

## CHAPTER 24

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# LOCATION COSTS

### WHAT ARE LOCATION COSTS?

- 1 The unit cost of delivering services varies between States and within States.
- 2 Interstate differences can arise because:
  - labour is more costly in one State than another. Measuring these differences in a policy neutral way is important because equalisation would not be advanced if a policy decision by one State to pay their employees more was financed from GST revenue and, therefore, partially subsidised by other States;
  - costs are incurred in moving goods from a State where they are manufactured to other State capitals. But gathering information on the costs is hard because they are usually embedded in the price of goods; and
  - the cost of attending interstate meetings and conferences affects States differentially.
- 3 Intrastate differences arise because the costs of delivering services within States can vary for a variety of reasons. States may pay staff more to entice them to work in less attractive locations; they may need to provide additional benefits such as subsidised housing; and it may cost more to move goods to remote locations or more goods may be required.
- 4 The Location assessment is not intended to capture all cost differences that exist between and within States because many arise for reasons other than location influences, such as:
  - the composition of the population — for example, it is more costly to provide services to Indigenous people, who represent a higher proportion of Australia's remote population;
  - differences in the use of services in different regions — people in remote areas may have a greater demand for some services;
  - the lower level of private provision of State-type services in different regions — the level of State government provision of State-type services may have to be higher in some areas because the level of private provision is lower. For example, a State may

need to provide more outpatient services because of a lack of general practitioners locally; or

- differences in the quality or level of service provision — all States provide different levels of service in small remote communities and in major cities (for example, major teaching hospitals, frequency of public transport services).
- 5 Cost differences arising because of Indigeneity, use of services, level of private sector provision or type of public sector provision are captured by socio-demographic composition assessments not the location assessment.
- 6 Initially, the Commission sought to develop a broad indicator of location costs based on the costs of running major national enterprises (such as Australia Post, supermarkets, banks, Centrelink and the Census of Population and Housing) in different locations. However, few organisations keep data in a form that shows the effects of location on their cost structure. The data that were available were affected by cross-subsidies and were not sufficiently reflective of State activities. We were not able to develop a reliable broad indicator of location costs.
- 7 Consequently, we sought simpler ways of measuring differences in:
- interstate wage costs — which recognise differences in wage costs between States;
  - interstate non-wage costs — which recognise differences in the cost of moving goods and State government staff between States; and
  - regional costs — which recognise differences in wage costs, employee housing costs and other non-wage costs within States.
- 8 The biggest obstacle we faced in developing a location assessment was the paucity of comparable cost data. Our location assessment has been shaped by the nature and quality of the data that do exist.

## INTERSTATE WAGE COSTS

### ASSESSMENT APPROACH

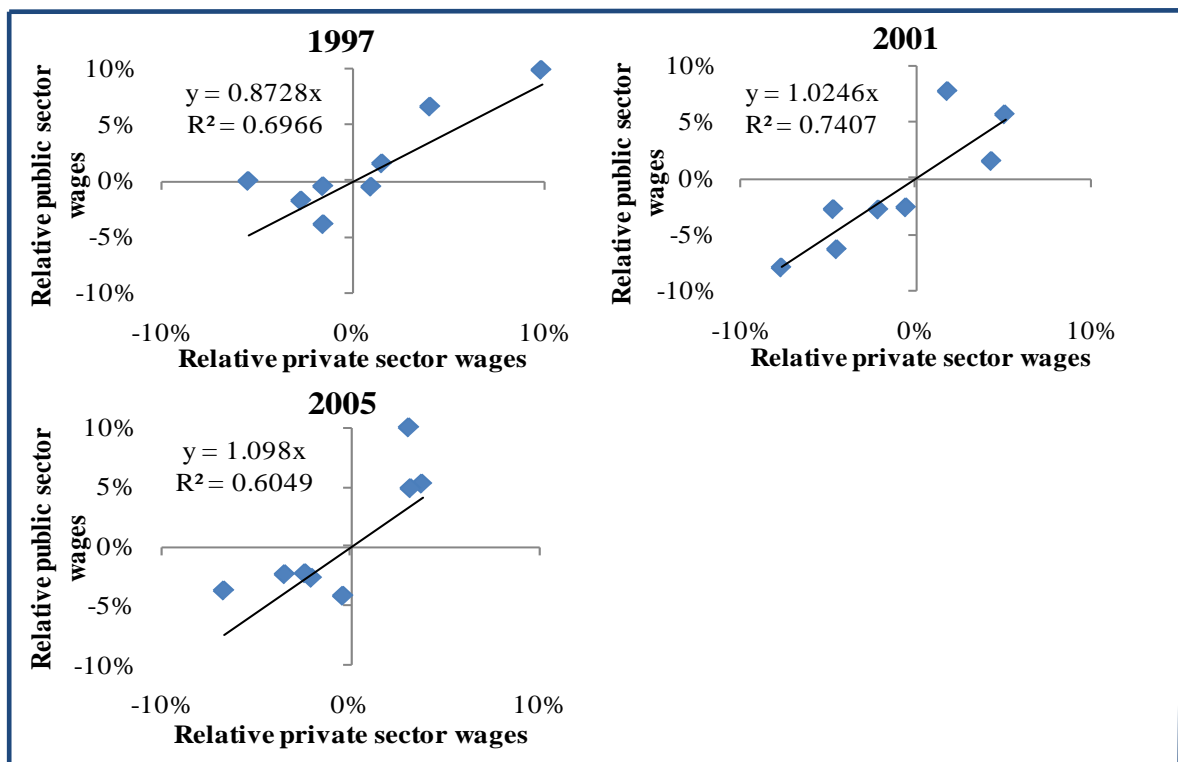
#### Overview

- 9 Wage levels may vary between States because of differences in the attributes of their workforces — a State that has more highly educated and skilled workers may have above average wages. There are also differences in the wages paid to comparable private and public sector employees in different States. It is the latter differences we are seeking to capture.
- 10 Some States dispute that wage disabilities exist, they said differences in State wages were a reflection of State policy choice. South Australia and Tasmania pointed to the benchmarking all States undertook when entering enterprise bargaining with their employees. They said competition between States for teachers, police and nurses meant any wage differences that

had existed were narrowing. New South Wales said cost of living differences were a source of wage cost differences.

- 11 The Commission accepts that wages can be influenced by both employee productivity and location effects (such as cost of living and the ‘attractiveness’ of different locations). We also accept that the influence of location on wages is beyond the control of States and presents a conceptual case for making an interstate wage assessment.
- 12 Data from the ABS Survey of Education and Training (SET), the census, and State enterprise agreements indicate that private and the public sector wage levels are higher in some States, particularly New South Wales, the Northern Territory and the ACT. Figure 24-1 shows that SET has consistently shown a strong relationship between the two sectors — States where private sector wages are high also have high public sector wages.

**Figure 24-1 Relative wages levels in public and private sectors**



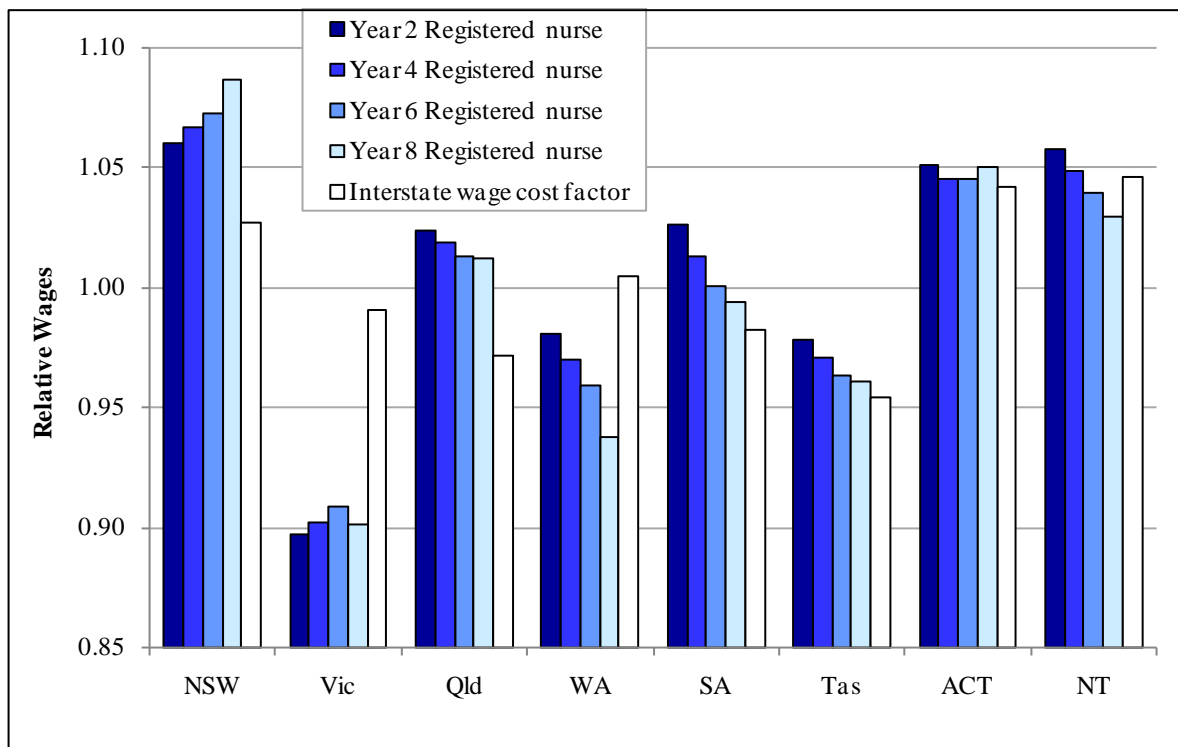
Note: Wages are relative to the population weighted all State average.  
 Source: Commission calculation using ABS Survey of Education and Training data.

