Australian Government

Commonwealth Grants Commission

Report on GST Revenue Sharing Relativities

2016 Update

Canberra

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A copy of this report can be obtained from the Commission's website (http://www.cgc.gov.au).

LETTER OF TRANSMITTAL

Australian Government

Commonwealth Grants Commission

The Hon Scott Morrison MP
Treasurer
Parliament House
CANBERRA ACT 2600

0 1 APR 2016

Dear Treasurer

As members of the Commonwealth Grants Commission appointed under the *Commonwealth Grants Commission Act 1973*, and in response to terms of reference provided by you, we have prepared this report to provide updated per capita relativities for use in distributing GST revenue among the States and Territories in 2016-17.

In accordance with those terms of reference, the results of the update will be provided to the States and Territories.

Yours sincerely

G J Smith
Chairperson

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ACKNOWLEDGMENTS

We appreciate the ready co-operation extended to the Commission and its staff during this update by Australian, State and Territory Treasury officers and by staff of Commonwealth and other agencies.

We also acknowledge the commitment and capable contribution by staff of the Commission.

TERMS OF REFERENCE

TREASURER

Mr Greg Smith
Chairperson
Commonwealth Grants Commission
Second Floor, Phoenix House
86-88 Northbourne Ave
BRADDON ACT 2612

Dear Mr Smith

I am writing to you to convey the enclosed terms of reference for the Commonwealth Grants Commission's *2016 Update of GST Revenue Sharing Relativities* (2016 Update Report). I apologise for the delay in providing them to you.

The terms of reference require the Commission to report by 7 April 2016, with an advance copy of the report to be provided to the Commonwealth and the States and Territories, under embargo, by 1 April 2016. I also ask that you make the report publicly available on 7 April 2016.

I appreciate your assistance in this matter.

Yours sincerely

The Hon Scott Morrison MP
31 / 3 / 2016

Parliament House Canberra ACT 2600
Australia
Telephone: 02 6277 7340 Facsimile: 02 6273 3420

Terms of Reference for the 2016 Update of GST Revenue Sharing Relativities

COMMONWEALTH GRANTS COMMISSION ACT 1973

I, Scott John Morrison, Treasurer, pursuant to sections 16, 16A and 16AA of the *Commonwealth Grants Commission Act 1973*, refer to the Commission for inquiry into and report upon, by 7 April 2016, the question of the per capita relativities to be used to distribute GST revenue among the States, the Northern Territory and the Australian Capital Territory (collectively referred to as the States) in 2016-17. The Commission should provide an advance copy of its report, under embargo, to the Commonwealth and the State Treasuries by 1 April 2016.

2. The Commission should provide per capita relativities for determining the distribution of GST payments.

3. The Commission's assessments of per capita relativities should be based on the review period 2012-13 to 2014-15 inclusive. Where possible, the Commission should use the latest available data.

4. Subject to paragraphs 7 to 10, the Commission's assessments should reflect the underlying principle of horizontal fiscal equalisation.

5. Subject to paragraphs 7 to 11, the Commission's assessments should be based on the application of the same principles, categories and methods of assessment that the Commission used to calculate the per capita relativities in its *Report on GST Revenue Sharing Relativities – 2015 Review*.

6. The Commission's assessment should take into account the Intergovernmental Agreement on Federal Financial Relations (as amended).

7. The Commission should prepare its assessments on the basis that:

   (a) National SPPs, National Health Reform (NHR) funding and National Partnership project payments should affect the relativities, recognising that these payments provide the States and Territories with budget support for providing standard state and territory services;

      i. NHR funding and corresponding expenditure relating to the provision of cross-border services to the residents of other States should be allocated to States on the basis of residence.

   (b) National Partnership facilitation and incentive (reward) payments should not affect the relativities, so that any benefit to a State or Territory from achieving specified outputs sought by the Commonwealth, or through implementing reforms, will not be redistributed to other States or Territories through the horizontal fiscal equalisation process; and

   (c) general revenue assistance, excluding GST payments, will affect the relativities, recognising that these payments are available to provide untied general budget support to a State or Territory.

8. Notwithstanding sub-paragraphs 7(a) through (c), the Commission may determine that it is appropriate for particular payments to be treated differently, reflecting the nature of the particular payment and the role of State governments in providing particular services.

9. The Commission should prepare its assessment on a basis consistent with the Commonwealth's intention that the following payments should not directly influence the per capita relativities:

   (a) Reward payments made under National Partnership Agreements;

   (b) National partnership payments for Northern Territory Remote Aboriginal Investment;

   (c) Payments relating to the National Partnership for Western Australia infrastructure projects; and

   (d) Payments relating to the Royal Victorian Eye and Ear Hospital Redevelopment.

10. The Commission should also ensure that those payments which it has previously been directed to treat so they had no direct influence on the relativities, including payments for which the Commission has been directed to apply a 50 per cent discount, continue to be treated in that way. Where those payments are replaced, the treatment of the new payment should be guided by paragraphs 7 and 8 above, unless otherwise directed.

11. If data problems necessitate changes, the Commission should proceed on the basis that:

   (a) new, more reliable data would be used in the first possible update, if method changes were not required; or

   (b) if overcoming the data problems necessitated method changes, revised methods would be used in the first possible update, subject to consultation with States during that update.

12. The Commission should consult the Australian Government and the States before deciding on any changes in methods that arise as a result of a significant change in arrangements which govern Commonwealth-State relations and which are considered appropriate for the Commission to fulfil its obligations in respect of these terms of reference.

13. To the extent possible, the Commission should, upon reporting, provide all parties with details underpinning its calculations and assessments, and endeavour to meet requests for supplementary calculations.

SCOTT JOHN MORRISON

THE TASK

This report contains the Commission's response to the terms of reference for the 2016 Update received from the Commonwealth Treasurer on 31 March 2016.

The Commission has been asked in the terms of reference to advise how GST (Goods and Services Tax) revenue should be distributed among the States in 2016-17. As directed in the terms of reference we have:

- used the same principles and methods developed in the 2015 Review
- used the latest available reliable data for 2012-13 to 2014-15
- followed the guidance on the treatment of Commonwealth payments and direction on how some payments should be treated.

Details of the Commission's task are in Chapter 1 of the *Report on GST Sharing Relativities, 2015 Review, Volume 1* and the principles used in undertaking it are in Chapter 1 of Volume 2 in the same report. These documents are available on the Commission's website (www.cgc.gov.au). An overview of the Commission's update processes is also available on the website.

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OVERVIEW

EXECUTIVE SUMMARY

This report recommends a distribution of GST revenue among the States in 2016-17 designed to give each of them the same capacity to deliver services, acquire infrastructure and hold financial assets.

The GST distribution is based on the same methods applied in the 2015 Methodology Review, as required by our terms of reference. It also incorporates 2014-15 data for the first time.

In the 2015 Review we committed to a deferred but comprehensive review of the wage costs assessment, which we have now completed. We consider, based upon the evidence before us, that there continues to be a conceptual case for differences in the wages States would pay for comparable employees. We have decided to retain the 2015 Review method of estimating these differences using Survey of Education and Training (SET) data for 2012-13 and 2013-14 and more recently available data from the ABS Characteristics of Employment survey (CoES) for 2014-15.

The States' assessed fiscal capacities continue to reflect trends in their economies and other key influences on their circumstances. The assessed fiscal capacities of New South Wales, Tasmania and the Northern Territory have improved, reducing those States' GST shares. New South Wales' stronger fiscal capacity was driven by an increased revenue capacity, principally because of its strong property market. The stronger fiscal capacity of Tasmania and the Northern Territory was driven by a fall in their costs of providing services. For Tasmania, this was due to a fall in its relative wage costs. For the Northern Territory, it was due to a fall in its relative population growth, which reduced its need to invest in new infrastructure.

The assessed fiscal capacities of Victoria, Queensland, South Australia and the ACT have fallen, increasing those States' GST shares. For Queensland, historically high natural disaster expenses continue to affect the State as does its reduced capacity to raise coal royalties. Below average growth in a number of major revenue bases have reduced the ACT's revenue raising capacity. For South Australia, a sharp decline in its share of Commonwealth payments for specific purposes (PSPs) was the main influence acting to increase its GST share. Victoria's increased GST share was largely due to an increase in its share of national population growth, which increased its need to invest in new infrastructure.

Western Australia's share of GST revenue has increased marginally from 3.3% to 3.4%. While falls in commodity prices, particularly for iron ore, have reduced its capacity to raise mining royalties and increased its GST share, this has been more than offset by a fall in its share of national population growth, reducing its need to invest in new infrastructure.

RECOMMENDED GST DISTRIBUTION

1 Table 1 shows the per capita relativities we recommend for use in distributing the GST revenue among the States in 2016-17. It also shows State shares of the GST revenue implied by our 2016-17 recommendations and an illustrative total GST revenue distribution. It compares these with the results for 2015-16.

Table 1 Relativities, shares and illustrative GST distribution, 2015-16 and 2016-17

	Relativities		GST shares		GST distribution	
	2015-16	2016-17	2015-16	2016-17	2015-16	2016-17
			%	%	$m	$m
New South Wales	0.94737	0.90464	30.4	29.0	17 401	17 598
Victoria	0.89254	0.90967	22.4	22.9	12 807	13 881
Queensland	1.12753	1.17109	22.7	23.6	13 024	14 348
Western Australia	0.29999	0.30330	3.3	3.4	1 890	2 037
South Australia	1.35883	1.41695	9.7	10.1	5 556	6 110
Tasmania	1.81906	1.77693	3.9	3.8	2 249	2 299
Australian Capital Territory	1.10012	1.15648	1.8	1.9	1 036	1 155
Northern Territory	5.57053	5.28450	5.7	5.4	3 286	3 291
Total	1.00000	1.00000	100.0	100.0	57 250	60 720

Source: Commission calculation.

2 The methods used to derive these results for 2016-17 are set out in the *Report on GST Revenue Sharing Relativities, 2015 Review*. Using these methods and data for 2012-13, 2013-14 and 2014-15, we have measured how the economic, social, demographic and other characteristics in the States affect the relative expenses States need to incur in providing services (including infrastructure) and the relative capacity of States to raise their own revenue. The expense and revenue estimates are then combined with the additional Commonwealth support States receive and State populations to calculate State shares of the GST.[1] These shares aim to provide States in 2016-17 with the fiscal capacity to provide the average standard of services and associated infrastructure for their populations, if they make the average effort to raise revenue and operate at the average level of efficiency.

ILLUSTRATIVE GST DISTRIBUTION

3 Table 2 shows the differences between the estimated GST distribution for 2015-16 and the illustrative distribution for 2016-17. Changes have occurred for a number of reasons:

1 The procedure used by the Commission to derive the recommended GST distribution using State revenue, expenditure and PSPs is called the distribution model. Information about the distribution model is available on the Commission's website (www.cgc.gov.au).

- State populations between 2015-16 and 2016-17 have changed
- the amount of GST revenue available for distribution has increased
- the relative fiscal capacities of the States have changed mainly because of changes in State circumstances.

4 The Commission’s work relates only to the changes in fiscal capacities.

Table 2 Distribution of the 2015-16 GST and the illustrative 2016-17 GST distribution

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Estimated 2015-16	17 401	12 807	13 024	1 890	5 556	2 249	1 036	3 286	57 250
Illustrative 2016-17	17 598	13 881	14 348	2 037	6 110	2 299	1 155	3 291	60 720
Change	196	1 074	1 324	148	554	50	119	5	3 470
Change caused by new:									
Population	-8	47	14	12	-26	-28	1	-12	0
Pool	1 054	779	790	115	335	135	63	198	3 470
Fiscal capacities	-850	248	520	20	245	-57	55	-182	0
Change ($m)	196	1 074	1 324	148	554	50	119	5	3 470
Change ($pc)	25	176	270	55	321	97	298	21	143

Source: See source and notes to Table 1-1.

WHY STATE FISCAL CAPACITIES HAVE CHANGED

5 In this update, we added data for 2014-15 to our calculations and removed data for 2011-12. The differences between these years are the major influence on changes in measured State fiscal capacities and therefore our recommendations.

6 We have recommended a changed distribution because new data reveal changes in fiscal capacities in all areas of State budgets, as shown in Table 3. Changes in States’ estimated revenue raising capacity have been much more significant than changes in other aspects of State budgets.

Table 3 Composition of change in assessed fiscal capacities since the 2015 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Expense requirement	-67	102	144	-25	-37	-66	-8	-43	555
Investment requirement	241	272	-35	-441	73	8	-4	-115	594
Net borrowing	-50	-25	16	68	-10	-4	2	3	89
Revenue capacity	-662	-121	420	381	-58	7	65	-30	1 240
Commonwealth payments	-311	19	-24	37	277	-2	0	4	337
Total	-850	248	520	20	245	-57	55	-182	1 088

Note: The total change shown here is equivalent to the change caused by new fiscal capacities shown in Table 2.
The redistribution is calculated as the sum of the positive (or negative) items in the row.
Source: Commission calculation.

7 Table 4 shows the main causes of the change in the GST distribution. They are listed in order of importance.

Table 4 Main causes of change in the distribution of the GST since the 2015 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Mining production	-138	-226	250	231	-73	-14	-16	-13	481
Property sales	-474	105	84	165	65	21	27	8	474
Commonwealth payments	-311	19	-24	37	277	-2	0	4	337
Population growth	157	117	-48	-244	24	7	-9	-19	313
Natural disaster relief	-98	-71	149	-3	8	4	2	9	172
Taxable payrolls	-52	23	66	-57	-22	5	60	-23	154
Wage costs	-53	99	31	22	-56	-29	-13	-2	152
Other causes of change	120	181	14	-130	22	-49	4	-147	333
Total	-850	248	520	20	245	-57	55	-182	1 088

Note: The redistribution is calculated as the sum of the positive (or negative) items in the row.
Source: Commission calculation.

8 The most important changes were the following.

- ***Mining production.*** The value of mining production has fallen, reducing the fiscal capacity of the major mining States. This has shifted GST revenue towards them and away from the other States.
- ***Property sales.*** Between 2011-12 and 2014-15, New South Wales' share of property sales increased from 35% to 41%, which resulted in an increase in its share of the assessed tax base. This has increased its assessed revenue raising capacity, reducing its GST share. All other States experienced a below average increase over this time, notably Western Australia and the ACT, reducing their assessed capacity and increasing their GST shares.
- ***Commonwealth payments.*** We observed significant changes in the size and distribution of the payments among the States in 2014-15 compared to 2011-12. For New South Wales, an increase between 2011-12 and 2014-15 in its share of

funding for government schools and infrastructure payments for health, water and rail reduced its GST share. South Australia's share of water and rail infrastructure payments fell over this period and this increased its GST share.

- ***Population growth.*** The pattern of population growth has changed between 2011-12 and 2014-15 leading to a change in the pattern of assessed investment expenditure among the States. The rate of population growth in some States has declined, particularly Western Australia and the Northern Territory, while in others it has increased, particularly New South Wales and Victoria.
- ***Natural disaster relief.*** Queensland's natural disaster relief expenses (net of Commonwealth assistance) in 2014-15 remained high and above the amount for 2011-12, leading to increases in its GST share. Its expenses principally related to flood and cyclone events between 2013 and 2015. There has been a significant increase in expenses for the Northern Territory related to flood and cyclone events over the same period.
- ***Taxable payrolls.*** Differences across States in the rate of growth of taxable private sector payrolls between 2011-12 and 2014-15 have affected State revenue raising capacity. Notably, taxable payrolls in the ACT fell between 2011-12 and 2014-15 which resulted in a significant reduction in its ability to raise payroll tax, increasing its GST share.
- ***Wage costs.*** New data for the latest year shows relative wage pressures in South Australia, Tasmania and the ACT to be much lower than in earlier years, and in New South Wales to be slightly lower. This has resulted in a redistribution away from these States. Victoria has been the main recipient from these changes in wage costs.

STATE BY STATE CHANGES SINCE THE 2015 REVIEW

9 Changes that have had important effects on the assessed fiscal capacity of each State are summarised in the following section. These are based on estimated 2016-17 GST revenue and estimated December 2016 populations. Chapter 1 provides more detail.

New South Wales

Changes in this update. New South Wales has become the State with the second strongest assessed fiscal capacity due to growth in property sales and an increase in its share of PSPs. This improved New South Wales' revenue raising capacity and reduced its GST share. These changes were partially offset by an acceleration in New South Wales' population growth which led to an increase in its assessed investment requirement. While New South Wales' increased fiscal capacity will see its GST share fall from 30.4% to 29.0%, its GST entitlement in 2016-17 will rise by $196 million, or 1.1%, due to growth in the pool.

Table 5 Change in GST

	$m	$pc
Change due to		
New population	-8	-1
Growth in GST available	1 054	136
New relativities	-850	-109
Data revisions	-42	-5
Change in circumstances	-808	-104
Total change	196	25

Note: Table may not add due to rounding.

Table 6 Main causes of change for New South Wales

Change ($m)	Reason for change
Changes in circumstances	
-457	**Property sales.** Above average growth in property turnover increased the State's share of the conveyance duty tax base from 35% in 2011-12 to 41% in 2014-15, reducing its GST share.
-311	**Commonwealth payments.** An increase in government schools, health infrastructure and rail infrastructure payments between 2011-12 and 2014-15 contributed to a reduction in its GST revenue.
263	**Investment including population growth.** Stronger population growth in 2014-15 compared to 2011-12 increased its assessed investment and its GST share.
-145	**Mining production**. A fall in the value of mining production reduced the revenue raising capacity of the major mining States. This shifted GST away from New South Wales.
-96	**Natural disaster relief.** Queensland's natural disaster relief net expenses remained at historically high levels in 2014-15 leading to a reduction in the GST share of all other States including New South Wales.

Fiscal capacity. New South Wales' strong fiscal position is due to its below average assessed costs of providing services and infrastructure, reflecting the State's below average shares of Indigenous people and people living in remote areas, above average non-State provision of health services, below average population growth and economies of scale in administration.

Those effects on its fiscal capacity are partly offset by the State's below average revenue raising capacity, which is mainly due to its below average mining production, and above average wages which increase its expenses.

Table 7 Assessed GST, 2016-17

	$m	$pc
Equal per capita share	19 392	2 496
Effect of assessed:		
Expenses	-2 690	-346
Investment	-325	-42
Net borrowing	40	5
Revenue	1 029	132
Commonwealth payments	152	20
Assessed GST	17 598	2 265

Note: Table may not add due to rounding.

Victoria

Changes in this update. Victoria's assessed fiscal capacity has fallen marginally so it now has the third highest fiscal capacity. Its expenditure requirement is higher due to an increase in its need to invest in new infrastructure, driven by population growth, and higher wage costs. Its disadvantage in mining royalties has been reduced by falls in the value of mining production in other States. Compared with 2015-16, the State's share of the GST will rise from 22.4% to 22.9%. Its GST entitlement will rise by $1 074 million or 8.4% mostly due to growth in the pool.

Table 8 Change in GST

	$m	$pc
Change due to		
New population	47	8
Growth in GST available	779	128
New relativities	248	41
Data revisions	34	6
Change in circumstances	213	35
Total change	1 074	176

Note: Table may not add due to rounding.

Table 9 Main causes of change for Victoria

Change ($m)	Reason for change
Changes in circumstances	
248	**Investment including population growth.** Victoria's share of national population growth was higher in 2014-15 compared to 2011-12 and this increased its assessed investment and its GST share.
-232	**Mining production**. A fall in the value of mining production reduced the revenue raising capacity of the major mining States. This shifted GST away from Victoria.
88	**Wage costs.** Our measure of wage pressures beyond the control of State governments shows Victoria's relative wage costs increased between 2011-12 and 2014-15, increasing its GST share.
-76	**Natural disaster relief.** Queensland's natural disaster relief net expenses remained at historically high levels in 2014-15 leading to a reduction in the GST share of all other States including Victoria.
65	**Property sales.** A below average increase in Victoria's property sales reduced its capacity to raise revenue from conveyance duty and increased its GST share.

Fiscal capacity. Victoria's strong fiscal position is due to its well below average assessed expenses in providing services reflecting its below average shares of government school enrolments, Indigenous people, people living in remote areas and economies of scale in administration. This is reduced further by below average wage expenses.

Those effects on its fiscal capacity are partly offset by its below average revenue raising capacity, which is mainly due to its well below average mining production and taxable payrolls, and by its above average investment requirements.

Table 10 Assessed GST, 2016-17

	$m	$pc
Equal per capita share	15 212	2 496
Effect of assessed:		
Expenses	-5 012	-822
Investment	202	33
Net borrowing	-35	-6
Revenue	3 434	563
Commonwealth payments	79	13
Assessed GST	13 881	2 277

Note: Table may not add due to rounding.

Queensland

Changes in this update. There has been further weakening in Queensland's assessed fiscal capacity due mainly to deterioration in its assessed revenue raising capacity across most revenue bases including coal production, property sales and taxable payrolls, and high natural disaster expenses related to a series of flood and cyclone events since 2011. These effects were offset by a slowdown in its population growth which reduced its assessed investment. Queensland's reduced fiscal capacity will see its GST share rise from 22.7% to 23.6%. This change, combined with pool growth, will see its GST entitlement rise by $1 324 million or 10.2%.

Table 11 Change in GST

	$m	$pc
Change due to		
New population	14	3
Growth in GST available	790	161
New relativities	520	106
Data revisions	30	6
Change in circumstances	491	100
Total change	1 324	270

Note: Table may not add due to rounding.

Table 12 Main causes of change for Queensland

Change ($m)	Reason for change
Changes in circumstances	
257	**Mining production.** A fall in the value of mining production, notably coal, reduced Queensland's revenue raising capacity and increased its GST share.
151	**Natural disaster relief.** Queensland's natural disaster relief net expenses remained at historically high levels in 2014-15 leading to an increase in its GST share.
94	**Property sales.** A below average increase in Queensland's property sales reduced its capacity to raise revenue from conveyance duty and increased its GST share.
-69	**Investment including population growth.** Queensland's share of national population growth was smaller in 2014-15 compared to 2011-12 and this reduced its assessed investment and its GST share. Assessed investment in social infrastructure (for example, schools) contributed most to this change.
47	**Taxable payrolls.** Queensland's taxable private sector payrolls had below average growth between 2011-12 and 2014-15 leading to a reduction in its revenue raising capacity and an increase in its GST share.

Fiscal capacity. Queensland's below average fiscal capacity is due to above average assessed expenses and below average revenue raising capacity which reflects a below average payroll tax base and below average property sales. This is partly offset by its above average mining production, and above average shares of motor vehicles and Commonwealth payments.

Its high expense requirements are due to above average shares of government school enrolments, Indigenous people and people living in remote areas. In addition, Queensland's share of natural disaster relief net expenses is well above average. Those effects are partly offset by its below average wage expenses and costs of providing urban transport.

Table 13 Assessed GST, 2016-17

	$m	$pc
Equal per capita share	12 214	2 496
Effect of assessed:		
Expenses	1 872	383
Investment	-56	-11
Net borrowing	-7	-2
Revenue	431	88
Commonwealth payments	-105	-21
Assessed GST	14 348	2 932

Note: Table may not add due to rounding.

