

DEPRECIATION

- 1 This working paper describes how the Commission calculates what each State would need to fund annual depreciation of assessed capital stock. The development of the assessment method is discussed in Volume 6 of the 2004 Review Working Papers.

DEPRECIATION

- 2 The Depreciation assessment measures the recurrent impact of capital expenses applicable to the expenses categories in the adjusted budget. The assessment excludes depreciation expenses relating to housing, urban transit, roads, electricity and gas, water, sanitation and protection of the environment, and non-urban transport. Grants for the creation of State assets are included in the category.
- 3 State governments accumulated some \$4.7 billion (\$224.74 per capita) in depreciation expenses in 2006-07 covered by this assessment, some 65 per cent of total State general government depreciation expenses. Around 86 per cent of this \$4.7 billion was due to expenses accumulated through State government financed capital assets and 14 per cent through the Australian government.

WHY DEPRECIATION EXPENSES DIFFER

- 4 State expenses on depreciation can differ from the national average because of:
 - different government policies. In this case, the differences do not impact on State GST shares; and
 - circumstances beyond a State's control. In this case, the differences will be reflected in State GST shares.
- 5 Table 1 shows the actual depreciation expenses per capita for each State and the national average. It shows that State depreciation expenses are similar, except for the Northern Territory.

Table 1 Depreciation expenses per capita, 2008 Update

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc
2002-03	178.33	157.50	206.24	209.44	168.71	151.56	317.76	551.52	186.20
2003-04	182.27	159.40	211.77	205.77	185.92	147.71	208.45	582.36	188.50
2004-05	188.95	163.17	224.45	227.50	204.87	138.20	261.77	562.97	198.25
2005-06	206.36	183.46	231.18	215.34	188.18	194.49	270.89	455.15	208.38
2006-07	219.23	181.91	263.55	239.93	216.81	212.60	312.45	487.82	224.74

Source: CGC adjusted budget, derived from Government Finance Statistics (GFS) data collated by the ABS using CGC coding rules (and adjustments).

Box 1: The Commission’s concept of average

The Australian average expense per capita is not a simple average of the experience of the eight States. It is calculated as the total expenses incurred by all States divided by total State population. This is a population weighted average. Population weighting gives equal weight to each Australian’s experience. Since more Australians experience the New South Wales level of service, it carries more weight in the calculation of the average. 33 per cent of Australians reside in New South Wales and 1 per cent reside in the Northern Territory; see table 11. Population weighting gives the experience of New South Wales (\$219.23 per capita in 2006-07) 33 times the weight of the experience of the Northern Territory (\$487.82 per capita). This approach means the average expense per capita is generally much closer to the New South Wales expense per capita than the Northern Territory expense per capita¹.

The concept of using this average also applies to the assessment of factors. If the Commission were trying to estimate the cost of providing services to Indigenous people living in remote areas, it would give most weight to the Northern Territory’s experience (some 36 per cent of remote Indigenous people live in the Territory) and least to Tasmania (less than 0.2 per cent), Victoria (less than 0.1 per cent) and the ACT (0 per cent).

ASSESSING STATES’ DEPRECIATION EXPENSES

The equalisation task

- 6 The Commission aims to identify why some States have higher depreciation expenses per capita. The Commission then uses this information to estimate what it would cost each State to fund depreciation expenses using the average policy of all States. This is called a State’s *assessed expense*.

¹ This statement is true for the Depreciation actual expenses but may not be true for other service expenses in general. However, if New South Wales were to have 50 per cent or above of the nation’s population then this statement would be true in general.

- 7 The process the Commission follows in its assessments is two-fold. First, it starts with the average depreciation expense which captures the average policies, efficiency and circumstances of all States. Second, it attempts to quantify how a State varies from the average in some underlying characteristics, and what effect such a variation could have on its total expenses. Bringing them together shows how much a State could be expected to vary from the average, solely because of its innate characteristics. The resultant estimate is its assessed expense.

Assessed costs

- 8 The influences which affect assessed depreciation costs are:
- quantities of capital stock;
 - cost of the capital stock (for example, labour costs, electricity costs and dispersion related costs); and
 - the rate at which the capital stock depreciates due to natural hazards.
- 9 While some of these influences, such as such as the price of labour and electricity costs, may partially be affected by government policies, the Commission attempts to take account of only that part of the influence which is beyond the control of individual State governments.

OVERVIEW OF THE METHOD FOR DETERMINING ASSESSED EXPENSES

- 10 The box below provides a brief step by step overview of the framework the Commission uses to determine each State's assessed expenses for depreciation.

Box 2: Assessment framework

Step 1: Derive the average expense per capita

This is done by dividing the total expenses incurred by all States by total State population. This figure captures the average financial impact of the policies, practices and particular State circumstances which impact on the cost of delivering the service across the nation.

Step 2: Identify different types of expenses

The Commission examines the service to determine whether parts of the total expense are affected by different influences. If the differences are material, the expense is divided into component parts to ensure that the various influences are accurately matched with the expenses they affect. The different expense types identified are referred to as components. To identify components, the Commission analyses information and data on the nature of the service (that is, what States do and how they do it), States' policies concerning the service and submissions. The proportion of total expense attributable to a particular component is referred to as the component weight. The Commission uses GFS data, State public accounts, annual reports and other data to estimate these proportions.

Step 3: Identify the influences for each component

The Commission identifies the influences that affect each component and the extent to which they are beyond the control of individual State governments. To identify influences, the Commission analyses information and data on the nature of the service (that is, what States do and how they do it), States' policies concerning the service, submissions and other publications.

Step 4: Measure the size of each influence

The Commission estimates the relative financial impact of each influence on each State's cost of providing the service, but only to the extent it is beyond the control of individual State governments. The relative impact is measured by relating the State's experience to the average experience. The relative impacts are presented as factors. A factor measures the percentage increase (or decrease) that the influence has on a State's cost of providing the service. There is at least one factor assessment for each component. In most cases there is more than one.

Step 5: Derive component factors

The factors calculated for each cost component are combined together to derive a component factor. If the Commission considers that one factor compounds with another, it multiplies them. If the Commission considers that two factors are independent of one another, it adds them.

Step 6: Derive category factors

The component factors are weighted to reflect the importance of the component in the category. This is done by multiplying each component factor by its component weight. The category factor is calculated by adding the weighted component factors together. The category factor represents the Commission's estimate of the combined financial impact of all the influences on a State's cost of providing the service.

Step 7: Derive assessed expense per capita

Each State's assessed expense per capita is calculated by applying its category factor to the average expense per capita. A State's assessed expense per capita is the Commission's estimate of how much it would cost the State (per capita) to provide the average level of service.

The difference between a State's assessed expense per capita and the average expense per capita is a measure of the financial impact of circumstances beyond its control. The difference between its assessed expense per capita and its actual expense per capita is a measure of the financial impact of circumstances within its control.

DERIVING COMPONENTS AND COMPONENT WEIGHTS

- 11 The Commission examines depreciation costs to decide whether parts of the total expense are affected by different influences. If the differences are material, the expense is divided into component parts to ensure that various influences are accurately matched with the expenses they affect. The different expense types identified are referred to as *components*. The proportion of total expense attributable to a particular component is referred to as the *component weight*.
- 12 The Commission identified three components for depreciation and calculated the proportion of expenses that each cost component contributed to total depreciation expenses. The components and component weights are presented in Table 2.

Table 2 Components and component weights, 2006-07

	Component	Component weights
	\$m	%
Fixed costs	57.956	1.24
Plant and equipment	2 875.167	61.33
Buildings	1 754.731	37.43
Total	4 687.854	100.00

- 13 The Commission decided that the ratio of fixed costs in the Depreciation category would be the same as the ratio of (total) fixed cost in all categories in the equalisation budget. This was because it was assumed there was a direct link between the number of staff needed in head offices and the amount of floor space and equipment that would be needed to provide for them.
- 14 For 2006-07, fixed costs were estimated at \$57.96 million². The residual amount of expense was allocated to the buildings and plant equipment components. The ratio of plant equipment and the buildings expense was based on a five-year average of GFS data in the 2004 Review.
- 15 The Commission identifies the influences beyond State control affecting each component. They are, in the Commission’s depreciation assessment, the reasons why States have more (or less) assessed depreciation expense per capita than average. The Commission presents these influences as factors.

Box 3: Commission factors

A factor is the Commission’s estimate of the relative financial impact a particular influence has on a State’s cost of providing a service. Factors are only calculated for the part of the influence which is beyond the control of individual State governments.

A factor value of 1 means the Commission considers the State could provide the average level of service by spending the average expense per capita. A factor value of more than 1 means the Commission considers the State will have to spend more than the average expense per capita to provide the average level of service. A factor value of less than 1 means the Commission considers the State can provide the average level of service by spending less than the average expense per capita.

- 16 Table 3 lists each component and associated factors for the depreciation assessment.

² The Administrative Scale section of Volume 4 of these working papers describes how the Commission determines the size of administrative scale costs.

