Government of **Western Australia**
Department of **Treasury**

Western Australia's Submission to the

Commonwealth Grants Commission's 2020 Methodology Review

Draft Report

September 2019

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Executive Summary

While recent GST reforms reflect serious concerns with existing review methods, the draft report has failed to fundamentally reconsider how horizontal fiscal equalisation (HFE) is implemented. Instead, the 2015 Review methods have largely been taken as the starting point.

An overarching concern is that assessed disabilities continue to be calculated in micro detail, while other conceptually-valid disabilities elsewhere are ignored. The bias is towards disabilities for which data exists. Data are less likely to be available for States with outlier characteristics, like Western Australia, or for more extreme disabilities. Even when outlier States go to the trouble of getting data, an assessment is unlikely because other States do not have consistent data (or an incentive to provide it).

- These issues imply the need for high-level, broader assessments.

The following summarises Western Australia's concerns with respect to individual assessments.

- From 2021-22 onwards, the recommended GST relativities should be calculated using a combined pool of GST grants and pool top-up grants, with the pool top-up grants backcast to the assessment years.
- North West Shelf grants should remain in the Mining Revenue category. In addition, Commonwealth payments for all road and rail projects should be treated equally.
- Tax assessments should be more broadly based (ignoring progressivity and thresholds). The proposed methods should have a higher land tax adjustment for the ACT, assess of Northern Territory land taxes using Australian Bureau of Statistics (ABS) data, treat Victoria's off-the-plan concession as general duty, not round down the proportion of vehicles that are light vehicles, and assess motor vehicle Fire and Emergency Services Levies (FESLs) equal per capita (EPC).
- It is not clear to us that the Mining Revenue changes proposed by the Commonwealth Grants Commission (CGC) will be consistent with the terms of reference instruction to not change the Mining Revenue assessment. Regardless, Western Australia's iron ore special lease rentals are already in the CGC's Mining Revenue assessment.
- We suggest that the CGC conduct analysis to transparently show the reasonableness of the modelled outcomes of the Schools assessment. In addition, we suggest that user charges should be assessed EPC.
- We support the proposed assessment of post-secondary education, but Tasmania's data should be excluded from the calculation of the Indigenous cost weight.

- The Health non-state services assessment should be made conceptually rigorous, with a wider scope of non-State services and a more direct relationship between variations across States in private and public sector activity. There should be a more robust calculation of the admitted patients substitutability level. Fly-in-fly-out (FIFO) workers should be treated as low socio-economic status (SES).

- In Welfare, the 'family and child services' component regional costs should use a general cost gradient that incorporates regional and service delivery scale (SDS) costs. The National Disability Insurance Scheme (NDIS) and homelessness should be assessed EPC.

- Unoccupied dwellings should not be excluded from the Housing assessment calculations. Census data should be aligned with the Australian Institute of health and Welfare (AIHW) data, regardless of materiality.

- For Services to Communities, the CGC's proposals improve the remote regions electricity assessment, but the CGC should include the entire remote and very remote population as the relevant population. Water quality and pipelines should be assessed and the CGC should remove the discount on the water subsidies regional cost assessment.

- In Justice, the general regional costs gradient should be used for courts and prisons, instead of the CGC's proposed judgement-based regional cost gradient. For criminal courts, Indigeneity of not-stated court defendants should be allocated according to the proportions of those who responded. Additional State costs for border control and consequent drug use, and drug enforcement should be assessed.

- In Roads, the CGC should connect Urban Centres/Localities (UCLs) with a population below 1,000 to the nearest two UCLs with a population of more than 1,000, as well as to the nearest four UCLs with a population of less than 1,000. It should not assess lane kilometres, should re-instate the local roads assessment, should not separately assess bridges and tunnels (while ignoring floodways), and should separately assess very heavy vehicles.

- The CGC should assess urban transport EPC, as the proposed method is unreliable, and the data are not fit for purpose. The use of passengers by transport mode is an incorrect proxy for mode availability (supply) and congestion. Under the proposed method, the CGC should discount both the recurrent and infrastructure assessments similarly, to the percentage of urban population.

- The Services to Industry assessment is much improved. However, 'business development' relating to existing industries should be assessed according to industry size, all of 'other industries regulation' should be assessed according to industry size, and regional costs should be assessed for 'business development'.

- The CGC should continue to assess Depreciation and Net Investment separately. It should also address timing mismatches in its formulae. The best solution for police investment regional costs is to use an average of Rawlinsons and the 2015 Review police regional cost gradient.

- For interstate wage costs, the CGC should replace the wages regression model with an adjusted private average weekly earnings indicator. At the very least, the CGC should engage an expert econometrician with expertise in many-variable models to evaluate the wage model's fitness for purpose and econometric specification.
- The CGC should retain an assessment of interstate non-wage costs, based on either the 2015 Review or the 2010 Review methods. The admitted patients cost gradient used in the general gradient should include the patient remoteness loading, as well as the hospital remoteness loading.

1. Principles

Key Points

- We consider that the draft report discussion of principles requires more transparency and some corrections.

We accept that at this late stage in the Review, the CGC is not going to alter its principles or how it uses them, despite our arguments. Nevertheless, we are concerned that the discussion of principles and assessment guidelines is often unclear and has, in some instances, misrepresented our views.

Some examples of where the draft report has misrepresented or not responded to our views are as follows.

- The draft report lists Western Australia, among five other States, as supporting or comfortable with the 2015 Review definition of HFE.[1] Although we said we were comfortable with the CGC's definition, we argued that even proximate HFE is not achieved under current implementation principles and methods.[2]

- The draft report characterises Western Australia's arguments for broader assessments as arguing for 'what States should do' or 'what States could do'.[3] However, we agree with the use of internal standards and that the CGC should assess 'what States do'. What we disagree with is the way 'what States do' is seen as the endpoints of what States are doing, rather than the underlying goals. For example, the CGC does not consider how States establish their tax thresholds.

- The draft report expresses the view that States' tax compliance activity will be affected by compliance costs relative to marginal revenue gains, rather than by equalisation.[4] However, we have pointed out that additional compliance activity can result in a marginal revenue loss (not gain) – in which case no level of compliance costs can give a net benefit. CGC staff have acknowledged that this is correct.[5]

- The draft report repeats an argument from the draft assessment papers, that a mining revenue discount would assume "that the ACT's lack of a mining industry is due, at least in part, to its own lack of effort to develop such an industry, not to a lack of mineral resources."[6] However, the draft report does not acknowledge our response

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1 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review, Draft Main Report*, page 31, paragraph 2.16.

2 Western Australia (October 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers*, pages 9-11.

3 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review, Draft Main Report*, page 37, paragraph 2.41.

4 *ibid.*, *Draft Main Report*, page 48, paragraph 2.91.

5 CGC staff e-mail of 20 December 2016.

6 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review, Draft Main Report*, page 54, paragraph 2.114.

to this argument (that if there is no uncertainty as to the ACT's zero revenue base, then it does not need discounting).[7]

- The draft report claims that our main concern with discounting "appears to be the Commission's decision not to discount the Mining assessment." [8] However, our concern is with the consistency of discounting. The CGC could either discount consistently, which would involve discounts for the revenue assessments, or it could consistently not discount, which would remove the discount for assessments such as interstate wage costs.
  - We have continued to argue this despite the fact that currently the first option would cost us by discounting land tax, as would the second option by removing the discount on wages.

Some examples of where the principles appear inconsistent or unjustified are as follows.

- The micro level assessments involve partial data and judgements (including about 'what States do'). Western Australia has long argued that policy neutrality is fundamental to HFE, but cannot be achieved at a micro level. This is why improvements to HFE require broader assessments.
- The draft report asserts that broader approaches (as proposed by New South Wales and Western Australia) would limit the CGC's ability to achieve HFE, but does not justify this.[9]
- The draft report states that using historical data for calculating relativities "provides a result that is reasonably appropriate for the application year".[10] However, the report provides no quantification to support this claim.
- The CGC continues to generally use a legal incidence basis for assessing revenues, but admits that its expense assessments are not on a legal incidence basis:

  > While States may not develop or implement their policies by deciding how much to spend per person in different groups, the data capture the result of how States have implemented their policies.[11]
  >
  > There are some assessments where the relationship between what States do and how the Commission assesses State needs is less direct. … In each of these cases, the Commission's measurement is not directly tied to what States actually do, but reflects real disabilities and differences between States in the most reliable way it can measure them.[12]

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7 Western Australia (October 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers*, page 42.

8 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review, Draft Main Report*, page 59, paragraph 2.141.

9 *ibid.*, *Draft Main Report*, page 37, paragraph 2.40.

10 *ibid.*, *Draft Main Report*, page 54, paragraph 2.114.

11 *ibid.*, *Draft Main Report*, page 44, paragraph 2.72.

12 *ibid.*, *Draft Main Report*, page 44, paragraphs 2.74-2.75.

Some other concerns with the application of the assessment guidelines are as follows.

- The assessment guidelines state that to make an assessment, a conceptual case is required, a method is possible, and data must be available.[13] This is applied extensively for expenses, but for revenue assessments the CGC has no method or data for assessing revenues at the same standard (rather, it uses policy-influenced observed revenue bases). Even for expenses, the CGC has varying responses to a conceptually-rigorous disability where it has difficulty finding a method or data, as in some cases (such as Western Australia's isolation) it does not make an assessment and in other cases it uses a proxy (such as passenger numbers for urban transport supply and congestion).
- The assessment guidelines are vague on how materiality thresholds are applied.[14]
  - While not mentioned in the guidelines, the main report suggests thresholds are measured relative to an EPC assessment.[15] However, the CGC frequently compares a disaggregated assessment to a more aggregated assessment.
  - The draft report also quotes materiality results without providing calculations (on a positive note, the *Justice* and *Investment* attachments to the draft report do provide relatively detailed calculations).
- The assessment guidelines do not explain how the decision is made to discount.
  - In particular, they do not discuss whether discounting will move assessments towards HFE.[16] Yet, the draft report states that it does not discount for policy neutrality or general uncertainty cases because "discounting does not necessarily move assessments in a direction appropriate to achieving HFE."[17]
  - However, the same logic is not applied when discounting the wages disabilities – the CGC does not know if the undiscounted disabilities over- or under-state actual costs, yet it discounts towards EPC.
  - A more extreme example is regional costs for water subsidies, where the CGC calculates a conservative disability, but then discounts towards EPC – highly likely in the wrong direction.
  - The guidelines should include the need for a conceptual case for introducing discounting, to ensure it avoids bias (which will always occur from a discount that lacks other information).

We will continue to pursue many of these issues beyond the 2020 Review. More detail relating to individual categories are in the following chapters.

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[13] *ibid.*, *Draft Main Report*, page 64, Box 2-3.

[14] *ibid.*, *Draft Main Report*, page 65, Box 2-3.

[15] *ibid.*, *Draft Main Report*, page 60, paragraph 2.146.

[16] *ibid.*, *Draft Main Report*, page 64, Box 2-3.

[17] *ibid.*, *Draft Main Report*, page 59, paragraph 2.138.

2. HFE Reform

Key Points

- For the 2021-22 grant year onwards, both the pre-reform relativities and the equalisation to New South Wales/Victoria relativities, which make up the weighted average, should be calculated using a grant pool that includes the pool top-up grants.
  - For these calculations, the pool top-up grants should be backcast to the assessment years.
- For the no worse off guarantee, relativities in the absence of the HFE reform legislation should exclude the pool top-up grants.
- When adjusting for the 70%/75% floor, the CGC could avoid having to use forecasts of application year population shares by making the adjustments to the assessment year relativities, consistent with its proposal for equalisation to New South Wales/Victoria.

