

2025 GST Methodology Review

Tranche 1 Consultation

13 October 2023

Acknowledgement of Country

We acknowledge that Aboriginal and Torres Strait Islander peoples are the First Peoples and Traditional Custodians of Australia, and the oldest continuing culture in human history.

We pay respect to Elders past and present and commit to respecting the lands we walk on, and the communities we walk with.

We celebrate the deep and enduring connection of Aboriginal and Torres Strait Islander peoples to Country and acknowledge their continuing custodianship of the land, seas and sky.

We acknowledge the ongoing stewardship of Aboriginal and Torres Strait Islander peoples, and the important contribution they make to our communities and economies.

We reflect on the continuing impact of government policies and practices, and recognise our responsibility to work together with and for Aboriginal and Torres Strait Islander peoples, families and communities, towards improved economic, social and cultural outcomes.

Artwork:

Regeneration by Josie Rose



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List of Acronyms

ABS:	Australian Bureau of Statistics
ACARA:	Australian Curriculum, Assessment and Reporting Authority
ACEM:	Australasian College for Emergency Medicine
AGRN:	Australian Government Reference Number
AIHW:	Australian Institute for Health and Welfare
APC:	Actual Per Capita
BITRE:	Bureau of Infrastructure and Transport Research Economics
CALD:	Culturally and linguistically diverse
CGC:	Commonwealth Grants Commission
CIT:	Canberra Institute of Technology
COFOG:	Classification of the Functions of Government
COPE:	Commonwealth Own-Purpose Expenditure
CTP:	Compulsory Third Party
DoE:	NSW Department of Education
ED:	Emergency Department
EPC:	Equal Per Capita
ERP:	Estimated Resident Population
FESL:	Fire and Emergency Services Levies
GFS:	Government Finance Statistics
GP:	General Practitioner
GST:	Goods and Services Tax
HFE:	Horizontal Fiscal Equalisation
ILUA:	Indigenous Land Use Agreement
LNG:	Liquified Natural Gas
MADIP:	Multi-Agency Data Integration Project
MBS:	Medicare Benefits Schedule
NAP:	Non-Admitted Patients
NCCD:	Nationally Consistent Collection of Data on School Students with Disability
NCVER:	National Centre for Vocational Education Research
NISEIFA:	Non-Indigenous Socio-Economic Indexes for Areas
NSRA:	National School Reform Agreement
NWAU:	National Weighted Activity Unit
PWD	Population Weighted Density
SA1:	ABS Statistical Area 1
SA2:	ABS Statistical Area 2
SDC:	Socio-Demographic Composition
SEIFA:	Socio-Economic Indexes for Areas
SRO:	State Revenue Office
SRS:	Schooling Resource Standard
SUA:	ABS Significant Urban Area
UCL	ABS Urban Centres and Localities
ZLEV RUC:	Zero and Low Emission Vehicle Road User Charge

1 Revenue

Preamble on revenue categories

- The revenue assessment is made up of seven categories: Land tax; Stamp duty; Insurance tax; Motor taxes; Mining revenue; Payroll tax; and Other revenue. Except the last two categories, all are being dealt with under Tranche 1 of the Review. Accordingly, this section is divided into five sections, one for each of the first five categories listed above.
- The purpose of the revenue assessments is to calculate the revenue raising capacity of each state or territory (state) if it applied national average rates of tax. This, combined with Commonwealth Payments, can then be offset against the Expenses, Investment and Net Lending assessments to arrive at an assessed goods and services tax (GST) requirement.
- The Commonwealth Grants Commission's (the Commission's) generic approach for assessing the revenue raising capacity of a state is to multiply the national average rate of tax by that state's assessed tax base (where the average tax rate is equal to the total revenue raised divided by the total assessed tax base). This is done for each category and/or component. The assessed revenue for at least one state must be at least \$40 per capita for the revenue source to be differentially assessed. Otherwise, the revenue is combined into a separate category and assessed on an equal per capita (EPC) basis.

1.1 Land tax

1.1.1 Overview of category

- The Land Tax category consists of revenue from annual charges on the value of taxable land holdings, excluding principal places of residence. State revenue capacity is assessed using the total value of taxable land 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 and is used to determine the assessed revenue of each state. Undertaking the assessment by value range captures the progressivity of state land tax rates and differences in the distribution of land values between states.
- The Commission is not proposing any changes to this assessment.

1.1.2 Assessment structure

- The assessment is influenced by two drivers – the total value of taxable land holdings and the value distribution of taxable land.

1.1.3 Current assessment structure

The Commission asks:

- Do states support continuation of the land tax assessment in its current form?
- NSW Treasury supports the generic approach to use the value of taxable land holdings and a value distribution adjustment. However, we continue to have concerns with the quality of data provided by some states (including by New South Wales) as outlined in Section 1.1.4. Given our concerns, we believe the Commission should increase the discount applied to this category to 25 per cent.
- In the case of the ACT, NSW Treasury is concerned with the approach used to derive the tax base for land tax purposes. This is discussed in further detail in Section 1.1.5.
- We believe an adjustment should be made for the impact on unimproved land values for differences in tax rates between states, as outlined in Section 1.1.6.

1.1.4 Data reliability

NSW Treasury proposes:

- Increasing the discount to account for data reliability issues.
- The land tax data base used by each state is designed to facilitate taxation on the legislative basis applicable within each state. The Commission requires land value distribution data provided to it by New South Wales, Victoria, and Queensland to be adjusted to the basis used for taxation by Western Australia, South Australia, and Tasmania. NSW Treasury has concerns with the reliability of data provided to the Commission.
- NSW Treasury does not have a high degree of confidence in the adjustments made to its land value distribution data to place it on the required ‘comparable’ basis. We believe similar problems would arise in other states. As outlined in our previous submissions, land tax legislation differs significantly between states:
 - the ACT imposes land tax based on an individual property basis.

- Queensland does not assess land tax on jointly owned land but splits the value of jointly owned land between the individual owners. It also provides an exemption for properties held in trust that are used as a principal place of residence by all beneficiaries of the trust.
- Western Australia, South Australia, and Tasmania tax joint owners of land and separately tax individual landowners on the aggregate value of their landholdings, excluding any interest in jointly owned land.
- New South Wales and Victoria tax joint owners of land and tax individuals on the aggregate value of their land, including their interest in jointly owned land. Tax paid by the joint ownership provides a tax credit for the individual interests to prevent double taxation.
- the Northern Territory continues to impose no land tax.
- Furthermore, the lack of legislative comparability between states is compounded by complexities associated with the differences in the valuation of land for land tax purposes.
 - New South Wales, Queensland and the ACT base their taxable values on a rolling average of the unimproved land value as at 1 July in each of the three years preceding the tax year.
 - In Queensland, where the value in the previous year is less than the three-year average, the lower value is instead used.
 - Victoria bases its taxable value on the unimproved land value as at 1 January of the previous calendar year.
 - Western Australia, South Australia and Tasmania base the taxable value of land on the unimproved value at the commencement of the land tax year.
- As the above demonstrates, the adjustments required to place the land value data of each state on a comparable basis is fraught with difficulties. To highlight our concerns, NSW Treasury undertook an analysis of the land value data used by the Commission for 2021-22 for value ranges above \$300,000. In undertaking this analysis our expectations were:
 - For lower land value states (e.g. Tasmania), the share of its total land value in low value ranges should be higher than the all State average, while the share of its total land value in high value range should be lower than the all state average.
 - For high land value states (e.g. New South Wales), the share of its total land value in low value ranges should be lower than the all State average, while the share of its total land value in high value range should be higher than the all state average.
- Figure 1-1 shows the position for states where adjustments are not required to be made to the data provided to the Commission (i.e. South Australia, Western Australia and Tasmania). As can be seen, it broadly conforms to our expectations.

Figure 1-1: Variation in Land Value Share from All State Average (SA, WA, Tas)

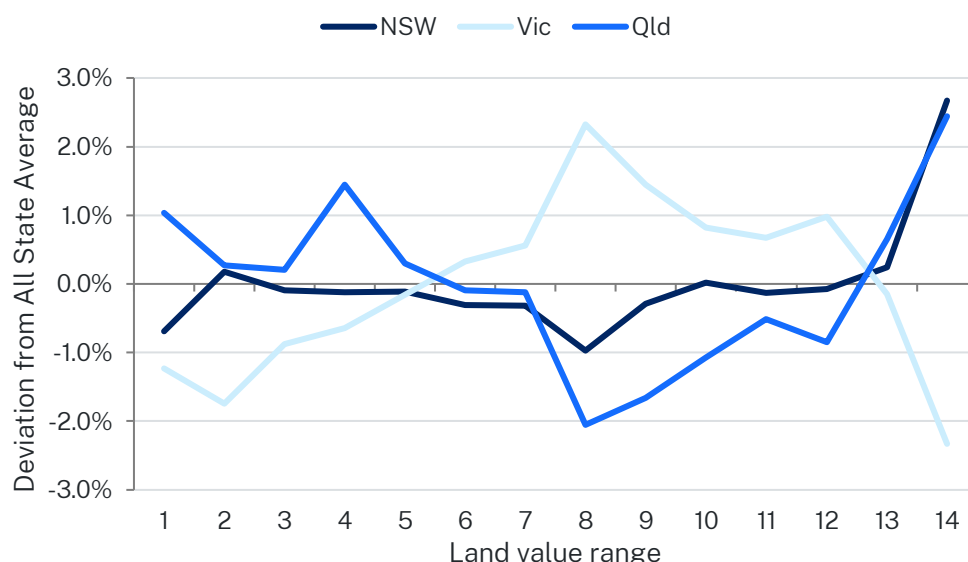


Value ranges from \$300,0000 as per the Commission's 2023 Update Simulator

Source: Commission Simulator – 2023 Update and NSW Treasury Estimates

- However, undertaking the same analysis for states required to adjust their data (i.e. New South Wales, Victoria and Queensland), the outcome does not conform with expectations as shown in Figure 1-2. This raises concerns about the accuracy of the adjustments undertaken by these states to create 'comparable' data.

Figure 1-2: Variation in Land Value Share from All State Average (NSW, Vic, Qld)



Value ranges from \$300,0000 as per the Commission's 2023 Update Simulator

Source: Commission Simulator – 2023 Update and NSW Treasury Estimates

- While an analysis of this nature is not definitive, the low share for Victoria for high land values looks particularly odd, as does its high share in the middle value ranges. In the case of New South Wales, its high share at low values appears unusual. In the case of Queensland, its low share in the middle value ranges also appears worthy of further investigation.

- In analysing the land tax data used by the Commission we also observed that the average tax rate reported by jurisdictions does not always increase in tandem with land values. This is despite all states having a progressive tax rate structure. Again, this raises concerns about the quality of data being provided to the Commission by all jurisdictions.
- Queensland also provides another example of potential data reliability issues. The Commission asserts in its consultation paper that the reduction in the discount applied in this category from 25 per cent to 12.5 per cent in the 2020 Review was, in part, a result of improved Revenue Office data provided by Queensland.

Table 1-1 below shows that Queensland's value of taxable land holdings grew by only 1 per cent between 2020-21 and 2021-22. This is particularly puzzling given Queensland itself acknowledged strong land value growth in its 2021-22 Budget, "solid land value growth [was] expected in line with the current strength of the residential property market".¹ It repeated this point in its 2022-23 Budget.² We also note that Queensland's land tax revenue grew by 7.2 percent in 2021-22, compared with land value growth of only 1.1 percent.

Table 1-1: Value of Taxable Land Holdings, 2020-21 and 2021-22 (\$m)

	2020-21	2021-22	Change
NSW	647,226	787,672	21.7%
VIC	500,146	571,467	14.3%
QLD	216,015	218,408	1.1%
WA	106,186	110,326	3.9%
SA	83,438	92,829	11.3%
TAS	17,608	18,819	6.9%
ACT	16,565	18,936	14.3%

Source: CGC Simulator – 2023 Update

- Commission data can also be compared to changes in land values reported in the National Accounts published by the Australian Bureau of Statistics (ABS). While revenue shares from residential land and commercial land are roughly 50:50, the residential sector comprises the bulk of land values reported to the Commission. Table 1-2 below includes a weighted average of the growth in residential (65 per cent) and commercial (35 per cent) land values in an attempt to make the ABS data more comparable with land value data reported by the states.
- ABS data (weighted and unweighted) appears to bear little relationship to data reported by the states to the Commission. As Table 1-2 below shows, for all states, other than NSW, the growth in land value as reported to the Commission is significantly lower than the weight adjusted totals reported by the ABS. Given data provided to the ABS comes from the state Valuers General, this again raises concerns with the quality of data used in the land tax assessment.

¹ Queensland 2021-22 Budget, Strategy Outlook, p. 98

² Queensland 2022-23 Budget, Strategy Outlook, p. 94

Table 1-2: Change in Land Values from 30 June 2020 to 30 June 2021

	ABS Land Value Growth (%)					Commission Land Value Growth (%)
	Res.	Comm.	Other	Total*	Wt. Total [#]	2021 [^]
NSW	26.7	-0.3	-1.7	23.1	17.3	21.7
VIC	27.8	1.2	3.1	23.9	18.5	14.3
QLD	30.6	4.7	-3.5	25.7	21.6	1.1
WA	24.6	-4.9	0.0	19.5	14.3	3.9
SA	23.7	5.1	-2.6	21.0	17.2	11.3
TAS	31.6	4.3	2.8	28.3	22.0	6.9
NT	16.1	-12.5	-5.0	9.5	6.1	N/A
ACT	35.2	2.2	0.0	32.5	23.6	14.3

* Total excludes Rural land values. It is the sum of Residential, Commercial and Other only.

Residential weighted by 65 per cent and Commercial by 35 per cent.

[^] Note that for some states in the Commission data, land values are assessed at 31 December each year.

Source: Growth in Land Value sourced from ABS, 5204.0 Australian System of National Accounts, Table 61. Value of Land, by Land use by State/Territory - as at 30 June, Current prices. Commission Land Value data sourced from the 2023 Update Simulator.

- Given the above, we continue to have significant concerns regarding the reliability of data used in the land tax assessment. With this in mind, we consider that the discount applied to this assessment should be increased from 12.5 per cent to 25 per cent.

1.1.5 Assessing the revenue raising capacity of the ACT

NSW Treasury proposes:

- Improving the assessment of the value of taxable land holdings in the ACT.
- As the ACT does not aggregate the value of a landowner's holdings (as other states do), the Commission makes an adjustment to the value of the ACT's taxable land holdings. In the 2020 Review, the Commission increased ACT land values across all value ranges by 6 percent. The Commission based this decision on analysis undertaken by the ACT.
- In presenting its analysis, the ACT noted in its submission to 'Significant Changes since the Draft Report' as part of the 2020 Review, that:

*"Based on discussions with Commission officers, the purpose of the adjustment is to increase the ACT's actual tax base such that when our actual effective land tax rate is applied to it, the implied revenue is equal to the amount we would receive if we aggregated land holdings by taxpayer."*³
- NSW Treasury considers that there are multiple issues with this adjustment and it would be more straightforward – and correct – for the ACT to adjust its land value data to account for the impact of aggregation. This would be similar to the adjustments that New South Wales, Victoria and Queensland are required to make to their data to account for the different treatment of joint land holders. The purpose of any adjustments undertaken by the Commission should be to ensure assessed revenue is correctly calculated, rather than ensuring actual revenue collected by the ACT is equal to the amount that would have been collected had aggregation applied. With

³ https://www.cgc.gov.au/sites/default/files/2021-11/act_submission_on_significant_changes.pdf

this in mind, NSW Treasury is concerned both with the scale of the adjustment made to the tax base of the ACT and how it is implemented.

- While NSW Treasury acknowledges that aggregation of land holding will have a different impact on the land value distribution and tax paid in each state, we believe that, in the absence of the ACT providing data on an aggregated basis, the Commission should seek this information from other states to inform its decision regarding the appropriate factor to be used for the ACT.
- Aggregation does not result in a uniform increase in land values across each value range. In fact, aggregation results in a reduction in land values in the lower value ranges and an increase in land values in upper value ranges. The impact of this factor on the assessed revenue of the ACT (compared with the notional actual revenue of the ACT) will depend on differences in the tax rate structure between the ACT and the national average.
- For the 2020 Review, the Commission compared the ACT to New South Wales and Queensland by considering the effect of aggregation against a comparison of states' shares of State Revenue Office (SRO) land holdings data and their shares of ABS adjusted land values. The Commission noted that for the three years to 2018-19, the combined share of taxable land holdings for New South Wales and Queensland was 91 per cent of their combined share of adjusted land values. To lift the ACT's share of land holdings to a 91 per cent ratio, the Commission noted it would need to make an adjustment of 10 per cent. This is materially higher than the 6 per cent adjustment currently undertaken.
- For the 2020 Review, NSW Treasury undertook analysis to examine the effect of aggregation on our total land tax revenue. We estimated that aggregating land holdings increased our land tax revenue by approximately 33 per cent compared with taxing each property on a standalone basis. Given differences between the states, we cannot be certain that aggregation would be as material in the ACT. Nonetheless, our analysis indicated that aggregation can significantly increase total land tax revenue.
- During the 2020 Review, the ACT was able to calculate the land tax revenue it would have generated if it adopted aggregation. To do so, it must have also calculated its taxable land holdings arising under aggregation. This data would demonstrate the impact of aggregation on the distribution of taxable land values between value ranges and should be provided to the Commission on an annual basis in place of raw taxable land value data.
- NSW Treasury considers that the current adjustment for aggregation in the ACT should be reconsidered, taking account of the issues identified above. More preferably, the ACT should simply provide adjusted taxable land value data on an annual basis, consistent with other states. If this is too onerous, the ACT should supply the adjusted land value data as part of the present review and the Commission should use that data to determine an appropriate adjustment to be applied in subsequent years.

1.1.6 Adjusting for tax base elasticity

NSW Treasury proposes:

- An adjustment is made to account for land tax elasticities
- As part of the 2020 Review, the Commission's consultant suggested that, in the case of land tax, 'a 10 per cent increase in the tax rate will reduce the overall unimproved value of taxable properties by about 0.6 per cent.'⁴ That is, moving from an average tax rate of 2 per cent to 2.2

⁴ Steinhauser, R., Sinnig, M. & Soback, K., 2019, *State tax elasticities of revenue bases*, Tax and Transfer Policy Institute, The Australian National University, Page 142

per cent (i.e. a 10 per cent increase) will result in the unimproved land values falling by 0.6 per cent.

- NSW Treasury supports the consultant's conclusion that land tax impacts unimproved land values. However, the average elasticity estimate provided by the Commission's consultant masks a level of detail that is critical to the land tax assessment. Land tax is imposed on a progressive rate scale and only applies to a subset of properties in each state. Given this, the impact of land tax on unimproved land values varies depending on the unimproved value of the land and the proportion of property in that class that is exempt. To illustrate this, consider the following:
 - Rented residential properties with land values somewhat above the tax-free threshold. In this case, the impact of land tax on land values will be minimal as the tax paid will be relatively small and the proportion of properties subject to tax in this class will also be low.
 - Commercial properties with high land values. In this case, the impact of land tax on land values will be high as the tax paid will be relatively large and the proportion of properties subject to tax in this class will also be very high.
- To highlight the impact of land tax on high value properties, we have compared the impact of land tax on a property with a current unimproved land valuation of \$10 million, assuming 100 percent of properties at this value fall within the land tax base. Economic theory suggests that the impact on unimproved land values from the imposition of land tax on such a property is equal to the present value of future land tax obligations. Based on this, Table 1-3 indicates that differences in land tax rates between states have a significant impact on unimproved land values ranging from as high as 40.8 percent in Victoria to as low as 24.8 per cent in Western Australia.

Table 1-3: Impact of Land Tax on Unimproved Property Values

State	Current Unimproved Land Value	Annual Land Tax Obligation [#]	Present Value of Land Tax Obligation at 3% (Real)*	Land Value before Land Tax	% Change in Land Value
NSW	\$10,000,000	\$160,896	\$5,363,200	\$15,363,200	-34.9%
VIC	\$10,000,000	\$206,475	\$6,882,500	\$16,882,500	-40.8%
QLD	\$10,000,000	\$187,500	\$6,250,000	\$16,250,000	-38.5%
WA	\$10,000,000	\$98,950	\$3,298,333	\$13,298,333	-24.8%
SA	\$10,000,000	\$212,550	\$7,085,000	\$17,085,000	-41.5%
TAS	\$10,000,000	\$144,350	\$4,811,667	\$14,811,667	-32.5%
ACT	\$10,000,000	\$113,522	\$3,784,067	\$13,784,067	-27.5%
NT	\$10,000,000	Nil	Nil	\$10,000,000	Nil

* Based on tax rates applicable in 2022-23. A real discount rate has been applied to allow for inflation of both land values and tax payments. The modelling assumes that land tax thresholds are indexed to property values over the longer term and that property values rise in line with general inflation.

[#] Tax obligations calculated based on a domestic corporation

Source: NSW Treasury Estimates using data from the Commission's 2023 Update Simulator

- Currently the land tax assessment results in a significant redistribution of GST between the states. Given this, we believe it is critical that the land tax assessment undertaken by the Commission is fit for purpose. Table 1-4 provides a breakdown of the average per capita GST redistribution associated with the land tax assessment by selected land value ranges for the 2021-22 data year. The data clearly indicate the dominance of the highest value ranges in the redistributive effect of the assessment.

Table 1-4: Redistribution of GST arising from the Commission's Land Tax Assessment – \$ Per Capita

	Property Value Range			All Properties
	<\$5 mil.	\$5-10 mil.	>\$10 mil.	
NSW	-78	-30	-142	-250
VIC	-78	-13	-15	-106
QLD	120	30	104	254
WA	72	18	85	175
SA	99	17	156	292
TAS	136	42	166	344
ACT	106	35	161	301
NT	54	16	57	127
All States	0	0	0	0

Source: Commission Simulator – 2023 Update

- NSW Treasury accepts that an adjustment for elasticity effects of land tax on unimproved land values is complex as the proportion of taxable property in each value range is not easily determined. We also recognise the increased level of complexity that would be introduced to the Commission's assessments by introducing this factor. Nevertheless, we believe some allowance should be made given the significant impact of this factor on the assessed revenues of states arising from high land valued properties.
- To demonstrate the significance of this issue, we have simulated the impact on the assessed revenue of each state for the elasticity impacts on properties with an unimproved land value of \$5 million or more. We believe it is likely that close to 100 per cent of properties in this valuation range across the economy would fall within the land tax net and therefore the imposition of land tax would fall fully on the valuation of these properties. Estimates of the impact on the imposition of land tax on the valuation of properties valued at \$5 million or more on the assessed revenue of each state are shown in Table 1-5.

Table 1-5: Impact of Elasticity Adjustment on Assessed Revenue for Properties with an Unimproved Land Value of \$5 million or more (\$m)

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
2017-18	-89.0	69.0	-20.5	32.1	29.2	1.1	-9.6	-12.3	0.0
2018-19	-161.2	117.4	13.4	26.3	30.2	-0.1	-11.0	-15.1	0.0
2019-20	-154.1	127.4	11.7	15.9	29.4	-1.0	-12.9	-16.4	0.0
2020-21	-107.0	87.4	43.9	5.4	5.3	-4.7	-13.0	-17.4	0.0
2021-22	-232.9	159.1	87.4	11.1	6.8	-1.5	-11.6	-18.4	0.0
5-Year Average	-148.9	112.1	27.2	18.1	20.2	-1.2	-11.6	-15.9	0.0

Source: NSW Treasury Estimates using data from the Commission's 2023 Update Simulator

- Given the scale of the variations indicated in Table 1-5, we urge the Commission to adjust the current land tax assessment for the impact of differences in tax rates on the observed land tax base for properties valued at \$5 million or more.

1.2 Stamp duty on conveyances

1.2.1 Overview of category

- The Stamp Duty category consists of revenue collected 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.

1.2.2 Assessment structure

- This category consists of one component – conveyance duties.
- This component is influenced by two drivers – the value of property transferred and the value distribution of property.
- This category excludes:
 - taxes on land ownership (this is assessed under the Land Tax category)
 - other land-based taxes (such as property-based fire and emergency services levies, which is assessed in the Other Expenses category).
- The Commission assesses states' capacities to raise duties from three types of transactions on an EPC basis, which means they have no impact on the GST distribution:
 - Stamp duties from sales of major state assets
 - Stamp duties from corporate reconstructions
 - Stamp duties from non-real property transactions.

1.2.3 Current assessment structure

The Commission asks:

- Do states agree that the overall approach to assessing revenue from stamp duty on conveyances remains appropriate?
- NSW Treasury supports the general methodology; however, we consider that an elasticity adjustment should be made to account for different rates of tax in different states as outlined in Section 1.2.6.

1.2.4 Treatment of NSW property tax

The Commission asks:

- Do states agree that the revenue from New South Wales property tax be assessed with land tax for as long as it exists?
- NSW Treasury supports the proposal that our property tax revenue be assessed with land tax, given it is immaterial and the scheme has been closed to new applicants.

1.2.5 Impact of recent changes to NSW property tax

The Commission asks:

- Do states support the Commission not adjusting states' value of property transferred for the elasticity effects of recent reforms on materiality grounds?
- NSW Treasury agrees that recent reforms have not had material impact on the value of property transferred. However more broadly, we believe elasticity effects should be taken into account in assessing stamp duty on conveyances, as outlined in Section 1.2.6.

1.2.6 Adjusting for tax base elasticity

NSW Treasury proposes:

- That an elasticity adjustment should be made to the stamp duty assessment.
- For many years there have been calls to abolish stamp duty on property transactions as it acts to discourage turnover by increasing the costs. While stamp duty averages 4 to 4.5 per cent for a median priced property, it represents around 70 to 80 per cent of the cost of a property transaction. Given this, it is not surprising that the Commission's own consultant found the impact of stamp duty on value of property transactions was significant. The consultant concluded that:

*'...aggregate Commission data suggests a 10 per cent increase in the tax rate will reduce the overall value of sold properties by 3-4 per cent while the sales data suggest effects from very small up to 3 per cent.'*⁵
- While the legal incidence of stamp duty falls on the buyer, the economic incidence falls both on buyers (by raising the tax inclusive price of property) and sellers (by lowering the price of property sold), with the balance between these depending on the elasticities of demand and supply.
- As well as impacting on the sale price of individual properties, stamp duty also impacts on the number of transactions undertaken. As part of efforts to reform stamp duty, NSW Treasury conducted an extensive literature review into the impact of changes in transfer taxes on the volume of residential property transactions.⁶ Of the 15 empirical studies examined, a typical finding was that a 100 basis point increase in transfer duty (e.g. increasing the tax rate from 4 per cent to 5 per cent) will reduce transaction volumes by about 10 per cent. NSW Treasury believes this study provides a superior estimate of the elasticity impacts of stamp duty on the volume of residential property transactions than the work undertaken in 2019 by the Commission's consultant.
- The NSW Treasury study did not consider the impact of stamp duty on non-residential transaction turnover. We acknowledge that stamp duty represents a deduction in the calculation of capital gains tax liabilities and that this reduces the effective rate of tax, and therefore the impact of interstate variations in tax rates on the apparent size of the tax base in each jurisdiction. To overcome this problem, we have undertaken modelling that indicates that tax deductibility for non-residential business transactions reduces the headline stamp duty rate by

⁵ Steinhauser, R., Sinnig, M. & Sobek, K., 2019, *State tax elasticities of revenue bases*, Tax and Transfer Policy Institute, The Australian National University, p. 2

⁶ Malakellis, M. and Warlters, M. (2021), *The economic costs of transfer duty: a literature review*, NSW Treasury Technical Research Paper Series.

around 10 per cent.⁷ To allow for this factor, we have reduced our proposed overall elasticity adjustment factor by 25 basis points (i.e. 100 basis point increase in transfer duty will reduce transaction volumes by about 9.75 per cent).⁸

- NSW Treasury has undertaken analysis to estimate the impact of an elasticity adjustment based on the above.⁹ In undertaking this modelling, we have adopted a conservative approach by capturing only the effect of stamp duty on the volume of transaction, while ignoring the compounding impact of stamp duty on the price of property sold.¹⁰ Table 1-6 shows the impact of proposed elasticity adjustments on the assessed revenue for each state for period 2017-18 to 2021-22.