Western Australia

Changes in this update. Western Australia's assessed fiscal capacity has stabilised with its share of GST revenue in 2016-17 increasing slightly from 3.3% to 3.4%. This was the result of two significant but offsetting changes. There was a decline in its revenue raising capacity due to a fall in the value of iron ore production and below average growth in property sales, but this was offset by a decline in its share of national population growth that reduced its assessed investment. Compared with 2015-16, the State's GST will rise by $148 million or 7.8% due to growth in the GST pool and a small fall in its assessed fiscal capacity.

Table 14 Change in GST

	$m	$pc
Change due to		
New population	12	5
Growth in GST available	115	43
New relativities	20	8
Data revisions	-44	-16
Change in circumstances	63	23
Total change	148	55

Note: Table may not add due to rounding.

Table 15 Main causes of change for Western Australia

Change ($m)	Reason for change
Data revisions	
-54	**Investment including population growth.** The ABS revised down Western Australia's share of population growth in 2013-14 by more than the average, reducing its GST share.
Changes in circumstances	
-387	**Investment including population growth.** Western Australia's share of national population growth was much smaller in 2014-15 compared to 2011-12 and this reduced its assessed investment and its GST share. Assessed investment in social infrastructure and rural roads contributed most to the change.
239	**Mining production.** A fall in the value of mining production, notably iron ore, reduced Western Australia's revenue raising capacity and increased its GST share.
173	**Property sales.** A well below average increase in Western Australia's property sales reduced its capacity to raise revenue from conveyance duty and increased its GST share.
-40	**Taxable payrolls.** Western Australia's taxable private sector payrolls had above average growth between 2011-12 and 2014-15 leading to an increase in its revenue raising capacity and a reduced GST share.

Fiscal capacity. Western Australia's high capacity is due to above average capacity in all revenue streams except insurance taxes, but especially high capacity in mining production, and to a lesser extent, taxable payrolls. Those effects on its fiscal capacity are partly offset by its having the third highest assessed expenses and second highest investment need per capita.

Its high expenditure requirements are due to above average shares of Indigenous people and people in remote areas, and above average population growth. Above average wage levels and below average non-State provision of health services also contribute significantly.

Table 16 Assessed GST, 2016-17

	$m	$pc
Equal per capita share	6 696	2 496
Effect of assessed:		
Expenses	2 412	899
Investment	648	241
Net borrowing	-52	-19
Revenue	-7 679	-2 862
Commonwealth payments	13	5
Assessed GST	2 037	759

Note: Table may not add due to rounding.

South Australia

Changes in this update. South Australia remains the State with the third lowest fiscal capacity but there has been some deterioration due to a reduction in its share of PSPs. Otherwise there were a number of offsetting changes which affected its revenue raising capacity and expenditure requirements. A fall in the value of mining production in other States moved GST away from South Australia but this was offset by a below average increase in property sales. Similarly a fall in relative wage costs reduced South Australia's service delivery costs but this was offset by an increase in its share of population growth. Compared with 2015-16, the State's share of share of GST will rise from 9.7% to 10.1%, and, combined with pool growth, its GST entitlement will rise by $554 million or 10.0%.

Table 17 Change in GST

	$m	$pc
Change due to		
New population	-26	-15
Growth in GST available	335	195
New relativities	245	142
Data revisions	-22	-12
Change in circumstances	267	155
Total change	554	321

Note: Table may not add due to rounding.

Table 18 Main causes of change for South Australia

Change ($m)	Reason for change
Changes in circumstances	
277	**Commonwealth payments.** South Australia's share of payments was lower in 2014-15 compared with 2011-12 because 2011-12 included two large payments — one for the Adelaide desalination plant and the other for a major railway junction upgrade.
-74	**Mining production**. A fall in the value of mining production reduced the revenue raising capacity of the major mining States. This shifted GST away from South Australia.
69	**Property sales.** A below average increase in South Australia's property sales reduced its capacity to raise revenue from conveyance duty and increased its GST share.
-59	**Wage costs.** Our measure of wage pressures beyond the control of State governments shows South Australia's relative wage costs decreased between 2011-12 and 2014-15, reducing its GST share.
54	**Investment including population growth.** South Australia's share of national population growth increased between 2011-12 and 2014-15 and this increased its assessed investment and GST share.

Fiscal capacity. South Australia's below average assessed capacity is mainly due to its below average revenue raising capacity in mining royalties, payroll tax, stamp duty and land tax. It also receives below average revenue from Commonwealth payments.

Those effects are reinforced by its above average assessed expenses, which reflect its above average shares of older people and people of low socio-economic status, offset partially by below average wage expenses and assessed transport costs.

Its above average requirement for GST is partially offset by its below average population growth, leading to below average assessed investment.

Table 19 Assessed GST, 2016-17

	$m	$pc
Equal per capita share	4 299	2 496
Effect of assessed:		
Expenses	300	174
Investment	-284	-165
Net borrowing	32	18
Revenue	1 626	944
Commonwealth payments	137	80
Assessed GST	6 110	3 547

Note: Table may not add due to rounding.

Tasmania

Changes in this update. There was little change in Tasmania's fiscal capacity and it remains the State with the second lowest fiscal capacity. There was a decline in Tasmania's service delivery costs due to a fall in its relative wages costs and a decline in the number of government school enrolments. A below average increase in Tasmania's property sales reduced its capacity to raise revenue from conveyance duty but this was partially offset by a fall in the value of mining production in other States which shifted GST away from Tasmania. While Tasmania's increased fiscal capacity will see its GST share fall from 3.9% to 3.8%, its GST entitlement will rise by $50 million or 2.2%, due to growth in the pool.

Table 20 Change in GST

	$m	$pc
Change due to		
New population	-28	-53
Growth in GST available	135	260
New relativities	-57	-110
Data revisions	-9	-18
Change in circumstances	-48	-92
Total change	50	97

Note: Table may not add due to rounding.

Table 21 Main causes of change for Tasmania

Change ($m)	Reason for change
Changes in circumstances	
-31	**Wage costs.** Our measure of wage pressures beyond the control of State governments shows Tasmania's relative wage costs decreased between 2011-12 and 2014-15, reducing its GST share.
21	**Property sales.** A below average increase in Tasmania's property sales reduced its capacity to raise revenue from conveyance duty and increased its GST share.
-17	**Schools.** A decline in government student enrolments between 2011-12 and 2014-15 and lower relative wage costs reduced its assessed school expenses and its GST share.
-14	**Mining production**. A fall in the value of mining production reduced the revenue raising capacity of the major mining States. This shifted GST away from Tasmania.

Fiscal capacity. Tasmania has the weakest revenue capacity in most tax bases, with well below average capacity for mining revenue. In addition, it has the second highest per capita assessed expenses for schools education, health and welfare.

These high service delivery costs reflect the State's above average shares of people of low socio-economic status, older people and government school students, compounded by diseconomies of small scale in administration.

This is partly offset by its below average population growth, leading to below average investment needs, and by above average revenue from Commonwealth payments.

Table 22 Assessed GST, 2016-17

	$m	$pc
Equal per capita share	1 290	2 496
Effect of assessed:		
Expenses	491	949
Investment	-193	-372
Net borrowing	19	36
Revenue	734	1 420
Commonwealth payments	-42	-80
Assessed GST	2 299	4 448

Note: Table may not add due to rounding.

Australian Capital Territory

Changes in this update. While the ACT's fiscal capacity has declined, it has become the State with the fourth strongest fiscal capacity mainly due to the deterioration in Queensland's position. The main source of change for the ACT was a downward revision to its payroll tax base which reduced its revenue raising capacity. Very weak growth in property sales and taxable private sector payrolls also reduced its revenue raising capacity. This was partially offset by a reduction in relative wage costs which reduced its service delivery costs. Compared with 2015-16, the ACT's share of GST will increase from 1.8% to 1.9%, and, combined with pool growth, its GST entitlement will rise by $119 million or 11.5%,

Table 23 Change in GST

	$m	$pc
Change due to		
New population	1	2
Growth in GST available	63	158
New relativities	55	138
Data revisions	50	124
Change in circumstances	6	14
Total change	119	298

Note: Table may not add due to rounding.

Table 24 Main causes of change for the ACT

Change ($m)	Reason for change
Data revisions	
36	**Taxable payrolls.** Downward revisions to ABS CoE data for the ACT used to measure the payroll tax base reduced its revenue raising capacity and increased its GST share.
Changes in circumstances	
28	**Property sales.** A well below average increase in the ACT's property sales reduced its capacity to raise revenue from conveyance duty and increased its GST share.
25	**Taxable payrolls.** The ACT's taxable private sector payrolls declined between 2011-12 and 2014-15 leading to a reduction its revenue raising capacity.
-17	**Mining production**. A fall in the value of mining production reduced the revenue raising capacity of the major mining States. This shifted GST away from the ACT.
-11	**Wage costs.** Our measure of relative wage pressures beyond the control of State governments shows the ACT's wage costs decreased between 2011-12 and 2014-15, reducing its GST share.

Fiscal capacity. The ACT's below average fiscal capacity is due to its below average capacity to raise revenue across all revenue streams. It has no mining industry and very low land, stamp duty and payroll tax capacity. It also receives below average revenue from Commonwealth payments.

The ACT's assessed cost of providing services is also below average offsetting its low revenue raising capacity. The low cost of its relatively young, urbanised, higher socio-economic status population more than offsets the impact of diseconomies of scale in administration and above average wage costs.

Table 25 Assessed GST, 2016-17

	$m	$pc
Equal per capita share	996	2 496
Effect of assessed:		
Expenses	-208	-521
Investment	-57	-144
Net borrowing	2	5
Revenue	369	926
Commonwealth payments	54	134
Assessed GST	1 155	2 895

Note: Table may not add due to rounding.

Northern Territory

Changes in this update. The Northern Territory remains the State with the lowest fiscal capacity; however, its share of GST in 2016-17 has fallen from 5.7% to 5.4%. This is primarily due to a significant decline in the Territory's share of national population growth which reduced its need to invest in new infrastructure. To a lesser extent, the fall was due to an improvement in its payroll tax capacity. While the Northern Territory's increased fiscal capacity will see its GST share fall, its GST entitlement in 2016-17 will rise by $5 million, or 0.2%, due to growth in the pool.

Table 26 Change in GST

	$m	$pc
Change due to		
New population	-12	-47
Growth in GST available	198	798
New relativities	-182	-730
Data revisions	2	7
Change in circumstances	-183	-736
Total change	5	21

Note: Table may not add due to rounding.

Table 27 Main causes of change for the Northern Territory

Change ($m)	Reason for change
Data revisions	
15	**Welfare.** New child protection data resulted in upward revisions to the measured share of substantiations attributed to remote Indigenous children. The Northern Territory's GST revenue increased due to its high proportion of remote Indigenous children.
Changes in circumstances	
-105	**Investment including population growth.** The Northern Territory's share of national population growth was much lower in 2014-15 compared with 2011-12 and this reduced its assessed investment and its GST share. Investment in social infrastructure (for example, schools) contributed most to the change.
-25	**Taxable payrolls.** The Northern Territory's taxable private sector payrolls had above average growth between 2011-12 and 2014-15 leading to an increase in its revenue capacity and a reduced GST share.
-19	**Community health.** A decline nationally in outer regional and remote service use and an increase in non-State sector service provision in the Northern Territory between 2011-12 and 2014-15 has reduced the Northern Territory's assessed community health spending and its GST share.
-14	**Mining production**. A fall in the value of mining production reduced the revenue raising capacity of the major mining States. This shifted GST away from the Northern Territory.

Fiscal capacity. The Northern Territory's below average fiscal capacity is primarily due to its above average assessed expenses which arise from of its above average shares of a range of population groups, but in particular it has exceptionally high proportions of Indigenous people and people in remote areas. This is compounded by the greatest diseconomies of small scale in administration of all States.

The Northern Territory has below average revenue raising capacity for all revenue streams except mining and payrolls, resulting in below average overall revenue raising capacity. Its considerably above average need for assistance is partially met through well above average Commonwealth payments.

Table 28 Assessed GST, 2016-17

	$m	$pc
Equal per capita share	621	2 496
Effect of assessed:		
Expenses	2 836	11 398
Investment	65	263
Net borrowing	2	8
Revenue	56	225
Commonwealth payments	-289	-1 160
Assessed GST	3 291	13 229

Note: Table may not add due to rounding.

CHAPTER 1

CHANGES IN THE GST DISTRIBUTION

1 This chapter explains why the GST distribution in this update differs from the 2015 Review distribution.

HOW HAS THE GST DISTRIBUTION CHANGED?

2 Table 1-1 shows the differences between the estimated GST distribution for 2015-16 and the illustrative distribution for 2016-17.

Table 1-1 Distribution of the 2015-16 GST and the illustrative 2016-17 GST distribution

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Estimated 2015-16	17 401	12 807	13 024	1 890	5 556	2 249	1 036	3 286	57 250
Illustrative 2016-17 (a)	17 598	13 881	14 348	2 037	6 110	2 299	1 155	3 291	60 720
Change	196	1 074	1 324	148	554	50	119	5	3 470
Change caused by new:									
Population (b)	-8	47	14	12	-26	-28	1	-12	0
Pool (c)	1 054	779	790	115	335	135	63	198	3 470
Fiscal capacities (d)	-850	248	520	20	245	-57	55	-182	0
Change ($m)	196	1 074	1 324	148	554	50	119	5	3 470
Change ($pc)	25	176	270	55	321	97	298	21	143

(a) Obtained by applying the 2016 Update relativities to estimated State populations for December 2016 and estimated GST revenue for 2016-17.
(b) Effects on the distribution of 2015-16 GST revenue of using State populations for December 2016 instead of December 2015, with 2015 Review relativities.
(c) Effect of applying the 2015 Review relativities to the estimated growth in GST revenue for 2016-17.
(d) Effects on the distribution of the 2016-17 GST revenue of using the 2016 Update fiscal capacities instead of 2015 Review fiscal capacities.
Source: 2015-16 GST entitlement and 2016-17 GST revenue are taken from the *Australian Government Budget, Mid-Year Economic and Fiscal Outlook 2015-16*. December 2015 and 2016 population estimates were provided by the Commonwealth Treasury.

3 The two distributions differ for the following reasons.

- State populations have changed — the illustrative 2016-17 distribution is based on estimated State populations as at December 2016 whereas the 2015-16 distribution is based on populations for a year earlier. State shares of the total population differ slightly between these two dates and affect the total GST allocation for each State.

- The size of the GST pool available for distribution has changed. Any growth in the pool is distributed among States using their relativity weighted population shares.
- The relativities used to distribute the GST have changed, reflecting changes in our assessed fiscal capacities of States — the illustrative 2016-17 distribution is based on the relativities recommended in this report whereas the 2015-16 distribution is based on relativities derived in the 2015 Review and subsequently adopted by the Treasurer on 6 May 2015.[1]

4 The Commission's work affects only the changes in the relativities which we derive from assessed State fiscal capacities.

Why State fiscal capacities change between updates

5 The total change in State fiscal capacities can be attributed to changes in the assessments for individual revenues, Commonwealth payments for specific purposes (PSPs), services and infrastructure. These changes can be viewed as occurring for the following reasons.

- They reflect more recent economic and demographic circumstances of the States. The 2016 Update relativities are based on an average of data for 2012-13 to 2014-15, whereas the 2015 Review relativities were based on data for 2011-12 to 2013-14. Differences between the year brought into the three year average (2014-15 for this update) and the year deleted (2011-12) change the relativities. However, the three year averaging process means changes in circumstances have a gradual effect.
- Historical data used in the assessments may be revised. Revisions occur because new data become available, for example, as is the case with new ABS Compensation of Employee (CoE) data for years prior to 2014-15 which are used in the Payroll tax assessment. Revisions can also occur because data providers identify errors in their data or because of errors made by the Commission in previous inquiries.

6 In addition, *s*ubject to consultation with Commonwealth and State governments, the assessment methods may be varied if considered necessary to better reflect the current financial arrangements between the Commonwealth and State governments, or to overcome problems in the data used previously. In this update we have decided that 25% of payments through the National Partnership Agreement on Remote Indigenous Housing (NPARIH) in the last two years of the 2016 Update will have no

1 References to changes over time generally reflect the change over the assessment years, from 2011-12 to 2014-15. They are not intended to imply current or prospective movements.

impact. (For further discussion see *Chapter 2 — New Issues in this Update*.) This change is not separately identified in the following analysis.

7 The main reasons for change in the GST distribution in this update are summarised in Table 1-2.

Table 1-2 Change in GST distribution by source of change, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Data revisions (a)	-42	34	30	-44	-22	-9	50	2	116
Change in circumstances (b)	-808	213	491	63	267	-48	6	-183	1 039
Total	-850	248	520	20	245	-57	55	-182	1 088

(a) Change due to revising and updating data for years prior to 2014-15.
(b) Change due to replacing 2011-12 data with 2014-15 data.
Note: The redistribution is calculated as the sum of the positive (or negative) items in the row.
Source: Commission calculation.

8 While there have been some data revisions in this update, changes in State circumstances have been the major cause of the change in the redistribution for most States. Data revisions were the major source of change for the ACT.

9 Detailed tables on the changes caused by each of the Commission's assessments can be found in the supporting information for this update which is available on the Commission's website (www.cgc.gov.au).

DATA REVISIONS

10 Data revisions had a small effect on the change in the GST distribution in this update. The largest sources of revision are shown Table 1-3. They relate to the following.

- Revisions to ABS population estimates for December 2013 and revisions to a range of data used to calculate the capital stock factors used for measuring the assessed stock of infrastructure resulted in changes to the Investment and Net borrowing assessments.
- The ABS revised CoE data for 2011-12 to 2013-14 which is used to measure the tax base in the Payroll tax assessment. Downward revisions to CoE data for the ACT reduced its assessed revenue raising capacity.
- Revisions to ABS Government Finance Statistics (GFS) land revenue data to include South Australia's fire and emergency services levies. The land tax assessment method links States' revenues and assessed capacities. This revision translated to an increase in South Australia's assessed revenue capacity. New South Wales and Victoria also revised their land tax data.

- Revisions to Victoria's Stamp duty revenue. The stamp duty assessment method links States' revenues and assessed capacities. This revision translated to a decrease in Victoria's assessed revenue capacity.

Table 1-3 Main categories affected by data revisions, 2016 Update

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Investment and Net borrowing	-37	21	35	-26	12	0	4	-9	72
Payroll tax	-22	-24	19	-17	2	5	36	3	64
Land tax	49	-30	3	0	-23	2	-1	1	55
Stamp duty	-16	40	-10	-9	-4	0	-1	0	40
Other	-15	27	-16	8	-8	-16	12	7	54
Total	-42	34	30	-44	-22	-9	50	2	116

Source: Commission calculation.

CHANGES IN STATE CIRCUMSTANCES SINCE THE 2015 REVIEW

11 This section describes the main impacts resulting from changed circumstances since the 2015 Review. Table 1-4 shows the effect of these changes across the different areas of State budgets.

Table 1-4 Composition of change in State circumstances since the 2015 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Expense requirement	-44	81	154	-44	-28	-50	-20	-49	234
Investment requirement	263	248	-69	-387	54	4	-8	-105	569
Net borrowing	-34	-22	15	40	-2	0	2	2	59
Revenue capacity	-681	-113	416	417	-34	0	31	-35	864
Commonwealth payments	-311	19	-24	37	277	-2	0	4	337
Total	-808	213	491	63	267	-48	6	-183	1 039

Notes: The redistribution is calculated as the sum of the positive (or negative) items in the row.
The amounts shown in this table are the change in the GST distribution from bringing in data for 2014-15 for the first time. They differ from the amounts shown in Table 3 in the Overview which also include the effect of revising data. Totals may not add due to rounding.

Source: Commission calculation.

12 The changes shown in Table 1-4 can be further broken down. Table 1-5 shows the changes in individual drivers that made the largest contribution to the change in State circumstances between the 2015 Review and 2016 Update.

Table 1-5 Contribution to change in State circumstances, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Mining production	-145	-232	257	239	-74	-14	-17	-14	497
Property sales	-457	65	94	173	69	21	28	8	457
Population growth (a)	167	97	-70	-191	16	4	-8	-14	283
Commonwealth payments	-311	19	-24	37	277	-2	0	4	337
Natural disaster relief	-96	-76	151	-3	8	5	2	9	175
Wage costs (b)	-48	88	23	35	-59	-31	-11	4	149
Taxable payrolls	-30	48	47	-40	-24	0	25	-25	119
Other causes of change	113	205	13	-187	53	-30	-12	-155	383
Total	-808	213	491	63	267	-48	6	-183	1 039

(a) Net borrowing contributes to this total; however, in this update the change in the impact of population growth in the net borrowing assessment partially offsets its impact in the investment assessment. This is because States with a smaller share of population growth in 2014-15 compared with 2011-12 require more GST because their net liabilities are being diluted at a slower rate.

(b) Excludes the impacts in Investment.

Notes: The redistribution is calculated as the sum of the positive (or negative) items in the row.
The amounts shown in this table are the change in the GST distribution from replacing 2011-12 data with 2014-15 data. They differ from the amounts shown in Table 4 in the Overview which include the effect of revising data. Totals may not add due to rounding.
The contribution of each category to the change in the GST distribution is available in the Supporting information for this update which can be found on the Commission's website (www.cgc.gov.au).

Source: Commission calculation.

13 The following sections explain the main causes of change to State circumstances.

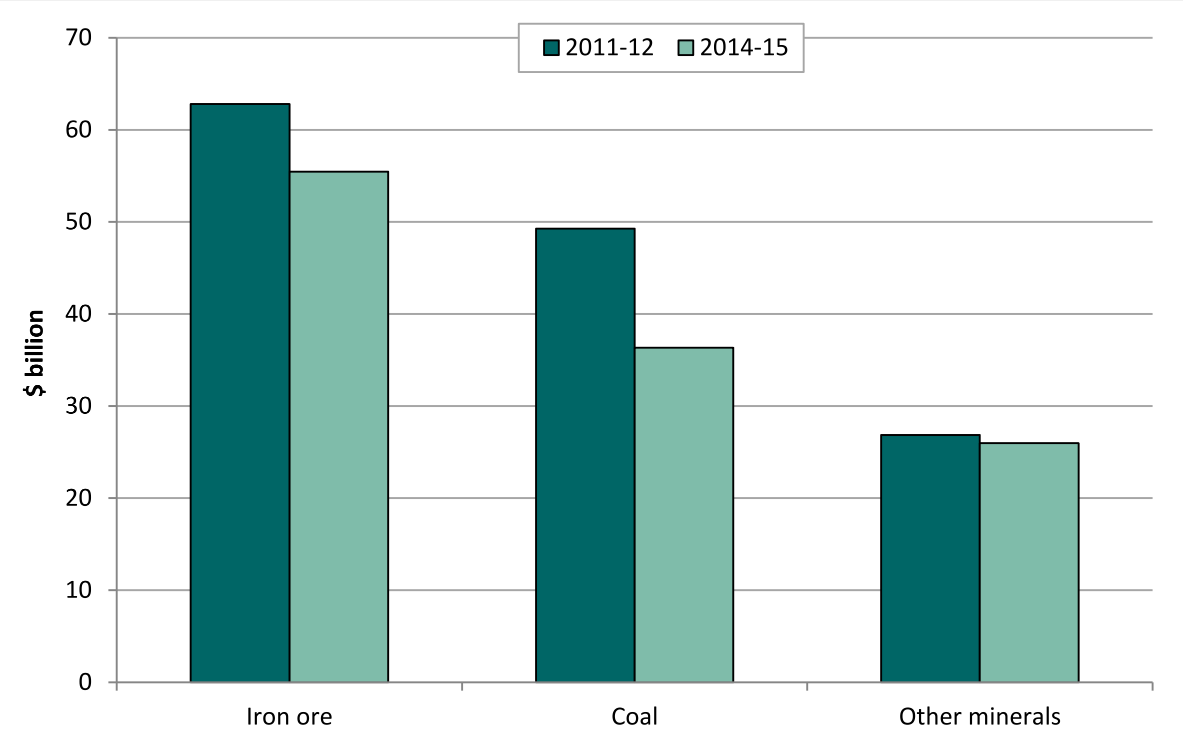
Revenue

Mining production

14 The mining revenue assessment typically produces large redistributions due to the uneven distribution of mining activity between the States and the large movements that can occur from year to year in the value of mining production. In this update, these have led to a change of $497 million in the amount redistributed by this assessment.