- 13 We also attempted to compare wages in public sector occupations where some States have argued that wages were converging across the States. Interstate differences in classifications for similar occupations make this a difficult task. However, Figure 24-2 compares data compiled by the Australian Nursing Federation on relative wages for nurses in each State and our calculations of relative average private sector wages. It shows that, although there are differences between the patterns of nursing wages and the assessed underlying wage levels, three States paid higher wages for nurses and for average private sector wages. These are New South Wales, the ACT and the Northern Territory. Victoria and Western Australia appear to

pay nurses lower wages than the underlying level, while Queensland appears to pay higher wages.

- 14 The analysis confirms that, at least for some occupations, there are differences in wages paid between States and there is some resemblance to the pattern of interstate wage cost factors developed by the Commission. However, this analysis does not establish:
- whether nursing wages are typical of other public sector wages;
  - whether there are influences on other public sector wages that do not impact on nurses wages; and
  - whether and to what extent differences in State policies and the timing of wage negotiations explain the variation between the modelled results and actual relative wages of nurses.

**Figure 24-2 Relative wages for nursing staff, 2007-08**

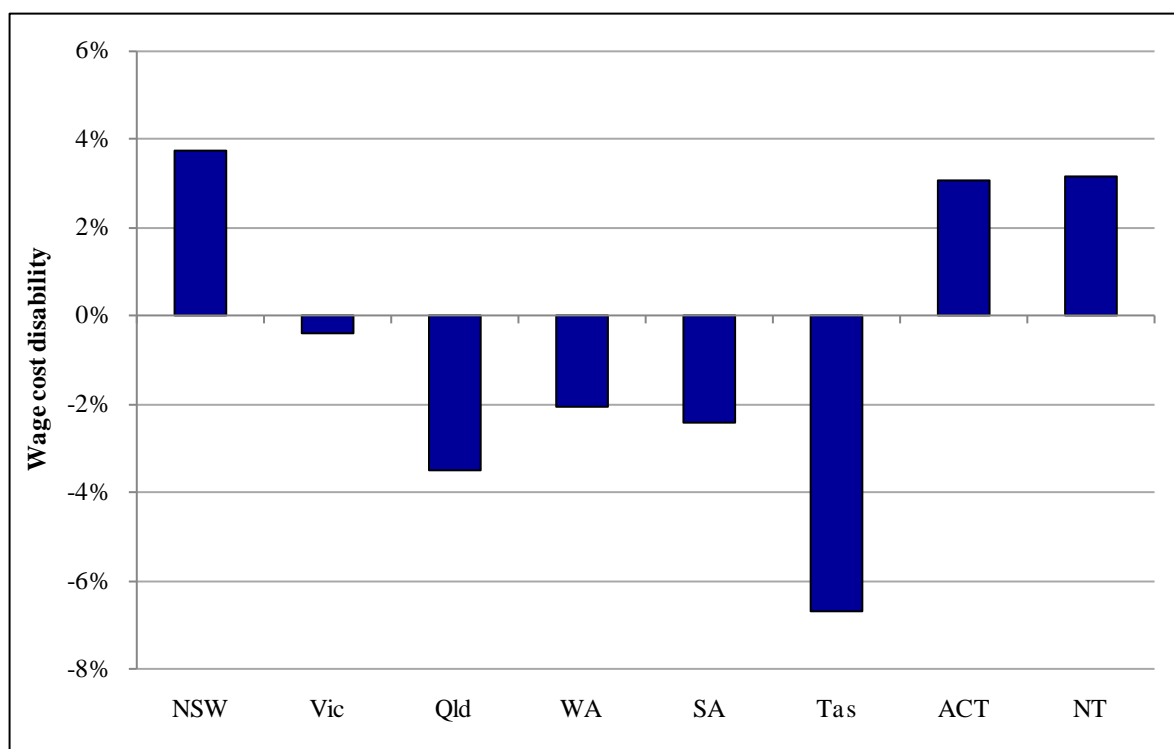


Note: Wages are relative to the population weighted all State average.

Source: Australian Nursing Federation: Paycheck; Commission calculation.

- 15 Queensland and South Australia thought wage differences could reflect differences in productivity that are not fully captured by the SET model due to influences such as capital intensity and the prevalence of central offices. While this could theoretically explain private sector differences, it is unlikely to explain the similar differences in public sector wages — any unmeasured factors that might lead to productivity differences in the private sector would also have to apply to the public sector. However, we have not found evidence of residual productivity differences in the public sector.

- 16 The Commission considered three models for assessing interstate wage disabilities:
  - a geospatial model based on Australian Taxation Office tax data and the ABS socio-economic index for areas (SEIFA);
  - census data on average incomes cross classified by industry, occupation, qualification, and sector; and
  - an econometric approach based on SET data, which was a continuation of the approach used in previous reviews.
- 17 All States expressed a preference for the SET approach. States that did not accept the existence of a wages disability said that, if the Commission was to measure it, the econometric model approach based on SET was the better approach.
- 18 The Commission's econometric model uses private sector SET data to measure differences in wage levels, after controlling for differences in workforce attributes such as industry, occupation, qualifications and experience. Private sector data are used in the model because they ensure the analysis is as policy neutral as possible — the measured wage differentials are not directly affected by differences between States in the wages paid to State government employees.
- 19 Having controlled for measurable differences between States in the makeup of their workforce, the model produces an estimate of the relative wages that would be paid in each State for an 'average' private sector employee.
- 20 Figure 24-3 shows that the model indicates private sector wage levels in New South Wales, the ACT and Northern Territory are above average, while in other States they are below average.
- 21 Some States queried technical aspects of the Commission's econometric model. We engaged a consultant to review the model and respond to those queries. The consultant found no substantive issues with the model. The Commission's approach was found to be consistent with other studies that attempt to model wages. The technical specifications of the model, including the choice of variables, were appropriate. We have provided the econometric specifications to the States, enabling them to replicate and test the model.
- 22 We have also considered whether adjustments are needed to the results of our SET analysis to address:
  - State specific issues;
  - data uncertainty;
  - the lack of contemporaneity of SET data. The data are only available quadrennially; and
  - the higher costs in the two Territories because at self-government many of their employees were members of the Commonwealth's Superannuation Scheme (CSS).

**Figure 24-3 Relative differences in private sector wage levels, 2005-06**

Source: Commission calculation using ABS Survey of Education and Training.

### Adjustments to the modelled outcomes

#### *State specific discounts*

- 23 In previous reviews, adjustments were made to the modelled outcomes for Tasmania and the ACT to allow for special features of the data and the labour markets in those States.
- 24 An adjustment was made for Tasmania because its pattern of economic activity was broadly comparable to that in regional areas of other States and because low migration of labour into the State's private sector meant its modelled outcome understated its underlying wage level. An adjustment was made for the ACT because SET data did not differentiate between Commonwealth and ACT government wages, so the former could not be included with ACT private sector wages.
- 25 Tasmania said the Commission should continue to discount the modelled outcome for any State where the general relationship between public sector and private sector wages was weaker. Victoria disagreed. It said that if the assumption were made that private sector wages were an appropriate proxy for public sector wages, irrespective of the size of the public sector, then State specific discounts were unnecessary.
- 26 The ACT said omitting Commonwealth wages meant the model understated the ACT's relative disadvantage because the Commonwealth Government had a bigger influence on ACT public sector wages than private sector wages. Victoria said a State specific discount for the ACT was unnecessary. Since the ACT had limited industry scope, the skill sets of

Commonwealth, ACT Government and private sector employees would, on the whole, be comparable. Therefore, the influence of the Commonwealth Government would be the same as the private sector.

- 27 We consider Figure 24-1 indicates there are constraints on the variation in public sector wages, and that there are likely to be bounds within which public sector wages lie. On that basis, we applied a 25 per cent discount to Tasmania's modelled outcome.
- 28 We also consider the omission of Commonwealth wages affects the outcome for the ACT and have increased its wage relativity by one percentage point.

#### *General discount*

- 29 Queensland, South Australia and Tasmania supported a general discount for all States because of uncertainty in the model and the unreliability of SET income data. South Australia also said a discount was required because of the exclusion of unemployed respondents from the econometric model and greater productivity in larger cities. Tasmania said modelling uncertainty and distributional sensitivity reinforced the case for a general discount. It said the results could be discounted by the amount of variation in wages not explained by the econometric model.
- 30 However, Western Australia said unless there was systematic upward bias in the assessed needs, discounting would give results that were less likely to reflect 'true' needs than undiscounted assessments.
- 31 We acknowledge that there could be some uncertainty in our approach — how accurately SET data measure wage costs; how accurately our econometric model controls for differences in productivity; and how well private sector wages proxy wage pressures in the public sector. We have decided to apply the low discount (12.5 per cent) because of data uncertainty.

#### *Contemporaneity*

- 32 State labour market conditions and, therefore, private sector wages can change rapidly over a short period. Western Australia said the assessment should be more contemporaneous than using just the quadrennial SET data.
- 33 To better reflect the relative wages levels in each assessment year, we have adjusted the modelled outcomes for changes in the wage costs in each State as measured by the ABS labour price index (LPI).
- 34 Not all States agreed with this approach. South Australia said the labour price index measure could be contaminated by changes in industry composition. For example, if a State has a relatively large mining sector, and mining wages grow faster than the national average, labour price index will show that State having faster than average wage growth, despite experiencing no change in wages for the average employee.