Table 3 Components and factors, 2008 Update

Component and component weights	Factors	Influence measured by factor
Fixed costs (1.24%)	Administrative scale	Recognises the unavoidable costs each State incurs in providing floor space and equipment to house staff involved in administering policy and infrastructure necessary to provide services, regardless of the size of the task.
Buildings (37.43%)	Socio-demographic composition	Recognises that a State's socio-demographic profile affects the amount of capital stock required due to differing levels of use of services by the population. It is assessed by the level of demand for government services for education, health, and law and order, plus an EPC element (approx 35 per cent; see table 7). The factor is discounted by 50 per cent.
	Service delivery scale	Recognises that some States need to spend more on capital stock because services need to be provided in small urban centres where economies of scale may not exist.
	Urban influences	Recognises that some States need to spend more on capital stock because of extra resources required to provide services in larger cities.
	Natural hazards	Recognises that some States need to spend more on their capital stock to protect them from natural hazards. Assessment is based on Risk Frontiers ³ Relative Risk Rating for each State — applied to 5 per cent of expenses; see table 11.
	Construction costs	Recognises the differences between States in the cost of construction labour and freight costs to dispersed populations. <ul style="list-style-type: none"> – Labour costs: measured via the wages input costs factor and dispersion assessment relating to locality allowance — 35 per cent; see table 12. – Freight cost: measured via dispersion assessment relating to freight — 2 per cent; see table 12. – EPC element – 65 per cent; see table 12.
Plant and equipment (61.33%)	Socio-demographic composition	As above.
	Service delivery scale	As above.
	Urban influences	As above.
	Dispersion	Recognises the differences in per capita costs of depreciation due to freight costs to dispersed populations. <ul style="list-style-type: none"> – Freight costs: measured via Dispersion assessment relating to freight — 2 per cent; see table 12.

For each component, the component factor is calculated using the formula in the following paragraph. The weighted component factor is the component factor multiplied by the component weight. This is then population weighted to ensure that the sum of assessed expenses equals average expenses.

17 An explanation of the reasoning behind each factor assessment in the Depreciation category and the method of assessment are presented below.

³ <http://www.riskfrontiers.com/>

DERIVING THE FIXED COST COMPONENT FACTOR

18 The Commission considers the amount of fixed costs required to be spent by each State is influenced by administrative scale.

Administrative scale factor

19 In the 2004 Review, the Commission decided that administrative scale would be assessed in the Depreciation category. It was assumed there was a direct link between the number of staff needed in head offices and the amount of floor space and equipment required to provide for them.

20 It was decided that the ratio of administrative scale costs in the Depreciation category would be the same as the ratio of (total) administrative scale cost in all categories in the equalisation budget. For 2006-07, the levels of unavoidable head office related expenses assessed for this category is \$7.2 million for each State.

21 The table below shows the amount assessed for each State and the per capita equivalent. It also shows the administrative scale factor which is calculated by dividing each States' per capita amount by the Australian average per capita amount.

Table 4 Administrative scale expenses, 2008 Update

		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Fixed cost amount	\$m	7.244	7.244	7.244	7.244	7.244	7.244	7.244	7.244	57.956
Population	m	6.856	5.168	4.136	2.082	1.577	0.492	0.337	0.213	20.859
Fixed costs	\$pc	1.06	1.40	1.75	3.48	4.59	14.74	21.52	34.04	2.78
Factor		0.38031	0.50456	0.63046	1.25230	1.65373	5.30328	7.74403	12.25245	1.00000

22 The administrative scale factor is revised annually by adjusting the unavoidable fixed cost to reflect changes in the wage cost index (80 per cent weight) and consumer price index (20 per cent weight).

Box 4: Weighting factors

The Commission weights a factor when the factor is to be applied to all of a component expense but it only affects part of the component expense.

As an example, the fixed costs input costs factor is to be applied to all of the administrative scale expenses, but it only affects the wages (80 per cent), accommodation (2 per cent) and electricity (1/2 per cent) parts of these expenses. So, the Commission weights each subfactor according to the share of expenses it affects.

The formula is:

$$\text{Weighted factor} = \sum_i \text{Weight}_i * \text{subfactor}_i + (100\% - \sum_i \text{Weight}_i) * \text{EPC factor}$$

Where: i = the number of subfactors. For example, wages, accommodation and electricity
 Weight_i = the share of expenses affected by the relevant subfactor

$(100\% - \sum_i \text{Weight}_i)$ = the share of expenses not affected by any of the subfactors.

For the fixed costs input costs factor, the formula is:

$$\begin{aligned} \text{Weighted factor} &= 80\% * \text{wages subfactor} + 2\% * \text{accommodation subfactor} \\ &+ 0.5\% * \text{electricity subfactor} + 17.5\% * \text{EPC factor} \end{aligned}$$

Weighting factors according to the proportion of expenses they affect is important. Weighting factors allows the Commission to combine them. After weighting, a percentage increase in one factor has the same impact on expenses as the same percentage increase in any other factor.

Fixed costs component factor

23 The fixed costs component factor is calculated using the formula:

$$\text{Fixed costs component factor} = \text{fixed costs component weight (0.0124)} * \text{administrative scale factors}$$

24 The component factor is calculated by:

- obtaining States' fixed costs;
- dividing each State's total fixed costs by its population;
- calculating the component factor by dividing each State's per capita figure by the Australian average per capita figure; and
- weighting the fixed costs factor by the fixed costs component weight by multiplying the component factors by the component weight. The result is the fixed costs component factor.

25 The table below shows the derivation of the component factor.

Table 5 Depreciation fixed costs component factor, 2006-07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Fixed cost amount (\$m)	183.967	183.967	183.967	183.967	183.967	183.967	176.245	189.122	1469.169
Population (million)	6.856	5.168	4.136	2.082	1.577	0.492	0.337	0.213	20.859
Fixed costs (\$pc)	26.83	35.60	44.48	88.36	116.68	374.18	523.46	888.72	70.43
Factor	0.38098	0.50545	0.63156	1.25449	1.65662	5.31255	7.43193	12.61778	1.00000
Component weight	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012
Component factor	0.00471	0.00625	0.00781	0.01551	0.02048	0.06568	0.09188	0.15599	0.01236

DERIVING THE BUILDINGS COMPONENT FACTOR

- 26 The per capita amount of depreciation expense related to buildings required by States to provide the average level of service is considered by the Commission to be influenced by:
- the quantity of capital assets. This was due to:
 - the level of use of government services by different population groups.
 - the provision of services to small communities where it was likely that assets had excess capacity and were, therefore, used less efficiently than in more populated areas; and
 - extra services needed in major metropolitan centres;
 - the rate of depreciation due to natural hazards; and
 - the cost of construction of capital assets due to differences between States in the prices of labour and freight costs to dispersed populations.

Socio-demographic composition factor

- 27 The socio-demographic composition factor is assessed to take into account that States need different quantities of capital stock⁴ (per capita) depending on the level government services used by their population. This is because the higher the level of use of government services, the higher the level of facilities that must be provided. For example, the more students, the more classrooms needed or the more patients more hospitals needed.

⁴ Above average levels of capital assets per capita translates to above average depreciation expenses incurred.

Box 5: Socio-demographic composition factor

Step 1: Obtain relevant socio-demographic composition and cross-border factors

Obtain relevant socio-demographic composition and cross-border factor for government education, health and law and order assessments categories.

Step 2: Obtain the depreciation expense proportion for relevant categories

Obtain the depreciation expense proportion for government education, health and law and order categories.

Step 3: Combine the socio-demographic composition and cross-border factors with the depreciation expense proportions.

Combine (multiply) the socio-demographic composition and cross-border factors and then weight (multiply) the product by the categories depreciation expense proportion. This was done to determine the significance of each type of service to corresponding depreciation expenses.

Step 4: Calculate the composite socio-demographic composition cross-border factor

Add up the weighted socio-demographic composition/cross-border factors to get a composite socio-demographic composition factor. This shows the differential depreciation expenses for each State and Australia due to the level of facilities provided.

Step 5: Add an EPC factor

Because the depreciation expense proportions from government education, health and law and order categories do not equal 100 per cent, an EPC factor (accounting for approximately 35 per cent of depreciation expenses; see table 7) is added to ensure that the total depreciation expense proportions add to 100 per cent.

Step 6: Combine the EPC and composite socio-demographic composition factor

The composite socio-demographic composition factor and the EPC factor are added together to get a composite socio-demographic composition factor

Step 7: Discount the composite factor

The composite socio-demographic composition factor is discounted by 50 per cent because the Commission did not consider the recurrent factors had a one to one relationship with capital stock.

Step 8: Calculate the socio-demographic composition factor.

The composite socio-demographic composition factor for each State is divided by the Australian factor to get the final factor for each State and Australia.

- 28 The Commission considered that different levels of service use by different socio-demographic groups in State populations would impact on capital expenses as well as recurrent type expenses. It decided that use of government facilities could be assessed by using a composite of socio-demographic composition and cross border factors applied to government Education, Health and Law and Order assessments.
- 29 However, it did not consider that recurrent factors had a one-to-one relationship with capital stock and decided to discount the socio-demographic composition factor by 50 per cent.
- 30 The socio-demographic composition factor was assessed by:
- identifying the relevant socio-demographic composition and cross-border factors.
 - For law and order categories, the socio-demographic composition factors were used without adjustment because they mainly reflected demand influences. For government education, the relevant factors were also used without

adjustment because they reflected student numbers. For health, the unit cost weights were removed⁵.