15 Figure 1-1 shows that the value of production for iron ore and coal decreased strongly between 2011-12 and 2014-15. While there were increases in production volumes for most commodities, particularly iron ore and coal, these increases have been more than offset by lower commodity prices. This has reduced the assessed capacity of the two biggest mining States — Queensland and Western Australia — and increased their GST share.

Figure 1-1 Mining value of production, selected minerals, 2011-12 and 2014-15



Source: State and ABS data.

16 ***Iron ore.*** Between 2011-12 and 2014-15 the value of iron ore production in Australia decreased 12% to $55 billion. Available data suggest production increased by 61% over the same period, but this was more than offset by reductions in the Australian dollar price of iron ore. As Western Australia accounts for around 97% of the value of Australia's iron ore production this fall in iron ore prices has affected it the most.

17 ***Coal.*** There were similar price and volume effects for coal from 2011-12 to 2014-15. The total value of coal production decreased 26% to $36 billion over the period despite the volume of coal production rising 27%.[2] The increase in the volume of coal production was more than offset by price falls with the prices for thermal and metallurgical coal decreasing 27% and 46%, respectively.[3] Since Queensland accounts for such a large proportion of total coal production the fall in coal prices has affected it the most.

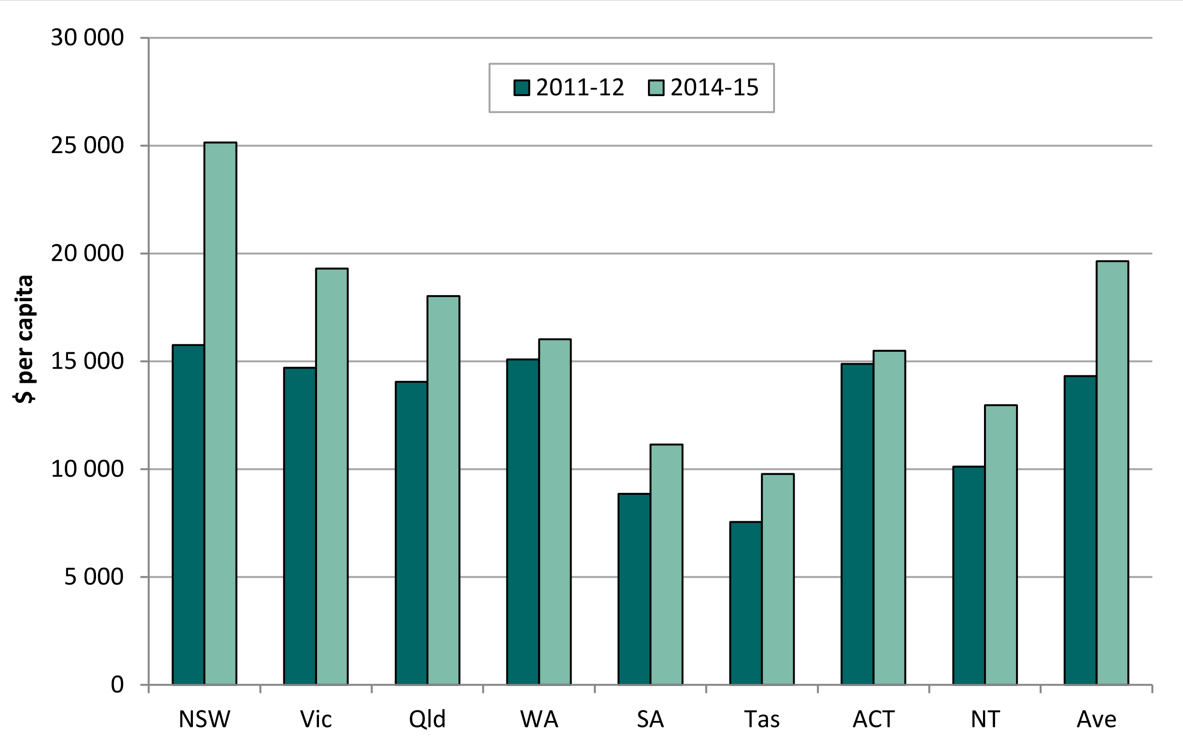
Property sales

18 Stamp duties levied on the transfer of property are volatile. Cycles in property markets can lead to substantial changes from year to year and State to State, which can have marked impacts on State revenue capacities. The current update has been no exception.

[2] Source: Commonwealth Department of Industry, Innovation and Science.
[3] Based on the average Australian export unit value of these commodities in Australian dollar terms.

19 Between 2011-12 and 2014-15 most States experienced growth in the value of property transferred (see Figure 1-2); however, the property boom in New South Wales has been substantially larger than in other States. The growth in the value of property transfers in New South Wales (66%) has been much faster than in other States, and, as a result, $457 million has been redistributed from New South Wales to the other States.

Figure 1-2 Conveyance transactions, 2011-12 to 2014-15



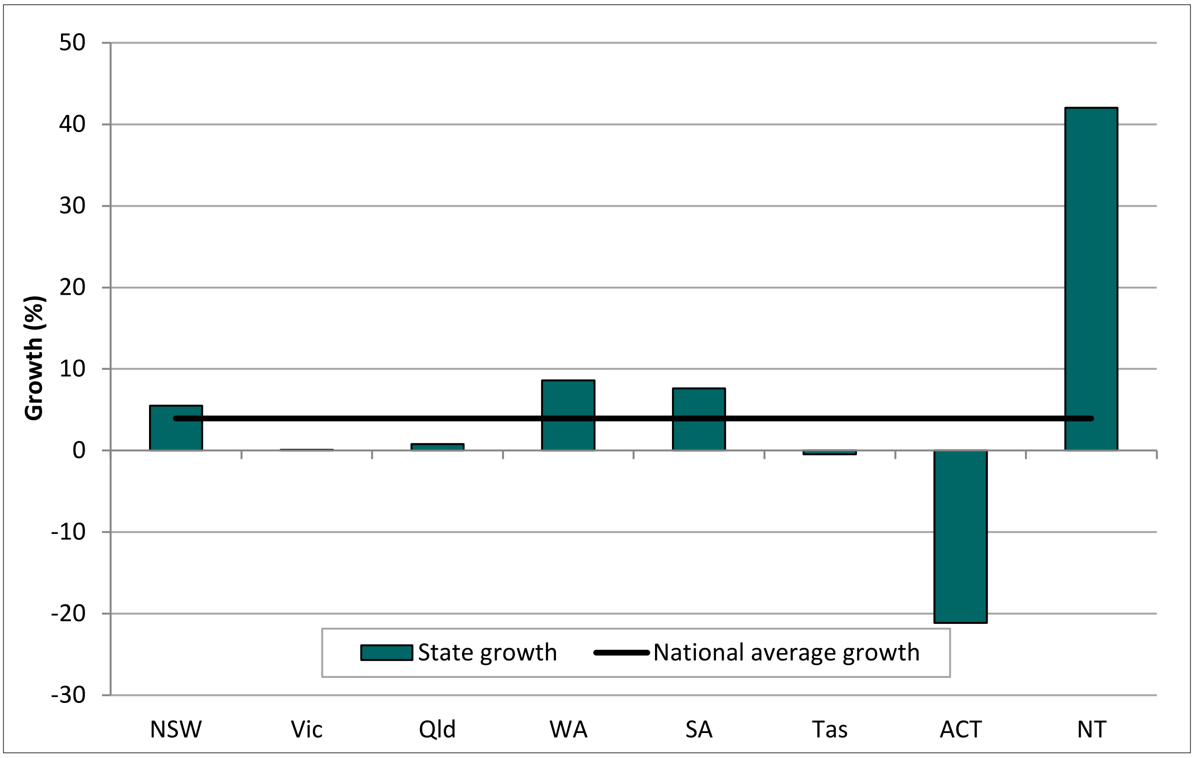
Note: Data are adjusted to account for differences between States in the scope of duties.
Source: Commission calculation.

Taxable payrolls

20 Changes in State capacities to raise payroll tax redistributed $119 million in GST revenue. The redistribution was driven by differences across States in the rate of growth of taxable private sector payrolls between 2011-12 and 2014-15. These differences are shown in Figure 1-3.

21 Taxable private payrolls grew most strongly in the Northern Territory which increased its ability to raise payroll tax and reduced its GST share. Western Australia, South Australia and New South Wales also had above average growth. Taxable private sector payrolls in the ACT fell between 2011-12 and 2014-15 which resulted in a significant reduction in its ability to raise payroll tax and, as a result, $25 million has been redistributed to the ACT.

Figure 1-3 Growth in per capita taxable private sector payrolls, 2011-12 to 2014-15



Source: Commission calculation.

22 The ACT's private sector CoE, used to measure the payroll tax base, peaked in 2012-13 and declined thereafter. The decline meant its 2014-15 CoE was 9% lower than the level in 2011-12. We have compared these trends with related data series. ACT private sector average weekly earnings and total employment both peaked in 2012-13. However their decline thereafter was not as severe. In both cases, the 2014-15 levels remain above the 2011-12 levels.[4]

Commonwealth payments for specific purposes

23 As well as the GST, the Commonwealth makes other payments to States for specific purposes. Equalising the fiscal capacity of the States to provide services requires the Commission to take account of the total expenditure each State would incur to provide the average level of services and the revenue they have available to finance it. This includes the revenue they would collect from their own tax bases under average policies and, following its terms of reference, the revenue they receive through PSPs.[5] To the extent that a State receives above average per capita amounts

4 The decline in the ACT's private sector CoE may be overstated because the standard errors of the data are higher than for other States. However, the Commission's three year averaging process acts to dampen the influence of such errors.

5 We exclude revenue received through PSPs under certain circumstances, including when directed to do so by the terms of reference. Commonwealth payments having no impact on the relativities are discussed in Chapter 2.

of PSPs, less GST is required to equalise its fiscal capacity. Conversely, if it receives below average amounts of PSPs, it requires extra GST.

24 Between 2011-12 and 2014-15, there were changes in the amounts paid and the interstate distribution of some PSPs, particularly payments for transport, urban water and health infrastructure, which had repercussions for the GST distribution. In particular, South Australia's share of payments was lower in 2014-15 because 2011-12 included a large payment through the Water for the Future program for the Adelaide desalination plant and a large payment from the Building Australia Fund for the upgrade of a major rail junction. This led to an increase in its assessed GST distribution. On the other hand, New South Wales' share of payments was higher in 2014-15 due to an above average share of payments for regional health infrastructure through the Health and Hospital Fund and for urban rail infrastructure through the Infrastructure Investment Program. Thus volatility can occur in the Commonwealth payments assessment when there are large projects in particular States for which the Commonwealth provides specific funding, both when they are first included in our three year average relativities and when they drop out. However, over time, through the equalisation process, States should receive equal per capita shares of these payments.

25 The main payments causing change in the GST distribution in this update are shown in Table 1-6.

Table 1-6 Changes in the GST distribution due to changes in Commonwealth payments, 2016 Update

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Rail infrastructure (a)	-73	51	-102	-1	125	4	-2	-1	180
Road infrastructure (a)	42	-35	112	-80	11	-12	-36	-2	166
Health and Hospitals Fund	-93	43	-14	47	2	9	3	3	107
Water for the Future (b)	-39	-34	-19	-7	95	4	-3	2	101
Students First funding (c)	-59	18	-13	41	15	-1	0	-1	74
Other	-90	-24	12	37	30	-7	38	3	120
Total	-311	19	-24	37	277	-2	0	4	337

(a) The Commonwealth's *Final Budget Outcome* payment names for these programs have changed between 2011-12 and 2014-15.
(b) National Urban Water and Desalination Plan component of this program.
(c) Government schools component.
Source: Commission calculation.

26 More information on the changes arising from the assessment of individual Commonwealth payments is in the Supporting information for this update available on the Commission's website (www.cgc.gov.au).

Expenses

Population growth

27 Changes in the interstate distribution of national population growth have an impact on a wide range of assessments. In some it is a clearly identified determinant of assessed expenses or investment, while in others it is less direct, for example in urban transport where changes in urban population rather than total State populations are the driving influence. We have proxied the impact of population growth on State fiscal capacities by measuring the impact of changes in State population shares on urban transport investment, investment in urban roads and general investment, including in financial assets, but excluding the impact of State population growth on the intrastate distribution of people, for example, growth in urban population sizes.

28 There has been a significant change in the distribution of national population growth among States between 2011-12 and 2014-15 and this has had a significant impact on GST revenue. In 2011-12 Western Australia accounted for nearly 21% of the national population growth, well above its share of the national population. As a consequence it was allocated a higher share of GST revenue than its population share to facilitate the infrastructure investment its population growth warranted. In 2014-15, it accounted for 11.5% of national population growth, much closer to its population share, and accordingly, its GST share has been reduced. Queensland and the Northern Territory have shared a similar experience, while New South Wales and Victoria have experienced the reverse as population growth in these States has accelerated. Victoria is now the fastest growing State, accounting for about 31% of national population growth in 2014-15.

29 Table 1-7 shows each State's contribution to national population growth in 2011-12 and 2014-15 and their population shares for comparison.

Table 1-7 Shares of population growth, 2011-12 and 2014-15

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Shares of population growth	%	%	%	%	%	%	%	%	%
2011-12	23.5	25.0	23.5	20.9	4.2	0.5	1.8	0.7	100.0
2014-15	31.7	30.7	19.7	11.5	4.5	0.4	1.3	0.1	100.0
Population share (2014-15)	32.0	24.9	20.1	10.9	7.2	2.2	1.6	1.0	100.0

Note: Estimates based on State estimated resident populations at December in each year.
Source: Commission calculation based on ABS estimated resident populations.

30 In this update the population growth effects in the Investment assessment were partially offset by the Net borrowing assessment.

31 At present, States on average have more financial liabilities than assets. A State with a relatively large share of population growth is assessed to need to spend more than average per capita on infrastructure investment and have a greater capacity to

borrow (because new arrivals come to the State with no debt) while holding net financial liability per capita at the national average level. The ability to borrow partially offsets the investment impact, reducing the net impact on a State's GST share.

32 Western Australia, whose population growth has fallen, is seen as needing to invest less per capita in infrastructure, which reduces its assessed GST revenue. However its ability to borrow without increasing its net financial liabilities per capita above the national average is also constrained by its slowing population growth. The two effects offset each other. The former reduces its GST share while the latter, which can be seen as a diminution in the ability to raise finance, increases it.

Natural disaster relief

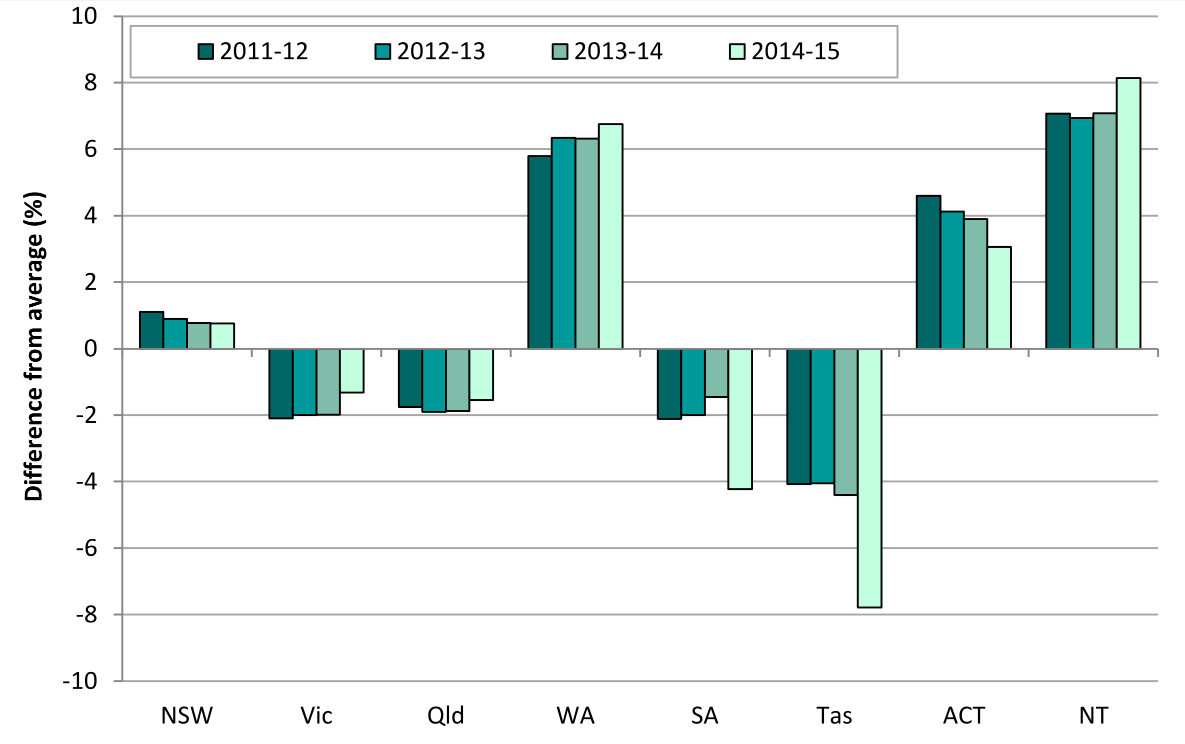
33 Despite a sharp decline in the natural disaster relief expenses (net of Commonwealth assistance) for Queensland in 2014-15, they have not returned to the level of 2011-12.[6] This contributed to the increase in Queensland's GST share in this update. Its expenses principally relate to the flood and cyclone events of 2013, 2014 and 2015. On the other hand, New South Wales and Victoria expenses were much lower in 2014-15 compared with 2011-12.

Wages

34 We have updated our wage costs assessment, using data from the ABS 2014 CoES for the first time. Figure 1-4 shows that between 2011-12 and 2014-15 relative wage levels have fallen fastest in Tasmania, South Australia and the ACT, which have therefore had large per capita falls in their GST requirements due to reduced service delivery costs. New South Wales has also experienced a fall in its relative wage level. Increases in relative wage levels increased service delivery costs in the other States, particularly Victoria and the Northern Territory.

6 Actual net State expenses are confidential although the effect of natural disaster relief expenses on the GST distribution can be shown.

Figure 1-4 Relative wage costs, 2011-12 to 2014-15



Source: Commission calculation

35 Changes to the data used for the Wage costs assessment are discussed in *Chapter 3 Wage costs*.

Other

36 There were other changes in circumstances in this update which have resulted in major changes in GST shares for some States. These include:

- a large drop in the level of total State investment in infrastructure to support the delivery of other services, reducing the assessed investment of States with above average capital stock requirements, in particular Queensland, Western Australia and the Northern Territory
- the most recent reliable data from the Independent Hospital Pricing Authority (IHPA) used to proxy the use and cost of community health services indicate a decrease in outer regional and remote service costs nationally compared with 2011-12, which has decreased the GST share for States with above average shares of people living in these regions, in particular the Northern Territory
- data used to measure non-State sector service provision for community health services indicate an increase in non-State sector service provision in the Northern Territory between 2011-12 and 2014-15
- Tasmania's government student enrolments fell between 2011-12 and 2014-15 which has reduced its assessed school expenses.

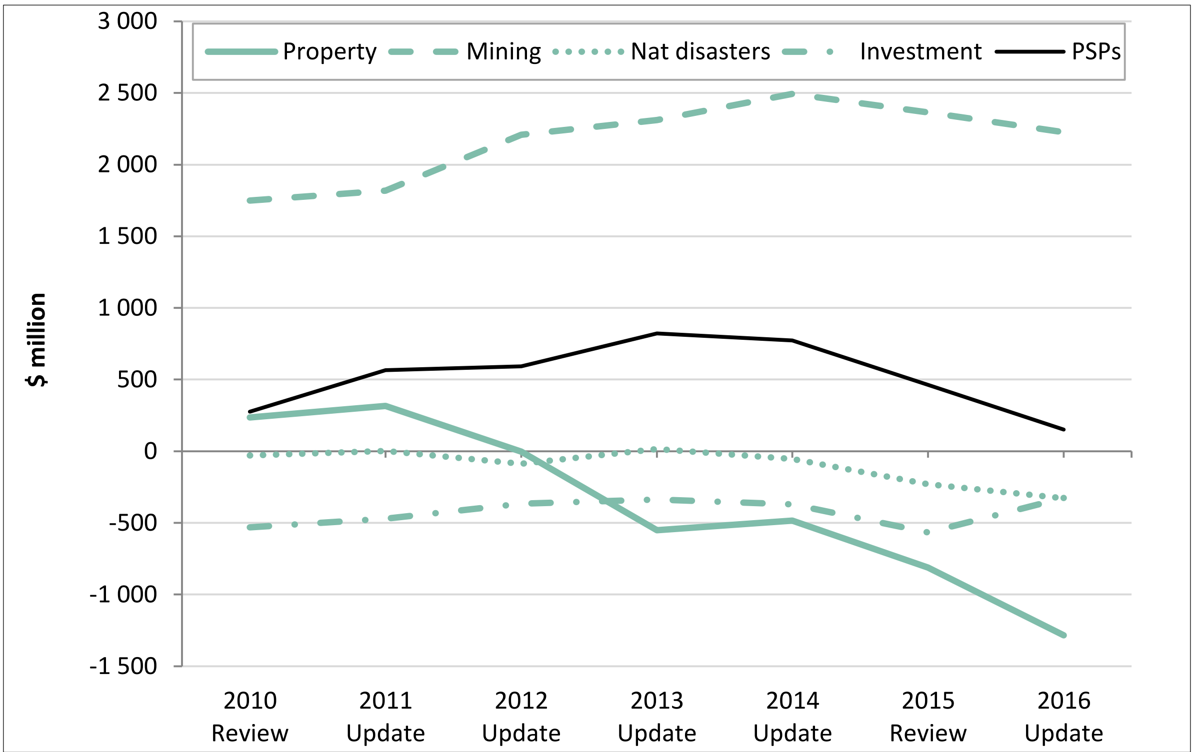
Interactions between drivers of change

37 The preceding sections described the changes to State GST shares due to movements in individual drivers. This section describes the interaction of these drivers for selected States.

38 Drivers of change related to the socio-demographic composition of State populations tend to remain relatively stable over time, as these socio-demographic patterns evolve over longer periods. However, drivers of change related to economic activity, such as mineral exports and property transactions, can be much more volatile, often moving in cycles. These drivers can have large impacts on the GST distribution year on year.