Pool top-up grants

Inclusion in GST grant pool

The draft report says that:

> Beyond 2020-21, the Commission will continue to calculate State relative fiscal capacities using the methodology adopted in the 2020 Review. The pool used to measure the relative fiscal capacities of the States will be the GST revenue, plus any top-up payments.[18]

We agree with this. However, it appears to be contradicted by the *Commonwealth Payments* attachment, which says that the "pool top-up payments will be in the other Commonwealth transfers component".[19] Although this would have no impact on the assessments (as that component is to be assessed EPC), it is not appropriate for the pool top-up grants to be in the list of Commonwealth payments subject to assessment. They should be treated the same as GST revenue grants, as per the above quote from the main report.

This should be the case for both sets of relativities that form the weighted average relativities to apply in each of the years 2021-22 to 2025-26 (i.e. both the pre-reform relativities and the equalisation to New South Wales/Victoria relativities).

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[18] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review, Draft Main Report*, page 77, paragraph 4.11.

[19] *ibid.*, Attachment 2, page 3, paragraph 10.

The exception is when deriving the relativities that would have applied if the HFE reform legislation had not been enacted, which are required to calculate the no worse off guarantee. The draft report correctly proposes that for those relativities the pool top-up grants should be assessed EPC, instead of being included in the GST grant pool.[20]

We also agree with the draft report proposal that the CGC not make any corresponding adjustment to expenses.[21,22] It would not be possible to determine which expenses to adjust. Furthermore, any adjustment would not necessarily be to expenses, but to any combination of expenditures, own source revenues and net lending.

Backcasting

An issue that the draft report does not address is backcasting of the pool top-up grants.

The process of calculating and applying relativities effectively escalates each State's needs ('assessed differences') by the growth in that State's population share of the GST grant pool from the assessment years to the application years.

If the pool top-up grants are not backcast, then the 2021 Update would escalate States' needs by additional growth in the GST grant pool arising from the introduction of the top-up grants (an additional 0.8% based on the latest Commonwealth Budget). This would overstate divergences in fiscal capacity, unfairly penalising New South Wales.

Hence, we support backcasting of the pool top-up grants (both when the $600 million is introduced in 2021-22 and for the further $250 million in 2024-25). This would be simple to do, by increasing the GST grant pool in each of the assessment years by the same percentage as is expected in the application year.[23]

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[20] *ibid*., *Draft Main Report*, page 79, paragraph 4.21.

[21] *ibid*., *Draft Main Report*, page 80, paragraph 4.22.

[22] Note that this does not constitute a legal opinion on the requirements of the HFE reform legislation.

[23] This percentage would initially be based on a Commonwealth Budget projection, but the impact of any error in that projected percentage would be small compared to the impact of not backcasting.

Equalisation to New South Wales/Victoria and Floors

For both relativities that equalise to New South Wales/Victoria and relativities that adjust for a 70%/75% floor, the adjustments from pre-reform relativities can be calculated for assessment years or for application years.

The CGC proposes to calculate equalisation to New South Wales/Victoria for assessment years.[24] This would avoid the need to use forecast application year population shares.

However, the CGC proposes adjusting for the 70%/75% floor using application years.[25] This would require the use of forecast application year population shares. The CGC could avoid the need for these forecasts by adjusting for the floor in the assessment year relativities (consistent with its proposal for equalisation to New South Wales/Victoria) rather than the application year relativities.

[24] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review, Draft Main Report*, pages 77-78, paragraphs 4.12–4.13.

[25] *ibid*., *Draft Main Report*, page 78, paragraphs 4.16–4.17.

3. Commonwealth Payments

Key Points

- Pool top-up grants should be treated the same as GST revenue grants.
- North West Shelf project grants should remain in the Mining Revenue category.
- The CGC should tabulate the deliberate and non-deliberate zero need assessments for transparency.
- The road and rail national networks do not fully reflect States' needs. Payments for all road and rail projects should be treated equally.

Pool top-up grants

As previously noted, the draft report states that the pool top-up grants (under the HFE reforms) will be included in the 'other Commonwealth transfers component' of Commonwealth payments.[26]

However, these grants should be treated the same as GST revenue grants, which are not classified to any of the Commonwealth grant components covered by the *Commonwealth Payments* attachment of the draft report.[27]

The exception to this treatment is when the CGC is calculating relativities as if the HFE reform legislation had not been enacted (for calculating the no worse off guarantee).[28]

North West Shelf project grants

The draft report proposes reclassifying North West Shelf project and Northern Territory uranium grants from the Mining Revenue category to Commonwealth payments.[29]

As discussed in the *Mining Revenue* chapter of this submission, we are opposed to this as it would be less transparent.

[26] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 2, page 3, paragraph 10.

[27] The statement is also inconsistent with: Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, *Draft Main Report*, page 77, paragraph 4.11.

[28] Acknowledged in: Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, Draft Main Report*, page 79, paragraph 4.21.

[29] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 2, page 5, paragraph 16.

Deliberate equal per capita assessments

Part of the test for whether payments have an impact on State fiscal capacities is that expenditure needs are assessed for the purpose of the payment. The draft report says that this can include when the CGC has made a 'deliberate' assessment that there are no differences in per capita service delivery costs.[30]

It would be more transparent if the CGC were to tabulate the EPC expense assessments and identify which are deliberate and which simply reflect an inability to identify or measure needs.

National network road and rail

The draft report claims that national networks are the best source for identifying significant road and rail projects.[31]

However, we remain of the view that these designated networks are non-transparent policy constructs that do not fully reflect States' needs.

We understand the concept that the Commonwealth may wish to create and fund efficient interstate transport networks, and this could create benefits for States other than the one in which the road/rail is situated, so a discount is warranted. However, we agree with the argument from Victoria, Tasmania, the ACT and the Northern Territory that the Commonwealth and States can influence the projects selected for funding, including for political considerations, and that the categorisation of a road or rail line to the national network is at times arbitrary (as States are able to request that particular roads or rail lines be classified as part of the network).[32]

- We prefer that all road and rail funding is treated equally, and that clear guidelines are developed that detail the basis of the treatment of all Commonwealth payments under HFE, as recommended by the Productivity Commission.[33]

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30 *ibid.*, Attachment 2, page 8, paragraph 27.

31 *ibid.*, Attachment 2, page 12, paragraph 54.

32 *ibid.*, Attachment 2, page 11, paragraph 49.

33 Productivity Commission (2018), *Horizontal Fiscal Equalisation*, Inquiry Report No. 88, page 40.

4. Taxes

Key Points

- Western Australia maintains its views in relation to broader assessments as stated in its previous submission.[34]
- A 2% adjustment for the ACT for land tax appears to be very low.
- We suggest a proxy to assess land taxes in the Northern Territory through applying an average proportion of each State's reported taxable land values relative to the ABS reported total land values.
- Victoria's off-the-plan concession should be treated as general duty, using pre-concession dutiable values.
- The CGC should not round down the proportion of vehicles that are light vehicles and should assess Fire and Emergency Services Levies (FESLs) levied on motor vehicles EPC.

Land tax

The CGC has sought States' input on the extent it should adjust the ACT's land tax assessment due to its lack of aggregation.

- For Western Australia, aggregation increased the collection of land tax and Metropolitan Region Improvement Tax (MRIT) by around 56% in 2015-16, 54% in 2016-17 and by around 54% in 2017-18.
- Based on this experience, a 2% adjustment for the ACT appears to be very low.

In relation to the Northern Territory's taxable land base, we suggest that a proxy could be derived from:

- a population-weighted average (not including the Northern Territory) of the percentage of each State's reported taxable land values relative to the ABS-reported total land values (ABS cat. no. 5204.0, Table 61) for that State. The average would be applied to the Northern Territory's ABS-reported total land value.

[34] Western Australia (October 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers*, pages 29-36.

Transfer duty

Western Australia is of the view that duty concessions provided to first home buyers should continue to be assessed EPC in the Housing category. A move to include them in the broader (and differentially assessed) transfer duty assessment would create incentives for States to game the system, as for each State it would be more beneficial to either provide grants or to provide concessions (since grants would be assessed EPC, whereas duty concessions would have a positive or negative needs impact).

- If the duty concession revenue is not assessed EPC, and is netted from the transfer duty standard, then the value of the transferred land that is related to those concessions should also be removed from the underlying revenue base.

In Western Australia, a unit trust scheme is a landholder if it is entitled to land assets in Western Australia valued at $2 million or more. Relevant acquisition thresholds are:

- Listed unit trust scheme – at least 90%
- Unlisted unit trust scheme – at least 50%

It is our understanding that Queensland is now the only jurisdiction that has unit trust schemes in its transfer duty provisions rather than the landholder / land rich provisions. The current differences between State policies are predominantly around the land entitlement threshold and the applicable rate of duty, with most States only applying 10% of their general duty rate for public corporations and public unit trusts. Therefore, the CGC should reconsider the need for the unit trust adjustment.

Western Australia believes that Victoria's off-the-plan concession should be treated as general duty. In assessing Victoria's transfer duty capacity, the CGC should include the total, pre-concession dutiable value of off-the-plan sales rather than the post-concession dutiable value. This is appropriate as the provision of such a concession is a policy decision of the Victorian Government and is not an underlying disability. Off-the-plan sales made in other jurisdictions will be assessed in this category.

In relation to the application of additional duties and land tax surcharges by some States on foreigners, the underlying capacity of each State is a function of both the taxable value of the property and the number of foreigners purchasing or owning a property. The CGC should account for both in the assessments, not just property value.

Motor taxes

Given that the 2009 Update data collection gave light vehicle registration fees as 82.3% of total registration fees and the latest data collection gives 82.9% (a slightly larger figure), we do not see how HFE is improved by rounding this to 80%.

The CGC proposes assessing FESLs levied on land values and insurance premiums EPC in the Other revenue category. By contrast, it proposes to assess FESLs levied on motor vehicles as part of the Motor Taxes standard revenue (therefore differentially assessed), on the basis that there is an immaterial difference between the two options for assessing motor vehicle FESLs.

- However, we consider the default would be to assess the motor vehicle FESLs EPC.
- To move them into the Motor Taxes category is an immaterial adjustment from an EPC assessment, which (as the CGC concluded) would not be supported on conceptual grounds as the driver of FESLs is costs of emergency services, not differences in taxable capacities.[35]

Other revenue

We are concerned with the proposal to move parts of the tax assessments that are to be assessed EPC to the Other Revenue category. This risks these assessments being forgotten, so less transparent.

[35] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 9, page 7, paragraph 31.

5. Mining Revenue

Key Points

- North West Shelf grants should not be reclassified from mining revenue to Commonwealth payments, as it would be less transparent.
- The iron ore special lease rentals that the CGC proposes assessing are already in the Mining Revenue assessment. These have been confused with tenement leases, which are a form of land lease that should not be included in the assessment.
- It is not clear why nickel is not being assessed EPC.
- The costs of developing the North West Shelf project should not be dismissed just because of the long history of debate on this issue.

It is not clear to us that the proposed changes will be consistent with the terms of reference instruction to not change the Mining Revenue assessment.

However, the following comments are provided in case the proposals are considered consistent with the terms of reference.

Royalties under sharing arrangements with the Commonwealth

The CGC is proposing reclassifying grants from the Commonwealth in lieu of royalties (relating to the North West Shelf project and Northern Territory uranium) from the Mining Revenue category to Commonwealth payments.

