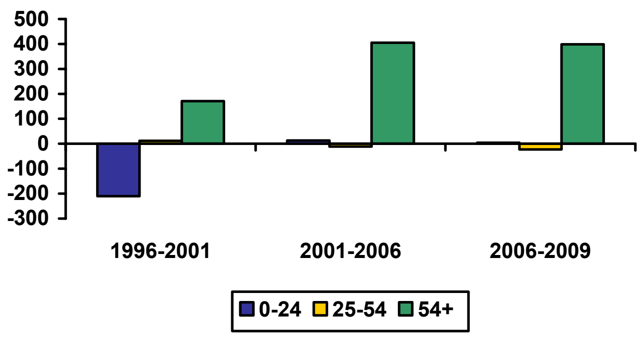
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	2.33%	13
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.54%	37
Water Security Cost	0.93%	33
Total	4.80%	18

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.34%	13
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.23%	45
Water Security Cost	0.14%	33
Total	0.70%	20

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.0%	34.4%	33.4%	32.8%
Age 25-55	43.2%	43.4%	42.0%	41.1%
Age 55+	20.8%	22.2%	24.7%	26.1%
Population Change (average between years)				
Age 0-24		-210	13	4
Age 25-55		12	-11	-23
Age 55+		170	405	399
Average Age	35.9	37.3	38.6	39.4
Average Annual Growth		0.0%	0.6%	0.6%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	387	415	21	28	33%	35%
Value of Property and Unincorporated Business	172	175	56	58	24%	27%
Value of Financial Assets	287	327	13	18	43%	45%
Value of Household Liabilities	72	88	42	58	59%	39%
Disposable Income after Debt Service Costs	66	61	18	38	64%	54%
Household Debt Service Ratio	12%	16%	48	54	64%	61%
Household Debt to Gross Income Ratio	0.91	1.14	48	54	64%	61%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	44	55	72	69	76	30%
Non Residential	27	31	30	32	33	3%
Total	71	93	101	100	109	12%
Value per capita $2004/05						
Residential	692	839	1,109	1,052	1,162	32%
Non Residential	431	481	460	488	504	1%
Total	1,138	1,290	1,569	1,540	1,666	23%
Rank (value per capita)						
Residential	51	52	45	46	45	
Non Residential	59	55	62	60	61	
Total	55	54	54	55	53	

RAINFALL

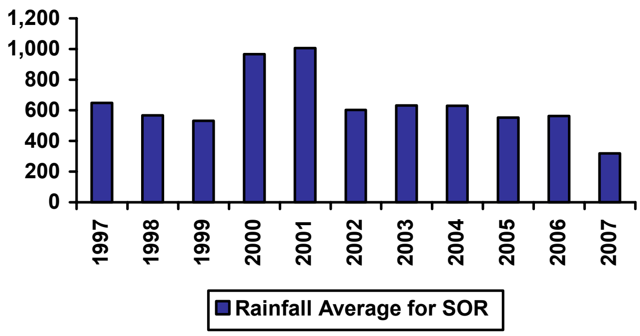
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	648	566	531	966	1,005	602	632	630	552	562	318
Rank	43	43	54	42	47	43	28	35	47	46	43

PATENT APPLICATIONS

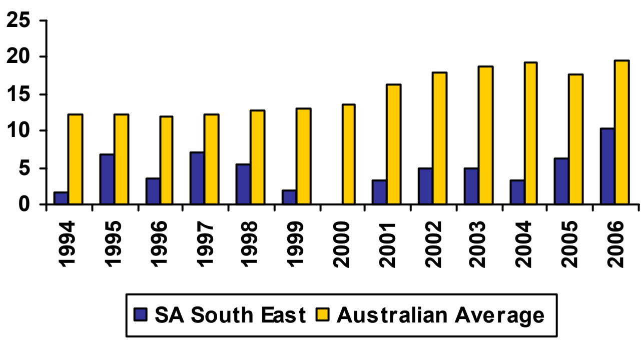
	No	Aust Avg	Rank
Average p.a. (1994-2005)	2.87	46.04	60
Average p.a. per capita	4.53	12.17	60
Hi Tech p.a. (1994-2005)	0.23	12.38	62
Hi Tech p.a. per capita	0.36	2.98	62
Info. Tech p.a. (1994-2005)	0.08	4.75	57
Info. Tech p.a. per capita	0.12	1.13	56
Average per capita (1994-2000)	3.66	10.48	60
Average per capita (2000-2005)	5.49	14.53	59
2000-05 avg./1994-00 avg.	1.50	1.36	15

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



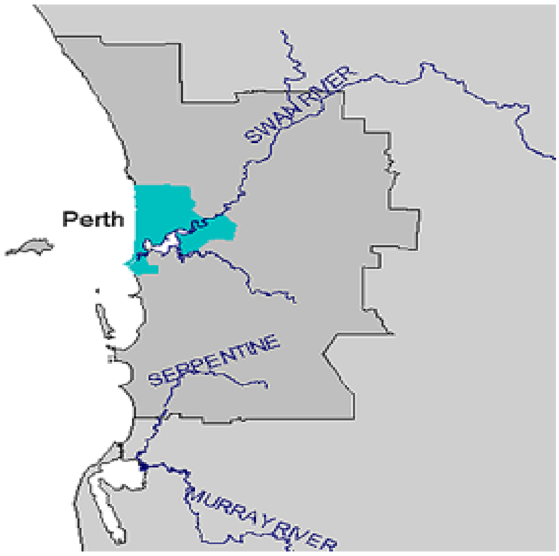
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	19.1	20.2	19.7	20.2
Rank	54	50	55	53
Days Over 35C	7	10	10	15
Rank	54	36	43	34

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	31
Rank	60

Perth Central



For its first century, what is now metropolitan Perth included several distinct population centres – Fremantle, Perth and others up-river to Guildford. All this was filled in after the second world war, and our region of Central Perth includes all the old centres and all that is between. It thus includes the container port, the established eastern and inner southern suburbs, and long-established manufacturing in Bayswater. Though the region is diverse, the city centre dominates its economic base. The city centre shares educational, cultural and tourism functions with Fremantle.

Major centres:

Perth, Fremantle

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	432	437	443	449	456	463	1.3%	1.2%	1.4%	1.5%	1.7%	1.3%	1.6%
No. Households	184	186	188	189	191	193	0.9%	1.0%	0.9%	1.0%	1.0%	0.9%	1.0%
NIEIR Workforce	234	237	239	246	256	259	1.3%	0.9%	3.0%	3.9%	1.2%	1.7%	2.5%
NIEIR Employment	213	217	221	230	242	248	2.3%	1.5%	4.4%	5.1%	2.3%	2.7%	3.7%
NIEIR Unemployment	21.2	19.3	18.4	15.8	13.7	11.2	-9.2%	-4.7%	-14.1%	-13.4%	-17.7%	-9.4%	-15.6%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	9.1%	8.1%	7.7%	6.4%	5.3%	4.3%	-0.9	-0.5	-1.3	-1.1	-1.0	-0.9	-1.0
Headline U/E	7.6%	7.0%	6.6%	5.7%	4.7%	3.9%	-0.6	-0.4	-0.9	-1.0	-0.8	-0.6	-0.9
NIEIR Structural U/E	11.8%	11.8%	11.1%	10.4%	9.3%	8.5%	0.0	-0.7	-0.8	-1.1	-0.8	-0.5	-0.9

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	8,777	9,401	9,898	10,500	11,390	12,267	20,333	21,499	22,367	23,402	25,001	26,479	6.2%	8.1%
Taxes Paid	2,513	2,666	2,796	3,005	3,209	3,452	5,821	6,096	6,319	6,699	7,043	7,451	6.2%	7.2%
Benefits	1,439	1,443	1,570	1,621	1,659	1,673	3,333	3,300	3,548	3,613	3,641	3,611	4.1%	1.6%
Business Income	2,302	2,612	2,884	2,929	3,102	3,467	5,333	5,973	6,516	6,529	6,810	7,484	8.4%	8.8%
Interest Paid	712	877	1,140	1,416	1,722	2,089	1,649	2,006	2,576	3,157	3,780	4,510	25.8%	21.5%
Property Income	1,599	1,867	2,097	2,422	2,724	3,225	3,705	4,270	4,738	5,398	5,978	6,962	14.8%	15.4%
Disposable Income	11,152	12,029	12,769	13,380	14,356	15,622	25,836	27,509	28,853	29,823	31,511	33,722	6.3%	8.1%
Rank							19	9	11	11	10	9		
%Rank #1							66%	71%	72%	71%	70%	72%		
Business Value Added	11,079	12,013	12,782	13,429	14,493	15,734	25,666	27,472	28,883	29,932	31,810	33,963	6.6%	8.2%
Rank							14	7	7	8	7	7		
%Rank #1							69%	73%	74%	72%	72%	74%		
Business Productivity							51,195	54,239	56,941	57,304	58,403	62,225	3.8%	4.2%
Rank							11	9	8	10	9	8		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

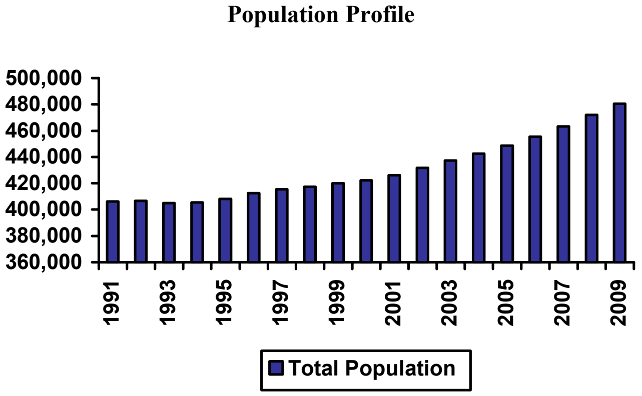
	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.11%	0.14%
Disability Support (aged 25+)	2.78%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.16%	0.21%
Parenting Payment - Single (aged 25+)	1.16%	1.64%
Unemployed Long Term	0.80%	1.20%
Unemployed Short Term	0.57%	0.79%
Youth Allowance - Non Student	0.14%	0.32%
Youth Allowance - Student	1.46%	1.27%

Cash Benefits Share of Disposable Income	Share	Rank
2002	12.9%	53
2003	12.0%	54
2004	12.3%	54
2005	12.1%	54
2006	11.6%	51
2007	10.7%	55

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	93.6	11
Share of population under 55	74.8	31
Aged migration	5.4	14
Population growth rate, 55+	1.4	62
Demographic stress	16.8	29
Dominant locations	100.0	2
Family / Youth migration	6.8	4
Fertility bounce, 1996-2005	0.0	7
Fertility, babies % pop, 2005	1.2	57
Fertility, babies % pop, 2005	65.7	16
Working elderly	25.3	42

Local Government Level		Score	Rank
Most Sustainable	Perth (C)	84.0	9
Least Sustainable	Peppermint Grove (S)	43.7	404



BABY BOUNCE

	Per cent	Rank
2001	1.11%	62
2002	1.09%	60
2003	1.08%	59
2004	1.15%	54
2005	1.17%	48
2006	1.15%	57
Bounce 2004-05	0.02%	21
Actual Change 2004-05 (Number)	155	15
Bounce 2005-06	-0.02%	60
Actual Change 2005-06 (Number)	-2	59

CLIMATE COST

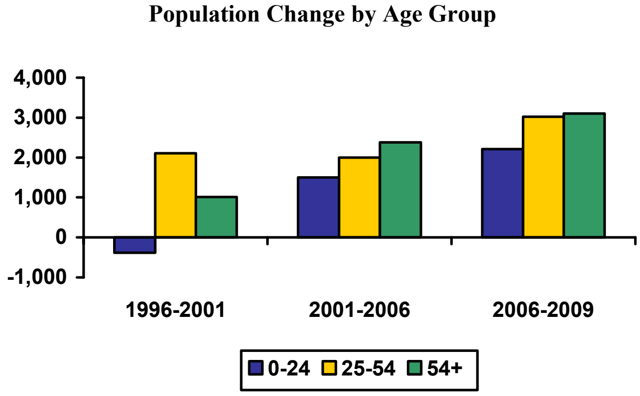
Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$116	50
Carbon Price Loss Cost (@$33 a tonne of carbon)	$902	56
Water Security Cost	$676	24
Total	$1,694	47

Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.16%	50
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.24%	58
Water Security Cost	0.93%	34
Total	2.33%	55

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.02%	52
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.14%	61
Water Security Cost	0.10%	43
Total	0.26%	58

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	32.4%	30.9%	30.5%	30.3%
Age 25-55	43.9%	45.0%	44.3%	43.8%
Age 55+	23.7%	24.2%	25.2%	25.8%
Population Change (average between years)				
Age 0-24		-383	1,499	2,216
Age 25-55		2,109	1,999	3,021
Age 55+		1,011	2,382	3,107
Average Age	38.5	39.1	39.6	39.4
Average Annual Growth		0.7%	1.3%	1.8%



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	441	663	15	8	38%	57%
Value of Property and Unincorporated Business	306	507	13	6	42%	78%
Value of Financial Assets	199	315	23	19	30%	44%
Value of Household Liabilities	64	159	50	10	52%	70%
Disposable Income after Debt Service Costs	59	73	29	16	57%	65%
Household Debt Service Ratio	12%	22%	51	17	60%	83%
Household Debt to Gross Income Ratio	0.86	1.54	51	18	60%	83%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	818	905	985	1,059	1,000	12%
Non Residential	428	636	651	682	691	6%
Total	1,246	1,533	1,636	1,741	1,691	10%
Value per capita $2004/05						
Residential	1,852	2,023	2,163	2,292	2,143	9%
Non Residential	1,017	1,445	1,429	1,477	1,481	1%
Total	2,815	3,366	3,591	3,768	3,625	9%
Rank (value per capita)						
Residential	7	6	5	4	8	
Non Residential	11	4	7	7	8	
Total	10	5	7	7	10	

RAINFALL

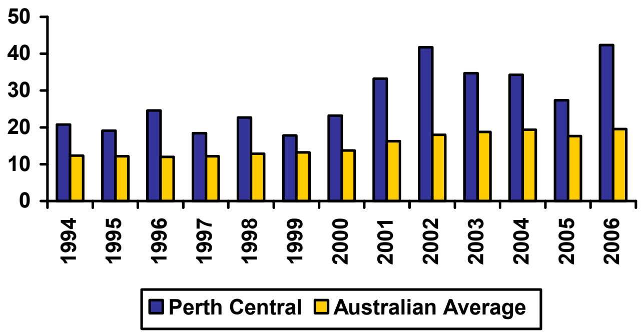
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	821	624	716	982	875	694	477	568	896	499	438
Rank	25	36	41	40	50	35	39	41	18	49	33

PATENT APPLICATIONS

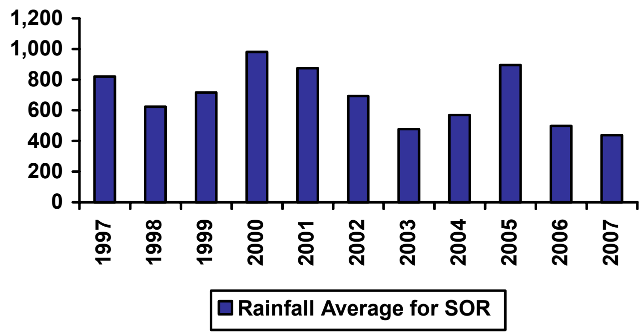
	No	Aust Avg	Rank
Average p.a. (1994-2005)	119.09	46.04	8
Average p.a. per capita	27.70	12.17	5
Hi Tech p.a. (1994-2005)	37.79	12.38	6
Hi Tech p.a. per capita	8.74	2.98	5
Info. Tech p.a. (1994-2005)	10.14	4.75	10
Info. Tech p.a. per capita	2.34	1.13	7
Average per capita (1994-2000)	22.46	10.48	4
Average per capita (2000-2005)	35.61	14.53	5
2000-05 avg./1994-00 avg.	1.59	1.36	7

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



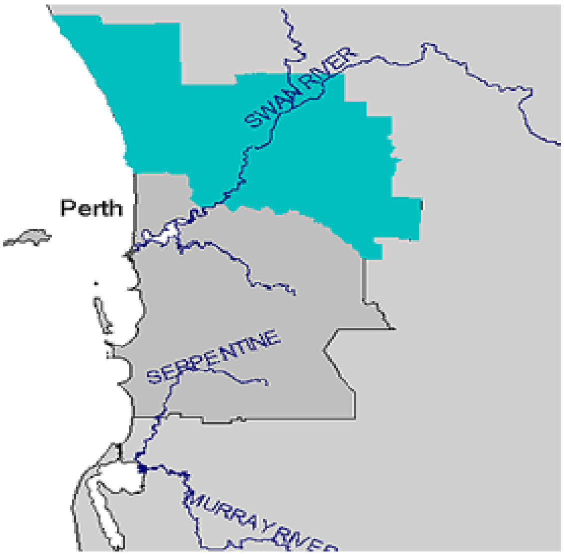
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	24.1	23.9	23.1	25.5
Rank	19	24	28	15
Days Over 35C	19	22	16	55
Rank	27	20	29	6

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	1277
Rank	7

Perth Outer North



The Outer North of Perth comprises a coastal strip of commuter suburbs developed over the last few decades, plus, inland, the older-established Shires of Swan and Mundaring. The area is largely a commuter zone, but its older parts have manufacturing industries and high-intensity rural production. Above the scarp of the Darling Ranges is an important water catchment. There are grave concerns that this catchment is drying out as a result of climate change.

Major centres:

Joondalup, Midland

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	440	449	459	469	480	492	2.1%	2.1%	2.3%	2.3%	2.6%	2.2%	2.5%
No. Households	155	161	166	172	178	185	3.4%	3.5%	3.5%	3.6%	3.7%	3.5%	3.7%
NIEIR Workforce	232	236	239	248	261	267	2.0%	1.2%	3.9%	4.9%	2.3%	2.3%	3.6%
NIEIR Employment	214	220	224	234	247	254	2.7%	1.7%	4.5%	5.6%	3.1%	3.0%	4.3%
NIEIR Unemployment	17.6	16.5	15.5	14.7	13.9	12.3	-6.4%	-5.9%	-5.3%	-5.0%	-11.5%	-5.9%	-8.3%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	7.6%	7.0%	6.5%	5.9%	5.3%	4.6%	-0.6	-0.5	-0.6	-0.6	-0.7	-0.6	-0.6
Headline U/E	6.5%	5.8%	5.3%	4.6%	4.2%	3.6%	-0.7	-0.5	-0.7	-0.4	-0.6	-0.6	-0.5
NIEIR Structural U/E	10.3%	10.2%	9.9%	9.3%	8.2%	7.6%	-0.1	-0.3	-0.6	-1.0	-0.7	-0.3	-0.8

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	8,014	8,554	9,018	9,557	10,215	11,034	18,223	19,050	19,668	20,379	21,299	22,417	6.0%	7.4%
Taxes Paid	1,923	2,011	2,066	2,238	2,314	2,455	4,373	4,480	4,506	4,772	4,824	4,988	5.2%	4.7%
Benefits	1,420	1,444	1,608	1,694	1,684	1,728	3,230	3,216	3,506	3,613	3,511	3,512	6.1%	1.0%
Business Income	1,495	1,671	1,806	1,875	1,866	1,988	3,400	3,722	3,939	3,999	3,890	4,039	7.8%	3.0%
Interest Paid	885	1,040	1,285	1,484	1,698	2,001	2,013	2,316	2,803	3,165	3,540	4,066	18.8%	16.1%
Property Income	731	856	925	1,127	1,276	1,548	1,661	1,907	2,017	2,404	2,660	3,145	15.6%	17.2%
Disposable Income	9,038	9,654	10,183	10,763	11,319	12,219	20,553	21,501	22,209	22,951	23,600	24,826	6.0%	6.5%
Rank							50	47	49	48	46	35		
%Rank #1							53%	56%	55%	54%	53%	53%		
Business Value Added	9,509	10,225	10,824	11,433	12,081	13,022	21,623	22,772	23,606	24,378	25,189	26,456	6.3%	6.7%
Rank							31	21	23	23	22	19		
%Rank #1							58%	60%	61%	59%	57%	57%		
Business Productivity							43,570	45,618	47,541	48,169	48,570	50,966	3.4%	2.9%
Rank							49	44	40	44	44	37		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.06%	0.08%
Disability Support (aged 20-24)	0.11%	0.14%
Disability Support (aged 25+)	2.25%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.20%	0.21%
Parenting Payment - Single (aged 25+)	1.55%	1.64%
Unemployed Long Term	0.58%	1.20%
Unemployed Short Term	0.48%	0.79%
Youth Allowance - Non Student	0.14%	0.32%
Youth Allowance - Student	1.04%	1.27%

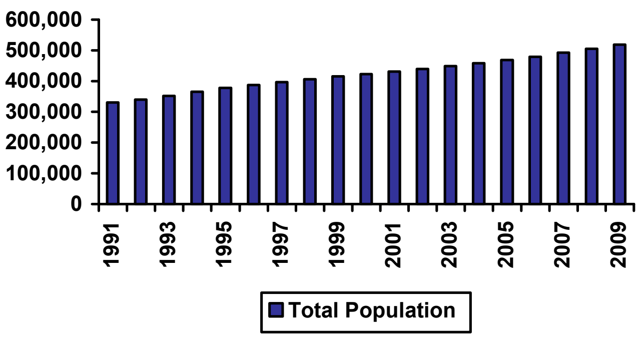
Cash Benefits Share of Disposable Income	Share	Rank
2002	15.7%	34
2003	15.0%	45
2004	15.8%	46
2005	15.7%	44
2006	14.9%	43
2007	14.1%	45

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	90.0	22
Share of population under 55	79.8	13
Aged migration	4.4	24
Population growth rate, 55+	4.9	5
Demographic stress	52.4	4
Dominant locations	100.0	2
Family / Youth migration	3.3	17
Fertility bounce, 1996-2005	-0.2	49
Fertility, babies % pop, 2005	1.4	22
Fertility, babies % pop, 2005	71.3	5
Working elderly	29.2	22

Local Government Level		Score	Rank
Most Sustainable	Wanneroo (C)	85.5	6
Least Sustainable	Bassendean (T)	55.9	283

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.33%	27
2002	1.30%	23
2003	1.28%	22
2004	1.31%	20
2005	1.29%	26
2006	1.36%	22
Bounce 2004-05	-0.01%	38
Actual Change 2004-05 (Number)	82	20
Bounce 2005-06	0.06%	22
Actual Change 2005-06 (Number)	443	5

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$59	54
Carbon Price Loss Cost (@$33 a tonne of carbon)	$897	58
Water Security Cost	$686	18
Total	$1,642	52

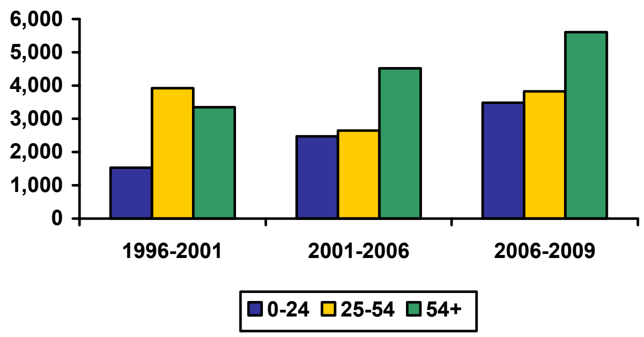
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.10%	54
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.45%	44
Water Security Cost	1.11%	19
Total	2.65%	47

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.02%	53
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.24%	37
Water Security Cost	0.18%	18
Total	0.44%	42

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	39.3%	37.0%	35.9%	35.2%
Age 25-55	45.9%	45.8%	43.9%	42.8%
Age 55+	14.9%	17.2%	20.2%	21.9%
Population Change (average between years)				
Age 0-24		1,527	2,474	3,483
Age 25-55		3,923	2,640	3,824
Age 55+		3,347	4,518	5,610
Average Age	33.5	35.0	36.6	37.2
Average Annual Growth		2.2%	2.1%	2.6%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	195	375	61	38	17%	32%
Value of Property and Unincorporated Business	226	412	30	11	31%	63%
Value of Financial Assets	70	134	62	59	11%	19%
Value of Household Liabilities	101	172	5	7	83%	76%
Disposable Income after Debt Service Costs	52	62	50	33	51%	55%
Household Debt Service Ratio	19%	26%	1	2	100%	100%
Household Debt to Gross Income Ratio	1.43	1.85	1	2	100%	100%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	703	737	816	870	802	13%
Non Residential	238	253	320	343	344	33%
Total	941	981	1,136	1,212	1,146	19%
Value per capita $2004/05						
Residential	1,753	1,571	1,701	1,769	1,597	7%
Non Residential	574	556	667	698	686	23%
Total	2,357	2,101	2,368	2,467	2,283	13%
Rank (value per capita)						
Residential	9	17	21	17	21	
Non Residential	43	45	45	43	49	
Total	15	20	23	21	27	

RAINFALL

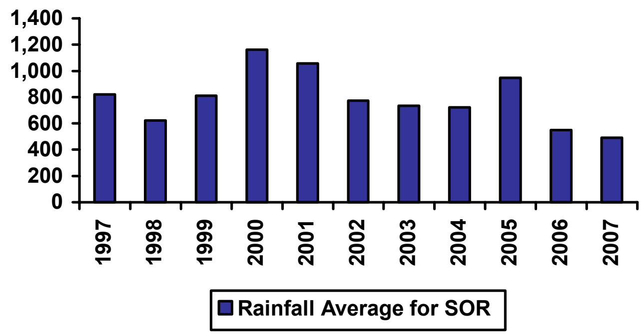
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	822	623	812	1,161	1,057	774	734	723	948	550	492
Rank	24	37	32	31	44	25	18	20	15	47	25

PATENT APPLICATIONS

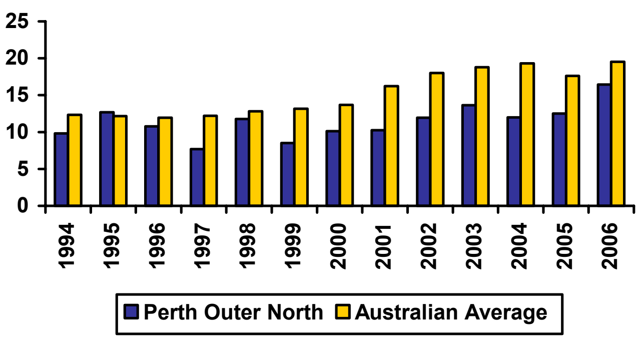
	No	Aust Avg	Rank
Average p.a. (1994-2005)	48.66	46.04	19
Average p.a. per capita	11.39	12.17	18
Hi Tech p.a. (1994-2005)	8.85	12.38	20
Hi Tech p.a. per capita	2.06	2.98	22
Info. Tech p.a. (1994-2005)	2.78	4.75	21
Info. Tech p.a. per capita	0.64	1.13	25
Average per capita (1994-2000)	10.20	10.48	18
Average per capita (2000-2005)	12.80	14.53	21
2000-05 avg./1994-00 avg.	1.25	1.36	41

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	24.4	24.1	23.2	25.6
Rank	18	21	27	14
Days Over 35C	24	25	16	48
Rank	19	14	27	10

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	363
Rank	20

Perth Outer South

Though Rockingham, at the far end of the Outer South of Perth, is a seaside suburb which bears comparison with the Outer North, the waterfront along Cockburn Sound is industrial, with bulk port facilities. There are also industrial and transport-oriented areas in the inland part of the region, as well as extensive commuter residential areas and several higher educational facilities. In overall socio-economic status, the region is probably lower than the other two Perth regions, and it is less dependent on central city commuting for its economic base, though this may change after completion of the fast rail connection now under construction.