39 Figure 1-5 shows that the increasing measured strength of the New South Wales property market has, since the 2011 Update, acted to reduce New South Wales' GST share. However the effect of the mining boom, concentrated in other States, has acted to increase the GST share for New South Wales over these same years.

Figure 1-5 Major economic drivers of the GST distribution, New South Wales



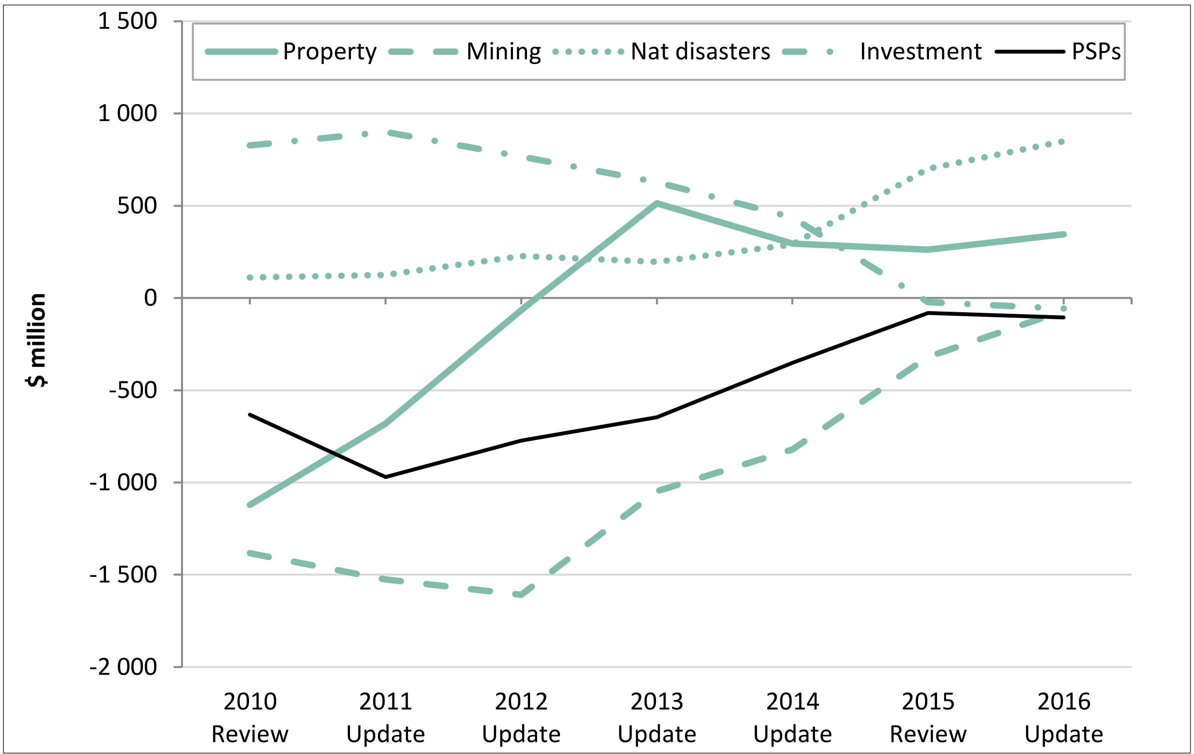
Source: Commission calculation.

40 The New South Wales results chiefly reflect the highly concentrated nature of certain mineral deposits within particular States, the relatively more evenly distributed nature of housing markets across States and New South Wales' position as the most populous State.

41 Figure 1-5 also indicates that New South Wales’ share of PSPs has been increasing in recent years, which has acted to reduce its GST share. Its share of population growth has been relatively more stable over the period, but recent stronger population growth has increased New South Wales’ need to invest in infrastructure and consequently acted to increase its GST share.

42 Figure 1-6 shows that Queensland has been experiencing a number of concurrent trends since the beginning of this decade. From this time Queensland’s property transactions steadily declined, increasing its share of GST. More recently, Queensland’s property markets have stabilised. However, at much the same time, its capacity to raise mining revenue has fallen, and there have been declines in Queensland’s share of national population growth and in its share of PSPs. Queensland’s historically high natural disaster expenses have persisted throughout the period, contributing to the increase in its GST share.

Figure 1-6 Major economic drivers of the GST distribution, Queensland



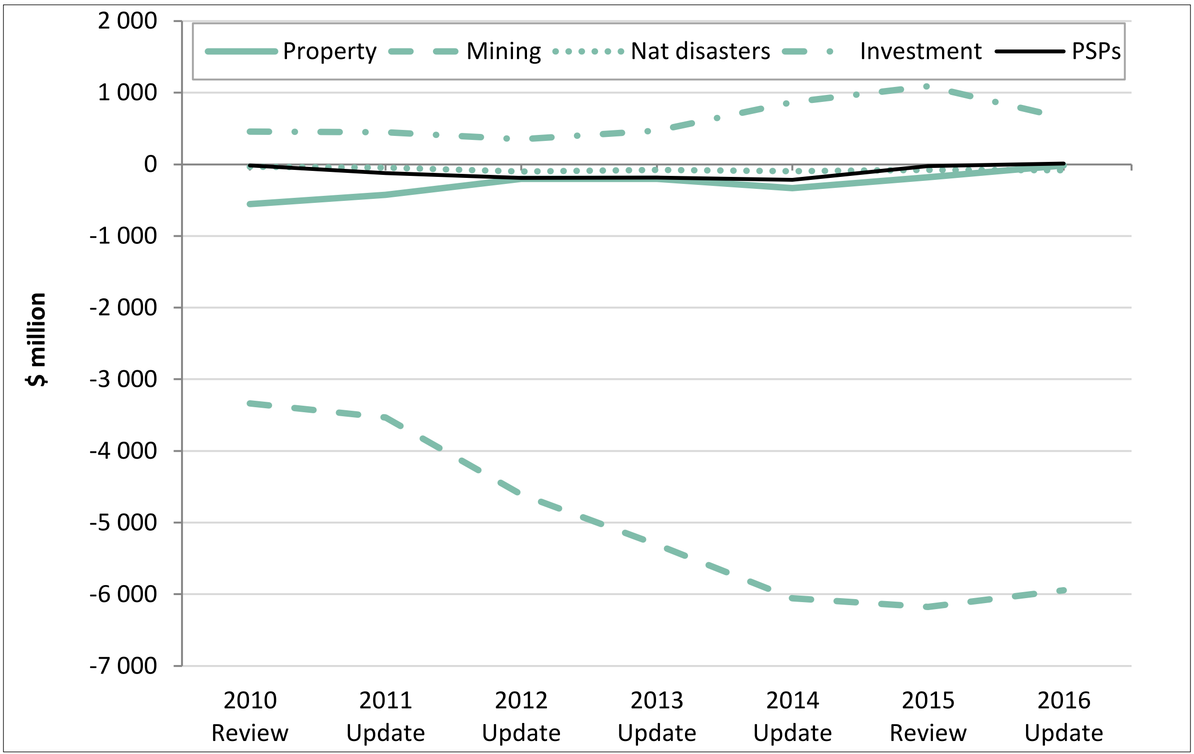
Source: Commission calculation.

43 For Western Australia, its GST share over recent years has been driven by the direct and indirect effects of the expansion of its mining industry. Figure 1-7 shows that two main factors have combined to affect its share of the GST. These have been Western Australia’s substantial capacity to raise mining revenue and its share of population growth, which contributes to its infrastructure needs. During this time, the effects due to property transactions, PSPs and natural disasters have been much more muted.

44 The expansion of mining activity has seen Western Australia's capacity to raise mining revenues increase, until the most recent year when price falls have reduced that capacity. This has driven falls in GST revenue until the last year when the turnaround in capacity acted to increase its GST share.

45 When the expansion of mining activity was accompanied by rapid growth in Western Australia's population, the equalisation system recognised its need to invest in new infrastructure and shifted GST revenue to Western Australia to allow that to occur. With the rate of population growth in Western Australia falling to slightly above average, that redirection of GST revenue has also fallen.

Figure 1-7 Major economic drivers of the GST distribution, Western Australia



Source: Commission calculation.

46 While the revenue effect was much larger, reflecting in part the pre-eminence of Western Australia's capacity in this area, the investment effect acted to moderate GST reductions brought about by mining expansion. This year we observe that the scale and timing of the slowdown in Western Australia's population growth is such that the GST decrease due to the investment effect more than offsets the GST increase due to the revenue capacity effect.

47 Similar charts for other States are available in the supporting information for this update available on the [Commission's website](http://www.cgc.gov.au) (www.cgc.gov.au).

WHY STATE FISCAL CAPACITIES DIFFER

48 Differences among the States in economic, social and demographic characteristics affect their expenditures and revenues and contribute to differences in the GST distributions. Table 1-8 shows how these differences contribute to differences in the recommended GST distribution.

Table 1-8 Difference from an equal per capita distribution of GST, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Expense requirement	-2 690	-5 012	1 872	2 412	300	491	-208	2 836	7 911
Investment requirement	-325	202	-56	648	-284	-193	-57	65	915
Net borrowing	40	-35	-7	-52	32	19	2	2	95
Revenue raising capacity	1 029	3 434	431	-7 679	1 626	734	369	56	7 679
Commonwealth payments (a)	152	79	-105	13	137	-42	54	-289	435
Total	-1 795	-1 331	2 134	-4 659	1 811	1 009	159	2 670	7 785

(a) Includes the impact on the revenue side only. The impact on the expense side is incorporated in the expense requirement line.

Note: The redistribution is the total movement from the equal per capita distribution. It is the sum of positive (or negative) items in the row.

Source: Commission calculation.

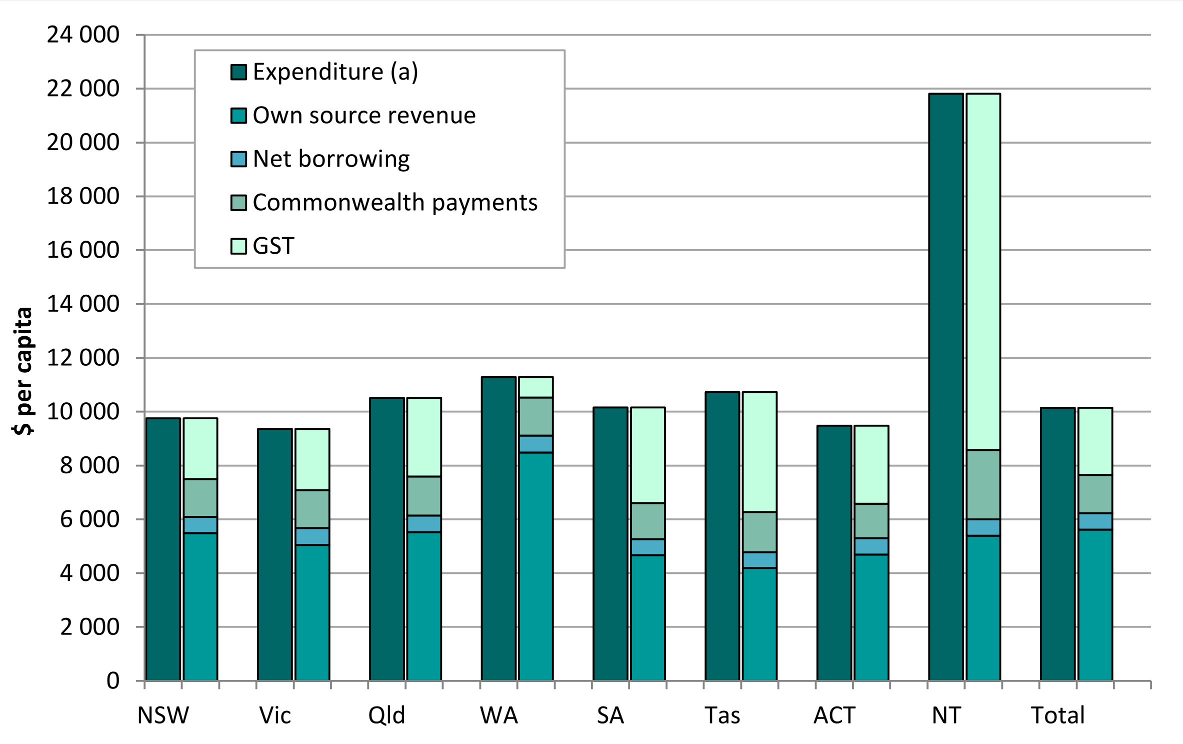
49 Western Australia's above average revenue raising capacity drives its fiscal strength, despite its higher than average costs of providing services and infrastructure, leading it to need considerably less than an average share of GST. The below average cost of providing services for New South Wales and Victoria is the reason for their fiscal strength, although this is mitigated somewhat by their below average strength in revenue raising. The relatively low fiscal capacities of South Australia, Tasmania and the ACT stem mostly from below average capacities to raise revenue while Queensland and the Northern Territory face very high costs of providing services.

50 Figure 1-8 shows this from a slightly different perspective.[7] While Western Australia has the second highest assessed expenditure per capita, this is almost covered by its very high capacity to raise revenue. This leaves a relatively small requirement for GST revenue to give it the capacity to deliver an average standard of service.

51 The Northern Territory has such a high cost of delivering services that even with its significantly higher than average share of Commonwealth payments and only slightly below average capacity to raise revenue, it still requires a very large share of the GST to be in a position to deliver an average standard of service.

[7] In Figure 1-8 the per capita GST requirement for each State is shown as the difference between a State's total assessed expenditure (expenses and investment) and the sum of its assessed own source revenue, net borrowing and Commonwealth payments.

Figure 1-8 Illustrative assessed budgets per capita, 2016-17



(a) Includes expenses and investment.
Source: Commission calculation.

52 The main economic and demographic factors causing the differences in State capacities are shown in Table 1-9. It shows, for example, that Victoria needs an additional $2 936 million in GST above an equal per capita (EPC) share to recognise its below average capacity to raise revenue from mining while Western Australia needs $5 946 million less than its EPC share because of its high capacity.

53 In this update we again observe significant differences in the innate fiscal capacities of States which warrant a distribution of GST revenue which differs significantly from one based on State population shares. Further information on why State fiscal capacities differ is in Chapter 3, Volume 1 of the 2015 Review Report.

Table 1-9 GST effects of differences in innate fiscal capacities, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Effects of revenue raising capacity									
Mining production	2 227	2 936	-70	-5 946	479	203	198	-27	6 042
Taxable payrolls	-213	509	279	-1 221	387	223	41	-7	1 440
Property sales	-1 285	79	346	-17	578	207	37	54	1 301
Land values	36	-169	-8	-245	221	86	54	24	422
Other revenue effects	264	78	-116	-251	-40	14	38	12	407
Total revenue effects	1 029	3 434	431	-7 679	1 626	734	369	56	7 679
Effects of expenditure requirements									
Socio-demographic characteristics									
Remoteness and regional costs	-1 140	-929	660	388	81	352	-134	722	2 203
Indigenous status	-109	-1 371	641	186	-122	93	-58	740	1 660
Socio-economic status	380	-74	-65	-306	328	36	-219	-79	744
Other SDC	-40	-404	344	-113	101	27	-25	109	582
Total	-908	-2 779	1 579	156	389	508	-436	1 492	4 124
Wage costs	321	-562	-453	897	-229	-145	76	95	1 388
Urban centre size	337	804	-606	32	-161	-228	-59	-119	1 173
Population growth	-509	31	107	687	-248	-157	-45	134	960
Administrative scale	-449	-286	-174	41	123	232	241	272	909
Natural disaster relief	-328	-323	850	-81	-86	-21	-16	6	856
Small communities	-323	-286	102	193	68	23	-20	244	629
Non-State sector	-340	-245	26	448	-25	64	63	10	611
Other expense effects	-775	-1 199	377	634	219	41	-67	769	2 040
Total expense and investment effects	-2 976	-4 845	1 808	3 007	48	317	-264	2 903	8 084
Effects of Commonwealth payments	152	79	-105	13	137	-42	54	-289	435
Total	-1 795	-1 331	2 134	-4 659	1 811	1 009	159	2 670	7 785

Note: For explanations of what each disability factor includes, see the supporting information to this report located on the Commission's website (www.cgc.gov.au).

Source: Commission calculation.

SIZE OF THE EQUALISATION TASK

54 States have different fiscal capacities at the beginning of the equalisation process. The distribution of GST revenue both increases and equalises those capacities. The size of the equalisation task is determined by the variation in their initial fiscal capacities. As they diverge, more GST is required to achieve equalisation.

55 The process of distributing GST revenue can be thought of in either of two ways.

- GST revenue is first distributed on a population basis, raising the fiscal capacity of all States equally. Then there is a redistribution to achieve equalisation – from States with above average capacity to those with below average capacity. The size of this redistribution is one measure of the equalisation task.
- GST revenue is first distributed to bring the initial fiscal capacities of all States to that of the strongest. The remaining GST is then distributed equally among all States. The GST required to achieve the first step is an alternative measure of the equalisation task.

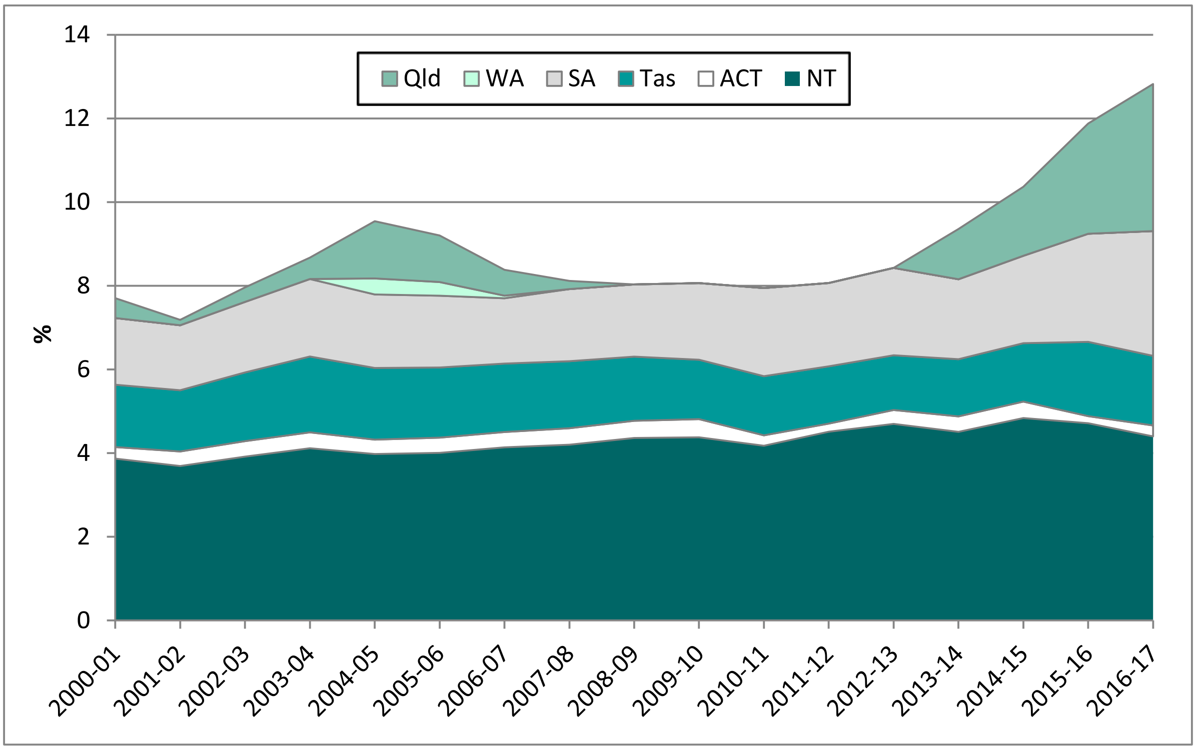
56 These two measures, which can be expressed in dollars or as a proportion of GST revenue, highlight different aspects of the equalisation task. The first identifies the aggregate transfer from an equal per capita distribution for States with above average fiscal capacities to States with below average fiscal capacities. The second identifies the difference between the strongest State and the average of the others. Taken together they illustrate how the equalisation task is evolving.

57 In relation to the first measure, Figure 1-9 shows the proportion of GST redistributed to the States with below average fiscal capacities has increased in recent updates. This is mainly due to the deterioration in Queensland’s assessed fiscal capacity since 2013-14. In this update, 12.8% of the GST pool is redistributed to the four less populous States and Queensland to achieve fiscal equalisation.

58 In 2016-17, the redistribution to the four less populous States accounts for about three quarters of the redistribution shown in Figure 1-9. These States have about 12% of Australia’s population and receive about 21% of the GST which is slightly higher than the long-term average proportion of 20%. The redistribution to these States is mostly the result of weaker revenue bases and higher cost of services.

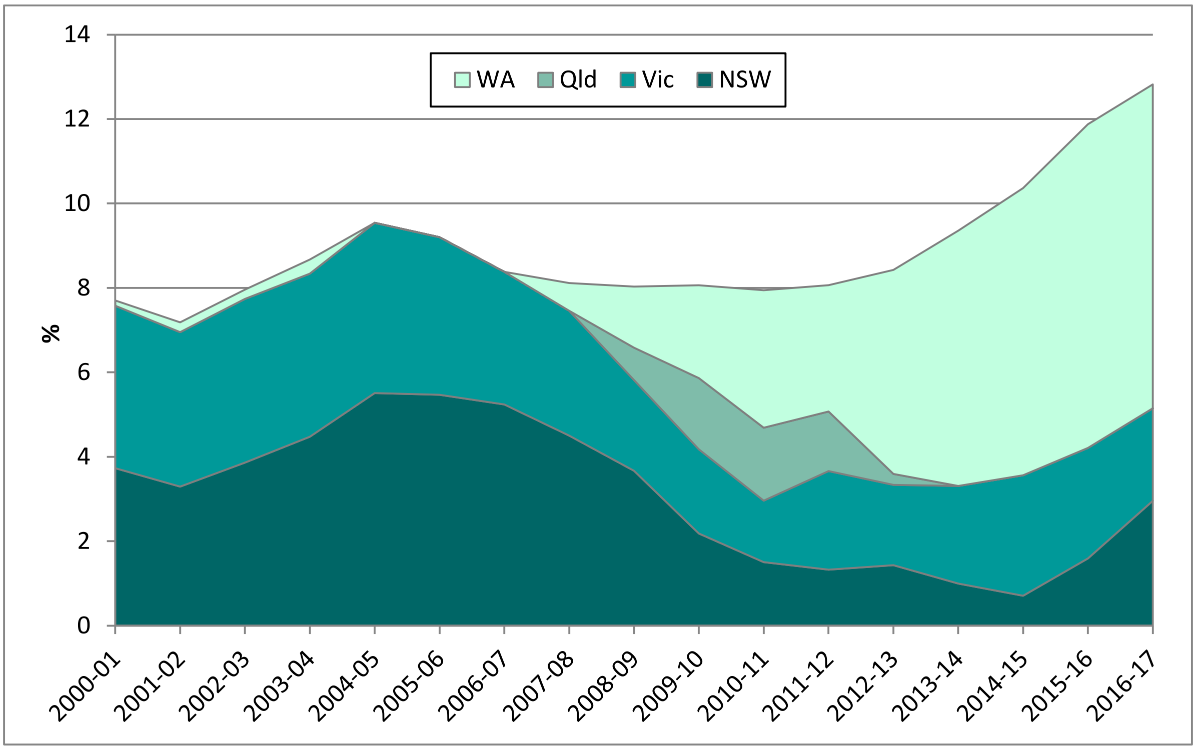
59 Figure 1-10 shows the contribution of States with above average fiscal capacities to the redistribution. As Western Australia’s assessed fiscal capacity has strengthened, the size of the redistribution, along with Western Australia’s contribution to it, has increased.