We are strongly opposed to this change, as we believe it will be non-transparent. North West Shelf grants are for royalties, so including them with other Commonwealth grants will hide the overall HFE impact of mining-related revenues. It is also inconsistent with the CGC's stated coverage of the Mining Revenue category being all mining-related revenues.[36]

In addition to these grants, there are also royalty sharing arrangements between the Commonwealth and Western Australia for:

- Petroleum Submerged Lands Act (PSLA) royalties; and
- Barrow Island petroleum resource rent royalties.

[36] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 8, page 9, paragraph 29.

These are currently assessed actual per capita (APC) (together with the North West Shelf project and Northern Territory uranium grants), as Western Australia has no control over the royalty rates levied.

At a staff level discussion (soon after the draft report), the CGC suggested that the PSLA and Barrow Island royalties could also be moved into Commonwealth payments.[37] However, this would also be similarly non-transparent as they are not paid as grants. Both PSLA and Barrow Island royalties are collected by the State, which then passes the Commonwealth's share on to it.

Another early CGC staff suggestion was that these royalties be merged with the onshore oil and gas component, assessed according to well-head values of production.[38]

- This would be a change in method, which we consider precluded by the terms of reference.
- It would only give the same result as an APC assessment if the royalty rate (which the State does not control) matched the standard rate for the onshore oil and gas component. We note that this standard rate will rise substantially in the 2019-20 data year, due to Queensland's budgeted increase in its petroleum royalty rate.[39]
- Regardless, well-head values are not available for Barrow Island because it is under a resource rent tax.

If the CGC does decide to merge PSLA and Barrow Island royalties with the onshore oil and gas component, it should impute values of production for these royalties by dividing the State's share of these royalties by the standard rate for the onshore oil and gas component, so as to give an equivalent result to an APC assessment.

Our strong preference is for all the mining revenues currently assessed APC to remain together in the Mining Revenue category. Regardless of whether the CGC proceeds with reclassifying the North West Shelf project grants and Northern Territory uranium royalties, the PSLA royalties and Barrow Island royalties should remain assessed APC in the Mining Revenue category.

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37 To our knowledge, CGC staff are no long making this proposal or the proposal in the subsequent paragraph, but we have addressed these possibilities in case they should again arise.

38 Only the State's share of the value of production would be included.

39 Queensland Treasury (2019), *2019-20 Queensland Budget Paper No.2*, page 72.

Lease rentals

The CGC has proposed bringing non-royalty mining revenues into the Mining Revenue assessment. One of the examples it has is 'Western Australia's mining related lease rentals'. The draft report describes these revenues as follows:

> Western Australia applies a 25 cents per tonne fee to some of the State's iron ore production. The fee only applies to projects that have been in operation for more than 15 years. Currently, only BHP, Rio Tinto and Cliffs Natural Resources pay the fee. It raised $105 million from these revenues in 2017-18.[40]

However, Western Australia has two forms of mining lease rentals, which have been confused in the above quote.

- The first three sentences of the above quote describe the iron ore 'special lease rentals' of 25 cents per tonne. These are classed as royalties in Western Australia's budget publications, Government Finance Statistics data provided to the ABS, and annual update data returns to the CGC (for budget analysis revenues and for mining revenues). As such, they are already included by the CGC in the Mining Revenue assessment.
- The last sentence describes mining tenement lease rentals. These are lease fees for the use of the land by mining companies, and are levied on a per hectare basis. The State also levies other lease payments, for example on pastoral leases. Our view is that these lease rentals should not be brought into the Mining Revenue assessment.

Prior consultation on this matter with the Western Australian Department of Treasury would have helped to avoid this misunderstanding.

Nickel and lithium

The CGC has stated that it will:

- merge nickel into the 'other minerals' component as a separate assessment is no longer material; and
- split lithium out from the 'other minerals' component if and when it becomes material to do so.

[40] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 8, page 9, paragraph 29, footnote 8.

As the CGC has noted, a separate assessment of nickel is not materially different from nickel being assessed within the 'other minerals' component. However, the draft report says that, in this Review, materiality is measured relative to EPC.[41] We note that a separate assessment of nickel is not materially different from an EPC assessment of nickel so it is not transparent as to why the CGC should include nickel in 'other minerals' rather than assess it EPC.

Other comments

Following are a few comments on other points raised in the draft report.

- We are pleased that the draft report acknowledges that "State policies can affect value of production data".[42] The draft report notes, "it is not clear that the effects are both differential and material". However, it is also not clear that the effects are immaterial (no test has been, or arguably could be, done). In the expense assessments, the CGC will rarely use actual expenses because of the possibility of policy contamination, but it uses actual values of production for the Mining Revenue assessment.
  - The HFE principle states that capacities should be assessed at the same effort, but actual values of production do not reflect the same effort – they reflect individual State policies.
  - The use of actual values of production is inconsistent with the assessment guidelines[43] in that:
    - their use is not conceptually rigorous, as the measurement is not policy neutral; and
    - they are not fit for purpose, as they do not measure State circumstances under average policy.
  - We would like acknowledgement of this inconsistency between the assessment guidelines and the revenue assessments.
- We proposed alternative assessments that would reduce the sensitivity of the Mining Revenue assessment to States' royalty rates. The draft report states that these would involve different approaches to assessing taxes and royalties.[44]

41 *ibid.*, *Draft Main Report*, page 60, paragraph 2.146.
42 *ibid.*, Attachment 8, page 11, paragraph 41.
43 *ibid.*, *Draft Main Report*, page 64, Box 2-3.
44 *ibid.*, Attachment 8, page 14, paragraph 56.

  - However, this is not true for a global revenue assessment (which would combine taxes and royalties into a single assessment). It would also not be true for the rotating standard measure, if it were also applied to taxes. Finally, the CGC could potentially identify policy-neutral capacity measures for taxes to correspond to a land-area measure for royalties.

- We argued for discounting of the North West Shelf royalties to reflect the State's effort in establishing this project. The CGC noted the long history of arguments on this issue, and the lack of a terms of reference instructing it to change its assessment of North West Shelf royalties.[45] We do not see these as issues. Commonwealth Treasurers generally see it as the role of the CGC to administer HFE, and various issues in the past have required debate across multiple method reviews before reaching a satisfactory conclusion. The capital assessments are an example of this.

[45] *ibid.*, Attachment 8, page 18, paragraph 80.

6. Schools

Key Points

- It is difficult to have full confidence in the regression modelling, as it does not accurately reflect Western Australia's spending on schools, the explanatory variables have significant associations, and modelled coefficients can be counterintuitive or sensitive to model specification.
  – We suggest that the CGC conduct analysis to transparently show the reasonableness of the modelled outcomes.
- The government schools regression should model total school costs, not the notional State funded component.
- User charges should be assessed EPC.

Western Australia supports the following changes to the Schools assessment:

- use the Commonwealth's Schooling Resource Standard (SRS) to assess needs for Commonwealth funded schools;
- exclude the Commonwealth funded non-government schools component from the assessment; and
- group student transport with transport expenses.

However, we have some concerns with the regression model and the treatment of user charges.

Government schools – redeveloped regression model

The 2020 Review draft assessment paper recommends a respecified regression model based on ACARA data to determine the national average funding formula from which cost weights are derived. Western Australia has a number of issues with this approach.

Transparency of the regression

The CGC has encountered challenges with the development of its regression model over the years, such as coefficients assuming unexpected values (e.g. Indigenous proportion, which is unceremoniously removed in the non-government schools model despite a conceptual basis for inclusion) and coefficients being dependent on the model specification (e.g. remoteness). This is to be expected when the explanatory variables have significant associations. If the causal effects are not properly teased out, the assessments will be biased across States, because the explanatory variables have different relative importance across States.

The non-assessment of students with a disability may also be biasing the value of coefficients in the regression model.

The CGC's assessments appear to imply that Western Australia is significantly 'overspending' compared to the national policy. However, it is not clear that this is the case.[46]

Western Australia's Student-centred funding model (SCFM) is relatively new, includes sophisticated measures of need, and is considered a significant improvement on the previous model. Nevertheless, a study conducted by Nous Group and Victoria University in 2018 has found that, while the SCFM framework allocates sufficient levels of student funding to most primary and secondary schools in Western Australia to cover typical expenses, there are areas that need more attention.[47]

Also, while the Commonwealth's SRS is not directly applicable to assessments constructed on a 'what States do' basis, and has its own share of methodology flaws, it appears to provide Western Australia with a greater disability allowance than the CGC's assessments.

If the CGC persists with its regression model, the challenge will be to show transparently that:

- the model captures the main features of 'what States do' (e.g. by setting out States' resource allocation formulas);
- the school spending data on which the regression relies is sufficiently reliable.
  - As noted in our draft assessment paper, data quality will suffer if some school-specific costs (such as relocation, support and accommodation) are allocated on a proportional basis (e.g. across schools within the same region). On the other hand, some costs (such as different teacher pay grades) are partly system-wide costs that should be apportioned across schools; and
- the regression has not been confused by variable associations, which produce biased outcomes across States (visual plots may be effective here and could include goodness of fit for a matrix of disability combinations).

The main point of our draft assessment paper was to show that such transparency is necessary, as aggregated analysis cannot guarantee reliable results.

Choice of dependant variable

We understand that the dependent variable in the regression analysis nets off the notional Commonwealth contribution to government schools.

[46] Western Australian Department of Treasury calculations using Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 10. This implies overspending by Western Australia of $584 million in 2017-18, of which around $200 million is attributable to the CGC's flawed wage assessment.

[47] Nous Group and the Centre for International Research on Education systems (2018), *Evaluation of the Student-centred funding model.*

Western Australia considers that the regression analysis should be based on State total funding per school. States allocate the whole funding, not just the State-funded component.

We believe that to explain a dependent variable through regression that is part actual and part notional is not good practice, and puts more strain on the regression's ability to disentangle the causal factors at work. If necessary, the regression could be done on total funding, and the notional Commonwealth funding deducted afterward. But it is not necessary, as the Commonwealth agreements with States do not require States to use the SRS at the individual school level.

Remote/very remote distinction

The proposed model utilises only a combined classification for inner regional and major city areas, outer regional, and a combined remote and very remote.

- The CGC did not make a distinction between remote and very remote as it was found to be not significant.

This issue is of concern to us, as Western Australia's own resourcing formula distinguishes different degrees of remoteness (as well as the degree of Indigenous concentration, which also favours very remote areas).

Is there a data quality issue? Or is there a modelling issue? The CGC's previous regression model specification showed a significant remote/very remote distinction, while the current model specification does not. This instability suggests that the regression model may not be reliably teasing out the remoteness effect.

We note that the draft report shows a substantial difference between remote and very remote spending,[48] although we believe this is not standardised for the impact of other disabilities. While the draft report shows 'very remote' spending to be only slightly higher than 'remote' spending,[49] the regression model may be struggling to split remoteness effects from other effects.

Western Australia considers that the additional transparency we have requested above would help settle this issue (i.e. considering the States' resource allocation formulas, and visual measures of the performance of the regression model).

If the evidence merits it, the CGC could insert a very remote allowance in its model by judgement.

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[48] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 10, page 15, Figure 1.

[49] *ibid*., Supplementary information, page 4, Table 2.

Non-government schools – remoteness

The CGC treatment of regional and remote areas for non-government schools parallels that of government schools, but significance levels are lower.[50] Remote areas are seemingly less of a cost disability than outer regional areas, although the error margin for remote areas is much higher than for outer regional areas.

Western Australia considers that the caveats about model reliability and transparency noted above for government schools apply here as well.