Major centres:

Armadale, Rockingham

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	531	539	549	560	571	583	1.5%	1.8%	2.0%	2.0%	2.1%	1.7%	2.1%
No. Households	192	196	201	206	211	216	2.2%	2.5%	2.5%	2.4%	2.4%	2.4%	2.4%
NIEIR Workforce	272	275	279	288	299	301	1.0%	1.5%	3.2%	3.7%	0.8%	1.9%	2.2%
NIEIR Employment	248	254	259	270	282	288	2.4%	1.7%	4.5%	4.3%	2.2%	2.8%	3.3%
NIEIR Unemployment	23.9	20.7	20.6	17.8	16.6	12.9	-13.1%	-0.7%	-13.5%	-6.5%	-22.4%	-9.3%	-14.8%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	8.8%	7.5%	7.4%	6.2%	5.6%	4.3%	-1.2	-0.2	-1.2	-0.6	-1.3	-0.9	-0.9
Headline U/E	6.9%	6.0%	5.8%	4.9%	4.5%	3.3%	-0.9	-0.2	-0.9	-0.5	-1.2	-0.7	-0.8
NIEIR Structural U/E	11.3%	11.3%	10.9%	10.2%	9.3%	8.6%	0.0	-0.4	-0.6	-1.0	-0.6	-0.3	-0.8

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	9,480	10,120	10,748	11,373	12,100	13,022	17,841	18,771	19,581	20,320	21,195	22,342	6.3%	7.0%
Taxes Paid	2,285	2,371	2,473	2,654	2,749	2,902	4,301	4,398	4,506	4,742	4,815	4,979	5.1%	4.6%
Benefits	1,823	1,839	2,024	2,119	2,135	2,171	3,432	3,411	3,687	3,786	3,740	3,725	5.1%	1.2%
Business Income	1,585	1,717	1,851	1,910	1,861	1,951	2,983	3,184	3,372	3,412	3,259	3,347	6.4%	1.1%
Interest Paid	993	1,164	1,429	1,644	1,879	2,211	1,869	2,159	2,604	2,938	3,292	3,794	18.3%	16.0%
Property Income	966	1,081	1,224	1,417	1,564	1,854	1,817	2,005	2,230	2,532	2,739	3,181	13.6%	14.4%
Disposable Income	10,793	11,430	12,145	12,778	13,354	14,296	20,314	21,199	22,127	22,830	23,391	24,529	5.8%	5.8%
Rank							51	51	50	49	48	38		
%Rank #1							52%	55%	55%	54%	52%	52%		
Business Value Added	11,064	11,837	12,598	13,282	13,961	14,973	20,824	21,954	22,953	23,732	24,454	25,689	6.3%	6.2%
Rank							39	25	27	27	26	22		
%Rank #1							56%	58%	59%	57%	56%	56%		
Business Productivity							43,732	45,692	47,889	48,409	48,827	51,224	3.4%	2.9%
Rank							47	42	38	43	41	35		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.12%	0.14%
Disability Support (aged 25+)	2.48%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.05%	0.04%
Parenting Payment - Single (aged 20-24)	0.25%	0.21%
Parenting Payment - Single (aged 25+)	1.59%	1.64%
Unemployed Long Term	0.63%	1.20%
Unemployed Short Term	0.52%	0.79%
Youth Allowance - Non Student	0.18%	0.32%
Youth Allowance - Student	1.03%	1.27%

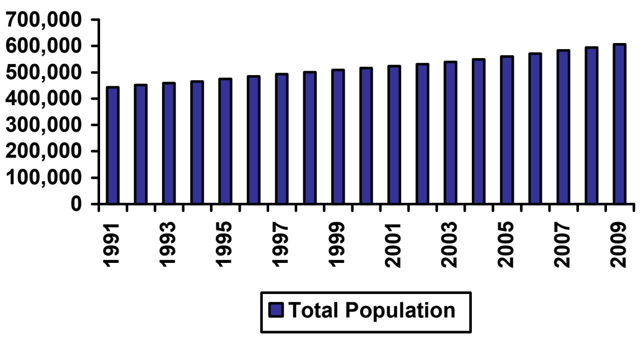
Cash Benefits Share of Disposable Income	Share	Rank
2002	16.9%	28
2003	16.1%	39
2004	16.7%	40
2005	16.6%	36
2006	16.0%	36
2007	15.2%	43

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	94.2	8
Share of population under 55	77.8	20
Aged migration	4.1	36
Population growth rate, 55+	3.8	11
Demographic stress	29.3	10
Dominant locations	100.0	2
Family / Youth migration	3.6	13
Fertility bounce, 1996-2005	-0.1	26
Fertility, babies % pop, 2005	1.3	28
Fertility, babies % pop, 2005	67.9	10
Working elderly	26.7	37

Local Government Level		Score	Rank
Most Sustainable	Rockingham (C)	79.7	21
Least Sustainable	Armadale (C)	49.1	357

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.27%	39
2002	1.20%	41
2003	1.20%	36
2004	1.26%	27
2005	1.21%	36
2006	1.31%	28
Bounce 2004-05	-0.05%	59
Actual Change 2004-05 (Number)	-116	62
Bounce 2005-06	0.10%	13
Actual Change 2005-06 (Number)	708	2

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$95	51
Carbon Price Loss Cost (@$33 a tonne of carbon)	$925	53
Water Security Cost	$682	20
Total	$1,701	46

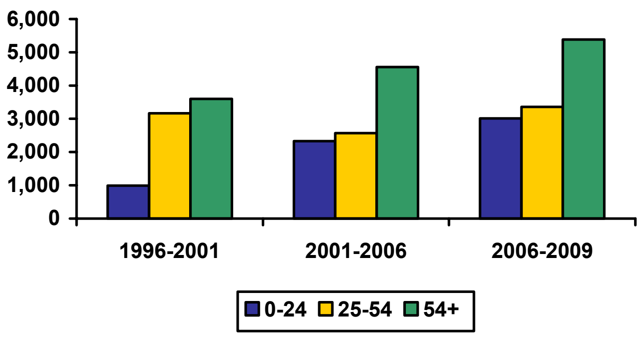
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.16%	51
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.54%	38
Water Security Cost	1.14%	14
Total	2.83%	41

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.03%	47
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.27%	27
Water Security Cost	0.20%	14
Total	0.50%	39

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	38.6%	36.7%	35.7%	35.1%
Age 25-55	43.7%	43.5%	42.2%	41.4%
Age 55+	17.7%	19.8%	22.2%	23.5%
Population Change (average between years)				
Age 0-24		990	2,327	3,009
Age 25-55		3,167	2,565	3,353
Age 55+		3,593	4,561	5,389
Average Age	34.6	36.0	37.3	37.8
Average Annual Growth		1.6%	1.7%	2.0%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	202	344	60	48	17%	29%
Value of Property and Unincorporated Business	209	361	37	20	29%	55%
Value of Financial Assets	84	139	60	57	13%	19%
Value of Household Liabilities	91	156	10	12	75%	69%
Disposable Income after Debt Service Costs	51	60	53	41	49%	53%
Household Debt Service Ratio	18%	25%	5	4	94%	96%
Household Debt to Gross Income Ratio	1.35	1.77	5	4	94%	96%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	719	814	990	955	889	16%
Non Residential	340	270	341	403	427	44%
Total	1,058	1,138	1,330	1,358	1,316	17%
Value per capita $2004/05						
Residential	1,401	1,487	1,733	1,632	1,491	9%
Non Residential	668	495	597	689	716	35%
Total	2,064	1,979	2,330	2,321	2,207	16%
Rank (value per capita)						
Residential	20	20	18	20	23	
Non Residential	29	53	51	44	43	
Total	24	30	27	24	30	

RAINFALL

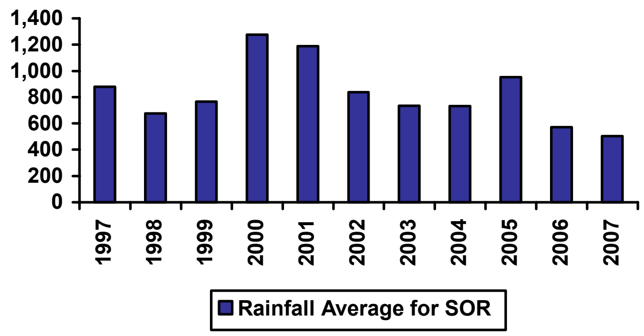
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	881	675	766	1,276	1,189	838	734	731	954	571	504
Rank	18	30	37	23	31	16	19	19	14	44	24

PATENT APPLICATIONS

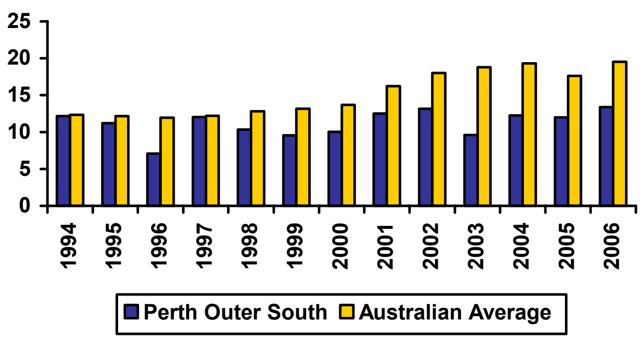
	No	Aust Avg	Rank
Average p.a. (1994-2005)	57.95	46.04	17
Average p.a. per capita	11.17	12.17	19
Hi Tech p.a. (1994-2005)	11.39	12.38	15
Hi Tech p.a. per capita	2.18	2.98	19
Info. Tech p.a. (1994-2005)	3.28	4.75	17
Info. Tech p.a. per capita	0.63	1.13	26
Average per capita (1994-2000)	10.62	10.48	16
Average per capita (2000-2005)	12.14	14.53	25
2000-05 avg./1994-00 avg.	1.14	1.36	50

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



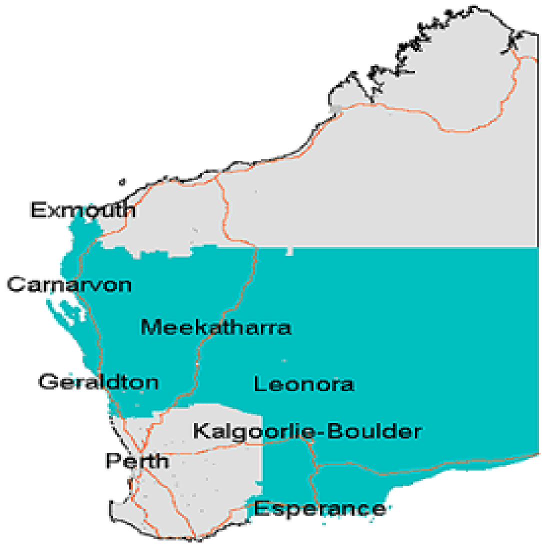
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	24.1	23.7	22.9	25.5
Rank	20	26	31	16
Days Over 35C	24	23	15	41
Rank	20	19	31	11

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	558
Rank	16

WA Gascoyne-Goldfields



The Gascoyne/Goldfields region comprises the three low-population WA planning regions centred on Carnarvon, Geraldton and Kalgoorlie. With the exception of the wheat country back of Geraldton and in the immediate vicinity of Esperance, rural production is confined to extensive pastoralism, which peters out inland. The region includes the major mineral province centred on Kalgoorlie, and the lesser but still significant mineral output of the Murchison region. Though Kalgoorlie is a major supply and mineral processing centre, many of the mines are worked by fly-in fly-out workforces based in Perth.

Major centres:

Carnarvon, Geraldton, Kalgoorlie

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	116	117	116	117	117	118	0.5%	-0.1%	0.1%	0.3%	1.2%	0.2%	0.8%
No. Households	45	45	46	46	46	47	0.7%	0.7%	0.6%	0.9%	1.3%	0.6%	1.1%
NIEIR Workforce	54	54	53	55	57	56	0.6%	-2.7%	2.9%	3.6%	-0.1%	0.2%	1.7%
NIEIR Employment	50	50	49	50	53	53	0.8%	-2.4%	2.8%	4.7%	0.7%	0.4%	2.7%
NIEIR Unemployment	4.5	4.4	4.1	4.3	3.9	3.5	-2.4%	-6.3%	4.5%	-8.7%	-10.3%	-1.5%	-9.5%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	8.3%	8.1%	7.8%	7.9%	7.0%	6.3%	-0.2	-0.3	0.1	-0.9	-0.7	-0.1	-0.8
Headline U/E	5.8%	5.3%	4.9%	4.7%	4.2%	3.5%	-0.5	-0.3	-0.3	-0.5	-0.6	-0.4	-0.6
NIEIR Structural U/E	13.4%	14.0%	13.9%	13.3%	11.2%	10.9%	0.6	-0.2	-0.5	-2.1	-0.3	0.0	-1.2

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,997	2,110	2,100	2,190	2,331	2,481	17,209	18,101	18,029	18,789	19,937	20,969	3.1%	6.4%
Taxes Paid	744	710	726	722	752	731	6,409	6,094	6,238	6,195	6,431	6,181	-1.0%	0.6%
Benefits	407	419	478	457	414	463	3,508	3,594	4,103	3,923	3,538	3,915	4.0%	0.6%
Business Income	800	644	833	731	666	560	6,899	5,526	7,152	6,272	5,696	4,735	-3.0%	-12.5%
Interest Paid	226	248	283	300	317	360	1,944	2,125	2,430	2,575	2,711	3,039	10.0%	9.5%
Property Income	834	856	787	857	977	1,023	7,186	7,343	6,754	7,354	8,352	8,648	0.9%	9.3%
Disposable Income	3,140	3,127	3,265	3,277	3,403	3,515	27,061	26,819	28,036	28,109	29,101	29,709	1.4%	3.6%
Rank							16	13	14	14	16	16		
%Rank #1							69%	70%	70%	67%	65%	63%		
Business Value Added	2,797	2,755	2,932	2,921	2,997	3,041	24,107	23,627	25,181	25,061	25,633	25,704	1.5%	2.0%
Rank							19	18	17	20	20	21		
%Rank #1							64%	63%	65%	60%	58%	56%		
Business Productivity							47,585	49,824	51,366	51,889	52,030	54,431	2.9%	2.4%
Rank							29	15	15	21	22	17		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.14%	0.14%
Disability Support (aged 25+)	2.69%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.08%	0.04%
Parenting Payment - Single (aged 20-24)	0.32%	0.21%
Parenting Payment - Single (aged 25+)	1.76%	1.64%
Unemployed Long Term	1.23%	1.20%
Unemployed Short Term	0.82%	0.79%
Youth Allowance - Non Student	0.55%	0.32%
Youth Allowance - Student	0.50%	1.27%

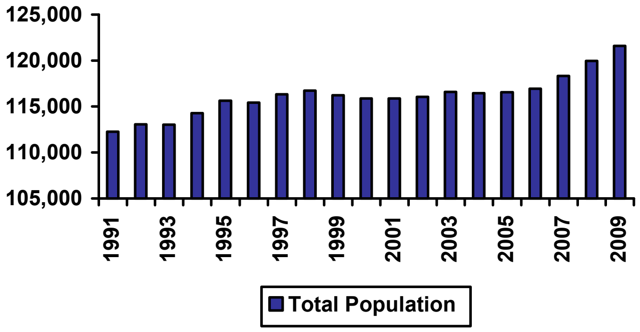
Cash Benefits Share of Disposable Income	Share	Rank
2002	13.0%	51
2003	13.4%	52
2004	14.6%	50
2005	14.0%	50
2006	12.2%	48
2007	13.2%	50

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	57.4	56
Share of population under 55	81.1	6
Aged migration	4.1	34
Population growth rate, 55+	2.8	26
Demographic stress	-29.8	63
Dominant locations	75.7	34
Family / Youth migration	-0.3	48
Fertility bounce, 1996-2005	-0.2	42
Fertility, babies % pop, 2005	1.6	6
Fertility, babies % pop, 2005	52.2	49
Working elderly	33.2	6

Local Government Level		Score	Rank
Most Sustainable	Upper Gascoyne (S)	79.9	19
Least Sustainable	Morawa (S)	22.3	616

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.61%	6
2002	1.55%	4
2003	1.47%	8
2004	1.50%	7
2005	1.46%	8
2006	1.60%	6
Bounce 2004-05	-0.04%	56
Actual Change 2004-05 (Number)	-43	53
Bounce 2005-06	0.14%	6
Actual Change 2005-06 (Number)	169	27

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,499	10
Carbon Price Loss Cost (@$33 a tonne of carbon)	$901	57
Water Security Cost	$2,041	1
Total	$4,442	5

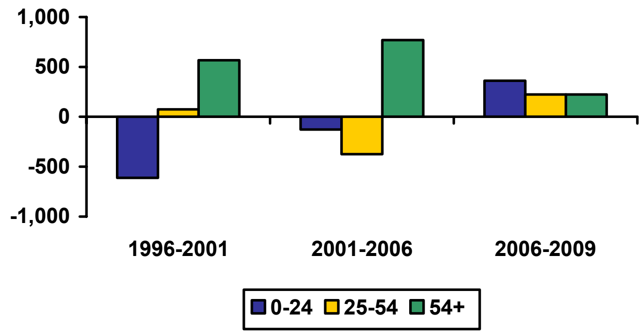
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	2.00%	15
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.20%	59
Water Security Cost	2.72%	1
Total	5.92%	7

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.25%	18
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.15%	57
Water Security Cost	0.34%	3
Total	0.75%	18

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	40.8%	38.0%	37.1%	36.6%
Age 25-55	47.0%	47.1%	45.1%	43.9%
Age 55+	14.2%	16.6%	19.7%	19.5%
Population Change (average between years)				
Age 0-24		-612	-128	363
Age 25-55		74	-374	223
Age 55+		568	770	224
Average Age	32.2	33.9	36.0	36.7
Average Annual Growth		0.1%	0.2%	1.3%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	673	593	7	12	58%	51%
Value of Property and Unincorporated Business	190	225	45	44	26%	34%
Value of Financial Assets	588	489	2	6	88%	68%
Value of Household Liabilities	105	121	4	28	86%	54%
Disposable Income after Debt Service Costs	70	75	15	14	68%	67%
Household Debt Service Ratio	16%	18%	10	45	84%	68%
Household Debt to Gross Income Ratio	1.20	1.27	10	45	84%	68%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	145	98	134	159	143	49%
Non Residential	101	79	102	105	96	27%
Total	246	176	236	264	239	40%
Value per capita $2004/05						
Residential	1,296	821	1,144	1,369	1,246	53%
Non Residential	869	681	876	905	833	28%
Total	2,162	1,469	2,020	2,274	2,079	45%
Rank (value per capita)						
Residential	27	53	41	31	41	
Non Residential	14	31	25	27	31	
Total	20	48	37	28	37	

RAINFALL

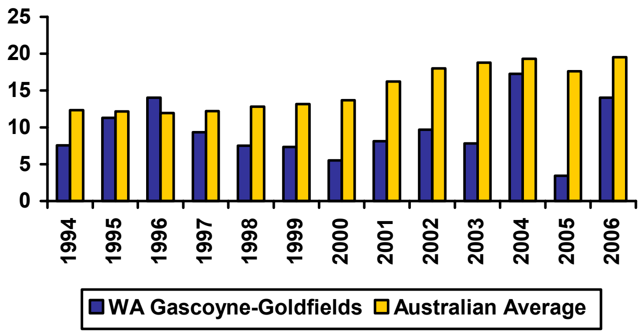
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	419	322	519	744	404	299	253	301	307	315	261
Rank	59	63	56	59	64	64	62	62	62	63	51

PATENT APPLICATIONS

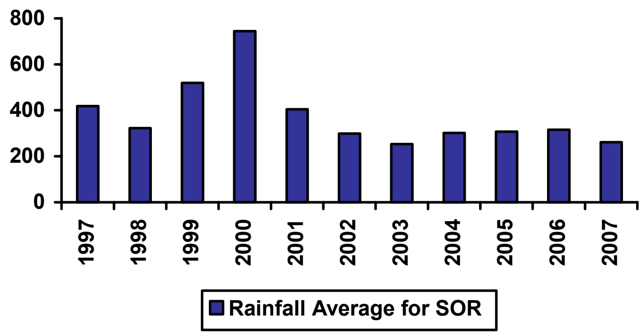
	No	Aust Avg	Rank
Average p.a. (1994-2005)	10.96	46.04	46
Average p.a. per capita	9.46	12.17	29
Hi Tech p.a. (1994-2005)	0.94	12.38	55
Hi Tech p.a. per capita	0.81	2.98	53
Info. Tech p.a. (1994-2005)	0.16	4.75	54
Info. Tech p.a. per capita	0.14	1.13	55
Average per capita (1994-2000)	8.84	10.48	26
Average per capita (2000-2005)	10.06	14.53	33
2000-05 avg./1994-00 avg.	1.14	1.36	51

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	26.7	27.1	26.1	27.9
Rank	13	11	13	5
Days Over 35C	67	78	49	76
Rank	5	5	7	4

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	60
Rank	52

WA Peel-South West

The Peel/South West region comprises the two WA planning regions on the coast south of Perth, the first centred on the resort town of Mandurah and the second on Bunbury, with its bulk freight port. The region is noted for its resource-based industries: bauxite and alumina, coal and power, and forestry and timber products. The coastal strip is intensively farmed, by WA standards, and Margaret River is known for its viticulture. In addition, much of the coastline, especially Mandurah and Busselton, is a resort and retirement area which bears comparison with the NSW coast. In the timber country there is conflict between the timber industry and conservation with its allies in tourism.

Major centres:

Mandurah, Bunbury

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	209	212	218	225	231	239	1.7%	2.8%	2.8%	2.9%	3.2%	2.5%	3.1%
No. Households	76	78	80	83	86	89	2.7%	3.2%	3.6%	3.5%	3.6%	3.2%	3.5%
NIEIR Workforce	97	99	102	105	109	112	1.8%	3.0%	2.6%	4.3%	2.5%	2.4%	3.4%
NIEIR Employment	87	90	93	97	102	106	3.2%	3.2%	4.0%	5.6%	3.8%	3.5%	4.7%
NIEIR Unemployment	9.8	8.8	8.8	7.7	6.9	5.7	-10.4%	0.1%	-12.1%	-11.1%	-17.4%	-7.6%	-14.3%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.1%	8.9%	8.7%	7.4%	6.3%	5.1%	-1.2	-0.2	-1.2	-1.1	-1.2	-0.9	-1.2
Headline U/E	7.3%	6.7%	6.4%	5.7%	4.9%	3.6%	-0.6	-0.3	-0.7	-0.8	-1.3	-0.5	-1.1
NIEIR Structural U/E	14.2%	14.4%	13.6%	12.8%	11.4%	10.8%	0.2	-0.8	-0.7	-1.5	-0.6	-0.5	-1.0

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	3,143	3,393	3,629	3,949	4,130	4,522	15,056	15,972	16,619	17,582	17,863	18,950	7.9%	7.0%
Taxes Paid	839	881	932	1,031	1,046	1,128	4,020	4,146	4,269	4,589	4,523	4,725	7.1%	4.6%
Benefits	777	791	888	951	964	974	3,722	3,726	4,065	4,235	4,171	4,084	7.0%	1.2%
Business Income	848	909	1,008	1,028	1,000	1,071	4,059	4,278	4,618	4,578	4,328	4,486	6.6%	2.0%
Interest Paid	315	378	473	568	676	807	1,507	1,779	2,164	2,530	2,925	3,380	21.8%	19.1%
Property Income	556	622	672	792	895	1,059	2,664	2,926	3,078	3,529	3,869	4,438	12.5%	15.6%
Disposable Income	4,229	4,512	4,852	5,201	5,374	5,834	20,257	21,242	22,218	23,158	23,244	24,451	7.1%	5.9%
Rank							52	50	48	46	49	39		
%Rank #1							52%	55%	55%	55%	52%	52%		
Business Value Added	3,991	4,301	4,637	4,977	5,130	5,593	19,115	20,250	21,237	22,160	22,191	23,437	7.6%	6.0%
Rank							51	41	39	38	39	28		
%Rank #1							51%	54%	55%	53%	50%	51%		
Business Productivity							44,345	46,745	48,964	49,520	50,630	53,897	3.7%	4.3%
Rank							44	37	32	36	33	21		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.11%	0.14%
Disability Support (aged 25+)	2.98%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.20%	0.21%
Parenting Payment - Single (aged 25+)	1.76%	1.64%
Unemployed Long Term	0.78%	1.20%
Unemployed Short Term	0.62%	0.79%
Youth Allowance - Non Student	0.22%	0.32%
Youth Allowance - Student	0.72%	1.27%

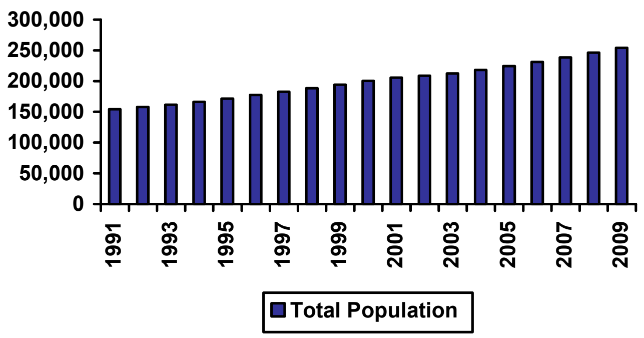
Cash Benefits Share of Disposable Income	Share	Rank
2002	18.4%	16
2003	17.5%	24
2004	18.3%	29
2005	18.3%	28
2006	17.9%	21
2007	16.7%	35

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	87.7	26
Share of population under 55	73.3	40
Aged migration	6.6	6
Population growth rate, 55+	5.0	3
Demographic stress	61.8	1
Dominant locations	81.2	29
Family / Youth migration	2.5	22
Fertility bounce, 1996-2005	-0.2	59
Fertility, babies % pop, 2005	1.2	43
Fertility, babies % pop, 2005	71.1	6
Working elderly	25.2	43

Local Government Level		Score	Rank
Most Sustainable	Dardanup (S)	84.7	7
Least Sustainable	Boyup Brook (S)	24.8	595

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.26%	44
2002	1.20%	42
2003	1.10%	56
2004	1.18%	46
2005	1.14%	54
2006	1.22%	43
Bounce 2004-05	-0.04%	58
Actual Change 2004-05 (Number)	-28	43
Bounce 2005-06	0.08%	16
Actual Change 2005-06 (Number)	266	13

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$717	24
Carbon Price Loss Cost (@$33 a tonne of carbon)	$902	55
Water Security Cost	$864	7
Total	$2,483	22

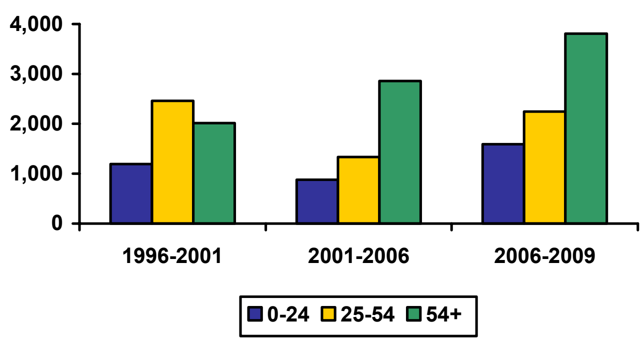
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.18%	24
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.48%	41
Water Security Cost	1.42%	8
Total	4.08%	24

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.18%	27
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.23%	40
Water Security Cost	0.22%	10
Total	0.63%	25

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.9%	34.7%	32.8%	31.7%
Age 25-55	42.1%	42.2%	40.5%	39.5%
Age 55+	21.0%	23.0%	26.7%	28.8%
Population Change (average between years)				
Age 0-24		1,191	880	1,588
Age 25-55		2,459	1,335	2,243
Age 55+		2,013	2,861	3,806
Average Age	35.9	37.4	39.1	40.4
Average Annual Growth		3.0%	2.4%	3.2%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	274	392	49	34	24%	33%
Value of Property and Unincorporated Business	186	305	48	29	26%	47%
Value of Financial Assets	160	225	34	34	24%	31%
Value of Household Liabilities	72	138	43	19	59%	61%
Disposable Income after Debt Service Costs	51	61	51	37	50%	54%
Household Debt Service Ratio	15%	23%	25	9	77%	88%
Household Debt to Gross Income Ratio	1.10	1.62	25	9	77%	88%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	431	506	738	783	728	48%
Non Residential	167	151	188	212	215	36%
Total	598	726	926	996	943	32%
Value per capita $2004/05						
Residential	2,195	2,397	3,193	3,237	2,887	30%
Non Residential	861	700	815	877	855	21%
Total	3,016	3,074	4,007	4,114	3,742	29%
Rank (value per capita)						
Residential	4	3	1	1	1	
Non Residential	15	28	30	29	28	
Total	7	6	4	4	8	

RAINFALL

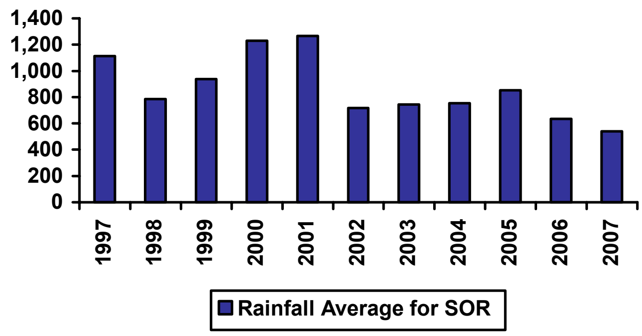
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,113	786	938	1,230	1,266	718	743	754	853	635	540
Rank	10	22	26	25	26	33	16	17	22	34	20

PATENT APPLICATIONS

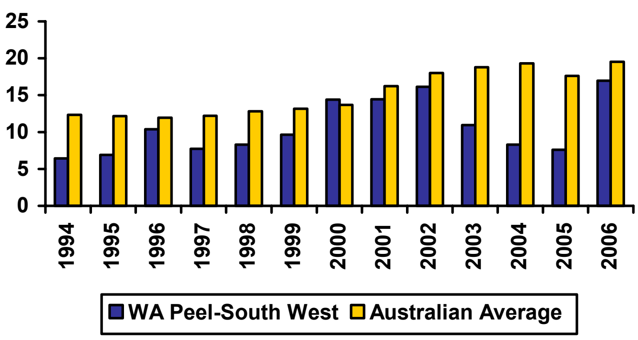
	No	Aust Avg	Rank
Average p.a. (1994-2005)	21.48	46.04	32
Average p.a. per capita	10.62	12.17	22
Hi Tech p.a. (1994-2005)	4.35	12.38	28
Hi Tech p.a. per capita	2.12	2.98	21
Info. Tech p.a. (1994-2005)	0.55	4.75	41
Info. Tech p.a. per capita	0.27	1.13	41
Average per capita (1994-2000)	9.77	10.48	21
Average per capita (2000-2005)	12.40	14.53	23
2000-05 avg./1994-00 avg.	1.27	1.36	40

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



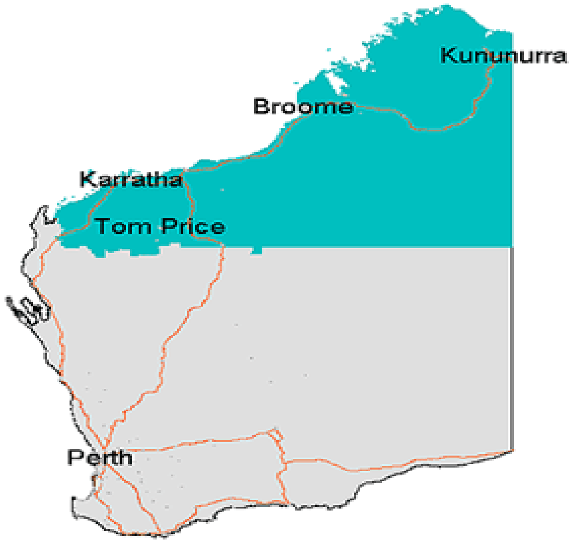
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	23.2	23.1	22.3	24.7
Rank	28	30	41	19
Days Over 35C	20	24	16	49
Rank	23	17	28	9

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	121
Rank	39

WA Pilbara-Kimberly



The Pilbara and Kimberley are two WA planning regions, here brought together. Their output is dominated by minerals: offshore oil and gas, and onshore iron ore. The extensive pastoral stations first settled in the nineteenth century are still there, and so is a significant Aboriginal population. The region has a dry-season tourist trade. Towns in the Pilbara accommodate workers in the mining and petroleum industries, while those in the Kimberley include the old polyglot pearling port of Broome and the newer town of Kununurra, which was founded as an urban centre for the Ord River intensive agricultural area. However, an increasing proportion of the workforce flies in and out from Perth.