Figure 1-9 Proportion of the GST redistributed to States with below average fiscal capacities, 2000-01 to 2016-17



Source: Commission calculation.

Figure 1-10 Proportion of the GST redistributed from States with above average fiscal capacities, 2000-01 to 2016-17



Source: Commission calculation.

60 Considering the second measure reveals a different aspect of the equalisation task. Table 1-10 shows the size of the equalisation requirement in 2016-17. All States except Western Australia require different per capita amounts of GST to achieve the same fiscal capacity as Western Australia, the State with the strongest fiscal capacity. The remainder of the GST revenue is shared equally amongst all States, including Western Australia. In 2016-17, about 70% of the GST revenue was needed for all States to achieve the same fiscal capacity as Western Australia.

Table 1-10 Illustrative distribution of GST, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ave
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Equal per capita	759	759	759	759	759	759	759	759	759
Equalisation requirement	1 505	1 518	2 172	0	2 788	3 689	2 136	12 470	1 736
Per capita allocation	2 265	2 277	2 932	759	3 547	4 448	2 895	13 229	2 496

Source: Commission calculation.

61 This measure of the size of the equalisation task has increased rapidly. From 2000-01 to 2007-08 it fluctuated between 14% and 17% of the GST revenue, as first Victoria and then New South Wales was the fiscally strongest State. In 2008-09 Western Australia became the fiscally strongest State. As Western Australia's fiscal capacity has become progressively stronger, this measure of the size of the equalisation task increased from 14% of the pool in 2008-09 to 70% in 2015-16. With the stabilisation of Western Australia's fiscal capacity it has remained at this level in 2016-17.

62 Neither measure perfectly captures the totality of how the equalisation task has evolved over time. Taken together they show:

- the equalisation task generated by the less populous States together has been increasing slowly over time
- because Queensland's fiscal capacity fluctuates around the average, it sometimes adds to and sometimes moderates the equalisation task
- the task of 'catching up' with Western Australia has grown significantly.

63 A time series of per capita relativities since the introduction of the GST in 2000-01 is available on the Commission's website (www.cgc.gov.au) in the Supporting information for this update. An overview of Commonwealth-State financial relations in Australia, including a discussion of horizontal and vertical fiscal imbalances, is also available on the Commission's website.

CHAPTER 2

NEW ISSUES IN THIS UPDATE

1 In each update, the Commission confronts a range of new issues that might affect the GST distribution. New issues can be grouped into three types:

- data issues, addressing how the latest available data, or changes to data availability, are incorporated into assessments
- assessment issues, relating to how changed circumstances are incorporated into assessments
- the treatment of Commonwealth payments, including new payments and payments relating to national agreement arrangements.

2 In deciding how new issues should be resolved we consult with the States. The issues that arose in this update and our decisions on them are explained in this chapter. Discussion papers and State submissions can be viewed on the GST Inquiries 2016 Update page accessed from the Commission's website (www.cgc.gov.au).

3 A major issue for this update has been deciding the most appropriate assessment of interstate differences in wages. This issue is discussed in Chapter 3.

DATA ISSUES

Roads assessment

National Transport Commission trend data

4 The assessment of roads expenses includes an assessment of the impact of heavy vehicle use on road maintenance. The impact of heavy vehicle use is measured by multiplying the distances travelled by different classes of heavy vehicles in each State by the national average gross mass (AGM) for each class of heavy vehicle. The national average AGM data are derived from trend data provided by the National Transport Commission (NTC). The trend data used in the 2015 Review were derived from the ABS Survey of Motor Vehicle Use (SMVU) for 2001 to 2007. We said in the 2015 Review report we would update our assessment if the NTC updated its trend data.

5 The NTC updated its trend AGM data as part of its *2014 Heavy Vehicle Charges Determination*. It used a new approach to trending, since the ABS no longer conducts the SMVU annually.[1]

6 Data on the total kilometres travelled in each State by different types of vehicle (including heavy vehicles) are provided annually by the Bureau of Infrastructure, Transport and Regional Economics (BITRE). We adjust these data to remove the volume of traffic on local government-type roads, by applying NTC data on the Australian average proportion of travel on arterial roads for each class of vehicle. We then split the data between travel on urban and rural roads, using a six-year average of data provided by the NTC for each State. In the 2015 Review, the latter data were based on the SMVU for 2002 to 2007. The NTC also updated these data as part of its *2014 Heavy Vehicle Charges Determination*.[2]

7 The NTC provided updated data on trend AGM by heavy vehicle class and urban-rural arterial travel, incorporating data from the 2014 SMVU.

8 Three States supported updating the data and three did not comment. In addition, New South Wales noted that updating the data could have a significant impact and asked that States be provided with the updated NTC data when they became available. Tasmania said that data reliability should be investigated given the NTC's changed approach to trending and because the 2014 SMVU is a new set of survey estimates.

9 We have updated the trend AGM data and the urban-rural split of vehicle use. The NTC data used in the 2015 Review included data going back to 2001 in the calculation of trend AGMs, and back to 2002 in the case of the average urban-rural use splits. We believe the latest data provided by the NTC give a better indication of the circumstances likely to apply in the application year for this update.

10 We do not have any concerns with the reliability of the NTC trend AGM data. The NTC's new trending method appropriately gives a greater weight to more recent data and we accept its advice that the trend estimates are the best available estimates for AGM by vehicle class in 2014. States were provided with the updated trend AGM data during the course of the update.

11 Since the SMVU is no longer produced annually, we have not been able to continue to base our urban-rural split of vehicle use on an average of six consecutive years. Instead, we have decided to use an average of data from the last three SMVUs (2010, 2012, 2014), covering a five year period. The update guidelines allow us to amend assessment methods where data previously used are no longer available. States were provided with the updated NTC urban-rural use data during the course of the update.

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1 The ABS conducted the SMVU in 2007, 2010, 2012 and 2014.

2 In its latest Determination, the NTC did not change the arterial travel proportions, or its cost matrix which we use to apportion State expenses to our components and sub-components.

12 Table 2-1 shows the impact on the GST distribution of updating the data. The changes are not material.

Table 2-1 Impact on the GST distribution of updating NTC trend AGM and urban-rural use data, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Trend AGM data	0	0	0	0	0	0	0	0	1
Average urban-rural use data	10	-20	-9	11	9	0	-1	1	30
Total	10	-20	-9	11	9	0	-1	1	30
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Trend AGM data	0	0	0	0	0	0	0	1	0
Average urban-rural use data	1	-3	-2	4	5	0	-2	2	1
Total	1	-3	-2	4	5	0	-2	3	1

Source: Commission calculation.

Road classification

13 During the 2010 Review the Commission consulted States on how to devise a policy neutral indicator of what roads would be sealed or left unsealed, having noted that State policy appeared to vary widely. We settled on saying that all roads in our synthetic road network that were classified by the consultant who developed the synthetic network as freeways, highways or main roads would be treated as sealed while all others would be unsealed.

14 Western Australia has raised concerns about the quality of data used in the assessment of roads expenditure.

15 It said State policy decisions on whether to seal a road may have affected the roads' classification. It cited the example of the Tanami Road, which runs from Halls Creek in Western Australia to Alice Springs. In the assessment, the Northern Territory section of this road is deemed to be sealed, whereas the section of the road in Western Australia is deemed to be unsealed. It said the Western Australian part of the road should be reclassified as sealed.

16 Western Australia is also concerned that the Commission's measure of unsealed roads does not reflect average policy, since the roads deemed unsealed are in practice a mix of sealed and unsealed roads. It said a better measure would be to assume a fixed proportion of unsealed roads in each State, based on the national proportion.

17 It noted that the road link between Mount Magnet and Leinster Road is a major freight link and is sealed, although it is treated as an unsealed road in our assessment. It thought that this is possibly because it has only recently been sealed.

18 We recognise the concerns raised by Western Australia but consider that addressing them in a piecemeal fashion is not practical and that changing our methodology in this update is inappropriate. We consider that it would be desirable to revisit the issue of a policy neutral indicator of the mix of sealed and unsealed roads in the next review when all State views can be taken into consideration.

Welfare assessment

New child protection data

19 The 2015 Review assessment of family and child services in the Welfare category contained a split of substantiations by remoteness and socio-economic status, for both Indigenous and non-Indigenous children, based on data provided by the AIHW from five States (data from New South Wales, Queensland and Western Australia were not available). For 2014-15, the Australian Institute of Health and Welfare (AIHW) was able to provide these data for seven States – including Queensland and Western Australia.

20 Because the 2014-15 data are more representative than the data from previous years, which were based on five States, we have used the 2014-15 data for all assessment years. Table 2-2 shows the impact on the GST distribution of revising the data used in the 2015 Review. The new data have a material impact only on the Northern Territory. This was due to an increase in the measured share of substantiations attributed to remote Indigenous children. The Northern Territory has a large proportion of remote Indigenous children.

Table 2-2 Impact on the GST distribution of the new child protection data, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$m	-19	-2	1	5	-5	-2	1	20	27
$pc	-2	0	0	2	-3	-3	3	80	1

Source: Commission calculation.

Socio-economic index for individuals (SEIFI) or households

21 To measure differences in the socio-economic status of State residents in the Other general welfare assessment we use the census based Socio-Economic Index for Individuals (SEIFI).

22 In the 2015 Review a measure based on the 2011 Census was not available and, in anticipation of a future release of 2011 Census based data, we used the 2006 Census index, adjusted for changes in the relative proportions of State populations with health care cards or pensioner concession cards between the 2006 and 2011 Censuses. In consultation with the States, we considered a range of other possible

measures but on balance decided that they were inferior, for example because they focused on a narrow range of welfare recipients.

23 The ABS has advised that constructing the index based on 2011 Census data is not on its work plan for 2015-16. It is therefore unlikely that the ABS will produce a 2011 Census based index.

24 Queensland said that if the ABS does not produce an updated SEIFI before the 2017 Update, it would like the Commission to consider whether there are alternative methods or data sources that may give more accurate results.

25 The ACT asked the Commission to pursue the issue with the ABS as a matter of priority. It said its ABS Statistical Liaison Officer advised it that the ABS has no plans to update the index unless it was funded by users.

26 We have retained the 2006 Census index, adjusted for changes in the relative proportions of State populations with health care cards or pensioner concession cards between the 2006 and 2011 Censuses. We will continue using this index until the next review unless the ABS produces a 2011 Census based socio-economic index or States identify a new data source which would provide a more appropriate indicator.

Independent Hospital Pricing Authority (IHPA) data in the Health assessment

27 In the 2015 Review the Commission decided to use IHPA data in the assessment of health services, so that we used one data provider to measure the use and cost of all health services. In addition, in the 2015 Review report, we said our understanding was that the IHPA data were likely to be available on a more timely basis than the AIHW data which meant we would not need to use lagged data in the assessment.[3]

28 Consistent with this, we used preliminary IHPA for 2013-14 in the assessment of health costs for the 2013-14 assessment year in the 2015 Review.

29 However in this inquiry we sought IHPA's advice on whether the final 2013-14 or the preliminary 2014-15 data would be the most reliable data for our purposes, after observing an unusually large increase in National Weighted Activity Units (NWAUs) in the most recent data.

30 IHPA's advice was that the National Efficient Price (NEP) methodology changes each year, and for 2014-15 there were changes in the classification of Emergency Services activity. These changes have affected the comparability of data for 2013-14 and 2014-15. While IHPA resolves these issues, it said that using the 2013-14 final data would be more reliable for determining the distribution of cost weighted hospital

3 CGC, 2015 Review Report, Volume 2, Chapter 12 *Health*, p. 215.

activity by population cohort in 2014-15. We have not used 2014-15 IHPA data in the health assessments in this update.

31 We understand that the IHPA data represent a maturing dataset, and we will continue to monitor developments.

Land tax

32 In the 2015 Review, the Commission chose to continue to use State Revenue Office (SRO) data instead of the previously used Valuers-General data as its source of land value data. While neither dataset was perfect, the Commission believed the SRO data more closely reflected how States imposed land tax. The SRO data exclude non-taxable land and are based on the aggregated land holdings of individual owners. This additional information makes a material difference to States' assessed tax bases. The Commission also decided to discount the assessment by 25% because of its concerns about the reliability and comparability of SRO data.

33 In this inquiry, Western Australia queried the reliability of the SRO data. It compared SRO land values with taxable land values it constructed from ABS land value data. Its analysis suggested its SRO land values were high when compared with those of other States.

34 On the basis of its analysis, Western Australia asked the Commission to:

- change the source of its land value data from SROs to the ABS, or
- raise the discount from 25% to 75%.

35 The ABS land value data do not closely reflect how States impose land tax. The data include the value of principal places of residence, which are not taxable, and exclude the impact of aggregation of land holdings which is important with progressive tax rates.

36 In the absence of another data source, which would enable us to directly verify SRO data on the relative size of State land tax bases under average policy, we have used data provided by Western Australia in its 2014-15 budget papers to indirectly compare tax bases. These data enable us to estimate the revenue Western Australia would have raised using the tax rates of another State, say New South Wales. Comparing this figure with what New South Wales itself raised enables us to estimate their relative tax bases. While far from perfect, this analysis did not suggest the SRO data were inappropriate, especially as we already discount them by 25% to reflect concerns about comparability.

37 We have decided not to change the Land tax assessment. However, we have decided to prioritise our examination of the different sources of land value data and our estimates of comparable State tax bases before the next review.

Sharing of confidential State data

38 In the course of consultations for this update Western Australia raised concerns about the sharing of confidential data among the States. As this does not affect this update directly we will consult States on this proposal during 2017.

ASSESSMENT ISSUES

Transition to the National Disability Insurance Scheme (NDIS)

39 Transition to the NDIS is expected to start in 2016-17, the application year for the 2016 Update.

40 We said in the 2015 Review report that during transition we would implement dual assessments of State expenses on existing disability services and NDIS contributions because States would be funding both the NDIS and existing disability services.

41 We proposed backcasting the expected shares of expenses on each using data sought from the States. We said each service would be assessed using State proportions of the total number of people eligible in a year to be covered by NDIS when fully operational.[4] Other disabilities (regional costs, wage costs and cross-border factors) would continue to be recognised for existing disability services expenses but not in relation to the NDIS contributions.[5]

42 While we note the ACT's reiteration of concerns during update consultations with an assessment based on the total number of people eligible to be covered by the NDIS when fully operational, we consider these were fully considered in the 2015 Review. We do not propose to change our methodology.

43 We consider the available uptake and expenses projections data allow us to implement the dual approach as set out in the 2015 Review. We have received expense projections from New South Wales, Victoria, Western Australia, Tasmania and the ACT. Western Australia will still be in its trial phase of the NDIS in 2016-17. The other States have not been able to provide data as they are yet to conclude bilateral agreements with the Commonwealth for the NDIS transition.

44 We foreshadowed in the 2015 Review report that if the expenses projections were found not to be reliable we would need to consider an alternative approach, such as using the data for the latest available year. We have decided however to proceed with expenses projections using the data for five States because they account for the majority of total full scheme implementation numbers. Table 2-3 shows the GST redistribution due to the introduction of the dual assessments. The change in

4 These data will be obtained from the Commonwealth Department of Social Services.

5 CGC, 2015 Review Report, Volume 1, Chapter 2 *Main issues*, pp 54-57.

distribution reflects the reduced impact of the regional costs, wage costs and cross-border factors.

Table 2-3 Impact on the GST distribution of the dual disability services assessments, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$m	10	15	-2	-10	1	-2	-1	-10	25
$pc	1	2	0	-4	1	-3	-2	-42	1

Source: Commission calculation.

State mining revenue raising activities

45 In the 2015 Methodology Review we said we would monitor developments in the collection of mining royalties to ensure our new mineral by mineral approach was still appropriate.

46 We have found no major changes in State policies relating to the raising of mining royalties, nor has revenue from minerals not separately assessed, such as coal seam gas, become material. No State has raised a concern that would see us reconsider our assessment approach.

47 In these circumstances we concluded no change is required to the mining revenue assessment in the 2016 Update.

Natural disaster relief and recovery arrangements (NDRRA)

48 In the 2015 Review we said our assessment of NDRRA might need to change if there was a change in Commonwealth policy on these payments.

49 The Australian Government has announced it intends to consult with the States on the best way to address the findings of the Productivity Commission's report on the efficacy of current national natural disaster funding arrangements.

50 We have not changed the assessment of natural disaster relief expenses in this update because there has been no change in Australian Government funding policy. We will continue monitoring developments in future reviews.

TREATMENT OF COMMONWEALTH PAYMENTS

Terms of reference requirements

51 The terms of reference require the Commission to prepare its assessments on the basis that the following payments should not directly influence the relativities:

- reward payments made under National Partnership Agreements

- National Partnership Payments for Northern Territory Remote Aboriginal Investment
- payments relating to the National Partnership for Western Australia Infrastructure projects
- payments relating to the Royal Victorian Eye and Ear Hospital Redevelopment
- payments (full amount or 50% of the amount) which the Commission has previously been directed to treat so they have no direct influences on the relativities.

52 Accordingly, these payments and their related expenses have been treated in a way that does not influence the relativities.

53 The 2015 Review terms of reference required the Commission to apply different treatments to payments made from the Asset Recycling Fund. Payments from the Fund commenced in 2014-15 (the last assessment year of this update) and have three components. We have treated each component as directed by the terms of reference:

- Asset recycling initiative — no impact
- Western Sydney infrastructure plan — 50% impact and 50% no impact
- New investment:
  - roads on national network and road projects identified in terms of reference — 50% impact and 50% no impact
  - other components — impact for payments to States and no impact for payments direct to local governments (treatment based on fiscal equalisation because no terms of reference requirement).

Treatment of Commonwealth payments commenced in 2014-15

54 Apart from payments for which the terms of reference have requested special treatment, all Commonwealth payments which commenced in 2014-15 and which affect State fiscal capacities and for which needs are assessed have an impact on the relativities. This is in accordance with the guideline developed in the 2015 Review.

55 Table 2-4 provides a summary of the treatment the Commission has applied to payments which commenced in 2014-15. We have backcast the EPC distribution of the national agreement payments and the distribution of the Commonwealth payments for Students First and Health reform funding as set out in the 2015 Review. No State had any concerns about this backcasting.

56 We have not backcast any other payments commencing in 2015-16 or 2016-17 because they do not represent a major change in federal finance arrangements.

Table 2-4 Treatment of Commonwealth payments commenced in 2014-15

Payment	Final Budget Outcome $m	Treatment	Reason for 'no impact'
HEALTH			
Health infrastructure			
Bright Hospital - feasibility study	0.1	Impact	
Cancer Support Clinic in Katherine	0.4	Impact	
Construction of Palmerston Hospital	20.0	Impact	
Oncology Day Treatment Centre at Frankston Hospital	0.7	Impact	
Redevelopment of the Royal Victorian Eye and Ear Hospital	50.0	No impact	Terms of reference requirement
Upgrade of Ballina Hospital	1.0	Impact	
Upgrade of the Casino and District Memorial Hospital	3.0	Impact	
Warrnambool Integrated Cancer Care Centre	10.0	Impact	
Health services			
Canberra Hospital - dedicated paediatric emergency care	5.0	Impact	
Hummingbird House	1.5	50% impact, 50% no impact	50% no impact — the payment relieves part of Queensland's responsibility for services for which needs are assessed
Indigenous health			
Renal infrastructure in the NT (previously Accommodation and infrastructure related to renal services for Aboriginal and Torres Strait Islander peoples in the NT)	4.0	Impact	
EDUCATION			
National school chaplaincy programme	60.6	Impact	
COMMUNITY SERVICES			
National Occasional Care programme	1.5	No impact	Needs not assessed - purchase by Commonwealth Government
Trial of My Way sites	12.5	No impact	Terms of reference requirement
INFRASTRUCTURE			
Bathurst 200 Commemorative Flagstaff	0.3	No impact	Local – needs not assessed
Western Australia infrastructure projects	499.1	No impact	Terms of reference requirement
Asset Recycling Fund – Asset Recycling Initiative	7.9	No impact	Terms of reference requirement
Asset Recycling Fund – Western Sydney Infrastructure Plan	120.4	50% impact, 50% no impact	Terms of reference requirement

Table 2-4 Treatment of Commonwealth payments commenced in 2014-15 (cont.)

Payment	Final Budget Outcome $m	Treatment	Reason for 'no impact'
Asset Recycling Fund – New investments	22.8	Non NNR roads – State – impact; Local – no impact; NNR – 50% impact and 50% no impact; Black spot – impact;	50% NNR investment – assessment may not capture all non-policy influences
		Roads to recovery – no impact;	Roads to recovery — terms of reference requirement
		50% impact and 50% no impact for road projects identified in terms of reference	Other road projects identified in terms of reference – terms of reference requirement
ENVIRONMENT			
Bushfire mitigation	3.8	Impact	
Implementation of the National Insurance Affordability Initiative	5.0	No impact	Needs for protection of the environment not assessed
Tasmanian wilderness world heritage area	1.5	No impact	Payment is to assist Tasmania to fulfil Commonwealth responsibilities; needs not assessed
Water reform – Constraint measures	0.4	No impact	Needs for protection of the environment not assessed
Whale and dolphin entanglements	0.2	No impact	Needs not assessed for national parks and wildlife services
SUPPORT OTHER STATE SERVICES			
Developing demand-driver infrastructure for the tourism industry	4.6	Impact	
Port Arthur Penitentiary restoration	1.5	Impact	

Source: Commonwealth of Australia's *Final Budget Outcome 2014-15* and Commission decisions.

57 The following sections explain the treatment of payments in relation to which States raised issues.

Hummingbird House

58 The Australian Government is providing Queensland with $5.5 million over six years to fund the construction and operation of a dedicated respite and hospice care facility for children with life limiting conditions. Under this agreement payments from the Australian Government will be matched by the Queensland State Government. Payments are being made through the State to a not-for-profit organisation trading as Hummingbird House.

59 Based on the national partnership agreement signed by both governments, the $1.5 million payment in 2014-15 is for the construction of the facility. The balance (73% of the funding) will help to meet operating costs until the end of 2019-20.

60 Queensland said the payment should not impact on the GST distribution because the funding is to support a third party, it has no control over how it is spent and a significant proportion is for the construction of the hospice facility, with ongoing operating costs being borne by the not-for-profit service provider.

61 State expenditure on hospice services is assessed in the admitted patients component of the Health assessment and in the disability services component of the Welfare assessment. While not separately identifying those in need of hospice care, it does recognise differences in the health and disability profile of different States.

62 We understand that hospice care can be provided by a mix of public and private funding and that there is some mix which best captures the average of 'what States do' in practice.

63 If the Commonwealth provides support for hospice services the other funders (for example, the State or not-for-profit organisations) do not need to make the same contribution. That could mean that the State is relieved of some fiscal responsibility (measured at average policy) or the private sector or some mix of both. Further, the addition of this facility in Queensland could provide above or below average level of hospice care in the State.