Table 1-6: Impact of Volume Elasticity Adjustment on Assessed Revenue (\$m)

Year	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
2017-18	-51.1	316.3	-216.8	-41.7	24.3	7.2	-38.9	0.8	0.0
2018-19	-54.7	321.3	-168.0	-24.3	-18.0	8.5	-33.2	-31.6	0.0
2019-20	-29.2	269.2	-187.1	21.9	-32.9	6.5	-43.1	-5.2	0.0
2020-21	-77.0	272.4	-215.5	15.3	37.2	19.4	-52.2	0.4	0.0
2021-22	-141.9	497.9	-257.5	2.2	-34.6	-6.5	-79.2	29.6	0.0
5-Year Average	-70.8	335.4	-209.0	-5.4	-4.9	7.2	-49.3	-3.3	0.0

Source: Commission Simulator – 2023 Update

- Our results show that an elasticity adjustment is material at the \$12 per capita data adjustment threshold for almost all states, both in 2021-22 and averaged over five years from 2017-18 to 2021-22.
- As part of the 2020 Review, the Commission acknowledged that the elasticity of stamp duty was statistically significant and material at the \$10 per capita data adjustment level. However, it determined not to make an adjustment because it believed that it was not clear that equalisation was improved by applying single adjustments to often significantly divergent tax rates, in some parts of assessments but not others. This argument ignores the fact that different tax bases have very different elasticities with respect to the tax rate. In general, transaction taxes have a highly elastic tax bases while labour taxes are moderately elastic tax base (because of low wage elasticity of aggregate labour supply).
- NSW Treasury urges the Commission to review its position on elasticity adjustments for the 2025 Review. Not only are the estimates shown above conservative (as they only relate to the volume of transactions and not the price effect), the contention that it is inappropriate to make an adjustment to one revenue assessment and not others is unsatisfactory given the materiality of our estimates on the assessed revenue of some states. Furthermore, NSW Treasury proposes that elasticity impacts be recognised across all revenue categories, where it is material.

⁷ An impact of tax deductibility is a function of both the tax rate applicable to the taxpayer and the period of time between purchase and sale of the property.

⁸ We estimate that tax deductible non-residential transactions represent around 25 per cent of transfer duty revenue.

⁹ Data was taken from the Commission's 2023 Update Simulator – Stamp Duty Assessed Revenue.

¹⁰ In principle, transfer duty may have a large effect on average prices, if all expected duty is fully capitalised into the sale price. For example, with an average residential holding period of 18.8 years (Bandeira et al. 2022), constant real dwelling prices and a real discount rate of 3%, the present value of 4% stamp duty paid at purchase and at each expected transaction over 40 years is 7.6% of the property valuation. On this basis, a 4% tax rate would be expected to lower prices by 7.6%. An even larger effect is reported in the peer-reviewed Australian study, Davidoff and Leigh (2014), which found that a 1 percentage point increase in the duty rate lowers the average price by 6%.

1.3 Insurance tax

1.3.1 Overview of category

- The Insurance Tax category consists of revenue from duties levied on the premiums paid for a range of insurance products. State capacity to raise revenue is assessed using the value of premiums paid.
- No changes are proposed to this assessment.

1.3.2 Assessment structure

- This category consists of one component – insurance tax.
- This component is influenced by one driver, value of insurance premiums.
- Three adjustments are made to general insurance premiums data to remove premiums that are heavily policy influenced and to improve the comparability of the capacity measure across states:
 - Workers' compensation premiums are removed
 - Compulsory third party (CTP) premiums are removed
 - Insurance-based Fire and Emergency Service Levies (FESLs) are removed.

1.3.3 Current assessment structure

The Commission asks:

- Do states support the continuation of the insurance tax assessment in its current form?
- NSW Treasury supports the general methodological approach for this category. However, we consider that the Commission should consider making an elasticity adjustment for insurance tax.
- As part of the revenue consultancy in the 2020 Review, the study found that there was a negative elasticity of -0.06 for insurance tax.¹¹ That is, a 100 basis points increase in the tax rate will reduce expenditure on total premiums by 0.6 per cent. While this result was statistically significant, the Commission concluded that an elasticity adjustment was not material at the \$10 per capita threshold for a data adjustment.
- NSW Treasury has undertaken analysis to test the materiality with 2021-22 data.¹² We have also included the FESL revenue to determine the effective rate of tax in New South Wales. The imposition of FESL in New South Wales reduces the value of insurance premiums in this state and was a driver behind the attempted reform of insurances taxes in this state a number of years ago. Our analysis found that an elasticity adjustment would be material at the current \$12 per capita data adjustment threshold for the ACT. Moreover, we consider that the materiality of an elasticity adjustment should be considered taking account of its impact across all taxes for which it is applied.

¹¹ Steinhauser, R., Sinnig, M. & Sobek, K., State tax elasticities of revenue bases, *Tax and Transfer Policy Institute*, The Australian National University.

¹² Data was taken from the Commission's 2023 Update Simulator – Insurance Tax Assessed Revenue.

1.4 Motor taxes

1.4.1 Overview of category

- 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 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.
- No changes are proposed to this assessment.

1.4.2 Assessment structure

- This category includes two components: light vehicle registration fees; and charges and heavy vehicle registration fees and charges.
- Subject to materiality thresholds, there may be a third component – electric vehicle charges.
- The category excludes revenue from:
 - stamp duty collected on compulsory third party motor vehicle insurance, which is assessed in the insurance tax category.
 - stamp duty on the transfer of motor vehicle ownership, which is assessed in the other revenue category.
- The capacity measures for the components are outlined below:

Component	Capacity measure
Light vehicles registration fees and charges	Number of light vehicles
Heavy vehicles registration fees and charges	Number of heavy vehicles
Electric vehicle charges	Distance travelled

1.4.3 Electric vehicles

The Commission asks:

- If an assessment of revenue from electric vehicle charges becomes material in future updates, do states support the revenues being assessed as a separate component of the motor taxes category?
- NSW Treasury supports the Commission's proposal to include an assessment of revenue from electric vehicle charges as a separate component of the motor taxes category if they are material.
- However, the *Vanderstock & Anor v State of Victoria* ('*Vanderstock*') case could mean that states are unable to charge distance-based road user charges for electric vehicles. *Vanderstock* is a challenge in the High Court to Victoria's Zero and Low Emission Vehicle Road User Charge (ZLEV RUC). Victoria's ZLEV RUC is being challenged as a possible 'excise', which the states cannot levy under section 90 of the Constitution.
- Should *Vanderstock* be successful, and states are unable to charge distance-based road user charges for electric vehicles, an alternative could be to include electric vehicles in the light vehicles component of the Commission's assessments.

- NSW Treasury has undertaken some analysis that shows that electric vehicles travel similar distances to light vehicles in terms of average kilometres travelled, in most states (see Table 1-7 below).

Table 1-7: Comparison of average kilometres travelled by electric vehicles and light vehicles

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT
Light vehicles								
No. vehicles	5,562,338	4,934,094	4,031,952	2,180,262	1,383,473	491,771	297,696	151,323
Total kms travelled (million)	62,969	57,857	45,660	24,986	15,063	5,113	3,434	1,815
Average distance travelled ('000 km)	10.2	10.5	10.2	10.3	9.3	8.7	10.7	10.2
Electric vehicles								
No. vehicles	2,094	2,256	987	442	233	55	160	13
Total kms travelled (million)	23.9	25.2	10	5.6	2.1	0.2	2	0.1
Average distance travelled ('000 km)	11.4	11.2	10.1	12.6	9.1	4.3	12.8	8.0

Sources: Light vehicles data is the sum of passenger vehicles, motorcycles and light trucks from the ABS *Survey of Motor Vehicle Use, 12 months to 30 June 2020*. Electric vehicles data is from the ABS *Electric passenger vehicle use, experimental estimates, 12 months ended 30 June 2020*

- While the datasets are not directly comparable, the results show that the average distance travelled by electric vehicles is broadly similar to that travelled by light vehicles in most states, with the exception of Tasmania. Given electric vehicles data will likely improve in the coming years as take up increases, more accurate comparisons could be undertaken if required.

1.4.4 Impact of emission-based registration fees

The Commission asks:

- Do states agree that the number of registered light vehicles remains an appropriate measure of revenue capacity for revenue raised from emissions-based registration fees?
- NSW Treasury supports retaining the number of registered light vehicles as the measure of revenue capacity for revenue raised from emissions-based vehicles.
- States charge registration fees based on a range of factors. Table 1-8 outlines the key factors affecting light vehicle registration fees.

Table 1-8: Basis for state registration fees of light vehicles

NSW	VIC	QLD	WA	SA	TAS	ACT	NT
▪ Tare weight	▪ Vehicle location	▪ Number of cylinders	▪ Tare weight	▪ Number of cylinders	▪ Number of cylinders	▪ Tare weight	▪ Engine size
▪ Use (private or business)	▪ Fuel type			▪ Vehicle location		▪ Use (private or business)	

Sourced from each state's vehicle registration website in August 2023

- Given the basis on which states charge registration fees varies considerably among states, it is simpler and more consistent to use number of vehicles as the capacity measure.

1.5 Mining revenue

1.5.1 Overview of category

- 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.

1.5.2 Assessment structure

- This category consists of nine components:
 - Iron ore
 - Coal
 - Onshore oil and gas
 - Bauxite
 - Copper
 - Gold
 - Lithium
 - Other minerals
 - Grants in lieu of royalties (where the Commonwealth shares royalties with states under revenue sharing arrangements).
- For all of the components, except grants in lieu of royalties, revenue raising capacity is measured by the value of production. For grants in lieu of royalties, revenue is assessed actual per capita (APC), which means that a state's actual revenue is equal to its assessed revenue.

1.5.3 Use of mineral-by-mineral approach

The Commission asks:

- Do states agree the Commission should continue to assess mining revenue capacity using a mineral-by-mineral approach?
- NSW Treasury recognises that the Mining assessment presents challenges with respect to the Commission's guiding principles. By adopting a mineral-by-mineral approach, the Commission's current approach significantly favours the 'what states do' principle at the expense of 'policy neutrality'.
- The impact where one state dominates a particular mineral (e.g. Western Australia in the case of iron ore) is that state's policy effectively determines the average state policy. This carries a risk to policy neutrality since any consideration of changes in royalty rates by the dominant state may be influenced by its expectation of a change in its GST revenue.

- In order to assess the best approach for the mining assessment, we have developed the following criteria:
 - avoid undermining the achievement of fiscal equalisation
 - appropriately balance the guiding principles
 - limit use of discretion.
- We subsequently applied these criteria to the various options for assessing mining revenue raising capacity.
- Firstly, we considered a profitability measure. While this option perhaps best reflects states' revenue raising capacity, as the Commission notes, the data is not available to undertake such an assessment. The Commission explored this option as part of the 2020 Review, however, the ABS advised that it could not provide mining profitability data by state. The Commission would therefore be required to find its own nationally comparable data, which is highly impractical.
- A profitability measure would also be highly sensitive to price and cost changes and, therefore, volatile. Given the mining assessment redistributes a significant proportion of GST revenue, introducing a high level of volatility is not supported.
- Secondly, we considered an external standard with reference to tax rates applied overseas. This approach would not result in a good fiscal equalisation outcome as any difference between assessed revenue and actual revenue would be assessed EPC. This would occur if the external rate applied, such as an international tax rate, differed from the actual (average) tax rate resulting in a difference between the total assessed revenue and the total actual revenue. This approach would also require the Commission's judgement on when to change the externally determined rate, as economic conditions overseas may not mirror domestic conditions. For these reasons, NSW Treasury does not support the use of an external standard.
- Thirdly, we considered the Commission's EPC proposal. Our detailed concerns are outlined in the following section. However, an EPC approach does not achieve a good fiscal equalisation outcome, does not appropriately balance the guiding principles, and requires a significant degree of discretion on the part of the Commission. Accordingly, NSW Treasury does not consider it an appropriate option.
- Finally, we considered the grouping of minerals. Aggregating various metals and minerals into a single category is appealing as it would address the issue of policy neutrality. No single state would dominate and thus the need to consider the impact of policy changes on GST shares would be reduced.
- The Commission used an aggregation method in the 2010 Review, where minerals were grouped into high and low value minerals. NSW Treasury understands that the Commission moved away from this approach to more accurately reflect state revenue raising capacity and to prevent states from gaming the system by changing their royalty rates after the minerals have been allocated into groups. However, these adverse effects can be mitigated if the mineral groupings are locked in for life of the review.
- In its consultation paper for this Review, the Commission notes that one of the reasons it prefers the mineral-by-mineral approach is because different royalty rates apply to different minerals. Taking this one step further, the assumption being made by the Commission is that royalty rates are different for different minerals because the cost of production or profitability of the mining activity differs for different minerals.
- NSW Treasury considers that the setting of royalty rates is as influenced by policy choice as by production costs or profitability. For example, New South Wales does not provide royalty discounts for coking coal (relative to thermal coal), despite the fact that mining coking coal is

generally more expensive than mining thermal coal.¹³ New South Wales instead bases its royalty rates on the method of coal recovery. The NSW Government recently announced an increase to royalty rates, listing surging international prices, and the need for a fairer return to the people of New South Wales, as the key reason.¹⁴ The new rates, which will come into effect from 1 July 2024, are – 10.8 per cent for open cut, 9.8 per cent for underground and 8.8 per cent for deep underground. NSW Treasury analysis, based on commercially sensitive data, indicates that these differential rates do not correspond to underlying differences in costs of production or profitability between different types of mines.

- Queensland introduced new coal royalty rates on 1 July 2022. These were also motivated by the unprecedented increase in coal prices in 2021 and 2022 and the fact that mining operators were making windfall profits far above the level required to make a fair return on their investments over the long run. The Queensland Government expanded its already progressive system of coal royalties, to apply rates of 20 per cent, 30 per cent and 40 per cent for the average coal price per tonne that is more than \$175, \$225 and \$300 respectively.
- While New South Wales and Queensland both recently introduced new coal royalty rates, these rates are vastly different. This supports the theory that the setting of royalty rates is dependent on policy choice as much as it is on profitability.
- Western Australia’s iron ore royalty rate setting provides a further example. From the 1960s, Western Australia had a concessional rate for iron ore fines of 3.75 per cent because there was less demand for iron ore fines than iron ore lump and the government wanted to encourage a market for iron ore fines.¹⁵ This was increased to 5.625 per cent in 1995 when it was clear that mining companies were making huge profits with such a low royalty rate (this rate being half way between the existing rate of 3.75 per cent and that for iron ore lump of 7.5 per cent. In its 2011-12 Budget, Western Australia announced that it would align the rates for iron ore fines and lump, phasing in the increase over two years.¹⁶ The primary purpose of this reform being to achieve policy consistency for iron ore products.
- The same issue arises with onshore petroleum royalties. According to some experts, the setting of onshore petroleum royalties is “complicated” and “can be easily gamed by companies at the government’s expense”.¹⁷ This was the case in 2019 when Australia Pacific LNG Consortium, including Origin Energy, won a landmark legal challenge against the Queensland Government over the royalties paid from its LNG export facility in Gladstone.¹⁸
- Thus, the idea that the minerals should be disaggregated because the royalty rates reflect the unique production costs of each mineral is not robust. Aggregating the minerals would better address the issue of policy neutrality than the EPC proposal and would still align with ‘what states do’ while also abstracting away from policy choices, thus delivering a better fiscal equalisation outcome. It would also require less judgement from the Commission than other options.

¹³ Cunningham, M., Van Uffelen, L. and Chambers, M., 19 September 2019, ‘The changing global market for Australian coal’, Reserve Bank of Australia Bulletin – September 2019, <https://www.rba.gov.au/publications/bulletin/2019/sep/the-changing-global-market-for-australian-coal.html>

¹⁴ ‘Coal royalties to deliver budget repair, fairer return for NSW’, 6 September 2023, NSW Government Media Release, <https://www.nsw.gov.au/media-releases/coal-royalties-to-deliver-budget-repair-fairer-return-for-NSW>

¹⁵ Western Australia Parliamentary Question No. 263, 6 February 2005, <https://www.parliament.wa.gov.au/pq/qsearch.nsf/179ca7006fb68a1848256db4002455cd/4e739aa10a79af204825702d007ba81f?OpenDocument>

¹⁶ Western Australia 2011-12 Budget, https://www.ourstatebudget.wa.gov.au/2011-12/budget-papers/2011-12_bp1_budget_speech.pdf

¹⁷ A Fair Share? Royalties in Australia, 2021, Michael West Media, https://www.michaelwest.com.au/wp-content/uploads/2021/05/A-Fair-Share_-Royalties-Report.pdf

¹⁸ Ludlow, M., 24 May 2019, ‘Gas consortium wins royalty decision against Queensland Government’, Australian Financial Review, <https://www.afr.com/companies/energy/gas-consortium-wins-royalty-decision-against-queensland-government-20190524-p51qru>

- Alternatively, though less desirably, the Commission should retain a mineral-by-mineral approach with no adjustment for dominant states. This is preferable to making a change that introduces more judgement and moves further away from equalisation.

1.5.4 Use of a dominant state approach

The Commission asks:

- Do states support the dominant state for a mineral being identified having regard to a state's share of the revenue base, its population share, and the extent to which its GST distribution would be impacted by a change in the royalty rate for that mineral?
 - Do states agree that where a dominant state changes its relevant royalty rate, assessing 50 per cent of that state's revenue arising from the royalty rate change equal per capita would represent an appropriate balance between assessing relative state fiscal capacities and policy neutrality concerns?
- NSW Treasury does not support making the proposed adjustment for dominant states, nor identifying a dominant state on such an arbitrary basis (if a dominant state needs to be identified at all), as it contradicts the fundamental principle of horizontal fiscal equalisation (HFE).
 - HFE recognises that different states have different capacities to raise revenue, as well as different expenditure requirements, based on their unique circumstances. There is perhaps no clearer example of the justification for fiscal equalisation than the uneven distribution of mineral endowments between the states. Different mineral endowments among the states give rise to divergent capacities to generate revenue that are wholly based on the historical accident of where state lines were drawn.
 - The Commission's proposal would exempt a proportion of state revenues from the fiscal equalisation process for no genuine reason other than to allow so-called dominant states to keep more of the revenue they generate from mining activities. This directly undermines the core purpose of Australia's fiscal equalisation system and is not in keeping with the Commission's claim that its guiding principles are ultimately subordinate to its objective of equalisation.
 - Ultimately, fiscal equalisation should first and foremost attempt to share the fiscal benefits of unearned mineral endowments equally between all states. The Commission's proposal does the opposite.
 - Further, the Commission's proposal is arbitrary in at least two dimensions:
 - The definition of a dominant state; and
 - The extent to which revenue should be exempt from equalisation processes.
 - The Commission proposes to identify a state as a 'dominant state' where that state's share of the national value of production for a mineral is 50 percentage points higher than its population share. Presumably this is because in such a case a state which raises its royalty rates will see more than 50 per cent of its increased revenue distributed to other states through fiscal equalisation. There is no reason why 50 per cent should be considered a threshold of fairness in this case.
 - Under this definition, larger states are unlikely to ever qualify as dominant states except in cases of exceptional mineral concentration. Queensland, for example, is not considered a dominant state for coal production, despite producing nearly two-thirds of all coal nationwide. Western Australia, on the other hand, is a dominant producer of gold even though it produces only a marginally higher share of national production compared to Queensland's share of coal.
 - The Commission further proposes that dominant states should have the first 50 per cent of any increase or decrease in royalty revenue arising from changes in rates exempted from redistribution. Once again, this is arbitrary and without genuine basis. The Commission has not

presented any analysis to demonstrate that existing arrangements are creating barriers to state royalty policy nor to support the choice of 50 per cent as the amount of revenue to be exempted.

- Queensland falls just short of being considered a dominant state under the Commission's proposal, with a difference between its share of coal production and its population share of approximately 40-45 per cent. Presumably any distortionary impact of the current GST system would not materially change as the differential approaches 50 per cent. Despite standing to lose up to 45 per cent of any additional coal royalties it raises, Queensland has just introduced significantly higher royalty rates.
- Specifically with regard to the proposal, we also note several practical concerns including benchmarking, the potential for states to game the system, and its responsiveness (or lack thereof) to economic changes.
- Firstly, the Commission's proposal raises concerns about benchmarking. It is unclear whether currently royalty rates would be the permanent benchmark going forward and, if so, why that should be the case. If not, the question then becomes how the Commission would decide when to establish a new benchmark and what would happen to the revenue exempted from redistribution under the previous benchmark. This introduces a high degree of complexity and discretion on the part of the Commission.
- Secondly, the proposal would be open to gaming before the changes came into effect. To illustrate, a dominant state could reduce its rates before the changes came into effect (leading to increased GST revenue), and then increase its rates after the changes came into effect, with the first 50 per cent of its revenue not subject to redistribution (providing it even more revenue). This demonstrates that the Commission's proposal is more likely to influence policy than be policy neutral and does not produce good fiscal equalisation outcomes.
- Thirdly, the proposal would also not deliver good fiscal equalisation outcomes if there are significant changes in the economy that affect industry profitability. For example, assume that an industry becomes wildly profitable and the dominant state increases its royalty rates. The dominant state would benefit under this proposal from less GST being redistributed to the other states and therefore it would effectively retain a larger share of its windfall. Conversely, assume that an industry suddenly becomes unprofitable and the dominant state needs to reduce its royalty rates. The dominant state would not only lose significant revenue, it would solely bear the first 50 per cent of the lost revenue. In both these scenarios, GST is not being redistributed on the basis of each state's true revenue raising capacity.
- More generally, as demonstrated by the example above, the Commission's proposal in its current form creates incentives that are heavily biased towards increasing, rather than decreasing, royalty rates. NSW Treasury does not believe it is appropriate for the GST distribution system to create such incentives.
- Lastly, the policy is likely redundant while the current GST relativity floor exists. That is, under the current GST distribution arrangements, there is a legislated relativity floor of 0.7 until 2023-24 and 0.75 from 2024-25 onwards. In practice this means that Western Australia effectively gets to keep most of its iron ore and other mineral revenue regardless of any Commission assessments. While NSW Treasury strongly opposes the 2018 changes to the GST distribution system, the relativity floor provides important context for the Commission's deliberations concerning the mining revenue assessment. The Commission's dominant state proposal would compound the unfairness of the 2018 legislative amendments.

1.5.5 Treatment of coal seam gas and uranium

The Commission asks:

- Do states agree that uranium and coal seam gas royalty revenue should be assessed equal per capita?
- NSW Treasury does not support the proposal that coal seam gas and uranium should be assessed EPC. The Commission itself notes that an EPC assessment is used when a conceptual case for a differential assessment cannot be found, there is no reliable or policy neutral assessment method and the redistributive impact on GST is not material.¹⁹ The inverse being that EPC is not an appropriate assessment where a clear driver can be determined, there is a reliable, policy neutral assessment method and the GST redistributive effects are material. In such cases, undertaking an EPC assessment would undermine fiscal equalisation.
- NSW Treasury acknowledges that mining and exploration bans complicate the assessment for both coal seam gas and uranium by introducing a significant policy element. As much as possible, the Commission seeks to assess revenue capacity as if all states made the same effort to generate revenue. A state's mining revenue capacity is ultimately a function of its mineral resources or endowment. Mining bans represent clear differences between states in their efforts to generate revenue.
- In practice, however, the value of production across states for both coal seam gas and uranium align closely to the distribution of resources across states. For that reason, and to maintain simplicity and consistency in methods, NSW Treasury recommends continuing to use the value of production as a measure of capacity for both coal seam gas and uranium.
- Alternatively, if the Commission is concerned with policy impacts, the Commission could assess states' revenue capacities based on known economic resources of both coal seam gas and uranium. This would more fairly capture a state's potential to raise revenue than an EPC assessment which erroneously assumes that states with little to no economic resources of either coal seam gas or uranium are capable of generating royalty revenues.

Coal Seam Gas

- In the case of coal seam gas, it is well documented that resources are only present in New South Wales and Queensland.²⁰ According to Geoscience Australia's most recent study into coal seam gas resources, Queensland has 99.996 per cent of proven and probable coal seam gas reserves and New South Wales has 0.004 per cent (as at December 2021).²¹

¹⁹ 2020 Review Final Report, Chapter 2: Measuring Fiscal Capacity, Commonwealth Grants Commission

²⁰ *Australia's Energy Commodity Resources 2023*, Geoscience Australia, Viewed 14 August 2023.

<https://www.ga.gov.au/digital-publication/aecr2023/gas>

Ward, C. & Kelly, B.F.J (2013), *Background Paper on New South Wales Geology: with a focus on basins containing coal seam gas resources*, prepared for the Office of the NSW Chief Scientist and Engineer

Australian Gas Resources Assessment 2012, Geoscience Australia and Bureau of Resources and Energy Economics, Canberra. Viewed 9 August 2023.

<https://d28rz98at9flks.cloudfront.net/74032/AustralianGasResourceAssessment2012.pdf>

²¹ *Australia's Energy Commodity Resources 2023*, Geoscience Australia, Viewed 14 August 2023.

<https://www.ga.gov.au/digital-publication/aecr2023/gas>

Table 1-9: Coal seam gas resources in Australia (petajoules)

Basin	Reserves (2P)	Contingent resources (2C)	2P + 2C	Annual Production
Bowen/Surat (QLD)	29,740	22,664	52,404	1,607
Galilee (QLD)	0	2,636	2,636	0
Gunnedah (NSW)	10	2,264	2,274	1
Sydney (NSW)	2	0	2	3

Source: Australia's Energy Commodity Resources: 2023 Edition, 2021 data, Geoscience Australia

- Gas resources are reported as the best estimate of reserves (2P) and the best estimate of contingent resources (2C).²² Reserves are commercially recoverable amounts of petroleum that remain in known accumulations, of which 2P reserves are the best estimate (the sum of 'Proved' and 'Probable' reserves). Contingent resources are potentially recoverable amounts of hydrocarbons in known accumulations, of which 2C contingent resources are the best estimate. Contingent resources are not yet considered to be commercially recoverable due to one or more technical, commercial, or other factors.
- Based on 2021 production rates of 1,611 petajoules, the above identified coal seam gas resources (2P + 2C) would have an estimated life of 36 years, including 18 years of reserves life.
- Given both the distribution of royalty revenues and coal seam gas resources, an EPC assessment would not align a good fiscal equalisation outcome. That is, an EPC assessment would not reflect the actual revenue raising capacity because it assumes every state has a revenue raising capacity equal to its population share. This is clearly not true given coal seam gas resources only exist in two states, with one state being dominant.

Uranium

- Currently, the Northern Territory's uranium revenue is assessed on an APC basis as it falls in the 'grants in lieu of royalties' component, while South Australia's uranium royalties are assessed EPC in the 'other minerals' component. Clearly, this inconsistency should be addressed.
- Although most states have uranium deposits, Resources²³ are concentrated in South Australia, Western Australia, Queensland and the Northern Territory, as Figure 1-3 and Table 1-10 below show.

²² This is an international best practice for the assessment and quantification of petroleum resources developed by the Society of Petroleum Engineers (SPE). *SPE Petroleum Resources Management System: Guide for Non-Technical Users*, <https://www.spe.org/industry/docs/PRMS-Guide-for-Non-Technical-Users-2007.pdf>

²³ Total identified Resources includes economic demonstrated resources and sub-economic demonstrated resources. This is a different classification to that used for petroleum resources noted above.

