Australian Government
Commonwealth Grants Commission

Report on GST Revenue Sharing Relativities

2020 Review

Volume 2 — Methodology for measuring State fiscal capacities (Part B)

Canberra

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

List of acronyms

Volume 2

ABF	Activity Based Funding
ABS	Australian Bureau of Statistics
ACARA	Australian Curriculum, Assessment and Reporting Authority
ACCHS	Aboriginal Community Controlled Health Services
ACEM	Australasian College for Emergency Medicine
ACTPS	ACT Public Service
AECC	Australian Emergency Care Classification
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AFP	Australian Federal Police
AGFS15	Australian System of Government Finance Statistics 2015
AGM-km	Average gross mass-kilometres
AIHW	Australian Institute of Health and Welfare
AP	Admitted patients
APC	Actual per capita
APRA	Australian Prudential Regulation Authority
APS	Australian Public Service
ARIA	Accessibility/Remoteness Index of Australia
ASGS	Australian Statistical Geography Standard
ATS	Australian Triage System
AWE	Average weekly earnings
BF	Block funded
BITRE	Bureau of Infrastructure, Transport and Regional Economics
BLADE	Business and Longitudinal Analysis Data Environment
CAEPR	Centre for Aboriginal Economic Policy Research
CALD	Cultural and linguistic diversity
CBD	Central Business District
CH	Community and public health
CoE	Compensation of Employees
CoES	Characteristics of Employment Survey
COFOG-A	Classification of the functions of government — Australia
COPEs	Commonwealth Own Purpose Expenses
CSS	Commonwealth Superannuation Scheme
CTP	Compulsory Third Party
CTWSSP	Country Towns Water Supply and Sewerage Program
DCM	Department of the Chief Minister
DRFA	Disaster Recovery Funding Arrangements
ED	Emergency Department

EMA	Emergency Management Australia
EPC	Equal per capita
ERP	Estimated Resident Population
ETF	Economic type framework
FESLs	Fire and emergency services levies
FHOG	First Home Owner Grant
FIFO	Fly in/fly out
FIRS	Federal Interstate Registration Scheme
FME	Feature Manipulation Engine
FOB	Free on board
FTE	Full time equivalent
GDH	Gove District Hospital
GFC	Global Financial Crisis
GFS	Government finance statistics
GG	General Government
GP	General Practitioner
GST	Goods and Services Tax
HACC	Home and Community Care
HAPHF	Heads of Agreement for Public Hospitals Funding
HCC	Health care card
HEI	Higher education institution
HFE	Horizontal fiscal equalisation
HILDA	Household, Income and Labour Dynamics in Australia
HoTs	Heads of Treasury
HPF	Health Performance Framework
IAHP	Indigenous Australians' Health Program
ICH	Indigenous community housing
ICHO	Indigenous community housing organisation
ICSEA	Index of Community Socio-Educational Advantage
ICT	Information and communications technology
IGA	Intergovernmental Agreement on Federal Financial Relations
IHPA	Independent Hospital Pricing Authority
INST	Institutional sector classification
IRSD	Index of Relative Socio-Economic Disadvantage
IRSEO	Indigenous Relative Socio-economic Outcomes (index)
JUR	Jurisdiction classification
LBOTE	Language background other than English
LOG	Level of government classification
MBS	Medicare Benefits Schedule
MoU	Memorandum of Understanding
NAP	Non-admitted patients
NCA	National Capital Authority

NCCD	Nationally Consistent Collection of Data on School Students with Disability
NCP	National Capital Plan
NCVER	National Centre for Vocational Education Research
NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme
NEC	National Efficient Cost
NEM	National Electricity Market
NEP	National Efficient Price
NERA	National Education Reform Agreement
NFW	Net financial worth
NHCDC	National Hospital Cost Data Collection
NHHA	National Housing and Homelessness Agreement
NHR	National Health Reform
NHRA	National Health Reform Agreement
NISEIFA	Non-Indigenous Socioeconomic Index for Areas
NNR	National network roads
NPPs	National partnership payments
NPRH	National Partnership on Remote Housing
NRN	National Rail Network
NSPPs	National Specific Purpose Payments
NSRA	National School Reform Agreement
NTC	National Transport Commission
NWAU	National Weighted Activity Unit
NWAUs	National Weighted Activity Units
NWIPP	National Water Initiative Pricing Principles
NWIS	North West Interconnected System
NWS	North West Shelf
OOHC	Out-of-home-care
PATS	Patient Assisted Travel/Transport Scheme
PC	Productivity Commission
PCC	Pensioner concession card
PFC	Public financial corporation
PH	Public Housing
PNFC	Public non-financial corporations
PNFS	Public non-financial sector
PoC	Point of consumption
PPPs	Public Private Partnerships
PRRT	Petroleum Resource Rent Tax
PSLA	*Petroleum (Submerged Lands) Act*
PSPs	Payments for specific purposes
PSS	Public Sector Superannuation scheme
PWD	Population-weighted density

RC	Regional costs
RCM	Reserve Capacity Mechanism
RoGS	Report on Government Services
RTOs	Registered training organisations
SA1	Statistical Area Level 1
SA2	Statistical Area Level 2
SAF	Skilling Australia Fund
SARIA	State Accessibility/Remoteness Index of Australia
SDC	Socio-demographic composition
SDS	Service delivery scale
SEIFA	Socio-economic indexes for areas
SES	Socio-economic status
SET	Survey of Education and Training
SLGFCE	State and local government final consumption expenditure
SMVU	SSSurvey of Motor Vehicle Usage
SOMIH	State owned and managed Indigenous housing
SPPs	Specific purpose payments
SRO	State Revenue Office
SRS	Schooling Resource Standard
SUA	Significant Urban Area
SWIS	South West Interconnected System
TAFE	Technical and further education
TALC	Type of asset and liability classification
TC	Taxes classification
ToR	Terms of reference
TOS Act	*Traditional Owner Settlement Act 2010*
UCLs	Urban Centres and Localities
VDA	Value distribution adjustment
VET	Vocational Education and Training
VG	Valuer-General
VKT	Vehicle kilometres travelled
VLC	Veitch Lister Consulting
WEM	Wholesale electricity market
WPCLP	Western Parkland City Liveability Program
WSHP	Western Sydney Housing Package

Contents

Volume 2 – Part B

Overview of the 2020 Review assessments

1 The following chapters of the 2020 Review report contain the assessments for each revenue and expense category, as well as each disability that affects numerous category assessments (for example, wage costs). Chapter 30 brings the assessment results together to derive relativities for each of the assessment years of the 2020 Review and recommended three year average relativities to apply in 2020-21. Also included are chapters setting out how the Commission has used population data in the assessments and compiled the adjusted budget, as well as consultation for the 2020 Review. Table 1 provides a list of the chapters.

Table 1 Assessment and other chapters, Volume 2, 2020 Review report

Number	Title
	Overview of the 2020 Review assessments
Revenue	
5	Commonwealth payments
6	Payroll tax
7	Land tax
8	Stamp duty on conveyances
9	Insurance tax
10	Motor taxes
11	Mining revenue
12	Other revenue
Expenses	
13	Schools
14	Post-secondary education
15	Health
16	Housing
17	Welfare
18	Services to communities
19	Justice
20	Roads
21	Transport
22	Services to industry
23	Other expenses
Capital	
24	Investment
25	Net borrowing
Disabilities and other assessments	
26	Administrative scale
27	Wages costs
28	Geography
29	Other disabilities
30	Calculating disabilities
31	Population
32	The adjusted budget
33	Consultation

2 The data and methods set out in the chapters have been developed in accordance with the principle of horizontal fiscal equalisation (HFE) and the supporting principles — what States do, policy neutrality, practicality and contemporaneity — as adopted by the Commission for the purpose of measuring State relative fiscal capacities.[1]

3 The 2020 Review assessment guidelines, as set out in Chapter 3, Volume 2, Part A have been used to assist in the review of the assessments. In brief, the guidelines say that the Commission will include a disability in a category when:

- a case for the disability is established, namely:
  - a sound conceptual basis for these differences exists
  - there is sufficient empirical evidence that material differences exist between States in the levels of use or unit costs, or both, in providing services or in their capacities to raise revenues.
- a reliable method has been devised that is:
  - conceptually rigorous (for example, it measures what is intended to be measured, is based on internal standards and is policy neutral)
  - implementable (the disability can be measured satisfactorily)
  - where used, consistent with external review outcomes.
- data are available that are:
  - fit for purpose — they capture the influence the Commission is trying to measure and provide a valid measure of State circumstances
  - of suitable quality — the collection process and sampling techniques are appropriate, the data are consistent across the States and over time and are not subject to large revisions.
- the assessment is material.

4 The general approaches to revenue and expense assessments are described below.

Calculating assessed revenue

5 Assessed revenues are derived by multiplying a revenue base (referred to as a capacity measure) by the average tax rate. This is equivalent to apportioning total revenue by each State's share of the revenue base.

Revenue base (capacity measure)

6 Conceptually, the capacity measure is the revenue disability faced by States. To establish the revenue base, the Commission examines States' tax legislation to identify the transactions being taxed, the concessions or exemptions being offered and how tax liability is assessed.

7 Revenue bases are generally constructed using data on the number or value of taxable transactions. The extent to which data on the number or value of taxable transactions might be policy influenced is also considered.

[1] See Chapter 2, Volume 2, Part B for information about the HFE objective and the supporting principles.

8 Data are obtained from two sources.

- State tax collection agencies. The stamp duty on conveyances revenue base is an example of a revenue base measured using State provided data.
- Independent sources. Revenue bases can be measured using data from independent sources (such as the Australian Bureau of Statistics). If the data are a reliable measure of each State's revenue capacity, the Commission's preference is to measure revenue bases using third party data, because third party data tend to be less affected by State policy differences. The payroll tax revenue base is an example of a revenue base measured using third party data.

9 ***Adjustments for differences from the average policy.*** Revenue bases are measured with reference to what States, on average, tax. What is taxed in one State might not be taxed in another. Thus, adjustments may be required to remove or add parts of the base where a State's policy differs from the average. This is more common for data supplied by States. For example, in the Land tax category, adjustments are made to the revenue base for the ACT to account for its policy choice not to aggregate taxpayers' land holdings and to impute a revenue base for the Northern Territory, which does not impose land tax.

10 ***Adjustments for differences in disability influences.*** A revenue base should capture differences in capacity arising from factors outside the control of a State. An adjustment may be required to remove or add a factor. For example, if States impose different rates of tax on different parts of the tax base, assessing revenue capacity using the total value of transactions will not capture all revenue disabilities. An adjustment may be required to reflect how differences in the distribution of taxable transactions across value ranges can affect the revenue States raise. Such progressivity adjustments are assessed in the Land revenue and Stamp duty on conveyances categories.

11 If reliable data are available to adjust a revenue base, the Commission uses the data to estimate the size and direction of the adjustment for each State. An adjustment is only included if it is material. If reliable data are not available, but the Commission is confident about the direction and relative size of the adjustment, it may determine an adjustment using judgment.

Average tax rate

12 The average tax rate is calculated by dividing total revenue by the total revenue base. This calculation means it reflects any concessions or rebates provided by States.

Calculating assessed expenditure

13 The expenditure assessments start from a presumption that, if all things were equal, each State could provide the average level of service by spending the average amount per capita. However, State circumstances differ, and this leads to differences in:

- the use of services, which influence the cost of providing services through:
  - greater demand for services (some population groups may use services more often than others)
  - greater cost per occasion of service (some population groups may cost more per occasion of service than others).
- the cost of inputs used in the provision of services, such as wages.

14 Some examples are provided below.

- Hospital services are used more intensively (through either greater demand or greater cost per occasion of service) by some age groups and by Indigenous people. States are assessed to have a cost disadvantage, or disability, if the groups that make the most use of a service are a larger proportion of their population than they are of the national population. Conversely, they have a cost advantage if the size of the group is smaller than the national average.
- Cost of inputs covers interstate differences in wage related costs and inter-regional differences in wage and non-wage related costs. In addition, some States face diseconomies of small scale, which result in higher per capita costs.

15 However, higher costs arising from a State's decision to provide a higher level of service, or lower efficiency levels do not constitute a disability.

16 Table 2 summarises the expenditure disabilities the Commission has assessed in the 2020 Review.

Table 2 Disabilities assessed in each expenditure category, 2020 Review

	Disaggregated use attributes						Other disabilities assessed (a)						
Category	**Indigenous status**	**Socio-economic status**	**Region (c)**	**Age**	**Population growth**	**Non-State sector**	**Wage costs**	**Regional costs**	**Service delivery scale**	**National capital**	**Cross-border**	**Natural disaster relief**	**Other**
Schools education	✓	✓	✓	✓		✓	✓	✓	✓		✓		
Post-secondary education	✓	✓	✓	✓			✓	✓			✓		
Health	✓	✓	✓	✓		✓	✓	✓	✓		✓		
Welfare	✓	✓	✓	✓			✓	✓	✓		✓		
Housing	✓	✓	✓				✓	✓					
Services to communities	✓		✓				✓	✓	✓				
Justice	✓	✓	✓	✓			✓	✓	✓	✓			
Services to industry							✓	✓					✓ (d)
Roads			✓				✓	✓			✓		✓ (e)
Transport							✓	✓					✓ (f)
Other expenses							✓	✓		✓		✓	
Investment (b)					✓		✓	✓					
Net borrowing					✓								

Note: Administrative scale costs and native title and land rights disabilities for all categories are assessed in the Other expenses category.

(a) Some disabilities only apply to a proportion of the category. For more information, refer to the report chapters for each expense category.

(b) The Investment assessment uses relevant category specific use disabilities to calculate assessed stock. A capital cost disability is also applied. The disabilities used are described in the expense chapters and the Investment chapter.

(c) The effect of the use of services and unit cost of providing services in different regions of States.

(d) Sector size and population.

(e) Road length and use and the need for bridges and tunnels.

(f) Urban centre characteristics (population size, density, public transport use, distance to work, topography and the presence of ferry services).

Calculating the equalisation requirements

17 A State's equalisation requirement is the difference between the sum of its assessed expenses and assessed investment, and the sum of its assessed own-source revenue, assessed net borrowing and Commonwealth payments for specific purposes (PSPs), where:

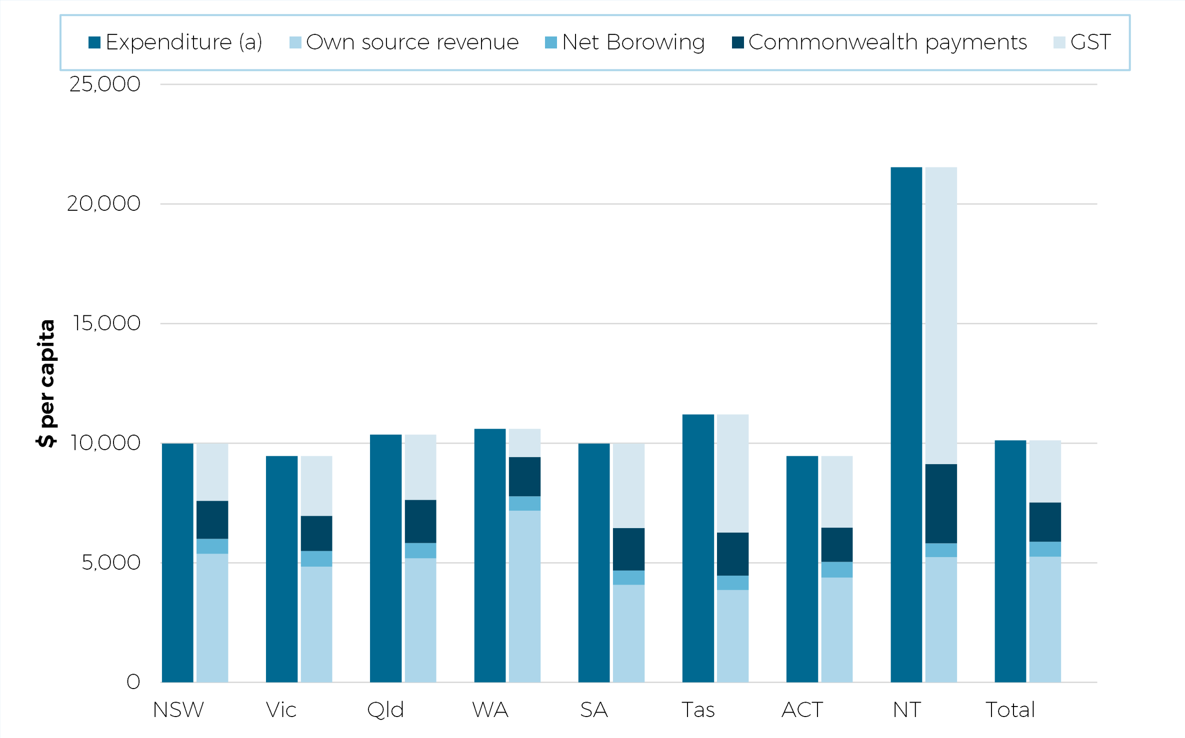
- a State's assessed expenses are the expenses it would incur if it were to follow average expense policies, allowing for the disabilities it faces in providing services, and assuming it provides services at the average level of efficiency
- a State's assessed investment is the expenditure on infrastructure it would incur if it were to follow average policies, allowing for disabilities it faces in providing infrastructure, and assuming it requires the average level of infrastructure to deliver the average level of services
- a State's assessed revenue is the revenue it would raise if it were to apply the average policies to its revenue base, and raise revenue at the average level of efficiency
- a State's assessed net borrowing is the amount a State would require to achieve the average net financial worth at the end of each year
- a State's Commonwealth payments is the amount of PSPs it receives from the Commonwealth.[2]

18 The assessed equalisation requirement is the Commission's estimate of the funding each State requires to have the financial capacity to provide the average (or same) standard of services and associated infrastructure. This level of funding also ensures that each State has the financial capacity to finish the year with the average (or same) net financial worth (NFW) per capita. In other words, NFW is equalised.

19 The outcomes of the Commission's assessments are sometimes presented as differences (or redistributions) from an equal per capita (EPC) distribution. An EPC distribution is the average distribution. A State with a positive redistribution from EPC has been assessed (depending upon the particular assessment) as having an above average GST requirement. This can be due to an above average expense or investment requirement; a below average revenue raising or net borrowing capacity; or a below average receipt of PSPs. Conversely, a State with a negative redistribution from EPC has been assessed as having a below average GST requirement. This can be due to a below average expense or investment requirement; an above average revenue raising or net borrowing capacity; or an above average receipt of PSPs.

[2] The calculations include most, but not all, PSPs. The terms of reference quarantine (that is, exclude) some payments and the Commission excludes others because they do not affect fiscal capacities.

Figure 1 Equalisation requirement, 2020-21



(a) Includes expenses and investment.

Source: Commission calculation.

5 Commonwealth payments

Summary of the assessment

The Commonwealth payments revenue assessment allows the Commission to recognise the effects of Commonwealth payments on State fiscal capacities.

The Commonwealth payments in this category mainly include:

- payments for specific purposes that affect State fiscal capacities, or 'impact' payments
- other Commonwealth payments, mainly Commonwealth own-purpose expenses (COPEs), that do not affect State fiscal capacities but remain in the adjusted budget because the related expenses cannot be identified.

Impact payments are assessed actual per capita (APC) and other Commonwealth payments are assessed equal per capita (EPC).

The category excludes (Goods and Services Tax (GST) payments and 'no impact' payments. The latter payments and their related expenditure are removed from the adjusted budget.

Overview

1 There is a large vertical imbalance in the revenue raising and expenditure powers of the Commonwealth and State governments. The amount of revenue raised by the Commonwealth is considerably larger than its own-purpose outlays. By contrast, the States' own-purpose outlays greatly exceed the revenue they raise.

2 The imbalance is addressed by payments to the States that take two main forms:

- general revenue assistance, mainly goods and services tax (GST) revenue, which can be spent according to States' own budget priorities
- payments for specific purposes (PSPs) where the Commonwealth provides payments to the States for specific purposes in policy areas for which the States have primary responsibility, including:
  - national specific purpose payments (SPPs) for Skills and Workforce Development, and Disability
  - National Health Reform funding
  - Quality Schools funding
  - National Housing and Homelessness funding
  - national partnership payments (NPPs) for health, education, skills and workforce development, community services, housing, Indigenous affairs, infrastructure and the environment.

3 General revenue assistance and PSPs to the States were $127 billion in 2018-19, representing 44.4% of total State revenue (Table 5-1).

Table 5-1 General revenue assistance and PSPs to States, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
General revenue assistance									
GST ($m)	17,826	16,683	14,345	3,193	6,670	2,433	1,296	2,712	65,160
Other general revenue assistance ($m)	52	26	0	1,361	0	0	40	2	1,482
Payments for specific purposes ($m)	17,550	14,110	13,898	6,100	5,025	1,503	955	1,149	60,290
Total payments ($m)	**35,428**	**30,819**	**28,243**	**10,654**	**11,695**	**3,936**	**2,291**	**3,863**	**126,932**
Total payments ($pc)	**4,408**	**4,722**	**5,592**	**4,089**	**6,710**	**7,404**	**5,413**	**15,735**	**5,044**
Payment as proportion of State revenue (%)	40.9	44.3	47.6	33.3	57.0	61.7	40.9	63.2	44.4

Note: Figures in this table do not include Commonwealth own-purpose expenses.

Source: Commonwealth payments are sourced from Commonwealth of Australia's *Final Budget Outcome 2018-19*, Table 25. Total State revenues are sourced from State financial reports.

4 Table 5-2 shows general revenue assistance and PSPs as a share of State total revenue from 2015-16 to 2018-19.

Table 5-2 General revenue assistance and PSPs to States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Revenue from Commonwealth payments ($m)	106,195	115,682	120,304	126,932
Proportion of total revenue (%)	43.5	44.5	44.3	44.4

Source: General revenue assistance and PSPs are sourced from Commonwealth of Australia's *Final Budget Outcome* documents. Total State revenues are sourced from the Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State financial reports.

5 GST is the main form of general revenue assistance. It is distributed among the States based on the Commission's measurement of State fiscal capacities, according to the principle of horizontal fiscal equalisation (HFE).

6 In measuring State fiscal capacities, the Commission must take account of the distribution of PSPs because, like other revenue sources, PSPs are available to fund services and acquire assets. If it did not, State fiscal capacities would not be equalised. The influence of PSPs on State fiscal capacities is recognised through the Commonwealth payments assessment.

7 In addition to PSPs, the Commonwealth payments assessment includes a small number of Commonwealth Own Purpose Expenses (COPEs)[1] paid to States and, when they occur, imputed capital grants arising from concessional loans to States and debt forgiveness. These payments are discussed in the next section.

Treatment of Commonwealth payments

8 The terms of reference (ToR) provide guidance to the Commission on the treatment of PSPs. Clause 8 of the initial ToR instructs the Commission to:[2]

- treat national specific purpose payments, National Health Reform funding, Quality Schools funding (for government schools), national partnership project payments and

[1] A Commonwealth own-purpose expense is an expense made by the Australian Government in the conduct of its own general government sector activities, and includes expenses for the purchase of goods and services and associated transfer payments.

[2] The initial terms of reference (ToR) for the 2020 Review were received on 28 November 2016.

general revenue assistance other than the GST, so that they affect the Commission's measurement of State fiscal capacities

- ensure that some specified payments, including all reward and facilitation payments, have no effect on State fiscal capacities.[3]

9 However, the ToR (clause 8d) also give the Commission discretion to vary the treatment of the first group of payments where it is appropriate, reflecting the nature of the payments and the role of State governments in providing services. The Commission interprets this clause as meaning that in exercising its discretion, it must only consider the principle of HFE.

10 The Commission is aware there are other policy objectives behind the distribution of PSPs. However, it does not consider that it has been asked to choose among objectives in advising on the GST distribution. It has no discretion other than that which improves the HFE outcome.

PSP treatment guideline

11 In this review, the Commission has retained the 2015 Review guideline to decide the treatment of PSPs on a case-by-case basis. The guideline states:

> 'Payments that support State services, and for which expenditure needs are assessed, will have an impact on State fiscal capacities.'[4]

12 Adopting the guideline and applying it on a case-by-case basis will result in some payments having an impact on State fiscal capacities and others not. The decision on the treatment of a payment is solely based on whether the payment is available to support State services and whether needs (disabilities) have been assessed. In deciding the treatment, the Commission makes no judgment about the worth of any Commonwealth program or the allocation among States.

13 Under this approach, all PSPs that offset the fiscal consequences of expense disabilities will be recognised in assessing State fiscal capacities. Similarly, PSPs used to address differences the Commission has not assessed will not affect State fiscal capacities.

14 In considering whether needs are assessed for the activity which the payment funds, the Commission considers the main purpose or driver of the payment. Where the driver of the Commonwealth distribution broadly aligns with the Commission's expense assessments, the Commission would consider 'needs are assessed' for the payment. This includes the Commission's use of population shares as the driver in an assessment where it concludes there are no differences in the per capita service delivery costs (a deliberative EPC assessment). Where the Commission considers the drivers in the assessments do not align with the purpose of the Commonwealth payment, the payment will not affect State fiscal capacities.

15 For most payments, making decisions on their treatment using the guideline is straightforward. However, for a minority of payments, making decisions can be difficult and contentious. In the Commission's experience, this arises because of difficulties in deciding

3 This is referred to as 'quarantining'. Instructions about which payments are quarantined are received annually in the update or review ToR. Attachment 5-A at the end of this chapter lists all Commonwealth payments paid to States in 2016-17, 2017-18 and 2018-19, and their treatment. The attachment identifies payments that receive a 'no impact' treatment due to quarantining instructions in the ToR.

4 There is a terminology change: in the 2015 Review, the guideline referred to payments that '*impact on the relativities*'.

whether a particular payment supports a State service or relates to a Commonwealth function; or because of difficulties in deciding what the payment is actually for, and in that context, whether expenditure needs have been assessed. Other examples of payments excluded because needs are not assessed include:

- payments from the Commonwealth reimbursing States for projects that will achieve a Commonwealth objective or priority
- payments through the States that need to be passed on to third parties and do not affect State fiscal capacities, for example, funding for non-government schools and financial assistance grants to local government.

Applying the guideline

16 To clarify the treatment guideline, the Commission provides some additional guidance on the following:

- the scope of payments included in the Commonwealth payments assessment
- treatment of payments through the State
- materiality threshold for Commonwealth payments
- backcasting Commonwealth payments
- treatment of infrastructure payments.

Scope of payments included in the Commonwealth payments assessment

17 The scope of the Commonwealth payments assessment is limited to:

- PSPs listed in the Commonwealth's Final Budget Outcome
- a limited number of COPEs paid to the States
- imputed capital grants arising from concessional loans to States[5] and debt forgiveness.

18 The Commission applies the treatment guideline to all these payments unless directed otherwise by the terms of reference.

19 Other Commonwealth activities can also affect State fiscal capacities such as COPEs paid to third parties and the direct provision of services by the Commonwealth. To the extent possible, the Commission considers these Commonwealth supports and their implications on State fiscal capacities. There are mechanisms, apart from the Commonwealth payments assessment, for recognising the effects of these Commonwealth activities on State fiscal capacities. For example, the Commission considers that Commonwealth spending on services on the Medicare Benefits Schedule has the potential to reduce what States need to spend on health services. The health assessment captures this influence through the non-State sector adjustments. From an HFE perspective, the Commission needs to examine the effects of all Commonwealth activities with the potential to affect State fiscal capacities. The effects of other Commonwealth activities on State fiscal capacities are recognised in the Commission's assessments when there is a reliable method for measuring their influence and the effects are material.

[5] In these cases, the value of the interest concession is imputed.

20 ***COPEs.*** COPEs are paid to State governments as well as non-government organisations. A COPE is an expense incurred by the Commonwealth in the conduct of its own general government sector activities, and includes expenses for the purchase of goods and services. To the extent that COPEs affect a State's fiscal capacity, they should be included in the Commonwealth payments assessment. However, collecting information on them from States is difficult. Most States could not provide detailed information on revenue from COPEs and GFS does not have a function of government classification code for revenue from Commonwealth grants.[6]

21 The Commission does consider the influence of some COPEs for Indigenous programs managed by the Department of Health and by the Department of the Prime Minister and Cabinet. The COPEs paid to the States where needs are assessed affect State fiscal capacities. The COPEs paid to non-government organisations managed by the Department of Health are assessed in the health assessment because the Commission considers they affect State spending.

22 Information on other COPEs is not readily available. Currently this revenue is assessed EPC in the other Commonwealth payments component of the Commonwealth payments category.

Treatment of payments through the State

23 Payments made through States to third parties, such as to non-government organisations, State trading enterprises or local governments, can have indirect effects on State fiscal capacities. For example, a payment through a State to local government might reduce the amount the State needs to spend to achieve average service levels. Under these circumstances, the Commission will apply the Commonwealth payments treatment guideline to decide on their treatment.

24 In some cases, payments through the States to third parties must be passed on in full and the States have no discretion in how the money is spent. Often the payments are to achieve a Commonwealth objective or reflect historical funding arrangements for a particular sector. Some payments through the States are treated as 'no impact', such as payments to non-government schools under the Quality Schools funding agreement and payments to local governments under the local government financial assistance grants arrangement. In these circumstances, the States are acting as intermediaries and the payments do not affect their fiscal capacities. These payments and the related transfer are excluded from the adjusted budget and they have no effect on State fiscal capacities.

Materiality threshold for Commonwealth payments

25 The number of small Commonwealth payments has been increasing. The Commission asked States whether, for simplicity, a materiality threshold should be applied when deciding how a payment should be treated. The default treatment of Commonwealth payments, as set out in the ToR, would apply to payments below the threshold.

26 Tasmania and the Northern Territory opposed applying a materiality threshold to Commonwealth payments. Other States did not comment.

6 This information is necessary if a COPE is to receive a 'no impact' treatment. Without it, the Commission is unable to identify the expense related to the COPE.

27 The Commission decided not to apply a materiality threshold to Commonwealth payments. The decision on whether a payment should affect State fiscal capacities is made purely on the basis of whether the payment is available to support State services and needs have been assessed. The size of the payment does not influence the Commission's decision.

Backcasting Commonwealth payments

28 If there are major changes in federal financial relations between the years used in the Commission's assessments and the year to which the Commission's recommendations will be applied, the Commission 'backcasts' the new arrangements, unless the ToR direct it not to do so or it cannot be done reliably. This makes the Commission's assessments more contemporary by ensuring that they better reflect the range, level and interstate allocation of Commonwealth payments in the application year.

29 Most States support backcasting major changes in federal financial relations only if the information and data used for backcasting are reliable. The ACT suggested backcasting could be applied to all Commonwealth payments since it would improve contemporaneity. It assumes the Commonwealth's estimates of the distribution of its payments for the coming years are accurate.

30 The Commission does not support backcasting all Commonwealth payments. The estimated amounts for forward years published in the Commonwealth's budget papers are not reliable and sometimes not available when a new agreement is under negotiation.

31 The Commission will continue to backcast payments made as a result of major changes in federal financial relations, but only if the information and data available for backcasting are reliable.

Treatment of infrastructure payments

32 Some States raised concerns about the application of a 50% no impact treatment to payments for national road and rail networks.[7] They asked the Commission to review the treatment of these infrastructure payments.

33 Victoria, Western Australia, Tasmania, the ACT and the Northern Territory do not support the 50% no impact treatment. Queensland and South Australia support the treatment and New South Wales did not express a view.

34 The States that oppose the 50% 'no impact' treatment of payments for national road and rail networks argued that:

- the Commonwealth and States can influence the projects selected for funding, including for political considerations
- the designation of on-network roads and rail tracks is arbitrary or non-transparent
- the proportion (50%) is arbitrary
- it is not always clear what the Commonwealth objectives may be and how they differ from those of the States
- State fiscal capacities are not equalised.

[7] Under this treatment, 50% of national network payments and their related expenditure are removed from the adjusted budget.

35 As a possible compromise, Victoria and Western Australia said that if a no impact proportion is retained, it should be applied to all road and rail construction projects.

36 Victoria also said if the Commission is concerned that certain infrastructure payments are not aligning with the measure of State needs, the Commission could consider these payments on a case-by-case basis rather than apply an arbitrary rule.

37 The Commission acknowledged the arguments for the discontinuation of the 50% no impact treatment but remained concerned that roads and transport infrastructure projects can have national objectives related to the efficient movement of people and goods that the Commission's assessments do not capture. For example, the Commonwealth selects many projects relating to the national network through its Infrastructure Priority List, which identifies major proposals that have substantial strategic merit and are of national significance. The *Australian Infrastructure Audit 2015*[8] report identified seven strategic priorities for deciding whether projects should be included on the priority list. These strategic priorities include increasing Australia's productivity and improving social equity and quality of life.

38 Given the concerns about how well the State-based disability measures capture all the influences that affect Commonwealth funding decisions, the Commission considers it appropriate that part of the Commonwealth payments for national network road and rail projects are treated as having no impact on State fiscal capacities.

39 Some States suggested the development of clearer guidelines for identifying nationally significant projects. The Commission considers that the Department of Infrastructure, Transport, Regional Development and Communications' national network designations remain the best available source for identifying significant roads and rail tracks. Identifying and quantifying spill-over effects, as suggested by South Australia, would be difficult to undertake reliably. It could also be time-consuming and involve considerable judgment. In the absence of a reliable method for quantifying the national benefits, the Commission has decided to retain the current 50% no impact treatment for national network road and rail infrastructure.

40 In effect, the 50:50 treatment of national network road and rail network payments is a 'blended' assessment, which gives 50% weighting to the Commonwealth allocation and 50% weighting to the Commission's needs assessment.

Treatment of new Commonwealth payments

41 Table 5-3 provides a summary of the treatment the Commission has applied to payments commencing in 2018-19.

42 Attachment 5-A provides a summary of payments made in 2016-17 to 2018-19 and their treatment relevant to this review.

[8] Infrastructure Australia, *Australian Infrastructure Audit 2015*, 2018, https://www.infrastructureaustralia.gov.au/publications/australian-infrastructure-audit-2015 [accessed 20/02/2020].

Table 5-3 Treatment of Commonwealth payments that commenced in 2018-19

Payment	$m	Treatment	Reason for no impact
Health			
Specialist dementia care	0.2	Impact	
Expansion of Clare Holland House	4.0	No impact	2019 Update ToR requirement
Fussell House accommodation	4.0	No impact	Veteran services are a Commonwealth responsibility and needs are not assessed
Redevelopment of Strathalbyn residential aged care facility	2.5	No impact	Aged care services are a Commonwealth responsibility and needs are not assessed.
Community Health, Hospitals and Infrastructure projects	100.8	Impact	
Health Innovation Fund	50.0	No impact	2019 Update ToR requirement
Skills and Workforce Development			
Job Ready Generation Package — North-West Tasmania	3.2	Impact	
Affordable Housing			
National Regulatory System for Community Housing — payment to New South Wales	0.8	No impact	Commonwealth purchase of services for a national project and needs are not assessed.
Remote Housing — payments to the Northern Territory	35.0	No impact	2019 Update ToR requirement.
Remote Housing — payments to Western Australia, South Australia (a)	158.5	No impact	2020 ReviewToR requirement
Infrastructure			
Infrastructure investment program — Roads of Strategic Importance	2.2	National network roads (NNR) – 50% no impact; off NNR – 100% impact	50% no impact for NNR investment because roads assessment may not capture all non-policy influences.
Western Sydney City Deal	7.8	No impact – payments for local govt services; Impact – payments for State services	Needs for local government services are not assessed
Environment			
Grants assistance to primary producers impacted by the north Queensland floods	300.0	No impact	States act as an intermediaries and needs are not assessed.
Marinus Link	56.0	No impact	2020 Review ToR requirement
On-farm emergency water infrastructure rebate	6.7	No impact	States act as an intermediaries and needs are not assessed.
Prepared communities	5.0	No impact	Needs are not assessed for disaster mitigation.
Preparing Australia package — payment to New South Wales	9.4	No impact	Commonwealth purchase of services for a national project and needs are not assessed.
General revenue assistance			
Transitional GST top-up payments — payment to Western Australia	434.0	No impact	2019 Update ToR requirement

(a) The Commonwealth also made a payment to Queensland's local councils and this is treated as out-of-scope.

Source: Commonwealth of Australia's *Final Budget Outcome 2018-19* and Commission decisions.

43 The following sections explain the treatment of new payments in 2018-19 where States raised issues.

Community health, hospitals and infrastructure projects

44 ***Background.*** The Australian Government provided funding under the community health and hospitals programs to all States for health services and infrastructure. The payment is nearly entirely composed of payments to public hospitals with some payments to non-government organisations.

45 Commission staff proposed these payments should affect State fiscal capacities.

46 ***State views.*** Western Australia stated that this payment includes payments to both private and public health sectors and that those States in which a larger proportion of the payment goes to the public health sector would be disadvantaged if only the public funding affects assessed fiscal capacities. The payment will be redistributed to States in which a large proportion of the payment goes to the private sector. Western Australia argued the same treatment, either impact or no impact, should be applied to payments to both the private and public sectors.

47 Other States did not comment.

48 ***Commission decision.*** The majority of this payment is for State hospital and community health services and infrastructure, and needs are assessed. About 14% of the payments by value are to non-government organisations providing mainly State-type services.

49 The Commission has treated the payments to both the private and public sectors for State health services and infrastructure as having an impact on State fiscal capacities.

Remote Housing

50 ***Background.*** The National Partnership on Remote Indigenous Housing ceased in 2017-18. The Commission treated the payments from 2013-14 up to 2017-18 as 75% impact and 25% no impact.[9]

51 In 2018-19, the Commonwealth provided one-off payments to the States to assist the transition of responsibility for funding remote housing to them. Payments were made to:

- Western Australia and South Australia and are quarantined by the 2020 Review terms of reference
- Queensland's local councils and they are not captured in the assessment. However, they relieve the State of social housing expenses and normally should be treated as affecting State fiscal capacities.

52 The Commonwealth has a new agreement — the National Partnership on Remote Housing (NPRH) with the Northern Territory for five years from 2018-19. The NPRH payments are quarantined by the 2019 Update terms of reference.

53 ***Commission decision.*** The Commission has applied a no impact treatment to the payments to Western Australia, South Australia and the Northern Territory as required by the terms of reference. It has treated the payments to Queensland's local councils as out of scope. This is consistent with the treatment of payments to the other States.

9 The Commission applied a 25% no impact treatment to recognise part of funding is being used to overcome differences among States in the level of remote Indigenous housing stock provided by the Commonwealth that the assessment does not recognise.

Western Sydney City Deal

54 ***Background.*** The Western Sydney City Deal is a partnership between the Australian Government, the New South Wales government and some local governments in the Western Sydney planning district. The deal provides funding to deliver improved community facilities and urban amenities, and support community planning and land use to enable and complement new housing supply.

55 The Western Sydney City Deal project agreement has two elements, the Western Sydney Housing Package (WSHP) and the Western Parkland City Liveability Program (WPCLP). The Commonwealth contributes $75 million from 2018-19 to 2021-22. This includes $15 million for the WSHP and $60 million for the WPCLP. The New South Wales government and councils in the Western Sydney planning district are contributing to the program.

56 Staff proposed payments to States for all programs under the deal affect State fiscal capacities and payments direct to local governments do not.

57 ***State views.*** New South Wales said the WPCLP includes payments either paid direct to local governments or through the States to local governments. These payments should not affect State fiscal capacities because needs are not assessed for local government services.

58 ***Commission decision.*** The decision on the treatment of this payment should not be based on how the payment is made, that is, direct to local government or through the State. As with all payments, the only consideration is whether the payment is for State services and needs are assessed. A payment direct to local government for a State-type service for which needs are assessed should receive an impact treatment.[10]

59 Payments for the WSHP are to assist infrastructure planning and land use in the Western Sydney planning district. From the available information, these payments appear to be predominantly for local government functions. As such, the Commission has applied a no impact treatment to the WSHP payments.

60 Payments for the WPCLP are for the provision of local government community infrastructure, such as new and redeveloped parks, sports facilities, rejuvenated town centres as well as art and cultural spaces. Under the terms of the agreement, the Commonwealth funding contribution will be passed on from the State to local government. The Commission has applied a no impact treatment to the WPCLP payments.

61 The Commission will consider future payments for other programs under the deal on a case-by-case basis using the Commission's Commonwealth payments treatment guideline.

World Heritage Management Project Agreement

62 New South Wales said the World Heritage Management project aims to ensure Australia continues to meet its obligations under the World Heritage Convention to protect, conserve and present our World Heritage properties. It said the payment should be treated as no impact as needs regarding heritage are not assessed.

63 ***Commission decision.*** Payments for world heritage sites have been treated as no impact because the protection of world heritage areas is a Commonwealth government

[10] To achieve this, the Commission would need to include the payment in the adjusted budget.

responsibility and needs are not assessed. The Commission has treated this payment as not affecting State fiscal capacities because needs are not assessed.

Change and backcast the treatment of National Disability SPP

64 The Commission has changed and backcast the treatment of the National Disability SPP for all assessment years.

65 ***Background.*** In 2020-21, the application year for the 2020 Review, transition to the National Disability Insurance Scheme (NDIS) will be complete and the National Disability SPP will cease. From 2020-21, Commonwealth support for disability services will be through payments to the National Disability Insurance Agency (NDIA). No States will receive the SPP from 2020-21 onwards.

66 Commission staff proposed to assess the SPP EPC for all assessment years of the 2020 Review until the final payment to Western Australia, to be paid in 2019-20, drops out of the assessment window. Backcasting the application year (2020-21) circumstances into the assessment years ensures the assessment is contemporaneous. This is the Commission's usual practice when there is a major change in federal financial relations and there are reliable data available for backcasting. In addition, Commission staff noted that this treatment would ensure symmetry in the treatment of the SPP and the associated expenses in the Welfare category, which have been assessed on a full scheme basis since the 2019 Update.

67 ***State views.*** All States, except Queensland, agreed with the staff proposal.

68 Queensland did not agree with the decision in the 2019 Update to change the assessment of NDIS contributions because most States were not operating on a full scheme basis. It argued that the Commission should continue to assess NDIS expenses based on the transitional arrangements agreed in the 2015 Review. However, it said an EPC assessment of the SPP is appropriate if the Commission continues to assess NDIS expenses on a full scheme basis.

69 ***Commission decision.*** The Commission has assessed the National Disability SPP on an EPC basis for the assessment years because in the application year for the 2020 Review (2020-21) no State will be receiving payments. In addition, this will also ensure symmetry in the treatment of the SPP and associated expenses.

Category structure

70 The Commission's Commonwealth payments category includes:

- payments affecting State fiscal capacities, or 'impact' payments
- other Commonwealth payments, mainly COPEs, that do not affect State fiscal capacities, but remain in the adjusted budget because it is not possible to remove the related expenditure.[11]

71 GST payments and 'no impact' payments are not included in the category.[12] The latter payments and their related expenditure are removed from the adjusted budget, ensuring they have no effect on the Commission's measures of State fiscal capacities.

[11] Removing these payments from State revenue in the adjusted budget without making corresponding adjustments to expenditure would result in an imbalance.

[12] The assessment approach section defines impact and no impact payments.

72 Table 5-4 shows the category's assessment structure, the size of each component and the assessment methods. Payments affecting State fiscal capacities are assessed on an actual per capita basis and other Commonwealth payments are assessed on an equal per capita basis.

Table 5-4 Category structure, Commonwealth payments, 2018-19

Component	Component revenue	Assessment method
	$m	
Payments affecting State fiscal capacities (a)	37,004	Actual per capita
Other Commonwealth payments	3,442	Equal per capita

Note: The Commonwealth payments category does not include GST payments or no impact payments. No impact payments are removed from the revenue and expenditure included in the adjusted budget.

(a) A small number of COPEs are included in this amount. The rest are included in other Commonwealth payments.

Source: Commission calculation using State budget data and Commonwealth of Australia's *Final Budget Outcome 2018-19*.

Data sources

73 Government finance statistics (GFS) sourced from the Australian Bureau of Statistics (ABS) provide the total amount of Commonwealth payments States receive, which includes revenue from GST, other general revenue assistance, national SPPs, national agreements, NPPs and COPEs. Additional details for each payment other than COPEs are sourced from the Commonwealth's Final Budget Outcome.

Assessment approach

74 The Commission uses a set of guidelines to assist it when making decisions on a case-by-case basis on the treatment of each payment, that is, whether it should receive an 'impact' or 'no impact' treatment. The ToR also give directions on the treatment of specified payments.

75 Commonwealth payments are treated in the following ways:

- Payments affecting State fiscal capacities or 'impact' payments
  - the revenue is assessed APC in the Commonwealth payments category
  - the related expenditure is assessed using the same disabilities as other expenditure in the related category.
- Payments not affecting State fiscal capacities or 'no impact' payments
  - both the revenue and the related expenditure are removed from the adjusted budget.[13]
- Other Commonwealth payments, mainly COPEs recorded in State budgets that do not affect State fiscal capacities
  - the revenue is assessed EPC in the Commonwealth payments category
  - the related expenditure (which cannot be identified) is assessed using the same disabilities as other expenditure in the related category.

[13] In some cases, the Commission might choose to assess both revenue and expenses using the same method (such as EPC or APC) to implement a no impact treatment. The Commission has ceased using these approaches in this review. Previously, this was the approach the Commission used for Quality Schools funding for non-government schools.

76 Table 5-5 provides information on the amounts of payments and their methods of treatment in 2018-19. In 2018-19, quarantined payments were 5.9% of total payments for specific purposes. No impact payments were a further 29.6% of payments.

Table 5-5 Commonwealth payments — Methods of treatment, 2018-19

Treatment	2018-19	2018-19
	$m	%
Treatment method required by terms of reference		
No impact (or 'quarantined' payments)	3,809	5.9
Treatment method decided by the Commission		
Impact	37,004	57.6
No impact	19,039	29.6
State revenue (a)	930	1.4
Revenue assessed EPC (b)	3,442	5.4
Sub-total	**60,414**	**94.1**
Total Commonwealth payments	**64,223**	**100.0**

Note: Figures in this table include COPEs that do not appear in Table 5-1 and Table 5-2.

(a) This is the payment for Interstate road transport that the Commission assesses as motor taxes.

(b) This revenue includes mainly COPEs recorded in State budgets. It remains in the adjusted budget because the Commission could not identify and remove the related expenditure.

Source: Commonwealth of Australia's *Final Budget Outcome 2018-19*, State budget data and Commission calculation.

77 Previously, when discussing Commonwealth payments and their treatments, the Commission has referred to payments that affect the relativities and payments that do not affect the relativities. Given the changes to the GST distribution arrangements from 2021-22, the Commission has changed its terminology to refer to payments that affect State fiscal capacities and payments that do not.

Category calculations

78 Table 5-6 brings the assessed revenue for each component together to derive the total assessed revenue for the category by State. It shows at the component level how each assessment moves revenue away from an equal per capita distribution to obtain assessed revenue.

Table 5-6 Category assessment, Commonwealth payments, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Impact payments									
EPC distribution	1,470	1,470	1,470	1,470	1,470	1,470	1,470	1,470	1,470
APC assessment	48	235	-219	2	-269	-162	209	-1,411	0
Assessed revenue	**1,518**	**1,705**	**1,251**	**1,472**	**1,201**	**1,308**	**1,680**	**60**	**1,470**
Other Commonwealth payments									
EPC distribution	137	137	137	137	137	137	137	137	137
Assessed revenue	**137**	**137**	**137**	**137**	**137**	**137**	**137**	**137**	**137**
Total assessed revenue	**1,655**	**1,842**	**1,388**	**1,609**	**1,338**	**1,445**	**1,816**	**196**	**1,607**

Source: Commission calculation.

Other issues considered by the Commission

79 States raised a number of other issues regarding the treatment of Commonwealth payments.

Payments for services subject to a deliberative EPC assessment

80 Western Australia suggested the Commission provide a table that shows all EPC assessments and identify which are deliberative EPC and which simply reflect an inability to identify or measure needs. This would assist in clarifying the likely treatment of related Commonwealth payments. This information is contained in the category structure tables in the expense chapters in Volume 2.[14]

Reward payments

81 New South Wales was concerned there is inconsistency and a lack of transparency in the Commission's application of the treatment guideline. For example, it argued that the Commission should use its discretion as per clause 8(d) of the ToR and treat the $37 million it received in 2017-18 for signing the Skilling Australians Fund (SAF) national partnership agreement before a specific date as a 'no impact' reward payment. New South Wales said this would be consistent with the Commission's treatment of payments associated with signing the National Health Reform (NHR) Agreement.

82 Each year, the Commission collects information from the Australian Treasury on reward payments paid to the States. The Treasury did not list the $37 million payment as a reward payment. As such, the $37 million receives the same treatment as other components of the payment, that is, 'impact' on State fiscal capacities. The payments associated with the NHR agreement were identified as reward payments by the Treasury and therefore were treated as 'no impact'.

Equalising capital grants over a longer period

83 Currently, the Commission includes the full amount of capital grants paid in a year. If the payment is treated as 'no impact', the full amount will be deducted from the Commonwealth payments and the investment assessments in the year of payment. If it receives an impact treatment, the full amount will be assessed APC in the Commonwealth payments assessment in the year of payment and the capital expenditure will be assessed in the year it is spent.

84 Tasmania was concerned that this treatment of capital grants can create volatility in the GST distribution when the Commonwealth makes relatively large one-off payments. It said that, while over the long term, lumpy capital payments tend to even out, in the short term they can create significant budget flexibility constraints, particularly for a small State. Tasmania noted the 2012 GST Distribution Review suggested equalising capital payments over a longer period to reflect the over-time nature of investment.

85 The Commission agrees in principle that capital grants should be equalised over the years the payment is spent. However, collecting information to support this approach would be problematic and impose a significant burden on the States.

86 The Northern Territory agreed it is a significant burden on States to provide information on annual expenditure for each project. Victoria disagreed. It said the States are already

[14] For deliberative EPC assessments, the category table will specify that 'the driver of these expenses is State populations'. Otherwise, it will specify 'these expenses are not differentially assessed'.

reporting to the Commonwealth an annual acquittal for expenditure on each approved project. The other States did not comment.

87 In view of the difficulty in collecting information on the annual expenditure of each payment and the additional complexity associated with such an approach, the Commission has decided to equalise capital grants in the year they are paid. The three-year averaging process goes some way to spreading the effect of these payments over time.

Splitting payments to allow different treatment methods

88 Queensland said this assessment would lead to perverse outcomes when the Commission applies a partial discount (instead of a no impact treatment) to a Commonwealth payment for a service that some States do not provide. It gave the example of payments for remote Indigenous housing that it said have largely been redistributed to States that do not have this need. It argued the Commission is effectively unwinding the assessment of needs made by the Australian Government for these unique services. It asked the Commission to treat such payments as 'no impact'.

89 When a payment is made for needs unique to a State, the Commission would treat it as 'no impact'. An example is the payment to Queensland to enhance the ability of the Dengue Action Response Team in Cairns and Townsville to increase surveillance and control in areas at high risk of the exotic mosquitos, *Aedes aegypti*, spreading the Zika virus in Queensland. This payment receives a 'no impact' treatment because the payment is for the unique services in Queensland to protect all States from the spread of Zika virus.

90 Payments for Remote Indigenous housing were made to several States (all States except the ACT in 2013-14 and to four States in 2017-18). The Commission treats payments from 2013-14 up to 2017-18 as 75% impact and 25% no impact. The provision of public housing is a State responsibility and needs are assessed. The Commission applied a 25% no impact treatment to recognise part of funding is being used to overcome differences among States in the level of remote Indigenous housing stock provided by the Commonwealth that the assessment does not recognise.

91 In 2018-19, the Commonwealth provided one-off payments to Western Australia and South Australia, and to Queensland's local councils to assist the transition of responsibility for funding remote housing to them. The Commonwealth also made payments to the Northern Territory under a new Remote Housing National Partnership agreement. The Commission has applied a no impact treatment to the payments to Western Australia, South Australia and the Northern Territory as required by the ToR. It has treated the payments to Queensland's local councils as out of scope.

Effect on the GST distribution

92 Table 5-7 shows the extent to which the assessment for Commonwealth payments differs from an EPC assessment. States with a positive redistribution are assessed to have received a below average share of Commonwealth payments and States with a negative redistribution are assessed to have received an above average share of Commonwealth payments. In per capita terms, the Northern Territory experiences the largest redistributions.

Table 5-7 Illustrative redistribution from an EPC assessment, Commonwealth payments, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	376	1,152	-882	0	-236	-89	91	-412	1,619
$ per capita	47	176	-175	0	-135	-167	214	-1,679	64

Notes: The redistribution is the difference from an EPC assessment of Commonwealth payments.
The amount for Western Australia is very small ($0.3 million or $0.1 per capita).

Source: Commission calculation.

Changes since the 2019 Update

93 Table 5-8 breaks down the total change in the GST distribution since the 2019 Update that is attributable to the Commonwealth payments category. It shows there have been no data revisions and the impact of method changes is small.

Table 5-8 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method changes	7	7	-12	3	4	-2	-8	1	22
Data revisions	0	0	0	0	0	0	0	0	0
State circumstances	116	209	-164	-13	-174	-1	1	27	352
Total	**123**	**216**	**-176**	**-10**	**-170**	**-3**	**-8**	**27**	**367**

Note: The redistribution is calculated as the sum of all the positive numbers in the row. Totals may not add due to rounding.

Source: Commission calculation.

Method changes

94 The assessment method is unchanged from that used in the 2019 Update. However, the application of these methods has changed for two payments.

- The treatment of payments for the Infrastructure Investment program — Bridges Renewal — has changed from having no impact to having an impact on State fiscal capacities because disabilities are assessed for bridges and tunnels in the 2020 Review.
- The treatment of the National Disability SPP has changed from Impact to an EPC assessment because in 2020-21, the application year for the 2020 Review, all States will have largely completed their transition to the NDIS and the national SPP will cease.

Data revisions

95 There are no data revisions since the 2019 Update.

State circumstances

96 Between 2015-16 and 2018-19, there were changes in the amounts paid and the interstate distribution of some PSPs, particularly payments for road and rail infrastructure, National health reform and Quality schools government education, which had flow-on effects for the GST distribution. In addition, new and ceased payments in 2018-19 also affect the GST distribution.

97 Compared with 2015-16, Queensland, Western Australia, South Australia and Tasmania received a greater share of PSPs in 2018-19 resulting in reduced GST revenue. Conversely, the other States received a smaller share of PSPs in 2018-19 resulting in increased GST revenue.

Updating the assessment

98 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances.

99 The following data will be updated annually:

- State revenue from Commonwealth payments collected from the ABS GFS
- each Commonwealth payment published in the Commonwealth of Australia's *Final Budget Outcome*
- payments through the States and reward payments, and details of local government financial assistance grants collected from the Australian Treasury
- details of payments for road and rail investment projects collected from the Department of Infrastructure, Transport, Regional Development and Communications
- Commonwealth own-purpose expenses collected from the Department of Health, and the Department of Prime Minister and Cabinet.

Attachment 5-A: Summary of treatment

Summary of treatment of Commonwealth payments

Payment	Year of payments 16-17	17-18	18-19	Treatment	Reason for no impact
GENERAL REVENUE ASSISTANCE					
GST payments	x	x	x	Pool for relativities	
ACT municipal services	x	x	x	No impact	Needs not assessed
Commonwealth assistance to the Northern Territory		x	x	No impact	2019 Update ToR
Reduced royalties	x	x	x	Mining revenue (APC)	
Royalties	x	x	x	Mining revenue (APC)	
Snowy Hydro Ltd — company tax compensation	x	x	x	Other revenue (EPC)	
Transitional GST top-up package — payment to Western Australia			x	No impact	2019 Update ToR
HEALTH					
National health reform funding	x	x	x	Impact	
National partnership payments					
Health services					
Expansion of the BreastScreen Australia program	x	x	x	Impact	
Hummingbird House	x	x	x	50% Impact	Unsure of the extent this payment would relieve the State or the private sector of responsibilities
Improving health services in Tasmania					
Improving patient pathways through clinical and system redesign	x	x		No impact	2014 Update ToR
Reducing elective surgery waiting lists in Tasmania	x			No impact	2014 Update ToR
Subacute and acute projects	x	x	x	No impact	2014 Update ToR
Management of Torres Strait/Papua New Guinea cross border health issues		x	x	No impact	Earlier updates ToR
Mersey Community Hospital — hospital transfer	x			No impact	2018 Update ToR
Mersey Community Hospital — drug and alcohol residential rehabilitation treatment and palliative care	x			Impact	
Mosquito control and cross border liaison in the Torres Strait	x	x	x	No impact	Needs not assessed (unique to Queensland)
National bowel cancer screening Program — participant follow-up function	x	x	x	Impact	
OzFoodNet	x	x	x	Impact	
Royal Darwin Hospital — equipped, prepared & ready	x	x	x	No impact	Earlier updates ToR
Specialist dementia care			x	Impact	
Vaccine-preventable diseases surveillance	x	x	x	Impact	
Victorian cytology service	x	x	x	No impact	Earlier updates ToR
Health infrastructure					
Hospital infrastructure projects			x	Impact	
National cancer system	x	x		Impact	
Regional priority round	x	x		Impact	

Summary of treatment of Commonwealth payments (continued)

Payment	Year of payments 16-17	17-18	18-19	Treatment	Reason for no impact
Albury-Wodonga Hospital Cardiac Catheterisation Laboratory	x	x	x	Impact	
Construction of Palmerston Hospital	x			Impact	
Expansion of Clare Holland House			x	No impact	2019 Update ToR
Fussell House accommodation			x	No impact	Veteran services are Commonwealth responsibilities
Improving local access to health care on Phillip Island	x			Impact	
Redevelopment of Strathalbyn residential aged care			x	No impact	Aged care is Commonwealth responsibility
Upgrade of Ballina Hospital	x			Impact	
Western Australia Hospitals Infrastructure Package		x		No impact	2019 Update ToR
Indigenous health					
Addressing blood borne viruses and sexually transmissible infections in the Torres Strait		x	x	Impact	
Improving trachoma control services for Indigenous Australians	x	x	x	Impact	
Northern Territory remote Aboriginal Investment — health component	x	x	x	No impact	2016 Update ToR
Rheumatic fever strategy	x	x	x	Impact	
Renal infrastructure in the Northern Territory	x			Impact	
Mental health					
Supporting National Mental Health Reform	x			Impact	
Other					
Community Health, Hospitals and Infrastructure projects			x	Impact	
Electronic recording and reporting of controlled drugs		x		Impact	
Encouraging more clinical trials in Australia		x	x	Impact	
Essential vaccines (vaccine purchase)	x	x	x	No impact	Commonwealth purchase of services
Health Innovation Fund			x	No impact	2019 Update ToR
National coronial information system	x	x	x	No impact	Commonwealth purchase of services
Public dental services for adults	x	x	x	Impact	
Suicide prevention			x	Impact	
EDUCATION					
Quality Schools Funding — Government	x	x	x	Impact	
Quality Schools Funding — Non-government	x	x	x	No impact	States act as intermediaries and needs are not assessed
National partnership payments					
Independent Public Schools	x			Impact	
MoneySmart teaching	x	x	x	Impact	
National quality agenda for early childhood education and care	x	x		Impact	
National school chaplaincy program	x	x	x	Impact	
Northern Territory remote Aboriginal Investment — children and schooling component	x	x	x	No impact	2016 Update ToR

Summary of treatment of Commonwealth payments (continued)

Payment	Year of payments 16-17	17-18	18-19	Treatment	Reason for no impact
Online safety programs in schools	x	x		Government – impact; Non-govt – no impact	Non-govt — States act as intermediaries and needs are not assessed
School pathways program	x	x	x	No impact	Commonwealth purchase of services
School security program	x	x		No impact	Needs not assessed
Trade training centres in schools	x			Government – impact; Non-govt – no impact	Non-govt — States act as intermediaries and needs are not assessed
Universal access to early childhood education	x	x	x	Impact	
SKILLS AND WORKFORCE DEVELOPMENT SERVICES					
National skills and workforce development SPP	x	x	x	Impact	
National partnership payments					
Job Ready Generation Package — North-West Tasmania			x	Impact	
Building Australia's future workforce — Skills reform	x			Impact	
Skilling Australians Fund		x	x	Impact	
NSW infrastructure skills centre	x			Impact	
COMMUNITY SERVICES					
National disability SPP	x	x	x	EPC	In 2020-21 (2020 Review application year), all States will have largely completed their transition to NDIS and the SPP will cease
National partnership payments					
Home and community care	x	x		No impact	Home and community care for 'older people' is a Commonwealth responsibility
National Occasional Care Programme	x	x		No impact	Commonwealth purchase of services
National outcome standards for perpetrator interventions	x			Impact	
Northern Territory remote Aboriginal investment — Community safety component	x	x	x	No impact	2016 Update ToR
Pay equity for the social and community services sector	x	x	x	Impact	
Payments from the DisabilityCare Australia Fund		x	x	No impact	2015 Review ToR
Specialist disability services	x	x	x	No impact	Disabilities services for 'older people' are Commonwealth responsibilities
Transition to NDIS in Western Australia	x	x	x	No impact	2014 Update ToR
Women's safety package — technology trials	x	x	x	Impact	

Summary of treatment of Commonwealth payments (continued)

Payment	Year of payments 16-17	17-18	18-19	Treatment	Reason for no impact
AFFORDABLE HOUSING					
National housing and homelessness funding	x	x	x	Impact	
National partnership payments					
First home owners boost	x	x		No impact	Commonwealth purchase of services
Homelessness	x	x		Impact	
National Regulatory System for Community Housing			x	No impact	Commonwealth purchase of services
Northern Territory remote Aboriginal investment — Remote Australia strategies component	x	x	x	No impact	2016 Update ToR
Remote Indigenous housing (RIH)	x	x		75% impact; 25% No impact	25% no impact — to recognise part of funding is being used to overcome differences among States in the level of RIH stock provided by the Commonwealth
Remote Housing			x	No impact	Payment to NT — 2019 Update ToR Payment to WA, SA — 2020 Review ToR
INFRASTRUCTURE					
National partnership payments					
Infrastructure investment program					
Black spot projects	x	x	x	Impact	
Bridges renewal program	x	x	x	Impact	
Developing Northern Australia					
Improving Cattle Supply Chains		x	x	Impact	
Northern Australian roads	x	x	x	Impact	
Heavy vehicle safety and productivity	x	x	x	Impact	
Improving the national network	x	x		National network roads (NNR) – 50% impact; 50% no impact	50% no impact — assessment may not capture all non-policy influences
National Rail Program			x	National rail network (NRN) – 50% impact; 50% no impact	50% no impact — assessment may not capture all non-policy influences
Rail investment component	x	x	x	NRN – 50% impact, 50% no impact; Non-NRN – impact; Local – No impact	50% no impact — assessment may not capture all non-policy influences Local – Needs not assessed
Road investment component	x	x	x	NNR – 50% impact, 50% no impact; Non-NNR – Impact; Local – No impact	50% no impact — assessment may not capture all non-policy influences Local – Needs not assessed

Summary of treatment of Commonwealth payments (continued)

Payment	Year of payments 16-17	17-18	18-19	Treatment	Reason for no impact
Supplementary investment		x		NNR – 50% impact, 50% no impact; Non-NNR – Impact; Local – No impact	50% no impact — assessment may not capture all non-policy influences Local – Needs not assessed
Roads of Strategic Importance			x	NNR – 50% impact, 50% no impact; Non-NNR – Impact; Local – No impact	50% no impact — assessment may not capture all non-policy influences Local – Needs not assessed
Roads to recovery	x	x	x	No impact	2005 Update ToR
Infrastructure Growth Package					
Asset Recycling Initiative	x	x	x	No impact	2015 Review ToR
New Investments					
Road	x	x	x	State non-NNR — impact; State NNR and roads identified in terms of reference — 50% impact, 50% no impact; Local – no impact	State — 50% no impact — ToR requirement or CGC decision (assessment may not capture all non-policy influences); Local — Needs not assessed
Black spot projects	x	x	x	Impact	
Drought Communities program	x	x	x	No impact	Needs not assessed
Interstate road transport	x	x	x	Motor tax revenue	
Murray-Darling Basin regional economic diversification program		x	x	Impact	
Western Australia infrastructure projects	x			No impact	2016 Update ToR
Western Sydney City Deal			x	States – impact; Local – no impact	Local — needs not assessed
Western Sydney Infrastructure plan	x	x	x	50% impact, 50% no impact	50% no impact — 2015 Review ToR
Wifi and Mobile Coverage on Trains		x		Impact	
ENVIRONMENT					
National partnership payments					
Assistance for pest and weed management in drought-affected areas	x	x	x	No impact	Needs not assessed
Bushfire mitigation	x			Impact	
Development of business cases for constraints measures and potential Implementation		x	x	No impact	This payment is part of the intergovernmental agreement on implementing Water Reform in the Murray-Darling Basin which relates to protection of environment. Needs not assessed
Environmental management of former Rum Jungle mine site		x	x	No impact	Needs not assessed
Grants assistance to primary producers impacted by the North Queensland floods			x	No impact	States act as intermediaries and needs are not assessed

Summary of treatment of Commonwealth payments (continued)

Payment	Year of payments 16-17	17-18	18-19	Treatment	Reason for no impact
Great Artesian Basin sustainability initiative	x	x		Impact	
Hydrogen energy supply chain pilot project		x	x	No impact	For a Commonwealth priority
Implementation of the National Insurance Affordability Initiative	x		x	No impact	Needs not assessed
Implementing water reform in the Murray-Darling basin	x	x	x	No impact	Needs not assessed
Kamay 250th anniversary project		x		Impact	
Management of established pest and weeds	x	x	x	Impact	
Management of the world heritage values of the Tasmanian wildness	x	x		No impact	Commonwealth purchase of services
Marinus Link			x	No impact	2020 Review ToR
Mechanical fuel load reduction trials			x	No impact	Commonwealth purchase of services
National fire danger rating system		x	x	No impact	Commonwealth purchase of services
National Water Infrastructure Development Fund					
Feasibility studies	x	x	x	Impact	
Capital component		x	x	Impact	
Natural disaster resilience	x	x	x	No impact	Needs not assessed
On-farm emergency water infrastructure rebate			x	No impact	States act as intermediaries and needs are not assessed
Pest and disease preparedness and response programs (Include payment for Queensland fruit fly response in Tasmania)	x	x	x	No impact	Payment for Queensland fruit fly response in Tasmania — 2019 Update ToR; Other (part of the Caring for our Country program) — 2009 Update ToR
Prepared communities			x	No impact	Needs not assessed
Preparing Australia package			x	No impact	Commonwealth purchase of services
South Australian River Murray Sustainability Program					
Irrigation efficiency and water purchase	x		x	No impact	2014 Update ToR
Irrigation industry assistance	x	x	x	No impact	2014 Update ToR
Regional economic development	x			No impact	2014 Update ToR
Sustainable Rural Water Use and infrastructure Program	x	x	x	States – impact; Local – no impact	Local — needs not assessed
Whale and dolphin entanglements	x			No impact	Needs not assessed
World Heritage sites			x	No impact	Commonwealth purchase of services
CONTINGENT PAYMENTS					
Hepatitis C settlement fund		x		No impact	Commonwealth purchase of services
Natural disaster relief and recovery arrangements	x	x	x	No impact	Commonwealth purchase of services
OTHER STATE SERVICES					
National partnership payments					
Developing demand-driver infrastructure for the tourism industry	x	x		Impact	
Family advocacy and support services	x	x	X	No impact	Commonwealth purchase of services
Financial assistance for police officers			x	Impact	

Summary of treatment of Commonwealth payments (continued)

Payment	Year of payments 16-17	17-18	18-19	Treatment	Reason for no impact
Financial assistance grants to local governments					
General purpose assistance	x	x	x	No impact	Local — needs not assessed
Untied local roads grants	x	x	x	No impact	Local — needs not assessed
Legal assistance services	x	x	x	No impact	Commonwealth purchase of services
National register of foreign ownership of land titles	x			No impact	Commonwealth purchase of services
North Queensland Stadium	x	x	x	Impact	
North Queensland strata title inspection scheme		x	x	Impact	
Provision of fire services	x	x	x	No impact	Commonwealth purchase of services
Sinking fund on State debt	x			No impact	2009 Update ToR
Small business regulatory reform			x	No impact	Commonwealth purchase of services
South Sydney Rabbitohs' Centre of Excellence		x	x	No impact	State acts as an intermediary and needs are not assessed
Supplementary funding to South Australia for local roads		x	x	No impact	Local — needs for assessed
Tasmanian tourism growth package	x			Impact	
Tourism demand driver infrastructure recovery package	x			Impact	
COMMONWEALTH OWN-PURPOSE EXPENSE (COPE) PAYMENTS					
Payments to States					
Highly specialised drugs	x			No impact	Commonwealth purchase of services
Commonwealth grants for Indigenous health managed by Department of Health	x	x	x	States – impact; Non-government organisations – assessed in Health	
Commonwealth grants for Indigenous purposes managed by Department of Prime Minister and Cabinet					
Indigenous advance strategy					
Jobs, land and economy	x	x	x	No impact	Needs not assessed
Children schooling	x	x	x	Impact	
Safety and wellbeing	x	x	x	Impact	
Culture and capability	x	x	x	No impact	Needs not assessed
Remote Australia strategies	x	x	x	Municipal and essential services – no impact; others – impact	Municipal and essential services — Needs not assessed
Other COPEs paid to States	x	x	x	EPC	
Payments to non-government organisations	x	x	x	Out of scope	

Source: Commonwealth of Australia's *Final Budget Outcome* and information collected from Commonwealth agencies.

