



Tasmania

The Competition Index 2004

A State-by-State Comparison

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MESSAGE FROM THE TREASURER

The Tasmanian economy is now in the best shape it has been in living memory. Tasmania is currently experiencing record levels of population, employment, investment and consumer spending.

In order to sustain such economic performance we must objectively assess our strengths and constraints as a business location. We need to build on our strengths, as these enable Tasmanian businesses to grow and make Tasmania an even more attractive place to invest than it is now. We must also address those issues constraining Tasmania's economic development.

The *Competition Index* has a fundamental role in this process. The *Competition Index* provides an objective state-by-state comparison of business costs and contains a suite of indices that show where Tasmania has a relative advantage. It also shows where further measures are needed to make Tasmania a more attractive place for businesses compared to other states and, in some cases, New Zealand.

The *Response to the Competition Index*, released by the Minister for Economic Development in September 2004, sets out the Government's strategies that address many of the issues raised in the *Competition Index*.

The *Competition Index* reports are updated and improved each year when new data become available and changes in methodology are required. Improvements since the report began in 2000 have broadened the scope of the report to include other factors that are important in businesses' decisions to invest in the State. These include the planning and licensing environment, and also telecommunications services.

The *Competition Index* also complements *Tasmania Together*, which provides a long-term social and economic vision for the State's development, and provides important benchmarks for that process. The results of the *Competition Index 2004* confirm that Tasmania is already a very competitive location in which to do business.

A handwritten signature in black ink that reads "PA Lennon". The signature is written in a cursive, slightly slanted style.

Paul Lennon
Treasurer

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ABBREVIATIONS AND ACRONYMS

AAA	Automobile Association of Australia
AAV	Assessed Annual Value
ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
ACA	Australian Communications Authority
ACC	Accident Compensation Commission (New Zealand)
ACCC	Australian Competition and Consumer Commission
ADSL	Asymmetrical Digital Subscriber Line
ATM	Asynchronous Transfer Mode
AUD	Australian dollar
AusNOS	Australian National Organisation Study
BTRE	Bureau of Transport and Regional Economics (Commonwealth)
C	Centigrade
CBD	Central Business District
CDMA	Code Division Multiple Access
CGC	Commonwealth Grants Commission
CPI	Consumer Price Index
CSG	Customer Service Guarantee
Cu.m	Cubic Metre
DA	Development Application
DSL	Digital Subscriber Line
ESAA	Electricity Supply Association of Australia
F	Fahrenheit
FBT	Fringe Benefits Tax

Gbps	Gigabits per second
GDP	Gross Domestic Product
GJ	Gigajoule
GPOC	Government Prices Oversight Commission (Tasmania)
GSM	Global System for Mobile Communications
GSP	Gross State Product
GST	Goods and Services Tax (Commonwealth)
IP	Internet Protocol
ISDN	Integrated Services Digital Network
ISP	Internet Service Provider
IT	Information Technology
kL	Kilolitre
Km	Kilometre
Kpbs	Kilobits per second
KPI	key performance indicator
kWh	Kilowatt hour
LPG	Liquid Petroleum Gas
Mbps	Megabits per second
mm	Millimetre
MPLS	Multi Protocol Label Switching
MW	Megawatt
n.a.	not available
NEM	National Electricity Market
NEPM	National Environment Protection Measure
NZD	New Zealand dollar
OEPC	Office of Energy Planning and Conservation (Tasmania)

OTTER	Office of the Tasmanian Energy Regulator
PM 10	Particulate matter less than 10 micrometres in diameter
PPM	Parts Per Million
PRT	Payroll Tax
RTT	Radio Transmission Technology
StatNZ	Statistics New Zealand
SHDSL	Symmetrical High-Speed Digital Subscriber Line
TEU	Twenty-foot Equivalent Unit
WSAA	Water Supply Association of Australia

1 Executive Summary

- The *Competition Index* was first published in May 2000. The *Competition Index* provides an objective assessment of the advantages and disadvantages of undertaking business in Tasmania relative to the other Australian states and, in some cases, New Zealand.
- The indices have been updated to incorporate the most recently available data. Indices have been prepared for a number of cost categories and a number of industries. A summary of the rankings for each state for the composite indices is provided in Table 1. Table 1 also shows, for Tasmania only, the rankings in 2003.
- Additions to the 2004 *Competition Index* include:
 - a water cost index;
 - the inclusion of New Zealand in the electricity reliability index and aggregate energy cost index; and
 - an expanded lifestyle section including new information on air pollution, access to the coast and car parking costs.
- All indices have been developed by the Department of Treasury and Finance and represent average costs. They do not necessarily reflect the conditions for any individual firm. Also, the indices have been prepared on the basis of the costs that would be faced by a new firm setting up rather than those faced by existing firms. Financial assistance provided to new firms by state governments has not been reflected in the calculations.
- Overall, Tasmania is ranked most favourably (ranked 1) for 17 of the 34 indices included in Table 1 and is ranked the least favourable in five indices. This result is an improvement on the findings of previous *Index* reports.
- A comparison with New Zealand has been included in the *Competition Index* since 2003. New Zealand's proximity and similarity to Australia means that it is likely to be considered as a possible location for businesses in the region. New Zealand represents a particular competitor to Tasmania as a business location because of its relative isolation, the climatic similarity and because labour market conditions are comparable. Of the 13 indices that include New Zealand, Tasmania ranks highest in two and lowest in two.
- Of the 34 indices in this report, Tasmania tends to be highly ranked or least favourably ranked, with relatively few mid range rankings. This is consistent with the results of previous *Competition Index* reports.

Table 1 Summary of Ranking of States-2004¹

Cost-Based Indices	NSW	Vic	Qld	SA	WA	Tas	<i>Tas 2003 Index</i>	<i>Findings page no.</i>
Direct Labour Costs	6	5	2	3	3	1	1	5
Wages	6	5	3	3	2	1	1	5
Payroll Tax	6	3	1	4	5	2	2	5
Other Labour Costs	6	5	1	4	3	2	2	5
Labour Turnover	3	4	6	2	5	1	1	7
Industrial Disputes	5	6	3	2	4	1	1	7
Training and Qualifications	4	2	2	5	1	6	5	8
Training	6	5	3	4	2	1	1	8
Qualifications	1	2	4	5	3	6	6	8
Land and Accommodation	6	4	5	2	3	1	1	10
Taxation Severity	3	4	1	5	6	2	2	13
Energy Cost Index	1	2	4	5	6	3	6	14
Electricity	1	3	4	6	5	2	3	15
Reliability	3	1	6	2	4	5	6	16
Fuel	5	2	1	4	3	6	6	17
Gas	3	1	6	2	5	4	6	17
Water Cost Index	2	3	1	4	6	5	<i>n.a</i>	19
Surface Freight Cost	2	1	5	3	6	4	6	20
Air Freight Cost Index	2	2	2	2	6	1	5	22
Air Travel Cost Index	1	3	4	2	6	5	4	23
Access to Ports Index	5	4	6	2	3	1	1	24
Port Charges Index	3	1	5	<i>n.a</i>	2	4	5	24
Business Licensing Costs Index	5	2	4	3	6	1	1	25
Planning Index	2	<i>n.a</i>	<i>n.a</i>	<i>n.a</i>	3	1	1	26
Proximity to Markets	1	2	3	5	4	6	6	27
Telecommunications Cost Index	1	1	1	<i>na</i>	<i>na</i>	4	4	33
Telecommunications Reliability	6	3	3	5	2	1	2	34
Industry-Based Cost Indices								
Manufacturing	6	3	4	2	6	1	2	38
Accommodation, Cafés and Restaurants	6	3	5	2	4	1	1	38
Finance and Insurance	6	5	4	2	3	1	1	39
Property and Business Services	6	3	5	2	4	1	1	39
Other Indices								
Forestry Endowment	3	4	2	6	5	1	1	43
Business Confidence	6	5	2	3	4	1	1	44
Business Confidence in State Government	4	3	1	4	6	2	2	44

¹ Note: Improvements in methodology have occurred for eight indices, which have also been backdated. For this reason, Tasmania's ranking for three 2003 indices in Table 1 do not correspond to those published in the 2003 report.

Table 2 Summary of Ranking Including New Zealand-2004

(Exchange Rate NZD/AUD = 1.13)

Cost-Based Indices	NSW	Vic	Qld	SA	WA	Tas	NZ
Labour Costs	7	6	3	4	4	2	1
Industrial Disputes	6	7	4	3	5	2	1
Training and Qualifications	4	2	2	5	1	6	7
Land and Accommodation	7	5	6	3	4	1	2
Energy Cost Index	2	3	5	6	7	4	1
Electricity Costs	2	4	5	7	6	3	1
Electricity Reliability	4	1	7	2	5	6	3
Fuel	4	2	1	4	3	7	6
Gas	4	1	7	3	6	5	2
Water Costs	2	3	1	4	7	5	6
Air Travel	1	2	3	4	6	5	7
Proximity to Markets	1	2	3	5	4	7	6
Forestry Endowment	3	4	2	7	6	1	5

- The *Competition Index* shows that Tasmania has relatively low labour costs compared to the other states. In each of the five *Competition Index* reports, Tasmania was found to have the lowest labour cost index of all states.
- Tasmania also has a stable workforce with the lowest labour turnover of all states and the lowest level of industrial disputation. However, the qualification levels of the Tasmanian labour force are the lowest of all the states.
 - Despite its relatively low qualification levels, Tasmania has a relatively high proportion of its workforce undertaking ongoing training. Tasmania’s ranking in the training index improved from second to first in 2002 and has remained first since that time, reflecting, in part, the Government’s increasing focus on this area.
- Tasmanian land and accommodation costs are the lowest of all the states, reflecting the State’s relatively low value and rental costs for industrial and commercial land.
- Businesses in Tasmania face relatively low rates of state taxes. The taxation severity index number for Tasmania, as assessed by the Commonwealth Grants Commission, is the second lowest of all states behind Queensland.
- Overall, energy prices in Tasmania are competitive compared with those in other states.
 - Tasmania is ranked second in the electricity price index behind New South Wales. Due to changes in methodology, inter-year comparisons should be made with caution.
 - Tasmania’s electricity reliability index deteriorated in both the 2001 *Index* and 2002 *Index*, with Tasmania’s ranking falling from second in the 2000 *Index* to

sixth in the 2002 *Index*. Although Tasmania was also in sixth place in 2003, the index improved from 242 to 206. In 2004, Tasmania's ranking improved to fifth place.

- Fuel prices in Tasmania are generally higher than in the other states, but have become more competitive since the entry of Liberty Oil into the market in 2000. Tasmania is, however, still ranked sixth.
- The introduction of natural gas via the Tasmanian Natural Gas Project has improved Tasmania's energy cost competitiveness. Tasmania is ranked fourth in the gas cost index, ahead of Western Australia and Queensland.
- Access to ports is much better in Tasmania than in other states, with a relatively high proportion of the State's businesses within close range of a major port.
- Tasmania is ranked fourth in the port charges index ahead of Queensland (data from South Australia were not available).
- Tasmania has the lowest business licensing costs of all states. However, for the sample businesses examined, some other states require a smaller number of business licences and permits. This suggests that there may be some further opportunities to reduce the regulatory burden for Tasmania's businesses.
- An index to reflect the time taken to process planning applications reveals that the average time to process development applications in Tasmania is the lowest of the three states for which data are available.
- Tasmania has a relatively high forestry endowment, contributing to the State's attractiveness to firms in the forestry and related industries.
- Tasmania's telecommunications industry does not contribute as much to GSP as in other states and wholesale prices are highest. However, telecommunications reliability in Tasmania, as measured by the fixed phone reliability statistics, is among the best of all states.
- A major hindrance to Tasmanian businesses is the relative isolation of the State. For some businesses, such as those that rely primarily on overseas markets, the relative isolation of Tasmania may not be a problem. It is a constraint, however, on the establishment and growth of many businesses in the State. Tasmania's relative isolation causes problems in relation to the marketing of goods and services, reduced access to business and financial services, increased freight and air travel costs and, in some cases, difficulty in attracting skilled labour to the State. The proximity to markets index reflects the significant disadvantage that Tasmania suffers as a business location through its isolation.
 - Tasmania's surface freight cost index and air travel index demonstrate the relative disadvantage faced by Tasmania through its isolation. Tasmania's air travel index deteriorated between the 2001 *Index* and the 2002 *Index* as a result of decreased competition in the market, especially to regional locations. With the introduction of Virgin Blue and Jetstar, however, Tasmania's air travel costs improved relative to the other Australian states. Tasmania's air travel cost ranking improved from fifth to fourth between the 2002 *Index* and the 2003 *Index*. However, in the 2004 *Index*, Tasmania has moved back to fifth even

though air fares declined since 2003, due to the greater decline in some other states.

- Of the four industries examined, Tasmania's cost competitiveness has improved in manufacturing and remained unchanged in finance and insurance, accommodation, cafés and restaurants, and property and business services.
- Indices have not been prepared for the agriculture, forestry and fishing sector, which includes growth industries such as aquaculture, because there is insufficient information available for this sector. In addition, inherent differences between states, such as climate, make comparisons difficult because of the very different nature of the sector in each state. For example, the relatively cold waters surrounding Tasmania make it the only state in which salmon farming is viable.
- The comparison with New Zealand reveals that Tasmania has lower land and accommodation costs, air travel costs, water costs, a higher forestry endowment and proportionally more workers with qualifications and receiving training. However, New Zealand outperforms all Australian states in the areas of labour costs, electricity costs and industrial disputes. New Zealand is ranked second behind Victoria in the gas cost index and third behind South Australia and Victoria in electricity reliability, but is ranked sixth in proximity to markets.
- This analysis suggests that New Zealand may be a significant competitor with Tasmania for firms that do not need to be close to their markets and are labour intensive (such as call centres), or rely on relatively low skilled labour or have relatively intensive energy use.
- In general, Tasmania has a number of significant cost advantages for businesses. Low labour costs, low land and accommodation costs, a stable workforce, good port access and a good endowment of natural resources make Tasmania an attractive location for many firms to undertake business.

2 Introduction

2.1 Purpose

This is the fifth edition of *The Competition Index: A State-by-State Comparison*.

There are a number of other sources of interstate comparisons of issues that affect business costs and market conditions, but these tend to be limited to individual factors or a set of related factors. For example, New South Wales Treasury's *Interstate Comparison of Taxes* provides comprehensive details of state taxes. Several organisations, such as Access Economics and Econtech, undertake interstate comparisons of economic performance. From time to time, interstate comparisons of specific issues are undertaken by Commonwealth Government bodies, such as the Productivity Commission, in the course of an inquiry.

This publication aims to provide comparisons of a broad range of factors affecting business. Comparisons are made between states by aggregating data to reflect the situation facing firms on average. The analysis is therefore necessarily general in its approach and does not reflect the specific costs or market conditions that would exist for any one firm. Rather, it is intended to be a guide to relative advantages and disadvantages in general.

The comparisons focus on the situation that would be faced by a representative firm establishing in a particular state rather than the situation faced by existing firms. Therefore, where some costs, such as electricity costs, were agreed in contracts under earlier market conditions that are not likely to be applicable now, those costs are not included in the analysis.

State governments often provide additional financial assistance to new firms, which is often specific to the particular firm. Because of the general nature of the comparisons in this paper, it is not possible to capture the relative benefits of such assistance. However, in particular instances, these assistance measures may be a key factor in determining where a firm will locate. Section 6.3 provides some information on the extent to which firms access government assistance.

2.2 Methodology

A two-stage approach has been used in the preparation of *The Competition Index*.

- There has been a program of industry visits since 1999, together with discussions with the Tasmanian Chamber of Commerce and Industry, to help identify those factors that are of importance to businesses when deciding to establish or expand in a particular area. These visits also provide information on how businesses perceive their environment in Tasmania as being different from that in other states.
- Quantitative information is gathered from a wide range of sources to provide a comparison of the factors that impact on the competitiveness of businesses. Most data are from the ABS. A set of indices has been developed that reflect the relative costs of specific inputs within each state.

The indices, where possible, have been developed in such a way as to abstract from differences in factors between states that result from differences in the industry composition of the states. For example, payroll tax actually collected in each jurisdiction has not been used as the basis of the payroll tax calculations because such data reflect not only differences in the wages, payroll tax rates and payroll tax thresholds between states, but also any differences in the size distribution of firms. Other things being equal, a state with a relatively large proportion of large firms would have high payroll tax receipts compared to a state with a larger proportion of small firms. This is because all states have a threshold level of total wages paid below which payroll tax does not apply. The index has been calculated in such a way as to enable a comparison of the payroll tax burden to be made for firms of a given size across all states.

The indices that have been calculated have been aggregated where appropriate. In the case of labour costs, for example, the index reflects the total cost of employing staff by including wages, payroll tax, superannuation, workers' compensation premiums and fringe benefits tax. This method enables a better comparison of the true costs of undertaking business in each of the states as it is not possible, for example, to pay wages without also paying these on-costs. A breakdown of the components of the labour cost index is included in Appendix 2.

The methodology for calculating indices is largely unchanged from year to year, though improvements are introduced where feasible. KPMG has reviewed earlier reports and has found the methodology to be objective, robust and appropriate, and not designed to favour Tasmania or any other state.

2.3 Scope

This document provides a comparison of the relative costs of undertaking business in the states. The Northern Territory and the ACT have not been included in the comparison because sufficient data are not available for the territories to allow a valid comparison.

New Zealand has been included in the comparison because of its proximity and similarity to Australia. Many Tasmanian producers, particularly primary sector producers, compete with New Zealand producers on the world market.

The focus of the paper is on the development of measurable indices and this focus necessarily means that some important factors that are likely to influence business decisions are not considered in detail.

Those indices that have been included in this report relate to:

- state and local government rates and charges;
- labour costs and productivity;
- the cost of energy;
- the cost of water;
- telecommunication costs;

- transport and travel costs;
- the availability of natural resources;
- market accessibility;
- planning laws and licensing requirements;
- land and accommodation costs; and
- business confidence.

These factors can be categorised into two main groups:

- those that impact directly on business costs (such as energy, labour, freight, land and accommodation costs, and taxes and charges) defined as cost-based indices; and
- those that impact indirectly on businesses (such as availability of natural resources, market accessibility, and business confidence).

Aggregate indices are presented in Section 3 and have been grouped according to similarity of factors (for example, an aggregate labour costs index) and for some business costs, such as energy and telecommunications. The cost-based indices are applicable to all industries.

Section 4 presents the industry-based cost indices, which have been developed for some export and import-competing industries, as firms in these industries generally have some choice as to where they locate. By contrast, some other industries, such as construction, education and health services, must be close to their markets and therefore have not been included.

The direct costs that have been included in the industry-based cost indices do not account for the full range of input costs and work is continuing to examine whether additional costs can be included in future reports. The direct costs that have been included are estimated to account for over 35 per cent of industry costs in total. However, this percentage will vary across industries and tends to be lower for businesses that are capital intensive, or for which raw material costs constitute a large proportion of total costs.