Figure 1-3: Australia's identified uranium resources by deposit as at December 2021

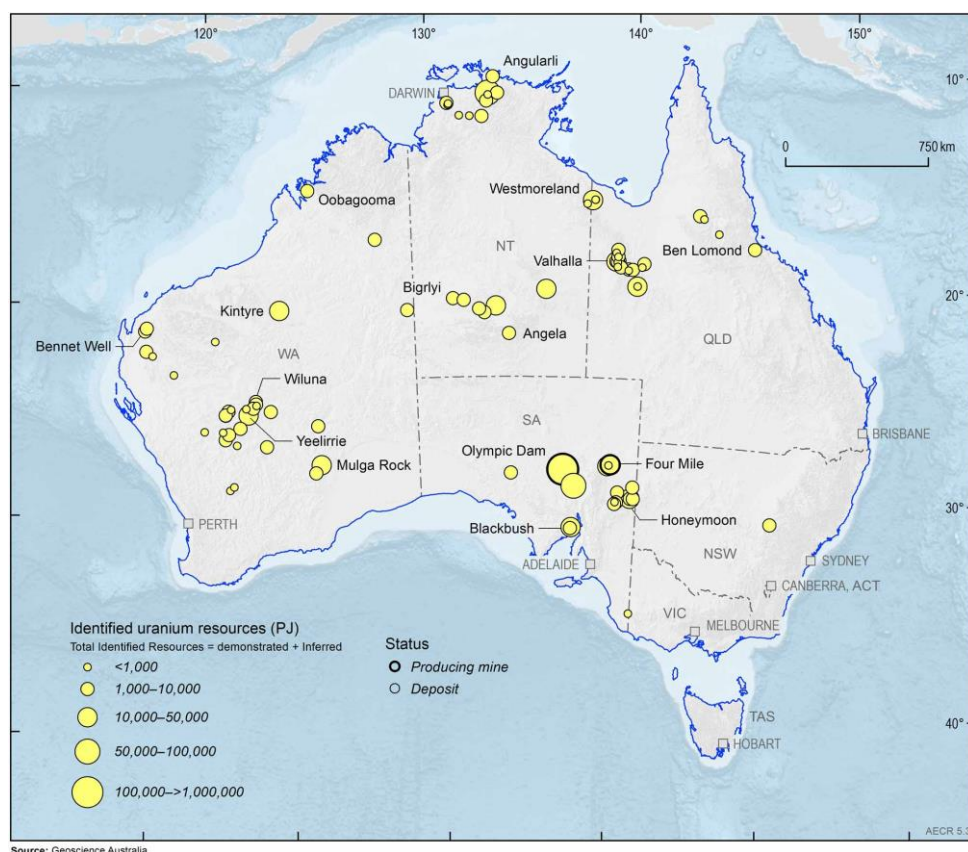


Table 1-10: Distribution of Economic Demonstrated Resources of uranium - December 2021

	NSW	VIC	QLD	WA	SA	TAS	ACT	NT
Uranium (kilotonnes)	0	0	50.19	102.07	1,008.08	0	0	66.66
% share	0	0	4%	8%	82%	0	0	5%

Source: Australia's Identified Mineral Resources, Geoscience Australia²⁴

- Economic demonstrated resources is the highest category of geological and economic confidence used by the Commonwealth for long-term regional and national-scale uranium resource assessment. In December 2021, Australia's total economic demonstrated resources for uranium was 1,227 kilotonnes, with 82 per cent found in South Australia.
- As outlined for coal seam gas, undertaking an EPC assessment of uranium does not accurately reflect the revenue raising capacity of states. Under an EPC assessment, New South Wales would be assessed to have around 32 per cent of total uranium revenue while having no economic demonstrated uranium resources.

²⁴ Australia's Identified Mineral Resources, Geoscience Australia. Viewed 16 August 2023. <https://www.ga.gov.au/digital-publication/aimr2022/australias-identified-mineral-resources#geographical-distribution-of-edr-section>

2 Schools

This category covers state expenditure on government and non-government schools.

Overview of category

- The assessment includes:
 - State funding for government schools
 - State funding for non-government schools
 - Commonwealth funding for government schools
 - In its assessment, the method recognises:
 - that the cost of providing schooling services varies by population group, and that states with higher per capita numbers of high-cost groups need to spend more than average
 - that the geographic dispersion of state populations leads to states having higher costs
 - that the prevalence of non-government schools affects state spending requirements.
 - The method includes an assessment of socio-demographic composition (SDC), focusing on age, Indigeneity, socio-economic status, and remoteness. It also includes an enrolment share adjustment, reflecting the prevalence of non-government schooling in each jurisdiction.
 - Data is derived from the ABS and the Australian Curriculum, Assessment and Reporting Authority (ACARA).
-

NSW Treasury position

- The Schools assessment is well established and supported by robust data. In the main, NSW Treasury supports continuation of the current methodology.
 - NSW Treasury supports the Commission's proposed amendments to the category to consider school type (primary, secondary) and student disability as relevant cost drivers which should be differentially assessed.
 - While there may be some advantage to using the established Schooling Resource Standard (SRS) funding model to determine states' expenditure needs, different state policies and other practical considerations mean that the Commission's existing regression approach is likely superior.
-

2.1 Primary and secondary students

The Commission asks:

- Do states support a differential assessment of primary and secondary school students and if so, support including in the regression model variables to account for differences in the fixed cost of secondary schools and the additional costs of secondary school students?

- NSW Treasury supports a differential assessment of primary and secondary school students, for both government and non-government schools. A differential assessment would accurately capture what states do in determining funding for individual schools.
- Further, we support including variables for the additional fixed cost of secondary schools and the additional costs of secondary students in the Commission's regression model.
- All states are signatories to the National School Reform Agreement (NSRA) and have in place associated bilateral funding agreements with the Commonwealth. States' bilateral agreements are based on the SRS which is an estimate of the public funding a school requires to meet students' education needs. It comprises a base amount as well as loadings for specific school and student characteristics.
- The SRS base amount is determined using per student funding amounts, differentiated by primary and secondary school, with reductions to allow for a given school's assessed parental capacity to contribute to the cost of education (for non-government schools).
- The per student funding amounts differ between primary and secondary students, as do the various loadings. For 2023 the SRS funding amounts are \$13,048 for primary students and \$16,397 for secondary students.
- The NSW Department of Education (DoE) administers a large and diverse government school system which requires complex and detailed funding models that do not necessarily align to the SRS. Nonetheless, DoE effectively provides a higher level of base funding to secondary school students than to primary school students. NSW Treasury understands that other states also distinguish between primary and secondary students and schools in determining funding levels.
- Under DoE's government school funding model, some loadings for specific school and student disadvantages also vary between primary and secondary students. In the interests of keeping the regression model as simple as possible, NSW Treasury does not support differentiating other cost drivers between primary and secondary students.
- NSW funding to non-government schools is more closely aligned to the SRS. All states and territories have committed to minimum annual funding contributions to the non-government sector which are based on the SRS.
- While individual schools are funded to different proportions of the SRS depending on their unique circumstances, funding is clearly driven by whether students are primary or secondary.

2.2 Students with disability

The Commission asks:

- Do states agree that, if relevant school level data are available and determined fit for purpose, an assessment of needs for educating students with a disability should be included in the schools assessment?
- NSW Treasury supports including student disability as a driver of expenditure needs in the government and non-government school regression models, provided data are available and fit for purpose.
- Disability is a major cost driver in both government and non-government schools. The proportion of students in New South Wales requiring additional support due to disability has grown significantly in recent years and is projected to continue to increase.
- Since disability is a significant driver of actual costs and all states provide disability funding to some degree, inclusion of disability in the Commission's assessment aligns to what states do. Including disability in the regression should also improve the robustness of the Commission's regression estimates and reduce the risk of omitted variable bias.

- In New South Wales, DoE does not fund government schools in perfect alignment with the SRS (see section 2.3 below). Nonetheless, the number of students in NSW government schools who attract various loadings under the SRS model, and the total value of those loadings, is a good indicator of actual cost drivers in NSW schools.
- NSW Treasury estimates that disability loadings make up approximately 40 per cent of all loadings for NSW government school students under the SRS model. Alternatively, the value of disability loadings for NSW government school students is equal to approximately 17 per cent of the value of the base SRS amount for all government school students. The value of disability loadings for NSW government school students under the SRS model is of similar size to the value of socio-economic background loadings.
- Publicly available information on SRS loadings suggests that all states have substantial incidence of children requiring additional resources due to disability and other additional learning needs in their government school systems.
- For non-government school funding, DoE provides funding either directly to schools or to approved authorities for school systems. DoE provides funding in direct alignment with the SRS model, though approved authorities may redistribute funding within their systems. Total state funding for disability in non-government schools is therefore in alignment with the SRS, but funding to individual schools may not be (see section 2.3).
- Student eligibility for disability loadings under the SRS model is based on information reported in the Nationally Consistent Collection of Data on School Students with Disability (NCCD). This information is provided by teachers and other classroom professionals who use their professional, evidence-based judgement to indicate the level of additional support a student is provided in the classroom.
- In New South Wales, the number of students attracting funding support for disability across all sectors has grown since 2017.
- In the 2022 school year census, more than 189,000 NSW government school students were included in the NCCD. This represents nearly a quarter of all students enrolled in NSW government schools.
- Since NCCD data is used in the allocation of Australian Government funding to states for government and non-government schooling, NSW Treasury considers it appropriately robust and reliable to use for any differential assessment of expenditure needs in the Schools assessment, provided the data is available at the school level as required for the regression models.
- The NCCD includes four categories of support. Students who receive any of the top three levels of support – known as extensive, substantial, and supplementary – attract additional funding through the students with disability loading under the SRS model.
- The NCCD captures a fourth level of support defined as 'support provided within quality differentiated teaching practice'. This is support provided within the classroom as part of standard teaching practice which is responsive to the needs of all students and delivered without the need for additional funding.
- There is a substantial difference in the value of the loadings depending on the category of support a student requires. Table 2-1 below summarises the available disability loadings as at 2023.

Table 2-1: Final 2023 students with disability SRS loadings by NCCD level of adjustment²⁵

	SRS funding amount in 2023	Level of adjustment		
		Supplementary	Substantial	Extensive
Primary	\$13,048	42% (\$5,480)	146% (\$19,050)	312% (\$40,710)
Secondary	\$16,397	33% (\$5,411)	116% (\$19,021)	248% (\$40,665)

Source: Australian Government Department of Education

- The distribution of disability and its severity may differ between states. This would have a material impact on state expenditure needs. The Commission should, as much as possible, calculate and apply separate cost weights for students assigned to each of the top three levels of required adjustment in the NCCD, to allow for differences in the distribution of disability adjustments required between states.
- Further, if the Commission includes cost weights for students with disability, then it should also now include special schools (“Schools for Specific Purposes” in New South Wales) within its regression model. These schools provide specialist and intensive support for students with moderate to high learning and support needs. Continuing to exclude these schools from the regression model will understate state expenditure on students with disability and, therefore, the calculated cost weight/s.

2.3 Using the SRS to assess expenditure

The Commission asks:

- Do states agree that the average state funding of schools is not sufficiently based on the Schooling Resource Standard funding to be adopted in place of the Commission’s funding model?
- NSW Treasury agrees that state funding of government schools is not sufficiently based on the SRS for that model to be adopted in place of the Commission’s regression approach. There might be some benefit in using the SRS model to assess state funding of non-government schools. There would, however, be considerable practical issues with this approach.
- The SRS model is too limited for dealing with the practical realities of managing a large and complex school system. For this reason, all states have their own funding models for distributing budgets to individual schools. While states are required to have funding models which are needs-based, there is no requirement to align those models with the SRS.
- As a result, the drivers of actual state expenditure are different to the drivers captured by the SRS model. Where drivers are of the same nature (e.g. remoteness, Indigeneity) the degree or weight of additional funding provided may differ to the loadings that form part of the SRS.
- The SRS does effectively establish minimum funding levels for states, through its use as the basis for funding obligations in the NSRA. All states are party to the NSRA and have associated bilateral funding agreements with the Commonwealth that are based on the SRS.
- The minimum funding obligation varies between states. Individual states are committed to funding their government school systems at different proportions of the SRS, as per the minimum funding contributions agreed in their bilateral funding agreements. While states are all

²⁵ The figures in the table show the full loading amounts included to calculate a school’s SRS. In 2023, the Commonwealth will pay at least 20 per cent of each government school’s SRS and at least 80 per cent of each non-government school’s SRS.

transitioning to eventually funding at least 75 per cent of the SRS for government schools, each state has a unique transition path.

Table 2-2: State agreed minimum funding proportions for government schools (%)²⁶

State	2018	2019	2020	2021	2022	2023
NSW	70.73	70.84	71.05	71.37	71.80	72.22
VIC	67.80	68.02	68.42	68.99	69.68	70.43
QLD	69.26	69.26	69.26	69.26	69.26	69.26
WA	84.43	80.56	77.56	75.46	75.00	75.00
SA	75.00	75.00	75.00	75.00	75.00	75.00
ACT	80.00	80.00	80.00	80.00	80.00	80.00
NT	55.20	56.00	57.00	58.00	58.50	59.00

Source: State bilateral funding agreements

- Additionally, the SRS proportions agreed in state bilateral agreements represents a minimum funding obligation only. States can elect to provide more than the minimum level of funding to schools. New South Wales has consistently funded government schools at levels above its minimum obligation as set out in its bilateral agreement²⁷.
- For these reasons, the Commission's regression-based approach to assessing school expenditure requirements will more accurately capture what states do than would an SRS-based approach.
- For non-government schools in New South Wales, however, state funding is much more closely aligned to the SRS model. DoE provides funding either directly to individual schools or to approved authorities in the case of many system-based Catholic and independent schools.
- This does not mean that an assessment based on the SRS would be straightforward. Not all states fund non-government schools based on the SRS, nor do they necessarily fund non-government schools in alignment with the SRS shares agreed in their bilateral agreements.
- While New South Wales funds schools based on their individual SRS amounts, those amounts vary considerably. Each school's base SRS amount is discounted by its assessed parental capacity to contribute to the costs of education. Additionally, each school receives a unique proportion of the SRS, at least while transitional arrangements are in place.
- Approved authorities have the discretion to distribute funding within their schooling systems. The funding distribution does not need to align to the SRS model. As a result, the reported state funding for an individual school may not align to its SRS entitlement, nor to the funding notionally provided to it by a state. The funding provided to approved authorities is, however, a sum of the SRS entitlements of all system schools. As such, for New South Wales, total state recurrent funding to non-government schools is aligned to the SRS model.
- Since approved authorities have the discretion to allocate state funding within their systems, the distribution of state funding between individual schools – and hence the calculated cost weight for students with different socio-demographic characteristics in the Commission's regression – does not necessarily reflect state policies or funding models.
- To overcome this issue, the SRS model could potentially be used to assess state funding of non-government schools. Variations in funding arrangements between states makes this unlikely to be more practical or straightforward than the Commission's regression-based approach.

²⁶ These figures represent minimum funding obligations. Actual or intended funding may exceed the minimum obligation.

²⁷ NSW government schools are, however, funded below 100 per cent of the SRS at a system-wide level.

3 Post-secondary education

This category covers state expenditure on vocational education and training and other higher education.

Overview of category

- The assessment is made up of only one category, being post-secondary education.
 - In its assessment, the method recognises:
 - that different population cohorts access post-secondary education at different rates and states with above average proportions of working age, Indigenous and low-socio-economic status cohorts have above average expenditure needs
 - that some citizens access post-secondary education services in other jurisdictions. Particularly in border communities
 - Data used in the assessment is derived from the ABS and the National Centre for Vocational Education Research (NCVER).
-

NSW Treasury position

- NSW Treasury supports maintaining the existing assessment without amendment.
 - The current NSW-ACT cross-border adjustment will need to be updated once New South Wales has finalised arrangements to reimburse the Canberra Institute of Technology (CIT) for NSW residents undertaking training in the ACT.
-

3.1 Maintaining the existing method

The Commission proposes to:

- Keep the existing methodology unchanged
- NSW Treasury supports retaining the existing Post-secondary education assessment method.
 - The Post-secondary education category covers a relatively small proportion of total state expenditure and results in a small amount of redistribution. While the method must be robust, it should also be simple and practical. NSW Treasury has not identified any practical and material method changes that are required.
-

3.2 Course mix

The Commission asks:

- Do states agree that a course mix driver should not be introduced?
- NSW Treasury supports the Commission's position that a course mix driver is not introduced on the basis that it is immaterial.

- While course mix does drive costs to some extent, NSW Treasury considers that other policy and non-policy factors play a more significant role in determining state expenditure needs. These factors are largely accounted for in the Commission's SDC assessment.
- It is expected that a state's course mix is driven by its industry structure, as existing employees upskill, and other students undertake training which best positions them to move into the labour market or to transition into other industries. However, state policies with respect to subsidy levels and other supports can also influence course mix by influencing demand for training.
- Determining the extent to which course-mix is reflective of policy versus non-policy factors is difficult. The Commission's analysis indicates that a course mix driver would be immaterial even without considering whether any discount is required to account for policy influence.
- Course mix is likely to remain immaterial for the foreseeable future.

3.3 Socio-demographic assessment of needs

The Commission asks:

- Do states agree that the variables used in the socio-demographic assessment of needs be retained?
- NSW Treasury agrees that the variables used in the SDC assessment of needs should be retained.
 - NSW Treasury accepts that some population cohorts access vocational education and training at higher rates than others. It is important that the assessment recognises these service use differentials. The Commission's analysis indicates that service use weights remain appropriate and empirically justified for age, First Nations people, people living in less remote areas and socio-economically disadvantaged people living in non-remote areas.
 - Given the observed use rates by remoteness, Indigeneity and socio-economic status, NSW Treasury supports the Commission's position to continue grouping of socio-economic status quintiles for the non-remote populations (top 20 per cent, middle 60 per cent and bottom 20 per cent) and to not disaggregate the remote population by socio-economic status, where no obvious conceptual case explains the data.
 - NSW Treasury also supports continued recognition of higher costs of delivery for remote services and for services to Indigenous populations. The NSW government funded vocational education and training system continues to recognise the need for greater resourcing to support Indigenous service users, as part of its efforts to Close the Gap. It's appropriate that these cost differentials form part of the Commission's assessment.

3.4 Cross border adjustment

NSW Treasury proposes:

- The cross-border adjustment should be reviewed to take account of formalised cross-border arrangements between NSW and ACT.
- Training Services NSW²⁸ is currently in discussions with the CIT to fund NSW apprentices and trainees that attend CIT. Once finalised, this arrangement is likely to be backdated to 1 January 2023.
- The Commission should ensure that, in future years, its cross-border adjustment for New South Wales and the ACT accounts for payments made by Training Services NSW to CIT. Under the proposed arrangement, New South Wales will fund its residents who receive training at CIT and no further adjustment through the GST system will be required for those students.
- The new reimbursement arrangements will not comprehensively cover all NSW residents who attend training in the ACT, since the ACT makes all people who live or work in the ACT eligible for government funded training, including the who live in New South Wales but work in the ACT. Additionally, ACT residents also undertake training with NSW providers, including TAFE NSW.

²⁸ Training Services NSW is responsible for government-funded vocational education and training in New South Wales

4 Health

This category covers state expenditure on public hospitals and community and public health services.

Overview of category

- The assessment includes:
 - admitted patient services – medical care for public patients admitted in public or private hospitals and land ambulance services.
 - outpatient services – emergency department (ED) and non-admitted patient (NAP) services. The latter includes non-emergency obstetrics, gynaecology, cardiology, pathology, and radiology and imaging services.
 - community and public health services – health services provided in a community setting, public health services, and research and development.
 - community health centre services – a wide range of services such as nursing and dental services, baby clinics, mental health services, family planning, and alcohol and drug rehabilitation
 - public health services – activities for the protection and promotion of health and the prevention of disease, illness, or injury. These include organised immunisation, health promotion, screening programs, communicable disease control, and prevention of hazardous and harmful drug use.
 - non-hospital patient transport – aero-medical ambulance services and the reimbursement of costs through Patient Assisted Travel Schemes.
- In its assessment, the Commission recognises:
 - that the use and cost of providing public hospital and community health services varies by population group, and that states with concentrations of high-use and high-cost groups need to spend more than the average.
 - that the geographic dispersion of states leads to states facing higher costs if they have a greater proportion of people in remote areas, where the costs of delivering health services and patient transport are higher, and people are more reliant on state-provided services.
 - that the prevalence of non-state health services, including General Practitioners (GPs), specialists, other private health professionals and Commonwealth-funded Aboriginal Community Controlled Health Services, affect state spending.
- The method includes an assessment of SDC, primarily focusing on age, Indigeneity, socio-economic status, and remoteness. It also includes a non-state sector adjustment, reflecting the availability of non-state health services in each jurisdiction.
- Data is derived from a variety of sources, with national weighted activity units (NWAUs) comprising the data for the SDC assessment and a variety of data sources used for the non-state sector analysis. This includes some reliance on proxy indicators.
- The assessment also includes an offsetting adjustment for user charges within the health sector, which primarily relates to private patients in public hospitals.

NSW Treasury position

- NSW Treasury supports preliminary changes put forward by the Commission for the 2025 Review. The Commission's proposed amendments to the assessment of community and public health services are likely to produce a more responsive and more representative assessment for this component.
- There are additional adjustments that should be considered by the Commission to further improve the SDC assessment, including adding an age adjustment factor to the Commission's proposed amendments for community mental health services, considering EPC assessments for both public health services and research and development expenditure within the community and public health services component, and adjusting age groupings currently used by the Commission in its assessments.
- The existing assessment continues to have material redistribution issues from the impacts of COVID-19. States that have borne more significant COVID-19 costs have suffered from existing distribution methods. These issues include state expenditure under the national partnership agreement being treated under the existing SDC assessment and the need for a cross-border adjustment to reflect quarantine expenditure undertaken by NSW on behalf of other states.
- While NSW Treasury supports the overall efforts of the Commission to assess the impact of the non-state sector on state health expenditure, there is the opportunity to further develop the Commission's conceptualisation of substitutability. This relates to both the share of expenditure considered to be comparable and the underlying assumption that services considered comparable are potentially 100 per cent substitutable.

4.1 Adjustments to the socio-demographic assessment

The Commission asks:

- Do states agree that in a post-pandemic environment, the hospital and patient transport assessments remain fit for purpose?
 - Do states agree that the proposed changes to the community and public health assessment in this paper will contribute to making the assessment more responsive to developments affecting this part of the health system?
-
- On an ongoing basis, the current assessment approach for hospital and patient transport is broadly fit for purpose in a post-pandemic environment.
 - NSW Treasury considers that, without a clear alternative data source being both available and reliable, NWAU data remains the appropriate data source for the assessment.
 - Some changes to the SDC assessment should be considered and are discussed in this section. NSW Treasury is not seeking major method changes to the hospital and patient transport assessments.
 - NSW Treasury believes that the proposed changes to the community and public health assessment would contribute to making the assessment more responsive to changes in this part of the health system.

4.1.1 Assessment of community and public health services

The Commission proposes to:

- Use the Australian Institute of Health and Welfare data on community mental health activity, adjusted to compensate for lack of cost weights, to determine per capita use rates for mental health services for the socio-demographic assessment.
- Expand the current proxy for activity (emergency department triage categories 4 and 5) to include non-admitted patient services, applied to the balance of the component.
- Continue to apply a discount of 12.5 per cent to the community health socio-demographic assessment.

Summary

- The use of Australian Institute of Health and Welfare (AIHW) data to establish a direct measure on community mental health activity is supported. The proposed change should make the assessment more responsive to changes within the health system.
- An adjustment for the absence of cost weights in the mental health activity data from the AIHW is supported.
- The Commission should further investigate introducing an age cost weight for the AIHW measure for mental health, either through its proposed approach in Paragraph 40 of the consultation paper or an appropriate alternative. NSW Treasury believes adjusting for an age cost weight is material.
- NSW Treasury supports the expansion of the proxy measure for other expenditure (i.e., other than community mental health services) to include NAP NWAU services, recognising existing issues with the use of Emergency Department Triage Categories 4 and 5 (ED 4&5) as a sole proxy measure for these activities. However, for selected components of the community and public health category, we believe an EPC assessment is more appropriate.
- Given the continued use of proxy measures of activity for the community and public health category, NSW supports retaining the 12.5 per cent discount. The prior reduction in this discount from 25 per cent was not clearly evidenced at the time of the 2020 Review and it would not be appropriate to reduce the discount further.

Community mental health services

Direct measure

- NSW Treasury supports updating assessments to use a direct measure where possible, rather than a proxy measure of activity. The move towards a direct measure for community mental health is a conceptual improvement over the existing approach.
- NSW raised concerns about the appropriateness of ED 4&5 as a proxy measure for this expenditure component during the 2020 Review. The experience of COVID-19 has further highlighted issues with this proxy measure, with ED activity not aligning with the actual usage of community health services during this period.
- The AIHW data on community mental health is reasonably complete, notwithstanding risks in using comparative data when states may have definitional differences in their activities.
- If the Commission has concerns that the data is not sufficiently robust for the 2025 Review, it should be open to adjusting the data source during a future update. This would be consistent with the approach taken for adopting NAP NWAU data in SDC assessments after the 2020 Review.

- NSW Treasury notes, however, that if the Commission decided to not introduce the AIHW direct measure of community mental health, the proposed expanded proxy should be applied to the entire community and public health services component.

Remoteness cost weight

- The Commission's consultation paper compares AIHW data adjusted for remoteness to the current ED 4&5 proxy measure of activity (Table B2). This analysis should also be compared with:
 - The proposed expanded proxy measure which combines ED 4&5 and NAP NWAU data.
 - An alternative proxy measure solely using NAP NWAU data.
- Both these measures, along with the data provided in the Consultation paper, show that remoteness has a similar usage profile when looking at the ratio of contacts and patients between major cities and very remote locations. This implies the use of ED 4&5 as the sole proxy may overstate the cost impact of remoteness.

Table 4-1: AIHW Mental Health data (with remoteness adjustment)
- Comparison to alternative measures

Remoteness	Current Proxy	Commission Proposed Direct Measure		Alternative Comparisons / Proxies	
	ED 4&5 NWAU	AIHW Data	AIHW Data	NAP NWAU	Combined Measure*
	(% NWAU / % ERP)	(% Contacts / % Population)	(% Patients / % Population)	(% NWAU / % ERP)	(% NWAU / % ERP)
Major Cities	0.7	0.9	0.8	0.9	0.8
Inner Regional	1.3	1.1	1.2	1.0	1.2
Outer Regional	1.8	1.3	1.5	1.1	1.5
Remote	3.8	2.0	2.6	1.7	2.7
Very Remote	5.0	2.1	3.5	2.6	3.8
Ratio: Very Remote to: Major Cities	6.7	2.3	4.3	2.8	4.5

* The combined measure assumes a 50/50 split between ED and NAP. The comparison uses % of estimated resident population (ERP), rather than % of actual census population, which causes a minor variance with the Commission's consultation paper. Source: Commission Simulator – 2023 Update.

Age cost weight

- The Commission should fully investigate the inclusion of an age cost weight to the AIHW community mental health data, by undertaking the same comparative analysis as proposed for the remoteness adjustment. The difference between the AIHW measure and the expanded proxy (and the NAP only measure) suggests there is a material impact from an age adjustment.

Table 4-2: AIHW Mental Health data (without age adjustment)
- Comparison to alternative measures

Age	Current Proxy	Commission Proposed Direct Measure		Alternative Comparisons / Proxies	
	ED 4&5 NWAU (% NWAU / % ERP)	AIHW Data (% Contacts / % Population)	AIHW Data (% Patients / % Population)	NAP NWAU (% NWAU / % ERP)	Combined Measure* (% NWAU / % ERP)
0-14	1.2	0.5	0.7	0.7	0.9
15-44	1.0	1.4	1.4	0.8	0.9
45-64	0.8	1.0	0.9	1.0	0.9
65-74	0.9	0.6	0.6	1.7	1.3
75+	1.6	0.5	0.7	2.2	1.9
Ratio: 75+ to 0-14	1.3	1.0	1.0	3.3	2.1

* The combined measure assumes a 50/50 split between ED and NAP. The comparison uses % of ERP, rather than % of actual census population, which causes a minor variance with the Commission's consultation paper. Source: Commission Simulator – 2023 Update.

- This expanded comparison indicates that the AIHW data requires an age adjustment and that this would have material impacts on the assessment.

Other community and public health services

Current proxy indicator (ED 4&5)

- NSW Treasury supports the expansion of the proxy measure to include NAP NWAU for expenditure other than community mental health services.
- NSW has previously contended that the sole use of ED 4&5 does not reflect an appropriate SDC profile of community health usage. This is supported by comparing the SDC of the AIHW community mental health data to other proxy measures, where the ED 4&5 remoteness profile differed materially from both the direct and proxy measures.
- COVID-19 further demonstrated the weakness of the ED 4&5 proxy as a measure of usage, as actual community health service usage significantly diverged from this indicator during the pandemic.
- It would be inappropriate to retain the ED 4&5 proxy as the sole measure of activity. NSW Treasury supports the Commission's proposal to adopt an expanded proxy.

Retention of a discount

- While the expanded proxy represents an improvement on the existing approach, NSW supports the retention of a 12.5 per cent discount in recognition of the ongoing use of a proxy measure.
- NSW Treasury considers that the past 2020 Review decision to lower the discount from 25 per cent was not clearly evidenced.