6 Payroll tax

Summary of the assessment

Payroll tax is a broad based tax imposed by States on the wages and related benefits (remuneration) paid by employers. Employers are liable for payroll tax if their remuneration exceeds a general deduction threshold. The threshold varies between States.

State capacity to raise payroll tax is assessed using Australian Bureau of Statistics (ABS) national accounts data on Compensation of Employees (CoE). The data are adjusted to remove CoE not normally taxed, namely CoE below an average deduction threshold, which the Commission calculates by weighting each State's threshold by its share of total CoE. General government CoE is also removed because it raises no net revenue for a State.

A State with an above average share of adjusted CoE is assessed to have the capacity to raise above average payroll tax revenue. A State with a below average share of adjusted CoE is assessed as not being able to raise average payroll tax revenue.

Revenue overview

1 States raised $25.7 billion in payroll tax revenues in 2018-19, representing 19.3% of total State own-source revenue (Table 6-1). The category includes revenue from payroll tax imposed on the wages and related benefits (remuneration) paid by firms operating in each State. Employers are liable for payroll tax if their total Australian remuneration exceeds a general deduction threshold.

Table 6-1 Payroll tax by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total revenue ($m)	9,293	6,272	4,134	3,537	1,256	369	544	280	25,685
Total revenue ($pc)	1,156	961	818	1,357	720	694	1,286	1,142	1,021
Proportion of own-source revenue (%)	22.2	19.3	15.7	18.0	19.8	18.6	19.9	16.6	19.3

Source: Commission calculation using State budget data.

2 The category excludes revenue from payroll tax paid by some State general government sector agencies.

3 Table 6-2 shows the share of State revenue from payroll tax from 2015-16 to 2018-19.

Table 6-2 Payroll tax, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total revenue ($m)	22,558	23,059	24,282	25,685
Proportion of total operating revenue (%)	19.7	19.2	19.3	19.3

Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

State role

4 States impose payroll tax on taxable remuneration paid by firms in each State. The scope of the tax and the range of exemptions and concessions have largely been harmonised, but States retain control over their tax rates and thresholds.

Commonwealth role

5 The Commonwealth imposed payroll tax between 1941 and 1971. In 1971, it ceded control of payroll tax to the States. The Commonwealth has no current role in this area.

Category structure

6 Table 6-3 shows the category's assessment structure, the size of its sole component and the capacity measure (revenue disability) that applies.

Table 6-3 Category structure, Payroll tax, 2018-19

Component	Component expense	Disability	Influence measured by disability
	$m		
Payroll tax	25,685	Value of taxable remuneration	Recognises the additional revenue capacity of States with greater private sector and non-general government public sector remuneration above an average threshold.

Source: Commission calculation using State budget data.

Category and component revenue

7 The data sources for calculating category revenue are ABS Government Financial Statistics (GFS) and State budget data.[1]

Assessment approach

Capacity measure (revenue disability)

8 The capacity measure is the total remuneration paid by employers in the private sector and non-general government sector in each State, whose total Australian remuneration exceeds a general deduction threshold.

Data and method

9 The Commission measures revenue capacity using ABS National Accounts data on compensation of employees (CoE). CoE is a broad measure of the remuneration paid in each State, covering wages, salaries, other cash benefits on behalf of employees (such as superannuation) and non-cash benefits.

10 CoE data cannot be dissected by the size of employers' payrolls and are, therefore, supplemented with ABS data on wages and salaries to recognise the average policy to exempt payrolls below a threshold. ABS wages and salaries data are also used to remove remuneration paid by the general government sector in each State.

[1] Unless otherwise stated, category and component revenue for the first two assessment years are sourced from GFS. States provide data for the most recent assessment year because GFS data are not available.

11 ***Private sector remuneration.*** Taxable remuneration in the private sector is calculated by adjusting private sector CoE data to recognise the policy of all States to exempt remuneration below a general deduction threshold. To ensure the assessment is policy neutral, an average threshold is calculated by weighting each State's actual threshold by its share of total remuneration paid.[2]

12 ABS data on aggregate private sector wages and salaries in each State above the average threshold are used to calculate the taxable proportion of total private sector remuneration in each State.[3] The taxable proportion is applied to private sector CoE data to calculate the private sector part of the revenue base for each State.

13 ***Public sector remuneration.*** Taxable public sector remuneration in each State is calculated using ABS wages and salaries data[4] to make adjustments to public sector CoE data to exclude:

- remuneration of general government employees
- remuneration below an average threshold.[5]

14 The remuneration of general government sector employees at all levels of government is excluded from the revenue base, to reflect that:

- States are unable to tax Commonwealth general government sector agencies
- States raise only minor revenue from the general government sector at local government level[6]
- payroll tax revenue collected by some States from their general government agencies is excluded since it represents an internal budget transfer, so the corresponding remuneration is removed from the revenue base.

15 The taxable public sector, therefore, includes public sector financial and non-financial corporations (PFCs and PNFCs) and higher education institutions (HEIs). PFCs and PNFCs at all levels of government are liable for payroll tax under the 1995 Competition Principles Agreement between the States and the Commonwealth. HEIs are liable for tax in all States.[7]

16 The taxable proportion of public sector remuneration is calculated using ABS data on aggregate public sector wages and salaries above the weighted average threshold in 'commercial' industries, plus aggregate wages and salaries above the average thresholds in HEIs.[8] Using data for commercial industries, rather than for PFCs and PNFCs, ensures that the assessment is not affected by an individual State's classification of its agencies. The taxable proportion is applied to public sector CoE data to calculate the public sector part of the revenue base for each State.

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2 The average threshold is adjusted before being provided to the ABS, to reflect that the wages and salaries data are narrower in scope than the CoE data.

3 Private sector wages and salaries data are sourced from the ABS *Quarterly Business Indicators Survey*.

4 Public sector wages and salaries data are sourced from the ABS, *Survey of Employment and Earnings*, cat. no. 6248.

5 The threshold differed from the private sector threshold, since wages and salaries represented a different proportion of CoE in the two sectors nationally. The result is also rounded to the nearest $10,000.

6 Tasmania was the only State to impose payroll tax on general government sector remuneration paid by local governments.

7 With the exception of the Australian National University, HEIs were established by State legislation. While they are classified to the general government sector in ABS GFS, HEIs are included in the assessment since they are subject to payroll tax in all States.

8 Commercial industries are those in which public sector wages and salaries are predominantly paid by PNFCs nationally. These are Australian and New Zealand Standard Industrial Classification division A (agriculture, forestry and fishing), C (manufacturing), D (electricity, gas, water and waste services), I (transport, postal and warehousing) and K (financial and insurance services).

Category calculations

17 Table 6-4 shows the calculation of the Payroll tax revenue base.

Table 6-4 Calculating the Payroll tax revenue base by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Private Sector									
CoE ($b)	243	173	132	87	39	10	12	7	703
Taxable proportion (%)	68	69	66	73	67	59	58	73	69
Taxable CoE ($b)	166	120	87	64	26	6	7	5	482
Public Sector									
CoE ($b) (a)	58	44	39	21	15	4	14	4	199
Taxable proportion (%)	19	19	18	17	13	22	11	9	17
Taxable CoE ($b)	11	8	7	4	2	1	2	0	35
Total taxable remuneration ($b)	**177**	**128**	**94**	**67**	**28**	**7**	**8**	**6**	**516**

(a) Excludes compensation of employees (CoE) for staff of the Australian Defence Force and Australia's diplomatic missions.
Source: Commission calculation.

18 Table 6-5 shows the calculation of assessed revenue in 2018-19.

Table 6-5 Category assessment, Payroll tax, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)	9,293	6,272	4,134	3,537	1,256	369	544	280	25,685
Revenue base ($m)	177,350	128,433	94,114	67,077	28,216	7,140	8,379	5,717	516,427
Assessed revenue ($m)	8,821	6,388	4,681	3,336	1,403	355	417	284	25,685
Assessed revenue ($pc)	1,097	979	927	1,280	805	668	984	1,158	1,021

Source: Commission calculation.

Other issues considered by the Commission

19 The Commission considered three other issues in relation to the assessment:

- the treatment of diminishing thresholds
- the source of data used to calculate the capacity measure
- the exemption of remuneration paid by non-profit organisations.

20 Five States currently impose a single marginal rate of tax on payrolls above a threshold. The other three States have diminishing deduction thresholds, meaning the effective rate increases up to a certain payroll size, above which it is flat.[9] The Commission's approach to average policy means it would take account of diminishing thresholds, if reliable data were available and it were material to do so. The ABS has indicated that it is unable to provide the required data and the Commission is not aware of any currently available alternative sources

[9] The Queensland deduction is reduced by $1 for every $4 by which the payroll exceeds $1.1 million, with no deduction for payrolls of $5.5 million or more. The Western Australia deduction is reduced by $1 for every $7.82 the payroll exceeds $850,000, with no deduction for payrolls of $7.5 million or more. The Northern Territory deduction is reduced by $1 for every $4 the payroll exceeds $1.5 million, with no deduction for payrolls of $7.5 million or more.

of data for a diminishing threshold adjustment that are reliable and policy neutral. In these circumstances, the Commission has continued to reflect the policy of all States to exempt small payrolls, using data above a single weighted average threshold.

21 Some States raised concerns about the volatility of the CoE data for small States. The volatility arises mainly from ABS revisions to the data for historical years as they move through successive updates. The Commission considers that the use of these data is consistent with the terms of reference requirement to use the latest available data and notes that the ABS places its aggregate CoE estimates in the highest category of accuracy ratings, in contrast to many other components of the national accounts.[10] The Commission considers CoE data fit for purpose and the best available data at this time.[11]

22 The ACT proposed an adjustment to remove the remuneration paid by non-profit organisations that are exempt from payroll tax in all States. The ABS is unable to provide data on remuneration paid by non-profit organisations, nor is the Commission aware of any other data sources with which an adjustment could be made. The ACT said that an adjustment should be considered if relevant data become available in the future.

Effect on the GST distribution

23 Table 6-6 shows the extent to which the assessment for this category differs from an EPC assessment of payroll tax revenue. States with a positive redistribution are assessed to have below average revenue raising capacity and States with a negative redistribution are assessed to have above average revenue raising capacity. In per capita terms, Western Australia, South Australia, Tasmania and the Northern Territory experienced the largest redistributions.

Table 6-6 Illustrative redistribution from an EPC assessment, Payroll tax, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	-705	334	501	-710	434	193	2	-49	1,464
$ per capita	-85	49	96	-268	245	354	5	-200	56

Note: The redistribution is the difference from an EPC assessment of category revenues.
Source: Commission calculation.

24 The main reasons for the redistributions for each States are:

- New South Wales, Western Australia and the Northern Territory have above average taxable remuneration per capita
- Victoria, Queensland, South Australia, Tasmania and the ACT have below average taxable remuneration per capita.

25 Table 6-7 shows the per capita taxable CoE in each State (public and private sectors).

10 The ABS classifies its national accounts data to four grades of 'subjective accuracy ratings', taking into account standard errors on key survey inputs, impressions about coverage and reliability of administrative data sources and revisions to initial estimates of growth.

11 The Business Longitudinal Analysis Data Environment (BLADE) being developed by the ABS and the Department of Industry, Innovation and Science will include data for over two million businesses. While this dataset was not available in time for this review, it may provide a richer source of data for the payroll tax assessment. The Commission will monitor the BLADE dataset and consult with States if it considers the use of these data would improve the assessment.

Table 6-7 Per capita taxable CoE, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ave
Taxable CoE ($pc)	22,064	19,676	18,634	25,741	16,188	13,430	19,792	23,286	20,521

Source: ABS CoE and population data.

Changes since the 2019 Update

26 There have been no method changes to this assessment. Table 6-8 shows the effect of revisions and changes in State circumstances since the 2019 Update.

Table 6-8 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method changes	0	0	0	0	0	0	0	0	0
Data revisions	-34	25	-24	32	-3	-1	8	-3	65
State circumstances	-12	-60	-4	108	-32	-3	0	3	111
Total	**-47**	**-34**	**-28**	**139**	**-35**	**-3**	**8**	**0**	**146**

Source: Commission calculation.

Data revisions

27 The ABS made relatively minor revisions to its CoE data in the earlier assessment years.

Changes in State circumstances

28 Changes in States' capacities to raise payroll tax redistributed $111 million in GST revenue. New South Wales, Victoria, Queensland, South Australia, Tasmania and the ACT had above average growth in taxable CoE between 2015-16 and 2018-19, increasing those States' capacities to raise payroll tax and reducing their GST shares.

Updating the assessment

29 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances.

- The following data will be updated annually:
  - ABS CoE data
  - ABS wages and salaries data.

7 Land tax

Summary of the assessment

The Land tax category consists of State land tax revenues.

State capacity to raise land tax revenue is assessed using the total value of taxable land holdings in each State, split into value ranges. For each value range, the average rate of tax is applied to the value of taxable land holdings in each State. Undertaking the assessment by value range captures the progressivity of State land tax rates.

A State with an above average share of taxable land holdings[1] or with a higher proportion of its values in higher value ranges is assessed to have the capacity to raise above average land tax revenue. A State with a below average share of taxable land holdings, or with a higher proportion of its values in lower value ranges, is assessed as not having the capacity to raise the average land tax revenue. Some States are assessed to have above average capacity for some value ranges, but below average capacity for others.

Revenue overview

1 States raised $10.5 billion in land tax in 2018-19, representing 7.9% of total State own-source revenue (Table 7-1).

Table 7-1 Land tax by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total revenue ($m)	4,211	3,501	1,330	799	420	108	137	0	10,507
Total revenue ($pc)	524	536	263	307	241	203	324	0	417
Proportion of total own-source revenue (%)	10.1	10.8	5.0	4.1	6.6	5.4	5.0	0.0	7.9

Source: Commission calculation using State budget data.

2 The category excludes revenue from other land based taxes,[2] and from the transfer of land ownership. The majority of other land based taxes, property based Fire and Emergency Services Levies (FESLs), are offset against spending on emergency services which is included in the Other expenses category (refer to the discussion in Chapter 12 Other revenue). As a differential assessment of the remaining land based taxes is not material, they are assessed equal per capita (EPC) in the Other revenue category. Revenue from the transfer of land ownership is assessed in the Stamp duty on conveyances category (Chapter 8).

3 Table 7-2 shows Land tax as a share of total own-source revenue from 2015-16 to 2018-19.

[1] An above average share of taxable land holdings means the State's taxable land holdings per capita exceeds the national average taxable land holdings per capita.

[2] Other land based taxes comprise property based Fire and Emergency Services Levies and other revenues such as Victoria's Growth Areas Infrastructure Contribution, metropolitan levies, development and planning levies, parking space levies and the ACT's Safer Families Levy. Property based Fire and Emergency Services Levies is the biggest of these other land based taxes. In 2018-19, States raised $1.7 billion from this source.

Table 7-2 Land tax, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total revenue ($m)	7,032	8,195	8,943	10,507
Proportion of total own-source revenue (%)	6.1	6.8	7.1	7.9

Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

State roles and responsibilities

4 States impose land based taxes, although they share the land tax base with local government. States generally impose two types of land based taxes:

- Land tax, which is imposed on the value of taxable land holdings and involves aggregation.[3] Principal places of residence are exempt.
- Other land based taxes, which are usually imposed on a per property basis (including principal places of residence) and without aggregation.

5 State governments provide a range of concessions to land owners, including rebates on or exemptions from land tax. The biggest exemption is the exemption for principal places of residence.

Commonwealth role and responsibilities

6 The Commonwealth imposed land tax between 1910 and 1952, after which it vacated the field. The Commonwealth has no current role in this area.

Category structure

7 This category has no components. Table 7-3 shows the capacity measure (revenue disability) that applies to the Land tax assessment.

Table 7-3 Category structure, Land tax, 2018-19

Component	Component revenue	Capacity measure	Influence measured by disability
	$m		
Land tax	10,507	Value of land holdings	Recognises that States with a greater total value of taxable land holdings have a greater revenue capacity.
		Value distribution adjustment	Recognises that States with proportionally more high value taxable land holdings, which attract higher rates of tax, have greater revenue capacity.

Source: Commission calculation using budget data.

Category and component revenue

8 The main data sources for calculating category revenue are GFS and State budget data.[4]

3 In assessing land tax liability, most States aggregate a land owner's value of land holdings and deduct the value of land that is not taxable (such their principal place of residence).

4 Unless otherwise stated, category and component revenue for the first two assessment years are sourced from Government Finance Statistics (GFS). States provide data for the most recent assessment year because GFS data are not available.

Assessment approach

9 All States except the Northern Territory impose land tax. They do so using a progressive rate above a tax-free threshold.

10 States have different approaches to aggregation. Most States impose land tax on the combined value of a land owner's taxable land holdings above a tax-free threshold. The ACT does not; it imposes land tax on an individual property basis.

11 States also differ in their treatment of joint ownership. Three States treat joint owners as separate land owners for land tax purposes. New South Wales, Victoria and Queensland add each owner's share of the joint property to their other land holdings and the Commission asks them to adjust their land holdings data to treat joint owners as separate land owners.

Capacity measure (revenue disability)

12 The capacity measure is the adjusted value of taxable land holdings. State Revenue Offices (SROs) provide data on the taxable value of land holdings. Most SROs aggregate the taxable value of holdings of its land owners, the ACT does not.

13 As part of the review, the Commission reviewed its capacity measure in relation to:

- the source of its land value data
- whether land values were too policy influenced to be used
- whether an adjustment should be made for the progressivity of rates of land tax
- an adjustment for the ACT because it imposes land tax on a per property basis
- an adjustment for the Northern Territory because it does not impose land tax.

The source of land value data

14 The Commission investigated three sources of land value data:

- land holdings data from SROs
- land value data from State Valuers-General (VG)
- land values in the National Accounts publication by the Australian Bureau of Statistics (ABS).

15 No source was ideal. The Commission consulted with States about which data source was the most appropriate for equalisation purposes.

16 All States commented on this issue. Seven States supported using SRO data. Western Australia said the choice of data source depended on the choice of assessment method. For example, if the Commission decided to assess land tax using total land values, it should use ABS land value data.

17 South Australia said SRO data was the only data source that captured how States imposed land tax. It said it was important the choice of data source captured aggregation, as a third of its land tax revenue arose because of aggregation.

18 The shortcomings of VG and ABS land value data are they do not capture the effects of aggregation and they require an adjustment to remove principal places of residence. Both are characteristics of how States impose land tax and they materially affect States' assessed revenue capacities.

19 The Commission has decided to continue to use SROs' land holdings data. The data are generally accepted by States and they reflect how most States impose land tax — capturing both aggregation and the exemption for principal places of residence.

Whether land values were too policy influenced to be used

20 Western Australia said the Commission should not use land values as its capacity measure because they were too policy influenced. It cited a Reserve Bank of Australia report stating zoning policies differentially affected housing prices in the four biggest capitals.[5] Western Australia said land values were also affected by other State policies (such as those aimed at increasing economic activity). Western Australia said that by basing its capacity measure on land values, the Commission is not removing the effect of State policies. If these State policies increase a State's land tax base, that increase is treated as an increase in its assessed revenue capacity, which Western Australia concludes is inconsistent with policy neutrality.

21 While acknowledging State policies could affect land values, Victoria, Queensland and South Australia did not believe those effects were material.

22 States impose land tax using land values. The question is whether State policies are so different that they have a material effect on the comparability of their land values. The Commission accepts State policies can affect land values. It assesses the lowest three value ranges EPC because of its concerns about the quality of the land value data in those ranges. However, it has no evidence the remaining policy effects are both differential and material.[6,7]

23 The Commission has decided to continue to use SRO land holdings data as the basis of its land tax capacity measure.

An adjustment to capture the effect of progressive rates of land tax

24 States impose land tax progressively above a tax-free threshold. Properties below the tax-free threshold attract no tax. Properties in high value ranges attract a higher rate of tax. Thus, States with a greater proportion of properties in higher value ranges have greater revenue capacity. The Commission captures the effect of progressive rates of tax by assessing revenue capacity by value range.

25 Seven States supported making an adjustment for progressive rates of land tax. Western Australia did not.

26 Western Australia favoured a different revenue approach, one that focused on underlying revenue disabilities. Under its approach, adjustments would not be made for exemption thresholds, differences in scope of taxes or progressive rates of tax. Western Australia said focusing on the underlying revenue base would be more policy neutral, more transparent and better fit the data.

27 Western Australia's proposed revenue approach would ignore material features of State tax regimes and involve a significant departure from the 'what States do' principle. The

5 Kendall R and Tulip P, Research Discussion Paper 2018-03, *The Effect of Zoning on Housing Prices*, Reserve Bank of Australia, Canberra.

6 In the Commission's elasticity consultancy, its consultants found rates of land tax varied more significantly than for other revenues, with some land tax rates more than 2.5 times higher than the national average. However, even these large differences were not sufficient for an elasticity adjustment to be material.

7 Had the effect been material, the Commission's assessment options would have been to choose a different capacity measure, increase the discount on the existing measure or move to an equal per capita (EPC) assessment.

Commission considers exemption thresholds, differences in scope of taxes or progressive rates of tax reflect what States do and should be captured when measuring State revenue capacity. Ignoring these features produces higher assessed revenue capacities for the fiscally weaker States, meaning they would have to impose taxes and charges at rates above those of fiscally strong States to raise the average revenue. The Commission does not consider this is consistent with determining States' relative revenue raising capacities and so it has decided not to adopt Western Australia's proposal.

28 Western Australia also raised a second concern. It said that, if every State had a policy of exempting a similar proportion of their tax base and if their tax bases were not uniformly distributed, States would give effect to this policy by using different actual thresholds. In these circumstances, replacing States' actual thresholds with an average threshold would distort States' assessed revenue capacities. It would remove a different proportion of each State's tax base.[8]

29 If States exempted the same proportion of their tax base then the Commission would consider exempting that proportion from each State's revenue base. However, no other State has said this is what they do and the Commission does not have evidence it is common State policy. The Commission has decided to continue to assess revenue capacity using a set of standardised value ranges.

30 New South Wales asked whether the Commission had tested the materiality of the current value ranges as it might provide an opportunity to simplify the assessment by having fewer value ranges.

31 The Commission has not tested the materiality of its value ranges. The materiality of each value range is affected by the different State property cycles. A value range's materiality changes year to year. The reason for standardising value ranges over the life of a review is to enable States to set up a process for extracting land holdings data in the knowledge that the Commission's data specifications will not change year to year (for example, due to changes in the materiality of value ranges). For this reason, the Commission has decided to again standardise its value ranges.

32 The ACT noted a concentration of the land tax base in the top value range and suggested breaking that value range into three. The Commission sourced these data from SROs.

33 The Commission has decided to continue to make an adjustment for differences in the progressivity of State taxes. It reflects what States do and it has a material effect on their assessed revenue capacity.

Adjustment for the ACT because it imposes land tax on a per property basis

34 The ACT's lack of aggregation means more of its taxable land holdings are reported in lower value ranges. An adjustment is required to estimate the effect of aggregation on its taxable land holdings. A 2% adjustment was applied in the previous review.

35 New South Wales provided data showing aggregation increased its revenues by more than 30%. Western Australia said its aggregation policies increased its land tax and Metropolitan

[8] If States' tax bases were not uniformly distributed, using an average threshold would remove a smaller proportion of the revenue base of States with high actual thresholds and remove a larger proportion of the revenue base of States with low actual thresholds.

Regional Improvement Tax revenue by more than 50%. In its State Tax Review Discussion Paper[9], South Australia provided data suggesting its aggregation policies increased its land tax revenues by more than 30%. The ACT provided data showing aggregation would increase its revenue by 6%. New South Wales and Western Australia said the increase would be greater than 6% if the ACT analysis used average rates of tax rather than its own rates of tax.

36 The Commission noted the widely varying estimates of the effects of aggregation. The divergence could be driven by differences in the rates of land tax and the property market in each State. The Commission benchmarked the ACT's estimate of its effect of aggregation against a comparison of States' shares of SRO land holdings data and their shares of ABS adjusted land values.[10] The Commission compared the ACT to New South Wales and Queensland. Like the ACT, they are the only States that had a share of adjusted land values bigger than their share of land holdings. Also, data from Western Australia's Overview of State Taxes and Royalties also suggest these two States have a tax rate progressivity closest to the ACT.

37 For the three years to 2018-19, the combined share of taxable land holdings for New South Wales and Queensland was 91% of their combined share of adjusted land values. An adjustment of 10% would be required to the ACT's share of land holdings to lift its ratio to 91%.

38 Based on this comparison and observing that proportionately less of the ACT's taxable land holdings are in higher value ranges, the Commission has decided to use the ACT's estimate of the aggregation effect and increase the ACT adjustment from 2% to 6%. It will freeze this adjustment for the life of the review.

Adjustment for the Northern Territory because it does not impose land tax

39 An adjustment is required for the Northern Territory to estimate its taxable land holdings. An adjustment of 0.6% was applied in the previous review. It was based on the Northern Territory's share of VG land values for the three years of the 2010 Review.

40 The Northern Territory said the Commission should base this adjustment on its VG's data. However, the Commission no longer collects these data for all States. Western Australia said the Commission should develop the adjustment by comparing States' taxable land holdings to ABS land values. The Northern Territory's share of ABS adjusted land value data for the three years of the 2010 Review was also 0.6%. For the three years to 2018-19, its share increased to 0.8%. Its increased share was driven both by an increase in its residential and commercial land values and by an increase in its proportion of renters.

41 The Commission has decided to estimate the Northern Territory's taxable land holdings data as 0.8% of the other States' taxable value of land holdings. The Northern Territory said, that if the Commission based the adjustment on ABS land data, it should update it annually as data are available to do so. The Commission has decided to update the adjustment annually.

[9] South Australia, *Review of Tax Reform Discussion Paper*, February 2015, Section 8.3 Land tax, pages 40-41.

[10] The ABS publishes land values as part of the National Accounts. An adjustment was made to remove principal places of residence from its residential land values. That adjustment was based on the proportion of private renters in each State.

Data and method

42 The Commission obtains data on the value of taxable land holdings from SROs. SROs provide the data by value range, which allows the Commission to capture differences in their share of total value of taxable land holdings and the effect of progressive rates of land tax.

43 The Commission makes two adjustments to State data. The first adjustment, referred to as the value distribution adjustment (VDA), captures the progressivity of tax rates. For each value range, an effective rate of tax is derived by dividing States' tax collections by their value of taxable land holdings. A State's assessed revenue for that value range — the revenue it would raise if it applied the average tax rate — is derived by multiplying its value of taxable land holdings in that range by the effective rate of tax. The VDA compares this calculation against the assessed revenue derived by applying the average rate of tax (across all value ranges) to each State's total value of taxable land holdings.

44 The second adjustment is to discount the assessment.

45 In the previous review, the Commission applied a medium discount (25%) to the Land tax assessment. This reflected its concerns with SRO data. It noted inconsistencies between States' shares of total land holdings and the distribution of States' land holdings by value range. It was also concerned about asking three States to adjust their land holdings data to reflect a different treatment of jointly owned properties.

46 Seven States commented on the discount. Most suggested reducing or eliminating it.

47 New South Wales said a reduction in the discount was not appropriate or justified. Victoria said if reliable adjustment methods can be found, a discount would not be required. Queensland said it had made improvements in its SRO data, which justified reducing or eliminating the discount. South Australia agreed. While acknowledging the improvement in Queensland data, the ACT noted the Commission had concerns with other States' data when it introduced the discount. If the Commission's concerns have not been completely alleviated, it may be appropriate to reduce rather than eliminate the discount. Tasmania said the Commission had eight years of SRO data with which to assess the comparability of State data. It did not believe there was sufficient evidence to suggest there were inherent errors or inconsistencies in SRO data, or that any inconsistency had a material impact. The Northern Territory said there was no evidence to suggest there were errors in SRO data. Even if errors were assumed, it was unlikely they had a material effect. It suggested, as a minimum, the discount be reduced to the low (12.5%) discount.

48 The Commission uses discounting if it has concerns about an assessment method or the data it uses. The Commission introduced a discount to the Land tax assessment when it changed its source of land value data from VG land value data to SRO land holdings data. At the time, New South Wales said the Commission should heavily discount the Land tax assessment if SRO data were used. The Commission discounted the assessment because it had concerns over the comparability of SRO data due to:

- SRO land holdings data being more likely than VG land value data to be affected by State policies
- asking three States (New South Wales, Victoria and Queensland) to adjust their land holdings data and provide data on a basis consistent with the treatment of joint ownership in three other States (Western Australia, South Australia and Tasmania).

49 There is little available information to test the effect that State policies (such as those relating to aggregation and joint owners) have on the data they provide. However, there is some evidence to suggest SRO data has improved over the last decade:

- the correlation between assessed revenue (using SRO land holdings data) and actual revenue has become stronger, suggesting assessed revenues are tracking actual revenues better
- there is more consistency between the land tax and the conveyance assessments than was the case in the 2010 Review, which would be expected as both have a connection to land values
- Queensland has improved its SRO data.

50 The Commission considers there is a case for retaining a discount, in particular, to reflect the adjustments made by the three most populous States to address differences in the treatment of jointly owned properties. However, States' general acceptance of SRO data as being the most appropriate to measure land tax capacity and the improvements in that data suggest a lower discount might be appropriate. Given this, the Commission has decided to apply the low level discount (12.5%).

51 The Commission would consider removing the discount if it had information showing the adjustments made by New South Wales, Victoria and Queensland (in relation to joint ownership) and States' aggregation policies were not having a material effect on SRO data.

52 Table 7-4 shows the calculation of total assessed revenue for the category in 2018-19.

Table 7-4 Category assessment, Land tax, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)	4,211	3,501	1,330	799	420	108	137	0	10,507
Value of taxable land holdings ($b)	614	481	206	116	78	15	16	12	1,537
Value distribution adjustment	1.098	1.053	0.802	1.090	0.471	0.474	0.585	1.005	1.000
Adjusted value of taxable land holdings ($b)	674	507	165	126	37	7	9	12	1,537
Undiscounted assessed revenue ($m)	4,605	3,463	1,128	863	251	48	64	84	10,507
Assessed revenue ($m)	4,449	3,371	1,251	892	310	70	78	87	10,507
Assessed revenue ($pc)	553	516	248	342	178	131	184	353	417

Note: A State's undiscounted assessed revenue equals total actual revenue multiplied by its share of adjusted value of taxable land holdings. A 12.5% discount is then applied.

Source: Commission calculation.

Category calculations

53 Table 7-5 derives the per capita total assessed revenue for each State for the category. It shows how the different parts of the capacity measure move revenues away from an EPC distribution and their effect on States' per capita assessed revenue.

Table 7-5 Category assessment, Land tax, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Equal per capita	417	417	417	417	417	417	417	417	417
Value of taxable land holdings	91	75	-122	-99	-98	-199	-140	-66	0
Value distribution adjustment	45	24	-48	24	-141	-87	-94	1	0
Total assessed revenue	553	516	248	342	178	131	184	353	417

Source: Commission calculation.

Other issues considered by the Commission

54 As part of the review, the Commission also considered:

- whether other land based taxes should be differentially assessed
- whether foreign owner surcharges should be separately assessed
- the treatment of ACT's replacement revenue
- how Victoria's move to annual valuations should be treated
- the treatment of parking space levies.

Whether other land based taxes should be differentially assessed?

55 In the previous review, other land based taxes (including fire and emergency services levies (FESLs)) were assessed EPC. In that review, the Commission foreshadowed it would replace the EPC assessment with a differential assessment if the revenue became large enough for an assessment to be material. If this eventuated, the Commission would likely assess these revenues using a different capacity measure — one that included principal places of residence, but did not aggregate land values.

56 Six States commented on the proposal to differentially assess other land based taxes. Four States agreed. Western Australia and the ACT did not. Western Australia said the other land based taxes were an eclectic mix of revenues from various sources, not all of which appeared to be clearly linked to land values. The ACT said other land based taxes were charged, at least in part, on the basis of property values. It suggested adding them to land tax and assessing them using the land tax capacity measure.

57 The largest part of these other land based taxes is property-based FESLs ($1.7 billion in 2018-19). The Commission has decided to offset FESLs against the related expenses (refer to the discussion in Chapter 12 Other revenue). The remaining revenues are too small for a differential assessment to be material.

58 The Commission considered the ACT's proposal of assessing the remaining other land based taxes with land tax. However, the way States impose land tax is different to the way they impose other land based taxes. For land tax, principal places of residence are exempt and taxable land holdings are aggregated. Other land based taxes are imposed on principal places of residence and aggregation is not used. The Commission does not consider these revenues should be assessed using the Land tax capacity measure.

59 On materiality grounds, the Commission has decided to assess EPC other land based taxes (other than property based FESLs) in the Other revenue category.

Whether foreign owner surcharges should be separately assessed?

60 Four States impose a foreign owner surcharge on residential property. Currently, these surcharges are differentially assessed with land tax revenue. They increase the revenue collected and the effective rate of tax. Alternatively, foreign owner surcharges could be separately assessed.

61 Six States commented on this issue and they all supported not separately assessing foreign owner surcharges. South Australia said a separate assessment would require significant additional information. The current treatment captured the effect of surcharges, without adding complexity to the assessment. The Northern Territory said the issue should be revisited if a separate assessment of surcharges became material in the future.

62 While State budget documents provide an indication of the revenue raised from these surcharges, they do not provide details of the foreign owned property base. The Commission would be unable to make a separate assessment without these data. Based on the information available in State budgets, a separate assessment is unlikely to be material compared with the current treatment.

63 On both practicality and materiality grounds, the Commission has decided not to separately assess foreign owner surcharges.

Treatment of ACT's replacement revenue

64 In 2012-13, the ACT commenced a 20 year program to replace conveyance duty with general rate revenue. In the previous review, the Commission treated that part of the ACT's general rates that was a replacement for its conveyance duty as land revenue. The amount involved is small ($40 million) and the adjustment is not material.

65 Five States commented on this proposal. Four supported continuing to make the adjustment, but the ACT did not. It said the Commission did not estimate Northern Territory's foregone land tax revenue and, on consistency grounds, it should not estimate the ACT's foregone conveyance revenue.

66 Given the adjustment is not likely to be material and that a reliable estimate of the foregone revenue is no longer available, the Commission has decided not to include an estimate of the ACT's replacement revenue in this assessment.

How Victoria's move to annual land valuations should be treated

67 Victoria said its properties will be valued annually by its VG, replacing its previous biennial approach. This change would resolve the inconsistency in the previous arrangements where some valuations were undertaken by in-house valuers, some by its VG and some by valuers across municipal boundaries. The annual valuation process means its valuations will be more up-to-date than States where valuations were less frequent. It queried whether an adjustment was required to its land values because of the increased frequency of valuations.

68 All States seek to keep their land values contemporary. While some States revalue land less regularly than others, they use benchmarking techniques to bring their values to a common valuation point for the Commission's purposes. There is no evidence to suggest an increased frequency of valuation materially affects a State's land values compared to other States.

69 The Commission has decided not to make an adjustment for the increased frequency of Victorian land valuations.

The treatment of parking space levies

70 The ACT said parking space levies were based on the location of such spaces. It said the Commission should look for a different measure of capacity such as the physical size of city central business districts. However, if a suitable measure could not be identified, the levies should be assessed EPC.

71 States raised $269 million from parking space levies in 2018-19. This is not big enough for a separate assessment to be material.

72 The Commission has decided, on materiality grounds, to assess parking space levies EPC in the Other revenue category. This is the same treatment to be applied to other land based taxes (excluding FESLs).

Effect on the GST distribution

73 Table 7-6 shows the extent to which the assessment for this category differs from an EPC assessment of Land tax. States with a positive redistribution are assessed to have below average revenue raising capacity and States with a negative redistribution are assessed to have above average revenue raising capacity. In per capita terms, South Australia, Tasmania and the ACT experience the largest redistributions.

Table 7-6 Illustrative redistribution from an EPC assessment, Land tax, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	-919	-493	718	65	378	140	94	16	1,412
$ per capita	-111	-72	137	25	214	257	214	65	54

Note: The redistribution is the difference from an EPC assessment derived using 2016-17 to 2018-19 assessed expenses and 2020-21 GST revenue..

Source: Commission calculation.

74 The main reasons for these redistributions are the differences between States in their per capita value of taxable land holdings and the proportion of their taxable land holdings in higher value ranges.

75 The main reasons for the redistributions for each State are:

- the per capita value of taxable land holdings in New South Wales exceeded the national average and proportionally more of them were in higher value ranges
- the per capita value of taxable land holdings in Victoria exceeded the national average, but proportionally less of them were in higher value ranges
- the per capita value of taxable land holdings in Queensland, South Australia, Tasmania and the ACT were less than the national average and proportionally less of them were in higher value ranges

- the per capita value of taxable land holdings in Western Australia and the Northern Territory were less than the national average, but proportionally more of them were in higher value ranges.

76 Table 7-7 provides a summary of the main drivers contributing to the redistribution from an EPC assessment for this category.

Table 7-7 Major reasons for the illustrative redistribution, Land tax, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Value of taxable land holdings	-653	-509	598	199	171	110	65	19	1,163
Value distribution adjustment	-265	16	120	-134	207	29	29	-3	402
Total	**-919**	**-493**	**718**	**65**	**378**	**140**	**94**	**16**	**1,412**

Note: The redistributions from an EPC assessment are illustrative. Drivers may not add due to rounding.

Source: Commission calculation.

Changes since the 2019 Update

77 There are a number of method changes since the 2019 Update. Table 7-8 shows the effect of these changes.

Table 7-8 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method changes	-94	-49	95	-3	32	18	11	-10	156
Data revisions	101	-41	-20	-37	-3	0	0	0	101
State circumstances	-200	-172	139	157	49	16	10	1	372
Total	**-193**	**-262**	**213**	**116**	**79**	**35**	**21**	**-9**	**464**

Source: Commission calculation.

Method changes

78 The category excludes other land based taxes. The majority of these revenues (property based FESLs) are offset against the Other expenses category, the remainder are assessed EPC in the Other revenue category. In the previous review, they were all assessed EPC in this category.

79 The assessment discount has been reduced from 25.0% to 12.5%, increasing the revenue raising capacity of those States with above average taxable land holdings and decreasing their GST requirement.

80 The adjustment for the ACT, because it does not aggregate a land holder’s taxable land holdings, has been increased from 2% to 6%.

81 The adjustment for the Northern Territory, because it does not impose land tax, has been increased from 0.6% to 0.8%.

Data revisions

82 Some States revised the value of taxable land holdings data they had previously provided.

Changes in State circumstances

83 Property market cycles changed States' taxable land values. The above average growth in per capita taxable land values in New South Wales and Victoria between 2015-16 and 2018-19 increased their revenue raising capacity, reducing those States' GST requirement (collectively by $372 million).

Updating the assessment

84 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances. States' SRO land holdings data will be updated annually. The Northern Territory adjustment will be updated as new National Accounts data become available.

8 Stamp duty on conveyances

Summary of the assessment

The Stamp duty on conveyances category consists of stamp duties collected by States when ownership of property is transferred.

State capacity to raise stamp duties is assessed using the total value of property transferred in each State, split into value ranges. For each value range, the average rate of tax is applied to the value of property transferred in each State. Undertaking the assessment by value range captures the progressivity of State conveyance duties.

A State with an above average share of property transferred[1] or with a larger proportion of its values in the higher value ranges is assessed to have the capacity to raise above average conveyance duties. A State with a below average share of property transferred or with a larger proportion of its values in the lower value ranges is assessed as not having the capacity to raise the average conveyance duty. Some States are assessed to have above average capacity for some value ranges, but below average capacity for others.

Revenue overview

1 States raised $17.9 billion in Stamp duty on conveyances in 2018-19, representing 13.5% of total own-source revenue (see Table 8-1). The category includes revenue from foreign owner surcharges, which are raised by six States.

Table 8-1 Stamp duty on conveyances by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total revenue ($m)	6,864	6,009	2,653	1,011	758	249	240	159	17,943
Total revenue ($pc)	854	921	525	388	435	467	567	648	713
Proportion of total own-source revenue (%)	16.4	18.5	10.1	5.1	12.0	12.6	8.8	9.4	13.5

Source: Commission calculation using State budget data.

2 The category excludes revenue from property transactions the Commission decided should not affect States' revenue capacities, stamp duty on motor vehicle transfers and stamp duty on marketable securities. As a differential assessment of these revenues is not material, they are assessed equal per capita (EPC) in the Other revenue category.

3 Table 8-2 shows Stamp duty on conveyances as a share of total own-source revenue from 2015-16 to 2018-19.

1 An above average share of property transferred means the State's property transferred per capita exceeds the national average property transferred per capita.

Table 8-2 Stamp duty on conveyances, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total revenue ($m)	19,336	20,348	21,162	17,943
Proportion of total own-source revenue (%)	16.9	17.0	16.8	13.5

Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

State role

4 States impose stamp duties, including stamp duty on property transfers. The concept of taxable property is broad. It comprises both real property (such as land, houses, apartments, shops, factories, offices) and, in three States, non-real property (such as copyrights, goodwill, patents, partnership interests and options to purchase).

5 States provide a range of concessions to land owners, including rebates on or exemptions from conveyance duty.

Commonwealth role

6 Foreign persons seeking to purchase real estate in Australia may require approval from the Foreign Investment Review Board.

7 The Commonwealth also has taxation powers in relation to property, both income tax and capital gains tax. It imposes income tax on rental income earned from property and imposes capital gains tax on profit earned from the sale of property.

Category structure

8 The category has no components. Table 8-3 shows the capacity measure (revenue disability) that applies to the Stamp duty on conveyances category.

Table 8-3 Category structure, Stamp duty on conveyances, 2018-19

Component	Component revenue	Capacity measure	Influence measured by disability
	$m		
Conveyance duties	17,943	Value of property transferred	Recognises that States with a greater total value of property transferred have a greater revenue capacity.
		Value distribution adjustment	Recognises that States with proportionally more high value property transferred, which attract higher rates of tax, have greater revenue capacity.

Source: Commission calculation using State budget data.

Category revenue

9 The main data sources for calculating category revenue are GFS and State budget data.[2]

[2] Unless otherwise stated, category revenue for the first two assessment years are sourced from GFS. States provide data for the most recent assessment year because GFS data are not available.

Assessment approach

10 All States impose conveyance duties using a progressive rate structure. South Australia has abolished conveyance duties on non-residential properties. The ACT has a 20 year plan to phase out conveyance duties, replacing them with general rates. It has abolished conveyance duties on commercial properties valued at less than $1.5 million.

Capacity measure (revenue disability)

11 The capacity measure is the adjusted value of property transferred. State Revenue Offices (SROs) provide data on revenue collected and the value of property transferred by value range.

12 As part of the review, the Commission reviewed its capacity measure in relation to:

- whether some property transactions should be assessed EPC
- whether an adjustment should be made for the progressivity of rates of conveyance duty
- whether adjustments should be made for differences in the scope of conveyance duty.

Property transactions assessed EPC

13 The Commission may decide that some classes of transactions should not affect States' revenue capacities. If it does, it assesses them EPC. In this review, the Commission has decided that revenues assessed EPC will be included in the Other revenue category.

14 ***Duty on corporate reconstructions.*** The Commission decided to continue to assess any duty on these transactions EPC. Most States exempt these transactions or refund the duty collected to encourage economic reform.

15 ***Duty on the sale of major State assets.*** The value of these transactions reflects different State policies on the ownership of assets. Victoria said duties on the sale of major State assets should be assessed actual per capita (APC) because they were determined by State circumstances. The ACT said some States were making windfall gains from these sales and those windfall gains should be differentially assessed.

16 The Victorian and ACT proposals would mean duties from previous asset sales would be assessed EPC, while all or part of the duties from future asset sales would be differentially assessed. The Commission considers duties from the sale of major State assets arise from State policy choices in relation to which assets to hold and for how long. For this reason, it has decided to continue to assess these duties EPC in the 2020 Review.

17 ***Duty on non-real property transactions.*** Victoria said these duties should be assessed APC because all States agreed to abolish them as part of the *Intergovernmental Agreement on the Reform of Commonwealth State Financial Relations 1999* (the IGA) and not reintroduce them. Victoria believes States that abolished these duties no longer have capacity in this area, whereas States that continued to impose them had not met their obligations under the IGA. In the previous review, the Commission rejected a similar proposal to assess these transactions APC. It noted States that had not abolished the duty had not been penalised and it concluded the IGA was not binding. In these circumstances, an APC assessment was not appropriate.

18 Only Queensland, Western Australia and the Northern Territory continue to impose duty on non-real property transactions.[3] The interstate distribution of non-real property transactions is very different from the interstate distribution of real property transactions. Queensland has traditionally had a much bigger share of the non-real property tax base. Given the different distributions, it would not be appropriate to assess non-real property duties using the real property capacity measure. However, these differences also make it difficult to reliably estimate a capacity measure for the majority of States that do not impose this duty.[4] Therefore it is more practical and simpler to not assess capacity for the States that impose duty than to estimate a capacity for those that do not. Consequently, the Commission has decided to assess these duties EPC in the 2020 Review.

19 ***Duty on land rich transactions by listed companies.*** New South Wales said these transactions should continue to be assessed EPC because there were significant differences in State legislation regarding the land rich landholder test.[5] Western Australia said these transactions were volatile and the transactions in one year bore little or no resemblance to States' ongoing capacities. In addition, because they were large and few in number, these transactions were potentially more sensitive to State policy influence.

20 The Commission considers State legislation regarding land rich landholder tests are similar. States may have differing land value thresholds, but they have the same acquisition thresholds for private and public companies. The Commission introduced an EPC assessment for these transactions when only Western Australia taxed them. It retained this treatment in subsequent reviews because a minority of States taxed them. The reason for changing the treatment is that seven States now tax them. Western Australia's observations (they bear little or no resemblance to States' on-going capacities; they are more prone to policy influence) are also relevant to other large, one-off transactions. It would be difficult for the Commission to justify one treatment for land rich transactions, but a different treatment for other large, one-off real property transactions. The inclusion of both types of transactions would be more reflective of States' land tax capacity. The Commission has decided to differentially assess duty from land rich transactions by listed corporations.[6]

Adjustment to capture the effect of progressive rates of conveyance duty

21 States impose conveyance duty progressively above a tax-free threshold. Property transactions below the tax-free threshold attract no tax. Property transactions in high value ranges attract a higher rate of tax. Thus, States with a greater proportion of property transactions in higher value ranges have greater revenue capacity. The Commission captures the effect of progressive rates of tax by assessing revenue capacity by value range.

22 Seven States supported continuing to make an adjustment for progressive rates of conveyance duty. Western Australia did not.

3 While New South Wales has abolished duties on most non-real property, it still imposes duty on plant and equipment.

4 In the 2015 Review, most States still applied this duty. The non-real transactions were treated like other dutiable transactions, with the revenue bases for those States not applying the duty being increased by 6% (1% in the case of the ACT).

5 In the previous review these transactions were taxed by a minority of States. They were not common but could be large when they arose. The Commission assessed them EPC because their ad hoc nature and volatility made it difficult to estimate the missing transactions for States that did not tax them.

6 Tasmania is the only State not to levy land rich transactions on listed corporations. These duties comprised 1% of conveyance duties in recent years. A 1% adjustment for Tasmania would not be material, redistributing less than $5 per capita.

23 Western Australia favoured a different revenue approach, one that focused on underlying revenue disabilities. Under its approach, adjustments would not be made for exemption thresholds, differences in scope of taxes or progressive rates of tax. Western Australia said focusing on the underlying revenue base would be more policy neutral, more transparent and better fit the data.

24 Western Australia's proposed revenue approach would ignore material features of State tax regimes and involve a significant departure from the 'what States do' principle. The Commission considers exemption thresholds, differences in scope of taxes and progressive rates of tax reflect what States do and should be captured when measuring State revenue capacity. Ignoring these features produces higher assessed revenue capacities for the fiscally weaker States, meaning they would have to impose taxes and charges at rates above those of fiscally strong States to raise the average revenue. The Commission does not consider this is consistent with determining States' relative revenue raising capacities and so it has decided not to adopt Western Australia's proposal.

25 Western Australia raised a second concern. It said that, if every State had a policy of exempting a similar proportion of their tax base and if their tax bases were not uniformly distributed, States would give effect to this policy by using different actual thresholds. In these circumstances, replacing States' actual thresholds with an average threshold would distort States' assessed revenue capacities. It would remove a different proportion of each State's tax base.[7]

26 If States exempted the same proportion of their tax base then the Commission would consider exempting that proportion from each State's revenue base. However, no other State said this is what they do and the Commission does not have evidence it is common State policy. The Commission has decided to continue to assess revenue capacity using a set of standardised value ranges.

27 Western Australia was also concerned that the assessment did not capture the different tax rates applying to different property types.

28 While some States apply different tax rates to different property types, the Commission has not previously undertaken an assessment of different property types. To do so, it would require States to provide revenue data and value of property transferred data by value range and, in addition, by property type. By including the value of each property type in the revenue base, the current assessment captures the effect of differences in their valuations, without the added complexity of replicating the assessment for each property type. It is not clear the additional complexity would produce a materially different outcome. On practicality and materiality grounds, the Commission has decided not to undertake separate assessments by property type.

29 The Commission has decided to continue to make an adjustment for differences in the progressivity of State taxes. It reflects what States do and it has a material effect on their assessed revenue capacity.

7 If States' tax bases were not uniformly distributed, using an average threshold would remove a smaller proportion of the revenue base of States with high actual thresholds and remove a larger proportion of the revenue base of States with low actual thresholds.

Adjustments to capture the effect of differences in the scope of conveyance duty

30 The Commission seeks to construct a revenue base that best reflects what States on average do. Where necessary, adjustments may be required to improve the comparability of State revenue bases. This can occur, for example, when a State taxes transactions others do not. These differences in scope can affect revenue bases constructed from the transaction data provided by SROs. If a State taxes a narrower range of transactions, an adjustment may be required to estimate the transactions missing from its data. If a State taxes a broader range of transactions, an adjustment may be required to remove the additional transactions from its data. The Commission seeks to make these adjustments in the simplest and most reliable way.

- Where a majority of States apply duty to particular transactions, the Commission imputes the missing transactions for those that do not.
- Where a minority of States apply duty to particular transactions, the Commission removes those transactions from the data they provide.

31 As part of the review, the Commission considered whether adjustments were required for:

- the wider unit trust provisions in Queensland, Western Australia and South Australia
- South Australia's decision to abolish duty on non-residential transactions and the ACT's decision to abolish duty on commercial properties below $1.5 million
- the off-the-plan concession in Victoria
- the lower rate of duty applied to land rich transactions by listed companies.

32 Three States commented on whether the Commission should make adjustments for differences in the scope of conveyance duty. Two supported making adjustments, but Western Australia did not. It believed State policy differences could be more effectively controlled implicitly through changes in effective rates of tax rather than through data adjustments. It said that if underlying revenue disabilities were used, differences in the scope of transactions would be reflected in higher or lower effective rates of tax and the revenue a State actually collected. A State's tax effort could be assessed by comparing its effective rate of tax against the average effective rate of tax.

33 Western Australia's proposal of comparing a State's effective rate of tax against an average rate of tax complements its proposal to measure revenue capacity using States' underlying revenue disabilities. However, as the Commission has decided to assess revenue capacity using the value of property transferred, it is required to consider whether those values are affected by differences in the scope of conveyance duty. If there are differences, adjustments may be required to improve the comparability of the transactions data being provided by States.

34 ***The unit trusts adjustment.*** This adjustment was introduced to capture State legislative differences in the application of conveyance duty to the issue and redemption of units in private unit trusts. At that time, most States did not apply conveyance duty to these transactions, but Queensland, Western Australia and South Australia did.

35 Three States commented on the adjustment.

36 Queensland supported a continuation of the adjustment in the absence of new data to support a different adjustment.

37 New South Wales said the adjustment should be discontinued because there had been significant legislative changes such that the difference between States had effectively ceased. While Queensland imposes conveyance duty on the transfer of units in a private trust, other States chose to impose landholder duty. New South Wales said one remaining difference was that Queensland allowed a principal place of residence exemption for land owned by a trust, but other States did not. New South Wales concluded the policy choices of Queensland affected the form of land ownership (trusts rather than direct ownership), but did not have a material effect on the total value of property transferred and, as such, an adjustment was not warranted.

38 Western Australia also said that Queensland was the only State operating a unit trust scheme rather than land holder/land rich provisions. It believed the difference in State policies was predominantly about the land acquisition threshold and the applicable rate of duty, with most States applying a rate of duty that was 10% of the general rate. It concluded the Commission should reconsider the need for a unit trust adjustment.

39 The Commission accepts there have been legislative changes that have reduced State differences. It is not clear that Queensland's choice of a unit trust scheme rather than a land holder/land rich provision would lead to a materially different value of property transferred. Therefore, it has decided to remove the unit trusts adjustment.

40 ***An adjustment for abolished duty.*** South Australia and the ACT have abolished duty on some commercial transactions. If these transactions are omitted from its transactions data, an adjustment would be required to estimate their effect.

41 Both States confirmed they are able to provide data for the transactions that are no longer subject to duty. As both States will continue to include these transactions in the data they provide, the Commission has decided an adjustment is not required.

42 ***An adjustment for Victoria's off-the-plan concession.*** Victoria's off-the-plan concession means its off-the-plan transactions may be reported in lower value ranges. In previous reviews, Victoria provided its off-the-plan transactions by dutiable value rather than purchase price. An adjustment was required to estimate the difference between their dutiable values and their purchase price.

43 For this review, Victoria has provided its off-the-plan transactions by purchase price and so an off-the-plan adjustment is not required. Consequently, the Commission has decided to discontinue this adjustment.

44 ***An adjustment for land rich transactions by listed companies.*** The Commission has decided to differentially assess land rich transactions by listed companies. New South Wales and Western Australia noted a majority of States applied a rate of duty that was 10% of the general rate. New South Wales suggested the Commission either:

- assess land rich transactions by listed entities as a separate part of the tax base, or
- include only 10% of their transaction value.

45 Five States apply duty at 10% of their general rate. Consequently, the Commission has decided to include only 10% of their transaction value. This adjustment would apply to any State that had a land rich transaction by listed a company.

46 ***Conclusion.*** The Commission has decided to continue to make adjustments to capture differences in the scope of State transactions. In this review, it has decided to make one adjustment, for the lower rate of duty applied to land rich transactions by listed companies.

Data and method

47 The Commission obtains data on the value of property transferred from SROs. They provide revenue and value of property transferred data by value range, which allows the Commission to capture differences in their share of total property transferred and the effect of progressive rates of conveyance duties.

48 The Commission makes two adjustments to State data. The first adjustment, referred to as the value distribution adjustment (VDA), captures the progressivity of tax rates. For each value range, an effective rate of tax is derived by dividing States' tax collections by their value of property transferred. A State's assessed revenue for that value range — the revenue it would raise if it applied the average tax rate — is derived by multiplying its value of property transferred in that range by the effective rate of tax. The VDA compares this calculation against the assessed revenue derived by applying the average rate of tax (across all value ranges) to each State's total value of property transferred.

49 The second adjustment brings in 10% of the value of land rich transactions by listed companies in each State.

Assessed revenue

50 Table 8-4 shows the calculation of total assessed revenue for the Stamp duty on conveyances in 2018-19.

Table 8-4 Category assessment, Stamp duty on conveyances, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)	6,864	6,009	2,653	1,011	758	249	240	159	17,943
Value of property transferred ($m)	159,814	136,488	79,538	31,596	21,806	6,963	8,577	3,283	448,065
Value distribution adjustment	1.081	0.991	0.920	0.955	0.897	0.806	0.932	1.121	1.000
Adjusted value of property transferred ($m)	172,704	135,202	73,144	30,160	19,563	5,614	7,997	3,679	448,065
Assessed revenue ($m)	6,916	5,414	2,929	1,208	783	225	320	147	17,943
Assessed revenue ($pc)	860	829	580	463	449	423	756	600	713

Note A State's assessed revenue equals total actual revenue multiplied by that State's share of adjusted value of property transferred.
Source: Commission calculation.

Category calculations

51 Table 8-5 derives the per capita total assessed revenue for each State for the category. It shows how the different parts of the capacity measure move revenue away from an EPC distribution and their effect on States' per capita assessed revenue.

Table 8-5 Category assessment, Stamp duty on conveyances, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Equal per capita	713	713	713	713	713	713	713	713	713
Value of property transferred	83	124	-82	-227	-212	-189	98	-178	0
Value distribution adjustment	64	-8	-51	-22	-52	-102	-55	65	0
Assessed revenue	860	829	580	463	449	423	756	600	713

Source: Commission calculation.

Other issues considered by the Commission

52 The Commission considered two other issues:

- whether foreign owner surcharges should be assessed separately
- the treatment to apply to concessional rates of duty.

Whether foreign owner surcharges should be separately assessed

53 Six States impose a foreign owner surcharge on residential property. Currently, these surcharges are treated as conveyance duty, increasing the revenue collected and the effective rate of tax. Alternatively, foreign owner surcharges could be separately assessed.

54 Six States commented on this issue. None supported separately assessing foreign owner surcharges. South Australia said a separate assessment would require significant additional information. The current treatment captured the effect of surcharges, without adding complexity to the assessment. The Northern Territory said the issue should be revisited if a separate assessment of surcharges became material in the future.

55 While State budget documents provide an indication of the revenue raised from these surcharges, they do not provide details of the foreign owner property base. The Commission would require these data if it was to make a separate assessment. Based on the information that is available, a separate assessment is unlikely to be material.

56 On both practicality and materiality grounds, the Commission has decided not to make a separate assessment of foreign owner surcharges.

The treatment to apply to concessional rates of duty

57 States provide assistance to first home buyers in different ways. All States provide grants to first home owners. In addition, six States provide assistance by reducing the stamp duty first home owners have to pay (that is, they offer a further concessional rate of duty). In the previous review, the Commission assessed both forms of assistance in the same way so that a State's choice of provision did not affect the way its assistance was treated. This was achieved by converting concessional rates of duty into an expense (a 'grant equivalent')[8], combining it with other first home owner grants and assessing them EPC in the First Home Owners component of the Housing assessment.

[8] This treatment increased both the revenue in the Stamp duty on conveyances category and the expense in the Housing category.

58 Five States supported continuing this approach. New South Wales did not. It said, compared to other States, treating concessional rates of duty as an expense imposed additional costs on its budget. The treatment increased the conveyance revenue that was differentially assessed. Therefore, States assessed to have above average revenue capacity (New South Wales and Victoria in 2018-19) were assessed to have the capacity to finance an above average amount of the 'grant equivalent'. However, those grant equivalents were assessed EPC in the Housing category, meaning each State was given the capacity to provide the average level of grant equivalent. New South Wales said this approach reduced its GST, imposing an additional cost on its budget compared to other States.

59 The Commission notes six States provide both concessional rates of duty and grants. This suggests these States consider them to be different forms of assistance. For that reason, the Commission proposes to also treat them differently in this review. It has decided to treat concessional rates of duty as a reduction in States' effective rates of tax, meaning they will be assessed in the revenue category in which they are provided rather than assessing as 'grant equivalents' in the relevant expense category.

60 The ACT proposed treating all concessional rates of duties as grant equivalents. The Commission has decided to treat concessional rates of duty for first home owners as a reduction in States' effective rates of tax. Consistent with this, it has decided to also treat other concessional rates of duty as a reduction in States' effective rates of tax.

Effect on the GST distribution

61 Table 8-6 shows the extent to which the assessment for this category differs from an EPC assessment of conveyance duties. States with a positive redistribution are assessed to have below average revenue raising capacity and States with a negative redistribution are assessed to have above average revenue raising capacity. In per capita terms, Western Australia, South Australia, Tasmania and the Northern Territory experience the largest redistributions.

Table 8-6 Illustrative redistribution from an EPC assessment, Stamp duty on conveyances, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	-1,926	-730	749	934	665	206	3	98	2,656
$ per capita	-232	-107	143	352	376	379	7	400	102

Note: The redistribution is the difference from an EPC assessment of category revenue.

Source: Commission calculation.

62 The main reasons for these redistributions are the differences between States in their per capita value of property transferred and the proportion of their transactions in higher value ranges.

63 The main reasons for the redistributions for each State are:

- the per capita value of property transferred in New South Wales exceeded the national average and proportionally more of its transactions were in higher value ranges
- the per capita value of property transferred in Victoria and the ACT exceeded the national average, but proportionally less of their transactions were in higher value ranges

- the per capita value of property transferred in Queensland, Western Australia, South Australia and Tasmania were less than the national average and proportionally less of their transactions were in higher value ranges
- the per capita value of property transferred in the Northern Territory was less than the national average, but proportionally less of its transactions were in higher value ranges.

64 Table 8-7 provides a summary of the main drivers contributing to the redistribution from an EPC assessment for this category.

Table 8-7 Major reasons for the illustrative redistribution, Stamp duty on conveyances, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Value of taxable land holdings	-1,302	-765	408	852	567	158	-21	102	2,089
Value distribution adjustment	-624	35	341	82	98	48	24	-4	628
Total	**-1,926**	**-730**	**749**	**934**	**665**	**206**	**3**	**98**	**2,656**

Note: The redistributions from an EPC assessment are illustrative. Drivers may not add due to rounding.

Source: Commission calculation.

Changes since the 2019 Update

65 There are a number of method changes since the 2019 Update. Table 8-8 shows the effect of these changes.

Table 8-8 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method changes	-232	95	165	33	-41	-2	-12	-5	292
Data revisions	-78	205	17	-110	-22	-7	-1	-4	222
State circumstances	348	-179	-70	48	-84	-24	-12	-27	396
Total	**38**	**121**	**111**	**-29**	**-147**	**-33**	**-25**	**-36**	**270**

Source: Commission calculation.

Method changes

66 Stamp duties on motor vehicle transfers are assessed EPC in the Other revenue category. In the 2015 Review, they were differentially assessed in this category.

67 Where the Commission determines some property transfers should not affect State revenue capacities, they are assessed EPC in the Other revenue category. In the 2015 Review, they were assessed EPC in this category.

68 Duty on non-real property transactions are assessed EPC in the Other revenue category and no other adjustments are required. In the 2015 Review, these transactions were differentially assessed in this category, with the revenue bases for those States not imposing this duty being increased by 6% (1% in the case of the ACT). Queensland and Western Australia have traditionally had an above average share of the non-real property tax base. Assessing these duties EPC reduces these States' assessed revenue raising capacity.

69 Duties on land rich transactions by listed companies are differentially assessed. In the 2015 Review, they were assessed EPC in this category. Differentially assessing these transactions increases the revenue raising capacity of those States that have a relatively large share of them, principally New South Wales and Western Australia. However, as only 10% of the value of transactions are included, the changes to State's relative fiscal capacity are small.

70 Concessional rates of duty for first home owners are treated as a reduction in the effective rate of duty. In the 2015 Review they were converted into a 'grant equivalent' and assessed with other concessions in the Housing category.

71 The adjustment for Victoria's off the plan concession and the unit trusts adjustment have been removed and an adjustment for the lower rate of duty on land rich transactions by listed companies has been introduced.

Data revisions

72 Some States revised the value of transactions data they had previously provided. Victoria and Queensland revised their values down. New South Wales revised its values down in some years and up in others. The collective revisions redistributed $222 million to Victoria and Queensland from the other States.

Changes in State circumstances

73 State revenue collections declined between 2015-16 and 2018-19. New South Wales experienced a 16% decline in its value of property transferred. Its decline substantially reduced its capacity to raise revenue on transferred property, leading to a large change in State circumstances overall ($396 million).

Updating the assessment

74 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances. States' SRO data on revenue collected and value of property transferred by value range will be updated annually.

9 Insurance tax

Summary of the assessment

This category includes insurance tax levied on the premiums of a range of insurance products.

State capacity to raise revenue from insurance tax is assessed using the value of premiums paid, which are obtained from the Australian Prudential Regulation Authority. Adjustments are made to remove types of insurance that States do not tax and those for which the level of premiums is significantly affected by State policies.

A State with an above average share of taxable premiums[1] is assessed to have the capacity to raise above average insurance tax revenue. A State with a below average share of taxable premiums is assessed to have below average capacity to raise insurance tax revenue.

Revenue overview

1 States raised $5.6 billion in insurance tax in 2018-19, representing 4.2% of total State own-source revenue Table 9-1.

Table 9-1 Insurance tax by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total revenue ($m)	1,860	1,373	1,003	662	487	98	38	50	5,571
Total revenue ($pc)	231	210	199	254	280	184	90	203	221
Proportion of own-source revenue (%)	4.4	4.2	3.8	3.4	7.7	4.9	1.4	2.9	4.2

Note: As of 1 July 2016, the ACT has abolished insurance tax. Its remaining insurance related revenue is its Ambulance Levy.
Source: Commission calculation using State budget data.

2 The category excludes revenue from insurance based fire and emergency services levies (FESLs), which are offset against Other expenses (refer to Chapter 12 Other revenue).

3 Table 9-2 shows the insurance tax share of total own-source revenue from 2015-16 to 2018-19.

Table 9-2 Insurance tax, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total revenue ($m)	4,931	5,140	5,243	5,571
Proportion of total operating revenue (%)	4.3	4.3	4.2	4.2

Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

State role

4 States impose insurance tax (also known as insurance duty) on three broad types of insurance:

[1] An above average share of taxable premiums means the taxable premiums per capita in the State is higher than the national average premiums per capita.

- ***General insurance.*** All States except the ACT[2] impose a fixed rate of duty on premiums for general insurance (such as home and contents, motor vehicle, fire, public and product liability, and professional indemnity insurance). The rate varies between 9% and 11%. Two States (New South Wales and Tasmania) apply concessional rates to certain classes of general insurance. Some classes of general insurance are exempt in one or more States.
- ***Compulsory third party (CTP) motor vehicle insurance***. Two States (Victoria and Western Australia) impose a single rate of duty on CTP premiums. Three States (Queensland, South Australia and Tasmania) impose a flat fee.[3] New South Wales, the ACT and the Northern Territory do not tax CTP insurance.
- ***Life insurance.*** Three States impose duty on the sum insured. South Australia imposes duty on the annual premiums. Victoria, Western Australia, the ACT and the Northern Territory do not impose duty.[4]

5 Insurance tax is generally levied on insurance companies but passed on to consumers.

Commonwealth role

6 The Commonwealth has no role in the imposition of insurance tax. However, it imposes income tax on insurance companies, including in relation to income earned by non-resident insurers for insured risks in Australia.

Category structure

7 This category has no components. Table 9-3 shows the capacity measure (revenue disability) that applies to the Insurance tax assessment.

Table 9-3 Category structure, Insurance tax, 2018-19

Component	Component expense	Disability	Influence measured by disability
	$m		
Insurance tax	5,571	Value of taxable remuneration	Recognises the additional revenue capacity of States with greater private sector and non-general government public sector remuneration above an average threshold.

Source: Commission calculation using budget data.

Category and component revenue

8 The main data sources for calculating category revenue are Australian Bureau of Statistics (ABS) Government Financial Statistics (GFS) and State budget data.[5]

2 The ACT abolished general insurance duty from 1 July 2016.

3 Compulsory Third Party (CTP) premiums were exempt from duty in Tasmania, but a flat fee was imposed on the issuance of the certificate. Victoria and Western Australia taxed CTP insurance at the same rate as general insurance.

4 Two States have abolished life insurance duty since the 2015 Review: the ACT from 1 July 2016 and the Northern Territory from 1 July 2015.

5 Unless otherwise stated, category and component revenue for the first two assessment years are sourced from GFS. States provide data for the most recent assessment year because Government Finance Statistics (GFS) data are not available.

Assessment approach

Capacity measure (revenue disability)

9 The capacity measure is the total general insurance premiums paid to private sector insurers, excluding premiums for workers' compensation and CTP insurance.