Figure 6.1 presents a schedule of the per capita grants allocated to non-government schools in Western Australia. The data (when examined at a school level) suggests that remote areas have more explanatory significance on State funding than less-remote areas, and fee levels are correlated with the SES of the parents (and to some degree location). In this regard, Category A schools are in high-SES Perth suburbs, Category GA relates to the more remote schools that are otherwise similar to Category G, and Category I schools are all in remote areas. The increasing levels of funding appear to have a systematic relationship to location.

Figure 6.1: Western Australia State funding model for non-government schools

Non-Government Schools Per Capita Grant Rates (2018 and 2019)

State needs-based funding category	Kindergarten (4 sessions) 2018 $	Kindergarten (4 sessions) 2019 $	Compulsory Primary (PP-Y6) 2018 $	Compulsory Primary (PP-Y6) 2019 $	Middle School (Y7-Y10) 2018 $	Middle School (Y7-Y10) 2019 $	Upper Secondary (Y11-Y12) 2018 $	Upper Secondary (Y11-Y12) 2019 $
A	2,536	2,550	1,690	1,700	2,484	2,498	2,566	2,581
B	2,922	2,938	1,946	1,958	2,862	2,878	3,156	3,174
C	2,934	2,951	1,957	1,968	2,875	2,891	3,233	3,251
D	3,026	3,043	2,017	2,029	2,966	2,983	3,329	3,348
E	3,175	3,193	2,116	2,128	3,109	3,127	3,475	3,494
F	3,311	3,329	2,206	2,218	3,243	3,261	3,588	3,608
G	3,415	3,434	2,277	2,290	3,347	3,366	3,718	3,739
GA	5,088	5,117	3,393	3,412	4,987	5,015	5,534	5,566
H	-	-	-	-	4,987	5,015	5,534	5,566
I	6,769	6,807	4,514	4,539	6,635	6,673	7,312	7,353
J	-	-	9,810	9,866	14,421	14,503	15,888	15,979

The above categories can be generally described as follows:

A	High-Fee Schools	G, GA	Very low fee, predominantly rural schools
B, C, D	Mid to high-fee schools	H	Curriculum and Re-Engagement Schools
E	Mid-fee schools	I	Remote, sole provider Aboriginal community schools
F	Low-fee schools	J	Agricultural Schools

Source: Western Australia Department of Education.
(Available online at: https://www.education.wa.edu.au)

50 *ibid.*, Supplementary information, page 7, paragraph 18.

User charges

Western Australia questions the deduction of user charges from school expenses in the assessment of State funded government schools. These revenues are not considered to be driven by the same underlying factors as expenses. These revenues, which tend to be inversely related to the CGC's disability factors, should therefore be assessed EPC. The regression should include total State funding (and Commonwealth funding, as noted above), to capture the full effect of the intended disability factors that the States have taken into account.

7. Post-secondary Education

Key Points

- Western Australia supports the proposed assessment of post-secondary education.
  - However, Tasmania's data should be excluded from the calculation of the Indigenous cost weight.

Western Australia supports the following changes to the Post-secondary Education assessment, to:

- replace the general regional cost gradient with a category-specific gradient;
- net off fee-for-service user charges from post-secondary expenditure; and
- not include, for this Review, a cost loading for:
  - course or industry mix;
  - qualification level; or
  - an economic environment disability for States' public/private provider splits.

Indigenous cost loading

Western Australia also supports the CGC's decision to retain an Indigenous cost loading and to recalculate with updated cost weights. Our experience is that Indigenous students attract a higher cost for service provision in post-secondary education, and we maintain that these additional costs should be recognised.

However, we also attach importance to the use of complete and accurate data to determine average loadings. We understand that, in compiling the Indigenous cost weight, New South Wales did not provide data and Tasmania provided data that show it spends no extra on servicing Indigenous students.

- For Tasmania in particular, the fact that it does not attach a cost weight to Indigenous instruction implies that its targeted audience does not face the same disabilities as those in other States.
- Tasmania's data should be excluded from the assessment, rather than drag down the national average.

8. Health

Key Points

- The current assessment of non-State services appears to reflect a pragmatic rather than a 'conceptually rigorous' approach.
  - The CGC appears to be using its measures of substitutable non-State services as indicators of the disabilities affecting State substitutable services.
  - A conceptually rigorous approach, which should be examined in the longer term, would look much more like the CGC's approach in the 2010 Review, with its wider scope of non-State services and a more direct relationship between variations across States in private and public sector activity. It would also be more transparent.
- We request a more robust methodology to calculate the substitutability level for admitted patient services in State hospitals.
- We consider that an allowance for FIFO workers' mental health issues is not specifically about workplace incidents but health consequences more broadly. A solution would be to treat FIFO workers as low SES.

Western Australia supports the changes to the Health assessment, to:

- apply additional regional cost factors and service delivery scale factors for block-funded hospitals in admitted patients, emergency departments and community health; and
- remove the 25% discount in community health related to socio-demographic composition and the non-State sector adjustment.

However, we have the following concerns.

Non-State services

Assessment issues

Western Australia's position on the CGC's proposed method in the draft 2020 Review report has been documented in multiple papers.[51]

[51] Western Australia (February 2018), *A technical research paper on Non-State Services in the Health Category.*
Western Australia (June 2018), *Western Australia's email to the CGC, responding to comments from the CGC, ACT and Tasmania on our technical paper*.
Western Australia (October 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers.*
Western Australia (October 2018), *Western Australia's short submission on CGC's paper Review of Substitutability Levels for the Health Category.*
Western Australia (March 2019), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Supplementary Submission.*

We have also had useful discussions with CGC staff, including exchanges of calculations.

Despite all that, it has proved challenging for both sides to elucidate the conceptual foundations of their positions.

A useful starting point is the CGC's comment that:

> Although officer level discussions initially focused on the choice of approach – subtraction or direct – it became apparent that the real issue under either approach was the extent to which non-State sector services are substitutable for State services.[52]

We distinguish two issues (which the CGC may have conflated):

1. Which services provided by the State and non-State sectors are substitutable?
2. What is the response of State substitutable service provision to variations in non-State sector service provision?

The CGC has focussed on the **first issue**.

- The CGC has set the scope of substitutable non-State services ('**Q**') as, basically, insured private inpatient services, and bulk billed GP and non-inpatient services (with some refinements).
  - The restriction to bulk billed services has not been agreed by Western Australia. If someone is willing to pay for a privately provided service, but cannot access such a service (due to low availability), they will front up to a public provider or forgo the service (in the latter case showing up sicker, for which there is good evidence).
  - The CGC acknowledges that there are other substitutable non-State services (e.g. a proportion of dental services), but has not pursued this, presumably because of data constraints.
  - See also the section below on *Further comments on the scope of relevant non-State services*.
- The CGC has done significant quantitative analysis to determine the scope of substitutable State services ('**S**').
  - There is inevitably a degree of judgement here but, by and large, we have not contested this analysis.

[52] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, *Draft Main Report*, page 70, paragraph 3.22.

The **second issue** has been a key focus for Western Australia, but we do not believe that it has received attention by the CGC since the 2010 Review.

Underlying the 2010 Review methodology is an assumption of perfect substitution between State and non-State services. The Butler report commissioned by the CGC in the 2010 Review states:

> Overall, considering the above evidence and arguments, it is concluded that the CGC's proposed subtraction model is conceptually valid, and that the assumption of perfect substitution underlying that model is supported by the empirical evidence that exists.[53]

The CGC has since noted that not all State and non-State services are substitutable (as we discussed above) but has made no explicit comment on whether there is 'perfect substitution' of services that are substitutable. However, the CGC's direct method implies that the responsiveness of States to variations in substitutable non-State services is **S/Q**[54] (for each **Q** and associated **S** used by the CGC).

Table 8.1 shows that the CGC has assumed that the responsiveness of States to variations in bulk billed GP services across States is around 90% and the responsiveness of States to variations in bulk billed specialist services is more than 200%.

Table 8.1: State responsiveness to non-State services, S/Q

	Bulk billed GP benefits ($)		
	State spending substitutable with non-State spending (S)	**Non-State spending substitutable with State spending (Q)**	**S/Q**
2014-15	5,432,297,661	5,838,062,631	93%
2015-16	5,713,913,759	6,239,533,578	92%
2016-17	5,938,375,979	6,533,427,268	91%
2017-18	6,330,314,395	6,867,450,670	92%
	Bulk billed specialists ($)		
	S	**Q**	**S/Q**
2014-15	1,537,790,347	710,267,497	217%
2015-16	1,670,284,310	751,685,548	222%
2016-17	1,771,850,954	795,308,071	223%
2017-18	1,877,267,923	830,843,447	226%

Source: Western Australian Department of Treasury calculation based on CGC data.

[53] Butler, J.R.G. (2009). *A review of the proposed approach to the assessment of Community and Other Health Services. A report prepared for the Commonwealth Grants Commission.* Australian Centre for Economic Research on Health, page 11.

[54] Western Australia has previously discussed the scaling factor **Q/S**, which represents the adjustment needed to convert the CGC's assessed State responsiveness rates back to 100%.

The CGC says that these outcomes reflect what States do. However, we note the following.

- What States do in responding to non-State service variations can only be determined by analysis at the level of individual States, not by analysis of what States collectively spend.
  - Collective State spending on substitutable services can be consistent with individual State responsiveness rates varying from 0%[55] to over 100%[56].
  - As the average of individual State responsiveness rates (i.e. 'standard policy responsiveness rate') increases, the standard policy level of spending on substitutable services will become more uneven across States, as they more fully reflect the different level of substitutable private service provision across States.
  - In this way, the analysis of non-State services is different to, say Indigenous costs, where the CGC would apply average per capita spending to a clearly defined group of Indigenous people (e.g. those in public schools, or subject to the justice system). There are no third parties providing substitutable services for these groups whose impact on State services would need to be considered.
- Collective State spending on substitutable services does impose a constraint on the maximum responsiveness rate, but as far as we can see, the observed values of collective spending are consistent with a wide range of responsiveness rates. In other words, collective spending does not rule out or in the rates assessed by the CGC (or for that matter a 100% responsiveness rate).
- In summary, the CGC's assumed State responsiveness rate of **S/Q** is an assumption without evidence, and one that has no *a priori* plausibility. The CGC would need to use other evidence to support these rates.

Western Australia has considered a 100% responsiveness rate to be appropriate if the intertemporal efficiencies of State and private spending are similar.[57]

- Even if it could be shown that the responsiveness rate (on a policy neutral and intertemporal efficiency neutral basis) is less than 100%, it is consistent with the HFE aim to provide States with the capacity to provide the same level of services to people in similar circumstances.

In light of all this, our best guess is that the CGC intends for its assessment of non-State services to be a pragmatic rather than a rigorous conceptually based approach.

[55] In this situation, each State provides a certain quantity of substitutable services regardless of what the private sector does.

[56] For example, this would occur if each State's spending were fully responsive to variations in private substitutable services, but less efficient than private spending – but even in this case, there could well be State substitutable service provision over and above what is required to offset private sector variations.

[57] To reflect the cost of similar health benefits (incorporating cost and effectiveness of service).