NSW Treasury proposes:

- That public health services expenditures do not have similar socio-demographic drivers of cost as community health expenditures.
 - That health research and development expenditure, captured within the community and public health component, should be assessed on an EPC basis.
- NSW Treasury contends public health services expenditure should not be assessed using the same SDC drivers as other community health expenditures and should instead be assessed EPC.
 - Public health services are relatively standardised for citizens, with only minor variations for targeted groups, and there is little evidence that different groups require materially different expenditure or involve varying degrees of complexity.
 - For instance, communicable disease control and environmental health are standardised services, provided in a near-equivalent manner for all citizens. These should be assessed EPC, rather than being subject to an SDC assessment.
 - Furthermore, while cancer screening, organised immunisation, and health promotion have some targeted expenditure for socio-demographic cohorts, these drivers would be significantly less than for other elements of community and public health services.
 - In terms of potential materiality, community and public health services expenditure was estimated at \$10.9 billion in 2021-22 in the Commission's consultation paper. NSW considers that this will have materially increased beyond this figure, but it is used for consistency. From the Commission's substitutability paper for the 2020 Review, public health services made up 19 per cent of this component's expenditure, with expenditure shares identified for each type of public health service.
 - Applying these expenditure shares to the 2021-22 estimate of public health services expenditure produces the results below in Table 4-3.

Table 4-3: National expenditure on underlying public health services

Public health service	Share of expenditure	Value of expenditure
Cancer screening	3.1%	\$337.9 million
Organised immunisation	4.2%	\$457.8 million
Health promotion	4.9%	\$534.1 million
Communicable disease control	3.2%	\$348.8 million
Environmental health	1.3%	\$141.7 million
Other public health services	2.3%	\$250.7 million
Total public health services	19.0%	\$2,071.0 million

- If public health services were assessed on an EPC basis, this would have a material impact for at least one State compared to the current SDC approach. A combination of underlying elements, rather than the entire public health component, would also likely produce a material redistribution of GST.

- Overall, it is not evident that public health services expenditure has similar SDC drivers to other community and public health expenditure components. We believe there are underlying elements that are more aligned to an EPC assessment, including communicable disease control, environmental health, and health promotion.
- NSW Treasury also contends that health research and development expenditures, a subset of the community and public health expenditure component, should not be assessed on an SDC-basis. These costs are standardised, and expenditures are not made according to socio-demographic need.
- Even if the impact of this change proves to be immaterial, it is conceptually incorrect for research and development to be assessed to reflect SDC needs. Expenditures associated with research and development should instead be distributed on an EPC basis.
- For simplicity, the Commission should consider the following options to update the assessment:
 - Separating public health services, including research and development, into its own expenditure component and determining an appropriate SDC and EPC treatment.
 - Determining the underlying public health services that do not have material SDC drivers and assessing these elements as EPC.
 - Applying an increased discount to the community and public health expenditure component.

4.1.2 Adjustments to other socio-demographic composition elements

NSW Treasury proposes:

- That the Commission evaluate whether there is a material impact from adjusting its three oldest age groups in the SDC assessment.
- The Commission considered the disaggregation of the current 75+ age group during the 2020 Review but found this would redistribute less than \$5 per capita for any state. This should be revisited as the Australian population continues to age and live longer.
- Between 2016 and 2021, Australia's population aged 75 and older saw a substantial growth of 18.0 per cent. Similarly, the population aged 65-74 in Australia grew by 16.5 per cent from 2016 to 2021. This compares to 6.5 per cent total population growth over the five years (Table 4-4).
- In 2021, the population aged 75 and older comprised 7.3 per cent of the total population, an increase from 6.6 per cent in 2016. By 2021, the 65-74 age group constituted 9.5 per cent of the total population, up from 8.6 per cent in 2016 (Table 4-4).

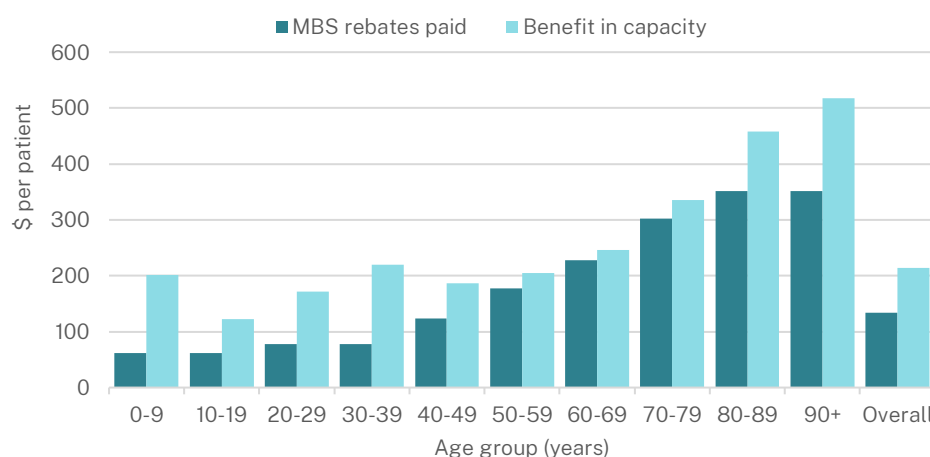
Table 4-4: Estimated resident population share by age group in Australia

Age group	Share of total population		Growth
	2016	2021	2016 to 2021
0-14	18.8%	18.5%	4.6%
15-44	41.3%	40.3%	3.9%
45-64	24.6%	24.4%	5.6%
65-74	8.6%	9.5%	16.5%
75+	6.6%	7.3%	18.0%
Total	100.0%	100.0%	6.5%

Source: ABS, NSW Treasury

- These statistics reflect significant demographic shifts towards an older population in Australia.
- As an example of variances in expenditure based on age, analysis of high connectivity GP practices²⁹ showed that there is an escalating per capita cost of Medicare Benefits Schedule (MBS) rebates paid from the 40-49 age group onwards (Figure 4-1Figure 4-1Error! Reference source not found.).

Figure 4-1: Age-based variation in MBS rebates expenditure



Source: NSW Health. Continuity of Care Benefits Patients and the System.
<https://www.health.nsw.gov.au/lumos/Factsheets/lumos-high-connectivity-cba.pdf>

- In the interests of simplicity, NSW Treasury suggests that the Commission consider modifying the three oldest age groups to 45-69, 70-79 and 80+, rather than the existing 45-64, 65-74 and 75+ age groups as this may allow for better representation of aging population expenditure.

²⁹ GP Practices that have over 30 per cent of patients visiting at least 12 times in 2 years

4.2 Impacts of COVID-19 on the health assessment

The Commission asks:

- Do states consider the experiences with the COVID-19 pandemic have implications for the health assessment?
- The proposed Commission assessment does not reflect different expenditure demands placed on states in 2021-22 and 2022-23 due to COVID-19. These data years will be included in the recommended relativities from the 2025 Review and materially affect the distribution of GST.
- NSW Treasury strongly contends that COVID-19 costs should be treated on an APC basis, in a similar way to natural disaster relief expenditure.
- The inability to make changes to the assessment methodology between five-yearly reviews severely disadvantaged certain states during COVID-19 and undermined the principle of HFE. Further comments related to the case for flexibility between Reviews, in the health assessment or otherwise, will be addressed through the NSW response to the Commission's discussion paper.
- While only representing a short-term factor, cross-border adjustments should reflect COVID-19 quarantine expenditures incurred by NSW on behalf of other states, but not paid by other states.
- NSW Treasury notes that there will likely be a lag in the impacts of COVID-19 being fully reflected in health data, which impacts the ability to identify with certainty what trends represent a permanent and structural change to the health system. The Commission should continue to monitor the long-term impacts of COVID-19 over future updates.

NSW Treasury proposes:

- That health expenditure under the National Partnership on COVID-19 Response should be assessed on an actual per capita basis.
- While the terms of reference from prior updates have limited the Commission's ability to make methodological changes to its assessment, the 2025 Review provides an opportunity to appropriately reflect the disproportionate cost impact of COVID-19 on the budgets of NSW and Victoria.
- Both states are assessed as having below average spending requirements under existing health methods. Given this, the grossing up of SDC-assessed health expenditure from including COVID-19 costs has resulted in a GST windfall gain for other states. It is indefensible that other states should benefit fiscally from the COVID-19 experiences of New South Wales and Victoria.
- This GST impact exacerbated the direct fiscal cost of COVID-19 to NSW, which otherwise would have received increased GST distributions of approximately \$2.1 billion over the three years from 2023-24 to 2025-26.³⁰ Such an outcome would have aligned with the core intent of HFE.
- State responses to COVID-19 were jointly agreed and aligned to the National Partnership on COVID-19 Response. During the acute stage of the pandemic, prior to widespread vaccination, all states pursued a zero-COVID policy. Differences in responses between states therefore reflected differences in circumstances rather than policy.

³⁰ Assuming COVID costs would have otherwise been treated on an APC basis.

- Certain areas of Australia were more impacted by COVID-19 due to their status as major domestic and/or international transport hubs, higher population densities, and other factors which may have promoted the spread of COVID-19 further.
- Drivers of state expenditure on COVID-19 mitigation and response were epidemiological. Spending patterns across Australian health systems reflected the presence of viral outbreaks. Spending did not reflect standard cost drivers, such as remoteness, Indigeneity, or the presence of non-state services.
- The existing assessment approach does not effectively reflect the policy-neutral impacts of COVID-19 on certain states in accordance with nationally agreed principles for managing COVID-19, and instead redistributes expenditure based on the 2020 Review SDC assessment approach.
- To overcome this problem, COVID-19 costs should be treated in a similar manner to natural disaster relief expenditures and assessed on an APC basis. An APC assessment is used where any differences in the per capita cost of providing a service – in this case health services related to COVID-19 – are due to non-policy influences and where disability factors are impossible to apply. It is used where states are assessed as spending based on underlying need.
- This approach would align with the Commission's own conclusions, as presented to states in its 2023 Update New Issues consultation paper. The Commission concluded that:
 - state responses to the COVID-19 pandemic largely reflected circumstances rather than state-specific policy choices.
 - the Commission's revenue assessments largely captured the effects of the COVID-19 pandemic on states' revenue raising capacities.
 - the drivers of state spending on COVID-19 related health services (and business support) were likely to differ from the drivers in the Commission's existing assessment methods.
- Applying an APC approach from 2025-26 onwards will only partially capture the fiscal impact of COVID-19 on states. A retrospective adjustment should also be made, to adjust for the inappropriate treatment of COVID-19 in the 2022, 2023 and 2024 annual updates.
- Further, this approach should be generalised to any future pandemic event where state expenditure is not aligned to the cost drivers articulated by the Commission's existing assessment method.

NSW Treasury proposes:

- That cross-border expenditures incurred due to COVID-19 quarantine are assessed on an actual per capita basis, net of revenue, and that cross-border adjustments are made for non-participant states, including retrospective adjustments where necessary.
- Costs from quarantining overseas repatriations, net of revenue, should be treated on an APC basis. Quarantine was not state policy driven as the response was aligned with national principles for responding to COVID-19. Higher per capita costs in NSW were a result of Sydney's status as the primary gateway for overseas repatriations for all Australians.
- NSW bore significant costs from COVID-19 quarantine on behalf of the citizens of other states, with some states failing to reimburse NSW for this expenditure. The higher number of quarantined citizens also increased the overall risk and eventual spread of COVID-19 in NSW.
- Cross-border services provided on behalf of other states should be included within the assessment when payments for these services are not captured within existing arrangements between states.
- The Health assessment should reflect NSW quarantine services provided on behalf of other states. States that declined to participate in the national cost-recovery scheme should have a

cross-border adjustment to their assessed expenditure. This should include any necessary retrospective adjustments.

- As raised by the Queensland Treasurer, it would be appropriate to consider this funding adjustment through the GST distribution process.³¹ NSW Treasury welcomes this, and requests that the Commission assesses the redistribution of cross-border expenditures from other relevant states to NSW.
- NSW Treasury will separately provide data to the Commission on the total number of interstate residents who were quarantined in New South Wales, amounts invoiced to states in recognition of the costs to quarantine those interstate residents, and the invoiced amounts still outstanding.

4.3 Conceptualising the substitutability methodology

NSW Treasury proposes:

- That the Commission apply a general discount to the assumed proportion of expenditure that is substitutable, to recognise that comparable services are not 100 per cent substitutable between the state and non-state sectors.
- NSW Treasury agrees that, under the current approach to fiscal equalisation, the existence and scale of non-state services can impact on the need for state service provision and therefore the distribution of GST. Given this, it is appropriate that the Commission's assessment methods recognise this dynamic.
- In adjusting for substitutability, the Commission first calculates or assumes the percentage of each component that is potentially substitutable. This expenditure represents the proportion of state services that are comparable to available non-state services.
- However, NSW Treasury contends that state and non-state services being comparable is not the same as these services being perfect substitutes. Instead, the level of actual substitution in practice is lower than the level of potential substitution and therefore, the level of substitutability assumed by the Commission is too high.
- When a perfect substitutable relationship exists, there should be an inverse relationship between the use of comparable state and non-state services. That is, as the availability and accessibility of non-state sector health services increase, the state sector should see a similar decrease in expenditure for comparable services.
- NSW Treasury contends that the potential substitutability does not fully account for elements that impact the practical take-up of comparable services. These include:
 - non-state services encouraging additional demand beyond existing demand in the state sector, rather than just replacing existing state demand.
 - the timely availability of non-state services.
 - non-state services not always having sufficient capacity to fully replace all state substitutable services.
 - patient decision-making being outside of state sector control, with patient preferences for state services stemming from both perception and health literacy.

³¹ <https://www.theaustralian.com.au/breaking-news/nsw-treasurer-daniel-mookhey-says-the-queensland-government-owes-nsw-105m/news-story/dfe1dff92ba4b85860905db518f1f8e7>

- The following examples are provided to demonstrate that the actual level of substitutability is often below the potential, and that the Commission's assumed substitutability levels should account for comparable services not being 100 per cent substitutable in practice.
- To recognise that comparable services are not 100 per cent substitutable, the Commission should apply a general discount to its calculation of the proportion of expenditure in each component that is substitutable.

Monitoring future telehealth impacts

- While a temporary uplift in telehealth usage was clearly driven by the impacts of COVID-19, telehealth usage also represents a permanent structural change to the delivery of healthcare across the country, with expanded services captured as part of Medicare from 1 January 2022.
- These services are nationally available, eligible for bulk billing, and provide significantly greater accessibility to the non-state sector for all states. While telehealth usage has dropped from its peak during COVID-19, use of telehealth is now likely a permanent part of health care practices in Australia.
- NSW Treasury considers that telehealth represents an important test case for potential substitutability. Telehealth significantly increases regional availability of non-state sector services. The absence of GP services in regional and remote areas is a leading driver of GST redistributions in the health expenditure assessment. Greater provision of bulk-billed telehealth in future years should reduce the level of disparity in the provision of non-state services between states and between regions.
- NSW Treasury expects a more significant uptake of GP services from the availability of telehealth should be seen in future years in states with lower existing GP accessibility. Based on the Commission's conceptualisation of substitution, this would result in an offsetting reduction in the need for comparable state services.
- However, NSW Treasury also contends that the increased accessibility of telehealth relative to face-to-face consultations lowers patient perceptions of the threshold for seeking medical care. In this way, telehealth will likely induce latent demand for minor health services.
- If NSW Treasury's contention is correct, some of the additional non-state service provision from telehealth will not reduce demand for state services. Instead, some additional demand for telehealth will be from users who were previously not accessing any health services. This will therefore not reduce demand for comparable state services.
- Data on telehealth is, and will remain, readily available. This offers a clear opportunity to test the actual substitutability of comparable services, particularly in regional and remote areas, and the Commission should consider monitoring its future uptake to test the reasonableness of its 100 percent potential substitutability assumption.

Western Sydney GP example

- A 2019 geographic analysis in Western Sydney suburbs considered the relationship between GP bulk-billed attendances and ED 4&5 presentations and whether the increased prevalence of bulk-billing GPs had an impact on the provision of similar state services. This comparison aligns closely to the ED non-state sector substitutability analysis.
- Under the Commission's assumption that the increased availability and accessibility of GPs would result in an offsetting decrease to GP-type presentations to EDs, an inverse relationship should be expected. However, this was not identifiable in the analysis and there was no clear relationship between bulk-billed GPs and triage 4&5 ED presentations.

- State expenditure on similar services was not reduced in response to the increased availability of GP services. This reflected the fact that observed demand for state ED services did not decrease.
- This result could plausibly be explained by considering that GP clinics meet unmet or latent healthcare demand, particularly for less serious or non-emergency medical events. In the absence of an available GP clinic, some patients may not consider these types of medical events serious enough to warrant an ED presentation.

Timeliness and ability of GPs in providing for ED triage 4&5 presentations.

- The Commission has assumed that ED triage 4&5 presentations could be treated by a GP. NSW Health defines these triage categories as follows:
 - **Triage category 4** - People who need to have treatment within one hour categorised as having a potentially serious condition. People in this category have less severe symptoms or injuries, such as a foreign body in the eye, sprained ankle, migraine, or earache.
 - **Triage category 5** - People who need to have treatment within two hours are categorised as having a less urgent condition. People in this category have minor illnesses or symptoms that may have been present for more than a week, such as rashes or minor aches and pains.
- While NSW Treasury does not dispute that most medical conditions in ED 4&5 could be treated by a GP, the question is whether they would be treated by a GP within the timeframes specified in these triage categories or within a reasonable period of time.
- In practice, GP appointments are often unavailable on the same day, and same day service for a bulk-billing doctor is even less likely to be available. NSW Treasury believes that, at a minimum, a proportion of ED triage 4 patients would not seek to visit a GP clinic given the wait times for appointments or a walk-in service.
- Furthermore, there are some regular ED 4&5 activities that many GPs are not well equipped to manage, including fractures to legs and arms.³² These activities are captured as substitutable under the Commission's identification of ED 4&5 as GP-type presentations, despite many GPs being unable to provide the equivalent service as the state sector.

Availability of GP services after hours

- NSW previously suggested a reduction to ED substitutability in the 2020 Review, reflecting the lower availability of GPs in after-hours settings. NSW Treasury contends that the Commission should reconsider this issue in the current Review, in the context of our suggestion to generally lower the share of substitutable expenses.
- The Commission's response in the 2020 Review was based on data from the annual patient experience update, and that this data demonstrated that there was not a sufficient need to adjust for temporal variance in after-hours presentations.
- NSW Treasury considers there are three points of contention on this data.
 - Firstly, it suggests that some proportion of the relevant services is not actually substitutable, as demonstrated by less than 100 per cent of patients seeking after-hours GP care being able to access it.

³² <https://www.aihw.gov.au/reports/primary-health-care/use-of-ed-for-lower-urgency-care-2018-19/contents/glossary>

- Secondly, the after-hours availability of GPs is not necessarily representative of the after-hours availability of bulk-billing GPs. NSW Treasury believes that after-hours bulk-billing GPs would likely be far more constrained.
- Thirdly, there is significant difference in the proportion of GP patients who utilise after-hours services compared to the proportion of ED 4&5 patients who utilise after-hours services, despite these services being comparable.
- The Commission noted in the 2020 Review that 80.3 per cent of patients were able to access after-hours GPs when needed (decreased to 71.3 per cent in the latest 2021-22 patient experience update) and considered that further changes were not required.³³ This still indicates that 20-30 per cent of patients could not use the non-state substitute, which is assumed at 100 per cent availability.
- If they were perfectly substitutable, NSW Treasury would expect that the state and non-state sector would have a similar percentage of patients using these services as a proportion of total services. Instead, only 9.2 per cent of 2021-22 patients who needed to see a GP at all, needed to see the GP after-hours. This compares to 47.9 per cent of total NSW ED 4&5 presentations being after-hours.³⁴
- Patients instead appear to systematically utilise after-hours GP services distinctly differently to ED services. After-hours usage ties more closely to patients considering health events to be an emergency, given there is a significantly higher proportionate demand for after-hours ED usage over after-hours GPs. Only retrospectively will a presentation be identified as triage 4&5 and therefore potentially substitutable, even though the presentation was not substitutable in practice.
- In this case, the existence of after-hours GP services does not necessarily reduce the need for states to provide after-hours ED services.
- This comparison suggests that considering after-hours GP services as potentially substitutable for 100 percent of after-hours ED 4&5 presentations likely materially overstates actual substitutability. There is a significant variance in patient demand for comparable state and non-state services, and the actual availability of after-hours bulk-billed GPs is not necessarily represented in patient responses.

Summary

- These examples indicate there should be some doubt about treating comparable state services as potentially 100 per cent substitutable.
- NSW Treasury believes a general discount of the assumed levels of substitutability for each component of the Commission's assessment is warranted.

NSW Treasury proposes:

- That the Commission discounts substitutability levels to recognise that a certain proportion of patients will not use non-state sector services, even if services are comparable.
- NSW Treasury contends there should be a reduction to non-state substitutability levels to account for the impacts of patient perception on substitutability. While a service between the

³³ 2021-22 patient data

³⁴ NSW submission for 2020 Review. It is recognised there are some differences in after-hours definitions between NSW and the ABS, however, this is not expected to sufficiently reduce the gap in proportionate use.

state and non-state may be comparable, and therefore 100 per cent potentially substitutable in the Commission's methodology, patient perceptions reduce the actual substitutability.

- Even if a service can be substituted by the non-state sector, a proportion of patients do not necessarily hold this perception. For instance, patients accessing emergency departments will often consider there to be an emergency need and are not capable of self-triage. These patients would not have considered a GP visit a substitute, even if the result of their presentation was retroactively determined to be substitutable under triage categories 4&5.
- Patients appear to systematically utilise GP service for some medical issues and ED services for others. In this case, the existence of GP services does not necessarily reduce the need for states to provide ED services, as patient decisions do not indicate they consider the state and non-state offerings to be substitutable.
- As long as some patients consider certain state services to be non-substitutable (e.g., using an emergency department in a perceived emergency over a GP), the comparable non-state sector service cannot be a potential 100 per cent substitute. The Commission's existing method would consider such events to be comparable, and therefore substitutable, even if the patient visit to the emergency department is not substitutable in practice.
- While further analysis is not provided on this, patient perceptions impacting substitutability would likely be a common issue across all states and does not necessarily reflect the outcome of state-specific policies on educating patients about available non-state services. Such patient perceptions can tie in closely to issues with overall health literacy, which have been demonstrated more widely across Australian jurisdictions.

NSW Treasury proposes:

- That the Commission discounts substitutability levels to recognise that lower levels of patient health literacy reduce actual substitutability.
- NSW Treasury contends there is a conceptual case for integrating patient health literacy into the non-state sector adjustment. Health literacy encompasses a person's skills, knowledge, motivation, and capacity to access, understand, appraise, and apply health information effectively, enabling informed decisions and appropriate actions.
- Most of the impact of health literacy will be picked up through the SDC assessment and reflected in service usage rates (through NWAU or proxy data). However, NSW Treasury considers that there is a possible link between a patient's level of health literacy and their ability to identify substitutable health care services. That is, even where substitutes exist, some patients will access public services regardless.
- A study³⁵ conducted in Blacktown revealed that 20 per cent of residents had low levels of engagement with healthcare providers, while 14 per cent had limited understanding of health information for informed decision-making. These low levels of patient literacy translated into increased utilisation and direct and indirect healthcare costs.
- Health literacy can significantly impact healthcare use and costs. Patients with low or marginal health literacy scores are more likely to revisit emergency within 90 days of hospital discharge, incurring additional healthcare costs.³⁶ Additionally, patients with lower health literacy (at or

³⁵ Economic Cost of Health illiteracy for Blacktown Hospital Blacktown-Mt Druitt Health Medical Staff Council. October 2020.

³⁶ Shahid, R., Shoker, M., Chu, L.M. *et al.* Impact of low health literacy on patients' health outcomes: a multicentre cohort study. *BMC Health Serv Res* **22**, 1148 (2022). <https://doi.org/10.1186/s12913-022-08527-9>

below basic) tend to visit the hospital more often overall and spend more on visits and prescription drugs compared to those with higher health literacy.³⁷

- Relevant literature also indicated that patients had lower levels of health literacy in older age groups, more disadvantaged socio-economic groups, and among non-native English speakers. There was also a more minor link with regional and remote communities. Overall, lower levels of health literacy reduce patient's ability to make ideal health decisions, which can include failing to use non-state sector substitutes instead of emergency departments.
- Since the size of the non-state adjustment is based on the proportion of expenses considered substitutable, rather than the actual size of the non-state sector, lower levels of health literacy should be accounted for by generally reducing the proportion of state expenditure treated as substitutable.

NSW Treasury proposes:

- That the Commission review whether the actual size and capacity of the non-state sector should be incorporated within substitutability calculations.
- NSW Treasury agrees with the Commission's position to use state sector expenditure as the upper limit on potential substitutable expenses. Redistributions should be based on what states do. A non-state sector that does not reflect the average policy settings of states should not be equalised under HFE.
- The Commission's methodology, after determining a substitutability level, is to identify each state's proportion of non-state services. A state with a higher per capita share of non-state services will have GST redistributed away through a non-state sector adjustment.
- As this part of the calculation is based on states' proportionate share of the non-state sector, changes in the total value of the non-state sector do not impact the non-state sector adjustment.
- Theoretically, this can lead to the perverse outcome where a state's non-state sector adjustment is larger than its observed non-state sector. This outcome would not be appropriate and would undermine fiscal equalisation.
- NSW is proposing that the **lower of non-state or state sector expenditure** for a component should represent the upper limit on potential substitutable expenditure, rather than only the state sector expenditure as the upper limit. This position would reflect that the state sector does not benefit from substitution beyond the non-state sector's capacity to supply services.
- A worked example is provided below, to illustrate the point. The example considers two states that have identical populations but with different sized non-state sectors. Two scenarios are considered: a large non-state sector scenario; and a small non-state sector scenario.

³⁷ International Journal of Health Policy and Management. Health Literacy Impact on National Healthcare Utilization and Expenditure. 2015.

Table 4-5: Change in Total Non-State Sector (NAP Example)

Activity	\$		
	State A	State B	Total
Assessed NAP Services	7,500	7,500	15,000
Total Substitutable NAP Services (30%)	2,250	2,250	4,500
Assessed Proportion (%)	50%	50%	100%
Scenario 1: Large Non-State Sector			
Total Non-State Sector	5,000	2,500	7,500
State Proportion of Non-State Sector (%)	67%	33%	100%
State Share of Potentially Substitutable Services (Proportion x Total Substitutable)	3,000	1,500	4,500
Non-State Services Adjustment	-750	750	-
Assessed Expenditure	6,750	8,250	15,000
Scenario 2: Small Non-State Sector			
Total Non-State Sector	100	50	150
State Proportion of Non-State Sector (%)	67%	33%	100%
State Share of Potentially Substitutable Services (Proportion x Total Substitutable)	3,000	1,500	4,500
Non-State Services Adjustment	-750	750	-
Assessed Expenditure	6,750	8,250	15,000

- In this example, the actual size of the non-state sector has no impact on the non-state sector adjustment. In Scenario 2, the non-state sector adjustment for each state is materially larger than the size of the non-state sector. In effect, the Commission's method asserts that the non-state sector in State A, of size 100, reduces the need for state services by 750. Clearly, the non-state sector could not have this effect on comparable state expenditure in practice.
- While it is unclear if this is a material issue with the Commission's existing non-state adjustment, it would be reasonable for the Commission to explicitly commit to limiting the value of the non-state sector adjustment to the lower of state or non-state expenditure.

The Commission proposes to:

- Use the Australian Institute of Health and Welfare data to update the non-state services substitutability level for the emergency departments component.
- NSW Treasury would point to the reasons outlined above, which suggest the actual level of substitutability is significantly less than that proposed by the Commission, as evidencing a need for greater investigation of ED substitutability.
- Noting the adjustments proposed above, NSW Treasury supports the use of the AIHW data as a proxy to update the output of the Australasian College for Emergency Medicine (ACEM) method, in the absence of alternative options to provide more timely data.
- The Commission has established a relationship with the ACEM method in the 2020 Review between the two approaches, which remains consistent for the 2021 data. NSW considers this is sufficient and that the proposed adjustment (from 15 per cent to 13 per cent) is relatively minor.

5 Services to communities

This category broadly covers state government support for various community services, including water and electricity subsidies, First Nations and other community development, and environmental protection measures.