- multiplying the socio-demographic composition and (if relevant) cross-border factors and then multiplying the product by the categories depreciation expense proportion⁶. If there was more than one socio-demographic composition factor for a category, it was multiplied by its relevant component weight in the category.
- adding up all the weighted factors to get a composite factor.
- adding an EPC factor (about 35 per cent; see table 7) to the composite factor. Because the depreciation expense proportions from the government Education, Health, and Law and Order categories do not equal 100 per cent, an EPC factor (accounting for the residual depreciation expense proportion - about 35 per cent of the final factor; see table 7) is added to ensure that the total depreciation expense proportions add to 100.
- weighting (discounting) the combined factor by 50 per cent.
- dividing the combined factor for each State by the Australian factor to get the final factors for each State and Australia.

31 The final factors are updated annually based on updates to the constituent category socio-demographic composition and cross-border factors used are updated. Tables 6 and 7 below show the derivation of the depreciation socio-demographic composition factor.

⁵ Note: To date, the unit costs have not been removed from the Health socio-demographic composition factors. Staff will examine the materiality of this issue after the 2008 Update.

⁶ The factors are weighted (multiplied) by the depreciation expense proportion in the categories from which they came. This reflected the significance of the service delivery to depreciation expenses.

Table 6 Derivation of socio-demographic composition factors, 2006-07, 2008 Update

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Weighted factors									
4010 Preschool Education	0.00181	0.00173	0.00185	0.00178	0.00167	0.00179	0.00160	0.00296	0.00179
4020 Government Primary Education	0.09316	0.09066	0.09331	0.09057	0.08558	0.10743	0.08176	0.14307	0.09240
4040 Government Secondary Education	0.08175	0.07484	0.09107	0.09000	0.08075	0.08790	0.08625	0.10025	0.08305
4060 Vocational Education and Training	0.06315	0.06255	0.06707	0.06724	0.06322	0.06412	0.07561	0.09050	0.06470
4070 Transport of Rural School Children	0.00031	0.00031	0.00042	0.00026	0.00035	0.00071	0.00002	0.00032	0.00033
4110 Inpatient Services - acute component	0.17097	0.16377	0.17120	0.17012	0.17575	0.19864	0.12039	0.23861	0.17003
4110 Inpatient Services - non acute component	0.02704	0.02651	0.02585	0.02511	0.03034	0.02807	0.02047	0.02423	0.02662
4115 Non-inpatient Services - community health component	0.02957	0.02807	0.03103	0.03154	0.02905	0.02969	0.02980	0.08189	0.03020
4115 Non-inpatient Services - emergency departments component	0.01872	0.01843	0.01856	0.01832	0.01862	0.01914	0.01668	0.02274	0.01858
4115 Non-inpatient Services - outpatients component	0.02897	0.02854	0.02839	0.02791	0.02934	0.03029	0.02451	0.03103	0.02865
4120 Population Health - breast cancer screening component	0.00149	0.00149	0.00143	0.00143	0.00159	0.00161	0.00161	0.00125	0.00148
4120 Population Health - communicable disease control component	0.00191	0.00195	0.00321	0.00269	0.00271	0.00207	0.00249	0.01515	0.00246
4120 Population Health - organised immunisation component	0.00265	0.00253	0.00250	0.00246	0.00270	0.00273	0.00207	0.00341	0.00257
4120 Population Health - other public health component	0.00584	0.00574	0.00581	0.00576	0.00587	0.00603	0.00527	0.00733	0.00581
4440 Police - community safety and support component	0.02275	0.02210	0.02361	0.02377	0.02258	0.02337	0.02483	0.03825	0.02305
4440 Police - crime investigation component	0.01941	0.01895	0.02024	0.02037	0.01935	0.02003	0.02302	0.03279	0.01976
4440 Police - road safety and traffic management component	0.00552	0.00539	0.00575	0.00579	0.00550	0.00569	0.00654	0.00932	0.00562

Table 7 Derivation of socio-demographic composition factors, 2006-07, 2008 Update (continued)

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
4450 Administration of Justice - criminal courts component	0.03083	0.02789	0.03468	0.03596	0.02960	0.03250	0.03935	0.11695	0.03233
4465 Corrective Services - community based corrections component	0.00328	0.00302	0.00364	0.00380	0.00314	0.00334	0.00375	0.01100	0.00342
4465 Corrective Services - juvenile detention component	0.00398	0.00252	0.00519	0.00546	0.00352	0.00532	0.00313	0.03982	0.00436
4465 Corrective Services - prisons component	0.03305	0.02793	0.03077	0.03244	0.02508	0.02840	0.03728	0.11631	0.03148
EPC weighted factor	0.35130	0.35130	0.35130	0.35130	0.35130	0.35130	0.35130	0.35130	0.35130
Composite factor (add up all weighted factors)	0.99744	0.96619	1.01686	1.01407	0.98760	1.05015	0.95774	1.47849	1.00000
Rescale composite factor by MRP	0.99770	0.96835	1.01698	1.01266	0.99048	1.05387	0.96075	1.39682	1.00000
Discount re-scaled factor by 50 per cent	0.99885	0.98418	1.00849	1.00633	0.99524	1.02693	0.98037	1.19841	1.00000
Final factors for all five assessment years									
2002	0.99424	0.98404	1.01608	1.00858	1.00281	1.02523	0.97593	1.15424	1.00000
2003	0.99473	0.98450	1.01460	1.00701	1.00334	1.02570	0.97620	1.16021	1.00000
2004	0.99638	0.98549	1.01137	1.00604	1.00039	1.02217	0.97889	1.17475	1.00000
2005	0.99879	0.98442	1.00873	1.00630	0.99454	1.02805	0.97973	1.19599	1.00000
2006	0.99885	0.98418	1.00849	1.00633	0.99524	1.02693	0.98037	1.19841	1.00000

Note: Final factors for all five assessment years, 2002-03 through to 2006-07, are shown. For brevity, only the calculation of the 2006-07 year factor is shown.

Service delivery scale factor

32 The service delivery scale factor reflects that States need to provide facilities to small communities where it is likely they will have excess capacity and were, therefore, used less efficiently than they would be in more highly populated areas (although some assets may have had a longer useful life as a result). For example, facilities such as police stations, clinics and schools may need to be provided in towns even when they will operate below capacity. States that have large numbers of small communities would need to provide more facilities, resulting in larger amounts of capital assets.

Box 6: Service delivery scale

Step 1: Obtain relevant service delivery scale factors

Obtain service delivery scale factors for the government Education and the Police categories. Health categories do not have service delivery scale factors.

Step 2: Weight factors by depreciation expense proportions

Weight (multiply) each service delivery scale factor by the proportion of depreciation expense in the category the factor was obtained from. This was done to determine the significance of each type of service to corresponding depreciation expenses.

Step 3: Add up the weighted service delivery scale factors to get a composite factor. This shows the differential depreciation expenses for each State and Australia due to the level of facilities provided to small communities.

Step 4: Add an EPC factor

Because the depreciation expense proportions from the government Education and Police categories do not equal 100 per cent, an EPC factor (approx 71 per cent; see table 8) is added to ensure that the total depreciation expense proportions add to 100.

Step 5. Combine the weighted factors

The weighted service delivery scale factors are added together to get a composite factor for depreciation.

Step 6. Calculate the service delivery scale factor.

The composite service delivery scale factor for each State is divided by the Australian factor to get the final factors for each State and Australia.

33 In the 2004 Review, the Commission decided to use the assessments of service delivery scale, which are assessed in the government Education and Police categories, to assess service delivery scale-related depreciation expenses. It decided to assess service delivery scale by using a composite of service delivery scale factors (similar to the socio-demographic composition factor) applied in the government education, health and police categories.

34 The service delivery scale factor is assessed by:

- applying the factors used to assess service delivery scale for the government Education and Police categories. Health categories do not have service delivery scale factors.
- weighting (multiplying) the factors by the depreciation expense proportion in the categories from which they came. This reflected the significance of the service delivery to depreciation expenses. Because the depreciation expense proportions from the government Education and Police categories do not equal 100 per cent, an EPC factor (accounting for the residual depreciation expense proportion - about 71 per cent of the final factor; see table 8) is added to ensure that the total depreciation expense proportions to add to 100 per cent.
- combining (adding together) the weighted factors to derive a composite service delivery scale factor.

35 The following table shows the calculation of the service delivery scale factor. The factor is updated annually if any of the factors upon which it relies are updated.