Section 5 presents findings on two indices relating to business confidence.

Section 6 contains a brief interstate comparison of:

- mineral royalty regimes;
- lifestyle issues; and
- the use of government assistance measures.

Section 7 presents a comparison of New Zealand and Australian states for those cost-based indices where comparable data are available.

Appendix 1 describes the methodology used in determining the indices and Appendix 2 details the component indices that have been used in the calculation of the aggregate indices presented in Section 3. Appendix 3 contains a summary of the effective payroll tax rates for each state. Appendix 4 compares Tasmania's ranking in the 2004 *Index*

with the results obtained in earlier editions. Appendix 5 outlines the Government's *Response to the Competition Index 2003*.

3 Cost-Based Indices

Each index has a base of 100 for the state with the lowest cost or, in other cases, the lowest benefit. This method provides both a ranking for the states and a guide to the magnitude of the differences in the costs and benefits between the states.

For those indices that are based on costs, a low value index number reflects a favourable result (in the context of an assessment of competitiveness), while for those indices that measure the market advantages of undertaking business in each state, a high value index number is more favourable.

In cases where the scores are almost identical, the index value may be the same, in which case the rankings are equal.

3.1 Labour Market

3.1.1 Findings

Discussions with industry representatives revealed that while labour costs are a critical cost component, the quality of the labour force has a significant impact on their operations. Four indices have been developed to reflect these two elements of the labour force. The first incorporates the direct costs of employing labour, including on-costs, and three others measure the stability and educational qualifications of the labour force in each state.

3.1.1.1 Direct Labour Costs

The labour cost index described below incorporates all the major costs of employing labour: wages, payroll tax, fringe benefits tax, superannuation and workers' compensation premiums. The wages data used are full-time adult non-managerial average weekly total earnings. Appendix 2 provides state-by-state data for the major components of this index.

These labour costs have been amalgamated in the index to better reflect the basis on which businesses make a decision to employ additional workers. To isolate individual costs, such as wages or payroll tax, would not provide a meaningful measure of the relative costs faced by businesses. The index has been designed to include all the unavoidable employee-related costs that an employer faces.

The most recent wages and on-cost data available at the time of preparation of the 2004 index were used. The payroll tax regimes used for all states in the calculation of the payroll tax component of the index are those in effect from 1 July 2004.

In general, the total cost of employing workers in Tasmania is less than in all other states.

Labour Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (full-time/per week)	1,030	973	941	949	945	910
Index	113	107	103	104	104	100
Rank	6	5	2	3	3	1
<hr/>						
2003	NSW	Vic	Qld	SA	WA	Tas
\$ (full-time/per week)	992	926	883	916	899	882
Index	113	105	100	104	102	100
Rank	6	5	1	4	3	1

An area of concern to business has been the level of payroll tax. When measured on a consistent basis (see Appendix 1 for an explanation of the method of calculation), Tasmania has the second lowest payroll tax burden of all states, behind Queensland. This ranking is a significant improvement from the 2000 *Index*, which found that Tasmania had the second highest payroll tax burden using the same methodology. Appendix 2 shows details of the components of the labour cost indices for 2003 and 2004.

Treasury analysis has found that payroll tax is between 0.4 per cent and 2.7 per cent of overall business costs for firms in Tasmania. The figures have been derived by analysing the costs of a representative Tasmanian business which currently pays payroll tax in each of the sectors.

Table 3 Payroll Tax as a Percentage of Total Business Costs for Firms in Tasmania 2001-02

Industry Sector	Agriculture	Retail	Financial Services	Forestry	Construction
PRT as % of business costs	2.7	1.1	1.9	0.4	2.1

Source: Department of Treasury and Finance.

The method used to calculate the labour cost index is designed to reflect the average cost of employment in each state (with some adjustment for differences in industry composition). If identical ordinary time earnings were applied to each state, Tasmania would emerge as having the third lowest payroll tax burden of all states, with the burden being two and six per cent higher than Victoria and Queensland respectively.

Using identical wage rates for all states, based on private sector wages, Tasmania has the lowest payroll tax burden of all states except Victoria for payrolls up to \$3.5 million. This level of payroll equates to approximately 100 employees, which, in Tasmania, represents over 90 per cent of all employers liable for payroll tax. For more information on payroll tax see Appendix 3.

3.1.1.2 Labour Characteristics

During discussions with businesses it was generally noted that one of the advantages of undertaking business in Tasmania is the relatively low level of industrial disputation and relatively low employee turnover. Nevertheless, there was some concern that it is difficult to attract and retain people with high levels of educational attainment in those areas where working in Tasmania would be perceived as resulting in some degree of professional isolation.

The overall quality of the labour force has been assessed using three characteristics: labour turnover rates, industrial disputation and training and qualification levels of the workforce. Tasmania performs particularly well in the labour retention and industrial disputation indices. However, Tasmania is ranked sixth in the training and qualifications index.

Labour Turnover Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Share of employees with less than 3 years with current employer (%)	43.8	44.0	47.0	43.1	46.1	37.7
Index	116	117	125	114	122	100
Rank	3	4	6	2	5	1

2003	NSW	Vic	Qld	SA	WA	Tas
Share of employees with less than 3 years with current employer (%)	46.3	44.8	45.9	41.5	46.1	38.3
Index	121	117	120	108	120	100
Rank	6	3	4	2	5	1

Tasmania has the lowest labour turnover of all the states and, by a considerable margin, the best industrial relations record. The industrial disputes index is based on data for the past five years and reflects Tasmania's consistently low rate of industrial disputation. Workforce reliability, both in terms of labour turnover and rates of industrial disputation, can impact significantly on the competitiveness of businesses.

Industrial Disputes Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Days lost (per 1 000 employees)	58.4	63.3	32.6	21.3	52.1	8.1
Index	718	778	401	262	641	100
Rank	5	6	3	2	4	1

2003	NSW	Vic	Qld	SA	WA	Tas
Days lost (per 1 000 employees)	66.5	83.9	48.7	21.5	50.9	21.2
Index	314	396	230	101	240	100
Rank	5	6	3	2	4	1

The training and qualifications index comprises two equally weighed elements, the qualifications of the working age population and the proportion of the working age population that undertook ongoing training in the year prior to the survey. For the training and qualifications index, a high number represents a favourable ranking. Tasmania is ranked sixth in the training and qualifications index. While this indicates a fall from the 2003 ranking, the 2003 results presented below are revised figures based on an improved methodology for the qualifications index and do not correspond with those presented in the 2003 report.

While there has been no update of the 2003 training index, as no new data are available, the proportion of the Tasmanian working age population with a recognised qualification (Certificate I and above) has increased between 2003 and 2004. This increase has not been as large as in other states, which has changed Tasmania's ranking from fifth to sixth in the overall training and qualifications index.

Training and Qualifications Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Index	103	104	104	102	106	100
Rank	4	2	2	5	1	6

2003	NSW	Vic	Qld	SA	WA	Tas
Index	102	104	102	100	107	101
Rank	3	2	3	6	1	5

The training index is based on ABS data, available every four years. The most recently available data are for 2001. As a result, the training index for Tasmania does not reflect the impact of the major training initiatives recently implemented by the Government and outlined below. Treasury is investigating more frequent training data sources for future reports.

Training Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Percentage that undertook training in past year	33.9	37.5	39.0	38.0	39.7	40.1
Index	100	111	115	112	117	118
Rank	6	5	3	4	2	1

No update from the 2003 Index as no new data are available.

While Tasmania performs well in the training index, it does not perform well in the qualifications index, with a relatively small proportion of the Tasmanian labour force with a recognised qualification. In particular, Tasmania has a relatively small proportion of people who hold a bachelor degree or higher. This is consistent with the view of a number of the firms visited that it is difficult to attract and retain people with high levels of educational attainment in the State. However, the high proportion of people involved in ongoing training demonstrates the willingness of, and opportunities for, workers to further improve their vocational skills.

Qualifications Index						
2004	NSW	Vic	Qld	SA	WA	Tas
% (Certificate I and above)	53.4	50.3	48.7	48.6	49.9	44.4
Index	120	113	110	109	112	100
Rank	1	2	4	5	3	6

2003	NSW	Vic	Qld	SA	WA	Tas
% (Certificate I and above)	51.3	49.4	45.9	45.4	49.6	44.3
Index	116	112	104	102	112	100
Rank	1	2	4	5	2	6

The relatively small proportion of qualified people in Tasmania reflects, in part, the structure of the State's industrial base, with a smaller proportion of the workforce employed in professions requiring qualifications, as these tend to be more concentrated in larger metropolitan centres, particularly Melbourne and Sydney. Tasmania also has an older workforce compared to other Australian states. This means that a higher proportion of workers have acquired workplace skills but do not have formal qualifications.

In response to the relatively low number of qualified people in Tasmania, the Tasmanian Government has made increasing qualification levels a priority. In 2003, the Office of Post-Compulsory Education and Training initiated a three-year, \$1.0 million program to improve the business skills of small business owners and operators. Formal courses with recognised qualifications and targeted short courses are now available.

In addition, the Tasmanian Government has allocated \$1.2 million over four years to expand the highly successful Start@TAFE program which, provides opportunities for those who have, for various reasons, chosen to leave education early.

The Tasmanian Government has committed over \$20.0 million to Tasmania in the 2004-05 State Budget under the *State of Learning* program. *State of Learning* includes 27 initiatives aimed at improving the participation of school students and adults in post-school education, training or employment.

The 2004-05 State Budget also provides an extra \$5.3 million for training through the Institute of TAFE Tasmania over the next four years. This investment is targeted at those areas experiencing skill shortages.

The Government's Fast-Track Skills Development package also provides funding of \$2.7 million in 2004-05 to assist industry address skill shortages. This new package has seven major components, including a \$1.0 million Workforce Development Fund to link business planning with skills development for small to medium-sized businesses.

3.1.2 Trends

3.1.2.1 Direct Labour Costs

Tasmania has been ranked first in the labour cost index since the report began in 2000. Payroll tax measures introduced on 1 July 2001 improved the State's labour cost competitiveness by significantly reducing the effective payroll tax rate. In the 2001 *Index*, Tasmania had the second lowest payroll tax index number, compared with the second highest payroll tax index number of all states in the 2000 *Index*. Subsequent reductions in the payroll tax rate and increases in the tax-free threshold have resulted in a further improvement in Tasmania's index number since 2002. Tasmania has been ranked second since 2001.

3.1.2.2 Labour Characteristics

Tasmania has been ranked first in the labour turnover index since 2000 and also first in the industrial disputes index for four of the five reports. Tasmania was ranked second for 2002 but improved to first in 2003, marginally ahead of South Australia. Very few days were lost to industrial disputes in 2004, almost one third of the days lost in the second ranking state (South Australia).

For the training index, the 2002 result is not directly comparable to 2001 due to a change in the education classification system used by the ABS. However, as more recent training data are not available, there has been no update of this index. Tasmania was ranked sixth in the qualifications index in 2003 and 2004.

3.2 Land and Accommodation

In addition to the cost of land rental and purchase, the land and accommodation costs index includes state government land tax and municipal rates. Land tax generally only applies to land that is used for purposes other than as a principal place of residence and primary production. Therefore, the major burden of land tax falls on businesses.

3.2.1 Findings

Tasmania continues to have the lowest aggregate land and accommodation costs of all the states. Tasmania's relatively low land and accommodation costs result from the relatively low average land and property values in the State. Appendix 2 shows details of the components of the land and accommodation cost indices for 2003 and 2004.

Land and Accommodation Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ Annual rental, land tax and rates (300 m² property)	60 136	36 092	43 697	32 200	35 878	26 393
Index	228	137	166	122	136	100
Rank	6	4	5	2	3	1

2003	NSW	Vic	Qld	SA	WA	Tas
\$ Annual rental, land tax and rates (300 m² property)	59 438	35 989	42 571	32 512	35 772	26 348
Index	226	137	162	123	136	100
Rank	6	4	5	2	3	1

The property rental and values component of this index for Tasmania is the lowest of all the states, primarily as a result of relatively low property values. However, rental costs in Tasmania have been relatively high in relation to property values. This may reflect the fact that property owners have not been prepared to accept low rental income in the expectation of a large capital gain, as they have not expected property values to appreciate as they have in some other states.

The land tax component (see Appendix 2 for details) indicates that the burden on businesses in Tasmania is the third lowest of all states, behind Western Australia and Victoria, with the highest land tax burden in Queensland. The changes in the index since 2003 reflect changes to land tax rates in NSW, Victoria and Western Australia in their 2004-05 Budgets. The Tasmanian land tax rate was reduced following the 2002-03 Budget. Western Australia's index for land tax is somewhat understated given that an additional Metropolitan Region Improvement Tax of 0.15 per cent is applied to land in Perth. Details of the components of the land and accommodation index for 2003 and 2004 are provided in Appendix 2.

Variations in the land tax burden arise from differences in both land values in each state and in the rates of tax. In the case of New South Wales, the relatively high land tax burden reflects both the high land values in that state and a relatively high tax rate. In Victoria, the land tax regime is more progressive than in other states, with very low marginal rates of tax applying to lower valued land and very high marginal rates applying to higher valued land. About 80 per cent of commercial and industrial properties in Victoria are valued in the low tax range. Tasmania has a combination of relatively low land values and relatively high tax rates.

The land tax component of the index has been calculated in order to reflect the actual cost that may be incurred by businesses in each state and has therefore been based on average land values in each state. If a comparison of land tax is made by simply comparing land tax on properties of the same value in each state, Tasmania generally would have the highest land tax rates of all states.

The municipal rates component of this index for Tasmania is the lowest of all states, followed by Victoria. However, the data used for this component of the index may not be as reliable as for the other components of the index and should be treated with caution. In particular, the information used includes both residential and commercial rates, which may make the results unreliable. The fact that local government provides different services in each state also makes interstate comparisons problematic.

3.2.2 Trends

Tasmania has performed relatively well in the land and accommodation index, improving from second to first in 2001 where it has remained. Tasmania's property rental and values and municipal rates rankings have remained first since 2000, while land tax ranking has remained steady, in third position, since 2000. The land tax index has improved substantially since 2000, however, moving from 893 to 238 in 2004. The land tax index improved in 2001 from 893 to 353 due largely to a relative increase in average land values in Victoria, the base state. In 2002, Tasmania's index number improved to 223 due to changes in the land tax regime announced in the 2002-03 Budget.

3.3 Taxation Severity

The taxation severity index compares the relative rates of a combination of selected taxes for each state.

The index is based on the revenue raising effort calculated by the Commonwealth Grants Commission (CGC). The CGC's estimate of the revenue effort compares the actual revenue receipts of each state with the revenue the CGC calculates that each state could raise if a national average tax rate were applied to that state's revenue base.

The taxation severity index compares the rates of certain taxes in each state only, and not the total cost to businesses of the tax or the factor on which the tax is based. For example, the severity of stamp duty on conveyances in Tasmania using this method of calculation is higher than the national average rate of stamp duty on conveyances. However, it is likely that the actual amount of stamp duty on conveyances to businesses would be much lower than in the other states because of the relatively lower property values in Tasmania.

The taxes included in the index are:

- stamp duties on conveyances, shares and marketable securities and motor vehicle registrations and transfers;
- financial transaction taxes;

- motor vehicle fees and taxes; and
- insurance tax.

The taxes included in the taxation severity index are applied to both businesses and households and it is not possible to separate the tax severity on businesses from the severity on households.

Land tax, payroll tax and revenue replacement payments for petroleum have not been included in the index because they are included in the labour cost, land and accommodation cost and fuel cost indices respectively. Some taxes have not been included in the index because they are more likely to apply to households or individuals than to businesses. The main taxes excluded from the index are: gambling taxes; driver licence fees and revenue replacement payments for tobacco and alcohol.

The index is based on the most recent information available from the CGC, which is for 2002-03. The index therefore reflects the tax cuts in the 2002-03 Budget, including the removal of stamp duty on public liability insurance premiums.

3.3.1 Findings

The index reveals that Tasmania has the second lowest taxation severity of all states behind Queensland. Tasmania has a relatively high tax severity for financial transaction taxes and a relatively low tax severity for stamp duty on shares and marketable securities, motor vehicle registration fees and taxes and other vehicle registration fees and taxes.

Taxation Severity Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Ratio	96.6	108.3	84.6	113.6	119.0	91.0
Index	114	128	100	134	141	108
Rank	3	4	1	5	6	2
<hr/>						
2003	NSW	Vic	Qld	SA	WA	Tas
Ratio	97.3	106.9	88.4	111.9	109.9	89.6
Index	110	121	100	127	124	101
Rank	3	4	1	6	5	2

The severity indices for each of the component taxes is provided in Table 12 in Appendix 2.

3.3.2 Trends

The Tasmanian taxation severity ranking improved from second to first in 2001 but returned to second position in 2002 where it has remained. In 2003 Tasmania's index was very close to Queensland at 101, but increased to 108 in 2004.

The component indices for taxation severity reveal that, for stamp duty on conveyances, Tasmania was second in 2000 but moved to fifth in 2001. Since 2001, Tasmania has improved from fourth in 2002 to third in 2003, where it remained in 2004.

Tasmania's financial transactions taxes ranking fell from third to fourth in 2001 and from fourth to sixth in 2002. In 2003, Tasmania's ranking improved marginally to fifth where it has remained in 2004. Tasmania's index value in 2004 (129) is an improvement on 2000 (162), but the ranking has deteriorated due to the relative performance of the other states.

Tasmania's stamp duty on shares and marketable securities ranking had been second for the past four reports. In 2004, however, Tasmania's ranking improved to first.

In the insurance taxation ranking, Tasmania went from fourth to fifth in 2001 where it remained until 2003, moving to third place. In 2004, Tasmania's ranking improved to second place.

Tasmania has been in first place for the heavy vehicle registration fees and taxes tax severity since 2000. However, for other vehicle registration fees and taxes, Tasmania has moved from first position to second position for the first time since 2000.

Tasmania moved from third to second in the ranking for stamp duty on motor vehicle registrations and transfers index in 2001 and has remained second since that year.

3.4 Energy

Energy is an important input for many firms, both directly and indirectly through transport costs. An aggregate energy cost index has been developed to compare the energy costs of the states and comprises components for each of the major types of energy: electricity, fuel and gas. In calculating the aggregate energy cost index, the weightings used were (from national 1998-99 Input-Output tables): electricity 58 per cent, gas 11 per cent and fuel 31 per cent.

3.4.1 Findings

3.4.1.1 Energy Costs

Tasmania has very competitive electricity prices and significantly reduced gas prices, but Tasmania is ranked third in the aggregate energy cost index due to the relatively high costs for fuel in the State.

Energy Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Index	100	102	117	122	125	113
Rank	1	2	4	5	6	3
<hr/>						
2003	NSW	Vic	Qld	SA	WA	Tas
Index	100	100	110	125	123	135
Rank	1	1	3	5	4	6

3.4.1.2 Electricity Costs

With the introduction of the National Electricity Market (NEM) and the roll-out of retail contestability in several mainland states, wholesale electricity prices have fluctuated dramatically.