- On this basis, the CGC would be using its measures of substitutable non-State services ('**S**') as indicators of the disabilities affecting State substitutable services ('**Q**'), rather than direct measures of those disabilities.
- As the CGC measures of substitutable non-State services are very narrow, there may be no alternative to a pragmatic approach if these measures are retained. The narrowness of the measures gives credence to responsiveness rates that well exceed 100% (e.g. if the real measures were twice as large and the proportions across States were unchanged, then the narrow measures would show a 200% responsiveness rate if the real measures had a 100% responsiveness rate).
- The downside of a pragmatic approach is that it is not transparent, and it is very difficult to objectively determine the adequacy of the CGC's assessments for non-State services.
- Hence, we continue to advocate for a rigorous approach, at least in the longer term, which we believe would look much more like the CGC's approach in the 2010 Review, with its wider scope of non-State services (Issue 1) and a more direct relationship between variations across States in private and public sector activity (Issue 2).

Further comments on the scope of relevant non-State services

The relevant scope of non-State services has been an issue of significant confusion between Western Australia and the CGC.

In principle, Western Australia accepts that the relevant scope of non-State services is services that are substitutable with what States deliver.

However, data is not necessarily available to determine the exact boundary between substitutable and non-substitutable services. Dental services are often used as an 'extreme' example (where most private services are not substitutable with public services).

We have noted that in such cases, it can still be valid to include the entire scope of services. In essence, 'the upper end of town' looks after itself and uses the available private services, but in so doing limits the availability of private services for clients that are eligible for public services, and hence creates higher demand on the State when the aggregate provision of the private service in that State is low. Hence variations in the aggregate level of private services are relevant to the pressures on States. Our schematic chart previously provided to the CGC[58] illustrates this concept, and its validity even where the proportion of substitutable private services is low.

- As we understand it, this is the justification for the broad scope of services in the 2010 Review's 'subtraction approach'.

[58] Western Australia (October 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers*, page 84, Box 8.2.

The CGC has said that "Western Australia's proposition would effectively go beyond the scope of HFE by seeking to equalise the health outcomes of the community".[59]

- This is not the case, just as we do not believe it was the case when the CGC used a broad scope of private services in the 2010 Review. The intent is always to measure the impact on States of variations in provision of private substitutable services.

We accept that calculating the pressures on States appropriately requires an understanding of the use of services by different socio-demographic groups, and data needs to be available for this.

At the same time, the CGC has to consider the relative merits of using a conceptually correct broader assessment with poorer data availability versus a conceptually incorrect narrower assessment with better data availability.

- We consider that transparency is better served by a broader approach. The use of accurate but inappropriate data creates an illusion of quality. The use of estimated data makes it clear that the outcome is rough, and allows for debate about the best way to estimate the data.

We will endeavour to provide the CGC with more detailed views on services that should be included in the assessment.

Substitutability level for State admitted patient services

The CGC proposes to calculate the level of substitutability for admitted patients in State hospitals as:

> …the approximate upper level of potential substitutability would be 50-60% * 46% = 23-28%.[60]
>
> …the Commission considers that the 2015 Review level of 15% for admitted patients remains appropriate.[61]

We agree that, under the CGC's assumptions, 23-28% is the upper level of potential substitutability. However, we disagree with the ad hoc jump (reflecting "other policy and non-policy influences") from 23-28% to 15%. Western Australia proposed an approach that could be used to calculate the level of substitutability in a more robust manner.[62]

[59] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review, Draft Main Report*, page 70, paragraph 3.25.

[60] *ibid.*, Supplementary information, page 10, paragraph 28.

[61] *ibid*, Supplementary information, page 11, paragraph 31.

[62] Western Australia (2019), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Supplementary Submission*, pages 5-6.

The CGC responded to Western Australia's interim submission:

> …[Western Australia] asked for clarification of the logic underlying the substitutable proportion of admitted patients.[63]
>
> The mathematical expression developed by Western Australia does not correctly conceptualise the logic underlying the calculation of the Commission's substitutability level. The current proportion (15%) assumes that the upper bound of public hospital patients with private health insurance is 47%.[64]

However, our intention was to highlight a problem with the logic underlying the CGC's approach, and that it would be preferable to correct this rather than for the CGC to continue making its ad hoc adjustment.

In this regard, the CGC stated that:

> A person without private health insurance will rarely attend a private hospital, regardless of the availability of private health services in their State.[65]

This implies that the proportion of private hospital patients without private health insurance is (close to) zero.

According to the CGC:

> No assumption about the proportion of private hospital patients is necessary because the aim is to determine the proportion of State-admitted patient services that could potentially be provided in private hospitals.[66]

But, the CGC needs to explain why it is reasonable to assume an equality between the rate of private health insurance (46%) and the proportion of patients in public hospitals with private health insurance, when this implies that the proportion of patients in **all** hospitals with private health insurance is greater than 46% (as most patients in private hospitals are assumed to have private health insurance).

- In summary, we consider that the CGC should not use judgement without any supporting information to propose a 15% level of substitutability. The CGC should rather determine the level of substitutability based on a robust conceptualisation.

[63] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Supplementary information, page 11, paragraph 34.

[64] *ibid.*, Supplementary information, page 11, paragraph 35.

[65] *ibid*., Supplementary information, page 10, paragraph 28.

[66] *ibid*., Supplementary information, page 11, paragraph 35.

FIFO Workers

The CGC responded to Western Australia's request to consider FIFO workers:

> Most FIFO workers are younger and unlikely to access routine health services while working away from home. Many health services that they access would likely be due to work-related incidents and would be fully compensable. Overall, there is not a reliable way to estimate the impact of these workers on Western Australia's health costs.[67]

Western Australia's argument is about the direct and indirect consequences of mental health issues,[68] not specifically at remote workplaces. We have previously suggested that a practical assessment approach is for the CGC to weight FIFO workers as low SES.

[67] *ibid.,* Attachment 12, page 32, paragraph 106.

[68] Documented in a December 2018 report by the Western Australia Mental Health Commission, *Impact of FIFO work arrangements on the mental health and wellbeing of FIFO workers*.

9. Welfare

Key Points

- Western Australia disagrees with the proposal to remove SDS from the Family and child services component.
  - We recommend the CGC use a general cost gradient that incorporates regional and SDS cost factors.
- It is not clear why different measures of SES are used for different components of the Welfare assessment, and yet another for the Schools assessment.
- We would support an EPC assessment for NDIS expenses, rather than the effective actual per capita (APC) approach currently proposed.
- The National Redress Scheme for Institutional Child Sexual Abuse, NDIS, non-NDIS disability services and aged care components should be grouped in the Other welfare services component and assessed EPC.
  - This component would retain Homelessness expenses, which should not be assessed solely by low SES.
- We agree with the ACT that user charges should be presented in the Welfare category (for transparency), rather than moved to Other revenue.

Family and child services

Service delivery scale

Western Australia does not support the proposal to remove service delivery scale (SDS) from the Family and child services component. SDS cost gradients are applied to capture the higher costs of delivering comparable services due to increasing isolation of small communities.

- Many welfare services, including child protection services, are provided where clients live. However, when those clients live in very remote areas, unproductive travel time is required from more centralised locations to provide these services. This also implies higher than average staff numbers per recipient are required and higher fixed costs.

We believe there is a conceptual case to include an SDS cost gradient. In the absence of State data, we recommend the CGC use a general cost gradient that incorporates regional and SDS cost factors.

Socio-economic status

It is not clear to Western Australia why the CGC proposes to use different measures for assessing SES needs.

- In the Other welfare services component, the CGC proposes to use the ABS Index of Household Advantage and Disadvantage (IHAD) survey.
- However, in the Family and child services component, it proposes to use Indigenous Relative Socio-Economic Outcomes (IRSEO) and Non-Indigenous Socio-Economic Index for Areas (NISEIFA) to assess low SES.
- In addition, the CGC no longer uses IRSEO and NISEIFA to assess needs in the Schools assessment, in favour of the Index of Community Socio-Educational Advantage (ICSEA).

We would appreciate an explanation of these choices in the final report.

National Disability Insurance Scheme (NDIS)

Western Australia does not consider the treatment of the NDIS was 'resolved in the 2019 Update'.[69]

Our submission to the CGC's Draft Assessment Papers regarding NDIS expenses[70] noted that by assessing NDIS expenses based on the 2011 Census population shares, the CGC will effectively assess NDIS expenses by an APC approach rather than an EPC assessment (because it is using outdated population data).

- Western Australia has not yet signed a full-scheme agreement, and other States are concerned about some of the terms in their agreements.
- Therefore, we would support an EPC assessment for NDIS.

Non-NDIS disability services and Aged Care

We support the CGC's proposal to assess both non-NDIS disability expenditure and aged care on an EPC basis, as there is limited evidence to conclude service users are predominantly from low SES groups.

69 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review,* Attachment 13, page 17, paragraph 74.

70 Western Australia (October 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers*, page 94.

National Redress Scheme for Institutional Child Sexual Abuse

We agree with the CGC that State policies could potentially influence the volume of applications to the National Redress Scheme. For example, Western Australia removed the statutory limitation period for civil claims for institutional child sexual abuse at the same time as signing up to the Commonwealth Redress Scheme. This would potentially influence redress claim volumes.

Combining into an EPC component

We believe Other welfare services is also policy influenced and a reliable driver of State costs has not been identified.

Consequently, we believe the CGC should group the National Redress Scheme for Institutional Child Sexual Abuse, non-NDIS disability services and aged care components with the Other welfare services component and assess these expenses EPC. Further discussion can be found under the *Other welfare services* section below.

Other welfare services

The Other welfare services component consists mostly of expenses related to Homelessness, followed by expenses relating to addressing domestic violence and multicultural affairs.[71]

The CGC has suggested that as these expenses are 'relatively small' and data is limited, low SES is a reasonable broad measure of disabilities across the whole Other welfare component.[72] We disagree.

- Low SES population characteristics are <u>not</u> the main driver for homelessness (and arguably also not for domestic violence). See further discussion below under *Homelessness*.
- In addition, the CGC has not provided evidence to conclude that service users are predominantly from low SES groups. So, given the absence of a clear driver other welfare services should also be assessed on an EPC basis.

In the Housing assessment, the CGC stated:

> The reasons for homelessness are complex, making it difficult to establish a relationship between high land prices and homelessness.[73]

We believe this contradicts the CGC's decision to assess Other welfare services using low SES.

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71 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review,* Attachment 13, page 13, paragraph 82.

72 *ibid.*, Attachment 13, page 24, paragraph 118.

73 *ibid.*, Attachment 14, page 16, paragraph 70.

Homelessness

As noted by the CGC, the reasons for homelessness are complex. The main drivers of homelessness include domestic violence, drug use and mental health issues. Although low SES is a contributor, it does not dominate. Data from the *Australian Homelessness Monitor 2018* supports this:

> Homelessness services user data suggest that recent increases in overall homelessness have been substantially driven by rising numbers of (primarily) women in need of accommodation or other help due to domestic violence, due to the 'housing crisis' or due to 'housing affordability stress'.[74]

The report, while acknowledging a link between low SES and homelessness, notes that it is not the only cause and is open to debate:

> The association between poverty, disadvantage and homelessness has been the subject of debate with some arguing that such misfortunes 'can happen to anyone' (see Bramley and Fitzpatrick, 2017) but since the vast majority of those who are or become poor do not end up homeless, the idea of a causal relation between the two is problematic.[75]

In addition, the report supports our argument that homelessness is heavily influenced by government policies.

> Consistent with published literature, evidence from our online survey and key stakeholder interviews highlights a range of recent policy moves that have exacerbated homelessness, although some initiatives with the potential to improve the problem have also been identified.[76]

In further support of our claims, AIHW has also released data on homelessness, indicating there is a strong association between problematic alcohol or other drug use and experiences of homelessness.[77]

The CGC's Assessment Guidelines[78] provide two requirements to establish a disability – a sound conceptual basis and sufficient empirical evidence. In reference to Homelessness, we consider these requirements have not been met.