- 35 We acknowledge this effect could exist, but we consider it would be small. We think a better equalisation outcome is obtained by making the location assessment more reflective of changes in the prevailing private sector wage rates.

#### *Incorporating a CSS adjustment*

- 36 At the time of self-government, many ACT and Northern Territory government employees were members of the Commonwealth Superannuation Scheme, which is a more generous scheme than those operated by State governments. In the 2004 Review, an adjustment was made in the superannuation assessments to recognise the above average superannuation costs incurred by the ACT and the Northern Territory. In this review we have allocated superannuation expenses to individual categories and adjusted the interstate wage assessment for the extra costs.
- 37 There are a range of other expenses which the Northern Territory incurs relating to the conditions of service of staff who were Commonwealth employees at the time of self-government. They include a Territory allowance payment and annual interstate airfares. The Australian Industrial Relations Commission has determined these conditions 'should be regarded as part of the safety net' for non-executive staff. The Northern Territory said it cannot arbitrarily remove them. The Commission has decided to recognise these above average costs. The costs incurred are of a similar size to the Territory's above average superannuation costs and relate to the same employees. Consequently, we have assessed an allowance by doubling the Northern Territory's CSS disability.

## **ASSESSMENT METHOD**

- 38 Table 24-1 shows the modelled SET outcomes using the latest SET data (2005 SET). This includes State specific adjustments for Tasmania (a 25 per cent discount) and the ACT (increased by one percentage point).

**Table 24-1 Calculation of the interstate wages factor, 2005-06**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Average
Rescaled factor	1.03771	0.99603	0.96524	0.97944	0.97598	0.93304	1.03080	1.03174	1.00000
State adjustments	-	-	-	-	-	0.94978	1.04080	-	-
Adjusted factor	1.03771	0.99603	0.96524	0.97944	0.97598	0.94978	1.04080	1.03174	1.00056

Source: Commission calculation.

- 39 Table 24-2 shows the relative change in wage levels since the SET survey year as measured by the labour price index.

**Table 24-2 Labour price index, Relative growth since SET survey year**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Average
2005-06	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
2006-07	0.99804	0.99589	1.00502	1.00753	0.99949	1.00266	0.99928	0.99881	1.00000
2007-08	0.99389	0.99389	1.00312	1.02730	1.00502	0.99860	0.99627	1.00806	1.00000
2008-09	0.99202	0.99202	1.00437	1.03722	1.00210	0.99984	0.99648	1.01354	1.00000

Source: ABS, *Labour Price Index, Cat. No. 6345.0*, Table 3a (Total hourly rates of pay excluding bonuses: Private sector by State).

- 40 We have applied the labour price index data in Table 24-2 to the SET outcome in Table 24-1. To allow for concerns about data quality associated with both the SET and labour price index adjustment, these factors were discounted using the low discount (12.5 per cent).
- 41 We subsequently increased the wage costs in the ACT and the Northern Territory by about one per cent to allow for the higher costs they incur because some of their employees were members of the Commonwealth Superannuation Scheme and, in the case of the Northern Territory employees, had more generous conditions of service at self-government.
- 42 Table 24-3 shows this process for 2008-09.

**Table 24-3 Interstate wage cost factor calculation, 2008-09**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Raw factor	1.03713	0.99547	0.96470	0.97890	0.97544	0.94925	1.04022	1.03117
Indexed by LPI	1.02906	0.98772	0.96910	1.01553	0.97767	0.94928	1.03676	1.04533
Discounted	1.02542	0.98926	0.97296	1.01358	0.98046	0.95562	1.03216	1.03966
CSS adjustment	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00811	1.00894
Final factor	1.02519	0.98903	0.97274	1.01335	0.98024	0.95540	1.04030	1.04872

Source: Table 24-1, Table 24-2 and Commission calculation.

- 43 We calculated the wages proportion of direct service delivery expenses using data from ABS Government Finance Statistics (GFS).
- 44 Table 24-4 shows the direct wages proportion for each expense category. These proportions were obtained by averaging GFS data for the three years 2005-06 to 2007-08. Since the annual proportions were relatively stable over the three years we do not consider it necessary to update the proportions in future updates.
- 45 We assumed that any grants and subsidies in a category had the same wage — non-wage cost structure as that category's direct expenses. For example, the wages proportion of grants to non-government schools was assumed to be the same as that for government school costs.
- 46 In the cases of roads and transport services, a large part of the services are delivered by outsourced providers. Tasmania said these costs would not be affected by interstate wage cost differences. The Commission does not agree. It concluded that the contracts would reflect local conditions and so would be affected by such differences. Therefore, we have set the

wages proportion for these categories equal to the average wages proportion of direct expenses in all other categories.

- 47 In a similar fashion, we consider a substantial part of construction costs, and hence the Depreciation and Investment category, are affected directly or indirectly by wage differentials. In the interest of simplicity, we assume the wages proportion for recurrent expenditure in each category is appropriate for all depreciation and investment expenses for that category.
- 48 Table 24-4 shows the proportion of category expenses to which interstate wage cost disabilities are applied. For each category, the proportion was derived by dividing direct wages costs by total direct costs. For the two transport categories, the proportion is set to the average of the other expense categories.

**Table 24-4 Proportion of wages by expense category, 2005-06 to 2007-08**

	Wage expenses	Non-wage expenses	Proportion wages	Assessed proportion
	\$ billion	\$ billion	%	%
School education	17.3	6.0	74.1	74.1
Post secondary education	3.1	1.2	72.1	72.1
Admitted patients	15.9	7.6	67.8	67.8
Community and other health services	6.8	4.2	61.6	61.6
Welfare and housing	2.9	6.6	30.7	30.7
Services to communities	1.1	1.7	39.3	39.3
Justice services	8.1	3.3	71.1	71.1
Roads (a)	1.2	3.3	26.6	61.3
Transport services (a)	0.4	2.6	13.8	61.3
Services to industry	2.5	2.3	52.0	52.0
Other expenses (b)	5.4	6.9	43.8	43.8
<b>Total non-transport</b>	<b>63.0</b>	<b>39.8</b>	<b>61.3</b>	<b>61.3</b>

(a) The wage proportion in these categories has been set to the average of the other expense categories (61.3 per cent).

(b) Other services component of Other expenses category, excluding debt charges.

Source: ABS GFS data.

## INTERSTATE NON-WAGE COSTS

### ASSESSMENT APPROACH

#### Overview

- 49 Non-wage costs vary between States. In previous reviews, assessments were made for freight costs, electricity costs, accommodation and interstate air travel. In the case of freight and electricity, the assessment recognised differences in unit costs; in the case of interstate air travel it recognised differences in the amount of travel as well as the unit cost of travel. The

assessments were very detailed and some were based on data that may not satisfy the assessment guidelines adopted for this review.

- 50 Many States accepted the conceptual case for interstate non-wage costs. Queensland did not. It said States advocating a disability should establish its conceptual case before an assessment was undertaken.
- 51 We consider there is a strong conceptual case that there are influences that cause non-wage costs to be higher in some States than others. The south eastern cities, in particular, are disproportionately centres of manufacturing and importation. As such, the cost of freight, either paid directly by the State, or embedded in the price of locally sourced materials is likely to be higher in the isolated States. Similarly, meetings and conferences tend to be more concentrated in the south eastern cities. Other States are, therefore, likely to have higher costs associated with interstate travel.
- 52 Based on ABS Input-Output tables we believe the total expenditure by State governments on freight is around \$400 million, with State data suggesting that around \$60 million is spent on interstate airfares. This indicates that differences in expenses are likely to be material.
- 53 The Commission initially considered two general indicators of non-wage costs: the ABS experimental spatial price index and the average retail prices of selected items from the ABS consumer price index (CPI) basket of goods. States had a range of concerns with both approaches. Most notably they had doubts about whether the relative price of consumer goods was a sound basis for judgments about the relative price of inputs to State government services.
- 54 We also considered a range of specific cost items where a conceptual case could be made and which were likely to be material because they were sizeable cost items or the underlying disabilities were likely to be disparate. They included:
- freight;
  - office accommodation costs;
  - interstate air travel;
  - electricity costs;
  - professional isolation; and
  - non-employee wages.
- 55 We could find no comprehensive, comparable data that would allow us to make a reliable policy neutral measure of the disabilities. Nevertheless, the strength of the conceptual case for interstate non-wage cost differentials and the evidence and data that were available lead us to conclude they have a large effect. We are convinced that a better equalisation outcome would be delivered by making an assessment than not.
- 56 We have made an interstate non-wage cost assessment, but restricted it to measuring cost differences relating to interstate freight and travel costs. We consider they are most affected

by interstate non-wage cost differentials. The interstate non-wage assessment is, by its nature, approximate. We do not believe that including other small assessments with very different redistributive patterns would necessarily increase the accuracy of the overall assessment.

- 57 While we have not been able to build a robust model to measure freight influences, we observe that:
- the main centres of production and importation are in New South Wales, Victoria and Queensland. These States will tend to be more self sufficient than other States and are likely, therefore, to have below average shares of interstate freight; and
  - Western Australia, South Australia, Tasmania, the ACT and the Northern Territory face higher unit freight costs because, if they have to source goods from other States, these States will tend to have above average shares of freight costs because of their higher unit costs.