Prices for electricity vary from state to state due to a number of factors including the:

- principal method of generation in each state;
- length of transmission and distribution lines;
- supply-demand balance in each state; and
- level of competition between electricity entities (both in retail and in generation).

Average Tasmanian electricity prices have historically been competitive with those in the mainland states. While the primary beneficiaries of the lower prices have been major industrial customers, Tasmanian electricity prices for business customers at all levels of consumption have declined in real term terms since 1996.

The Electricity Supply Association of Australia (ESAA) no longer collects the electricity price information which had been used to calculate the electricity cost index in earlier reports. Treasury has used electricity price information, provided by the Office of the Tasmanian Energy Regulator (OTTER), which is published in OTTER's Tasmanian Energy Supply Industry Performance Report 2003-04. While the 2004 results are not directly comparable to previous *Index* reports, this information provides a reliable comparison of electricity prices.

Electricity Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (cents per kWh)	10.4	12.9	13.2	15.8	15.4	11.8
Index	100	124	127	152	149	114
Rank	1	3	4	6	5	2

2003	NSW	Vic	Qld	SA	WA	Tas
\$ (cents per kWh)	10.4	12.2	13.7	16.5	15.7	12.6
Index	100	117	131	158	151	121
Rank	1	2	4	6	5	3

3.4.1.3 Electricity Reliability

Electricity reliability may be as important to some businesses as electricity prices, particularly for those businesses whose continuous electricity supply is a vital element of production. The electricity reliability that is experienced by the customer reflects the performance of each of the generation, transmission and distribution systems. There is no single measure that is reported nationally to capture customer experience. The index uses a measure that reflects the performance of the distribution system in each jurisdiction.

Electricity Reliability Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Minutes lost (per customer per year)	219.4	152.9	317.2	179.0	221.1	275.0
Index	143	100	207	117	145	180
Rank	3	1	6	2	4	5

2003	NSW	Vic	Qld	SA	WA	Tas
Minutes lost (per customer per year)	125.4	113.4	115.4	143.0	96.0	198.0
Index	131	118	120	149	100	206
Rank	4	2	3	5	1	6

Tasmania is ranked fifth in the electricity reliability index, ahead of Queensland. The measure used for the performance of the distribution system is the system average interruption duration index (SAIDI). The SAIDI is extremely sensitive to variations in weather and, therefore, can vary significantly year to year. Performance also varies between cities, which usually have SAIDI values below 50 minutes per customer per annum, and rural areas, which can have SAIDI values over 1 000 minutes per customer per annum. Statewide values for SAIDI are averaged either over customer numbers or over connected load. Therefore, areas with higher urban populations will tend to

experience better performance. Tasmania, with a more dispersed population than mainland states generally experiences higher SAIDI values than the mainland states. Recent comparisons of performance, by OTTER, between Tasmania and distribution networks serving more rural areas on the mainland, indicate that Tasmania's performance is comparable with that experienced in such areas.

3.4.1.4 Fuel Costs

Fuel prices vary across the states, due principally to differences in the costs of transporting the fuel from refineries and in the competitive structure of the market in each state. The price of unleaded petrol in each capital city was used as the basis for comparison between the states and is for the 12 months to August 2004. On the basis of the fuel price component of the energy index, Tasmania has the highest fuel prices of all states. Queensland again has the lowest fuel prices, around 7.6 per cent below the prices in the second ranked state (Victoria).

Fuel Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (per litre)	94.6	93.0	85.9	94.5	93.4	100.4
Index	110	108	100	110	109	117
Rank	5	2	1	4	3	6
<hr/>						
2003	NSW	Vic	Qld	SA	WA	Tas
\$ (per litre)	91.4	89.4	82.0	90.3	92.2	95.8
Index	111	109	100	110	112	117
Rank	4	2	1	3	5	6

3.4.1.5 Gas Costs

For the first time, an index has been calculated to reflect the relative cost of natural gas in Tasmania compared with the other states. In previous reports, the (higher) price of LPG was used as natural gas was not available.

Gas Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (per GJ)	15.72	9.33	20.00	15.00	18.62	18.60
Index	168	100	214	161	200	199
Rank	3	1	6	2	5	4

2003	NSW	Vic	Qld	SA	WA	Tas
\$ (per GJ)	10.07	6.38	12.25	8.84	14.14	24.51
Index	190	100	211	193	240	545
Rank	2	1	4	3	5	6

Tasmania is ranked fourth in the gas cost index, marginally ahead of Western Australia. The impact of the arrival of natural gas in Tasmania is evident, with the price per gigajoule of natural gas being significantly lower than LPG, resulting in Tasmania's ranking improving from sixth to fourth.

3.4.2 Trends

3.4.2.1 Electricity Costs

The electricity cost index ranking for Tasmania improved substantially from 2000 to 2002, moving from fourth to second. In 2003, Tasmania's index and ranking moved to third. In 2004, Tasmania's ranking improved to second, although inter-year comparisons should be viewed with caution due to changes in methodology.

3.4.2.2 Electricity Reliability

The Tasmanian ranking for electricity reliability has moved from second most reliable in 2000 to fifth in 2001. In 2002, it fell to sixth place. Although Tasmania was also in sixth place in 2003, the index improved from 242 to 206. In 2004, there was a marked decline in reliability across all Australian states. While Tasmania's minutes lost per customer per year increased from 2003, Tasmania's ranking improved to fifth place.

3.4.2.3 Fuel Costs

Tasmania has been ranked sixth in the fuel cost index since the report began in 2000. The fuel cost index for Tasmania has experienced only small changes since the sharp decline in 2001, which resulted from aggressive discounting by Liberty Oil when it entered the Tasmanian market in September 2000.

3.4.2.4 Gas Costs

Between 2000 and 2003, Tasmania was ranked sixth in the gas cost index due to the very high cost of LPG. Natural gas is now available in Tasmania and the gas cost index reveals that Tasmanian natural gas prices are competitive with several of the other

states. Tasmania (199) is ranked fourth behind New South Wales (168) but only marginally ahead of Western Australia (200).

3.5 Water

The Water Supply Association of Australia (WSAA) has stated that progress is being made towards the goal of ensuring that consumers receive clear price signals for the cost of increased water consumption. Generally across Australia, water charges for commercial consumers consist of:

- an access charge reflecting the cost of service connection. This fee does not vary with the amount of water consumed by the customer; and
- a variable charge based on the volume of water purchased. Some utilities have introduced stepped or multi-part variations to the volumetric charge. For example, there may be a one unit rate for 1-100kL per annum and a higher (or lower) rate for 101-200kL per annum.

A water cost index has been constructed from average water costs for three representative businesses using the capital city water tariff structures within each state. The water costs consist of an access and/or variable charge for water and sewerage. The method for calculating these charges varies across the capital cities, with access charges being determined by meter size, or a fixed fee, or by a proportion of the property's Assessed Annual Value (AAV). In Victoria, for example, the water and sewerage access charges are a fixed amount. In comparison, South Australia's water and sewerage access charges are a proportion of the property's AAV. All capital cities have some form of variable charge. For Hobart, this is an excess water charge for commercial users which only applies for water consumption above a predetermined threshold. It should be noted that other cities within a state will have different water tariff structures. For example, in Launceston water charges are based less on AAV, with greater reliance on a volumetric charge.

The index provides an approximate guide only to water charges faced by businesses across the states, as water usage is dependent on the nature of a business. A drycleaner, for example, would use more water than a newsagent, and therefore face higher charges if water charges are heavily dependent on the amount of water used. Alternatively, a business with a high property value that consumes small quantities of water, such as an office block, faces high water charges if the access charge is based on AAV.

The capital cities in South Australia, Western Australia and Tasmania have some proportion of their water charges determined by the AAV of the property. All other things being equal, an increase in property prices would result in a relative increase in water charges. The reliance on property-based charging for commercial properties, in conjunction with the relatively high value of those properties, means that businesses that consume relatively small volumes of water pay a relatively high average price for the water they use in those states.

3.5.1 Findings

Tasmania is ranked fifth in the water cost index, behind Queensland, New South Wales, Victoria and South Australia.

2004	Water Cost Index					
	NSW	Vic	Qld	SA	WA	Tas
\$ average representative cost	841	1 153	638	1 641	2 669	1 760
Index	132	181	100	257	418	276
Rank	2	3	1	4	6	5

3.6 Freight

Freight services are vital for many businesses, both in terms of the supply of domestic and imported inputs to production and the supply of finished goods to domestic and international markets.

Bass Strait represents a disadvantage to Tasmanian businesses that export to, or import from, the mainland, including Tasmanian businesses that sell to international markets via a mainland port. Compensation is available through the Tasmanian Freight Equalisation Scheme. However, not all goods are covered by the Scheme, including shipments of air cargo, cargoes intended for overseas export, bulk cargoes and goods imported into the mainland of Australia from overseas which have not undergone a manufacturing process on the mainland prior to their shipment to Tasmania. While financial assistance is important in reducing this disadvantage, no freight equalisation scheme is able to fully compensate for the problems faced by Tasmanian businesses that are separated from major population centres and markets.

For any transport task where there is significant volume involved on a regular basis, businesses usually receive a commercial rate which is negotiated between the business and the freight forwarder. This rate will depend on volume, the timing (whether every day or once a week) the type of produce (its density) and other variables. Significant discounts from published rates can be obtained, especially by established firms with very large volumes. The *Index* results for the freight cost index and the port charges index reflect the situation for a start-up business with low initial volume that pays the scheduled rates.

The surface freight cost index reflects the relative cost of interstate freight and does not include the cost of transporting goods internationally. Also, the surface freight cost index compares the cost of sending goods to market for a representative business. It does not capture, however, the costs associated with transporting inputs to the production site.

3.6.1 Findings

3.6.1.1 Surface Freight Cost Index

Tasmania is ranked fourth in the surface freight cost index. The index was constructed by combining the cost of freighting a 23 tonne gross container from each capital city to each other capital city (full container load). The cost of freight in each case was weighted by the population of each destination state.

The calculation of the index includes the receipt of the subsidy under the Tasmanian Freight Equalisation Scheme. In the absence of this subsidy, the freight index for Tasmania would be 172, or around 40 per cent higher than the actual index value. Several firms have commented on how critical the freight equalisation payments are to enable them to be competitive in mainland markets.

It is expected that the increased capacity and frequency of crossings of the new Bass Strait ferries will put downward pressure on freight prices and reduce the time required for the freight of goods across Bass Strait. The Commonwealth's Bureau of Transport and Regional Economics (BTRE) produces a series of information papers on various transport issues, including a compilation of estimates on interstate non-bulk freight rates up to the year 2001. The report shows that, since the 1980s, real shipping rates to Tasmania have declined by about 40 per cent.

Surface Freight Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (per 20 foot equivalent unit)	1 445	1 375	1 748	1 544	3 686	1 684
Index	105	100	127	112	268	122
Rank	2	1	5	3	6	4

Tasmania is ranked fourth in the surface freight cost index, ahead of Queensland and Western Australia. Western Australia is clearly disadvantaged by its distance from other major population centres.

3.6.1.2 Road Freight Cost Index

Austrroads is the association of Australian and New Zealand road transport and traffic authorities. The Austrroads report *National Performance Indicators 2004* presents intra-state road freight cost estimates. NSW is not involved in the compilation of these estimates. Unlike the estimate of the surface freight index above, the road freight index is constructed from an intra-state freight task and hence does not include the Bass Strait crossing.

Road Freight Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (cents per km)	<i>n.a</i>	11.0	11.0	9.0	11.0	11.0
Index	<i>n.a</i>	138	138	113	138	138
Rank	<i>n.a</i>	2	2	1	2	2

No change from the 2003 Index as data were the same as in 2003.

Although Tasmania is ranked fourth in the surface freight cost index, which includes the Bass Strait crossing, Tasmania is ranked the same as Victoria, Queensland and Western

Australia in the road freight index, behind South Australia. All states except South Australia have the same freight cost per tonne kilometre, according to the Austroads survey.

3.6.1.3 Urban Courier Cost Index

Urban Courier Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (cents per km)	<i>n.a</i>	5.0	3.5	2.3	4.5	1.9
Index	<i>n.a</i>	262	181	118	234	100
Rank	<i>n.a</i>	5	3	2	4	1

No change from the 2003 Index as data were the same as in 2003.

Tasmania is ranked first in the urban courier index. Urban courier costs in Victoria and Western Australia are over 100 per cent higher than Tasmania while costs in South Australia are closer to those in Tasmania, with an index of 118. The smaller city sizes and the low levels of congestion on the Tasmania's urban road network partly explains this result.

3.6.1.4 Air Freight Cost Index

The air freight cost index in the 2004 *Index* uses a different methodology to previous reports. An index has been constructed which assumes that a business in each capital city requires overnight air freight services from the closest neighbouring major population centre, for example, for the supply of a critical spare part. This reflects the use of air freight by businesses, where most air freight is drawn from the nearest major city. However, the index does not reflect airline capacity or reliability, which is of particular importance to producers of fresh produce.

Air Freight Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (10 kilo package)	154.4	154.4	154.4	154.4	390.9	152.7
Index	101	101	101	101	256	100
Rank	2	2	2	2	6	1

Tasmania is ranked first in the air freight cost index marginally ahead of New South Wales, Victoria, Queensland and South Australia. Western Australia is disadvantaged by its distance from other major Australian population centres and is ranked sixth.

3.6.1.5 Air Travel Cost Index

Tasmania is ranked fifth in the air travel cost index, ahead of Western Australia which appears to have significantly higher air travel costs than the other states. Competition in air travel services has resulted in substantial reductions in air fares across Australia. For example, the weighted air travel fare for New South Wales (to all other capital cities) has decreased, between the 2003 Index and the 2004 Index, from \$431 to \$166. Similar reductions have occurred for other states. In the case of Tasmania, the weighted fare declined from \$470 in 2003 to \$256 in 2004. This index does not reflect reliability and scheduling for business travel.

Air Travel Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Index	100	123	124	121	233	154
Rank	1	3	4	2	6	5

2003	NSW	Vic	Qld	SA	WA	Tas
Index	100	104	117	110	182	114
Rank	1	2	5	3	6	4

3.6.2 Trends

3.6.2.1 Air Travel Cost Index

In 2002, Tasmania's ranking moved from fourth to fifth in the air travel cost index. In 2003 Tasmania's ranking improved from fifth to fourth. Since 2003, however, Tasmania's ranking has returned to fifth.

In addition to the disadvantage of distance from other Australian population centres, Tasmania's performance in this measure had been influenced by the lack of competition in the Hobart air passenger market since the demise of Ansett. The reduction in competition in this route was reflected in the increase in the index number for Tasmania between 2001 and 2002.

The introduction of services into Hobart by discount carriers Virgin Blue, Regional Express and Jetstar has put downward pressure on airfares to and from Tasmania. However, as the decrease in fares has not been as much as in some other states, Tasmania's index number has increased and Tasmania's ranking has declined to fifth.

3.7 Transport-Related Infrastructure

3.7.1 Findings

Transport-related infrastructure includes road, rail, shipping and air freight infrastructure. The absence of quantitative information in respect of road, rail and air

transport infrastructure in all states has prevented the estimation of a single index. However, an index illustrating the relative access to ports in each state has been calculated.

3.7.1.1 Port Access

During meetings with businesses, the feedback in respect of port access and charges has been mixed, with a number of firms agreeing that relatively easy access to ports was important for their business, but also expressing the view that the relatively large number of ports within the State may lead to higher port charges than would otherwise be the case.

The access to ports index uses 2001 Census data. Tasmania has the most favourable index, with a large proportion of the population relatively close to a port.

Port Access Index						
2004	NSW	Vic	Qld	SA	WA	Tas
% (population within 50 km radius of a port)	72.2	78.2	57.7	83.5	82.3	91.3
Index	125	136	100	145	143	158
Rank	5	4	6	2	3	1

No update from the 2003 Index as no new data are available.

3.7.1.2 Port Charges

Tasmania is ranked fourth in the port charges index. However, this index should be interpreted with caution, as:

- the data used relate to only one port in each state (with the exception of Tasmania);
- the methodology has changed compared to previous reports;
- ports in each state provide volume discounts, resulting in commercial rates that can be substantially below the scheduled rates that have been used to construct the port charges index; and
- no index has yet been produced on relative port efficiency, which can have a significant impact on overall business costs.

Port Charges Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (per 20 foot equivalent unit)	245.9	225.3	271.4	<i>n.a</i>	240.3	261.8
Index	109	100	120	<i>n.a</i>	107	116
Rank	3	1	5	<i>n.a</i>	2	4

3.8 Business Licensing Costs

Across Australia, businesses express concern over the costs of complying with regulation. These costs generally comprise the fees for licences and permits, the time required in completing application forms and providing other information at the application stage, and the on-going compliance costs, such as the provision of information to the relevant regulatory authority and the renewal costs for the licences and permits. Often, these costs are greater when, in any state, there is no effective centralisation of the regulatory functions so that a large number of different regulatory authorities are involved.

An index has been calculated to compare business licensing costs in each state. The index is based on the business licensing requirements for the following businesses in each state:

- a road house that sells petrol and serves food;
- a restaurant-café that serves alcohol, has outdoor tables, and advertising signs on the footpath;
- a motel with a restaurant that sells liquor;
- a bed and breakfast establishment that serves food and sells liquor;
- a gas distribution and retail business;
- a retirement-nursing home; and
- a mixed farm with cows, sheep and poultry.

The business licensing costs index is based on the number of licences and permits required in each state for these businesses, on the fees charged for these licences and permits and on the number of different state and local government regulatory authorities that each of the businesses listed above must deal with. All Commonwealth regulatory requirements are excluded as they apply to businesses in all states.

Clearly, this index will provide a very approximate guide only to the relative business compliance costs that new businesses can expect to face in each state, especially as it is not possible to include in the index a direct measure of the time costs that businesses incur in completing forms and providing any other information required by the regulatory authorities. However, the index provides an indication of the differences in regulatory requirements between states and it is likely that states with low business licensing costs, as measured by this index, generally have more favourable regulatory conditions.

3.8.1 Findings

The business licensing costs index indicates that Tasmania has the lowest business licensing costs of all states in Australia followed by Queensland and Victoria. The fees for licences and permits and the number of regulatory authorities that must be dealt with

in Tasmania were found to be relatively low, but Tasmania ranked fourth in the number of licences required.

Business Licensing Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Index	198	150	169	160	236	100
Rank	5	2	4	3	6	1

2003	NSW	Vic	Qld	SA	WA	Tas
Index	173	149	164	160	254	100
Rank	5	2	4	3	6	1

3.9 Planning

In the past, concern has been expressed at the apparent ease with which developments within Tasmania could be stopped or delayed by the objection of a third party. The perception among many businesses is that it is relatively easy in Tasmania for individuals to delay or prevent major developments. On the 27 November 2004, the Minister for Environment and Planning released a discussion paper for public comment on ways of improving Tasmania's planning system. The discussion paper, entitled *Better Planning Outcomes*, canvassed a range of issues including the drafting and implementation of planning schemes, the role of state policies and regional considerations, and refining development assessment, review and appeal processes.