Table 8 Derivation of the service delivery scale factor, 2008 Update

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
4010 Pre-schools									
Depreciation expense proportion			0.0018						
Factor	0.99639	0.99474	1.00308	1.00433	1.00506	1.00940	0.98383	1.10820	1.00000
Weighted factor	0.00179	0.00178	0.00180	0.00180	0.00180	0.00181	0.00176	0.00199	0.00179
4020 Government Primary Education									
Depreciation expense proportion			0.09240						
Factor	0.99893	0.99910	1.00029	1.00030	1.00306	1.00501	0.98837	1.03179	1.00000
Weighted factor	0.09230	0.09232	0.09243	0.09243	0.09268	0.09286	0.09133	0.09534	0.09240
4040 Government Secondary Education									
Depreciation expense proportion			0.08305						
Factor	0.99354	0.99417	1.00143	1.00772	1.01625	1.04390	0.98012	1.05614	1.00000
Weighted factor	0.08252	0.08257	0.08317	0.08369	0.08440	0.08670	0.08140	0.08772	0.08305
4060 Vocational Education & Training									
Depreciation expense proportion			0.06470						
Factor	0.99354	0.99417	1.00143	1.00772	1.01625	1.04390	0.98012	1.05614	1.00000
Weighted factor	0.06428	0.06432	0.06479	0.06519	0.06575	0.06754	0.06341	0.06833	0.06470
4440 Police									
Depreciation expense proportion			0.04843						
Factor	0.99758	0.99717	1.00349	1.00146	1.00212	1.00010	0.99686	1.05342	1.00000
Weighted factor	0.04832	0.04830	0.04860	0.04850	0.04854	0.04844	0.04828	0.05102	0.04843
EPC factor									
Depreciation expense proportion			0.70962						
Factor	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Weighted factor	0.70962	0.70962	0.70962	0.70962	0.70962	0.70962	0.70962	0.70962	0.70962
Composite factor (add up all weighted factors)									
	0.99882	0.99891	1.00041	1.00125	1.00280	1.00697	0.99581	1.01401	1.00000
Final factors for all five assessment years									
2002	0.99875	0.99884	1.00042	1.00136	1.00305	1.00764	0.99545	1.01481	1.00000
2003	0.99879	0.99888	1.00042	1.00131	1.00292	1.00730	0.99566	1.01434	1.00000
2004	0.99878	0.99887	1.00042	1.00131	1.00293	1.00733	0.99560	1.01447	1.00000
2005	0.99883	0.99891	1.00041	1.00124	1.00279	1.00695	0.99581	1.01400	1.00000
2006	0.99882	0.99891	1.00041	1.00125	1.00280	1.00697	0.99581	1.01401	1.00000

Source calculation: 5530 E Service delivery factors

Note: Final factors for all five assessment years are shown. For brevity, only the calculation of the 2006-07 year factor is shown in the table.

Urban influences factor

- 36 The urban influences factor is assessed to recognise that larger cities need extra resources, per capita, for some functions (compared to smaller cities) and this equates to needing more per capita capital assets.

Box 7: Urban Influences factor

Step 1: Obtain relevant urban influences factors

Obtain urban influence factors for Public Safety and the Police categories.

Step 2: Weight factors by depreciation expense proportions

Weight (multiply) each urban influence factor by the proportion of depreciation expense in the category the factor was obtained from.

Step 3: Add an EPC factor

Because the depreciation expense proportions from the Public Safety and Police categories do not equal 100 per cent, an EPC factor (approx 91 per cent; see table 9) is added to ensure that the total depreciation expense proportions add to 100.

Step 4: Combine the weighted factors

The weighted urban influences factors are added together to get a composite urban influence factor for depreciation.

Step 5. Calculate the urban influence factor

The composite service delivery scale factor for each State is divided by the Australian factor to get the final factors for each State and Australia.

- 37 The Police and Public Safety categories assess urban influences and the Commission considered these assessments warranted a flow-on effect to the Depreciation category to account for associated capital needs.
- 38 The urban influences factor was assessed in a similar manner to the socio-demographic composition and service delivery scale factors. This is:
- identify the factors used to assess urban influences in the Public Safety and Police categories;
 - weight⁷ (multiply) these factors by the depreciation expense proportions relevant to these categories. This reflected the significance of urban influences to depreciation expenses. Because the depreciation expense proportions from the Public Safety and Police categories do not equal 100 per cent, an EPC factor (accounting for the residual depreciation expense proportion - about 91 per cent of the final factor; see table 9) is added to ensure that the total depreciation expense proportions add to 100; and
 - combine (add together) weighted factors to derive the composite urban influences factor.
- 39 The following table shows the calculation of the urban influences factor. The factor is updated, if any of the factors upon which it relies are updated.

⁷ The proportions of depreciation expense (via ABS GFS data) in the Public Safety and Police categories were used as the weights.

Table 9 Derivation of the urban influences factor, 2008 Update

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
4440 Police									
Depreciation expense proportion		0.05							
Factor	1.02247	1.03071	0.96461	0.96461	0.96461	0.96461	0.96461	0.96461	1.00000
Weighted factor	0.04952	0.04992	0.04672	0.04672	0.04672	0.04672	0.04672	0.04672	0.04843
4470 Public Safety									
Depreciation expense proportion		0.04							
Factor	1.02247	1.03071	0.96461	0.96461	0.96461	0.96461	0.96461	0.96461	1.00000
Weighted factor	0.04539	0.04576	0.04282	0.04282	0.04282	0.04282	0.04282	0.04282	0.04439
EPC factor									
Depreciation expense proportion		0.91							
Factor	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Weighted factor	0.90717	0.90717	0.90717	0.90717	0.90717	0.90717	0.90717	0.90717	0.90717
Composite factor (add up all weighted factors)									
	1.00209	1.00285	0.99671	0.99671	0.99671	0.99671	0.99671	0.99671	1.00000
Final factors for all five assesment years									
2002	1.00169	1.00227	0.99729	0.99729	0.99729	0.99729	0.99729	0.99729	1.00000
2003	1.00185	1.00249	0.99705	0.99705	0.99705	0.99705	0.99705	0.99705	1.00000
2004	1.00188	1.00257	0.99700	0.99700	0.99700	0.99700	0.99700	0.99700	1.00000
2005	1.00208	1.00284	0.99671	0.99671	0.99671	0.99671	0.99671	0.99671	1.00000
2006	1.00209	1.00285	0.99671	0.99671	0.99671	0.99671	0.99671	0.99671	1.00000

Source calculation: 5530 E Derivation of urban influences factor

Note: Final factors for all five assesment years are shown. For brevity, only the calculation of the 2006-07 year factor is shown in the table.

Natural hazards factor

40 In the 2004 Review, a conceptual case was made that natural hazards reduced building asset lives, increased repairs and maintenance expenses and preventive expenditure⁸. The natural hazard factor assessed the costs incurred by States due to the rate of depreciation of buildings due to natural hazards.

⁸

These are extra expenses due to applying natural hazard-proofing measures in buildings.

Box 8: Natural hazards factor

Step1: Calculate each States per capita natural hazard risk ratio

Divide each State’s share of risk, via Relative Risk Ratings (RRR), by each States population share.

Step 2: Weight the ratios by preventive building related costs

The resulting ratios for each State are discounted to 5 per cent of their original value. This is because only natural hazard prevention-related building expenses are taken into account.

- 41 **Relative Risk Ratings.** States’ vulnerabilities to natural hazards were measured through Relative Risk Ratings (RRRs). These were developed by Risk Frontiers of Macquarie University⁹ as part of a project funded by the Insurance Foundation (a division of the Insurance Council of Australia). They are used by the insurance industry in its underwriting, control of risk and portfolio management work¹⁰.
- 42 The RRRs were based on estimates of building damage that happened in the past and on estimated future risk of building damage due to nine different types of natural hazards¹¹ across Australia. Historical data on the incidence and consequence of natural hazards for the period from 1900 to mid 2003 were used to construct the RRRs. They were considered the most suitable data available to the Commission for its assessment of extra construction cost (and therefore depreciation costs) incurred by States due to natural hazard proofing buildings. The RRRs were constructed at the postcode level first before State level RRRs were derived.
- 43 The RRRs for each State are shown in the table below.

Table 10 Relative Risk rating for each State

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
	%	%	%	%	%	%	%	%	%
Relative Risk Ratings	28.67	23.09	19.36	13.37	9.49	3.75	0.90	1.36	100.00

Source: Chen *et al.*, 2002. PerilAUS relative risk ratings in natural hazards. Risk Frontiers, Macquarie University, Sydney, Australia, p2.

- 44 **Preventive construction costs.** In addition to estimating which States were more prone to natural hazards, the proportion of additional costs relating to natural hazard proofing buildings were also estimated. The assumption was that when risks to buildings were high, States would implement protective measures (therefore incurring extra cost). This extended the assets life toward average.

⁹ <http://www.riskfrontiers.com/>

¹⁰ Chen *et al.*, 2002. PerilAUS relative risk ratings in natural hazards. Risk Frontiers, Macquarie University, Sydney, Australia, p2.

¹¹ Bushfire, Earthquake, Flood, Gust, Hail, Landslide, Tornado, T. Cyclone, and Tsunami.

45 There was limited data available from States on the proportion of additional costs related to natural hazard-proofing buildings. Only cost data relating to cyclone proofing (3 to 15 per cent of construction costs) was obtained. However, there was also evidence that States were pursuing preventive measures other than cyclone proofing¹². In the absence of further data, it was judged that 5 per cent of building expenses related to natural hazard proofing.

46 The following table shows the derivation of the natural hazards factor for 2004-05.

Table 11 Derivation of the natural hazards factor, 2004-05

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
A. Relative Risk Ratings (%)	28.67	23.09	19.36	13.37	9.49	3.75	0.90	1.36	100.00
B. Population share (%)	33.22	24.71	19.61	9.92	7.56	2.38	1.60	1.00	100.00
C. RRR divided by population share	0.86	0.93	0.99	1.35	1.26	1.58	0.56	1.35	1.00
D. Discount to 5 per cent of ratio in C above	0.99316	0.99674	0.99936	1.01737	1.01275	1.02880	0.97815	1.01769	1.00000
Assessed Factor	0.99316	0.99674	0.99936	1.01737	1.01275	1.02880	0.97815	1.01769	1.00000

Source calculation: 5530 E Derivation of natural hazards factor

Construction costs factor

47 The construction costs factor recognised differences in building costs across Australia within and between States. Higher building costs translate into higher depreciation costs.