Data and method

10 Revenue capacity is assessed using data from the Australian Prudential Regulation Authority (APRA) on the total general insurance premiums paid to private insurers on insured risks in each State.[6]

11 APRA cannot provide life insurance data by State. Life insurance premiums are, therefore, not included in the capacity measure.

12 Revenue from life insurance duties are not easily removed from the category and available data suggest they represent less than 5% of insurance tax revenue. On practicality grounds, the Commission leaves life insurance tax revenue in the category and assesses it using general insurance premiums.

Data adjustments

13 The capacity measure is calculated by making three adjustments to the APRA total premiums data.

- Workers' compensation premiums are removed as they are taxed by one State, but represent a large proportion of total premiums across all States.[7] Including workers' compensation premiums would misrepresent States' relative capacities to raise insurance tax.
- CTP premiums are removed as they are significantly policy influenced.[8]
- Insurance based FESLs revenue is removed. This revenue is included in the APRA premiums data and is removed so as not to overstate the revenue raising capacities of States that impose insurance based FESLs.

14 As part of the review, the Commission considered whether to:

- remove revenue from tax on workers' compensation from the category
- exclude premiums relating to CTP insurance from the capacity measure
- treat insurance based FESLs as taxes or user charges.

15 Only Queensland imposes duty on workers' compensation[9] and it does so at a concessional rate of 5%.[10] Three States said the revenue raised by Queensland should be removed and assessed equal per capita (EPC) in the Other revenue category. Worker's compensation duty

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6 The Australian Prudential Regulation Authority (APRA) data cover general insurers in the private sector. They are insurers regulated by APRA. The data does not include premiums for reinsurance or private health insurance, which are not liable for insurance tax in any State.

7 Data for 2017-18 indicate that workers' compensation premiums represented about 18% of total general insurance premiums, but the duty raised on those premiums represented only about 2% of total insurance tax revenue.

8 Privately underwritten CTP premiums are removed. Publicly underwritten CTP premiums are not included in the APRA data.

9 South Australia has a provision in its legislation for imposition of duty in relation to workers' compensation for employees over the age of 25, but its public workers' compensation provider is exempt from duty under its own legislation.

10 Queensland applied a tax rate of 9% to most classes of general insurance in 2017-18.

is classified as an insurance tax in GFS. Given the small amount of revenue raised, the Commission has decided, on practicality grounds, to leave it in the category.

16 New South Wales argued that CTP insurance premiums should be removed from the capacity measure. It said those premiums were affected by policy differences unrelated to underlying taxable capacity, including whether CTP insurance was privately or publicly underwritten, the level of coverage and benefits, and differences in claims management. It said the corresponding tax revenue should be assessed EPC.

17 The Commission observes that States have a significant degree of policy control over the level of CTP insurance premiums. For instance, States' decisions on whether schemes are publicly or privately underwritten and whether they are 'at fault' or 'no fault' can affect the level of premiums. Further, the level of premiums in both publicly and privately underwritten schemes is generally subject to approval by a State regulator. The Commission has decided, on policy neutrality grounds, to exclude CTP insurance premiums from its capacity measure.

18 Revenue from duty on CTP insurance is not reported consistently across States in GFS. Partial data for three States suggest the revenue from CTP duty is at most $350 million, compared to total insurance tax revenue of $5.6 billion. On practicality grounds, the Commission has decided to leave revenue from CTP duty in the category.

19 Two States (New South Wales and Tasmania) levy insurance based FESLs. The Commission has decided to treat insurance based FESLs as user charges and offset them against emergency services expenses in the Other expenses category. For further discussion of FESLs, see Chapter 12 Other revenue.

Category calculations

20 Table 9-4 shows the derivation of the revenue base for the category in 2018-19.

Table 9-4 Derivation of revenue base, Insurance tax, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Premiums — APRA	14,924	8,290	7,682	3,181	4,342	786	851	471	40,527
Less insurance based FESLs	927	0	0	0	0	21	0	0	949
Less workers' compensation premiums (privately underwritten)	211	11	4	15	955	185	200	148	1,729
Less CTP premiums (privately underwritten)	2,060	0	956	393	0	0	153	0	3,562
Revenue base	11,726	8,279	6,722	2,773	3,387	580	498	323	34,287

Source: Premiums data from Australian Prudential Regulation Authority (APRA). Fire and Emergency Services Levies (FESLs) data provided by States.

21 Table 9-5 shows the calculation of assessed revenue for each State in 2018-19.

Table 9-5 Category assessment, Insurance tax, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)	1,860	1,373	1,003	662	487	98	38	50	5,571
Revenue base ($m)	11,726	8,279	6,722	2,773	3,387	580	498	323	34,287
Assessed revenue ($m)	1,905	1,345	1,092	550	450	94	81	52	5,571
Assessed revenue ($pc)	237	206	216	211	258	177	191	214	221

Source: Commission calculation.

Other issues considered by the Commission

22 New South Wales said the Commission should make an elasticity adjustment to the insurance tax capacity measure. For discussion of elasticity adjustments see Chapter 1 Approach and main issues for the 2020 Review.

Effect on the GST distribution

23 Table 9-6 shows the extent to which the assessment for this category differs from an EPC assessment of Insurance tax. States with a positive redistribution are assessed to have below average revenue raising capacity and States with a negative redistribution are assessed to have above average revenue raising capacity. In per capita terms, South Australia and Tasmania experience the largest redistributions.

Table 9-6 Illustrative redistribution from an EPC assessment, Insurance tax, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	-129	120	18	19	-63	24	12	-2	194
$ per capita	-15	18	4	7	-36	44	28	-9	7

Note: The redistribution is the difference from an EPC assessment of category revenue.
Source: Commission calculation.

24 The main reasons for these redistributions are the differences between States in their assessed per capita taxable private sector insurance premiums.

25 Table 9-7 shows the assessed per capita private sector insurance premiums.

Table 9-7 Assessed per capita private sector insurance premiums, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ave
Premiums ($pc)	1,459	1,268	1,331	1,064	1,943	1,090	1,176	1,316	1,362

Source: Premiums data from APRA.

Changes since the 2019 Update

26 There are a number of method changes since the 2019 Update as well as changes in State circumstances which had had relatively minor effects on the GST redistribution. Table 9-8 shows the effect of these method changes, revisions and changes in State circumstances since the 2019 Update.

Table 9-8 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method changes	22	24	-27	-8	-22	2	8	2	57
Data revisions	0	0	0	0	0	0	0	0	0
State circumstances	-7	-14	8	14	-1	-1	1	0	22
Total	**15**	**10**	**-19**	**5**	**-23**	**1**	**8**	**2**	**42**

Source: Commission calculation.

Method changes

27 Revenue from FESLs on insurance has been moved from this category, reducing its size. These revenues are now offset against Other expenses.

28 Revenue from workers' compensation duty is included in the category and assessed using the general insurance premiums. In the 2019 Update, it was assessed equal per capita (EPC) in the Other revenue category.

29 The capacity measure no longer includes premiums paid to public insurers and premiums paid to private insurers for CTP motor vehicle insurance.

Data revisions

30 APRA made no revisions to previous year data.

Changes in State circumstances

31 Changes in assessable private sector insurance premiums between 2015-16 and 2018-19 led to an increase in the GST redistribution to Queensland and Western Australia and a reduction in the GST redistributed to New South Wales and Victoria.

Updating the assessment

32 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances. APRA data on the value of total taxable premiums by State will be updated annually.

10 Motor taxes

Summary of the assessment

The Motor taxes category consists of annual registration fees and associated charges levied by States on vehicle owners or collected by the Commonwealth on their behalf.

State capacity to raise revenue from this source is assessed using the total number of vehicles registered in each State, split into light and heavy vehicles. The average registration charge for each type of vehicle is applied to the number of vehicles of that type in each State.

A State with an above average share of vehicles[1] is assessed to have the capacity to raise above average revenue from that source. A State with a below average share of vehicles is assessed as not being able to raise average revenue from that source. Some States are assessed to have above average capacity for one type of vehicle, but below average capacity for the other.

Revenue overview

1 States raised $8.0 billion in Motor taxes in 2018-19, representing 6.0% of total own-source revenue (see Table 10-1). The category includes revenue from annual registration fees and associated charges levied by States on vehicle owners, or collected by the Commonwealth and passed to States.[2]

Table 10-1 Motor taxes by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total revenue ($m)	2,700	1,617	1,850	1,003	482	197	144	52	8,046
Total revenue ($pc)	336	248	366	385	277	371	341	212	320
Proportion of total own-source revenue (%)	6.4	5.0	7.0	5.1	7.6	10.0	5.3	3.1	6.0

Source: Commission calculation using State budget data.

2 The category excludes revenue from stamp duty collected on compulsory third party motor vehicle insurance, stamp duty on the transfer of motor vehicle ownership and from driver licence and permit fees. The former is assessed in the Insurance tax category. As an assessment of the other revenue streams is not material, they are assessed in the Other revenue category.

3 Table 10-2 shows Motor taxes as a share of total own-source revenue from 2015-16 to 2018-19.

1 An above average share of vehicles means the State has a per capita number of vehicles in excess of the national average per capita number of vehicles.

2 Chapter 12 (Other revenue) sets out the Commission's treatment of fire and emergency services levies (FESLs). The Commission has decided to offset these levies against Other expenses, where it is practicable to do so. While Tasmania's Motor vehicle fire levy (which is included in its Motor tax revenue) should also be offset, the amount is small (less than $10 million) and a separate adjustment to remove it would not be material. Therefore, the revenue remains, and is assessed, in this category.

Table 10-2 Motor taxes, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total revenue ($m)	7,296	7,565	7,910	8,046
Proportion of total own-source revenue (%)	6.4	6.3	6.3	6.0

Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

State role

4 Motor vehicle registrations are a State responsibility. States impose annual fees and charges to register vehicles.

5 State governments may provide concessions to vehicle owners, including rebates on or exemptions from motor vehicle registration fees and charges.

Commonwealth role

6 The National Transport Commission (NTC) sets heavy vehicle charges with the aim of recovering heavy vehicle related expenditure on roads. The charges are a combination of annual registration charges and fuel based user charges. States collect the registration charges and the Commonwealth collects the fuel based user charges.

7 The Commonwealth also imposes a luxury tax on imported vehicles. A tax of 33% applies to the value of a car above a luxury car tax threshold ($75,526 for fuel efficient vehicles and $67,525 for other vehicles).

8 The Commonwealth established the Federal Interstate Registration Scheme (FIRS) as an alternative to State based registration for heavy vehicles weighing more than 4.5 tonnes. The Commonwealth passed the registration fees it collected to States via the Interstate road transport National Partnership Payment (NPP). The Commonwealth closed the FIRS scheme to new entrants from 1 July 2018 and ceased the scheme on 30 June 2019. With the closure of the scheme, State transport authorities in participating States will manage, administer and collect revenue from National Heavy Vehicle registration plates. Operators with vehicles garaged in Western Australia or the Northern Territory will move onto a State registration plate. Payments under the Interstate road transport NPP ceased in 2017-18 (although some residual amounts continued until 30 September 2019).

9 Table 10-3 shows the only Commonwealth payment included in the category for 2018-19. It was added to the heavy vehicle registration fees and charges component. The amount paid was $0.2 million.

Table 10-3 Commonwealth payments to States for the Interstate road transport NPP, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Interstate road transport NPP ($m)	0	0	0	0	0	0	0	0	0
Interstate road transport NPP ($pc)	0	0	0	0	0	0	0	0	0

Source: Commonwealth of Australia, *Final Budget Outcome, 2018-19*.

Category structure

10 The assessment of the Motor taxes category is undertaken in two components:

- light vehicle registration fees and charges[3]
- heavy vehicle registration fees and charges.

11 Components allow different disability assessments to apply to different revenues.

12 Table 10-4 shows the category's assessment structure, the size of each component and the capacity measures (revenue disabilities) that apply.

Table 10-4 Category structure, Motor taxes, 2018-19

Component	Component revenue	Capacity measure	Influence measured by disability
	$m		
Light vehicle registration fees and charges	6,646	Number of light vehicles	Recognises that States with greater numbers of light vehicles have greater revenue capacity.
Heavy vehicle registration fees and charges	1,400	Number of heavy vehicles	Recognises that States with greater numbers of heavy vehicles have greater revenue capacity.

Source: Commission calculation using State budget data.

Category and component revenue

13 The main data sources for calculating category and component revenue are GFS and State budget data.[4] Data on the Interstate roads transport NPP were sourced from Commonwealth budget documents[5] and included in the heavy vehicle registration fees and charges component.

14 States provided data to allow the Commission to split total vehicle registration fees and charges between light and heavy vehicles. Their data suggested light vehicle registration fees and charges comprised 82.6% of total registration fees and charges, slightly higher than the 82.3% figure used in the 2015 Review. Consistent with its 2015 Review approach, the Commission has decided to apply the unrounded 82.6% figure to determine light vehicles fees and charges, with heavy vehicle fees accounting for the remaining 17.4%.

Assessment approach

Light vehicle registration fees and charges

15 Revenue for this component includes light vehicle registration fees that are collected annually, including number plate fees, inspection fees, administration or recording fees and road safety levies.

Capacity measure (revenue disability)

16 State light vehicle registration fees vary by vehicle weight, engine capacity and vehicle use. The Commission does not adjust for the complexity of these differences.

[3] Light vehicles are vehicles with a gross vehicle mass of up to 4.5 tonnes. Heavy vehicles are vehicles with a gross vehicle mass in excess of 4.5 tonnes.

[4] Unless otherwise stated, category and component revenue for the first two assessment years are sourced from GFS. States provide data for the most recent assessment year because GFS data are not available.

[5] Commonwealth of Australia, *Final Budget Outcome*, 2018-19.

17 The capacity measure for this component is the number of light vehicles registered in each State. The greater the number of light vehicles registered in a State, the greater its capacity to raise revenue from this source.

Data and method

18 The Commission obtains the number of light vehicles from the Australian Bureau of Statistics (ABS) *Motor Vehicle Census* publication.[6] The capacity measure is the number of passenger vehicles and the number of light commercial vehicles. These vehicles account for 94%[7] of light vehicle registrations.

Component calculations

19 Table 10-5 shows the calculation of assessed revenue for the component in 2018-19.

Table 10-5 Component assessment, light vehicle registration fees and charges, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)	2,230	1,336	1,528	829	398	163	119	43	6,646
Number of light vehicles ('000)	5,225	4,639	3,743	2,006	1,322	448	291	145	17,818
Assessed revenue ($m)	1,949	1,730	1,396	748	493	167	108	54	6,646
Assessed revenue ($pc)	242	265	276	287	283	315	256	220	264

Note: A State's assessed revenue equals total actual revenue multiplied by that State's share of light vehicles.

Source: Commission calculation using data from ABS, *Motor Vehicle Census,* Australia, cat. No. 9309.0.

Heavy vehicle registration fees and charges

20 Revenue for this component includes heavy vehicle registration fees that are collected annually, including number plate fees, inspection fees, administration or recording fees and road safety levies. It also includes revenue from the FIRS that was collected by the Commonwealth and passed to States.

Capacity measure (revenue disability)

21 The National Heavy Vehicle Charging Regime sets the heavy vehicle registration rates States are to apply. The rates vary by vehicle weight, number of axles, body type and trailer use. The Commission does not adjust for the complexity of these differences.

22 The capacity measure for this component is the number of heavy vehicles registered in each State. The greater the number of heavy vehicles registered in a State, the greater its capacity to raise revenue from this source.

Data and method

23 The Commission obtains the number of heavy vehicles from the ABS *Motor Vehicle Census* publication. The capacity measure is the number of heavy rigid trucks and the number of articulated trucks. These vehicles account for 79%[8] of heavy vehicle registrations.

[6] ABS, *Motor Vehicle Census*, cat. no. 9309.0, various issues.

[7] The remaining 6% relate to motor cycles (4.6%), light rigid trucks (0.9%) and campervans (0.4%).

[8] The remaining 21% relate to buses (17.1%) and non-freight carrying vehicles (4.2%).

Component calculations

24 Table 10-6 shows the calculation of assessed revenue for the component in 2018-19.

Table 10-6 Component assessment, heavy vehicle registration fees and charges, 2018–19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)	470	281	322	175	84	34	25	9	1,400
Number of heavy vehicles ('000)	124	115	98	69	32	12	2	6	457
Assessed revenue ($m)	379	353	300	212	97	35	6	18	1,400
Assessed revenue ($pc)	47	54	59	81	56	67	13	72	56

Note: A State's assessed revenue equals total actual revenue multiplied by that State's share of heavy vehicles.

Source: Commission calculation using data from ABS, *Motor Vehicle Census,* Australia, cat. no. 9309.0.

Category calculations

25 Table 10-7 brings the assessed revenue for each component together to derive the total assessed revenue for each State for the category.

Table 10-7 Category assessment, Motor taxes, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Light vehicle registration fees and charges	242	265	276	287	283	315	256	220	264
Heavy vehicle registration fees and charges	47	54	59	81	56	67	13	72	56
Total assessed revenue	**290**	**319**	**336**	**368**	**339**	**381**	**270**	**292**	**320**

Source: Commission calculation.

Other issues considered by the Commission

26 The Commission considered whether to:

- treat concessional rates of motor taxes as a reduction in the effective rate of tax or as a concession in the Welfare category
- differentially assess stamp duty on motor vehicle transfers.

27 States disagreed on the treatment to apply to concessional rates of duty. Some favoured treating them as a reduction in the effective rate of tax because it reflected how States provided them. Other States favoured treating them as a grant (paid to an individual) because they regarded them as an alternative means of achieving the same result. They concluded the same assessment should be applied to both forms of assistance. The Commission has decided to treat concessional rates of motor taxes as a reduction in the effective rates of tax because it reflects what States do — they offer both concessional rates of taxes and grants. The Commission also believes the motor tax disabilities are appropriate to apply to concessional rates of duty.

28 Some States said stamp duty on motor vehicle transfers should not be assessed equal per capita (EPC). Even though a differential assessment was not currently material, they said it could become material in the future. The Commission has decided to assess these revenues

EPC because a differential assessment was not material. The Commission thinks it unlikely that the assessment will become material in the foreseeable future. For it to become material, States would need to materially increase the revenue they collect or States' value of motor vehicles transferred per capita would need to materially diverge from the average per capita value of motor vehicles transferred, which would be the reverse of the trends since the last review.

Effect on the GST distribution

29 Table 10-8 shows the extent to which the assessment for this category differs from an EPC assessment of motor tax revenue. States with a positive redistribution are assessed to have below average revenue raising capacity and States with a negative redistribution are assessed to have above average revenue raising capacity. In per capita terms, Western Australia, Tasmania and the ACT experience the largest redistributions.

Table 10-8 Illustrative redistribution from an EPC assessment, Motor taxes, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	253	1	-82	-139	-33	-32	23	7	285
$ per capita	31	0	-16	-52	-19	-58	52	30	11

Note: The redistribution is the difference from an EPC assessment of category revenue.
Source: Commission calculation.

30 The main reasons for these redistributions are the differences between States in their per capita number of vehicles.

31 The main reasons for the redistributions for each State are:

- the per capita number of heavy and light vehicles in New South Wales and the ACT was less than the national average
- the per capita number of heavy vehicles in Victoria was less than the national average, but its per capita number of light vehicles exceeded the national average
- the per capita number of heavy and light vehicles in Queensland, Western Australia, South Australia and Tasmania exceeded the national average
- the per capita number of light vehicles in the Northern Territory was less than the national average, but its per capita number of heavy vehicles exceeded the national average.

32 Table 10-9 provides a summary of the main revenue disabilities contributing to the redistribution from an EPC assessment for this category.

Table 10-9 Major reasons for the illustrative redistribution, Motor taxes, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Light vehicles	178	-10	-61	-65	-31	-26	4	12	193
Heavy vehicles	76	12	-21	-74	-2	-6	19	-4	107
Total	**253**	**1**	**-82**	**-139**	**-33**	**-32**	**23**	**7**	**285**

Note: The redistributions from an EPC assessment are illustrative. Revenue disabilities may not add due to rounding.
Source: Commission calculation.

Changes since the 2019 Update

33 There have been data changes and changes in State circumstances since the 2019 Update. Table 10-10 shows the effect of those changes.

Table 10-10 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method and data changes	-10	0	3	8	1	1	-2	0	13
Data revisions	1	0	0	-1	0	0	0	0	1
State circumstances	-7	5	-3	9	-2	-2	0	0	14
Total	**-16**	**5**	**0**	**16**	**-1**	**-1**	**-2**	**0**	**20**

Source: Commission calculation.

Method and data changes

34 The split of light and heavy vehicle registration fees and charges was initially updated to 82.9%. There has been no change in method in this review.

Data revisions

35 Following minor revisions to State data, the split of light and heavy vehicle registration fees and charges was reduced to 82.6%.

Changes in State circumstances

36 Changes in circumstances had a small effect ($14 million), mainly due to the slow growth of revenues in the category and decline in the Interstate road transport NPP.

Updating the assessment

37 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changing State circumstances.

- The following data will be updated annually:
  - the number of light vehicles
  - the number of heavy vehicles.
- Some assessment data will not be updated as they are not readily available on an annual basis, or remain stable over time. The split of registration fees and charges between light and heavy vehicles is not available annually and will not be updated.

11 Mining revenue

Summary of the assessment

The Commission has been directed as to how to assess Mining revenue in its terms of reference. Specifically, supplementary terms of reference received by the Commission direct it not to change the mining revenue assessment methodology. Hence, the assessment approach is unchanged from the 2015 Review.

The Mining revenue category comprises revenue from State royalties and non-royalty revenue associated with mining production, as well as from revenue sharing agreements with the Commonwealth.

State capacity to raise revenue from royalties is assessed using the total value of production in each State. Separate assessments are made for individual minerals, where it is material to do so. The average royalty rate for each mineral (or group of minerals) is applied to the value of production of that mineral (or group of minerals) in each State. Revenue from revenue sharing arrangements with the Commonwealth is assessed on an actual per capita basis.

A State with an above average share of value of production[1] is assessed to have the capacity to raise above average royalty revenue. A State with a below average share of value of production is assessed as not being able to raise average royalty revenue. Some States are assessed to have above average capacity for some minerals, but below average capacity for others.

Revenue overview

1 States raised $15.5 billion in mining revenue in 2018-19, representing 11.6% of total own-source revenue (see Table 11-1). The table shows that mining revenue is concentrated in three States — New South Wales (14%), Queensland (34%) and Western Australia (47%). This reflects the dominance of coal and iron ore royalties.

Table 11-1 Mining revenue by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total revenue ($m)	2,093	103	5,219	7,304	299	39	0	448	15,506
Total revenue ($pc)	260	16	1,033	2,803	172	73	0	1,824	616
Proportion of total own-source revenue (%)	5.0	0.3	19.8	37.1	4.7	2.0	0.0	26.5	11.6

Source: Commission calculation using State budget data.

2 The category comprises State royalties and non-royalty revenue associated with mining production, as well as revenue from revenue sharing agreements with the Commonwealth. Western Australia receives two payments and the Northern Territory one.[2] Western Australia also shares *Petroleum (Submerged Lands) Act* (PSLA) royalties and Barrow Island petroleum

[1] An above average share of value of production for a mineral means the State's value of production per capita exceeds the national average value of production per capita.

[2] Western Australia receives a payment in relation to royalties from the North West Shelf project and a payment for the loss of royalty revenue resulting from the Commonwealth's removal of the exemption of condensate from crude oil excise. The Northern Territory receives a payment in relation to uranium.

resource rent royalties with the Commonwealth.[3] The Commission refers to revenues received under revenue sharing agreements with the Commonwealth as grants in lieu of royalties.

3 Table 11-2 shows Mining revenue as a share of total own-source revenue from 2015-16 to 2018-19.

Table 11-2 Mining revenue, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total revenue ($m)	8,521	11,900	12,705	15,506
Proportion of total own-source revenue (%)	7.5	9.9	10.1	11.6

Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

State role

4 The Commonwealth and States both impose royalties. The Commonwealth and Western Australia share revenues in relation to PSLA, Barrow Island and North West Shelf (NWS) royalties. The Commonwealth and the Northern Territory share revenues in relation to uranium.

5 States own most minerals located on or below the surface of their land (a small proportion are privately owned) and onshore oil and gas. The delineation for onshore oil and gas is the low-water mark of the Australian continent. However, the Commonwealth has conferred, through agreements, certain rights to States over minerals located within three nautical miles of the low-water mark (coastal waters). Thus, States have the power to impose royalties landward of coastal waters.

Commonwealth role

6 The Commonwealth has the power to impose royalties seaward of coastal waters.

7 Prior to 1 July 2012, the Commonwealth applied a Petroleum Resource Rent Tax (PRRT) to offshore petroleum projects in offshore waters. From 1 July 2012, its PRRT was extended to all offshore and onshore oil and gas projects, including the NWS, oil shale and coal seam gas projects.

8 Table 11-3 shows the Commonwealth payments under revenue sharing agreements with the States for 2018-19. They are assessed in the Grants in lieu of royalties component. Grants in lieu of royalties also includes shared PSLA and Barrow Island royalties. These shared royalties are not included in Table 11-3.

[3] Western Australia collects royalties under the *Petroleum (Submerged Lands) Act* (PSLA) which covers offshore areas of State jurisdiction (those within three nautical miles of the territorial baseline), as well as certain areas within State inland waters. Under an agreement made in 1985, Western Australia collects resource rent royalties on Barrow Island production and the revenue is shared 75% to the Commonwealth, 25% to Western Australia.

Table 11-3 Commonwealth payments to States for Royalties and Reduced royalties NPPs, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Royalties ($m)	0	0	0	898	0	0	0	2	901
Compensation for reduced royalties ($m)	0	0	0	29	0	0	0	0	29
Total NPP ($m)	**0**	**0**	**0**	**927**	**0**	**0**	**0**	**2**	**930**
Total NPP ($pc)	**0**	**0**	**0**	**356**	**0**	**0**	**0**	**10**	**37**

Source: Commonwealth of Australia, *Final Budget Outcome, 2018-19.*

Category structure

9 The assessment of Mining revenue is undertaken in eight components:

- iron ore
- coal
- bauxite
- onshore oil and gas
- gold
- copper
- other minerals[4]
- grants in lieu of royalties.

10 Components allow different disability assessments to apply to different revenues.

11 Table 11-4 shows the category's assessment structure, the size of each component and the capacity measures (revenue disabilities) that apply.

4 For confidentiality reasons the Commission is unable to publish data on its bauxite and onshore oil and gas assessments. Separate assessments are undertaken for each mineral. Confidentiality is achieved by combining the assessments and reporting them as part of other minerals.

Table 11-4 Category structure, Mining revenue, 2018-19

Component	Component revenue	Capacity measure	Influence measured by disability
	$m		
Iron ore	5,628	Value of production	Recognises that States with greater value of production have greater revenue capacity.
Coal	6,381	Value of production	Recognises that States with greater value of production have greater revenue capacity.
Gold	510	Value of production	Recognises that States with greater value of production have greater revenue capacity.
Copper	277	Value of production	Recognises that States with greater value of production have greater revenue capacity.
Other minerals (a)	1,775	Value of production	Recognises that States with greater value of production have greater revenue capacity.
Grants in lieu of royalties	935	Actual revenue	Recognises that States with a greater share of these payments have greater revenue capacity.

(a) For confidentiality reasons the Commission is unable to publish data on its bauxite and onshore oil and gas assessments. The figure shown here is an aggregation of the bauxite, onshore oil and gas and other minerals (including nickel) assessments.

Source: Commission calculation using State budget data.

12 In the 2015 Review, the Commission said its intention was to retain the Mining revenue category structure until the following review. However, if there was a major change in circumstances, for example if another mineral became material or one of the material minerals became immaterial, the Commission would exercise its judgment on whether equalisation would be improved by changing the structure of the assessment. As a separate assessment of nickel royalties is no longer material, and not likely to be in the foreseeable future, in this review nickel royalties have been assessed in the other minerals component.

13 The Commission intends to continue to exercise its judgment on whether the structure of the category should change, if the materiality of individual minerals changes, for example in relation to lithium. State budget projections will help inform the Commission's judgment in determining whether any change in royalties is likely to be sustained.

Category and component revenue

14 The main data sources for calculating category revenue are Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.[5] Data on the Royalties and Compensation for reduced royalties were sourced from Commonwealth budget documents[6] and included in the grants in lieu of royalties component.

5 Unless otherwise stated, category and component revenue for the first two assessment years are sourced from GFS. States provide data for the most recent assessment year because Government Finance Statistics (GFS) data are not available.

6 Commonwealth of Australia, *Final Budget Outcome, 2018-19*.

15 In most States, mining royalties are based on a percentage of the value of production or an amount per tonne of production. In Tasmania, some royalties are based on mine profitability. In the Northern Territory, royalties are based wholly on profitability.

16 Royalties vary from State to State and for most minerals. However, there is a common pattern.

- Low value minerals (such as salt, sand and gravel) are subject to volume based royalties.
- Hard rock minerals (such as nickel, copper and gold) attract relatively low royalty rates. Iron ore is an exception, being a higher quality hard rock mineral that attracts a relatively high royalty rate.
- Soft rock or shallowly mined minerals (such as bauxite and coal) attract a relatively high royalty rate.
- Onshore oil and gas attracts a high royalty rate.

17 Table 11-5 shows the effective royalty rates on selected minerals in 2018-19. States that have proportionally more of the minerals attracting higher royalty rates have additional revenue capacity.

Table 11-5 Effective royalty rates for selected minerals, 2018-19

	Onshore oil and gas (a)	Bauxite	Coal	Iron ore	Copper	Gold	Other minerals
	%	%	%	%	%	%	%
Effective rate	10.0	10.1	8.5	7.1	3.9	2.9	4.5

(a) This figure has been rounded for confidentiality reasons.

Source: State provided mineral data.

Assessment approach

18 In recent reviews, the biggest concern in developing a mining assessment has been finding an appropriate balance between what States do and policy neutrality. If policy neutrality was not an issue, a mineral by mineral assessment would reflect what States do and accurately capture differences in States' mining revenue capacities. If policy neutrality was the sole issue, then aggregating minerals together would address those concerns.

19 States disagreed on the balance between these two principles. States supporting a mineral by mineral approach preferred greater weight be given to what States do, as they considered this provided a more accurate reflection of State revenue capacities. In contrast, New South Wales and Queensland favoured aggregating minerals together as a way of addressing policy neutrality concerns.

20 Western Australia proposed alternative assessment approaches that would give more weight to policy neutrality, including a global revenue assessment, a uniform fixed standard royalty rate, a policy neutral measure (land area) and a rotating standard. Western Australia was also concerned that the observed value of production was affected by State policies (such as level and stability of royalty rates, regional development, approval processes etc) and so the data were not fit for purpose.

21 Revenue equalisation is about capturing differences in State revenue capacities.[7] Those differences arise from States' differing shares of national tax bases. The extreme sensitivities of individual minerals are caused by extreme distributions of the national tax base for those minerals. Western Australia's alternative approaches reduce the sensitivity of the mining assessment by diluting the Commission's assessment of State revenue capacities. By diluting State revenue capacities, Western Australia's alternative approaches represent a different form of revenue equalisation which would, in the Commission's view, significantly understate the revenue raising capacity of States enjoying significant high value mineral endowments. In addition, the Commission does not agree that value of production data are too policy influenced to be used. The principal drivers of value of production are commodity prices and mining company production decisions and are likely to exert substantially larger effects on State value of production than State policy settings. Accordingly, the Commission does not agree with Western Australia's arguments for changing the approach to assessing mining revenue.

22 The Commission considered two adjustments to improve the policy neutrality of the mineral by mineral assessment.

- A **dominant State**[8] **adjustment** to address a dominant State's sensitivity to royalty rates
- A **banned minerals adjustment** to deal with situations where a State raised royalties from a mineral that was banned in most other States.

23 Few States supported either adjustment. They proposed alternative adjustments, including adjustments for differences in compliance policies, development policies and the profitability of individual mines.

24 The Commission considers the mineral by mineral approach best captures States' mining revenue capacities, even though it can give rise to policy neutrality concerns when there is a dominant producer. Currently, policy neutrality concerns arise in relation to one State — Western Australia; they do not arise for other States.

25 The Commission intended to further explore its proposed policy neutral adjustments. However, the new equalisation arrangements enacted in the *Treasury Laws Amendment (Making Sure Every State and Territory Gets Their Fair Share of GST) Act 2018* obviate the need for further consideration of this issue as they substantively insulate Western Australia from any distributional effects of these policy neutrality concerns. Therefore, the Commission considers that continuing the 2015 Review approach of assessing revenue capacity using a mineral by mineral approach is appropriate. Moreover, the retention of this approach is required by the Commission's terms of reference.

7 The Productivity Commission stated that 'Mining revenue, in particular, is a prime example of a source-based advantage — one a State benefits from by virtue of where its borders happen to be drawn — and should prima facie be included in the equalisation process'. Productivity Commission 2018, *Horizontal Fiscal Equalisation*, Report no. 88, Canberra, page 22.

8 A dominant State is a State with a dominant role in the production of a mineral. Under a mineral by mineral approach, a dominant State's own royalty rate largely determines the average rate applied in the assessment of revenue capacity for that mineral. This carries a risk to policy neutrality, since any consideration of royalty rate changes by the dominant State may be influenced by its expectation of an offsetting change to its grant share. Western Australia referred to this as the State's sensitivity to royalty rate changes.

Capacity measure (revenue disability)

26 The capacity measure for each mineral is its value of production, measured on a free on board (FOB) basis. The capacity measure for grants in lieu of royalties is the actual revenue received.

Data and method

27 The Commission obtains data on revenue and value of production by mineral from State Revenue Offices (SROs). It obtains data on Commonwealth payments from the Commonwealth's Final Budget Outcome publication.

28 The mining assessment comprises all mining revenue, including any non-royalty mining revenue associated with mining production (such as the potential voluntary contributions by coal producers in Queensland and the iron ore special lease rentals in Western Australia), as well as revenue from revenue sharing agreements with the Commonwealth. In the 2019 Update, the Commission decided mining revenue should also include any back payment of royalty revenue for years in the assessment period. Back royalties for years outside the assessment period and any interest payments would be assessed equal per capita (EPC). The Commission would ask the affected State to separate its payment into the interest payment, back royalties for years outside the assessment period and back royalties for years in the assessment period.

29 In this review, Western Australia has identified $200 million of $250 million in back royalties as relating to years outside the 2020 Review assessment period. It has not identified an interest component. The $200 million has been assessed EPC, with the remaining $50 million assessed with iron ore royalties.

30 As Table 11-5 showed, different minerals attract different royalty rates. The Commission captures this difference by separately assessing six minerals and grouping the remaining minerals together. The Commission uses the SRO data to determine which minerals should be separately assessed and which should be grouped together in the other minerals component. The minerals separately assessed are those that generate the most royalty revenue.

Component calculations

31 Table 11-6 to Table 11-11 show the calculation of assessed revenue for each component in 2018-19. As some State revenue data are confidential, the tables show only total actual revenue.

Table 11-6 Component assessment, iron ore, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)									5,628
Value of production ($m)	0	0	0	78,184	686	229	0	0	79,098
Assessed revenue ($m)	0	0	0	5,563	49	16	0	0	5,628
Assessed revenue ($pc)	0	0	0	2,135	28	31	0	0	224

Note: A State's assessed revenue equals total actual revenue multiplied by the State's share of value of production.
Source: Commission calculation using State provided data.

Table 11-7 Component assessment, coal, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)									6,381
Value of production ($m)	25,378	1,547	47,503	319	0	36	0	0	74,783
Assessed revenue ($m)	2,165	132	4,053	27	0	3	0	0	6,381
Assessed revenue ($pc)	269	20	802	10	0	6	0	0	254

Note: A State's assessed revenue equals total actual revenue multiplied by the State's share of value of production.
Source: Commission calculation using State provided data.

Table 11-8 Component assessment, gold, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)									510
Value of production ($m)	2,434	1,015	984	11,949	430	54	0	891	17,758
Assessed revenue ($m)	70	29	28	343	12	2	0	26	510
Assessed revenue ($pc)	9	4	6	132	7	3	0	104	20

Note: A State's assessed revenue equals total actual revenue multiplied by the State's share of value of production.
Source: Commission calculation using State provided data.

Table 11-9 Component assessment, copper, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)									277
Value of production ($m)	1,556	0	1,946	1,317	2,180	61	0	0	7,060
Assessed revenue ($m)	61	0	76	52	86	2	0	0	277
Assessed revenue ($pc)	8	0	15	20	49	4	0	0	11

Note: A State's assessed revenue equals total actual revenue multiplied by the State's share of value of production.
Source: Commission calculation using State provided data.

Table 11-10 Component assessment, other minerals, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)									1,775
Share of value of production (%)	3	3	42	28	11	3	0	12	100
Assessed revenue ($m)	44	45	742	491	193	48	0	210	1,775
Assessed revenue ($pc)	6	7	147	188	111	91	0	856	71

Notes: A State's assessed revenue equals total actual revenue multiplied by the State's share of value of production.
For confidentiality reasons the Commission is unable to publish data on its bauxite and onshore oil and gas assessments. The assessment shown here is an aggregation of the bauxite, onshore oil and gas and other minerals assessments.
Source: Commission calculation using State provided data.

Table 11-11 Component assessment, grants in lieu of royalties, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)	0	0	0	932	0	0	0	2	935
Assessed revenue ($m)	0	0	0	932	0	0	0	2	935
Assessed revenue ($pc)	0	0	0	358	0	0	0	10	37

Note: A State's assessed revenue equals its actual revenue.
Source: Commission calculation using State provided data.

Category calculations

32 Table 11-12 brings the assessed revenue for each component together to derive total assessed revenue for each State for the category.

Table 11-12 Category assessment, Mining revenue, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Iron ore	0	0	0	2,135	28	31	0	0	224
Coal	269	20	802	10	0	6	0	0	254
Gold	9	4	6	132	7	3	0	104	20
Copper	8	0	15	20	49	4	0	0	11
Other minerals (a)	6	7	147	188	111	91	0	856	71
Grants in lieu of royalties	0	0	0	358	0	0	0	10	37
Total assessed revenue	**291**	**32**	**970**	**2,843**	**195**	**135**	**0**	**970**	**616**

(a) For confidentiality reasons the Commission is unable to publish data on its bauxite and onshore oil and gas assessments. The assessment shown here is an aggregation of the bauxite, onshore oil and gas and other minerals assessments.

Source: Commission calculation.

Other issues considered by the Commission

33 The Commission considered two other issues raised by States. They related to applying discounts to:

- the mining revenue assessment
- revenue from the NWS project.

34 Queensland and Western Australia proposed discounting the Mining revenue assessment as a way of dealing with policy differences such as the influence of different compliance and development policies. The Commission is not able to determine how much of State royalties are attributable to State effort. Consequently, it can see no basis for introducing a discount into the mining assessment.[9] Tasmania proposed State specific discounts to address the different profitability of individual mines. The Commission discontinued State specific adjustments in the 2006 Update and it is unlikely to be material to reintroduce them.[10]

35 Western Australia said the Commission had never acknowledged Western Australia's contribution to the NWS project. It argued the Commission should discount the NWS revenue the State receives. As the Commission has clearly stated in every Review since 1988, when Western Australia first raised this issue, the Commission cannot determine how much of the revenue from the NWS could be attributed to Western Australia's effort, nor whether Western Australia's effort was above the average effort. In addition, it does not consider discounting an appropriate way of dealing with differences in development policies. Consequently, it does not consider a discount to NWS revenues to be appropriate. In the

[9] The Productivity Commission did not support the application of discounts to the mining assessment. It said '...a discount does not sit well with the main fiscal equality objective of HFE ... [and] ... provides a less than robust solution.' Productivity Commission 2018, *Horizontal Fiscal Equalisation*, Report no. 88, Canberra, page 22.

[10] For a State specific discount to be material, it would need to be 26% and apply to all Tasmanian value of production. Given that the profitability of Tasmania's mining operations does not appear to be very different to other States, a discount at such a level does not appear to be justified.

absence of new arguments from Western Australia, it is difficult to see on what basis the Commission could come to a different conclusion on this issue.

36 The Commission's decisions on both issues are consistent with the terms of reference direction not to change the Mining revenue assessment methodology.

Effect on the GST distribution

37 Table 11-13 shows the extent to which the assessment for this category differs from an EPC assessment of Mining revenue. States with a positive redistribution are assessed to have below average revenue raising capacity and States with a negative redistribution are assessed to have above average revenue raising capacity. In per capita terms, Victoria, Western Australia and the ACT experience the largest redistributions.

Table 11-13 Illustrative redistribution from an EPC assessment, Mining revenue, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	2,346	3,531	-1,629	-5,319	675	224	241	-69	7,017
$ per capita	283	517	-311	-2,005	381	411	547	-281	270

Note: The redistribution is the difference from an EPC assessment of category revenue.
Source: Commission calculation.

38 The main reasons for the redistribution are the differences between States in the per capita level of their mining activity and their share of the value of production of minerals attracting higher royalty rates. For Western Australia, the revenue it receives under revenue sharing agreements with the Commonwealth is another driver of its redistribution.

39 The main reasons for the redistributions for each State are:

- New South Wales has above average activity in coal but below average activity in all other minerals
- Queensland and Western Australia have per capita levels of mining activity that exceed the average and with proportionally more of the minerals attracting higher royalty rates; Western Australia also receives a large share of revenue from revenue sharing agreements with the Commonwealth
- Victoria, South Australia and Tasmania have per capita levels of mining activity that are less than the average and with proportionally more of the minerals attracting lower royalty rates
- the ACT has no mining activity
- the Northern Territory has per capita levels of mining activity that exceed the average, but with proportionally more of the minerals attracting lower royalty rates.

40 Table 11-14 provides a summary of the main revenue disabilities contributing to the redistribution from an EPC assessment for this category.

Table 11-14 Major reasons for the illustrative redistribution, Mining revenue, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Iron ore	1,663	1,369	1,049	-4,611	310	82	88	49	4,611
Coal	-92	1,459	-2,655	590	414	124	103	57	2,747
Gold	92	106	69	-286	19	9	8	-18	303
Copper	30	72	-22	-24	-66	3	5	3	113
Other minerals (a)	397	315	-229	-273	-56	-11	23	-166	735
Grants in lieu	255	210	161	-716	55	17	14	5	716
Total	**2,346**	**3,531**	**-1,629**	**-5,319**	**675**	**224**	**241**	**-69**	**7,017**

Note: The redistributions from an EPC assessment are illustrative. Revenue disabilities may not add due to rounding.
(a) For confidentiality reasons, the Commission is unable to publish data on its bauxite and onshore oil and gas assessments. The assessment shown here is an aggregation of the bauxite, onshore oil and gas and other minerals assessments.
Source: Commission calculation.

Changes since the 2019 Update

41 Consistent with the direction of terms of reference, the Mining revenue assessment methodology is unchanged. There have been minor proposed changes in its application reflecting market developments for individual minerals.

42 There are no method changes since the 2019 Update. However, there are revisions and changes in State circumstances. Table 11-15 shows the effect of these changes.

Table 11-15 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method changes	13	13	3	-43	2	4	0	8	43
Data revisions	-10	23	-7	-14	4	1	0	2	31
State circumstances	320	509	-485	-515	117	30	35	-11	1,011
Total	**323**	**545**	**-490**	**-571**	**123**	**35**	**35**	**-1**	**1,062**

Source: Commission calculation.

Method changes

43 The assessment method is unchanged.

44 However, applying the assessment method in this review leads to nickel royalties being assessed in the other minerals component, which shows in the analysis as a method change. In the 2019 Update, nickel royalties were separately assessed. Lithium royalties will be separately assessed if it becomes material to do so. Until then, they will be assessed in the other minerals component, as they were in the 2019 Update.

Data revisions

45 States revised the value of production data they had previously provided to the Commission.

Changes in State circumstances

46 The big changes in State circumstances arise because of volatility in the value of mining production. Between 2015-16 and 2018-19, there were big increases in the value of production of coal (98%), iron ore (60%) and other minerals (74%[11]), which reduced the GST requirement of Queensland, Western Australia and the Northern Territory respectively.

Updating the assessment

47 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances.

- The following data will be updated annually:
  - States' SRO data on revenue and value of production by mineral
  - Commonwealth data on payments made under revenue sharing agreements.

[11] There were big increases in coal seam gas and lithium.

12 Other revenue

Summary of the assessment

This category is a residual category, comprising revenues not assessed in other categories. It comprises revenues for which:

- States are assessed to have equal capacities
- reliable data could not be found to make an assessment or an assessment method could not be developed
- a differential assessment would not be material.

Revenues in this category are assessed equal per capita. This assessment means these revenues do not change States' relative fiscal capacities.

Revenue overview

1 The category comprises revenues for which disabilities are not assessed. This treatment is appropriate if:

- States are assessed to have the same per capita capacity to raise revenue (interest income and dividend income are examples)[1]
- either an assessment method or sufficiently reliable data are not available to support an assessment (gambling taxes are an example)
- a differential assessment would not be material (assets acquired below fair value are an example).

2 States raised $49.9 billion in other revenues in 2018-19, representing 37.5% of total own-source revenue (see Table 12-1).

Table 12-1 Other revenue by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total revenue ($m)	14,875	13,678	10,167	5,346	2,628	919	1,636	702	49,949
Total revenue ($pc)	1,851	2,095	2,013	2,051	1,508	1,729	3,864	2,857	1,985
Proportion of total own-source revenue (%)	35.5	42.0	38.6	27.2	41.5	46.5	59.7	41.5	37.5

Source: Commission calculation using State budget data.

3 The different State proportions of Other revenue in Table 12-1 reflect differences in the own-source revenue structure of each State's budget. The lower proportions for New South Wales and Western Australia reflect the former's relatively higher property revenues and the latter's relatively higher mining revenues. Lower relative mining revenues (in the case of Victoria) and lower relative property revenues (in the case of Queensland and

[1] The Commission assesses States to have the same per capita capacity to raise interest income and dividend income as part of its Net borrowing assessment. As part of that assessment, States are assessed to have equal net financial worth per capita at the beginning of each assessment year.

the Northern Territory) contribute to their higher proportions. South Australia and Tasmania have higher proportions because they tend to have relatively weaker tax bases. The high proportion for the ACT is because Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) includes its municipal rate revenue as other State revenue.

4 Table 12-2 shows Other revenue as a share of total own-source revenue from 2015-16 to 2018-19.

Table 12-2 Other revenue, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total revenue ($m)	44,676	43,703	45,841	49,949
Proportion of total own-source revenue (%)	39.1	36.4	36.4	37.5

Source: Commission calculation using Government Finance Statistics (GFS) and State budget data.

Category structure

5 All revenue in this category is assessed equal per capita (EPC). The category has no components. Table 12-3 shows the revenues included in the category, as classified in ABS GFS data. GFS data are not yet available for 2018-19.

Table 12-3 Composition of the Other revenue category, 2015-16 to 2017-18

	2015-16	2016-17	2017-18
User charges (a)	6,172	5,936	6,207
Municipal rates (b)	423	452	491
Gambling taxes	6,053	5,981	6,223
Other taxes (c)	8,444	8,322	7,246
Interest income	4,558	4,322	4,129
Dividend income	9,048	8,643	11,251
Grants (d)	67	68	90
Other income	9,911	9,978	10,203
Total	**44,676**	**43,703**	**45,841**

(a) Around $24 billion of user charges are differentially assessed and offset against the relevant expense category. The user charges shown in this table are those assessed equal per capita (EPC).

(b) The ACT does not have a local government sector. GFS includes its local government-type revenue (municipal rates) with its State-type revenue.

(c) Other taxes include revenues relocated from revenue categories to Other revenue. They include other land based taxes and conveyance transfers assessed EPC.

(d) These are grants from parties other than the Commonwealth.

Source: Commission calculation using GFS data.

6 Table 12-4 shows the capacity measure (revenue disability) that applies to the Other revenue assessment.

Table 12-4 Category structure, Other revenue, 2018-19

Component	Component revenue	Capacity measure	Influence measured by disability
	$m		
Other revenue	49,949	Population	Revenues in this category are assessed equal per capita. They do not differentially affect States' relative fiscal capacities.

Source: Commission calculation using State budget data.

Category and component expenses

7 The main data sources for calculating category and component revenue are GFS and State budget data.[2]

Assessment approach

8 This is a residual category, comprising State revenues not assessed in other categories. Table 12-3 showed the scope of revenues included in the category.

9 As part of the review, the Commission considered whether to:

- treat Fire and Emergency Services Levies (FESLs) as taxes or user charges
- differentially assess gambling taxes
- move all revenues assessed EPC into this category.

10 States disagreed on whether FESLs should be treated as taxes or user charges. The key consideration was whether the driver of FESLs was States' costs of providing emergency services or differences in their taxable land and insurance capacities. The Commission accepted States set the level of their FESLs to cover a portion of the cost of their emergency services and concluded the driver of FESLs was the cost of emergency services. Consequently, it has decided to treat FESLs as user charges. Consistent with its approach in other categories where it considers the same drivers apply to both expenses and user charges, the Commission has also decided to offset FESLs against emergency services expenses, which are assessed in the service expenses component of Other expenses.[3]

11 Some States proposed approaches for differentially assessing gambling taxes. The ACT argued that as point of consumption taxes[4] are becoming more common, an assessment based upon socio-demographic characteristics may become viable. While point of consumption taxes are more prevalent, they affect only online gambling.[5] The problem of the pervasiveness of State policies, which materially affect the level of gambling activity in each

[2] Unless otherwise stated, category and component revenue for the first two assessment years are sourced from GFS. States provide data for the most recent assessment year because GFS data are not available.

[3] The exception to this treatment was Tasmania's Motor vehicle fire levy. This levy is included in its Motor tax revenue. However, the amount is small (less than $10 million) and a separate adjustment to remove it would not be material. Therefore, the revenue remains, and is assessed, in the Motor taxes category.

[4] Point of consumption taxes have been introduced in all States other than Tasmania and the Northern Territory. They allow a State to tax the wagers and bets of its residents in Australia.

[5] The *2015 Review of Illegal Offshore Wagering* estimated online gambling was worth $1.4 billion (6.6%) in expenditure in 2014 and was growing faster than other forms of gambling. Commonwealth of Australia (Department of Social Services), 2015, https://www.dss.gov.au/sites/default/files/documents/04_2016/review_of_illegal_offshore_wagering_18_december_2015.pdf [accessed 20/02/2020]

jurisdiction, continues to prove insurmountable. The Commission was unable to isolate the underlying factors driving gambling activity in each State and, therefore, was unable to develop a reliable method of differentially assessing gambling taxes.[6] It has decided to continue to assess them EPC at this time.

12 All States accepted that moving all EPC revenues into this category would not affect States' relative fiscal capacities. However, some States said it reduced the transparency and understanding of the equalisation system and gave the impression that the Commission was unable to assess a large proportion of State revenues. The Commission has decided to move all EPC revenues into the Other revenue category. Its view is that this allowed it to remove EPC components from some revenue categories, simplifying those assessments and improving transparency with respect to the revenues that are being differentially assessed.

Capacity measure (revenue disability)

13 No capacity measure is identified for this category. The EPC assessment does not give rise to a change in redistribution and does not change States' relative fiscal capacities.

14 The Commission obtains the number of people from the ABS estimated resident population.

Category calculations

15 Table 12-5 shows the derivation of the assessed revenue for each State.

Table 12-5 Category assessment, Other revenue, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Actual revenue ($m)	14,875	13,678	10,167	5,346	2,628	919	1,636	702	49,949
Population ('000)	8,038	6,527	5,051	2,606	1,743	532	423	246	25,166
Assessed revenue ($m)	15,954	12,956	10,025	5,172	3,460	1,055	840	487	49,949
Assessed revenue ($pc)	1,985	1,985	1,985	1,985	1,985	1,985	1,985	1,985	1,985

Note: A State's assessed revenue equals total actual revenue multiplied by that State's share of population.

Source: Commission calculation.

Other issues considered by the Commission

16 All States supported having a residual revenue category assessed EPC. They agreed the revenues included in the category should be those where States are assessed to have the same per capita capacity, where the method or data are not sufficiently reliable to support an assessment or where a differential assessment would not be material.

17 During consideration of a broader approach to assessing expenses and revenue, the Commission considered whether a differential assessment should be applied to the Other revenue category.

18 Western Australia said the Other revenue category should not be differentially assessed using a broad indicator. It was concerned a broad assessment would double count revenue

6 The Commission's investigation of weighted socio-demographic models using gender, age and education level produced differential assessments that were not material.

capacity. It said any broad indicator would likely be boosted by Western Australia's high mining capacity, which was already assessed in the Mining revenue category.

19 Western Australia also said a differential assessment was not appropriate for:

- revenue derived from financial asset holdings (such as interest, dividends and contributions from trading enterprises) because the Net borrowing assessment aims to give States the capacity to hold an EPC value of net financial assets
- user charges and fees and fines because these revenues depend on the propensity of people to use the relevant service or breach laws, which is unrelated to the population's capacity to pay.

20 The Commission decided not to develop broad revenue and expense assessments and, therefore, it has not applied a differential assessment to the Other revenue category.

Effect on the GST distribution

21 An EPC assessment does not give rise to a redistribution.

Changes since the 2019 Update

22 There are no changes in the assessment method since the 2019 Update. Revenues in this category continue to be assessed EPC. There are minor changes to the composition of the category.

Method changes

23 There were no changes in methods.

Data changes

24 There have been revisions to GFS data. As revenues in this category are assessed EPC, these revisions do not change States' relative fiscal capacities.

Changes in State circumstances

25 As Table 12-2 showed, there has been an increase in revenue included in this category in 2018-19. However, as the revenues in this category are assessed EPC, this increase does not change States' relative fiscal capacities.

Updating the assessment

26 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances.

27 Population data used in this assessment will be updated annually.

13 Schools

Summary of the assessment

The Schools category covers State spending on government pre-schools, primary and secondary schools and non-government schools.

In assessing State spending the Commission recognises that there are differences in:

- the shares of school students across States, with States having a greater share of school students in their population facing above average costs
- the cost of students from different socio-demographic groups, so States with concentrations of more costly school students (Indigenous and low socio-economic status) need to spend more than average
- the geographic dispersion of populations, with States that have more students in more remote areas (along with smaller average school size), needing to spend more than average
- the proportion of students in government schools, which cost States more per student, resulting in States with higher proportions of students attending government schools facing above average costs.

The spending of Commonwealth grants for government school students is assessed based on the measures of educational disadvantage embedded in the national funding arrangements.

The assessment also recognises the differences in wage costs between States for government schools.

Service overview

1 Table 13-1 shows that net State expenses on schools were $43.1 billion in 2018-19, representing 19.1% of total State expenses. State spending on this function comprises expenses for government schools and non-government schools. States, in running schools, also spend money allocated and provided by the Commonwealth. Expenses of running government schools, funded by the Commonwealth through Students First funding and other payments, are included.

2 Commonwealth funding of non-government schools through the Students First funding agreement uses States as conduits to transfer this money, but States have no policy control over the allocation of this money, and it does not alleviate the States of their responsibilities. As such, this money is not regarded as part of States' expenses on schools and does not affect the Commission's assessments.

3 In addition to excluding Commonwealth funding of non-government schools, expenses associated with student transport are also no longer included in this category. These expenses are grouped with other transport expenses and assessed in the Transport category.

Table 13-1 Schools expenses by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total expenses ($m)	13,837	9,647	9,121	4,984	2,993	1,030	840	687	43,139
Total expenses ($pc)	1,721	1,478	1,806	1,913	1,717	1,937	1,985	2,798	1,714
Proportion of operating expenses (%)	19.7	17.9	20.0	19.1	20.0	20.5	18.3	12.6	19.1

Note: Expenses shown on a net basis. Expenses do not include expenses for Commonwealth funding of non-government schools and student transport.

Source: Commission calculation using State budget data.

4 Table 13-2 shows the share of State expenses on Schools from 2015-16 to 2018-19.

Table 13-2 Schools expenses, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total expenses ($m)	36,544	38,155	40,233	43,139
Proportion of total operating expenses (%)	19.1	18.9	18.7	19.1

Note: Expenses shown on a net basis.

Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

5 User charges amounted to $1.3 billion in 2018-19 and mainly reflect voluntary school student fees for government schools. In this category, user charges are deducted from the State funded government school component expenses so that the assessment only applies to net category expenses.

Table 13-3 Schools user charges, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Revenue ($m)	197	261	424	208	190	28	14	9	1,331
Revenue ($pc)	24	40	84	80	109	53	34	35	53

Note: User charges refer to revenue from the sale of goods and services classified in GFS to economic type framework (ETF) 112. In Schools, they are predominantly the voluntary fees paid by families to government schools. These revenues are generally kept by the individual school and are not included in consolidated revenue.

Source: Commission calculation using ABS GFS and State budget data.

State roles and responsibilities

6 The Schools category includes State recurrent spending on pre-schools, primary schools and secondary schools, in both the government and non-government school sectors.

7 All States provide government schools. They also provide the regulatory framework for the operation of non-government schools and financial assistance to them. Around 66% of students attend government schools. This proportion has risen slightly since 2014, after about 40 years of decline.

8 Both State and Commonwealth governments provide funding for government and non-government schools, albeit at different levels. Both sectors receive additional funding from private sources (largely parent contributions), although for government schools these amounts are small.

- States provide around 80% of government recurrent funding for government schools, and the Commonwealth provides 20%.

- States fund non-government schools at about 30% of the funding per student that they fund government schools. Of all government funding of non-government schools, 74% comes from the Commonwealth and 26% from States.

Commonwealth roles and responsibilities

9 As described above, the Commonwealth makes payments to the States to meet a proportion of the cost of government and non-government schools. State spending of the payments for government schools are included in the category expenses.

10 Payments by the Commonwealth for non-government schools are channelled through the States to non-government schools.[1] The States have no flexibility in how these funds are spent.

11 New funding arrangements for schools — the National Education Reform Agreement (NERA) — came into effect in 2014. This involved changes to how the Commonwealth determines funding levels for government and non-government schools. Under these arrangements, funding will be based on the Schooling Resource Standard (SRS) which provides a base amount per student and extra loadings for disadvantage such as:

- students with disabilities
- low socio-economic background
- school size
- remoteness
- Indigenous students
- capacity to pay (non-government schools only)
- lack of English proficiency.

12 The National School Reform Agreement (NSRA), which will operate from 2019 to 2023, replaced the NERA. The NSRA retains the arrangement that funding is based on the SRS.

13 In addition to general revenue assistance, the Commonwealth provides funding to the States for schools, comprising the Quality Schools Funding[2] payments (NERA/NSRA) and national partnership payments (NPPs). Table 13-4 shows the main Commonwealth payments to the States for Schools in 2018-19.

[1] To ensure the payments have no effect on States' fiscal capacities, both the spending of this money, and the payments themselves, are excluded from the Commission's assessments.

[2] Previously known as the Students First Funding.

Table 13-4 Commonwealth payments to the States for Schools, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Quality Schools funding - non-government	4,074	3,438	2,765	1,341	959	283	249	179	13,289
Quality Schools funding - government	2,428	1,769	1,733	739	519	199	107	190	7,684
Universal access to early childhood education	119	121	85	46	28	9	8	5	422
National School Chaplaincy Program	11	13	18	8	8	2	1	1	61
Other	0	0	0	1	1	0	0	0	1
Total	6,632	5,341	4,602	2,135	1,514	494	365	374	21,458
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Total ($pc)	825	818	911	819	869	929	863	1,524	853

Note: Table shows major payments only. Commonwealth Own Purpose Expenses (COPEs) are not included. Payments that the Commission treats as 'no impact' are included in the table.

Source: Commonwealth Final Budget Outcome, 2018-19.

14 The complete list of Commonwealth payments and their treatment is available on the Commission website, (https://cgc.gov.au).[3]

Category structure

15 The assessment of the Schools category is undertaken in three components:

- State spending on government schools
- State spending on non-government schools
- Commonwealth funding of government schools.

16 Components allow different disability assessments to apply to sub-functions.

17 Table 13-5 shows the category's assessment structure, the size of each component and the disabilities that apply.

[3] Most Commonwealth payments to the States affect the grant distribution but some do not. The Commission refers to payments that affect the grant distribution as 'impact' payments. For more information, see Chapter 5 Commonwealth payments.

Table 13-5 Category structure, Schools, 2018-19

Component	Component expense	Disability	Influence measured by disability
	$m		
State spending on government schools	30,848	Socio-demographic composition	Recognises that student numbers, adjusted for Indigenous status, low socio-economic status, and remoteness, affect the use and cost of providing services.
		Service delivery scale	Recognises the diseconomies of smaller schools with increasing remoteness.
		Wage costs	Recognises the differences in wage costs between States.
State spending on non-government schools	4,607	Socio-demographic composition	Recognises that the number of students in non-government schools, adjusted for low socio-economic status and remoteness, affect the use and cost of providing services.
		Service delivery scale	Recognises the diseconomies of smaller schools with increasing remoteness.
		Wage costs	Recognises the differences in wage costs between States.
Commonwealth funding of government schools	7,684	Socio-demographic composition	Recognises the 2015 Review terms of reference instruction not to unwind the funding allocated for educational disadvantage by the Commonwealth.
		Service delivery scale	Recognises the diseconomies of smaller schools with increasing remoteness.
		Wage costs	Recognises the differences in wage costs between States.

Source: Commission calculation using ABS GFS and State budget data.

Category and component expenses

18 The main data sources for calculating category and component expenses are Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.[4]

Assessment approach

State spending on government schools

19 Expenses for this component include:

- State spending on government primary and secondary schools and government preschools.

Redeveloped regression model

20 A new regression model has been developed to explain the costs of different groups of students using data sourced from the Australian Curriculum, Assessment and Reporting Authority (ACARA). This replaces the model used in the 2015 Review.

21 The regression models a national average funding formula from which socio-demographic composition (SDC) and service delivery scale (SDS) cost weights can be derived. The results of this regression and the implied SDC cost weights are shown in Table 13-6.

4 Unless otherwise stated, category and component expenses for the first two assessment years are sourced from Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS). States provide data for the most recent assessment year because GFS data are not available in time for the annual update.

Table 13-6 State spending on government Schools model, 2017

	Value estimated by regression	Cost weight
	$	%
Base student cost	7,672	100
Additional cost for		
Outer regional students	863	11
Remote or very remote students	3,857	50
Low SES students	5,379	70
Indigenous students	3,062	40

Note: The regression also estimated a fixed cost of $194 516 per school.

(a) Low socio-economic status students are those within the most disadvantage Index of Community Socio-Educational Advantage (ICSEA) quintile.

Source: Commission calculation using ACARA data.

Socio-demographic composition

22 Spending by each State on government schools is primarily affected by the size of its government school student population.

23 The SDC of the student population also affects State spending, with particular groups attracting higher costs than others.

24 Each government school student is given a weight of 1, with additional additive loadings (or cost weights) provided for:

- students in outer regional areas — 0.11
- students in remote or very remote areas — 0.50
- low socio-economic status (SES) students — 0.70
- Indigenous status — 0.40.

25 These weights are additive, so a low SES remote Indigenous student will be counted as 1.00 (base count) + 0.50 (remote) + 0.70 (low SES) + 0.40 (Indigenous) equals 2.60 cost weighted students.

26 All States supported the redevelopment of the regression model except for Queensland, which favoured the retention of the 2015 Review approach. Throughout the review process, States have proposed a number of alternative approaches and variable specifications for the model.

27 Some States advocated the inclusion of school specific attributes, such as concentration of Indigenous students within a school, concentration of low SES students in a school, or school size. These variables are difficult to include within an assessment of State need, as the Commission would need to determine not only the number of such students within a State but their distribution as well. Some of these attributes are affected by State policy. More importantly, the Commission has not been able to develop a regression in which these alternative variables produce results consistent with expectations based upon State funding approaches.

28 Some States have advocated models combining the State and Commonwealth funding of government schools, or State funding of government and non-government schools (largely in response to the SES cost weight not being applied beyond the most disadvantaged quartile of students). The Commission considers that it is essential that the model include the funding

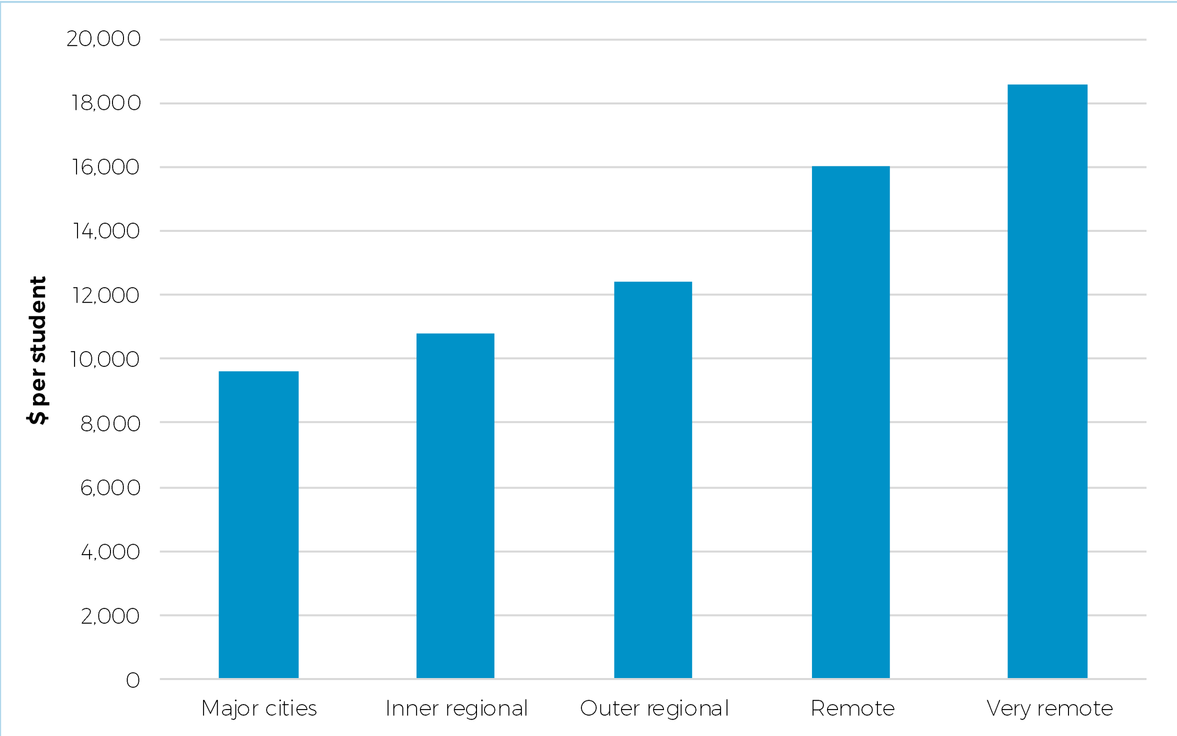
to which the assessment applies. Commonwealth funding of government schools is, as directed by the 2015 terms of reference (ToR), assessed based on the SRS Standard, not a regression based model. States fund non-government schools at a very different level to their funding of government schools.

29 A number of States have expressed concerns that the model and subsequently derived cost weights do not represent their individual State funding models, or do not reflect the Commonwealth funding principles. As each State has a different funding formula, any individual State's formula is unlikely to be reflected in the national average formula. The Commission has worked with individual States to test whether their funding peculiarities are reflected in the national data, or in the ACARA data for that State. The national average formula does not reflect the Commonwealth funding agreement because, as Western Australia noted 'the Commonwealth agreements with States do not require States to use the SRS at the individual school level'. The Commission has attempted to produce a national average formula that reflects how States on average fund their schools, not how the Commonwealth funds the States.

Location

30 Figure 13-1 shows that States spend considerably more per student on schools in more remote locations than schools in more accessible areas. This reflects what States have told the Commission about how they fund schools.

Figure 13-1 State spending per government school student by remoteness areas, 2017



Source: Commission calculation based on Australian Curriculum, Assessment and Reporting Authority (ACARA) data.

31 The model underpinning Table 13-6 has only two remoteness categories, outer regional and remote Australia (which is remote and very remote combined). The base student cost represents the cost of a student in a major city or inner regional Australia. Notwithstanding the pattern shown in Figure 13-1, inner regional areas were combined with major cities because analysis indicated that, after controlling for other socio-demographic differences,

inner regional costs were similar to those of major cities, and remote area costs were greater than non-remote area costs.