An index has been calculated based on the average time taken to process development applications. It should be noted that, while each state has slightly differing planning systems, the type of development application used for the analysis for each state is the one that most closely resembles the discretionary planning application for Tasmania. The index excludes permitted use planning applications and building applications. Currently, there are only three states that release data on which this index can be based, namely Tasmania, New South Wales and Western Australia. These states have prepared local government performance indicators that include the average time to process development applications. Victoria, Queensland and South Australia release some local government performance indicators, but they do not currently include planning related measures.

3.9.1 Findings

The planning index indicates that, as in 2003, the average time taken to process development applications in Tasmania is the lowest of the three states for which data are available.

Planning Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Average number of days	51	<i>n.a</i>	<i>n.a</i>	<i>n.a</i>	53	32
Index	159	<i>n.a</i>	<i>n.a</i>	<i>n.a</i>	168	100
Rank	2	<i>n.a</i>	<i>n.a</i>	<i>n.a</i>	3	1

2003	NSW	Vic	Qld	SA	WA	Tas
Number of days	47	<i>n.a</i>	<i>n.a</i>	<i>n.a</i>	35	32
Index	147	<i>n.a</i>	<i>n.a</i>	<i>n.a</i>	112	100
Rank	3	<i>n.a</i>	<i>n.a</i>	<i>n.a</i>	2	1

3.10 Proximity to Markets

Proximity to a large population base is important for many businesses for a number of reasons, including:

- access to the customer base;
- access to business and financial services; and
- capacity to attract skilled labour.

Proximity to a large customer base generally leads to low transport costs for goods and may be important for marketing. This is illustrated in the Tasmanian case with some Tasmanian manufacturers choosing to undertake marketing functions in mainland centres in order to gain greater access to customers.

However, the importance of a large local market differs between firms according to the nature of the product or service involved. For example, for commodities traded on the world market, ease of access to markets depends on access to, and the costs of, an international port and the quality and cost of international shipping services. Alternatively, for goods that are produced primarily for domestic consumption, the proximity to a large population base within Australia is important.

Even those firms that may have high levels of exports are advantaged by having access to a large local market. It provides them with some insulation from adverse world economic conditions, enables them to be close to a significant market and therefore track marketing trends and allows them to achieve economies of scale in production that may be necessary for them to be able to compete internationally. As with many of the other factors that have been determined, the importance of this factor to each industry will vary significantly between industries and firms.

3.10.1 Findings

An index has been developed to reflect the proximity of the major population bases, which can be considered a proxy for access to domestic markets. This index uses 2001

Census data. The index confirms that Tasmania is most distant from these major markets (a high index number implies a more favourable result).

	Proximity to Markets Index					
2004	NSW	Vic	Qld	SA	WA	Tas
Index	714	612	463	217	219	100
Rank	1	2	3	5	4	6

No update from the 2003 Index as no new data are available.

As would be expected, the range of the index values is large and reflects the significant disadvantage faced by Tasmanian businesses as a result of a small local market. New South Wales and Victoria have an overwhelming advantage over Tasmania and the other states.

3.11 Telecommunications

Tasmania's market for telecommunications services is small by national standards and is located away from major mainland markets and from the trunk routes that service them. Tasmania's estimated annual total telecommunications spending is between \$450 million and \$550 million per year (Tasmanian Government estimate), spread over a relatively dispersed population.

3.11.1.1 Infrastructure

In 2003, Telstra laid a new optic fibre cable across Bass Strait. Combined with Telstra's existing undersea cable and two microwave links via King and Flinders Islands, this gives Telstra both substantial capacity and good route redundancy between Tasmania and the mainland.

However, with the exception of the Optus satellite, there is no non-Telstra infrastructure joining Tasmania with other parts of Australia. This environment will change at the end of 2005 with the completion of the Basslink undersea electricity cable, which includes an optic fibre cable.

The Tasmanian natural gas project provides the State with an unprecedented opportunity to roll out optic fibre cable at considerably reduced cost. In May 2003, the Tasmanian Government announced that it would take ownership of the new optic fibre cable, initially owned by Downer EDI and co-located with the gas backbone infrastructure. The fibre infrastructure now spans 420 kilometres from George Town to Hobart and across to Port Latta on the North-West Coast of Tasmania.

Telstra has invested significantly in infrastructure, although facilities-based competition has been quite limited. However, the optic fibre infrastructure owned by the Tasmanian Government has the potential to provide this competition.

The Tasmanian Government is presently investigating options for the strategic development of the network infrastructure. In addition, the Tasmanian Government is

also progressing network extensions (from the core backbone) to establish points of presence in Hobart, Launceston, Burnie and Devonport.

Table 4 provides an overview of the competitive landscape for transmission infrastructure in Australia's capital cities.

Telstra also owns the majority of infrastructure in other parts of the State. The exceptions are the GSM mobile phone networks owned by Optus and Vodafone and localised infrastructure such as CBD loops owned by a number of carriers.

3.11.1.2 Residential and small business

For small-scale users, retail products are sold by Telstra and other carriers according to nationally consistent tariffs. The important question for any location is therefore the availability of different products and services, the quality of those services, and the presence of different providers.

3.11.1.3 Basic services

For the majority of Tasmanian locations, basic telecommunications infrastructure and services are both available and reliable. All of Tasmania's exchanges are digital, with fibre CBD loops and trunks in remote areas.

3.11.1.4 Mobile services

Mobile telephone infrastructure in Tasmania is comparatively good, despite the island's mountainous geography. The State has four mobile phone networks. Telstra's CDMA network has the widest coverage, estimated by Telstra to include 97 per cent of the population and 46 per cent of Tasmania's landmass, compared with around 13 per cent of Australia's landmass covered nationally. This includes 36 new base stations built with partial funding from Commonwealth Government programs. It includes an almost continuous coverage link between the towns and cities on major highways including Hobart to Launceston along the Midlands Highway, and Launceston to Burnie along the Bass Highway.

Telstra's entire CDMA mobile phone network in Tasmania has been enabled with 1xRTT² technology. In June 2004, Tasmania became the first state with complete 1xRTT coverage on its CDMA network. The full national roll-out is due to be completed by the end of 2004.

Telstra, Optus and Vodafone also have GSM phone networks in Tasmania. Telstra has the broadest coverage but all three cover the main population centres and some highways. General Packet Radio Services (GPRS) is an overlay to the GSM network giving Telstra Mobile customers similar coverage to the GSM network.

² 1xRTT stands for 1 x Radio Transmission Technology and supports data services (such as email) over the mobile phone network. On a 1X network, data are digital packet-switched, or divided into packets. The network is always on, with a capability of providing ISDN-like speeds of up to 144 Kbps. 1xRTT is also referred to as CDMA2000.

Table 4-CBD Transmission Infrastructure (October 2004)

Capital City	Fibre	Wireless (Excluding Mobile Infrastructure)	xDSL
Hobart	Optus Telstra	Optus Telstra	iiNet Telstra
Sydney	AAPT MCI Optus PowerTel Primus Telstra Uecomm Vodafone	Optus Telstra NTLA Unwired PBBA Azure SkyNetGlobal Xone Primus	AAPT iiNet NEXTEP NTT Australia IP Optus PowerTel/Request Primus Telstra
Melbourne	AAPT MCI Optus Powercor PowerTel Primus Telstra Uecomm Vodafone	AAPT Optus Telstra PBBA Azure SkyNetGlobal Xone IntraPower Primus NTLA	AAPT Agile iiNet NEXTEP NTT Australia IP Optus Primus PowerTel/Request Telstra
Brisbane	CITEC Optus PowerTel Primus Telstra SPT Uecomm Vodafone Nexium	SPT Optus Telstra GoWireless Xone IntraPower Primus NTLA	AAPT iiNet NEXTEP NTT Australia IP Optus Primus PowerTel/Request Telstra
Adelaide	Agile Amcom ETSA Optus Primus Telstra	Agile Optus Telstra SkyNetGlobal CitiLAN Xone Primus	AAPT Agile iiNet Optus Primus PowerTel/Request Telstra
Perth	AAPT Amcom NTT Australia IP Primus Swiftel Telstra Optus	iiNet Telstra iPrimus	AAPT iiNet Nextep NTT Australia IP Optus Primus PowerTel/Request Telstra

Source: Telsyte, October 2004.

Notes:

- 1 Uecomm has been acquired by Optus.
- 2 Nexium Telecommunications' network, owned by Ergon Energy, is currently under construction.
- 3 NTLA's network is now owned by Broadcast Australia. Its services operate under the Digital Distribution Australia brand.
- 4 Request Broadband has been acquired by PowerTel.

3.11.1.5 Broadband services

Presently, Tasmania has no fibre cable rollout to residential or small business users. Given this environment, ADSL is the most widely available broadband service for this market. ADSL uses the existing copper telephone line to deliver an always-on broadband Internet connection without disrupting the telephone service. In October 2003, Telstra reported there were 4 480 ADSL enabled exchanges in Australia, of which 78 (1.7 per cent) were in Tasmania. This rollout includes parts of Greater Hobart (central Hobart, Kingston, Howrah, Bellerive, New Town, New Norfolk, Glenorchy, Lindisfarne, Claremont, Bridgewater, Lauderdale, Sandy Bay) plus inner parts of Launceston, George Town, Devonport, Ulverstone, Burnie and Wynyard. No further rollout is planned for Tasmania at this time.

In some locations, Telstra also offers a higher-bandwidth, higher-reliability business-grade product, termed Business DSL (or BDSL), which uses Symmetrical High Bit Rate Digital Subscriber Line technology. Telstra's BDSL roll-out in Tasmania was accelerated due to the Tasmanian Government and University of Tasmania *Broadband for Rural Tasmania* project which funded the provision of the services to 88 Government and University of Tasmania sites in 47 Tasmanian towns.

There is moderate competition in the provision of telecommunications services, such as retailing and provision of data services, based primarily on the use of Telstra's infrastructure. The Yellow Pages directory lists the following numbers of companies providing retail and data services in Tasmania (as of September 2004):

- Call Centre Services [8]
- Computer Equipment-Installation & Networking [72]
- Computer On-Line Service Providers [3]
- Data Communications [14]
- Inter-communication Equipment & Systems [1]
- International Tele-communications Services [1]
- Internet Access Providers [125]
- Internet Cafés [9]
- Internet Web Services [66]
- Libraries-Public [49]
- Mobile Telephones & Accessories [41]
- Mobile Telephones-Repairs & Service [3]
- Radio Communication Equipment &/or Service [27]
- Teleconferencing [16]
- Telephone Services--Long Distance [7]

This may include some duplication from companies listed multiple times or under multiple classifications.

WhirlPool Broadband Multimedia (www.whirlpool.net.au) lists the following for Broadband ISPs nationally.

	Number of Broadband ISPs					
2004	NSW	Vic	Qld	SA	WA	Tas
Number	188	187	184	163	173	138

3.11.1.6 Corporate and government

Larger corporate and government users buy both basic services such as those described above, and more advanced voice and data services. However, unlike residential and small business users, they generally negotiate contracts, which may deliver substantial discounts on the national retail price structure. Telstra's position is that the level of discount relates only to the scale of the purchase. However, there is evidence to suggest that the level of competition at present has a substantial impact on the degree of discount able to be negotiated.

Prices (or tariffs) for telecommunications services depend on the type of technology used and the locations of service provider or carrier infrastructure relative to the customer site. The difference in price between metropolitan (short distance) and regional (longer distance) connections can be vast. This disparity between pricing in geographic bands is of particular importance for Tasmania, as most areas in the State fall outside of the inner metro-access band.

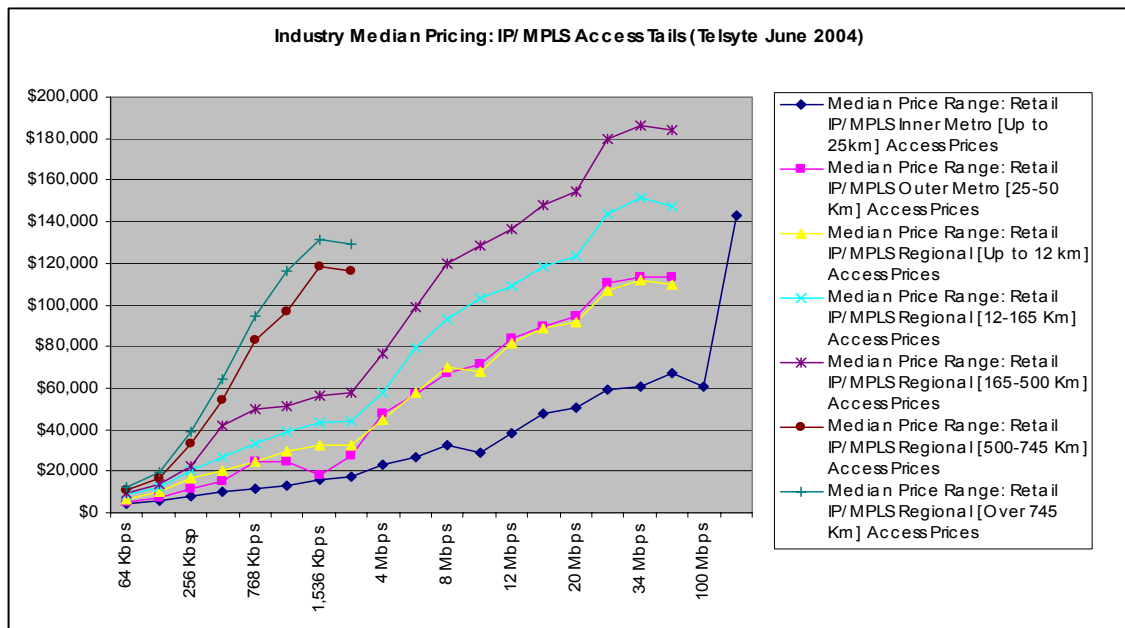
For basic services, such as basic voice, ADSL and ISDN, infrastructure is generally located at the local exchange. For many advanced or corporate data communications services, infrastructure tends to be located in Hobart and tariffs are based on the distance from the customer site to Hobart. This applies for Telstra Frame Relay, ATM and Wideband IP services, among others. A small number of alternative providers have points of presence for advanced or corporate-level services in Hobart, and in some cases also in Launceston.

In 2003, in locations outside Tasmania's major regional centres, as elsewhere in regional Australia, services above 2 Mbps were not available without special negotiation, and services above 10 Mbps may not have been available at all at list prices. This has recently changed, however, due largely to Telstra's roll-out of the BDSL service described above, and the growing availability of the Wideband IP service (bandwidth on-demand from 4 Mbps to 1 Gbps). Higher-end advanced data services, such as dedicated ATM or Frame Relay, have lesser availability.

In general, regardless of technology, higher bandwidth requirements mean greater variation between metro and regional pricing. For example, Chart 1 (sourced from Telsyte) shows the differential across Australia for different geographic bands for symmetrical IP/MPLS access links. This is the kind of service likely to be used by government or corporate users for permanent data connections to the Internet or between sites. It shows that prices increase with bandwidth, and with distance band.

This chart also shows that higher bandwidth services are generally not available in remote areas.

Chart 1 Australia-wide IP / MPLS Comparison of Median Access Pricing



3.11.2 Findings

3.11.2.1 Telecommunications Cost Index

Both Telstra and Optus have wholesale divisions that operate, to some degree, independently of their retail arms. There are also regulatory provisions that provide a minimum degree of access to some wholesale services.

One measure of the competitiveness of telecommunications pricing in Tasmania is the unit price paid by carriers for access to wholesale transmission services in Hobart as compared to wholesale prices paid in other capital cities.

A telecommunications cost index that covers four states has been prepared using information from Telsyte that provided industry median wholesale Leased Line/Clear Channel market prices as at October 2004. The telecommunications cost index was first reported in the 2003 *Index*.

Telecommunications Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (per km per year)	1 115	1 115	1 115	<i>n.a</i>	<i>n.a</i>	1 169
Index	100	100	100	<i>n.a</i>	<i>n.a</i>	105
Rank	1	1	1	<i>n.a</i>	<i>n.a</i>	4
2003	NSW	Vic	Qld	SA	WA	Tas
\$ (per km per year)	1 188	1 214	1 200	<i>n.a</i>	<i>n.a</i>	1 350
Index	100	102	101	<i>n.a</i>	<i>n.a</i>	114
Rank	1	3	2	<i>n.a</i>	<i>n.a</i>	4

Tasmania is ranked last, out of four states, in the telecommunications cost index in 2003 and 2004. However, in 2004 Tasmania's index improved from 114 to 105. This is the largest improvement of all states for which data are available.

In all cases, the wholesale prices paid by any given service provider are reflective of underlying technology, location (where the wholesale link is going to/from), the length of the link, volume purchases, contract term, existing capacity, service level requirements and a range of other factors.

The Australian Competition and Consumer Commission (ACCC) requires carriers supplying transmission services, to themselves or others, on routes with insufficient competition, to supply transmission capacity services to other carriers and service providers on request. The ACCC arbitrates disputes where parties are unable to agree on terms and conditions of access. This is known as the domestic transmission capacity service declaration. In May 2001, and again in April 2004, the ACCC reviewed the declaration, removing routes where the construction or planned construction of new competitive infrastructure meant that there was no longer a case for declaration.

At this stage, all inter-capital routes, except those involving Hobart, have been removed from the declaration. The fact that no routes involving Tasmania have been undeclared means that the ACCC considers that competition is low and that carriers with trunk infrastructure connecting to Tasmania need to provide access to that infrastructure to minimise uncompetitive outcomes. This means that in terms of wholesale backbone contestability, Tasmania ranks more closely with regional Australia than with the major metropolitan centres.

3.11.2.2 Telecommunications Reliability Index

The Australian Communications Authority (ACA) collects statistics on carrier performance in the fixed and mobile telecommunications networks. Table 5 below illustrates that, for the 2003-04 financial year, Tasmania's connection of new and in-place services and fault rectification performance levels against the Customer Service Guarantee (CSG) standard are largely in line with performance in the other states (a high index number implies a more favourable result). Average compensation for connections shows that compensation to Tasmanian customers is among the lowest.

This suggests that the faults, on average, have been less serious than those in other states.