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74 Launch Housing, *Australian Homelessness Monitor 2018*, page 13. Available online at: https://issr.uq.edu.au/files/3347/FINAL_for_print_AHM_full_report.pdf.

75 *ibid.*, page 27.

76 *ibid.*, page 11.

77 AIHW, *Alcohol, tobacco & other drugs in Australia*, cat. no. PHE 221. Available online at: https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/priority-populations/homeless-people.

78 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review, Draft Main Report,* page 64, Box 2-3.

While we acknowledge there is some link between homelessness and low SES, a more dominant link relates to mental health and drug use as disabilities. This, combined with ABS data presented in Western Australia's previous submission[79] (that showed State variations in the rates of homelessness do not correspond to the CGC's low SES measure and are too great to be accounted for by policy differences), indicates that low SES is not the dominant driver of homelessness.

If low SES were to be assessed as the driver, it should only contribute to the disability by the same amount it contributes to homelessness. This is far less than the 100% considered by the CGC.

- Discounting the assessment by any amount other than 100% (which we advocate) would only be consistent with the CGC's Assessment Guidelines if the discount were 50%, 25% or 12.5%. If the largest discount were used, it would imply that low SES contributes to 50% of the homelessness disability. The evidence implies it is well below this amount, requiring a larger discount.

User charges

We agree with the ACT that user charges should be presented in the Welfare category to make it more transparent. We disagree that it should be moved to Other revenue for simplicity reasons.

- We consider that improving transparency should remain the focus above simplicity, when the purpose of simplicity is only for presentational purposes.

[79] Western Australia (October 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers*, pages 96 and 97.

10. Housing

Key Points

- Western Australia disagrees with excluding unoccupied dwellings in the Housing assessment calculations.
  - There are concerns with the ABS' classification and identification of unoccupied dwellings.
- We support that Census data should be aligned with the AIHW data, due to the unreliability of the Census data, regardless of materiality.
- Tax expenditure on concessional rates of conveyance duty for first home owners should continue to be assessed EPC in the Housing assessment.

Social housing expenses

Unoccupied dwellings

The CGC excludes unoccupied dwellings from Census data when deriving assessed expenses for social housing. Western Australia disagrees with this approach. Whether a dwelling is unoccupied or not is a judgement call made by Census collectors on Census night.[80] There is a consequent potential to incorrectly identify dwellings as unoccupied.

- The ABS defines an unoccupied dwelling as a structure designed specifically for living purposes that are habitable, but unoccupied on Census night.
- The dwelling is deemed unoccupied if a Census collector determines it shows no sign of occupancy on the night, regardless of whether the dwelling may be occupied on nights other than the Census night. In some circumstances a Census form may not be supplied as the dwelling was mistakenly recorded as unoccupied.[81]

In the 2016 Census, there was a decrease in dwelling non-response and a higher number of dwellings classified as unoccupied. The ABS confirms there may be incorrect classification of unoccupied dwellings:[82]

> While every effort is made to achieve a complete Census count, some undercounting inevitably occurs for various reasons, for example, the inadvertent omission of very young children, treatment of some dwellings as unoccupied when in fact they are occupied, and failure to find all dwellings.

80 Census collectors are temporary non-ongoing staff of the ABS with often little experience of collecting data and little quality assurance is done to ensure dwellings are classified correctly.

81 Australian Bureau of Statistics (ABS), *Census of Population and Housing: Details of Overcount and Undercount, Australia, 2016,* cat. no. 2940.0.

82 Australian Bureau of Statistics (ABS), *Census of Population and Housing: Census Dictionary, 2016,* cat. no. 2901.0, page 176.

The non-inclusion of unoccupied dwellings has the potential to adversely impact Western Australia due to its many remote Indigenous communities that, due to their high mobility, cause access difficulties for Census collectors, and may be counted as unoccupied.

A further impact for Western Australia is due to our above-average number of FIFO workers, who may occupy a dwelling, but not reside there on Census night.

The ABS confirms its undercounting:[83]

> Analysis of the undercount in previous Censuses has shown that people away from their usual residence on Census night (for example, travelling, camping, staying in a non-private dwelling, or visiting friends) are more likely to be missed than people at home on Census night.

Western Australia believes the CGC should not overcomplicate the assessment through the removal of these unoccupied dwellings. The Census data is known to undercount the number of households in social housing and may overcount the number of unoccupied dwellings.

Aligning Census data with the AIHW data

Western Australia does not support basing social housing use on Census numbers, given the 2016 Census data undercounted the number of households in social housing.

The CGC rejects scaling the Census data with AIHW data, which is more accurate, due to a lack of materiality from the change. However, under the CGC's supporting principles "the methods for making assessments should use reliable data".[84] As the Census data is inaccurate, scaling them with more accurate AIHW data is necessary, regardless of materiality.

- Materiality should not be a consideration when seeking the best data.
- We note there appears to be inconsistency as the CGC is not considering the materiality of removing unoccupied dwellings from Census data.

Treatment of housing-related land acquisition expenses

We agree with the CGC that there appears to be no direct link between house prices and the allocation of social housing to those in greatest need. This extends to the CGC's acknowledgement that the reasons for homelessness are complex.[85] We agree, and further believe assessing homelessness expenses using a low socio-economic measure is incorrect – see the *Welfare* chapter.

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83 *ibid.*, page 239.

84 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, *Draft Main Report,* page 50, paragraph 2.101.

85 *ibid.*, Attachment 14, page 16, paragraph 70.

First home owner expenses

Western Australia does not agree with the exclusion of tax expenditure on concessional rates of conveyance duty for first home owners from the Housing assessment. It should remain and continue to be assessed EPC. Assessing it under the Stamp duty on conveyances category will reduce transparency and policy neutrality (by allowing States to game the system). Further discussion is included in the *Stamp duty on conveyances* chapter.

11. Services to Communities

Key Points

- The higher costs of Western Australia's South West Interconnected System should be assessed.
- The CGC's proposals improve the remote regions electricity assessment, but the CGC should include the entire remote and very remote population as the relevant population.
- The lack of assessment for water quality and pipelines is a major gap in the CGC's assessments, which should be addressed.
- There should not be a discount on the water subsidies regional cost assessment.
- The CGC should assess a wages disability for both electricity and water subsidies.

Electricity subsidies

Non-remote regions

We consider the higher costs of Western Australia's South West Interconnected System (SWIS) compared to the National Electricity Market (NEM) should be assessed. In particular, we are concerned that (despite addressing this issue during the State visit) the CGC relied on its 2015 Review conclusion that higher costs for the SWIS are mainly the result of Western Australia's policies.[86] We note that Synergy made a $656.9 million loss in 2018-19.[87]

We intend revisiting this issue in the next method review, once anticipated additional supply comes on line in the NEM.

Remote regions

We consider the CGC's proposed assessment is an improvement.

However, we remain of the view that the lower limit of 50 people for relevant communities remains arbitrary. We note that the CGC's data collection showed some subsidised communities in the 0-50 population range, and that the average subsidy for those communities was almost four times as large as the average per capita subsidy to off-grid communities.[88]

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86 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 15, page 40, paragraph 171.

87 Synergy (September 2019), 2019 Annual Report, page 3.

88 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 15, page 27, Table 21.

- It is also not clear why the CGC is excluding outliers from its analysis, as these form part of 'what States do'.[89] The CGC has not indicated whether any of those outliers are also in the 0-50 population range.

In our view, the entire remote and very remote population of each State should be used as the relevant population (with the very remote population weighted as per the draft report).

Wages

The CGC should also assess a wages disability, as wages affect costs and hence the requirement for a subsidy.

Water subsidies

Gaps in the assessment

During the State visit, we presented substantial evidence on the impact of water quality on the cost of providing water. The CGC has acknowledged "that water quality is a factor that drives States' costs".[90] However, the CGC was unable to develop a way of measuring this (and unprepared to use our suggestion of using APC costs).

The CGC was also unable to develop an assessment of the cost of pipelines.[91] A likely problem the CGC faced in trying to measure pipeline cost would be the interaction between pipelines and water quality (pipelines are used to access cheaper water at a distance when local water is either prohibitively expensive or unavailable) and other varying factors such as topography (which affects pumping costs).

- These gaps in the assessment (particularly water quality) represent major flaws.

Table 11.1 compares actual and assessed spending for each State for water subsidies.

This shows substantial 'overspending' by Western Australia, South Australia and the Northern Territory.

- We note that when the CGC last assessed water quality (in its 2010 Review) it identified most of the regions in these States as having low water quality.[92] That assessment combined water quality and relevant population. In the 2004 Review, the CGC had a separate cost factor for water and sewerage, which was 2.1 for each of Western Australia and South Australia and 3.8 for the Northern Territory.[93]

[89] *ibid.*, Attachment 15, page 42, paragraph 175.

[90] *ibid.*, Attachment 15, page 41, paragraph 173.

[91] *ibid.*, Attachment 15, page 42, paragraph 175.

[92] Commonwealth Grants Commission (2010), *Report on GST Revenue Sharing Relativities, 2010 Review*, Volume 2, Chapter 15, page 293.

[93] Commonwealth Grants Commission (2004), *Report on GST Revenue Sharing Relativities, 2004 Review*, Working Papers Volume 5, page 82, Table 19.

- The CGC's draft report embeds a regional costs assessment in the relevant population. If regional costs assessment were expressed as stand-alone cost factors, they would only be a small fraction of the 2004 Review cost factors for these States.

We conclude that the overspending for Western Australia, South Australia and the Northern Territory is primarily due to cost issues such as water quality, rather than policy differences (if any). We continue to support an APC assessment of costs.

- Alternatively, the CGC could revisit its 2004 Review and 2010 Review methods.

Table 11.1: Water subsidies, 2017-18 [(a)]

	Actual	Assessed	Overspending [(b)]	
	$m	$m	$m	$pc
NSW	48	126	-78	-10
Vic	6	93	-87	-14
Qld	58	101	-43	-8
WA	197	56	+141	+54
SA	103	38	+65	+38
Tas	0	21	-21	-40
ACT	0	4	-4	-10
NT	46	19	+27	+110
Total	458	458	-	-

Source: Calculated from CGC draft report, Attachment 15, Table 5 and Table 11 (corrected version supplied by CGC staff).

(a) Table covers both 'small communities' and 'other' sub-components.

(b) Overspending equals actual subsidies minus assessed subsidies.

Regional costs

The CGC discounted its calculated regional cost gradient by 50%.

This gradient is for differential subsidies for small communities, and the CGC has concluded that only New South Wales, Western Australia, South Australia and the Northern Territory provide subsidies to such communities.[94] Hence, the other States cannot affect the gradient.

The CGC has data for Western Australia and the Northern Territory. It has assumed a zero gradient for New South Wales and South Australia. Hence, the CGC has calculated the lowest possible gradient that it could derive even if all States provided data (assuming no State had a negative gradient). As the gradient could not possibly be lower, it cannot improve HFE to discount it.

94 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 15, page 33, paragraph 135.

Furthermore, even if the other States provided subsidies, they would only have a limited impact on the gradient, given that:

- Queensland has only 29% of the relevant remote and very remote populations, and the draft report quotes information that says that Queensland's operating expenses per connection were around twice as expensive as its inner regional areas.[95] Hence, the net cost after subtracting a uniform tariff per connection would be far larger than twice as expensive, and hence not that much lower than the Western Australian and Northern Territory gradient; and
- the other three States have only 6% of the relevant remote and very remote populations.

Wages

The CGC should also assess a wages disability, as wages affect costs and hence the requirement for a subsidy.