N.B Unemployment figures in remote regions can display excess variation.

Major centres:

Karratha, Port Hedland, Broome

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	73	74	75	76	77	79	1.4%	1.1%	1.3%	1.6%	1.9%	1.3%	1.7%
No. Households	28	28	29	29	30	31	2.0%	2.0%	2.1%	2.4%	2.6%	2.0%	2.5%
NIEIR Workforce	34	35	36	37	39	39	3.6%	0.7%	4.3%	4.2%	1.6%	2.9%	2.9%
NIEIR Employment	32	33	33	34	36	37	3.3%	0.7%	4.4%	5.4%	1.4%	2.8%	3.4%
NIEIR Unemployment	2.5	2.7	2.7	2.8	2.5	2.7	7.6%	1.3%	4.1%	-10.3%	5.0%	4.3%	-3.0%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	7.4%	7.6%	7.7%	7.7%	6.6%	6.8%	0.3	0.0	0.0	-1.1	0.2	0.1	-0.4
Headline U/E	6.0%	5.7%	4.7%	4.4%	4.2%	3.8%	-0.3	-1.0	-0.3	-0.2	-0.4	-0.5	-0.3
NIEIR Structural U/E	14.5%	14.8%	16.4%	15.5%	10.9%	11.0%	0.3	1.6	-0.8	-4.6	0.1	0.3	-2.3

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,544	1,701	1,799	1,824	2,047	2,237	21,064	22,887	23,939	23,953	26,470	28,252	5.7%	10.7%
Taxes Paid	436	467	478	487	553	577	5,950	6,281	6,359	6,401	7,146	7,289	3.8%	8.8%
Benefits	279	303	375	329	243	328	3,806	4,075	4,996	4,325	3,142	4,142	5.7%	-0.2%
Business Income	246	247	243	248	275	226	3,353	3,326	3,240	3,253	3,555	2,850	0.3%	-4.6%
Interest Paid	134	151	194	203	211	262	1,826	2,028	2,588	2,669	2,731	3,307	14.9%	13.5%
Property Income	345	358	362	384	397	442	4,713	4,811	4,812	5,037	5,131	5,576	3.6%	7.3%
Disposable Income	1,797	1,938	2,051	2,044	2,168	2,375	24,520	26,078	27,299	26,843	28,029	29,992	4.4%	7.8%
Rank							23	17	16	19	20	15		
%Rank #1							63%	68%	68%	64%	63%	64%		
Business Value Added	1,790	1,948	2,042	2,072	2,322	2,462	24,417	26,213	27,178	27,206	30,025	31,102	5.0%	9.0%
Rank							17	10	12	12	9	10		
%Rank #1							65%	70%	70%	66%	68%	67%		
Business Productivity							54,806	58,110	60,644	60,582	61,686	64,892	3.4%	3.5%
Rank							8	6	6	6	7	6		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.11%	0.14%
Disability Support (aged 25+)	2.88%	3.13%
Mature Age Allowance	0.01%	0.02%
Parenting Payment - Single (aged 15-19)	0.06%	0.04%
Parenting Payment - Single (aged 20-24)	0.39%	0.21%
Parenting Payment - Single (aged 25+)	1.72%	1.64%
Unemployed Long Term	1.26%	1.20%
Unemployed Short Term	0.90%	0.79%
Youth Allowance - Non Student	0.94%	0.32%
Youth Allowance - Student	0.13%	1.27%

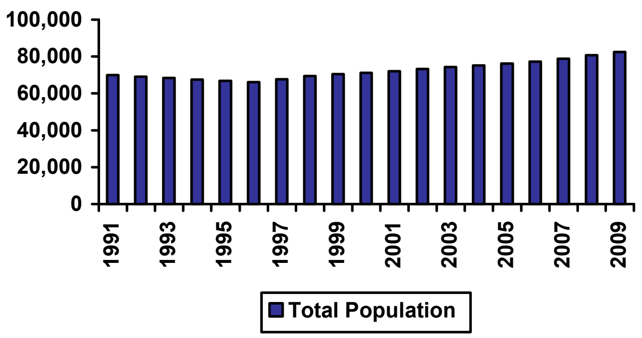
Cash Benefits Share of Disposable Income	Share	Rank
2002	15.5%	36
2003	15.6%	41
2004	18.3%	28
2005	16.1%	42
2006	11.2%	54
2007	13.8%	47

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	78.8	40
Share of population under 55	89.7	1
Aged migration	3.4	56
Population growth rate, 55+	1.9	49
Demographic stress	25.8	16
Dominant locations	67.0	43
Family / Youth migration	0.6	41
Fertility bounce, 1996-2005	0.0	12
Fertility, babies % pop, 2005	2.0	1
Fertility, babies % pop, 2005	68.9	9
Working elderly	32.7	7

Local Government Level		Score	Rank
Most Sustainable	Derby-West Kimberley (S)	83.0	12
Least Sustainable	Ashburton (S)	32.0	522

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	2.05%	3
2002	1.65%	2
2003	1.57%	6
2004	1.74%	2
2005	1.82%	3
2006	2.00%	1
Bounce 2004-05	0.07%	5
Actual Change 2004-05 (Number)	72	22
Bounce 2005-06	0.18%	3
Actual Change 2005-06 (Number)	164	29

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$832	22
Carbon Price Loss Cost (@$33 a tonne of carbon)	$869	61
Water Security Cost	$443	43
Total	$2,144	29

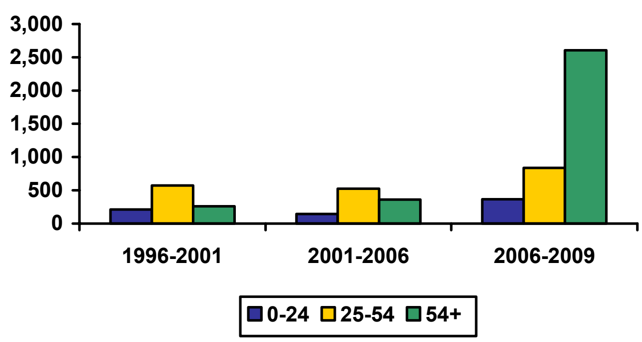
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.04%	25
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.09%	60
Water Security Cost	0.56%	49
Total	2.69%	45

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.24%	23
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.25%	35
Water Security Cost	0.13%	35
Total	0.61%	26

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	40.2%	38.3%	36.6%	35.7%
Age 25-55	45.1%	45.3%	45.6%	45.8%
Age 55+	6.6%	7.9%	9.6%	18.5%
Population Change (average between years)				
Age 0-24		211	143	364
Age 25-55		570	524	838
Age 55+		260	359	2,607
Average Age	28.9	30.2	31.7	32.9
Average Annual Growth		1.7%	1.4%	2.2%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	433	349	16	46	37%	30%
Value of Property and Unincorporated Business	276	275	19	32	38%	42%
Value of Financial Assets	270	214	17	42	40%	30%
Value of Household Liabilities	113	140	3	18	92%	62%
Disposable Income after Debt Service Costs	77	80	10	9	75%	71%
Household Debt Service Ratio	15%	19%	16	34	80%	73%
Household Debt to Gross Income Ratio	1.15	1.35	15	34	80%	73%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	119	98	132	163	151	52%
Non Residential	71	63	129	208	225	197%
Total	190	164	260	370	376	104%
Value per capita $2004/05						
Residential	1,675	1,258	1,701	2,088	1,916	51%
Non Residential	1,018	842	1,666	2,665	2,852	184%
Total	2,743	2,015	3,368	4,753	4,769	113%
Rank (value per capita)						
Residential	11	35	20	8	13	
Non Residential	10	11	5	3	2	
Total	11	26	9	2	2	

RAINFALL

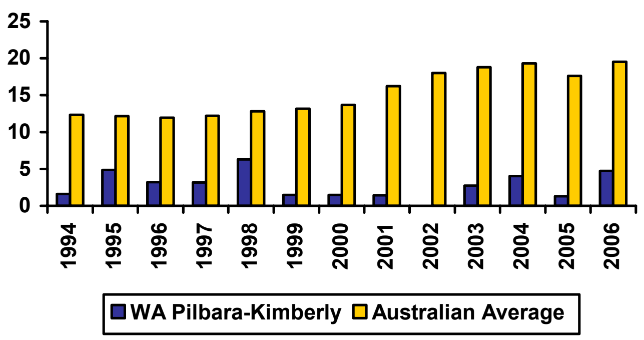
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	655	402	738	1,634	691	395	336	560	272	733	379
Rank	42	57	40	11	58	57	55	42	64	21	36

PATENT APPLICATIONS

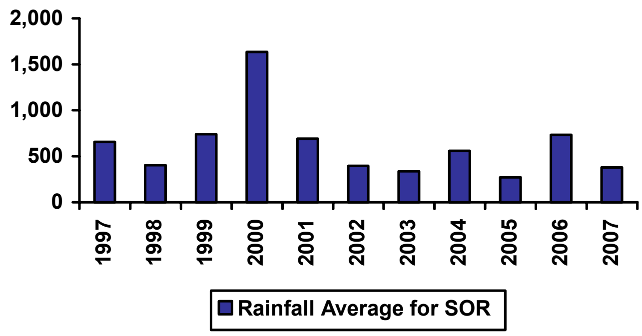
	No	Aust Avg	Rank
Average p.a. (1994-2005)	1.98	46.04	63
Average p.a. per capita	2.79	12.17	64
Hi Tech p.a. (1994-2005)	0.15	12.38	63
Hi Tech p.a. per capita	0.20	2.98	64
Info. Tech p.a. (1994-2005)	0.00	4.75	62
Info. Tech p.a. per capita	0.00	1.13	62
Average per capita (1994-2000)	2.95	10.48	63
Average per capita (2000-2005)	2.37	14.53	63
2000-05 avg./1994-00 avg.	0.80	1.36	63

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	32.7	33.7	32.2	33.0
Rank	1	1	1	1
Days Over 35C	113	157	98	126
Rank	2	1	3	1

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	44
Rank	58

WA Wheatbelt-Great Southern

The WA planning authorities distinguish the Wheat Belt and the Great Southern, but they are here brought together. Relative to the Eastern States, towns in the WA wheat belt are few and small; the largest are Northam and Narrogin. Much of the area depends directly on Perth for higher-order retail and administrative functions. By contrast, the Great Southern comprises the hinterland of Albany, a town of some size and long history. The region as a whole is classic wheat/sheep country, much of it now troubled by dry-land saltation. The strip close to Albany is better watered, with some plantation forestry.

Major centres:

Albany, Northam

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	127	127	127	127	127	129	0.3%	-0.2%	0.0%	0.5%	0.8%	0.1%	0.6%
No. Households	48	48	48	49	50	50	1.0%	1.0%	1.0%	1.2%	1.4%	1.0%	1.3%
NIEIR Workforce	53	53	54	55	57	58	1.0%	1.6%	2.3%	3.0%	0.9%	1.6%	2.0%
NIEIR Employment	47	48	49	50	53	54	1.2%	2.2%	2.7%	4.4%	2.1%	2.0%	3.2%
NIEIR Unemployment	5.4	5.3	5.1	5.1	4.5	4.0	-1.1%	-3.8%	-1.4%	-10.5%	-12.3%	-2.1%	-11.4%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.2%	10.0%	9.4%	9.1%	7.9%	6.9%	-0.2	-0.5	-0.3	-1.2	-1.0	-0.4	-1.1
Headline U/E	5.1%	5.0%	5.0%	4.6%	4.0%	3.1%	-0.1	0.0	-0.4	-0.6	-0.9	-0.2	-0.7
NIEIR Structural U/E	14.0%	15.9%	14.9%	14.4%	12.4%	11.8%	1.9	-0.9	-0.5	-2.0	-0.6	0.2	-1.3

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,418	1,501	1,596	1,668	1,792	1,891	11,196	11,806	12,577	13,145	14,057	14,719	5.6%	6.5%
Taxes Paid	804	665	871	826	817	679	6,350	5,235	6,860	6,506	6,412	5,283	0.9%	-9.3%
Benefits	458	467	524	525	504	533	3,619	3,676	4,129	4,140	3,955	4,148	4.6%	0.7%
Business Income	1,822	1,343	2,042	1,723	1,600	1,048	14,385	10,563	16,089	13,579	12,554	8,153	-1.8%	-22.0%
Interest Paid	208	225	262	278	295	344	1,641	1,769	2,065	2,192	2,311	2,674	10.2%	11.1%
Property Income	1,052	956	1,151	1,196	1,286	1,316	8,308	7,524	9,071	9,426	10,087	10,241	4.4%	4.9%
Disposable Income	3,861	3,454	4,300	4,117	4,192	3,858	30,480	27,170	33,891	32,444	32,883	30,027	2.2%	-3.2%
Rank							9	10	5	7	8	14		
%Rank #1							78%	71%	85%	77%	74%	64%		
Business Value Added	3,240	2,843	3,638	3,391	3,392	2,939	25,581	22,370	28,667	26,724	26,611	22,872	1.5%	-6.9%
Rank							15	23	8	15	17	32		
%Rank #1							68%	59%	74%	64%	61%	50%		
Business Productivity							43,076	45,672	48,336	48,430	48,574	51,162	4.0%	2.8%
Rank							50	43	36	41	43	36		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.13%	0.14%
Disability Support (aged 25+)	3.32%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.04%	0.04%
Parenting Payment - Single (aged 20-24)	0.16%	0.21%
Parenting Payment - Single (aged 25+)	1.54%	1.64%
Unemployed Long Term	0.87%	1.20%
Unemployed Short Term	0.65%	0.79%
Youth Allowance - Non Student	0.33%	0.32%
Youth Allowance - Student	0.71%	1.27%

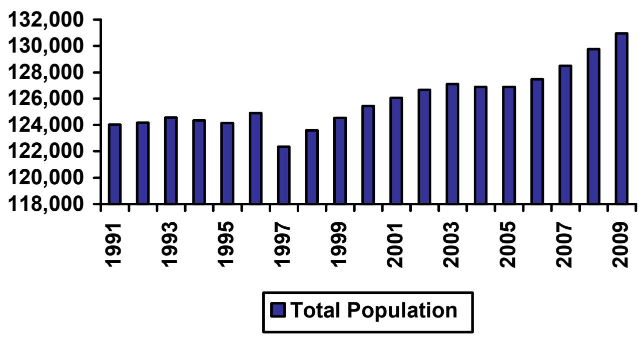
Cash Benefits Share of Disposable Income	Share	Rank
2002	11.9%	54
2003	13.5%	51
2004	12.2%	55
2005	12.8%	52
2006	12.0%	49
2007	13.8%	46

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	64.7	53
Share of population under 55	73.3	40
Aged migration	5.1	15
Population growth rate, 55+	3.1	20
Demographic stress	9.6	42
Dominant locations	55.9	55
Family / Youth migration	-1.9	59
Fertility bounce, 1996-2005	-0.2	32
Fertility, babies % pop, 2005	1.4	21
Fertility, babies % pop, 2005	54.8	47
Working elderly	34.3	5

Local Government Level		Score	Rank
Most Sustainable	Chittering (S)	79.1	23
Least Sustainable	Trayning (S)	14.1	627

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.39%	20
2002	1.26%	27
2003	1.26%	24
2004	1.29%	22
2005	1.30%	23
2006	1.37%	21
Bounce 2004-05	0.01%	25
Actual Change 2004-05 (Number)	15	31
Bounce 2005-06	0.06%	20
Actual Change 2005-06 (Number)	90	43

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$2,391	5
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,028	36
Water Security Cost	$845	9
Total	$4,264	6

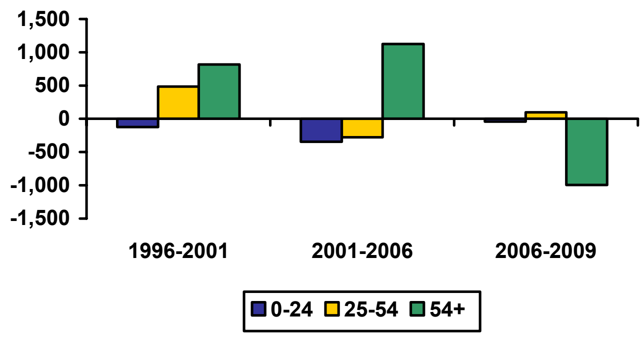
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	3.17%	6
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.36%	49
Water Security Cost	1.12%	15
Total	5.66%	11

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.38%	12
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.16%	53
Water Security Cost	0.13%	34
Total	0.68%	21

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.9%	36.1%	34.3%	33.3%
Age 25-55	43.1%	44.6%	43.0%	42.1%
Age 55+	20.4%	23.4%	27.6%	24.6%
Population Change (average between years)				
Age 0-24		-125	-345	-43
Age 25-55		484	-278	96
Age 55+		819	1,126	-993
Average Age	35.3	37.2	39.4	40.5
Average Annual Growth		0.2%	0.2%	0.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	560	629	11	10	48%	54%
Value of Property and Unincorporated Business	162	210	60	51	22%	32%
Value of Financial Assets	484	523	6	5	72%	72%
Value of Household Liabilities	85	104	20	45	70%	46%
Disposable Income after Debt Service Costs	68	75	17	13	66%	67%
Household Debt Service Ratio	14%	16%	37	56	73%	60%
Household Debt to Gross Income Ratio	1.04	1.12	37	56	73%	60%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	141	126	156	174	160	30%
Non Residential	60	73	71	68	65	-7%
Total	201	200	227	242	225	15%
Value per capita $2004/05						
Residential	1,122	985	1,223	1,368	1,262	30%
Non Residential	483	574	555	532	515	-7%
Total	1,577	1,539	1,778	1,901	1,777	18%
Rank (value per capita)						
Residential	33	44	38	32	38	
Non Residential	56	42	58	58	60	
Total	41	43	47	44	49	

RAINFALL

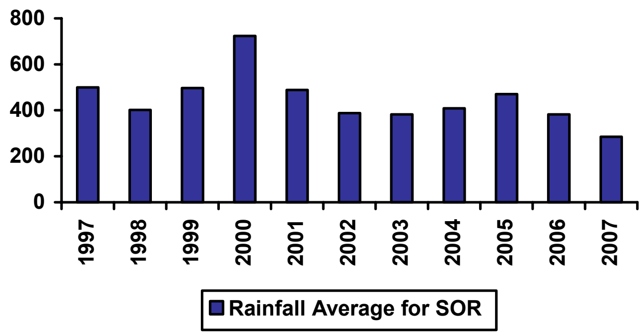
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	500	402	497	724	488	387	382	408	471	382	284
Rank	52	58	58	60	62	58	48	57	55	59	49

PATENT APPLICATIONS

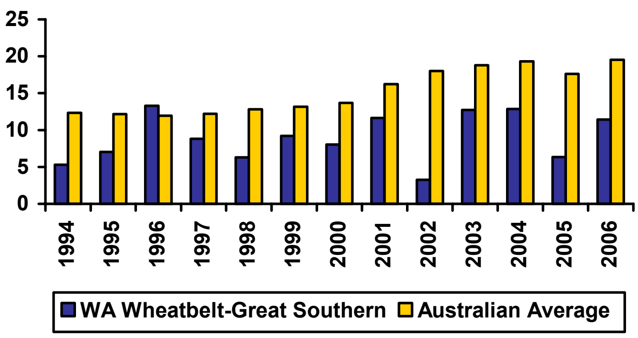
	No	Aust Avg	Rank
Average p.a. (1994-2005)	11.15	46.04	45
Average p.a. per capita	8.94	12.17	33
Hi Tech p.a. (1994-2005)	1.24	12.38	50
Hi Tech p.a. per capita	0.99	2.98	46
Info. Tech p.a. (1994-2005)	0.31	4.75	47
Info. Tech p.a. per capita	0.24	1.13	44
Average per capita (1994-2000)	8.69	10.48	27
Average per capita (2000-2005)	9.71	14.53	35
2000-05 avg./1994-00 avg.	1.12	1.36	54

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	23.4	23.7	22.5	24.7
Rank	27	27	38	20
Days Over 35C	35	37	22	52
Rank	9	8	19	8

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	59
Rank	53

TAS Hobart-South

Southern Tasmania includes all of Hobart, plus its commuter zone, purely rural areas and forests. It accordingly has a greater mix of economic base than the capital city regions of the mainland states. The regional economic base includes city centre functions, manufacturing (much of which is resource-related), agriculture, fishing, forestry and tourism, the latter based on both natural attractions and the region's urban heritage. The region extends into high country exploited for hydro-electricity.

Major centres:

Hobart

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	233	235	238	240	242	244	1.0%	1.2%	0.8%	0.9%	0.8%	1.0%	0.8%
No. Households	94	95	97	99	100	102	1.5%	1.7%	1.8%	1.6%	1.7%	1.7%	1.7%
NIEIR Workforce	110	111	115	117	121	121	1.4%	2.9%	1.9%	3.2%	0.3%	2.1%	1.8%
NIEIR Employment	95	96	101	103	107	108	1.8%	4.4%	2.8%	3.4%	1.3%	3.0%	2.3%
NIEIR Unemployment	15.2	15.0	14.0	13.4	13.7	12.7	-1.3%	-6.5%	-4.2%	2.2%	-7.4%	-4.0%	-2.7%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	13.8%	13.4%	12.2%	11.5%	11.4%	10.5%	-0.4	-1.2	-0.7	-0.1	-0.9	-0.8	-0.5
Headline U/E	8.6%	7.9%	6.8%	6.3%	6.5%	5.5%	-0.7	-1.1	-0.5	0.2	-1.0	-0.8	-0.4
NIEIR Structural U/E	19.6%	20.2%	18.9%	18.0%	16.8%	16.4%	0.6	-1.3	-0.9	-1.2	-0.4	-0.5	-0.8

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	3,243	3,398	3,667	3,942	4,192	4,357	13,941	14,458	15,423	16,455	17,346	17,888	6.7%	5.1%
Taxes Paid	903	921	978	1,059	1,106	1,157	3,880	3,920	4,111	4,422	4,575	4,748	5.5%	4.5%
Benefits	1,027	1,032	1,139	1,158	1,134	1,172	4,417	4,392	4,791	4,834	4,692	4,810	4.1%	0.6%
Business Income	615	654	720	737	753	853	2,643	2,781	3,027	3,078	3,115	3,503	6.2%	7.6%
Interest Paid	284	334	416	484	535	620	1,220	1,420	1,751	2,020	2,214	2,546	19.5%	13.2%
Property Income	713	758	852	968	1,067	1,209	3,064	3,227	3,583	4,041	4,415	4,964	10.7%	11.8%
Disposable Income	4,411	4,579	4,961	5,254	5,523	5,870	18,964	19,484	20,868	21,930	22,856	24,097	6.0%	5.7%
Rank							59	56	53	53	51	42		
%Rank #1							49%	51%	52%	52%	51%	51%		
Business Value Added	3,857	4,051	4,386	4,679	4,944	5,211	16,584	17,239	18,450	19,532	20,461	21,391	6.6%	5.5%
Rank							60	57	57	56	54	43		
%Rank #1							44%	46%	47%	47%	47%	46%		
Business Productivity							39,438	40,945	42,611	44,231	45,384	46,626	3.9%	2.7%
Rank							61	59	59	56	56	57		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.09%	0.08%
Disability Support (aged 20-24)	0.16%	0.14%
Disability Support (aged 25+)	4.69%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.05%	0.04%
Parenting Payment - Single (aged 20-24)	0.32%	0.21%
Parenting Payment - Single (aged 25+)	1.94%	1.64%
Unemployed Long Term	1.96%	1.20%
Unemployed Short Term	0.91%	0.79%
Youth Allowance - Non Student	0.50%	0.32%
Youth Allowance - Student	1.80%	1.27%

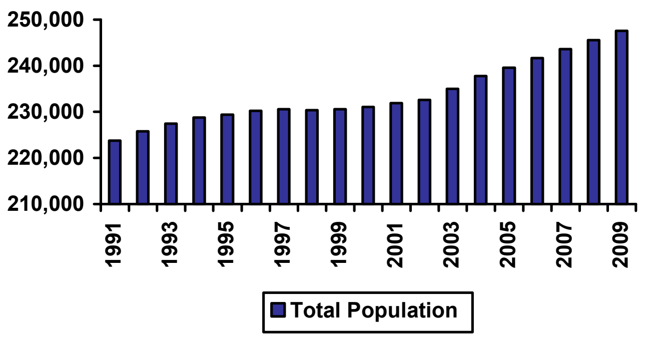
Cash Benefits Share of Disposable Income	Share	Rank
2002	23.3%	7
2003	22.5%	8
2004	23.0%	9
2005	22.0%	8
2006	20.5%	10
2007	20.0%	15

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	73.3	47
Share of population under 55	73.9	37
Aged migration	4.3	30
Population growth rate, 55+	2.4	36
Demographic stress	-1.7	55
Dominant locations	79.7	30
Family / Youth migration	0.8	38
Fertility bounce, 1996-2005	-0.1	13
Fertility, babies % pop, 2005	1.3	26
Fertility, babies % pop, 2005	51.6	52
Working elderly	22.1	52

Local Government Level		Score	Rank
Most Sustainable	Kingborough (M)	63.7	178
Least Sustainable	Central Highlands (M)	19.5	624

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.31%	30
2002	1.23%	34
2003	1.26%	26
2004	1.21%	37
2005	1.27%	29
2006	1.32%	26
Bounce 2004-05	0.06%	9
Actual Change 2004-05 (Number)	167	13
Bounce 2005-06	0.05%	28
Actual Change 2005-06 (Number)	146	34

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$412	33
Carbon Price Loss Cost (@$33 a tonne of carbon)	$705	62
Water Security Cost	$626	29
Total	$1,742	43

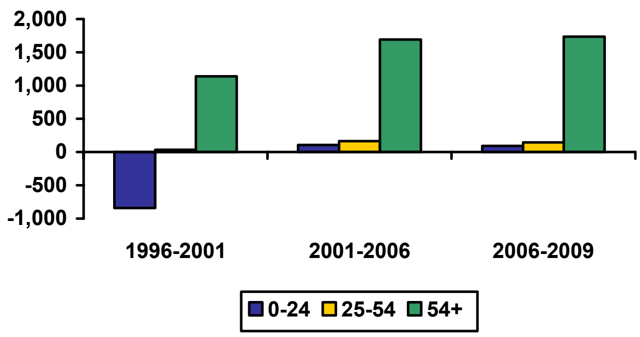
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.73%	32
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.25%	57
Water Security Cost	1.11%	17
Total	3.09%	35

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.09%	34
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.16%	55
Water Security Cost	0.14%	31
Total	0.39%	49

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.3%	34.2%	33.0%	32.4%
Age 25-55	42.5%	42.3%	40.9%	40.1%
Age 55+	21.2%	23.5%	26.1%	27.5%
Population Change (average between years)				
Age 0-24		-842	105	90
Age 25-55		33	163	145
Age 55+		1,140	1,693	1,736
Average Age	36.3	37.8	39.0	39.4
Average Annual Growth		0.1%	0.8%	0.8%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	314	448	36	23	27%	38%
Value of Property and Unincorporated Business	233	308	28	28	32%	47%
Value of Financial Assets	137	234	46	30	20%	32%
Value of Household Liabilities	56	95	61	54	46%	42%
Disposable Income after Debt Service Costs	44	56	60	50	43%	50%
Household Debt Service Ratio	13%	17%	43	49	69%	66%
Household Debt to Gross Income Ratio	0.98	1.23	43	49	68%	66%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	131	180	255	242	244	37%
Non Residential	107	121	174	162	203	48%
Total	238	335	428	404	447	27%
Value per capita $2004/05						
Residential	632	778	1,055	996	999	31%
Non Residential	464	512	718	664	827	44%
Total	1,122	1,239	1,773	1,660	1,826	41%
Rank (value per capita)						
Residential	56	55	47	49	48	
Non Residential	57	51	37	49	33	
Total	57	56	48	51	47	

RAINFALL

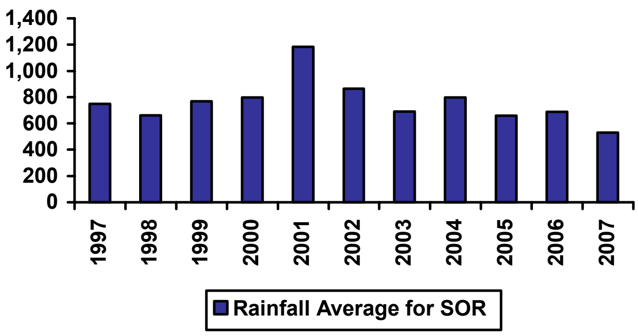
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	748	661	768	798	1,183	864	691	796	659	689	530
Rank	32	32	35	56	32	15	22	13	35	26	21

PATENT APPLICATIONS

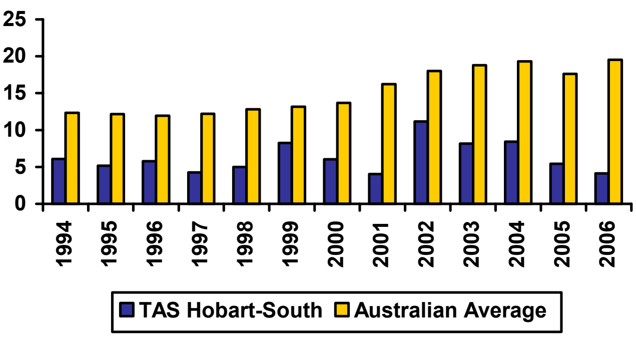
	No	Aust Avg	Rank
Average p.a. (1994-2005)	14.68	46.04	38
Average p.a. per capita	6.30	12.17	50
Hi Tech p.a. (1994-2005)	3.99	12.38	30
Hi Tech p.a. per capita	1.71	2.98	29
Info. Tech p.a. (1994-2005)	1.05	4.75	31
Info. Tech p.a. per capita	0.45	1.13	34
Average per capita (1994-2000)	5.57	10.48	52
Average per capita (2000-2005)	6.89	14.53	53
2000-05 avg./1994-00 avg.	1.24	1.36	44

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



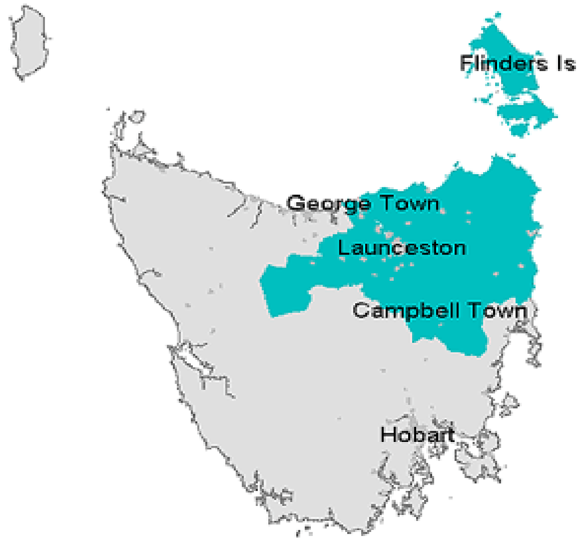
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	16.5	16.5	16.5	16.1
Rank	61	63	61	64
Days Over 35C	1	1	1	0
Rank	62	62	61	62

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	253
Rank	23

TAS North



Northern Tasmania comprises the north east part of the island. Its chief city is Launceston. The region includes areas of intensive farming with associated agricultural processing. The northern midlands and east coast are relatively dry, and are devoted to livestock rather than crop production. It has some manufacturing, with a nucleus of heavy industry at the port of Bell Bay, and also a coal mine.