Telecommunications Reliability Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Index	100	109	111	101	113	121
Rank	6	3	3	5	2	1
2003	NSW	Vic	Qld	SA	WA	Tas
Index	100	120	124	108	120	120
Rank	6	2	1	5	2	2

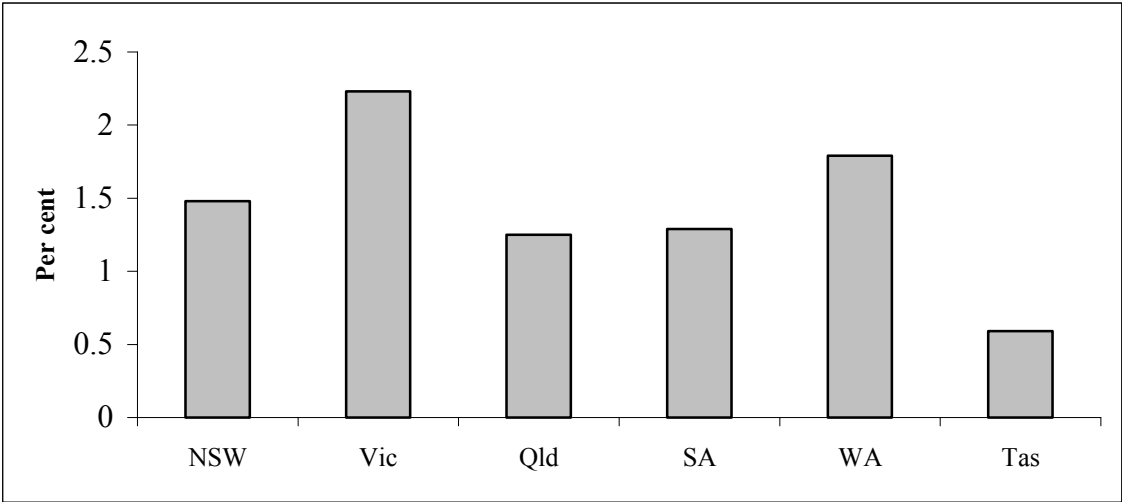
The telecommunications reliability index was also first reported in the 2003 *Index*. In 2004, Tasmania has improved from second to first. The changes in ranking for Victoria, Queensland and Western Australia are mainly due to their performance in the compensation index. Tasmania's average compensation has decreased to be the lowest of all states and NSW has also decreased significantly, resulting in Victoria, Queensland and Western Australia being closer to the worst performer in the overall reliability index.

The component indicators of the telecommunications reliability index are set out in Table 5 below.

Table 5 Telecommunications Reliability Component Indices						
	NSW	Vic	Qld	SA	WA	Tas
New and in-place connections (% within CSG timeframes)	95.5	95.2	95.3	95.8	95.4	96.4
Index	100	100	100	101	100	101
Rank	2	2	2	1	2	1
Fault rectification (% within CSG timeframes)	93.0	93.7	93.2	90.9	90.4	92.5
Index	103	104	103	101	100	102
Rank	2	1	2	4	5	3
Compensation (\$ average)	33.4	28.8	27.6	32.4	25.5	21.9
Index	153	132	126	148	117	100
Rank	6	4	3	5	2	1

Chart 2 below shows the ACA’s estimates of the effects of the 1997 telecommunications industry reforms on Gross State Product (GSP) by state. The objective of the reforms was to provide more open competition in the industry. The estimates suggest that Victoria has experienced the greatest growth through the reforms because the telecommunications industry is much larger and is growing faster in this state. By contrast, Tasmania has benefited least from the reforms, according to this estimate.

Chart 2 Growth in GSP attributed to reforms in the telecommunications industry (cumulative percentage deviations from base case 1997-98 to 2002-03)



Source: Australian Communications Authority (ACA)

4 Industry-Based Cost Indices

Industry-based cost indices have been calculated for some industries in which firms have flexibility in deciding where to locate. The industries that have been included are:

- manufacturing, defined to include the downstream processing of minerals and the processing of agricultural commodities;
- accommodation, cafés and restaurants;
- finance and insurance, which to a large extent services the local market, but for which there is flexibility for the firms in the location of centralised functions; and
- property and business services, which includes legal, accounting and architectural services, for which there is some potential for export, and call centres.

These industries account for about 28 per cent of Tasmania's GSP.

The agriculture, forestry and fishing sector has been excluded from the analysis because labour cost data for this sector are not collected by the ABS.

The industry-based cost indices have been based on the following cost component indices:

- labour costs;
- energy costs;
- interstate freight costs; and
- land and accommodation costs.

An important factor for a firm in assessing whether a particular state has a favourable business environment is the ability of the firm to access its market. This factor has not been included in the aggregate index for each industry because of the difficulty in weighting it relative to the other factors. For many businesses, the ability to access markets will be a key factor in the establishment of businesses within a state. For this reason, in section 4.1.1.5 separate consideration has been given to whether access to markets is a significant factor in the location decisions made by firms for the industries identified above.

It is also worth noting that some costs within particular sectors are likely to reflect the relative attractiveness of establishing a firm within a particular jurisdiction. For example, if a jurisdiction has a relatively high resource base, it is likely that the relative profitability of the resource sector will lead to higher payments to labour. Similarly, land and accommodation costs are highest in the metropolitan centres, where demand is greatest.

In each of the industry-based cost indexes, a low index number indicates low costs.

4.1.1 Findings

4.1.1.1 Manufacturing

The manufacturing sector in Tasmania accounts for about the same proportion of factor income and employment as for Australia as a whole. However, the composition of the Tasmanian manufacturing sector differs from that of the rest of Australia, with greater reliance on the processing of agricultural and mineral resources and less reliance on the production of machinery and equipment, including vehicle manufacture.

Manufacturing Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Index	123	104	109	103	123	100
Rank	6	3	4	2	6	1
2003	NSW	Vic	Qld	SA	WA	Tas
Index	119	102	100	101	101	101
Rank	6	5	1	2	2	2

Tasmania has moved from second to first in the manufacturing cost index, marginally ahead of South Australia. This improvement is due to Tasmania's improved ranking in the electricity and gas cost indices.

4.1.1.2 Accommodation, Cafés and Restaurants

Labour and land and accommodation costs represent a significant proportion of overall costs for the accommodation, cafés and restaurants sector. Tasmania's ranking improved from the second lowest to lowest cost state for this industry in 2002 and it has maintained this ranking in 2003 and 2004.

The accommodation, cafés and restaurants industry is dependent on the local market and there is, therefore, less competition between the states as a location for businesses in this industry.

Accommodation, Cafés and Restaurants Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Index	162	116	132	114	120	100
Rank	6	3	5	2	4	1
2003	NSW	Vic	Qld	SA	WA	Tas
Index	155	112	123	113	111	100
Rank	6	3	5	4	2	1

4.1.1.3 Finance and Insurance

Tasmania has the lowest cost index number for the finance and insurance sector, ahead of South Australia and Western Australia.

Labour costs represent an important component of finance and insurance sector costs and the relatively low labour costs in Tasmania contribute to Tasmania's low cost index number.

Finance and Insurance Cost Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Index	144	127	118	114	117	100
Rank	6	5	4	2	3	1

2003	NSW	Vic	Qld	SA	WA	Tas
Index	151	126	118	114	115	100
Rank	6	5	4	2	3	1

The structure of the finance and insurance industry in each state varies significantly, with Tasmania generally having a lower proportion of staff in higher-level positions compared with some other states, in particular New South Wales and Victoria. The index has been calculated in such a way as to eliminate, as much as possible, the different employment structure in each state. However, it is unlikely that this effect has been fully eliminated.

4.1.1.4 Property and Business Services

This sector comprises a broad range of industry sectors, including:

- real estate agents and property developers;
- machinery and equipment hiring and leasing;
- 'technical' services (architectural, surveying and consultant engineering services);
- computer services;
- legal and accounting services;
- marketing and business management services; and
- 'other' business services (for example, employment placement and call centres).

Tasmania continues to have the lowest cost index for the property and business services sector of all states, followed by South Australia.

Property and Business Services Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Index	185	132	145	119	133	100
Rank	6	3	5	2	4	1

2003	NSW	Vic	Qld	SA	WA	Tas
Index	193	132	144	119	128	100
Rank	6	4	5	2	3	1

4.1.1.5 Access to Markets

While Tasmania performs relatively well in terms of many of the cost indices, there are many other factors that will influence the ability of a particular jurisdiction to attract and retain businesses. For many businesses, access to markets, more than any other factor, is likely to be a critical factor in determining whether to invest in a particular location. The importance of having access to a large local market is considered below for each of the industries included in this section.

4.1.1.5.1 Manufacturing

Manufacturing incorporates a diverse range of businesses and the nature of the product will determine the importance of access to markets. Those products that are relatively high value-added products, for which additional transport costs represent a relatively small proportion of the value, are unlikely to be significantly affected by location.

Similarly, those firms involved in the processing of resources, such as smelting, are not likely to be influenced by the location of its customer base because transport costs represent a relatively small proportion of total costs and the homogenous nature of the products mean that it is not important to be near a major market for marketing purposes. Other factors such as resource availability, port facilities, costs and the cost of key inputs such as electricity are likely to be more important considerations.

On the other hand, those firms involved in the manufacture of low value added products and/or products with relatively high transport costs will be disadvantaged by having a location that is relatively remote from their major markets.

4.1.1.5.2 Accommodation, Cafés and Restaurants

The hospitality industry services both the local market and the tourist-convention market. Greater access to a large local market is critical to most firms in this industry. The decision of firms in this industry to locate in a particular state will depend principally on the demand for the service in that state, with other measures of the attractiveness of a state as a business location being largely irrelevant for firms within this industry. For Tasmania, the increase in visitor numbers in recent years, due largely to the increase in the number of Bass Strait ferries and the increased competition in air travel, has increased demand significantly for services in this sector.

4.1.1.5.3 Finance and Insurance

The finance and insurance sector is one in which technology has made it possible to carry out business far from the customer base. Therefore, proximity to the market is, in principle, less important an issue than it has been in the past for this sector. However, it remains the case that the finance and insurance sector tends to remain close to its major markets. It is likely that other factors that are reflected in the population proximity index are likely to be important for this industry. For example, access to a suitably trained workforce and access to other businesses with appropriate levels of expertise are likely to be important in the banking and finance sector, making access to a relatively large local population important.

4.1.1.5.4 Property and Business Services

The property and business services industry covers a wide range of businesses for which access to markets will generally be of some importance. For example, businesses such as those providing accounting and architectural services are likely to be significantly advantaged by having ready access to a large local population. For these types of firms, other factors included in this report impacting on the attractiveness of states as a business location are largely irrelevant compared to the nature of the local market.

For other businesses in this category though, ready access to markets is likely to be of less significance. Call centres and some IT businesses, for example, do not require close proximity to a large local market in order to be competitive. Therefore, the other factors that impact on the attractiveness of a state as a business location will be very important to these types of firms.

Most states have been aggressive in attracting call centres and it is likely that the location of many call centres is more influenced by the financial assistance packages offered than by the innate advantages that a particular location might have.

4.1.2 Trends

4.1.2.1 Manufacturing

Tasmania has improved substantially in this cost index moving from fifth in 2001 to second in 2003 and to first in 2004. However, in the case of Tasmania, South Australia and Victoria, manufacturing costs are estimated to be very similar, with the effect that small changes in costs can significantly affect the rankings.

4.1.2.2 Accommodation, Cafés and Restaurants

Tasmania has continually improved its ranking in this index, moving from third in 2000 to second in 2001, then to first in 2002, where it has remained.

4.1.2.3 Finance and Insurance

In 2000, Tasmania was in first place for this index but moved to second in 2001. In 2003 it returned to first place where it has remained.

4.1.2.4 Property and Business Services

Tasmania has been in first place for this index since the *Index* report began in 2000.

5 Other Indices

5.1 Forestry Endowment

A major factor influencing the decision of certain firms to establish in a particular area is the availability of natural resources. An index has been developed for forestry resources that compares the relative endowment of these resources between each of the states. It was considered inappropriate to make a meaningful comparison of the relative endowment of agricultural resources because of the significant differences between agricultural production in each of the states as a result of factors such as climate. It was also not possible to make a valid comparison of the relative availability of fisheries resources because of a lack of comparable data.

5.1.1 Findings

5.1.1.1 Forestry Endowment Index

The forestry index indicates that Tasmania has a significantly higher forestry endowment than any other state, in terms of the proportion of land area that is available for forestry activities (a high index number implies a more favourable result). All states experienced an increase in available forest between 2003 and 2004 except Tasmania and South Australia, according to the Australian Bureau of Agricultural and Resource Economics (ABARE).

Forestry Endowment Index						
2004	NSW	Vic	Qld	SA	WA	Tas
% (available forest to total land area)	28.1	23.0	29.5	7.2	8.7	33.6
Index	391	321	410	100	121	467
Rank	3	4	2	6	5	1
<hr/>						
2003	NSW	Vic	Qld	SA	WA	Tas
% (available forest to total land area)	27.6	22.1	25.0	7.1	12.2	35.3
Index	389	311	352	100	171	497
Rank	2	4	3	6	5	1

5.2 Business Confidence

5.2.1 Findings

5.2.1.1 Business Confidence Index

This index has been constructed using the Sensis Business Index which surveys small and medium sized businesses. The *Tasmanian Survey of Business Expectations* released by the TCCI and the Commonwealth Bank cannot be used for this analysis as there are not identical surveys in other states.

Results in the Sensis Business Index are reported as a net balance, which represents the total number of positive responses minus the total number of negative responses. For this index, a high index value represents a favourable outcome.

Business Confidence Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Confidence in own business prospects over next 12 months-net balance (%)	57.3	63.8	70.0	66.3	65.0	79.0
Index	100	111	122	116	114	138
Rank	6	5	2	3	4	1
<hr/>						
2003	NSW	Vic	Qld	SA	WA	Tas
Confidence in own business prospects over next 12 months-net balance (%)	51.5	56.3	62.3	59.5	52.0	73.0
Index	100	109	121	116	101	142
Rank	6	4	2	3	5	1

On average, in the year from September 2003 to August 2004, Tasmanian small and medium sized businesses reported the highest confidence levels regarding business expectations of all states. From September 2002 to August 2003, Tasmania was also ranked first in the average confidence levels over the period.

5.2.1.2 Business Confidence in State Government

This important condition for determining whether a particular state is an attractive destination in which to invest has been ranked rather than indexed. The ranking is based on ratings agencies' most recent assessments of state governments' finances and the Sensis survey on business attitudes towards state government policies. It is, therefore, a combination of business attitudes and more objective assessments of the states' public finances.

Business Confidence in State Government						
2004	NSW	Vic	Qld	SA	WA	Tas
Rank	4	3	1	4	6	2

2003	NSW	Vic	Qld	SA	WA	Tas
Rank	2	4	1	5	5	2

Tasmania ranks second in the confidence in state government ranking. While Tasmania has, on average, the lowest credit ratings, Tasmanian businesses have the most positive attitude towards their state government's policies. Tasmania was the only state to have a positive net balance for business attitudes towards state government policies in each survey from September 2003 to August 2004. Queensland recorded a positive net balance in the August 2004 survey.

6 Other Issues

6.1 Mineral Royalties

Royalties are a payment by the users of natural resources to the owners of those natural resources. Mineral royalties are generally paid to the government of each state as the owner of mineral resources within that state, on behalf of the community. However, in some rare cases, mineral resources may be privately owned.

A range of royalty regimes operate within the different states. One, or combination, of the following types of royalties, is imposed in each state.

Specific rate or quantity-based royalties are calculated on the volume of material produced and generally apply to low value construction materials.

Ad valorem or value-based royalties are calculated on the basis of the value of the mineral produced.

Profit-based royalties are based on the net profits of mines.

A summary of the types of royalty systems that apply to metallic minerals in each state as at 1 July 2004 is provided below.

Table 6 State Government Royalty Systems

New South Wales	4 per cent of the “ex-mine value” of production.
Victoria	2.75 per cent of the value of sales.
Queensland	Rate elected: fixed 2.7 per cent or a variable rate between 1.5 and 4.5 per cent depending on metal prices. For gold and silver a \$30 000 exemption applies annually. For metals other than gold and silver, a \$4 million half royalty threshold applies and discounts apply where product is processed within the State to 95 per cent contained metal.
South Australia	2.5 per cent of the value of the minerals as assessed by the Minister.
Western Australia	Minerals subject to limited treatment: 7.5 per cent of the realised value. Concentrate material: 5.0 per cent of the realised value. Metal: 2.5 per cent of the realised value.
Tasmania	Tasmania’s mineral royalty regime combines an ad valorem component and a profit component. Total royalties are equal to 1.6 per cent of net sales plus a profit component, to a maximum of 5 per cent of net sales. Rebates of 10 or 20 per cent are payable to companies that produce gold doré or undertake significant downstream processing.

The royalties specified above are those that generally apply in each state. In some cases, specific royalty regimes apply to particular operations.

It has not been possible to compile an index measuring the relative level of mineral royalties in each state due to confidentiality of data and problems in comparing data.

6.2 The Tasmanian Lifestyle

While the focus of this paper is on the factors influencing the capacity of businesses to be competitive in Tasmania, factors related to the quality of life experienced by current and potential business owners and suitably qualified employees are a substantial element in determining the comparative advantage of Tasmania, relative to other states. This section provides some quantitative measures of the lifestyle benefits enjoyed by those firms located in Tasmania.

Tasmania has much to offer prospective residents - spectacular scenery, unique flora and fauna, easy access to a range of natural attractions, a refreshing climate and a rich heritage. Also, low crime rates, affordable housing and easy access to a wide range of excellent schools and colleges make Tasmania a very attractive state to raise children. Hobart offers a lifestyle that many consider to be unsurpassed by other major population centres in Australia. Particular advantages of living in Tasmania include:

- **Climate**

Tasmania has a mild, maritime climate.

- The average summer temperature is a comfortable 21°C (70°F). The winter average is 12°C (52° F).
- Rainfall varies significantly across the State. Hobart, with an average of 626 mm (24 inches) is Australia's second-driest capital city (after Adelaide), while on the West Coast annual average rainfall is 2 400 mm (95 inches).
- Hobart also experiences the most daylight hours of any capital city during summer.

- **Air Pollution**

Hobart has significantly less air pollution than other Australian cities. Data from the National Environment Protection Council Jurisdictional Monitoring Reports show that Hobart has the lowest levels of carbon monoxide and suspended particulates of all state capitals.

Table 7 Air Pollution in State Capital Cities

	Carbon Monoxide	No. of exceedences	Suspended Particles	No. of exceedences
Sydney	4.8	0	104.2	14
Melbourne	3.2	0	82.9	2
Brisbane	2.5	0	177.2	7
Adelaide	7.2	0	79.3	1
Perth	4.7	0	82.6	2
Hobart	2.0	0	53.0	1

Source: Environment Protection and Heritage Council Jurisdictional Monitoring Reports 2002.

Notes: Sydney, Melbourne and Brisbane PM 10 results are affected by dust storms and bushfires. Carbon monoxide is presented as the highest measured 8-hr average ppm. The NEPM standard for carbon monoxide is 9.0 ppm. Suspended particles is presented as the highest measured PM 10 1-day average micrograms per cu. m. The NEPM standard for suspended particles is 50 micrograms per cu. m.

- **Travel**

Time spent on travel in Tasmania is generally less than in other states, due to the small size of the principal cities and the close proximity to many locations such as beaches, shopping centres, restaurants and National Parks.

Almost 60 per cent of the population get to and from work or school in less than 18 minutes, regardless of their mode of transport. Fewer than two per cent of Tasmanians take more than an hour to get to school or work³ and traffic congestion is almost unknown, which is in stark contrast to the larger capital cities in Australia.