## ASSESSMENT METHOD

### Interstate freight assessment

- 58 The derivation of the interstate non-wages factor is shown in Table 24-5.
- 59 The amount of freight expenses considered to be affected by disabilities was determined using data from the ABS National Accounts Input Output tables. Those tables indicate total freight costs are around 1.6 per cent of the non-wage costs of State government type industries (\$786 million out of \$49.5 billion in 2004-05). However, total freight costs include intrastate freight costs. We have exercised our judgment and determined that interstate freight which would attract disabilities is half of total freight. We therefore applied our interstate freight factors to 0.8 per cent of State government non-wage costs, which was equivalent to 0.29 per cent of total State expenses (\$393 million in 2007-08).
- 60 The States' shares of total freight expenditure have been estimated by the Commission using judgment.
- 61 Table 24-5 shows the derivation of the interstate freight factors. Two weights are applied to them:
- a high discount (50 per cent) — to reflect our strong concerns about data uncertainty; and
  - an expense weight — to reflect the proportion of category expenses that interstate freight costs comprise (0.29 per cent).

**Table 24-5 Derivation of the interstate freight factor, 2008-09**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Share of freight costs (%)	17.50	12.50	17.50	20.00	10.00	10.00	5.00	7.50
Population share (%)	32.54	24.79	20.10	10.18	7.45	2.31	1.61	1.02
Raw factor	0.53786	0.50425	0.87073	1.96381	1.34253	4.32591	3.11082	7.32183
Discounted factor	0.76893	0.75212	0.93537	1.48190	1.17126	2.66295	2.05541	4.16091
Applied to all costs	0.99901	0.99899	0.99962	1.00185	1.00070	1.00728	1.00441	1.01620

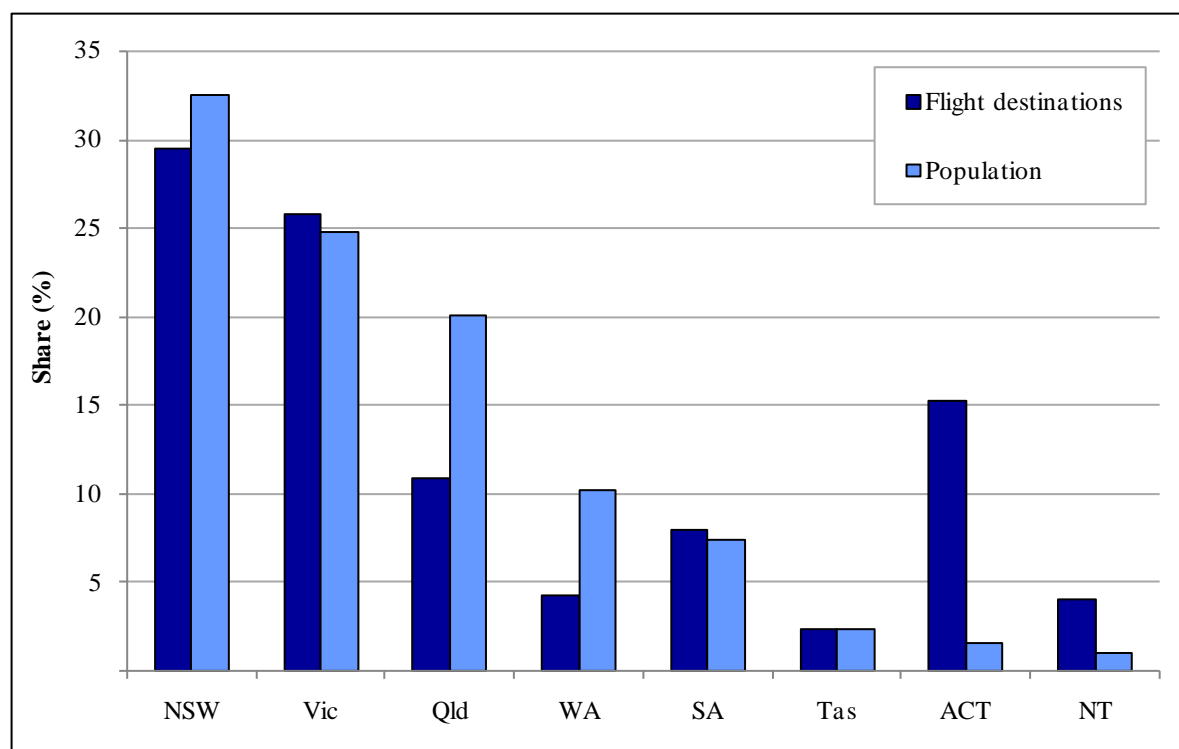
Source: Commission calculation.

### Interstate travel assessment

- 62 The conceptual case for the interstate airfares assessment is that some States incur additional costs because State officials have to travel more often, their cost of travel is higher and flight timetables mean staff of some States may require overnight accommodation. The assessment recognises these costs and is based on State provided whole of government interstate air travel data. These data provide an estimate of the number of flights and the destination State, and provide some support for the view that States send equal numbers of attendees to meetings/conferences. The two States with the lower number of flights (Victoria and the ACT) hosted proportionally more meetings/conferences. Figure 24-4 shows the average distribution based on data from four States.
- 63 The assessment is based on two assumptions:
- each State sends 12 027 staff<sup>1</sup> to meetings/conferences annually; and
  - the destinations of the meetings/conferences are shown in Figure 24-4.
- 64 Each State's interstate airfare costs were obtained by applying airfares<sup>2</sup> to its number of interstate flights. Total costs were adjusted to bring them into line with the total costs paid by Victoria, Queensland, Western Australia and the ACT. This adjustment recognises that:
- States may receive discounted airfares; and
  - the average price of flights throughout the year may vary from those used in the calculation.
- 65 The travel allowance and accommodation assessment was based on Qantas flight schedule information. The assessment is based on the assumption that overnight accommodation is required when:
- State personnel fly the night before a meeting/conference because they cannot depart their home capital after 6:00 am and arrive in the host capital by 9:00 am; and
  - State personnel fly the morning after a meeting/conference because they cannot depart the host capital between 6:00 pm and 9:00 pm.

<sup>1</sup> States average 24 054 one-way flights, or 12 027 meetings and conferences with return flights.

<sup>2</sup> This information was obtained from Qantas. The date on which the information was obtained did not have a material impact on the assessment.

**Figure 24-4** Distribution of interstate flights

Source: State provided data from Victoria, Queensland, Western Australia and the ACT, 2009.

- 66 Table 24-6 shows when accommodation would be required. Australian Taxation Office data have been used to determine the amount of accommodation and travel allowance costs per meeting/conference.<sup>3</sup>
- 67 The Commission has concerns that:
- data on airfares are available from only four States; and
  - the assumptions about when staff would stay overnight are overly simplistic.
- 68 On the basis of these concerns, we consider a low discount is warranted and have applied a 12.5 per cent discount to the assessment.
- 69 Table 24-7 sets out the assessed expenses and the resultant factor before and after the discount is applied. An expense weight of 0.04 per cent, representing the proportion of total expenses travel costs comprise, is then used so the factor can be applied to all expenses.

<sup>3</sup> Taxation Determination TD 2007/21 — Income tax: what are the reasonable travel and meal allowance expenses amounts for 2007-08? We used the costs applicable to someone earning between \$87 200 and \$150 000.

**Table 24-6 Accommodation requirements**

Destination	Origin							
	Sydney	Melbourne	Brisbane	Perth	Adelaide	Hobart	Canberra	Darwin
Sydney	—	..	..	Before	..	Both	..	Before
Melbourne	..	—	..	Before	..	..	..	Before
Brisbane	..	..	—	Before	Before	Both	..	Both
Perth	Both	..	Both	—	After	Before	Both	Both
Adelaide	..	..	Before	Both	—	Both	..	Both
Hobart	Before	..	Both	After	Both	—	Both	Both
Canberra	..	..	..	Before	..	Both	—	Before
Darwin	Both	Both	Both	Both	Both	Both	Both	—

Source: Commission calculation.

**Table 24-7 Interstate travel assessment, 2008-09**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Assessed expenses (\$m)	4.1	4.5	6.3	14.2	7.5	11.4	4.7	13.7	66.4
Factor	0.18750	0.27640	0.47451	2.09710	1.51296	7.40311	4.43814	20.14688	1.00000
Discounted	0.28906	0.36685	0.54020	1.95997	1.44884	6.60272	4.00837	17.75352	1.00000
Applied to all expenses	0.99972	0.99975	0.99982	1.00037	1.00017	1.00217	1.00117	1.00650	1.00000

Source: Commission calculation.

## REGIONAL COSTS

### ASSESSMENT APPROACH

#### Overview

- 70 We accept there is a conceptual case that the costs of providing State services increase with remoteness because:
- higher wages are needed to entice people to work in more remote locations;
  - additional inputs (such as employee housing) are required to provide services;
  - extra costs are incurred on freighting goods and staff travel within a State; and
  - more expensive inputs are often required (for example, the number of four wheel drive vehicles and additional fuel required for remote policing).
- 71 The Commission investigated a range of indicators for measuring regional costs. We investigated census and income tax data as a way of identifying the wages paid to State government employees in different regions, but both data sources proved unreliable. We tried

to capture the relative cost of goods and services in different regions through a range of price indexes. However, these indexes did not reflect the greater use of inputs.