64 We cannot be sure about the impact of this Commonwealth support on the fiscal capacity of Queensland, but believe that it will relieve them of some responsibility. For this reason, we have treated 50% of the payment as impacting on the relativities.

National school chaplaincy program

65 The Australian Government has committed $244 million over four years from 2014-15 to 2017-18 to assist approximately 2 900 schools engage the services of a school chaplain to provide pastoral care services.

66 On 17 November 2014 the Australian Government reached agreement with all States whereby the new National Schools Chaplaincy Program (NSCP) will be funded by the Australian Government and delivered by the States. The program has been implemented for the 2015 school year.

67 Queensland said the program directly funded chaplaincy services in Australian schools and schools voluntarily applied to participate in the program and were selected through a panel process. Since the State had limited control over the funding, it should be treated as not impacting on relativities.

68 The new NSCP is being delivered by States because the High Court ruled it was beyond the constitutional authority of the Australian Government to provide

chaplaincy services. All States have signed the project agreement with the Australian Government. Under the agreement States are responsible for forming cross sector panels for prioritising schools for funding in their jurisdiction and for inviting all schools to participate in the program.

69 Chaplaincy and pastoral care services are an integral part of school services in all States although there are significant policy differences between States in the level of funding and how the services are provided. These services are provided in government and non-government schools.

70 We consider that what different States would need to spend on chaplaincy services to deliver the same standard of service is primarily determined by the relative size of school enrolments as well as the regional and socio-economic profile of those enrolments. Because these are the factors we use to assess total State education spending, including that on chaplaincy services, we consider that the distribution of these program funds should be taken into account when deciding the GST distribution.

Implementation of national insurance affordability initiative

71 Under this national partnership, the Australian Government is expected to invest $100 million over two years to reduce flood risk with the aim of reducing industry and consumer insurance premiums. As part of the initiative, urban flood mitigation structures will be upgraded or constructed in the Queensland towns of Roma and Ipswich. In New South Wales, flood mitigation works in respect of the Warragamba Dam will also be funded through this program.

72 Western Australia said that the purpose of the flood defences was to protect homes and businesses, not the natural environment, and the expenses should be treated as economic development and should impact on the relativities. The ACT said that the payment was not intended for environmental purposes, but to reduce the risk of natural disasters and lower the cost of insurance, and that it should be assessed.

73 The Commission classifies State expenses to components and categories based on the purpose for which the expenses are incurred, not the intended policy outcome. The payments to the States through this program are for urban flood mitigation and the related expenses are classified to the protection of the environment component of the Services to community category. In the 2015 Review, the Commission was unable to identify the cost drivers for these expenses which would have enabled it to form a view on what different States would spend to deliver the same service standard in this area. The GST distribution therefore makes no allowance for any such differences in expenditure or any differences in Commonwealth support.

National road and rail network projects

74 ***Background.*** In the 2015 Review report, we said that Commonwealth funding for national network infrastructure projects (road and rail) would be treated in such a way that only half that funding had an impact on the GST distribution. We would rely on advice from the Department of Infrastructure and Regional Development (DIRD) on which projects were national network projects. Payments for national network projects covered by specific terms of reference (for example, national network projects funded through the Asset Recycling Initiative) would be treated according to that instruction.

75 We also said we would review DIRD's advice in the future to ensure Commonwealth funding is treated appropriately including for projects not declared to be on the network until after completion.

76 We have received advice from DIRD during the course of this update on which projects are network projects and shared this with the States. New South Wales, Victoria, Western Australia and the ACT commented on the Commonwealth's information. The other States raised no concerns with the DIRD advice.

77 ***State views and Commission decisions.*** New South Wales noted that the expenses reported by DIRD under the rail investment program were inconsistent with the *Final Budget Outcome* (FBO) numbers because DIRD's numbers included a payment for the upgrade of the Port Botany rail line. It argued that should not be included as the line is Commonwealth-owned and the payment was not made to the New South Wales government. It also noted that the Western Sydney Infrastructure plan should only have a 50% impact as per the terms of reference.

78 Because we use FBO data which do not include the payment for the Port Botany rail line, no adjustment was required.

79 Victoria argued that the Western Interstate Freight Terminal project should be classified as on network. It said that while the railway line does not currently exist, given the inter-modal and interstate connection of the Western Interstate Freight Terminal project, once the railway line is constructed, it will be placed on the national network.

80 Our preference is to rely on the advice of DIRD as to what is a network project. However, we consider that if this project is classified by DIRD as a network project in the future we would need to reassess the appropriate treatment of payments already received by Victoria in the relevant update. From that update, payments received in the relevant assessment years and beyond would be treated so that only 50% had an impact on the GST distribution.

81 Western Australia said that the payment for the Lloyd Street Upgrade in Perth should not impact the GST distribution because it was a payment for local government

purposes and would create an asset owned by the local government. It said that if the Commission did decide to treat it as impacting on the relativities, the payment should be treated as a national network payment and only have a 50% impact, because Lloyd Street intersects the Perth-Adelaide railway line, which is on the national rail network.

82 The Lloyd Street Upgrade is an $80 million construction project jointly funded by the Commonwealth, Western Australia and the City of Swan. The Commonwealth contribution was a one-off $10 million capital payment made to Western Australia in 2014-15.

83 Lloyd Street is a local road and while the State government is undertaking the upgrade, the bulk of the new assets, but not all, will be owned by the City of Swan. Therefore it will not be included in the average per capita road asset stock. However, since the $10 million was spent by Western Australia, this will be included in total State capital expenditure.

84 State expenditure on urban roads, including where that occurs on roads owned by local government, forms part of our assessment. We consider that the receipt of Commonwealth funds helps meet part of assessed State expenditure and therefore should be taken into consideration in deciding the appropriate GST distribution. The fact that (part of) the resulting assets belong to local government does not of itself form grounds for ensuring that (part of) the Commonwealth payment has no impact on the GST distribution.

85 In relation to Western Australia's second argument, that if the payment were included it should be treated as a national network payment, we rely on the classification provided by DIRD of national network projects. Unless DIRD reclassifies the project, we will treat it as a non-national network project where the totality of Commonwealth support is reflected in the GST distribution. We have done this in the 2016 Update.

86 The ACT said that the Majura Parkway should have been classified as a national network road.

87 DIRD has changed its classification of the Majura Parkway to a national network road in the March 2015 *National Land Transport Network Determination*.

88 In the 2015 Review and prior updates, we treated payments relating to Majura Parkway so that their entirety impacted on the GST distribution because the road was not classified as a national network road. For the 2016 Update, we have treated 50% of the Commonwealth payments for the three assessment years of the update in such a way that they have no impact on the GST distribution. We have made no adjustment in relation to payments the ACT received before these three years.

Treatment of Commonwealth own purpose expenses for Indigenous purposes

Payments to the State general government sector

89 Table 2-5 shows the Commonwealth own purpose expenses (COPEs) payments to the State general government sector for Indigenous purposes by program in 2014-15 and the Commission's classification to its assessment categories and their treatment. Most payments are treated as impacting on the GST distribution. Only payments classified to the Other expenses category (the Jobs, Land and Economy program, the Culture and Capability program and that part of the Remote Australia Strategy program targeted to municipal and essential services) have no impact on the GST distribution. These programs relate to Commonwealth responsibilities and needs are not assessed.

90 Table 2-6 shows the distribution of the COPEs treated as impacting on the GST distribution for 2011-12, 2012-13 and 2014-15. The 2014-15 payments are higher than those for the two other years because they include payments for education. The 2011-12 and 2012-13 figures do not include payments for Indigenous education because that information was not available.

91 New South Wales, Queensland, Western Australia, South Australia and Tasmania supported this approach. The ACT and the Northern Territory did not comment. Victoria accepted the impact/no impact treatments but argued that the Commission should include education payments for 2012-13 and 2013-14 if reliable estimates could be obtained. However, we do not have reliable estimates for the earlier years and do not consider we should attempt to estimate them on the basis of the 2014-15 payments. The size and distribution of those payments might have been quite different from those in the two previous financial years. We have not included payments for Indigenous education in the 2012-13 or 2013-14 years.

Table 2-5 COPEs paid to the State general government sector for Indigenous purposes, 2014-15

Indigenous Advance Strategy	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total	Treatment
	$m	$m	$m	$m	$m	$m	$m	$m	$m	
Jobs, Land and Economy										
Other expenses (a)	2	0	1	0	0	0	0	1	4	No impact
Children and Schooling										
Schools education	5	1	8	3	2	0	0	7	26	Impact
Post-secondary education	4	0	0	0	0	0	0	0	4	Impact
Safety and Wellbeing										
Schools education	0	0	0	0	0	0	0	0	0	Impact
Post-secondary education	0	0	0	0	0	0	0	0	0	Impact
Health	0	0	0	0	1	0	0	4	5	Impact
Housing	0	0	2	0	0	0	0	0	2	Impact
Justice	0	0	0	0	1	0	0	6	8	Impact
Other expenses	1	0	0	2	1	0	0	0	5	Impact
Culture and Capability										
Other expenses (a)	0	0	0	0	0	0	0	0	0	No impact
Remote Australia Strategy (b)										
Schools education	0	0	0	0	0	0	0	0	0	Impact
Other expenses (c)	0	0	2	3	0	0	0	6	11	No impact
Total	12	1	12	8	6	1	0	23	64	
Impact	10	1	10	5	6	0	0	16	49	
No impact	2	0	3	3	1	0	0	6	15	

Note: The State general government sector excludes State statutory corporations and other incorporated entities. Table excludes payments for Stronger Futures in the Northern Territory.

(a) Commonwealth responsibilities – needs not assessed.

(b) Excludes Remote Indigenous Housing.

(c) Municipal and essential services – needs not assessed.

Source: Commission calculation based on data provided by the Department of Prime Minister and Cabinet (PM&C).

Table 2-6 COPEs paid to the State general government sector for Indigenous purposes impacting on the relativities, 2011-12, 2012-13 and 2014-15

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
2011-12	1	2	1	1	2	0	0	12	19
2012-13	0	0	1	3	1	0	0	13	18
2014-15	10	1	10	5	6	0	0	16	49
2014-15 excluding payments for education	2	1	2	3	3	0	0	10	19

Source: 2011-12 and 2012-13 — data returns from various Commonwealth agencies. 2014-15 — data returns from PM&C. 2013-14 not included because the figures were estimated for that year.

Payments to State non-government organisations

92 Table 2-7 shows the payments to non-government organisations (NGOs) for Indigenous purposes in 2014-15. These organisations include State statutory corporations and other incorporated entities, local governments, private organisations and individuals.

93 The Commission said in the 2015 Review report that:

> other Commonwealth activities take in the forms of direct service provision, Commonwealth own-purpose expenses (COPEs) payments made direct to local governments for specific purpose, payments to PNFCs, third parties and individuals should be considered. If they impact on State budgets and needs are assessed, they should impact on the GST distribution.
>
> Where COPEs can be identified and they are made to States in some instances and to third parties in others, but for the same purpose, and needs are assessed, we will recognise they have an impact on State budgets. Where we are unable to observe this, we will not be able to judge whether they impact on State budgets and they will not be brought in. [6]

94 In the 2015 Review, we could not obtain reliable data for payments to NGOs. No COPEs to NGOs were assessed in that review. [7] PM&C has provided us with data for 2014-15.

95 We have decided to treat these COPEs paid to State NGOs for Indigenous purposes as having no impact on the GST distribution because there is not enough information available to decide how they should be treated. While adopting this approach will result in a materially different outcome from treating some or all of them as impacting, we cannot be certain that needs have been assessed for the services funded by them. Nor can we ascertain whether similar payments to NGOs were made to the general government sector of some States. It is impossible to determine if these payments have any impact on State budgets.

96 Only New South Wales proposed an alternative approach. It argued that some components of the COPEs to NGOs should impact on the relativities. It suggested that they be treated in the same way as COPEs to State governments.

97 However, we consider New South Wales' proposed approach to be too broad brush. Unless we can be certain that the payments relieve State budgets, it would be inappropriate to have them impact on State GST shares. Unless terms of reference advise otherwise, we do not propose to collect this information for future updates and these COPEs to NGOs will not impact on the relativities.

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6 CGC, 2015 Review Report, Volume 2, Chapter 2 *Treatment of Commonwealth Payments*, p. 44.

7 Except payments to NGOs for Indigenous health that we collected from the Department of Health and used for the calculation of a disability in the Health assessment.

Table 2-7 COPEs paid to NGOs for Indigenous purposes, 2014-15

Indigenous Advance Strategy	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Jobs, Land and Economy									
Other expenses	64	10	117	139	32	2	1	138	502
Children and Schooling									
Schools education	7	1	7	6	0	0	0	4	26
Post-secondary	2	3	4	3	0	1	0	2	15
Health	1	1	1	1	1	0	0	2	6
Housing	0	0	0	0	0	0	0	0	1
Welfare	17	8	13	23	6	1	0	33	102
Other expenses	35	12	31	12	9	2	4	21	126
Safety and Wellbeing									
Schools education	0	0	0	0	0	0	0	0	0
Post-secondary	0	1	1	1	0	0	0	0	3
Health	12	2	13	8	6	0	1	10	51
Housing	0	0	0	0	0	0	0	0	0
Welfare	20	9	12	19	8	3	1	46	119
Other expenses	4	3	8	4	1	0	0	11	31
Culture and Capability									
Other expenses	2	1	5	5	1	0	28	11	53
Remote Australia Strategy									
Post-secondary	0	0	0	0	0	0	0	0	0
Health	0	0	0	0	0	0	0	0	0
Welfare	0	0	6	20	3	0	0	17	46
Other expenses	0	0	0	0	0	0	0	2	2
Total	165	51	219	240	66	9	35	298	1 082

Note: The allocation of the payments to the Commission's assessment categories are based on the recipients' names and information from their websites. Payments to a State might be spent on national projects (for example, the majority of the payment to the ACT under the Culture and Capability program are to Reconciliation Australia). NGOs include State statutory corporations and other incorporated entities, local governments, private organisations and individuals.
COPEs in the table exclude payments for Stronger Futures in the Northern Territory.

Source: Commission calculation based on data provided by PM&C.

National Partnership Agreement on Remote Indigenous Housing (NPARIH)

Background

98 The NPARIH is a ten year funding agreement between the Commonwealth and the States, commencing in 2008-09. Under the agreement the Commonwealth has agreed to fund additional housing and some community infrastructure, while the States have agreed to accept responsibility for remote Indigenous housing and to be the major service provider for housing in these areas.

99 It involves a major program of construction, repair and replacement of remote Indigenous housing and housing-related infrastructure. It is aimed at increasing remote Indigenous housing (quantity and quality) to mainstream standards before it is transferred over a period of time to State responsibility (management if not ownership). Funding is also provided to assist in transfer arrangements, such as leasing of properties and other operating expenses, on-going management costs and the provision of employment related accommodation.

100 A new program relating to on-going funding of remote Indigenous programs is currently being negotiated with the States.

101 As noted in the NPARIH:

> The NPARIH has reformed responsibilities between the Commonwealth, the states and the Northern Territory in the provision of housing for Indigenous people in remote communities. It established the Commonwealth as the major funder of remote Indigenous housing over the life of the 10-year strategy, with state and the Northern Territory governments responsible for service delivery against a set of agreed objectives.[8]

102 In the 2015 Review, the Commission decided to change the treatment of payments under NPARIH so that they would impact on the GST distribution from 2013-14.

103 The changed treatment was introduced to reflect the gradual transfer of responsibility of remote Indigenous housing to State governments. This is happening at different rates in different States but by 2015-16, between a third and a half of houses will be covered by this transfer of responsibility and the majority will be covered by 2017-18.

104 The Commission considered that, as the States accepted responsibility for the delivery of remote Indigenous housing and made decisions about how that would be done, it was appropriate to consider expenditure and investment on remote

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8 Clause 16 (a) of the *National Partnership Agreement on Remote Indigenous Housing*.

Indigenous housing a State responsibility, even if the Commonwealth was a major funder of that activity.

105 In these circumstances the Commission considered that NPARIH payments should impact on State GST shares because payments are for services usually provided by States and needs are assessed in the Housing category, and also in relation to housing infrastructure. In particular, these two assessments include allowances for differences in use and cost, of managing, maintaining and constructing remote Indigenous housing.

106 Since then, the Commission has become aware of concerns that, at least for some elements of NPARIH, our changed assessment method may be inappropriate. This is because the interstate distribution of those funds was addressing differences among the States beyond their control which were not captured in the Commission's assessment methods.

107 The Commission has consulted further with the States, including seeking data from them on the use of NPARIH, so that it could better understand how NPARIH operates in practice.

State views

108 Queensland, Western Australia and the Northern Territory did not support continuing the 2015 Review treatment of NPARIH payments. Other States supported the current treatment. South Australia and Tasmania did not comment.

109 Queensland, Western Australia and the Northern Territory mainly argued that a significant proportion of NPARIH funding was to rectify past under-investment in remote Indigenous housing and that the associated needs were not recognised in the Commission's assessments. Queensland and Western Australia doubted it would be possible for the Commission to assess needs reliably for such legacy issues. As a result, Western Australia and the Northern Territory argued that the payment should be treated as having no impact. Queensland said the Commission should treat the proportion of the payments targeted at the construction of new houses as having no impact. However, acknowledging the lack of information on this, it suggested that the Commission treat 50% of the payment as having no impact.

110 In addition to this, these States raised the following issues.

- NPARIH funds are also used to purchase properties in regional centres under the Employment Related Accommodation program, which provide people from remote areas with accommodation services in non-remote areas with high employment need, and needs for those expenses are not assessed.
- While States are expected to become the major deliverer of remote Indigenous housing, the Commonwealth would remain a major source of funding.

- The regional cost factor and Indigenous cost weight may not be representative for non-mainstream Indigenous housing in remote and very remote areas.
- The shares of NPARIH funding that Western Australia and the Northern Territory received up to 2014-15 were broadly in line with their shares of the remote and very remote Indigenous population. However, the shares of funding differ substantially throughout the agreement, with the Northern Territory receiving a higher share of the funding in earlier years, and Western Australia receiving a higher share in later years.
- NPARIH is the continuation of previous agreements, which were quarantined by the terms of reference.
- The current land tenure arrangements increase construction and tenancy management costs.

111 New South Wales said the Commission should retain the 2015 Review assessment. It considered the Commission's current assessments of social housing expenses and infrastructure already include recognition of disabilities related to providing remote Indigenous housing. Given this recognition, and the difficulty in the context of the 2016 Update of adequately investigating the issues, New South Wales considered changing the current treatments would be premature.

112 In any case, New South Wales expressed concerns about the validity of the past under-investment argument. It said that interstate differences between inherited housing stocks could be due to factors other than Commonwealth policy, such as jurisdiction policy on investment in and maintenance of State housing stock and State resource allocation decisions over time. It noted that, while the Commonwealth was the predominant funder of New South Wales remote housing prior to the NPARIH, the New South Wales Government has always had a commitment to the provision of affordable and appropriate housing State-wide.

113 It added that, during the period covered by NPARIH, the Commonwealth also has provided other remote housing funding to States under, for example, the housing components of the East Kimberley Development Package and the Stronger Futures for the Northern Territory program (the former treated as impacting on the GST distribution, and the latter, under terms of reference, treated as not impacting on the GST distribution).

114 Victoria considered that any change from the approach taken in the 2015 Review needed to be based on reliable evidence to establish that the current approach is not recognising needs and that this non-recognition will have a material impact.

Analysis

115 Table 2-8 shows the annual and total distribution of NPARIH funding. The total funding shares for the first seven years of the program are reasonably correlated with our assessment of State shares of remote Indigenous households, with only

Queensland and Western Australia receiving significantly lesser shares and the Northern Territory receiving a significantly greater share.

Table 2-8 NPARIH funding, 2008-09 to 2017-18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
2008-09	30	3	110	50	14	1	0	147	354
2009-10	140	7	63	165	98	6	0	132	611
2010-11	23	3	70	86	19	2	0	471	675
2011-12	36	3	145	172	45	3	0	390	794
2012-13	19	3	97	55	6	3	0	122	303
2013-14	45	0	178	191	36	0	0	86	536
2014-15	61	3	143	147	28	2	0	71	455
2015-16 (a)	-	-	-	-	-	-	-	-	363
2016-17 (a)	-	-	-	-	-	-	-	-	407
2017-18 (a)	-	-	-	-	-	-	-	-	362
	%	%	%	%	%	%	%	%	%
2008-09	8.6	0.8	30.9	14.1	4.0	0.2	0.1	41.4	100.0
2009-10	22.9	1.1	10.3	27.0	16.0	1.0	0.0	21.7	100.0
2010-11	3.4	0.5	10.4	12.7	2.9	0.3	0.0	69.8	100.0
2011-12	4.5	0.3	18.3	21.6	5.7	0.4	0.0	49.1	100.0
2012-13	6.1	0.8	32.0	18.3	1.9	0.8	0.0	40.1	100.0
2013-14	8.3	0.0	33.1	35.7	6.8	0.0	0.0	16.0	100.0
2014-15	13.3	0.5	31.6	32.3	6.1	0.5	0.0	15.6	100.0
Total	9.5	0.5	21.6	23.2	6.6	0.5	0.0	38.1	100.0
	%	%	%	%	%	%	%	%	%
Shares of assessed remote Indigenous households (2014-15)	9.0	0.2	27.5	26.3	6.2	1.1	0.0	29.7	100.0

(a) State allocations not available.

Source: Commonwealth of Australia's *Final Budget Outcome*, various years. *Commonwealth Budget Paper no. 3* for 2015-16 to 2017-18.

116 However the interstate distribution has changed over time. The Northern Territory received a greater share of funding in the earlier part of the period covered by the agreement. Queensland and Western Australia have received greater shares of the payments in more recent years. This view is supported by confidential State data on when new houses have been, or are being, built.[9] These show that the building program in the Northern Territory has slowed while the programs in Queensland and Western Australia are increasing.

9 The Commission cannot publish data provided by States on NPARIH because some States asked that the data remain confidential.

117 There are two issues which require further consideration and are discussed below.

- What is the appropriate treatment of NPARIH funding that is being used to address any past differential investment in the stock of remote Indigenous housing, prior to its transfer to the States?
- Should higher management costs experienced by some States be recognised in the assessment?

118 We do not consider it necessary to assess needs relating to NPARIH funds spent on the employment related accommodation program. As the proportion of funds spent on this purpose is very small, any needs assessed would be immaterial.

119 Nor do we consider it necessary to give further consideration to whether NPARIH is a continuation of previous agreements which were quarantined by terms of reference because this issue was dealt with in the 2015 Review Report (volume 2, page 248).

120 ***Past differential under-investment.*** We recognise that, historically, the Commonwealth's funding of investment in remote Indigenous housing has varied across the States and the distribution of the resultant housing stock may not align with a distribution which would provide the same standard of housing services among the States. Differential overcrowding and reductions in crowding in locations where NPARIH investment has taken place are used to illustrate the success of NPARIH in the latest review of the program.[10]

121 Table 2-9 shows AIHW data on overcrowding in Indigenous households. The data indicate that the Indigenous populations of Queensland, Western Australia and especially the Northern Territory have high rates of overcrowding – the States receiving most of the NPARIH funding. The Progress Review report indicates the rates are much worse in remote areas but have decreased since the 2006 Census.