- **Crime rates**

Crime rates in Tasmania are among the lowest in Australia. Tasmania has the lowest levels of homicide, robbery and 'other theft' and has the second lowest levels of sexual assault, motor vehicle theft and unlawful entry.

³ Australian Bureau of Statistics (ABS), *Transport Patterns and Preferences, Tasmania*, October 1997, Cat. No. 9201.6

Table 8 Crime Rates

Number of victims per 100 000 of population 2003

	NSW	VIC	QLD	SA	WA	TAS
Homicide and related offences	5	3	6	6	4	2
Assault	1 220	365	555	1 093	772	778
Sexual assault	101	52	128	110	72	53
Robbery	171	64	55	103	109	25
Unlawful entry with intent	2 042	1 324	1 734	2 023	3 074	1 483
Motor vehicle theft	556	538	401	688	536	498
Other theft	3 053	2 857	3 082	5 071	4 922	2 789

Source: ABS, *Recorded Crime*, Australia, 2003, Cat. No. 4510.0

- **Affordable housing**

In general, Tasmanian house prices are lower, both in absolute terms and as a proportion of median incomes, than most mainland capital cities, particularly Sydney and Melbourne. However, the strong economic recovery in Tasmania, together with the return to population growth, has resulted in a significant increase in median house prices over the past year.

Table 9 Housing Affordability - June 2004

State	Median House Price Capital City	Median Annual Family Income	Ratio: Median House Price to Family Income	Proportion of Family Income Devoted to Home Loan Repayments
New South Wales	\$520 000	\$56 732	9.2	38.4%
Victoria	\$357 900	\$58 032	6.2	30.5%
Queensland	\$345 000	\$53 820	6.4	32.5%
South Australia	\$250 000	\$47 372	5.3	28.2%
Western Australia	\$240 400	\$55 692	4.3	25.2%
Tasmania	\$252 000	\$42 744	5.9	27.0%

Source: REIA/AMP Home Loan Affordability Report.

The index below is from the Commonwealth Bank Research Housing Reports and is the ratio of average household disposable income to the “qualifying” income required to meet payments on a typical dwelling. In calculating qualifying income, a deposit of 20 per cent with repayments equivalent to 30 per cent of income is assumed using a conventional 25-year loan. In this case a high index number implies a more favourable

result. The index clearly shows that Tasmania is still the most affordable state for housing according to the Commonwealth Bank Housing Reports, notwithstanding that Tasmania's relative advantage has decreased.

Housing Affordability Index						
2004	NSW	Vic	Qld	SA	WA	Tas
Index	100	131	134	184	164	211
Rank	6	5	4	2	3	1

2003	NSW	Vic	Qld	SA	WA	Tas
Index	100	128	138	154	179	223
Rank	6	5	4	3	2	1

- **Sports**

Tasmania is well endowed with both natural and built environments that provide easy access to a wide range of sport and recreation opportunities. In Hobart, participation in sport (35 per cent) is higher than the average of 31 per cent for all Australian capital cities.

Golf is popular with many business people and is often used to develop business contacts. Statistics from the Australian Golf Union show that Tasmania has the highest number of golf clubs with golf courses per 100 000 people in Australia.

- **National Parks**

Tasmania has the highest percentage of national parks to total land area. This provides greater opportunity to undertake outdoor pursuits such as bushwalking.

National Parks						
	NSW	Vic	Qld	SA	WA	Tas
Percentage	5.6	11.4	3.9	4.5	2.0	20.9
Rank	3	2	5	4	6	1

- **Access to the Coast**

Tasmania has the highest percentage of the population living within 50 kilometres of the coast. Furthermore, Tasmania has a very large number of very attractive beaches and excellent sailing facilities in all major urban areas.

Access to the Coast						
	NSW	Vic	Qld	SA	WA	Tas
Percentage of population within 50 km of the coast	84.7	82.7	87.6	91.5	91.1	99.5
Rank	5	6	4	2	3	1

- **Car Parking Costs**

Hobart has very low car parking costs. The car parking cost index below provides a capital city comparison for all day parking. The data were obtained from websites of local councils and private sector car parks.

Car Parking Costs (Capital City)						
2004	NSW	Vic	Qld	SA	WA	Tas
\$ (all day parking)	58.0	27.0	17.8	18.6	20.2	16.3
Index	356	166	109	114	124	100
Rank	6	5	2	3	4	1

6.3 Access to Government Assistance by Businesses

The Tasmanian Government provides advice and assistance to a wide variety of businesses. The Australian National Organisation Study research into Government Assistance Programs in 2002 found that Tasmanian organisations report the highest rate of access to government assistance programs, with 69 per cent of all Tasmanian organisations reporting that they have received assistance. The types of assistance identified include apprenticeship and traineeship schemes; research and development grants and schemes; IT assistance schemes and other business development programs.

The high Tasmanian level contrasts with New South Wales, where only 36 per cent of organisations reported that they have received assistance from government programs. The report also states that over 80 per cent of organisations that received assistance claimed that it helped either a great deal, or somewhat. There were no significant differences in the effectiveness of this assistance by size, sector or state.

Percentage of firms that obtained assistance						
	NSW	VIC	QLD	SA	WA	TAS
Percentage	36	47	41	53	41	69
Rank	6	3	4	2	4	1

7 Comparison with New Zealand

A comparison with New Zealand was first included in the *Competition Index* in 2003. New Zealand's proximity and similarity to Australia means that it is likely to be considered as a possible location for businesses in the region. New Zealand is a competitor to Tasmania as a business location because of the climatic similarity.

The comparison with New Zealand is also useful because many Tasmanian producers, particularly primary sector producers, compete with New Zealand producers on the world market. In addition, some firms based in Tasmania assess whether to relocate to, or establish additional plants in, New Zealand.

It should be noted that obtaining comparable data for Australia and New Zealand has not always been possible. Therefore, many of the comparisons between Tasmania and New Zealand should be interpreted with caution.

Comparisons of freight charges, transport-related infrastructure, planning and industry-based indices have not been included in this comparison because of the difficulty of obtaining comparable data.

7.1 National Issues

When comparing New Zealand as a business location with the states of Australia, the comparison needs to be extended to include nationally determined taxation levels. In particular, the Commonwealth's company tax levied on businesses in Australia is the same irrespective of the location of that business. When making a comparison with the business costs in New Zealand, the different rate of company tax is an important issue. The corporate tax rate in New Zealand is 33 per cent, compared to 30 per cent in Australia.

The GST in New Zealand also differs from that in Australia. The rate of GST in Australia is 10 per cent, with exemptions for some goods and services, compared with 12.5 per cent in New Zealand for all goods and services. However, this rate difference is unlikely to have a significant impact on business costs because they are generally applied only to the final consumer, and businesses are not liable for GST on inputs. A more significant issue for businesses is the cost of administering the collection of GST, for which no comparison is presently available.

The indices presented here compare the situation in New Zealand with that in the Australian states. The index numbers for the Australian states are the same as those elsewhere in the report, with the base index number equal to 100 for the lowest Australian state. Therefore, the New Zealand index number is below 100 in some cases.

Where an adjustment has been made to reflect exchange rate differences, the indices were compiled by converting all New Zealand dollar (NZD) figures to Australian dollar (AUD) at an exchange rate of NZD/AUD = 1.13 (the 2003 *Index* used an exchange rate of 1.12). This was the year-average level of the exchange rate at the time of the preparation of 2004 *Index*. Due to the small change in the exchange rate used between

2003 and 2004, the changes in New Zealand index numbers and rankings, for cost based indices, are due to changes in prices.

While the value of the exchange rate used for the calculations will influence the cost-based indices, it will have no impact on the labour skills and industrial disputes indices.

Table 10 Comparison with New Zealand-2004⁴
(Exchange Rate NZD/AUD = 1.13)

	NSW	Vic	Qld	SA	WA	Tas	NZ	Tas 03	NZ 03
Cost-Based Indices									
Labour Costs	113	107	103	104	104	100	71	100	76
Rank	7	6	3	4	4	2	1	2	1
Industrial Disputes	718	778	401	262	641	100	92	100	67
Rank	6	7	4	3	5	2	1	2	1
Training and Qualifications	103	104	104	102	106	100	86	101	87
Rank	4	2	2	5	1	6	7	5	7
Land and Accommodation	228	137	166	122	136	100	121	100	126
Rank	7	5	6	3	4	1	2	1	3
Energy Cost Index	100	102	117	122	125	113	93	135	96
Rank	2	3	5	6	7	4	1*	7	1
Electricity Costs	100	124	127	152	149	114	93	121	87
Rank	2	4	5	7	6	3	1*	4	1
Electricity Reliability	143	100	207	117	145	180	134	206	187
Rank	4	1	7	2	5	6	3	7	6
Fuel	110	108	100	110	109	117	112	117	119
Rank	4	2	1	4	3	7	6	6	7
Gas	168	100	214	161	200	199	131	545	122
Rank	4	1	7	3	6	5	2*	7	2
Water Cost Index	132	181	100	257	418	276	282	<i>n.a</i>	<i>n.a</i>
Rank	2	3	1	4	7	5	6	<i>n.a</i>	<i>n.a</i>
Air Travel Cost Index	100	126	129	130	249	167	348	123	281
Rank	1	2	3	4	6	5	7	4	7
Proximity to Markets	1 332	618	471	220	223	100	127	100	127
Rank	1	2	3	5	4	7	6	7	6
Forestry Endowment	391	321	410	121	100	467	141	497	325
Rank	3	4	2	7	6	1	5	1	4

⁴ Note: due to changes in methodology, 2004 rankings marked with an asterisk may not be directly comparable with rankings in earlier years.

Compared to New Zealand, Tasmania has lower land and accommodation costs, air travel costs, water costs, a higher forestry endowment and proportionally more workers possessing qualifications and receiving training. New Zealand outperforms all Australian states in the areas of labour costs, electricity costs and industrial disputes. New Zealand is ranked second behind Victoria in the gas cost index, third in electricity reliability and sixth in proximity to markets.

7.2 Labour Market

7.2.1 Findings

7.2.1.1 Direct Labour Costs

As with the state-based index, the New Zealand labour cost index reflects the unavoidable employee-related costs that an employer faces. The direct labour cost index indicates that labour costs in New Zealand are significantly lower than those in Tasmania, and all other Australian states. This is primarily as a result of lower wages. In 2002, average weekly earnings were \$NZ719, which converts to \$A637, whilst the Tasmanian equivalent was \$A772.

Another factor impacting on labour costs is the absence of payroll tax in New Zealand as a result of the GST being applied to all goods and services, in contrast to the Australian experience.

A change in the exchange rate would clearly alter the cost competitiveness of New Zealand labour. The Australian dollar would have to depreciate by more than 27 per cent for the New Zealand labour cost index to be above that in Tasmania.

It should be noted that, because of data limitations, the methodology used to determine the New Zealand index number was different from that used for each of the Australian states. In particular, the wages data used were at a much more aggregated level. Therefore, some of the difference in wage rates may reflect differences in the industrial structure between the economies.

Another shortcoming of the methodology is the absence of comparable data on fringe benefits tax, superannuation costs and workers' compensation premiums. Differences in the way these components have been calculated may affect the comparison, but are considered unlikely to have a significant effect.

7.2.1.2 Training and Qualifications

The training and qualifications index shows that, although the proportion of people with a university degree is similar, Tasmanians are more likely to possess some form of vocational qualification. Tasmanians are also more likely to be undertaking courses or training whilst in employment.

7.2.1.3 Industrial Disputes

Since the mid-1990s, the incidence of industrial disputation has declined significantly in both New Zealand and Australia. The level of industrial disputes per thousand

employees over the past five years in New Zealand was lower than in Tasmania, and all other Australian states.

7.3 Land and Accommodation

7.3.1 Findings

Property costs are much higher in New Zealand's main business centres, Auckland, Wellington and Christchurch, than in Hobart, but lower than in all other states.

There is no land tax imposed in New Zealand. However, land tax accounts for only a relatively small proportion of overall land and accommodation costs in Tasmania. The higher rental costs in New Zealand more than outweigh the absence of land tax in New Zealand.

The Australian dollar would have to appreciate by at least 21 per cent for New Zealand land and accommodation costs to be below those in Tasmania.

7.4 Energy

7.4.1 Findings

7.4.1.1 Energy Costs

New Zealand is ranked first in the aggregate energy cost index due to the relatively low cost of electricity and gas. In 2003, New Zealand was also ranked first.

7.4.1.2 Electricity Prices

Electricity prices in New Zealand for commercial users are lower than those levied in Tasmania, and all other Australian states. The Australia dollar would have to depreciate by about 18 per cent to change the electricity cost ranking between Tasmania and New Zealand.

7.4.1.3 Electricity Reliability

In 2002, New Zealand was ranked fourth in the electricity reliability index. In 2003 New Zealand moved to sixth, marginally ahead of Tasmania. In 2004, New Zealand ranked third.

7.4.1.4 Fuel Prices

The price of unleaded petrol in New Zealand is higher than in all Australian mainland states but marginally lower than in Tasmania. The Australian dollar would have to depreciate by four per cent to change the ranking between Tasmania and New Zealand.

7.4.1.5 Gas Prices

The index shows that gas prices in New Zealand are lower than those in Tasmania and all other states except Victoria. The Australian dollar would have to depreciate by around 34 per cent to change the ranking with Tasmania.

7.5 Water Costs

7.5.1 Findings

The water cost index reveals that New Zealand is ranked sixth, marginally behind Tasmania.

7.6 Air Travel Costs

7.6.1 Findings

The air travel cost index shows that New Zealand has the highest air travel costs compared to all Australian states.

7.7 Forestry Endowment

7.7.1 Findings

The forestry endowment index shows that New Zealand has a lower forestry endowment than Tasmania and is ranked fifth behind Tasmania, Queensland, New South Wales, and Victoria. This is a deterioration in ranking from the 2003 *Index* due to a decrease in available forest area and an increase in conservation reserves.

7.8 Proximity to Markets

7.8.1 Findings

This index has not changed since 2003 as no new data are available. The proximity to markets index reveals that New Zealand is ranked one place ahead of Tasmania in sixth place. Tasmania and New Zealand share the disadvantages of having relatively small populations and longer distances to the larger populations.

8 Conclusion

The above analysis reveals that Tasmania continues to have a number of cost advantages for businesses. In particular, low labour costs and land and accommodation costs, good port access and good access to natural resources make Tasmania an attractive location for many firms to undertake business. However, Tasmania's relative isolation may be a barrier to the establishment of firms that rely on access to a large customer base or specialised financial and business services.

Overall, Tasmania is ranked most favourably (ranked 1) for 17 of the 34 indices included in Table 1 and is ranked least favourably in five indices. This result is consistent with the findings of previous *Index* reports where Tasmania was found to be either the highest or lowest ranked state in most of the indices.

Tasmania's relatively low labour costs and the stability of the workforce were identified by many businesses as important benefits of establishing in Tasmania. However, many businesses indicated that they experience difficulties in attracting and retaining highly qualified labour. These factors are reflected in the indices.

Payroll tax has been an area of concern for business and Tasmania was shown in the 2000 *Index* to be uncompetitive in respect to this component of labour costs. The changes to the State's payroll tax regime announced in the 2001-02 Budget and phased-in during 2001-02 and 2002-03 have largely eliminated the State's lack of competitiveness in this regard. The relatively progressive nature of Tasmania's payroll tax regime means that the payroll tax burden for firms with more than 500 employees is high compared to other jurisdictions. However, more than 95 per cent of firms, and almost all new firms, employ less than 570 staff.

Tasmania has been uncompetitive in the overall energy cost index in all of the previous *Index* reports due to the relatively high costs for gas (LPG) and fuel in the state. However, in the 2004 *Index*, Tasmania's energy cost competitiveness improved substantially due to improved rankings in the electricity and gas indices. The introduction of natural gas, via the Tasmanian Natural Gas Project, has improved Tasmania's gas cost and overall energy competitiveness.

Relatively low land and accommodation costs in Tasmania were also identified in the industry visits as a benefit of establishing an operation in Tasmania.

Tasmania has the lowest business licensing costs of all states. However, for the sample businesses examined, some other states require a smaller number of business licences and permits. This suggests that there may be some further opportunities to reduce regulation costs for Tasmania's businesses.

Although Tasmania's telecommunications industry does not contribute as much to GSP as in other states and wholesale prices are higher, telecommunications reliability in Tasmania, as measured by the fixed phone reliability statistics, is among the best of all states.

Tasmania and New Zealand are similar in a majority of indices, including those that measure labour costs, industrial disputes, land and accommodation costs and electricity costs. Also, both perform relatively poorly regarding training and qualifications, fuel costs and proximity to markets.

The most important difference between Tasmania and New Zealand is in overall energy costs, where Tasmania is ranked fourth and New Zealand is first, due primarily to low gas costs in New Zealand.

New Zealand may, therefore, be a significant competitor with Tasmania for firms that do not need to be close to their markets and are labour intensive (such as call centres), or rely on relatively low skilled labour or have relatively intensive energy use.

Appendix 1 – Calculation of Indices

A1.1 Cost-Based Indices

A1.1.1 Labour Costs

The relative costs and benefits associated with the labour market in each jurisdiction fall into two broad categories.

Direct labour costs refer to the direct costs associated with employing labour and include wages and salaries, payroll tax, superannuation, fringe benefits tax and workers' compensation premiums.

Labour characteristics comprise those factors that are less easily linked with the employment of an individual and may be difficult to quantify. These factors relate to the quality of the workforce. Specific factors that have been measured in this paper are labour turnover, training and education and level of industrial disputation.

A1.1.1.1 Direct Labour Costs

The wages and salaries component of the labour cost index has been determined using data from the ABS 2002 *Survey of Employee Earnings and Hours*, released in 2003. This measure provides wages data by occupation, which helps to eliminate some of the differences in average wages between states resulting from variations in the structure of the industry of each state. These data do not, however, eliminate differences in wages between states that may arise from differences in the skill levels of the work forces. Since this survey is not conducted on a yearly basis, the growth in average weekly ordinary time earnings for 2004 has been applied to the data in the 2003 publication to produce a 2004 estimate.

The calculation applies equal weighting to each of the occupation categories for which data are available.

Payroll tax has been determined on the basis of the amount a notional firm paying the average wage in each state, based on the above calculation, would be required to pay in each of the states. The notional firm is based on an average of five firms with employment levels of 50, 75, 160, 300 and 570. This method of calculation allows for the comparison of payroll tax liability on a consistent basis across all states. Two issues arise as a result of the calculation of relative payroll tax burden under this method:

- As firm size increases, the payroll tax liability per employee increases at a greater rate in Tasmania than in most of the other states because Tasmania has a relatively high marginal rate of payroll tax. Therefore, the comparison used is more favourable for Tasmania than one incorporating a much larger firm size, such as 1 000 employees. Nevertheless, since more than 95 per cent of firms, and almost all new firms, employ less than 570 staff, the calculation is relevant for the vast majority of firms.
- The payroll tax liability calculated will not be the same as the payments actually made because of the absence of allowance for part-time staff and overtime payments

in these calculations. This may result in the weighting given to payroll tax in the calculation of the composite direct labour cost index being higher or lower than the actual relative liability. This is not considered to be a major problem, given that wages and salaries, the major component of the index, have been calculated on the same basis.