- 72 States did not support any of these approaches on reliability grounds. Queensland suggested an approach based on classifying total cost data by State Accessibility/Remoteness Index of Australia (SARIA) region, saying it would simplify the assessment and avoid the need to assess labour and non-labour costs separately. Western Australia and the Northern Territory emphasised the need to capture the costs of employee housing because they were a big driver of regional non-wage costs.
- 73 New South Wales and the ACT were concerned that any assessment may double count the disabilities assessed through socio-demographic composition. The ACT also said that, if an assessment of regional wage differentials were made, it would be important to ensure it was policy neutral because higher wages in remote areas could be driven by the policy choices of one or two States.

### State provided cost data

- 74 We sought data from States on their total cost and number of employees by region for schools and police services. We used the data to calculate average costs (per full time equivalent employee) for each SARIA region for:
- wage costs;
  - employee housing costs; and
  - other non-wage costs.
- 75 This analysis showed that average costs generally increased with remoteness. We constructed a cost gradient for the two services by:
- calculating a total average cost for each SARIA region by combining the average costs for wages, employee housing costs and other non-wage costs; and
  - comparing each region's total average cost with the total average cost for highly accessible areas.

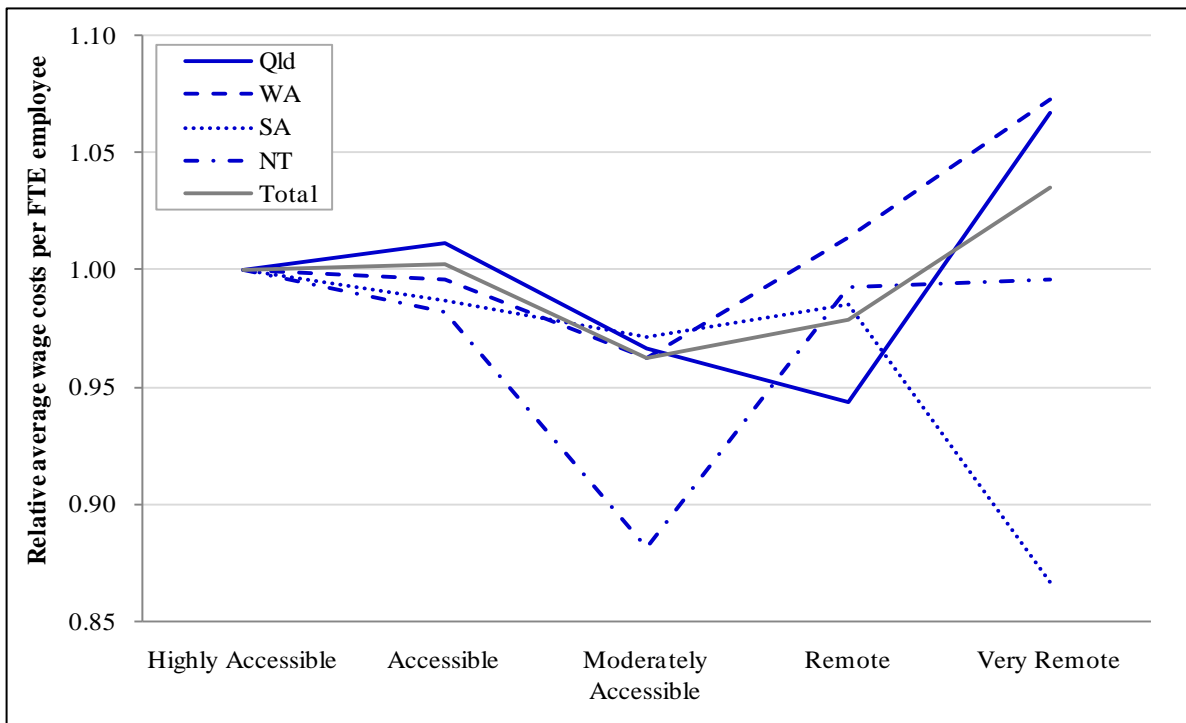
### Wage costs

- 76 Not all States agreed that a regional wages assessment was required or, if it were, which categories were affected.
- 77 Western Australia said a regional wage assessment should be made for all categories. The Northern Territory said an assessment should be made for at least police and nurses. Victoria, South Australia, Tasmania and the ACT did not support an assessment. Victoria and the ACT said higher police wages in remote areas could be driven by the State policy choices and that regional assessments may reflect factors not related to remoteness that will be picked up by other assessments (in particular the socio-demographic composition assessment). Evidence provided by the States has indicated that socio-demographic influences primarily increase costs by increasing staffing levels rather than increasing costs per staff member. As the

regional costs assessment measures costs per staff member, we do not believe that any double counting would be significant.

- 78 The data on average wages per full-time equivalent (FTE) employee were comparable across regions within each State (except for the schools data from New South Wales) but they were not directly comparable across States. Consequently, we derived a national average picture of the variation in wage-related expenses across regions by calculating an index of wage-related expenses by region for each State and averaging those indexes. New South Wales schools data were excluded from these calculations because they were not comparable between regions.
- 79 In Figure 24-5 the pattern for average wages in most States shows relatively low wages in moderately accessible areas, but higher wages in highly accessible and very remote areas.
- 80 Our analysis of the State provided data on average police wages showed they increased with remoteness (see Figure 24-6). That analysis was supported by analysis of census data which also showed average police wages rose with remoteness.

**Figure 24-5 Relative average wage costs for schools, selected States**

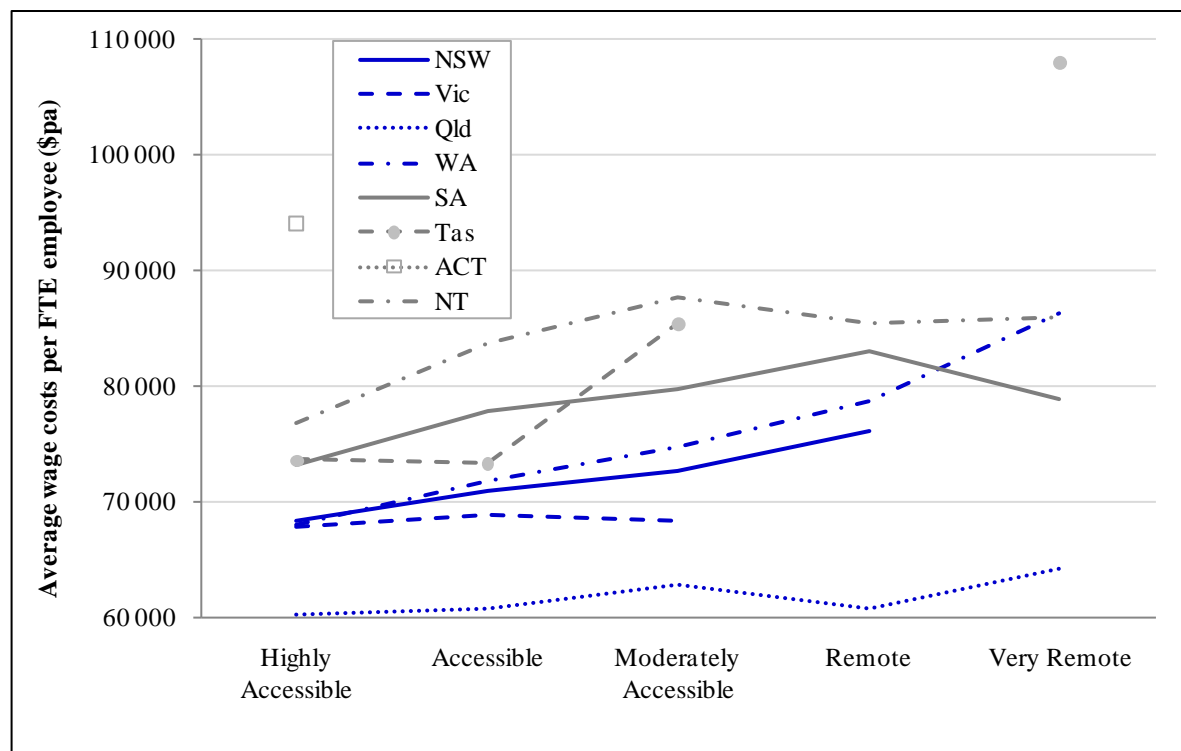


Source: State provided data.

- 81 Queensland and Western Australia said the tendency of States to deploy junior teachers in remote areas meant that observed wages in these areas were lower than they would otherwise be. They said there was no evidence that States with larger proportions of their population in those areas had more junior teachers. The Commission has found census data suggests that remote areas do tend to have more young staff, and that young staff tend to earn less than older staff. As such, the measured regional costs assessment underestimates the actual cost facing

States with large remote populations, and an appropriate adjustment has been made based on analysis of census data.

**Figure 24-6 Average wages costs for Police service**



Note: As there are no remote areas of Tasmania, the very remote regions are not connected to the moderately accessible in this figure. Similarly, the highly accessible areas of the ACT are not connected to any other region.

Source: State provided data.

### Employee housing

- 82 We collected data from States on the costs of housing teachers and police, separate from the wage and non-wage cost data they provided.
- 83 While States provided us with housing data, some were not able to identify those provided to teachers and police. We therefore estimated this information using census data which indicated 41 per cent of total employee houses were for schools, 19 per cent for police and 41 per cent for other purposes.
- 84 For our analysis, we estimated the average employee housing costs in each SARIA region, largely using State data.
- 85 We estimated net housing costs per full-time equivalent employee in each SARIA region by applying the average cost per property to the number of employee properties in each SARIA region and divided by the number of employees in the region. The resulting average employee housing costs increased with remoteness, as argued by Western Australia and the Northern Territory.