Major centres:

Launceston

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	134	135	137	138	139	140	1.1%	1.2%	0.8%	0.7%	0.6%	1.0%	0.7%
No. Households	54	55	55	56	57	58	1.2%	1.3%	1.4%	1.4%	1.2%	1.3%	1.3%
NIEIR Workforce	62	62	65	65	66	66	0.6%	4.1%	0.7%	1.3%	0.2%	1.8%	0.7%
NIEIR Employment	53	54	56	58	59	59	1.4%	4.6%	3.1%	2.8%	-0.3%	3.0%	1.2%
NIEIR Unemployment	9.0	8.6	8.7	7.4	6.6	6.9	-4.0%	1.2%	-15.1%	-10.6%	4.7%	-6.2%	-3.3%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	14.5%	13.9%	13.5%	11.4%	10.0%	10.5%	-0.7	-0.4	-2.1	-1.3	0.5	-1.1	-0.4
Headline U/E	8.7%	8.4%	8.2%	6.4%	5.2%	5.7%	-0.3	-0.2	-1.9	-1.1	0.5	-0.8	-0.3
NIEIR Structural U/E	19.2%	19.9%	18.7%	17.9%	17.3%	16.8%	0.7	-1.2	-0.8	-0.6	-0.5	-0.4	-0.6

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,724	1,791	1,939	2,081	2,207	2,252	12,904	13,265	14,194	15,116	15,909	16,135	6.5%	4.0%
Taxes Paid	508	502	538	579	600	579	3,799	3,721	3,940	4,206	4,323	4,149	4.5%	0.0%
Benefits	611	613	674	683	667	691	4,576	4,539	4,930	4,962	4,809	4,949	3.8%	0.5%
Business Income	499	467	508	498	501	406	3,734	3,462	3,719	3,613	3,613	2,910	-0.1%	-9.7%
Interest Paid	159	178	216	250	274	315	1,192	1,322	1,583	1,813	1,973	2,254	16.2%	12.3%
Property Income	395	407	444	490	536	586	2,958	3,017	3,253	3,558	3,864	4,197	7.4%	9.3%
Disposable Income	2,574	2,604	2,812	2,929	3,057	3,068	19,266	19,282	20,582	21,270	22,037	21,989	4.4%	2.4%
Rank							58	57	56	56	56	59		
%Rank #1							49%	50%	51%	50%	49%	47%		
Business Value Added	2,223	2,259	2,448	2,579	2,708	2,658	16,638	16,727	17,914	18,730	19,521	19,046	5.1%	1.5%
Rank							59	60	59	59	59	59		
%Rank #1							44%	44%	46%	45%	44%	41%		
Business Productivity							37,689	39,289	40,801	42,190	43,195	44,277	3.8%	2.4%
Rank							64	64	64	64	64	63		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.13%	0.14%
Disability Support (aged 25+)	4.48%	3.13%
Mature Age Allowance	0.03%	0.02%
Parenting Payment - Single (aged 15-19)	0.05%	0.04%
Parenting Payment - Single (aged 20-24)	0.27%	0.21%
Parenting Payment - Single (aged 25+)	1.89%	1.64%
Unemployed Long Term	2.06%	1.20%
Unemployed Short Term	0.91%	0.79%
Youth Allowance - Non Student	0.49%	0.32%
Youth Allowance - Student	1.76%	1.27%

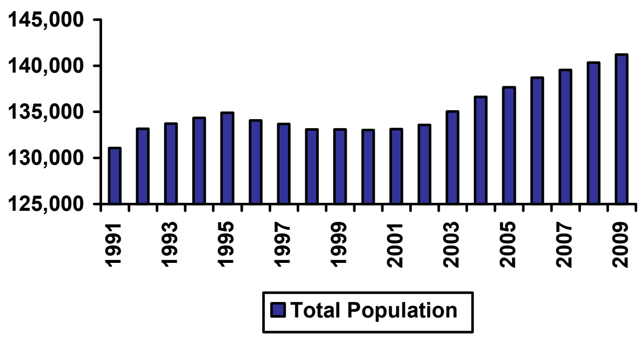
Cash Benefits Share of Disposable Income	Share	Rank
2002	23.8%	5
2003	23.5%	6
2004	24.0%	7
2005	23.3%	7
2006	21.8%	7
2007	22.5%	7

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	59.3	55
Share of population under 55	73.1	45
Aged migration	4.3	29
Population growth rate, 55+	2.1	43
Demographic stress	-10.3	61
Dominant locations	90.9	22
Family / Youth migration	0.1	44
Fertility bounce, 1996-2005	-0.2	41
Fertility, babies % pop, 2005	1.3	33
Fertility, babies % pop, 2005	46.4	57
Working elderly	21.9	53

Local Government Level		Score	Rank
Most Sustainable	Meander Valley (M)	60.5	216
Least Sustainable	Flinders (M)	25.4	590

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.31%	32
2002	1.26%	26
2003	1.19%	39
2004	1.21%	36
2005	1.19%	41
2006	1.29%	33
Bounce 2004-05	-0.02%	43
Actual Change 2004-05 (Number)	-12	40
Bounce 2005-06	0.10%	14
Actual Change 2005-06 (Number)	150	32

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$866	21
Carbon Price Loss Cost (@$33 a tonne of carbon)	$685	63
Water Security Cost	$624	30
Total	$2,175	28

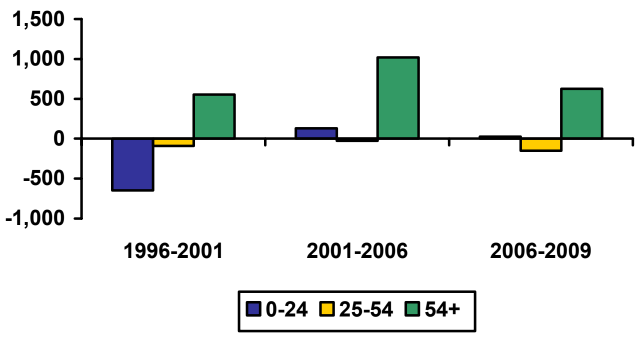
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	1.67%	19
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.32%	51
Water Security Cost	1.21%	12
Total	4.20%	22

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.24%	21
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.19%	50
Water Security Cost	0.17%	20
Total	0.60%	27

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.4%	34.3%	33.3%	32.8%
Age 25-55	42.0%	42.0%	40.2%	39.1%
Age 55+	22.3%	24.5%	27.2%	28.1%
Population Change (average between years)				
Age 0-24		-646	129	26
Age 25-55		-92	-28	-152
Age 55+		553	1,017	626
Average Age	36.5	38.0	39.1	39.5
Average Annual Growth		-0.1%	0.8%	0.6%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	289	361	44	43	25%	31%
Value of Property and Unincorporated Business	220	249	33	36	30%	38%
Value of Financial Assets	127	196	49	44	19%	27%
Value of Household Liabilities	58	84	58	59	47%	37%
Disposable Income after Debt Service Costs	44	52	61	59	43%	46%
Household Debt Service Ratio	14%	17%	40	50	71%	65%
Household Debt to Gross Income Ratio	1.01	1.21	40	50	71%	65%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	69	88	117	102	108	24%
Non Residential	56	63	90	81	94	40%
Total	125	166	208	183	202	19%
Value per capita $2004/05						
Residential	560	646	846	731	768	21%
Non Residential	419	466	650	581	670	36%
Total	989	1,062	1,496	1,312	1,438	33%
Rank (value per capita)						
Residential	60	58	58	59	58	
Non Residential	60	58	47	55	50	
Total	62	58	56	59	59	

RAINFALL

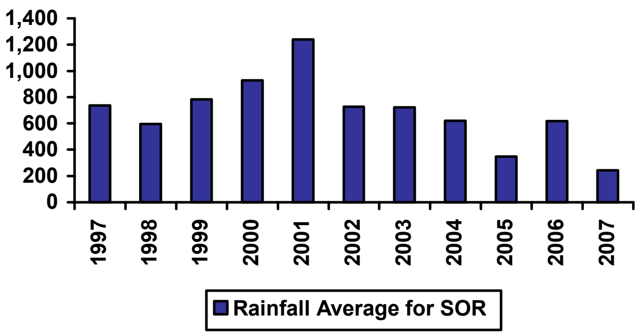
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	737	596	784	929	1,240	727	721	620	347	618	243
Rank	33	40	34	45	28	32	20	36	61	36	53

PATENT APPLICATIONS

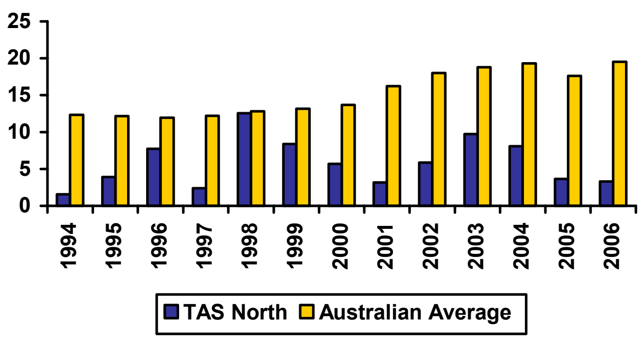
	No	Aust Avg	Rank
Average p.a. (1994-2005)	7.85	46.04	54
Average p.a. per capita	5.84	12.17	53
Hi Tech p.a. (1994-2005)	1.11	12.38	52
Hi Tech p.a. per capita	0.82	2.98	51
Info. Tech p.a. (1994-2005)	0.08	4.75	60
Info. Tech p.a. per capita	0.06	1.13	60
Average per capita (1994-2000)	5.68	10.48	51
Average per capita (2000-2005)	5.62	14.53	57
2000-05 avg./1994-00 avg.	0.99	1.36	60

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	15.8	16.5	16.4	18.3
Rank	64	61	62	60
Days Over 35C	0	0	0	0
Rank	63	63	63	63

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	125
Rank	37

TAS North West

North West Tasmania comprises the urban strip along the Cradle Coast (Devonport to Ulverstone, Burnie and Wynyard, with Stanley and Smithton beyond) plus the hinterland of this strip including the West Coast. The coastal North West is dairy farming country, while further inland plantation forestry is in conflict with the conservation of native forest and so with the tourist industry. The West Coast has a history of more than a century of mining, but tourism now overshadows mining as its economic base. Extensive tree plantations were originally started to support a paper industry, but the two industries have become disconnected and much of the product of the plantations is exported as woodchips.

Major centres:

Burnie, Devonport

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	107	108	109	109	110	110	1.0%	0.8%	0.4%	0.5%	0.5%	0.7%	0.5%
No. Households	43	43	44	44	45	45	0.8%	1.1%	1.3%	1.1%	1.1%	1.1%	1.1%
NIEIR Workforce	49	50	51	52	53	54	1.9%	2.3%	1.0%	2.9%	1.5%	1.7%	2.2%
NIEIR Employment	41	42	44	45	46	46	2.6%	4.4%	2.8%	2.8%	0.0%	3.3%	1.4%
NIEIR Unemployment	8.4	8.3	7.6	6.9	7.1	8.0	-1.9%	-8.2%	-9.4%	3.6%	11.6%	-6.6%	7.5%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	17.1%	16.5%	14.8%	13.3%	13.3%	14.7%	-0.6	-1.7	-1.5	0.1	1.3	-1.3	0.7
Headline U/E	9.9%	9.9%	8.4%	6.9%	7.0%	8.5%	-0.1	-1.5	-1.4	0.0	1.6	-1.0	0.8
NIEIR Structural U/E	22.5%	22.7%	21.3%	20.3%	19.4%	18.5%	0.2	-1.4	-1.0	-0.9	-1.0	-0.7	-0.9

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,351	1,429	1,538	1,660	1,765	1,801	12,660	13,254	14,159	15,226	16,109	16,354	7.1%	4.1%
Taxes Paid	423	412	439	477	495	473	3,967	3,821	4,043	4,370	4,514	4,297	4.0%	-0.4%
Benefits	506	508	561	566	556	574	4,739	4,716	5,166	5,188	5,077	5,209	3.8%	0.7%
Business Income	455	386	427	447	436	335	4,262	3,581	3,927	4,096	3,975	3,045	-0.6%	-13.4%
Interest Paid	124	137	164	184	197	225	1,158	1,268	1,506	1,686	1,802	2,040	14.2%	10.5%
Property Income	298	294	319	336	363	405	2,793	2,728	2,933	3,078	3,309	3,675	4.0%	9.8%
Disposable Income	2,073	2,074	2,247	2,358	2,449	2,444	19,427	19,241	20,680	21,623	22,350	22,192	4.4%	1.8%
Rank							55	59	55	54	54	57		
%Rank #1							50%	50%	52%	51%	50%	47%		
Business Value Added	1,805	1,815	1,965	2,107	2,201	2,136	16,921	16,835	18,086	19,322	20,084	19,399	5.3%	0.7%
Rank							58	59	58	57	56	57		
%Rank #1							45%	45%	46%	47%	46%	42%		
Business Productivity							38,304	39,951	41,316	42,807	43,829	44,877	3.8%	2.4%
Rank							63	62	63	61	62	62		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.12%	0.08%
Disability Support (aged 20-24)	0.19%	0.14%
Disability Support (aged 25+)	5.30%	3.13%
Mature Age Allowance	0.04%	0.02%
Parenting Payment - Single (aged 15-19)	0.06%	0.04%
Parenting Payment - Single (aged 20-24)	0.24%	0.21%
Parenting Payment - Single (aged 25+)	2.00%	1.64%
Unemployed Long Term	2.28%	1.20%
Unemployed Short Term	1.00%	0.79%
Youth Allowance - Non Student	0.63%	0.32%
Youth Allowance - Student	1.25%	1.27%

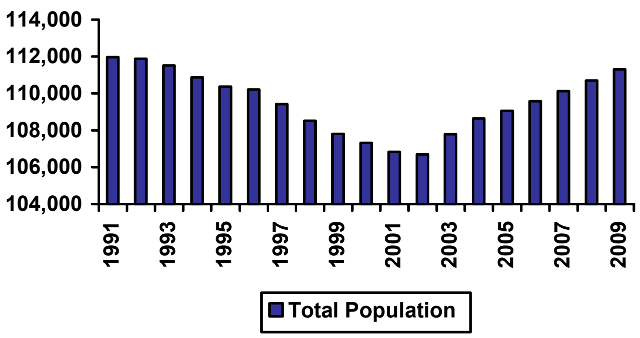
Cash Benefits Share of Disposable Income	Share	Rank
2002	24.4%	4
2003	24.5%	4
2004	25.0%	5
2005	24.0%	6
2006	22.7%	5
2007	23.5%	5

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	35.4	64
Share of population under 55	72.2	51
Aged migration	4.0	38
Population growth rate, 55+	2.3	37
Demographic stress	-27.1	62
Dominant locations	72.0	37
Family / Youth migration	-2.6	63
Fertility bounce, 1996-2005	-0.1	18
Fertility, babies % pop, 2005	1.3	27
Fertility, babies % pop, 2005	36.0	64
Working elderly	21.4	55

Local Government Level		Score	Rank
Most Sustainable	Latrobe (M)	60.3	219
Least Sustainable	West Coast (M)	21.2	620

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.31%	29
2002	1.24%	30
2003	1.16%	46
2004	1.18%	44
2005	1.20%	37
2006	1.32%	27
Bounce 2004-05	0.02%	22
Actual Change 2004-05 (Number)	25	28
Bounce 2005-06	0.11%	8
Actual Change 2005-06 (Number)	131	37

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$1,601	8
Carbon Price Loss Cost (@$33 a tonne of carbon)	$674	64
Water Security Cost	$624	31
Total	$2,899	16

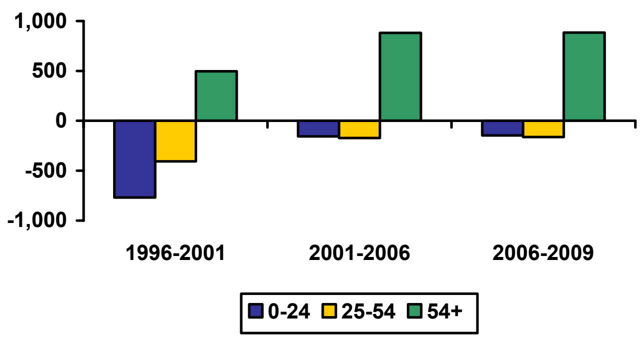
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	3.02%	7
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.27%	55
Water Security Cost	1.18%	13
Total	5.47%	13

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.55%	6
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.23%	38
Water Security Cost	0.21%	12
Total	1.00%	9

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	36.5%	34.0%	32.5%	31.6%
Age 25-55	42.1%	41.6%	39.7%	38.7%
Age 55+	21.4%	24.4%	27.8%	29.7%
Population Change (average between years)				
Age 0-24		-770	-156	-148
Age 25-55		-408	-173	-163
Age 55+		497	880	884
Average Age	36.1	37.9	39.5	40.3
Average Annual Growth		-0.6%	0.5%	0.5%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	258	291	53	56	22%	25%
Value of Property and Unincorporated Business	192	200	42	52	27%	31%
Value of Financial Assets	122	167	51	52	18%	23%
Value of Household Liabilities	57	76	59	62	47%	34%
Disposable Income after Debt Service Costs	45	53	59	58	43%	47%
Household Debt Service Ratio	13%	16%	41	57	71%	60%
Household Debt to Gross Income Ratio	1.01	1.12	41	57	70%	60%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	48	51	97	90	92	84%
Non Residential	39	43	61	58	73	49%
Total	87	112	158	149	165	40%
Value per capita $2004/05						
Residential	493	524	883	823	835	62%
Non Residential	360	398	559	531	666	47%
Total	892	867	1,442	1,354	1,501	65%
Rank (value per capita)						
Residential	61	62	57	57	53	
Non Residential	63	61	57	59	51	
Total	64	62	59	58	56	

RAINFALL

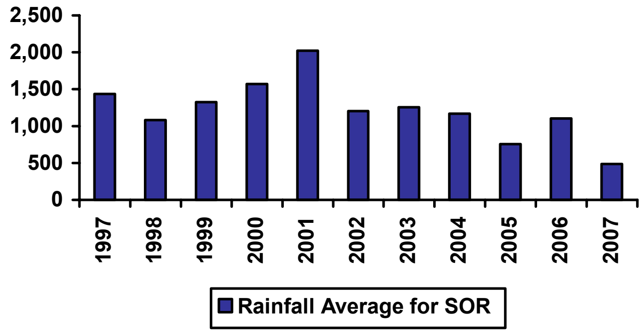
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,438	1,082	1,322	1,571	2,024	1,203	1,255	1,167	757	1,102	487
Rank	3	10	16	14	2	3	4	4	27	6	28

PATENT APPLICATIONS

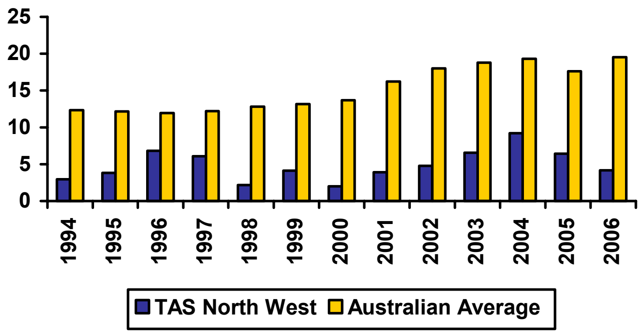
	No	Aust Avg	Rank
Average p.a. (1994-2005)	5.27	46.04	57
Average p.a. per capita	4.84	12.17	58
Hi Tech p.a. (1994-2005)	0.55	12.38	56
Hi Tech p.a. per capita	0.51	2.98	57
Info. Tech p.a. (1994-2005)	0.00	4.75	62
Info. Tech p.a. per capita	0.00	1.13	62
Average per capita (1994-2000)	3.98	10.48	59
Average per capita (2000-2005)	5.84	14.53	56
2000-05 avg./1994-00 avg.	1.47	1.36	16

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



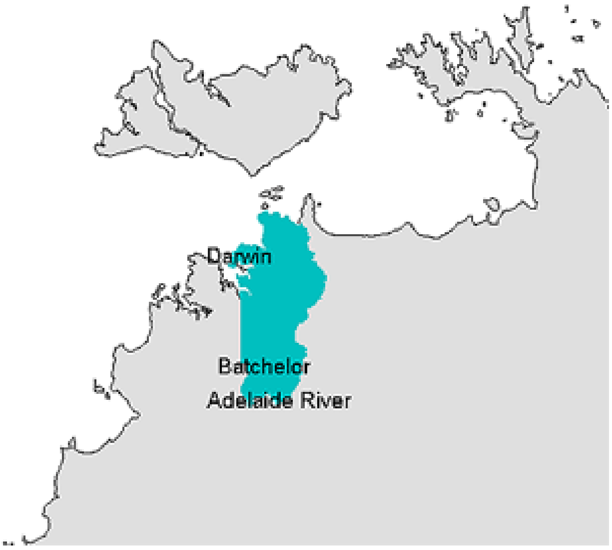
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	16.1	16.5	16.4	16.2
Rank	62	62	63	63
Days Over 35C	0	0	0	0
Rank	63	63	64	64

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	76
Rank	51

Darwin



As the smallest of the capitals (though growing faster than the rest), Darwin comprises a single region which includes the CBD, all the suburbs and virtually all of the commuter and hobby farm belt. Darwin's economic base includes the provision of urban functions for the Top End and government functions for the whole of the NT. Tourism is important, and defence very important. Darwin is also the service port for offshore oil and gas fields, and expects to gain gas-processing industries. It is yet to be seen whether the rail connection from the south will increase activity in the port.