Overview of category

- The assessment includes:
 - State subsidies for the ongoing provision of water and wastewater services
 - State subsidies for the ongoing provision of electricity services
 - Support for community development in discrete First Nations communities (co-ordinating capital works programs, managing state land rights legislation, developing community plans, and educating community leaders about planning processes)
 - Other community development expenses related to administration and planning (regulating land use, administering zoning laws, and providing facilities for community health, recreation, and culture)
 - Expenses associated with administering environmental protection and funding environmental protection measures.
 - The assessment excludes:
 - Concessions for electricity and water bills (assessed in welfare category)
 - Regulation expenses for electricity and water sectors, and expenses related to irrigation and other industrial uses of water (assessed in services to industry category)
 - Expenses associated with economic development, including the development of new electricity businesses (assessed in services to industry category)
 - Expenses to fund construction of housing, industrial buildings, public utilities, or any other facilities (assessed in investment category)
 - Social housing services (assessed in housing category).
 - The main drivers of expense needs are the cost of delivery to small, remote and First Nations communities along with state population.
-

NSW Treasury position

- NSW Treasury considers that disaster mitigation expenditure may not be material for the 2025 Review but that there is a conceptual case for certain states to have a greater need in this area, primarily reflecting the higher likelihood of disasters in these states, with these disasters expected to become more severe and costly in the future.
- NSW Treasury contends that the conceptual case warrants the Commission further investigating a driver of need for disaster mitigation expenditure, even if such a method does not necessarily prove material for the 2025 Review.

5.1 Assessing disaster mitigation expenditure

The Commission asks:

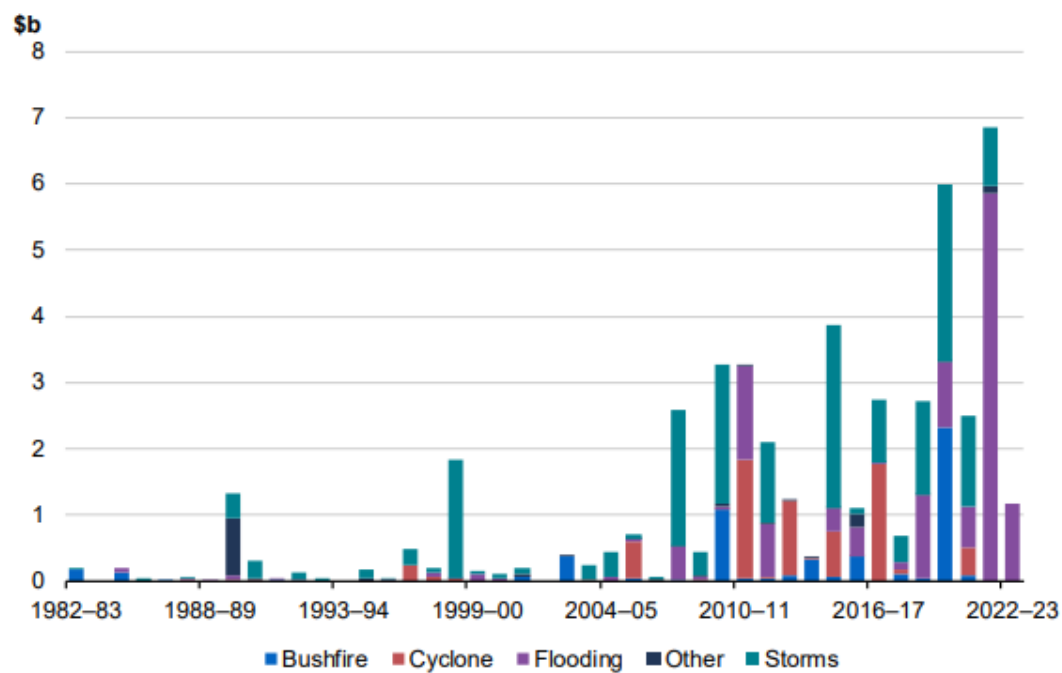
- Do states agree that the existing assessment methods for spending on disaster mitigation remain appropriate?
- The existing assessment method remains appropriate for the 2025 Review. It is not ultimately clear that mitigation expenditure will materially increase over the next five years, though the Commission should continue to monitor developments in this policy area. It is also unclear that existing Government Finance Statistics (GFS) data will be of sufficient design to update the assessment method.
- There is, however, a conceptual case that certain states – primarily New South Wales, Queensland, and northern Western Australia – are at higher risk from natural disasters and may consequently be required to spend disproportionately on natural disaster mitigation.
- The Commission should investigate whether a differential assessment is feasible and material.

Need for natural disaster mitigation expenditure

- Of natural disasters with an Australian Government Reference Number (AGRN) from 2019 to June 2023, New South Wales has the highest number of declarations across all states. These were primarily storm and flood events, as well as some major bushfire events. More significant storm and flood events, and greater population density, will often exacerbate the overall cost of disasters.
- Intuitively, states with above average risk of natural disasters occurring will require above average levels of disaster mitigation expenditure. While Commonwealth disaster funding arrangements have historically incentivised recovery over mitigation, there is a clear shift in policy towards prioritising mitigation and adaptation, even if this is not yet fully reflected in shifting expenditure patterns.
- The Commission could assess states' disaster mitigation requirements by simple reference to the number and type of observed disasters over time, as well as the estimated population impacted by each disaster. This approach would likely capture the probability and potential impact of states facing disasters, and therefore the need of states to invest in mitigation.
- Alternatively, the Commission could analyse insurance coverage and/or loss data to determine states' exposure to natural disasters. While historically focused, insurance premiums reflect the likelihood and expected impact of natural disasters (for example, home insurance in flood prone areas is more expensive, all else equal).
- As identified in the Australian Government's 2023 Intergenerational Report, and in Figure 5-1, insured losses associated with natural disasters have been materially increasing over the past 40 years across Australia.³⁸ This analysis can also be undertaken at the individual state level.

³⁸ Australian Government 2023 Intergenerational Report

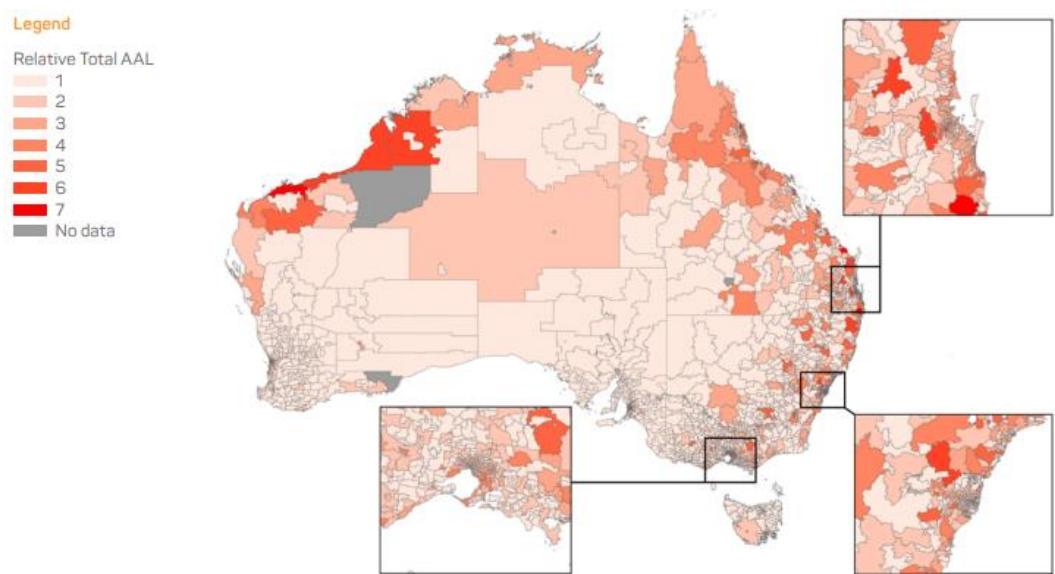
Figure 5-1: Normalised value of insured losses caused by natural disasters, 1982-83 to 2022-23



Note: This graph represents only insurance losses. Changes to insurance payout ratios, policy coverage and rates of insurance coverage also contribute to total insurance losses independent of natural disaster losses.
Source: Insurance Council of Australia, Historical Catastrophe Data – June 2023, 2023.

- Based on a risk analysis from National Exposure Information System data, the highest average annual financial losses to insurable assets by postcode are concentrated in New South Wales, Queensland, and northern Western Australia. This is represented in Figure 5-2.³⁹

Figure 5-2: Natural disaster risk analysis of average annual losses by postcode



³⁹ Australian Journal of Emergency Management, Volume 35, No 2, April 2020

- NSW Treasury has undertaken its own distributional mapping of bushfire and flood risk across the state at the SA1 level, as well as the potential change over time. The Commission could investigate extending this analysis to the national level to identify areas with greater need for disaster mitigation expenditure into the future.

Figure 5-3: Distribution of bushfire risk (SA1 level) between 2020 and 2070

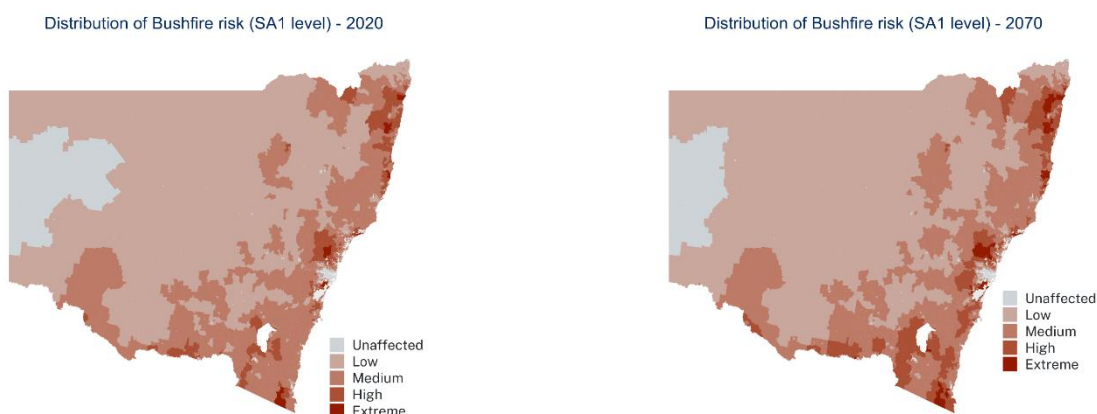
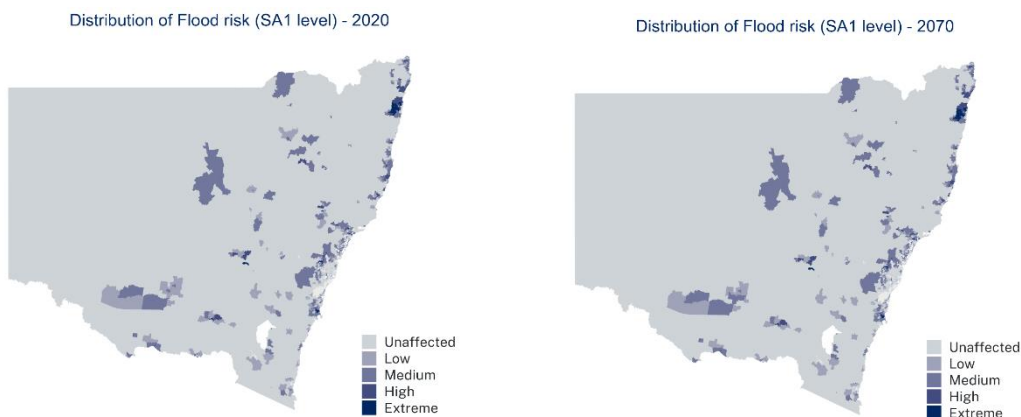


Figure 5-4: Distribution of flood risk (SA1 level) between 2020 and 2070



- Insurance data can also reveal increasing pressure for state government expenditure and support. There is the possibility that private insurance coverage in disaster-prone areas can drop significantly enough, due to a combination of rising premiums from disasters and socio-economic disadvantage, that a state is required to increase disaster mitigation expenditure.
- The need for mitigation is clearly linked to exposure to disasters. The Commission should further investigate and potentially develop a reliable method for estimating state disaster mitigation expenditure requirements.

The Commission asks:

- Do the definitions used in the National Partnership on Disaster Risk Reduction provide an appropriate basis for describing the type of spending that could be classified as natural disaster mitigation?
- The National Partnership on Disaster Risk Reduction definitions are an appropriate starting basis for classifying disaster mitigation spending, noting their consistency with the definitions of the United Nations Office on Disaster Risk Reduction.
- The definitions in scope could be extended to include natural hazards. As per the National Partnership's definition, a natural hazard is a 'natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation.'⁴⁰

The Commission asks:

- Where is this spending currently classified in the Government Finance Statistics network?
- In New South Wales, agencies across a variety of portfolios spend on disaster mitigation. This can include agencies associated with emergency services, lands and planning, environment, transport, central policy, regional policy, communications, and those specifically focused on disaster mitigation, preparedness, recovery, and reconstruction.
- There is a risk that disaster mitigation expenditure cannot be readily tracked by existing *Classification of the Functions of Government – Australia* (COFOG-A) arrangements, which classify long-term reconstruction and relief activities following natural disasters according to function. This contrasts to more immediate natural disaster relief, which is specifically allocated its own code (COFOG-A 1091).
- While a proportion of NSW expenditure on disaster mitigation is typically allocated to civil protection services under COFOG-A 0321, it is difficult to confirm all COFOG-based mitigation expenditure across the state sector.

The Commission asks:

- Is spending on mitigation measures expected to increase significantly over the next five years?
- Extreme weather events are expected to continue over future years, with these increasing in terms of frequency and severity. Subsequently, spending in response to natural disasters will likely increase. However, there is the possibility that this expenditure may remain more heavily focused on recovery and relief activities, rather than mitigation and preparedness.
- While there has been a recent uplift in Commonwealth funding for disaster mitigation through the Disaster Ready Fund, this investment alone is unlikely to overcome the historic imbalance between mitigation and recovery expenditure. Furthermore, state allocations from the Disaster Ready Fund may not necessarily be proportionate to the level of disaster risk that each state is likely to experience.

⁴⁰ National Partnership Agreement on Disaster Risk Reduction, https://federalfinancialrelations.gov.au/sites/federalfinancialrelations.gov.au/files/2020-05/disaster_risk_reduction.pdf

- NSW mitigation expenditure is expected to increase over the next five years, though increased expenditure and overall policy shift towards mitigation may not be uniform across all states.
- Outcomes from the Senate inquiry into Australia's disaster resilience (due to report in April 2024) should be monitored for potential impacts on future mitigation expenditure, including any state initiatives to increase disaster mitigation expenditure in high-risk areas.

5.2 A wider definition of disaster mitigation

NSW Treasury proposes:

- that if the Commission establishes a natural disaster mitigation component, it should be extended to include other disaster events, such as pandemics and pests and invasive species.
- There are other forms of disaster that impact states and require mitigating expenditure, but which are not necessarily considered a natural disaster. Expenditure associated with such disasters may, when considering the definitions of natural hazards and disasters, be pertinent to consider within the scope of a disaster mitigation component.

Pandemics or epidemics

- A pandemic could be defined as a natural hazard or disaster. The most significant recent example is the COVID-19 pandemic, which required substantial state investment in public health and safety as well as personal and business support.
- It is expected that states will invest further in preparing for and mitigating against future pandemics, in reflection of the significant expenditures undertaken across Australian jurisdictions in response to COVID-19. This mitigation effort is of the same nature and importance as natural disaster mitigation.
- Given that pandemics are in effect natural disasters, it would also be appropriate to assess required expenditures in response to future pandemics as APC. This treatment would be in line with the Commission's treatment of natural disaster relief expenditure, which will be considered further in Tranche 2 submissions.

Pests and invasive species

- The biosecurity mitigation required to manage pests and invasive species is of continued relevance to Australia. The UN status report on disaster risk reduction in Australia identifies invasive species as a contributor to future disaster risk.⁴¹
- Invasive species are a common threat in the aftermath of natural disasters that cause species displacement. Storm and flood events can particularly drive the risk of invasive animals, insects, and weeds. These events can be as financially damaging as natural disasters.⁴²

⁴¹ UNDDR Status Report 2020, Disaster Risk Reduction in Australia, https://www.adpc.net/igo/category/ID1658/doc/2021-aeu2Xk-ADPC-Disaster_Risk_Reduction_in_Australia_Status_Report_2020.pdf

⁴² Turbelin et al. Volume 21, Issue 2, Perspectives in Ecology and Conservation <https://www.sciencedirect.com/science/article/pii/S2530064423000214?via%3Dihub>

- Conceptually, states with greater agricultural production, such as New South Wales and Queensland, face a greater threat from invasive species. This necessitates increased investment in mitigation. Both states are also more heavily impacted by other natural disasters which increase the likelihood of invasive species events.

6 Justice

The justice assessment covers a range of state expenses related to policing, the court system, and prisons.

Overview of category

Expenditure included in the justice assessments covers:

- Police – crime prevention and investigation, road safety, maintenance of social order, promoting community safety – including through safety programs, policing major events, and assisting court prosecutions.
 - Criminal courts – costs associated with criminal courts, public prosecution, legal aid related to criminal courts and other legal services related to criminal courts.
 - Other legal services – court and legal expenses not included in criminal courts. These include civil courts, Attorney-General departments, crown solicitors and law reform commissions.
 - Prisons – the operation of government and private prisons and other places of secure detention for convicted people and alleged offenders. This includes juvenile detention, community-based corrections, and the administration of parole, community service and home detention.
-

NSW Treasury position

- Densely populated and highly globalised cities face a variety of costs and pressures that other areas do not. These effects should be assessed jointly to determine materiality.
 - The method used to apportion centrally provided police expenses to police districts is fundamentally flawed. This leads to biased estimates of remoteness costs. A more robust approach would allocate central costs based on police district population and service use rates. Service use rates may be difficult to estimate, so a discount to the regional cost gradient is appropriate.
 - Estimated regional costs of operating prison facilities are not reliable as the main channel of remoteness costs is through service delivery scale. Small prisons are not exclusive to remote areas and are increasingly a reflection of policy decisions. NSW Treasury proposes recognition of metropolitan prison costs instead.
 - The share of non-custodial corrective services has increased since the previous review and NSW Treasury proposes its separate assessment from prisons.
 - NSW Treasury supports the Commission's proposal to apply a cost weight for juvenile detainees.
-

6.1 COVID-19 impacts

The Commission asks:

- Do states agree that COVID-19 resulted in a temporary departure from long term patterns of justice service provision, use and costs such that the 2020 Review Justice model remains appropriate if used with fit for purpose data?
- NSW Treasury agrees that COVID-19 resulted in a temporary departure from long term patterns of justice service provision, use and costs. The long-term drivers of justice service provision are

not expected to be materially different post-pandemic, and the 2020 Review Justice model remains useful in assessing service delivery needs.

The Commission asks:

- Do states agree that data from 2019–20, 2020–21 and 2021–22 include the effects of COVID-19 related public health orders and do not reflect typical justice services and costs?
 - If data from 2019–20 to 2021–22 are not fit for purpose, do states support using data from 2022–23 to update the justice assessment? If so, can states provide an indication of when 2022–23 data could be provided to the Commission?
-
- NSW Treasury agrees that data from 2019–20 to 2021–22 are likely to include additional costs related to COVID-19 public health orders as well as disruptions to typical flows of justice service provision. Therefore, data from this period are not fit for purpose in updating regression coefficients to be used in the 2025 Review.
 - NSW Treasury expects:
 - the impacts of COVID-19 on justice services and costs have broadly diminished in 2022–23. Therefore, data from this period are considered fit for purpose in the justice assessment.
 - 2022–23 data to be available for the Commission’s requested deadline of March 2024.

6.2 Juvenile detainee costs

The Commission proposes to:

- Apply a cost weight for juvenile detainees in the prisons assessment if material.
 - Not make any changes to the juvenile detainees age groups in the prisons assessment.
-
- NSW Treasury supports the adoption of a cost weight for juvenile detainees in the prison assessment. This would recognise the higher cost of juvenile detainees and the increasing importance of early correctional interventions. The Commission has provided some evidence to show that juvenile detention costs are significantly higher than adult prisoner costs.

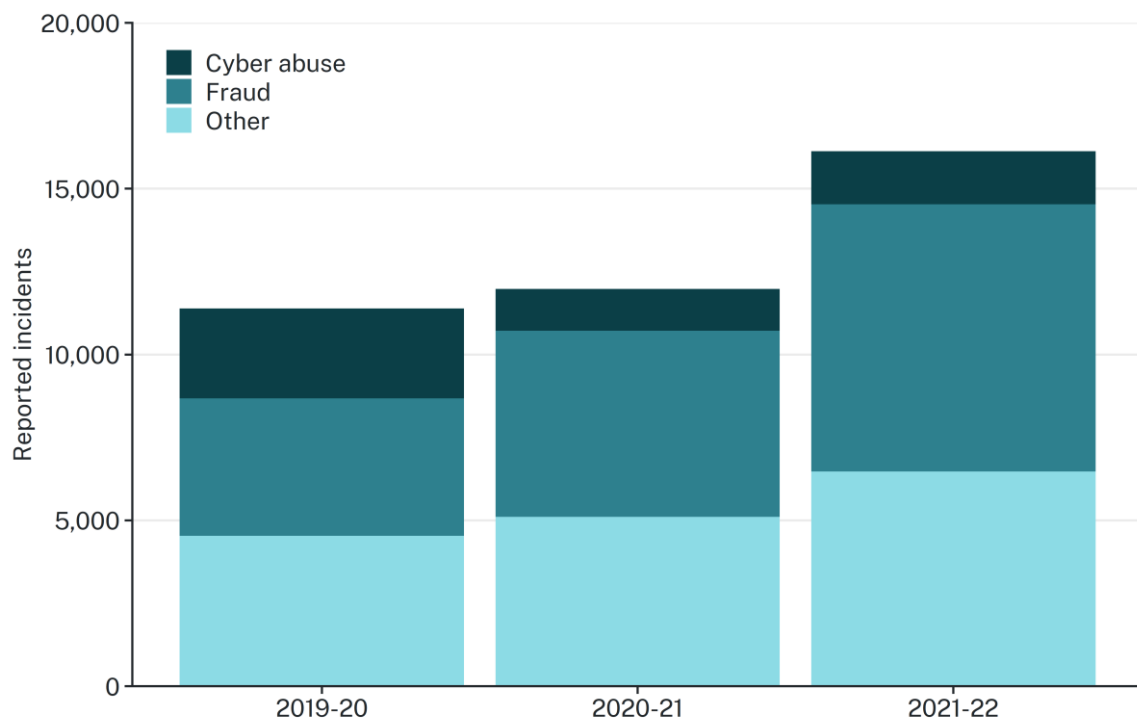
6.3 Major city effects

NSW Treasury proposes:

- To recognise the costs related to major city effects in a joint disability within the justice assessment.
-
- NSW Treasury does not believe the 2020 Review Justice model appropriately captures the justice expenses related to the presence of densely populated and highly globalised cities. The 2020 Review considered the following separate effects:
 - The threat of terrorism
 - Prevalence of complex crime, such as organised crime; cybercrime; and financial crime
 - Disproportionate rates of federal prisoners

- Culturally and linguistically diverse (CALD) prisoners.
- These effects individually were estimated to be immaterial in the 2020 Review, but if considered jointly through major city effects, are expected to be material within the justice assessment. These factors all share a common driver, that is the population density of the state's largest city.
- Alternatively, police service use rates could be estimated by remoteness level (see Section 6.4). For example, this would likely allocate higher shares of costs related to complex crime to metropolitan areas.
- Finally, reported cybercrime in New South Wales increased by 42 per cent from 2019-20 to 2021-22.⁴³ Growth has been particularly driven by fraud incidents (Figure 6-1). While cybercrime affects everyone with access to the internet, large organisations have been the target of high-profile attacks recently. This may be placing added pressure on state police forces with a significant head office presence of large organisations.

Figure 6-1: Reported cybercrime incidents in New South Wales



Source: BOCSAR

6.4 Police district costs

NSW Treasury proposes:

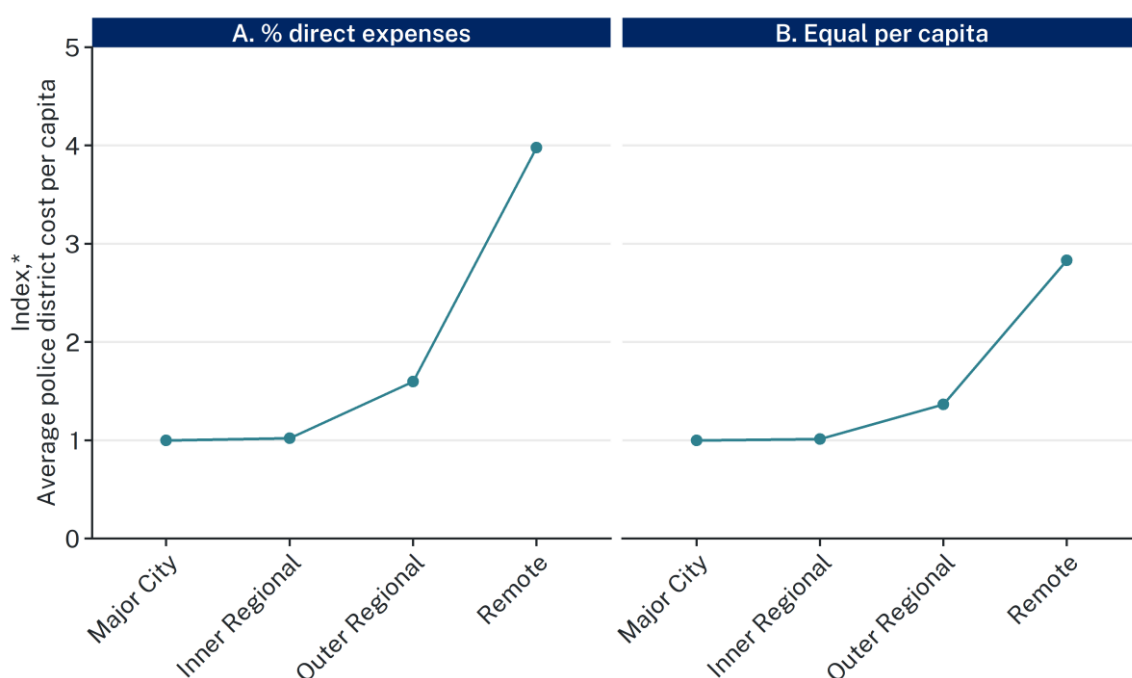
- To reduce bias in estimating regional police costs, allocate the cost of centrally provided police services to police districts on a per capita basis.
- Apply a 25% discount to the resulting regional cost gradient of police to account for higher non-remote usage (per person) of centrally provided police services.
- The Commission's policing task model does not appropriately allocate centrally provided police spending across police districts. The model estimates regional costs using a regression of

⁴³ NSW Bureau of Crime Statistics and Research, *Trends in and characteristics of cybercrime in NSW*, 2023.

expenditure at the police district level. As a result, the police regression overestimates the impact of remoteness on police spending.

- The police expenditure regression uses 'scaled' GFS police expenses as the dependent variable, which is derived from ABS data and state-provided data on police district spending. In New South Wales, centrally provided police services account for over 40 per cent of police spending, and these services cannot be directly traced to police districts. The Commission allocates this spending to police districts based on their share of direct costs.⁴⁴ However, this approach is problematic as a police district is more likely to have below-average direct costs *as a result* of consuming a higher proportion of its resources from central commands. Consequently, the police task model erroneously amplifies the effect of direct police district costs.
- Moreover, remote policing (direct) costs are driven by the presence of police stations in small communities. This presence is generally to maintain a perception of safety and a connectedness to government services, rather than being driven by the actual occurrence of crime. As such, service delivery scale is a key component of remote policing. Central police services do not have the same fixed costs associated with stations and remoteness. Therefore, fixed costs should not influence the apportionment of central police costs to police districts.
- An alternative approach of allocating centrally provided costs to police districts on a per capita basis would be more conceptually sound than the current method. An EPC allocation assumes that centralised police services are shared equally across a state's residents. The regional cost curve is flatter under this approach. Figure 6-2 shows remote police district costs in New South Wales are 4x higher than cities under the existing method used by the Commission (panel A), but only around 3x higher on an EPC basis (panel B).