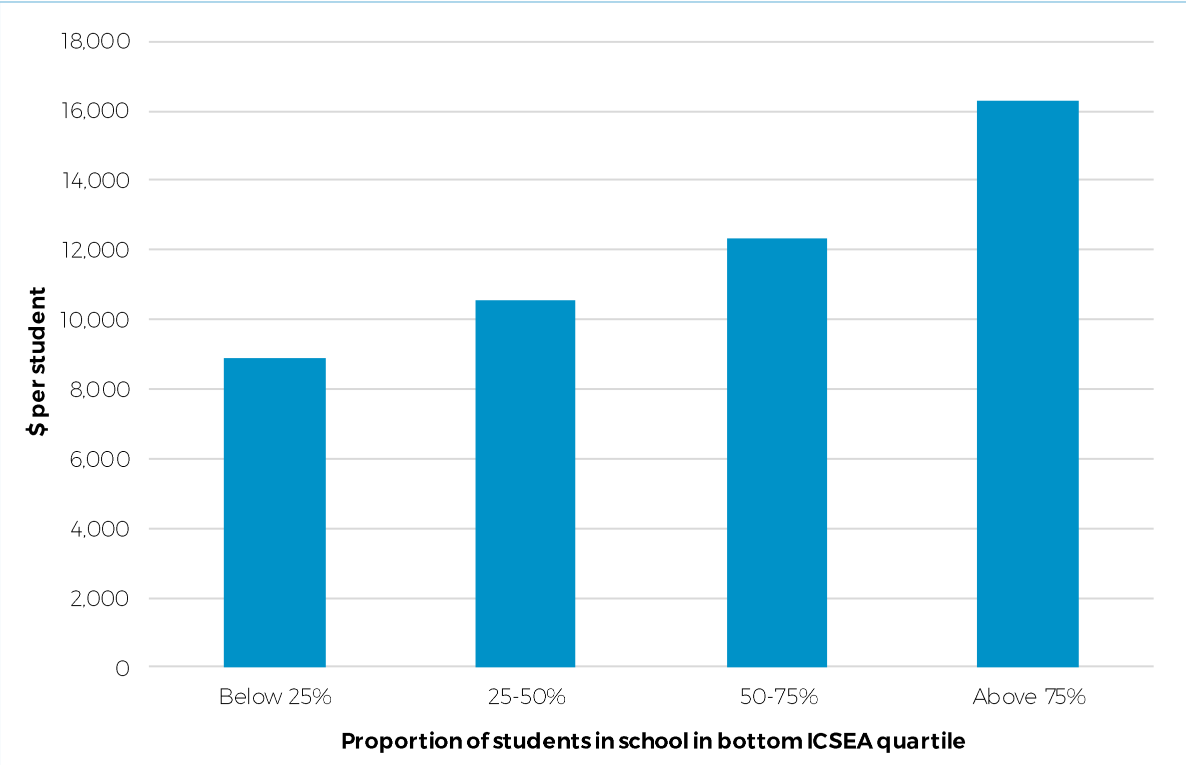
32 Western Australia does not support the combination of remote and very remote Accessibility/Remoteness Index of Australia (ARIA) classifications, believing that the model results in this respect are not representative of what States do. Western Australia suggests that the model and data be reviewed, and if no modelling or data errors are apparent, the Commission should use judgement to add a very remote allowance.

33 The Commission accepts the conceptual case that States fund very remote schools at a higher rate than remote schools, if SES levels and Indigeneity are held constant. It is not clear what adjustment should be made to reflect this expectation, or how large an adjustment is warranted. The cost weight in remote areas could be lowered or the cost weight in very remote areas could be raised. In the absence of evidence for any particular adjustment, no adjustment has been made.

Socio-economic status

34 Figure 13-2 shows that States spend considerably more on students from a low SES background than those of higher SES backgrounds. This is consistent with what States have told the Commission about how they fund schools.

Figure 13-2 State spending per government school student by concentration of low SES students, 2017



Source: Commission calculation based on ACARA data.

35 Low SES students, in this assessment, are captured using the proportion of students in the lowest Index of Community Socio-Educational Advantage (ICSEA)[5] quartile. All States, with the exception of Queensland, supported the use of ICSEA. Although some States queried the potential for double counting when using ICSEA with measures for remoteness (as remoteness is a component of ICSEA), the approach taken by the Commission precludes any double counting.[6]

36 The Commission considers ICSEA to be a better measure of school student SES than the approach adopted in the 2015 Review based on the Indigenous Relative Socioeconomic Outcomes (IRSEO) and Non-Indigenous Socio-economic Index for Areas (NISEIFA). This is because it is an individual student based measure rather than a measure related to the total population in the area the school is located (but not necessarily where the students live). Many States use a State specific measure like ICSEA as an integral part of their funding formula. ICSEA allows for a more accurate measure of SES in schools.

37 While States provide additional funding to the most disadvantaged students, some States have told the Commission they also provide some additional funding to moderately disadvantaged students. Notwithstanding the pattern shown in Figure 13-2, the analysis only supported separately identifying students in the most disadvantaged quartile (where there is the greatest variance to an adjacent quartile), after controlling for other socio-demographic differences.

38 Queensland does not support the use of ICSEA, arguing that this is not a clear improvement from using IRSEO and NISEIFA. Queensland also notes that no longer using IRSEO will cause the Schools assessment to no longer capture the changing circumstances of the Indigenous population.

39 The Commission notes Queensland's concern regarding the loss of capturing the changing Indigenous circumstances, but believes that ICSEA is a significant improvement on IRSEO and NISEIFA as noted in paragraph 36, and that this improvement more than offsets the loss of capturing the changing Indigenous circumstances.

40 Tasmania and South Australia suggested alternate specifications for low SES. These were rejected after being tested for the reasons outlined in paragraphs 25 to 29.

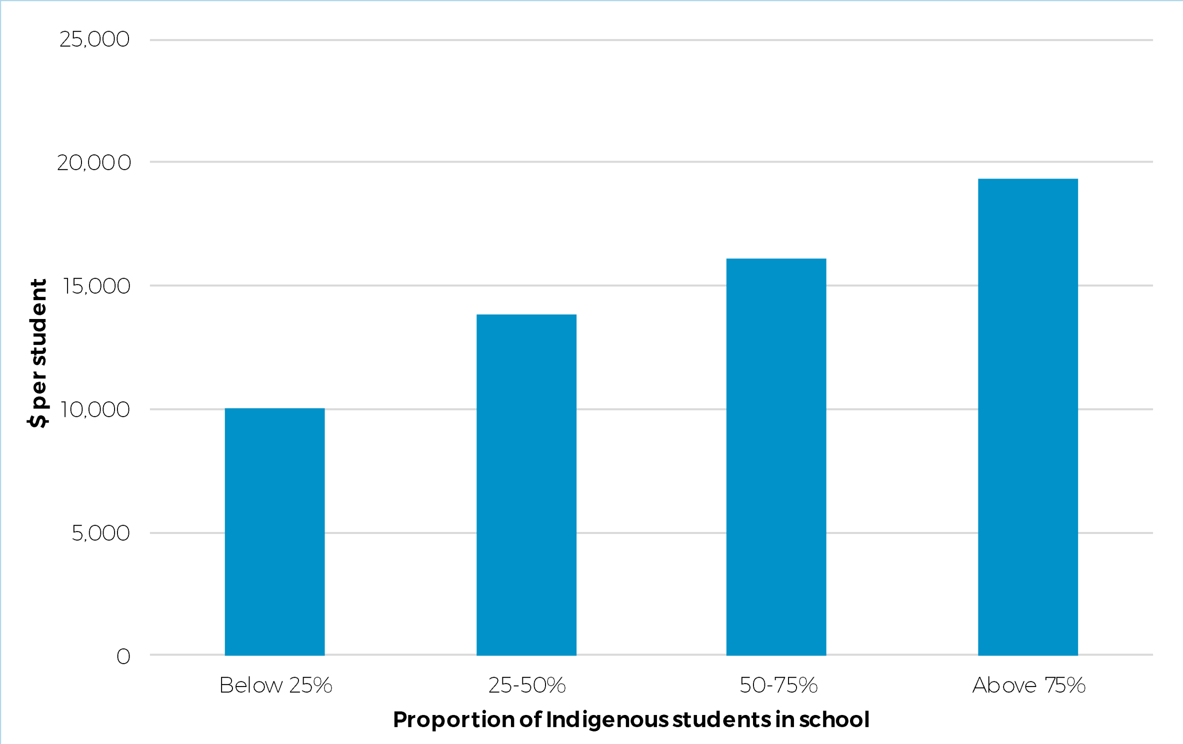
Indigenous status

41 States spend more per student on schools with large proportions of students identifying as Indigenous than schools with lower proportions, as shown in Figure 13-3. This is consistent with what States have told the Commission about how they fund schools.

[5] The Index of Community Socio-Educational Advantage (ICSEA) was created by the Australian Curriculum, Assessment and Reporting Authority (ACARA) specifically to enable fair comparisons of National Assessment Program — Literacy and Numeracy test achievement by students in schools across Australia. *My School Fact Sheet*, (https://docs.acara.edu.au/resources/About_icsea_2014.pdf), [accessed 13/02/2020].

[6] Using a regression approach, to the extent to which any additional cost of remoteness is captured in ICSEA, this will reduce the costs attributable to remoteness.

Figure 13-3 State spending per government school student by proportion of Indigenous students, 2017



Source: Commission calculation based on ACARA data.

42 The 2015 Review ToR required the Commission to 'more appropriately capture the changing characteristics of the Indigenous population'. To meet this requirement, the Commission separately identified Indigenous and non-Indigenous socio-economic status (IRSEO and NISEFIA respectively) in assessing costs of different groups of school students. However, in the absence of student level funding data, this approach required an assumption that Indigenous and non-Indigenous students in the same school receive the same funding. During State visits, States explained their school funding formulas to the Commission, and the Commission considers that its previous assumption can no longer be supported.

43 The Commission's approach uses cost weights for low SES students (from the bottom ICSEA quartile) and Indigenous students. The Northern Territory supported the use of ICSEA and the general approach to estimating student cost weights. However, it considered that an approach is necessary that captures the 'changing characteristics of the Indigenous population', as required by the 2015 terms of reference. It considered that the proportion of Indigenous students in a school may provide this.

44 Some States, and the Commonwealth, have school funding formulas where the per student additional funding for Indigenous students increases as the proportion of Indigenous students in a school increases. Western Australia's funding formula gives 30% more Indigenous funding per Indigenous student in schools where 100% of students are Indigenous compared to schools where only 5% of students are Indigenous[7]. No specification of the regression has been identified which can reflect this in a national average funding formula.

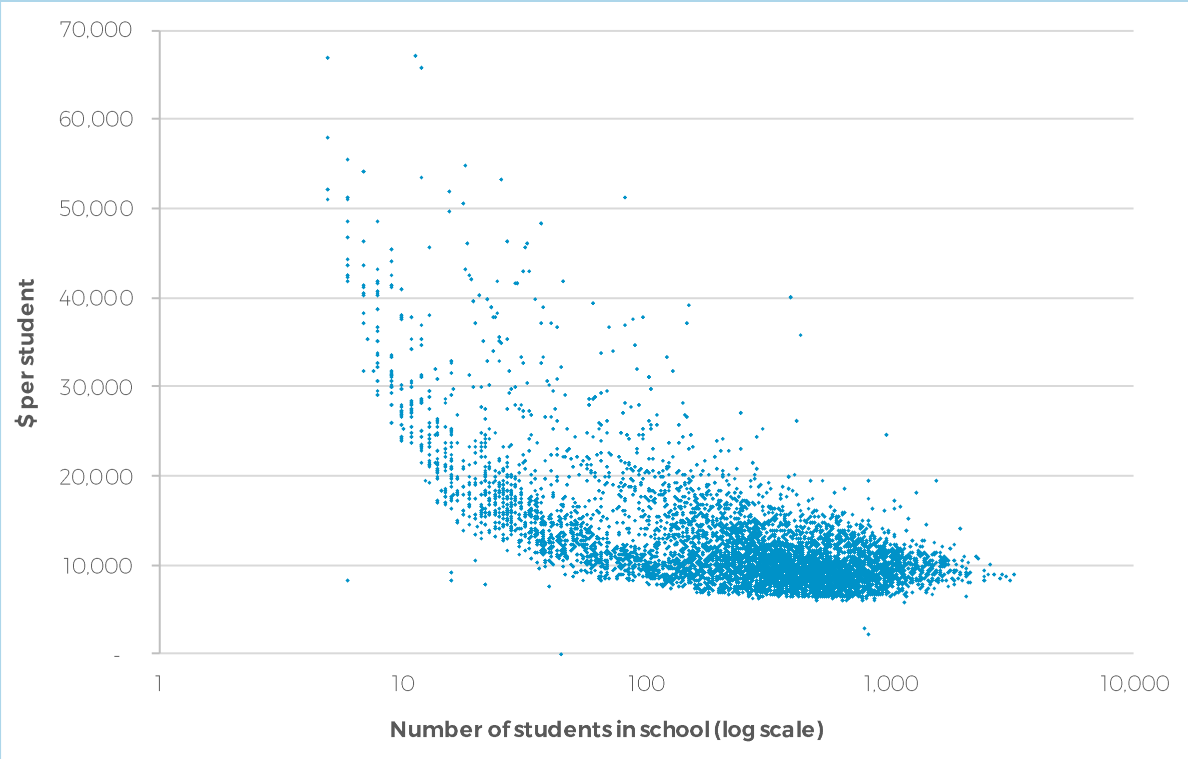
[7] Information provided during 2018 Commission visit to Western Australia.

45 To the extent that an increasing proportion of Indigenous students in a school coincides with an increasing level of disadvantage of those students, the model captures this by the allocation of both the Indigenous and ICSEA weights.

Service delivery scale

46 The fixed cost of operating a school results in the per student cost of a school decreasing as school size increases, as is shown in Figure 13-4. While the total cost of a school increases with increasing students, the model estimates that there is a fixed cost of running a school, above which there is a linear relationship based on student numbers.

Figure 13-4 State spending per student by size of school, government schools, 2017



Source: Derived from confidential ACARA data.

47 Table 13-7 shows the average school size in each remoteness area. The SDS assessment allocates the fixed costs of schools on this basis. That is, with the model finding that the estimated fixed cost of a school is $222,763 per school, and with an average very remote school having 114 students, States spend $1,951 per student in a very remote school. This cost represents 25% of the base student cost, and so very remote students are allocated a cost weight of 25% for SDS.

48 As major city schools tend to be larger, averaging 562 students each, the estimated fixed cost of $222,763 is allocated between these 562 students. States spend $396 per student on these fixed costs. This represents 5% of the base student cost. Average school size in each remoteness area is used because remoteness area is a policy neutral driver of school size.

Table 13-7 School size by remoteness area, government schools, 2017

Remoteness area	Number of schools	Students	Average size	Fixed cost per student	Cost weight
	No.	No.	No.	$	%
Major cities	3,028	1,703,057	562	396	5
Inner regional	1,620	450,427	278	801	10
Outer regional	1,045	227,971	218	1,021	13
Remote	196	34,551	176	1,264	16
Very remote	187	21,368	114	1,950	25
Total	**6,076**	**2,437,374**	**401**	**555**	**7**

Source: Commission calculation using ACARA data.

49 Victoria and New South Wales were concerned with the oversimplified assumption that schools have a fixed cost and an equal per student variable cost (as well as SDC cost weights). New South Wales was concerned with potential bias for very small schools. As with most assessments, the complexity of the real world is greater than that of the Commission's models. In practice, schools with below about 20 students do not receive the full fixed cost amount. However, given that less than 4,000 students nationally attend such schools, the effect is highly unlikely to be material.

50 While the relationship between school size and funding may be more complex, the drivers of variation in school size are largely policy driven. For example, while in 2017-18, 42% of students in major city Queensland attended schools of over 1,000 students, only 18% of students in major city New South Wales did. The Commission considers that, on average, States with more dispersed student populations will tend to have a greater number of smaller schools, which are more expensive to operate on a cost per student basis. The distribution of students across remoteness areas is the only material policy neutral driver of variation in school size, and therefore is the only driver assessed.

Wage costs

51 Differences in wage costs between States have a differential effect on the cost of providing services. There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method see Chapter 27 Wage costs.

52 South Australia does not support wage costs being assessed in Schools, arguing that any savings on teacher salaries must be allocated within school funding. Even if low wage States do offer lower wages to their teachers, the total funding of schools is mandated by the Commonwealth agreement.

53 The Commission has found that the proportion of the SRS that States have agreed to fund differs. For example, Victoria's bilateral agreement with the Commonwealth requires it to fund less than 70% of the SRS, while Western Australia is required to fund over 80%. This suggests that States have some control over their total funding envelope for schools.

Data and method

54 Regression analysis is used to determine the SDC and SDS cost weights associated with different student attributes. Data from ACARA on the profile and funding of individual schools are used for this analysis.

55 The SDC cost weights reflect the additional funding States provide to schools based on the Indigenous status and socio-economic status of students and the remoteness of the school.

The SDS cost weights reflect that schools in more remote areas tend, on average, to be smaller. It is captured using the average fixed school cost and the average school size in different remoteness areas to derive cost weights for each remoteness area.

56 The following data sources are used to obtain annual student numbers by SDC group by State to which the cost weights are applied:

- ABS data for total students, school sector, and Indigenous status
- ACARA data for student socio-economic status and remoteness.

57 Wage costs factors are then applied to obtain the component assessed expenses.

Component calculations

58 Table 13-8 shows the calculation of the size of the schooling task, taking account of SDC and SDS. It shows total student numbers and within these, the numbers in higher cost student groups. The total number of weighted students is the sum of the cost weighted students across all groups.

Table 13-8 Assessment of State spending on government schools, calculations, 2018-2019

	Cost weight	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	%	'000	'000	'000	'000	'000	'000	'000	'000	'000
Socio-demographic composition										
Students	100	798	620	552	281	174	57	43	30	2,554
Low SES students	70	250	171	171	79	54	24	6	15	769
Indigenous students	40	62	14	56	23	11	6	2	13	186
Major cities students	0	590	480	341	209	121	0	43	0	1,784
Inner regional students	0	159	112	112	29	21	38	0	0	472
Outer regional students	11	45	27	85	23	26	18	0	15	239
Remote students	50	3	1	7	15	5	0	0	5	36
Very remote students	50	1	0	6	5	2	0	0	9	23
Service delivery scale										
Major cities students	5	590	480	341	209	121	0	43	0	1,784
Inner regional students	10	159	112	112	29	21	38	0	0	472
Outer regional students	13	45	27	85	23	26	18	0	15	239
Remote students	16	3	1	7	15	5	0	0	5	36
Very remote students	25	1	0	6	5	2	0	0	9	23
SDC weighted students		1,005	748	710	358	223	78	48	54	3,223
SDS weighted students		54	40	43	21	13	7	2	5	185
Total weighted students		**1,059**	**788**	**753**	**378**	**236**	**85**	**50**	**59**	**3,408**
		$m	$m	$m	$m	$m	$m	$m	$m	$m
Task assessed expenses		9,582	7,135	6,816	3,423	2,135	767	453	536	30,848

Source: Commission calculation.

59 Table 13-9 shows the calculation of total assessed expenses for the component in 2018-19.

Table 13-9 Government schools assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SDC assessed expenses ($m)	9,582	7,135	6,816	3,423	2,135	767	453	536	30,848
Wage costs factor	1.008	0.993	0.995	1.022	0.973	0.965	1.024	1.036	1.000
Assessed expenses ($m)	**9,656**	**7,080**	**6,777**	**3,499**	**2,077**	**740**	**464**	**555**	**30,848**
Assessed expenses ($pc)	**1,201**	**1,085**	**1,342**	**1,343**	**1,192**	**1,392**	**1,096**	**2,262**	**1,226**

Source: Commission calculation.

State spending on non-government schools

60 Expenses for this component include State spending on non-government primary and secondary schools and non-government preschools.

Redeveloped regression model

61 The cost weights shown below in Table 13-10 are based on the non-government model. The cost weight for low SES students is considerably higher than in government schools, possibly reflecting that State spending on non-government schools incorporates the capacity of parents to pay fees as well as the educational disadvantage suffered by low SES students.

62 The government schools model includes Indigenous status. While the Commission was inclined to use the same regression model for State spending on non-government schools as for government schools, a negative cost weight for Indigenous students in all years seemed implausible, and so the model has been slightly adjusted to remove this variable. While Western Australia was concerned with this variable being 'unceremoniously removed in the non-government schools model despite a conceptual basis for its inclusion', the Commission considers that assessing Indigenous students as less costly than otherwise comparable non-Indigenous students to be implausible.

63 In some years the outer regional coefficient was smaller than the remote coefficient, while in other years it was not. The Commission considers that retaining both outer regional and remote variables is warranted.

64 The Commission notes the lower cost weights for students in outer regional, remote and very remote areas than in the State spending on government schools component (see Table 13-6). However, it considers that within a remoteness area, non-government schools are likely to be, on average, less remote and isolated than government schools.

Table 13-10 State spending on non-government schools, 2016

	Value estimated by regression	Cost weight
	$	%
Base student cost	1,921	100
Additional cost for		
Outer regional student	213	11
Remote or very remote student	165	9
Low SES student	3,532	184

Note: The regression also estimated a fixed cost of $30,201 per school.

Source: Commission calculation using ACARA data.

Socio-demographic composition

65 State spending on non-government schools is primarily affected by the size and makeup of its non-government school student population.

66 The Commission has applied a model with similar specifications as used for State spending on government schools to non-government school data. Based on the model, an additional weight is applied to each student with higher cost attributes.

67 Each non-government school student is given a weight of 1, with additional loadings provided for:

- students in outer regional areas — 0.11
- students in remote or very remote areas — 0.09
- low SES students — 1.84.

Service delivery scale

68 Smaller schools cost more per student than larger schools, as the fixed cost of operating a school is spread across fewer students. On average, larger schools tend to be located in more accessible areas. This results in different remoteness regions having cost weights comparable to, and additive with, those used in the SDC assessment:

- students in major city schools — 0.03
- students in inner regional schools — 0.04
- students in outer regional schools — 0.06
- students in remote schools — 0.08
- students in very remote schools — 0.17.

Wage costs

69 Differences in wage costs between States have a differential effect on the cost of providing services. There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method see Chapter 27 Wage costs.

Data and method

70 Table 13-11 shows how the cost weights are applied to the number of non-government students with different socio-demographic attributes to calculate the SDC and SDS assessments for State spending on non-government schools.

Table 13-11 Cost weight application, 2018-19

	Cost weight	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	%	'000	'000	'000	'000	'000	'000	'000	'000	'000
Socio-demographic composition										
Students	100	421	352	268	137	94	24	28	11	1,335
Low SES students	184	50	45	30	17	13	5	1	3	163
Major cities students	0	328	275	181	114	77	0	28	0	1,003
Inner regional students	0	79	68	48	10	9	20	0	0	235
Outer regional students	11	13	9	36	9	7	4	0	7	84
Remote students	9	1	0	2	3	1	0	0	2	10
Very remote students	9	0	0	1	1	0	0	0	2	3
Service delivery scale										
Major cities students	3	328	275	181	114	77	0	28	0	1,003
Inner regional students	4	79	68	48	10	9	20	0	0	235
Outer regional students	6	13	9	36	9	7	4	0	7	84
Remote students	8	1	0	2	3	1	0	0	2	10
Very remote students	17	0	0	1	1	0	0	0	2	3
SDC weighted students		514	435	326	170	119	33	30	18	1,646
SDS weighted students		13	10	9	4	3	1	1	1	42
Total weighted students		**527**	**445**	**335**	**174**	**122**	**34**	**31**	**19**	**1,688**
		$m	$m	$m	$m	$m	$m	$m	$m	$m
Task assessed expenses		1,439	1,216	916	476	332	93	84	51	4,607

Source: Commission calculation.

71 Table 13-12 shows the component construction, with wage costs applied to obtain the component assessed expenses.

Table 13-12 Non-government schools assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SDC assessed expenses ($m)	1,439	1,216	916	476	332	93	84	51	4,607
Wage costs factor	1.008	0.993	0.995	1.022	0.973	0.965	1.024	1.036	1.000
Assessed expenses ($m)	1,450	1,207	911	487	323	90	86	53	4,607
Assessed expenses ($pc)	180	185	180	187	185	170	203	216	183

Source: Commission calculation.

Commonwealth funding of government schools

Socio-demographic composition

72 The Commonwealth provides funding to the States through the Quality Schools funding program (previously known as NERA and as Students First). This funding is based on the SRS, which is based on a number of SDC factors.

73 In the 2015 Review, the Commission received terms of reference (ToR) directing it not to unwind the measures of educational disadvantage embedded in the NERA payments to States.

74 The Commission has retained the 2015 Review approach of a separate assessment of Commonwealth funding of government school expenses. This assessment is based on Commonwealth Department of Education, Skills and Employment figures on the funding entitlement each State had on the basis of its student profile in each assessment year. All States that responded supported this proposal except New South Wales. New South Wales considered that an equal per capita (EPC) assessment of the expenses funded from this payment would better meet the 2015 ToR.

75 An EPC assessment would not recognise differing levels of disadvantage across the States, while an actual per capita (APC) assessment would not recognise that the Commonwealth is funding States to differing proportions of the SRS. The Commission considers that the debate about how to meet the 2015 ToR requirement was concluded in the 2015 Review and that in the absence of new ToR directions or major changes to the payment, the 2015 approach remains appropriate.[8]

Wage costs

76 Differences in wage costs between States have a differential effect on the cost of providing services. There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method see Chapter 27 Wage costs.

Data and method

77 The expenditure of Commonwealth NERA payments based on the average SRS per student for each State in the assessment years is provided by the Commonwealth Department of Education, Skills and Employment.

78 The average per student SRS amounts in each State is applied to actual enrolled students to calculate the total funding implied by the NERA. This is multiplied by a factor reflecting the percentage of the SRS that is funded by the Commonwealth to calculate the SDC assessed expenses. This is then multiplied by the wages factor to calculate the assessed expenses.

79 Table 13-13 shows the calculation of assessed expenses for the component in 2018-19.

Table 13-13 Commonwealth funding of government schools assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SRS per student ($)	17,250	16,728	17,478	16,971	17,971	18,370	14,797	28,382	17,304
Enrolments ('000)	798	620	552	281	174	57	43	30	2,554
Implied required funding ($m)	13,766	10,364	9,641	4,762	3,130	1,043	639	841	44,185
SDC assessed expenses ($m)	2,394	1,802	1,677	828	544	181	111	146	7,684
Wage costs factor	1.008	0.993	0.995	1.022	0.973	0.965	1.024	1.036	1.000
Assessed expenses ($m)	**2,413**	**1,788**	**1,667**	**847**	**530**	**175**	**114**	**151**	**7,684**
Assessed expenses ($pc)	**300**	**274**	**330**	**325**	**304**	**329**	**269**	**617**	**305**

Source: Commission calculation.

80 Victoria and Western Australia support the Commission’s approach. Other States provided no further comment on Commonwealth funding of government schools.

[8] This issue is discussed in the Commission’s *Report on GST Revenue sharing relativities 2015 Review, Volume 2, Chapter 10 Schools education.*

Category calculations

81 Table 13-14 brings the assessed expenses for each component together to derive the total assessed expenses for each State for the category. It shows, at the component level, how each disability assessment moves expenses away from an EPC distribution to obtain assessed expenses.

Table 13-14 Schools assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
State spending on government schools									
EPC	1,226	1,226	1,226	1,226	1,226	1,226	1,226	1,226	1,226
SDC	-34	-133	124	88	-1	218	-155	957	0
Wage costs	9	-8	-8	29	-33	-51	25	79	0
Assessed expenses	1,201	1,085	1,342	1,343	1,192	1,392	1,096	2,262	1,226
State spending on non-government schools									
EPC	183	183	183	183	183	183	183	183	183
SDC	-4	3	-2	0	7	-7	16	26	0
Wage costs	1	-1	-1	4	-5	-6	5	8	0
Assessed expenses	180	185	180	187	185	170	203	216	183
Commonwealth funding of government schools									
EPC	305	305	305	305	305	305	305	305	305
SDC	-8	-29	27	12	7	36	-43	290	0
Wage costs	2	-2	-2	7	-8	-12	6	22	0
Assessed expenses	300	274	330	325	304	329	269	617	305
Total assessed expenses	1,682	1,544	1,852	1,854	1,681	1,891	1,568	3,095	1,714

Note: The EPC expenses and assessed expenses are total spending per capita. The amounts for each disability are redistributions from an EPC assessment.

Source: Commission calculation.

Infrastructure assessment

82 States require infrastructure to support service delivery. State infrastructure requirements are assessed in the Investment category. The main driver of investment in schools is growth in the number of cost weighted students in government schools. The cost weight relates to Indigenous students in schools with more than 25% Indigenous enrolments, and is calculated based on the recurrent government school cost weights. While other disabilities affect the recurrent costs of providing schooling, they do not typically require additional capital.

83 Interstate differences in construction costs are also recognised.

84 For a description of the Investment assessment, see Chapter 24 Investment.

Other issues considered by the Commission

85 There were a number of other issues considered by the Commission, largely in response to concerns raised by States. These issues related to the method for measuring existing disabilities or requests for new disabilities that were not included in the 2015 Review assessment. The main reasons for not assessing certain disabilities identified by States are:

- the conceptual case for a disability has not been established
- an assessment would not be material, that is, redistribute more than $35 per capita for any State[9]
- data are not available to make a reliable assessment.

User charges

86 For the 2015 Review, gross State expenses were assessed in the Schools assessment, and school user charges were assessed EPC in Other Revenue.

87 In the 2020 Review, the Commission is netting off user charges in the Schools assessment, and calculating a regression of ACARA measures of net State expenses per student to assess net State expenses.

88 While not reconciling perfectly, the Commission understands that in 2017, the $1.2 billion ACARA fees, charges and parental contributions, represent the 2017-18 $1.3 billion in GFS user charges. Therefore, the ACARA concept of State government recurrent spending relates to the GFS concept of expenditure net of user charges. The Commission accepts that States do not collect parental contributions centrally and allocate them to State schools. However, while parental contributions never enter consolidated revenue, schools report on their value, and States allocate them as user charges in GFS. It is difficult to see what other sources would contribute $1.2 billion of user funding in schools.

89 Queensland and Western Australia were concerned with assessing net State expenses. The Commission's approach does not imply that the socio-demographic predictors of user charges are the same as those of gross expenses. Rather, the Commission's approach is to undertake a regression to identify the drivers of net expenses, and apply the results to an assessment of net expenses.

Student transport

90 The 2015 Review assessment of student transport comprised a number of judgments supplementing poor quality data.

- The estimate of total expenditure of $1.5 billion in 2017-18 is not thought to be reliable, as some States struggle to separate the costs of transport of school students from the costs of transport of other people.
- The split between urban and rural student transport expenses was based on an assumed 50-50 split, as State GFS data were deemed unreliable.
- The assessed disabilities relied on a complex synthetic assessment based on assumptions about student transport patterns rather than data on what States do.

91 States can have difficulty in reliably splitting spending on the transport of school children from other transport expenses. Including student transport expenses with such expenses will improve the quality of the expense data. The disabilities affecting the cost of transporting school children are likely to be more closely related to the disabilities affecting the cost of

[9] The Commission has set a materiality threshold for including a disability. A disability assessment must redistribute more than $35 per capita away from an EPC assessment for any State to be included. To be included, a disability assessment must redistribute more than $35 per capita away from an equal per capita assessment for any State.

general public transport, than to the disabilities affecting the cost of educating school children. The Commission proposes to assess student transport expenses in the Transport category. For further information see Chapter 21 Transport.

92 A number of States had concerns with the appropriate treatment of these expenses within the Transport category; these are considered in Chapter 21 Transport. The choice to assess these expenses in urban transport rather than EPC in other expenses, as proposed by some States, reflected that the two approaches were not materially different, and it was simpler to include these expenses with other transport expenses.

Commonwealth funding of non-government schools

93 In the 2015 Review, the Commission assessed the revenue States received from the Commonwealth for non-government schools. It also assessed the expenditure of this funding. States have no policy choice in the distribution of this money, and the States are effectively funding conduits. Both of these assessments are made on the share of the payment received, and in net terms this has no effect on the assessment of fiscal capacities.

94 The Commission considers it would be simpler and more transparent to exclude both the revenue and expenses from all calculations. All States agreed with this proposal.

Students with disabilities

95 States provide additional resources to students with disabilities. In previous reviews the Commission has not had data that identify the number of students with disabilities across States on a comparable basis, and so has been unable to develop a reliable assessment. In recent years, the States and the Commonwealth have developed the 'Nationally consistent collection of data on school students with a disability' (NCCD). The measure of students with disabilities is explicitly labelled 'Nationally consistent'. However, in early 2017, the then Commonwealth education minister Senator the Hon Simon Birmingham said 'this data … hasn't come to a credible landing point just yet…There's much more work to be done by the States and Territories to ensure that (the NCCD data) truly is nationally consistent.'[10]

96 Victoria, South Australia, Tasmania and the ACT agreed that the current available data remain insufficiently reliable for an assessment. New South Wales, Queensland and the Northern Territory argued that the NCCD is of sufficient reliability to be used in the assessment.

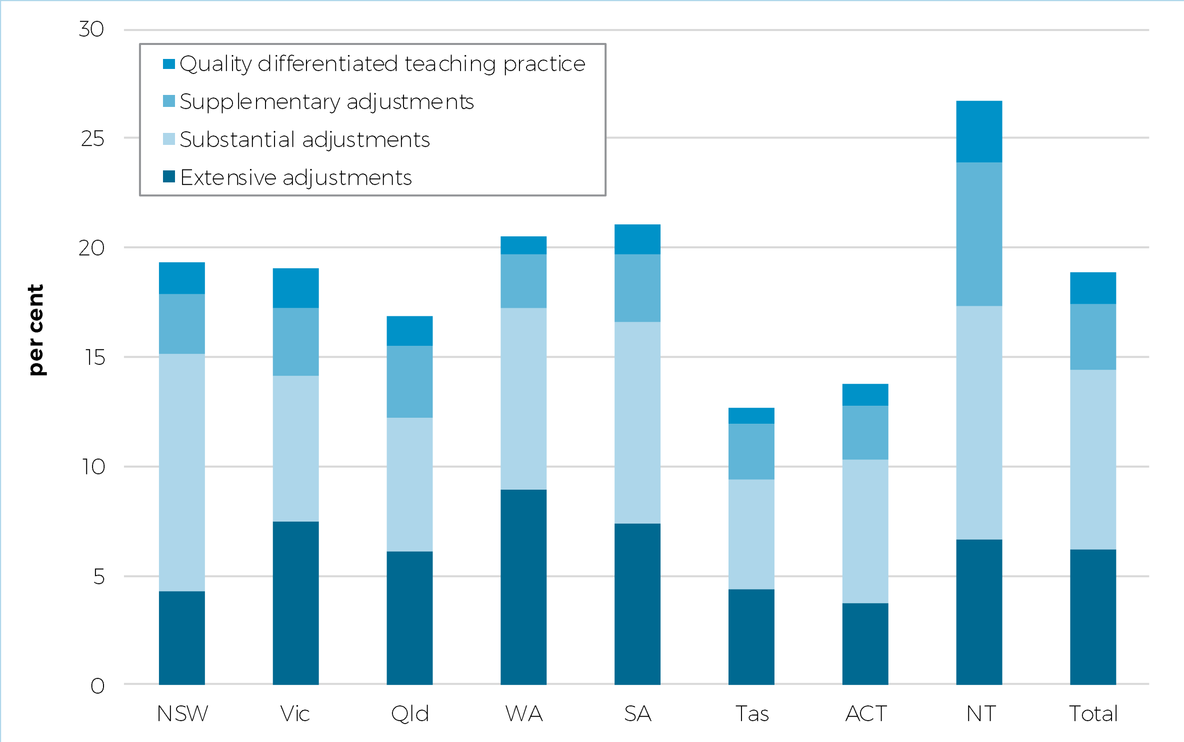
97 Figure 13-5 shows the proportion of students for whom adjustments are made by teachers because those students have disabilities. The Commission considers that some of these results are counter-intuitive, and regard this as support for the then minister's view that the NCCD is not yet nationally consistent.

98 Evidence shown in Figure 13-5 that the Commission finds questionable includes that:

- Tasmania has the lowest level of students with disabilities in the country, at around 30% below the national average, when according to the census it has the second highest
- Western Australia has twice the proportion of students requiring quality differentiated teaching as New South Wales.

[10] *Students with a disability face massive funding shortfall, Education Council figures suggest*, ABC, (http://abc.net.au/news/2017-02-16/new-figures-point-to-a-massive-shortfall-in-funding-for-student/8271824), [accessed 17/02/2020].

Figure 13-5 Proportion of students with disabilities, 2017



Source: Council of Australian Governments Education Council.

99 On 15 November 2018 the Education Minister, the Hon Dan Tehan MP, announced a review to '…examine how Commonwealth funding is used to support students with disability and report back by December 2019. [It] will also examine the Commonwealth's assurance processes to ensure the accuracy of the information used to calculate a school's Commonwealth funding entitlement.'

100 Despite these concerns, the Commonwealth does use the NCCD in its Quality Schools allocation calculations. The Commonwealth's model is designed to measure variance between schools as well as variance between States. Variance between schools in the proportion of students with a disability is much greater than variance between States, and so is a more important driver for the Commonwealth's model. The NCCD may also be seen as more consistent within each State. Hence while not perfect, the NCCD could be an appropriate data source to use in the allocation of funds between schools, but not between States. In the Commission's view, these data are not, as yet, sufficiently reliable to be used for its purposes. The Commission will monitor the ongoing development of this data set and will consider whether it should develop an assessment of needs associated with students with disabilities when the data are sufficiently reliable.

English proficiency

101 New South Wales considered that language background other than English (LBOTE) should be included in a number of expense categories including Schools. The Commission accepts the conceptual case that LBOTE students are more costly to educate than non-LBOTE students.

102 While ACARA data show that 26% of students have a language background other than English, Australian Government Department of Education, Skills and Employment data show 3.5% of students have poor English proficiency. The Commission considers there to be a

strong conceptual case that this group incur higher costs per student, as it captures only students that require additional support for their English proficiency. Victoria expressed concerns with the ACARA measure of LBOTE noting that it could be a misleading measure that captures a significant number of students that speak English fluently.

103 Only 3.5% of students have a low proficiency in English, and while there are differences in States' shares of these students, they are not sufficient to produce a material assessment of English proficiency.

Adjusted student numbers

104 States have historically had different policies on school starting age, and so the number of students in pre-year 1 classes varied considerably for policy reasons. Because of this, in the 2015 Review, the Commission used the number of year 1 students as a proxy for the number of pre-year 1 students. Since 2014, when South Australia adopted national school starting policies, there have been no major policy differences affecting the number of pre-year 1 students. As such, the Commission is no longer making any adjustments and is using total full-time equivalent student numbers, as published by the ABS.

Secondary school students

105 Whether a school is a primary school, secondary school or combined makes a significant difference to the cost of a school, both in terms of the fixed and variable costs.[11] However, the major difference between States in their number of primary and secondary school students is driven by South Australia's policy decision to include Year 7 in primary school. Whether States have combined primary-secondary schools or have separate schools is partly driven by the demographics of an area — combined schools are much more common in small isolated communities. However, they also reflect State policy choice.

106 The Commission considers that while school type is a strong predictor of school costs, it is inappropriate for use in measuring State fiscal capacities.

107 Victoria suggested the inclusion of a variable for school level being included in the regression model, arguing that demography is a stronger driver of school level than policy choice. In addition to the Commission's concerns about the policy influence on this variable, with States having similar numbers of primary and secondary level students, the inclusion of a school level variable would be difficult and likely not have a material effect.

Centrally managed school costs

108 The Commission calculates the relative cost of students and applies this to all school costs as identified in GFS, including curriculum development and other central office or out of school costs.

109 New South Wales stated that only some part of State spending is allocated on a needs basis. Cleaning and maintenance, teacher learning support and upskilling of teachers, for example, are not needs based. It argued that these costs should be considered equal per student. The Northern Territory argued that much of its centrally managed resources relate to the Northern Territory Indigenous Education Strategy, specialist teachers and support, teacher

[11] For example, States spend about $1,200 more per student on secondary students than primary students.

housing, special education support programs, Indigenous specific curriculum, engagement programs and staff relocation costs. Due to the centrally managed approach, the loadings in the Northern Territory's student needs based funding model do not accurately reflect the total funding associated with specific groups of students. These centrally managed resources, as a default, are generally distributed across students on a total enrolment basis. As a result, ACARA data would likely significantly understate expenses on Indigenous, remote and/or disadvantaged students within the Northern Territory.

110 The Commission understands that ACARA allocates all school costs to individual schools on the most appropriate basis available to it. The Commission's model based on this data therefore should give the appropriate weight to the SDC characteristics of schools. The Commission has no better data upon which to allocate school expenses, and so is assessing all school expenses on the basis of the SDC assessment of school expenses.

Early childhood education

111 Victoria considers that Commission staff should investigate the feasibility and materiality of separately assessing early childhood education.

112 In 2017-18, States spent around $1.5 billion on pre-school education, or about $61 per capita. These expenses are assessed as part of the government, and non-government, funded school expenses. Unlike schools, the split between government and non-government pre-schools is very policy influenced, with Western Australia providing around 37% of the national government pre-school enrolments. According to the ABS, preschool education enrolment rates are broadly similar for Indigenous and non-Indigenous students, and only slightly higher in major cities than in more remote areas. It seems reasonable that the higher cost weights for disadvantaged groups in the Schools assessment would not be materially different to the cost weights that might apply to pre-school students. It seems very unlikely that an assessment would be materially different to including these costs in with other school costs.

Effect on the GST distribution

113 Table 13-15 shows the extent to which the assessment for this category differs from an EPC assessment of Schools expenses. States with a positive redistribution are assessed to have above average spending requirements and States with a negative redistribution are assessed to have below average spending requirements. Queensland, Western Australia, Tasmania and the Northern Territory experienced redistributions of more than $100 per capita toward them, and Victoria and the ACT away from them.

Table 13-15 Illustrative redistribution from an EPC assessment, Schools, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	-240	-1,140	718	334	-58	95	-58	348	1,495
$ per capita	-29	-167	137	126	-32	175	-131	1,413	57

Note: The redistribution is the difference from an EPC assessment of category expenses.

Source: Commission calculation.

114 The main reasons for these redistributions are the differences between State student SDC profiles. The main reasons for the redistributions for each State are that:

- New South Wales has a below average share of government school students and students in more remote areas

- Victoria has a below average share of government school students, and below average shares of all high cost groups of students
- Queensland, Western Australia, Tasmania and the Northern Territory have above average shares of government school students and of most high cost groups of students
- The redistribution away from South Australia is primarily due to its low assessed wage costs
- The ACT has a below average share of low SES students, which is somewhat offset by high wage costs.

115 Table 13-16 provides a summary of the main disabilities contributing to the redistribution from an EPC assessment for this category.

Table 13-16 Major reasons for the illustrative redistribution, Schools, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
SDC	-20	-135	128	69	-4	194	-158	850	45
Student Numbers & sector	-17	-58	70	47	-13	36	25	154	22
Indigenous	1	-21	14	6	-3	15	-14	183	6
Low SES	4	-25	17	-4	7	100	-124	212	9
Regional costs	-13	-17	10	24	12	23	-22	328	9
Schooling resource standard	-7	-31	25	20	5	42	-44	291	11
Service delivery scale	-6	-10	11	4	1	44	-18	127	5
Wage costs	9	-5	-11	29	-41	-84	66	118	8
Total	**-29**	**-167**	**137**	**126**	**-32**	**175**	**-131**	**1,413**	**57**

Note: The redistributions from an EPC assessment are illustrative. Disabilities may not add due to rounding.

Source: Commission calculation.

Changes since the 2019 update

116 There are a number of data and method changes since the 2019 Update as well as changes in State circumstances. Table 13-17 shows the effect of these changes.

Table 13-17 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method and data changes	90	70	-86	-6	-81	-14	12	14	186
Data revisions	-5	17	-8	-1	1	0	0	-6	19
State circumstances	-4	32	-3	-22	3	-2	4	-7	39
Total	**80**	**119**	**-96**	**-29**	**-77**	**-15**	**17**	**2**	**217**

Source: Commission calculation.

Method changes

117 The main method changes in this review relate to the redevelopment of the regression models for State funding of government and non-government schools. This has re-estimated the cost weights for Indigenous status, SES, SDC and remoteness.

118 Total actual enrolments are now used. In 2015 Review methods, pre-year 1 student data were imputed from year 1 student data.

119 Commonwealth funding of the non-government schools component has been removed from the Schools category and is now treated as out of scope. This means that neither these expenses, nor their associated Commonwealth payments, are included in the Commission's assessments. This change has had no effect on the GST distribution.

120 The student transport component has been removed from the Schools category, with these expenses now assessed in Transport. The effect of this is not shown in Table 13-17.

121 The changed treatment of user charges (see from paragraph 86) has decreased the spending to which disabilities apply, resulting in a redistribution from States with higher than average needs (especially Queensland, Tasmania and the Northern Territory) and to States with below average needs (especially Victoria).

122 Changing how SES is measured has affected South Australia. South Australia has a relatively high proportion of non-Indigenous students in schools in disadvantaged areas. However, its share of disadvantaged students is only slightly above average.

Data revisions

123 Data for 2017-18 have been revised, with the release of the latest ACARA data.

Changes in State circumstances

124 The latest data from ACARA shows that the spending per Indigenous student in 2018-19 was relatively lower than it was in 2015-16, most notably resulting in a redistribution away from the Northern Territory and towards Victoria.

125 The Commission uses the Department of Education, Skills and Employment's schooling resource standard to assess Commonwealth funded government schools in line with ToR requirements not to unwind recognition of educational disadvantage in the then NERA. This schooling resource standard uses the socio-demographic mix of each State's students and until 2017-18, it also included a State specific cost weight for Western Australia. The department has advised that this adjustment has now been turned off, resulting in a $20 million decrease in Western Australia's assessed needs.

Updating the assessment

126 As required by the ToR, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances. All data used in the Schools assessment will be updated annually:

- ABS student data by Indigenous status
- ACARA schools data to apportion student SDC shares (remoteness and SES) and to update student cost weights through the regression model
- Department of Education, Skills and Employment's funding data for the Commonwealth funding of government schools component.

14 Post-secondary education

Summary of the assessment

The Post-secondary education category covers State spending on vocational education and training (VET) and higher education. It includes subsidised courses provided in government institutions as well as subsidies provided to private training providers.

In assessing State spending, the Commission uses National Centre for Vocational Education Research (NCVER) data on VET enrolled hours to measure the use of services by different socio-demographic groups among the working age (15-64 years) population. The groups with the highest rates of enrolling in VET are Indigenous people, people living in non-remote regions and those from areas of low socio-economic status. States with higher concentrations of these groups are assessed as having to spend more than average to provide post-secondary education services. The assessment also recognises that States spend more per Indigenous student than on an equivalent non-Indigenous student.

The geographic dispersion of working age populations is also assessed. States with concentrations of people in remote areas, which cost more to service, have to spend more than average.

The assessment also recognises the cost to the ACT of providing post-secondary education services to New South Wales residents and differences in wage costs between States.

Service overview

1 State net expenses on Post-secondary education were $5.9 billion in 2018-19, representing 2.3% of total State expenses, as shown in Table 14-1.

2 Post-secondary education covers State expenses on vocational education and training (VET) and other higher education. Most State spending on post-secondary education is for VET, with only around 4% of funding for universities. State VET expenses include spending on subsidised courses provided in State government institutions and subsidies provided to private training providers.

3 Public technical and further education (TAFE) institutes and private registered training organisations (RTOs) are the main providers of VET services in Australia.

Table 14-1 Post-secondary education expenses by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total expenses ($m)	1,761	1,814	964	492	355	77	145	254	5,861
Total expenses ($pc)	219	278	191	189	203	144	343	1,033	233
Proportion of total expenses (%)	2.5	3.4	2.1	1.9	2.4	1.5	3.2	4.6	2.6

Note: Expenses shown on a net basis.

Source: Commission calculation using State budget data.

4 Table 14-2 shows the share of State expenses on Post-secondary education from 2015-16 to 2018-19.

Table 14-2 Post-secondary education expenses, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total expenses ($m)	4,985	5,467	5,535	5,861
Proportion of total expenses (%)	2.6	2.7	2.6	2.6

Note: Expenses shown on net basis.

Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

5 User charges (Table 14-3) were $1.6 billion in 2018-19 and include student fees for services delivered, and some revenue from ancillary activities. In this category, all user charges are deducted from total category expenses so that the assessment is applied to net category expenses.

Table 14-3 Post-secondary education, user charges, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Revenue ($m)	429	597	283	165	93	47	27	7	1,647
Revenue ($pc)	53	91	56	63	53	88	63	30	65

Note: User charges refer to revenue from the sale of goods and services classified in GFS to economic type framework (ETF) 112.

Source: Commission calculation using ABS GFS and State budget data.

State roles and responsibilities

6 States provide VET services through networks of public TAFE institutes and private RTOs. These providers offer courses spanning foundation skills, certificate I to IV programs (including apprenticeships), diplomas, advanced diplomas and bachelor's degrees. The campuses used for service delivery are widely dispersed in all States, and States with dispersed, small communities provide services in many of those communities. All State VET funding models (except Tasmania and the ACT) include regional loadings to recognise the higher cost of service delivery in regional areas.

7 Most States provide Indigenous-specific programs to facilitate greater Indigenous participation and to support Indigenous students. They include incentive payments to private sector employers to take on Indigenous trainees and apprentices, programs to improve access to training opportunities and to improve employment outcomes, and programs to develop and deliver courses targeting Indigenous students. These programs are available in urban and regional locations.

8 The level of subsidy for each course and qualification level are a matter of individual State policy. States consider a range of factors in setting subsidies including staffing levels, what equipment and facilities they involve, the level of qualification and relevance of the training to State skill requirements (or public value). States subsidise a higher proportion of the cost of lower level courses (foundation skills, and certificate I and II) and apprenticeships.

9 Part of the cost of subsidised training is met through student fees. Eligibility criteria for fee exemptions and concessions are a matter of individual State policy. All States offer concessions or exemptions to government benefit recipients, and most offer them to Indigenous students.

10 In addition to subsidised training, public VET providers also provide fee-for-service training. The cost of this training is fully cost recovered.

Commonwealth roles and responsibilities

11 The Commonwealth provides most of the funding for higher education. It also provides support for students by way of income support payments, loans and fee deferrals. Commonwealth higher education expenses are not included in the Post-secondary assessment as they do not affect States' assessed fiscal capacities.

12 In addition to general revenue assistance, the Commonwealth provides funding to the States for post-secondary education comprising the National skills and workforce development specific purpose payment (SPP) and national partnership payments (NPPs). Table 14-4 shows the Commonwealth payments to the States for post-secondary education in 2018-19.

13 The main payment is the National Skills and Workforce Development SPP which provided $1.5 billion for the States in 2018-19.

Table 14-4 Commonwealth payments to the States for Post-secondary education, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
National Skills and Workforce Development SPP ($m)	485	393	304	157	105	32	26	15	1,517
Skilling Australians Fund ($m)	94	0	0	18	20	5	5	3	146
Other ($m)	6	0	0	0	0	3	0	0	10
Total ($m)	**584**	**393**	**305**	**175**	**125**	**41**	**30**	**18**	**1,672**
Total ($pc)	**73**	**60**	**60**	**67**	**72**	**76**	**72**	**74**	**66**

Note: Commonwealth Own Purpose Expenses (COPEs), such as funding for universities, are not included.
Source: Commonwealth Final Budget Outcome, 2018-19.

14 The complete list of Commonwealth payments and their treatment is available on the Commission website (https://cgc.gov.au).[1]

Category structure

15 The assessment of the Post-secondary education category is undertaken in one component.

16 Table 14-5 shows the category's assessment structure and the disabilities that apply.

[1] Most Commonwealth payments to the States affect the grant distribution but some do not. The Commission refers to payments that affect the grant distribution as 'impact' payments. For more information, see Chapter 5 Commonwealth payments.

Table 14-5 Category structure, Post-secondary education, 2018-19

Component	Component expense	Disability	Influence measured by disability
	$m		
Post-secondary education	5,861	SDC	Recognises that for the working age population certain characteristics affect the use and cost of providing post-secondary education services, for example, Indigenous status, remoteness and SES.
		Cross-border	Recognises the cost to the ACT of providing post-secondary education to New South Wales residents.
		Wage costs	Recognises differences in wage costs between States.

Note: Regional costs are captured through the socio-demographic composition disability.
Source: Commission calculation using ABS GFS and State budget data.

Category and component expenses

17 The main data sources for calculating category and component expenses are Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.[2]

Assessment approach

18 Expenses for this category include State spending on:

- public TAFE institutes
- privately run RTOs
- university education.

19 The three disabilities assessed for post-secondary education are:

- socio-demographic composition (SDC)
- cross-border
- wage costs.

Socio-demographic composition

20 Spending by each State on post-secondary education services is affected by the size of its working age (15 to 64 years) population and the presence of those population groups that use services more intensively:

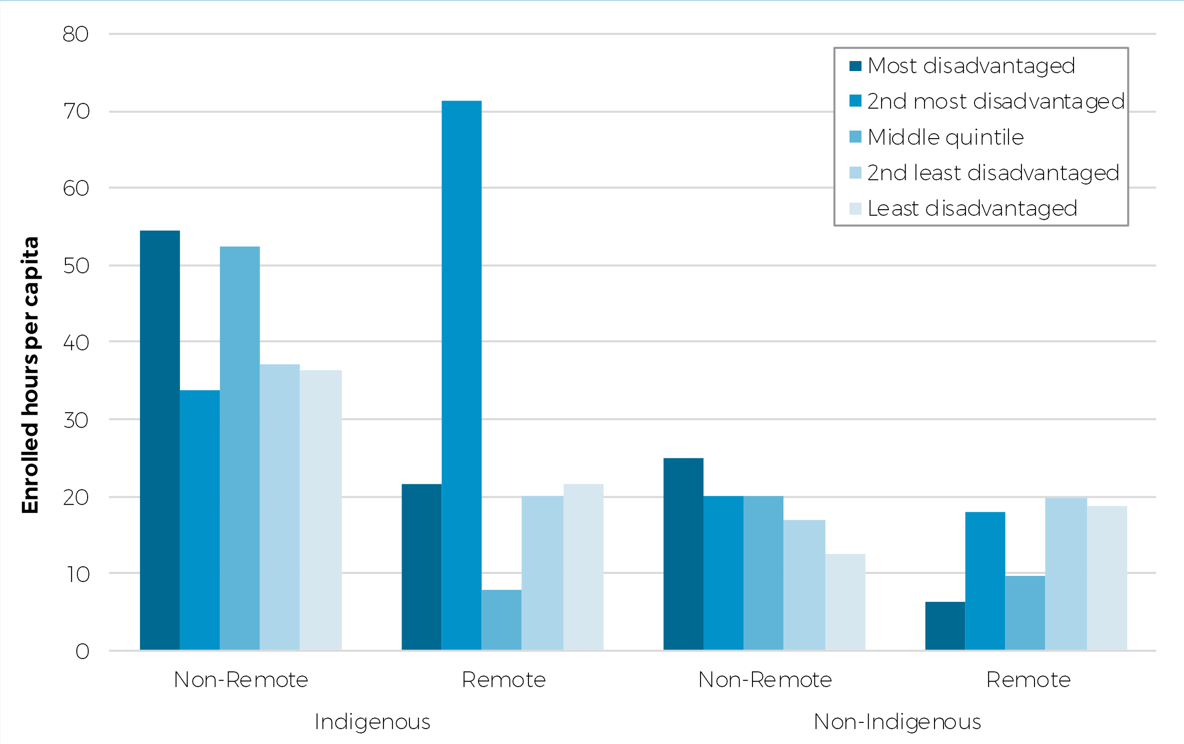
- Indigenous people
- socio-economically disadvantaged people
- people living in less remote areas.

[2] Unless otherwise stated, category and component expenses for the first two assessment years are sourced from Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS). States provide data for the most recent assessment year because GFS data are not available in time for the annual update.

21 There is a strong conceptual case that both socio-economic status (SES) and remoteness affect the use of post-secondary education services. However, data limitations[3] mean that measured patterns may not always reflect the underlying societal trends.

22 In the 2015 Review, volatility in usage patterns of VET services by SES was resolved by grouping the bottom 40%, the middle 20% and the top 40%. Non-Indigenous SES was measured using the Non-Indigenous Socio-Economic Index for Areas (NISEIFA), while Indigenous SES was measured using the Indigenous Relative Socio-Economic Outcomes (IRSEO) index. SES patterns were not evident in remote areas, and so the Commission did not disaggregate remote areas by SES. Figure 14-1 shows use patterns for the 2020 Review. Those use patterns suggest it is not appropriate to differentiate SES areas within remote areas, and that grouping of SES quintiles remains appropriate for non-remote areas.[4]

Figure 14-1 Hours of post-secondary education per capita, 2018-19



Source: Commission calculation.

23 For the non-remote Indigenous population, the groupings used in the 2015 Review would result in the non-remote middle 20% of the Indigenous population having considerably higher use than either the bottom 40% or top 40%. There is no conceptual case for this. The Commission considered that applying the groupings shown in Figure 14-2 produces the simplest and most reliable assessment of differences in use rates between different population groups.

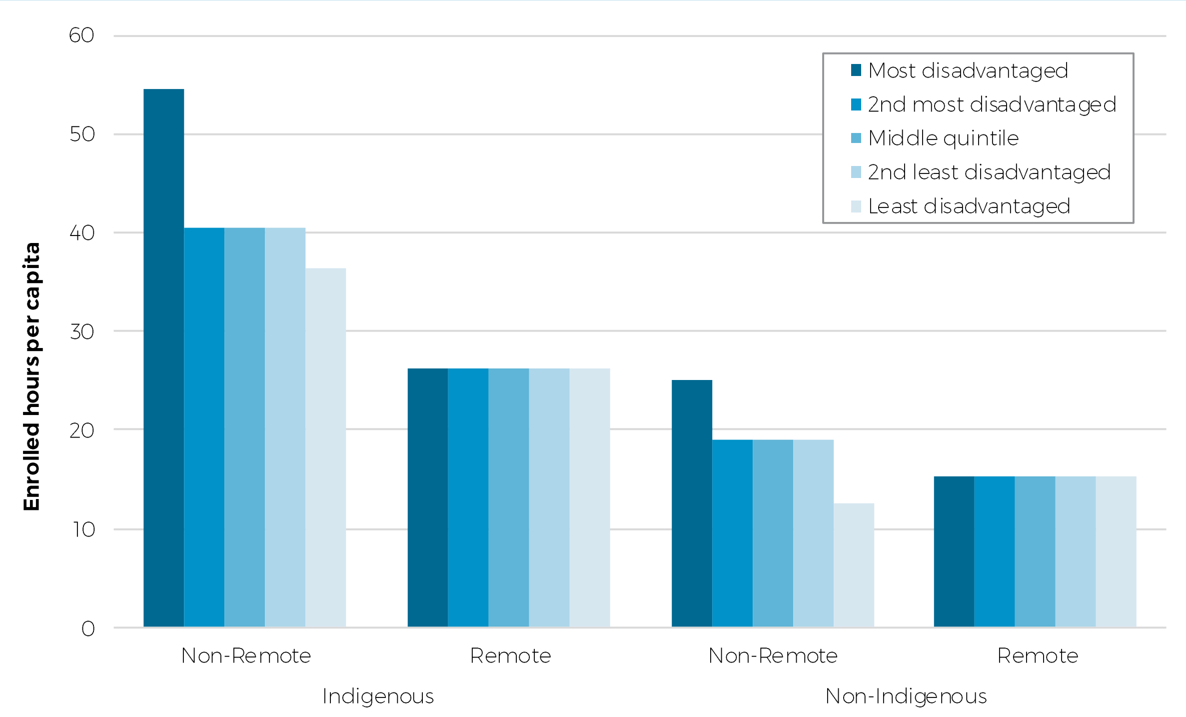
24 The groupings used in the 2015 Review were selected as being appropriate in 2015. The change to apply the grouping shown in Figure 14-2 reflects the effect of incorporating the

[3] National Centre for Vocational Education Research (NCVER) data are collected by residential postcode. Socio-economic status (SES) of postcode areas does not always accurately reflect the SES of the Statistical Area Level 1 (SA1) or Indigenous areas upon which population numbers are based.

[4] Remoteness is measured using the Accessibility/Remoteness Index of Australia (ARIA), as defined by the ABS.

2016 Census NISEIFA and IRSEO in place of the equivalent 2011 Census data. Following availability of 2021 Census data, the Commission may reconsider the appropriateness of these groupings.

Figure 14-2 Hours of post-secondary education per capita, assessment groupings, 2018-19



Source: Commission calculation.

Indigenous cost

25 The Commission observes it is more costly to deliver services to Indigenous students, as most States offer Indigenous-specific programs. For the 2015 Review, State data were used to calculate a cost weight of 1.35. This cost weight has been re-estimated for the 2020 Review. Data have been received from all States with the cost weight being revised upward, to 1.39. There has been no change in the concept underpinning this cost weight.

26 Some Indigenous programs in some States represent a proportional cost, which can interact with other cost weights (such as remoteness). However, most spending on Indigenous programs is a fixed amount that does not interact with other cost weights. The Commission has treated Indigenous funding programs as fixed amounts. This is a simpler and more appropriate approach and avoids any potential double counting.

27 Western Australia supports the use of an Indigenous cost weight but considers that States that do not provide additional funding for Indigenous students should not be included in the calculation of the average cost weight. All States have provided data, and all States have some additional funding for Indigenous programs. However, it is worth noting that the Commission considers zero additional spending to be a legitimate State response that should contribute to average policy.

28 Queensland and the Northern Territory support the re-calculation of the cost weight, with Queensland stating that the upward revision from 1.35 is reasonable. Victoria expressed concern that the revision of the cost weight may overstate the true costs of offering

Indigenous-specific programs. Other States provided no further comments on the treatment of Indigenous costs.

Remoteness cost

29 The difference in the cost of providing services to different parts of a State can affect State expenses. The Commission observes that it is more costly to deliver services to students attending remote institutes. Most States apply remoteness cost weights to the subsidies for courses delivered in regional areas. For the 2015 Review this was reflected in the assessment by applying a remoteness cost weight of 37% to remote and very remote hours.[5] The cost weight was based on the general regional costs gradient, which was based on estimates of the cost of providing school and police services in different regions.

30 For the 2020 Review, using State provided data, the Commission has developed a category specific regional cost gradient for Post-secondary education. The gradient is based on the location at which the course is provided. The regional costs are based on regional cost weights in States' funding formulae and NCVER data for hours delivered, as shown in Table 14-6.

Table 14-6 Post-secondary education regional cost weights, 2013 to 2016

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Total
Major cities	1.000	1.006	1.000	1.000	1.000	—	1.000	—	1.002
Inner regional	1.100	1.093	1.129	1.109	1.022	1.100	1.000	—	1.100
Outer regional	1.100	1.100	1.175	1.396	1.137	1.100	—	1.173	1.167
Remote	1.200	1.100	1.569	1.927	1.248	1.100	—	1.198	1.534
Very remote	1.200	—	2.036	1.979	1.370	1.100	—	1.931	1.906

Note: Tasmania and the Northern Territory cost weights are a combination of the State's cost weight and the national average of the inner and outer regional cost weights respectively.

Geelong attracts a regional weight, but is classified as part of the major cities region of Victoria. The average for major cities is therefore above 1 in Victoria.

Source: Commission calculation based on State data.

31 As the data reflect the specific effects of remoteness for post-secondary education, the Commission has used a full remoteness disaggregation in the 2020 Review. In the 2015 Review, the regional cost gradient distinguished between remote and non-remote only.

32 Northern Territory, Queensland and Western Australia supported the development of the cost gradient. Victoria noted that the data on costs relate to where the service is provided; however, the cost weights are applied to State populations. To the extent to which people commute from more remote residences to less remote VET institutions, the assessment would overstate the cost of remoteness for States. This issue is considered in Chapter 28 Geography. The Commission has not made an adjustment in this category, because the effect would be minimal.

5 In the 2015 Review, the general gradient was discounted to reflect uncertainty in the extent to which schools and police gradients applied to other services, and because differences in the service delivery models for other services meant the extent of regional influences was likely to be less than in schools or police.

Wage costs

33 Differences in wage costs between States have a differential effect on the cost of providing services. There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method see Chapter 27 Wage costs.

Cross-border services

34 A cross-border disability is included to reflect the services each State provides to residents of other States. The only material cost is the ACT's net cost of providing services to New South Wales residents. The NCVER data allow the Commission to measure this disability. In 2017, the net flow of services to residents of New South Wales represented 16% of the ACT's annual contact hours.

Data and method

35 The Commission considers that the features of SDC that drive cost differences are Indigenous status, SES, remoteness and age.

Table 14-7 SDC breakdown, Post-secondary education

Indigenous status	Socio-economic status (a)	Remoteness use	Remote costs	Age
Indigenous	Low SES (bottom quintile)	Non-remote	Major cities	15 to 64
Non-Indigenous	Middle SES (middle 60%)	Remote	Inner regional	
	High SES (top quintile)		Outer regional	
			Remote	
			Very remote	

(a) Socio-economic status (SES) is measured within non-remote areas using the Indigenous Relative Socio-Economic Outcomes (IRSEO) index for the Indigenous population and the Non-Indigenous Socio-Economic Index for Areas (NISEIFA) for the non-Indigenous population.

Source: Commission decision.

36 The NCVER provides annual data on government funded contact hours by Indigenous status and postcode for persons between 15 and 64 years of age. The Commission uses the postcode information to assign SES and remoteness characteristics to the contact hours for the working age population.

37 State provided data on the additional costs of Indigenous students and the additional costs associated with remoteness are used to calculate Australian average cost weights by Indigenous status. These cost weights are calculated from State data by combining:

- the relative cost weights for different regions
- the relative cost of Indigenous specific programs per Indigenous contact hour.

38 The Commission combines the cost weights and service use hours by the SDC breakdown to calculate a national average cost per capita for each SDC population group. The national average costs per capita are applied to each State's estimated resident population (ERP) to derive SDC assessed expenses for each population group. The aggregated SDC assessed expenses are then combined with the cross-border factors and the wage costs factors to calculate category assessed expenses.

39 Table 14-8 shows the calculation of total assessed expenses for 2018-19.

Table 14-8 Post-secondary education assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SDC assessed expenses ($m)	1,843	1,455	1,220	611	413	143	81	96	5,861
Cross -border ($m)	-14	0	0	0	0	0	14	0	0
Wage costs ($m)	10	-8	-5	10	-8	-4	2	2	0
Assessed expenses ($m)	**1,839**	**1,447**	**1,216**	**621**	**405**	**139**	**97**	**98**	**5,861**
Assessed expenses ($pc)	**229**	**222**	**241**	**238**	**233**	**262**	**229**	**399**	**233**

Note: The effects of Indigenous and remoteness costs are captured along with use of services in the SDC assessed expenses.

Source: Commission calculation.

Category calculations

40 Table 14-9 brings the assessed expenses for the category together to derive the total assessed expenses for the category by State. It shows how each disability assessment moves expenses away from an equal per capita (EPC) distribution to obtain assessed expenses.

Table 14-9 Post-secondary education assessment by disability, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$pc	**$pc**	**$pc**	**$pc**	**$pc**	**$pc**	**$pc**	**$pc**	**$pc**
Equal per capita	233	233	233	233	233	233	233	233	233
Indigenous status	1	-10	5	3	-3	9	-6	111	0
Population dispersion	-2	-3	3	1	1	19	-8	38	0
Indigenous disadvantage	0	0	0	0	0	-2	0	-2	0
Non-Indigenous disadvantage	-1	1	1	-2	11	3	-29	-17	0
Age	-1	2	-1	0	-5	5	2	26	0
Cross-border	-2	0	0	0	0	0	33	0	0
Wage costs	1	-1	-1	4	-4	-7	4	10	0
Total assessed expenses	**229**	**222**	**241**	**238**	**233**	**262**	**229**	**399**	**233**

Note: The equal per capita (EPC) and assessed expenses lines represent total spending per capita. The amounts for each disability are additive, as each disability represents the stepwise change from building the assessment.

Source: Commission calculation.

Infrastructure assessment

41 States require infrastructure to support service delivery. State infrastructure requirements are assessed in the Investment category. The main driver of investment in post-secondary education related infrastructure is growth in assessed government funded contact hours, assessed on the basis of the population by age, Indigeneity and remoteness. Cost weights for Indigenous students, remote students, and wage costs are assumed to affect the recurrent costs of post-secondary education, but not the capital requirements to support service delivery.