48 The following influences were identified as drivers of construction costs:

- labour costs — wages and locality allowances; and
- freight costs to dispersed populations.

49 **Labour costs.** The construction costs assessment recognised that construction labour costs were different between States and were affected by locality allowances. Analysis of private sector wages indicated that the difference was material and supported by evidence.

50 Information from the Master Builders Association and the Productivity Commission showed that building material and labour costs were about 60 and 40 per cent respectively, noting that every project would be different depending on a number of factors¹³. Based on this

¹² Construction of fire breaks, flood mitigation, levee construction and minimum floor level provisions of the building code of Australia. (2004 Review State submissions.)

¹³ The project cost would be influenced by the material used and the need for an off-site component (such as the joiners for kitchens). Labour costs would depend on the mixture of trades used, the type and size of the project and material used.

information, the Commission concluded that labour costs and locality allowances should account for 35 per cent of construction costs.

51 Differential labour costs were assessed using the wages input costs assessment method, with the wages component weighted to 34.93 per cent. Locality allowances were assessed using the general Dispersion assessment by weighting the locality allowance component to 0.07 per cent. The combined weight of labour costs and locality allowance assessments totalled 35 per cent (i.e. $0.3493 + 0.0007 = 0.35$).

52 **Freight costs.** The construction costs assessment also recognised that the cost of freight to dispersed (intrastate) populations impacted on building costs. Freight costs were assessed using the Dispersion general method¹⁴ and were weighted to 2 per cent of expenses in the buildings component. The weight was determined from data provided by States for the impact of dispersion on housing costs.

Calculating the construction costs factor

53 **Dispersion (freight and locality allowance) factor.** There are eleven indexes (different types of expenses) within the Dispersion general assessment method. Two of these (freight and locality allowances) are used in the construction costs factor calculation. The Dispersion general assessment method is described in volume 7 of the 2004 Review working papers

54 Table 12 below shows the derivation of the dispersion (freight and locality allowances) factor. It shows:

- the price differentials for the 11 types of expenses covered by the dispersion factor;
- the proportion of depreciation expenses which relate to each type of expense. For example, average freight in New South Wales are, for reasons beyond its control, 0.2 per cent higher than average;
- a total price differential — obtained by weighting each price differential by the proportion of depreciation expenses it influences; and
- the 2006-07 Depreciation dispersion factor — one plus the total price differential.

55 **Wages input costs factor.** The wages input costs factor depends on the proportion of fixed cost expenses deemed to relate to wages. For the construction cost factor this is 34.93 per cent. The wages input costs assessment method is described in volume 7 of the 2004 Review working papers.

56 Table 12 below shows:

- the price differentials for (labour) wages. For example, average wages in New South Wales are, for reasons beyond its control, 3.7 per cent higher than average;
- the proportion of fixed costs expenses which relate to wages expenses; a total price differential — obtained by weighting each price differential by the proportion of the wages cost expense it influences; and

¹⁴ A description of the Dispersion method is in Volume 7 of the 2004 Review working papers

- the 2006-07 wages input costs factor — which is one plus the total price differential.

57 The calculation of the construction costs factor is shown below. It shows that the dispersion and wages input costs factors should be added as the two types of costs do not influence each other.

$$\text{Construction costs} = ((\text{dispersion (freight and locality allowances)} + \text{wages input costs} - 1))$$

Table 12 Derivation of the construction costs factor, 2008 Update

	Proportion	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
	%	%	%	%	%	%	%	%	%
Dispersion freight and locality allowance									
Voice technology	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-voice technology	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
General freight(a)	5.3	0.2	-0.4	1.4	-0.1	-2.5	-0.3	-4.9	6.2
Air travel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Inter-regional travel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Local travel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Remote removals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Locality allowances ^(a)	0.2	-0.1	-0.2	0.2	0.4	-0.1	-0.2	-0.2	2.5
Repairs and maintenance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Technology related repairs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Technology related support	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Balance of expenses	94.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total price ^(b)		0.1	-0.6	1.5	0.3	-2.5	-0.4	-5.1	8.6
Raw factor		1.00097	0.99409	1.01548	1.00324	0.97457	0.99564	0.94893	1.08650
Re-scaled factor		1.00078	0.99390	1.01528	1.00305	0.97439	0.99545	0.94875	1.08629
Wages input costs									
Wages	34.9	3.7	-0.4	-3.1	-1.5	-2.4	-6.9	3.1	3.2
Balance of expenses	65.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total price ^(b)	100.0	3.7	-0.4	-3.1	-1.5	-2.4	-6.9	3.1	3.2
Re-scaled raw factor		1.03046	0.99517	0.97261	0.98584	0.97812	0.95872	1.02463	1.02542
Final weighted factor		1.01064	0.99831	0.99043	0.99505	0.99236	0.98558	1.00860	1.00888
Construction costs factor									
		1.01142	0.99221	1.00571	0.99810	0.96674	0.98103	0.95736	1.09517

(a) The freight and locality allowance cost weights (2.00 per cent and 0.07 per cent) were used to derive the dispersion expense proportions that appear in the proportion column.

(b) May not add due to rounding.

58 The dispersion (freight costs and locality allowance) factors and cost weights will not be updated between Reviews. The wages input costs factor is revised annually to allow for changes in wages. The final factors are re-scaled each year using MRP.

Buildings component factor

59 The buildings component factor represents the combined effects of the influences contributing to building depreciation expenses that are not affected by policies. These are:

- the quantity of capital stock acquired by a State — assessed by the socio-demographic composition, service delivery scale and urban influences factor assessments;
- the rate of depreciation of the capital stock — this is assessed by the natural hazards factor; and
- the cost of the capital stock — this is assessed by the construction costs factor.

60 The table below shows the derivation of the buildings component factor for 2006-07 and the formula used to calculate it. It shows that the buildings component factors are multiplied together as they influence each other.

61 For example, if a State was assessed to need above average quantities of buildings per capita, with a large number in dispersed population centres and a large number of these buildings are subject to natural hazards, the cost of its capital assets would be quite high compared to other States. This is because *each* building would have cost more to build because of higher wages, freight costs and natural hazard preventive costs.

$$\text{Buildings component} = \text{building cost component weight (0.3743)} * [\text{natural hazards} * \text{service delivery scale} * \text{urban influences} * \text{construction costs} * \text{socio-demographic composition}]$$

$$\text{Construction costs} = [\text{dispersion freight and locality allowances} + \text{wages input costs} - 1]$$

Table 13 Derivation of the buildings component factor 2006-07, 2008 Update

Factors	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Buildings (component weight = 37.43%)								
Socio-demographic composition	0.99885	0.98418	1.00849	1.00633	0.99524	1.02693	0.98037	1.19841
Service delivery scale	0.99882	0.99891	1.00041	1.00125	1.00280	1.00697	0.99581	1.01401
Natural Hazards	0.99362	0.99661	0.99883	1.01696	1.01278	1.02961	0.97788	1.01647
Urban influences	1.00209	1.00285	0.99671	0.99671	0.99671	0.99671	0.99671	0.99671
Dispersion construction costs	1.00069	0.99381	1.01518	1.00296	0.97432	0.99537	0.94870	1.08614
Wages input costs	1.01064	0.99831	0.99043	0.99505	0.99236	0.98558	1.00860	1.00888
Component factor	1.00464	0.97482	1.01005	1.01928	0.97388	1.04100	0.91091	1.34815
Weighted component factor	0.37593	0.36478	0.37796	0.38141	0.36443	0.38954	0.34086	0.50447

DERIVING THE PLANT AND EQUIPMENT COMPONENT FACTOR

- 62 A State's total depreciation expense is driven by expenses on plant and equipment costs, in addition to building related expenses.
- 63 The plant and equipment component includes costs for transport and other machinery and equipment. Machinery and equipment includes equipment and fittings not forming an integral part of buildings.
- 64 The types of influences that affect plant and equipment depreciation expenses per capita are similar to those that affect depreciation on buildings. These include:
- the quantity of capital stock acquired by a State; and
 - the cost of capital stock.
- 65 While the rate of depreciation for buildings is affected by natural hazards, this is not the case for plant and equipment. Consequently, natural hazards related expenses are not assessed in this component.

Socio-demographic composition factor

- 66 The basis of the socio-demographic composition assessment in the plant and equipment component is similar to that in the buildings component. It recognises that different levels of service used by different socio-demographic groups in State populations would impact on plant and equipment expenses (and consequently on plant and equipment depreciation expenses). This is because the higher the level of use of government services, the higher the level of facilities that must be provided. For example, the more students, the more school equipment needed or the more patients more hospital equipment needed.
- 67 The Commission considered that depreciation expenses assessed for buildings were also relevant to plant and equipment. It decided to apply the same socio-demographic composition factor as that applied in the buildings component.

Service delivery scale factor

- 68 The basis of the service delivery scale assessment in the plant and equipment component is similar to that in the buildings component. It recognised that States need to provide plant and equipment related facilities to small communities where it is likely they will have excess capacity and may be used less efficiently than they would be in more highly populated areas (although some assets may have had a longer useful life as a result). States that have large numbers of small communities would need to provide more facilities, resulting in larger amounts capital assets.

69 The Commission considered that depreciation expenses assessed for buildings were also relevant to plant and equipment. It decided to apply the same service delivery scale factor as that applied in the buildings component.