**Figure 6-2: Police regional cost curve, NSW,
alternative central cost allocation**



* Index, Major City = 1

Source: CGC calculations, NSW Treasury

- EPC allocation is a reasonable starting point, but a more accurate representation of the policing task would go beyond this. That is to account for different rates of central police service usage

⁴⁴ Directly attributed expenditure includes an allocation of Public Transport Command expenses according to number of offences.

across areas. Metropolitan residents – and police districts by extension – are likely to have higher use rates of central services than remote residents. For example, investigation and specialist squads are more readily available to assist metropolitan detectives, and counter-terrorism spending is primarily aimed at preventing attacks on urban areas due to the higher risk.⁴⁵

- Central police costs are most likely skewed towards metropolitan regions, beyond an EPC basis. The following NSW Police Force commands are expected to have significantly different service use rates across remoteness levels:

Table 6-1: Selected NSW Police Force Commands

Command	Details
Counter Terrorism & Special Tactics	<p>The Counter Terrorism & Special Tactics Command is responsible for NSW Police Force's preparedness for, prevention of and response to the threat of terrorism in NSW. The Command also provides tactical support to general policing throughout the State. The Command's response comes from four major groups:</p> <ul style="list-style-type: none"> • Anti Terrorism & Security Group • Coordinated Response Group • Operations Group • State Protection Group
State Intelligence	<p>State Intelligence is responsible for managing and delivering intelligence services to support proactive and effective policing of the state. The command collects, analyses, and disseminates intelligence related to high-volume crime, serious crime, organised crime, major events, and public order.</p>
State Crime	<p>The State Crime Command delivers professional policing services to the community of NSW through disrupting, preventing, and responding to serious and organised crime. The command consists of eight specialist squads each representing a head of discipline for major crime types:</p> <ul style="list-style-type: none"> • Drug and Firearms Squad • Criminal Groups Squad • Organised Crime Squad • Cybercrime Squad • Homicide Squad • Child Abuse and Sex Crimes Squad • Financial Crimes Squad • Robbery and Serious Crime Squad
Forensic Evidence & Technical Services	<p>Some of the capabilities provided by the Command include:</p> <ul style="list-style-type: none"> • Collection and analysis of physical and electronic evidence at crime and incident scenes. • Scientific analysis, interpretation of evidence and presentation of evidence to court. • Identification of persons through biometric means, fingerprints, and DNA to assist in criminal, incident, and coronial investigations. • Identification of persons through criminal history to provide background information to the court to inform decisions. • Provision of forensic intelligence to assist solving crime across boundaries; linking crime across different evidence types. • Provision of advice and logistical support to the NSW Police response to chemical, biological, radiological, nuclear, and explosive incidents, and Disaster Victim Identification events. • Facilitation of targeted research and innovative development opportunities in collaboration with other forensic and educational institutions

⁴⁵ <https://www.nationalsecurity.gov.au/national-threat-level/current-national-terrorism-threat-level>

Command	Details
Marine Area	<p>Marine Area Command includes operational water police, marine intelligence unit, marine crime prevention officer, divers, detectives, and the marine operational support team.</p> <p>Police vessels and personnel are strategically located at important commercial and leisure ports with the base at Balmain on Sydney Harbour. Water police are located at Broken Bay, Newcastle, Port Stephens, Coffs Harbour, Botany Bay, Port Kembla and most recently Eden. Some remote waterways are serviced by their Local Area Commands.</p>
Aviation (PolAir)	<p>Aviation Command duties include:</p> <ul style="list-style-type: none"> • Search and rescue (including missing children, the elderly and lost bushwalkers) • Patrol support (searching for offenders) • High visibility operations for special events (e.g. New Year's Eve, Mardi Gras, City to surf, Vivid, etc.) • Reconnaissance tasks • Counter terrorism operations • Transport of dignitaries and specialised police • Displays / demonstrations and charity events • Maintenance and servicing of police aircraft.

Source: NSW Police Force, https://www.police.nsw.gov.au/about_us/organisational_structure

- Usage rates could be estimated and applied in various ways. One approach is to apply a service intensity factor after EPC allocation. Another option may be to first split central costs into a) major cities and b) other; then allocate to police districts on an EPC basis thereafter.
- However, given the likely data limitations and difficulty estimating average usage rates across remoteness areas in Australia, a 25% discount to the regional cost gradient may be the most viable option to account for higher non-remote usage of central police services per person.

6.5 Prison regional costs

NSW Treasury proposes:

- To recognise higher metropolitan costs of prison facilities by replacing service delivery scale (remoteness) costs for prisons with metropolitan prison costs.
- NSW Treasury believes the prisons assessment lacks evidence to support inclusion of the service delivery scale factor in calculating a regional cost gradient. The Commission links service delivery scale (and thus higher average per prisoner costs) to remote prison locations. Indeed, small prisons are more expensive per prisoner than large prisons. However, this effect is not reliably driven by remoteness.
- Although there is a tendency for remote facilities to have a relatively low capacity, this typically reflects factors other than remoteness. That is because small facilities are usually either for a) specialised purposes or b) enhanced prisoner outcomes. For example, the Yetta Dhinnakkal Centre in Brewarrina was one of a few small and remote prison facilities in New South Wales before its closure in 2020. This facility was exclusively for young Indigenous men and was designed to enhance outcomes for prisoners through unconventional corrective measures.
- Ivanhoe (Warakirri) Correctional Centre is another remote NSW facility that closed in 2020, further indicating that remote prisons are not driven by necessity. This is highlighted by Commission analysis which shows most prisoners originating from remote areas are housed in non-remote prison facilities. As such, small and remote prisons may not reflect average state policy.

- Meanwhile, there is evidence to suggest that operating costs (per prisoner) may actually be higher for *metropolitan* prison facilities. We replicated the prisons regression model to estimate the operating cost per prisoner for 33 New South Wales facilities in 2016-17 (Table 6-2). The data was provided to the Commission as part of the 2020 Review. We compared the existing model (Remote Cost) with an alternative model (City Cost) which replaces the 'AllRemote' dummy variable with one for major city locations – 'MajorCity'.

Table 6-2: Prison regional cost model comparison

Predictors	Remote Cost Model				City Cost Model			
	Estimates		Std. Error	p-value	Estimates		Std. Error	p-value
Intercept	36,750.2	***	3,391.5	<0.001	33,992.9	***	3,681.5	<0.001
PropMax	20,542.5	***	4,837.3	<0.001	19,173.6	***	4,694.9	<0.001
InverseSize	3,623,106.4	***	659,431.8	<0.001	3,471,565.9	***	528,861.4	<0.001
AllRemote	-18,083.9		22,465.4	0.427				
MajorCity					6,751.5	*	3,752.6	0.082
Observations				33				33
R ² / R ² adjusted				0.618 / 0.578				0.649 / 0.612
F-statistic				15.64				17.85

* p<0.1 ** p<0.05 *** p<0.01

- The negative coefficient in the Remote Cost model suggests that, on average, costs per prisoner are lower for remote prison facilities in New South Wales. On the other hand, the City Cost model estimates an additional annual cost of \$6,750 per prisoner for metropolitan facilities, which is statistically significant at the 10 per cent confidence level. This could be driven by a range of factors including:
 - Additional perimeter surveillance
 - Greater volume and frequency of visitors per prisoner
 - Greater number/severity of incidents per prisoner
 - Higher frequency of contraband searches
 - Older age of facilities
- NSW Treasury proposes the Commission replaces the remoteness dummy variable with a major cities dummy variable in the regional prison costs regression. Alternatively, a discount to remoteness and service delivery scale effects may be appropriate to recognise the standard errors and uncertainty in the Remote Cost (current) model.

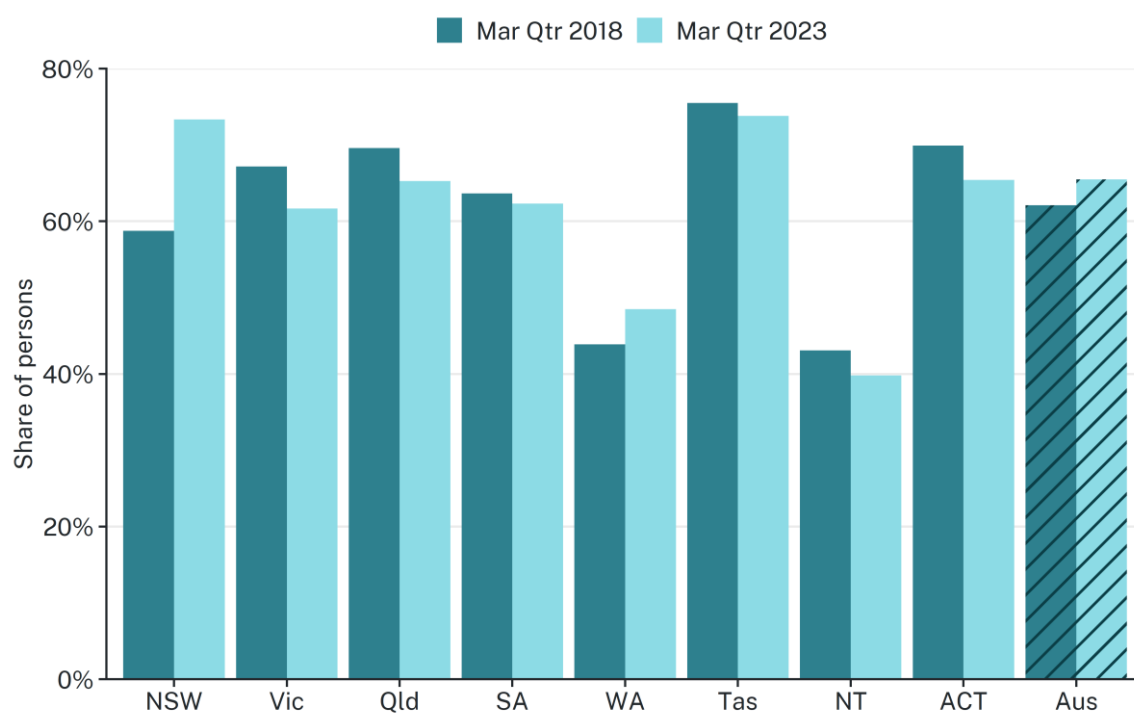
6.6 Non-custodial corrective services

NSW Treasury proposes:

- To assess non-custodial corrective services separately from full-time prisoners.
- NSW Treasury supports the recommendation of other states in the 2020 Review to assess non-custodial corrective services separately from full-time prisoners. This was not included due to materiality. However, the share of persons in community-based corrections has increased significantly since the previous review.
- Figure 6-3 shows the share of persons under non-custodial corrective orders has increased from 62 per cent in March 2018 to over 65 per cent in March 2023. This has mainly been driven by New South Wales, where the share has risen sharply from 59 per cent to 73 per cent. Western

Australia also contributed to the increase with its share of non-custodial corrective orders rising from 44 per cent to 48 per cent.

Figure 6-3: Community-based share of corrective services by state



Source: ABS, NSW Treasury

- Meanwhile, the share of expenditure on community corrections has increased slightly but remains around 15 per cent of total net operating expenditure on prisons and other corrective services.⁴⁶ With such disproportionate costs of full-time custody and non-custodial corrective services, a separate assessment from prisons is appropriate.

⁴⁶ Productivity Commission, *Report on Government Services 2023*, Chapter 8, Table 8A.2.

7 Transport

This category covers state and territory expenditure on buses, light and heavy rail (passenger and freight), ferry services, air transport, ports, and other maritime related services.

Overview of category

- The transport category consists of urban and non-urban transport operating expenses which are assessed separately. The category also includes an assessment of transport investment, but this will be considered in further detail as part of Tranche 2.
 - The **urban transport** assessment includes operating expenses (including depreciation) for passenger transport services within urban centres, net of revenues. It includes expenses of relevant general government agencies and public non-financial corporations.
 - The urban transport assessment recognises, as drivers of state expenditure needs, the effects of:
 - urban centre characteristics
 - state shares of urban population
 - differences in wage costs between states.
 - The effects of urban centre characteristics and state shares of urban area population are blended in the assessment. The assessment of urban centre characteristics is given a weight of 75 per cent and state shares of urban population 25 per cent. Differential state wage costs are then applied.
 - The **non-urban** transport component includes general government operating subsidies expenditure for passenger and freight transport. The majority of expenses relate to the provision of non-urban rail passenger services.
 - The non-urban transport assessment recognises, as drivers of expenditure needs, the effects of:
 - state shares of total population (EPC assessment)
 - differences in costs associated with providing services to different regions
 - differences in wage costs between states.
 - Total state population shares are used rather than non-urban population shares. This is because non-urban transport services can be accessed by people living in both urban areas (for both regional travel and travel between urban centres) and non-urban areas.
-

NSW Treasury position

- The fundamental drivers of urban transport needs are unchanged by the COVID-19 pandemic, notwithstanding a potential change in patronage trends. Accordingly, the existing assessment approach for urban transport remains appropriate.
- An adjustment to passenger volumes data has been proposed due to concerns with the 2021 journey to work data. This adjustment is necessary to capture the various expansions to transport networks since the 2016 Census.
- The blending approach needlessly discounts independent evidence and advice provided by consultants to both the Commission and NSW Treasury.

- There are large differences in the scale of ferry services provided across urban areas. NSW Treasury supports recognising the cost of high-scale ferry operations in the urban transport model.
- The Commission's proposal to model passenger volumes would reduce issues with selecting discrete population ranges. However, population density is a better measure of the underlying need for urban transport services.
- We support the recognition of non-urban train commuters as a driver of transport needs. However, some adjustments to passenger and expenses data may be needed to align ABS and Commission definitions of non-urban railway transport.

7.1 COVID-19 impacts on underlying assumptions

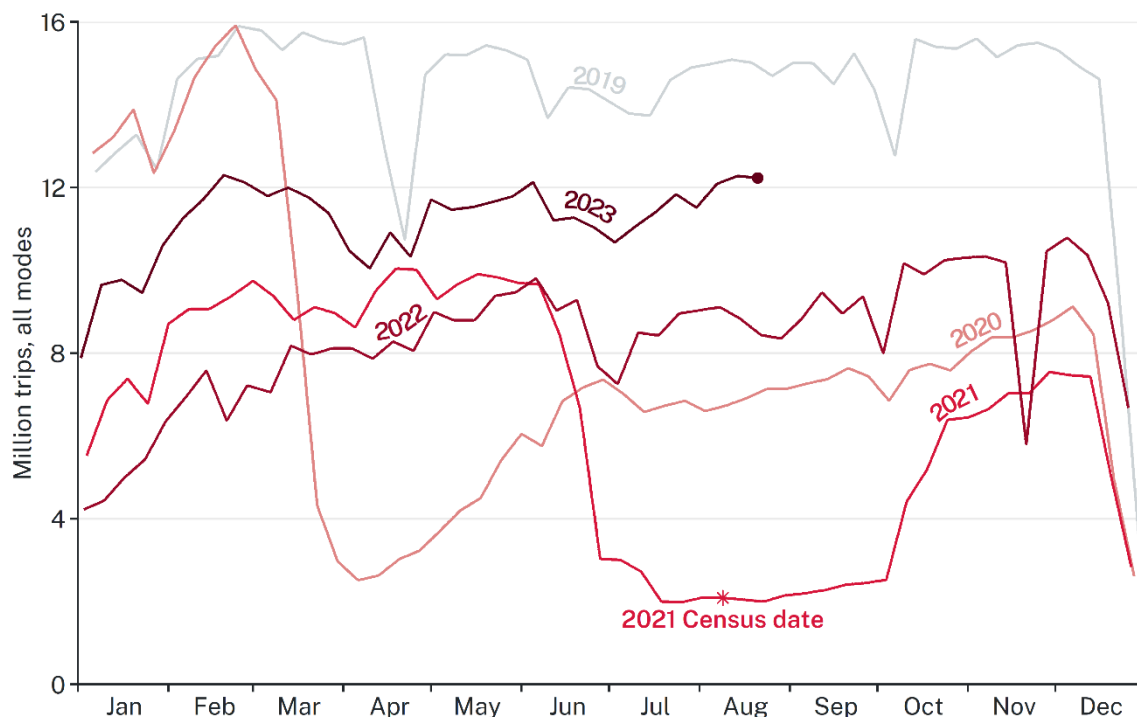
The Commission asks:

- Do states agree that the 2020 Review model for assessing urban transport needs remains appropriate?
- The Commission points out that the current econometric model assumes that in a stable transport system the supply of public transport services provided by governments (and therefore net expenditure incurred) is set to meet the demand for public transport services.⁴⁷ During the COVID-19 pandemic, this assumption was challenged as passenger numbers dropped significantly, while service levels were maintained, resulting in low public transport load ratios. The maintenance of pre-COVID service levels during the pandemic in the face of low load ratios has been justified by the need to:
 - maintain social distancing
 - provide reliable transport for frontline workers.
- While public transport patronage has rebounded (and continues to rebound) following the COVID period, the number of public transport trips as a share of population has shifted downwards.
- In the medium term, NSW Treasury expects public transport load ratios will return to pre-COVID levels. This will occur through either selective service cuts and/or natural growth in patronage, combined with slower than previously expected network expansion.
- Nevertheless, should this not occur uniformly across jurisdictions (or at all), NSW Treasury believes the public transport model developed by the Commission remains valid and a powerful tool to determine a policy adjusted level of expenditure in each jurisdiction. We would point out that should jurisdictions continue to provide public transport services in excess of demand, the coefficients of the existing public transport model would be re-estimated placing less emphasis on passenger numbers as a cost driver. Such an outcome would simply be consistent with 'what states do'. This outcome has already been highlighted by the Commission in its New Issues paper for the 2023 Update.
- Given this, NSW Treasury believes the current model specification remains appropriate, subject to:
 - The potential inclusion of alternative variables which may improve the explanatory power of the model
 - A more robust model for estimating modelled passenger numbers

⁴⁷ Commonwealth Grants Commission, *2025 Methodology Review – Transport consultation paper*, 2023, paragraphs no. 52 and 57.

- Nuanced application of data impacted by COVID-19.

Figure 7-1: Weekly public transport trips, NSW



7.2 Data reliability – expenses

The Commission asks:

- Do states consider the urban transport net expense data from 2019–20 to 2021–22 are likely to be overstated?
 - If 2019–20 to 2021–22 data are not fit for purpose, do states support updating the regression with data from 2022–23? Can states provide an indication of when this data could be provided to the Commission?
 - If 2022–23 data are considered fit for purpose but are not available for inclusion in the 2025 Review, do states support updating the assessment in an update following the 2025 Review?
 - Do states support retaining the 2020 Review proxy variable data in the regression model until fit for purpose net expense data are available?
- As noted above, COVID-19 saw passenger numbers drop significantly while service levels were maintained. This resulted in net public transport costs increasing faster than gross costs.
 - While urban transport net expenses from this period may be considered as ‘overstated’ compared to normal, this reflected – for a time – ‘what states do’. Nevertheless, re-estimating the urban transport model using net expenses from 2019–20 to 2021–22 along with COVID-19 affected passenger volumes is unlikely to see the model representative of the application years and therefore, the data for these years are not fit for purpose.
 - To overcome this problem, the Commission has suggested re-estimating its model using net expense data for 2022–23 along with estimated patronage numbers for 2022–23 for individual Significant Urban Areas (SUAs). While we understand the Commission’s desire to use the latest data possible, NSW Treasury is concerned that such an approach risks seeing inconsistent data

being used on the right-hand and left-hand sides of the urban transport model. The Commission would need to be satisfied in its passenger number estimation procedure for this approach to be used for the 2025 Review. Other options the Commission should consider pending re-estimation of the model using 2026 Census data are:

- Continued use of the 2020 Review model.
- Re-estimation of the 2020 Review model using updated data for 2016-17 through to 2018-19.
- Re-estimation of the 2020 Review model based on data for 2018-19 and 2022-23, including Commission estimated passenger numbers for 2022-23.
- NSW Treasury sees some advantage in the third approach as the model would better reflect the application years of the 2025 Review which are likely to see public transport load factors progressively returning to pre-COVID levels. We would also see some advantage in using data for multiple years to estimate any revised urban transport model to avoid potentially anomalous results.
- We would also point that NSW data for 2022-23 will be distorted by significant industrial action which will impact on both net expense and patronage data. Despite this, NSW Treasury is satisfied that 2022-23 expenses data are fit for purpose when combined with data for 2018-19. The data is expected to be made available to the Commission following the Transport for NSW Annual Report 2022-23.
- Finally, given the extraordinary circumstances caused by the COVID-19 pandemic, NSW Treasury supports re-estimation of the urban public transport model after the 2025 Review as part of the Commission's update reports.

7.3 Data reliability – other

The Commission asks:

- Do states agree that the 2021 Census journey to work data were distorted by the COVID-19 lockdowns and are not a fit for purpose measure of current passenger numbers?
- If the 2021 Census journey to work data are not fit for purpose, do states support the continued use of 2016 Census journey to work data in the model?
- The 2021 Census was conducted on 10 August 2021 while a number of states were in a COVID-19 lockdown and social distancing was being actively encouraged. Both these factors resulted in public transport usage being far lower than normal and far lower than would be expected in the 2025 Review application years. In the case of New South Wales, public transport patronage was 86 per cent lower than at the same time in 2019 (Figure 7-1).
- The Commission has provided strong evidence to show these factors were indeed reflected in the 2021 Census journey to work data. Therefore, NSW Treasury agrees the commuter mode data from the 2021 Census are not fit for purpose for measuring annual passenger numbers.
- Continued use of 2016 Census journey to work data in the model is supported, however, adjustments may need to be made to ensure that network additions – including Metro Northwest and the Newcastle and CBD and South East Light Rail – are accounted for appropriately.

The Commission asks:

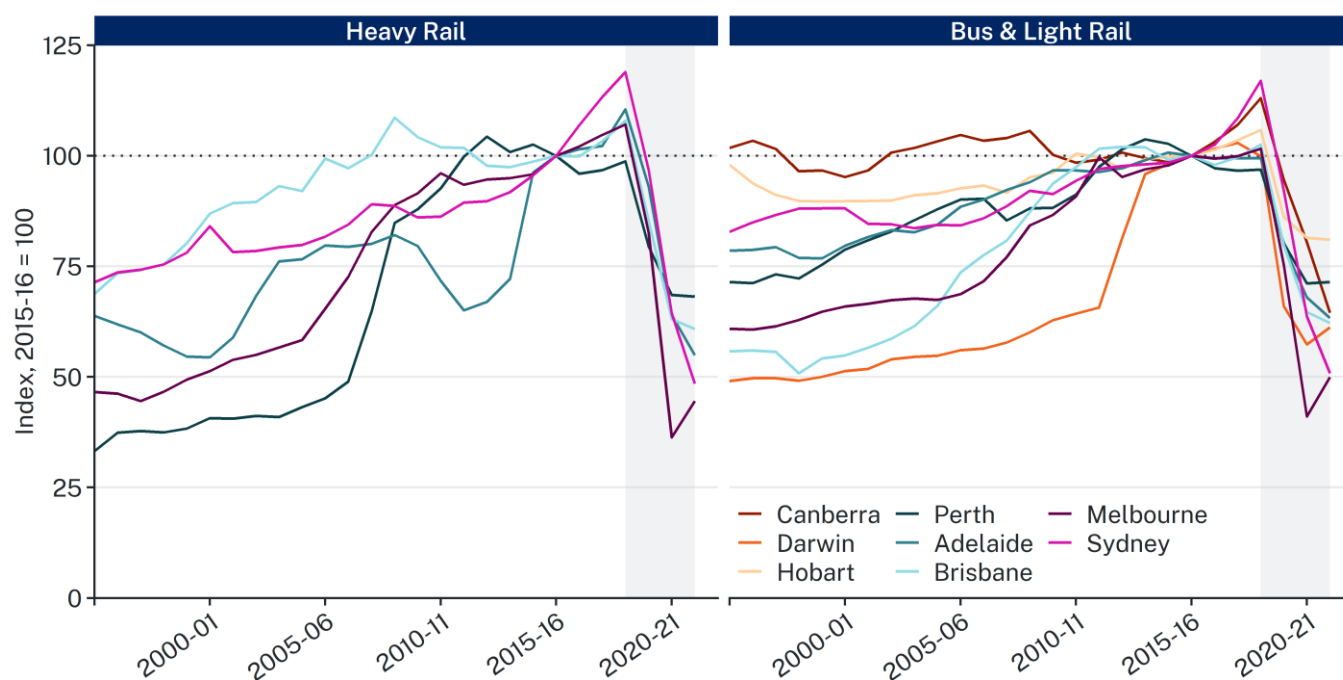
- Do states agree that 2021 Census distance travelled to work data were not significantly distorted by COVID-19 lockdowns and are a reliable measure of network complexity?
- As discussed by the Commission in its consultation paper, the instructions for the 2021 Census ensured that COVID-19 lockdowns did not significantly impact on the distance to work dataset. Given this, NSW Treasury supports the use of distance travelled to work data from the 2021 Census for the 2025 Review.
- We would also point out our belief that the inclusion of this variable in the urban transport model partially captures the topographic constraints faced in some urban areas. For example, it is reasonable to assume that the impact of Sydney Harbour on the distance to work variable is greater than the impact of the Yarra River on distances travelled in Melbourne.
- While distance travelled to work is a sensible proxy, one limitation is the presence of multiple employment hubs. Sydney's shorter distance to work compared to some other capital cities may be due to the presence of high employment-density districts such as Parramatta, Chatswood, and North Sydney throughout the urban area.
- More direct measures of network complexity may be obtainable by analysing differences in network maps. Nodes (stations / bus stops) are connected by paths (track / roads). The number of connecting paths, or interconnected nodes may be a reliable measure of network complexity.

7.4 Passenger data adjustment

The Commission asks:

- Do states agree that, if material, 2016 Census journey to work data should be adjusted using the Bureau of Infrastructure and Transport Research Economics measure of passenger kilometres travelled until the 2026 Census data are available?
- Do states agree that if net expense data are available before the 2026 Census passenger numbers it is appropriate to use Bureau of Infrastructure and Transport Research Economics data to index actual passenger numbers?
- Given the passage of time since the 2016 journey to work data from the 2016 Census, updating actual and modelled passenger numbers to allow for changes in passenger behaviour and the impact of expansions to the transport network would be appropriate.
- Changes in actual passenger numbers should be highly correlated with changes in passenger kilometres assuming average distance travelled remains unchanged. The use of Bureau of Infrastructure and Transport Research Economics (BITRE) data is preferred rather than state ticketing data as it is available for all capital cities (Figure 7-2).

Figure 7-2: Passenger kilometres travelled



Shading indicates years affected by lockdowns related to COVID-19.

Source: BITRE, NSW Treasury

- The Commission has indicated that all urban centres in a state would be indexed at the same rate as the capital city in that state. This may not be appropriate as regional urban centres are less likely to have experienced changes in passenger behaviour and expansions to transport networks.
- NSW Treasury understands that due to data reliability concerns (section 7.2), the financial years particularly affected by pandemic lockdowns (2019-20, 2020-21 and 2021-22) will not be used in the assessment of relativities. Nevertheless, when data for 2022-23 becomes available, there is a risk that post-pandemic commuting behaviours have not recovered uniformly, and this may impact the effectiveness of any adjustment capturing changes in service availability.
- Figure 7-2 above shows that Sydney had the largest percentage increase in passenger kilometres travelled on both heavy rail and buses/light rail prior to the pandemic. This reflected increased service availability from the commencement of services such as the Metro North West line (2019) and the B-Line bus route (2017). These additional services have been maintained through the pandemic. However, they may not be apparent in passenger kilometres travelled relative to other capital cities where structural commuter behaviours may have been less disrupted by COVID-19.

7.5 Blending ratio

The Commission asks:

- Do states support retaining the 2020 Review blending ratio for the urban transport assessment?
- NSW Treasury does not support the use of a blended approach for the urban transport assessment. The Commission has justified blending based on its concerns related to the econometric model:
 - reliability of the urban transport expense data provided by the states

- the use of proxy variables in the model to capture supply and demand.
- However, NSW Treasury views these elements as relative strengths of the model, in comparison to the other expense assessments. Firstly, urban transport expense data has been provided by states for the purpose of input to the urban transport model. If there is a concern regarding the reliability of these data, the Commission has the opportunity to rectify this through its data request. Secondly, the proxy variables for supply (passenger volumes) and demand (population density) are well-reasoned and reliable representations of the concepts they measure. Proxy measurements are widely used in social sciences, and we believe the Commission should provide evidence to support concerns which warrant their decision to use a blending ratio.
- Additionally, the concerns raised by the Commission seem to conflict with the language used in its report when commenting on its own consultant report:

“The Commission considers the methodology used by the consultants to be robust and the supporting data reliable and has followed the consultants’ recommendations.”