42 Interstate differences in construction costs are also recognised.

43 For a description of the Investment assessment, see Chapter 24 Investment.

Other issues considered by the Commission

User charges

44 In the 2015 Review, user charges were netted off, and net expenses were assessed. In this review, the Commission considered whether to change this treatment and only net off fee-for-service income, but decided to retain the 2015 Review approach for the 2020 Review.

45 Fees paid by full-fee-paying students are deducted from State expenses before making an assessment because this revenue meets State spending on non-subsidised training. As such, State provision of commercial VET services has no impact on State fiscal capacities. Removing these expenses ensures the usage (government subsidised training hours) and spending data are comparable.

46 Conceptually, there is no case for netting off fees from students participating in government subsidised training courses. States with an above average need for spending on subsidised VET services are not necessarily those with the greatest capacity to generate revenue because some of the high cost groups (Indigenous and low socio-economic status) are eligible for fee concessions or exemptions.

47 The Commission considers that the conceptually appropriate treatment for student fees and other income is EPC, as it has no basis for a differential assessment reflecting each State's capacity to raise this revenue. However, the simplest treatment is to include this income with fee for services income and net it off the category. The biggest difference between these two treatments in the 2019 Update would have increased the Northern Territory's assessed needs by $6 per capita. As this is not material, the Commission's assessment guidelines require it to choose the simpler approach, and to net off all expenses.

Course mix

48 The subsidies States provide for courses are based on a range of factors including staffing costs, equipment and facility costs, qualification level and the level of public benefit. This gives rise to different subsidies based on field of study. The mix of field of study varies between States. The Commission accepts the conceptual case that a State's industrial profile could affect the fields of study that students choose and that this could cost different amounts in different States.

49 South Australia advocated for the Commission considering a course mix disability, claiming that demand was the primary driver of course mix, and that policy differences between States would have a relatively minor effect.

50 NCVER have data on the mix of courses provided in each State. Similar patterns of enrolment occur in all States, although there are differences, with the ACT having the biggest difference from the average course mix profile. If the courses where the ACT had above average use were, for example, 70% more expensive than the courses where it had a below average use (or the below average share courses were 70% more expensive), an assessment could be material. For other States, where the use profile is closer to the national average, the difference in price would have to be greater.

51 Given the difference in cost required, it seems unlikely that a cost difference would occur that coincidentally corresponded with the course structures of any particular State. As such, it

seems unlikely an assessment would be material and so the Commission has not included a course mix adjustment in this review.

Qualification level

52 There is considerable variation in the subsidies provided for different qualification level courses (for example, certificate I, II, etc.) with lower level qualifications often attracting higher subsidies. In addition, the Commission observes that certain SDC groups are more likely to enrol in lower level qualification courses. This suggests there may be a case for including a qualification cost weight in the assessment.

53 States supported the Commission exploring differences in subsidies for different qualification levels. Victoria stated that differences in costs between qualifications would reflect differences in the contact hours required, and differences in the socio-demographic profile of students as well as differences in the cost driven by qualification level. The ACT was concerned that trade and non-trade qualifications attract different subsidies and that different subsidies for different courses could drive apparent differences in subsidies between qualification level.

54 Investigating this as a potential disability, the Commission has found no evidence of State policies of different levels of subsidy per hour for different qualification levels. Differences may exist because certain qualifications are more commonly provided to Indigenous students, or in remote areas, or because certain subjects within a qualification receive higher or lower subsidies (reflecting the cost of providing each course, or their public interest value).

55 Evidence from New South Wales suggests that the average cost of a diploma is about three times the average cost of a certificate 1, which approximately reflects the relative contact hours.

56 The Commission has not identified a data source that would enable cost weights for different qualification levels without double counting other disabilities that are assessed. Even if such a data source were identified it seems unlikely that an adjustment would be material.

Public / private provision

57 Some States provide higher subsidies to public providers than private providers of VET services, while other States do not. There may be some variation in the average subsidy paid for comparable courses between public and private providers. As some States have more private provision than others, an economic environment disability may be warranted. The Commission has not made an assessment because it considers that the differences are likely small and because the mix is policy influenced.

58 While the economic environment, or level of private provision of services, affects the Schools and Health assessments, the Commission considers that the level of policy influence on private provision in those fields is relatively minor. It considers the differences in those fields are driven by the socio-demographic drivers of demand for private schools, and decisions by the private sector on where to establish private health services.

59 In the post-secondary field, however, most differences reflect State policy decisions that encouraged or discouraged private RTOs to offer courses. If an economic environment disability were to be recognised, in addition to observing that subsidies on average were greater (or less) to private RTOs than to public RTOs, the Commission would need to be able

to determine the respective public/private RTO splits under average policy. There are no clear common policy approaches nor data upon which this split could be based.

60 In any case, the Commission has not identified any data to suggest that there are subsidy differences between private and public RTOs. All States supported this position.

Effect on the GST distribution

61 Table 14-10 shows the extent to which the assessment for this category differs from an EPC assessment of post-secondary education expenses. States with a positive redistribution are assessed to have above average spending requirements and States with a negative redistribution are assessed to have below average spending requirements. In per capita terms, the largest redistribution affects the Northern Territory.

Table 14-10 Illustrative redistribution from an EPC assessment, Post-secondary education, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	-39	-72	42	14	2	15	-3	41	114
$ per capita	-5	-11	8	5	1	27	-7	168	4

Note: The redistribution is the difference from an EPC assessment of category expenses.

Source: Commission calculation.

62 The main reasons for these redistributions are the differences between State SDC profiles. The main reasons for the redistributions for each State are listed below.

- There are redistributions away from New South Wales, Victoria, and the ACT primarily due to below average shares of remote and Indigenous students. In the case of the ACT, this is almost fully offset by the additional costs of providing VET services to New South Wales students as well as higher wage costs.
- There are redistributions towards Queensland, Western Australia and the Northern Territory, particularly due to above average shares of remote and Indigenous students. In Queensland's case, this is partially offset by lower wage costs.
- The redistribution towards South Australia and Tasmania is primarily due to their high shares of low SES people. In South Australia's case, this is almost offset by its lower than average share of working age people and its lower wage costs.

63 Table 14-11 provides a summary of the main disabilities contributing to the redistribution from an EPC assessment for this category.

Table 14-11 Major reasons for the illustrative redistribution, Post-secondary education, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Indigenous status	5	-61	26	7	-5	5	-2	26	69
Population dispersion	-21	-20	18	3	1	11	-4	12	45
Indigenous disadvantage	2	-1	-1	1	1	-1	0	-1	4
Non-Indigenous disadvantage	-10	5	8	-7	20	2	-13	-4	34
Age	-10	9	-3	2	-8	3	1	6	22
Wage costs	7	-4	-5	7	-7	-4	3	3	20
Cross-border	-13	0	0	0	0	0	13	0	13
Total	**-39**	**-72**	**42**	**14**	**2**	**15**	**-3**	**41**	**114**

Note: The redistributions from an EPC assessment are illustrative. Disabilities may not add due to rounding.

Source: Commission calculation.

Changes since the 2019 Update

64 There are a number of data and method changes since the 2019 Update as well as changes in State circumstances. Table 14-12 shows the effect of these changes.

Table 14-12 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method and data changes	-25	-15	17	2	4	12	-9	15	49
Data revisions	0	1	0	-1	0	0	0	-1	2
State circumstances	6	-3	0	-3	-2	1	1	2	9
Total	**-19**	**-17**	**17**	**-2**	**2**	**13**	**-8**	**16**	**46**

Source: Commission calculation.

Method and data changes

65 In this review, the Commission has introduced a remoteness gradient specific to post-secondary education, rather than using a general gradient. This gradient is steeper than the 2019 Update general gradient, leading to a redistribution towards States with relatively large remote populations.

66 The classification of socio-demographic groups has been changed, reflecting aggregations of SES regions with a strong conceptual basis.

Data revisions

67 NCVER data on the number of hours enrolled has been revised, with the share of Indigenous hours being revised down, resulting in a small redistribution towards Victoria and away from Western Australia and the Northern Territory.

Changes in State circumstances

68 Between 2015-16 and 2018-19, Indigenous contact hours have increased by 7%, while non-Indigenous contact hours have fallen by 14%. States with large Indigenous populations,

therefore, are assessed as having increased needs to provide post-secondary education. Changes to wage costs increased New South Wales' GST needs and decreased Western Australia's.

Updating the assessment

69 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances.

- The following data will be updated annually:
  - government funded contact hours from NCVER, and the population to which it applies
  - cross-border government funded contact hours from NCVER.
- Some of the assessment data are not readily available on an annual basis or remain stable over time. These data will not be updated during the review period.
  - Following the availability of 2021 Census data, the Commission may reconsider its groupings by socio-economic status by NISEIFA and IRSEO classifications.
  - State cost data for the Indigenous and remoteness cost weights are not planned to be updated for the life of this review.

15 Health

Summary of the assessment

The Health category covers State spending on public hospitals and community and public health services.

In assessing State spending, the Commission recognised there are differences in:

- the cost of providing public hospital and community health services to different population groups, so that States with concentrations of high cost groups (older people, Indigenous and low socio-economic status) need to spend more than the average
- the geographic dispersion of State populations, with States facing higher costs if they have greater concentrations of people in remote areas, where the costs of delivering health services are higher, people are more reliant on State-provided services and patient transport costs are higher
- the degree to which non-State health services, such as general practitioners (GPs), specialists and other private health professionals, affect State spending.

The assessment also recognises differences in wage costs between States.

There are separate assessments for admitted patients, emergency departments, non-admitted patients, community health and non-hospital patient transport, recognising that disabilities differ depending on the type of health service.

Service overview

1 State expenses on Health were $68.4 billion in 2018-19, representing 27% of total State expenses (Table 15-1). State spending on this function comprises expenses for:

- admitted patient services
- emergency departments
- non-admitted patient services
- community and public health services
- non-hospital patient transport.

Table 15-1 Health expenses by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total expenses ($m)	19,289	16,417	15,575	7,821	4,903	1,655	1,376	1,361	68,398
Total expenses ($pc)	2,400	2,515	3,084	3,001	2,813	3,114	3,251	5,543	2,718
Proportion of operating expenses (%)	22.8	27.8	30.1	27.6	30.3	30.0	25.7	21.7	26.6

Note: Expenses shown on a net basis.

Source: Commission calculation using State budget data.

2 Table 15-2 shows the share of State expenses on health from 2015-16 to 2018-19.

Table 15-2 Health expenses, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total expenses ($m)	56,553	60,240	64,249	68,398
Proportion of total expenditure (%)	26.6	26.3	26.3	26.6

Note: Expenses shown on a net basis.

Source: Commission calculation using Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

3 User charges were $8.5 billion in 2018-19 (Table 15-3) and mainly comprise private patient hospital fees. In this category, user charges are deducted from total category expenses so that the health assessment only applies to net category expenses.

Table 15-3 Health, user charges, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Revenue ($m)	2,599	2,118	1,486	757	984	197	242	122	8,505
Revenue ($pc)	323	324	294	291	565	370	572	497	338

Note: User charges refer to revenue from the sale of goods/services in GFS economic type framework (ETF) 112.

Source: Commission calculation using ABS GFS and State budget data.

State roles and responsibilities

4 States provide public hospital services (comprising admitted patients, non-admitted patients and emergency departments) and community health services.

5 States own and manage public hospitals, undertaking policy, planning, purchasing and the oversight of the delivery of public hospital services. Admitted patient services are the largest component in the Health category.

6 States are obligated to provide these services to the whole population and access depends on clinical need. This means they provide a broad range of hospital services free of charge throughout each State through a diverse range of public hospitals, in various locations, with a variety of services. For example, referral hospitals provide more complex types of hospital care, such as for major trauma and surgery, organ transplants and specialist outpatient services. These tend to be located in major cities. In contrast, smaller hospitals provide a more limited range of services and tend to be located in regional and remote areas. For more complex procedures, patients tend to present, or are referred to, larger hospitals.

7 Both Commonwealth and State governments fund public hospitals. About 23% of total hospital expenditure in Australia is funded by non-government sources (for example, by private health insurers).[1]

8 The operational management for public hospitals is devolved to a range of Local Hospital Networks (legal entities established under State legislation), which are organisations that provide public hospital services in accordance with the National Health Reform Agreement (NHRA).[2] There are consistent funding and service delivery systems for admitted patient services across all States, although the arrangements for activity-based funding differ.

[1] Australian Institute of Health and Welfare (AIHW), 2019, *Health expenditure Australia 2017-18*, cat. no. HWE 77, Table A.3.

[2] All States and the Commonwealth entered into the *National Health Reform Agreement* (NHRA) in August 2011. It sets out the shared intention of the Commonwealth and State governments to work in partnership to improve health outcomes for all Australians and ensure the sustainability of the Australian health system. A new agreement was signed in 2017.

9 Many admitted patient services provided in public hospitals are also provided by the private sector. However, the two sectors vary both in the focus of service provision and by patient characteristics. For example, private hospitals perform a higher proportion of non-emergency or sub-acute surgical activities.

10 States are also responsible for delivering community health services (the second largest component in Health), which cover a wide range of heterogeneous services including community health centre services, community mental health services, public health services, and health research.

11 Community health centres tend to focus on prevention and early intervention and are often the first point of contact with the health system. These are designed to take the pressure off the more costly acute health care system.

12 State governments directly provide and/or fund a limited range of community health services. They may provide the services directly, or fund non-government organisations to provide services on their behalf. The non-State sector (for example, general practitioners, private dentists and allied health professionals) is a major provider of community health services but the extent of non-State sector activity differs between types of services and across States.

Commonwealth roles and responsibilities

13 The Commonwealth has a central role in funding primary health service provision, mostly through Medicare. It also defrays individuals' out-of-pocket expenses through the Private Health Insurance Rebate. Some of these outlays reduce States' expenses on health. The Commonwealth also provides substantial funding for recurrent public hospital services through the successor to the NHRA, the Heads of Agreement for Public Hospitals Funding (HAPHF), which covers the period June 2017 to June 2020. This agreement preserved key features of the NHRA funding system, particularly that the Commonwealth co-funds a portion of public hospital services.

14 The Independent Hospital Pricing Authority (IHPA) calculates the National Efficient Price (NEP) and National Efficient Cost (NEC) of hospital services, which are the major determinants of the level of Commonwealth funding for public hospitals. The IHPA plays a major role in determining the level of Commonwealth funding for 290 larger hospitals that are funded based on the level of activity (or activity-based funding (ABF)) and 370 smaller hospitals (mainly small rural hospitals), which are block funded (BF). BF hospitals receive a flat amount to run their operations. To determine the Commonwealth's contribution, IHPA estimates:

- a NEP for health care services provided by public hospitals where the services are ABF
- a NEC for health care services provided by public hospitals where the services are BF.

15 Under the HAPHF, the Commonwealth has agreed to fund 45% of the growth in public hospital services expenses, with the Commonwealth's contribution capped at a growth rate of 6.5% per year from 2017 to 2020.[3]

16 In addition to providing funding for hospital operations through the NHRA, the Commonwealth provides other funding through National Partnership Payments (NPPs) to

[3] The Administrator of the National Health Funding Pool, with the support of the National Health Funding Body, is responsible for the oversight and administration of the health funding pool according to the NHRA and relevant legislation.

support hospital services including the development of health infrastructure in the States. Table 15-4 shows the main Commonwealth payments to the States for Health in 2018-19.

Table 15-4 Commonwealth payments to the States for Health, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
National Health Reform									
Hospital services ($m)	6,747	4,892	5,126	2,230	1,289	431	332	290	21,337
Public health ($m)	128	104	80	41	28	8	7	4	401
Public dental services for adults	34	27	49	10	9	3	2	1	136
Community Health, Hospitals and Infrastructure projects	16	21	8	3	37	14	1	0	101
Health and Substance Abuse program grants - Indigenous purposes	9	1	5	8	4	1	0	44	73
Health Innovation Fund	37	0	0	13	0	0	0	0	50
Other ($m)	13	21	18	9	5	6	1	27	99
Total ($m)	**6,985**	**5,066**	**5,286**	**2,315**	**1,371**	**465**	**343**	**366**	**22,197**
Total ($pc)	**869**	**776**	**1,047**	**888**	**787**	**874**	**810**	**1,491**	**882**

Note: The table shows major payments only. Commonwealth own purpose expenses (COPEs) are not included. Payments that the Commission treats as 'no impact' are included in the table.

Source: Commonwealth Final Budget Outcome, 2018-19.

17 The complete list of Commonwealth payments and their treatment is available on the Commission website, (https://cgc.gov.au).[4]

Category structure

18 The assessment of the Health category is undertaken in five components:

- admitted patient (AP) services
- emergency departments (ED)
- non-admitted patient (NAP) services
- community and public health (CH) services
- non-hospital patient transport.

19 The structure of components allow different disability assessments to apply to sub-functions.

20 Table 15-5 shows the Health category's assessment structure, the size of each component and the disabilities that the Commission applies.

[4] Most Commonwealth payments to the States affect the grant distribution but some do not. The Commission refers to payments that affect the grant distribution as 'impact' payments. For more information, see Chapter 5 Commonwealth payments.

Table 15-5 Category structure, Health 2018-19

Component	Component expense	Disability	Influence measured by disability
	$m		
Admitted patients	47,632	Socio-demographic composition — SDC (a)	Recognises that Indigenous status and low socio-economic status (SES) of State populations, age and where people live affect the use and cost of services.
		Non-State sector	Recognises the impact of the non-State sector on 15% of spending on AP services.
		Wage costs	Recognises differences in wage costs between States.
Emergency departments	4,996	SDC (a)	Recognises that Indigenous status and low SES of State populations, age and where people live affect the use and cost of services.
		Non-State sector	Recognises the impact of the non-State sector on 15% of spending on ED services.
		Wage costs	Recognises differences in wage costs between States.
Non-admitted patients	5,634	SDC (a)	Recognises that Indigenous status and low SES of State populations, age and where people live affect the use and cost of services.
		Non-State sector	Recognises the impact of the non-State sector on 30% of spending on NAP services.
		Wage costs	Recognises differences in wage costs between States.
Community and public health services	9,436	SDC (a)	Recognises that Indigenous status and low SES of State populations, age and where people live affect the use and cost of services.
		Non-State sector	Recognises the impact of the non-State sector on 60% of spending on community and public health services.
		Indigenous grants adjustment	Recognises the impact of Commonwealth grants to Indigenous community health organisations.
		Cross-border	Recognises the net cost to the ACT of providing services to NSW residents.
		Wage costs	Recognises differences in wage costs between States.
Non-hospital patient transport	701	SDC	Recognises the additional costs of providing non-hospital patient transport to people in remote regions.
		Wage costs	Recognises differences in wage costs between States.

(a) Regional and service delivery scale (SDS) costs are included in these socio-demographic composition (SDC) assessments.

Source: Commission calculation.

21 Expenses for pharmaceuticals, medical aids and appliances, and health administration not elsewhere classified are now included in the AP component. In the previous review, these had been classified with community and public health services.

22 The Commission does not agree with New South Wales' view that the Commission should combine NAP and CH. There is a clear distinction between NAP and CH services in the NHRA.[5] CH services are not eligible for NHRA funding and are not included in IHPA data for NAP, with

[5] For discussion of this issue see Independent Hospital Pricing Authority (IHPA), 2018, *National Efficient Price Determination 2019-20*, pp. 9-10.

the exception of a few services that relate to or substitute directly for inpatient admissions or ED attendance.

Category and component expenses

23 The main data sources for calculating category and component expenses are the Australian Bureau of Statistics (ABS) Government Financial Statistics (GFS) and State budget data.[6] National Hospital Cost Data Collection (NHCDC) data from IHPA are used to split GFS outpatient expenses between the NAP and emergency department components.

24 State provided data are used to determine the proportion of patient transport expenses that relate to non-hospital patient transport (for example aero-medical ambulance and patient assisted travel schemes).[7]

Direct assessment approach

25 The Commission has retained a direct method for assessing all State health expenses. This approach is consistent with the scope of equalisation and with what States do. The Commission adopted a direct method for assessing all health expenses in the 2015 Review. In the 2010 Review, the subtraction method had been introduced because of a lack of administrative data on the use and cost of State provided ED, NAP and CH services and evidence of a large and well developed non-State sector providing State-like services in these areas.[8]

26 The 2015 Review decision to move to a direct method for all health services was based on changes to the availability of data on State-provided hospital services, as well as developments in the Commission's understanding of the different usage patterns for State and non-State sector services. This resulted in a rethink of the extent to which State and non-State sector services are substitutable.

27 There are two aspects to the direct method.

- A socio-demographic composition (SDC) assessment is undertaken that directly assesses the use and cost of State provided health services. This assessment applies to State spending and assumes an average level of non-State sector activity in each State. Importantly, the SDC assessment recognises that the average level of State services is higher in remote areas due to a lower level of non-State sector activity.
- A non-State sector adjustment that recognises that the level of non-State sector activity in each State is different. The adjustment ensures that States with below average levels of non-State sector activity are able to provide the average level of services. The extent to which non-State sector activity affects State spending is determined by the proportion of State spending for which there is a substitutable non-State sector service. Substitution exists where a person has the option of accessing similar services provided by either the State or non-State sector.

6 Unless otherwise stated, category and component expenses are sourced from Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS). However, States provide data for the most recent assessment year because GFS data are not available in time for the annual update.

7 Land ambulance transport expenses are included in the admitted patients component.

8 The non-State sector includes all entities not part of the State general government sector. This includes the private sector and the Commonwealth government.

28 The Commission considers that the direct method focuses on what States do while appropriately recognising the influence of the non-State sector. It provides States with the capacity to provide the average level of health services but avoids equalising health services that States do not provide.

29 All States, except Western Australia, support the direct assessment method. Western Australia expressed various concerns with the direct approach. In particular, it disagreed with the Commission's assumptions about the response of State substitutable service provision to variations in non-State sector service provision. These views are addressed in the following section.

Influence of the non-State sector

30 State governments are not the sole providers of health services. Health services are also provided by the non-State sector. The Health assessment should recognise the influence of non-State sector services on the demand for State services.

31 As noted above, the influence of the non-State sector is recognised in two ways:

- The calculation of the SDC disability that directly assesses the use and cost of State provided services
- The calculation of a non-State sector adjustment reflecting the differences between States in the levels of non-State service provision. The scale of this adjustment is based on the proportion of State spending on services that are also provided by the non-State sector.[9]

32 The SDC assessment captures most of the effect of the non-State sector on State spending, particularly in more remote areas, while the non-State sector adjustment captures the differences in the level of non-State provision in similar regions between States.

Substitutability and views of States

33 Where a person has the option of accessing similar health services provided by either the State or non-State sector, the Commission considers this health service to be potentially substitutable. For example, childhood immunisation can be provided free of charge by either a State community health centre or a bulk billed general practitioner (GP). The availability of bulk billed GP services would likely reduce the demand for similar services provided by the State sector. The more immunisations performed by GPs, the fewer immunisations States will need to provide. The Commission regards such services as substitutable.

34 However, the Commission considers that many health services are not substitutable, including the following.

- Services that are not provided by the State sector. For example, States provide few optometry and other allied health services, so changes in the non-State sector provision of these services would have little effect on the demand for State services.
- Services that are not available in the non-State sector. For example, treatments for the most urgent and complex conditions EDs (for example, ED triage category 1) are provided predominantly in public hospitals.

[9] In the following discussion, comparable services provided by both sectors are referred to as 'substitutable services', and the proportion of State spending for which there is a comparable non-State sector services is referred to as the 'substitutability level'.

35 Identifying non-State services that affect State spending requires evidence that the availability of non-State services affects demand for State services. Considerations, including eligibility for State services and income constraints limiting access to non-State services, are highly relevant. Significant differences in the SDC profile of State and non-State service users may indicate that services are not substitutable. The relevant considerations will be different for each service area.

36 To implement the direct method, it is necessary to identify:

- the proportion of State services affected by the availability of substitutable services provided by the non-State sector, or substitutability level
- the best indicator for assessing the level of non-State sector activity in each State.

37 The substitutability level and the indicator for measuring non-State services for each component of the health assessment for the 2020 Review are summarised in Table 15-6.

Table 15-6 Substitutability levels and indicators for the 2020 Review

	Substitutability R2015	Substitutability R2020	Indicator R2015	Indicator R2020
Admitted patients	15%	15%	Private patient separations	Private patient separations
Emergency departments	15%	15%	Bulk billed GP benefits paid	Bulk billed GP benefits paid
Non-admitted patients	40%	30%	Bulk billed specialists and pathology/diagnostic imaging benefits paid	Bulk billed operations and specialists benefits paid
Community health	70%	60%	Bulk billed GP benefits paid	Bulk billed GP benefits paid

Source: Commission decision.

38 The respective sections for AP, ED, NAP and CH, in the attachment to this chapter, outline State views about the specific substitutability levels for each of these services and choice of indicator. They also outline how the Commission estimated the substitutability level for each component.

39 Western Australia expressed concerns about the Commission's overall approach to identifying the extent to which non-State sector services are substitutable for State services. It also disagreed with the choice of indicators for non-State substitutable services affecting State substitutable services. Western Australia proposed a wider scope of non-State services and a more direct, or responsive, relationship between variations in State and non-State sector health activity. Western Australia also considered that the assessment should allow for different levels of responsiveness for individual States.

40 During the review, Western Australia prepared a discussion paper setting out its views on how the health assessment should recognize non-State sector influences — *Non-State Services in the Health Category.* Western Australia said it preferred the 2010 Review subtraction method and was highly critical of the 2015 Review direct method. However, it became apparent that the choice of method was not the main issue because it is possible to obtain an equivalent outcome using both methods. Western Australia agreed that the problem was

not the method per se but how the Commission implemented the direct method.[10] Western Australia said the Commission should use a 'broadly based full equalisation approach',[11] which takes a broad view of what constitutes substitutable services and fully equalises non-State activity.

41 The key difference between the Commission and Western Australia is a constraint the Commission applies in the direct method, which limits the influence of the non-State sector to the level of State spending on relevant health services. Western Australia argued that this constraint is arbitrary and means that the Commission's implementation of the direct method is conceptually flawed. The Commission does not agree. The constraint reflects the Commission's view about the extent to which non-State sector activity influences the level of State health spending, and concerns about extending the scope of equalisation to cover services that States do not provide.

42 Dental services provide a useful example to illustrate the main point of difference. In 2017-18, total spending on dental services in Australia was $10.5 billion. The non-government sector contribution was $8.1 billion,[12] with the Commonwealth ($1.6 billion) and State governments ($0.9 billion) spending significantly less.[13] The direct method sets an upper limit of $0.9 billion on the extent to which differences in non-State sector dental services activity can influence State spending. Under Western Australia's approach, the upper limit would be determined by the level of total non-State sector spending ($8.1 billion plus $1.6 billion, or $9.6 billion).[14] The redistributions from the two approaches are very different.

43 The outcome of Western Australia's approach would be that dental services across Australia would be fully equalised through the Horizontal Fiscal Equalisation (HFE) system. In its discussion paper, Western Australia argued that it does not matter that States do not offer universal access to dental services. It argued HFE should equalise States' capacities to achieve desired health outcomes, regardless of who is providing the service. Western Australia's rationale was that not fully equalising non-State sector health services has implications for State health (including hospital) spending in the long run.

44 The Commission considers it is necessary to constrain the influence of the non-State sector to avoid equalising services that States do not provide. If it is not the average policy of States to provide universal access to dental services, then HFE should not equalise all dental services in Australia. Continuing with the dental example, if the Commission were to equalise all dental services in Australia, the health assessment would recognise differences between States in the availability of private dental services for middle and high SES adult populations.

10 See Western Australia's submission on the staff discussion paper CGC 2018-05-S.

11 See Western Australia's submission on the Health draft assessment paper, page 69.

12 Mainly contributions by individuals and health insurance funds.

13 Australian Institute of Health and Welfare (AIHW), 2019, *Health Expenditure Australia, 2017-18,* cat. no. HWE 77, Table A3.

14 The non-State sector includes all sectors other than the State sector. It includes the Commonwealth and local government and the private sector.

45 This population group is ineligible for State dental services.[15] It is not appropriate for the health assessment to compensate States for differences in non-State sector activity, in the short or long run, when it is not the average policy of States to provide these services.[16]

46 The dental example illustrates one factor limiting the extent to which non-State sector activity affects State service provision, that is, eligibility criteria restricting access to State services. In addition, high out-of-pocket costs for many non-State sector health services mean that some population groups rely entirely on State provided services. These population groups are unaffected by the availability of non-State sector services. Likewise, there are some health services that the State sector does not provide, or only provides in limited circumstances — for example, orthodontics, pharmaceuticals and some elective surgeries. These services are not considered substitutable.

47 Furthermore, the Commission considers that for some community and public health services, what States do is focus on particular services or populations. States tend to target disadvantaged population groups or those requiring culturally sensitive service delivery arrangements. In doing so, States are providing a unique service. States also tend to be major providers of particular services, for example, breast cancer screening and well-baby clinics. The non-State sector provides these services, but States have tended to be the preferred service provider. Overall, the Commission considers that the direct method avoids overstating the influence of the non-State sector on the level of State spending.

48 The Commission accepts that there are links between many State and non-State services but does not agree that most non-State services are substitutable for State services. To avoid overstating the influence of the non-State sector on State budgets, the assessment needs to focus on State services rather than non-State sector services. The notion that long run equalisation requires full equalisation of non-State sector activity is a departure from the 'what States do' principle. This is because it broadens the application of the principle to, potentially, an array of purely private and mixed goods that are well beyond States' average provision of services.

49 Western Australia's final submission on this issue focused on the key points of difference and the possible direction of future analysis. In principle, Western Australia accepted that the relevant scope of services is services that are substitutable with what States deliver. It considered that a key unresolved issue is the exact boundary between substitutable and non-substitutable services. The Commission acknowledges that the direct assessment as implemented takes a reasonably narrow view of substitutability and that in the real world the interactions between State and non-State sector services is complex. Western Australia considered that part of the reason the Commission has adopted a narrower view of substitutability relates to poor data availability. It argued that the Commission should consider the merits of a broader assessment with poorer data availability versus a narrower assessment with better data availability. Western Australia proposed engaging a health economist to examine substitutability, including how the State sector responds to changes in

[15] The policy of all States is to provide dental services to children and disadvantaged adults, generally those with a Pensioner Concession Card or Health Care Card.

[16] Western Australia's final submission in response to the Significant changes discussion paper listed the non-State sector services that it considers should be included in the assessment. It included the following items from the AIHW health expenditure publication: all unreferred medical services, community health and other, public health services, benefit paid pharmaceutical. Western Australia did not include dental services in the list.

non-State sector activity. The Commission notes this work could not be undertaken before the finalisation of this Review.

50 On a related note, Western Australia considered that what States do in responding to non-State sector variations must be determined by analysis at the level of individual States, not by analysis of what States collectively spend. This has implications for choosing a substitutability level that applies to all States. The Commission considers that a greater focus on individual States' responses would be necessary if there are significant observable differences in what States do. Evidence presented to the Commission during State visits and in submissions did not point to large differences in what States do.

51 Going forward, Western Australia has undertaken to provide the Commission with more detailed views on services that should be included in the assessment. The Commission considers that this would be more helpful than engaging in further conceptual discussions, because these discussions continue to return to the same underlying difference, which is the scope of non-State sector substitutable services. If Western Australia wishes to make the conceptual case for including additional services, it also needs to identify data that would allow the Commission to bring them into the assessment.

52 In conclusion, the extent to which the health assessment should recognise differences between States in the availability of non-State sector services, stemming from the issue of what State services are substitutable, is the key point of contention. The Commission intends to continue using the direct method with an appropriate adjustment to recognise the influence of the non-State sector. This is consistent with the 'what States do' principle and the scope of HFE. Furthermore, the Commission is satisfied with the scope of substitutable services adopted for this review, as well as the scale and direction of non-State sector influences derived using the direct method.

Admitted patients

53 Expenses for this component include State expenses on AP services in public hospitals, including land ambulance transport. It accounts for nearly 70% of State expenses, of which the majority are for acute care admissions.

Socio-demographic composition

54 The assessment recognises that the SDC of the population, including age, Indigenous status, remoteness and SES, affects the use and cost of AP services. These are outlined below.

Age

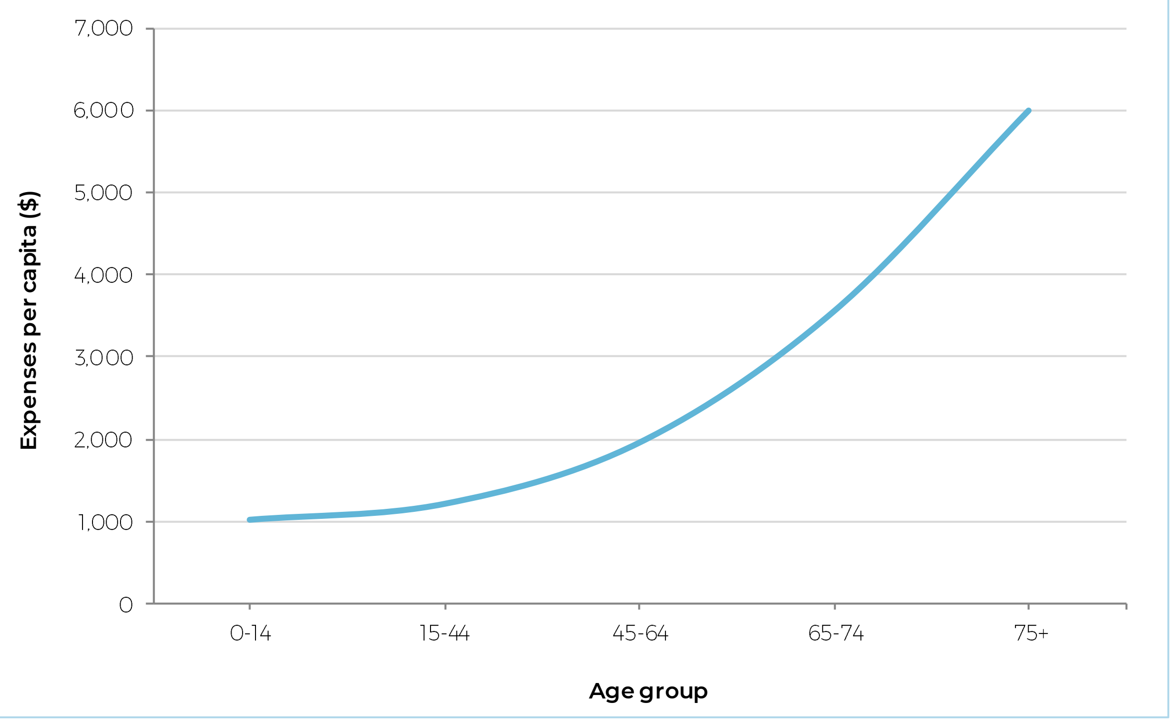
55 AP expenses vary significantly and rise sharply with age. On average, AP expenses of the 75+ age group are over three times those of the 45-64 age group (see Figure 15-1). This reflects older persons being more likely to have age-onset diseases, chronic diseases and cancers. As in the 2015 Review, five age groups are used:

- 0-14 years, capturing neo-natal and paediatric care costs and costs associated with childhood diseases
- 15-44 years, reflecting the impact of women in their child-bearing years along with higher rates of major trauma for people in their early twenties
- 45-64 years, capturing early chronic conditions and the early-onset effects of cancers
- 65-74 years, capturing chronic diseases and age-onset diseases

- 75+ years, reflecting the range of diseases of the old and very old.

56 The Commission investigated if it would be material to split the 75+ age group into 75-84 and 85+ groupings. The materiality test indicated that splitting the 75+ age group would redistribute less than $2 per capita for any State. The data showed that the relatively small number of people aged over 85 years more than offsets their higher per capita costs. The Commission retained the five age groups for the SDC assessment.

Figure 15-1 Admitted patient expenses per capita by age, 2018-19



Source: Commission calculation using Independent Hospital Pricing Authority (IHPA) National Weighted Activity Unit (NWAU), GFS expenses and population data.

Indigenous status and socio-economic status

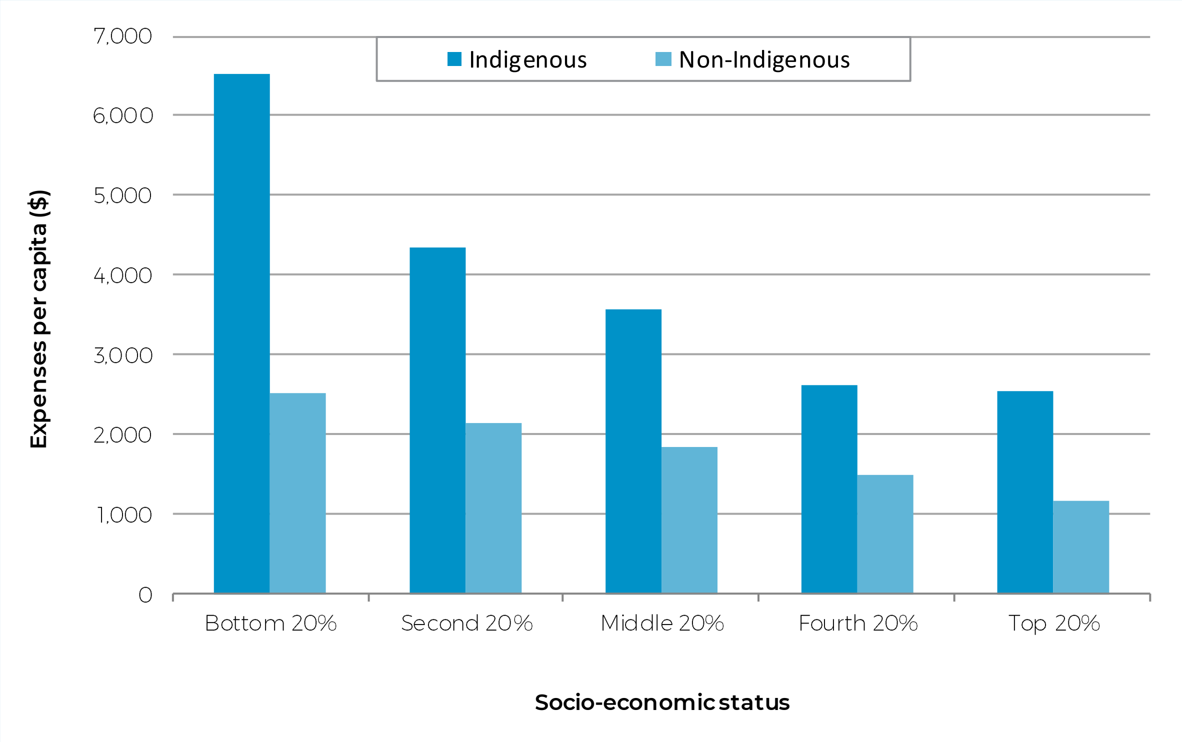
57 AP expenses vary significantly for Indigenous and non-Indigenous people. Indigenous health spending per capita in public hospitals is around twice that of non-Indigenous people, reflecting their poorer health status on average. In relation to SES, disadvantaged patients use public hospital services more than the least disadvantaged, as their health status tends to be lower. Figure 15-2 shows that spending on AP services varies substantially for Indigenous and non-Indigenous people and by SES.

58 To recognise the influence of Indigeneity and SES on AP expenses, the Commission uses separate measures of SES for Indigenous and non-Indigenous people. For Indigenous people, the Indigenous Relative Socioeconomic Outcomes (IRSEO)[17] index is used and for the rest of the population, the Non-Indigenous Socioeconomic Index for Areas (NISEIFA).[18]

[17] The Indigenous Relative Socio-Economic Outcomes (IRSEO) index was developed by the Centre for Aboriginal Economic and Population Research (CAEPR) at the Australian National University (see the CAEPR website, (http://caepr.cass.anu.edu.au/)).

[18] The ABS developed the Non-Indigenous Socio Economic Index for Areas (NISEIFA) for the Commission. This index uses the same indicators as the ABS Socio-Economic Indexes for Areas (SEIFA) Index of relative socio-economic disadvantage.

Figure 15-2 Admitted patient expenses per capita, by SES quintile and Indigenous status, 2018-19



Source: Commission calculation using IHPA NWAU, GFS expenses and population data.

Remoteness

59 Differences in the cost of providing services to different regions affect States' health expenses. For admitted patients, spending per capita is higher in more remote areas, as can be seen in Figure 15-3. This reflects a mix of remote patients having poorer health status, resulting in higher service use, and the higher costs in remote areas including that due to service delivery scale (SDS), since remote hospitals tend to be much smaller. It also reflects that the average level of non-State sector services is lower in remote areas.

60 In the 2015 Review, it was not material to split remote and very remote areas. The Commission has reviewed expenses per capita by remoteness and Indigeneity using 2018-19 data. Splitting remote and very remote is material for the Northern Territory. Figure 15-3 shows that expenses per capita are higher for people in very remote areas compared to remote areas.[19,20] For the 2020 Review, the Commission will split remote and very remote areas but will not disaggregate these remoteness groups by SES because of data unreliability.

61 To reflect the higher use and cost of hospital services in remote areas, National Weighted Activity Unit (NWAU) data sourced from IHPA are used.

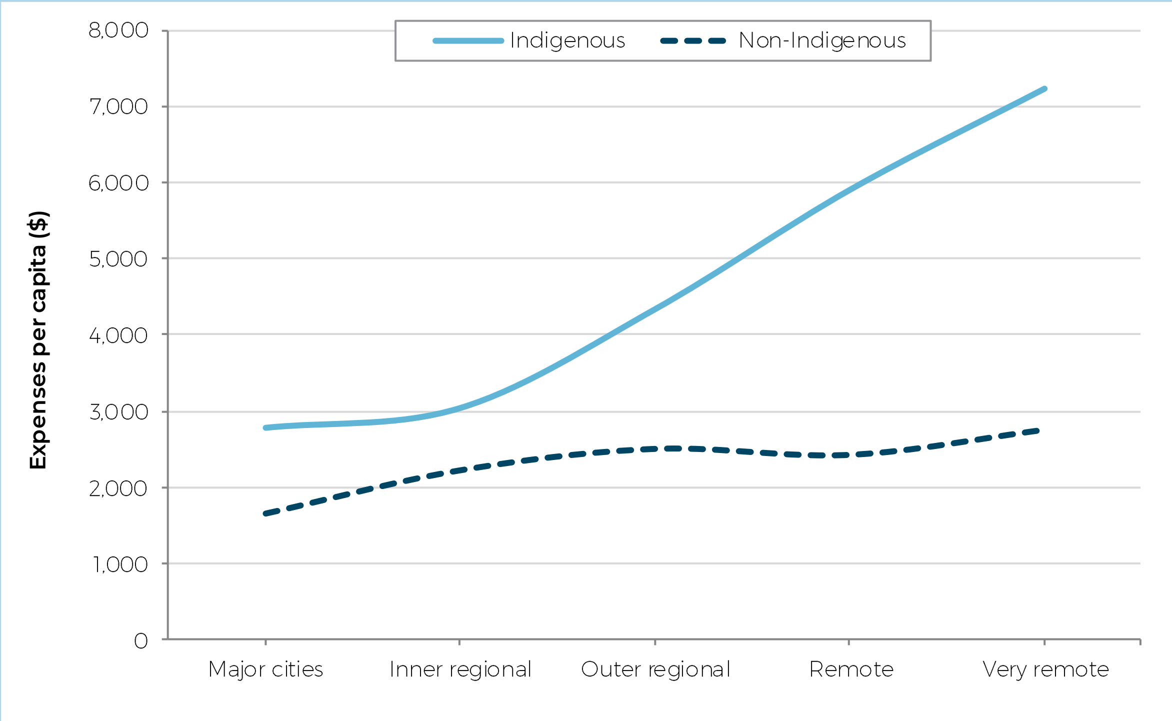
62 Table 15-7 summarises the evolution since 2015-16 of the patient and hospital adjustments embodied in the NWAU data. Until 2018-19, the AP NWAU data included a remoteness adjustment for patient's residence, to reflect the fact that more remote patients are more

[19] The upward sloping lines are apparent with and without the additional block funded adjustment.

[20] For comparison, see Figure 3 on page 182 of the Commonwealth Grants Commission, *Report on GST Revenue Sharing Relativities, 2015 Review* Volume 2 report.

expensive to service on average.[21] In 2018-19, IHPA added a new adjustment to reflect the additional costs in delivering AP services when the hospital providing the service is located in remote and very remote regions. Table 15-7 also shows the additional remoteness adjustments for other components of the health category introduced in 2019-20.

Figure 15-3 Admitted patient expenses per capita, by remoteness and Indigenous status, 2018-19



Source: Commission calculation using IHPA NWAU, GFS expenses and population data.

[21] There are a small number of cases where the hospital is unable to identify the address of the patient. In these cases, the location of the hospital is used as a proxy.

Table 15-7 IHPA patient and hospital remoteness adjustments 2015-16 to 2019-20

		2015-16	2016-17	2017-18	2018-19	2019-20
		%	%	%	%	%
AP	**By patient address**					
	Outer regional	8	8	8	8	8
	Remote	16	18	20	25	27
	Very remote	22	23	25	29	29
	By hospital address					
	Remote				8	8
	Very remote				12	10
ED	**By patient address**					
	Remote/very remote				22	24
	By hospital address					
	Remote/very remote					5

Note: In 2018-19, IHPA introduced remoteness adjustments for AP services by hospital address, and for ED services by patient address. In 2019-20, IHPA introduced remoteness adjustments for ED services by patient address.

Source: National Efficient Price Determination 2015-16 to 2019-20, Independent Health Pricing Authority. See the IHPA website

Service delivery scale

63 States face different service delivery costs in regions where the small size and dispersed nature of communities lead to above average staffing ratios. While NWAU data for ABF hospitals capture all remoteness costs for these larger hospitals, NWAU data for BF hospitals will be adjusted to capture service delivery scale costs not reflected in BF hospital NWAU data (see Box 15-1).

64 Table 15-8 shows the estimated cost of BF hospitals based on activity (ABF) and BF arrangements for 2017-18.[22] The ratio provides the basis for the SDS cost adjustments, which ensures the assessment captures SDS costs.

Table 15-8 SDS cost adjustments for block funded hospital NWAU, by hospital remoteness, 2017-18

Hospital remoteness	ABF costing (a)	BF costing (b)	BF/ABF
	$m	$m	ratio
Inner regional	442	610	1.38
Outer regional	657	950	1.45
Remote	123	197	1.60
Very remote	154	303	1.97

(a) Calculated based on the 2017-18 National Efficient Price (NEP) and average no. of NWAU by hospital size group.

(b) Calculated based on the 2017-18 National Efficient Cost (NEC) for different types of block funded (BF) hospitals.

Source: Commission calculation based on the *National Efficient Cost Determination* and *National Efficient Price Determination* for 2017-19 and IHPA unit record data on BF hospitals.

[22] The 2017-18 adjustments are used in the 2020 Review because IHPA was unable to provide the 2018-19 National Weighted Activity Unit (NWAU) data in time for the review.

Box 15-1 Measuring service delivery scale for block funded hospitals

Since the 2015 Review, the Commission has become aware that the NWAU data for BF hospitals do not reflect SDS costs for these hospitals. The Commission has conducted analysis to ensure that all remoteness and SDS costs for BF hospitals are recognised in the SDC assessments.

Under National Health Reform arrangements, the funding of ABF hospitals is based on the NEP model (including cost adjustment) and activity levels, measured by NWAU. On the other hand, the funding of BF hospitals is based on the NEC model. Block funding for small rural hospitals compensates for their lack of economies of scale, as these services would not be financially viable under ABF.

BF NWAU. The NEP calculator and NEP prices weights are used by IHPA to calculate in-scope NWAU for BF hospitals.[23] The calculated NWAU for BF hospitals by type of hospital and location are used to allocate each hospital to a hospital size group, which will determine its cost weight (and how much funding it gets) relative to the NEC. The NEC is the average cost of BF hospitals. In 2017-18, the NEC for BF hospitals was $5.406 million.

The NEC model. The table below shows the NEC cost weights for 2017-18. The efficient (or average) cost of each BF hospital is calculated by multiplying the NEC by the cost weight. For example, the estimated cost of a group E hospital in a very remote region is *$10.73 million* (NEC of $5.406 million x 1.985).

If the same type of hospital received funding on an activity basis, the estimated cost would be approximately *$6.75 million* (NEP of $4,910/NWAU x 1,375 NWAU), where $4,910 is the value of one NWAU in 2017-18. The difference between these two cost estimates mainly reflects service delivery scale costs not captured in the NWAU for BF hospitals, when calculated based on activity levels only.

NEC model for block funded hospitals, 2017-18

Hospital remoteness	Type	Hospital size group							
		Grp 0	Grp A	Grp B	Grp C	Grp D	Grp E	Grp F	Grp G
		<$0.5 Mil	<260 NWAU	<460 NWAU	<660 NWAU	<1050 NWAU	<1700 NWAU	<2500 NWAU	<=3500 NWAU
Ave NWAU (a)		na	130	360	560	855	1.375	2,100	3,000
Inner/outer regional/ remote	A	na	na	0.696	0.944	1.122	1.676	2.399	3.645
	B	na	na	0.586	0.795	0.945	1.411	2.022	3.068
	C	0.049	0.379	0.678	0.920	1.093	1.633	2.337	na
Very remote		0.104	0.482	0.684	0.878	1.212	1.985	4.708	na

(a) Mid-point of NWAU range; Commission calculation.

Note The NEC in 2017-18 was $5.406 million and the NEP was $4,910 per NWAU.

Source: IHPA, National Efficient Cost Determination 2017-18, March 2017.

This comparison shows that the NWAU for BF hospitals based on the NEP underestimates the funding that would be received under NEC funding arrangements. As the Commission allocates costs based on NWAU, it is necessary to adjust BF NWAU to ensure the assessment captures SDS costs.

[23] IHPA, *National Pricing Model Technical Specifications 2019-20*, pp. 51-52.

65 The Commission will calculate the SDS adjustment factors annually as IHPA updates its NEC and NEP models. The SDS adjustments will only apply to BF NWAU. This will address States' concerns about potential double counting. These adjustments will directly affect the AP and ED components. Similar adjustments apply in the NAP and CH assessments.

66 As the SDS adjustment is the relativity between BF and ABF costing, it is affected (indirectly) by other IHPA adjustments. In 2018-19, IHPA introduced a hospital remoteness adjustment for admitted patients, and a patient remoteness adjustment for ED in the NEP model. These are in addition to the existing AP patient remoteness adjustment. In 2019-20, an ED hospital remoteness adjustment was also introduced. All other things being equal, these adjustments would be expected to reduce the SDS cost adjustments. The Commission has calculated the SDS cost adjustments for 2018-19 and 2019-20 and as expected the adjustments, particularly in remote and very remote regions, have fallen relative to 2017-18 (see Table 15-9).

Table 15-9 SDS cost adjustments for BF hospital NWAU, by hospital remoteness, 2015-16 to 2019-20

Hospital remoteness	Inner regional	Outer regional	Remote	Very remote
2015-16	1.11	1.18	1.28	1.41
2016-17	1.21	1.27	1.38	1.62
2017-18	1.38	1.45	1.60	1.97
2018-19	1.31	1.39	1.56	1.75
2019-20	1.35	1.41	1.57	1.54

Source: Commission calculation using the 2015-16 to 2019-20 NEC and NEP determinations.

67 Several States said that applying the SDS adjustments is likely to overstate SDS influences. The ACT cautioned that calculating SDS costs based on hospital costs may overstate these costs for NAP and CH because maintenance of an ED is a major contributor to scale costs for small hospitals. However, ED costs constitute only 15% of the sum of AP and ED costs (with the proportion ranging from 14% in major city hospitals to 26% in very remote hospitals). Further, there is no evidence that the scale effects in community health centres would be less than the scale effects in small hospitals.

68 The Northern Territory said that data relating to standalone hospitals, particularly the Gove District Hospital (GDH), should be included when calculating the SDS adjustments for BF hospitals.[24]

69 The Commission acknowledges that GDH is a very high cost hospital and that the Commission's measure of need may not fully capture its unique circumstances. IHPA's approach is to exclude GDH, and other standalone hospitals, from its costings because these are extreme outliers and including them would distort the costing model. The Commission considered making a special adjustment for GDH and other outliers but found that it increased the SDS adjustment for very remote areas by 7%.

[24] Gove District Hospital (GDH) is the main health service in the East Arnhem region (a service catchment area of over 33,000 square kilometres with population of 14,500). The GDH is located in the mining township of Nhulunbuy, which is extremely isolated. The GDH's service population comprises the predominantly non-Indigenous population in Nhulunbuy and the predominantly Indigenous population in the remainder of the service catchment. Indigenous patients at the GDH were 52% of total episodes in 2018-19, but 73% of weighted activity due to their relatively higher clinical complexity. The Northern Territory said that the high fixed costs of service delivery at the GDH, including those associated with maintaining minimum staffing levels, result in a high average total cost per unit of activity.

70 The Commission considers that bringing in GDH would also distort the assessment of remote costs under average policy. There is no practical way of incorporating the special needs of GDH in the assessment other than according it special treatment. However, the Commission needs to balance its objective of policy neutrality (which is compromised when actual State costs are used in an assessment), simplicity and practicality with achieving HFE. The Commission has therefore not made any special adjustment for the GDH.

Data

71 The SDC assessment uses NWAU data cross-classified by Indigeneity, age, SES and remoteness sourced from IHPA, to recognise the impact of different SDC characteristics.

72 The NWAU data are lagged by one year because IHPA data for the final assessment year arrive too late to be incorporated in an update.[25] The Commission applies the year-specific adjustments in Table 15-9 to BF AP NWAU disaggregated by hospital remoteness. The SDC calculation uses the adjusted NWAU data.

73 Box 15-2 provides additional information on how the IHPA costs hospital activity using NWAUs.

Box 15-2 National weighted activity units (NWAU)

IHPA costs all hospital activity in Australia and expresses these costs as NWAUs. A NWAU is a measure of health service activity expressed as a common unit. The average hospital service across Australia is worth one NWAU. To identify the cost of each procedure, IHPA applies price weights and various adjustments. The result is that the most intensive, expensive and lengthy activities are worth multiple NWAUs and, the simplest and least expensive are worth fractions of an NWAU. The NWAU data reflect the medical costs of providing different procedures and other factors (for example, patient remoteness, Indigenous status and specific treatments such as radiotherapy and dialysis)[26] that affect the overall cost of each hospital service. It covers the activity of both ABF hospitals and BF hospitals, with the latter tending to be small and more remote.

Calculating SDC assessed expenses

74 The Commission considers that the features of the SDC composition that drive cost differences are Indigenous status, SES, remoteness and age. Those variables are classified as shown in Table 15-10.

Table 15-10 Proposed SDC groups

Indigenous status	SES	ABS remoteness area	Age
Indigenous	Bottom quintile	Major cities	0 to 14
Non-Indigenous	Middle 3 quintiles	Inner regional	15 to 44
	Top quintile	Outer regional	45 to 64
		Remote	65 to 74
		Very remote	75+

Note: Due to data unreliability, remote and very remote areas are not disaggregated by SES.
Source: Commission decision.

[25] This means final year IHPA data are used for the last two assessment years.
[26] See AP price formula in IHPA *National Pricing Model Technical Specifications 2018-19*, pp. 24-25.

75 The SDC assessed expenses for each State for the AP component are derived by:

- allocating the national aggregate net spending on AP to each of the population groups in Table 15-10 on the basis of the adjusted NWAU data sourced from IHPA
- dividing the total spending attributable to each population group by the national population in that group (Table 15-11 provides a sample of the national spending per capita of providing AP services to various population groups)
- multiplying national average spending per capita for each population group by the number of people in the corresponding SDC group in each State
- summing assessed spending for each population group to give total assessed spending for each State.

Table 15-11 Sample matrix of national per capita spending on non-Indigenous admitted patients, 2018-19

Geography	Age	National spending	Population	Spending
		$m	no.	$pc
1.Major cities 1.Low SES 20%	0-14	695	546,999	1,271
1.Major cities 1.Low SES 20%	15-44	1,787	1,279,766	1,396
1.Major cities 1.Low SES 20%	45-64	1,596	665,443	2,398
1.Major cities 1.Low SES 20%	65-74	1,067	260,956	4,090
1.Major cities 1.Low SES 20%	75+	1,360	250,334	5,433
1.Major cities 2.Middle SES 60%	0-14	1,851	1,920,780	964
1.Major cities 2.Middle SES 60%	15-44	4,811	4,664,812	1,031
1.Major cities 2.Middle SES 60%	45-64	4,261	2,407,433	1,770
1.Major cities 2.Middle SES 60%	65-74	2,790	827,723	3,371
1.Major cities 2.Middle SES 60%	75+	3,849	656,358	5,864
1.Major cities 3.High SES 20%	0-14	536	812,075	660
1.Major cities 3.High SES 20%	15-44	1,409	1,798,132	783
1.Major cities 3.High SES 20%	45-64	1,206	1,124,529	1,073
1.Major cities 3.High SES 20%	65-74	818	360,594	2,267
1.Major cities 3.High SES 20%	75+	1,254	239,228	5,242

Note: The sample matrix shows the per capita costs for non-Indigenous people for one remoteness region. Other regions are inner regional, outer regional, remote and very remote. The Indigenous disaggregation is the same as that for non-Indigenous people.

Source: Commission calculation using unpublished IHPA data, 2017-18, ABS ERP 2018-19 and GFS expense data for 2018-19.

Non-state sector adjustment

76 The provision of AP services by the private sector influences the level of State services. The assessment recognises the influence of the non-State sector in each State through an adjustment to SDC assessed expenses.

77 The non-State sector adjustment is derived using data on private AP services by privately insured patients sourced from the Australian Institute of Health and Welfare (AIHW) and the Australian Prudential Regulation Authority (APRA). The proportion of State expenses considered substitutable is 15% (Table 15-6). Table 15-12 shows the calculation of the non-State sector adjustment for the AP component. For more information on the adjustment including State comments, refer to Attachment 15-A.

Table 15-12 Non-State sector adjustment, admitted patients component, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Substitutable admitted patient expenses									7,145
Assessed expenses	2,344	1,900	1,361	731	503	138	142	26	7,145
Actual expenses	2,327	1,781	1,505	716	525	159	96	35	7,145
Non-State sector adjustment	**17**	**119**	**-144**	**15**	**-22**	**-20**	**45**	**-9**	**0**

Note: Substitutable expenses are 15% of AP expenses.
Source: Commission calculation.

Wage costs

78 Differences in wage costs between States have a differential effect on the cost of providing AP services. The assessment uses the general method for measuring the influence of wage costs for APs. For a description of the method, see Chapter 27 Wage costs.

Component calculations

79 Table 15-13 shows the calculation of assessed expenses for the AP component in 2018-19.

Table 15-13 Admitted patients component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SDC assessed ($m)	14,999	11,614	9,910	4,857	3,622	1,287	603	738	47,632
Non-State sector ($m)	17	119	-144	15	-22	-20	45	-9	0
Adjusted assessed ($m)	**15,016**	**11,733**	**9,766**	**4,872**	**3,600**	**1,267**	**649**	**729**	**47,632**
Wage costs factor	1.007	0.994	0.996	1.018	0.978	0.971	1.020	1.030	1.000
Assessed expenses ($m)	**15,118**	**11,663**	**9,724**	**4,963**	**3,521**	**1,231**	**662**	**751**	**47,632**
Assessed expenses ($pc)	**1,881**	**1,787**	**1,925**	**1,904**	**2,020**	**2,314**	**1,563**	**3,058**	**1,893**

Source: Commission calculation.

Emergency departments

Socio-demographic composition

80 State expenses on ED services account for about 7% of health expenses. The SDC characteristics that affect the use and cost of AP services also affect ED services. These are age, Indigenous status, remoteness and SES. The SDC breakdown for AP applies to ED.

Data

81 As with AP, the SDC assessment for ED uses adjusted NWAU data sourced from IHPA. It uses the same method as AP to calculate SDC assessed expenses. The same adjustments applied to AP to recognise SDS costs for BF hospitals are applied to ED NWAU.

82 Detailed ED activity and cost data are available for about 96% of total presentations to EDs across the country. The other 4% of presentations are for medium and small hospitals, which are mainly BF hospitals, and detailed demographic data on the use of these services are not available. To ensure that there are no urban or non-Indigenous biases in the data, ED presentations in hospitals with no demographic data, predominantly BF hospitals, were allocated the user profile of hospitals in the same remoteness region.

83 As with AP, the data are lagged by one year because IHPA data for the final assessment year arrive too late to be incorporated in an update.

Calculating SDC assessed expenses

84 The method of calculating SDC assessed expenses for ED services using adjusted NWAU data is the same as the method for AP services.

Non-state sector adjustment

85 A non-State sector adjustment is applied to ED SDC assessed expenses to recognise that the availability of bulk billed GP services affects the level of State provided services. The non-State sector adjustment is derived using Medicare data on bulk billed GP services. The proportion of State expenses considered substitutable is 15% (Table 15-6). Table 15-14 presents the calculation of the non-State sector adjustment. For more information on the assessment, including State comments, refer to Attachment 15-A.

Table 15-14 Non-State sector adjustment, ED component, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Substitutable ED expenses									749
Assessed expenses	242	194	149	76	56	16	11	6	749
Actual expenses	256	189	155	70	52	13	7	6	749
Non-State sector adjustment	**-14**	**5**	**-6**	**5**	**4**	**3**	**4**	**-1**	**0**

Note: Substitutable expenses are 15% of ED expenses.
Source: Commission calculation.

Wage costs

86 A wage costs disability is also applied.

Component calculations

87 Table 15-15 shows the calculation of assessed expenses for the ED component in 2018-19.

Table 15-15 Emergency departments component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SDC assessed ($m)	1,546	1,188	1,061	529	370	141	63	98	4,996
Non-State sector ($m)	-14	5	-6	5	4	3	4	-1	0
Adjusted assessed $m)	**1,533**	**1,193**	**1,055**	**534**	**373**	**144**	**67**	**97**	**4,996**
Wage costs factor	1.007	0.994	0.996	1.018	0.978	0.971	1.020	1.030	1.000
Assessed expenses ($m)	**1,543**	**1,186**	**1,050**	**544**	**365**	**139**	**69**	**100**	**4,996**
Assessed expenses ($pc)	**192**	**182**	**208**	**209**	**209**	**262**	**162**	**409**	**199**

Note: Table may not add up due to interactions between disabilities and rounding.

Source: Commission calculation.

Non-admitted patients

Socio-demographic composition

88 This component includes State expenses on outpatient services other than ED services. The SDC assessment recognises the influence of age, Indigenous status, remoteness and SES on service use and costs. The SDC breakdown for AP applies to NAP.

Data

89 In the 2015 Review, the Commission decided not to use IHPA's NWAU data for the SDC assessment of NAP expenses because the data were not considered reliable. The Commission used AP separations data as a proxy indicator to measure service use. The general regional cost gradient recognised the higher cost of providing services in remote areas.

90 For the 2020 Review, the Commission considers that AP separations remain the best proxy indicator of NAP services in the interim.[27] The separations data recognise the influence of age, Indigenous status, remoteness and SES on service use but not the effects of regional costs and SDS.

91 As the Commission considers that the service delivery arrangements for NAP services are similar to ED services (rather than AP), it decided to use the regional cost and SDS adjustments derived using ED NWAU to capture regional and SDS costs in the NAP assessment. Table 15-16 shows the regional and SDS cost adjustments that were applied to NAP separations in the 2020 Review. For more information on the regional cost and SDS assessments, see Chapter 28 Geography.

[27] Information from the ABS *National Health Survey – Confidentialised Unit Record Files, 2004-05* showed that nearly half of people who visited an outpatient clinic in the past two weeks had been admitted to hospital within the previous 12 months.

Table 15-16 NAP — Regional and service delivery scale cost adjustments for BF hospital separations, by patient remoteness, 2015-16 to 2018-19

Year	Patient remoteness	Regional costs	SDS	Combined effect
2015-16	Major cities	1.000	1.000	1.000
	Inner regional	1.000	1.016	1.016
	Outer regional	1.000	1.052	1.052
	Remote	1.220	1.060	1.293
	Very remote	1.220	1.190	1.452
2016-17	Major cities	1.000	1.000	1.000
	Inner regional	1.000	1.034	1.034
	Outer regional	1.000	1.093	1.093
	Remote	1.220	1.101	1.343
	Very remote	1.220	1.356	1.654
2017-18	Major cities	1.000	1.000	1.000
	Inner regional	1.000	1.043	1.043
	Outer regional	1.000	1.129	1.129
	Remote	1.220	1.163	1.419
	Very remote	1.220	1.539	1.878
2018-19	Major cities	1.000	1.000	1.000
	Inner regional	1.000	1.043	1.043
	Outer regional	1.000	1.129	1.129
	Remote	1.220	1.163	1.419
	Very remote	1.220	1.539	1.878

Source: Chapter 28 Geography, Table 3.

92 IHPA have advised that the coverage and quality of NAP NWAU data is improving and anticipates that 2018-19 NAP NWAU data are likely to be more reliable, as the coverage of episode-level data further improves and the patient-based classification system is established. However, 2018-19 data were only available in January 2020, which did not give sufficient time to assess the quality of the data and to consult with States.

93 Given this timing, the Commission has continued to use AP separations as a proxy indicator for NAP services in the 2020 Review. During 2020, the Commission will review the 2018-19 NAP NWAU data and consult with States on whether to use it in the 2021 Update and in subsequent updates.

Calculating SDC assessed expenses

94 SDC assessed expenses for each State for the NAP component are derived by:

- calculating adjusted patient separations by applying the remoteness and SDS cost adjustments in Table 15-16 to AP separations
- allocating the national aggregate net spending on NAP to each population group on the basis of adjusted patient separations
- dividing the total spending attributable to each population group by the national population in that group
- multiplying national average spending per capita for each population group by the number of people in the corresponding SDC group in each State

- summing assessed spending for each population group to give the total assessed spending for each State.

Non-state sector adjustment

95 A non-State sector adjustment is applied to NAP SDC assessed expenses to recognise that the availability of non-State services affect the level of State provided services. The non-State sector adjustment is derived using Medicare data on bulk billed operations and specialist services. The proportion of State expenses considered substitutable is 30% (Table 15-6). Table 15-17 shows the calculation of the non-State sector adjustment for NAP. More information on the assessment, including State views, is provided in Attachment 15-A.

Table 15-17 Non-State sector adjustment, NAP component, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Substitutable NAP expenses									1,690
Assessed expenses	548	437	336	168	129	38	25	10	1,690
Actual expenses	669	403	344	100	118	32	17	8	1,690
Non-State sector adjustment	**-121**	**34**	**-9**	**68**	**11**	**6**	**8**	**3**	**0**

Note: Substitutable expenses are 30% of NAP expenses.
Source: Commission calculation.

Wage costs

96 A wage costs disability is also applied.

Component calculations

97 Table 15-18 shows the calculation of assessed expenses for the NAP component in 2018-19.

Table 15-18 Non-admitted patients component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SDC assessed ($m)	1,762	1,359	1,171	588	425	146	71	110	5,634
Non-State sector ($m)	-121	34	-9	68	11	6	8	3	0
Adjusted assessed $m)	**1,641**	**1,394**	**1,162**	**656**	**436**	**152**	**79**	**113**	**5,634**
Wage costs factor	1.007	0.994	0.996	1.018	0.978	0.971	1.020	1.030	1.000
Assessed expenses ($m)	**1,652**	**1,385**	**1,157**	**668**	**426**	**148**	**81**	**116**	**5,634**
Assessed expenses ($pc)	**206**	**212**	**229**	**256**	**245**	**278**	**191**	**474**	**224**

Note: Table may not add up due to interactions between disabilities and rounding.
Source: Commission calculation.

Community and public health

Socio-demographic composition

98 This component includes a variety of community and public health services provided by States in a range of settings. The SDC assessment recognises the influence of age, Indigenous status, remoteness and SES on service use and costs. The SDC breakdown for AP applies to community and public health.

Data

99 In the 2015 Review, in the absence of reliable and comprehensive national data on community and public health services provided by States, the Commission decided to use ED NWAU for triage categories 4 and 5 as a proxy for CH services.

100 For the 2020 Review, the Commission requested State data on CH services with the aim of investigating the possibility of building a national SDC profile for these services to avoid the need to use proxy data.

101 New South Wales and Victoria supplied cost and activity data for a subset of their community and public health services. The data supplied by New South Wales and Victoria were not comprehensive enough to use in the CH assessment,[28] nevertheless it showed:

- per capita spending for Indigenous people is twice that of non-Indigenous people
- per capita spending increased with the level of remoteness although the per capita spending for each State were different
- per capita spending on high SES populations is lower than spending on more disadvantaged groups.