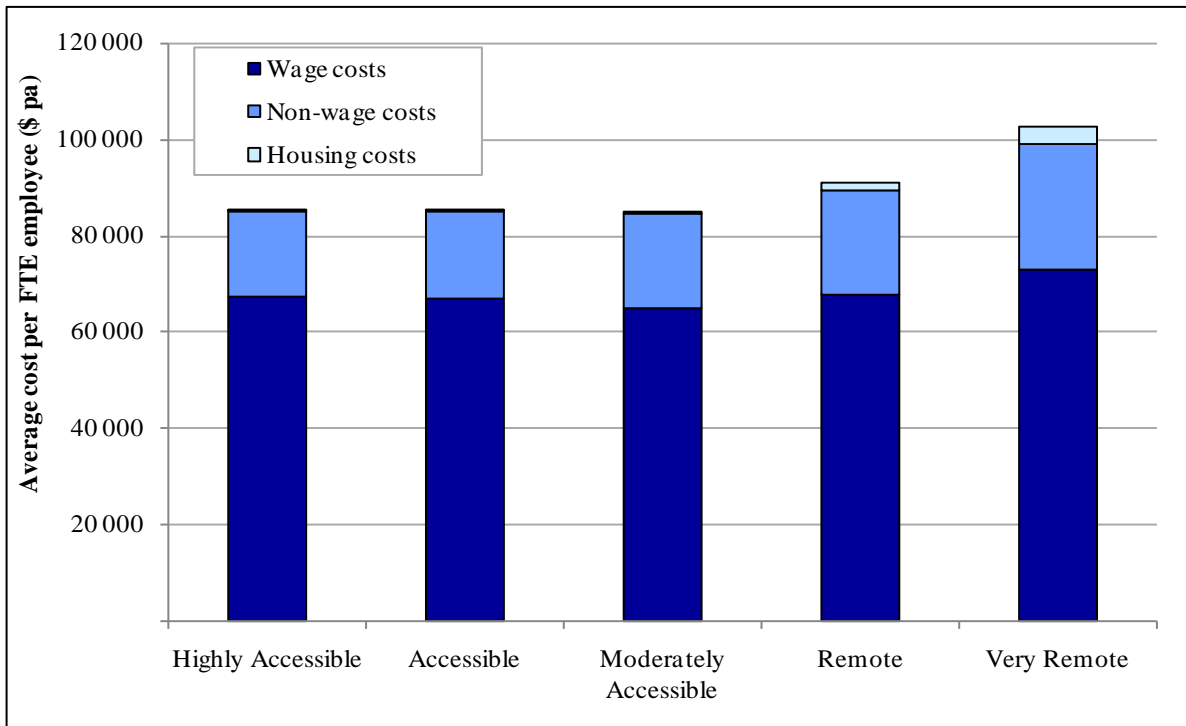
*Other non-wage costs*

- 86 The regional non-wage costs showed average non-wage costs<sup>4</sup> increased with remoteness for both schools and police services.
- 87 Victoria noted that non-wage costs per employee varied substantially across States and argued this cast doubt upon the quality of this approach. While we acknowledge Victoria’s concerns and accept the quality of the non-wage data is lower than we would like, we consider the data sufficiently reliable for our purposes, albeit with a discount.

*Total costs*

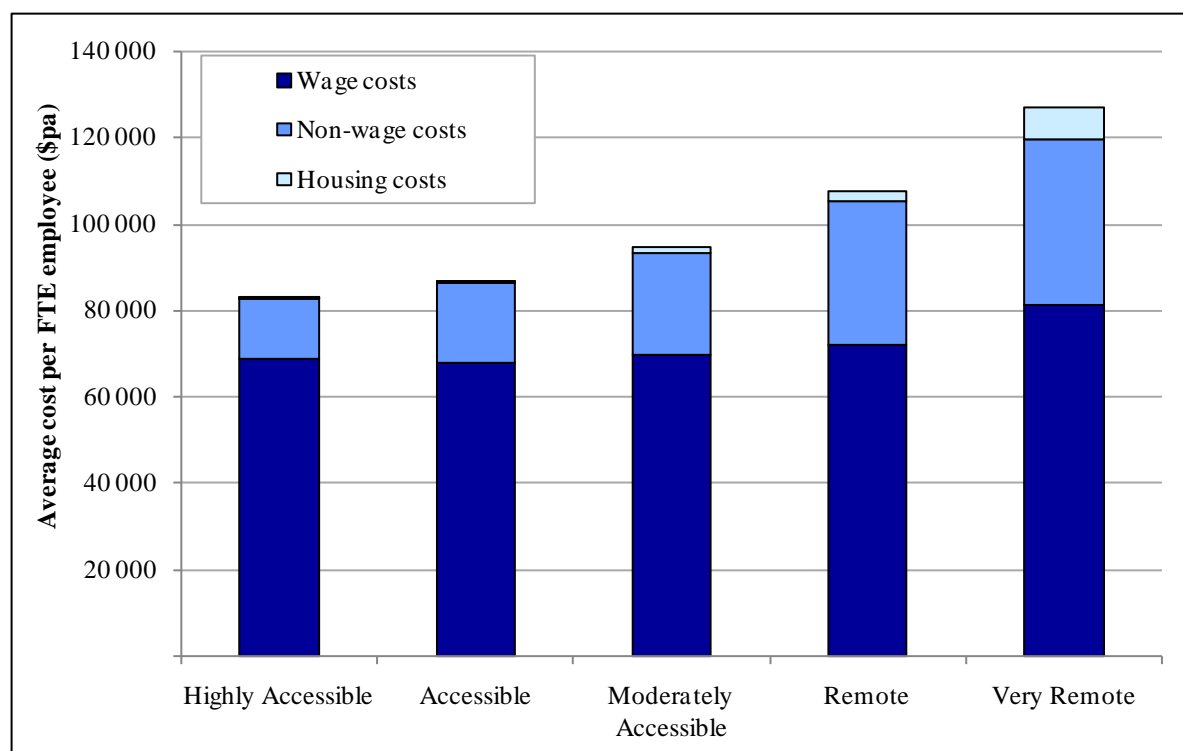
- 88 The three cost elements are aggregated to calculate the total cost per full-time equivalent employee in each SARIA region as shown in Figure 24-7 and Figure 24-8. These total costs per employee are converted to a cost gradient by dividing by the total costs per employee in highly accessible areas.

**Figure 24-7 Regional cost gradient for Schools education**



Source: Commission calculation using State provided data.

<sup>4</sup> These costs include recurrent expenditure on a wide range of goods and services consumed by States, including depreciation of fixed assets. Input-output tables suggest that among the larger expenses are; communication services, banking, and other business services as well as goods such as paper and printed materials, and scientific equipment.

**Figure 24-8 Regional cost gradient for police**

Source: Commission calculation using State provided data.

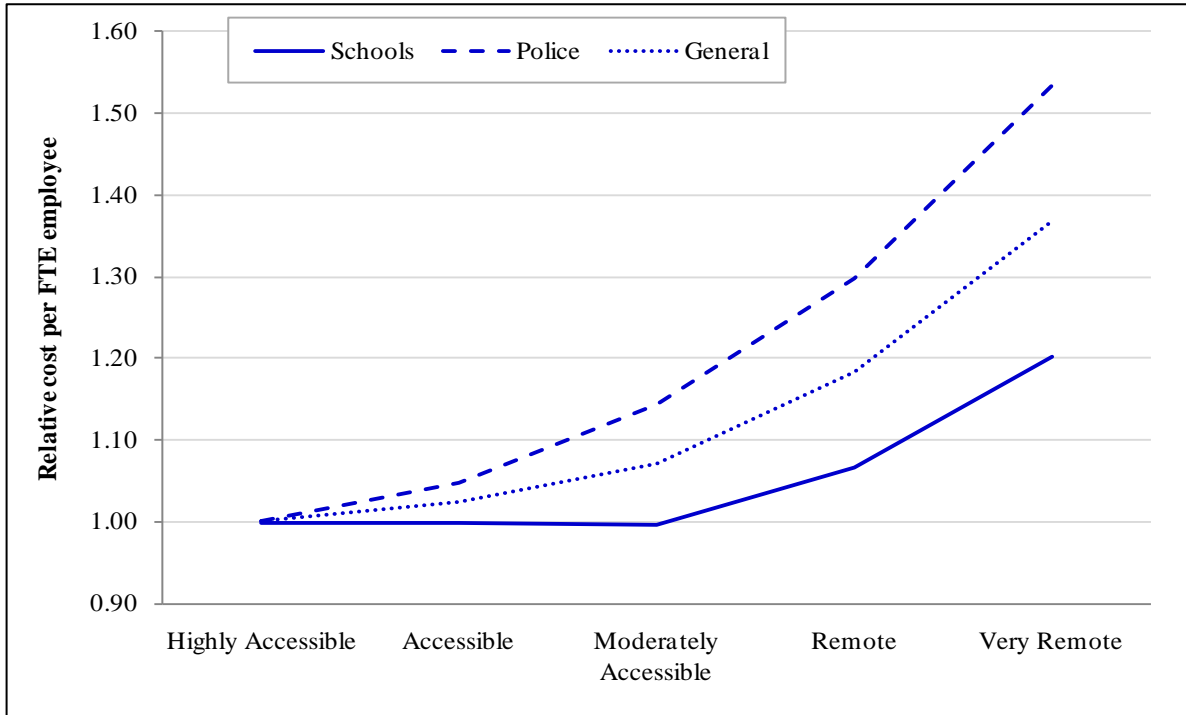
### Extending the analysis to other categories

- 89 States were able to provide data only for schools and police. However, there is a strong conceptual case that costs associated with other categories also increase in more remote regions. Queensland and other States provided evidence to support this.
- 90 While the school and police cost gradients both increased with remoteness, the increase was greater in police than in schools. Some States said in the absence of information on the relationship between remoteness and costs for other categories, we should not extrapolate. However, we consider the conceptual case for making assessments for other categories is strong and we have calculated a general factor based on a simple average of the police and school gradients. The simple average was chosen because it best reflected the gradient observed for other categories by States who provided regional data for them.
- 91 We do not need to apply the general factor to Admitted patients or Post-secondary education because the assessment method for Admitted patients captures regional cost disabilities and States have separately provided regional cost data for post-secondary education.
- 92 We have used data provided by Queensland, Western Australia, Tasmania and the Australian Institute of Health and Welfare (AIHW) to determine the categories where the general factor should be applied. They are:
- Community and other health services;
  - Welfare and housing;

- some elements of Other expenses (see the Other expenses chapter for details); and
- rural roads expenses within the Roads assessment.