122 However, these differences in the proportion of Indigenous households across States which are overcrowded can be due to more than one influence. In its 2014 report *Housing circumstances and Indigenous households*, the AIHW noted the concept of overcrowding can be subjective and influenced by a number of factors including cultural and housing design considerations. In addition, the differential rates of overcrowding across States could be due to differences in State and Commonwealth policies. It is difficult to be certain of the main driver.

Table 2-9 Overcrowding in Indigenous households, by State, 2011 Census

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	%	%	%	%	%	%	%	%	%
Indigenous households	9.9	9.0	13.6	15.6	10.7	6.4	6.9	37.5	12.9

Source: AIHW analyses of unpublished data from the ABS 2011 Census.

10 *National Partnership Agreement on Remote Indigenous Housing – Progress* Review (2008-2013), page 7.

123 Nonetheless, at least part of the NPARIH funding appears to be directed to closing the gap so that each State has a common capacity to deliver services. Another part, according to NPARIH agreements, is directed to lifting the overall stock in each State so that service standards approach or equal those provided in non-remote communities.

124 While our investment assessment makes provision for investment designed to increase overall housing stocks, it makes no provision for investment designed to close gaps between actual stocks and the stock needed to provide average service levels. In most cases such gaps would be the result of past State policy choice and equalisation does not seek to compensate for those past policy decisions. Similarly, Commonwealth funding to close such gaps, which were the result of State policy choice, would also be treated so that their fiscal impact was equalised.

125 However, if such gaps were not the consequence of past State policy choice, then Commonwealth payments to close these gaps should not be treated in such a way as to equalise their fiscal impact, because the Commission's investment assessment makes no provision for such differential investment. This is particularly apposite in this case when there is a transfer of responsibility and assets to the States. Unless the stock being transferred to State management, or the stock plus part of the Commonwealth payment, matches that needed to provide average service standards, States will not have the capacity to provide average service levels and fiscal equalisation will not be achieved.

126 If there is a differential gap between the inherited stock and the stock that a State would be assessed to need to provide the average level of service, and this differential gap is the result of Commonwealth not State policy, then a disability should be assessed to recognise differential State needs. If assessing a disability is not possible, then the funding relating to this disability should not impact on the relativities.

127 After reviewing the data and other information provided by States, the Commission is concerned that it may be missing a disability associated with past differential investment by the Commonwealth which NPARIH is intended, among other purposes, to address. While it is not certain that the differences are the result of only Commonwealth policy, it is clear that there are observed differences in overcrowding and that the Commonwealth is providing larger shares of funding to States with the greatest problems as part of the process of transferring Commonwealth-funded assets to the States.

128 ***Management costs.*** Some States have argued that their individual circumstances, such as issues associated with land tenure, increase the costs of transfer and management. However, confidential State data do not seem to support this contention. The data show that the Northern Territory spends less per remote Indigenous house than the average amount.

Commission decision

129 The Commission notes that States are still expected to become the major deliverer of housing for remote Indigenous people by 2017-18. We recognise that not all Indigenous housing will be under State control or regulation by then but that most of it will be. We therefore consider it appropriate to continue the phasing-in of the 'impact' treatment of NPARIH payments. As a result, when 2017-18 becomes the application year for the relativities produced for a 2017 Update, NPARIH will have an impact in all three years. For reasons of simplicity, we have not changed the assessment for housing and housing investment to remove the needs assessed for the years in which the payment does not impact (only one in the 2016 Update).

130 The Commission is assessing State needs for an average level of operating expenses on, and investment in, remote Indigenous housing. While the regional and Indigenous cost weights may not be perfect, we have no further data to support a change to them. In addition, the evidence we have does not provide sufficient support for the argument that differences in individual State circumstances would result in greater spending on transfer and tenancy management responsibility, and by extension to maintenance. We have not adjusted our assessment for this either.

131 However, at least some part of NPARIH funding appears to be used to overcome differential levels of housing stock in remote Indigenous communities among the States as part of a transfer of these assets to State responsibility. Unless we change our investment assessment to recognise this disability, we will never adjust for any differences between assessed and actual levels of remote Indigenous housing in a State at the time of transfer of responsibility. While we are not certain all the differences are due to Commonwealth policy decisions, we have concluded that they are in part. If NPARIH funding is fixing this gap, then it should not impact on the relativities.

132 As we do not have sufficient evidence to assess a disability with a differential profile among States, we have decided that we will treat part of NPARIH payments to each State as not impacting on the relativities. Confidential State data show that investment in housing appears to constitute some 50% of NPARIH funds at the national level, but part of this represents lifting the average standard of remote Indigenous housing to that of other communities. We have no information on how large that part might be.

133 We consider that on balance an outcome closer to fiscal equalisation is reached if we exclude 25% of NPARIH funding from State investment spending and from the NPP treated as impacting on the GST distribution. The other 75% of the funding has been treated as having an impact.

134 We will review the treatment of Commonwealth payments for remote Indigenous housing when the replacement program for NPARIH has been negotiated. However,

we would expect the Commonwealth legacy issues to be resolved by the time the transfer of responsibility is complete in 2017-18 and there will no longer be any needs not assessed after that.

CHAPTER 3

WAGE COSTS

REVIEW OF THE WAGE COSTS ASSESSMENT

1 The Wage costs assessment recognises that comparable public sector employees in different States are paid different wages, partly due to differences in labour markets beyond the control of State governments.

2 In past reviews, this assessment has had a material impact on the distribution of GST revenue. It has been the focus of considerable research and consultation with the States. The evolution of this assessment is set out in a history paper on the Commission's website (www.cgc.gov.au).

3 In its 2015 Methodology Review, the Commission concluded that the fiscal capacities of States continued to be affected by differences in interstate wage costs over which States had no control. It made an assessment using data from the ABS Survey of Education and Training (SET) undertaken in 2009, updated annually using the ABS Wage Price Index (WPI).

4 The Commission noted that the SET survey was to be discontinued although a new similar survey would become available, which might form the basis of a suitable assessment method. Because the new data would not be available during the methodology review, the Commission committed to a deferred but comprehensive review of the Wage costs assessment. It said:

> when the new data are available … we will need to review whether a conceptual case for the disability continues to exist, and if it does, the most appropriate method to assess it.[1]

5 The Commission has engaged in extensive consultations with the States on both the conceptual case and on the most appropriate assessment method. These include consultations through the 2015 Review which covered conceptual and analytical issues, as well as during the 2016 Update. These are set out in Box 3-1. The Commission also sought an external review of the conceptual basis of the assessment, the implications of which are also discussed in this chapter.[2]

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1 CGC, 2015 Review, Volume 1, *Main findings*, p. 12.

2 Mavromaras, K, Mahuteau, S, Richardson, S, and Zhu, R. *Public-private wage differentials in Australia: What are the differences by State and how do they impact GST redistribution decisions.* 19 February 2016, National Institute of Labour Studies, Flinders University.

6 This chapter presents the outcome of the review of the assessment, deferred from the 2015 Review.

Box 3-1 Consultation on the Wage costs assessment

Date	Action
2015 Review	
Oct-13	*Discussion paper CGC 2013-07-S Proposed Assessments (Chapter 28 Interstate Wages)*, introducing concept of capital city-based wage differentials
Nov-13	Multilateral telepresence with States to discuss CGC 2013-07-S
Jan-14	State submissions received on CGC 2013-07-S
Mar-14	*Discussion paper CGC 2014-01-S Simplifying the Interstate Wages Regression Model*
Apr-14	State submissions received on CGC 2014-01-S
Sep-14	Further State submissions received
Feb-15	2015 Review Report released. Commission committed to comprehensive review of the Wage costs assessment as part of the 2016 Update process
2016 Update	
Jun-15	States notified of Commission's intention to engage academic consultants to review conceptual issues
Jul-15	*Discussion paper CGC 2015-03-S Wage Costs Assessment*, providing summary of Commission views and State submissions thus far
	Commission invited expressions of interest from selected academic experts to undertake review
Aug-15	Bilateral telepresence with States
	Mavromaras et al selected to perform review
Sep-15	State submissions on CGC 2015-03-S received
Nov-15	Mavromaras et al draft paper circulated to States
	Characteristics of Employment survey regression results circulated to States
	Discussion paper CGC 2015-05-S Wage Costs Assessment circulated to States, discussing possible assessment
Dec-15	Australian Labour Market Research Workshop, including multilateral discussion with States and Mavromaras et al
Jan-16	Final State submissions received
Feb-16	Final Mavromaras et al report received

7 In their final submissions, States have reiterated their concerns with the issues addressed throughout the life of this assessment. Two new issues have been raised: whether the 2014 ABS survey data is fit for purpose because it excludes information on educational attainment (discussed later in this chapter), and the time available for consideration and consultation.

8 We consider that we have given sufficient consideration to the issues associated with the Wage costs assessment, and that States appear to have given considerable and detailed thought to these issues in their various submissions. We acknowledge that the results of the consultancy and the data from the ABS came late in the process. However, it is our view that the consultancy represents an incremental development

in the conceptual thinking that has supported this assessment over several reviews. The Characteristics of Employment Survey (CoES) data, very similar to the SET, have been used in an established and thoroughly reviewed approach. We consider it unlikely that further time or consultation would have led us to a different conclusion.

APPROACH

9 The Commission's approach to any assessment of differences in State fiscal capacities comes in two parts. It first seeks to establish if there is a conceptual case for the existence of some difference among States which would impact on their fiscal capacity. Having established such a case, it then determines if a reliable, practical and material method can be found to estimate the size of the impact on different States.

10 A key consideration in this approach is to remove or minimise the impact that State policy has on the assessment and on the resulting GST distribution. To do this, the Commission seeks a policy neutral measure of what States do.

11 Such a policy neutral measure could be achieved in various ways. Following the Commission's general approach to most assessments, we could attempt to determine the average industrial relations policy of the States and apply that to each State's conditions to determine what each would remunerate its employees. It is not clear how we would adopt such an approach in the area of State wage policy. Another approach is to identify some underlying conditions affecting remuneration, independent of State policy, and to use the impact of those as an indicator of how remuneration would differ if there were no policy differences among the States. We use the second approach because it is practical.

12 While we understand that in practice States faced with above average employee costs may seek to moderate that cost by changing the way services are delivered, we assume that States deliver services in a common way, using the average mix of inputs including the time and skill of their employees. This forms the analytical basis for determining service delivery costs which are to be equalised.

13 We approach the question of differences in employee remuneration such that the GST distribution we recommend is as close as we can reliably make it to that which would equalise fiscal capacities. We understand that it may not capture all remuneration related influences on fiscal capacities. However, while other non-policy differences that are not captured in our measure may affect remuneration costs, we are not convinced there is a conceptual case or evidence for any particular direction or bias to such influences.

14 We also recognise, as noted by Victoria and Queensland, the remuneration a State actually sets will be influenced by a range of factors such as its fiscal environment and its policy on the public sector. Our objective is to determine relative remuneration

independent of these State policy considerations, so that only those non-policy differences are reflected in the GST distribution.

CONCEPTUAL CASE FOR AN ASSESSMENT

15 Past Commissions have observed, and we continue to observe, that public sector employees in the same occupation in different States are paid different wages. These differences may arise from policy choices made by the States, from influences beyond their control, or both.

16 Some economic theories may suggest that markets will act to reduce remuneration disparities between regions. However, we are also aware that there are reasons why this might not occur and so disparities continue to exist. Various strands of economic theory support the persistence of differences in nominal wages for comparable private and public sector employees across regional labour markets. Some examples of these are as follows.

- *Compensating differentials*: The theory of compensating differentials suggests that real wages will equalise between regions but that nominal wages may not. In determining what nominal wage to accept in a particular region, workers take account of housing costs, other cost of living differences, and positive or negative region-specific amenities. As many of these factors are not traded across regions, nominal wages adjust to take account of them.
- *Macroeconomic factors:* At any particular time, regions within an economy may be at different stages of their business cycles. As a result, some may have excess labour demand and others excess labour supply. This can cause wages in high demand regions to rise relative to low demand regions, especially in the short run.
- *Attachment and migration costs:* People can also be attached to the place they live in (known as attachment to place), due to family, cultural or other social factors. This means they may be resistant to migration to take advantage of wage differentials across regions. In addition, the costs of migrating to high wage regions may be relatively high. It is well known that both attachment to place and migration costs can contribute to wage differentials between regions. The implication is that an economy’s labour market can behave as separate regional labour markets.

17 So conceptually, observed differences may not necessarily be due only to policy choice.

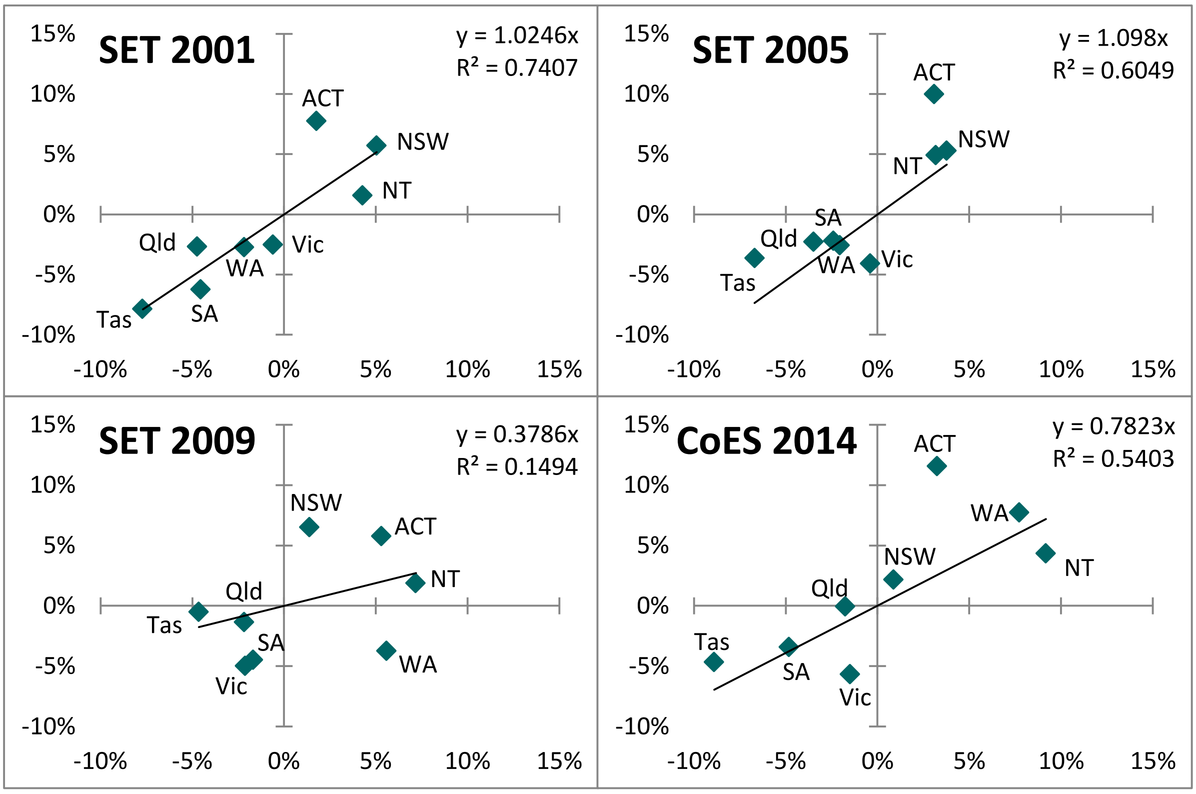
18 We also observe that private labour markets display differences in remuneration for comparable employees; we generally consider these to be broadly independent of State wage policy choices. The persistence of State specific differentials supports a

view that labour markets do not clear fully, and that private remuneration differentials are determined at least in part by State specific conditions.

19 Data on public and private wages also suggest that not only are there differences in the remuneration of comparable employees within these sectors, but that differences in remuneration are responding to the same factors. Figure 3-1 shows average differentials for comparable public and private employees from a succession of ABS survey results from 2001 to 2014.

20 The apparent strength of the relationship has varied over time. The relationship has been positive in all years, and for all but 2009, were statistically significant.

Figure 3-1 Public and private relative wages, 2001 to 2014



Note: The y-axis shows relative public sector wages, and the x-axis relative private sector wages.
Source: Commission analysis of ABS SET and CoES data.

21 States have differing views on the weight which should be placed on the observed relationships in deciding if there is a conceptual case which warrants an assessment.

22 Queensland has argued in recent submissions that the relationship in the 2009 data was less strong than previously observed (R^2= 0.15), not statistically significant, and that therefore the assessment should be discontinued or heavily discounted.

23 Western Australia has stated that the statistical strength of this relationship is not relevant at all. It considers that the conceptual case is valid, and that the statistical

relationship is only measuring how closely States follow average policy, which is irrelevant to fiscal equalisation.

24 We accept that the observed strength of the relationship has varied over time, but that when taken together the data suggest that the factors driving differences in private sector wages for comparable employees also have an impact on public sector wage differentials. At a conceptual level it is difficult to rule out a view that observed differences in remuneration are more than just differences in State policy.

25 During consultations, some States have argued that they respond to national labour market pressures, and they explicitly compare their wage levels with those in other States. To the extent that this is the average policy, and it results in uniform interstate wage levels, it could mean that the fiscal capacities of States do not diverge for wage related reasons.

26 On the other hand, Western Australia has argued that even if States paid uniform wages for some or all State government employees, the conceptual case would still be valid. In its view, higher-cost States would effectively be offering lower real wages, and so would be constrained to accept lower productivity workers, leading to differences in fiscal capacity.

27 If we were to observe such uniform wage levels across States, we would need to reflect on these issues at that time. We do not consider the available data are consistent with uniform interstate wage levels.

28 The results of Mavromaras et al[3] suggest that the same levels of labour quality are remunerated differently by different State governments. Their view is that States compete in both a national and a local labour market simultaneously, so that States pay attention to the wages paid to private sector workers in their own State as well as the wages paid to comparable public sector workers in other States.

29 The relative importance of these two influences is difficult to gauge. However, analysis of Longitudinal Census data show that 60% of people joining the State public service between 2006 and 2011 moved from the private sector in their State, while only 3% moved from the State public sector in another State. This suggests that the direct impact of competition for labour is stronger from other sectors within a State than from a national labour market of State public service employees.

30 We are also concerned that the higher public sector premiums in low wage States cited by Mavromaras et al as evidence of the operation of a national market may, rather, reflect the influence of the Commonwealth public sector. The public sector

[3] While the findings of our consultants are discussed in relevant parts of this chapter, Box 3-2 summarises the key themes that have come from the Mavromaras et al consultancy and the States' responses.

data used in the analysis include Commonwealth public sector data as well as State public sector data.

Box 3-2 Implications of the consultants' report

Mavromaras et al found that State governments pay different wages to comparable workers in different States. The report also suggested that both the public and private sectors are responsive to the same underlying influences in labour markets, albeit with the public sector perhaps moderated in timing and degree. While Queensland contends that the private sector wage levels play no explicit role in their wage setting strategies, most States accept that this is at least one of many influences on the wages they pay. These findings lead us to conclude that an assessment of a wage costs disability remains warranted, and that the private sector is a suitable proxy for the influences faced by the States in paying wages.

Mavromaras et al found that the public sector pays a premium above that paid for comparable people in the private sector, and that this premium is higher in States with low private sector wages. The consultants have taken this as evidence for national labour markets influencing State wages, and several States have concurred with this interpretation, calling for a significant increase to the discount on the basis of this conclusion. Western Australia questions whether this result is due to the model being overly simplistic, and a more complete analysis may find a different result. It also questions whether alternative theories may also explain the relationship found in the data. The ACT notes that the existence of national markets does not eliminate the possibility of State differences in wages due to local influences. It argues these could be an add-on to a national base rate.

The report found that public sector wages in capital cities are higher than those in regional areas, and that this difference is similar to that found in the private sector. Most States agree that this refutes the case for a capital city based assessment. New South Wales remains convinced that a capital city model is conceptually superior to a whole of state approach to measuring public sector wage pressures. However it accepts that a change of this magnitude should be undertaken in the context of a review rather than in an update.

31 South Australia has argued that 'material wage differentials do not exist in public sector occupations where States are the dominant employer and where local private sector employment opportunities are limited (teachers, nurses, police)'[4]. Table 3-1 lists the annual salaries of comparable nurses, police officers and teachers in each State. It is clear that there are significant differences in the wages of these employees.

32 We do not accept the argument that there exists a significant suite of public sector roles where wages are set at a purely national level. We do accept Victoria and Queensland's evidence that one of the factors States consider in setting wages is the wages paid for comparable employees in other States. However, the extent to which

4 From South Australia's first submission to the 2015 Review (July 2013).

this occurs, whether it also occurs in some private sector occupations, or the impact it should have on the wages assessment is not yet clear. A number of States have argued that the question of national labour market dynamics requires further consideration and we agree it should form part of the next review.

Table 3-1 State government salary comparison (selected occupations) annual base salaries

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
	$	$	$	$	$	$	$	$
Nurses								
Enrolled Nurse	49 852	46 972	53 293	52 230	49 750	51 727	53 501	52 564
Registered Nurse/Midwife	56 529	52 473	61 988	60 734	58 178	57 286	58 989	59 419
Clinical Nurse/Midwives	82 612	71 495	81 025	82 433	67 149	74 129	81 918	81 894
Nurse Practitioner	109 439	96 252	112 213	102 171	102 762	101 357	113 699	106 466
Nurse Unit Manager	99 304	88 520	99 606	98 993	97 325	89 075	93 917	n.a
Police								
Constable	63 615	57 035	52 823	66 960	59 225	55 865	n.a	60 202
Senior Constable	79 223	69 648	65 962	84 187	71 585	n.a	n.a	75 545
Sergeant	93 623	87 272	79 486	93 724	87 035	80 819	n.a	90 270
Senior Sergeant	106 826	97 784	92 667	104 941	97 850	n.a	n.a	99 554
Inspector	119 710	115 783	123 003	128 977	122 055	123 204	n.a	n.a
Teachers								
Graduate Teacher	64 008	63 356	53 992	68 137	63 261	56 944	64 089	69 801
3rd Year Teacher	57 720 (a)	68 118	57 391	81 820	69 787	60 526	70 913	76 804

Note: Reference period 2013 and 2016.

(a) New South Wales has moved to a new professional standards-based scale, with no transition arrangements for 3rd year teachers or below, who remain on the old salary.

Source: State enterprise agreements, compiled by Healthtimes.com.au (Apr 2015), Western Australian Parliament document tabled 24th February 2013, and Australian Education Union factsheet.

33 We consider, based on the evidence available to us, that there is a conceptual case for differences in the wages States would pay for comparable employees. Because we are trying to provide States with the capacity to deliver the same service level if they all followed average policy, including public wage policy, we consider some allowance for any intrinsic differences in wages they have to pay represents a better GST distribution from a horizontal fiscal equalisation (HFE) perspective than one where no allowance for these differences is provided.

34 As in the past, because these differences are evident in both public and private wages, we consider that the same pressures affect the wages paid by the State public sector and the wages of the larger community in which States operate.

CONSTRUCTING THE ASSESSMENT

35 While we have data on the remuneration of both public and private sector employees on which we could base an assessment, our preference is not to use the public sector data because it is heavily influenced by the policy stance of individual States.