[95] *ibid*., Attachment 15, page 13, paragraph 54.

12. Justice

Key Points

- We agree with the cost weights (from regression analysis) to assess police costs.
- The judgement-based regional cost adjustment for courts and prisons does not adequately reflect Western Australia's additional regional costs.
  - In the absence of reliable data, the general regional costs gradient should be used.
- For the Criminal courts component, the CGC should:
  - take a detailed look into the SDC profile data to ensure their accuracy;
  - allocate the Indigeneity of not-stated courts defendants according to the proportion of Indigenous and non-Indigenous who did respond; and
  - use remoteness as a factor in assessing the number of Indigenous defendants, through a simplified three-group set, as was done for SES.
- The proposed assessment does not reflect the additional costs incurred by Western Australia and other States to perform additional duties in border control and consequent drug use (with flow on impacts) and drug enforcement issues.
- User charges should be included in the Justice assessment rather than the Other revenue assessment, for transparency reasons.

Police

New assessment of police costs

Western Australia supports the CGC's assessment of police costs using cost weights derived from regression analysis. We support the removal of the artificial distinction between community and specialised policing.

- We believe this a good example of a well-fitting regression model, which has a manageable number of variables and provides results that are comparable to trends from other available data sources.

Western Australia agrees with the CGC that using offender data does not bias the results against criminal-related police work and prevention. We have always argued that spending on prevention is usually aligned with offender-related spending.

Western Australia also agrees with the following other changes to the Police assessment, and with the conceptual bases behind the changes:

- the combined cost and use weights for remoteness, and their application to State regional populations;
- a three-set grouping for Indigenous SES; and
- the inclusion of average offence rates for the 0-14 and 65+ year age groups rather than assigning them a zero-offender rate.

However, we disagree with the exclusion of traffic and breach-of-bail offences from the dataset. We note the comparability issues between States, but the inclusion of these data will better describe State expenditure on offenders.

- The same socio-demographic groups that have above-average police service use generally, also show up in traffic and breach-of-bail offences.

Criminal courts, Other legal services and Prisons

Western Australia agrees with changes to the Criminal courts, Other legal services, and Prisons assessments for:

- the split of Criminal courts and Other legal services; and
- the inclusion of average offence rates for the 0-14 and 65+ year age groups rather than assigning them a zero-offender rate.

However, we disagree with the regional cost weights for all three assessments. For Criminal courts, we have other concerns, discussed below.

Regional costs

The regional and SDS cost gradients in the draft report[96] for Courts and Prisons are considerably lower than those used for the 2015 Review and Western Australia's experience. We regard the data provided by most States to be poor quality.[97]

- In the absence of reliable data, and rather than relying on judgement to calculate a regional cost factor, we believe the CGC should apply a general regional cost gradient to all three assessments.

[96] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 25, page 4, Table 1.

[97] Western Australian Department of Treasury worked closely with our Department of Justice to ensure the data we provided was of good quality.

Courts

Western Australia strongly disagrees that a cost weight of 10% adequately captures the relative costs of court services in remote and very remote regions.

When analysing the State-provided courts data, the CGC commented that the 'national average patterns' were 'difficult to interpret' and that a 'complex' pattern was evident across States.[98] We believe this is due to the poor quality of State-provided data.

- The draft report utilised data from only five States.[99] A number of these States inappropriately calculated a cost per case for the State and applied this cost to the number of cases in regional areas.

The CGC agrees with this:

> Most States have been unable to meaningfully attribute costs to different districts, and have therefore assumed costs are proportional to the number of cases.[100]

The State-provided data clearly fails to capture the additional regional costs faced by States. Despite the CGC's doubts in the quality of the data, it used the data to inform a judgement for a regional loading of only 10%, and only for remote and very remote areas. As no further information is provided, we are unable to determine how the CGC arrived at this judgement.

When making its judgement the CGC states:

> In considering a regional costs gradient for courts it is also important to consider that the regional profile of the assessed defendant population is not necessarily a good proxy for the distribution of courts….[101]

We are also concerned that the CGC assumes data provided by Victoria is true for all States and has used this data to inform its judgement. Victoria's data show that the majority of people from remote areas travel to the major city to appear in court.[102] Victoria is a relatively small State, so it would be understandable that Victorians may travel from their residences to more centralised locations to receive certain services. However, this would be pragmatically inconceivable for most parts of Western Australia, due to the distance, cost and time required.

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98 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 16, pages 23 and 25, paragraphs 93 and 94.

99 *ibid.,* Attachment 16, page 24, Figure 2 and Figure 3.

100 *ibid.,* Attachment 16, page 23, paragraph 92.

101 *ibid.,* Attachment 16, page 25, paragraph 95.

102 *ibid.,* Attachment 16, page 25, Table 14.

High remote costs for civil courts in Western Australia

Western Australian data shows that costs per civil court cases in its very remote areas are five times more expensive than civil courts cases in Perth.[103] The Western Australian Department of Justice provided the following reasons:

1. The cost of operating in remote areas is generally higher.
   - This includes the costs of premises, travel time, allowances, relocation expenses and circuit costs such as plane charter, car hire, accommodation, etc.
     - For example, in 2017-18, Judicial Support Officers[104] were required to accompany magistrates to very remote areas of Western Australia for a total of 312 days, with each occasion lasting one to two weeks.
     - Travel can be via charter plane or a hired 4WD, both very expensive (car hire can be difficult during the tourist season).
2. Magistrates in very remote areas need to be across all aspects of law.
   - They are required to hear Civil, Criminal, Childrens' and Coroner's Court matters. As they are not specialists in any of these jurisdictions, cases can be protracted (sometimes leading to several hearings) while the Magistrate works through the nuances and conducts research on particular matters.
3. The proportion of civil matters in very remote areas is lower.
   - It is typical for a regional court to deal with more criminal than civil matters.
     - The State-wide data shows, there are 105,000 (68%) criminal cases and 53,000 (32%) civil cases.
   - For remote regions, the proportion of civil cases is much lower.
     - For example, in Onslow, only eight of the 83 (10%) were civil cases, in Balgo only six of 154 (4%) were civil cases.

Due to the lower number of civil matters heard by magistrates in very remote areas, a lack of magistrates' specialist knowledge, and the inherently protracted nature of those cases, higher costs of remote hearings are exaggerated for civil cases.

- Hence, the costs from remoteness have a greater impact per civil case than per criminal case.

[103] *ibid.,* Attachment 16, page 24, Figure 2.

[104] The Western Australian Department of Justice advises there is one Judicial Support Officer per court in the Pilbara and Kimberley.

Prisons

Western Australia strongly disagrees that a cost weight of 9% adequately captures the relative costs of prisons in remote and very remote regions.

Data provided in our submission[105] show significant escalation of direct operating expenses for prisons across areas of increasing remoteness. The data shows the average cost per day per adult prisoner in very remote prisons is almost two and a half times the cost for a metropolitan prison.

- We note that the CGC averages national experience, but such significant differences in cost cannot be explained through policy differences.

We also question the CGC's findings that only 40% of remote residents who go to prison do so in a remote prison, stating that "3.4% of prisoners are in remote prisons".[106] For States that do not have large inter-regional distances it may be appropriate to incarcerate a large proportion of prisoners in a metropolitan prison (see discussion about Victoria's court defendants above).

- However, the Western Australian Department of Justice is of a firm view that centralising prisons in Western Australia leads to increased recidivism and increased difficulty in re-entering the community. Vast distances between Perth and prisoners' families in regional areas makes local incarceration necessary. This is particularly the case for Indigenous prisoners, who should remain 'in-country'.
- Western Australia's data on the average prison populations in 2016-17[107] show 13% of its prisoners are in remote prisons and 14% of its prisoners are in very remote prisons.
- This combined 27% is substantially higher than the 3.4% stated by the CGC as the average rate of prisoners incarcerated in remote and very remote prisons (being 40% of the 8.6% of prisoners who originate in those areas).
- It is also much higher than the 6% of the Western Australia's population in those areas, reflecting the higher rate of offending in remote and very remote regions (due to the socio-demographic characteristics of the people who live there), and the need to incarcerate offenders closer to family.

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[105] Western Australia (October 2018), ***Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers***, page 116.

[106] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 16, page 26, paragraph 99.

[107] Western Australia (October 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers*, Table 13.4, page 116.

- If, as the CGC assumes, this 27% of Western Australia's prisoners reflected only 40% of Western Australia's prisoners who originate in remote and very remote areas, it would imply that nearly 68% of all Western Australia's prisoners are from these regions.
  - Even when the higher rate of offending is taken into account due to the socio-demographic characteristics of the people who live in remote and very remote regions, this proportion is implausible.
- Such differences question the reliability of the State-provided prison data, and/or the substantially different experience in Western Australia due to its vast distances (which could be viewed as a disability in itself under this category).
- The CGC should apply a general regional cost gradient.

Criminal courts

Data on the SDC profile of defendants were provided by only five States.[108] We also question the reliability of these data.

- As the CGC does not intend to update these data during the review period, the CGC should take a detailed look into the data to ensure their accuracy.

Allocation of Indigenous non-response status

We regard the basis on which the CGC intends to allocate the Indigeneity of not-stated defendants to be flawed. The traffic defendant data referenced by the CGC provide no evidence to suggest the proportion of the not-stated defendants who are Indigenous is likely to be significantly less than the proportion of the stated population. It is based on an inappropriate assumption that the vast majority of actual Indigenous defendants have been identified.

We suggest the non-responding defendants should be allocated according to the proportion of Indigenous and non-Indigenous who did respond.

Criminal court remote service use by Indigeneity

The CGC states that there is no clear relationship between the rate of defendants and their remoteness, as portrayed in Figure 11.[109] However, this is inconsistent with the CGC's treatment of Figure 4 on Indigeneity and SES, which the CGC simplified into a three-group set. Figure 11 shows a similar three-group pattern. Therefore, it seems appropriate to produce a similar simplified three-group set based on an average of the major city and Inner regional data, outer regional, and an average of remote and very remote.

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[108] Victoria, Tasmania and the ACT were unable to provide Indigenous status for their defendants.

[109] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 16, page 33-34 and Figure 11.

Border patrol and illicit drug consumption

Western Australia shares Queensland's concerns with regards to additional border control along its northern border and Western Australia's long and remote coastline.

Related to this, Western Australia reaffirms that there is a conceptual case for methamphetamine drug consumption to be included as an additional driver of crime.[110]

The patrolling of Australia's borders is a Commonwealth responsibility, and although patrol ships are prevalent on the east coast of Australia, numbers are substantially lower off the west coast. Western Australian Police Commissioner Chris Dawson has publicly stated[111] there is a "very great shortage of maritime and aviation assets that patrol" the State's vast coastline.

The CGC should reconsider border protection costs and, given they stem from Commonwealth service-delivery failings, assess them APC.

The CGC noted that data on the budget for Western Australia's Methamphetamine Action Plan is unlikely to be material. However, the costs provided relate only to the cost of a single preventative measure. Despite ongoing efforts against methamphetamine by the WA Police Force, it causes disproportionate community harm and puts enormous stress on families and the community. This imposes substantial costs to the economy, and with an extensive impact on State health, housing and mental health services.

- In order to calculate materiality, all costs related to methamphetamine use would need to be included.

User charges

We agree with the ACT that user charges should be presented in the Justice category to make it more transparent and disagree that for simplicity it should be moved to Other revenue.

- We consider that improving transparency should remain the focus above simplicity, when the purpose of simplicity is only for presentational purposes.