102 Overall, the State data showed that the population groups that are high cost for ED services are also high cost for CH services. The Commission has decided to continue using ED data as a proxy for the profile of people using CH services.

103 New South Wales queried the continued reliance on ED triage categories 4 and 5 data. The Commission considers that ED 4 and 5 episodes and CH services are similar in nature — they are less severe and less urgent episodes and have limited connection with hospital admissions. The State CH data indicate that the ED data are a reasonable proxy.[29]

Remoteness and service delivery scale

104 The CH assessment for the 2020 Review uses NWAU for ED triage categories 4 and 5 for 2014-15 to 2017-18.[30] As the ED NWAU for those years do not incorporate any remoteness adjustments, the Commission judged it appropriate to apply the 2018-19 IHPA ED patient remoteness adjustment of 22%, to each year.[31] To guard against double counting, the SDS cost adjustments to be applied will be those for the same year. Table 15-19 shows the regional costs and SDS adjustments used for the CH assessment for all years. Box 15-3 summarises the regional and SDS costs for each component of the Health assessment.

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28 For example, Victoria's data only covered services provided through community health centres. This does not cover the full range of community health services Victoria provides.

29 See the discussion below on discounting.

30 Hospital data are lagged by one year, that is, final year IHPA data are used for the last two assessment years.

31 If IHPA ED adjustments are revised in subsequent NEPs, the ED adjustments in the latest NEP will be used.

Table 15-19 Community health — Regional and SDS cost adjustments for block funded NWAU, by patient remoteness, 2018-19

Patient remoteness	Regional costs	SDS	Combined effect
Major cities	1.00	1.00	1.00
Inner regional	1.00	1.04	1.04
Outer regional	1.00	1.13	1.13
Remote	1.22	1.16	1.42
Very remote	1.22	1.54	1.88

Source: Chapter 28 Geography, Table 3.

105 New South Wales said that the SDS adjustments are not supported by available evidence, leading to double counting. These concerns are addressed in paragraphs 65 and 65.

106 ***Discounting.*** The Commission considered removing the 25% discount that was applied to the CH SDC assessment in the 2015 Review. In their submissions, Queensland, Western Australia and the Northern Territory supported removing the 25% discount on the CH SDC adjustment. New South Wales, Victoria and the ACT opposed it and other States did not comment. The ACT said that application of a discount to this element of the Health assessment is appropriate because the data being used are a proxy for actual usage data, an approach which is consistent with the CGC's approach in other assessments. It therefore considers that the discount of 25% should be maintained. Likewise, Victoria and New South Wales noted that the discount reflected concerns that remain, about how closely the socio-demographic profile of people using EDs reflects the profile of people using CH services.

107 The Commission considers that the adjusted ED 4 and 5 NWAU data are the best available indicator for CH services. However, despite new evidence indicating that ED data are a reasonable proxy for CH, concerns remain about how accurately the ED data reflect the SDC profile of people using the full range of CH services. The Commission has decided to retain a low level (12.5%) discount for the SDC assessment for CH.[32]

108 Going forward, a new classification for ED services, the Australian Emergency Care Classification (AECC), is under development,[33] which will measure the treatment, severity and complexity of ED episodes. In future, the new classification system may provide a better subset of ED episodes on which to base the CH assessment.

Calculating SDC assessed expenses

109 The method of calculating SDC assessed expenses for CH services using adjusted ED NWAU data is the same as the method for ED services.

[32] For further information about discounting and its effects in this review, see Chapter 3 of Volume 2.

[33] It will be used to price ED services from 2019-20, according to IHPA's *Three Year Data Plan 2018-19 to 2020-21*.

Box 15-3 Regional and SDS costs for each component of the Health assessment

The table summarises the regional and SDS costs for each component of the Health assessment.

Component	Indicator	Regional costs	Service delivery scale
Admitted patients	AP NWAU	No adjustment	Table 15-9 adjustment
Emergency departments	ED NWAU	No adjustment	Table 15-9 adjustment
Non-admitted patients	Proxy – AP separations	Regional cost adjustment from ED general gradient	SDS cost adjustment from ED general gradient
Community health	Proxy – ED triage 4/5 NWAU	Latest year regional cost adjustment from ED general gradient	Latest year SDS cost adjustment from ED general gradient

SDS cost adjustments will be calculated annually and will only apply to activity in BF hospitals.

- For AP and ED, only SDS cost adjustments will be applied to BF NWAU.
- For NAP, the regional and SDS costs adjustments based on ED data will be applied (see Table 15-16).
- For CH:
  - for 2014-15 to 2018-19 the regional and SDS cost adjustments will be based on the latest year ED data (see Table 15-19)
  - for subsequent years, as ED data with remoteness adjustments enter the assessment years, the Commission will only apply the SDS adjustment.

Non-state sector adjustment

110 A non-State sector adjustment is applied to SDC assessed expenses to recognise that the availability of GPs affects the level of State spending on community and public health services. The non-State sector adjustment is derived using Medicare data on bulk billed GP services. The proportion of State expenses considered substitutable is 60% (Table 15-6). Table 15-20 shows the calculation of the non-State sector adjustment for CH. More information on the assessment, including State views is provided in Attachment 15-A.

111 In the 2015 Review, a 25% discount was applied to the non-State sector adjustment in the CH assessment. The Commission said in the draft report that it intended to remove the discount.

Table 15-20 Non-State sector adjustment, community health component, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Substitutable community health expenses									5,662
Assessed expenses	1,828	1,466	1,128	572	421	119	85	43	5,662
Actual expenses	1,932	1,427	1,173	531	394	99	56	49	5,662
Non-State sector adjustment	**-104**	**39**	**-46**	**41**	**27**	**20**	**30**	**-6**	**0**

Note: Substitutable expenses are 60% of CH expenses.

Source: Commission calculation.

112 Several States raised concerns about removing the discount on the CH non-State sector adjustment. Further analysis for this review indicated that many State CH services are similar to those provided by GPs. If other indicators were available for the non-State sector assessment (for example, cancer screening or specialist drug and alcohol programs), these would receive a very small weight compared to GP services. The Commission has decided to discontinue discounting the non-State sector adjustment for CH because the indicator represents the bulk of substitutable services and the data are reliable.

Grants for Indigenous community health organisations

113 A second non-State sector adjustment is included in the CH component to recognise that the availability of Commonwealth funding through the Indigenous Australians' Health Program (IAHP) for health services provided by Aboriginal Community Controlled Health Services (ACCHS) affects what States need to spend. ACCHS provide clinical care and health education, promotion, screening, immunisation and counselling, as well as specific programs such as hearing health, sexual health, substance use and mental health. If a State's share of the total IAHP grants (hereinafter referred to as Indigenous grants) is higher than its assessed share of grants, then it would be assessed as needing less GST compared to the other States.

Calculating the non-State sector adjustment

114 The SDC assessment of IAHP grants uses data from AIHW on fulltime equivalent (FTE) staff in ACCHS, cross-classified by remoteness and SES. IHPA's ED remoteness adjustment of 22% is applied to the AIHW data to recognise the higher costs of service provision in remote areas, which are not captured in the AIHW data. SDS influences are captured in the AIHW FTE staff data, so no additional SDS adjustment is necessary. This non-State sector adjustment is calculated as the difference between SDC assessed Indigenous grants and actual grants. Table 15-21 shows the calculation for 2018-19.

Table 15-21 Non-State sector adjustment, Indigenous grants, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Grants for Indigenous community health organisations									684
Assessed expenses	172	37	190	106	29	24	7	119	684
Actual expenses	145	52	153	104	45	12	12	160	684
Non-State sector adjustment	**27**	**-16**	**37**	**2**	**-16**	**12**	**-5**	**-41**	**0**

Source: Commission calculation

115 The Northern Territory considers that the primary purpose of the IAHP is to expand service provision for Indigenous Australians and to deliver comprehensive, culturally specific care, not to replace or reduce State government services. The additional funding aims to close the gap in health outcomes, or address unmet need, which is greatest in remote and very remote areas. Within this context, the Northern Territory said that the non-State sector adjustment for Indigenous grants should be removed.

116 The Commission accepts that there is a level of unmet need in small, remote Indigenous communities in all States, and that the Commonwealth and States are working to increase the level of services in these communities. However, ACCHS offer similar services to State community health centres. If a Commonwealth funded ACCHS is located in a community, a State is unlikely to provide its own service in the same location. As such, a State receiving relatively more Commonwealth IAHP funding will need to spend less to provide the average level of State services in that location. The Commission considers that Commonwealth funded ACCHS services are substitutable for State services rather than complementary.

Cross-border

117 In the 2015 Review, the use of ACT CH services by New South Wales residents was estimated at 7–10% of services, based on CH data.[34]

118 Since the data the ACT has provided to support its cross-border claim in the 2020 Review was not comprehensive, the Commission decided to reduce the allowance to 4% of services or $7.2 million in 2018-19. The amount will be indexed annually using the State and local government final consumption deflator. A cross-border factor has been included in the assessment to reflect this level of cross-border use.

119 In addition, for simplicity, a further allowance ($320,000 in 2018-19) has been included in the CH component for cross-border use that relates to homelessness services (see Chapter 16 Welfare).

Wage costs

120 A wage costs disability is also applied.

Component calculations

121 Table 15-22 shows the calculation of assessed expenses for the community and public health component in 2018-19.

Table 15-22 Community and public health component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SDC assessed ($m)	2,844	2,179	2,042	1,044	685	281	119	243	9,436
Non-State sector ($m)	-104	39	-46	41	27	20	30	-6	0
Indigenous grants ($m)	27	-16	37	2	-16	12	-5	-41	0
Cross-border expenses	-8	0	0	0	0	0	8	0	0
Adjusted assessed ($m)	**2,760**	**2,202**	**2,032**	**1,087**	**696**	**313**	**151**	**196**	**9,436**
Wage costs factor	1.007	0.994	0.996	1.018	0.978	0.971	1.020	1.030	1.000
Assessed expenses ($m)	**2,778**	**2,188**	**2,023**	**1,107**	**681**	**304**	**154**	**202**	**9,436**
Assessed expenses ($pc)	**346**	**335**	**401**	**425**	**390**	**572**	**364**	**821**	**375**

Note: Table may not add up due to interactions between disabilities and rounding.
Source: Commission calculation.

Non-hospital patient transport

122 Patient transport expenses comprise:

- land ambulance
- aero-medical ambulance, including the Royal Flying Doctor Service
- Patient Assisted Travel/Transport Scheme (PATS).

[34] In the 2015 Review, data provided by the ACT showed that, on a net basis, approximately 7-10% of ACT community health services are used by New South Wales residents.

123 Land ambulance expenses are included in the AP component because the disabilities that influence land ambulance expenses are similar to the disabilities that influence hospital-based services.

124 On the other hand, aero-medical services and PATS costs are provided disproportionately to people in remote and very remote regions.

Socio-demographic composition

125 State provided data indicate that costs related to aero-medical services and PATS totalled $653 million in 2018-19. This represents around 23% of the total net patient transport costs in GFS. This proportion has been relatively stable, having been at the same level for the previous review period.

126 State data indicate that aero-medical services and PATS costs are disproportionately provided to people in remote and very remote regions. The updated remoteness cost weights derived from State provided data for this review are summarised in Table 15-23.

Table 15-23 Remoteness cost weights for the non-hospital patient transport component

Remoteness area	Per capita cost weight
Major cities, inner regional and outer regional	1
Remote	12
Very remote	35

Source: Commission decision.

127 Previously, the assessment used a single remoteness weight for remote and very remote communities. In this review, separate weights apply to remote and very remote locations to better reflect cost differences of different regions. This responds to concerns raised by the Northern Territory.

128 The cost weights are applied to the population in each State, and total spending is then apportioned based on each State's share of the weighted population.

129 On the grounds of simplicity, the proportion of non-hospital patient transport costs compared with GFS net patient transport costs (23%) and the remoteness cost weights, will be fixed for the duration of the 2020 Review.

Wage costs

130 A wage costs disability is also applied.

Component calculations

131 Table 15-24 shows the calculation of assessed expenses for the non-hospital patient transport component in 2018-19.

Table 15-24 Non-hospital patient transport component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SDC assessed ($m)	171	131	154	118	54	14	8	50	701
Wage costs factor	1.007	0.994	0.996	1.018	0.978	0.971	1.020	1.030	1.000
Assessed expenses ($m)	**172**	**130**	**153**	**120**	**53**	**14**	**9**	**51**	**701**
Assessed expenses ($pc)	**21**	**20**	**30**	**46**	**30**	**26**	**20**	**207**	**28**

Source: Commission calculation.

Category calculations

132 Table 15-25 brings the assessed expenses for each component together to derive total assessed expenses for each State for the category. It shows at the component level how each disability assessment moves expenses away from an equal per capita (EPC) distribution to obtain assessed expenses.

Table 15-25 Health category assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ave
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Admitted patients									
EPC	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893	1,893
SDC	-27	-113	69	-29	185	529	-468	1,114	0
Non-State sector	2	18	-29	6	-13	-38	107	-38	0
Wage costs	13	-11	-8	35	-45	-69	31	90	0
Assessed expenses	**1,881**	**1,787**	**1,925**	**1,904**	**2,020**	**2,314**	**1,563**	**3,058**	**1,893**
Emergency depts.									
EPC	199	199	199	199	199	199	199	199	199
SDC	-6	-17	11	4	14	66	-49	202	0
Non-State sector	-2	1	-1	2	2	5	9	-3	0
Wage costs	1	-1	-1	4	-5	-8	3	12	0
Assessed expenses	**192**	**182**	**208**	**209**	**209**	**262**	**162**	**409**	**199**
Non-admitted									
EPC	224	224	224	224	224	224	224	224	224
SDC	-5	-16	8	2	20	51	-55	226	0
Non-State sector	-15	5	-2	26	6	12	19	11	0
Wage costs	1	-1	-1	5	-6	-8	4	14	0
Assessed expenses	**206**	**212**	**229**	**256**	**245**	**278**	**191**	**474**	**224**
Community health									
EPC	375	375	375	375	375	375	375	375	375
SDC	-21	-41	29	26	18	154	-95	614	0
Non-State sector	-13	6	-9	16	15	38	71	-24	0
Indigenous grants	3	-2	7	1	-9	23	-12	-168	0
Cross-border	-1	0	0	0	0	0	18	0	
Wage costs	2	-2	-2	8	-9	-17	7	24	0
Assessed expenses	**346**	**335**	**401**	**425**	**390**	**572**	**364**	**821**	**375**
Non-hospital patient transport									
EPC	28	28	28	28	28	28	28	28	28
SDC	-7	-8	3	17	3	-1	-8	174	0
Wage costs	0	0	0	1	-1	-1	0	5	0
Assessed expenses	**21**	**20**	**30**	**46**	**30**	**26**	**20**	**207**	**28**
Total assessed expenses	**2,645**	**2,536**	**2,793**	**2,840**	**2,895**	**3,453**	**2,300**	**4,970**	**2,718**

Note: The EPC and assessed expenses lines represent total spending per capita. The amounts for each disability are additive, as each disability represents the stepwise change from building the assessment.

Source: Commission calculation.

Infrastructure assessment

133 States require infrastructure to support service delivery. State infrastructure requirements are assessed in the Investment category. The main driver of investment in health related infrastructure is growth in the service population, which is measured in the same way as for

recurrent costs. Cost weights for remote treatment, which are measured separately for NAP and CH, are excluded.

134 The cross-border adjustment to Commonwealth hospital funding and the Cross Border Service Agreement between the ACT and New South Wales includes no allowance for cross-border capital costs. Using NWAU data from the Administrator of the National Health Funding Pool, the Commission calculated a cross-border capital stock factor for the Investment assessment and found the assessment to be material for the ACT. A cross-border capital stock factor has been included in the assessment to reflect this level of cross-border use. Interstate differences in construction costs are also recognised.

135 For a full description of the investment assessment, see Chapter 24 Investment.

Other issues considered by the Commission

Fly in/fly out workers

136 Western Australia's submission raised the issue of fly in/fly out (FIFO) workers, and their influence on the demand for health, especially mental health services – Western Australia's view was that the FIFO workers affected were in both remote locations and in urban areas. Western Australia said that the Commission should weight FIFO workers as low SES, to reflect these additional costs.

137 A key problem regarding Western Australia's proposal is that there are no service use data for FIFO workers, nor information about their SES status. Any adjustment would require significant judgment with little or no data to guide that judgment. Given these concerns, the Commission has not assessed additional needs for FIFO workers in the 2020 Review.

Payments for health services for Medicare-type services

138 State governments can claim Medicare revenue for primary health services under exemptions to Section 19(2) of the relevant Commonwealth Act. This initiative was designed to expand access to primary care in rural and remote areas beyond existing services provided by State governments.

139 Although all States are eligible to participate, only half the States have taken up the initiative (the Northern Territory, New South Wales, Queensland and Western Australia). Participating jurisdictions receive Medicare revenue, and this reduces their net health costs.

140 The Northern Territory indicated that States who do not participate in the Section 19(2) initiative are at an advantage (as their assessed non-State sector activity will be lower) and asked the Commission to investigate this issue. The Commission considers that Section 19(2) enables cost shifting from the States to the Commonwealth. Participating States spend less on GP type services, as the Commonwealth pays for the GP services through Medicare. The Medicare revenue the State receives is classified as a Commonwealth own purpose expense in State financial statements, and it is assessed on an EPC basis in the Other revenue category. Therefore, the effect of these Medicare payments is only recognised once through the non-State sector adjustment. There is no double counting as the Northern Territory suggested.

Effect on the GST distribution

141 Table 15-26 shows the extent to which the assessment for this category moves the distribution of GST away from an EPC distribution. States with a positive redistribution are assessed to have above average spending requirements and States with a negative redistribution are assessed to have below average spending requirements. In per capita terms, Tasmania, the ACT and the Northern Territory experience the largest redistributions.

Table 15-26 Illustrative redistribution from an EPC assessment, Health, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	-562	-1,089	318	286	306	363	-154	532	1,804
$ per capita	-68	-159	61	108	172	666	-349	2,162	69

Note: The redistribution is the difference from an EPC distribution of GST in 2020-21.

Source: Commission calculation.

142 Table 15-27 provides a summary of the main disabilities contributing to the redistribution from an EPC assessment for this category.

143 The main reasons for these redistributions in per capita terms are differences between States in population groups that are high or costly users of health services, which the SDC assessments capture. The SDC assessments for the APs and CH components contribute most to the redistribution. Differences between States in the provision of services provided by the non-State sector and differences in wage costs have a significant, but much smaller, effect on redistributions.

144 The main reasons for the redistributions for each State are:

- New South Wales has a lower than average proportion of people living in remote areas and higher than average levels of non-State sector provision of health services. This is partially offset by its higher than average wage costs.
- Victoria has a lower than average proportion of Indigenous people, and people living in remote and very remote areas. This is partially offset by lower than average levels of non-State health services.
- Both Queensland and Western Australia have higher than average proportions of Indigenous people and people living in remote and very remote areas. For Queensland, this is partially offset by higher than average provision of non-State sector health services. Western Australia has lower than average provision of non-State sector health services.
- South Australia and Tasmania have above average shares of low SES population groups and older populations. Tasmania also has higher than average proportions of Indigenous people and people living in regional areas. In both States, this is partially offset by lower than average wage costs.
- The ACT has lower than average shares of older people, Indigenous people, low SES and remote populations. This is partially offset by a lower than average provision of non-State health services and higher than average wage costs.
- The Northern Territory has the highest proportion of Indigenous people and those residing in remote and very remote areas. This is partially offset by higher than average provision of non-State sector health services, including those provided by ACCHS.

Table 15-27 Major reasons for the illustrative redistribution, Health, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
SDC									
Age	244	-89	-187	-93	205	4	-22	-61	452
Indigeneity	44	-529	226	62	-45	41	-20	222	595
Indigenous SES	39	-22	-10	28	19	-26	-1	-27	86
Non-Indigenous SES	-43	30	73	-77	205	44	-104	-128	352
Remoteness (a)	-746	-611	482	112	18	346	-135	534	1,492
Total SDC	**-462**	**-1,221**	**583**	**32**	**401**	**409**	**-282**	**540**	**1,965**
Non-State sector	-197	175	-197	155	6	20	84	-46	441
Wage costs	105	-43	-68	100	-102	-66	36	38	279
Cross-border	-8	0	0	0	0	0	8	0	8
Total	**-562**	**-1,089**	**318**	**286**	**306**	**363**	**-154**	**532**	**1,804**

Note: The redistributions from an EPC assessment are illustrative. Disabilities may not add up due to rounding.
(a) Includes regional costs and service delivery scale.
Source: Commission calculation.

Changes since the 2019 Update

145 Table 15-28 breaks down the total change in the GST distribution since the 2019 Update that is attributable to the Health category. It shows the effects of data revisions, category specific method and data changes, and changes in State circumstances.

Table 15-28 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method and data changes	-79	-64	36	50	4	4	-30	79	172
Data revisions	0	-9	21	-12	5	8	-6	-8	35
State circumstances	-14	-60	42	-29	11	33	-15	33	118
Total	**-93**	**-132**	**99**	**10**	**20**	**45**	**-51**	**103**	**276**

Source: Commission calculation.

Method and data changes

146 The dominant reason for changes since the 2019 Update is method and data changes.

Remoteness and SDS costs

147 While NWAU data for ABF hospitals capture all remoteness costs for these hospitals, the data for BF hospitals are adjusted to capture SDS costs not reflected in the data. This affects all components except non-hospital patient transport.

Discounts in community health

148 The 25% discount applied to the SDC assessment was reduced to 12.5%. The corresponding discount applied to the non-State sector adjustment for CH was removed.

Indigenous grants

149 The assessment of Indigenous grants uses AIHW data.

Disaggregation of remoteness areas

150 The SDC assessments for all components disaggregate remote and very remote populations.

Cross-border costs for community health

151 The ACT's cross-border allowance for CH has been reduced.

152 A cross-border capital stock factor has been included in the health infrastructure assessment.

The allocation of category expenses across the components

153 Annual expenditure data for ED and NAP services from the National Hospital Cost Data Collection have been used to split outpatient expenses. This replaces the previous 50:50 split.

154 Expenses for pharmaceuticals, medical aids and appliances and health administration not elsewhere classified are included in the AP component. Previously these were included in the CH component.

Non-State sector substitutability

155 The non-State sector substitutability levels for NAP and CH were reduced to 30% and 60% respectively.

156 The non-State sector indicator for NAP is now based on bulk billed benefits paid for specialist attendances and operations. The data have been updated based on 2016 geography.

Non-hospital patient transport

157 The remoteness groups have been revised to split remote and very remote areas.

Data revisions

158 Data revisions redistributed $35 million and were mainly due to minor revisions to GFS estimates of State spending by component. Other revisions occurred when the first two years were based on the same year's data (Medicare data).

Changes in State circumstances

159 Changes in State circumstances redistributed $118 million. Between 2015-16 and 2018-19, health expenses in increased in regional and remote areas, including Queensland, Western Australia, South Australia, Tasmania and the Northern Territory. Lower wages offset this effect in Queensland, Western Australia, South Australia. The net effect was a redistribution of GST to States with above average needs, and away from other States.

Updating the assessment

160 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances.

- The following data will be updated annually:
  - estimated resident population data

  - IHPA NWAU data on hospital spending by different population groups but with a lag, which means that the Commission will use the same data for the last two assessment years
  - AIHW and APRA data on private AP services
  - Medicare data on bulk billed services
  - AIHW data on Indigenous grants.
- Some of the assessment data are not readily available on an annual basis or remain stable over time. These data will not be updated:
  - ACT cross-border allowance for CH
  - State data on the proportion of aero-medical and PATS to patient transport costs and the patient transport remoteness cost weights.

Attachment 15-A: Non-State sector influences

1 Chapter 15 outlines the Commission's approach to the Health assessment and summarises its decisions on substitutability levels and indicators for recognising the influence of the non-State sector on States health expenses. This attachment describes the data and method supporting the substitutability levels for each component of the Health category and choice of indicators for non-State sector activity, and responds to State views on these issues. It should be read in conjunction with Chapter 15 Health.

Background

2 State governments are not the sole providers of health services. Health services are also provided by the non-State (largely private) sector. The Health assessment recognises the impact of non-State sector services on the demand for State services.

3 The influence of the non-State sector is recognised in two ways.

- The calculation of the socio-demographic composition (SDC) disability reflects the fact that there are lower levels of private health services as remoteness increases, which leads to an increased use of similar State services in more remote areas. This increased use is observed in the national use and cost data for each component.
- The calculation of a non-State sector adjustment reflects the different levels of private provision in similar regions between States. The scale of this adjustment is based on the proportion of State spending on services that are also provided by the non-State sector. Comparable services provided by both sectors are referred to as 'substitutable services', and the proportion of State spending for which there is a comparable non-State sector services is referred to as the 'substitutability level'.

4 The SDC assessment captures most of the effect of the non-State sector on State spending, particularly in more remote areas, while the non-State sector adjustment captures the marginal differences in the level of private provision in similar regions between States (Table A15-1).

Table A15-1 Comparison of SDC assessment and non-State sector adjustment, Health category, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
SDC assessments	2,631	2,503	2,808	2,693	2,927	3,490	2,023	4,845	2,690
Non-State sector adjustments	-24	28	-33	50	2	39	194	-222	0

Source: Commission calculation.

Substitutability levels and indicators

5 Table A15-2 summarises the substitutability level and the indicator for measuring non-State services for each component of the health assessment in the 2020 Review. The following sections set out the approach for determining substitutability levels and decisions on the indicators for each component.

Table A15-2 Proposed substitutability levels and indicators for the 2020 Review

	Substitutability R2015	Substitutability R2020	Indicator R2015	Indicator R2020
Admitted patients	15%	15%	Private patient separations	Private patient separations
Emergency departments	15%	15%	Bulk billed GP benefits paid	Bulk billed GP benefits paid
Non-admitted patients	40%	30%	Bulk billed specialist and diagnostic services benefits paid	Bulk billed operations and specialist services benefits paid
Community health	70%	60%	Bulk billed GP benefits paid	Bulk billed GP benefits paid

Source: Commission decision.

Admitted patients

6 There is a strong conceptual case that some admitted patient (AP) services provided in the non-State sector influence the number of similar services that States need to provide. For example, the availability of private childbirth services would affect the level of State service provision. However, many AP services would not be regarded as substitutable, including most emergency procedures and expensive surgical procedures for uninsured patients.

7 In the 2015 Review, the Commission adopted a substitutability level of 15% for APs. This reflected the proportion of non-emergency[1] public hospital patients with private health insurance that could have attended a private hospital.

Substitutability level

8 The main factors influencing the level of substitutability are differences in the type of AP activity in each sector and the level of privately insured patients with hospital coverage.

9 Based on these two factors, the potential substitutability level for AP services is estimated at between 23% and 28%.

- Both public and private hospitals provide non-emergency AP services, but private hospitals provide only limited emergency-type admitted services. Therefore, non-emergency admitted services and a small portion of emergency-type AP services, which is about 50-60% of total public AP separations, are regarded as potentially substitutable.[2]
- At the national level, the proportion of people with private health insurance hospital cover is around 46%.[3] A person without private health insurance will rarely attend a private hospital, regardless of the availability of private health services in their State.
- Therefore, the approximate upper level of potential substitutability would be 50-60% * 46% = 23-28%.

[1] This is not a reference to emergency department patients. It distinguishes between emergency and non-emergency AP procedures.

[2] AIHW, 2017, *Admitted Patient Care 2016-17: Australian Hospital Statistics*. Staff calculation using Table 4.4. About 50% public hospital AP services are non-emergency type services.

[3] Australian Prudential Regulation Authority (APRA), Private Health Insurance Statistical Trends (https://www.apra.gov.au/publications/private-health-insurance-statistical-trends), [accessed November 2018]. The average quarterly proportion from June 2016 to June 2018 is 46%.

10 This range would be an upper bound for a number of reasons. Applying the rate of private health insurance to public hospital services will overstate the proportion of patients with private health insurance who are treated in public hospitals. This is because the number of public patients is already less than it would otherwise be in the absence of privately insured patients using private hospital services. This point was raised by Western Australia.[4] In addition, not all privately insured patients choose to utilise their private health insurance due to policy excesses and gaps charged by specialists.[5] The Commission was not able to identify a data source indicating the proportion of patients in public hospitals with private health insurance. In the absence of this information, the Commission exercised judgment and decided that a level of 15% for admitted patients allows for these factors. It implies that about 25% of non-emergency AP services relate to privately insured patients.

11 Western Australia said the Commission should not use judgment to reduce the substitutability level to 15% without supporting information. However, the Commission considers that there is a conceptual case for a non-State sector adjustment in the AP assessment and the decision to use a proportion of 15% is based on a series of decisions that are informed by data and an understanding of the behaviour of privately insured patients.

12 Western Australia said that differences between States in the availability of Commonwealth funded residential aged care places and home care packages affects what States need to spend on health care. It said that Western Australia has the lowest rate of operational aged care places, approximately 16% below the national average in 2016-17. During State visits, other States noted the high costs associated with proving sub-acute care for older patients due to a shortage of residential aged care places. Further work is required to determine the effects of differences in Commonwealth funding levels on State expenses. This will involve:

- calculating the proportion of sub-acute hospital services for older patients from Independent Hospital Pricing Authority (IHPA) data
- identifying data on Commonwealth residential aged care services that could be used to measure national service use by different SDC groups
- investigating the influence of recent State policies on the availability of residential aged care places.

13 In the absence of any further evidence suggesting changes in substitutability, the Commission decided that the 2015 Review level of 15% for admitted patients remains appropriate.

Non-State sector indicator

14 All States except Western Australia agreed that the assessment should continue to use data from the Australian Institute of Health and Welfare (AIHW) and the Australian Prudential Regulation Authority (APRA) to calculate the non-State sector adjustment for admitted patients. Western Australia did not comment.

15 The requirement to use data from two sources relates to differences in the level of disaggregation and coverage of each data source. The assessment uses disaggregated AIHW

[4] Western Australia said that it is not reasonable to assume an equality between the rate of private health insurance and the proportion of patients in public hospitals with private health insurance.

[5] For further discussion of policy and non-policy factors affecting the level of substitutability, see Volume 2 of the *2015 Review Report*, pp 185-86.

data to measure national use of private patient services by different SDC groups, and aggregate APRA data by State to measure actual usage. In the 2020 Review, the Commission continued using AIHW and APRA hospital separations data to calculate the non-State sector adjustment for admitted patients.

Emergency departments

16 Similar to admitted patients, the non-State sector can provide some emergency department (ED) services.

17 General Practitioner (GP) clinics and nurse walk-in centres can treat many of the less severe ED presentations. Most States have policies to limit the use of ED services by promoting the use of alternative services, including local GPs, and by adopting policies to increase the availability of GP services. Therefore, there is a strong conceptual case that the availability of GP services, especially bulk billed GP services, influences the level of State-provided ED services.

18 Some private hospitals provide ED services. However, private ED patients incur an attendance fee, which is not claimable under Medicare or private health insurance. Based on the relatively low level of private ED services and high attendance fees, the Commission considers that the level of substitutability between public and private ED services would be low.

Substitutability level

19 In the 2015 Review, the substitutability level of 15% for ED services was determined based on less severe and less complex ED presentations that could have been managed by a GP.

20 During the 2015 Review, one of the consultants engaged to review the substitutability levels for the health assessment advised that clinically derived methodologies, especially when they yield consistent results, should be preferred over the administrative approaches (for example, the AIHW method – see Box A15-1) or surveys based on patient perception (for example, the ABS patient experiences survey).

Box A15-1 Summary of methods used to calculate the number of GP-type presentations[6]

ACEM method: Any self-referred, non-ambulance patient with a medical consultation time less than one hour. This method was developed by the Australasian College for Emergency Medicine (ACEM).

AIHW method: Any Australian Triage System (ATS) category 4 or 5 patient who does not arrive by ambulance, police, CH service vehicle or correctional vehicle, is not admitted to hospital, is not referred to another hospital and does not die. This method was developed by the AIHW.

Diagnosis method: ATS category 4 or 5 patients who self-refer, arrive by private transport, are not admitted and meet one of the listed diagnoses. This method was developed by Kevin Ratcliffe at the Tasmanian Department of Health and Human Services.

Sprivulis method: The difference between the discharge rate of GP-referred and self-referred patients, derived from the product of the difference in the discharge rates and the total number of self-referrals. This method was developed by Peter Sprivulis.[7]

21 There are a number of clinical studies from Australia that have looked at the proportion of ED presentations that could have been managed by a GP (termed GP-type patients or low acuity patients) and provide an indication of the substitutability level. Table A15-3 summarises this.

Table A15-3 Summary of studies on GP-type presentations

				Percentage of GP-type presentations (%)			
Study	**State**	**Remoteness**	**Study year**	**ACEM**	**AIHW**	**Diagnosis**	**Sprivulis**
Nagree et al.	WA	Major cities	2009-11	11-12	25-26	11	9-10
Allen et al.	Tas	Outer regional	2009-13	35	56	69	15
Stephens et al.	NSW	Major cities	2013-14	19	38	-	7
Stephens et al.	NSW	Inner regional	2013-14	31	51	-	12
Stephens et al.	NSW	Outer regional/ Remote/Very remote	2013-14	34	54	-	11

Sources: Nagree et al., Quantifying the proportion of general practice and low-acuity patients in the emergency department, The Medical Journal of Australia, June 2013.

Allen et al., Low acuity and general practice-type presentations to emergency departments: A rural perspective, Emergency Medicine Australasia, April 2015.

Stephens et al., Patterns of low acuity patient presentations to emergency departments in New South Wales, Australia, Emergency Medicine Australasia 29(3), June 2017.

22 All of the studies reported that the percentage of GP-type presentations increased with increasing remoteness, regardless of the method used. This is likely to be due to the limited availability of GP services in more remote areas. The studies also indicated that, compared to other methods, the ACEM method was preferred for estimating GP-type presentations.

23 Using the proportions of GP-type presentations estimated by the ACEM method, weighted by the number of ED presentations by remoteness, the overall proportion of ED presentations that are GP-type presentations is estimated at 23% (Table A15-4).

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6 Allen et al., *Low acuity and general practice-type presentations to emergency departments: A rural perspective*, Emergency Medicine Australasia, April 2015.

7 Sprivulis P, *Estimation of the general practice workload of a metropolitan teaching hospital emergency department*, Emergency Medicine Australasia, February 2003.

Table A15-4 Estimation of percentage of GP-type emergency department presentations

	Total ED presentations	% of GP type presentations	Number of GP-type presentations
Major cities	4,972,141	18	873,203
Inner regional	1,845,781	31	568,501
Outer regional/remote/very remote	1,378,851	35	477,038
Total	**8,196,773**	**23**	**1,918,742**

Source: Commission calculation based on Table A15-3 and IHPA 2016-17 ED data.

24 It is also evident that GP-type presentations are less costly than more complex and severe ED presentations, mainly due to shorter treatment time. Independent Health Pricing Authority (IHPA) data (2016-17) indicates ED triage 4 and 5 presentations (that is, less severe and complex ED presentations) make up 52% of total ED presentations, but only account for 34% of the cost,[8] resulting in a cost to activity ratio of 0.34/0.52=0.65. Applying this ratio to the activity level of 23%, the proportion of ED expenditure on GP-type presentations would be around 15%.

25 New South Wales argued that substitutability would be close to zero during non-business hours as there are few substitutable services, forcing GP-type patients to present to EDs. However, the availability of after-hours GP services has been increasing and more than 80% of patients report that they are able to see an after-hours GP when needed.[9] In addition, the studies cited in Table A15-3 did not find a big difference for the proportion of GP-type presentations between business and non-business hours. Therefore, no further adjustment of the type suggested by New South Wales is needed.

26 The approach for calculating the 15% substitutability level is consistent with the 2015 Review consultants' advice and uses most recent evidence. There would be little value in seeking further independent advice on this issue, as suggested by the ACT.

Non-State sector indicator

27 The Commission considers that the current indicator of non-State sector activity (benefits paid for bulk billed GPs) remains appropriate. Bulk billed benefits enable those with income constraints to seek low or no cost healthcare.

28 Western Australia and the Northern Territory questioned the rationale of using bulk billed Medicare services as the indicator, and the assumption that services that incur a fee have no effect on the level of State provided services.[10] The Commission considers that services with low out-of-pocket costs could be substitutable. However, for most private services, there are considerable out-of-pocket costs, which prevent patients with income constraints from using these services. In 2018-19, the average out-of-pocket cost for GP services was about $38 per service.[11] Since there is no practical way to identify low fee private services, the Commission considers that bulk billed private services are the most appropriate broad indicator.

29 States generally supported this proposal.

8 It refers to efficient cost.

9 ABS, 2019, cat. no. 4839.0 *Patient Experiences in Australia: Summary of Findings, 2018-19* (Table 7).

10 This concern relates to all components using bulk billed Medicare services as the indicator.

11 Data sourced from *Medicare Statistics*, June Quarter 2019, Table 1.5a. Department of Health. The average out-of-pocket costs for out of hospital specialist attendances and operations were $84 and $94 respectively.

Non-admitted patients

30 State-provided non-admitted patient (NAP) services include a wide range of pre-hospital, post-hospital and clinical treatments. The majority, if not all, of these services are also provided by the non-State sector. The potential substitutability is high for these services, although the actual level is lower reflecting a number of factors.

- There are usually some patients' out-of-pocket costs for services provided in the non-State sector. Medicare provides subsidies to reduce the cost burden on patients but does not regulate the fees charged by private specialists. Out-of-pocket costs for some private specialist services are high.
- Most State provided NAP services (for example, most allied health services) are directly linked to AP services, which are less likely to be affected by similar services provided by the non-State sector.

31 The staff Discussion Paper CGC 2018-05-S proposed using the 2015 Review approach to calculate the substitutability level, but suggested some refinements using more comprehensive data.

Level of substitutability

32 In the 2015 Review, the substitutability level for NAP services was estimated using an approach where NAP services were disaggregated into broad groups. For each group of services, the level of substitutability (using bulk billing rates as the indicator) and the level of State spending were estimated. The total substitutability level for NAP services was the sum of expense-weighted substitutability levels for each group of services.

33 For the 2020 Review, this approach was modified. Previously, it applied bulk billing rates to those services considered substitutable. Since the aim is to determine the proportion of State NAP services that the non-State sector could provide, the mere presence of an equivalent bulk billed service and value of bulk billing benefits are relevant factors. It is unnecessary to apply the bulk billing rate to each service area. This small change aligned the NAP method with the method used for the other components. See Box A15-2 for a further explanation.

Box A15-2 Assessing the substitutability level for NAP and CH services

The bottom up approach to assessing substitutability involves the following steps.

- Step 1: Identifying and assessing the level of substitutability for each area of service by evaluating:
  - the range of services provided by the State and non-State sectors
  - the availability and cost of services provided by the State and non-State sectors.
- Step 2: Estimating the expense weight for each area of service.
- Step 3: Combining substitutability (from step 1) and expense weights (from step 2) for each area of service and summing the expenditure-weighted substitutability to obtain an estimate of the proportion of State services affected by non-State services.

34 ***Step 1.*** The classification of NAP services (that is, the Tier 2 classification) uses information about the type of clinic and clinician to classify services. There are four clinic types for NAP services.

- Procedures clinics, where surgeons or other medical specialists are the main service providers. Some private surgeons and medical specialists offer bulk billed services, so there is a non-State sector alternative. The relevant Medical Benefits Scheme (MBS) services are operations and assistance at operations. The bulk billing rate for these services is 42% and the average out-of-pocket cost is about $80 per service.
- Medical consultation clinics, where general physicians or medical specialists are the main service providers. Some private specialists offer bulk billed services, so there is a potential non-State sector alternative. The relevant Medical Benefits Scheme (MBS) services are specialist attendances. The bulk billing rate for these services is 30% and the average out-of-pocket cost is about $70 per service.
- Diagnostic clinics, which States advise are generally bundled with the requesting specialist. In the calculation that follows, diagnostic services are bundled with medical consultation clinics.
- Allied health clinics, where allied health professionals or clinical nurse specialists are the main service providers. Although all State-provided allied health services are also available in the private sector, most are linked to an earlier AP episode. In addition, only a very limited number of patients who meet specific eligibility requirements (for example, those with a chronic medical condition or with an assessed mental disorder) are eligible for Medicare allied health items. State provided allied health services are generally not substitutable.

35 ***Step 2.*** The average State expenditure on each type of clinic varies, ranging from $207 for services provided in allied health clinics to $591 for those provided in procedure clinics.

36 Using data on activity levels and average expenditure, Table A15-5 estimates the proportions of State expenditure for each group of NAP services.

Table A15-5 Estimation of State expenditure for each group of NAP services

Group of services	Share of activity	Average expenditure	Estimated share of expenditure (a)	Substitutable service available	Expenditure-weighted substitutability level
	%	$pc	%		%
Procedure clinics	8	591	15	Yes	15
Medical consultation clinics (b)	47	355	54	Yes	54
Allied health clinics	45	207	30	No	0
Total			**100**		**70**

(a) For each group of services, the share of expenditure is estimated as: the proportion of activity times average expenditure, divided by the sum of the proportion of activity times average expenditure.

(b) This also includes services from diagnostic clinics.

Source: Commission calculation based on data from AIHW (2018) *Non-admitted patient care 2016-17*, Table 2.3, and IHPA (2018) *National Hospital Cost Data Collection Cost report: Round 20 Financial Year 2015-16*, Table 20.

37 ***Step 3.*** Based on information from Step 1 and 2, the estimated substitutability level is about 70% (Table A15-5). This would be an upper bound because a significant proportion of NAP are linked to a previous AP admission. Therefore, although an alternative non-State sector service may be available (that is, bulk billed services), it is unlikely that all patients would choose to move to the non-State sector after they had commenced treatment in a public hospital. Initially, the Commission decided to halve the 70% of services considered potentially substitutable on the basis that about 50% of NAP services are linked to a previous hospital

attendance. This suggested a substitutability level of 35% (50% * 70% = 35%), which the Commission included in the draft report. This differed from an initial staff proposal of 20%, which was put to States in *Discussion paper CGC 2018-05-S*.[12]

38 New South Wales, Victoria and Queensland argued that 35% is too high. The Northern Territory suggested that the substitutability for procedure/medical consultation clinics would be lower due to their linkage to AP episodes. The ACT did not object to the estimated level but suggested seeking an independent opinion. Other States did not comment. More specifically, Victoria said that it was not clear how the Commission decided that only 50% of potentially substitutable services would actually be substitutable. It argued that the bulk billing rate should be applied to the expenditure weighted substitutability levels for each group of service (in Table A15-5) to obtain the final substitutability level for the category. Queensland suggested that the substitutability level should be reduced to 25%.

39 Following consideration of State views, and after receiving final data on the value of bulk billed specialist services and operations late in the review, the Commission decided to reduce the substitutability level to 30%. The value of the non-State sector indicators for the component, that is, the value of bulk billed specialist services and operations, was $1.3 billion in 2018-19. However, the implied value of State substitutable services derived using a substitutability level of 35% was $1.9 billion. To the extent that the indicators of non-State sector activity capture most of the services considered substitutable, the level would be closer to 25%, as suggested by Queensland.

40 On balance, the Commission decided to adopt a substitutability level of 30%. The decision on the substitutability levels requires the Commission to weigh information from a variety of sources. Invariably judgment is involved. A level of 30% is the midpoint between two valid approaches for measuring the level. The Commission has flagged its intention to review the data used in the SDC assessment for NAP during 2020. It intends revisiting the substitutability level for this component as part of a broader re-examination of the NAP assessment during 2020.

41 Tasmania did not agree with the assumption that allied health services are not substitutable. It said that the substitutability level for AP of 15% should apply to allied health services due to the link between admitted and non-admitted patient services. The Commission considers that the strong link between AP episodes and NAP allied health services indicates a low level of substitutability for these services.

Non-State sector indicator

42 Similar to EDs, basing the non-State sector adjustment on bulk billed benefits paid for NAP-equivalent services provided in the private sector enables those with income constraints to receive low or no cost healthcare.

43 Bulk billed operations and specialist services are considered the most appropriate indicators of non-State activity because surgeons and medical specialists are the main services providers in procedure and medical consultation clinics. This is different to the indicator used in the 2015 Review, which included bulk billed pathology and imaging services. As mentioned earlier, pathology and imaging services are bundled with specialist consultations. States generally supported this proposal.

[12] Review of Substitutability Levels for the Health Category.

Community and public health services

44 States provide a wide range of CH services, along with public health services, many of which GPs or other private clinicians also provide. There is strong evidence of substitutability between State-provided community and public health services and GP or other private clinician services.

45 However, due to the heterogeneous nature of CH services, it has been challenging to determine to what extent non-State services influence the level of services provided by the State sector. In the 2015 Review, a substitutability level of 70% was adopted for this component.

46 During the 2015 Review, one of the consultants suggested investigating the level of substitutability for each area of community and public health services separately to obtain a more accurate estimate. As outlined in *Discussion Paper CGC 2018-05-S*, applying this bottom up approach yields a substitutability level in the range of 60-70%.

Level of substitutability

47 Limited data are available for community health (CH) services, but a number of recent studies (for example, the BEACH[13] study) provide some information to assess the extent of substitutability for each main area of service.

48 Box 2 outlines the approach used to estimate the substitutability level.

- ***Step 1.*** The assessed substitutability level for each area of service is summarised in Attachment B to CGC 2018-05-S. The level of substitutability has been classified as very low (0-20%), low (21-40%), medium (41-60%), high (61-80%) or very high (81-100%). If the State and non-State sectors provide similar services, and accessibility and out-of-pocket costs are comparable, the potential substitutability would be high or very high. On the other hand, if State and non-State sectors provide different services, with different accessibility and/or costs, the potential substitutability would be lower.
- ***Steps 2 and 3.*** Table A15-6 summarises the substitutability levels and expense weights for each group of services. The substitutability levels are presented in ranges and the midpoints are used to calculate the overall level.

49 The substitutability level for CH and public health services is estimated at about 63%, with a range of 54%-72%, which encompasses the level adopted in the 2015 Review (70%). New South Wales and Victoria said that the population targeted by States is consistent with a slightly lower substitutability level. States tend to target highly disadvantaged groups for which there are limited private alternatives. The Commission decided on a substitutability level of 60% for the community and public health component in the 2020 Review.

[13] Bettering the Evaluation and Care of Health (BEACH) is a University of Sydney program that analysed data collected by General Practitioners (GPs) and reported information about GP-patient encounters from clinical practices across Australia (http://sydney.edu.au/medicine/fmrc/beach/), [accessed 21/02/2020].

Table A15-6 Estimation of substitutability level for community health services

Group of services	Substitutability range	Share of expenditure (a)	Expenditure-weighted substitutability
	%	%	%
Community health services			
Public dental services	Low (21-40)	5	≈1.4
Alcohol and other drug services	Medium (41-60)	4	≈2.0
Community mental health services	Low (21-40)	19	≈5.6
Other community health services	Very high (81-100)	54	≈48.3
Public health services			
Cancer screening	Medium (41-60)	3	≈1.6
Organised immunisation	High (61-80)	4	≈2.9
Health promotion	Very low (0-20)	5	≈0.5
Communicable disease control	Nil	3	≈0
Environmental health	Nil	1	≈0
Other public health services	Very low (0-20)	2	≈0.2
Total		**100**	**≈62.5**

(a) The average proportion for 2014-15 and 2015-16.

Source: Commission calculation using unpublished AIHW expenditure data.

50 New South Wales disputed the substitutability estimation and said there was a lack of supporting evidence, misalignment with how States fund activity and potential calculation issues. However, this appears to relate to a different understanding of the distinction between NAP and CH services, which share a common classification (Tier 2).[14]

51 Other States were generally comfortable with the estimated range and some provided comments. These included:

- Victoria suggesting that the substitutability level for 'other community health services' should be lower due to income constraints faced by vulnerable and disadvantaged populations. The lower level proposed in this review reflects these circumstances.
- Queensland arguing that the proposed level was appropriate for less remote areas, but too high in regional and remote areas. It proposed a lower overall substitutability level. Queensland said that its community health services were widely utilised in regional and remote areas where non-State health services were less prevalent or non-existent. The estimated substitutability ranges are an average level of substitutability and already account for regional differences in State service provision, through the SDC assessment. As mentioned in paragraph 3, the non-State sector adjustment mainly reflects the differences in non-State provision in similar regions between States, while the SDC assessment captures the higher use of State services as remoteness increases.
- The ACT agreed with the level but contended that the Commission should seek independent opinions. As noted previously, State service providers (State health departments) are able to provide this advice.

[14] This issue was discussed with States during a multilateral meeting in December 2018.

- The Northern Territory expressed the upper bound was likely to be the appropriate level — it argued that the mid-point is the recommended level.

Non-State sector indicator

52 GPs provide many CH services, so it remains appropriate to base the assessment on bulk billed benefits paid for GP services. Most States supported retaining bulk billed GP services as the indicator of non-State sector services. The Commission decided to retain the 2015 Review indicator.

53 The Northern Territory said the bulk billed GP data should not include services eligible for the *Section 19(2) Exemption Initiative*.[15] It indicated that although these services are partially subsidised by Medicare, States provide most of the funding. By including these bulk billed services in the Medicare data (and treating these in the same way as privately provided GP services), non-State influences will be overstated.

54 Section 19(2) services are included in the MBS data. State spending on these services contributes to average State spending.[16] The SDC assessment assumes that States with remote populations spend the average amount on services provided under Section 19(2). By including Section 19(2) benefits in the bulk billed GP data, the assessment recognises that States that access the Section 19(2) initiative need to spend less on remote services, compared to States that utilise this initiative to a lesser extent.

55 ***Discount.*** In the 2015 Review, a 25% discount was applied to the data used to calculate the non-State sector adjustment because it was unclear if the profile of clients using bulk billed GP services was representative of people using other substitutable services.

56 The ACT said that the discount should be removed given the more detailed approach in this Review and conservative assumptions already applied to the estimate. Since bulk billed GP services are the main substitutable service for State community and public health services, the Commission has decided to remove the discount.

[15] The COAG s19(2) Exemptions Initiative provides exemptions to enable Medicare rebates to be claimed for State remunerated primary health care services in some rural and remote areas.

[16] The Commission notes that the Section 19(2) payments from the Commonwealth are not recorded in GFS as user charges, therefore these are not netted off State expenses.

16 Welfare

Summary of the assessment

The Welfare category covers State expenses on child protection and family services, disability, aged care, concessions, homelessness and other welfare services.

States' assessed expenses take into account the following factors.

- For child protection and family services — differences between States in their socio-demographic compositions. The Commission considers States face higher costs if they have above average shares of children in the 0-14 years age group, particularly if they have above average shares of Indigenous children, low socio-economic status children, and children living in remote areas.
- For State contributions to the National Disability Insurance Scheme (NDIS) — 2011 Census population shares.
- For other disability services, aged care and expenses related to the National Redress Scheme for Institutional Child Sexual Abuse — State populations (equal per capita).
- For concessions — States' shares of pensioner and health care concession card holders.
- For other welfare — States' populations (equal per capita) and cross-border use of homelessness services.

The assessment also recognises differences in wage costs and the cost of providing services to different regions within a State for child protection and family services and for other welfare services. In addition, the child protection and family services assessment recognises the higher cost of providing services in small isolated communities.

Service overview

1 State expenses on Welfare were $19.5 billion in 2018-19, representing 7.6% of total State expenses (Table 16-1). State spending on this function comprises expenses for:

- child protection and family services, principally child protection and out-of-home care (OOHC)
- aged care
- disability services, including State funding contributions to the National Disability Insurance Scheme (NDIS)
- the National Redress Scheme for Institutional Child Sexual Abuse
- concessions (excluding transport concessions)
- other welfare services (including assistance to the homeless, women's shelters and information, advice and referral services).

Table 16-1 Welfare expenses by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total expenses ($m)	5,926	4,166	4,096	2,823	1,370	368	263	520	19,533
Total expenses ($pc)	737	638	811	1,083	786	693	622	2,118	776
Proportion of operating expenses (%)	7.0	7.1	7.9	10.0	8.5	6.7	4.9	8.3	7.6

Note: Expenses shown on a gross basis.

Source: Commission calculation using State budget data.

2 Table 16-2 shows the share of State expenses on welfare from 2015-16 to 2018-19.

Table 16-2 Welfare expenses, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total expenses ($m)	17,624	18,170	19,940	19,533
Proportion of total operating expenses (%)	8.3	7.9	8.2	7.6

Note: Expenses shown on a gross basis.

Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

3 Because those in receipt of welfare services tend to be from low socio-economic status (SES) households, user charges are small (Table 16-3). User charges were $740 million in 2018-19, equivalent to around 4% of category expenses. Revenue from user charges are assessed on an equal per capita (EPC) basis in the Other revenue category.

Table 16-3 Welfare, user charges, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Revenue ($m)	69	143	9	231	157	1	8	123	740
Revenue ($pc)	9	22	2	89	90	2	19	499	29

Note: User charges refer to revenue from the sale of goods and services classified in GFS to economic type framework (ETF) 112. The majority are revenue for State provided aged care services.

Source: Commission calculation using ABS GFS and State budget data.

State roles and responsibilities

4 States have policy and service delivery responsibility for most welfare services other than aged care services and, with the full implementation of the NDIS, most disability services.

5 By far the largest expense item under child protection and family services is State government funding for child protection and out-of-home care. Significant expenses are also associated with early intervention and family support (including intensive family support) services. Child protection and family services also cover State expenses on childcare and after-school care but these represent only a very small proportion of expenses.

6 On full implementation of the NDIS, States will no longer provide extensive disability services. By 2020-21, when all States other than Western Australia are expected to be at NDIS full scheme, State data indicate that on average, 94% of disability services will be attributed to the NDIS.

7 All States provide funding to water and electricity providers to provide concessions and rebates to users on low incomes. Rates concessions, or in some instances a cost of living

concession or rebate, are also provided to those on low incomes. States also provide concessions in several other areas such as public transport.[1]

8 Other welfare services cover a wide range of services, including homeless persons' assistance, women's shelters, care of refugees, prisoners' aid, Indigenous welfare services, and information, advice and referral services. Homelessness services account for the bulk of other welfare expenses.

Commonwealth roles and responsibilities

9 Although States have policy and delivery responsibility for many welfare services, the Commonwealth plays a key role in developing national policy and reform directions and provides significant funding to State governments. Consequently, over recent years, there have been some key changes to the way welfare services are provided, stemming from changes in Commonwealth-State responsibilities.

10 The Commonwealth has assumed funding, policy and operational responsibility for aged care services — including those formerly provided by the States under the Home and Community Care (HACC) program — in all States, most recently Western Australia (from July 2018).

11 Under the NDIS, the delivery of disability services is a Commonwealth responsibility, while funding is a joint Commonwealth and State responsibility. The Medicare Levy was increased from 1 July 2014 to help fund the scheme, in addition to State contributions. Services are provided through the National Disability Insurance Agency (NDIA) — an independent statutory agency.

12 The Commonwealth has created the National Redress Scheme in response to recommendations by the Royal Commission into Institutional Responses to Child Sexual Abuse. The scheme, which started on 1 July 2018, provides redress for people who have experienced institutional child sexual abuse. The Commonwealth administers the scheme. All States and key non-government institutions are participating in the scheme. States will make financial contributions to the scheme to fund redress payments and other support for abuse survivors.

13 The Commonwealth provides funding to the States for welfare comprising several National Partnership Payments (NPPs). Table 16-4 shows the main Commonwealth payments to the States for welfare in 2018-19. Not included are payments made under the National Partnership Agreement on Homelessness ($117 million in 2017-18). These payments were rolled into the new National Housing and Homelessness Agreement (NHHA) in July 2018.

1 Transport concessions, including student transport concession, are included in the Transport category.

Table 16-4 Commonwealth payments to the States for Welfare, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
DisabilityCare Australia Fund (a)	547	1,102	0	0	295	102	0	42	2,088
National Disability SPP (b)	0	418	324	167	0	34	0	16	958
Specialist disability services	0	77	45	27	0	12	0	6	168
Pay equity for the social and community services sector (c)	0	46	48	60	0	5	1	0	160
Other ($m)	1	0	0	7	0	0	0	54	62
Total ($m)	**548**	**1,642**	**417**	**261**	**295**	**154**	**1**	**118**	**3,436**
Total ($pc)	**68**	**252**	**83**	**100**	**169**	**289**	**2**	**480**	**137**

Note: This table shows major payments only. Commonwealth Own Purpose Expenses (COPEs) are not included. Payments that the Commission treats as 'no impact' are included in the table. For example, from the 2020 Review the National Disability SPP receives a no impact treatment.

(a) Payments from the DisabilityCare Australia Fund reimburse States for NDIS expenses.

(b) The National Disability SPP is not assessed because in 2020-21, the application year for this review, transition to the National Disability Insurance Scheme will be largely complete and the National Disability SPP will cease.

(c) This National Partnership funding is for the Commonwealth's share of wage increases arising from a Fair Work Australia 2012 decision for in-scope programs funded through existing National SPPs and NPPs. It will cease to apply from 2020-21.

Source: Commonwealth Final Budget Outcome, 2018-19.

The complete list of Commonwealth payments and their treatment is available on the Commission website (https://cgc.gov.au).[2]

Category structure

The assessment of the Welfare category is undertaken separately for each of the following components:

- child protection and family services
- State contributions to the NDIS
- non-NDIS disability services, aged care services and contributions to the National Redress Scheme for Institutional Child Sexual Abuse
- concessions
- other welfare.

Table 16-5 shows the category's assessment structure, the size of each component and the disabilities that apply.

[2] Most Commonwealth payments to the States affect the grant distribution but some do not. The Commission refers to payments that affect the grant distribution as 'impact' payments. For more information, see Chapter 5 Commonwealth Payments.

Table 16-5 Welfare, category structure, 2018-19

Component	Component expense	Disability	Influence measured by disability
	$m		
Child protection and family services	6,604	Socio-demographic composition (SDC)	Recognises that Indigenous status and low socio-economic status (SES) of State populations aged 0-14 and where people live affect the use of services.
		Wage costs	Recognises the differences in wage costs between States.
		Regional costs and service delivery scale	Recognises the cost of providing services to different areas within a State and small population centres.
NDIS	7,285	2011 Census population shares	2011 Census population shares (a).
Non-NDIS disability services, aged care and National Redress Scheme	1,619	EPC	This is an equal per capita assessment.
Concessions	2,323	SDC	Recognises that numbers of pensioner concession card (PCC) plus health care card (HCC) holders affect the use and cost of providing concessions.
Other welfare	1,701	EPC	This is an equal per capita assessment.
		Wage costs	Recognises the differences in wage costs between States.
		Regional costs	Recognises the cost of providing services to different areas within a State.
		Cross-border (b)	Recognises the cost to the ACT of providing homelessness services to New South Wales residents.

(a) The population shares will shift to 2021 Census population shares when the data become available, which is most likely to be for the 2023 Update.

(b) The cross-border allowance for homelessness is shown in the Health category along with the community health cross-border expenses.

Source: Commission calculation using ABS GFS and State budget data.

Category and component expenses

14 The main data sources for calculating category and component expenses are Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.[3]

15 A split between child protection and OOHC expenses for the child protection and family component is taken from the Productivity Commission's Report on Government Services (RoGS).

16 State data on the projected split of disability service expenses into NDIS and other disability services in the application year are applied to total disability expenses in the assessment years.

17 State data are also used to estimate concessions and to identify National Redress Scheme expenses.

[3] Unless otherwise stated, category and component expenses for the first two assessment years are sourced from ABS GFS. States provide data for the most recent assessment year because GFS data are not available in time for the Review.

Assessment approach

Child protection and family services

18 The main expenses for this component include:

- child protection
- OOHC.

19 Child protection-related expenses dominate State expenses. In 2017-18, State expenses for child protection, OOHC and family support services amounted to $5.8 billion,[4] representing around 92% of total State expenses on child protection and family services used in the Commission's calculations.

20 The breakdown of the $5.8 billion of expenses was as follows: 58% was on OOHC, 24% on child protection services, 9% on family support services and 8% on intensive family support services to assist more vulnerable families. The Commission uses the split between OOHC and child protection services reported in the RoGS to disaggregate the component expenses. This allows for separate assessments of OOHC and child protection services.

Socio-demographic composition

21 Spending by each State on child protection and family services is affected by the size of its population and the presence of those population groups that use services more intensely, such as:

- children aged 0-14 years
- Indigenous people
- socio-economically disadvantaged people
- people living in more remote areas.

22 The Commission has made separate assessments of child protection expenses and OOHC expenses because Indigenous use of each is materially different. In 2018-19, 40% of children in OOHC were Indigenous while only 28% of 'substantiations'[5] were for Indigenous children. This equates to use rates of 64.3 and 43.6 per , 000 children respectively.

Children

23 Child protection and family services are directed at families with children. In deriving use rates, the Commission relates Australian Institute of Health and Welfare (AIHW) child protection data for the 0-17 age group to population data for the 0-14 age group as a proxy. The Commission considers that the 0-14 age group is an accurate representation of State need in this area.

Indigenous status, remoteness and socio-economic status

24 AIHW data for 2017-18 indicate that:

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4 Productivity Commission, *Report on Government Services 2019*, Chapter 16, Table 16A.7.

5 Substantiations refer to child protection notifications made to relevant authorities where, after investigation, it is concluded that there is reasonable cause to believe the child had been, was being, or was likely to be, abused, neglected or otherwise harmed.

- Indigenous children were eight times as likely as non-Indigenous children to have received child protection services and nine times as likely as non-Indigenous children to be in OOHC[6]
- children from very remote areas were four times as likely as those from major cities to be the subject of a substantiation
- children who were the subject of a substantiation were around seven times as likely to be from the lowest socio-economic areas compared to the highest.[7]

25 Socio-economic status is measured using the Non-Indigenous Socio-Economic Index for Areas (NISEIFA) and the Indigenous Relative Socio-Economic Outcomes (IRSEO) index. The bottom two quintiles for each measure (40% of the population aged 0-14 years) represent low SES children, while the top three quintiles (60% of the population aged 0-14 years) are grouped to represent high SES children.

Regional costs and service delivery scale

26 Child protection services are provided where clients live. For services provided in more remote locations, service providers travel from regional centres or hubs to deliver services. The Commission considers there is a conceptual case for assessing a combined regional costs and service delivery scale (SDS) disability in this component.

27 Queensland, Western Australia, Tasmania and the Northern Territory supported including an SDS assessment, after the disability was omitted in the draft report assessment. They confirmed that staff from regional centres must travel to more remote client locations to provide services, which results in higher staffing levels and transport costs.

28 The Commission does not have data on how remoteness affects the cost of child protection services. In the absence of category specific data on the influence of regional costs and SDS, the assessment uses the general combined regional costs and SDS gradient to recognise these influences on the cost of providing child protection services. More information on the regional costs and SDS assessments can be found in Chapter 28 Geography.

Wage costs

29 Differences in wage costs between States have a differential effect on the cost of providing services. There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method, see Chapter 27 Wage costs.

Data and method

30 The socio-demographic composition cost (SDC) drivers taken into account are Indigenous status, SES, remoteness and age (Table 16-6).

6 AIHW, *Child protection Australia 2017–18*, Child welfare series no. 70. cat. no. CWS 65, pp. 17, 48.

7 ibid, p. 29. The AIHW measures socio-economic status by allocating the relevant Socio-Economic Indexes for Areas (SEIFA) population-based (2016 Census population) quintile score to postcode information available for the child or young person.

Table 16-6 Child protection and family services, SDC breakdown

Age	Indigenous status	SES (b)	Remoteness
0-17 years (a)	Indigenous	High SES (top three quintiles)	Remote (remote and very remote)
	Non-Indigenous	Low SES (bottom two quintiles)	Non-remote (other areas)

(a) Population data for the 0-14 age group are used as a proxy in the SDC assessment.

(b) SES is measured using the NISEIFA for non-Indigenous substantiations and the IRSEO for Indigenous substantiations.

Source: Commission decision.

31 The assessment uses AIHW data to measure the number of Indigenous and non-Indigenous substantiations and children in OOHC. For substantiations, AIHW also provides information to derive national substantiation rates for Indigenous and non-Indigenous children disaggregated by SES and remoteness based on address at notification. The data show that Indigenous children are seven times more likely to be the subject of a substantiation compared to non-Indigenous children,[8] and that on average the substantiation rate is higher for low SES children. These use rates are used as a proxy for OOHC use rates because data are unavailable for specific characteristics of those in OOHC and address at notification is considered a more accurate measure of need than carer's address.

32 With the use rates and estimated resident population (ERP) data, service needs across all States and SDC categories are calculated.

33 Regional costs, service delivery scale and wage costs disabilities are then applied.

Component calculations

34 Table 16-7 shows the calculation of total assessed expenses for the component in 2018-19.

Table 16-7 Child protection and family component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SDC assessed expenses ($m)	2,142	1,265	1,562	715	434	174	74	238	6,604
Regional costs and SDS factor	0.983	0.977	1.017	1.039	1.013	1.028	0.969	1.301	1.000
Wage costs factor	1.004	0.997	0.998	1.010	0.988	0.984	1.011	1.017	1.000
Assessed expenses ($m)	**2,090**	**1,218**	**1,567**	**743**	**430**	**174**	**71**	**312**	**6,604**
Assessed expenses ($pc)	**260**	**187**	**310**	**285**	**246**	**327**	**169**	**1,270**	**262**

Source: Commission calculation.

NDIS

35 Expenses for this component reflect State contributions to the NDIA to cover service provision through the NDIS.

Data and method

36 The proportion of State disability expenses that relate to the NDIS is backcast because it represents a major change in Commonwealth-State relations and this ensures the assessment is contemporary.[9] The Commission will continue to backcast until it is confident that the expenses in the three assessment years reflect the full implementation of the NDIS.[10]

8 AIHW, *Child protection Australia 2017-18*, Child welfare series no. 70., cat. no. CWS 65, p. 30.

9 Residual disability expenses are assessed in the non-NDIS disability services, aged care and National Redress Scheme component.

10 The Commission took the decision to assess NDIS expenses based on 2011 Census populations in the 2019 Update.

37 There are no adjustments for wage costs or regional costs because these do not differentially affect State contributions to the NDIA.

38 The Commission will assess NDIS expenses based on the 2011 Census population shares until State contributions are updated to reflect the 2021 Census population shares.

39 Most States supported this approach. However, Western Australia said the Commission should assess these expenses on an EPC basis rather than on the basis of 2011 Census population shares, which amounts to an actual per capita (APC) assessment. The Commission considers the assessment should reflect how States are contributing to the scheme. The benefit of this approach is that States experiencing above or below average population growth since the benchmark census are not fiscally advantaged or disadvantaged. Queensland said NDIS expenses should continue to be assessed based on the transition arrangements prevailing prior to the 2019 Update because several States have not fully transitioned to the new scheme. While this may be the case in the assessment years, most States will have fully transitioned by 2020-21, the application year for the 2020 Review. The Commission considers it is more contemporaneous for the assessment to reflect circumstances in the application year.

Component calculations

40 Table 16-8 shows the calculation of total assessed expenses for the component in 2018-19.

Table 16-8 NDIS component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Assessed expenses ($m)	2,349	1,806	1,462	774	533	166	120	75	7,285
Assessed expenses ($pc)	292	277	289	297	306	312	284	307	289

Source: Commission calculation.

Non-NDIS disability services, aged care and National Redress Scheme

41 Expenses for this component include:

- residual State disability expenses not covered by the NDIS
- aged care expenses
- State contributions the National Redress Scheme for Institutional Child Sexual Abuse.

42 The Commission will assess these expenses on an EPC basis. The bulk of these expenses are for aged care services. States supported or did not comment on the proposal to assess aged care services on an EPC basis. The Commission notes that the Commonwealth is responsible for funding aged care services, and the level of State spending on aged care is affected by policy decisions.

Non-NDIS disability services

43 Five States supported or did not oppose an EPC assessment of non-NDIS disability expenses. South Australia, Tasmania and the Northern Territory opposed an EPC assessment, noting that States retain responsibility for residual disability services. They said the Commission should apply a low SES disability.

44 The Northern Territory said that the users of residual disability services are mostly from remote Indigenous communities with no access to private services and who are typically low SES. It further argued that while some clients may not be low SES, there are links between low SES and the need for disability services. The Northern Territory identified several residual disability services that it will continue to provide. The Commission considers that most of the services identified by the Northern Territory are likely to be recorded against other functions, mainly health.

45 While there may be some merit in seeking alternative measures of need for non-NDIS expenditures, State provision of non-NDIS disability services will be modest upon full scheme implementation. For example, non-NDIS disability spending is expected to be less than $700 million in 2020-21, or 6% of total disability spending.