Urban influences factor

70 The basis of the urban influences assessment in the plant and equipment component is similar to that in the buildings component. It recognised that larger cities need extra per capita resources for some functions (compared to smaller cities) and this equates to needing more per capita plant and equipment assets.

71 The Commission considered that depreciation expenses assessed for buildings were also relevant to plant and equipment. It decided to apply the same urban influences factor as that applied in the buildings component.

Dispersion factor — freight costs

72 The dispersion factor relating to freight cost is similar to that in the buildings component¹⁵. It recognised that the cost of freight to dispersed (intrastate) populations impacted on plant and equipment costs. Freight costs were assessed using the Dispersion general method¹⁶ and were weighted to 2 per cent of expenses in the plant and equipment components. The weight was determined from data provided by States for the impact of dispersion on housing costs.

73 ***Calculating the Dispersion factor.*** The table below shows the derivation of the dispersion freight costs factor. It shows:

- the price differentials for each of the 11 types of expenses covered by the dispersion factor;
- the proportion of depreciation expenses which relate to each type of expense;
- a total price differential — obtained by weighting each price differential by the proportion of depreciation expenses it influences; and
- the 2006-07 Depreciation dispersion factor — which is one plus the total price differential.

¹⁵ Locality allowances were not assessed in the plant and equipment component.

¹⁶ A description of the Dispersion method is in Volume 7 of the 2004 Review working papers.

Table 14 Derivation of the dispersion factor, 2008 Update

	Proportion	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
	%	%	%	%	%	%	%	%	%
Dispersion freight and locality allowance									
Voice technology	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-voice technology	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
General freight(a)	5.3	0.2	-0.4	1.4	-0.1	-2.5	-0.3	-4.9	6.2
Air travel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Inter-regional travel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Local travel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Remote removals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Locality allowances ^(a)	0.2	-0.1	-0.2	0.2	0.4	-0.1	-0.2	-0.2	2.5
Repairs and maintenance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Techology related repairs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Techology related support	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Balance of expenses	94.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total price ^(b)		0.1	-0.6	1.5	0.3	-2.5	-0.4	-5.1	8.6
Raw factor		1.00097	0.99409	1.01548	1.00324	0.97457	0.99564	0.94893	1.08650
Re-scaled factor		1.00078	0.99390	1.01528	1.00305	0.97439	0.99545	0.94875	1.08629

(a) The freight cost weight (2.00 per cent) was used to derive the dispersion expense proportion that appears in the proportion column.

(b) May not add due to rounding.

74 The dispersion freight costs factors and cost weight will not be updated between Reviews. The final factors are re-scaled each year using MRP.

Calculating the plant and equipment component factor

75 The plant and equipment component factor represents the combined effects of the influences contributing to plant and equipment depreciation expense that are not affected by policies. These are:

- the quantity of plant and equipment needed by a State - assessed by the socio-demographic composition, service delivery scale and urban influences factor assessments; and
- the cost of the plant and equipment - this is assessed by the dispersion freight costs factor.

76 The following table shows the derivation of the plant and equipment component factor for 2006-07. The following formula is used to calculate the component factor.

$$\text{Plant and equipment component factor} = \text{plant and equipment component weight (0.6133)} * [\text{service delivery scale factor} * \text{urban influences factor} * \text{socio-demographic composition factor} * \text{dispersion freight costs factor}]$$

Table 15 Derivation of the plant and equipment component factor 2006-07, 2008 Update

Factors	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Plant and Equipment (component weight = 61.33%)								
Socio-demographic composition	0.99885	0.98418	1.00849	1.00633	0.99524	1.02693	0.98037	1.19841
Service delivery scale	0.99882	0.99891	1.00041	1.00125	1.00280	1.00697	0.99581	1.01401
Urban influences	1.00209	1.00285	0.99671	0.99671	0.99671	0.99671	0.99671	0.99671
Dispersion	1.00109	0.99732	1.00828	0.99955	0.98481	0.99818	0.96982	1.03763
Component factor	1.00085	0.98327	1.01392	1.00382	0.97963	1.02882	0.94369	1.25679
Weighted component factor	0.61377	0.60298	0.62178	0.61559	0.60076	0.63092	0.57871	0.77072

CALCULATING CATEGORY FACTORS

77 Category factors measure the combined impact on a State of those circumstances which are beyond its control and which impact on its expenses due to depreciation of capital stock.

Category factors are calculated by:

- weighting the component factors to reflect the importance of the component in the category. This is done by multiplying each component factor by its component weight; and
- adding the weighted component factors together.

78 The table below shows component weights, factors, component factors, weighted component factors and the category factor.

Table 16 Depreciation, derivation of category factor 2006-07, 2008 Update

Factors	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Fixed costs (component weight = 1.24 %)								
Administrative scale	0.38098	0.50545	0.63156	1.25449	1.65662	5.31255	7.43193	12.61778
Component factor	0.38098	0.50545	0.63156	1.25449	1.65662	5.31255	7.43193	12.61778
A Wgtd comp factor	0.00471	0.00625	0.00781	0.01551	0.02048	0.06568	0.09188	0.15599
Buildings (component weight = 37.43 %)								
Socio-demographic composition	0.99885	0.98418	1.00849	1.00633	0.99524	1.02693	0.98037	1.19841
Service delivery scale	0.99882	0.99891	1.00041	1.00125	1.00280	1.00697	0.99581	1.01401
Natural hazards	0.99362	0.99661	0.99883	1.01696	1.01278	1.02961	0.97788	1.01647
Urban influences	1.00209	1.00285	0.99671	0.99671	0.99671	0.99671	0.99671	0.99671
Dispersion								
construction costs	1.00069	0.99381	1.01518	1.00296	0.97432	0.99537	0.94870	1.08614
Wages input costs	1.01064	0.99831	0.99043	0.99505	0.99236	0.98558	1.00860	1.00888
Component factor	1.00464	0.97482	1.01005	1.01928	0.97388	1.04100	0.91091	1.34815
B Wgtd comp factor	0.37593	0.36478	0.37796	0.38141	0.36443	0.38954	0.34086	0.50447
Plant and equipment (component weight = 61.33 %)								
Socio-demographic composition	0.99885	0.98418	1.00849	1.00633	0.99524	1.02693	0.98037	1.19841
Service delivery scale	0.99882	0.99891	1.00041	1.00125	1.00280	1.00697	0.99581	1.01401
Urban influences	1.00209	1.00285	0.99671	0.99671	0.99671	0.99671	0.99671	0.99671
Dispersion	1.00109	0.99732	1.00828	0.99955	0.98481	0.99818	0.96982	1.03763
Component factor	1.00085	0.98327	1.01392	1.00382	0.97963	1.02882	0.94369	1.25679
C Wgtd comp factor	0.61377	0.60298	0.62178	0.61559	0.60076	0.63092	0.57871	0.77072
Category factor	0.99441	0.97401	1.00755	1.01251	0.98566	1.08614	1.01145	1.43119

(a) Component factor rebased so that the average is 1.00000.

(b) Category factor = (A + B + C).

79 The category factor was calculated as follows:

$$\text{category factor} = \text{fixed costs component} + \text{building component} + \text{plant and equipment component}$$

where:

$$\text{fixed costs} = 0.0124 * [\text{administrative scale}]$$

$$\text{buildings} = 0.3743 * [\text{natural hazards} * \text{service delivery scale} * \text{urban influences} * \text{construction costs} * \text{socio-demographic composition}]$$

$$\text{plant and equipment} = 0.6133 * [\text{service delivery scale} * \text{dispersion} * \text{socio-demographic composition} * \text{urban influences}]$$

$$\text{construction costs} = (\text{dispersion (freight and locality allowances)} + \text{wages input costs} - 1)$$

RESULTS FOR 2006-07

80 Assessed expenses per capita are calculated by multiplying each States' category factor by the average expense per capita. The table below shows the calculation for 2006-07. It also shows what States actually spent in that year. .

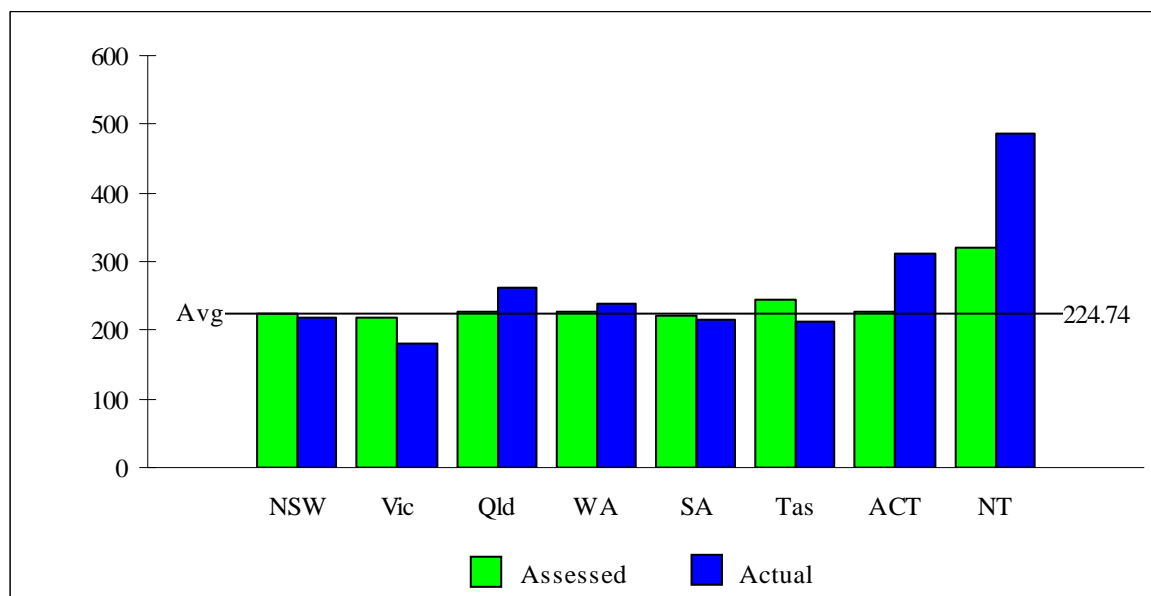
81 Figure 1 below, shows this pictorially. Table 23 at the end of the Depreciation category section shows the actual, average and assessed expenses for each State, for all years of the 2008 Update.