The payroll tax regimes used in the preparation of this index are those effective from 1 July 2004. Fringe benefits tax, superannuation and workers' compensation premium figures used in the calculation have been taken from ABS *Labour Costs, Australia* and relate to 2002-03. The previous set of data relates to 1996-97. An average annual growth rate was applied to the 2002-03 data to obtain a 2004 estimate.

As these data are based on the actual amount paid by the firms surveyed, the results may vary between states if there are significant differences in the structure of the workforce. For example, those states with a higher proportion of their workforce in relatively dangerous industries might be expected to have higher workers' compensation premium costs.

Each of the components of the labour cost index have been weighted according to their relative contribution to overall labour costs in each state.

A1.1.1.2 Labour Characteristics

Three indices have been calculated to reflect the importance that businesses place on having a good quality, stable workforce. The indices relate to industrial disputes, the training and qualifications of the labour force and labour turnover.

The industrial disputes index has been determined using ABS industrial disputes data and is based on the number of disputes per thousand employees. The average number of disputes per thousand employees over the six years to 2003-04 has been included to ensure that the index reflects the industrial relations record of each of the states.

The training and qualifications index comprises two components: an education and training component and a qualifications component, which are equally weighted. The training component is taken from ABS *Education and Training Experience, Australia* 2001 publication which contains the training experience of the working age population, the most recent available. This publication is released every four years. The index has been based on the percentage of people who undertook training courses in the year prior to the survey. Training courses included are structured courses that were undertaken primarily with the aim of obtaining, maintaining or improving employment related skills or competencies. The following activities are excluded from the ABS definition of training:

- on-the-job training or any type of 'learn as you go' training;
- attendance at conferences, seminars, workshops etc, where the primary focus was not skills acquisition; and
- study for an educational qualification.

The qualifications component is sourced from the 2004 ABS publication *Education and Work* and reflects the proportion of the working age population that has

some form of vocational qualification which includes Certificate I and above. The data used in the 2002 Index were from a 2001 survey and measure the proportion of 15 to 64 year olds with some form of recognised vocational qualification. The methodology has been changed in 2004 and is now based on a more frequent publication (*Education and Work*) with the 2003 results changed to the results of the more frequent survey. The ABS has adopted a new education classification since the 1996 Census. These differences make comparisons between the 2002, 2003 and 2004 indices and the two earlier indices difficult.

Labour turnover has been based on data from the ABS *Labour Mobility 2004* survey. The index reflects the proportion of employees who had been in their current job for three or more years. Three years is considered to be an appropriate threshold to reflect labour stability. The Tasmanian Chamber of Commerce and Industry was consulted about this approach and, while noting that the selection of the appropriate threshold was arbitrary, agreed that the use of three years was considered acceptable.

A1.1.2 Land and Accommodation

Total land and accommodation costs for industry include the purchase or rental of property, state government land tax and municipal rates. The aggregate index for land and accommodation costs has been calculated from data in respect of each of these three components, which have been weighted according to their relative contribution to the total land and accommodation cost in each state.

A1.1.2.1 Land and Accommodation Costs

The relative values of land and accommodation vary significantly between states and within states. The data that have been used to compare land and accommodation costs between states comprise rental and value data for commercial and industrial properties in capital cities in each state. The validity of this measure depends on the assumption that the capital city prices reflect the relative prices for properties in each state.

In the case of New South Wales and to a lesser extent Queensland, very high capital city property values mean that Sydney or Brisbane prices alone may not provide a true reflection of relative property values for those states as a whole. Property values for areas outside Sydney (Hunter, Illawarra and Newcastle) and Brisbane (Gold Coast) have therefore been included in the calculation of the indices for New South Wales and Queensland respectively.

The data used for this measure are taken from data collated by CPM Research, an independent property consultancy. The data are presented on the basis of the cost-per-square-metre of property. In order to combine this component with the rates and tax components, two conversions to the data have been made. First, the property values have been converted to annual rates by assuming that rent payable in respect of a property is six per cent of the value of the property. Second, a 300 square metre property has been assumed for the determination of the total annual costs of land and accommodation.

A1.1.2.2 Land Tax

Progressive land tax regimes apply in each jurisdiction in which land tax is payable and the rates that apply vary significantly. Land tax applies to the unimproved value of land.

The index for land tax has been calculated using a range of land values that are representative of average land values in each state. The tax payable in respect of three land sites in each state has been calculated and the average tax payable in respect of the three sites has been used as the basis for the index. The values of the three sites are the average value of a commercial or industrial site, half the average value and one and a half times the average value. Using the three different values allowed the calculation to reflect changes in the marginal tax rates in each jurisdiction.

Land values used are from the Commonwealth Grants Commission's (CGC's) *Report on State Revenue Sharing Relativities 2004 Update - Working Papers Volume 2* and relate to 2002-03.

A1.1.2.3 Municipal Rates

The level of municipal rates has been calculated on the basis of data from two sources. The total amount of rates collected is from ABS data for 2002-03. In order to make a comparison between states, rates per property have been calculated using the number of properties from the above-mentioned CGC report.

This measure has a number of shortcomings. Data were only available for combined residential and business properties, which may distort the results. In addition, local government provides different services in each of the states and this may also cause distortions.

A1.1.3 Taxation Severity

The taxation severity index was compiled from data in the CGC's *Report on State Revenue Sharing Relativities 2004 Update - Supporting Information*. The data relate to 2002-03.

The taxation severity index is based on the ratio of actual revenue to standardised revenue for selected taxes. The CGC calculates standardised revenue by applying a national average tax rate to the tax base for each state.

The taxes included in the index are:

- stamp duties on conveyances, shares and marketable securities and motor vehicle registrations and transfers;
- financial transaction taxes;
- motor vehicle fees and taxes; and
- insurance tax.

A1.1.4 Energy

The energy index comprises three components: electricity prices and reliability of electricity supply, gas costs and fuel costs. Indices have been determined for each of the components and were aggregated using weightings based on industry consumption of each type of energy taken from the 1998-99 Australian Input-Output tables published by the ABS. The weightings used were: electricity 58 per cent (electricity reliability was weighted 10 per cent and electricity prices 90 per cent), gas 11 per cent and fuel 31 per cent.

A1.1.4.1 Electricity Costs

The Electricity Supply Association of Australia (ESAA) no longer collects electricity price information which had been used to calculate the electricity cost index in earlier reports. Treasury has used electricity price information, provided by OTTER, which was derived using similar assumptions to previous reports.

Most NEM jurisdictions (NSW, Vic, ACT and SA) have implemented full retail contestability over the past couple of years where many customers take supply under contracts with retailers, rather than under published tariffs. There is no public disclosure of current contract prices.

A1.1.4.2 Electricity Reliability

The index for electricity system reliability has been compiled using data from the Electricity Supply Association of Australia publication *Electricity, Australia 2004*. The measure used is the number of minutes of electricity lost per customer per year from outages in the distribution network and is for 2002-03.

A1.1.4.3 Fuel Costs

Petrol prices were obtained from the Australian Automobile Association (AAA) website. The AAA has commissioned FuelTrac to collect petrol price data in each capital city and other major regional centres around Australia. In total, 98 regional and rural centres and the eight capital cities are monitored by FuelTrac.

The price of unleaded petrol in each capital city was used as a basis for comparison between the states and is for the 12 months to August 2004. This was the approach used in the 2002 and 2003 reports. This is a variation from the method used in the 2001 report, in which the index was based on the average price for one month only. Given the often marked variations in petrol prices from month to month, the 12 month average is a more representative measure. The 2001 index has been recast using the average price for the 12 months to April 2001 to enable a valid comparison to be made.

A separate diesel price index has not been constructed as the petrol price index is considered an appropriate guide to price relativities for all fuel costs.

11.1.4.4 Gas Costs

Gas prices have been obtained from existing energy retailer websites across the states. The index has been constructed for an average commercial user with annual demand of 300GJ.

11.1.5 Water Costs

- The water cost index was constructed for three representative businesses with water usage of 100, 500 and 1000kL per annum and covers water, sewerage and waste water. The AAV is determined by the estimated yearly rental value of the property. The property rent and values used were state averages for industrial and commercial properties (assuming 300 square metre property). The water charges information was sourced from the websites of water authorities for each capital city for commercial users.

11.1.6 Freight

11.1.6.1 Surface Freight Costs

The surface freight charges index has been calculated using freight rates for road and sea transport from the BTRE Information Sheet 19.

The index was constructed by combining the cost of freighting a 23 tonne gross container from each capital city to each other capital city (full container load). The cost of freight in each case was weighted by the population of each destination state. The weighting assumes that more goods will be transported to the larger markets.

This methodology therefore assumes that the amount of freight destined for each capital city is related to the population in that city. The surface freight costs for Tasmania have been adjusted to reflect the subsidy received under the Tasmanian Freight Equalisation Scheme.

11.1.6.2 Road Freight Costs

To obtain the road freight estimates, Austroads shadow shop the freight companies, over the telephone, to obtain a quotation for the haulage of 100 tonnes of bricks from the capital city to a rural centre (approximately 400km), with the following conditions:

- the bricks to be picked up and delivered during working hours (8am to 5pm);
- loading and unloading will be provided;
- no return load;
- the bricks are in packs;
- there are 100 tonnes of bricks amounting to 125 packs; and
- there are approximately 33 000 bricks.

Due to the difficulty in attaining sensitive pricing information, the introduction used by the shadow shopper was varied to suit the circumstances, with no company name being provided on the first contact. The shadow shopper only provided identification in order to achieve the required number of quotations.

The results are based on the mean results of the surveys. For each state, the rural freight indicators are the mean charge per tonne kilometre for undertaking the task specified.

AI.1.6.3 Urban Courier Costs

To obtain the urban courier cost estimates, Austroads shadow shop the courier companies from the Yellow Pages telephone listing, over the telephone, to ascertain a quotation for the delivery of a five kilogram parcel within the capital city (approximately four kilometres) with the following conditions:

- delivery to be by car or van; and
- delivery to be within three hours if the parcel is sent around 2pm.

Once again, due to the difficulty in attaining sensitive pricing information, the introduction used by the shadow shopper was varied to suit the circumstances, with no company name being provided on the first contact. Once again, the shadow shopper only provided identification in order to achieve the required number of quotations.

The results are based on the mean results of the surveys. The urban courier indicator is the mean charge per kilometre for undertaking the specified task.

AI.1.6.4 Air Freight Costs

The air freight index is based on air freight rates from a major transport company. The index is constructed by calculating the cost of receiving a 10 kilogram parcel from the closest major population centre to each capital city.

AI.1.6.5 Air Travel Costs

The air travel index is calculated using the same methodology as the freight indices, using the cost of a one-way Qantas full economy class airfare between each of the capital cities, the cost in each case is weighted by the population of each destination capital city. This weighting reflects the fact that more travel will occur to the larger states.

Discount fares that have been offered by certain airlines are not included, as these are often short term, in some cases are unavailable for business use, and businesses are not likely to include these fares in their business planning.

AI.1.7 Transport-Related Infrastructure

8.1.1.1 Access to Ports

This index has been calculated on the basis of the proportion of the population of each state that is within 50 kilometres of a major port. The 41 largest ports throughout

Australia have been used. Those states that have a relatively high proportion of their population within this distance from ports are considered to have relatively good access to ports.

This index therefore assumes that the location of a state's population is representative of the location of businesses within each state.

8.1.1.2 Port Charges

The port charges index has been calculated from data published by the Bureau of Transport Regional Economics (BTRE) in its *Waterline* publication for the major ports in each state. The costs determined by the BTRE are based on the costs faced by a ship of a specific size in each port to permit comparison between the states. Stevedoring charges, a major component of port charges, have been included in the BTRE's calculations, but a uniform charge is applied across all ports.

Comparison of ship and cargo-based charges for July-December 2002 were used. The Tasmanian index has been calculated using the BTRE methodology and data provided by three Tasmanian ports. The BTRE report only has data for one Tasmanian port for 1996. In order to have an update of the port charges index it was necessary to calculate the Tasmanian index manually. Comparable data for Adelaide were not included in the latest *Waterline* publication and therefore South Australia is not included in the comparison.

The BTRE port charges index includes customs brokers' fees and road transport charges. These have not been included in this comparison because of the unavailability of current data for Tasmania and because the BTRE measure of road transport costs is designed for comparing the costs for a given port over time and is not suitable for comparing costs between different ports in any year.

This methodology for comparing port charges is different from the methodology in previous *Competition Index* reports. Therefore, comparison with earlier rankings is not appropriate.

A1.1.8 Business Licensing Costs

This index is based on the state and local government licensing arrangements in each state for the businesses listed in section 3.8. The requirements are determined for businesses with identical activities in each state. For example, the mixed farm in every state is assumed to have a fixed number of cows, sheep, poultry and desexed dogs, and the operator owns long arm rifles. Similarly, each petrol station is assumed to sell food served on the premises, and has a tow truck and repairs cars.

In each case, data have been obtained on all licences and permits needed, together with the fees where these are known, which generally comprise application fees and annual or other periodic fees. These data are available from the statutes and local government bylaws in each state.

In the case of environmental licences, many jurisdictions are now using a risk management or cost recovery calculation to determine the fees payable. Many

applicants will not know the fee payable until after the business has commenced. It was therefore not possible to include these licences in the calculation of the index.

The index does not include charges, such as water and wastewater charges, as these are costs associated with the provision of ongoing services, rather than regulatory costs. In addition, these costs are rarely known in advance.

Data were also obtained on where applications are lodged for these licences and permits. In some cases, there are state government bodies, such as *Service Tasmania* and

Service SA, that accept and process applications for licences and permits on behalf of other agencies. While these bodies greatly facilitate the application process, for many businesses this can only occur after extensive discussions or negotiations with the relevant agency, including discussions on the content of documents that must be included in the application. For these reasons, the index does not reflect the fact that final applications can be lodged with these other bodies.

While many licences and permits are annual, some apply for two to five years and others are perpetual. Therefore, to ensure that licence and permit fees can be compared, the costs over a 10 year period were calculated, on the basis of the current fees.

In the calculation of the index, the weighting applied was as follows:

- number of licences and permits required - 40 per cent;
- number of different regulatory authorities - 10 per cent; and
- licence and permit fees over ten years - 50 per cent.

A1.1.9 Planning

This index is based on data released by local government bodies in various states and compares the performance of their councils in terms of the average time taken for the processing of development applications. This measure excludes permitted use planning applications and building applications. Currently only three states release data in a comparable form. These are:

- Tasmania (*Measuring Council Performance in Tasmania 2002-03*, Local Government Division, Department of Premier and Cabinet);
- New South Wales (*New South Wales Department of Local Government, Comparative Information 2002-03*); and
- Western Australia (*Performance Measurement in Local Government (WA), Comparative Indices 2002-03*, prepared for the WA Local Government Association).

While each state has slightly differing planning systems, the type of development application used for the analysis for each state is the one that most closely resembles the discretionary planning application for Tasmania. In the case of NSW this is the development application (DA) and in WA it is a category B application.

The average processing time is calculated as the sum of all days taken to process the development applications divided by the number of applications processed.

This measure has some shortcomings. Differences in the planning schemes in each state and differences in the way data are collected mean this measure should be interpreted with some caution.

A1.1.10 Proximity to Markets

This index is based on two elements: the size of the population within 200 kilometres of the capital city in each state and the distance to other major population centres within Australia.

Access to markets is calculated for each state on the basis of the following formula:

$$\frac{OwnPopulation}{25} + \sum \frac{Population_i}{Distance_i}$$

Where:

OwnPopulation = the population within 200 kilometres of the capital city of the state for which the factor is being determined.

Population_i = Population within 200 kilometres of the capital city of the state *i*, where *i* is all the other states.

Distance_i = distance in kilometres between the capital cities of state *i* and the state for which the factor is being determined.

The construction of the index on this basis means that the benefit derived from distant populations falls at an increasing rate the further that population centre is from the focus state. For example, if population A is twice the distance from the focus state as population B, there is more than twice the benefit derived by the focus state from population B than there is from population A. An index is then calculated using the factor for the most remote state as a base.

A1.1.11 Telecommunications

A1.1.11.1 Telecommunications Cost Index

The telecommunications cost index was derived from industry median prices for wholesale Leased Line/Clear Channel market prices as at October 2004 as supplied by Telsyte (<http://www.telsyte.com.au>). Robust pricing samples were available for Sydney, Melbourne, Canberra and Brisbane. However, more limited samples were available for Hobart, Adelaide, Perth and Darwin. Because figures for cities with more limited pricing examples may not provide a true reflection of competition, median prices for Adelaide, Perth and Darwin are not presented in this analysis.

The table below shows Median Wholesale Leased Line/Clear Channel Bandwidth Prices for two Mbps services (measured in \$/Km) as of October 2004⁵. This pricing model allows connection length to be assessed on a like-for-like basis. The distance bands are divided into three distinct zones: 0-5 Km, 6-10 Km and 11-25 Km.

Wholesale Leased Line/Clear Channel: Industry Median \$ Per Km/Annum					
	Hobart	Sydney Melbourne	Canberra	Brisbane	
Intracity CBD 0-5 Km:E1(2 Mbps)	1 950	1 895	1 895	1 841	1 895
Intracity CBD/Metro 6-10 Km:E1(2 Mbps)	915	838	838	845	838
Intracity CBD/Metro 11-25 Km:E1(2 Mbps)	644	613	613	613	613

For a Sydney Intracity CBD (0-5 Km) connection, a 2 Mbps clear channel bandwidth service has a median wholesale cost of \$1 895 per kilometre per annum. Therefore, the pricing for a five kilometre link would be \$9 475 and a 10 kilometre link would be \$18 950.

The median wholesale price for 2 Mbps services in Hobart (CBD 0-5 Km) is three to six per cent more expensive than similar services in Sydney, Melbourne, Canberra and Brisbane, reflecting the relative lack of competitive based infrastructure in Hobart. Similarly, the median wholesale prices for 2 Mbps services in Hobart (CBD/Metro 6-10 Km and 11-25 Km) are five to eight per cent more expensive than similar services in Sydney, Melbourne, Canberra and Brisbane.

A1.1.11.2 Telecommunications Reliability Index

The telecommunications reliability index was constructed from the ACA's *Telecommunications Performance Report 2003-04* which details the performance of service providers against the Customer Service Guarantee Standard which is one of the major legislative safeguards with regard to the fixed phone network. The three areas of reliability performance were all weighted equally.

A1.2 Industry-Based Indices

In order to apply the information from the cost-based indices to the selected industries, it has been necessary to determine the relative importance of the cost categories to each of the selected industries. The 1998-99 Australian Input-Output tables produced by the ABS were used to allocate these costs across the relevant industries.