46 Regardless, there is no evidence that low SES is a good proxy for people using residual State disability services. If the Commission were to differentially assess non-NDIS disability expenses, it would arguably be more appropriate to use the proportion of persons with disability in the population. However, an assessment using the available measures (disability indicators from the 2016 Census and ABS Survey of Disability and Carers) is not material. Furthermore, there are concerns about the reliability of these measures, and how they relate to non-NDIS service use. The Commission will assess non-NDIS expenses on an EPC basis because there is limited evidence available to conclude that service users are predominantly from low SES groups.

National Redress Scheme

47 The National Redress Scheme for Institutional Child Sexual Abuse was established on 1 July 2018. As such, States will have a responsibility to provide redress and other costs to participants of the scheme. The anticipated full cost of the scheme for States is $3.9 billion over 10 years.[11] Annual State costs are expected to range from $2 million to $80 million, depending on the State.

48 State provided data indicate that average individual claim costs do not vary significantly by State. States advise that claims under the current scheme are greatly affected by past policies and programs for the compensation of victims of abuse in institutional settings. People who have received financial compensation through previous schemes are not eligible for redress under the current scheme. Due to the extent of past policy influences, an APC assessment is not considered sufficiently policy neutral. A reliable driver of State costs has not been identified. Consequently, the Commission will apply an EPC assessment to these expenses. Western Australia supported an EPC assessment.

49 The Northern Territory said redress expenses should be assessed on an APC basis, arguing that the length of time between past State schemes and the current scheme negates any policy influences. In addition, it said State expenses will be affected by the funder of last resort provisions. The Northern Territory also noted that previous Commonwealth policy affects its exposure under the scheme. The Commission does not agree that the influence of previous State schemes is negated by time. Any individual that received compensation in the past is ineligible for compensation through the current scheme. The Commission considers

[11] Finity Consulting, *National Redress Scheme Participant and Cost Estimates*, Royal Commission into Institutional Responses to Child Sexual Abuse, 2015.

that any effects of previous Commonwealth policy on the Northern Territory's expenses should be addressed bilaterally.

Data and method

50 Spending by each State on non-NDIS disability services, aged care and the National Redress Scheme is assessed EPC. Population is measured using State ERP data sourced from the ABS.

Component calculations

51 Table 16-9 shows the calculation of total assessed expenses for the component in 2018-19.

Table 16-9 Non-NDIS disability services, aged care and National Redress Scheme component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Assessed expenses ($m)	517	420	325	168	112	34	27	16	1,619
Assessed expenses ($pc)	64	64	64	64	64	64	64	64	64

Source: Commission calculation.

Concessions

52 Expenses for this component include concessions for Pensioner Concession Card (PCC) and Health Care Card (HCC) holders on electricity and other energy, water and wastewater, rates and other concessions tied to low income. All States offer concessions to individuals with PCCs and the majority of States also offer concessions to HCC holders.

SDC assessment

53 Spending by each State on concessions is affected by the size of its eligible population and the type and size of concessions offered. Reflecting eligibility requirements, concessions are assessed using the number of PCC plus HCC holder numbers in each State as a proportion of State population.

54 Table 16-10 shows the number of PCC and HCC holders as a proportion of State populations in 2018-19. PCC and HCC data are sourced from Centrelink and the Department of Veterans Affairs.

Table 16-10 Pensioner concession card and health care card holders as a proportion of State populations, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	%	%	%	%	%	%	%	%	%
Proportion	22.1	22.0	24.1	20.9	28.1	31.9	13.7	20.9	22.8

Source: Centrelink and the Department of Veterans' Affairs.

55 Western Australia said that concession payments per concession card holder differ substantially across States and this raises questions about the real driver of State spending. It supports an EPC assessment. The Commission observes that the impact of different State policies on the type and size of concessions are significant, which explains the large differences in payments per cardholder. PCC and HCC holders are considered a reasonable policy neutral measure of needs. The assessment is material for Tasmania and the ACT.

Component calculations

56 Table 16-11 shows the calculation of total assessed expenses for the component in 2018-19.

Table 16-11 Concessions component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Assessed expenses ($m)	719	581	492	220	198	69	24	21	2,323
Assessed expenses ($pc)	89	89	97	85	113	129	56	85	92

Source: Commission calculation.

Other welfare

57 Expenses for this component include:

- homeless persons' assistance
- women's shelters
- care of refugees
- prisoners' aid
- Indigenous welfare services
- multicultural affairs
- information, advice and referral services.

58 There are limited data available on expenses at the sub-component level beyond GFS and the RoGS. The RoGS does however indicate that homelessness services and women's shelters are likely to form the bulk of expenses.[12] There are also categorisation inconsistencies between other welfare and the Housing category — some homelessness services are recorded as housing expenses, and to a lesser extent vice-versa.

59 States were consulted on retaining homelessness related expenses in the other welfare component. The alternative was to move the expenses to the Housing category. All States agreed to retain homelessness related expenses within the other welfare component of the Welfare category.

Assessment method

60 Spending by each State on other welfare services is assessed on an EPC basis.

61 In the 2015 Review, the Commission assessed these expenses using a low SES measure and South Australia, Tasmania and the Northern Territory did not support the proposal to assess other welfare expenses EPC. They said the expenses should continue to be assessed using a low SES measure.

62 South Australia noted that two significant areas of expenditure in other welfare are assistance for homeless persons and prevention of domestic violence. South Australia referenced several studies on the causes of homelessness and prevalence of domestic violence. It said the evidence supports the conclusion that SES population characteristics are

[12] Overall, the Commission was not able to definitively identify the size of the sub-components. RoGS identifies State spending on homelessness at $905 million in 2017-18, which is about 50% higher than the whole other welfare component ($666 million in 2017-18). RoGS did not have data that the Commission could rely on to identify the magnitude of expenses by States on women's shelters.

a driver of expenditure. Tasmania acknowledged that not all people requiring welfare services will be from low SES backgrounds, but once persons become homeless, or victims of domestic violence, they are likely to transition to low SES and access welfare services. Tasmania also referenced several studies and presented data showing a relatively strong relationship between rates of access to homelessness services and social disadvantage.

63 The Northern Territory said it will be most affected by the decision to adopt an EPC assessment. It said that while people from low SES backgrounds may not be the only ones using other welfare services, evidence indicates that they form a disproportionately high number of service users. The Northern Territory also noted that its homelessness and domestic violence rates are well above national average rates.

64 In contrast, Western Australia argued that low SES population characteristics are not the main driver for homelessness services and to some extent for the use of domestic violence services. It argued that the Commission had not provided evidence to conclude that service users are predominantly from low SES groups. For homelessness services specifically, Western Australia argued that the drivers of homelessness include domestic violence, drug use and mental health issues. It asserted that while low SES is a contributor, it does not dominate and hence, given the absence of a clear driver, other welfare services should be assessed on an EPC basis.

65 The Commission examined a wide variety of studies that considered the main causes of homelessness and domestic violence. Apart from homelessness, there is limited research available on the use of other welfare services. In relation to homelessness, the research consistently identifies the following four factors as most closely linked to becoming homeless:

- domestic violence/family breakdown
- drug and alcohol abuse
- mental health issues
- being Indigenous.

66 The research also found the following factors as linked to homelessness, but not as conclusively as the four factors above:

- a history of incarceration
- being under 35 years
- being male
- having lower educational attainment
- being unemployed or outside the labour force
- having a homeless parent
- being placed in foster care or being involved in the child protection system when under 18 years
- having a disability or chronic health condition
- having served in the Australian Defence Force.

67 Overall, a key conclusion from the evidence is that both individual and societal factors affect the rate, distribution and dynamics of homelessness, but there remains limited empirical understanding of the ways in which these factors interact over time. While elements partially

related to the present low SES measure are important, they are not decisive, and as the Australian Homelessness Monitor argues, there is no established causal relationship. Furthermore, there are no data on the socio-demographic characteristics of the users of other welfare services, which include a variety of services.

68 Given this evidence, for the 2020 Review, the Commission has decided to assess other welfare expenses on an EPC basis instead of using a low SES disability.

69 Western Australia said other disability, aged care and National Redress Scheme expenses should be grouped with other welfare expenses. The Commission decided not to do this because wage costs and regional costs disabilities affect other welfare expenses but not the expenses in the other EPC component.

Regional costs

70 Welfare services are usually provided where clients live. The Commission considers there is a conceptual case for assessing the influence of regional costs in the other welfare assessment. In the absence of a service specific gradient the assessment uses the general regional cost gradient. More information can be found in Chapter 28 Geography.

Cross-border assessment

71 In the 2015 Review, a cross-border disability was included to take account of ACT service use by New South Wales residents of non-NDIS disability services and other welfare services (primarily homelessness services). Initially, the Commission proposed discontinuing the cross-border disability in the Welfare category. However, the ACT was able to provide data to support an assessment of cross-border use of homelessness services and the Commission decided to include a cross-border allowance for these services.

72 The net cost for the ACT is calculated using New South Wales and ACT homelessness data and RoGS data on the national average cost per client. The estimated cross-border allowance in 2018-19 is $320,000. States supported the assessment or did not comment. This amount will be updated annually.

73 There is a cross-border allowance of $7.2 million in the Health category for community health services. The Commission will add $320,000 to that amount to recognise cross-border use of homelessness services. This will be simpler than including a separate amount in the other welfare component, as argued by Victoria and the ACT. For more information, see Chapter 15 Health.

74 The ACT made the case for including an allowance for cross-border child protection costs. However, the Commission did not include an amount for these services because there is an interstate protocol in place to meet these costs.

Wage costs

75 Differences in wage costs between States have a differential effect on the cost of providing services. There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method, see Chapter 27 Wage costs.

Component calculations

76 Table 16-12 shows the calculation of total assessed expenses for the component in 2018-19.

Table 16-12 Other welfare component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
EPC expenses ($m)	543	441	341	176	118	36	29	17	1,701
Regional costs factor	0.996	0.994	1.004	1.009	1.004	1.009	0.992	1.107	1.000
Wage costs factor	1.004	0.997	0.998	1.010	0.988	0.984	1.011	1.017	1.000
Assessed expenses ($m)	**543**	**437**	**342**	**180**	**117**	**36**	**29**	**19**	**1,701**
Assessed expenses ($pc)	**68**	**67**	**68**	**69**	**67**	**67**	**68**	**76**	**68**

Source: Commission calculation.

Category calculations

77 Table 16-13 brings the assessed expenses for each component together to derive the total assessed expenses for each State for the category. It shows at the component level how each disability assessment moves expenses away from an EPC distribution to obtain assessed expenses.

Table 16-13 Welfare category assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ave
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Child protection and family services									
EPC	262	262	262	262	262	262	262	262	262
SDC assessed expenses	4	-69	47	12	-13	64	-88	709	0
Regional costs (a)	-7	-6	2	8	1	6	-7	279	0
Wage costs	1	-1	-1	3	-3	-6	2	20	0
Assessed expenses	**260**	**187**	**310**	**285**	**246**	**327**	**169**	**1,270**	**262**
NDIS									
EPC	289	289	289	289	289	289	289	289	289
2011 Census shares	3	-13	0	7	16	22	-6	17	0
Assessed expenses	**292**	**277**	**289**	**297**	**306**	**312**	**284**	**307**	**289**
Other disability, aged care and National Redress Scheme									
EPC	64	64	64	64	64	64	64	64	64
Assessed expenses	**64**	**64**	**64**	**64**	**64**	**64**	**64**	**64**	**64**
Concessions									
EPC	92	92	92	92	92	92	92	92	92
SDC assessed expenses	-3	-3	5	-8	21	37	-37	-8	0
Assessed expenses	**89**	**89**	**97**	**85**	**113**	**129**	**56**	**85**	**92**
Other welfare services									
EPC	68	68	68	68	68	68	68	68	68
Regional costs (a)	0	0	0	1	0	1	-1	7	0
Wage costs	0	0	0	1	-1	-1	1	1	0
Assessed expenses	**68**	**67**	**68**	**69**	**67**	**67**	**68**	**76**	**68**
Total assessed expenses	**774**	**684**	**829**	**800**	**797**	**899**	**640**	**1,802**	**776**

(a) The regional costs assessment for child protection and family services includes the effects of service delivery scale.

Note: Table may not add due to interactions between disabilities and rounding. The EPC expenses and assessed expenses are total spending per capita. The amounts for each disability are redistributions from an EPC assessment.

Source: Commission calculation.

Infrastructure assessment

78 States require infrastructure to support service delivery. State infrastructure requirements are assessed in the Investment category. The main driver of investment is growth in welfare related infrastructure for the population using welfare services. This is defined as proportional to the SDC assessed expenses for each component except concessions.

79 Interstate differences in construction costs are also recognised.

80 For a description of the Investment assessment, see Chapter 24 Investment.

Other issues considered by the Commission

81 The Commission considered several other issues, largely in response to concerns raised by States. These issues related to the method for measuring existing disabilities or requests for new disabilities that were not included in the 2015 Review assessment. The main reasons for not assessing certain disabilities identified by States are:

- the conceptual case for a disability has not been established
- an assessment would not be material, that is, redistribute more than $35 per capita for any State[13]
- data are not available to make a reliable assessment.

82 Other issues considered by the Commission include:

- whether homelessness expenses should be in the Welfare or Housing categories
- the absence of New South Wales data in the child protection and OOHC data sourced from the AIHW
- the quality of AIHW child protection data
- the higher cost of providing child protection services to people of culturally and linguistically diverse (CALD) backgrounds
- the higher cost of providing child protection services to Indigenous children beyond those relating to remoteness.

Incorporating NSW data on substantiations and OOHC

83 Data from the AIHW on child protection substantiations and OOHC by SDC are used to assess expenses on child protection and family services. New South Wales currently does not provide these data to the AIHW and therefore a seven-State average is used, excluding New South Wales.

84 New South Wales' analysis indicated significant differences between the use rates by SDC characteristic derived from its data on substantiations and OOHC, and the average of the other seven States used by the Commission. It noted that, given the size of its population, its use rates would significantly change national average expenses. The Commission asked New South Wales to provide the data and method it used for calculating the use rates for its submission. It was not able to provide this information. Therefore, the Commission has been unable to confirm that the New South Wales use rates are comparable with AIHW data.

85 Pending the provision by New South Wales of its data to the AIHW and the AIHW undertaking their normal quality assurance processes on the data, the assessment will continue to be based on the average of the other seven States.

Quality of AIHW data on child welfare

86 New South Wales questioned the consistency of the AIHW data across States and the impact of this as well as of State policies on use rates. New South Wales said that the Productivity Commission acknowledges that many of the existing measures reported in its RoGS are currently inappropriate for inter-jurisdictional comparison. For example, 11 out of 17 child protection indicators in the performance indicator framework are not comparable across States or years.

[13] The Commission has set a materiality threshold for including a disability. A disability assessment must redistribute more than $35 per capita away from an equal per capita assessment for any State to be included. The materiality test applies to the total impact the disability has on the redistribution of funds across all revenue or expense categories in which it is assessed.

87 Moreover, there are significant variations across jurisdictions in how service delivery systems are organised and services prioritised and delivered. Unless these differences are explicitly accounted for, it is not possible to make valid comparisons across jurisdictions. Data submission rates also affect the figures. This can result in a distortion of the representation of performance.

88 The Commission's Family and Child assessment only uses child protection and OOHC use data. The *comparability* of other indicators is not relevant. Staff consider that the use data have been provided by States for many years. The data show consistency over time and across socio-demographic characteristics. In addition, comparisons across jurisdictions are not made; rather, the data are aggregated to derive national average use rates.

CALD cost weight

89 New South Wales and the Northern Territory argued for the introduction of a cost adjustment to reflect the higher costs associated with children and families with a CALD background. A cost adjustment would reflect the extra costs associated with providing services for cultural differences and language barriers.

90 New South Wales argued that, although being from a CALD background does not increase the likelihood of entering the child protection system, its data on the cost of service packages for OOHC of children from a CALD background point to an additional 2% to 3%, compared to non-CALD children.

91 The Northern Territory argued that support to overcome language barriers was a significant driver of costs for those from a CALD background. Due to services provided to Indigenous populations, it faces extra costs providing support through professional interpreters in child protection services.

92 The Commission accepts the conceptual case that services to CALD people impose an additional cost on States. However, the absence of comprehensive and reliable cost data, along with CALD use data, limits the Commission's ability to develop a CALD assessment. Should data become available in the future, the Commission will investigate its suitability, and its materiality.

Indigenous cost weight

93 With a large Indigenous population, the Northern Territory was concerned an assessment based on substantiations and OOHC numbers broken down by Indigenous status and remoteness may not accurately reflect the higher cost of providing services to Indigenous children. These costs include travel and related expenses associated to ensure children, particularly remote Indigenous children, in OOHC outside of their community stay connected to their community and culture.

94 The Northern Territory argued in its submission for a separate Indigenous cost weight to reflect:

- the additional support and services required to address legacies of Indigenous children's trauma
- the additional costs to assist in maintaining cultural identity and family and social networks.

95 The Commission considered this argument, noting the Northern Territory's actual expenses are higher than its assessed expenses in this area. In the 2015 Review, the Commission concluded that an Indigenous cost weight was not justified because Productivity Commission data showed there was no difference in the average time spent in OOHC by Indigenous and non-Indigenous children. For the 2020 Review, the Commission's view is that the current adjustments made for SES, regional costs and Indigeneity sufficiently take into account the disabilities the Northern Territory faces to deliver these services. Further, there are no reliable data to estimate an Indigenous cost weight.

Effect on the GST distribution

96 Table 16-14 shows the extent to which the assessment for this category moves the distribution of GST away from an EPC distribution. States with a positive redistribution are assessed to have above average spending requirements and States with a negative redistribution are assessed to have below average spending requirements. In per capita terms, Tasmania, the ACT, and the Northern Territory and experience the largest redistributions.

Table 16-14 Illustrative redistribution from an EPC assessment, Welfare, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	-14	-594	273	47	37	67	-59	242	667
$ per capita	-2	-87	52	18	21	123	-133	984	26

Note: The redistribution is the difference from an EPC assessment of category expenses.
Source: Commission calculation.

97 The main reasons for these redistributions are the differences between States in the proportions of their populations in groups that are high users of welfare services. In addition, differences between States in the cost of wage related inputs to welfare services contribute to the differences between States. High or costly users of welfare services are Indigenous people, children and people living in areas of relative disadvantage (that is, with low SES).

98 The main reasons for the redistributions for each State are:

- Victoria has a relatively low share of Indigenous people and has a relatively low share of low SES populations.
- Queensland has a relatively high share of Indigenous people and children.
- Western Australia has a relatively low share of low SES people, but that is more than offset by its relatively high Indigenous population and costs associated with providing services to remote areas within the State.
- South Australia and Tasmania have relatively high shares of low SES populations. Tasmania also has a somewhat higher share of Indigenous people.
- The ACT has a relatively low share of low SES people.
- The Northern Territory has a relatively high share of low SES Indigenous populations, which draws disproportionately on welfare services. It also faces relatively higher costs associated with providing services to different areas within the State.

99 Table 16-15 provides a summary of the main disabilities contributing to the redistribution from an EPC distribution of GST.

Table 16-15 Major reasons for the illustrative redistribution, Welfare, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Indigenous children	36	-423	177	50	-34	30	-17	181	474
Regional costs and remoteness	-66	-42	10	22	-1	2	-3	78	112
NDIS	25	-86	3	16	28	13	-3	3	88
Concessions	-21	-13	23	-26	36	20	-16	-3	80
Other (a)	13	-30	60	-15	8	2	-20	-17	82
Total	**-14**	**-594**	**273**	**47**	**37**	**67**	**-59**	**242**	**667**

Note: The redistributions from an EPC assessment are illustrative. Disabilities may not add up due to rounding.

(a) Other reasons include age, non-Indigenous SES, wage costs and interactions.

Source: Commission calculation.

Changes since the 2019 Update

100 There are several method changes since the 2019 Update as well as data revisions and changes in State circumstances. Table 16-16 shows the effect of these changes.

Table 16-16 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method changes	-28	-27	23	42	-11	-11	-1	13	78
Data revisions	1	11	-5	-1	0	-1	1	-5	12
State circumstances	-5	-35	7	17	4	1	-1	11	40
Total	**-32**	**-51**	**25**	**58**	**-6**	**-10**	**-1**	**19**	**101**

Source: Commission calculation.

Method changes

101 The main method changes for this category are:

- non-NDIS disability expenses and National Redress Scheme expenses are assessed with aged care on an EPC basis
- other welfare is assessed EPC, rather than using a low SES disability factor
- the cross-border disability only relates to homelessness services.

Data revisions

102 Data revisions had a small effect on the GST distribution ($12 million). New South Wales, Victoria and the ACT increased their GST share, while other States had reduced GST due to data revisions.

Changes in State circumstances

103 Changes in State circumstances had a redistributive effect of $40 million. Between 2015-16 and 2018-19, State spending on concessions and the NDIS either fell or grew relatively slowly.[14] Spending in the other three components grew relatively quickly. The net effect of these changes redistributed GST to States with above average needs (Queensland, Western Australia, South Australia, Tasmania and the Northern Territory).

Updating the assessment

104 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances.

- The Commission will update the following data annually:
  - Productivity Commission data on recurrent expenditure on child protection and OOHC services (used to split child protection and family services expenses between child protection services and out-of-home care services)
  - AIHW data on Indigenous and non-Indigenous substantiations and out-of-home care service user numbers
  - AIHW substantiations data for Indigenous and non-Indigenous children broken down by SES (using IRSEO and NISEIFA) and remoteness area
  - State data on the anticipated NDIS share of disability expenses in the application year, which will be used to split assessment year disability expenses between NDIS and non-NDIS disability services
  - Centrelink and Department of Veterans' Affairs data on the number of PCC plus HCC holders by State (used in the assessment of concessions).

[14] That is, State spending grew less quickly than the GST pool.

17 Housing

Summary of the assessment

The Housing category covers State spending on, and revenue received from, social housing services, and expenses on home purchase assistance for first home buyers.

In assessing State spending, the Commission recognises differences in the socio-demographic composition of households that influence social housing costs. The Commission considers States face higher costs if they have above average shares of households that are Indigenous, of low socio-economic status or living in more remote areas as these groups either use social housing more and/or cost more to service. Wage cost differences between States are also recognised.

Revenue raised from rent partly offsets State expenses. States with a greater proportion of households that use social housing services have a greater capacity to generate revenue, which is partly offset by the lower rents paid by low-income households and households living in remote and very remote regions.

The Commission assesses assistance for first home buyers on an equal per capita basis.

Service overview

1 State net expenses on housing were $3.3 billion in 2018-19, representing 1.4% of total State expenses (Table 17-1). State spending on this function comprises expenses for:

- social housing services provided by the public non-financial sector (PNFS)[1] including subsidies to community housing providers
- grants to first home owners
- private rental assistance and home purchase assistance, other than for first home owners.

Table 17-1 Housing expenses by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total expenses ($m)	806	864	627	537	137	67	64	159	3,260
Total expenses ($pc)	100	132	124	206	78	127	151	649	130
Proportion of total expenses (%)	1.1	1.6	1.4	2.1	0.9	1.3	1.4	2.9	1.4

Note: Expenses shown on a net basis.
Source: Commission calculation using State budget data.

2 The category excludes spending on:

- accommodation for State employees, such as teachers and police officers in remote areas, which is assessed in the Schools and police assessments
- residential institutions mainly providing living quarters for people with special needs, such as the young or the disabled, which is assessed in the Welfare category

[1] The public non-financial sector (PNFS) includes agencies of State general government and public non-financial corporations (PNFCs).

- tax expenditures on concessional rates of conveyance duty for first home owners, which are assessed in the Stamp duty on conveyances category
- homeless persons assistance, which is included in the Welfare category.

3 Table 17-2 shows the share of State expenses on Housing from 2015-16 to 2018-19.

Table 17-2 Housing expenses, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total expenses ($m)	2,363	2,890	2,803	3,260
Proportion of total expenses (%)	1.2	1.4	1.3	1.4

Note: Expenses shown on a net basis.
Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

4 User charges, dominated by revenue from rents for social housing, were $2.8 billion in 2018-19 (see Table 17-3). Unlike other expense categories, needs related to revenue from rents are assessed as a separate component in the Housing category.[2]

Table 17-3 Housing rent revenue, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Revenue ($m)	909	491	431	509	269	51	115	43	2,817
Revenue ($pc)	113	75	85	195	155	96	271	174	112

Note: Rent revenue or user charges refer to revenue from the sale of goods and services classified in GFS to economic type framework (ETF) 112.
Source: Commission calculation using ABS GFS and State budget data.

State roles and responsibilities

5 There are four types of social housing.

- Public housing encompasses the publicly owned or leased dwellings funded and administered by State governments. Most States provide public housing through public housing authorities classified to the State PNFC sector, but Queensland, Tasmania and the Northern Territory provide it through State government departments.
- State-owned and managed Indigenous housing (SOMIH) is equivalent to public housing but is exclusively dedicated to Indigenous households. New South Wales, Queensland, South Australia, Tasmania and the Northern Territory provide housing to Indigenous households through SOMIH agencies.
- Community housing managed by not-for-profit organisations, which receive subsidies from State governments, and offer medium or long-term tenure for low-income individuals and families.
- Indigenous community housing (ICH) is equivalent to community housing but exclusively dedicated to Indigenous households. All States, except the ACT, have Indigenous community housing organisations (ICHOs) delivering housing services to Indigenous households.

[2] Housing is the only expense category that includes an explicit revenue assessment.

6 Table 17-4 shows the distribution of social housing dwellings by program. As at June 2018, 76% of social housing dwellings were provided through public housing authorities or government departments. The number of public housing dwellings has been falling. This has been more than offset by strong growth in the number of community housing and SOMIH dwellings.

Table 17-4 Social housing dwellings by type, June 2013 and June 2018 (a)

Type	2013	2018	Growth in social housing dwellings	Dwellings as a share of total
	no.	no.	%	%
Public housing	328,340	316,231	-3.7	72.7
SOMIH	10,084	14,686	45.6	3.4
Community housing	67,385	87,819	30.3	20.2
ICHO (a)	15,394	16,030	4.1	3.7
Total	**421,203**	**434,766**	**3.2**	**100.0**

(a) ICHO figures are for June 2017 because June 2018 data were not available.
Source: Productivity Commission, *Report on Government Services 2019*, Table 18A.3.

7 Table 17-5 shows the number of social housing dwellings by type and State.

Table 17-5 Social housing dwellings by type and State, 30 June 2018 (a)

Type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	no.	no.	no.	no.	no.	no.	no.	no.	no.
Public housing	111,341	64,295	51,413	33,293	32,686	7,005	11,181	5,017	316,231
SOMIH	4,603	0	3,292	0	1,449	222	0	5,120	14,686
Community housing	35,345	14,486	11,116	8,062	11,561	5,980	895	374	87,819
ICHO (a)	3,370	1,720	5,232	2,649	735	76	0	2,248	16,030
Total	**154,659**	**80,501**	**71,053**	**44,004**	**46,431**	**13,283**	**12,076**	**12,759**	**434,766**
Total per 1,000 population	**20**	**13**	**14**	**17**	**27**	**25**	**29**	**52**	**18**

(a) ICHO figures are for June 2017 because June 2018 data were not available.
Source: Productivity Commission, *Report on Government Services 2019*, Table 18A.3.

8 All States provide grants to first home owners, mostly under the First Home Owner Grant (FHOG) scheme. States set the grant levels and the eligibility criteria.

9 Private rental assistance provided by States includes rent subsidies, bond assistance and grants for moving costs.

Commonwealth roles and responsibilities

10 Table 17-6 shows the Commonwealth payments to the States for Housing in 2018-19. Most of the Commonwealth funding is provided under the National Housing and Homelessness Agreement (NHHA).

Table 17-6 Commonwealth payments to the States for Housing, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
National Housing and Homelessness Agreement ($m)	476	395	314	164	108	33	26	20	1,536
Remote Housing payments ($m)	0	0	0	121	38	0	0	35	194
Other ($m)	1	0	0	0	1	0	0	27	29
Total ($m)	**477**	**395**	**314**	**285**	**146**	**33**	**26**	**82**	**1,758**
Total ($pc)	**59**	**61**	**62**	**109**	**84**	**63**	**61**	**334**	**70**

Note: Table shows major payments only. Commonwealth own purpose expenses (COPEs) are not included. Payments that the Commission treats as 'no impact' are included in the table. Figures may not add due to rounding.

Source: Commonwealth Final Budget Outcome, 2018-19.

11 The complete list of Commonwealth payments and their treatment is available on the Commission website (https://cgc.gov.au).[3]

12 Other Commonwealth funding includes Commonwealth Rent Assistance and the National Rental Affordability Scheme.

Category structure

13 The housing assessment is undertaken in three components:

- social housing expenses
- rent revenue
- first home owner expenses.

14 Components allow different disability assessments to apply to sub-functions.

15 Table 17-7 shows the category's assessment structure, the size of each component and the disabilities that apply.

[3] Most Commonwealth payments to the States affect the grant distribution but some do not. The Commission refers to payments that affect the grant distribution as 'impact' payments. For more information, see Chapter 5 Commonwealth Payments.

Table 17-7 Category structure, Housing, 2018-19

Component	Component expense	Disability	Influence measured by disability
	$m		
Social housing expenses	5,556	Socio-demographic composition	Recognises that income, Indigenous status and remoteness affect the use of housing services. In addition, an Indigenous cost weight is applied.
		Wage costs and regional costs	Recognises the differences in wage costs between States and in the cost of providing services to different areas within a State.
Revenue	-2,817	Socio-demographic composition and capacity to raise revenue from rents	Recognises that income, Indigenous status and remoteness affect the number of social housing households as well as the rent paid by households.
First home owner expenses	521	Equal per capita	This is an equal per capita assessment.

Note: Expenses and user charges are shown on a gross basis.

Source: Commission calculation using State budget data.

Category and component expenses

16 The main data sources for calculating category and component expenses are Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.[4] First home owner expenses are sourced from the States.

Assessment approach

Social housing expenses

17 Expenses for this component relate to public housing, SOMIH, community housing and ICH.

Socio-demographic composition

18 The Commission has assessed expenses on social housing services on the basis of groups of people who use social housing more intensively:

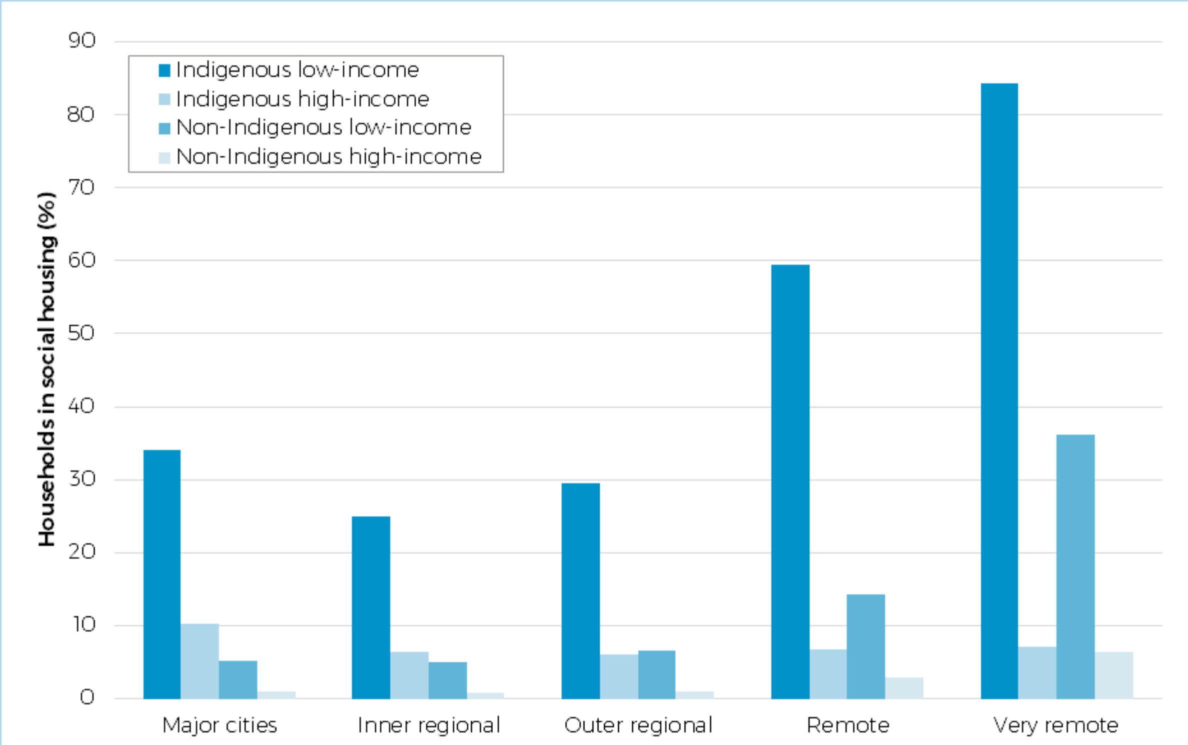
- people on low incomes
- Indigenous people
- people in remote areas.

19 Figure 17-1 shows the proportions of households in social housing by income, Indigenous status and remoteness, as reported in the 2016 Census.[5]

[4] Unless otherwise stated, category and component expenses for the first two assessment years are sourced from Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS). States provide data for the most recent assessment year because GFS data are not available in time for the annual update.

[5] In the 2016 Census, an Indigenous household is one in which at least one person usually resident in a dwelling identifies as being of Aboriginal and/or Torres Strait Islander origin.

Figure 17-1 Proportion of households in social housing households by Indigenous status, remoteness and income



Note: Low-income households have a weekly equivalised gross income of less than $650 and high-income households have a weekly equivalised gross income of $650 or more.

Source: 2016 Census and Commission calculation.

20 The Commission also recognised that, because of such influences as household size, mobility and overcrowding, it costs more to manage and maintain Indigenous houses than non-Indigenous houses.

21 In this assessment, the use of services is considered to be household based rather than individual based. This means that, in terms of demand for services, a household is treated as one unit of service regardless of the number of persons in the household.

22 The 2016 Census undercounts the number of households in social housing as many social housing tenants appear to incorrectly identify their type of landlord. Generally, the AIHW data on the number of households in social housing are considered more accurate than the Census data because they are collected directly from service providers. Although the AIHW data appear to provide a better count of the number of social housing households, they do not provide all the socio-demographic information required for the assessment.
Western Australia said that the Commission should make an adjustment to scale up the number of social housing households even if it is not material. The Commission is concerned with the caveats put on the accuracy of the data for each State by the AIHW. For example, the AIHW noted issues about the comparability of the count of social housing households between States. The Commission decided not to make an adjustment because the adjustment is marginally material and it is unclear the resulting changes improve the assessment of States' social housing needs.

23 ***Household income.*** Social housing in all States is designed to assist households with low incomes, and programs have eligibility limits for both household income and assets. Figure 17-1 shows high use of social housing by low-income households.

24 The Commission has defined low-income households as those with an equivalised income of less than $33,799 a year ($649 per week).[6] An equivalised income of less than $649 per week is similar to the average State income eligibility thresholds for access to public housing for a single person. The threshold approximately equates to the bottom 35% of households in the 2016 Census.

25 ***Indigenous status.*** States provide specialist programs for Indigenous households, recognising the greater need in this community for such services. New South Wales, Queensland, South Australia, Tasmania, and the Northern Territory have SOMIH, and all States, except the ACT, have ICHOs delivering housing services to Indigenous households (see Table 17-5).

26 Data on users of social housing show that Indigenous households use social housing services more than non-Indigenous households and involve higher operating costs per household than non-Indigenous households.

27 The 2016 Census shows that 3.2% of all households in Australia are Indigenous households whereas 16.1% of households in social housing are Indigenous households. Figure 17-1 shows the higher use of social housing by Indigenous households compared to non-Indigenous households.

28 Data collected from States and data from the Productivity Commission (PC) show that it costs more to provide social housing to Indigenous households compared to non-Indigenous households. This is mainly due to larger household sizes, high mobility of the Indigenous population and overcrowding.

29 The 2016 Census also shows the average household with at least one Indigenous person had 3.2 people and 10% of this population resided in a dwelling with seven or more people. This is in comparison to the average non-Indigenous household which had 2.6 people and 3% of this population resided in a dwelling with seven or more people. Overcrowding increases wear and tear, which requires additional maintenance attendances. In addition, the high mobility of the remote Indigenous population necessitates additional tenancy management services to ensure that users of social housing are known, and are paying rents.

30 The Commission considers there is a conceptual case for including an Indigenous cost weight to recognise the higher cost of providing services to this population group.

31 The Commission collected data to update the 1.3 cost weight applied to Indigenous households in the 2015 Review. The Commission asked States to provide data for the four types of social housing (public housing, SOMIH, community housing and ICH). Most States could provide only limited data.

32 The Indigenous cost weight derived from the State data for 2015-16 to 2017-18 shows that operating expenses per SOMIH dwelling are, on average, 6% higher than those for non-Indigenous households in public housing (see Table 17-8).

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[6] Equivalised household income is derived as the amount of disposable cash income that a single-person household would require to maintain the same standard of living as the household in question, regardless of the size or composition of the latter.

Table 17-8 Average cost per household for States with Indigenous-specific public housing programs and Indigenous cost weights

	NSW	Qld	SA	Tas	NT	Total
	$	$	$	$	$	$
2015-16						
Non-Indigenous (a)	12,562	5,980	13,993	15,370	19,855	11,503
Indigenous	12,101	10,048	13,951	9,614	14,047	12,149
2016-17						
Non-Indigenous (a)	14,310	6,392	14,289	13,024	22,484	12,544
Indigenous	12,943	9,047	13,892	6,663	18,967	12,938
2017-18						
Non-Indigenous (a)	15,002	6,628	16,025	22,463	23,733	13,546
Indigenous	13,495	8,789	16,418	8,572	28,847	14,986
	no.	**no.**	**no.**	**no.**	**no.**	**no.**
Cost weights (b)						
2015-16	0.96	1.68	1.00	0.63	0.71	1.06
2016-17	0.90	1.42	0.97	0.51	0.84	1.03
2017-18	0.90	1.33	1.02	0.38	1.22	1.11
Average	**0.92**	**1.47**	**1.00**	**0.51**	**0.92**	**1.06**

Note: Victoria, Western Australia and the ACT do not have SOMIH.

(a) Public housing (PH) costs have been adjusted using the proportion of Indigenous households in PH to impute non-Indigenous dwelling expenses, assuming that Indigenous households in PH cost the same per dwelling as households in SOMIH within the same State.

(b) Cost weights are calculated by dividing Indigenous by non-Indigenous cost per household.

Source: Staff analysis of State data on social housing management expenses from 2015-16 to 2017-18 and Productivity Commission, *Report on Government Services 2019*, Tables 18A.3 and 18A.5 for the proportion of Indigenous households in PH.

33 However, the Commission is concerned that these data are not consistent with those that States provide to the PC. After adjusting the PC data from a net to a gross basis, the average Indigenous cost weight is 1.27. Unlike the State provided data, the PC data show that Indigenous households cost more in New South Wales and South Australia. The cost of Tasmania's Indigenous households is similar to those of non-Indigenous households, compared to about half the costs in the State provided data.

Table 17-9 Indigenous cost weights calculated from PC data, 2015-16 to 2017-18

	NSW	Qld	SA	Tas	NT (a)	Total
	No.	No.	No.	No.	No.	No.
2015-16	1.10	1.57	1.11	1.00	0.99	1.35
2016-17	1.03	1.35	1.10	0.91	0.81	1.20
2017-18	1.06	1.35	1.56	0.90	0.86	1.26
Average	**1.07**	**1.42**	**1.26**	**0.94**	**0.89**	**1.27**

Note: Cost weight based on 'Net recurrent expenditure on public housing' and 'Net recurrent expenditure on SOMIH' data as reported by the Report on Government Services (RoGS) in Table 18A.1, which have been grossed up using 2016 Census data on average rent paid by State. PC estimates exclude capital expenditure, which affects comparability with Commission data.

Cost weights are calculated by dividing Indigenous by non-Indigenous cost per household.

Victoria, Western Australia and the ACT do not have Indigenous-specific public housing.

PH costs have been adjusted using the proportion of Indigenous households in PH to impute non-Indigenous dwelling expenses, assuming that Indigenous households in PH cost the same per dwelling as households in SOMIH within the same State.

(a) NT expenditure data for SOMIH are only available from RoGs for 2017-18. Data for 2015-16 and 2016-17 are estimates.

Source: Staff analysis of State data on social housing management expenses from 2015-16 to 2017-18, 2016 Census and Productivity Commission, *Report on Government Services 2019*, Table 18A.1 for net expense data and Tables 18A.3 and 18A.5 for the proportion of Indigenous households in PH.

34 The most recent available State and PC data show Indigenous cost weights of 1.06 and 1.27 respectively. Both are lower than the 2015 Review cost weight of 1.30, which suggests that the difference between Indigenous and non-Indigenous households has decreased. Therefore, the Commission has reduced the Indigenous cost weight from 1.3 to 1.2.

35 ***Remoteness area.*** The proportion of the population in social housing also varies significantly by remoteness area, as seen in Figure 17-1.

36 Use rates of social housing are higher in remote and very remote regions compared to other regions, even allowing for higher Indigenous use. This is partly due to limited private rental alternatives in those areas.

Regional costs

37 The Commission recognises that the cost of providing social housing services increases with remoteness. In the 2015 Review, in the absence of a housing specific regional cost gradient, the Commission used the general regional cost gradient. For this review, in response to a number of States that considered the general regional cost gradient was not appropriate for housing expenses, the Commission collected State data on the cost of providing social housing by region to derive a housing specific regional cost gradient.

38 However, data provided by States were not sufficiently comprehensive and did not appear sufficiently reliable to develop a regional cost gradient for housing. States provided data for mainly SOMIH.

39 Similarly, the State data could not be used to re-estimate reliably the proportion of State expenses attributable respectively to maintenance and other social housing expenses.

40 As a result, the Commission has decided to continue using the general regional cost gradient to recognise the effects of remoteness on the cost of providing social housing. In addition to this information, the Commission used the Rawlinsons capital cost gradient. Using these data, the Commission has derived two separate regional cost weights: one for maintenance expenses and one for other social housing expenses.

- The regional cost weight for maintenance expenses is based on the Rawlinsons capital cost gradient and the general regional costs gradient. Each has a 50% weight.

- The regional costs gradient for other social housing expenses is based on the Commission's general regional cost gradient.

41 Table 17-10 summarises the method for deriving the regional cost gradients for maintenance and other social housing expenses. For the recurrent assessment, 87.5% of the regional cost gradient reflects the general regional cost gradient and 12.5% reflects the Rawlinsons based capital cost gradient.

Table 17-10 Regional costs assessment for social housing assessments, 2020 Review

Expense item	Expense weight	Regional costs indicator
Recurrent assessment		
Maintenance expenses	25%	Rawlinsons capital cost weights (50%)
		General regional cost gradient (50%)
Other social housing expenses (a)	75%	General regional cost gradient
Investment		
	100%	Rawlinsons capital cost gradient

(a) Other social housing expenses include tenancy management and non-cash expenses.
Source: Commission calculation.

42 Table 17-11 shows the combined regional cost factors for the social housing recurrent assessment. To obtain the factors, the general regional cost gradient is weighted to 87.5% and the Rawlinsons construction cost gradient is weighted by 12.5%. Adding these weighted factors together gives the combined regional cost factor for each region by State.

Table 17-11 Combined regional cost factors, social housing, 2018-19

Region	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Major cities	1.000	0.994	0.993	1.001	0.997	—	1.002	—
Inner regional	1.007	0.995	1.004	1.012	1.007	0.993	1.002	—
Outer regional	1.055	1.034	1.041	1.063	1.051	1.033	—	1.049
Remote	1.225	1.188	1.239	1.255	1.216	1.213	—	1.204
Very remote	1.247	—	1.271	1.280	1.242	1.236	—	1.271

Note: This gradient reflects the application of a medium discount to the general regional cost gradient that contributed to the combined regional cost factors.
Source: Commission calculation.

43 In the Investment assessment, only the Rawlinsons capital cost gradient is used to recognise the differential effect of the cost of investing in housing services. More information on the regional cost gradient can be found in Chapter 28 Geography.

Wage costs

44 Differences in wage costs between States have a differential effect on the cost of providing services. There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method, see Chapter 27 Wage costs.

Data and method

45 The socio-demographic composition (SDC) cost drivers taken into account are income, Indigenous status and remoteness (Table 17-12). The same breakdown applies to the assessment of rent revenue, which is discussed in the next section.

Table 17-12 SDC breakdown, social housing expenses and revenue from rent

Income	Indigenous status	ABS remoteness area
Low income (a)	Indigenous	Major cities
High income	Non-Indigenous	Inner regional
		Outer regional
		Remote
		Very remote

(a) Low income households are defined in paragraph 24.
Source: Commission decision.

46 The ABS Census household numbers used in the Commission's assessment are households in dwellings disaggregated by income, Indigenous status and remoteness area.[7] The Commission has used household numbers by landlord type to measure social housing. The landlord types of 'State or Territory housing authority' (proxy for public housing and SOMIH) and 'Housing co-operative/community/church group' (proxy for community housing and ICH) are used. The enumeration of household numbers is based on the count of occupied private dwellings on Census night.

47 Western Australia argued against the exclusion of unoccupied dwellings from the household count on a number of grounds.

- Classifying a dwelling as unoccupied is a judgement call made by Census collectors who often have little experience.
- The Commission should not overcomplicate the assessment through the removal of unoccupied dwellings. The Census data are known to undercount the number of households in social housing and may overcount the number of unoccupied dwellings.
- The exclusion of unoccupied dwellings is not material.

48 The Commission's aim is to get the best measure of the number of households in each State. Using the total number of dwellings would overestimate the total number of households in Australia because some dwellings may be:

- holiday homes
- empty rental properties awaiting new tenants
- new completed dwellings that remain vacant
- dwellings in mining areas that were empty on Census night.

49 In addition, dwellings were declared unoccupied if the usual residents were absent on Census night.

50 In all these cases, there were no households to record. The number and characteristics of absent residents would have been captured at the location where they spent Census night.

51 Nevertheless, the Commission accepts that there are uncertainties about the accuracy of the household counts in each State because the ABS does not adjust household counts using Census post-enumeration surveys, which are used to adjust population counts. The

[7] Remoteness areas are based on ABS *2016 Australian Statistical Geography Standard (ASGS) Volume 5 – Remoteness Structure,* cat. no. 1270.0.55.005.

Commission decided to adjust the Census count of households in private occupied dwellings by Indigenous status and remoteness area using the adjustment factors for individuals derived from the post enumeration survey. This adjustment assumes the same proportion of undercount between individuals and households by Indigenous status and remoteness area in each State.

52 The SDC assessed expenses are calculated in the following way.

- Post enumeration survey adjustment factors are applied to Census household numbers to account for differences in enumeration by Indigenous status and remoteness to obtain estimates of the total number of households in the Census year (2016-17).
- Household numbers are calculated for each assessment year by scaling the adjusted Census household numbers (set to 2016-17) for State population growth.
- The total number of social housing households by SDC group was multiplied by the Indigenous cost weight and regional cost gradient to derive the number of cost-weighted social housing households.
- Total social housing expenses, for each assessment year, are apportioned among SDC groups using the share of cost-weighted social housing households to give social housing expenses by SDC group.
- The expenses by SDC groups were divided by total actual households in each group to derive national average per household social housing expenses for each SDC group for each assessment year.
- The per household social housing expenses by SDC group were multiplied by each State's number of actual households in each group. These values were summed to derive each State's assessed expenses due to SDC.

53 Wage costs and Rawlinsons' capital factors are later applied to the SDC assessed expenses to derive the component expenses.

Component calculations

54 Table 17-13 shows the calculation of total assessed expenses for the component in 2018-19.

Table 17-13 Social housing assessed expenses, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
SDC assessed expenses ($m)	1,676	1,256	1,185	633	451	129	62	164	5,556
Wage costs factor	1.006	0.994	0.996	1.018	0.979	0.972	1.019	1.029	1.000
Assessed expenses ($m)	**1,683**	**1,237**	**1,180**	**652**	**442**	**125**	**63**	**174**	**5,556**
Assessed expenses ($pc)	**209**	**189**	**234**	**250**	**254**	**235**	**148**	**711**	**221**

Note: Regional costs are applied in the SDC calculation.

Source: Commission calculation.

Rent revenue

55 Social housing revenue includes rents collected from households living in social housing.

Socio-demographic composition

56 The assessment recognises the effects of household income, Indigenous status and remoteness on State capacities to raise revenue from rents. Specifically:

- households on higher incomes paid more rent than those on lower incomes
- rents paid decrease with remoteness
- Indigenous households in non-remote regions paid more rent than non-Indigenous households; however, on average, Indigenous households paid slightly less rent than non-Indigenous households.

Data and method

57 As for the SDC assessment of social housing expenses, the SDC influences on rent paid are income, Indigenous status and remoteness (Table 17-12). Like the expense assessment, the revenue assessment uses 2016 Census data.

58 The Commission has not adjusted for differences in rent collection rates for Indigenous and non-Indigenous households. PC data show that rent collection rates are similar for Indigenous and non-Indigenous housing.[8] In any case, it is expected that any gap should decrease as a result of States recently having taken greater responsibility for Indigenous community housing. One of the expected outcomes of the National Partnership Agreement on Remote Indigenous Housing is Indigenous community housing rent reforms, leading to rent setting in line with that applying to public housing.

59 The revenue SDC assessment is calculated using a similar method as for the social housing expense SDC assessment.

- The number of social housing households by SDC group is divided by the total number of social housing households to give the share of social housing households by SDC group.
- Total revenue, for each assessment year, is apportioned among SDC groups using the share of social housing households weighted by relative rent paid per group to give revenue by SDC groups.
- The revenue by SDC group is divided by the total number of households in each group to calculate the national average per household rent paid by different types of households for each assessment year.
- The per household revenue by SDC groups is multiplied by each State's number of households in each group. These values are summed to give each State's assessed revenue.

Component calculations

60 Table 17-14 shows the calculation of total assessed revenue for the component in 2018-19.

Table 17-14 Social housing assessed revenue, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Assessed revenue ($m)	883	690	578	301	230	57	37	42	2,817
Assessed revenue ($pc)	110	106	114	116	132	108	87	170	112

Source: Commission calculation.

8 Productivity Commission, *Report on Government Services 2017*, Tables 18A.48 to 18A.51. 2017 was the last year the Productivity Commission published this information.

First home owner expenses

61 Expenses for this component include grants to first home owners including those under the FHOG scheme. The component excludes tax expenditure on concessional rates of conveyance duty for first home owners. These concessions are assessed in Stamp duty on conveyances. See Chapter 8 Stamp duty on conveyances for discussion of this decision.

Data and method

62 First home owner expenses are assessed on an EPC basis because no reliable policy neutral measure of first home owner expenses could be identified. State expenses are sourced from the States.

63 As requested by the ACT, the Commission reviewed the availability of data for assessing State needs but could not identify comprehensive and consistent datasets. The Commission notes that the ACT did not provide any data sources.

Component calculations

64 Table 17-15 shows the calculation of total assessed expenses for the component in 2018-19.

Table 17-15 First home owner expenses, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Equal per capita ($m)	166	135	105	54	36	11	9	5	521
Assessed expenses ($pc)	21	21	21	21	21	21	21	21	21

Source: Commission calculation.

Category calculations

65 Table 17-16 brings the assessed expenses for each component together to derive the total assessed expenses for each State for the category. It shows at the component level how each disability assessment moves expenses away from an EPC distribution to obtain total assessed expenses.

Table 17-16 Housing category assessed expenses, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ave
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Social housing expenses									
Equal per capita	221	221	221	221	221	221	221	221	221
SDC assessed expenses	-12	-28	14	22	38	22	-75	447	0
Wage costs	1	-3	-1	7	-5	-8	2	43	0
Assessed expenses	**209**	**189**	**234**	**250**	**254**	**235**	**148**	**711**	**221**
Revenue									
Equal per capita	-112	-112	-112	-112	-112	-112	-112	-112	-112
SDC assessed revenue	2	6	-2	-4	-20	4	24	-58	0
Assessed revenue	**-110**	**-106**	**-114**	**-116**	**-132**	**-108**	**-87**	**-170**	**-112**
First home-owners expenses									
Equal per capita	21	21	21	21	21	21	21	21	21
Assessed expenses	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**
Total assessed expenses	**120**	**104**	**140**	**156**	**142**	**148**	**81**	**561**	**130**

Note: Table may not add due to interactions between disabilities and rounding. The EPC and assessed expenses are total spending per capita. The amounts for each disability are redistributions from an EPC assessment.

Source: Commission calculation.

Infrastructure assessment

66 States require infrastructure to support service delivery. State infrastructure requirements are assessed in the Investment category. The assessment of investment in housing related infrastructure is based on the assessed number of households in social housing derived for the social housing component. The Indigenous cost weight affects State housing infrastructure requirements for Indigenous tenants in SOMIH and dwellings managed by funded ICHOs because this type of housing is often larger and with more expensive specifications than public housing or mainstream community housing. The Indigenous cost weight is not applied to Indigenous tenants in mainstream housing. Differences in regional costs also affect the cost of State housing infrastructure.

67 The first home owner expenses and revenue assessments do not affect State infrastructure requirements.

68 Interstate differences in construction costs are also recognised.

69 For a description of the Investment assessment, see Chapter 24 Investment.

Other issues considered by the Commission

Recognition of clients with culturally and linguistically diverse backgrounds

70 The effect of a culturally and linguistically diverse (CALD) disability on the assessment is very small and not material across other categories. Therefore, the Commission has not assessed a CALD disability in Housing.

71 New South Wales made a case that social housing use rates for people from CALD backgrounds are higher than people who are not from CALD backgrounds. It argued that

additional resources are required to service CALD clients and that service provision to these communities should be recognised as a disability in the Housing assessment.

72 For non-Indigenous individuals in non-remote areas and Indigenous individuals in remote areas, the 2016 Census data show that those not proficient in English use social housing more than those who are proficient in English.[9]

73 Given that the highest use rates for those not proficient in English are for non-Indigenous individuals in non-remote areas (mostly likely households from CALD backgrounds), the Commission considers this confirms that there is a case to consider a differential assessment for CALD households in the Housing assessment.

74 However, the effect on the assessment is not material. Table 17-17 shows the effect on the GST distribution of a differential assessment of use and cost for Indigenous and non-Indigenous people with low English proficiency, using a 5% cost weight as proposed by New South Wales.

Table 17-17 GST redistribution of a CALD assessment

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Indigenous	0	0	0	0	0	0	0	1	1
Non-Indigenous	1	1	-1	0	0	0	0	0	2
Total	**0**	**1**	**-1**	**0**	**0**	**0**	**0**	**0**	**1**
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Indigenous	0	0	0	0	0	0	0	3	1
Non-Indigenous	0	0	0	0	0	0	0	-1	1
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**

Source: Staff calculation using ABS 2016 Census of Population and Housing data.

75 A CALD assessment based on English proficiency has the largest effect on the Northern Territory due to its remote Indigenous populations. However, this disability is at least partially captured in the Indigenous cost weight and a broad CALD assessment would likely double-count needs.

76 The Commission's usual approach is that, if a disability were material across all assessments, it would be assessed in every category where a case is established regardless of the materiality of individual assessments. A CALD disability is not material across all assessments and so the Commission has not assessed it in this category.

Treatment of housing related land acquisition expenses

77 New South Wales said that the user cost of land is the most significant element in the provision of social housing in urban areas. It argued that higher underlying land prices in metropolitan Sydney result in higher housing rental prices compared to markets in other States, and this should be recognised in the assessment. Victoria added that high land prices increased the cost of housing for all residents, which directly increased the demand for social housing and homelessness services for low-income households.

[9] Data show the opposite for Indigenous individuals in non-remote areas and non-Indigenous individuals in remote areas.

78 The Commission has not made a differential assessment of expenditure on housing related land because recurrent expenses would not be affected directly by land prices and net investment in housing related land is too small for an assessment to be material.

79 Victoria did not provide evidence to support its argument and the Commission does not have fully comparable information on the number of applicants for social housing processed by each State. Data available from the PC *Report on Government Services 2018* did not lend support to Victoria's argument. Table 17-18 presents data that describe the social housing provision environment and median house prices across Australia.

Table 17-18 State social housing provision and houses prices, 2016-17

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Avg
Capital city — median established house prices, June 2017 ($'000)	1,050	720	518	508	450	400	670	500	—
Allocation of public housing to those in greatest need, 2016-17 (%)	59.7	81.8	96.9	52.8	85.6	97.9	98.6	58.2	74.3
Major cities — social housing households per 1,000 population, June 2017 (no.)	**20**	**11**	**13**	**14**	**27**	**0**	**27**	**0**	**16**
Total — social housing households per 1,000 population, June 2017 (no.)	**18**	**12**	**14**	**16**	**26**	**25**	**27**	**30**	**17**

Source: ABS, *Residential Property Price Indexes: Eight Capital Cities*, cat. no. 6416.0, AIHW social housing dwellings (2016-17) from a special data request, and Productivity Commission, *Report on Government Services 2018*.

80 New South Wales has the highest median house price and approximately 60% of its social housing allocations are to those in greatest need,[10] nearly 15% below the national average. While Victoria does allocate social housing to high priority clients at a rate higher than the national average, part of this would be related to its low quantity of social housing stock. In comparison, South Australia has one of the lowest median house prices and approximately 86% of its social housing allocations are for high priority clients. There appears to be no direct link between house prices and allocation of social housing to those in greatest need.

81 There is also minimal evidence to support the argument that States provide more social housing services in response to higher demand due to high land and house prices. Table 17-18 shows that there is little correlation between house prices and the level of social housing provision. For example, the two States with the lowest capital city house prices have above average levels of social housing per capita, while Victoria has the second highest capital city house prices but a low level of social housing per capita.

82 The reasons for homelessness are complex, making it difficult to establish a relationship between high land prices and homelessness. Chapter 16 Welfare discusses the assessment of homelessness expenses.

Treatment of affordable housing expenses

83 Commonwealth and State governments are giving greater policy and funding attention to affordable housing.[11] The Commission investigated whether a separate assessment of expenses relating to affordable housing should be made but is inclined not to make an

[10] Greatest need households are defined as households that at the time of allocation are homeless, in housing inappropriate to their needs, in housing that is adversely affecting their health or placing their life and safety at risk, or, have very high rental housing costs.

[11] Affordable housing refers to housing targeted at low to moderate income households with rents set as a proportion of market rent.

assessment because there are no data on the size of State expenses and the target population. As requested by the ACT, the Commission reviewed the availability of data sources but could not identify comprehensive and consistent datasets. The Commission notes that the ACT did not provide any data sources.

Applying an Indigenous adjustment to the rental revenue component

84 The Commission has not applied an adjustment for rental arrears.

85 Queensland argued for an Indigenous adjustment to be applied to the rental revenue component. It said that Indigenous households living in State housing are twice as likely to be in rental arrears compared to non-Indigenous households. It estimated that, in Queensland, approximately 20% of Indigenous households are in rental arrears compared to 9% of non-Indigenous households. These households account for over $1 million and $0.6 million in social housing arrears, respectively. As such, Queensland considered that there should be an Indigenous adjustment in the rental revenue assessment to account for this.

86 In the figures provided by Queensland, the differential in rent arrears between Indigenous and non-Indigenous renters is $0.4 million. An assessment of this magnitude would not be material. In addition, it would be expected that States would eventually recover at least some of the unpaid rents.

Recognition of clients with disability

87 People with disability are more likely to be on low incomes, and Indigenous people are more likely to have a disability compared with non-Indigenous people.[12]

88 Queensland argued that additional services are required for persons with high or very high disability related needs; 70% of all applicants on Queensland's housing register are characterised as having high or very high needs and 90% of new households in government owned and managed social housing are in high or very high need categories. Moreover, 50% of all social housing households have a person with a disability.

89 Tasmania also presented a case for the recognition of individuals with disability in the Housing assessment, maintaining that it has the highest rate of any State of people with a disability. This increases costs related to servicing the demand for modified housing required by this client base. It also argued that the NDIS is creating demand for more social housing through increasing expectations for independent living as an outcome of the scheme.

90 Given that income and Indigeneity are captured in the SDC assessment and that no sufficiently comprehensive data on the use of social housing by people with disability are available, the Commission has not made an assessment.

Effect on the GST distribution

91 Table 17-19 shows the extent to which the assessment for this category moves the distribution of GST away from an EPC distribution. States with a positive redistribution are assessed to have above average spending requirements and States with a negative

[12] AIHW, *Aboriginal and Torres Strait Islander Health Performance Framework (HPF) report 2018*.

redistribution are assessed to have below average spending requirements. In per capita terms, the Northern Territory and the ACT experience the largest redistributions.

Table 17-19 Illustrative redistribution from an EPC assessment, Housing, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	-77	-162	54	67	21	9	-19	106	258
$ per capita	-9	-24	10	25	12	17	-44	433	10

Note: The redistribution is the difference from an EPC distribution of GST in 2020-21.

Source: Commission estimate.

92 The main reasons for these redistributions are the differences between States in service provision to those assessed as using services more intensively or having higher costs such as Indigenous people, those of low-income status and those in remote areas.

- New South Wales has a lower than average proportion of households on low-income and in remote areas. This is partly offset by its relatively higher wage costs and its relatively high proportion of Indigenous households.
- Victoria has a lower than average proportion of Indigenous households and households in remote and very remote regions. This is partly offset by an above average proportion of low-income households.
- Queensland and Western Australia have higher than average proportions of Indigenous households and more households in remote and very remote regions. This is partly offset by below average proportions of low-income households.
- South Australia has above average proportions of low-income households and households in remote and very remote regions. This is partly offset by relatively low wage costs and a below average proportion of Indigenous households.
- Tasmania has above average proportions of Indigenous households and above average proportions of households on low incomes. While it has an above average proportion of households in remote and very remote regions, these are mainly non-Indigenous households, which have a low use of social housing. It also has relatively low wage costs.
- The ACT has a relatively small low-income population, fewer than average Indigenous households and no remote locations. This is partly offset by higher wage costs.
- The Northern Territory has a higher than average proportion of Indigenous households as well as a higher than average proportion of households in remote and very remote regions. This is partly offset by its below average proportion of low-income households.

93 Table 17-20 provides a summary of the main disabilities contributing to the redistribution from an EPC assessment for this category.

Table 17-20 Major reasons for the redistribution, Housing, 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Social housing expenses									
SDC	-99	-190	74	59	68	12	-33	110	322
Wage costs	4	-16	-5	18	-9	-5	2	12	36
Sub-total	**-95**	**-207**	**68**	**77**	**59**	**7**	**-31**	**121**	**332**
Revenue	18	45	-14	-10	-37	2	11	-15	-76
First home owner expenses	0	0	0	0	0	0	0	0	0
Total	**-77**	**-162**	**54**	**67**	**21**	**9**	**-19**	**106**	**258**

Note: The redistributions from an EPC assessment are illustrative. Disabilities may not add due to rounding.

Source: Commission calculation.

Changes since the 2019 Update

94 There are a number of data and method changes since the 2019 Update. Table 17-21 shows the effect of these changes.

Table 17-21 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method and data changes	-9	-23	11	23	-9	-5	0	12	47
Data revisions	0	1	0	-2	1	1	0	-1	3
State circumstances	3	-2	0	-3	2	0	-1	0	5
Total	**-6**	**-23**	**11**	**18**	**-6**	**-4**	**-1**	**11**	**41**

Source: Commission calculation.

Method and data changes

95 Tax expenditures on concessional rates of conveyance duty for first home owners are now assessed in the Stamp duty on conveyances category.

96 The Commission has excluded unoccupied dwellings from the households count because including those unoccupied dwellings overestimated the actual number of households in each State.

97 The Commission made an adjustment to household numbers to address uncertainties about the accuracy of the household counts.

Data revisions

98 There were very minor revisions to the data used in the assessments.

Changes in State circumstances

99 Changes in State circumstances lead to minor changes to the GST distribution.

Updating the assessment

100 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances.

- The following data will be updated annually:
  - ABS GFS data on housing expenses and revenue
  - State data on first home owner expenses.
- Some of the assessment data are not readily available on an annual basis, or remain stable over time. These data will not be updated during the review period:
  - household numbers and rent paid by households will be updated when 2021 Census data or equivalent data are available.

18 Services to communities

Summary of the assessment

The Services to communities category covers State subsidies for the provision of water and wastewater services, electricity services and a range of expenses for community development and environmental protection services.

The Commission assesses above average costs:

- for electricity subsidies, in States with concentrations of people living in remote and very remote communities
- for water subsidies, in States with concentrations of people living in small communities of less than 3,000 people outside of major cities
- for Indigenous community development, in States with higher shares of Indigenous people living in discrete Indigenous communities.

The assessment also recognises differences in wage costs between States and the higher cost of providing some of the services in more remote locations. State spending on other community development and environmental protection services is assessed using State populations.

Service overview

1 State expenses on services to communities were $8.8 billion in 2018-19, representing 3.9% of total State expenses (Table 18-1). State spending on this function comprises expenses for:

- subsidies for the provision of electricity services
- subsidies for the provision of water and wastewater services
- Indigenous community development
- other community development
- expenses related to environmental protection services, including national parks and wildlife.

Table 18-1 Services to communities expenses by State, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Total expenses ($m)	2,065	2,115	1,784	1,481	627	140	133	502	8,847
Total expenses ($pc)	257	324	353	568	360	262	314	2,046	352
Proportion of operating expenses (%)	2.9	3.9	3.9	5.7	4.2	2.8	2.9	9.2	3.9

Note: Expenses shown on a gross basis.

Source: Commission calculation using State budget data.

2 The category excludes:

- concession payments for electricity and water (for example, to pensioners and health care card holders), which are assessed in the Welfare category

- regulation expenses for the electricity and water sectors, and expenses related to irrigation and other industrial uses of water, which are assessed in the Services to industry category
- expenses to fund the construction of housing, industrial buildings, public utilities or any other facilities, which are assessed in the Investment category
- public housing services or economic development expenses, which are assessed in the Housing and Services to industry categories respectively.

3 Table 18-2 shows the share of State expenses on services to communities from 2015-16 to 2018-19.

Table 18-2 Services to communities expenses, all States, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total expenses ($m)	7,768	7,747	8,461	8,847
Proportion of total operating expenses (%)	4.1	3.8	3.9	3.9

Note: Expenses shown on a gross basis.
Source: Commission calculation using Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) and State budget data.

4 User charges were $2.5 billion in 2018-19 and mainly include environmental licences and waste management levies. In this category, user charges are assessed on an equal per capita (EPC) basis in the Other revenue category.

5 There is no revenue related to electricity and water utilities because the revenue generated from these services is recorded as income by the private or government business enterprises responsible for delivering services. Table 18-3 shows user charges from Services to communities in 2018-19.

Table 18-3 Services to communities user charges, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Revenue ($m)	254	955	609	304	229	43	51	44	2,489
Revenue ($pc)	32	146	121	117	131	80	120	181	99

Note: User charges refer to revenue from the sale of goods and services classified in Government Finance Statistics (GFS) to economic type framework (ETF) 112.
New South Wales has below average user charges for other community development and environmental protection. It has leased its land registry services which are State-owned in other States, and a number of national parks.
Source: Commission calculation using ABS GFS and State budget data.

State roles and responsibilities

Electricity

6 State governments and their wholly owned electricity businesses are major players in the electricity market. In Western Australia, Tasmania and the Northern Territory, the State government has majority ownership of all electricity market components, which include the generation, transmission, distribution and retail sectors. In the ACT, ownership of market components, and the majority of the retail sector, is shared between the ACT government and a private company. In Queensland, the State government has majority ownership of the generation, transmission and distribution components. In New South Wales, Victoria and South Australia, the electricity market components are all privately owned or leased on a long-term basis.

7 State governments also have a role in regulating the industry, setting prices and providing operating subsidies.

8 The National Electricity Market (NEM) is a wholesale generation market and operates across New South Wales, Victoria, Queensland, South Australia, Tasmania and the ACT, although not all areas of Queensland, South Australia and Tasmania are covered. Communities in areas outside the NEM are serviced either by smaller non-interconnected networks or by isolated generators.

9 Western Australia and the Northern Territory have a number of independent systems, clustered around major users. Smaller and isolated communities are serviced by specialist providers, such as through the Indigenous Essential Services program in the Northern Territory.

10 In this chapter, the term 'on-grid' refers to a community that is connected either to the NEM or one of the electricity networks in Western Australia or the Northern Territory. The term 'off-grid' refers to all other communities.

11 States differ greatly in their subsidy policies, resulting in very different patterns of spending. States fall into four broad groups.