Table 17 Depreciation, assessment results, 2006-07

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Category factor	0.99441	0.97401	1.00755	1.01251	0.98566	1.08614	1.01145	1.43119	1.00000
Average expense \$pc									224.74
Assessed expenses \$pc	223.49	218.9	226.44	227.55	221.52	244.1	227.32	321.65	224.74
Actual expenses \$pc	219.23	181.91	263.55	239.93	216.81	212.6	312.45	487.82	224.74

Source calculation: 5530 E Assessment results

Figure 1 Depreciation, assessed expense per capita, actual expenses per capita and average expenses per capita, 2006-07, 2008 Update



Source calculation: 5530 E Expenses per capita – Assessed, Average and Actual

82 The table below shows the assessed expenses per capita for each assessment year of the 2008 Update.

Table 18 Assessed expenses, 2008 Update

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc
2002-03	184.25	181.15	189.01	189.18	184.72	202.71	188.67	261.04	186.20
2003-04	186.59	183.51	191.01	191.16	187.21	205.35	191.38	265.84	188.50
2004-05	196.56	193.24	200.26	200.79	196.44	215.07	201.43	281.67	198.25
2005-06	207.13	202.98	209.92	210.97	205.33	226.99	211.51	299.45	208.38
2006-07	223.49	218.90	226.44	227.55	221.52	244.10	227.32	321.65	224.74

Source calculation: 5530 E Assessed expenses

CONTRIBUTION TO GST REVENUE DISTRIBUTION

83 The assessed difference from average in dollars provides an indication of the impact of this assessment on grant shares. This is calculated by:

- subtracting the average expense per capita from each State's assessed expenses per capita; and
- multiplying by each State's population.

84 The following table shows this calculation for 2006-07.

Table 19 Assessed difference from average, 2006-07

		NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Assessed expenses per person	\$pc	223.49	218.90	226.44	227.55	221.52	244.10	227.32	321.65	224.74
Assessed difference from average per person	\$pc	-1.26	-5.84	1.70	2.81	-3.22	19.36	2.57	96.91	0.00
Population	m	6.856	5.168	4.136	2.082	1.577	0.492	0.337	0.213	20.859
Assessed difference from average	\$m	-8.6	-30.2	7.0	5.9	-5.1	9.5	0.9	20.6	43.9

Source calculation: 5530 E Assessed difference from average

85 This impact can be sub-divided to show the effect of each factor. This is shown in the table below.

Table 20 Depreciation, contribution of assessment to GST revenue distribution, 2008 Update

Factor	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total redist'd
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Fixed costs									
Administrative scale	-13.0	-7.8	-4.5	1.7	3.1	6.3	6.6	7.6	25.3
Component factor	-13.0	-7.8	-4.5	1.7	3.1	6.3	6.6	7.6	25.3
Plant and equipment									
Socio-demographic composition	-3.4	-11.5	7.0	2.0	-0.2	1.8	-1.0	5.4	16.1
Service delivery scale	-1.2	-0.8	0.2	0.4	0.6	0.5	-0.2	0.4	2.2
Urban influences	1.9	1.9	-1.8	-0.9	-0.7	-0.2	-0.1	-0.1	3.8
Dispersion	1.1	-2.0	4.9	-0.1	-3.4	-0.1	-1.4	1.1	7.1
Component factor	-1.8	-12.4	10.3	1.3	-3.6	1.9	-2.8	7.1	20.6
Buildings									
Socio-demographic composition	-2.1	-7.0	4.3	1.2	-0.1	1.1	-0.6	3.3	9.8
Service delivery scale	-0.7	-0.5	0.1	0.2	0.4	0.3	-0.1	0.3	1.3
Urban influences	1.2	1.2	-1.1	-0.6	-0.4	-0.1	-0.1	-0.1	2.3
Natural hazards	-4.1	-1.5	-0.1	3.2	1.7	1.2	-0.7	0.3	6.4
Dispersion construction costs	0.4	-2.8	5.5	0.5	-3.5	-0.2	-1.5	1.6	8.0
Wages input costs	7.2	-0.7	-4.1	-1.1	-1.3	-0.6	0.3	0.2	7.7
Component factor	1.7	-11.4	4.5	3.5	-3.3	1.7	-2.7	6.0	17.3
Redistribution from EPC resulting from the 2008 Update assessment									
	-13.1	-31.6	10.2	6.5	-3.9	9.9	1.1	20.8	48.6

Source calculation: 5530 E Contribution of assessment to GST revenue distribution

Note: The redistribution due to the component factors includes the effect of interactions between factors. Therefore the component factor figure may not equal the sum of its factors' redistribution.

Differences from an equal per capita assessment

- 86 The Commission estimates that the five States with above average assessed expenses per capita — Queensland, Western Australia, Tasmania, the ACT and Northern Territory — require additional assistance totalling \$48.6 million if they are to have the capacity to provide the average level of service. Correspondingly, the States with below average assessed expenses per capita — New South Wales, Victoria and South Australia — are assessed to require \$48.6 million less assistance in aggregate.
- 87 The factors which had the most impact on this outcome were the socio-demographic composition, administrative scale fixed costs and dispersion assessments.

- 88 The key reasons for distribution of GST revenue are explained on a State by State basis below.
- 89 *New South Wales* — New South Wales had below average depreciation costs. This was largely due to needing less head office space and equipment per capita, and incurring less capital costs due to implementing natural hazard preventive measures. It also had below average use of government services by population group, therefore needing less capital assets to supply these services. This was partially offset by its above average wage-related capital building costs.
- 90 *Victoria* — Victoria had below average depreciation costs. This was largely due to below average use of government services by population group, therefore needing less capital assets to supplying these services. It also had below average depreciation costs due to needing less head office space and equipment per capita.
- 91 *Queensland* — Queensland had above average depreciation costs. This was largely due to having above average proportions of population that that use government services, therefore needing above average quantities of capital assets to provide these services. It also had above average freight and locality allowance related building costs in dispersed locations. This was partially offset by below average depreciation costs due below average wage-related capital costs and needing less head office space and equipment per capita.
- 92 *Western Australia* — Western Australia had above average depreciation costs. This was largely due to having above average use of government services by population group, therefore needing above average quantities of capital assets to provide these services. It also had above average capital costs due to implementing natural hazard preventive measures.
- 93 *South Australia* — South Australia had below average depreciation costs. This was largely due to having below average freight and locality allowance related building costs in dispersed locations. This was partially offset due to needing above average head office space and equipment per capita, and above average capital costs due to implementing natural hazard preventive measures.
- 94 *Tasmania* — Tasmania had above average depreciation costs. This was largely due to needing above average head office space and equipment per capita and above average use of government services by population group.
- 95 *The ACT* — The ACT had above average depreciation costs. This was largely due to needing above average head office space and equipment per capita. This was partially offset by having below average freight and locality allowance related building costs in dispersed locations.
- 96 *Northern Territory* — The Northern Territory had above average depreciation costs. This was largely due to having population groups that make above average use of government services, therefore, needing above average quantities of capital assets to provide these

services. It also had above average costs due to needing above average head office space and equipment per capita.

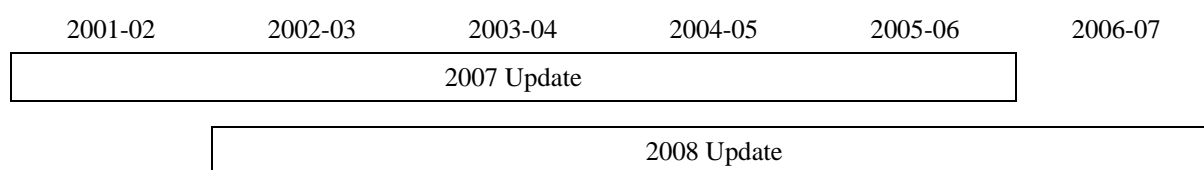
CHANGES IN GST REVENUE DISTRIBUTION: 2008 UPDATE COMPARED TO 2007 UPDATE

What has changed?

- 97 Changes in the distribution of GST revenue between the 2007 Update and the 2008 Update were brought about because the Commission:
- used revised average expenses data and other revised data in updating factor calculations for the years 2001-02 to 2005-06; and
 - replaced 2001-02 average expenses and factors with those of 2006-07 to move forward the five year period on which GST revenue distribution was based. Moving the five year period forward in this way ensures the assessments reflect recent trends in State priorities on the services provided and recent trends in State demographic and economic circumstances which affect the relative costs of the services.