Major centres:

Darwin

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	109	109	110	112	115	117	0.4%	1.2%	2.0%	2.3%	1.9%	1.2%	2.1%
No. Households	40	41	41	42	42	43	0.7%	1.0%	1.5%	1.3%	0.8%	1.1%	1.0%
NIEIR Workforce	66	67	70	69	72	74	1.3%	4.6%	-1.3%	3.2%	3.1%	1.5%	3.1%
NIEIR Employment	63	64	67	66	69	71	1.9%	4.6%	-1.3%	3.5%	3.8%	1.7%	3.7%
NIEIR Unemployment	3.4	3.1	3.2	3.2	3.1	2.6	-9.4%	3.6%	-1.3%	-3.7%	-13.7%	-2.5%	-8.9%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	5.2%	4.6%	4.6%	4.6%	4.3%	3.6%	-0.5	0.0	0.0	-0.3	-0.7	-0.2	-0.5
Headline U/E	4.1%	3.5%	3.6%	3.6%	3.2%	2.6%	-0.6	0.1	0.0	-0.4	-0.6	-0.2	-0.5
NIEIR Structural U/E	11.9%	11.8%	11.1%	11.1%	10.7%	9.2%	-0.1	-0.7	0.0	-0.4	-1.5	-0.3	-1.0

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	2,581	2,570	2,864	3,101	3,303	3,556	23,780	23,588	25,972	27,569	28,699	30,336	6.3%	7.1%
Taxes Paid	568	530	639	697	726	768	5,238	4,860	5,799	6,192	6,311	6,556	7.0%	5.0%
Benefits	205	197	198	231	291	247	1,887	1,807	1,798	2,055	2,528	2,108	4.1%	3.4%
Business Income	343	366	428	432	441	484	3,157	3,357	3,878	3,840	3,832	4,127	8.0%	5.8%
Interest Paid	146	172	217	254	290	340	1,341	1,574	1,967	2,261	2,520	2,901	20.4%	15.6%
Property Income	378	388	467	526	579	655	3,478	3,562	4,235	4,679	5,029	5,592	11.7%	11.6%
Disposable Income	2,911	2,958	3,267	3,573	3,876	4,152	26,818	27,148	29,631	31,767	33,681	35,424	7.1%	7.8%
Rank							18	11	9	8	7	7		
%Rank #1							69%	71%	74%	75%	75%	75%		
Business Value Added	2,923	2,936	3,291	3,533	3,744	4,039	26,937	26,944	29,850	31,409	32,532	34,463	6.5%	6.9%
Rank							9	9	6	7	6	6		
%Rank #1							72%	72%	77%	76%	74%	75%		
Business Productivity							45,780	45,441	48,636	52,251	53,642	55,530	4.5%	3.1%
Rank							39	46	35	18	15	15		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.08%	0.08%
Disability Support (aged 20-24)	0.14%	0.14%
Disability Support (aged 25+)	2.63%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.09%	0.04%
Parenting Payment - Single (aged 20-24)	0.31%	0.21%
Parenting Payment - Single (aged 25+)	1.82%	1.64%
Unemployed Long Term	1.65%	1.20%
Unemployed Short Term	0.95%	0.79%
Youth Allowance - Non Student	0.46%	0.32%
Youth Allowance - Student	0.58%	1.27%

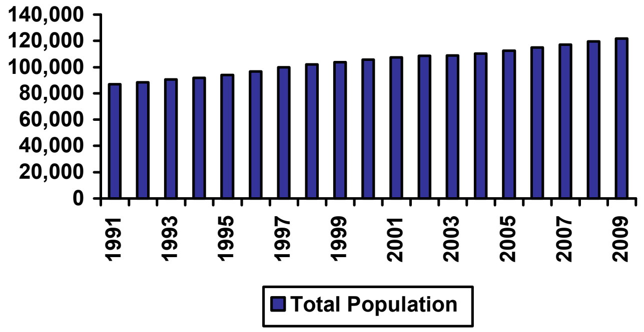
Cash Benefits Share of Disposable Income	Share	Rank
2002	7.0%	64
2003	6.7%	64
2004	6.1%	64
2005	6.5%	64
2006	7.5%	62
2007	6.0%	64

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	75.4	44
Share of population under 55	84.8	4
Aged migration	3.1	60
Population growth rate, 55+	6.5	2
Demographic stress	28.6	11
Dominant locations	89.8	23
Family / Youth migration	5.6	5
Fertility bounce, 1996-2005	-0.4	64
Fertility, babies % pop, 2005	1.7	4
Fertility, babies % pop, 2005	62.3	25
Working elderly	35.8	3

Local Government Level		Score	Rank
Most Sustainable	Palmerston (C)	89.2	1
Least Sustainable	Coomalie (CGC)	28.7	562

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.69%	5
2002	1.58%	3
2003	1.67%	2
2004	1.65%	4
2005	1.53%	5
2006	1.71%	4
Bounce 2004-05	-0.12%	63
Actual Change 2004-05 (Number)	-97	61
Bounce 2005-06	0.18%	4
Actual Change 2005-06 (Number)	245	16

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$517	30
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,014	39
Water Security Cost	$24	63
Total	$1,555	56

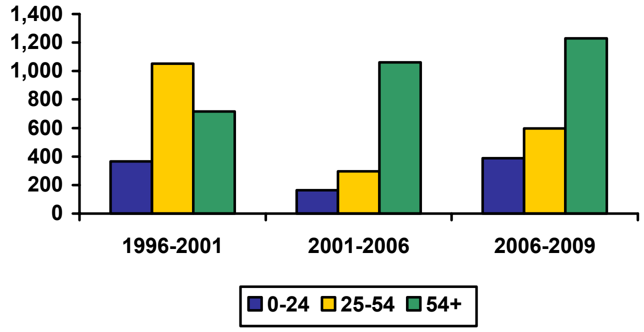
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.55%	33
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.07%	63
Water Security Cost	0.03%	63
Total	1.64%	62

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.11%	32
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.22%	47
Water Security Cost	0.01%	63
Total	0.33%	54

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	40.5%	38.2%	36.4%	35.3%
Age 25-55	50.6%	50.5%	48.4%	47.2%
Age 55+	8.9%	11.4%	15.2%	17.4%
Population Change (average between years)				
Age 0-24		365	165	387
Age 25-55		1,052	297	598
Age 55+		716	1,061	1,230
Average Age	30.7	32.1	33.0	34.3
Average Annual Growth		2.1%	1.4%	1.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	336	468	33	20	29%	40%
Value of Property and Unincorporated Business	288	422	15	10	40%	65%
Value of Financial Assets	115	166	54	54	17%	23%
Value of Household Liabilities	67	120	46	30	55%	53%
Disposable Income after Debt Service Costs	78	95	9	4	75%	84%
Household Debt Service Ratio	9%	14%	59	60	50%	54%
Household Debt to Gross Income Ratio	0.71	0.99	59	60	50%	54%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	248	140	197	186	239	48%
Non Residential	171	132	185	211	232	58%
Total	419	288	383	397	471	45%
Value per capita $2004/05						
Residential	2,511	1,280	1,714	1,579	1,987	38%
Non Residential	1,661	1,200	1,611	1,787	1,924	48%
Total	4,383	2,420	3,325	3,367	3,911	46%
Rank (value per capita)						
Residential	3	31	19	22	11	
Non Residential	3	5	6	6	6	
Total	3	14	10	10	5	

RAINFALL

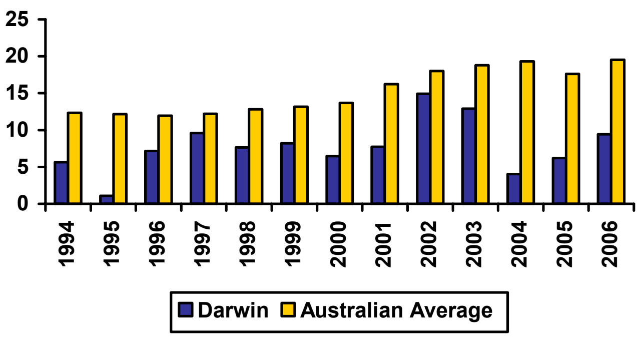
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	2,262	1,866	2,267	3,654	1,942	1,295	1,397	1,282	911	931	718
Rank	1	2	3	2	3	1	1	3	17	11	14

PATENT APPLICATIONS

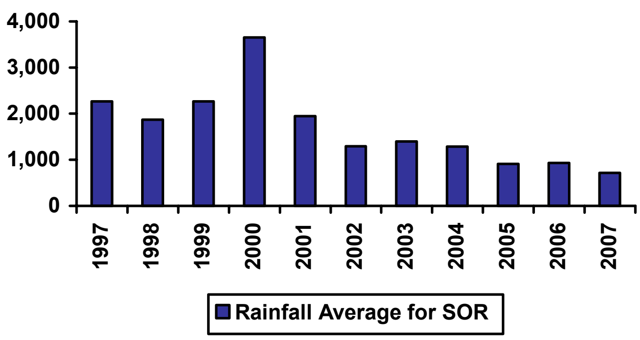
	No	Aust Avg	Rank
Average p.a. (1994-2005)	8.21	46.04	52
Average p.a. per capita	7.77	12.17	39
Hi Tech p.a. (1994-2005)	1.61	12.38	46
Hi Tech p.a. per capita	1.47	2.98	34
Info. Tech p.a. (1994-2005)	0.72	4.75	37
Info. Tech p.a. per capita	0.65	1.13	23
Average per capita (1994-2000)	6.69	10.48	39
Average per capita (2000-2005)	9.20	14.53	39
2000-05 avg./1994-00 avg.	1.38	1.36	31

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	27.0	27.7	27.2	26.9
Rank	11	10	11	8
Days Over 35C	8	5	6	4
Rank	48	51	53	54

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	113
Rank	41

NT Lingiari

Outside Darwin, the Northern Territory comprises conservation reserves and low-productivity pastoral country, with only small areas incorporated under fully-fledged local governments. Production statistics are dominated by offshore oil and gas and onshore minerals, but these do not yield much in employment or local income. In the two main towns, Katherine and Alice Springs, defence and tourism are important parts of the economic base. Outside the towns and mining settlements, the people are predominantly Aboriginal, and mostly live in communities which, due to lack of economic base, are heavily dependent on social security in its Community Development Employment Project form.

N.B Unemployment figures in remote regions can display excess variation.

Major centres:

Alice Springs, Katherine

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	91	91	92	94	96	98	0.3%	0.9%	1.7%	2.1%	2.0%	1.0%	2.1%
No. Households	28	28	29	29	29	30	1.2%	1.0%	1.0%	1.2%	1.0%	1.1%	1.1%
NIEIR Workforce	36	37	32	31	33	33	1.1%	-14.5%	-1.4%	4.9%	0.7%	-5.2%	2.8%
NIEIR Employment	33	33	27	27	27	28	0.7%	-16.9%	-2.3%	2.4%	3.1%	-6.5%	2.8%
NIEIR Unemployment	3.8	4.0	4.2	4.4	5.2	4.6	4.2%	4.8%	4.8%	20.2%	-11.9%	4.6%	2.9%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	10.5%	10.8%	13.2%	14.0%	16.1%	14.1%	0.3	2.4	0.8	2.0	-2.0	1.2	0.0
Headline U/E	8.2%	8.6%	8.8%	9.4%	9.1%	7.2%	0.4	0.2	0.6	-0.3	-2.0	0.4	-1.1
NIEIR Structural U/E	28.0%	30.3%	37.0%	38.1%	25.9%	27.4%	2.3	6.7	1.1	-12.2	1.4	3.4	-5.4

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	1,337	1,324	1,141	1,161	1,210	1,273	14,707	14,517	12,397	12,399	12,659	13,059	-4.6%	4.7%
Taxes Paid	328	291	270	277	283	277	3,604	3,195	2,935	2,963	2,959	2,846	-5.4%	0.0%
Benefits	312	324	367	351	280	342	3,427	3,554	3,991	3,747	2,928	3,511	4.0%	-1.2%
Business Income	306	237	247	252	242	187	3,365	2,600	2,687	2,689	2,532	1,923	-6.3%	-13.7%
Interest Paid	72	78	92	104	112	129	792	856	1,004	1,110	1,174	1,322	13.0%	11.4%
Property Income	206	213	190	213	231	243	2,265	2,337	2,066	2,279	2,415	2,496	1.2%	6.8%
Disposable Income	1,771	1,737	1,599	1,618	1,598	1,671	19,476	19,050	17,378	17,280	16,714	17,136	-3.0%	1.6%
Rank							54	60	64	64	64	64		
%Rank #1							50%	49%	43%	41%	37%	36%		
Business Value Added	1,643	1,561	1,388	1,413	1,452	1,461	18,073	17,117	15,084	15,089	15,192	14,982	-4.9%	1.7%
Rank							56	58	64	64	64	64		
%Rank #1							48%	45%	39%	36%	35%	33%		
Business Productivity							47,206	46,349	46,882	51,045	51,268	52,355	2.6%	1.3%
Rank							31	38	46	27	30	28		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.10%	0.08%
Disability Support (aged 20-24)	0.16%	0.14%
Disability Support (aged 25+)	2.76%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.15%	0.04%
Parenting Payment - Single (aged 20-24)	0.51%	0.21%
Parenting Payment - Single (aged 25+)	1.94%	1.64%
Unemployed Long Term	4.78%	1.20%
Unemployed Short Term	1.21%	0.79%
Youth Allowance - Non Student	1.64%	0.32%
Youth Allowance - Student	0.15%	1.27%

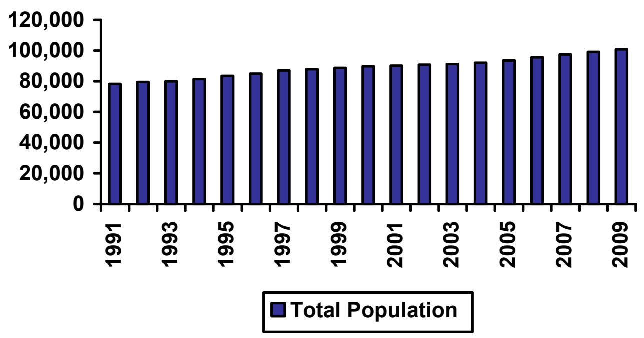
Cash Benefits Share of Disposable Income	Share	Rank
2002	17.6%	24
2003	18.7%	17
2004	23.0%	8
2005	21.7%	9
2006	17.5%	26
2007	20.5%	12

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	84.1	31
Share of population under 55	88.9	2
Aged migration	2.6	64
Population growth rate, 55+	4.3	8
Demographic stress	13.5	35
Dominant locations	39.0	62
Family / Youth migration	1.7	30
Fertility bounce, 1996-2005	-0.3	61
Fertility, babies % pop, 2005	1.8	3
Fertility, babies % pop, 2005	64.8	18
Working elderly	32.3	9

Local Government Level		Score	Rank
Most Sustainable	Unincorporated NT	71.5	83
Least Sustainable	Tennant Creek (T)	30.6	539

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	2.06%	2
2002	1.52%	6
2003	2.06%	1
2004	2.09%	1
2005	1.92%	1
2006	1.83%	3
Bounce 2004-05	-0.17%	64
Actual Change 2004-05 (Number)	-129	63
Bounce 2005-06	-0.09%	63
Actual Change 2005-06 (Number)	-49	62

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$236	38
Carbon Price Loss Cost (@$33 a tonne of carbon)	$914	54
Water Security Cost	$0	64
Total	$1,151	64

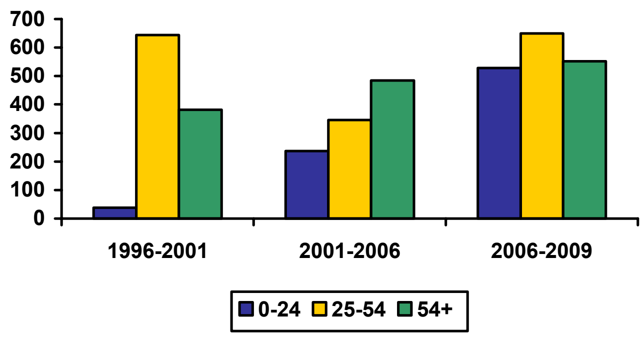
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.38%	39
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.48%	43
Water Security Cost	0.00%	64
Total	1.86%	59

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.12%	30
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.47%	4
Water Security Cost	0.00%	64
Total	0.59%	29

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	48.1%	45.5%	44.2%	43.4%
Age 25-55	44.5%	45.5%	44.8%	44.3%
Age 55+	7.5%	9.2%	11.2%	12.2%
Population Change (average between years)				
Age 0-24		38	236	529
Age 25-55		644	345	650
Age 55+		381	485	552
Average Age	28.0	29.4	31.2	31.0
Average Annual Growth		1.2%	1.1%	1.8%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	189	194	62	64	16%	17%
Value of Property and Unincorporated Business	151	166	64	59	21%	25%
Value of Financial Assets	98	102	57	62	15%	14%
Value of Household Liabilities	60	73	56	64	49%	32%
Disposable Income after Debt Service Costs	65	62	20	34	63%	55%
Household Debt Service Ratio	10%	14%	54	61	54%	52%
Household Debt to Gross Income Ratio	0.78	0.97	54	61	54%	52%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	88	57	58	56	73	9%
Non Residential	56	68	68	81	98	21%
Total	144	124	125	137	170	16%
Value per capita $2004/05						
Residential	1,075	573	604	576	744	12%
Non Residential	628	740	707	843	998	15%
Total	1,773	1,282	1,311	1,419	1,742	16%
Rank (value per capita)						
Residential	34	60	61	61	60	
Non Residential	35	21	38	31	22	
Total	35	55	60	57	50	

RAINFALL

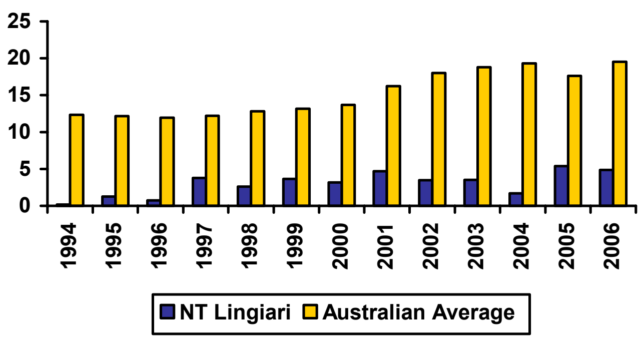
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	1,011	766	926	1,883	1,291	971	757	985	543	941	583
Rank	15	23	27	7	21	10	15	7	50	10	17

PATENT APPLICATIONS

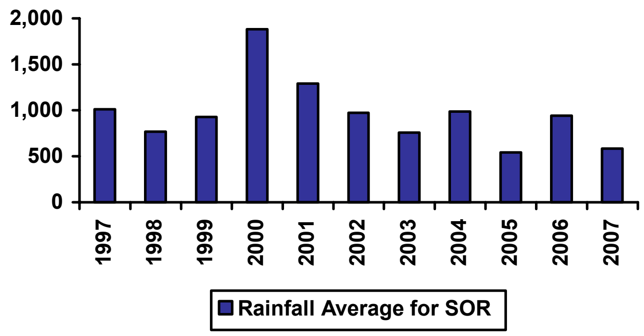
	No	Aust Avg	Rank
Average p.a. (1994-2005)	2.72	46.04	61
Average p.a. per capita	3.00	12.17	63
Hi Tech p.a. (1994-2005)	0.47	12.38	58
Hi Tech p.a. per capita	0.51	2.98	58
Info. Tech p.a. (1994-2005)	0.20	4.75	53
Info. Tech p.a. per capita	0.22	1.13	47
Average per capita (1994-2000)	2.51	10.48	64
Average per capita (2000-2005)	3.94	14.53	62
2000-05 avg./1994-00 avg.	1.57	1.36	9

Note: Per capita = 100,000 people

Patent Applications per 100,000 residents



Annual Rainfall



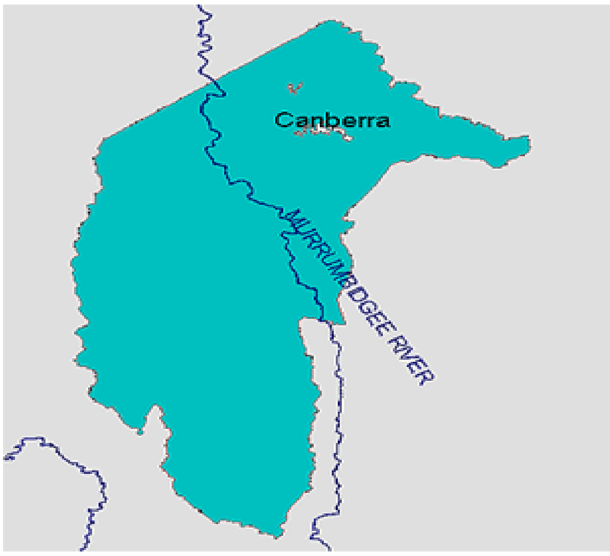
TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	30.0	30.9	30.1	29.6
Rank	4	3	3	3
Days Over 35C	75	91	78	71
Rank	4	4	4	5

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	20
Rank	62

ACT



The boundaries of the ACT have been static since the delineation of the national capital territory early last century. The Canberra urban area extends beyond these limits, and its hobby farm and commuter zone extends even further out to include a significant part of SE NSW; however because of its late foundation, political separateness and situation in an area of relatively low population density Canberra has not become a regional capital. Its original raison d'etre, government administration, remains fundamental to its economic base. Virtually all the former farmland in the ACT is now urbanised, but the territory still includes significant forested water reserves.

Major centres:

Canberra

LABOUR FORCE

	Number ('000s)						Percentage Change					%p.a. growth	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
Population	312	315	319	312	334	338	0.9%	1.3%	-2.2%	7.0%	1.1%	0.0%	4.0%
No. Households	125	129	133	136	140	143	2.8%	2.9%	2.8%	2.4%	2.2%	2.8%	2.3%
NIEIR Workforce	176	180	179	182	184	190	2.0%	-0.4%	1.3%	1.1%	3.5%	1.0%	2.3%
NIEIR Employment	165	169	168	172	175	181	2.4%	-0.3%	2.2%	1.6%	3.8%	1.5%	2.7%
NIEIR Unemployment	11.7	11.2	10.9	9.5	8.7	8.5	-4.2%	-2.8%	-12.9%	-7.9%	-3.0%	-6.8%	-5.5%

UNEMPLOYMENT

	Percentage						Percentage Point Change					Average % Point Change pa	
	2002	2003	2004	2005	2006	2007	2002 to 2003	2003 to 2004	2004 to 2005	2005 to 2006	2006 to 2007	2002 -2005	2005 -2007
NIEIR Unemploymenn	6.6%	6.2%	6.1%	5.2%	4.8%	4.5%	-0.4	-0.2	-0.8	-0.5	-0.3	-0.5	-0.4
Headline U/E	4.5%	4.3%	4.1%	3.7%	3.3%	3.0%	-0.3	-0.2	-0.4	-0.4	-0.2	-0.3	-0.3
NIEIR Structural U/E	7.3%	7.4%	7.3%	7.0%	6.7%	6.2%	0.1	-0.1	-0.2	-0.4	-0.5	-0.1	-0.4

INCOME FLOWS & PRODUCTIVITY

	Level 2005 $m						Per Capita $						%p.a. Growth of Level	
	2002	2003	2004	2005	2006	2007	2002	2003	2004	2005	2006	2007	2002 -2005	2005 -2007
Wages/Salaries	9,865	10,408	10,879	11,286	11,634	12,628	31,586	33,019	34,069	36,137	34,809	37,383	4.6%	5.8%
Taxes Paid	2,333	2,512	2,585	2,734	2,801	2,986	7,470	7,971	8,096	8,753	8,380	8,838	5.4%	4.5%
Benefits	987	999	1,094	1,118	1,093	1,133	3,161	3,168	3,425	3,581	3,269	3,355	4.2%	0.7%
Business Income	822	914	965	988	1,014	1,124	2,632	2,899	3,024	3,164	3,035	3,327	6.3%	6.6%
Interest Paid	585	687	831	929	994	1,119	1,873	2,179	2,603	2,976	2,975	3,311	16.7%	9.7%
Property Income	2,529	2,631	2,748	3,033	3,325	3,718	8,096	8,348	8,606	9,710	9,948	11,005	6.2%	10.7%
Disposable Income	11,530	12,002	12,557	13,109	13,667	14,923	36,917	38,075	39,326	41,973	40,892	44,177	4.4%	6.7%
Rank							3	2	2	2	3	3		
%Rank #1							95%	99%	98%	100%	91%	94%		
Business Value Added	10,687	11,322	11,844	12,275	12,648	13,752	34,218	35,918	37,093	39,301	37,844	40,710	4.7%	5.8%
Rank							3	2	2	2	3	3		
%Rank #1							91%	95%	95%	95%	86%	88%		
Business Productivity							63,811	66,075	69,270	70,330	71,361	74,766	3.3%	3.1%
Rank							4	2	2	2	4	3		

Note: (1) All years stated above are fiscal year ending.
(2) Figures for wages/salaries include superannuation supplements.
(3) Figures for disposable income (less depreciation expense) include imputed income from ownership of dwellings.
(4) Figures for business productivity are per employee.

SOCIAL SECURITY

	% Pop	Australian Average
Disability Support (aged 15-19)	0.07%	0.08%
Disability Support (aged 20-24)	0.11%	0.14%
Disability Support (aged 25+)	1.91%	3.13%
Mature Age Allowance	0.02%	0.02%
Parenting Payment - Single (aged 15-19)	0.03%	0.04%
Parenting Payment - Single (aged 20-24)	0.14%	0.21%
Parenting Payment - Single (aged 25+)	1.03%	1.64%
Unemployed Long Term	0.63%	1.20%
Unemployed Short Term	0.38%	0.79%
Youth Allowance - Non Student	0.16%	0.32%
Youth Allowance - Student	1.30%	1.27%

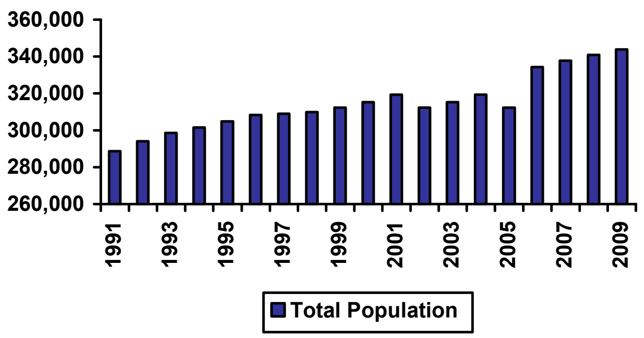
Cash Benefits Share of Disposable Income	Share	Rank
2002	8.6%	60
2003	8.3%	60
2004	8.7%	60
2005	8.5%	60
2006	8.0%	60
2007	7.6%	60

POPULATION SUSTAINABILITY

Sustainability measures	Value	Rank
% Years growing since 1995	100.0	1
Share of population under 55	80.1	10
Aged migration	5.6	9
Population growth rate, 55+	4.1	10
Demographic stress	2.1	52
Dominant locations	99.3	20
Family / Youth migration	3.6	14
Fertility bounce, 1996-2005	-0.1	28
Fertility, babies % pop, 2005	1.3	31
Fertility, babies % pop, 2005	63.2	24
Working elderly	32.5	8

Local Government Level		Score	Rank
Most Sustainable	Unincorporated ACT	63.2	183
Least Sustainable	Unincorporated ACT	63.2	183

Population Profile



BABY BOUNCE

	Per cent	Rank
2001	1.27%	42
2002	1.24%	29
2003	1.24%	29
2004	1.28%	23
2005	1.30%	24
2006	1.30%	31
Bounce 2004-05	0.02%	23
Actual Change 2004-05 (Number)	-34	45
Bounce 2005-06	0.00%	54
Actual Change 2005-06 (Number)	292	10

CLIMATE COST

Annual Climate Cost per Household ($2004/05)	Cost($)	Rank
Agriculture Income Loss	$16	60
Carbon Price Loss Cost (@$33 a tonne of carbon)	$1,160	10
Water Security Cost	$507	41
Total	$1,683	48

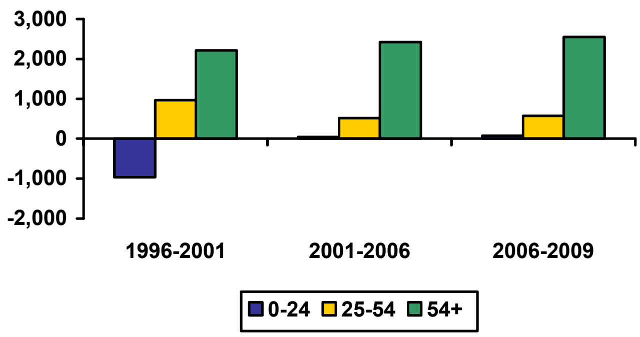
Climate Cost as a percent of average disposable income (less debt repayments)	%Share	Rank
Agriculture Income Loss	0.01%	60
Carbon Price Loss Cost (@$33 a tonne of carbon)	1.03%	64
Water Security Cost	0.45%	57
Total	1.50%	64

Climate Cost as a percent of average household wealth	%Share	Rank
Agriculture Income Loss	0.00%	59
Carbon Price Loss Cost (@$33 a tonne of carbon)	0.26%	31
Water Security Cost	0.11%	39
Total	0.38%	51

POPULATION CHANGE

	1996	2001	2006	2009
Share of Population				
Age 0-24	39.4%	36.5%	34.9%	34.0%
Age 25-55	46.5%	46.4%	45.1%	44.4%
Age 55+	14.1%	17.1%	19.9%	21.6%
Population Change (average between years)				
Age 0-24		-966	40	75
Age 25-55		968	517	571
Age 55+		2,212	2,425	2,551
Average Age	33.3	35.0	35.2	35.9
Average Annual Growth		0.7%	0.9%	0.9%

Population Change by Age Group



HOUSEHOLD WEALTH & DEBT

Indicator	2001	2007	2001 Rank	2007 Rank	2001 %Rank 1	2007 %Rank 1
Wealth per Household ($000 2004/05 prices)	321	446	35	24	28%	38%
Value of Property and Unincorporated Business	281	365	18	17	39%	56%
Value of Financial Assets	126	211	50	43	19%	29%
Value of Household Liabilities	86	130	18	24	70%	57%
Disposable Income after Debt Service Costs	94	113	4	1	91%	100%
Household Debt Service Ratio	10%	13%	55	62	54%	51%
Household Debt to Gross Income Ratio	0.77	0.94	55	62	54%	51%

RESIDENTIAL AND NON-RESIDENTIAL BUILDING CONSTRUCTION

	1997 -2001	2002 -2005	2006	2007	2008	Average Growth 2002-05 to 2006-08
Value $m2004/05 per annum						
Residential	484	626	608	643	594	-2%
Non Residential	423	361	797	923	951	146%
Total	907	987	1,405	1,566	1,545	53%
Value per capita $2004/05						
Residential	1,559	1,829	1,818	1,902	1,737	-1%
Non Residential	1,354	1,148	2,385	2,729	2,781	129%
Total	2,963	2,944	4,202	4,631	4,519	51%
Rank (value per capita)						
Residential	14	13	15	14	17	
Non Residential	5	6	3	2	3	
Total	8	7	3	3	3	

RAINFALL

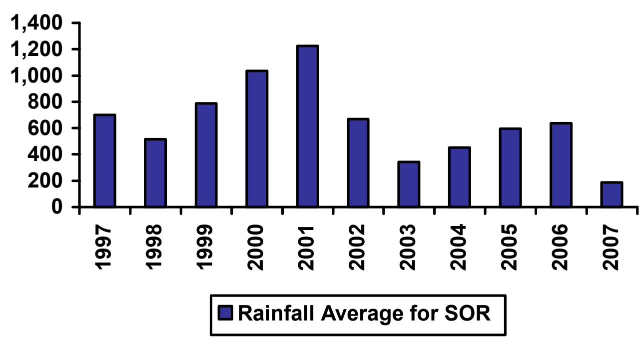
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rainfall (mm)	700	514	787	1,036	1,224	669	343	453	594	637	186
Rank	36	48	33	38	29	38	54	52	42	33	62