36 As in the methodology used in past reviews, we propose to measure the relative private sector wage paid to comparable workers in different States and use the divergence of these from the average as an indicator of how public sector wages would diverge in each State. Our approach aims to capture the impact of State specific influences which would have a similar impact on the remuneration of both sectors.

37 In adopting this approach we seek only to establish how a State private or public wage would diverge from the respective national average and make no comparison between the private and public wage within a State.

38 We are also aware that we are capturing only those intrinsic differences which are revealed by the available data. It may always be possible to identify additional differences at the conceptual level, especially ones which impact on a narrow range of States, but without the data to quantify their impact they cannot be reliably incorporated into our assessment.

39 We have noted the concern raised by Victoria that to the extent that a State's amenity is a factor leading to remuneration differences, that amenity itself may be the result of State policy choice. We accept that all States adopt policies which seek to improve the amenity of their States and that some unmeasurable part of differences in amenity may be due to differences in past and present State policy. We consider that making an assessment based on the estimated differentials is closer to achieving HFE than making no assessment, and making an adjustment for the impact of different State policies on amenity is impractical.

40 We note that our indicator is likely to be responsive to labour market pressures. Where a State is experiencing wage pressures that flow through the private sector, our indicator will register a higher than average wage, and give States the capacity to pay higher than average public sector wages.

41 Victoria considers the macro-economic factors are not uniform across all industries. It notes that different industries are likely to be in different stages of the business cycle at any given time, and that the degree to which this is likely to impact on the State sector is likely to vary depending on the types of industry affected by these cycles. We consider the average experience across the private sector to be the best proxy for the pressures affecting the public sector. This will account for wage pressure from one industry flowing across the State and the average impact on wages will then be incorporated into fiscal capacities. This ensures that isolated booms in industries

which have little flow-on impacts in other industries will not have a great impact on assessed State fiscal capacities.

42 We also note that, to the extent that national labour markets exist, say for teachers and this carries over to teachers in private schools, our indicator will adjust and reduce differences between the States.

43 To estimate the wage of a private sector worker relative to the national average, we use a regression model which controls for a large number of observable human capital attributes. In principle, we attempt to estimate the wage that a worker with the national average attributes would be paid in each State.

44 We have observed that over a run of surveys the variation in public sector wages for comparable employees is smaller than for private sector employees and considered whether this observed compression should be included in our assessment. However, that compression may only reflect the inclusion of Commonwealth employees, who are remunerated equally across the country, in the public sector data. In the absence of reliable data relating to State employees we have decided not to make an adjustment to observed private sector differentials.

SPECIFIC ASSESSMENT ISSUES

Capital city or whole-of-State assessment

45 Commission staff have raised the prospect that interstate differences in private sector remuneration in capital cities, where the bulk of public sector employment is located, might be a better proxy for differences in public sector remuneration than private sector differences across the whole State.

46 While some States have made arguments for change, we consider that issues raised by other States should be further explored before any change is made. Western Australia, in particular, made arguments that such an assessment may conflict with the principles of HFE, and that to adopt a stricter interpretation of the 'what States do' supporting principle in this case would require a much more detailed investigation of State service delivery models.

47 Queensland, South Australia and the ACT considered that there was little evidence to support the choice of the capital city region as the benchmark for any State. Queensland also noted that more dispersed States may have a greater focus on regional areas rather than capital cities.

48 Mavromaras et al also examined the question of 'Do State government wages vary between regions within a State to the same extent as the private sector?' They found similar differences between capital cities and the balance of State wages in the public

and private sectors, which suggests that States may respond to sub-State regional labour markets, rather than having uniform pay rates across the State.

49 While we have been able to find some evidence which supports the use of capital city wage differentials, we do not currently consider the empirical results compelling enough to support a change in method. In particular, evidence was not conclusive in regards to:

- public sector employees receiving the same wage everywhere in the State
- private sector wage levels in capital cities producing a better measure than State wide wage levels of the community wage levels affecting the public sector.

Are the 2014 CoES data fit for purpose?

50 The 2014 CoES contained questions on education and qualifications, and our choice of this survey was partly based on their inclusion. However, these data are not available, due to a data processing oversight by the ABS. The ABS assures us that the issue has now been resolved, and that future CoES data will contain this information. We also considered models using the Employee Earnings, Benefits, Training and Union Membership (EEBTUM) surveys, which also do not include education data.

51 We have found that models which do not include education or qualification variables but which instead include detailed industry and occupation data perform very similarly to the former models. Goodness-of-fit measures such as R-squared are similar when using detailed data or qualifications. It appears that information on detailed occupation is as effective in accounting for variation in an individual's income as using broad occupation along with qualification information. We cannot reliably estimate how we would adjust State coefficients for the missing data, but all evidence suggests the impact would be relatively small.

52 There are two obvious strategies for measuring wages in this update:

- delay the introduction of new data and continue to index the SET 2009 estimates forward until we have survey data including qualifications, or
- decide that the contemporaneity of the CoES/EEBTUM surveys outweighs their lack of qualification data, given the improved results due to the inclusion of more detailed occupation and industry data.

53 The first means no change to the method or data we would use. The second would mean a change in data source but no change in method.

54 We consider that the lack of qualifications means that the new data are less than ideal, but we are also concerned with the age of the SET data which would be used for a further year under the indexing option. On balance, we think that the best overall HFE result is produced by using both, and so we have used the indexed SET in 2012-13 and 2013-14 (the same as was used in the 2015 Review) and CoES in

2014-15. We consider this gives the appropriate balance between estimating wages while controlling for all important differences among employees (including education), and using contemporaneous data.

55 Table 3-2 shows the estimated relative private sector wages paid for comparable employees in each State. It shows our measurement using the 2015 Review methodology which was based on the 2009 SET indexed forward to 2014-15 using the WPI, and the 2014-15 estimate produced from the CoES.

56 For the 2017 Update and beyond, we intend to bring in the incoming estimates from the CoES as they become available.

57 New South Wales, Victoria, Western Australia and the Northern Territory support using the latest CoES data for 2014-15, and retaining the SET for earlier years. South Australia, Tasmania and the ACT consider that we should not incorporate the CoES data until the 2017 Update on the grounds that the survey did not include qualifications data.

Table 3-2 Relative private sector wages, 2011-12 to 2014-15

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
	%	%	%	%	%	%	%	%
2011-12 (a)	1.3	-2.4	-2.0	6.6	-2.4	-4.6	4.8	7.7
2012-13 (a)	1.0	-2.3	-2.2	7.3	-2.3	-4.6	4.4	7.6
2013-14 (a)	0.9	-2.3	-2.1	7.2	-1.7	-5.0	4.2	7.9
2014-15								
SET indexed (a)	0.8	-2.0	-2.1	6.8	-1.5	-4.7	4.1	8.0
CoES	0.9	-1.5	-1.8	7.7	-4.8	-8.9	3.2	9.2
Difference	0.1	0.5	0.3	0.9	-3.4	-4.2	-0.9	1.2

(a) 2009 SET data indexed by relative change in the ABS Wage Price Index.

Source: Commission analysis of ABS surveys and WPI data.

Omitted variables

58 Our approach seeks to determine what comparable individuals in different States would earn, so that these differences can be used as an indicator of the differences between States. This requires us to account for as many differences as possible between individuals, for example, differences in education or experience. Our ability to do that is limited by the personal characteristics data collected as part of the CoES.

59 It is possible that there are some uncaptured differences among individuals which we have not been able to identify and that those differences are reflected in and bias our measures of differences among States. Queensland has expressed concern over the omission of education and health status variables in the CoES 2014 dataset.

60 Two other specific scenarios have been raised by the States.

- If people with a greater willingness to accept risk move from States with low employment prospects to other States then the average willingness to accept risk may vary among States. That might be a characteristic which could account for observed differences in remuneration between individuals we would otherwise treat as comparable.
- In States with labour shortages people may secure employment in positions they would not be considered suitable for in other States. Because suitability for a job may not be a measurable characteristic, the wage required to attract a person of national average standard would be higher than the wage measured in the regression model.

61 Using the Household Income and Labour Dynamics in Australia (HILDA) Survey, we have compared our current model with one that also includes measures of cognitive ability, achievement motivation, personality scales and health status. The results provide no indication that the exclusion of these variables leads to systematic bias for any State, and in most cases even to a materially different distribution.

62 We accept that there may be some characteristics which have not been captured and that other influences may be having an impact on our estimates of wages paid to comparable individuals. However, our research into this issue does not provide any indication that a bias exists for any State, and therefore we do not consider it appropriate to adjust the results in any way.

Impact of industry structure

63 The data suggest that a person's earnings are determined by a range of factors, such as education, experience and industry of employment. So otherwise comparable people in different industries earn different remuneration. This could be because they do different work, or industries remunerate at different rates, or a mixture of both.

64 Our model ensures that differences in State average wages which are the direct result of differences in the industrial composition of State private sector employment are not captured in our measure of the innate differences in average State private sector remuneration.

65 New South Wales and Western Australia consider that this is inappropriate because they consider that having an industry structure with a high proportion of industries which pay high wages, even for otherwise comparable employees, means that they need to have the capacity to pay higher wages than States where high wage industries are less prevalent.

66 We consider that our regression model deals with this issue in an appropriate way. It recognises that high wage industries exert an indirect effect on State remuneration. Where an industry which pays high wages for comparable employees is concentrated in a few States, affecting the wage the public sector would need to pay to retain

comparable public sector employees in those States, our indicator captures this. This is because the high wage industry will have a spill-over effect on the wages paid by other private sector industries in the State as well. If this influence increases the general wage of comparable employees in a State, rather than being quarantined to select high wage industries, then we consider it an innate factor which should apply to public sector remuneration and one captured in our indicator. If it does not spill over to other private sector industries, then it should not be captured in our indicator.

Remote area employment

67 Western Australia has raised two issues in relation to employment in remote areas.

68 It notes that neither the SET nor CoES are collected in very remote areas. It argues that, if private sector workers in its very remote areas receive higher wages than comparable workers elsewhere, then by excluding this population from our data we may be underestimating Western Australia's wage pressure.

69 The omission of these data may affect Western Australia's and other States' measured wage differentials. However, Census data suggest the profile of workers in this area is very different from those in other parts of the country.[5] Therefore, it would be necessary to remove the contribution of these other differences to regional wages to derive wage levels for comparable people.[6] As we cannot reliably determine the size or in some cases the direction of such an adjustment for all States, we do not consider an adjustment appropriate.

70 Like Western Australia, we consider it desirable to appropriately capture the full impact of all employees and of their intra-state location, in part because it would act to further reduce any double counting between the Wage costs and Regional costs assessments. However neither available SET nor CoES data allow us to investigate the impact of intra-state location independent of other characteristics like industry of employment. In the absence of such data we consider that the most reliable indicator is one based on the available SET/CoES data, without ad hoc adjustments.

71 Western Australia also provided material in its submission[7] which suggested it was compelled to pay substantial additional compensation to workers in regional and remote areas. The Commission has accepted the conceptual case that such costs are higher in remote areas and recognises this in the Regional costs assessment. We note

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5 For example, 43% of very remote Western Australian workers worked 60 hours or more, compared with 4% nationally.

6 Controlling for a small range of variables using Census data leads to an estimate of $30 per capita for Western Australia. Controlling for a wider range of variables reduces this to under $10 per capita. It is not clear what the impact would be if we controlled for all variables in the CoES analysis.

7 Western Australia submission to 2015 Review (December 2015), *Appendix B: Western Australian Agencies' Staffing of Regional Areas.*

that many of the items described by Western Australia are already covered by this assessment.

Discounting

72 In the 2010 Review the Commission said:

> 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%) because of data uncertainty.[8]

73 Several States argued for changes to the discount based on the Mavromaras et al report, missing qualification data in CoES, and general data concerns. Victoria, Queensland, South Australia, and Tasmania all argued for an increased discount. New South Wales, Western Australia, the ACT and the Northern Territory all argued that the discount should be removed either immediately or progressively as the CoES data are phased into the assessment. Western Australia argued that the rationale for discounting in this assessment is unclear, and suggested that unless evidence were provided that discounting improves the HFE outcome, it should be scrapped.

74 We do not consider the uncertainty of this assessment has markedly changed, and so have not changed the discount. Any marginal increase in uncertainty by not including education variables is offset by the increased contemporaneity. We also note that we expect in the next few updates to incorporate higher quality contemporaneous data, and so increasing the discount for a single year seems unwarranted.

75 In the 2015 Review we said:

> …the Commission may adopt discounting or other case specific adjustment processes to deal with instances where there is a conceptual case for including an influence which differentially affects State fiscal capacities, but where the measure of that influence is affected by imperfect data or methods. In such instances, the Commission must choose between letting the data influence the GST distribution in proportion to its quality or ignoring the data completely. It considered a better HFE outcome is achieved by partially recognising the disability, consistent with the confidence it has in its measurement. [9]

76 We consider that the discount we propose is consistent with this view and is consistent with the confidence we have in the assessment.

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8 CGC, 2010 Review, Volume 2, Chapter 24 *Locations costs*, p. 505.

9 CGC, 2015 Review, Volume 1, Chapter 5 *Quality Assurance*, p. 133.

State specific adjustments

Tasmania

77 In the 2010 Review, we applied a 25% discount to Tasmania's modelled wage outcome. We considered data from the 1997, 2001 and 2005 SET 'indicates there are constraints on the variation of public sector wages, and that there are likely to be bounds within which public sector wages lie.'[10] The Commission suggested relative public sector wages in Tasmania could not fall as low as the SET data suggested Tasmania's relative private sector wages had fallen.

78 In the 2011 Update, with the release of the 2009 SET, the Commission discontinued this adjustment, as Tasmanian private sector wages were no longer outside the bounds within which public sector wages lay.

79 With the release of the CoES data, we again find that Tasmania's private sector wages for a comparable employee (8.9% below average) are well outside the range found for any public sector wage relativities (Victoria being the lowest at 5.7% below average).

80 The Mavromaras et al report also suggests that States with relatively low private sector wage levels, such as Tasmania and South Australia, may come under more pressure to pay high premiums to their public sector in order to attract sufficiently high quality workers. Tasmania argues that this constitutes sufficient evidence to justify increasing the general discount, and also to apply a Tasmania-specific discount. It argues that public servants in that State must be paid an isolation premium which does not apply to the private sector. Tasmania suggests that this could be recognised by setting its wage factor equal to the next lowest State in each update.

81 We have given careful consideration to the question of whether it is feasible for a State to be able to deliver the average level of services to its residents if it remunerated its employees at the bottom end of private sector wage differentials revealed by our analysis. In doing this we have been mindful of Tasmania's and others' views on the importance of national markets and national wages for important elements of its workforce.

82 Tasmania contends that its private sector does not face an isolation premium like its public sector does, as the private sector does not recruit significantly from other States, while its public sector does. We note, however, that the longitudinal census indicates that 13.0% of Tasmania's State government employees had lived interstate 5 years earlier, compared with 13.1% of Tasmania's private sector employees. As such, we consider that there is little evidence that this phenomenon should be impacting the public sector differently from the private sector.

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10 CGC, 2010 Review, Volume 2, *Location costs*, p. 505.

83 We agree with Tasmania's contention that the structure of its private sector is very different from its public sector. However, we consider that the regression, which controls for such structural differences, should resolve this. We consider that using the indexed SET numbers for the first two assessment years mitigates the effect of the new data, putting the average Tasmanian private sector wage for the three years at 6.2% below average. This is below the public sector wage differential for a comparable employee observed in Victoria in 2014 of 5.7% below average, but not so far below so as to suggest it is infeasible to have remuneration at the level suggested by the indicator. As such we consider that no adjustment is required in this update.

Australian Capital Territory

84 The ACT considers that the large influence of the Commonwealth government means that private sector wage levels do not fully reflect community wage pressures because of the influence of the Commonwealth Government with which it competes.

85 The new data show that the public sector relativities in the ACT (driven primarily by the Commonwealth) are considerably higher than the private sector wage relativities:

- 2012 EEBTUM – 16% for public and 4% for private
- 2013 EEBTUM – 11% for public and 6% for private
- 2014 CoES – 12% for public and 3% for private.

86 The Commission made an adjustment for the ACT until 2011, and ceased this on the basis that the gap between public and private relativities in the ACT had abated. With its return, the ACT considers the adjustment should be reinstated.

87 The ACT case suggests that the direct impact of the Commonwealth on ACT public sector remuneration is much greater than an indirect effect through the impact of the Commonwealth on private sector remuneration in the ACT. That case would be strengthened if the Commonwealth and the ACT employed similar workforces and there was high mobility between them.

88 While workforce composition may be similar, there will be some exceptions, for example in teaching and health care. Furthermore, the longitudinal census data show that the ACT government's employees are twice as likely to be recruited from the local private sector as from the Australian government, and are more likely to leave the Territory sector for the local private sector than for a local Australian Government job.

89 The ACT considers that the Mavromaras et al report supports special treatment for the ACT, as it has a relatively high proportion of Commonwealth employees. However, we note that the report simply says that this 'confounds the story', and makes no further recommendations regarding how the ACT results should be treated.

90 We do not consider an adjustment is warranted because we consider that to the extent the Commonwealth remuneration is a factor affecting ACT remuneration it will also affect ACT private wages and be captured in our indicator.

Commonwealth Superannuation Scheme

91 At the time of self-government, many ACT and Northern Territory government employees were members of the Commonwealth Superannuation Scheme (CSS), which was a more generous scheme than those offered by State governments. In previous reviews we have adjusted the wage factors to allow for the higher labour costs in the two territories as a result of this unavoidable legacy cost. This adjustment is no longer material, redistributing $12 to the ACT, and $18 to the Northern Territory. As this immateriality was identified very late in our process, we have not had sufficient opportunity to consult States on this issue. We intend to consult with the States during 2016.

CALCULATING THE WAGE COSTS FACTOR

92 The wage costs factor was derived from the State coefficients for whole of State relative private sector wages output from the regression model based upon the 2009 SET data and the 2014 CoES.

93 We have applied the relative growth in the WPI from the SET survey year to the first two assessment years for each State.

94 To allow for concerns about data quality and the strength of the relationship between public and private sector wages, these factors were discounted using the low discount (12.5%).

95 Table 3-3 shows the process for 2014-15. The calculation for 2014-15 uses CoES data for 2014-15, and so is not indexed by WPI.

Table 3-3 Wage costs factor calculation, 2014-15

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ave
Raw Factor	1.009	0.985	0.982	1.077	0.952	0.911	1.032	1.092	1.000
Discounted	1.008	0.987	0.985	1.068	0.958	0.922	1.028	1.080	1.000
CSS Adjustment	1.000	1.000	1.000	1.000	1.000	1.000	1.002	1.001	
Final Factor	1.008	0.987	0.985	1.067	0.958	0.922	1.031	1.081	1.000

Note: Interim factors are rescaled so as to generate an average of one. Where the average factor is shown as one, the State factors shown are the rescaled factors.

Source: Commission calculation.

Wage proportions of expense categories

96 We have calculated the wage proportions of direct service delivery expenses using data from ABS Government Finance Statistics (GFS). We have set the assessed proportion of wages for the Housing, Roads and Transport assessments to the average of the other categories, as we believe significant amounts of wage expenses in these categories are classified as other types of expenses, such as payments to contractors.

97 We assumed any grants and subsidies in a category had the same wage — non-wage cost structure as that category's direct expense. For example, the wages proportion of grants to non-government schools was assumed to be the same as that for government schools costs.

98 These proportions were obtained by averaging GFS data for years 2010-11 to 2012-13. As the annual proportions have remained relatively stable over the three years, we have not updated them in this update, and consider it unnecessary to update the proportions in future updates.

WHAT IS THE IMPACT ON THE GST DISTRIBUTION?

99 Table 3-4 shows the illustrative GST impact of the Wage costs assessment. The new wages data have led to significant redistributions away from South Australia, Tasmania and the ACT, and towards Victoria, Western Australia and the Northern Territory.

Table 3-4 Illustrative GST impact of wage costs assessment, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
2015 Review	375	-663	-485	875	-172	-115	89	96	1 435
Changes to wages factor	-46	85	19	46	-64	-34	-11	5	154
Other effects	-8	16	13	-24	7	4	-2	-6	41
2016 Update	321	-562	-453	897	-229	-145	76	95	1 388
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
2015 Review	48	-109	-99	326	-100	-223	223	388	59
Changes to wages factor	-6	14	4	17	-37	-65	-27	19	6
Other effects	-1	3	3	-9	4	8	-5	-25	2
2016 Update	41	-92	-93	334	-133	-280	191	381	57

Source: Commission calculation.

ATTACHMENT A

QUALITY ASSURANCE

1 This attachment reports on the quality assurance procedures applied in this update. Those procedures aim to ensure the data used in the Commission's assessments are fit for purpose and of the best possible quality; the analysis is accurate; and the reporting of the Commission's findings and reasons for decisions leading to them is accurate and transparent.

DATA QUALITY IMPROVEMENT

2 Improving data quality is an important aspect of the Commission's quality assurance processes. To this end, data use guidelines and a data protocol were agreed with the States in 2005 and have been followed ever since.

3 For this update, the Commission, together with the States, worked to improve the comparability of State provided data used in the assessments.

4 The data collection protocol requires the Commission to send a draft copy of requests for new data or information to the States for comments. This is to ensure new requests clearly and accurately specified the data required from the States. For this update, no draft data requests were required.

5 We included the previous year's data in all on-going data requests to help data providers identify the information sought and to assist State and Commission staff to identify abnormal movements in the data between the current and the previous year. Commission staff also checked the data on receipt and sought to clarify any unexpected changes with State Treasury officers.

6 Late in this update, Western Australia raised concerns in a submission about the quality of land value data provided by States which are used in the Land tax assessment. The Commission considered Western Australia's concerns and a response is provided in the New Issues chapter.

7 We also asked the States to clearly identify which datasets used in our assessments could be provided to other State agencies and/or to other third parties to provide as much access to data as possible but also to ensure confidentiality requirements were satisfied.

CALCULATION AUDIT PROCESSES

8 We completed a rigorous internal audit of all calculations. Internal checks were performed and formally signed off by the assessment officer, the assessment team leader and another officer not involved in the original calculation.

9 We also engaged external consultants to check a sample of calculations — Insurance tax, Stamp duty, Health, Welfare, Justice, Services to communities, Roads and Adjusted budget – Commonwealth payments. These audits were over and above the internal checking by Commission staff. The external consultants did not find any major issues in the calculations.

REPORTING OF METHODS, DECISIONS AND RESULTS

10 Transparency and accuracy in reporting the assessment methods, decisions and results are important parts of providing high quality outputs.

11 We consulted the States on new issues arising in this update that might affect the relativities. Staff discussion papers on new issues were sent to the States for comment. Commission decisions are set out in *Chapter 2 New issues* in this update report. The decisions were made using the assessment and SPP guidelines developed in the 2015 Review.

12 We also consulted the States on our review of the Wage costs assessment. Three staff discussion papers were sent to the States for comments, and discussions were held with the States via telepresence and an Australian Labour Market Research Workshop. Commission decisions are set out in *Chapter 3 Wage costs*.

13 We undertook a comprehensive program of proof-reading and checking of tables and results to ensure they aligned with the original calculations.

14 We continued to post additional material on the Commission's website (www.cgc.gov.au) to help explain the Commission's work more simply and transparently. This material aims to help people, other than the staff of the Commonwealth and State Treasuries, understand the Australian equalisation system and the Commission's work.