93 Figure 24-9 shows the cost gradients for schools, police and the other services.

**Figure 24-9 Relative costs per full-time equivalent employee by function**



Source: Commission calculation using State provided data.

**ASSESSMENT METHOD**

94 Table 24-8 shows the average cost per full-time equivalent employee for each cost element, the total cost per full-time equivalent and the cost gradients for schools and police. The cost gradients were derived by comparing the total cost per employee for each SARIA region to the average cost per employee in highly accessible areas.

**Table 24-8 Regional costs per full-time equivalent employee, schools and police**

	Highly Accessible	Accessible	Moderately Accessible	Remote	Very Remote
	\$	\$	\$	\$	\$
<b>Schools</b>					
Average wage costs	67 453	67 612	64 923	66 046	69 825
Adjusted for staff age	67 582	66 945	64 954	67 712	72 874
Non-wage costs	17 928	18 414	19 667	21 792	26 161
Housing costs	8	99	633	1 679	3 758
Total costs	85 518	85 458	85 254	91 183	102 792
Gradient	1.00000	0.99930	0.99692	1.06624	1.20200
<b>Police</b>					
Average wage costs	68 360	68 874	70 082	71 586	79 820
Adjusted for staff age	68 615	67 926	69 717	72 193	81 177
Non-wage costs	14 360	18 743	23 661	33 105	38 432
Housing costs	20	301	1 463	2 415	7 627
Total costs	82 994	86 969	94 841	107 713	127 236
Gradient	1.00000	1.04789	1.14275	1.29784	1.53306

Source: Commission calculation.

- 95 These cost gradients are applied to each State's client base in each SARIA region. For schools, the client base is the cost weighted number of government school students used in Schools education; this is shown in Table 24-9. Non-government students are not included in the client base because the location of non-government students does not affect the level of funds States provided to them.
- 96 Table 24-10 shows the weighted populations obtained when the schools cost gradient is applied to the client base in Table 24-9. The schools regional cost factor is obtained by dividing each State's share of these weighted students by its share of students (Table 24-11). The Commission believes a discount is warranted because there is a low level of uncertainty surrounding the comparability of the data we have used to derive the factors. We have applied a discount of 12.5 per cent to the schools and police factors.

**Table 24-9 Cost weighted government school students by State and SARIA, 2008-09**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	'000	'000	'000	'000	'000	'000	'000	'000	'000
Highly Accessible	475.3	390.3	282.9	166.5	116.3	21.7	34.4	14.3	1 501.6
Accessible	199.3	132.0	120.9	30.7	26.7	37.1	0.0	2.6	549.2
Moderately Accessible	88.0	28.6	84.6	22.9	25.0	4.4	0.0	3.1	256.6
Remote	8.9	0.6	10.9	6.6	4.0	0.0	0.0	4.3	35.3
Very Remote	2.3	0.0	10.5	16.7	2.2	0.3	0.0	11.7	43.8
<b>Total</b>	<b>773.8</b>	<b>551.4</b>	<b>509.8</b>	<b>243.4</b>	<b>174.1</b>	<b>63.5</b>	<b>34.4</b>	<b>36.1</b>	<b>2 386.5</b>

Note: These numbers are based on actual government students rather than assessed students, but use the same cost weights as those applied to the government students within Schools education.

Source: 2006 Census, Department of Education, Employment and Workforce Relations (DEEWR) Schools Data, ERP.

**Table 24-10 Weighted client base, Schools education, 2008-09**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	'000	'000	'000	'000	'000	'000	'000	'000	'000
Highly Accessible	475.3	390.3	282.9	166.5	116.3	21.7	34.4	14.3	1 501.6
Accessible	199.2	131.9	120.8	30.6	26.6	37.1	0.0	2.6	548.9
Moderately Accessible	87.7	28.5	84.4	22.9	24.9	4.4	0.0	3.1	255.8
Remote	9.5	0.6	11.6	7.1	4.2	0.0	0.0	4.6	37.6
Very Remote	2.8	0.0	12.7	20.1	2.6	0.4	0.0	14.1	52.7
<b>Total</b>	<b>774.4</b>	<b>551.3</b>	<b>512.3</b>	<b>247.1</b>	<b>174.7</b>	<b>63.6</b>	<b>34.4</b>	<b>38.7</b>	<b>2 396.6</b>

Source: Table 24-8 and Table 24-9 and Commission calculation.

**Table 24-11 Regional costs factor, Schools education, 2008-09**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	'000	'000	'000	'000	'000	'000	'000	'000	'000
Students	773.8	551.4	509.8	243.4	174.1	63.5	34.4	36.1	2 386.5
Weighted students	774.4	551.3	512.3	247.1	174.7	63.6	34.4	38.7	2 396.6
Factor	0.99707	0.99599	1.00113	1.01149	0.99974	0.99663	0.99624	1.06927	1.00000
Discounted factor	0.99744	0.99649	1.00099	1.01005	0.99977	0.99705	0.99671	1.06061	1.00000

Source: Table 24-9 and Table 24-10 and Commission calculation.

97 The police regional cost factor is calculated the same way. The client base is the cost weighted population, using the cost weights used for police in the Justice services category. Table 24-12 shows its regional cost factor.

**Table 24-12 Regional costs factor, police, 2008-09**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	'000	'000	'000	'000	'000	'000	'000	'000	'000
Highly Accessible	4 268.0	3 607.2	2 441.2	1 546.2	1 108.1	177.2	314.9	145.1	13 607.9
Accessible	1 690.6	1 003.9	980.0	238.7	228.9	311.0	0.4	20.7	4 474.2
Moderately Accessible	801.3	222.1	758.0	190.8	171.3	39.8	0.0	32.0	2 215.2
Remote	95.6	5.1	135.4	48.2	26.5	0.1	0.0	103.2	414.0
Very Remote	27.8	0.0	162.2	239.9	32.5	3.6	0.0	252.1	718.1
<b>Total</b>	<b>6 883.3</b>	<b>4 838.2</b>	<b>4 476.8</b>	<b>2 263.7</b>	<b>1 567.2</b>	<b>531.8</b>	<b>315.4</b>	<b>553.0</b>	<b>21 429.4</b>
Cost weighted clients	7 122.0	4 919.5	4 758.8	2 444.6	1 627.8	554.3	315.4	723.6	22 466.0
Factor	0.99177	0.97464	1.01890	1.03512	0.99560	0.99913	0.95859	1.25434	1.00000
Discounted factor	0.99280	0.97781	1.01653	1.03073	0.99615	0.99924	0.96377	1.22255	1.00000

Source: Commission calculation.

98 The general regional cost factor that we have applied to Community and other health services and Welfare and housing was calculated as a simple average of the schools and police regional cost factors. For other categories, the general gradient was applied to a category specific client base:

- for Other expenses, the client base was the populations in each SARIA region;
- for Roads, the client base was assessed rural roads lengths in each SARIA region; and
- for electricity subsidies within Services to communities, the client base was the population in remote and very remote regions; and
- for water subsidies within the Services to communities category, the client base was the population in urban centres between 200 and 1000 people outside of highly accessible areas, and in drainage divisions with low water quality.
- for community development within the Services to communities category, the client base was cost weighted population with cost weights for Indigenous populations and discrete Indigenous communities.

99 Table 24-13 shows the regional factors that have been applied. The Schools education, Justice services and general regional costs factors are applied to the service use expenses in the relevant category. The Other expenses regional costs factor is applied to half the expenses in the service expenses component of the Other expenses category. The Roads regional cost factor is applied to rural roads expenses only. The water, electricity and community development regional cost factors are applied to the water and electricity subsidies and community development expenses within the Services to communities category.