PATENT APPLICATIONS

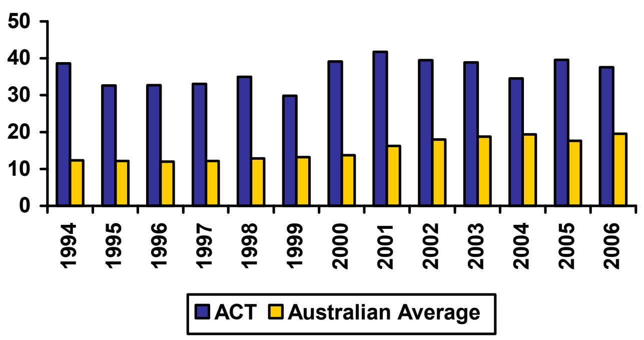
	No	Aust Avg	Rank
Average p.a. (1994-2005)	114.08	46.04	9
Average p.a. per capita	36.38	12.17	4
Hi Tech p.a. (1994-2005)	52.77	12.38	4
Hi Tech p.a. per capita	16.82	2.98	3
Info. Tech p.a. (1994-2005)	15.26	4.75	6
Info. Tech p.a. per capita	4.85	1.13	4
Average per capita (1994-2000)	35.35	10.48	3
Average per capita (2000-2005)	38.64	14.53	4
2000-05 avg./1994-00 avg.	1.09	1.36	56

Note: Per capita = 100,000 people

Annual Rainfall



Patent Applications per 100,000 residents



TEMPERATURE

	2004	2005	2006	2007
Temperature Avg	20.7	20.9	20.9	22.3
Rank	45	45	45	41
Days Over 35C	12	7	14	10
Rank	36	43	33	45

INNOVATION STARTUPS

	No.
High Tech Startups (2001-2007)	610
Rank	13

APPENDIX 2

INDEX OF LOCALITIES AND REGION MEMBERSHIP

A2.1 Index of localities

Local Government Area	Region
Adelaide (C)	Adelaide Central
Adelaide Hills (DC)	Adelaide Outer
Albany (C)	WA Wheatbelt-Great Southern
Albury (C)	NSW Murray
Alexandrina (DC)	Adelaide Outer
Alice Springs (T)	NT Lingiari
Alpine (S)	VIC Ovens-Hume
Alpurrurulam (CGC)	NT Lingiari
Anangu Pitjantjatjara (AC)	SA Eyre and Yorke
Angurugu (CGC)	NT Lingiari
Anmatjere (CGC)	NT Lingiari
Aramac (S)	QLD Pastoral
Ararat (RC)	VIC Central Highlands
Arltarlpilta (CGC)	NT Lingiari
Armadale (C)	Perth Outer South
Armidale Dumaresq (A)	NSW North
Ashburton (S)	WA Pilbara-Kimberly
Ashfield (A)	Sydney Inner West
Atherton (S)	QLD Far North
Auburn (A)	Sydney Mid West
Augusta-Margaret River (S)	WA Peel-South West
Aurukun (S)	QLD Far North
Badu (IC)	QLD Far North
Ballarat (C)	VIC Central Highlands
Ballina (A)	NSW Richmond-Tweed
Balonne (S)	QLD Pastoral
Balranald (A)	NSW Murray
Bamaga (IC)	QLD Far North
Banana (S)	QLD Fitzroy
Bankstown (C)	Sydney Mid West
Banyule (C)	Melbourne North
Barcaldine (S)	QLD Pastoral
Barcoo (S)	QLD Pastoral
Barossa (DC)	Adelaide Outer
Barunga West (DC)	SA Eyre and Yorke
Bass Coast (S)	VIC Gippsland
Bassendean (T)	Perth Outer North
Bathurst Regional (A)	NSW Central West
Bauhinia (S)	QLD Fitzroy
Baulkham Hills (A)	Sydney Outer North
Baw Baw (S)	VIC Gippsland
Bayside (C)	Melbourne South
Bayswater (C)	Perth Outer North
Beaudesert (S)	QLD Gold Coast
Bega Valley (A)	NSW South-East

Local Government Area	Region
Bellingen (A)	NSW Mid North Coast
Belmont (C)	Perth Central
Belyando (S)	QLD Mackay
Belyuen (CGC)	NT Lingiari
Benalla (RC)	VC Goulburn
Bendemere (S)	QLD Pastoral
Berri and Barmera (DC)	SA Murraylands
Berrigan (A)	NSW Murray
Beverley (S)	WA Wheatbelt-Great Southern
Biggenden (S)	QLD Wide Bay-Burnett
Binjari (CGC)	NT Lingiari
Blackall (S)	QLD Pastoral
Blacktown (C)	Sydney Mid West
Bland (A)	NSW Central West
Blayney (A)	NSW Central West
Blue Mountains (C)	Sydney Outer West
Boddington (S)	WA Peel-South West
Bogan (A)	NSW Far and North West
Boigu (IC)	QLD Far North
Bombala (A)	NSW South-East
Boonah (S)	QLD West Moreton
Booringa (S)	QLD Pastoral
Boorowa (A)	NSW South-East
Boroondara (C)	Melbourne East
Borroloola (CGC)	NT Lingiari
Botany Bay (C)	Global Sydney
Boulia (S)	QLD Pastoral
Bourke (A)	NSW Far and North West
Bowen (S)	QLD North
Boyup Brook (S)	WA Peel-South West
Break O'Day (M)	TAS North
Brewarrina (A)	NSW Far and North West
Bridgetown-Greenbushes (S)	WA Peel-South West
Brighton (M)	TAS Hobart-South
Brimbank (C)	Melbourne West
Brisbane (C)	Brisbane City
Broadsound (S)	QLD Mackay
Broken Hill (C)	NSW Far and North West
Brookton (S)	WA Wheatbelt-Great Southern
Broome (S)	WA Pilbara-Kimberly
Broomehill (S)	WA Wheatbelt-Great Southern
Bruce Rock (S)	WA Wheatbelt-Great Southern
Bulloo (S)	QLD Pastoral
Buloke (S)	VIC Mallee-Wimmera
Bunbury (C)	WA Peel-South West

Local Government Area	Region
Bundaberg ©	QLD Wide Bay-Burnett
Bungil (S)	QLD Pastoral
Burdekin (S)	QLD North
Burke (S)	QLD North West
Burnett (S)	QLD Wide Bay-Burnett
Burnie ©	TAS North West
Burnside ©	Adelaide Central
Burwood (A)	Sydney Inner West
Busselton (S)	WA Peel-South West
Byron (A)	NSW Richmond-Tweed
Cabonne (A)	NSW Central West
Caboolture (S)	Brisbane North
Cairns ©	QLD Far North
Calliope (S)	QLD Fitzroy
Caloundra ©	QLD Sunshine Coast
Cambooya (S)	QLD Agricultural SW
Cambridge (T)	Perth Central
Camden (A)	Sydney Outer South West
Campaspe (S)	VC Goulburn
Campbelltown ©	Adelaide Central
Campbelltown ©	Sydney Outer South West
Canada Bay (A)	Sydney Inner West
Canning ©	Perth Outer South
Canterbury ©	Sydney Mid West
Capel (S)	WA Peel-South West
Cardinia (S)	Melbourne Westport
Cardwell (S)	QLD Far North
Carnamah (S)	WA Gascoyne-Goldfields
Carnarvon (S)	WA Gascoyne-Goldfields
Carpentaria (S)	QLD North West
Carrathool (A)	NSW Murrumbidgee
Casey ©	Melbourne Westport
Ceduna (DC)	SA Eyre and Yorke
Central Coast (M)	TAS North West
Central Darling (A)	NSW Far and North West
Central Goldfields (S)	VIC Loddon
Central Highlands (M)	TAS Hobart-South
Cessnock ©	NSW Hunter
Chapman Valley (S)	WA Gascoyne-Goldfields
Charles Sturt ©	Adelaide Plains
Charters Towers ©	QLD North
Cherbourg (S)	QLD Wide Bay-Burnett
Chinchilla (S)	QLD Agricultural SW
Chittering (S)	WA Wheatbelt-Great Southern
Circular Head (M)	TAS North West
Clare and Gilbert Valleys (DC)	SA Eyre and Yorke
Claremont (T)	Perth Central
Clarence ©	TAS Hobart-South
Clarence Valley (A)	NSW Mid North Coast
Cleve (DC)	SA Eyre and Yorke
Clifton (S)	QLD Agricultural SW
Cloncurry (S)	QLD North West
Cobar (A)	NSW Far and North West
Cockburn ©	Perth Outer South
Coffs Harbour ©	NSW Mid North Coast
Colac-Otway (S)	VIC Barwon
Collie (S)	WA Peel-South West
Conargo (A)	NSW Murray
Coober Pedy (DC)	SA Eyre and Yorke
Cook (S)	QLD Far North
Coolamon (A)	NSW Murrumbidgee
Coolgardie (S)	WA Gascoyne-Goldfields
Cooloola (S)	QLD Wide Bay-Burnett
Coomalie (CGC)	Darwin
Cooma-Monaro (A)	NSW South-East
Coonamble (A)	NSW Far and North West
Coorow (S)	WA Gascoyne-Goldfields
Cootamundra (A)	NSW Murrumbidgee
Copper Coast (DC)	SA Eyre and Yorke
Corangamite (S)	VIC West
Corowa Shire (A)	NSW Murray
Corrigin (S)	WA Wheatbelt-Great Southern
Cottesloe (T)	Perth Central
Cowra (A)	NSW Central West
Cranbrook (S)	WA Wheatbelt-Great Southern
Crow's Nest (S)	QLD Agricultural SW
Croydon (S)	QLD Far North
Cuballing (S)	WA Wheatbelt-Great Southern
Cue (S)	WA Gascoyne-Goldfields
Cunderdin (S)	WA Wheatbelt-Great Southern
Daguragu (CGC)	NT Lingiari
Dalby (T)	QLD Agricultural SW
Dalrymple (S)	QLD North
Dalwallinu (S)	WA Wheatbelt-Great Southern
Dandaragan (S)	WA Wheatbelt-Great Southern
Dardanup (S)	WA Peel-South West
Darebin ©	Melbourne North
Darwin (C)	Darwin
Dauan (IC)	QLD Far North
Deniliquin (A)	NSW Murray
Denmark (S)	WA Wheatbelt-Great Southern
Derby-West Kimberley (S)	WA Pilbara-Kimberly
Derwent Valley (M)	TAS Hobart-South
Devonport (C)	TAS North West
Diamantina (S)	QLD Pastoral
Donnybrook-Balingup (S)	WA Peel-South West

Local Government Area	Region
Doomadgee (S)	QLD North West
Dorset (M)	TAS North
Douglas (S)	QLD Far North
Dowerin (S)	WA Wheatbelt-Great Southern
Duaringa (S)	QLD Fitzroy
Dubbo ©	NSW Far and North West
Dumbleyung (S)	WA Wheatbelt-Great Southern
Dundas (S)	WA Gascoyne-Goldfields
Dungog (A)	NSW Hunter
Eacham (S)	QLD Far North
East Fremantle (T)	Perth Central
East Gippsland (S)	VIC Gippsland
East Pilbara (S)	WA Pilbara-Kimberly
Eidsvold (S)	QLD Wide Bay-Burnett
Elliott District (CGC)	NT Lingiari
Elliston (DC)	SA Eyre and Yorke
Emerald (S)	QLD Fitzroy
Erub (IC)	QLD Far North
Esk (S)	QLD West Moreton
Esperance (S)	WA Gascoyne-Goldfields
Etheridge (S)	QLD Far North
Eurobodalla (A)	NSW South-East
Exmouth (S)	WA Gascoyne-Goldfields
Fairfield ©	Sydney Mid West
Fitzroy (S)	QLD Fitzroy
Flinders (M)	TAS North
Flinders (S)	QLD North West
Flinders Ranges (DC)	SA Eyre and Yorke
Forbes (A)	NSW Central West
Franklin Harbour (DC)	SA Eyre and Yorke
Frankston ©	Melbourne Westport
Fremantle ©	Perth Central
Gannawarra (S)	VIC Mallee-Wimmera
Gatton (S)	QLD West Moreton
Gawler (T)	Adelaide Plains
Gayndah (S)	QLD Wide Bay-Burnett
George Town (M)	TAS North
Geraldton ©	WA Gascoyne-Goldfields
Gilgandra (A)	NSW Far and North West
Gingin (S)	WA Wheatbelt-Great Southern
Gladstone ©	QLD Fitzroy
Glamorgan/Spring Bay (M)	TAS Hobart-South
Glen Eira ©	Melbourne South
Glen Innes Severn (A)	NSW North
Glenelg (S)	VIC West
Glenorchy ©	TAS Hobart-South
Gloucester (A)	NSW Hunter
Gnowangerup (S)	WA Wheatbelt-Great Southern

Local Government Area	Region
Gold Coast (C)	QLD Gold Coast
Golden Plains (S)	VIC Barwon
Goomalling (S)	WA Wheatbelt-Great Southern
Goondiwindi (T)	QLD Agricultural SW
Gosford (C)	NSW Central Coast
Gosnells (C)	Perth Outer South
Goulburn Mulwaree (A)	NSW South-East
Goyder (DC)	SA Eyre and Yorke
Grant (DC)	SA South East
Great Lakes (A)	NSW Hunter
Greater Bendigo (C)	VIC Loddon
Greater Dandenong (C)	Melbourne Westport
Greater Geelong (C)	VIC Barwon
Greater Hume Shire (A)	NSW Murray
Greater Shepparton (C)	VC Goulburn
Greater Taree (C)	NSW Mid North Coast
Greenough (S)	WA Gascoyne-Goldfields
Griffith (C)	NSW Murrumbidgee
Gundagai (A)	NSW Murrumbidgee
Gunnedah (A)	NSW North
Guyra (A)	NSW North
Gwydir (A)	NSW North
Halls Creek (S)	WA Pilbara-Kimberly
Hammond (IC)	QLD Far North
Harden (A)	NSW South-East
Harvey (S)	WA Peel-South West
Port Macquarie-Hastings (A)	NSW Mid North Coast
Hawkesbury (C)	Sydney Outer West
Hay (A)	NSW Murrumbidgee
Hepburn (S)	VIC Central Highlands
Herberton (S)	QLD Far North
Hervey Bay (C)	QLD Wide Bay-Burnett
Hinchinbrook (S)	QLD North
Hindmarsh (S)	VIC Mallee-Wimmera
Hobart (C)	TAS Hobart-South
Hobsons Bay (C)	Melbourne West
Holdfast Bay (C)	Adelaide Central
Holroyd (C)	Sydney Mid West
Hope Vale (S)	QLD Far North
Hornsby (A)	Sydney Outer North
Horsham (RC)	VIC Mallee-Wimmera
Hume (C)	Melbourne North
Hunter's Hill (A)	Global Sydney
Huon Valley (M)	TAS Hobart-South
Hurstville (C)	Sydney South
Ilfracombe (S)	QLD Pastoral
Indigo (S)	VIC Ovens-Hume
Inglewood (S)	QLD Agricultural SW

Local Government Area	Region
Injinoo (S)	QLD Far North
Inverell (A)	NSW North
Ipswich ©	QLD West Moreton
Irwin (S)	WA Gascoyne-Goldfields
Isis (S)	QLD Wide Bay-Burnett
Isisford (S)	QLD Pastoral
Jabiru (T)	NT Lingiari
Jericho (S)	QLD Fitzroy
Jerilderie (A)	NSW Murray
Jerramungup (S)	WA Wheatbelt-Great Southern
Jilkminggan (CGC)	NT Lingiari
Johnstone (S)	QLD Far North
Jondaryan (S)	QLD Agricultural SW
Joondalup ©	Perth Outer North
Junee (A)	NSW Murrumbidgee
Kalamunda (S)	Perth Outer South
Kalgoorlie/Boulder ©	WA Gascoyne-Goldfields
Kangaroo Island (DC)	SA Eyre and Yorke
Karoonda East Murray (DC)	SA Murraylands
Katanning (S)	WA Wheatbelt-Great Southern
Katherine (T)	NT Lingiari
Kellerberrin (S)	WA Wheatbelt-Great Southern
Kempsey (A)	NSW Mid North Coast
Kent (S)	WA Wheatbelt-Great Southern
Kentish (M)	TAS North West
Kiama (A)	NSW Illawarra
Kilcoy (S)	Brisbane North
Kilkivan (S)	QLD Wide Bay-Burnett
Kimba (DC)	SA Eyre and Yorke
King Island (M)	TAS North West
Kingaroy (S)	QLD Wide Bay-Burnett
Kingborough (M)	TAS Hobart-South
Kingston ©	Melbourne South
Kingston (DC)	SA South East
Knox ©	Melbourne East
Kogarah (A)	Sydney South
Kojonup (S)	WA Wheatbelt-Great Southern
Kolan (S)	QLD Wide Bay-Burnett
Kondinin (S)	WA Wheatbelt-Great Southern
Koorda (S)	WA Wheatbelt-Great Southern
Kowanyama (S)	QLD North West
Kubin (IC)	QLD Far North
Kulin (S)	WA Wheatbelt-Great Southern
Kunbarllanjnja (CGC)	NT Lingiari
Ku-ring-gai (A)	Sydney Outer North
Kwinana (T)	Perth Outer South
Kyogle (A)	NSW Richmond-Tweed
Lachlan (A)	NSW Central West

Local Government Area	Region
Laidley (S)	QLD West Moreton
Lajamanu (CGC)	NT Lingiari
Lake Grace (S)	WA Wheatbelt-Great Southern
Lake Macquarie (C)	NSW Hunter
Lane Cove (A)	Global Sydney
Latrobe (C)	VIC Gippsland
Latrobe (M)	TAS North West
Launceston (C)	TAS North
Laverton (S)	WA Gascoyne-Goldfields
Le Hunte (DC)	SA Eyre and Yorke
Leeton (A)	NSW Murrumbidgee
Leichhardt (A)	Sydney Inner West
Leonora (S)	WA Gascoyne-Goldfields
Light (RegC)	Adelaide Plains
Lismore (C)	NSW Richmond-Tweed
Litchfield (S)	Darwin
Lithgow (C)	NSW Central West
Liverpool (C)	Sydney Mid West
Liverpool Plains (A) part	NSW Hunter
Liverpool Plains (A) part	NSW North
Livingstone (S)	QLD Fitzroy
Lockhart (A)	NSW Murrumbidgee
Lockhart River (S)	QLD Far North
Loddon (S)	VIC Loddon
Logan (C)	QLD Gold Coast
Longreach (S)	QLD Pastoral
Lower Eyre Peninsula (DC)	SA Eyre and Yorke
Loxton Waikerie (DC)	SA Murraylands
Ltyentye Purte (CGC)	NT Lingiari
Mabuiag (IC)	QLD Far North
Macedon Ranges (S)	VIC Loddon
Mackay (C)	QLD Mackay
Maitland (C)	NSW Hunter
Mallala (DC)	Adelaide Plains
Mandurah (C)	WA Peel-South West
Manjimup (S)	WA Peel-South West
Manly (A)	Sydney Outer North
Manningham (C)	Melbourne East
Mansfield (S)	VC Goulburn
Mapoon (S)	QLD Far North
Maralinga Tjarutja (AC)	SA Eyre and Yorke
Mareeba (S)	QLD Far North
Maribyrnong (C)	Melbourne West
Marion (C)	Adelaide Central
Marngarr (CGC)	NT Lingiari
Maroochy (S)	QLD Sunshine Coast
Maroondah (C)	Melbourne East
Marrickville (A)	Sydney Mid West

Local Government Area	Region
Maryborough ©	QLD Wide Bay-Burnett
Mataranka (CGC)	NT Lingiari
McKinlay (S)	QLD North West
Meander Valley (M)	TAS North
Meekatharra (S)	WA Gascoyne-Goldfields
Melbourne ©	Melbourne Inner
Melton (S)	Melbourne West
Melville ©	Perth Outer South
Menzies (S)	WA Gascoyne-Goldfields
Mer (IC)	QLD Far North
Merredin (S)	WA Wheatbelt-Great Southern
Mid Murray (DC)	SA Murraylands
Mid-Western Regional (A) part	NSW Central West
Mid-Western Regional (A) part	NSW Far and North West
Mid-Western Regional (A) part	NSW Hunter
Mildura (RC)	VIC Mallee-Wimmera
Millmerran (S)	QLD Agricultural SW
Mingenew (S)	WA Gascoyne-Goldfields
Mirani (S)	QLD Mackay
Miriam Vale (S)	QLD Wide Bay-Burnett
Mitcham ©	Adelaide Central
Mitchell (S)	VC Goulburn
Moira (S)	VC Goulburn
Monash ©	Melbourne East
Monto (S)	QLD Wide Bay-Burnett
Moonee Valley ©	Melbourne West
Moora (S)	WA Wheatbelt-Great Southern
Moorabool (S)	VIC Central Highlands
Morawa (S)	WA Gascoyne-Goldfields
Moree Plains (A)	NSW North
Moreland ©	Melbourne North
Mornington (S)	QLD North West
Mornington Peninsula (S)	Melbourne Westport
Mosman (A)	Global Sydney
Mosman Park (T)	Perth Central
Mount Alexander (S)	VIC Loddon
Mount Barker (DC)	Adelaide Outer
Mount Gambier ©	SA South East
Mount Isa ©	QLD North West
Mount Magnet (S)	WA Gascoyne-Goldfields
Mount Marshall (S)	WA Wheatbelt-Great Southern
Mount Morgan (S)	QLD Fitzroy
Mount Remarkable (DC)	SA Eyre and Yorke
Moyne (S)	VIC West
Mukinbudin (S)	WA Wheatbelt-Great Southern
Mullewa (S)	WA Gascoyne-Goldfields
Mundaring (S)	Perth Outer North

Local Government Area	Region
Mundubbera (S)	QLD Wide Bay-Burnett
Murchison (S)	WA Gascoyne-Goldfields
Murgon (S)	QLD Wide Bay-Burnett
Murilla (S)	QLD Agricultural SW
Murray (A)	NSW Murray
Murray (S)	WA Peel-South West
Murray Bridge (RC)	SA Murraylands
Murrindindi (S)	VC Goulburn
Murrumbidgee (A)	NSW Murrumbidgee
Murweh (S)	QLD Pastoral
Muswellbrook (A)	NSW Hunter
Nambucca (A)	NSW Mid North Coast
Nanango (S)	QLD Wide Bay-Burnett
Nannup (S)	WA Peel-South West
Napranum (S)	QLD Far North
Naracoorte and Lucindale (DC)	SA South East
Narembeen (S)	WA Wheatbelt-Great Southern
Narrabri (A)	NSW North
Narrandera (A)	NSW Murrumbidgee
Narrogin (S)	WA Wheatbelt-Great Southern
Narrogin (T)	WA Wheatbelt-Great Southern
Narromine (A)	NSW Far and North West
Nauiyu Nambiyu (CGC)	NT Lingiari
Nebo (S)	QLD Mackay
Nedlands ©	Perth Central
New Mapoon (S)	QLD Far North
Newcastle ©	NSW Hunter
Ngaanyatjarraku (S)	WA Gascoyne-Goldfields
Nillumbik (S)	Melbourne North
Noosa (S)	QLD Sunshine Coast
North Sydney (A)	Global Sydney
Northam (S)	WA Wheatbelt-Great Southern
Northam (T)	WA Wheatbelt-Great Southern
Northampton (S)	WA Gascoyne-Goldfields
Northern Areas (DC)	SA Eyre and Yorke
Northern Grampians (S)	VIC Mallee-Wimmera
Northern Midlands (M)	TAS North
Norwood Payneham St Peters ©	Adelaide Central
Numbulwar Numburindi (CGC)	NT Lingiari
Nungarin (S)	WA Wheatbelt-Great Southern
Nyirranggulung Mardrulk Ngadberre (CGC)	NT Lingiari
Oberon (A)	NSW Central West
Onkaparinga ©	Adelaide Outer
Orange ©	NSW Central West
Orroroo/Carrieton (DC)	SA Eyre and Yorke
Palerang (A)	NSW South-East

Local Government Area	Region
Palm Island (S)	QLD North
Palmerston ©	Darwin
Parkes (A)	NSW Central West
Paroo (S)	QLD Pastoral
Parramatta ©	Sydney Mid West
Peak Downs (S)	QLD Fitzroy
Penrith ©	Sydney Outer West
Peppermint Grove (S)	Perth Central
Perenjori (S)	WA Gascoyne-Goldfields
Perry (S)	QLD Wide Bay-Burnett
Perth ©	Perth Central
Peterborough (DC)	SA Eyre and Yorke
Pine Creek (CGC)	NT Lingiari
Pine Rivers (S)	Brisbane North
Pingelly (S)	WA Wheatbelt-Great Southern
Pittsworth (S)	QLD Agricultural SW
Pittwater (A)	Sydney Outer North
Plantagenet (S)	WA Wheatbelt-Great Southern
Playford ©	Adelaide Plains
Pormpuraaw (S)	QLD North West
Port Adelaide Enfield ©	Adelaide Plains
Port Augusta ©	SA Eyre and Yorke
Port Hedland (T)	WA Pilbara-Kimberly
Port Lincoln ©	SA Eyre and Yorke
Port Phillip ©	Melbourne Inner
Port Pirie City and Dists (M)	SA Eyre and Yorke
Port Stephens (A)	NSW Hunter
Poruma (IC)	QLD Far North
Prospect ©	Adelaide Central
Pyrenees (S)	VIC Central Highlands
Quairading (S)	WA Wheatbelt-Great Southern
Queanbeyan ©	NSW South-East
Queenscliffe (B)	VIC Barwon
Quilpie (S)	QLD Pastoral
Randwick ©	Global Sydney
Ravensthorpe (S)	WA Gascoyne-Goldfields
Redcliffe ©	Brisbane North
Redland (S)	QLD Gold Coast
Renmark Paringa (DC)	SA Murraylands
Richmond (S)	QLD North West
Richmond Valley (A) part	NSW Mid North Coast
Richmond Valley (A) part	NSW Richmond-Tweed
Robe (DC)	SA South East
Rockdale ©	Sydney South
Rockhampton ©	QLD Fitzroy
Rockingham ©	Perth Outer South
Roebourne (S)	WA Pilbara-Kimberly
Roma (T)	QLD Pastoral

Local Government Area	Region
Rosalie (S)	QLD Agricultural SW
Roxby Downs (M)	SA Eyre and Yorke
Ryde ©	Global Sydney
Saibai (IC)	QLD Far North
Salisbury ©	Adelaide Plains
Sandstone (S)	WA Gascoyne-Goldfields
Sarina (S)	QLD Mackay
Seisia (IC)	QLD Far North
Serpentine-Jarrahdale (S)	WA Peel-South West
Shark Bay (S)	WA Gascoyne-Goldfields
Shellharbour ©	NSW Illawarra
Shoalhaven ©	NSW Illawarra
Singleton (A)	NSW Hunter
Snowy River (A)	NSW South-East
Sorell (M)	TAS Hobart-South
South Gippsland (S)	VIC Gippsland
South Perth ©	Perth Central
Southern Grampians (S)	VIC West
Southern Mallee (DC)	SA Murraylands
Southern Midlands (M)	TAS Hobart-South
St Pauls (IC)	QLD Far North
Stanthorpe (S)	QLD Agricultural SW
Stirling ©	Perth Central
Stonnington ©	Melbourne Inner
Strathbogie (S)	VC Goulburn
Strathfield (A)	Sydney Inner West
Streaky Bay (DC)	SA Eyre and Yorke
Subiaco ©	Perth Central
Surf Coast (S)	VIC Barwon
Sutherland Shire (A)	Sydney South
Swan ©	Perth Outer North
Swan Hill (RC)	VIC Mallee-Wimmera
Sydney © part	Global Sydney
Sydney © part	Sydney Inner West
Tambellup (S)	WA Wheatbelt-Great Southern
Tambo (S)	QLD Pastoral
Tammin (S)	WA Wheatbelt-Great Southern
Tamworth Regional (A)	NSW North
Tapatjatjaka (CGC)	NT Lingiari
Tara (S)	QLD Agricultural SW
Taroom (S)	QLD Agricultural SW
Tasman (M)	TAS Hobart-South
Tatiara (DC)	SA South East
Tea Tree Gully ©	Adelaide Outer
Temora (A)	NSW Murrumbidgee
Tennant Creek (T)	NT Lingiari
Tenterfield (A)	NSW North
Thamarrurr (CGC)	NT Lingiari

Local Government Area	Region
The Coorong (DC)	SA Murraylands
Three Springs (S)	WA Gascoyne-Goldfields
Thuringowa ©	QLD North
Tiaro (S)	QLD Wide Bay-Burnett
Timber Creek (CGC)	NT Lingiari
Tiwi Islands (CGC)	NT Lingiari
Toodyay (S)	WA Wheatbelt-Great Southern
Toowoomba ©	QLD Agricultural SW
Torres (S)	QLD Far North
Townsville ©	QLD North
Towong (S)	VIC Ovens-Hume
Trayning (S)	WA Wheatbelt-Great Southern
Tumbarumba (A)	NSW Murray
Tumby Bay (DC)	SA Eyre and Yorke
Tumut Shire (A) part	NSW Murrumbidgee
Tumut Shire (A) part	NSW South-East
Tweed (A)	NSW Richmond-Tweed
Ugar (IC)	QLD Far North
Umagico (S)	QLD Far North
Unincorporated ACT	ACT
Unincorporated NSW	NSW Far and North West
Unincorporated NT	NT Lingiari
Unincorporated Qld	QLD North
Unincorporated SA	SA Eyre and Yorke
Unincorporated Vic	VIC Gippsland
Unley ©	Adelaide Central
Upper Gascoyne (S)	WA Gascoyne-Goldfields
Upper Hunter Shire (A)	NSW Hunter
Upper Lachlan Shire (A)	NSW South-East
Uralla (A)	NSW North
Urana (A)	NSW Murray
Victor Harbor ©	Adelaide Outer
Victoria Park (T)	Perth Central
Victoria Plains (S)	WA Wheatbelt-Great Southern
Vincent (T)	Perth Central
Wagga Wagga ©	NSW Murrumbidgee
Waggamba (S)	QLD Agricultural SW
Wagin (S)	WA Wheatbelt-Great Southern
Wakefield (DC)	SA Eyre and Yorke
Wakool (A)	NSW Murray
Walangeri Ngumpinku (CGC)	NT Lingiari
Walcha (A)	NSW North
Walgett (A)	NSW Far and North West
Walkerville (M)	Adelaide Central
Wallace Rockhole (CGC)	NT Lingiari
Wambo (S)	QLD Agricultural SW
Wandering (S)	WA Wheatbelt-Great Southern
Wangaratta (RC)	VIC Ovens-Hume