Cost data at an industry level for each state are only available for labour. It is assumed in this analysis that the relative costs for the other inputs (those listed below) are reflected in the category-based indices presented above. That is, it is assumed that for a

⁵ Note: These prices do not include SHDSL-based wholesale services, which are sometimes sold as Leased Line/Clear Channel services.

given state, the relative cost of a specified input, such as electricity, faced by all that state's industries is as reflected in the electricity cost index. Hence all New South Wales industries are taken to face relatively cheap electricity costs and all Queensland industries have low fuel costs.

The following cost categories were included in the industry-based indices. The ABS category and number used to allocate these costs is signified in brackets:

- electricity and gas costs (3601 Electricity; 3602 Gas);
- fuel costs (2501 Petroleum and Coal Products);
- land and accommodation costs (7702 Other Property Services);
- freight (6101 Road Transport; 6201 Rail, Pipeline and Other Transport; 6301 Water Transport, 6401 Air and Space Transport); and
- labour costs (P1 Compensation of Employees).

For each category (except for land and accommodation costs), the level of each input cost as a proportion of the total output for each industry group was measured. This ratio was then multiplied by the computed cost index for each state. The sum of all cost categories was generated for each industry group, with this number then being re-based at 100 for the state with the lowest cost.

Land and accommodation costs are not measured as direct inputs by the ABS in its Input-Output tables, as these inputs are not directly consumed in the production process. While depreciation and rental charges may be appropriate to use, such measures are not provided by the ABS for any major industry for land and buildings. In addition, many businesses actually purchase their own land and buildings and therefore do not pay rent. The ABS, in its Input-Output tables, makes no attempt to "impute" the rental value in these cases. However, the ABS does provide estimates of property services obtained by each industry.

To obtain an estimate of the relative importance of land and accommodation costs, a measure was developed based on information only available in the mining sector. It is assumed that there is a close correlation between land and buildings costs, and the level of property services purchased for all industries.

It is assumed that property services expenses are proportional to total land and accommodation costs and the property services category is used to allocate land and accommodation costs to industries. While this should provide a reasonable measure of land and accommodation costs in one industry relative to land and accommodation costs in other industries, it does not provide an accurate measure of such costs relative to other inputs within an industry.

In order to determine the relative weighting of land and accommodation costs for each industry the average level of capital expenditure on land and buildings in the mining industry as a proportion of the value of total output of the industry in the four years to 1997-98 was taken. This ratio was then used as a proxy measure of the relative importance of land and accommodation charges to the mining industry.

It should be noted that this methodology does not result in land and accommodation having the same weighting across all industries. The purpose of applying the multiplier is to determine an appropriate weighting for land and accommodation costs within each industry based on expenditure on property and business services costs for each industry. Because property and business services costs vary between industries, the calculated weighting for land and accommodation costs will also vary across industries.

The wages data used in the calculation of these indices are for specific occupations within each industry. For example, in the finance and insurance sector, average weekly wages are calculated using wage rates for a range of different occupations within that industry, including business and information professionals and clerical staff employed in that sector. The categories of employees for each sector are the same for each state, which helps ensure that the wages figures used do not reflect the structure of the industry in each state. An average wage has been calculated giving equal weighting to each occupation.

A1.3 Other Indices

A1.3.1 Forestry Endowment

The forestry component of this index is based on the proportion of total state land area, which is available forest, that is total forest area with allowance made for areas set aside for conservation purposes. The data are sourced from the ABARE publication *Australian Forest Product Statistics*, with the December quarter 2003 being the latest available at the time of preparing this report.

This measure reflects potential relative importance of forestry-related industries to each state rather than the absolute amount of the forest resource available in each state. That is, while one jurisdiction may have a greater area of forestry available, it may only represent a relatively small proportion of total land area and therefore forestry activities may not be expected to contribute as much to state production, as might be the case in some other states.

A1.3.2 Business Confidence

This index has been constructed using the *Sensis Business Index – Small and Medium Enterprises*. Sensis uses a panel of 1 800 randomly selected owners of small and medium sized businesses nationally (including 150 from Tasmania, of which 90 are ‘metro’ and 60 ‘non-metro’). Small businesses are defined as those employing 19 people or fewer, while medium sized businesses are defined as those employing between 20 and 199 persons.

A1.3.3 Business Confidence in State Government

This index is based on an equal weighting (a third each) of both credit rating reports (Standard and Poor’s and Moody’s) and the Sensis survey on business attitudes towards state government policies. The credit ratings impact on the State’s borrowing costs and represent an independent assessment of the Tasmanian Government’s economic management and credit worthiness.

A1.4 Comparison with New Zealand

A1.4.1 Direct Labour Costs

Wages data were sourced from average weekly earnings data released by Statistics New Zealand (www.stats.govt.nz). The data used in the index are from Table 7 of this series. The February, May, August and November quarters of 2002 were used to calculate an average for that year. This average weekly earnings figure served as the base to which the labour on-costs were added.

Comparable data were not available for labour on-costs: fringe benefits tax (FBT); superannuation or workers' compensation premiums. Some of these components were derived as explained below.

From information available, FBT as a proportion of GDP was determined to be approximately 80 per cent less in New Zealand than in Australia. This was used as the basis for determining the FBT component of labour costs.

Workers' compensation in New Zealand is administered by the Accident Compensation Commission. The average employer levy for 2001-02 was applied to the base earnings figures to determine the workers' compensation cost.

A1.4.2 Labour Characteristics

New Zealand industrial disputes data were sourced from the StatNZ work stoppages series and is similar to the equivalent ABS measure. This lists the 'person-days of work lost' for the calendar years 1996-2003.

Data from StatNZ's Education and Training survey gives the percentage of people in the 15-64 age group undertaking some form of training in the twelve months to September 1996, the most recent information available. This appears to be comparable with the training information used for Australia.

The proportion of the population aged 15 or over with some form of post-school qualification was taken from the New Zealand 2001 Census.

A1.4.3 Land and Accommodation

Data for Auckland, Christchurch and Wellington CBD prime industrial and commercial rents and values were obtained from CB Richard Ellis market research reports. The data relate to the first quarter of 2004. Municipal rates were ignored in compiling the property costs index because of the lack of comparable data.

A1.4.4 Energy

Treasury has used information available on electricity retailers' websites and constructed a cost per kilowatt using electricity demand assumptions, for two representative businesses, as used in the Australian state comparison. The 2004 results are not directly comparable to previous *Index* reports.

The New Zealand electricity reliability figures are sourced from *Electricity Information Disclosure Statistics 2003* from the New Zealand Ministry of Economic Development.

The fuel index for New Zealand was calculated using the unleaded 91 octane retail petrol price for the year to August 2004, which was obtained from BP's New Zealand website and from New Zealand's Industry Ministry. The Tasmanian price was obtained from the Australian Automobile Association website.

New Zealand natural gas prices were obtained from various retailers' web-sites.

A1.4.5 Water Costs

The water charges information was sourced from the websites of water authorities for each capital city. The methodology is the same as that used in the main report. For New Zealand, information was sourced from Metro Water in Auckland.

A1.4.6 Air Travel

The air travel index is calculated using the same methodology as the freight indices, using the cost of a one-way Qantas full economy class airfare between each of the capital cities. Discount fares that have been offered by certain airlines are not included, for the reasons outlined in section A1.1.6.5.

A1.4.7 Forestry Endowment

The forestry endowment index is based on the proportion of total area, which is available forest, i.e. total forest area with allowance made for areas set aside for conservation purposes. This measure reflects the potential relative importance of forestry-related industries to each state rather than the absolute amount of the forest resource available in each state at any point in time.

A1.4.8 Proximity to Markets

The methodology is the same as that used in the main report (see section A1.1.10). The New Zealand population figures have been sourced from Statistics New Zealand.

Appendix 2 – Component Indices

Direct Labour Cost Component Indices						
2004	NSW	Vic	Qld	SA	WA	Tas
Wages (\$ per week)	881	838	825	821	820	792
Index	111	106	104	104	103	100
Rank	6	5	3	3	2	1
Payroll Tax (\$ per week)	47	40	37	40	41	38
Index	125	106	100	108	111	101
Rank	6	3	1	4	5	2
Other On-Costs (\$ per week)	102	95	79	88	84	80
Index	130	121	100	112	107	101
Rank	6	5	1	4	3	2
<hr/>						
2003	NSW	Vic	Qld	SA	WA	Tas
Wages (\$ per week)	852	801	775	794	781	772
Index	110	104	100	103	101	100
Rank	6	5	1	4	3	1
Payroll Tax (\$ per week)	45	37	35	40	38	36
Index	129	106	100	115	109	105
Rank	6	3	1	5	4	2
Other On-Costs (\$ per week)	95	89	73	81	79	74
Index	131	122	100	112	109	101
Rank	6	5	1	4	3	2

Land and Accommodation Component Indices

2004	NSW	Vic	Qld	SA	WA	Tas
Rent and Values (\$ per m² per year)	183	116	128	96	114	83
Index	236	153	166	126	155	100
Rank	6	3	5	2	4	1
Land Tax (\$ per year)	3 013	379	4 058	2 222	282	670
Index	1 070	135	1 441	789	100	238
Rank	5	2	6	4	1	3
Municipal Rates (\$ per property)	1 090	907	1 102	1 153	1 186	823
Index	132	110	134	140	144	100
Rank	3	2	4	5	6	1

2003	NSW	Vic	Qld	SA	WA	Tas
Rent and Values (\$ per m² per year)	183	116	128	96	114	83
Index	236	153	166	126	155	100
Rank	6	3	5	2	4	1
Land Tax (\$ per year)	3 586	417	3 040	2 607	305	630
Index	1 174	137	995	854	100	206
Rank	6	2	5	4	1	3
Municipal Rates (\$ per property)	1 052	816	993	1 081	1 132	817
Index	129	100	122	132	139	100
Rank	4	1	3	5	6	1

Taxation Severity Component Indices

	NSW	Vic	Qld	SA	WA	Tas
Stamp duty on conveyances						
Index	129	168	100	160	153	142
Rank	2	6	1	5	4	3
Financial transactions taxes						
Index	105	122	100	126	151	129
Rank	2	3	1	4	6	5
Stamp duty on shares and marketable securities						
Index	162	149	162	162	162	100
Rank	3	2	4	6	5	1
Insurance taxation						
Index	100	188	180	230	283	134
Rank	1	4	3	5	6	2
Heavy vehicle registration fees and taxes						
Index	595	535	496	673	687	100
Rank	4	3	2	5	6	1
Other vehicle registration fees and taxes						
Index	218	100	180	138	149	105
Rank	6	1	5	3	4	2
Stamp duty on motor vehicle registrations and transfers						
Index	151	175	100	175	177	151
Rank	3	5	1	4	6	2

Appendix 3 – Payroll Tax – Effective Rates

Table 11 Comparison of Effective Payroll Tax Rates (%)

No of Employees	NSW	VIC	QLD	SA	WA	TAS	Average
50	4.16	3.77	3.58	4.08	3.70	2.95	3.70
75	4.77	4.26	4.50	4.55	4.46	4.00	4.42
160	5.42	4.79	4.75	5.06	5.28	5.11	5.07
300	5.69	5.00	4.75	5.26	5.62	5.57	5.32
570	5.82	5.10	4.75	5.36	5.77	5.78	5.43
1 000	5.91	5.18	4.75	5.43	5.88	5.94	5.51
1 500	5.94	5.20	4.75	5.45	5.92	5.99	5.54
2 000	5.95	5.21	4.75	5.46	5.94	6.02	5.56
2 500	5.96	5.22	4.75	5.47	5.95	6.04	5.57

Note: Effective rates of payroll tax are calculated on the basis of national average weekly earnings for the four quarters to September 2004, as published by the Australian Bureau of Statistics. Rates of payroll tax and thresholds used in the calculations are those that applied in each jurisdiction as at 1 July 2004.

Appendix 4 – Tasmania's rankings since 2000¹

	2000	2001	2002	2003	2004
Cost-based indices					
Direct Labour Costs	1	1	1	1	1
Wages	1	2	2	1	1
Payroll Tax	5	2	2	2	2
Other Labour Costs	1	1	1	1	2
Labour Turnover	1	1	1	1	1
Industrial Disputes	1	1	2	1	1
Training and Qualifications	6	6	6	6	6
Training	...	...	1	1	1
Qualifications	...	...	6	6	6
Land and Accommodation	2	1	1	1	1
Taxation Severity	...	...	2	2	2
Energy Cost	5	6	6	6	3
Electricity	...	...	2	3	2
Reliability	...	...	6	6	5
Fuel	...	...	6	6	6
Gas	...	...	6	6	4
Water Cost Index	...	...	...	...	5
Surface Freight Cost	6	6	6	6	4
Air Freight Cost Index	...	5	5	5	1
Air Travel Cost Index	...	4	5	4	5
Access to Ports Index	1	1	1	1	1
Port Charges Index	...	...	...	5	4
Business Licensing Costs Index	...	...	...	1	1
Planning Index	...	...	1	1	1
Proximity to Markets	6	6	6	6	6
Telecommunication Cost Index	...	...	...	4	4
Telecommunication Reliability	...	...	...	2	1
Industry-Based Cost Indices					
Manufacturing	3	5	4	4	1
Accommodation, Cafés and Restaurants	3	2	1	1	1
Finance and Insurance	1	2	2	1	1
Property and Business Services	1	1	1	1	1
Other Indices					
Forestry Endowment	1	1	1	1	1
Business Confidence	...	...	1	1	1
Business Confidence in State Government	...	...	2	2	2
No. of indices showing improvement from previous year		3	3	4	9
No. of indices showing deterioration from previous year		4	1	1	2
Percentage No. highest ranked	53	42	38	45	50
Percentage No. lowest ranked	18	21	28	21	15

¹ Note: Rankings are shown as originally published and therefore some rankings for 2003 may not correspond with Table 1.

Appendix 5 – Response to the Competition Index

On 24 September 2004, the Minister for Economic Development released the *Response to the Competition Index 2003* which sets out current and some new strategies of the Government to address issues raised in the *Competition Index 2003*.

The *Response* used the framework and results of the *Competition Index 2003* to investigate and identify barriers and impediments to Tasmania's competitiveness and provide solutions to those barriers.

A key component of the preparation of the *Response* was the high level of consultation, with around 250 people from over 30 groups, including government agencies, industry councils, the Tasmanian Chamber of Commerce and Industry (TCCI) and Unions Tasmania.

Outlined below are the key results from the 2003 *Index* followed by the policy response of the Tasmanian Government as outlined in the *Response to the Competition Index 2003* report.

A1.4.9 Labour Force

The 2003 *Index* found that while Tasmania performs well in the training index, it does not perform as well in the qualifications index, with a relatively small proportion of the Tasmanian labour force having some form of qualification.

- The Government's Fast-Track Skills Development package will provide funding of \$2.7 million in 2004-05 to assist industry address skill shortages. This new package will have seven major components, including a \$1 million Workforce Development Fund to link business planning with skill development for small to medium-sized businesses.
- The *Response* identifies a number of further initiatives to increase activity in the areas of attraction and retention of skilled labour, including:
 - reconnecting with expatriate Tasmanians;
 - reducing the 'brain drain' of students;
 - increasing migration of foreign students;
 - encouraging and supporting the return to industry of people who left the labour market, particularly in the 1990s;
 - promoting migration to the increasing number of tourists;
 - welcoming and supporting recent migrants; and
 - supporting research into more policy level initiatives to increase Tasmania's labour market.

A1.4.10 Energy

The 2003 *Index* found that Tasmania has very competitive electricity prices, but is ranked last in the composite energy index due to relatively high costs for Liquid Petroleum Gas (LPG) and for petroleum in the state.

- The *Response* states that the Government will continue to facilitate the roll-out of natural gas in Tasmania. The introduction of natural gas to Tasmania has provided energy users with an alternative fuel source, is lower in price than LPG and is competitive with the mainland states.

A1.4.11 Freight

The 2003 *Index* found that Tasmania is ranked last in the surface freight index, reflecting the State's location and small domestic market.

- The *Response* found that the Tasmanian Freight Equalisation Scheme (TFES) was of continuing importance to business. Stakeholders would like to see an extension of the scheme to exporters consolidating exports on the mainland before exporting overseas. However, the *Response* found that such a move would not be possible under existing conditions agreed with the World Trade Organisation. Economic Development will work with DIER on identifying concerns raised by industry. DIER is also developing a State Transport Plan to manage transport infrastructure in a more strategic and integrated way.

The 2003 *Index* found that Tasmania performs poorly in the air freight cost index, ranked fifth ahead of Western Australia only.

- The *Response* states that the introduction of the Bass Strait ferries has offered an efficient alternative to air freight, significantly alleviating past problems. Industry, through the Tasmanian Freight Logistics Council, and DIER are working with the new low cost airlines to ensure that there is adequate capacity to move live and fresh produce on day time passenger flights to meet domestic and international connections.

A1.4.12 Air Travel

The 2003 *Index* found Tasmania to be the fourth highest cost state for air travel, ahead of Queensland and Western Australia.

- The *Response* found that, although there have been significant improvements recently in price, capacity and frequency of air travel, businesses are still concerned with the reliability and scheduling for business travel. The *Response* states that the Government is working with stakeholders and service providers to address these issues.

A1.4.13 Ports

The 2003 *Index* found that Tasmania performs well in terms of access to ports. Conversely, it shows that port charges in the state are relatively high.

- The *Response* states that the Minister for Infrastructure, Energy and Resources, recently announced a high-level review of the structure of the ports system to explore opportunities available to the ports in better servicing the State's transport task.

A1.4.14 Land and Accommodation

The 2003 *Index* found that Tasmania continues to have the lowest aggregate land and accommodation costs of all the states.

- However, the *Response* found that stakeholders have identified a need for a more strategic approach to identifying and preparing 'investment ready' land. Economic Development will soon embark on a project to develop Regional Economic Development and Investment Plans (REDI Plans). REDI plans will provide a guide to the economic drivers in regional areas to assist in assessing the infrastructure needs and strategic planning issues that underpin economic development around the state.
- Economic Development is also working with a number of councils in relation to their long term plans associated with industrial estate development. In addition, the Crown Lands Assessment and Classification Working Group is presently assessing 9,000 parcels of Crown land. One aspect of this process is the identification of parcels that are suitable for development purposes.

A1.4.15 Planning

The 2003 *Index* found that Tasmania has the shortest time taken to process development applications of the three states for which data are available.

- The *Response* found that, during consultation, stakeholders indicated that there was a perception that it is relatively easy for individuals to delay or prevent major development. The *Response* reports that several initiatives are occurring within the Tasmanian Government to address these issues.

A1.4.16 Telecommunications

The 2003 *Index* found that telecommunication wholesale costs in Tasmania are higher than the other three states for which data are available.

- However, the *Response* found, through consultation with industry, that access to advanced services is an issue of greater magnitude than cost. The *Response* states that the State Government has developed a Tasmanian Broadband Action Plan which is centred on opportunities arising from the Government's investment in a new optic-fibre backbone and the Basslink telecommunications cable. This is in addition to other initiatives already under way such as the *Broadband for Regional Centres* project to connect Tasmania's regional centres.

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