**Table 24-13 Category specific regional costs factors**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Schools education	0.99744	0.99649	1.00099	1.01005	0.99977	0.99705	0.99671	1.06061
Community and other health services	0.99512	0.98715	1.00876	1.02039	0.99796	0.99815	0.98024	1.14158
Welfare and housing	0.99512	0.98715	1.00876	1.02039	0.99796	0.99815	0.98024	1.14158
Services to communities								
Water subsidy	1.02472	1.00673	1.04932	1.08486	1.04261	0.12500	0.12500	1.27843
Electricity subsidy	1.00420	0.97933	1.03029	1.07405	1.01550	1.10678	0.12500	1.05527
Community development	0.98363	0.97262	1.02652	1.05575	0.99832	0.98478	0.96585	1.20819
Justice services	0.99280	0.97781	1.01653	1.03073	0.99615	0.99924	0.96377	1.22255
Roads	0.99382	0.95034	1.07609	1.10516	1.02363	0.95100	0.12500	1.17122
Other expenses	0.99810	0.99195	1.00550	1.00847	0.99920	1.00276	0.98507	1.08610

Source: Table 24-11 and Table 24-12 and Commission calculation.

## OVERALL LOCATION ASSESSMENT

### WHAT IS THE IMPACT ON THE GST DISTRIBUTION?

100 Table 24-14 shows the extent to which the location assessments would move the distribution of the GST for 2009-10 away from an equal per capita distribution.

**Table 24-14 Impact on the GST distribution of the Location assessments**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Interstate wages factor	727.7	-189.7	-453.3	20.8	-118.9	-82.8	58.2	38.0	844.7
Interstate non-wages factor	-43.2	-33.8	-10.3	25.7	7.0	22.5	9.5	22.5	87.3
Location regional factor	-100.7	-213.4	132.8	158.5	-4.3	-22.5	-49.8	99.3	390.6
Interactions	-2.1	0.9	-2.3	0.3	-0.1	0.2	-1.1	4.1	5.5
Location factor	581.8	-435.9	-333.1	205.3	-116.3	-82.5	16.8	163.9	967.8
	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc
Interstate wages factor	102.05	-34.73	-101.77	9.18	-72.96	-163.97	164.72	168.05	38.36
Interstate non-wages factor	-6.05	-6.18	-2.32	11.35	4.29	44.65	27.03	99.41	3.96
Location regional factor	-14.12	-39.08	29.82	70.07	-2.62	-44.54	-140.91	438.41	17.74
Interactions	-0.29	0.16	-0.51	0.14	-0.04	0.43	-3.19	18.19	0.25
Location factor	81.59	-79.83	-74.78	90.74	-71.34	-163.43	47.65	724.05	43.95

Source: Commission calculation.

- 101 The interstate wage assessment has the biggest impact. It redistributes GST revenue to New South Wales, Western Australia and the two Territories because they are assessed to have the highest per capita wage costs. Queensland and Tasmania are assessed to have the lowest wage costs per capita which decreases their GST share.
- 102 The interstate non-wage assessment is the smallest location assessment. It distributes GST revenue away from New South Wales, Victoria and Queensland — the States that are assessed to be more self sufficient (the main centres of production and importation are in those States, as are the main conference and meeting destinations) and to have lower unit freight and airfare costs — to other States.
- 103 The regional cost assessment distributes GST revenue to States that have a greater proportion of their populations living in higher cost areas.

### Changes since the 2009 Update

- 104 Table 24-15 shows the redistribution due to the assessment of location factors in the 2010 Review compared with the 2009 Update.

**Table 24-15 Changes since the 2009 Update, Location costs**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Interstate wage costs</b>									
Shortening the review period	-53.7	-23.3	30.9	33.4	14.6	-1.4	-0.5	0.1	78.9
Method changes	55.3	-9.3	-49.3	-23.2	-8.4	-9.6	32.1	11.2	99.2
State circumstances	-33.2	-52.8	1.8	89.5	-1.1	-3.4	-4.0	3.2	94.4
<b>Interstate non-wage costs</b>									
Shortening the review period	-20.0	-34.3	42.3	28.2	-8.6	-1.5	-0.7	-5.3	70.4
Method changes	-30.4	89.3	-34.9	-27.3	53.2	35.1	8.7	-93.6	186.2
State circumstances	-1.7	-1.3	-0.4	1.0	0.3	0.9	0.4	0.9	3.4
<b>Regional costs</b>									
Shortening the review period	2.7	1.1	2.1	-5.5	-2.1	0.4	1.4	-0.2	7.7
Method changes	-2.1	36.6	14.1	-19.9	42.6	11.8	-20.2	-63.0	105.1
State circumstances	-3.1	-7.7	5.0	6.9	0.0	-1.4	-3.7	4.0	15.9
<b>Total Location</b>									
Shortening the review period	-71.0	-56.5	75.2	56.1	3.9	-2.5	0.2	-5.4	157.1
Method changes	22.8	116.6	-70.1	-70.4	87.4	37.3	20.6	-145.4	390.6
State circumstances	-38.0	-61.8	6.4	97.4	-0.9	-3.9	-7.3	8.0	113.8

Source: Commission calculation.

*Interstate wage costs*

- 105 Large changes in the redistribution have resulted from changes in the interstate wage cost assessment. The change from five to three years led to large changes because the wage relativities in 2003-04 and 2004-05 were quite different from those in the remainder of the assessment period. New South Wales and Victorian wage relativities fell, while those in Queensland, Western Australia and South Australia grew over the assessment period.
- 106 Most of the redistribution associated with method changes relates to an increase in the average expenses to which the disabilities are applied. The proportion of expenses to which interstate wage costs are assumed to apply increased between the 2009 Update and the 2010 Review, leading to a redistribution towards those States with above average wage costs. The increase in redistribution to the ACT and Northern Territory also reflects the inclusion of the CSS adjustment in the interstate wage costs assessment in the 2010 Review.
- 107 The impact of changes in circumstance for interstate wages is quite large, and is driven by a significant increase in the cost of labour in Western Australia and a decrease in Victoria.

*Interstate non-wage costs*

- 108 There have been major changes in the method of assessing interstate non-wage costs. In the 2009 Update, accommodation input costs produced large redistributions to New South Wales, Queensland and Western Australia and from Victoria, South Australia, Tasmania and the Northern Territory. These costs are no longer assessed.

- 109 In the 2009 Update, the accommodation and electricity input costs largely offset each other for the Northern Territory. The \$94 million reduction in the GST redistributed to the Northern Territory is primarily driven by the fact that the freight and airfares assessment is much smaller than the 2009 Update Isolation assessment.
- 110 Because the interstate non-wage costs assessment factors are not updated annually, the change in State circumstance reflected in Table 24-15 is the result of the growth in the expenses to which the interstate non-wage cost factors are applied. These expenses are growing faster than GST revenue.

### *Regional costs*

- 111 There have been significant changes in the way the assessment has been built, with a reduction in the GST redistributed to States with large remote populations and those with large major urban populations. Relative costs in remote areas have decreased and no specific and separate urban influences assessments are undertaken.

## **UPDATE PROCESS**

- 112 We recommend that data used in these assessments be updated when new data become available to ensure the relativities remain contemporary and consistent with the circumstances of the States. On this basis, we expect:
- the following data would be updated annually:
    - labour price index used in interstate wage costs;
    - average superannuation rates and number of employees in the CSS superannuation scheme in the ACT and Northern Territory; and
    - population in each SARIA region used in the regional costs assessment.
  - the following data would be updated at longer intervals when new data become available or material changes occur:
    - Survey of Education and Training (SET) econometric model used in the interstate wage costs assessment.

## **SIMPLIFICATION**

- 113 The location assessment has been simplified. The previous approach was complex, encompassing six factors (wages input costs, accommodation input costs, electricity input costs, dispersion, isolation and urban influences) with up to 11 components, assessed using up to 14 different geographic classifications. We have achieved a greater degree of simplification for some location elements than others.
- 114 The interstate wage assessment is similar to the previous assessment but the interstate non-wage costs assessment has undergone considerable change. Previously we captured

differences in interstate non-wage costs through accommodation input costs, electricity input costs and elements of the dispersion and isolation assessments. Some of these assessments were reliant on data from a small number of States. Both the 2010 Review and the previous assessments required the Commission to exercise judgment in the absence of comparable, reliable data. Previously this was done using a large number of small decisions, each affecting a small element of the assessment. The 2010 Review approach requires fewer judgments.

- 115 The assessment of regional cost differentials is the area where greatest simplification has occurred. The previous approach involved developing a model of cost drivers at the Collection District level. This model required assumptions to be made about the number of STD telephone calls in different regions, the cost of removalists, and the costs of local, regional and air travel. These assumptions and the detailed data have been replaced by a simple calculation based on total costs per full-time equivalent employee for the five SARIA regions. While the previous approach depended on a detailed set of assumptions, the 2010 Review approach makes fewer. The key assumptions are that:
- State data on the costs in different regions are reliable;
  - the average of police and schools education costs are appropriate to other categories; and
  - socio-demographic drivers primarily affect staffing numbers rather than costs per staff.

#### **FURTHER INFORMATION**

- 116 Background material in support of this assessment is published on the Commission's website. That material includes the documents, released for comment in the development of this assessment, together with State submissions responding to those documents:
- Staff discussion paper *2006/02-S Location based disabilities*;
  - Staff discussion paper *2007/23-S Assessing location disabilities for the 2010 Review*;
  - Staff discussion paper *2008/01-S Assessing location disabilities in the 2010 Review*;
  - Commission position paper *2008/14 Location — wage costs*;
  - Staff discussion paper *2008/15-S Location — non-wage costs*;
  - *2008 Report on State Accessibility/Remoteness Index of Australia Plus (SARIA+) 2006*;
  - *2009 Report on wage input costs (SET documentation review)*; and
  - *2010 Review Draft Report*.