Local Government Area	Region
Wanneroo ©	Perth Outer North
Waratah/Wynyard (M)	TAS North West
Waroona (S)	WA Peel-South West
Warraber (IC)	QLD Far North
Warren (A)	NSW Far and North West
Warringah (A)	Sydney Outer North
Warrnambool ©	VIC West
Warroo (S)	QLD Pastoral
Warrumbungle Shire (A)	NSW Far and North West
Warwick (S)	QLD Agricultural SW
Watiyawanu (CGC)	NT Lingiari
Wattle Range (DC)	SA South East
Waverley (A)	Global Sydney
Weddin (A)	NSW Central West
Weipa (T)	QLD Far North
Wellington (A)	NSW Far and North West
Wellington (S)	VIC Gippsland
Wentworth (A)	NSW Murray
West Arthur (S)	WA Wheatbelt-Great Southern
West Coast (M)	TAS North West
West Tamar (M)	TAS North
West Torrens ©	Adelaide Plains
West Wimmera (S)	VIC Mallee-Wimmera
Westonia (S)	WA Wheatbelt-Great Southern
Whitehorse ©	Melbourne East
Whitsunday (S)	QLD Mackay
Whittlesea ©	Melbourne North
Whyalla ©	SA Eyre and Yorke
Wickepin (S)	WA Wheatbelt-Great Southern
Williams (S)	WA Wheatbelt-Great Southern
Willoughby ©	Global Sydney
Wiluna (S)	WA Gascoyne-Goldfields
Wingecarribee (A)	NSW Illawarra
Winton (S)	QLD Pastoral
Wodonga (RC)	VIC Ovens-Hume
Wollondilly (A)	Sydney Outer South West
Wollongong ©	NSW Illawarra
Wondai (S)	QLD Wide Bay-Burnett
Wongan-Ballidu (S)	WA Wheatbelt-Great Southern
Woocoo (S)	QLD Wide Bay-Burnett
Woodanilling (S)	WA Wheatbelt-Great Southern
Woollahra (A)	Global Sydney
Woorabinda (S)	QLD Fitzroy
Wujal Wujal (S)	QLD Far North
Wyalkatchem (S)	WA Wheatbelt-Great Southern
Wyndham ©	Melbourne West
Wyndham-East Kimberley (S)	WA Pilbara-Kimberly
Wyong (A)	NSW Central Coast

Local Government Area	Region
Yalgoo (S)	WA Gascoyne-Goldfields
Yankalilla (DC)	Adelaide Outer
Yarra (C)	Melbourne Inner
Yarra Ranges (S)	Melbourne Westport
Yarrabah (S)	QLD Far North
Yarriambiack (S)	VIC Mallee-Wimmera
Yass Valley (A)	NSW South-East
Yilgarn (S)	WA Wheatbelt-Great Southern
York (S)	WA Wheatbelt-Great Southern
Yorke (IC)	QLD Far North
Yorke Peninsula (DC)	SA Eyre and Yorke
Young (A)	NSW South-East
Yuendumu (CGC)	NT Lingiari
Yugul Mangi (CGC)	NT Lingiari

A2.2 Index of region membership

Region	Local Government Area
ACT	Unincorporated ACT
Adelaide Central	Adelaide (C)
	Burnside (C)
	Campbelltown (C)
	Holdfast Bay (C)
	Marion (C)
	Mitcham (C)
	Norwood Payneham St Peters (C)
	Prospect (C)
	Unley (C)
	Walkerville (M)
Adelaide Outer	Adelaide Hills (DC)
	Alexandrina (DC)
	Barossa (DC)
	Mount Barker (DC)
	Onkaparinga (C)
	Tea Tree Gully (C)
	Victor Harbor (C)
	Yankalilla (DC)
Adelaide Plains	Charles Sturt (C)
	Gawler (T)
	Light (RegC)
	Mallala (DC)
	Playford (C)
	Port Adelaide Enfield (C)
	Salisbury (C)
	West Torrens (C)
Brisbane City	Brisbane (C)
Brisbane North	Caboolture (S)
	Kilcoy (S)
	Pine Rivers (S)
	Redcliffe (C)
Darwin	Coomalie (CGC)
	Darwin (C)
	Litchfield (S)
	Palmerston (C)
Global Sydney	Botany Bay (C)
	Hunter's Hill (A)
	Lane Cove (A)
	Mosman (A)
	North Sydney (A)
	Randwick (C)
	Ryde (C)
	Sydney (C)
	Waverley (A)

Region	Local Government Area
	Willoughby (C)
	Woollahra (A)
Melbourne East	Boroondara (C)
	Knox (C)
	Manningham (C)
	Maroondah (C)
	Monash (C)
	Whitehorse (C)
Melbourne Inner	Melbourne (C)
	Port Phillip (C)
	Stonnington (C)
	Yarra (C)
Melbourne North	Banyule (C)
	Darebin (C)
	Hume (C)
	Moreland (C)
	Nillumbik (S)
	Whittlesea (C)
Melbourne South	Bayside (C)
	Glen Eira (C)
	Kingston (C)
Melbourne West	Brimbank (C)
	Hobsons Bay (C)
	Maribyrnong (C)
	Melton (S)
	Moonee Valley (C)
	Wyndham (C)
Melbourne Westport	Cardinia (S)
	Casey (C)
	Frankston (C)
	Greater Dandenong (C)
	Mornington Peninsula (S)
	Yarra Ranges (S)
NSW Central Coast	Gosford (C)
	Wyong (A)
NSW Central West	Bathurst Regional (A)
	Bland (A)
	Blayney (A)
	Cabonne (A)
	Cowra (A)
	Forbes (A)
	Lachlan (A)
	Lithgow (C)
	Mid-Western Regional (A)
	Oberon (A)
	Orange (C)

Region	Local Government Area
	Parkes (A)
	Weddin (A)
NSW Far and North West	Bogan (A)
	Bourke (A)
	Brewarrina (A)
	Broken Hill ©
	Central Darling (A)
	Cobar (A)
	Coonamble (A)
	Dubbo ©
	Gilgandra (A)
	Mid-Western Regional (A)
	Narromine (A)
	Unincorporated NSW
	Walgett (A)
	Warren (A)
	Warrumbungle Shire (A)
	Wellington (A)
NSW Hunter	Cessnock ©
	Dungog (A)
	Gloucester (A)
	Great Lakes (A)
	Lake Macquarie ©
	Liverpool Plains (A)
	Maitland ©
	Mid-Western Regional (A)
	Muswellbrook (A)
	Newcastle ©
	Port Stephens (A)
	Singleton (A)
	Upper Hunter Shire (A)
NSW Illawarra	Kiama (A)
	Shellharbour ©
	Shoalhaven ©
	Wingecarribee (A)
	Wollongong ©
NSW Mid North Coast	Bellingen (A)
	Clarence Valley (A)
	Coffs Harbour ©
	Greater Taree ©
	Port Macquarie-Hastings (A)
	Kempsey (A)
	Nambucca (A)
	Richmond Valley (A)
NSW Murray	Albury ©
	Balranald (A)
	Berrigan (A)
	Conargo (A)
	Corowa Shire (A)

Region	Local Government Area
	Deniliquin (A)
	Greater Hume Shire (A)
	Jerilderie (A)
	Murray (A)
	Tumbarumba (A)
	Urana (A)
	Wakool (A)
	Wentworth (A)
NSW Murrumbidgee	Carrathool (A)
	Coolamon (A)
	Cootamundra (A)
	Griffith ©
	Gundagai (A)
	Hay (A)
	Junee (A)
	Leeton (A)
	Lockhart (A)
	Murrumbidgee (A)
	Narrandera (A)
	Temora (A)
	Tumut Shire (A)
	Wagga Wagga ©
NSW North	Armidale Dumaresq (A)
	Glen Innes Severn (A)
	Gunnedah (A)
	Guyra (A)
	Gwydir (A)
	Inverell (A)
	Liverpool Plains (A)
	Moree Plains (A)
	Narrabri (A)
	Tamworth Regional (A)
	Tenterfield (A)
	Uralla (A)
	Walcha (A)
NSW Richmond-Tweed	Ballina (A)
	Byron (A)
	Kyogle (A)
	Lismore ©
	Richmond Valley (A)
	Tweed (A)
NSW South-East	Bega Valley (A)
	Bombala (A)
	Boorowa (A)
	Cooma-Monaro (A)
	Eurobodalla (A)
	Goulburn Mulwaree (A)
	Harden (A)
	Palerang (A)

Region	Local Government Area
	Queanbeyan ©
	Snowy River (A)
	Tumut Shire (A)
	Upper Lachlan Shire (A)
	Yass Valley (A)
	Young (A)
NT Lingiari	Alice Springs (T)
	Alpurrurulam (CGC)
	Angurugu (CGC)
	Anmatjere (CGC)
	Arltarlpilta (CGC)
	Belyuen (CGC)
	Binjari (CGC)
	Borroloola (CGC)
	Daguragu (CGC)
	Elliott District (CGC)
	Jabiru (T)
	Jilkminggan (CGC)
	Katherine (T)
	Kunbarllanjnja (CGC)
	Lajamanu (CGC)
	Ltyentye Purte (CGC)
	Marngarr (CGC)
	Mataranka (CGC)
	Nauiyu Nambiyu (CGC)
	Numbulwar Numburindi (CGC)
	Nyirranggulung Mardrulk Ngadberre (CGC)
	Pine Creek (CGC)
	Tapatjatjaka (CGC)
	Tennant Creek (T)
	Thamarrurr (CGC)
	Timber Creek (CGC)
	Tiwi Islands (CGC)
	Unincorporated NT
	Walangeri Ngumpinku (CGC)
	Wallace Rockhole (CGC)
	Watiyawanu (CGC)
	Yuendumu (CGC)
	Yugul Mangi (CGC)
Perth Central	Belmont ©
	Cambridge (T)
	Claremont (T)
	Cottesloe (T)
	East Fremantle (T)
	Fremantle ©
	Mosman Park (T)
	Nedlands ©
	Peppermint Grove (S)

Region	Local Government Area
	Perth ©
	South Perth ©
	Stirling ©
	Subiaco ©
	Victoria Park (T)
	Vincent (T)
Perth Outer North	Bassendean (T)
	Bayswater ©
	Joondalup ©
	Mundaring (S)
	Swan ©
	Wanneroo ©
Perth Outer South	Armadale ©
	Canning ©
	Cockburn ©
	Gosnells ©
	Kalamunda (S)
	Kwinana (T)
	Melville ©
	Rockingham ©
QLD Agricultural SW	Cambooya (S)
	Chinchilla (S)
	Clifton (S)
	Crow’s Nest (S)
	Dalby (T)
	Goondiwindi (T)
	Inglewood (S)
	Jondaryan (S)
	Millmerran (S)
	Murilla (S)
	Pittsworth (S)
	Rosalie (S)
	Stanthorpe (S)
	Tara (S)
	Taroom (S)
	Toowoomba ©
	Waggamba (S)
	Wambo (S)
	Warwick (S)
QLD Far North	Atherton (S)
	Aurukun (S)
	Badu (IC)
	Bamaga (IC)
	Boigu (IC)
	Cairns ©
	Cardwell (S)
	Cook (S)
	Croydon (S)
	Dauan (IC)

Region	Local Government Area
	Douglas (S)
	Eacham (S)
	Erub (IC)
	Etheridge (S)
	Hammond (IC)
	Herberton (S)
	Hope Vale (S)
	Injinoo (S)
	Johnstone (S)
	Kubin (IC)
	Lockhart River (S)
	Mabuiag (IC)
	Mapoon (S)
	Mareeba (S)
	Mer (IC)
	Napranum (S)
	New Mapoon (S)
	Poruma (IC)
	Saibai (IC)
	Seisia (IC)
	St Pauls (IC)
	Torres (S)
	Ugar (IC)
	Umagico (S)
	Warraber (IC)
	Weipa (T)
	Wujal Wujal (S)
	Yarrabah (S)
	Yorke (IC)
QLD Fitzroy	Banana (S)
	Bauhinia (S)
	Calliope (S)
	Duaringa (S)
	Emerald (S)
	Fitzroy (S)
	Gladstone ©
	Jericho (S)
	Livingstone (S)
	Mount Morgan (S)
	Peak Downs (S)
	Rockhampton ©
	Woorabinda (S)
QLD Gold Coast	Beaudesert (S)
	Gold Coast ©
	Logan ©
	Redland (S)
QLD Mackay	Belyando (S)
	Broadsound (S)
	Mackay ©

Region	Local Government Area
	Mirani (S)
	Nebo (S)
	Sarina (S)
	Whitsunday (S)
QLD North	Bowen (S)
	Burdekin (S)
	Charters Towers ©
	Dalrymple (S)
	Hinchinbrook (S)
	Palm Island (S)
	Thuringowa ©
	Townsville ©
	Unincorporated Qld
QLD North West	Burke (S)
	Carpentaria (S)
	Cloncurry (S)
	Doomadgee (S)
	Flinders (S)
	Kowanyama (S)
	McKinlay (S)
	Mornington (S)
	Mount Isa ©
	Pormpuraaw (S)
	Richmond (S)
QLD Pastoral	Aramac (S)
	Balonne (S)
	Barcaldine (S)
	Barcoo (S)
	Bendemere (S)
	Blackall (S)
	Booringa (S)
	Boulia (S)
	Bulloo (S)
	Bungil (S)
	Diamantina (S)
	Ilfracombe (S)
	Isisford (S)
	Longreach (S)
	Murweh (S)
	Paroo (S)
	Quilpie (S)
	Roma (T)
	Tambo (S)
	Warroo (S)
	Winton (S)
QLD Sunshine Coast	Caloundra ©
	Maroochy (S)
	Noosa (S)

Region	Local Government Area
QLD West Moreton	Boonah (S)
	Esk (S)
	Gatton (S)
	Ipswich ©
	Laidley (S)
QLD Wide Bay-Burnett	Biggenden (S)
	Bundaberg ©
	Burnett (S)
	Cherbourg (S)
	Cooloola (S)
	Eidsvold (S)
	Gayndah (S)
	Hervey Bay ©
	Isis (S)
	Kilkivan (S)
	Kingaroy (S)
	Kolan (S)
	Maryborough ©
	Miriam Vale (S)
	Monto (S)
	Mundubbera (S)
	Murgon (S)
	Nanango (S)
	Perry (S)
	Tiaro (S)
	Wondai (S)
	Woocoo (S)
SA Eyre and Yorke	Anangu Pitjantjatjara (AC)
	Barunga West (DC)
	Ceduna (DC)
	Clare and Gilbert Valleys (DC)
	Cleve (DC)
	Coober Pedy (DC)
	Copper Coast (DC)
	Elliston (DC)
	Flinders Ranges (DC)
	Franklin Harbour (DC)
	Goyder (DC)
	Kangaroo Island (DC)
	Kimba (DC)
	Le Hunte (DC)
	Lower Eyre Peninsula (DC)
	Maralinga Tjarutja (AC)
	Mount Remarkable (DC)
	Northern Areas (DC)
	Orroroo/Carrieton (DC)
	Peterborough (DC)
	Port Augusta ©

Region	Local Government Area
	Port Lincoln ©
	Port Pirie City and Dists (M)
	Roxby Downs (M)
	Streaky Bay (DC)
	Tumby Bay (DC)
	Unincorporated SA
	Wakefield (DC)
	Whyalla ©
	Yorke Peninsula (DC)
SA Murraylands	Berri and Barmera (DC)
	Karoonda East Murray (DC)
	Loxton Waikerie (DC)
	Mid Murray (DC)
	Murray Bridge (RC)
	Renmark Paringa (DC)
	Southern Mallee (DC)
	The Coorong (DC)
SA South East	Grant (DC)
	Kingston (DC)
	Mount Gambier ©
	Naracoorte and Lucindale (DC)
	Robe (DC)
	Tatiara (DC)
	Wattle Range (DC)
Sydney Inner West	Ashfield (A)
	Burwood (A)
	Canada Bay (A)
	Leichhardt (A)
	Strathfield (A)
	Sydney ©
Sydney Mid West	Auburn (A)
	Bankstown ©
	Blacktown ©
	Canterbury ©
	Fairfield ©
	Holroyd ©
	Liverpool ©
	Marrickville (A)
	Parramatta ©
Sydney Outer North	Baulkham Hills (A)
	Hornsby (A)
	Ku-ring-gai (A)
	Manly (A)
	Pittwater (A)
	Warringah (A)
Sydney Outer South West	Camden (A)
	Campbelltown ©
	Wollondilly (A)

Region	Local Government Area
Sydney Outer West	Blue Mountains ©
	Hawkesbury ©
	Penrith ©
Sydney South	Hurstville ©
	Kogarah (A)
	Rockdale ©
	Sutherland Shire (A)
TAS Hobart-South	Brighton (M)
	Central Highlands (M)
	Clarence ©
	Derwent Valley (M)
	Glamorgan/Spring Bay (M)
	Glenorchy ©
	Hobart ©
	Huon Valley (M)
	Kingborough (M)
	Sorell (M)
	Southern Midlands (M)
	Tasman (M)
TAS North	Break O'Day (M)
	Dorset (M)
	Flinders (M)
	George Town (M)
	Launceston ©
	Meander Valley (M)
	Northern Midlands (M)
	West Tamar (M)
TAS North West	Burnie ©
	Central Coast (M)
	Circular Head (M)
	Devonport ©
	Kentish (M)
	King Island (M)
	Latrobe (M)
	Waratah/Wynyard (M)
	West Coast (M)
VC Goulburn	Benalla (RC)
	Campaspe (S)
	Greater Shepparton ©
	Mansfield (S)
	Mitchell (S)
	Moira (S)
	Murrindindi (S)
	Strathbogie (S)
VIC Barwon	Colac-Otway (S)
	Golden Plains (S)
	Greater Geelong ©
	Queenscliffe (B)
	Surf Coast (S)

Region	Local Government Area
VIC Central Highlands	Ararat (RC)
	Ballarat ©
	Hepburn (S)
	Moorabool (S)
	Pyrenees (S)
VIC Gippsland	Bass Coast (S)
	Baw Baw (S)
	East Gippsland (S)
	Latrobe ©
	South Gippsland (S)
	Unincorporated Vic
	Wellington (S)
VIC Loddon	Central Goldfields (S)
	Greater Bendigo ©
	Loddon (S)
	Macedon Ranges (S)
	Mount Alexander (S)
VIC Mallee-Wimmera	Buloke (S)
	Gannawarra (S)
	Hindmarsh (S)
	Horsham (RC)
	Mildura (RC)
	Northern Grampians (S)
	Swan Hill (RC)
	West Wimmera (S)
	Yarriambiack (S)
VIC Ovens-Hume	Alpine (S)
	Indigo (S)
	Towong (S)
	Wangaratta (RC)
	Wodonga (RC)
VIC West	Corangamite (S)
	Glenelg (S)
	Moyne (S)
	Southern Grampians (S)
	Warrnambool ©
WA Gascoyne-Goldfields	Carnamah (S)
	Carnarvon (S)
	Chapman Valley (S)
	Coolgardie (S)
	Coorow (S)
	Cue (S)
	Dundas (S)
	Esperance (S)
	Exmouth (S)
	Geraldton ©
	Greenough (S)
	Irwin (S)
	Kalgoorlie/Boulder ©

Region	Local Government Area
	Laverton (S)
	Leonora (S)
	Meekatharra (S)
	Menzies (S)
	Mingenew (S)
	Morawa (S)
	Mount Magnet (S)
	Mullewa (S)
	Murchison (S)
	Ngaanyatjarraku (S)
	Northampton (S)
	Perenjori (S)
	Ravensthorpe (S)
	Sandstone (S)
	Shark Bay (S)
	Three Springs (S)
	Upper Gascoyne (S)
	Wiluna (S)
	Yalgoo (S)
WA Peel-South West	Augusta-Margaret River (S)
	Boddington (S)
	Boyup Brook (S)
	Bridgetown-Greenbushes (S)
	Bunbury ©
	Busselton (S)
	Capel (S)
	Collie (S)
	Dardanup (S)
	Donnybrook-Balingup (S)
	Harvey (S)
	Mandurah ©
	Manjimup (S)
	Murray (S)
	Nannup (S)
	Serpentine-Jarrahdale (S)
	Waroona (S)
WA Pilbara-Kimberly	Ashburton (S)
	Broome (S)
	Derby-West Kimberley (S)
	East Pilbara (S)
	Halls Creek (S)
	Port Hedland (T)
	Roebourne (S)
	Wyndham-East Kimberley (S)
WA Wheatbelt-Great Southern	Albany ©
	Beverley (S)
	Brookton (S)
	Broomehill (S)
	Bruce Rock (S)
	Chittering (S)
	Corrigin (S)
	Cranbrook (S)
	Cuballing (S)

Region	Local Government Area
	Cunderdin (S)
	Dalwallinu (S)
	Dandaragan (S)
	Denmark (S)
	Dowerin (S)
	Dumbleyung (S)
	Gingin (S)
	Gnowangerup (S)
	Goomalling (S)
	Jerramungup (S)
	Katanning (S)
	Kellerberrin (S)
	Kent (S)
	Kojonup (S)
	Kondinin (S)
	Koorda (S)
	Kulin (S)
	Lake Grace (S)
	Merredin (S)
	Moora (S)
	Mount Marshall (S)
	Mukinbudin (S)
	Narembeen (S)
	Narrogin (S)
	Narrogin (T)
	Northam (S)
	Northam (T)
	Nungarin (S)
	Pingelly (S)
	Plantagenet (S)
	Quairading (S)
	Tambellup (S)
	Tammin (S)
	Toodyay (S)
	Trayning (S)
	Victoria Plains (S)
	Wagin (S)
	Wandering (S)
	West Arthur (S)
	Westonia (S)
	Wickepin (S)
	Williams (S)
	Wongan-Ballidu (S)
	Woodanilling (S)
	Wyalkatchem (S)
	Yilgarn (S)
	York (S)

A2.3 Regional classification

The regions resulting from these boundary changes can be included within the established classification as follows.

Core metropolitan regions

Global Sydney
Sydney Inner West
Melbourne Inner
Brisbane City
Adelaide Central
Perth Central
TAS Hobart-South
Darwin
ACT

Dispersed metropolitan regions

NSW Central Coast
Sydney Outer North
Sydney Outer South West
Sydney Outer West
Sydney South
Melbourne East
Melbourne South
Brisbane North
Adelaide Outer
Perth Outer North
Perth Outer South

Production zones

NSW Hunter
NSW Illawarra
Sydney Mid West
VIC Barwon
Melbourne North
Melbourne West
Melbourne Westport
QLD West Moreton
Adelaide Plains

Resource-based regions

QLD Pastoral
QLD Fitzroy
QLD North West
WA Pilbara-Kimberly
WA Gascoyne-Goldfields
WA Peel-South West
NT Lingiari

Lifestyle regions

NSW Mid North Coast
NSW Richmond-Tweed
NSW South-East
QLD Gold Coast
QLD Sunshine Coast

Rural based regions

NSW Central West
NSW Far and North West
NSW Murrumbidgee
NSW Murray
NSW North
VIC Gippsland
VIC Goulburn
VIC Loddon
VIC Mallee-Wimmera
VIC Ovens-Hume
VIC West
VIC Central Highlands
QLD Agricultural SW
QLD Far North
QLD Mackay
QLD North
QLD Wide Bay-Burnett
SA Eyre and Yorke
SA Murraylands
SA South East
WA Wheatbelt-Great Southern
TAS North West
TAS North

APPENDIX 3

INDICATOR EXPLANATIONS

Appendix 3: Indicator explanations

A3.1 Regional indicators

Population

Residential population by region for 1996, 2001 and 2006 are taken from the *ABS estimated resident population* (ERP) series. The 2007 to 2009 population was derived from the household growth estimate calculated from the approvals data to September quarter 2007. Consistent data series by age are not yet available from the ABS. Hence the previous population estimates have been used to interpolate between the census benchmarks.

No Households

The number of Households per region uses the *ABS Census* for 1996, 2001 and 2006. From the Census benchmarks new residential building approvals data is used to grow the stock of houses in a region. This data is provided by the ABS and reported quarterly. If however, the new building approvals data is added to the stock for the benchmark years an over estimation will occur, due to the demolition of old houses. Therefore, National Economics uses estimated demolition rates to ensure no double counting occurs. The 2001-2006 average demolition rate is adopted to project the growth in the dwelling stock for driving the population projections.

Workforce

Before 2006 the workforce is based on NIEIR's unemployment level plus employment based on the tax statistics. This is driven forward using a measure of the labour force adjusted for the movement of people from the workforce to Disability Support Pensions (DSP). The labour force estimates are produced by the *Department of Employment, Education and Training* (DEET). The information is contained in the *Small Area Labour Markets* publication that is produced quarterly. The labour force is defined as the yearly average level for 1998 to 2006. The average DEET figure is added to the excess movement to disability support pensions. Excess movement is defined as any growth in excess of the rate of growth in the general population. It therefore assumes that there is a natural level of people (expressed as a per cent of the population) who need to access the DSP. The DSP data is ascertained from the Department of Social Security (Centrelink). The rationale for adding in people who move from unemployment benefits to disability support is to measure the real labour force. If a person is receiving unemployment benefits, they are counted as part of the labour force, however when people move from unemployment benefits to the DSP they are excluded. This impacts on the unemployment rate, which is defined as the number of unemployed divided by the labour force, is one reason why the NIEIR unemployment measure is greater than the ABS based headline unemployment rate measure..

Employment

Before 2006 this is based on the tax statistics adjusted to NIEIR definitions. This National Economics' measure of employment is the adjusted labour force as defined above, minus the estimated National Economics unemployment level. This means that since some unemployed people will be working a small number of hours, the NIEIR employment estimates exclude those employees who are on benefits while working a small number of hours. Hence the NIEIR employment estimate is lower than the corresponding ABS Labour Force estimate.

Unemployment

This is a National Economics' measure derived from Centrelink data. It includes all people receiving Newstart allowance, Mature Age Allowance, excess growth in DSP (that is, at a level greater than population growth), youth allowance as a non-student and an estimate of students on youth allowance who are, for example, unemployed and undertaking compulsory training. This latter measure is based on demographic trends and microsimulation. This measure was discussed at length in *State of the Regions* 2005-06 Chapters 10 and 11.

Headline U/E

This is the unemployment rate produced by the *Department of Employment, Education and Training* (DEET). The information is contained in the *Small Area Labour Markets* publication. It contains estimates of employment, labour force participation, unemployment and the unemployment rate by Statistical Local Areas (SLAs). NIEIR does additional adjustments to the data to smooth the series. Hence, it is now designated the headline unemployment rate to denote that it is not exactly equal to the DEET series.

NIEIR Structural U/E

This is a measure of the level of long-term unemployed as a percentage of the population aged 18 to 65 years old. It includes all those classified as long-term unemployed, those receiving disability support pensions, 50 per cent of people from a non-English speaking background receiving Newstart allowance, 50 per cent of people receiving single parents benefits and all people receiving the mature age allowance. This measure excludes people on Newstart allowance short-term and anyone receiving youth allowance. It therefore assumes that none of the youth are structurally unemployed.

Disposable funds and productivity

Source: ATO Taxation Statistics, National Accounts Data

In the past SOR reports NIEIR used a net flow of funds concept. This has been changed to accord directly with the net household disposable income and business value added. All state totals are reconciled to the household accounts in the Australian Bureau of Statistics' "State Accounts".

The household disposable income indicator for each LGA is household disposable income from wages and salaries (including supplements, e.g. superannuation contributions) plus benefits and business income (adjusted to gross operating surplus basis consistent with the State Accounts) and interest and dividends received (including superannuation accrued earnings) and rent income less direct taxes, interest paid and depreciation expenses. The ABS 'other income' is treated as a balancing item. All data are in real dollars, which for this year are in 2004-05 prices.

To 2004 all data are derived from the postcode tax statistics. The data are estimated for 2004-05 and 2005-06 using the following methods.

Wages/salaries

The following dot points outline the calculation of the non-farm components of wages and salaries income.

- ❑ Recent growth in income from taxation records provides the trend in income per person that can be expected in each region. This measure is required due to the very large differences in wage growth at the regional level.