98 Figure 2 shows the references period for the two inquiries.

Figure 2 Advancing the reference period, 2008 Update



99 Table 21 shows the distribution of GST revenue resulting from the assessments in the 2007 and 2008 Updates. It also shows the source of changes.

Table 21 Comparison of the 2007 Update and 2008 Update assessments ^(a)

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total redist'd
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Redistribution from EPC resulting from the 2007 Update assessment (a)	-17.3	-32.5	13.6	6.8	-2.5	10.3	1.1	20.4	52.2
Effect of revising category averages and factors for 2001- 02 to 2005-06									
Category average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Category factors	2.0	0.1	-1.8	0.3	-0.9	-0.1	0.1	0.3	2.8
Interactions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	2.0	0.1	-1.8	0.3	-0.9	-0.1	0.1	0.3	2.8
Effect of replacing 2001-02 category averages and factors with those for 2006-07									
Category average	0.2	0.3	-0.1	-0.1	0.0	-0.1	0.0	-0.2	0.5
Category factors	2.1	0.5	-1.5	-0.4	-0.6	-0.2	-0.1	0.3	2.8
Interactions	-0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total	2.2	0.8	-1.6	-0.5	-0.5	-0.3	-0.1	0.1	3.0
Redistribution from EPC resulting from the 2008 Update assessment (a)	-13.1	-31.6	10.2	6.5	-3.9	9.9	1.1	20.8	48.6
Total effect of revisions and updating (b)	4.1	0.9	-3.4	-0.2	-1.4	-0.4	0.0	0.4	5.5

Source calculation: 5530 E Effect of assessment on GST distribution, previous enquiry to current enquiry.

(a) Assuming same pool and a constant population.

(b) The total redistributed amount shows the change in the amount redistributed among the States between the 2007 and 2008 Updates. It does not necessarily equal the difference in the total redistribution from EPC between the two inquiries.

100 Table 22 provides a different perspective. It shows the change attributable to individual factors. Most of the change is attributable to the changes in the socio-demographic composition factors, for both the plant and equipment and the buildings components.

Table 22 Depreciation, effect of assessment by factor on GST revenue redistribution by factor, 2007 Update to the 2008 Update

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total redist'd
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Fixed costs									
Administrative scale	0.8	0.3	0.0	-0.1	-0.1	-0.3	-0.2	-0.3	1.0
Plant and equipment									
Socio-demographic composition	2.2	0.1	-2.0	0.0	-1.0	-0.1	0.1	0.6	3.1
Service delivery scale	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Urban influences	0.1	0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.2
Dispersion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Buildings									
Socio-demographic composition	1.4	0.1	-1.2	0.0	-0.6	-0.1	0.1	0.4	1.9
Service delivery scale	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urban influences	0.1	0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.1
Natural hazards	0.3	0.0	-0.2	-0.1	0.0	0.0	0.0	0.0	0.3
Dispersion construction costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Wages input costs	-0.7	0.0	0.4	0.1	0.2	0.0	0.0	0.0	0.7

Source calculation: 5530 E Effect of assessment by factor, previous enquiry to current enquiry

Changes due to revising GFS expense data and factors for years 2001-02 to 2005-06

- 101 **Revisions to average expense data.** Table 21 indicates that there were no significant impacts arising from revisions to category averages for the years 2001-02 to 2005-06.
- 102 **Revisions to category factors.** There were a number of quite small revisions to the data used to calculate category factors for the years 2001-02 to 2005-06. In particular, there were revisions to the data used to calculate the depreciation category expense proportions in the socio-demographic composition factors. Any revisions to factors from other category assessments used in the depreciation assessment would also have had an impact.
- 103 Table 21 indicates that the overall impact of these revisions was relatively small (\$2.8 million) compared with the \$52.2 million redistribution resulting from the 2007 Update assessment. Queensland experienced the largest downward revision (\$1.8 million) whilst New South Wales experienced the largest upward revision (\$2.0 million).

Changes in State circumstance —replacing 2001-02 data with 2006-07 data

- 104 ***Replacing average expense data.*** The national average per capita average expense increased by about 29 per cent between 2000-01 and 2006-07. The corresponding increase in the GST pool was 43.9 per cent. This difference indicates States are using a smaller share of the pool to finance depreciation expenses. The result is a decrease in the overall size of the depreciation category's redistribution. In addition, those States with an above (below) average cost of providing services ratio experience a decrease (an increase) in their GST redistribution.
- 105 But overall, as table 21 indicates, there was only a very small (\$0.5 million) impact on the category's GST redistribution (as a result of replacing 2001-02 with 2006-07 average expense data). The impacts on individual States were correspondingly small.
- 106 ***Replacing category factors.*** An increase (decrease) in a category factor for a State will result in a higher (lower) GST distribution to that State. As indicated in table 22, the most significant changes were recorded by the socio-demographic composition factors. Changes in the wages input costs factor were also significant for New South Wales, decreasing the redistribution by \$0.7 million.
- 107 But overall, table 21 indicates, after taking into account the impact of the changes to all the factors used in the depreciation assessment, only relatively small changes to the GST distributions. Table 21 also indicates that Queensland experienced the largest downward revision (\$1.5 million) whilst New South Wales experienced the largest upward revision (\$2.1 million).

This chapter was prepared by the Expense — Law and Order section of the Commonwealth Grants Commission. If you have any questions about its content please contact Daniel Dwyer on (02) 6229 8856 or daniel.dwyer@cgc.gov.au.

Date: 29/02/08

Table 23 Assessment of expenses, Depreciation, 2008 Update

	2002-03		2003-04		2004-05		2005-06		2006-07	
	Amount	Per Capita	Amount	Per Capita	Amount	Per Capita	Amount	Per Capita	Amount	Per Capita
	\$m	\$	\$m	\$	\$m	\$	\$m	\$	\$m	\$
Average Expenses		186.20		188.50		198.25		208.38		224.74
New South Wales										
Assessed difference	- 12.952	- 1.95	- 12.769	- 1.91	- 11.365	- 1.69	- 8.457	- 1.25	- 8.614	- 1.26
Expenses - Assessed	1 225.834	184.25	1 248.780	186.59	1 323.359	196.56	1 406.203	207.13	1 532.178	223.49
Actual	1 186.425	178.33	1 219.846	182.27	1 272.109	188.95	1 401.000	206.36	1 503.000	219.23
Victoria										
Assessed difference	- 24.723	- 5.05	- 24.743	- 4.99	- 25.148	- 5.01	- 27.458	- 5.39	- 30.183	- 5.84
Expenses - Assessed	886.803	181.15	909.483	183.51	969.926	193.24	1 033.381	202.98	1 131.177	218.90
Actual	771.000	157.50	790.000	159.40	819.000	163.17	934.000	183.46	940.002	181.91
Queensland										
Assessed difference	10.592	2.81	9.683	2.51	7.970	2.01	6.248	1.54	7.018	1.70
Expenses - Assessed	712.096	189.01	737.805	191.01	792.308	200.26	849.932	209.92	936.468	226.44
Actual	777.000	206.24	818.000	211.77	888.000	224.45	936.000	231.18	1 089.957	263.55
Western Australia										
Assessed difference	5.780	2.98	5.234	2.66	5.095	2.55	5.283	2.59	5.854	2.81
Expenses - Assessed	366.733	189.18	376.244	191.16	401.583	200.79	430.079	210.97	473.777	227.55
Actual	406.000	209.44	405.000	205.77	455.000	227.50	439.000	215.34	499.535	239.93
South Australia										
Assessed difference	- 2.262	- 1.48	- 1.982	- 1.29	- 2.796	- 1.81	- 4.757	- 3.05	- 5.080	- 3.22
Expenses - Assessed	281.944	184.72	287.609	187.21	303.818	196.44	320.409	205.33	349.259	221.52
Actual	257.503	168.71	285.624	185.92	316.867	204.87	293.653	188.18	341.827	216.81
Tasmania										
Assessed difference	7.840	16.50	8.099	16.85	8.155	16.82	9.092	18.61	9.518	19.36
Expenses - Assessed	96.295	202.71	98.708	205.35	104.266	215.07	110.877	226.99	120.012	244.10
Actual	72.000	151.56	71.000	147.71	67.000	138.20	95.000	194.49	104.524	212.60
Australian Capital Territory										
Assessed difference	0.800	2.47	0.940	2.88	1.047	3.19	1.040	3.13	0.867	2.57
Expenses - Assessed	61.157	188.67	62.431	191.38	66.178	201.43	70.270	211.51	76.535	227.32
Actual	103.000	317.76	68.000	208.45	86.000	261.77	90.000	270.89	105.200	312.45
Northern Territory										
Assessed difference	14.925	74.83	15.539	77.34	17.042	83.43	19.008	91.07	20.622	96.91
Expenses - Assessed	52.061	261.04	53.410	265.84	57.538	281.67	62.501	299.45	68.448	321.65
Actual	109.994	551.52	117.000	582.36	115.000	562.97	95.000	455.15	103.810	487.82

Source calculation: 5530 E Assessment of expenses

Note: Refer to Attachment A of the 2007 Update, *Relative Fiscal Capacity of States* for an explanation of how these figures are compiled.