- 2020 Review, volume 2, chapter 21, paragraph 79.
- The consultant’s report strongly supports the urban centre characteristics model, stating that “bus and train passenger counts are robust proxy variables for supply”.⁴⁸ Some concerns were raised by the consultants on the reliability of expenses data, but this was addressed by using a sample of 70 SUAs for which reliable expenses data were available, and were determined to be representative of the full sample.⁴⁹
- The Commission has gone to considerable efforts to develop a robust model for estimating the policy neutral cost of providing urban public transport services. While we acknowledge that no econometric model is perfect, the Commission needs to have sufficient confidence that blending the results from different methodologies moves the outcome closer to full equalisation. NSW Treasury is concerned that blending may worsen equalisation outcomes.
- NSW Treasury is suggesting amendments to the urban centre characteristics model – to model passenger numbers per capita as a function of urban population density rather than as a function of urban population (see section 7.7) – which will further improve the model’s robustness. If adopted, we believe this further strengthens the case to move away from blending.

7.6 Addition of ferry service mode

The Commission asks:

- Do states support replacing the ferry dummy variable in the urban transport model with the proportion of total commuters using ferry services?
- NSW Treasury strongly supports the recognition of ferry services – and the scale at which they are provided – in the urban transport model. This could be achieved by replacing the ferry dummy variable in the urban transport cost equation with either a) the log of ferry passengers or b) the proportion of total⁵⁰ commuters using ferry services.

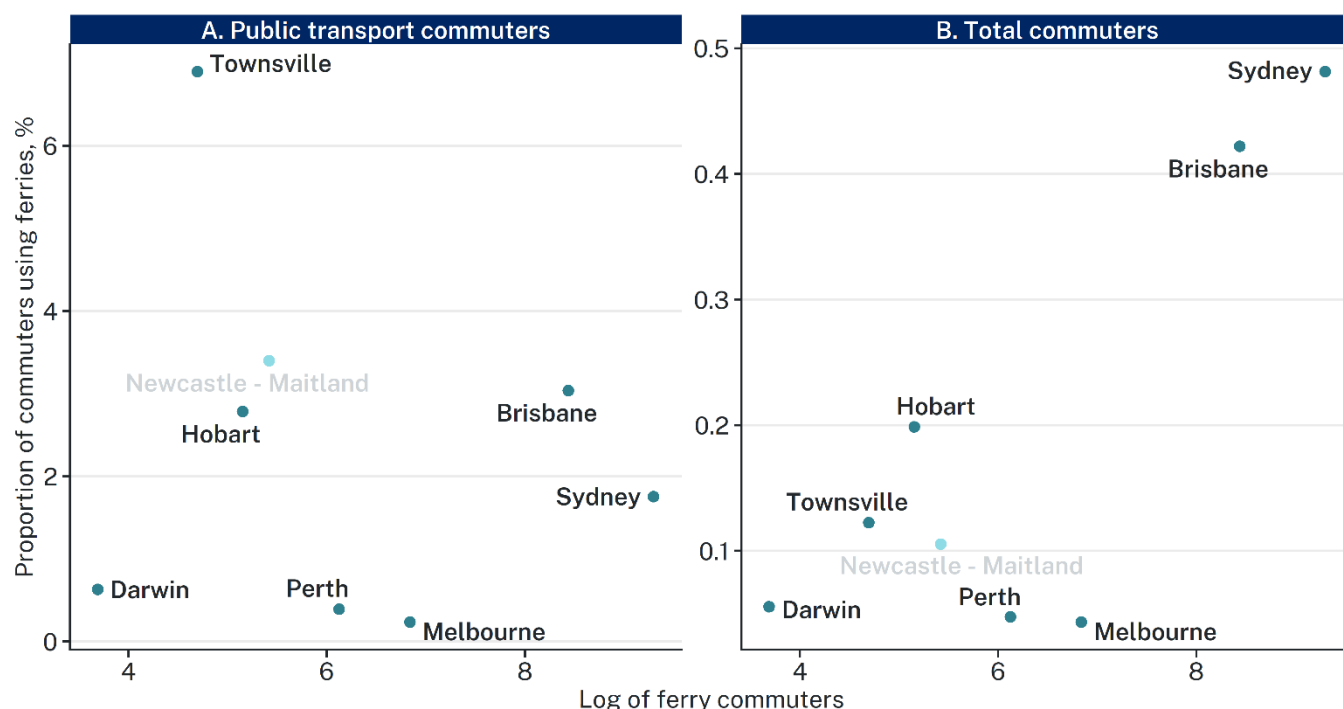
⁴⁸ Jacobs and Synergies Economic Consulting, *Urban Transport Consultancy Stage 2*, October 2018, page 1.

⁴⁹ Jacobs and Synergies Economic Consulting, *Urban Transport Consultancy Stage 2*, October 2018, page 42.

⁵⁰ We note the distinction between *total* commuters and *public transport* commuters. NSW Treasury understands that the preliminary view of the Commission is to use ferry passenger numbers as a proportion of public transport commuters.

- The Commission correctly points out the limitations of a dummy variable approach which results in a step change in the assessed expenditure of a state once ferry services are introduced. This was highlighted by the introduction of ferry services in Hobart in 2021.

Figure 7-3: Proportion of ferry commuters



Source: CGC calculations, NSW Treasury

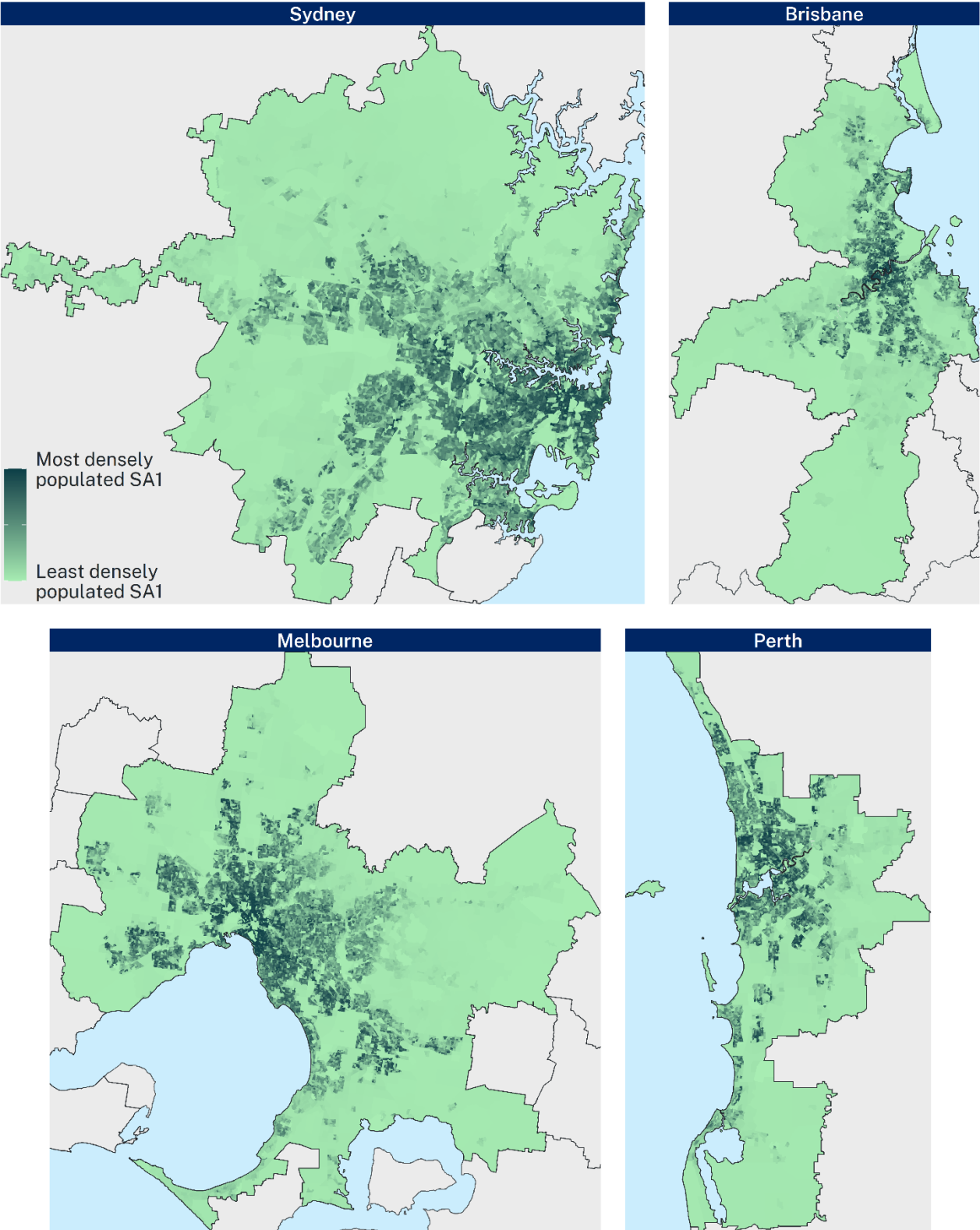
- To recognise differences in the scale of ferry services, the Commission has proposed adoption of ferry services share of public transport commuters. However, the proportion of public transport commuters using ferry services fails to effectively measure differences in the scale of ferry services. This is highlighted by the fact that, all else being equal, a city with higher public transport usage overall would have a lower share of ferry services. This can be seen in Figure 7-3 panel A which shows that cities with the largest volumes of ferry passengers (Sydney and Brisbane) have a low proportion of public transport users because the overall public transport task is so large. Conversely, ferry commuters in Townsville are a large proportion of public transport commuters due to its relatively low rate of public transport usage. As a result, there is no discernible relationship between ferries' proportion of *public transport* commuters and the scale of services.
- On the other hand, we find a more reasonable reflection of the ferry transport task when using the proportion of *total* commuters (panel B) – this metric is akin to ferry passengers per capita. In this case, Sydney and Brisbane are not penalised by overall demand for public transport in the urban area. Perth and Melbourne stand out as having a low share of ferry commuters, despite a large volume of ferry passengers. This suggests that these populations – although large – are distributed in such a way that bodies of water do not present a significant barrier to commuters on average.
- Figure 7-4 shows the geographical distribution of populations in Sydney, Brisbane, Melbourne, and Perth. This shows that Sydney and Brisbane each have significant clusters of their population (as well as their CBDs) located in close proximity to the Sydney Harbour and Brisbane River, respectively. Melbourne's Yarra River is generally not wide enough to limit bridge connectivity while most of the population is dispersed away from or parallel to Port Phillip with respect to the CBD. Similarly, Perth's CBD has multiple bridge connections while populations near Swan River's inlet have access to rail services.

- As with the introduction of heavy rail services as population increases, it is reasonable to assume that jurisdictions only move to use higher cost ferry services (compared with buses) due to an underlying need flowing from congestion and the specific geographic features of area serviced by public transport. We disagree with the Commission's view that ferry passenger numbers should not be included in a revised specification of an urban transport model.⁵¹ Accordingly, an appropriate alternative to recognising the scale of ferry services may be to include (actual and modelled) ferry passengers. This would be consistent with the proposed changes to modelling passenger numbers (see section 7.7) where transport mode shares are seen as a reflection of unique urban characteristics.
- NSW Treasury proposes recognition of ferry service scale in the urban transport model through the inclusion of either a) the log of ferry passengers in a similar manner to train and bus passengers or b) the proportion of all commuters using ferry services, with the former fully capturing the specific cost function of ferry services. Both options would move towards sufficiently recognising the geographical challenges faced by urban centres. These challenges are only partially reflected in the model through the mean slope variable, which is independent of ferry requirements.
- Finally, NSW Treasury notes the presence of passenger ferry services in Newcastle. Two vessels have connected Stockton to the Newcastle CBD via Queens Wharf since 1983, with services every 15-minutes during peak periods.⁵² The urban transport model has historically assessed Newcastle as having no passenger ferry services, but this is inaccurate.

⁵¹ Commonwealth Grants Commission, *2025 Methodology Review – Transport consultation paper*, 2023, paragraph 103.

⁵² <https://newcastletransport.info/plan-your-trip/ferry-services/>

Figure 7-4: Population distribution among the largest ferry service providers



Source: ABS Census 2021, NSW Treasury

7.7 Modelling passenger numbers with respect to changes to urban centre sizes and populations

The Commission asks:

- Do states agree that using a regression model to recognise the growth in passenger numbers in urban areas is a more suitable method for modelling passenger numbers?

7.7.1 Overview of modelling passenger numbers

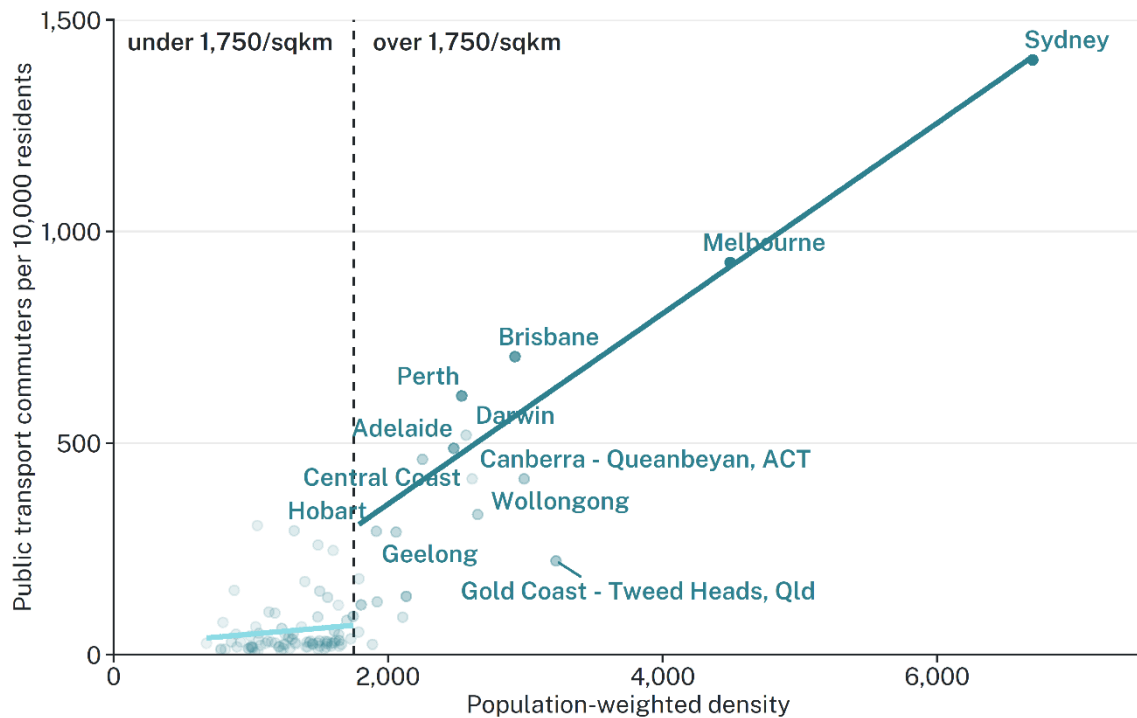
- NSW Treasury agrees that a regression approach is a more suitable method for modelling passenger numbers. This is expected to avoid the problems that arise over time when relying on discrete population bands.
- NSW Treasury understands that the proposed regression model for determining modelled passenger numbers uses urban population as well as a dummy variable for the existence of heavy rail as explanatory variables. Additionally, we note the use of actual mode shares for each Significant Urban Area (SUA) to split total commuters or passengers across transport modes. This is appropriate as public transport mode shares are mainly driven by unique jurisdictional characteristics, rather than policy choices. Accordingly, this accepts that jurisdictions decide the most efficient way of managing urban transport demand and supports use of ferry passenger volumes in the urban transport cost equation (section 7.6).
- The need for heavy rail is an outcome of congestion, which itself is largely caused by population density. NSW Treasury believes a better approach to modelling passenger numbers is to use population density directly in the equation rather than the outcome of population density (i.e., the existence of heavy rail). With this in mind, NSW Treasury believes that passenger numbers per capita should be a function of urban density. We have modelled this relationship below.
- The analysis below has been undertaken based on the Commission's existing methodology of measuring population weighted density (PWD) based on underlying SA1 boundaries. Section 7.8 proposes that PWD be changed to a SA2 basis. We believe that the results outlined below would not be materially impacted by broadening the geographic area used for measuring PWD.

7.7.2 Density model of policy-neutral public transport availability

- Figure 7-5 shows actual public transport commuter rates⁵³ versus population density. The data clearly indicates that for SUAs with a population weighted density of up to 1,750 persons per square kilometre, the rate of public transport use among commuters is stable at around 60 per 10,000 residents. The supply and demand for public transport increases more strongly beyond this threshold. We note that underlying demand for public transport is what drives a policy-neutral level of service availability.
- This is consistent with the logic that urban residents, on average, do not change their commuting behaviour from private transport until congestion – measured by population-weighted density – reaches a certain threshold. Correspondingly, states provide significant public transport services with respect to the same threshold. We weighted the regression according to population levels as it is more important that the model fits larger cities, otherwise model residuals can have significant impacts on assessed passengers for big cities – this applies to any model of urban areas.

⁵³ The public transport commuter rate is measured as the number of persons commuting to work via train, bus, light rail, or ferry, divided by the estimated resident population, multiplied by 10,000.

Figure 7-5: Public transport commuters and population density, 2019-20



Source: CGC calculations, NSW Treasury

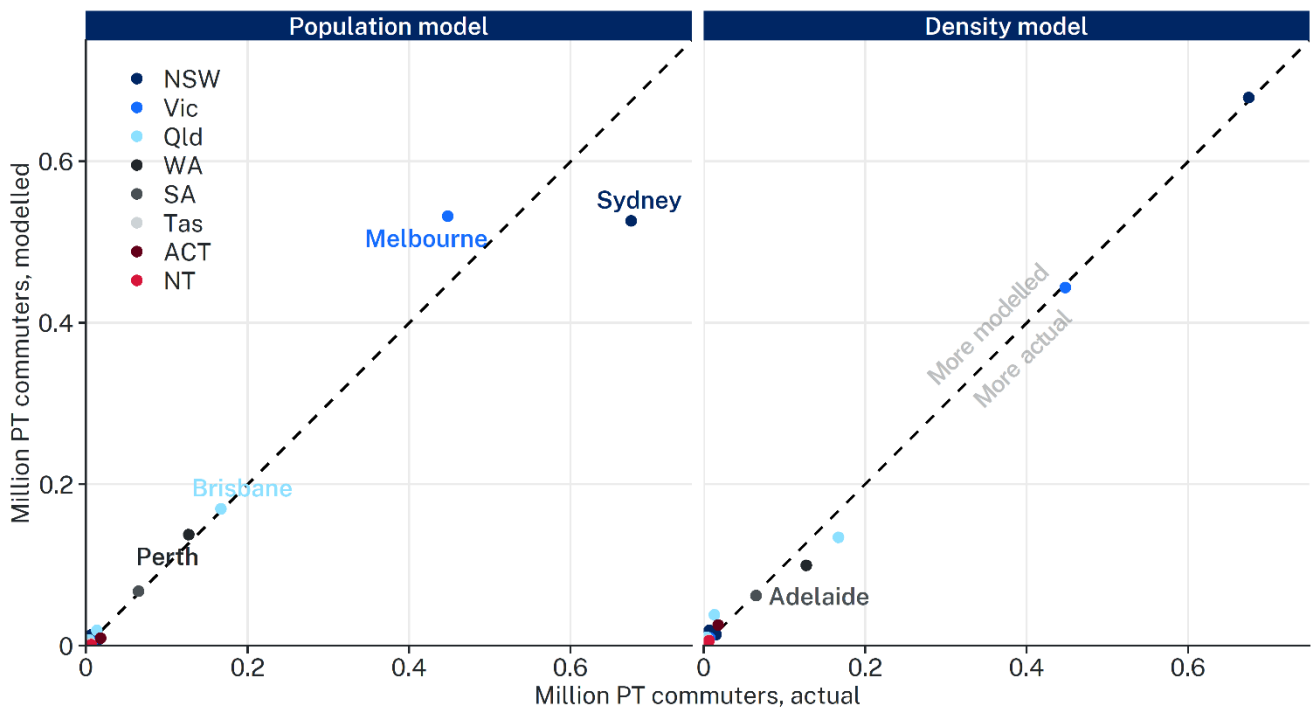
- Noting the observed discontinuity in the relationship that occurs between densities of 1,600 and 2,000 persons/km², we included a differential intercept and slope-interaction term for densities over 1,750 persons/km² (Table 7-1). The results table confirm there is a positive but miniscule impact of density on public transport usage for SUAs under 1,750 persons/km². The interaction coefficient shows that in SUAs over 1,750 persons/km², increased density of 100 persons/km² results in an additional 19.7 public transport commuters for every 10,000 residents.
- We would also point out that there are a number of outlier observations below 1,750 persons/km² in the above chart which result from an anomaly in the approach to capturing the number of 'public transport' commuters. This results from an assumption in the Commission data collection that all commuter trips by train, bus/light rail and ferry are subsidised by the government. In fact, for a number of towns, a private sector company transports its worker to and from their place of employment (mainly quarries and mines) with no state government involvement. Such trips need to be excluded from the Commission's public transport passenger counts.

Table 7-1: Public Transport density model output

Predictors	PT Commuter Rate*		
	Estimates	Std. Error	p-value
Intercept	20.831	182.461	0.909
pwd	0.028	0.128	0.828
over 1750 dummy	-114.811	185.242	0.537
pwd × over 1750 dummy	0.197	0.128	0.127
Observations	103		
R ² / R ² adjusted	0.937 / 0.936		
F-statistic	494.6		

* Residuals weighted by population

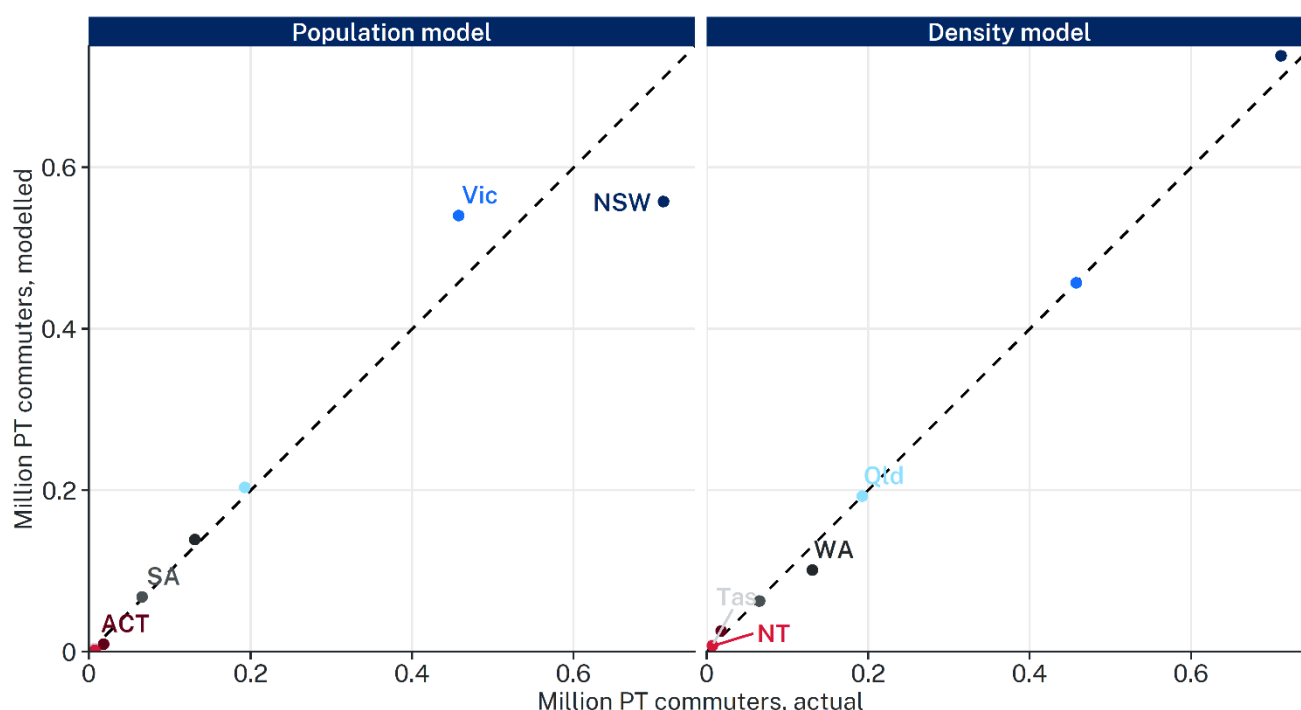
**Figure 7-6: Population vs density model comparison
by SUA 2019-20**



Source: CGC calculations, NSW Treasury

- Figure 7-6 compares modelled passenger estimates with actual passenger numbers by SUA, using the proposed Commission model (population) and the alternative population weighted density model. The chart shows a more continuous relationship between modelled and actual passenger numbers using the population weighted density model. The Commission's population model estimates around the same level of commuters across Sydney and Melbourne, despite there being large differences in public transport use which can be explained by density.
- Figure 7-7 compares state totals, aggregated from the SUA level. This shows that the density model also appears to perform more strongly at the state level. Although the density model slightly underpredicts the commuter rate for Brisbane, this is offset by a slight overprediction elsewhere in Queensland, for Gold Coast – Tweed Heads.

**Figure 7-7: Population vs density model comparison
by state total 2019-20**



Source: CGC calculations, NSW Treasury

- Moreover, Table 7-2 shows a comparison of the root mean squared error (RMSE) across the two models. This gives a comparable metric for evaluating the overall performance of each approach. We can conclude that the density model performs considerably better at estimating passenger numbers than the Commission's preliminary model. This outcome is consistent across all years analysed, including those out-of-sample.

Table 7-2: Difference in model performance

Year*	Root Mean Squared Error		
	Population model	Density model	Difference
2017-18	16,749.0	5,895.4	-10,853.6
2018-19	16,843.6	5,611.6	-11,232.0
2019-20	16,946.0	5,247.5	-11,698.5
2020-21	16,788.6	5,157.6	-11,631.0
2021-22	16,628.7	6,687.2	-9,941.5

* Models fitted using 2019-20 data

7.7.3 Policy-neutral public transport availability in the United States

- We tested the generalisability of the proposed urban transport passengers model using data for urban areas in the United States.⁵⁴ Although the coefficients are different, the general relationship holds, and the density model performs well – even using the same threshold of 1,750 persons per square kilometre (Table 7-3).

⁵⁴ Urban areas with population of over 10,000. Calculations did not account for satellite city determination. Population-weighted density calculated from census tract level data.

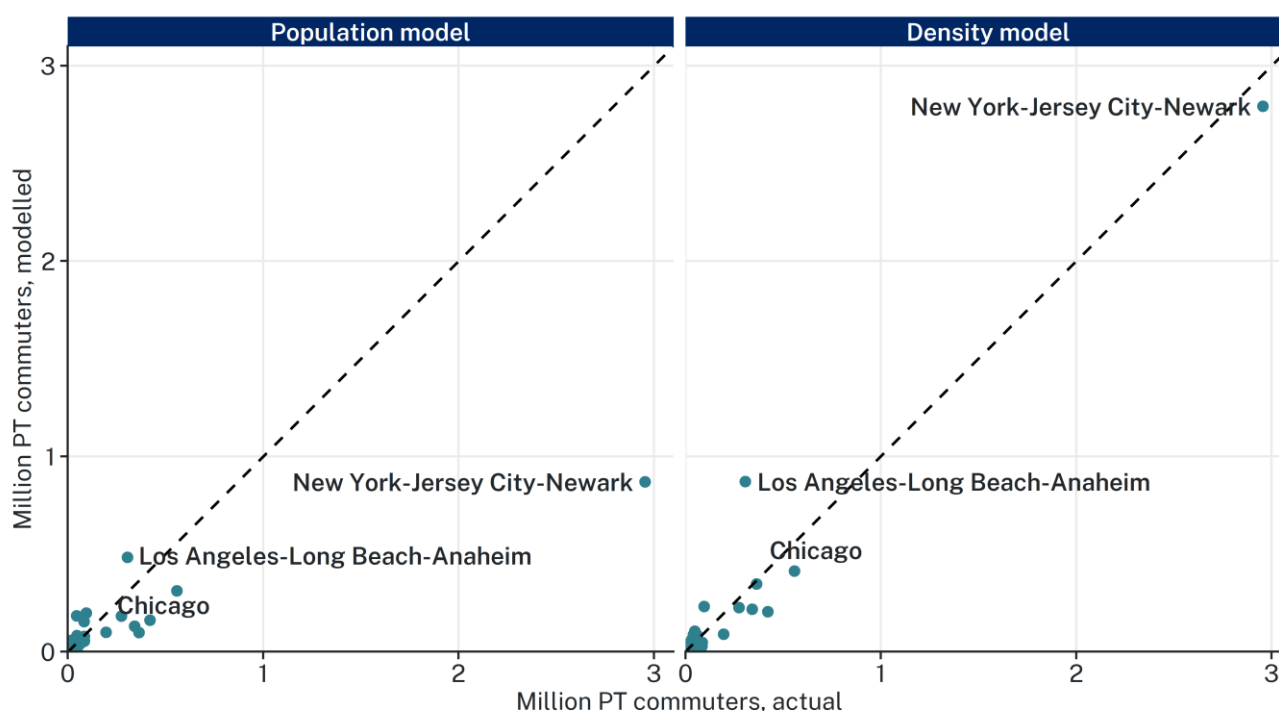
Table 7-3: Public Transport density model output, USA

Predictors	PT Commuter Rate*		
	Estimates	Std. Error	p-value
Intercept	-22.135	26.656	0.406
pwd	0.083	0.022	<0.001
over 1750 dummy	-249.067	29.696	<0.001
pwd × over 1750 dummy	0.114	0.022	<0.001
Observations	1126		
R^2 / R^2 adjusted	0.847 / 0.846		
F-statistic	2065		

* Residuals weighted by population

- Comparing the Commission's preliminary model against our proposed density model once again, we find that a density model is more reliable for large cities (Figure 7-8). The log population model estimates only 870,000 public transport commuters in New York City compared to the actual 3 million. Meanwhile, the density model is much more accurate with an estimate of 2.8 million. Accuracy is also improved elsewhere in the density model, with the only notable exception being Los Angeles – which by all accounts, has a substantial undersupply of public transport.⁵⁵ This undersupply in LA is represented by the large difference between modelled and actual public transport commuters.