- Growth in employment at the local area level is combined with growth in income per employee and the base levels of income from Taxation Statistics to produce updates of income at the regional level.
- State and national account control totals are then used to balance wages and income growth.
- As with all information collected from taxation Statistics the data is converted from postcode definitions to ABS regions using the 2001 Postcode to Statistical Local Area concordance provide by the ABS.

Again this year we directly estimate farm income using rainfall data as a proxy for the impact of the drought on regional incomes. The change in rainfall from long-term average is used as a basis for allocating farm income on a regional basis. Farm income cannot be derived from declared taxable income from primary production due to problems of declaration and the transfer of losses between tax years. Instead, the NIEIR estimate is based on the most recent measure of gross agricultural output converted to a realised income measure consistent with national accounts. In this process differences between the relative income generating capacity of various agricultural activities are accounted for. By varying the incomes derived by our estimate of the impact of drought we obtain a reasonably accurate distribution of incomes for 2006.

Taxes paid

This total income tax paid is the net tax paid after deductions and rebates. It includes the Medicare levy as well as the additional Medicare levy for high-income taxpayers. The 1999 and 2001 figure is based on reported taxation statistics. The 2005 and 2006 figure has been adjusted by state control totals, and using estimates of income created earlier.

Benefits

This figure is an estimate of the total amount of benefits received at the local level. The mount includes all benefits and allowances received from Centrelink and an indicative assessment of the contribution of Community Development Employment Program income in remote areas. Figures for all years are based on recipient data. This measure does not include the income derived from Department of Veterans Affairs (DVA) benefits.

Business income

The business income for a region is effectively based on the value of the businesses that operate in the region and the relative performance of the economy as a whole. Unfortunately the net business income as reported in Taxation Statistics does not adequately capture the total impact of business income. National Economics utilises small area microsimulation of the value of unincorporated businesses based on realised cash flows. Using state control totals and the estimated value of business assets the destination of business income can be adequately measured. The changes in business income reflect both the evolution of business values through time as well as the macro-economic trends captured in economy wide reported values of business income.

Interest paid

The amount of interest paid by the household sector is a function of the stock of debt, the nature of the debt and interest rates applied. In order to keep abreast of the impacts that the rising level of household debt in the late 1990's National Economics developed a Household Debt Model which estimates the impact of debt at the local level. One of the measures derived from such modelling is the amount of interest that is paid by the household sector on debt. The debts incurred in running unincorporated businesses are not included, but rather used in the net business income estimates presented in the table. The debt included covers housing, personal finance and credit card debt. These model estimates are balanced to state and national control totals automatically. The relatively large increase in the amount of interest paid across the period 1998 to 2006 reflects the continued strong growth in household debt throughout the same period. The debt model is now benchmarked to household liabilities estimated from Census data for 2006.

Net property income

Net property income is derived from Taxation Statistics, and balanced to state control totals. This small measure cannot be updated at the local levels and hence National Economics relies on state trends to derive the 2006 and 2007 estimates.

Business value added

Business value added is wages and salaries plus business income. Productivity is business value added divided by employment. Business value added excludes the gross surplus of companies, since this is difficult to allocate to any small geographic area. For LGAs that are relatively isolated, business value added represents the LGA's capture of gross regional product. For LGAs in major metropolitan areas, this is not necessarily be the case because it is based on the household sector. However, for SOR aggregated LGAs the measure is a good indicator of the SOR region's capture of gross product.

Household disposable income

The household disposable income estimates are benchmarked to the ABS net (that is after depreciation) household disposable income estimates in ABS State Accounts.

This means an estimate for superannuation supplements is added to wages. Also required (other than what has been outlined above) are estimates for:

(i) imputed owner occupier rental income; and

(ii) depreciation.

Imputed owner occupier rental income is based on the value of owner occupied property in an LGA. Depreciation State totals are allocated to LGAs on the basis of a weighted average of the replacement value of the dwelling stock by LGA and the market value of the dwelling stock.

Financial assets, liabilities and wealth

All wealth estimates are benchmarked back to the ABS Australian National Accounts – Financial Accounts and National ABS estimates for dwelling stock and value of unincorporated business assets.

National financial assets are divided into two types, namely direct income generating financial assets and financial assets on which an imputed income is added to household income, namely superannuation assets for working households. Direct financial assets are allocated to LGAs on the basis of the Taxation Statistics' interest received data.

Imputed financial assets are allocated to LGAs using microsimulation modelling based on the ABS Household Income Survey (HES) unit and data for 2003-04 and earlier HES years.

The same procedure is adopted for allocating household total liabilities. For the benchmark years, e.g. 2006, a key Census variable in the microsimulation modelling is household mortgage debt service costs.

The value of unincorporated business assets is derived from the SOR LGA business income estimates, which in turn are based on the Taxation Statistics and ABS State Income Accounts.

The value of housing is based on property values outlined below and Census benchmarks for average rent paid by renters. The rental property is allocated back to the LGA of the owners based on rental income estimates, which in turn is derived from Tax Statistics.

The wealth indicator in the tables is equal to value of dwellings owned by residents of an LGA plus holdings of financial assets less stock of household liabilities.

The household debt service ratio equals interest paid on debt plus 0.07 of the outstanding stock of liabilities.

Household income less load repayments equals household disposable income less 0.07 times the stock of outstanding financial liabilities.

The household income measure used for the debt to income ratio is household disposable income plus depreciation plus interest paid.

Baby bounce

Source: ABS

The estimates of effective fertility are calculated using the individual year estimated resident population (ERP) at the SLA level. These amounts are aggregated to the SOR region, with the effective fertility equally the share of total population represented by those aged less than one year. It is "effective" in the sense that the actually birthplace is not collected, rather the place at which the infant lives at June 30th in their first year.

Social Security

Source: Centrelink

Summarised from postcode level values provided by Centrelink, divided by population, for which see below.

Population and migration

Source: ABS Estimated Regional Population

The presentation of ageing, population and migration information is primarily based on the ABS report census migration rates, ABS Estimated Resident Population (ERP) series by age 1991 to 2003, and National Economics' population and migration modelling program called PopInfo.

The calculation of the 2001 to 2005 migration patterns relies heavily on the trends established in the ABS *ERP by Age* series. Based on reported changes in population and age distribution at the LGA level and recent migration patterns, population movements are modelled to produce the population outcomes estimated in the 2005 ERP series. The extent to which such a series has incorrectly modelled the actual 2003 estimated resident population by age will create errors in the modelled net flows of migration. The other balancing items crucial to this modelling on an inter-censual basis are the state control totals of net migration from both overseas and interstate.

Population sustainability

This suite of measures was fully described in Ch 8 of last year's *State of the Regions Report*. The individual measures are as follows.

- Percentage of years since 1995 in which the population has grown, from the *ABS Estimated Regional Populations.* This can be termed consistency of population growth.
- Share of population under 55 in 2001, from the Census.
- Aged migration: estimated in-migration of persons aged 55 and over, 1996-2001, as a percentage of population.
- Population growth rate, 55+: estimated rate of growth of population 55 and over.
- Demographic stress: a US government measure based on the total levels of out-migration and the growth rate of the 15 to 55 year age group.
- Dominant locations: the share of population of the largest urban locality within the region.
- Family/youth migration: net migration of 0-14 year olds 1996-2001, from the Census.
- Fertility bounce 10\996-2005, see baby bounce above.
- Fertility, babies as a percentage of the population 2005, see baby bounce, above.
- Sustainability score: a compound of the above measures.
- Working elderly: share of persons aged 55 and over who are employed, from the 2001 Census.

Rainfall

Source: Commonwealth Bureau of Meteorology, National, Climate Centre, Australian Monthly Rainfall.

Specially requested monthly rainfall data from each available Australian weather stations is assigned into the appropriate region and then totalled and averaged to generate the average annual rainfall for each region.

Residential and non-residential building and construction

Source: ABS publication 8731.0 – Building Approvals Australia

Building approvals data is converted to constant price values. Forecasts are derived using National Economics construction models.

Innovation startups

Source: Dunn & Bradstreet

Innovation Start-up estimates are defined as the total number of high tech companies in 2006 which were not present in 2001. The Rank of each region was based on the gross number of high tech start-ups per capita. Average employment figures for both 2001 and 2006 were obtained by taking only hi tech businesses, which reported at least an employee. New start-up employment is calculated as the gross number of High Tech Start-ups multiplied by the average number of employees for 2006. This was then taken as a percentage of the workforce.

Patent applications

Patent applications per 100,000 people

This indicator measures the number of patent applications from businesses and individuals over a ten-year period. It is an average from 1993 to 2003, expressed as the number of patents per 100,000 residents. Expressing the measure in these terms allows for regional comparisons.

The patent data is provided by the Australian patent office (IP Australia). The number of applications was chosen over patents granted, due to the long delays associated with the granting of patents. In some cases this can be up to 5 years.

This measure acts as a proxy for scientific innovation, knowledge endowment and entrepreneurial dynamism. Regions with a high value for this indicator will generally prosper, as innovation leads to greater value added and wealth creation.

Hi-Tech and IT applications per 100,000 people

The patent application data is grouped into 31 different classifications. The following classifications were identified as ‘Hi-Tech’:

- Electrical devices and engineering
- Information technology
- Optics
- Instrumentation
- Medical engineering
- Polymers
- Pharmaceuticals
- Biotechnology
- Environmental processes
- Nuclear engineering
- Space technology, weapons

A3.2 Property values

The following analysis of values was conducted to estimate land and capital value per property. All analysis was done on an LGA basis and then aggregated to SOR Regions. Since each state provided different information on land value and property assessment, analysis and estimation of values was conducted in a per state basis. State level land and capital values are the adjusted as far as possible to reflect the ABS definition used in the national balance sheet, and as far as possible the definitions of residential, rural and commercial (including commercial, industrial and other) land are adjusted to follow Victoria Grants Commission practice. This data is used to generate household property values.

Victoria

The latest Victoria Grants Commission (VGC) data is for 2004. It is complete (with a few interpolations). Note that commercial, industrial and other aggregate to 'commercial'. The VGC updates its benchmarks from time to time. Such an update occurred in 2004, and this 2004 valuation is close the ABS data reduced to 95 per cent to account for only rateable lands. However, some of the land which the VGC classifies as commercial-industrial-other is classified by the ABS as rural. Since the ABS definition was not available by LGA, it was decided to use the VGC definition. The VGC estimates were updated to 2005 by multiplying by the ABS value increases for three separate classes, Residential, Rural, and Commercial.

Queensland

Number of properties

Data obtained from the Queensland Grants Commission (QGC) Annual Report.

Land value

The QGC data is in terms of unimproved values (UV) which are less than site values. The Queensland aggregate data for 2004 diverge from ABS as follows.

- Residential: Queensland values 55.8 per cent of ABS.
- Commercial: Queensland values 66 per cent of ABS.
- Rural: Queensland values 47 per cent of ABS.

The ABS 2005 national balance sheet estimate for the value of land in Queensland was very large in comparison to previous years. For example, the average annual increase in aggregate residential value from 1989 to 2004 was around $1 billion while the change from 2004-2005 was an increase of 8 billion. Clearly, a redefinition of land value has occurred. Starting from the QGC's 2004 data, a 2005 land value total was recalculated for the whole state using Holt-Winters exponential smoothing using time series data until 2004 (See equation IV)

Taking the upper limit of each prediction, the new Queensland total land value is:-

- residential –$ 203.3213 billion;
- commercial – $ 23.72419 billion; and
- rural – $ 17.69963 billion.

The QGC data was then multiplied to bring it to 95 per cent of ABS (on the assumption that 5 per cent of ABS value is non-rateable) to obtain land (site) valuations.

Capital value

Capital Value for Residential, Commercial and Rural categories was estimated using regression equations run from Victorian data. (See equations I, II, III respectively).

Equations for Residential and Commercial are the log of the ratio of Capital Value to Site Value. Obtaining the percentage require taking the exponent of the term and then multiplying it by the site value.

For residential and commercial values:

$$\frac{\text{Capital Improved Value}}{\text{Numer of Assessments}} = \frac{\text{SiteValue}}{\text{Number of Assessments}} \bullet \exp\left(\ln\left(\frac{\text{Capital Improved Value}}{\text{Site Value}}\right)\right)$$

Rural values:

$$\frac{\text{Capital Improved Value}}{\text{Numer of Assessments}} = \frac{\text{SiteValue}}{\text{Number of Assessments}} \div \exp\left(\ln\left(\frac{\text{SiteValue}}{\text{Capital Improved Value}}\right)\right)$$

South Australia

Number of properties

The 2004 –2005 Annual Report by the Local Government Grants Commission of South Australia (LGGCSA), provides the total number of properties and residential properties.

To determine the split between rural and commercial properties given total and residential properties, the percentage of rural and commercial properties was taken from a neighbouring region.

SA Eyre and Yorke Region used averaged commercial and rural percentages from WA Gascoyne Goldfields.

Adelaide Outer and Adelaide Plains used averaged commercial and rural percentages from Melbourne West.

SA Murraylands used averaged commercial and rural percentages from VIC Mallee-Wimmera.

SA Southeast used averaged commercial and rural percentages from VIC West

Capital improved values

LGGSA values data is presented in per capita. Multiplying the data by the LGA population obtains the residential, commercial and rural values. This is then assumed to be capital value.

Land value

Land values were estimated using previously calculated equations of the determinants of the ratio of Capital improved value to Site value from Victorian data see equations I, II, III.

To obtain site valuation from capital improved value:

Residential, commercial

$$\frac{\text{SiteValue}}{\text{Numer of Assessments}} = \frac{\text{Capital Improved Value}}{\text{Number of Assessments}} \div \exp\left(\ln\left(\frac{\text{Capital Improved Value}}{\text{Site Value}}\right)\right)$$

Rural

$$\frac{\text{SiteValue}}{\text{Numer of Assessments}} = \frac{\text{Capital Improved Value}}{\text{Number of Assessments}} \bullet \exp\left(\ln\left(\frac{\text{SiteValue}}{\text{Capital Improved Value}}\right)\right)$$

Tasmania

Number of properties

The total number of properties was obtained from the ABS Tasmanian Regional Statistics. The number of dwellings reported in the ABS 2001 Census was assumed to be split between residential and rural properties, with the ratio for each Tasmanian LGA taken from Victorian LGAs considered to be roughly comparable. The number of commercial properties was likewise estimated by comparison with Victorian LGAs.

Land value

Total site values for each LGA are published in the ABS Tasmanian Regional Statistics. They are adjusted to the ABS Land Value national total. Site values were distributed across the different land uses according to ratios estimated from Victoria.

Capital value

Values are known from the ABS Tasmanian Regional Statistics. Capital values were distributed across the different land uses by ratio to site values, estimated from Victoria.

It will be apparent from this methodology that, while total values for Tasmania are regarded as reasonably accurate, the division by land use class is approximate.

Western Australia

Each of the sample of 15 LGAs listed below provided in their Annual Report information on residential GRV, total GRV and residential assessments and total number of assessments.

Armadale (C)	Narrogin (S)
Cockburn (C)	Northam (T)
Cuballing (S)	Perth (C)
East Fremantle (T)	Pingelly (S)
Geraldton (C)	South Perth (C)
Joondalup (C)	Westonia (S)
Kent (S)	Mundaring (S)
Mandurah (C)	

Land value

To obtain urban Site Values, regression equations from Victorian data were used, see equations I, II, III. The total was then adjusted to 95 per cent of the ABS land value.

New South Wales

Number of properties

The total number of properties by residential, commercial and rural was taken from *Comparative Information on New South Wales 1994/95 – 2003/04* published by the New South Wales Department of Local Government.

Land value

A sample of 11 LGAs were taken, listed below. They provided in their Annual Reports information on total land value.

Berrigan (C)	Forbes (A)
Bland (A)	Hornsby (A)
Blayney (A)	Hurstville (C)
Bourke (A)	Moree Plains (C)
Dubbo (C)	Tenterfield (A)
Waverly (A)	

Regression analysis was conducted to obtain an equation to estimate for the rest of NSW LGAs. see equation IX for details.

This was pro-rated to 95 per cent of the ABS Land Value data.

Apportioning the Total Site Value to residential, commercial and rural site valuations required the use of further regressions. Using Victorian data, the percentage of residential site value to total site value and percentage of commercial site valuation to total site value was estimated (See equations VIII, VII respectively). This was then applied to NSW.

Capital value

Similar to obtaining capital values for Queensland, NSW was then estimated through the equations listed on equations I, II, III.

Northern Territory

Number of properties

The total number of properties is known through publications of the nine LGAs. The ratio of residential, commercial and rural assessments was taken from the average ratio for SA.

Land value

Total Unimproved Value per LGA is known through publications by the different LGAs. The percentage of residential, commercial and rural to Total Site Valuation is taken from the average percentages of New South Wales.

This was then pro-rated to 95 per cent of the ABS National Land Value.

Capital value

Similar to obtaining CIV values for Queensland, NT was then estimated through the equations listed on equations I, II, III.

Australian Capital Territory

Land value for the ACT is published in the ABS National Balance Sheet.

A3.3 Equations used in estimating values

Eq: I - Ratio between Residential Capital Improved Value and Site Value

Ordinary least Squares were run on the adjusted estimates of the Victorian Grants data for residential capital improved value and residential site valuations for each LGA. Ordinary least squares procedure was used to create the estimates.

Variables:

cv = Capital Improved Value

sv = Site value

CloseLga : 1 = Shares a Border with Capital City

0 = Within Capital City or does not share a border

advd = Advantage Disadvantage Index, SIEFA, ABS.

m100 = Number of Jobs within 100 minutes driving distance of the LGA.

Equation:

$$\log(cv/sv) = \beta_1 CloseLga + \log(rent) + \log(advd) + \log(m100)$$

Results:

```
Call:
lm(formula = ln_diff_cv_sv$ln_cv_ass ~ closemelb + log(rent) +
   log(advd) + log(m100) - 1, data = vic_cv_param)
Residuals:
    Min          1Q          Median        3Q          Max
-0.59707      -0.11722     -0.04935      0.10899      0.71684
Coefficients:
             Estimate     Std. Error     t value Pr(>|t|)
closemelb    -0.41465      0.07723       -5.369 9.77e-07 ***
log(rent)    -0.60517      0.18263       -3.314  0.00146 **
log(advd)     0.80728      0.09914        8.143 9.96e-12 ***
log(m100)    -0.14641      0.02670       -5.483 6.23e-07 ***
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
Residual standard error: 0.2332 on 70 degrees of freedom
Multiple R-Squared: 0.9262,     Adjusted R-squared: 0.922
F-statistic: 219.7 on 4 and 70 DF,  p-value: < 2.2e-16
```

Commercial

Eq II - Ratio between Commercial Capital Improved Value and Site Value

Ordinary least Squares were run on the adjusted estimates of the Victorian Grants data for commercial capital improved value and residential site valuations. Ordinary least squares procedure was used to create the estimates.

Variables:

cv = Capital Improved Value

sv = Site value

CloseLga : 1 = Shares a Border with Capital City

0 = Within Melbourne or Does not share a border

advd = Advantage Disadvantage Index, SIEFA, ABS.

Equation:

$$\log(cv / sv) = \beta_1 CloseLga + \log(rent) + \log(advd) + \log(m60)$$

Results:

```
lm(formula = ln_diff_cv_sv ~ closeMelb + log(rent) + log(advd) +
    log(m60) + log(m60) - 1, data = vic_com_param)
Residuals:
Min          1Q          Median      3Q          Max
-0.89308     -0.22110    -0.01760    0.15788     1.01357
Coefficients:
             Estimate    Std. Error  t value Pr(>|t|)
closeMelb    -0.27781    0.09864     -2.816   0.0063 **
log(rent)    -0.63460    0.28451     -2.231   0.0289 *
log(advd)     0.74068    0.15847      4.674 1.39e-05 ***
log(m60)     -0.08534    0.03647     -2.340   0.0221 *
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
Residual standard error: 0.3185 on 70 degrees of freedom
Multiple R-Squared: 0.9158,     Adjusted R-squared: 0.911
F-statistic: 190.3 on 4 and 70 DF,  p-value: < 2.2e-16
```

Eq III - Ratio between Rural Capital Improved Value and Site Value

Ordinary least Squares were run on the adjusted estimates of the Victorian Grants data for rural capital improved value and residential site valuations. Generalized least squares method was conducted in order to create the estimates.

Variables:

advd = Advantage Disadvantage Index, SIEFA, ABS.

Equation

$$\log(sv/cv) = Cons\tan t + \log(advd)$$

Results

```
glm(formula = ln_rrl_diff_vic$y ~ log(advd), data = vic_rrl_param)
Deviance Residuals:
Min          1Q           Median       3Q           Max
-1.64212     -0.16258     0.01570      0.19653      3.49184
Coefficients:
             Estimate     Std. Error   t value Pr(>|t|)
(Intercept)  -52.909      13.328       -3.970 0.000207 ***
log(advd)     7.664       1.940        3.951 0.000220 ***
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
(Dispersion parameter for gaussian family taken to be 0.3811838)
    Null deviance: 27.297  on 57  degrees of freedom
Residual deviance: 21.346  on 56  degrees of freedom
AIC: 112.62
Number of Fisher Scoring iterations: 2
```

Eq IV – Holt-Winters smoothing on Queensland Land Value totals for 2005

ABS total land value estimates were used from 1989 to 2004 to estimate for 2005 values. A Holt-Winters exponential smoothing procedure was used to get estimates.

Equation:

$$\bar{y}_t = \alpha y_t + (1-\alpha)(\bar{y}_t), \qquad 0 < \alpha < 1$$

Residential:

Coefficient:

α = .1614

Time Series:

Start = 1989

End = 2005

Frequency = 1

fit	upper	lower
17 190.9	203.3213	178.4787

Commercial:

Coefficients:

α = .0213

Time Series:

Start = 1989

End = 2005

Frequency = 1

fit	upper	lower
17 21.3	23.72419	18.87581

Rural:

Coefficients:

α = .0162

Time Series:

Start = 1989

End = 2005

Frequency = 1

fit	upper	lower
17 16.2	17.69963	14.70037

Eq V – Ratio, Residential CIV and Sum of Residential + Commercial CIV

A sample of 16 Western Australia LGAs were taken where the residential and the total GRV was known. Ordinary Least Squares was used to run the estimation.

Variables:

residential_cv = residential capital improved value

commercial_cv = commercial capital improved value

ADVD = Advantage Disadvantage Index, SEIFA.

WEALTH = A Your Place Indicator, which captures the total wealth of households in terms of financial assets (excluding superannuation), housing values and the value of unincorporated business assets owned by the household.

Equation:

$$\text{residential\_}cv/(residential\_cv + commercial\_cv) = \beta_1 ADVD + \beta_2 WEALTH$$

Results:

Call:

lm(formula = Ratio_res_com ~ ADVD + WEALTH - 1, data = sample_lga_coef)

Residuals:

Min	1Q	Median	3Q	Max
-0.3030443	-0.1182508	0.0008186	0.1391210	0.2371474

Coefficients:

	Estimate	Std. Error	t value Pr(>|t|)
ADVD	1.145e-03	1.277e-04	8.968 6.27e-07 ***
WEALTH	-1.630e-06	4.722e-07	-3.452 0.00429 **

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1658 on 13 degrees of freedom

Multiple R-Squared: 0.9586, Adjusted R-squared: 0.9522

F-statistic: 150.4 on 2 and 13 DF, p-value: 1.028e-09

Eq VI –Ratio Residential Assessments and Residential and Commercial

Using a sample of 15 LGAs for Western Australia. The ratio between residential assessments and the sum of Residential and Commercial assessments was predicted.

Variables:

res_ass = Number of Residential Assessments

com_ass = Number of Commercial Assessments

ADVD = Advantage Disadvantage Index, SEIFA

ITR = Industry Structure for future growth. ITR is a Your Place Indicator which estimates the direction of future trends in employment that the current structure of local industry itself can generate.

Equation:

$$\text{res}\_ass/(ress\_ass + com\_ass) = \beta_1 ADVD + \beta_2 ITR$$

Results:

```
lm(formula = RES_ASS/TOTAL_WRITTEN_ASS ~ ADVD + ITR - 1, data = sample_lga_coef)
Residuals:
Min          1Q          Median      3Q          Max
-0.280152    -0.143676   0.002121    0.100144    0.393897
Coefficients:
             Estimate    Std. Error  t value Pr(>|t|)
ADVD         5.949e-04   6.569e-05   9.056 5.61e-07 ***
ITR           6.312e+00  1.775e+00   3.556  0.00352 **
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
Residual standard error: 0.2043 on 13 degrees of freedom
Multiple R-Squared: 0.9402,     Adjusted R-squared: 0.931
F-statistic: 102.2 on 2 and 13 DF,  p-value: 1.115e-08
```

Eq VII – Percentage of Commercial Site Value

Using Victorian Grants Commission data. An Ordinary Least Squares regression was run to determine the percentage of commercial site value compared to Total Site Value based on the percentage of commercial and rural assessments.

Variables:

per_com = Percentage of Commercial Site Valuation to Total Valuations

per_com_ass = Percentage of Commercial Assessments to Total Assessments

per_rrl_ass = Percentage of Rural Assessments to Total Assessments

Equation:

$$per\_com = \beta_1 per\_com\_ass + \beta_2 per\_rrl\_ass$$

Results:

Call:

lm(formula = per_com ~ per_com_ass + per_rrl_ass - 1, data = data1)

Residuals:

Min	1Q	Median	3Q	Max
-0.048742	-0.022714	-0.004428	0.012209	0.119417

Coefficients:

	Estimate	Std. Error	t value Pr(>|t|)
per_com_ass	1.44268	0.04972	29.019 < 2e-16 ***
per_rrl_ass	-0.12440	0.01753	-7.097 7.31e-10 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.03011 on 72 degrees of freedom

Multiple R-Squared: 0.9261, Adjusted R-squared: 0.924

F-statistic: 451.1 on 2 and 72 DF, p-value: < 2.2e-16

Eq VIII – Percentage of Residential Site Value

Using Victorian Grants Commission data. An Ordinary Least Squares regression was run to determine the percentage of residential site value compared to Total Site Value based on the percentage of commercial and rural assessments.

Variables

per_com = Percentage of Commercial Site Valuation to Total Valuations

per_com_ass = Percentage of Commercial Assessments to Total Assessments

per_rrl_ass = Percentage of Rural Assessments to Total Assessments

Equation:

$$per\_res = \beta_1 per\_com\_ass + \beta_2 per\_rrl\_ass$$

Results:

```
Call:
lm(formula = per_rrl ~ per_rrl_ass + per_com_ass - 1, data = data1)
Residuals:
Min          1Q          Median      3Q          Max
-0.38324     -0.04323    -0.01531    0.05976     0.28799
Coefficients:
             Estimate    Std. Error  t value Pr(>|t|)
per_rrl_ass   1.79875    0.06424     28.000  < 2e-16 ***
per_com_ass  0.60276     0.18221     3.308    0.00147 **
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
Residual standard error: 0.1104 on 72 degrees of freedom
Multiple R-Squared: 0.9409,     Adjusted R-squared: 0.9393
F-statistic: 573.5 on 2 and 72 DF,  p-value: < 2.2e-16
```

Eq IX – NSW Total Site Value

To calculate the NSW Total Site Value, a sample of 11 NSW LGAs was taken with known Total land value. It was regressed against, Advantage Disadvantage Index, total area and population density.

Variables

ADVD = Advantage Disadvantage Index ABS SIEFA

AREA = Total Area of the LGA.

POP_DEN = Population Density

Equation:

$$\log(Total\_land\_value) = \log(ADVD) + \log(AREA) + \log(POP\_DEN)$$

Results:

```
Call:
lm(formula = log(Total_land_value) ~ log(ADVD) + log(Area) + log(POP_DEN) - 1, data =
sample_lga_nsw)

Coefficients:
              Estimate   Std. Error   t value Pr(>|t|)
log(ADVD)     1.8971     0.3174       5.977  0.00188 **
log(Area)     0.6991     0.2410       2.901  0.03375 *
log(POP_DEN)  0.9509     0.1646       5.778  0.00218 **

Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.3364 on 5 degrees of freedom
Multiple R-Squared: 0.9998,     Adjusted R-squared: 0.9997
F-statistic:  9830 on 3 and 5 DF,  p-value: 7.622e-10
```

APPENDIX 4

FURTHER READING

Appendix 4: Further reading

Chapter 4

Department of Environment and Heritage. (2006) *Australia Measures Evaluation Report Cities for climate Protection: Local Government Action on Climate Change*. International Council for Local Environmental Initiatives.

Department of Natural Resources and Mines. (2005) *Climate Smart Adaptation: What Does Climate Change Mean for You?* A Discussion Paper prepared by the DNMR for the Queensland Government.

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IPCC. (2007) *Climate Change 2007: The Physical Science Basis – Summary for Policymakers*. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva, Switzerland.

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Pittock, A.B. (2003) *Climate Change: An Australia Guide to the Science and Potential Impacts*. Australian Greenhouse Office, Canberra.

Russell, R.C. (1998) *Mosquito-borne arboviruses in Australia: the current scene and implications of climate change for human health.* International Journal for Parasitology, vol. 28, pp 955-969.

Chapter 5

Department of Natural Resources and Mines (2005) *Climate Smart Adaptation: What Does Climate Change Mean for You?* Queensland Government.

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