- In New South Wales, Victoria and the ACT, no ongoing subsidies are provided, and costs are fully recovered via user charges
- South Australia and Tasmania provide subsidies for a small number of off-grid communities
- Queensland provides subsidies for both off-grid communities and on-grid regional communities outside South East Queensland. The regional network provider, Ergon Energy, has a partial connection to the national grid, and also services isolated communities with stand-alone generators. All small customers serviced by Ergon Energy are subsidised. The subsidy for on-grid customers reflects the higher distribution costs in areas outside South East Queensland where population density is lower. Off-grid Ergon Energy customers receive a higher subsidy than its on-grid customers.
- The Northern Territory provides subsidies for all areas, including Darwin, but subsidies are greater in regional and remote areas. Western Australia previously followed this pattern but discontinued metropolitan subsidies from 2018-19 onwards.

12 Table 18-4 shows the total amount of subsidies paid by States. The Northern Territory, Western Australia and Queensland provide the highest subsidies per capita, and also have the largest off-grid populations. State spending on electricity subsidies has been falling in recent years, mainly due to the discontinuation of the subsidy for the South West Interconnected System (SWIS) electricity network in Western Australia.[1]

[1] The South West Interconnected System (SWIS) network services over 90% of Western Australia's population and includes the Perth metropolitan area.

Table 18-4 Electricity services, State subsidies, 2015-16 to 2018-19

	2015-16	2016-17	2017-18	2018-19
Total expenses ($m)	1,204	1,290	1,048	862
Total expenses ($pc)	50	54	44	36

Note: Data are not shown by State for confidentiality reasons.

Source: State provided data for the 2020 Review.

Water and wastewater

13 The way in which water is managed and supplied varies considerably across the country. Western Australia, South Australia, Tasmania, the ACT and the Northern Territory are all mainly serviced by one utility that provides water services to most or all regions within the State. New South Wales, Victoria and Queensland are serviced by a few large utilities in the capital cities and by a number of smaller, mostly local government based, utilities in the regional areas. Each services a specific area of the State.

14 Water is extracted from a number of sources such as surface water, groundwater, desalinated seawater and treated wastewater. For most States, surface water is the primary source with the other three used as a backup. In Western Australia and the Northern Territory, only the capital cities have access to high quality surface water while the regional areas rely on groundwater. In Perth, desalinated seawater complements surface water supplies. Western Australia is the largest user of desalinated water and groundwater in urban areas.[2] South Australia sources most of its water from the Murray River and provides it across the State through a series of pipelines. Areas of South Australia not serviced by these pipelines rely on groundwater.

15 Water providers are also typically responsible for wastewater services.

16 State governments play a large role in providing water and wastewater services. For most States, the major bulk water suppliers and bulk water retailers are owned by the State government. This often includes the majority of the State's water infrastructure, such as networks, water treatment plants and wastewater plants. State governments also have a role in regulating the industry, setting prices and providing subsidies.

17 New South Wales, Victoria, Queensland, Tasmania and the ACT provide little to no subsidies for water and wastewater services. Where subsidies are provided, they tend to be for capital purposes or, in New South Wales and Queensland, for supplying services to regional and Indigenous communities.

18 Western Australia, South Australia and the Northern Territory have uniform tariff policies that mainly subsidise water prices for residential customers outside capital cities. In Western Australia and South Australia, subsidies for residential connections in Perth and Adelaide appear to be minimal. Their subsidies are largely for regional and remote water services which tend to be more costly due to the small scale of operations, low customer density, or both.

19 Table 18-5 shows the value of water and wastewater subsidies for 2018-19. It shows that Western Australia, South Australia and the Northern Territory provide the highest subsidies per capita.

2 Bureau of Meteorology, *National performance report 2017–18: urban water utilities,* 2017-18.

Table 18-5 Water services, State subsidies, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Expenses ($m)	74	18	27	205	108	0	0	34	465
Expenses ($pc)	9	3	5	79	62	0	0	140	18

Source: State provided data for the 2020 Review.

20 In this chapter, services and subsidies for water and wastewater are grouped together and referred to collectively as water services and water subsidies. Water services relate to residential water services only.

Indigenous community development

21 Most States provide support for Indigenous community development in discrete Indigenous communities, which includes co-ordinating capital works programs, managing State land rights legislation and land tenure, developing community plans, and educating community leaders about planning processes. Victoria, Tasmania and the ACT have very few, or no, discrete Indigenous communities.

Other community development

22 Community development expenses cover a wide variety of State activity but can broadly be described as community related administration and planning including regulating land use, administering zoning laws and providing facilities for community health, recreation and culture. As specified in the Australian Bureau of Statistics (ABS) Government Finance Statistics (GFS) classification, this component does not include expenses on the construction of housing, industrial buildings, public utilities or any other facilities.

23 States set overarching strategic plans for land use and zoning in their jurisdictions, and work with local government to implement these policies. Some State agencies have greater authority to assess development applications while other States exercise these functions at the local government level. In the ACT, the National Capital Plan places restrictions on some planning and development decisions which result in some additional costs.[3]

Environmental protection

24 State governments have a role as a regulator and funding source for environmental protection. Each State has its own legislation and standards for most areas of environmental protection. States determine strategies for flood mitigation, protecting rivers, foreshores and beaches, and pollution control. States also manage protected land areas and national parks.

Commonwealth roles and responsibilities

25 In addition to general revenue assistance, the Commonwealth provides funding to the States for services to communities, comprising the Sustainable Rural Water Use and Infrastructure Program and other national partnership payments (NPPs). Table 18-6 shows the main Commonwealth payments to the States for services to communities in 2018-19.

[3] These additional planning costs for the ACT are recognised in the national capital allowances assessment which is part of the Other expenses category.

Table 18-6 Commonwealth payments to the States for Services to communities, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Sustainable Rural Water Use and Infrastructure Program ($m)	36	111	10	0	22	21	15	0	214
Implementing water reform in the Murray-Darling Basin ($m)	9	7	2	0	1	0	0	0	20
Other national partnership payments ($m)	2	0	12	0	0	2	0	3	18
Total ($m)	**47**	**117**	**23**	**0**	**24**	**23**	**15**	**3**	**253**
Total ($pc)	**6**	**18**	**5**	**0**	**14**	**44**	**35**	**10**	**10**

Note: Table shows major payments only. Commonwealth own purpose expenses (COPEs) are not included. Payments that the Commission treats as 'no impact' are included in the table.

Source: Commonwealth Final Budget Outcome, 2018-19.

26 The Sustainable Rural Water Use and Infrastructure Program funds several programs covering rural, environmental and urban water initiatives, including projects in the Murray-Darling Basin.

27 The complete list of Commonwealth payments and their treatment is available on the Commission website (https://cgc.gov.au).[4]

Category structure

28 The assessment of the Services to communities category is undertaken in five components, two of which have sub-components:

- electricity subsidies
  - remote community electricity subsidies
  - other electricity subsidies
- water subsidies (which include wastewater subsidies)
  - small community water subsidies
  - other water subsidies
- Indigenous community development
- other community development
- environmental protection.

29 Components allow different disability assessments to apply to sub-functions.

30 Table 18-7 shows the category's assessment structure, the size of each component and the disabilities that apply.

[4] Most Commonwealth payments to the States affect the grant distribution but some do not. The Commission refers to payments that affect the grant distribution as 'impact' payments. For more information, see Chapter 5 Commonwealth payments.

Table 18-7 Category structure, Services to communities, 2018-19

Component	Component expense	Disability	Influence measured by disability
	$m		
Electricity — remote community subsidies	424	Remote communities	Recognises that costs are higher for remote communities.
		Regional costs	Recognises the higher costs for providing services in very remote communities.
		Wage costs	Recognises the differences in wage costs between States.
Electricity — other electricity subsidies	438	EPC	The driver of these expenses is State population.
Water — small community subsidies	225	Small communities	Recognises that costs are higher for small communities.
		Regional costs	Recognises the higher costs for small communities in outer regional and remote areas.
		Wage costs	Recognises the differences in wage costs between States.
Water — other water subsidies	241	EPC	The driver of these expenses is State population.
Indigenous community development	229	Population in discrete Indigenous communities	Recognises the higher costs of providing services in discrete Indigenous communities.
		Wage costs	Recognises the differences in wage costs between States.
		Regional costs	Recognises the higher costs of providing services to remote communities.
Other community development	2,531	EPC	The driver of these expenses is State population.
		Wage costs	Recognises the differences in wage costs between States.
		Regional costs	Recognises the higher costs of providing services to remote communities.
Environmental protection	4,759	Not applicable	These expenses are not differentially assessed.
		Wage costs	Recognises the differences in wage costs between States.
		Regional costs (a)	Recognises the higher costs of providing services to remote communities.

(a) Applied only to the protection of biodiversity and landscape sub-component (which includes national parks and wildlife).
Source: Commission calculation using State budget data.

Category and component expenses

31 The main data sources for calculating category and component expenses are ABS GFS data and State budget data.[5] Component expenses are derived from State data for the electricity

[5] Unless otherwise stated, category and component expenses for the first two assessment years are sourced from ABS GFS. States provide data for the most recent assessment year because GFS data are not available in time for the annual update.

subsidies, water subsidies and Indigenous community development components as reliable GFS data are not available for these components.

32 State data are also used to split expenses for both the electricity subsidies and water subsidies components into sub-components. The calculation of these splits is discussed below.

Assessment approach

Electricity subsidies

33 Expenses for this component include subsidies to electricity service providers for services to households. Subsidies include both operating subsidies and capital subsidies, but exclude spending on:

- concession payments (for example, to pensioners and churches), which are assessed in the Welfare category
- regulation expenses for the electricity sector, which are assessed in the Services to industry category.

34 There are separate assessments for remote community electricity subsidies and other electricity subsidies.

Remote community electricity subsidies

35 Remote community electricity subsidies include subsidies for off-grid communities in remote and very remote areas, as well as subsidies for remote parts of electricity networks where subsidies are due to higher costs. Network subsidies included in this sub-component are for customers in the remote and very remote parts of the North West Interconnected System (NWIS) in Western Australia and Ergon West in Queensland.

36 Differences in the cost of providing services to different regions within a State affect State expenses. For remote community electricity subsidies, the Commission has used State data to:

- identify the characteristics of remote communities receiving subsidies
- calculate cost weights to reflect the difference in the level of per capita subsidies for remote and very remote communities.

37 Comprehensive data were received from the five States that provide electricity subsidies, that is, Queensland, Western Australia, South Australia, Tasmania and the Northern Territory.[6] In total, States provided 178 records. This was composed of six electricity networks that covered large areas including capital cities, and electricity systems for 172 isolated ('off-grid') communities.

38 Off-grid communities that are not connected to a major electricity network are the most costly types of communities. After analysing the characteristics of these communities, the following criteria were chosen to define the types of communities requiring subsidies:

- communities in remote and very remote areas

6 Data received included expenses, revenue and subsidies, the amount of electricity supplied, number of connections, fuel type, Indigenous status of the community and geospatial information about the service area. Financial data related to 2014-15 and 2015-16.

- populations of over 50, with no upper bound
- a population density of at least 60 people per km^2, for geographic areas not identified as Urban Centres and Localities (UCLs).[7]

39 Other criteria were tested but the criteria listed above were settled on by the Commission because they capture a significant proportion (75.6%) of the 172 off-grid communities.

40 The Commission decided to include large communities serviced by remote electricity networks because the State data showed that these communities received similar subsidies to the large off-grid communities. In total, there are eight large communities that meet the criteria and only one of them is not subsidised (Port Lincoln in South Australia).[8]

41 Queensland supported the remote community definition. Western Australia disagreed with excluding communities of 50 or smaller, while the Northern Territory disagreed with excluding the Greater Darwin area (an outer regional area). This is discussed further in the section Other issues considered by the Commission, paragraph 151. Other States did not comment on the remote community definition.

42 The exclusion of very small communities with a population of 50 or below is to avoid including people living on isolated farms and stations, because they tend to rely on their own electricity and water services rather than subsidised community services.

43 The Northern Territory discussed using multiple population groups, including a group of zero to 500 people plus a group of 500 to 2,500 people. However, the Commission found that any further splitting of population size was not statistically significant when remoteness was included in the model, meaning that the inclusion of the remoteness variable was essentially measuring the effect of community size.

44 The definition of remote communities will remain fixed for the current review period.

Regional costs

45 The assessment recognises that the costs of very remote communities are higher than remote communities.

46 State data show that:

- the per capita subsidy for very remote communities is over three times higher than the per capita subsidy for remote communities
- very remote communities are smaller on average than remote communities.

47 Table 18-8 shows the cost weights to be applied to people in remote and very remote communities. They were derived from State subsidy data. The Commission used regression analysis by comparing the subsidies for each community against its population. The Commission does not intend to update these cost weights before the next review.

7 Urban Centres and Localities (UCLs) are areas of concentrated urban development. Most UCLs have a minimum population of 200 and population density of 100 persons per km^2. However, some UCLs have lower population densities or population counts and may still be classified by the ABS as a UCL depending on the adjacent land use and other criteria (ABS 2016, Australian Statistical Geography Standard (ASGS): *Volume 4 - Significant Urban Areas, Urban Centres and Localities*, Section of State, July 2016, cat. no. 1270.0.55.004).

8 The other large communities (population over 5,000) are Alice Springs, Broome, Esperance, Karratha, Katherine, Mount Isa and Port Hedland. With the exception of Katherine, these communities are either off-grid or serviced by remote electricity networks with a small customer base.

Table 18-8 Electricity, cost weights for remote and very remote communities

	Average community size	Predicted subsidy	Weight
	no.	$pc	
Remote	1,153	577	1.000
Very remote	649	1,989	3.447

Source: Commission calculation using State provided data.

Wage costs

48 Wage costs directly affect the regulated maximum allowable revenue that can be raised by electricity network service providers. These amounts are regulated by the Australian Energy Regulator (AER) in all States.

49 Electricity subsidies are used to bridge the gap between service providers' revenue and their expenses. Although wage costs are not the main driver of subsidy expenses, they have an impact on the level of subsidy needed. Western Australia and the Northern Territory both supported applying a wage cost disability to electricity and water subsidies, while Tasmania did not support applying wage costs to electricity and water subsidies, as it stated that higher wages would be met through higher prices for electricity and water. Other States did not comment on this issue.

50 Table 18-20 does not show a relationship between wage costs and residential prices. Of States with higher wage costs in 2017-18, that is New South Wales, Victoria, ACT, and the Northern Territory, only one State (Victoria) had above average residential prices. Therefore, it is not clear that States with higher wage costs would necessarily be able to recover these costs from user charges.

51 There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method, see Chapter 27 Wage costs.

Other electricity subsidies

52 Other electricity subsidies include subsidies for electricity networks where the subsidies are likely to be a policy choice, rather than due to an underlying disability. These are areas such as the Darwin-Katherine network, Ergon East, and most of Ergon West. The Commission has decided to assess the other electricity subsidies sub-component on an EPC basis.

53 New South Wales, Victoria, South Australia and the ACT supported this assessment. Western Australia and the Northern Territory disagreed that their subsidies outside remote and very remote areas were the result of policy choices. Queensland and Tasmania did not comment.

54 Concerns raised by Western Australia and the Northern Territory are addressed in the Other issues considered by the Commission section, at paragraph 144.

Splitting the component

55 The average electricity network subsidy per capita is higher in remote and very remote areas, which reflects a combination of higher transmission and distribution costs, and diseconomies of small scale. In addition, among the 172 off-grid communities, 154 are located in very remote areas and 17 are in remote areas; only one is located in outer regional Australia.

56 Based on the above information, the value of subsidies provided by States for networks and off-grid communities was used to calculate the split for remote community electricity subsidies and other electricity subsidies, as shown in Table 18-9.

- Remote community electricity subsidies include subsidies for communities without network access in remote and very remote areas, which are generally off-grid communities, as well as for networks (or parts of networks) where high subsidies are due to higher costs (that is, remote and very remote parts of the NWIS and Ergon West).
- Other electricity subsidies include subsidies for electricity networks where the subsidies are likely to be a policy choice, rather than due to an underlying disability, that is, the Darwin-Katherine network, Ergon East, and half of Ergon West.

Table 18-9 Split between remote community electricity subsidies and other electricity subsidies, 2015-16 to 2018-19

	Remote community subsidies		Other subsidies		Total
	$m	%	$m	%	$m
2015-16	457	38	747	62	1,204
2016-17	475	37	815	63	1,290
2017-18	461	44	586	56	1,048
2018-19	424	49	438	51	862

Note: The remote community subsidy includes off-grid communities plus the remote/very remote expenses for the North West Interconnected System (NWIS) and Ergon West. The Energex and South West Interconnected System (SWIS) networks are included as part of other subsidies where applicable, but subsidies for these networks were discontinued from 2015 and 2018-19 respectively.

Source: State data for the 2020 Review.

57 The Commission will update the split annually based on data provided by States, rather than leaving it fixed for the duration of the review. This will allow the assessment to reflect changes in what States do.

Data and method

58 State data are used to estimate total expenses for both remote community electricity subsidies and other electricity subsidies.

59 Census data, which relate to 2016-17, are used to determine the proportion of each State's population living in remote and very remote communities. Those proportions are applied to State populations in each assessment year, to determine the number of people living in these communities. The cost weights from Table 18-8 are applied to these people.

60 The other electricity subsidies sub-component is assessed on an EPC basis.

Component calculations

61 Table 18-10 shows the calculation of total assessed expenses for the component in 2018-19.

Table 18-10 Electricity subsidies component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Remote community electricity subsidies sub-component									
Population in remote and very remote communities ('000)	22	2	95	115	42	8	0	81	365
Weighted population ('000) (a)	29	2	203	221	62	12	0	181	712
Wage cost factor	1.006	0.994	0.996	1.018	0.979	0.972	1.019	1.029	1.000
Assessed expenses ($m)	**17**	**1**	**120**	**133**	**36**	**7**	**0**	**110**	**424**
Other electricity subsidies sub-component									
Total population ('000)	8,038	6,527	5,051	2,606	1,743	532	423	246	25,166
Assessed expenses ($m)	**140**	**114**	**88**	**45**	**30**	**9**	**7**	**4**	**438**
Electricity subsidies component									
Assessed expenses ($m)	**157**	**115**	**208**	**178**	**66**	**16**	**7**	**114**	**862**
Assessed expenses ($pc)	**20**	**18**	**41**	**68**	**38**	**31**	**17**	**466**	**34**

(a) The very remote population is weighted using the electricity subsidies regional cost weight.

Source: Commission calculation.

Water subsidies

62 Expenses for this component include subsidies to water and wastewater service providers for services to residential households. Subsidies include both operating subsidies and capital subsidies, but exclude spending on:

- concession payments (for example, to pensioners, health care card holders and churches), which are assessed in the Welfare category
- regulation expenses for the water sector, which are assessed in the Services to industry category.

Small community water subsidies

63 There are economies of scale for large utilities, particularly for infrastructure and the operation and maintenance costs of water treatment works. On average, operating costs per connection are higher for small utilities.

64 All States supported an assessment of subsidies due to unavoidably high costs. Western Australia said that water quality, accessibility and availability were cost factors influencing its subsidy levels.

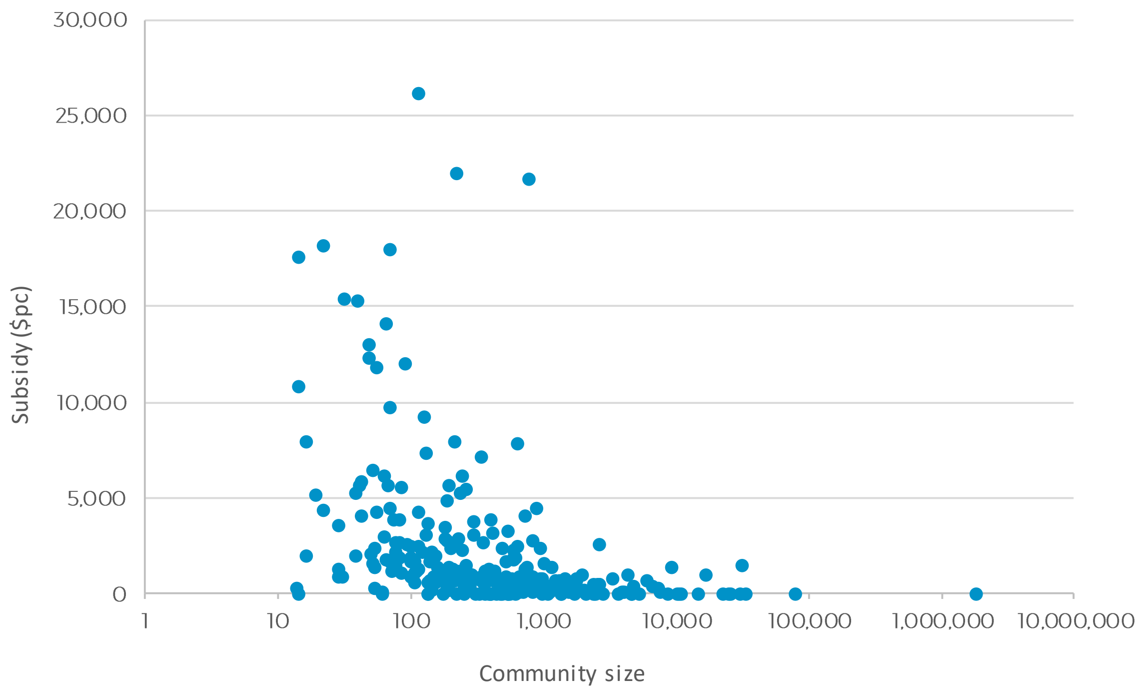
65 South Australia supported assessing water quality and availability issues. Tasmania supported an assessment based on small communities in remote and very remote regions. The ACT was concerned that the use of community size and remoteness as factors might not capture other factors including socio-economic status (SES), the value of assets or future investment requirements. Other States did not comment on this aspect of the assessment.

66 Issues relating to water quality, availability, and service delivery scale are addressed in the Other issues considered by the Commission section, at paragraph 157.

67 For communities with less than 1,000 people, water subsidies are significantly higher compared to bigger communities (Figure 18-1). This is consistent with evidence from Queensland, Western Australia, South Australia, Tasmania and the Northern Territory

provided during the 2010 Review.[9] However, there are a considerable number of communities of between 1,000 and 10,000 people that receive subsidies.

Figure 18-1 Water — subsidised communities, by community size and subsidy per capita, average of 2016-17 to 2017-18



Note: Includes data from the Northern Territory and Western Australia. Only communities that could be matched with a population group were included.

Community size is shown on a log scale.

The chart excludes outliers, defined as the 9 most heavily subsidised communities and the least subsidised community, when ranked by their average subsidy per capita.

Source: State data for the 2020 Review.

68 The 2015 Review method defined small communities as having over 50 but fewer than 1,000 people. The Northern Territory raised concerns that this definition excluded many of its Aboriginal communities, which were heavily subsidised. Queensland also had concerns about the maximum community size threshold.

69 The Commission tested different upper bounds for the community size limit. The proportion of eligible subsidised communities increases from 58.6% using the 2015 Review size definition, to 70.4% using a size definition of fewer than 3,000 people. However, increasing the community size definition beyond 3,000 people did not significantly increase the proportion of eligible subsidised communities after applying the higher upper threshold.

70 Data for small communities are limited outside of Western Australia and the Northern Territory. New South Wales provided water subsidies under the Country Towns Water Supply and Sewerage Program (CTWSSP) from 1994 to 2017, which funded regional areas for sewerage and water infrastructure.[10] Of the CTWSSP projects that could be matched to a UCL,[11] 60% were captured using the community size definition of fewer than

9 CGC, *2010 Review Report on GST Revenue Sharing Relativities*, Volume 2, pp. 292-299.

10 This was replaced by the Safe and Secure Water Program in 2017, which still focuses on regional infrastructure, similar to the CTWSSP.

11 Around 87% of the Country Towns Water Supply and Sewerage Program (CTWSSP) projects were matched to a UCL.

3,000 people. By comparison, only 31% of the CTWSSP projects were captured using the community size definition of fewer than 1,000 people.[12]

71 The Commission decided to define small communities as being communities in inner regional, outer regional, remote and very remote areas with fewer than 3,000 people in inner regional, outer regional, remote and very remote areas, as this definition captures a greater proportion of subsidised communities in New South Wales, Western Australia and the Northern Territory. The lower bound for communities needing subsidies is communities with populations of over 50 and a population density of at least 60 people per km^2.[13] These are the minimum size and density requirements used in the electricity assessment, as the types of communities that receive electricity services are also likely to receive water services.

72 The population of these small communities provides a policy neutral indicator of the people in each State requiring water subsidies. The definition of small communities will remain fixed for the current review period.

Regional costs

73 There are additional costs for small communities in remote areas due to the higher costs of fuel and other inputs. The Commission intends to recognise this by applying cost weights to outer regional, remote and very remote communities.

74 Data from Western Australia and the Northern Territory show that water subsidies generally increase with increasing remoteness (Table 18-11), which supports the conceptual case that remoteness on average affects water provision costs due to higher fuel and maintenance costs. Additional information from Queensland showed that its remote and very remote areas were around twice as expensive by connection as its inner regional areas, although there was significant variation in these costs.[14]

Table 18-11 Water subsidies by ABS remoteness areas, WA and the NT, 2017-18

Remoteness area	Average community size	Subsidy	
	no.	$m	$pc
Major cities	477,836	0	0
Inner regional	2,897	74	474
Outer regional	1,614	118	858
Remote	1,001	59	803
Very remote	611	52	875

Source: Data from Western Australia and the Northern Territory for the 2020 Review. 2017-18 is used as this is the latest year data are available for Western Australia.

75 As the Commission does not have complete data for all States that provide water subsidies, in order to derive regional cost weights, the following conservative assumptions have been made:

- the value of New South Wales' subsidies for small communities has been allocated evenly among its population living in small communities, regardless of remoteness status

12 New South Wales Department of Planning, Industry and Environment, Country Towns Water Supply and Sewerage Program, (https://www.industry.nsw.gov.au/water/plans-programs/infrastructure-programs/country-towns), [accessed 15/11/19].

13 Communities in UCLs are not subject to a population density requirement, as ABS definitions are used for these communities.

14 Queensland Government, former Department of Energy and Water Supply, *Queensland water and sewerage service provider performance comparative report, Financial year 2014–2015,* July 2016, p. 13.

- South Australia was allocated the average per capita spending of New South Wales, Western Australia and the Northern Territory, distributed evenly across its population living in small communities, regardless of remoteness status.

76 Queensland supported the use of category-specific regional cost weights for water subsidies. Western Australia and the Northern Territory disagreed with the conservative approach to estimating regional costs for New South Wales and South Australia. The ACT stated that the regional cost weight was effectively only using data from Western Australia and the Northern Territory, and therefore should be discounted. Victoria also supported applying a discount as the data were incomplete. Other States did not comment on this issue.

77 The regional cost weight includes expense data from New South Wales, Western Australia, South Australia and the Northern Territory, with population data from all States. Although the cost weights are based on incomplete data, the Commission decided not to apply a discount. This is due to the conservative approach used for estimating costs for New South Wales and South Australia, which has a similar effect to a discount.

78 The Commission considers that these appear to reflect regional cost and service delivery scale (SDS) influences, because the communities in outer regional, remote and very remote areas are smaller than those in inner regional areas. Table 18-12 shows the cost weights the Commission intends to apply to the population in small communities. The Commission does not intend to update these cost weights before the next review.

Table 18-12 Small community water subsidies, regional cost weights

	Inner regional	Outer regional	Remote and very remote
Regional cost weights	1.000	2.171	4.448

Source: Commission calculation based on State data.

Wage costs

79 Similar to electricity subsidies, wage costs affect expenses for water service providers. Regulators use a building block model to determine annual revenue limits for most water providers. This model includes wages in determining the cost of service provision.[15]

80 There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method, see Chapter 27 Wage costs.

Other water subsidies

81 Other water subsidies include subsidies for large communities and metropolitan areas where the subsidies are largely due to policy choice, rather than due to an underlying disability.[16]

82 New South Wales and Victoria supported assessing these subsidies on an EPC basis. Queensland, Tasmania and the ACT did not comment directly on this sub-component. Western Australia, South Australia and the Northern Territory did not agree with the implication that part of their subsidies were due to policy choice, and cited various factors that contributed to their subsidy costs including water quality and availability, remoteness, isolation and distance from the water source.

[15] For example, see Office of the Tasmanian Economic Regulator, Water and Sewerage Pricing Explained, (https://www.economicregulator.tas.gov.au/water/pricing/water-and-sewerage-pricing-explained), [accessed 8/11/19].

[16] In these regions, water supply is more likely to be affordably cost recoverable for residential customers.

83 In 2008, all jurisdictions agreed to full cost recovery in line with the National Water Initiative Pricing Principles (NWIPP).[17] A recent review by Infrastructure Australia found that regional Queensland, Western Australia and the Northern Territory had yet to meet minimum standards for pricing under the NWIPP. The report noted that a lack of transparency on reform processes for water utilities meant there was insufficient information to assess whether full cost recovery was being achieved in these areas.[18]

84 As shown in Table 18-13, the value of subsidies for larger urban centres has been decreasing. The Commission has decided to assess other water subsidies EPC on the basis that these subsidies represent policy choices.

Splitting the component

85 Using a community size cut-off of 3,000, the water subsidies expense data can be divided into small community water subsidies and other water subsidies.

86 Small community subsidies include subsidies for small communities in Western Australia, South Australia[19] and the Northern Territory. New South Wales' spending on the Water and Sewer System for Aboriginal Communities programs, Water Security for Regions Program, Safe and Secure Water Program, and the CTWSSP are assumed to relate to small communities and are included in this component.[20] The other water subsidies sub-component is calculated as a residual.

87 Table 18-13 shows the value of the small community and other water subsidies. The quantum of other subsidies has been decreasing in recent years, mostly due to reductions in Western Australia's subsidies. The small community subsidies are relatively stable.

Table 18-13 Split between small community water subsidies and other water subsidies, 2015-16 to 2018-19

	Small community subsidies		Other subsidies		Total
	$m	%	$m	%	$m
2015-16	211	35	395	65	606
2016-17	196	42	276	58	473
2017-18	201	43	272	57	473
2018-19	225	48	241	52	465

Source: State data and Commission calculations.

88 The Commission has used some judgment to determine the split between small community and other water subsidies. This mainly reflects a lack of community level data from New South Wales, Queensland and South Australia.

89 The split between small community water subsidies and other water subsidies will be updated on an annual basis.

[17] Department of Agriculture and Water Resources, National Water Initiative Pricing Principles (http://www.agriculture.gov.au/water/policy/nwi/pricing-principles), [accessed Oct 2018]. These principles were agreed to by the Council of Australian Governments in 2004.

[18] Infrastructure Australia, *Reforming Urban Water: A national pathway for change*, 2017, section 4.7.

[19] South Australia was assumed to spend the average amount for small communities in subsidised States ($310 per capita), and this was applied to their population in small communities. Remaining subsidies for South Australia are assumed to relate to larger communities.

[20] This spending by New South Wales amounted to 32.7% of the small community subsidy subcomponent in 2018-19.

Data and method

90 State data are used to estimate total expenses for both small community water subsidies and other water subsidies. Where detailed State data are not available, the Commission has exercised judgment to estimate States' shares of small community subsidies.

91 Census data are used to determine the proportion of each State's population living in small communities. Those proportions are applied to State populations in each assessment year to determine the number of people living in these communities. The cost weights from Table 18-12 are applied to these people.

92 The other water subsidies sub-component is assessed on an EPC basis.

Component calculations

93 Table 18-14 shows the calculation of total assessed expenses for the component in 2018-19.

Table 18-14 Water subsidies component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Small community water subsidies sub-component									
Population in small communities ('000)	419	245	326	132	120	81	0	44	1,367
Weighted population ('000) (a)	625	331	659	318	248	159	0	190	2,529
Wage cost factor	1.006	0.994	0.996	1.018	0.979	0.972	1.019	1.029	1.000
Assessed expenses ($m)	**56**	**29**	**58**	**29**	**22**	**14**	**0**	**17**	**225**
Other water subsidies sub-component									
Total population ('000)	8,038	6,527	5,051	2,606	1,743	532	423	246	25,166
Assessed expenses ($m)	**77**	**62**	**48**	**25**	**17**	**5**	**4**	**2**	**241**
Water subsidies component									
Assessed expenses ($m)	**133**	**92**	**107**	**54**	**38**	**19**	**4**	**20**	**465**
Assessed expenses ($pc)	**17**	**14**	**21**	**21**	**22**	**35**	**10**	**80**	**18**

(a) The population is weighted by remoteness using the water subsidies regional cost weight.
Source: Commission calculation.

Indigenous community development

94 Expenses for this component include support for the governance and management of discrete Indigenous communities, in recognition of their greater needs due to their remoteness and smaller populations with low incomes.

Indigenous population living in discrete Indigenous communities

95 The assessment of these expenses is based on the number of Indigenous people living in discrete Indigenous communities. A discrete Indigenous community is defined as Statistical Areas Level 1s (SA1s)[21] with populations that are more than 50% Indigenous, as measured by the latest Census data.

[21] For further information on Statistical Areas Level 1s (SA1s) see ABS 2016, *Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016*, summary, cat. no. 1270.0.55.001.

96 Victoria, South Australia and Tasmania supported using the number of Indigenous people living in discrete Indigenous communities as the driver of expenses. Other States did not comment.

Regional costs

97 The Commission considers that a significant portion of spending relates to remote service delivery, rather than head office costs, and therefore a regional costs disability should be applied. It is not practicable to directly measure the effect of remoteness on the component, due to the diversity of services included in this component. Therefore, a general regional cost gradient using hospital and school data is applied to the Indigenous community development component. For further discussion and the calculation method for the general regional cost gradient, see Chapter 28 Geography.

98 Victoria, Queensland and Tasmania supported applying a regional costs disability to this component. New South Wales had concerns about applying a regional costs disability as some expenses are head office costs. Other States did not comment.

Wage costs

99 Differences in wage costs between States have a differential effect on the cost of providing Indigenous community development services. There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method see Chapter 27 Wage costs.

Data and method

100 State data are used to determine expenses for Indigenous community development. The State data includes general revenue assistance for Indigenous councils. There is a separate classification in the GFS function classification for this spending, but the ABS and many States have advised that the detailed data are not reliable.

101 South Australia and Tasmania supported using State data for the assessment. New South Wales had concerns about the GFS data quality and preferred the assessment to be discounted. The ACT supported looking into using State data but considered that the GFS data are generally suitable. Other States did not comment.

102 Using the State data provides lower expenses compared to GFS, even after the inclusion of the general revenue grants to Indigenous councils. This is due to the greater scrutiny given to the classification of expenses, and the exclusion of ineligible expenses associated with Welfare and natural disaster relief. The estimates of Indigenous community development expenses based on State data are considered reliable, and therefore the assessment is not discounted, which is what New South Wales proposed.

103 Queensland and the Northern Territory provide general revenue assistance to local councils with a high proportion of Indigenous people. These grants, totalling $35 million for Queensland[22] and $54 million for the Northern Territory,[23] are intended to assist local councils to meet a wide range of costs including general public services, public order and safety, health, recreation and culture, transport and communication, other economic affairs,

[22] Queensland government, Budget Paper no. 2, 2018-19, (https://budget.qld.gov.au/files/BP2.pdf), [accessed 4/2/2020].

[23] Northern Territory data return, 2020 Review.

education, essential services and public amenities. The grants cannot be disaggregated by purpose.

104 Most grants for local councils are assessed according to the purpose for which they are provided. For example, grants for roads are assessed in the Roads category. Since it is not possible to disaggregate general revenue assistance to Indigenous councils, these grants cannot be assessed in the relevant categories. The Northern Territory already includes its general revenue assistance to Indigenous councils in this component.

105 Queensland, South Australia and the Northern Territory supported including these grants. Victoria did not support including grants to Indigenous councils in the assessment as the grants cannot be disaggregated by purpose, and may overestimate expenses. Other States did not comment.

106 The Commission considers that the Indigenous community development component should include these grants, given that the Indigenous population in discrete Indigenous communities is likely to approximate the need for State spending for this purpose. The alternative would be to assess them on an EPC basis in the Other expenses category. However, the expense needs for these grants are more likely to be driven by the Indigenous population in discrete Indigenous communities than the total population.

107 Census data are used to determine the proportion of each State's population living in discrete Indigenous communities. Those proportions are applied to State populations to determine the number of people living in these communities in each assessment year. Table 18-15 shows State expenses for this component are distributed using the number of people living in these communities, and then a regional costs and a wage costs factor are applied.

Component calculations

108 Table 18-15 shows the calculation of total assessed expenses for the component in 2018-19.

Table 18-15 Indigenous community development component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Indigenous population in discrete Indigenous communities ('000)	9	0	32	19	3	0	0	50	113
Initial assessed expenses ($m)	18	0	64	39	7	0	0	101	229
Regional costs factor	1.002	0.917	1.081	1.116	1.097	1.070	0.000	1.110	1.000
Wage costs factor	1.005	0.996	0.997	1.013	0.985	0.980	1.014	1.021	1.000
Unscaled expenses ($m)	19	0	69	44	7	0	0	114	253
Assessed expenses ($m)	**17**	**0**	**63**	**40**	**7**	**0**	**0**	**103**	**229**
Assessed expenses ($pc)	**2**	**0**	**12**	**15**	**4**	**0**	**0**	**421**	**9**

Source: Commission calculation.

Other community development

109 Other community development expenses include regulating land use, administering zoning laws and planning and development of public facilities. This component also includes expenses related to community amenities such as the design, installation, operation and maintenance of street lighting, provision of facilities such as public toilets, drinking fountains, bus shelters, cemeteries and crematoria.

110 Expenses are initially assessed on an EPC basis and then wage costs and regional costs disabilities are applied.

111 Victoria, Queensland, South Australia, Tasmania and the ACT broadly agreed with the EPC assessment. Western Australia stated that the land management expenses in this component should be assessed by land area. New South Wales and the Northern Territory did not comment on the disabilities for this component.

112 It may be difficult for States to disaggregate their community development and amenities expenses to separate land management expenses. In addition, it is not clear that land area (or even populated land area) is the main determinant of expenses.

113 A survey on planning, zoning and development assessment expenses conducted by the Productivity Commission found that expenses varied between States but were not materially different except for the ACT due to National Capital Plan costs (Table 18-16). While the survey was conducted some time ago, it suggests that land area is not a major driver of expenses. The Commission expects that population, degree of urbanisation, and land use purposes may all contribute to land management expenses, in addition to remoteness and wage costs. Given the lack of reliable data, an EPC assessment is appropriate.

Table 18-16 Planning, zoning and development assessment expenses, 2009-10

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Planning related expenses ($m)	94	168	168	33	16	1	43	7	529
Planning related expenses ($pc)	13	31	38	14	10	2	120	30	24

Note: Includes all planning, zoning and development assessment related activities. States may not be comparable due to the structure of their planning agencies. Data were originally sourced from an unpublished survey conducted by the Productivity Commission in 2010.

Source: Productivity Commission, *Performance Benchmarking of Australian Business Regulation: Planning, Zoning and Development Assessments*, 2011, p. 373.

Regional costs

114 As with the Indigenous community development component, the Commission recognises that differences in regional costs have differential effects on the cost of providing services in different areas.

115 A general regional cost gradient using hospital and school data is applied to the other community development component because it is not practicable to directly measure the effect of remoteness on expenses within the component. For further discussion and the calculation method for the general regional cost gradient, see Chapter 28 Geography.

116 Victoria, Queensland, Western Australia and Tasmania supported applying a regional costs disability to this component. Other States did not comment.

Wage costs

117 Differences in wage costs between States have a differential effect on the cost of providing other community development services. There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method, see Chapter 27 Wage costs.

Data and method

118 GFS data are used to determine expenses for other community development, and are updated on an annual basis. Expenses are initially assessed on an EPC basis, and then regional costs and wage costs disabilities are applied.

Component calculations

119 Table 18-17 shows the calculation of total assessed expenses for the component in 2018-19.

Table 18-17 Other community development component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
EPC expenses ($m)	808	656	508	262	175	53	43	25	2,531
Regional costs factor	0.996	0.994	1.004	1.009	1.004	1.009	0.992	1.107	1.000
Wage costs factor	1.005	0.996	0.997	1.013	0.985	0.980	1.014	1.021	1.000
Assessed expenses ($m)	**808**	**650**	**508**	**268**	**173**	**53**	**43**	**28**	**2,531**
Assessed expenses ($pc)	**101**	**100**	**101**	**103**	**99**	**99**	**101**	**114**	**101**

Source: Commission calculation.

Environmental protection

120 Expenses for this component include services such as:

- developing and monitoring pollution and air quality standards
- pollution abatement and control and associated research
- control and prevention of erosion of beaches and foreshores
- flood mitigation in urban areas
- national parks and wildlife services.

121 The Commission has decided to assess environmental protection expenses on an EPC basis,[24] as they cover a wide variety of services and it is neither practical to disaggregate these expenses nor possible to identify a single broad indicator for assessing total spending.

122 Victoria, Queensland and South Australia supported an EPC assessment for environmental protection expenses.

123 Western Australia stated that national parks and wildlife expenses should be assessed by land area. Tasmania also supported a differential assessment for national parks and wildlife expense, but acknowledged that this would be difficult during the current review.

124 The ACT investigated whether a policy neutral disability for national parks and wildlife expenses was available, but concluded there was insufficient information.

125 New South Wales and the Northern Territory did not comment on this issue.

126 During the 2010 Review, the national parks assessment was the subject of considerable State comment. However, the Commission could not determine the average policy that applied in declaring land to be parks and reserves and therefore was not able to construct a reliable,

[24] The Commission has decided to initially assess expenses on an EPC basis, and then apply a regional costs disability to protection of biodiversity and landscape expenses, and a wage costs disability to the whole component.

policy neutral assessment based on land area. It does not appear that States' practices in reserving land have changed greatly since then. Therefore, an EPC assessment remains appropriate.[25]

127 Expenses for national parks and wildlife are now included in the environmental protection component due to changes in GFS classifications. During the 2015 Review they were initially assessed on an EPC basis in the Other expenses category, and then regional costs and wage costs disabilities were applied.

Regional costs

128 Differences in the cost of providing services to different regions within a State affect State expenses. National parks and wildlife expenses are now included as part of the Classification of Functions of Government — Australia (COFOG-A) 0541, Protection of biodiversity and landscape in GFS. This COFOG-A also includes a range of other services including protection of native plants, animals and habitats, prevention of erosion of beaches and foreshores, services for locations on the Commonwealth Heritage List and the National Heritage List, and flood mitigation in urban areas.

129 The expenses included under protection of biodiversity and landscape are likely to be affected by regional costs differences. The Commission intends to apply the regional costs disability to these expenses. The remainder of the environmental protection component covers a range of services, including pollution abatement, which is influenced mostly by the number of urban centres, regulatory costs, research and other expenses which may be incurred in central offices. The Commission does not intend to apply regional costs disabilities to the remainder of the component.

130 Victoria, Queensland, South Australia and the ACT supported the proposal. The Northern Territory supported applying a regional costs disability to all environmental protection expenses, and at least to national parks and wildlife expenses at a minimum. The ACT noted it would be difficult to calculate cost weights using actual expenses. Other States did not comment.

131 The general regional cost gradient using hospital and school data is applied to the protection of biodiversity and landscape sub-component of environmental protection because it is not practicable to directly measure the effect of remoteness on service expenses within the component, given the scope and diversity of the component. For further discussion and the calculation method for this remoteness disability, see Chapter 28 Geography.

Wage costs

132 Differences in wage costs between States have a differential effect on the cost of providing environmental protection services. There is a general method for measuring the influence of wage costs in components where the disability applies. For a description of the method, see Chapter 27 Wage costs.

Data and method

133 The environmental protection component is calculated as the category residual. This is to adjust for discrepancies between the reported State expenses for electricity subsidies, water subsidies, and Indigenous community development; and GFS category expenses.

[25] The Commission has decided to initially assess expenses on an EPC basis, and then apply regional costs and wage costs disabilities.

134 Environmental protection expenses are initially distributed on an EPC basis. A regional costs disability is applied only to protection of biodiversity and landscape expenses, which includes national parks and wildlife expenses. Protection of biodiversity and landscape expenses are identified using GFS data and constitute 52.4% of component expenses in 2018-19. A wage costs disability is applied to the total component.

Component calculations

135 Table 18-18 shows the calculation of total assessed expenses for the component in 2018-19.

Table 18-18 Environmental protection component assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
EPC expenses ($m)	1,520	1,234	955	493	330	101	80	46	4,759
Regional costs factor (a)	0.998	0.997	1.002	1.004	1.002	1.005	0.996	1.056	1.000
Wage costs factor	1.005	0.996	0.997	1.013	0.985	0.980	1.014	1.021	1.000
Assessed expenses ($m)	**1,523**	**1,225**	**954**	**501**	**325**	**99**	**81**	**50**	**4,759**
Assessed expenses ($pc)	**190**	**188**	**189**	**192**	**187**	**186**	**191**	**204**	**189**

(a) Factor has been weighted as it applies only to protection of biodiversity and landscape expenses (52.4% of component expenses).
Source: Commission calculation.

Category calculations

136 Table 18-19 brings the assessed expenses for each component together to derive the total assessed expenses for each State for the category. It shows at the component level how each disability assessment moves expenses away from an EPC distribution to obtain assessed expenses.

137 Each element shown in Table 18-19 shows the effect of that variable in isolation. There are interactions between each of these disabilities, and so the sum of the disabilities may be different from the assessed expenses for a component. These interactions are generally small.

Table 18-19 Services to communities category assessment, 2018-19

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ave
	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc	$pc
Electricity subsidies									
EPC	34	34	34	34	34	34	34	34	34
Remote communities	-14	-16	5	35	11	0	-17	368	0
Regional costs	-1	0	2	-1	-7	-3	0	55	0
Wage costs	0	0	0	0	-1	-1	0	8	0
Other electricity subsidies	0	0	0	0	0	0	0	0	0
Assessed expenses	**20**	**18**	**41**	**68**	**38**	**31**	**17**	**466**	**34**
Water subsidies									
EPC	18	18	18	18	18	18	18	18	18
Small communities	0	-3	2	-1	2	16	-9	21	0
Regional costs	-2	-2	1	2	1	2	0	39	0
Wage costs	0	0	0	0	0	-1	0	2	0
Other water subsidies	0	0	0	0	0	0	0	0	0
Assessed expenses	**17**	**14**	**21**	**21**	**22**	**35**	**10**	**80**	**18**
Indigenous community development									
EPC	9	9	9	9	9	9	9	9	9
Indigenous communities	-7	-9	4	6	-5	-9	-9	401	0
Regional costs	0	0	0	0	0	0	0	6	0
Wage costs	0	0	0	0	0	0	0	4	0
Assessed expenses	**2**	**0**	**12**	**15**	**4**	**0**	**0**	**421**	**9**
Other community development									
EPC	101	101	101	101	101	101	101	101	101
Regional costs	0	-1	0	1	0	1	-1	11	0
Wage costs	0	0	0	1	-2	-2	1	2	0
Assessed expenses	**101**	**100**	**101**	**103**	**99**	**99**	**101**	**114**	**101**
Environmental protection									
EPC	189	189	189	189	189	189	189	189	189
Regional costs	0	-1	0	1	0	1	-1	11	0
Wage costs	1	-1	-1	2	-3	-4	3	4	0
Assessed expenses	**190**	**188**	**189**	**192**	**187**	**186**	**191**	**204**	**189**
Total assessed expenses	**328**	**319**	**364**	**399**	**350**	**352**	**319**	**1,284**	**352**

Note: Table may not add up due to interactions between disabilities and rounding.
The EPC and assessed expenses are total spending per capita. The amounts for each disability are redistributions from an EPC assessment.

Source: Commission calculation.

Infrastructure assessment

138 States require infrastructure to support service delivery. State infrastructure requirements are assessed in the Investment category. The main driver of investment in services to communities related infrastructure is population growth. Other disabilities affecting services to communities do not affect State infrastructure requirements. This is because the

infrastructure related to services to communities, including electricity and water assets, is typically owned by local governments or public non-financial corporations, not States. In the absence of clear evidence on State disabilities related to the need for assets, population growth is considered the only driver.

139 Interstate differences in construction costs are also recognised in the Investment category.

140 For a description of the Investment assessment, see Chapter 24 Investment.

Other issues considered by the Commission

Electricity subsidies

Regional cost weight and service delivery scale cost factor

141 The Northern Territory was concerned that removing the regional cost weight and SDS cost factor could understate remote expenses. The Commission considers that the new regional cost weight derived from electricity data (Table 18-8) more accurately measures remoteness and SDS costs than the 2015 Review approach. Applying additional weights would introduce double counting.

Adjustment to remote community electricity subsidies

142 New South Wales noted that part of the subsidies for isolated communities are due to States' uniform electricity tariff policies, and suggested that this portion should be removed from the remote community electricity subsidy due to double counting.

143 This part of the subsidy for isolated communities is a very small proportion of the total subsidy. Given its small size, the Commission has not removed this part of the subsidy because it would complicate the analysis without having a material impact.

The SWIS electricity network in Western Australia

144 The SWIS in Western Australia is an electricity network that covers Perth and much of the south west region of Western Australia. Western Australia argued that the SWIS electricity network should be assessed as requiring subsidies due to its higher costs compared to the NEM, which are due to fuel type, customer density and isolation. Western Australia stated that although SWIS is not receiving explicit subsidies, it is not paying a high level of dividends to the government, so the Commission should assess an implicit subsidy. It noted the $657 million loss for Synergy in 2018-19. Other States did not comment on this issue.

145 Synergy is the main retailer and generator in the SWIS, with a 65% retail market share in the SWIS by electricity sold.[26] The remaining electricity is purchased by large consumers, mostly from business-only retailers, or from privately-owned generators. Synergy is the sole supplier of electricity to small consumers in the SWIS.[27] It ceased being subsidised by the State government as of 2018-19.

146 The Commission considers there is limited evidence that subsidies in non-remote areas (which are likely more densely populated) are due to an underlying cost disability. The subsidies to most of the Ergon East, Darwin-Katherine networks and outer regional areas for

[26] WA State Department of Finance, Electricity Market Review Steering Committee, *Electricity Market Review Discussion Paper, 2014*, pp. 18-19.

[27] Small consumers use less than 50 MWh of electricity per annum, and large consumers use 50 MWh or more.

Ergon West appear to fall into this category. Table 18-20 shows that prices for consumers serviced by electricity networks are different between States, but the States with the highest prices are not necessarily those that provide subsidies to network customers. For instance, Victoria and South Australia had the highest electricity prices for on-grid areas in 2017-18, but did not provide subsidies for these areas.[28] Western Australia said the above average prices for the SWIS reflect an underlying cost disability. The Commission investigated Western Australia's claims during the 2015 Review and concluded that the higher costs for the SWIS are mainly the result of its policies.[29]

Table 18-20 Cost components in representative residential electricity prices for on-grid consumers, 2017-18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT (a)	Ave
	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh	c/kWh
Regulated networks									
Transmission	3.0	2.0	2.4	1.5	2.9	2.8	1.1		2.4
Distribution	11.2	10.6	11.1	13.3	11.5	8.0	6.0		11.1
Total networks	**14.2**	**12.6**	**13.5**	**14.8**	**14.3**	**10.8**	**7.1**	**12.9**	**13.5**
Wholesale	**12.4**	**14.5**	**13.2**	**13.3**	**17.8**	**8.9**	**9.6**	**14.7**	**13.2**
Environmental policies									
LRET	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.7	0.8
SRES	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3
Other (b)	0.6	0.6	0.5	-	1.3	-	2.4	-	0.5
Total environment	**1.7**	**1.7**	**1.6**	**1.1**	**2.4**	**1.3**	**3.5**	**1.0**	**1.6**
Residual (c)	**2.2**	**4.3**	**2.9**	**2.5**	**3.2**	**2.6**	**3.5**	**-2.7**	**2.9**
Total	**30.6**	**33.1**	**31.2**	**31.6**	**37.8**	**23.6**	**23.7**	**25.9**	**31.2**

Note: Queensland's costs refer to South East Queensland only. Western Australia's costs refer to the SWIS only and include a State subsidy of 1.51c/kWh; the total price paid by residents is 30.13c/kWh. Costs for other States reflect their on-grid consumers only, which excludes some remote communities in South Australia, Tasmania and the Northern Territory. LRET: Large-scale Renewable Energy Target; SRES: Small-scale Renewable Energy Scheme. Prices may differ due to differences in representative consumers and consumption between States.

(a) The Northern Territory's costs are understated, as an unknown retail component has been omitted. Prices reflect consumers on the Darwin-Katherine interconnected system only.

(b) Other environmental policies include solar feed-in tariffs and other State schemes.

(c) Includes retail costs and retail margins.

Source: Australian Energy Market Commission (AEMC), 2017 Residential Electricity Price Trends.

147 A report on the wholesale electricity market (WEM) in Western Australia concluded that Synergy's dominance in the WEM and the associated lack of price competition may be increasing wholesale electricity prices. It recommended several reform measures to encourage competition, including the acceleration of existing agreed reform measures. It recommended that the State government should be driving market reforms, but noted there is a conflict of interest due to the State government being an active market participant.[30,31]

[28] The high prices for South Australia and Victoria in 2017-18 may have been partly due to closures of major power stations in recent years which reduced electricity supply. South Australia is also the most gas-dependent region in the National Electricity Market (NEM) and is vulnerable to rising gas prices. Victoria is affected by population growth and increased demand.

[29] CGC, *Report on GST Revenue Sharing Relativities 2015 Review – Volume 2 – Assessment of State Fiscal Capacities*, Chapter 15, paragraph 61.

[30] Economic Regulation Authority, *2016-17 Wholesale Electricity Market Report to the Minister for Energy*, 2018.

148 High costs in the SWIS are partly related to the WEM's Reserve Capacity Mechanism (RCM). The RCM capacity requirement has historically over estimated actual demand to a considerable degree,[32] and resulted in the WEM's lower maximum spot price and lower price volatility compared to the NEM. The costs of the combined effects of excess forecasting and excess purchase of capacity credits was estimated to average $114 million per annum in nominal prices over 2007-08 to 2015-16.[33]

149 Some market reforms have been implemented to reduce the cost of the RCM, including the introduction of an auction mechanism. Several Synergy assets were closed by September 2018, reducing excess capacity in the WEM, but the forecast excess capacity is expected to rise again in 2020-21 due to the introduction of new intermittent generation capacity (Table 18-21).

Table 18-21 Excess electricity capacity in the SWIS, 2016-17 to 2021-22

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
	%	%	%	%	%	%
Excess capacity	23.3	14.1	4.0	4.9	8.4	10.8

Source: Australian Energy Market Operator, *2017 Electricity Statement of Opportunities for the Wholesale Electricity Market,* June 2017, p. 61; and Australian Energy Market Operator, *2019 Electricity Statement of Opportunities for the Wholesale Electricity Market*, June 2019, p. 61.

150 The Commission does not accept Western Australia's argument that an implicit subsidy should be assessed for the SWIS, where services are provided by Synergy, a government owned corporation. It is not clear that the higher costs in the SWIS are due to unavoidable factors such as customer density and isolation.

Electricity consumption

151 The Northern Territory argued that electricity prices for Darwin were unavoidably subsidised due to higher consumption patterns in the region, caused by a hot and humid climate resulting in a higher use of air-conditioning. The Northern Territory provided some data on electricity bills, showing a larger bill on the Darwin-Katherine network compared to the average NEM[34] bill, which it attributed to higher consumption patterns in Darwin, given that its (subsidised) retail prices were similar to NEM prices.

152 Other States did not comment on this issue.

153 Consumption in the Darwin-Katherine network for the representative residential consumer is higher compared to the average State (Table 18-22). However, consumption is lower than in Tasmania or the ACT, where electricity prices are not subsidised. In addition, natural gas is used by all States for residential purposes except the Northern Territory,[35] therefore Table 18-22 understates total household energy consumption for States other than the Northern Territory.

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31 The State government owns the major electricity market components in Western Australia – Synergy, which generates and retails energy in the SWIS, Horizon Power, which provides generation, distribution, transmission and retail services in regional areas, and Western Power, which provides transmission and distribution services in the SWIS.

32 WA State Department of Finance, Electricity Market Review Steering Committee, *Electricity Market Review Discussion Paper, 2014*, pp. 22-23.

33 ibid, p. 26.

34 The NEM connects around 90% of Australia's population, supplying all of New South Wales, Victoria, the ACT, mainland Tasmania, South East Queensland, and most of South Australia.

35 Department of the Environment and Energy, *Australian Energy Statistics*, Table K: Australian energy consumption in 2017-18, by state and territory, by industry, selected fuels, energy units, September 2019.

Table 18-22 Electricity consumption of the representative retail consumer, 2017-18

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Ave
	KWh	KWh	KWh	KWh	KWh	KWh	KWh	KWh	KWh
Consumption	4,215	3,865	5,240	5,198	5,000	7,908	7,151	6,613	4,596

Notes: Data includes the major electricity networks only, that is, the National Electricity Market (NEM), SWIS and Darwin-Katherine networks.

The representative consumer is different for each jurisdiction and is determined using a representative annual consumption level either calculated from benchmark values published by the Australian Energy Regulator (AER) or provided to the Australian Energy Market Commission (AEMC) by State governments.

Source: Australian Energy Market Commission, *2018 Residential Electricity Price Trends,* Dec 2018, Table 1.

154 The total energy bill of households using gas will be larger than the average NEM bill, which only captures electricity use. Therefore, it may be possible for households on the Darwin-Katherine network to tolerate electricity bills that are higher than the subsidised rates they currently pay.

155 The Northern Territory also argued that if its electricity was unsubsidised, it would become unaffordable for households and would make it a less attractive State to live in. However, all States provide utility concessions for low-income households, which are assessed separately in the Welfare category. Given that Synergy ceased being subsidised in 2018-19, Darwin remains the only capital city where electricity is subsidised.

156 All States experience different environmental factors that may influence electricity consumption. Usage in the Darwin-Katherine network is not greatly different from other States, particularly after accounting for gas consumption in the colder southern States. In addition, electricity is a private good.[36] Therefore, the Commission has not assessed needs based on electricity consumption levels.

Water subsidies

Water quality

157 South Australia supported assessing water quality and availability issues. The Commission acknowledges that water quality is a factor that drives States' costs, but was unable to derive a simple and reliable way of measuring this. Many datasets that measure quality do not offer national coverage specific to urban water, or do not disaggregate water used for residential purposes. The assessment requires information about non-metropolitan areas, which are the main areas that receive subsidies, yet these areas are not well covered by the publicly available urban water data, which tends to focus on communities with more than 10,000 customers.

Water availability

158 Western Australia argued that accessibility is an issue for some communities, including Kalgoorlie, which relies on a 600 kilometre pipeline from Mundaring Weir near Perth for its water supply. WaterNSW is currently constructing a 270 kilometre pipeline from Wentworth to Broken Hill to provide long term water security for Broken Hill. Due to the high cost of the pipeline, the New South Wales government has announced it will not recoup the full cost from customers.

[36] However, network reliability may be considered a public good.

159 The Commission investigated data from Western Australia and the Northern Territory using both Western Australia's distance from the water source measure included in the State's data return, and a distance from the water source measure developed by GeoScience Australia.[37] However, there was no apparent relationship between the distance from the water source and subsidy levels (Table 18-23). This is likely due to this measure only considering surface water sources, whereas Western Australia and the Northern Territory source much of their water from groundwater. The Commission has not been able to find similar data for groundwater that could be used in an assessment of residential water subsidies.

Table 18-23 Water subsidies for small communities, by the community's distance from the water source, 2015-16

	Close (0-20km)	Moderate (21-50km)	Far (50-125km)	Very far (125km+)
	$pc	$pc	$pc	$pc
WA	3,318	2,130	2,297	2,823
NT	950	978	917	952
Average	**3,044**	**1,882**	**1,849**	**1,365**

Note: Only communities that could be matched to a UCL are included. 2015-16 is used as this analysis was conducted at the beginning of the review and data from later years are unlikely to show significant differences.

Source: State data for the 2020 Review and unpublished data from GeoScience Australia using the AusHydro dataset (see the Australian Water Information Dictionary, (http://www.bom.gov.au/water/awid/id-41.shtml), [accessed 03/02/2020]).

160 Western Australia proposed two approaches for assessing water subsidies to capture environmental influences:

- an assessment based on actual per capita costs minus the national average revenue from user charges, or
- a differential assessment using the populations in isolated outer regional towns serviced by exceedingly long pipelines, in addition to the total population in remote and very remote areas.

161 There are several issues with Western Australia's first approach.

- Only Western Australia and the Northern Territory have been able to provide comprehensive cost data
- An approach based on actual cost data would require an assumption that water providers, including State owned water providers in Western Australia, South Australia and the Northern Territory, operate at the average level of efficiency. The Commission is not confident that this is a reasonable assumption.
- Using national average revenue from user charges as the benchmark cost recovery level is not consistent with what States do and average policy. Under the National Water Initiative Pricing Principles, to which all States have agreed, the aim is to recover the full cost for all surface and groundwater-based systems in urban areas. There is an exception for some small community services to recognise they will never be economically viable but need to be maintained to meet social and public health obligations. Given the national policy and level of State compliance, the benchmark revenue from user charges

37 The distance to the water source is equal to the length of a straight line from an inside point generated within the UCL to the nearest point on the closest water source, either a major river, lake or reservoir using the AusHydro dataset (unpublished project by GeoScience Australia).

would need to be State average revenue from user charges not national average revenue.

162 The Commission does not agree with making an additional assessment for populations in isolated outer regional towns serviced by exceedingly long pipelines, due to the lack of conclusive evidence about the relationship between distance from surface water sources and subsidies. More broadly, all States have pipelines to support service delivery. The Commission does not intend to make an exception for the Kalgoorlie-Boulder pipeline.

Service delivery scale for water subsidies

163 During the 2015 Review, a general SDS disability was applied to recognise higher costs incurred by very small utilities. The Commission found some evidence that very small communities (with less than 200 people) were on average more expensive compared to other small communities (200 to less than 3,000 people, Table 18-24).

Table 18-24 Water subsidies by State, population group and ABS remoteness areas, 2017-18

Population group	Inner regional	Outer regional	Remote	Very remote	Average
	$pc	$pc	$pc	$pc	$pc
WA					
50 to 199	5,456	2,663	2,407	4,362	3,161
200 to 2,999	413	1,682	1,989	1,556	1,184
NT					
50 to 199			955	1,368	1,342
200 to 2,999		201	747	692	690

Note: 2017-18 is used as this is the latest year data are available for Western Australia.

Source: Data from Western Australia and the Northern Territory for the 2020 Review.

164 The water regional cost weights capture SDS in addition to remoteness, as the average community size decreases with increasing remoteness. Therefore, the Commission has decided not to apply an additional SDS weight to the small community water subsidies. Applying additional weights would introduce double counting.

Effect on the GST distribution

165 Table 18-25 shows the extent to which the assessment for this category moves the distribution of GST away from an EPC distribution. States with a positive redistribution are assessed to have above average spending requirements and States with a negative redistribution are assessed to have below average spending requirements. In per capita terms, the Northern Territory experiences the largest redistribution.

Table 18-25 Illustrative redistribution from an EPC assessment, Services to communities, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
$ million	-202	-223	72	133	0	-1	-13	234	439
$ per capita	-24	-33	14	50	0	-1	-30	950	17

Note: The redistribution is the difference from an EPC assessment derived using 2016-17 to 2018-19 assessed expenses and 2020-21 GST revenue.

Source: Commission calculation.

166 The main reasons for these redistributions are the differences between States in their distributions of remote and small communities. In particular:

- New South Wales, Victoria and the ACT have below average shares of people living in remote and very remote areas, people living in small communities, and people living in discrete Indigenous communities
- Queensland, Western Australia and the Northern Territory have above average shares of people living in remote and very remote areas receiving electricity subsidies, people living in small communities receiving water subsidies, and people living in discrete Indigenous communities
- South Australia has above average shares of people living in remote and very remote areas, and people living in small communities, but has below average shares of people living in discrete Indigenous communities
- Tasmania has above average shares of people living in small communities, but has below average shares of people living in remote and very remote areas, and people living in discrete Indigenous communities.

167 Table 18-26 provides a summary of the main disabilities contributing to the redistribution from an EPC assessment for this category.

Table 18-26 Major reasons for the illustrative redistribution, Services to communities, 2020-21

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Remote communities	-124	-123	32	103	22	0	-8	100	256
Indigenous communities	-52	-58	19	15	-8	-4	-4	93	127
Regional costs	-30	-20	20	9	-9	0	-1	30	69
Small communities	-3	-18	9	-1	4	8	-4	5	26
Wage costs	8	-3	-8	8	-8	-4	3	6	24
Total	**-202**	**-223**	**72**	**133**	**0**	**-1**	**-13**	**234**	**439**

Note: The redistributions from an EPC assessment are illustrative. Disabilities may not add up due to rounding and interactions.

Source: Commission calculation.

Changes since the 2019 Update

168 There are several method and data changes since the 2019 Update as well as data revisions and changes in State circumstances. Table 18-27 shows the effect of these changes.

Table 18-27 Changes to the GST redistribution between the 2019 Update and the 2020 Review

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Redist
	$m	$m	$m	$m	$m	$m	$m	$m	$m
Method and data changes	128	117	-45	-23	-23	-11	8	-150	252
Data revisions	4	3	-2	-4	-1	0	0	-1	8
State circumstances	4	2	-3	-8	-2	0	0	7	13
Total	**136**	**122**	**-50**	**-35**	**-27**	**-11**	**8**	**-143**	**266**

Source: Commission calculation.

Method and data changes

169 There are several method and data changes since the 2019 Update.

- Water and electricity subsidies are separately assessed as the disabilities affecting these subsidies are different.
- Electricity subsidies are assessed using the population in remote and very remote communities. The definition of remote communities includes communities of more than 50 people.[38]
- The regional cost weight for electricity subsidies has been derived using State data.
- The proportion of remote community electricity subsidies and other electricity subsidies will be updated annually using State data.
- Wage costs are applied to the remote community electricity subsidies sub-component.
- Water subsidies are assessed using the population in small communities outside of major cities. The definition of small communities has broadened to include communities of more than 50 but less than 3,000 people.[39]
- The regional cost weight for water subsidies has been derived using State data.
- The proportion of small community water subsidies and other water subsidies will be updated annually using State data.
- Wage costs are applied to the small community water subsidy sub-component.
- The net effect of these changes has increased the GST share for New South Wales, Victoria and the ACT, and decreased the GST share for other States.
- The general regional costs disability, which is used in the Indigenous community development, other community development, and environmental protection components, now uses hospitals and schools data. A 25% discount applies to the general regional cost gradient.
- Indigenous community development expenses are sourced from State data and include general revenue grants to Indigenous local governments. The net effect of this change has decreased expenses for this component.

[38] Communities must also be UCLs or meet a population density requirement of at least 60 persons per km^2.

[39] As per electricity subsidies, communities must also be UCLs or meet a population density requirement of at least 60 persons per km^2.

- National parks and wildlife expenses are assessed in this category instead of the Other expenses category due to GFS classification changes.

Data revisions

170 Data revisions had a small effect on the GST distribution ($8 million), mainly due to revisions to electricity and water subsidies.

Changes in State circumstances

171 Changes in State circumstances had a small effect on the GST distribution ($13 million). The change in the GST distribution is mainly due to decreased State spending on electricity and water subsidies.

Updating the assessment

172 As required by the terms of reference, the Commission will incorporate the latest available data in the assessment during the annual updates. This will allow the assessment to reflect changes in State circumstances.

- The following data will be updated annually:
  - electricity subsidy expenses and the split between remote community electricity subsidies and other electricity subsidies
  - water subsidy expenses and the split between small community water subsidies and other water subsidies
  - Indigenous community development expenses
  - other community development expenses
  - environmental protection expenses (as a residual)
  - protection of biodiversity and landscape sub-component expenses.
- Some of the assessment data are not readily available on an annual basis or will remain stable over time. These data will not be updated during the review period:
  - remote community electricity subsidy regional cost weights
  - small community water subsidy regional cost weights
  - definitions of remote communities, small communities and discrete Indigenous communities.
- The following population data are based on the 2016 Census, and will be updated when newer Census data are available:
  - State population shares of people living in remote communities, as defined by the remote community electricity subsidies assessment
  - State population shares of people living in small communities, as defined by the small community water subsidies assessment
  - State population shares of Indigenous people living in discrete Indigenous communities, as defined by the Indigenous community development assessment.