Figure 7-8: Population vs density model comparison by urban area, USA



Source: U.S. Census Bureau, NSW Treasury

⁵⁵ Elkind, E., *From Rail to Roads and Back Again: The Rebirth of L.A.'s Public Transit*, 2022, KCET, <https://www.kcet.org/shows/lost-la/from-rail-to-roads-and-back-again-the-rebirth-of-l-a-s-public-transit>

7.8 Level of geography used for calculating population-weighted density

NSW Treasury proposes:

- When calculating population-weighted density, use the SA2 level of geography to reduce sensitivity of estimates with respect to boundary changes.
- The urban transport model uses PWD to explain the level of intrinsic demand for public transport, with greater densities driving higher public transport demand. NSW Treasury has also proposed in this submission using PWD to model policy neutral public transport passenger numbers.
- The current methodology used by the Commission measures PWD using SA1 boundaries. This approach is sensitive to both changes in population within SA1 boundaries and to changes to SA1 boundaries. This was clearly illustrated in the Commission’s 2024 Update discussion paper which showed very large changes in PWD for some jurisdictions arising from changes to Census geographies.⁵⁶ While additional SA1 boundaries reflects urban development, we believe the changes in PWD are disproportionate to changes in intrinsic public transport demand.
- By its nature, disaggregation of any geographic area increases the potential estimates of PWD. Table 7-4 illustrates how PWD increases when disaggregating, so long as the population is not uniformly distributed with respect to area.

Table 7-4: Example of population-weighted density

Region	Land Area (km²)	Population	
		Scenario 1	Scenario 2
Sub-Region A	10	100	200
Sub-Region B	10	100	160
Sub-Region C	10	100	30
Sub-Region D	10	100	10
Total for Region	40	400	400
Unweighted density:		10	10
Population-weighted density:		10	16.7

- Accurately measuring intrinsic public transport demand requires some level of geographic disaggregation. For example, in the two scenarios shown in Table 7-4, scenario 2 is likely to see higher demand for public transport than in scenario 1 due to congestion arising in sub-regions A and B.
- However, in theory, the asymptotic density is infinite in continuous space as individual parcel areas approach zero:

$$Density = \lim_{A \rightarrow 0} \frac{P}{A}$$

- Clearly, indiscriminate disaggregation of subareas does not necessarily add value to the density calculation. The level of geography used in the calculation should reflect the level at which people “experience” density.⁵⁷ NSW Treasury believes urban transport congestion is a function

⁵⁶ Commonwealth Grants Commission, *New issues in the 2024 Update*, September 2023, page 11.

⁵⁷ Ottensmann, J.R., *The Use (and Misuse) of Population-Weighted Density*, 2021. Available at SSRN 3970248.

of neighbourhood characteristics. The SA2 level of geography aligns more closely to the “neighbourhood” level and therefore represents the level on which urban transport decisions are made – both by the individual and by transport planners.

- It is clear that transport planning is not determined at an SA1 level – which, in major urban centres, can represent only a portion of a street block. High concentrations of population in such small areas need to be surrounded by other high concentrations of population for the provision of public transport infrastructure to be necessary.
- Based on our analysis, SA2 geography also provides an acceptable level of sensitivity with respect to boundary changes. Table 7-5 provides estimates of the change in PWD for the 2021-22 population arising from changes between 2016 and 2021 geographic boundaries, with alternative levels of geography.
- The impact of changing the PWD calculation to an SA2 basis on total and per capita GST redistributions cannot be ascertained from the table below, which only shows the change in 2021-22 measured density from updating boundaries.

Table 7-5: Changes in 2021-22 capital city densities due to ABS revisions

	Syd	Mel	Bri	Per	Ade	Hob	Can	Dar	Ave
SA1 (people per km²)									
2016 Geography	6,393	4,209	2,999	2,566	2,507	1,911	3,006	2,564	3,269
2021 Geography	7,196	5,125	3,397	2,649	2,518	1,990	3,315	2,690	3,610
Change (%)	12.6	21.8	13.3	3.2	0.4	4.2	10.3	4.9	10.4
SA2 (people per km²)									
2016 Geography	3,567	2,667	1,926	1,779	1,835	1,227	1,894	1,657	2,069
2021 Geography	3,725	2,720	1,912	1,779	1,812	1,224	1,864	1,655	2,086
Change (%)	4.4	2.0	-0.7	0.0	-1.3	-0.2	-1.6	-0.1	0.8
SA3 (people per km²)									
2016 Geography	2,986	2,186	1,666	1,450	1,627	1,038	1,465	736	1,644
2021 Geography	2,969	2,115	1,650	1,445	1,601	1,040	1,391	728	1,617
Change (%)	-0.6	-3.2	-0.9	-0.4	-1.6	0.2	-5.0	-1.1	-1.6

Source: CGC calculation based on ABS Estimated Resident Population data, NSW Treasury calculations

7.9 Non-urban transport and populations

The Commission proposes to:

- assess non-urban rail passenger expenses based on shares of non-urban train commuters
 - assess all remaining expenses based on shares of non-urban populations
- NSW Treasury supports the assessment of non-urban rail passenger expenses based on shares of non-urban train commuters. However, there are differences between COFOG-A and the Commission’s definitions of non-urban transport that need to be addressed for this assessment to be reliable.

- Under the ABS definition of urban railway transport services, interurban systems are be classified as urban transport (COFOG-A 1141).⁵⁸ Meanwhile, non-urban railway passenger transport is characterised as “long-line railway transport systems” (COFOG-A 1143). Under this guidance, we believe the Commission should consider what a useful threshold of “long-line” may be in terms of distance and/or shared SUA borders and make efforts at applying this in regards to a) state transport expenses data, and b) passenger data.
- This is of particular concern for the Eastern seaboard states which have highly populated, contiguous urban areas:
 - New South Wales – Sydney, Central Coast, Wollongong
 - Victoria – Melbourne, Geelong
 - Queensland – Brisbane, Gold Coast, Sunshine Coast
- Intercity railway systems between the above urban areas (and their satellite cities) are not “long-line”, and thus should be considered as urban transport.
- The following thresholds for non-urban or long-line transport are expected to be useful:
 - Greater than 100km; or
 - Greater than 2 hours via public transport.
- The time-based cut-off of 2 hours is likely to be reflective of normal commuting zones and urban sprawl. In future, the construction of fast rail lines may introduce the need to consider distance jointly with commuting time. NSW Treasury expects that a small minority of commuters use long-line railway networks to travel to work. However, non-urban travel may still reflect an average level of irregular commuting behaviour.
- We analysed 2016 Census journey to work data and included a distance-based threshold for simplicity. If we consider commuters whose usual residence SA2 is more than 100km away from their place of work, only around 10 percent of non-urban train commuters are long-line commuters (Table 7-6).

Table 7-6: Non-urban train commuters, by usual residence

	NSW	VIC	QLD	WA	SA	TAS	NT	Total
All non-urban (incl. all interurban)								
Thous.	16.0	11.7	4.6	0.7	0.3	0.01	0.004	33.2
%	48.0	35.1	13.9	2.2	0.8	0.03	0.01	100
Non-urban, greater than 100km								
Thous.	1.1	1.4	0.4	0.2	0.04	0.004	0.004	3.1
%	35.7	44.8	11.7	6.2	1.3	0.13	0.13	100

Source: ABS 2016 Census, NSW Treasury calculations

- This analysis indicates that actual and modelled passenger numbers in the urban transport model may need to be increased to reflect this definition of non-urban passengers.
- Different transport entities are broadly responsible for urban and non-urban railway transport systems, and where the systems overlap there may be cross-entity transactions to pay for services. This is the case in NSW, where three main networks operate:
 - Sydney trains – **urban**
 - NSW Intercity trains – **urban and non-urban**

⁵⁸ Australian Bureau of Statistics, *Australian System of Government Finance Statistics: Concepts, Sources and Methods*, 2015

- NSW Regional trains and coaches – **non-urban**
- The Sydney Metropolitan network is operated by *Sydney Trains* and is clearly an urban network. The Intercity and Regional networks are both operated by *NSW TrainLink*. While each of these entities are responsible for operation of their respective networks, transactions between them account for service use.
- There is significant overlap between the Sydney Metropolitan and the Intercity networks. For practical reasons, Sydney Trains maintains NSW TrainLink's rolling stock and the Intercity rail network. NSW TrainLink pays Sydney Trains for this work. These inter-entity transfers are eliminated at the state aggregate level and, as such, expenditure related to the Intercity rail network is reported as urban transport for COFOG purposes. NSW Treasury believes this is the correct treatment given the COFOG definitions provided above. However, the COFOG reporting does not align to the Commission's definitions.

8 Native Title and Land Rights

This category covers costs incurred by states related to the *Native Title Act 1993* (Cth), the *Aboriginal Land Rights (Northern Territory) Act 1976* (Cth), and other state land rights legislation.

Overview of category

- Native Title administrative expenses cover negotiating claims, processing applications (including those concerning future acts), and employing experts to facilitate the process.
- Compensation covers the ongoing costs associated with the outcomes of the claims and application process. Costs can include financial compensation, housing payments, and land management projects, with these arrangements linked to states' impact on Native Title rights.
- Expenditure varies across states based on the number and type of claims and the claimants' entitlement to compensation.
- Land rights claims seek land title from Commonwealth or State governments. Different land rights laws in Australia grant land to Indigenous Australians. The relevant NSW legislation is the *Aboriginal Land Rights Act 1983*.
- Land rights expenses include the costs of negotiating claims, preparing submissions, and challenging claims through the courts. Ongoing costs involve securing land interests under land rights acts, administering legislation, and joint land management.
- Native title and land rights expenses are assessed on an APC basis, with states providing relevant data on an annual basis.
- Per the Commission, states follow general frameworks for the implementation of Native Title and land rights legislation, which are established or informed by the Commonwealth, and adapt them to their circumstances.

NSW Treasury position

- NSW Treasury supports the continued use of APC as the method to assess spending needs for Native Title expenses, as well as for Aboriginal land rights expenses.
- NSW Treasury does not currently anticipate treaty processes will affect how Native Title and land right claims are negotiated, particularly when considered against the 2025 Review timeframe.

8.1 Responses to consultation questions

The Commission asks:

- Do states agree that the APC assessment of Native Title expenditure remains appropriate?
- NSW Treasury supports the continued use of APC as the method to assess spending needs for Native Title and Aboriginal land rights related administration and compensation. An APC assessment is used where any differences in the per capita cost of providing a service – in this case Native Title and Aboriginal land rights – are wholly due to non-policy influences.

- In the case of Native Title, there is a high degree of policy uniformity across the states. States' expenditure requirements arise as a direct consequence of Commonwealth legislation and, in accordance with Principle 3 of the National Guiding Principles for Native Title Compensation Agreement Making (the National Principles), all states commit to ensuring 'there is consistency within and across jurisdictions and with national best practice in approaches to assessing, valuing and resolving native title compensation'.
- A state's exposure to Native Title claims, and therefore its expenditure needs, primarily reflects the size and distribution of its Indigenous population, historical practice with respect to the displacement of its Indigenous peoples and related severance of their ongoing connection to lands, and other government acts which give rise to claims for compensation.
- While these historical acts relate to state policy decisions, present state governments must unavoidably address the consequences of historical policies and acts. It is unreasonable to attribute current Native Title expenditure to present day state policy choices. The most significant policy lever available to states relates to the timing of expenditure, rather than the quantum.
- While states are increasingly seeking to settle claims through negotiated Indigenous Land Use Agreements (ILUAs), the underlying expenditure need or exposure to liability remains primarily a matter of history. Provided ILUAs are negotiated in accordance with the National Principles, then state spending will reflect need rather than any policy choice.
- State-based Aboriginal land rights policies are distinct from Native Title. Since land rights regimes are based on state legislation there is necessarily more scope for diverging state policies. All states are, however, operating broadly consistent regimes.
- Land rights policies are explicitly compensatory, seeking to provide redress for the historical act of dispossession. All states undertook dispossession of Indigenous land. As such, the incidence and extent of state exposure to land rights claims primarily reflects the size of a state's Indigenous population.
- For both Native Title and Aboriginal land rights, state spending reflects underlying need, is largely beyond the direct control of the states, and is wholly reflective of non-policy factors. As such, an APC assessment is appropriate.

The Commission asks:

- Do states anticipate that treaty processes will affect how they negotiate Native Title and land rights claims?
- It is likely too early within Treaty negotiations across states to be able to determine with confidence whether, and how, such processes will affect claims. It may be possible for Treaty negotiations to affect claims, but that is unlikely to require change to the methodology for the 2025 Review.
- NSW is in preliminary stages in preparing for consultation on Treaty in the state, and the timeframes of negotiations in other states also indicate that there will be an extensive period before effectively implementing Treaty. This would likely reduce the impact of any Treaty processes in the period prior to the 2030 review.
- It is appropriate for the Commission to continue monitoring the potential impact of Treaty negotiations over future assessments, as well as any Commonwealth movement towards legislating on mechanisms used by states to negotiate claims.

9 Commonwealth payments

This category covers Australian government financial assistance to states in the form of payments for specific purposes, additional to GST payments.

Overview of category

- Commonwealth payments are accounted for when determining each state's relative fiscal capacity and recommended GST share. If they were excluded, state fiscal capacities would not be similar and states receiving less revenue from this source would be disadvantaged.
- Not all payments are included. Some payments are excluded as they are for purposes where the Commission does not assess states' expenditure needs relevant to the payment, or because the terms of reference from the Commonwealth Treasurer instruct that they be excluded.
- The terms of reference, where not explicitly instructing on treatment, give the Commission discretion to vary the treatment of payments where appropriate. The Commission uses the following guideline to decide the treatment of payments on a case-by-case basis:
 - Payments which support state services, and for which expenditure needs are assessed, will impact the relativities.
- Where the terms of reference specifically exclude a payment, a payment does not support services normally provided by the state, or the Commission does not assess needs for this service, a payment is assessed as having no impact on the distribution of GST. Remaining payments are assessed as impacting state shares of GST revenue.
- The Commission is proposing to remove Commonwealth own-purpose expenses (COPEs) from the scope of payments it considers.

NSW Treasury position

- NSW Treasury supports the retention of the existing guideline for Commonwealth payments, recognising that it supports practicality in the assessment.
- The conceptual position of the 2020 Review, that all Commonwealth payments that support state services for which needs are assessed should be considered, remains reasonable. In the event the Commission proceeds with its preliminary view to discontinue the assessment for COPEs, there should be a limit on the extent of discontinuation, by introducing materiality thresholds for the non-assessment of these payments.
- NSW agrees that the guideline should continue to be applied to payments targeting pre-existing structural disadvantage and the matter would be better addressed through discussions on the terms of reference.

9.1 Retention of existing assessment methods

The Commission asks:

- Do states agree the guideline for deciding the treatment of Commonwealth payments remains appropriate?
- NSW Treasury supports retaining the existing guideline and the Commission's view that there have not been sufficient new developments to warrant fundamental guideline changes.
- The guideline supports the principle of practicality and, as identified by the Commission, a more detailed guideline is unlikely to help resolve issues that impact only a minority of payments. The impact of the minority of payments is not sufficient to consider changing an effective and simple guideline for assessing Commonwealth payments.

The Commission asks:

- Do states agree to a default treatment of 'impact' in cases where there is substantial uncertainty about the payment's purpose or whether relative state expenditure needs are assessed? It remains open to states to provide evidence in support of no impact.
- NSW Treasury supports the requirement for states to provide evidence in support of no impact and considers that the default treatment is simple and appropriate.

The Commission asks:

- Do states agree to discontinue the assessment of Commonwealth own-purpose expense payments?
- NSW Treasury supports the Commission's prior position in the 2020 Review, that conceptually all Commonwealth payments that support state services for which needs are assessed should be considered in assessing the distribution of GST, including COPEs.
- As per the Commission's position in the 2020 Review, the Commission needs to examine the effects of all Commonwealth activities with the potential to affect State fiscal capacities. The effects should be recognised in assessments when there is a reliable method for measuring their influence and the effects are material.
- If the Commission is aware of a COPE payment with material effects, and the influence can be reliably measured, it should be retained in the assessment. The Commission previously considered implementing materiality thresholds on payments but elected not to do so.
- While not suggested for Commonwealth payments more widely, it would likely be more appropriate to test the materiality for identified COPE payments and only exclude those that do not meet the materiality threshold, rather than not assessing all COPE payments.
- In the absence of a comprehensive list of COPE payments, it is acknowledged practicality will likely improve from removing these payments from the assessment. NSW Treasury notes however, that the conceptual case for inclusion remain valid.
- We would also draw to the Commission's attention the similarity of this issue to the treatment of non-state services. If, in both cases, the state is relieved from the need to undertake expenditure in an area subject to Commission assessments, this should be captured in the Commission's calculations.

9.2 Addressing structural disadvantage

The Commission asks:

- Do states agree that the guideline for determining the GST treatment of Commonwealth payments should be applied in cases where payments include elements aimed at addressing pre-existing structural disadvantage?
- NSW Treasury agrees that the Commission's current guideline should continue to be applied to such payments.
- NSW Treasury considers the Northern Territory's earlier submission raises reasonable points and that there may be a case to assess some agreements specifically targeted at pre-existing structural disadvantage as "no impact", where the programs and initiatives are not already captured by average state policy.
- It would be more appropriate, however, for this matter to be addressed through the terms of reference provided by the Commonwealth Treasurer. The Commission should not endeavour to assess whether, and to what extent, Commonwealth payments are targeted at addressing structural disadvantage.
- Having the Commission undertake such an assessment for all Commonwealth payments would introduce more complexity to the assessment. This is not a desirable outcome given that a viable avenue for managing the issue is already in place (the terms of reference).
- Current guidelines are straightforward and practical. Adjusting the guideline to account for payments relating to pre-existing structural disadvantage would introduce significant complexity and uncertainty, undermining the principle of practicality. This complexity would particularly impact any agreements that only partially target such disadvantage.
- Any change to HFE definitions to enable the Commission to provide states with additional capacity to address pre-existing structural disadvantage risks politicising the work of the Commission and could threaten the principle of 'what states do'. The Commission should not seek to make any determination on delivering similar outcomes in jurisdictions.

Distinguishing average state policy from other state policy in addressing structural disadvantage

- A core objective of HFE is to give each state the fiscal capacity to deliver similar levels of service, provided they operate at similar levels of efficiency and make the same effort to raise revenue. The process takes account of states' structural disadvantages, including dispersed and socio-economically disadvantaged populations.
- By itself, HFE will not necessarily provide states with funding sufficient to overcome or eliminate their structural disadvantage (assuming those disadvantages are addressable).
- If, however, it is the average policy of all states to address specific forms of disadvantage, then HFE will act to distribute funds to states according to their differential needs in addressing those specific forms of disadvantage.
- Therefore, if a state has a higher incidence of disadvantage than the average state, and this disadvantage is linked to existing SDC assessment elements, the state will subsequently be assessed as requiring a higher level of expenditure to address the disadvantage.
- NSW Treasury acknowledges that the assessed expenditure may not necessarily be sufficient to fully overcome the state's structural disadvantage. The assessed expenditure across all states will, however, reflect average state policy in addressing disadvantage.

- In determining whether a Commonwealth payment should be “impact” or “no impact” the Commission considers whether the payment relates to state expenditure that it assesses through its various expenditure categories.
- Accordingly, to determine whether Commonwealth funding which relates to overcoming disadvantage should be treated as “no impact”, the Commission would first need to identify states’ existing expenditure efforts to overcome disadvantage and determine the extent to which those efforts are or are not already reflected in existing expenditure assessments.

Considering First Nations policies as an example of state policy and structural disadvantage

- States’ First Nations policies provide relevant examples for thinking about structural disadvantage and how it interacts with existing assessment methods. The examples are relevant, however, to other forms of addressable structural disadvantage including socio-economic status and regional / metropolitan divides.
- To the extent that all states have in place policies and programs that support economic development and wellbeing for First Nations communities, this spending constitutes ‘what states do’ and is therefore supported through the HFE process via identified cost weights and disabilities.
- First Nations service users are identified as having higher cost weights across a range of expenditure categories and components. This primarily reflects:
 - Differential service use of mainstream services between First Nations and non-Indigenous populations
 - Additional costs related to outreach and effective provision of mainstream services for First Nations populations
 - Indigenous-specific programs which aim to overcome structural disadvantages or address other service barriers.
- The observed higher cost weights for First Nations service users are a result of efforts to ensure that each state can conceptually provide First Nations people and communities access to the same level and quality of service as non-Indigenous people and communities, including efforts to overcome any pre-existing structural disadvantages.
- In some service areas, there is no genuine distinction between expenditure which seeks to ensure equitable service accessibility and provision and expenditure which seeks to overcome existing disadvantages.
- For example, states’ education funding models include loadings for Indigeneity. These loadings aim to ensure that First Nations children receive the same benefits from education as their non-Indigenous peers. The state average policy under these settings is to address pre-existing structural disadvantage through equitable service provision.
- In other cases, expenditure directly addresses and attempts to overcome the root causes of structural disadvantage. Such spending goes beyond efforts to ensure equal access to services.
- This is the case, for example, for programs and funding implemented and provided under the National Agreement on Closing the Gap. All states and territories are a party to Closing the Gap and have implementation plans setting out, among other things, the programs they have or will put in place to address First Nations disadvantage.
- The various Closing the Gap programs sit within broader service categories, including education and health. For example, NSW’s implementation plan includes the following commitments, among others:
 - Develop a new 24-hour Aboriginal Health Practitioner Emergency Department Model (captured within the Commission’s Health category)

- Establish early childhood Aboriginal engagement officers (captured within the Commission's Schools category)
 - Design and deliver community-led prevention and early intervention initiatives including a place-based community policing model (captured within the Commission's Justice category)
- The additional expenditure associated with these programs directly contributes to the observed cost weights associated with Indigeneity across these categories. In this way, efforts to overcome structural disadvantage often are considered a component of average state policy or "what states do" and are supported by existing equalisation mechanisms.
- Any payment that a state considers outside of average policy should require a state to sufficiently evidence how its corresponding expenditure is not captured in the expenditure assessments, which already materially redistribute GST due to SDC characteristics, including Indigeneity.

9.3 Commonwealth-State disagreements

NSW Treasury proposes:

- That where the Commonwealth Treasury and a state disagree on the nature of a specific payment and the Commission's determination impacts that state's assessed revenue, the Commission should come to a decision on the matter through its own analysis, rather than solely relying on the Commonwealth Treasury's position.
- NSW previously raised concerns in the 2020 Review about the Commission relying solely on Commonwealth Treasury advice for certain payments. The specific example regarded the treatment of a payment from the National Partnership on the Skilling Australians Fund that NSW considered a reward payment, and the Commonwealth Treasury did not.
- The Commission's response in the 2020 Review Final Report reiterated the Commonwealth Treasury position, rather than fully engaging with NSW's concern. NSW disputed the Commonwealth Treasury advice that the relevant payment was not a reward payment.
- In future, where a dispute arises, there would be benefit in the Commission reconciling the reward payments identified by the Commonwealth Treasury against those identified by each individual State, to the extent each State is able to provide its own data. The Commission should fully consider the merits of the concern, rather than solely relying on Commonwealth Treasury advice.
- NSW remains concerned that relying solely on Commonwealth Treasury advice could act as a disincentive for states entering into an agreement with the Commonwealth if the benefit is muted by the Commission's recommended GST redistribution. This effect would not align with the principle of policy neutrality.
- NSW does acknowledge that this would be ideally managed between the Commonwealth Treasury and the States in the first instance, though still contends that the Commission has a key role in considering the merits of a concern, in the event of a disputed position.

10 Socio-economic status

States with higher levels of socio-economic disadvantage receive a larger share of GST to compensate for higher costs and additional service demands that are often associated with disadvantaged groups.

Overview of category

- Socio-economic status encompasses a person's income, education, employment, and other social experiences. Socio-economic status affects expenses in multiple assessments including health, housing, justice, schools, services to communities, transport, and investment needs.
 - State government expenditure is directed at either offsetting socio-economic disadvantage (such as housing and education) or dealing with the consequences of socio-economic disadvantage within the community (such as policing).
 - The Commission assesses socio-economic disadvantage by determining national average state spend on people in each quintile of socio-economic status, before allocating assessed expenditures to states based on their population demographics. This is derived from the Indigenous Relative Socio-Economic Outcomes index and Non-Indigenous Socio-Economic Indexes for Areas (NISEIFA).
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NSW Treasury position

- NSW Treasury agrees an annual measure would offer more contemporaneity than a five-year measure derived from the Census and supports the Commission continuing to investigate the robustness and completeness of the Multi-Agency Data Integration Project (MADIP) measure.
 - NSW Treasury recommends that the Commission investigate other potential variables for inclusion in an annual socio-economic status measure, including a possible housing stress variable.
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10.1 Introducing an annual measure of socio-economic status

The Commission asks:

- Do states agree that an annual MADIP-based measure of socio-economic status for non-Indigenous people has the potential for a more contemporaneous assessment?
- An annual measure, rather than one dependent on five-year census data, would conceptually offer a more contemporaneous assessment while noting that comparative levels of socio-economic disadvantage move slowly over time. If the MADIP-based measure can be established as sufficiently robust and accurate, it could be an appropriate replacement of the NISEIFA measure in improving assessment temporality.

- NSW Treasury supports the Commission continuing to investigate its proposed MADIP measure using 2021 Census data to determine whether it presents a more accurate and contemporaneous measure of non-Indigenous socio-economic disadvantage than five-yearly NISEIFA.
- While the comparability of the MADIP and NISEIFA measures appears promising at this stage, NSW Treasury will await further updates on the progress of developing the MADIP measure based on 2021 Census data. A suggested test would be a direct comparison of SA1 rankings under the MADIP and NISEIFA measures.
- The Commission should be open to additional feedback on the annual MADIP-based measure post-Tranche 1 submission as the Commission has proposed workshops to further inform, and consult with, states on the viability of this new measure. NSW Treasury looks forward to working with the Commission and other states on this matter.

NSW Treasury proposes:

- That the Commission investigates the inclusion of a housing stress variable within an annual MADIP-based measure of socio-economic status.
- Housing stress is a key variable in socio-economic status and can impact various assessments undertaken by the Commission. While the 2020 Review found the inclusion of a housing stress variable to NISEIFA was not sufficiently material to change the existing methodology, the introduction of a new socio-economic status measure provides the opportunity to consider additional variables for completeness.
- Though the variable was not material for the 2020 Review, the ABS work demonstrated that it was a more aligned indicator of socio-economic disadvantage than most of the variables used within NISEIFA, and that housing stress was distinct from the existing housing variable.⁵⁹
- NSW Treasury recommends the Commission investigates the inclusion of housing stress as a key variable in the transition to an annual MADIP-based measure of socio-economic status.

⁵⁹ The existing housing variable incorporates three indicators: (i) the percentage of households paying rent below \$120 per week, (ii) the percentage of occupied private dwellings needing one or more additional bedrooms, and (iii) the percentage of households renting a dwelling from a government or community organization.

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