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110 See Western Australia (March 2019) ***Western Australia's Submission to the Commonwealth Grants Commission's*** *2020 Methodology Review – Supplementary Submission*, pages 6-8.

111 Hickey, P. (2019 April 17*). Almost two- thirds of Perth lockup detainees are on meth: Study*. Retrieved from: https://www.watoday.com.au/national/western-australia/almost-two-thirds-of-perth-lockup-detainees-are-on-meth-study-20190416-p51ent.html.

13. Roads

Key Points

- The CGC should review its analysis of Urban Centre/Locality (UCL) road connections, as they yield implausible results.
  - The CGC should connect UCLs with a population below 1,000 to the nearest two UCLs with a population of more than 1,000, as well as the nearest four UCLs with a population of less than 1,000.
- The CGC should not assess lane kilometres as it is not policy neutral and is biased in other respects.
- The CGC should re-instate the local roads assessment, which has a long-established purpose and understanding.
- The CGC should assess road structure costs (bridges, roads, floodways, etc.) within the general roads assessment if there is not data to separately assess these structures properly. Its proposed partial assessment creates bias.
- The CGC should further investigate separately assessing the cost of very heavy vehicles, as it is a legitimate cost factor.
  - The BITRE data should be interrogated to see if the data are of sufficient quality for the CGC's purposes, and we stand ready to assist.

We support the CGC's improvement of its synthetic network through the inclusion of road connections to significant mines, ports and national parks. We also support further proposed improvement to include:

- roads relating to operating mines; and
- the inclusion of other economically important areas of significance such as roads that provide access to grain bins and areas of mining exploration activity.

However, we have concerns relating to the assessment of the synthetic road network, lane kilometres, local roads, bridges and tunnels and heavy vehicles.

Synthetic road network

While not clear, it appears that the analysis in the CGC's draft report,[112] which underlies the CGC's choice of connectivity for the synthetic road network, relates only to State-managed roads. However, as a matter of standard policy, States provide significant funding to local governments, and this funding is concentrated in States with high needs. As such, the connectivity analysis should cover more than just State managed roads, in order to properly cover circumstances in all States. This is especially the case if the CGC proceeds with its intention to cease the local roads assessment.

Another problem relates to the influence of 'road segments' on the CGC's choices for the synthetic network. In this regard, the CGC adjusted its parameters in the synthetic roads network so that:

> UCLs with a population less than 1 000 are connected to their nearest two UCLs with a population of more than 1 000 instead of their nearest six UCLs.[113]

This adjustment is based on the 'average number of connecting roads for UCLs of different sizes' calculated by the CGC.[114]

Discussions with the CGC revealed that:

- Road segment data provided by States are used to calculate connecting roads.
- If a road consisting of two segments intersects a UCL border twice, it is counted as two connections. However, if a road consisting of one segment intersects a UCL border twice, it is counted as one connection.

We consider the use of road segments as arbitrary, and State policy on how it defines road segments heavily influences the analysis.

According to the CGC, in general, roads intersecting UCLs are more than one segment, implying two connections. However, UCLs in Western Australia with populations below 1,000 have been allocated an average number of connections of either 1.2 or 1.3, implying that the majority of these UCLs are on dead end State-managed roads or are inaccessible from a State-managed road. This is not the case.

Main Roads Western Australia expressed surprise at the 'average number of connecting roads for UCLs of different sizes', as calculated by the CGC for Western Australia. According to Main Roads Western Australia, 'Primary Distributor roads' and 'Regional Distributor roads' should be used for comparison with the calculated 'average number of connecting roads'.

112 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 17, page 23, Table 21.

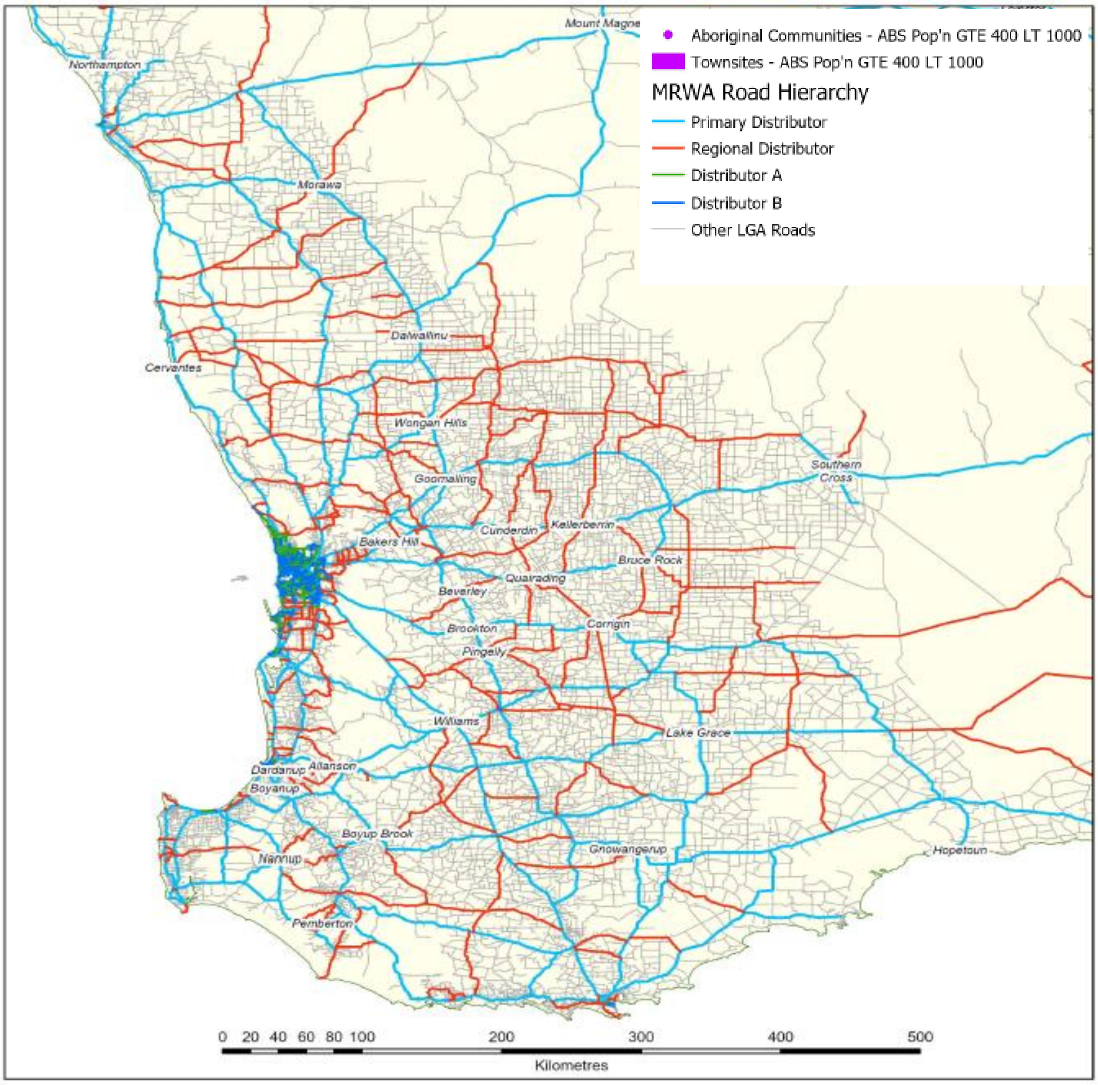
113 *ibid.*, Attachment 17, page 23, paragraph 97.

114 *ibid.*, Attachment 17, page 23, paragraph 97.

Figure 13.1 is a map of South West UCLs with a population between 400 and 1,000.

- It is clear from the map that the vast majority of UCLs, have several access roads and very few have a single connection point.

Figure 13.1: Primary and regional distributor roads connecting South West UCLs with populations between 400 and 1,000



Source: Main Roads Western Australia.

The CGC's modification to reduce the number of connections between smaller UCLs does not provide the reasonable levels of access between population centres that would be reflected in standard policy for sparsely-populated areas.

- Western Australia considers a connection to the nearest two UCLs with a population of more than 1,000, as well as a connection to up to the nearest four UCLs with a population of less than 1,000 (some may not have four nearby towns) as a more realistic representation of standard connectivity for rural UCLs.

Lane kilometres

The CGC proposes in the draft report[115] that road length be adjusted to reflect the existence of additional lanes. Western Australia does not support this as it is not policy neutral. Moreover, it is only a partial measure of how States take into account increasing traffic (e.g. through overtaking lanes and broader shoulders).

Local roads

The CGC wishes to cease its assessment of local roads, saying (without explanation) that it "disagrees that the local roads assessment should be retained to address a possible inadequacy in Commonwealth funding for local governments".[116]

The CGC should provide a full explanation for the proposal to cease the long-established local roads assessment. The reasons for dropping the assessment are unclear and may reflect confusion about how the disability manifests in States.

The assessment was always intended to cover the cost of roads in unincorporated and remote areas, despite the existence of Commonwealth equalisation for local governments. The fact that these extra costs are distributed through the local road network as a result of Commonwealth equalisation is also a long-established feature.

Bridges and tunnels

The bridges and tunnels component of the Roads assessment aims to adjust for a geographic disability. According to the CGC, bridges and tunnels:

> …are required because of topological features such as waterways and, in some cases, changes in elevation.[117]

However, other geographic-specific structures, including floodways (a widespread feature of Western Australia), are not included in the assessment. Are we to understand this is due to a lack of data?

Western Australia does not support the bridges and tunnels assessment (with the omission of floodways or other structures), as the CGC has not explained why this partial assessment of structures would not lead to a biased assessment.

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[115] *ibid*., Attachment 17, page 11, paragraph 48.

[116] *ibid*., Attachment 17, page 30, paragraph 140.

[117] *ibid.*, Attachment 17, page 10, paragraph 43.

Notably, the CGC is only using a proxy measure for the use proportion of the bridges and tunnels assessment.

- The CGC should assess the cost of road structures (bridges, roads, floodways, etc.) as part of the general roads assessment.
- However, if the CGC proceeds with its proposed assessment, it should deduct the length of bridges and tunnels from the synthetic network lane kilometres.

Heavy vehicles

The adverse impact of heavy vehicles on road maintenance increases at an increasing rate with the weight of a vehicle. The CGC indicated that BITRE did not have reliable information to disaggregate very heavy vehicles such as road trains and articulated trucks.[118] However, the question is whether the available data are sufficiently reliable and fit for the purpose of making an assessment.

The CGC also proposes to dismiss the case for a very heavy vehicle assessment, as it is Western Australia's policy to allow very heavy vehicles on its roads, and mining companies pay some contributions. However:

- the CGC has not considered that this policy reflects a special need in Western Australia;
- the CGC assesses revenues from the higher economic growth resulting from the State's road policies; and
- the mining contributions are for only a small set of circumstances.

Further effort should be made at assessing this issue. We are happy to work with the CGC on it.

Also, we would like the CGC to clarify why heavy vehicle use on urban roads in Western Australia is assessed to be below average.

[118] *ibid.*, Attachment 17, page 34, paragraph 151.

14. Transport

Key Points

- Given concerns with the reliability of the method and the data not being fit for purpose, the CGC should adopt an EPC public transport assessment.
  – The use of passengers by transport mode is an incorrect proxy for mode availability (supply) and congestion.
  – A post-draft report change to the modelling approach has resulted in significant differences to estimated passenger numbers for some States. That these changes have an immaterial effect on assessment outcomes further suggest that passenger numbers are a poor proxy for supply or congestion.
- The CGC should discount both the recurrent and infrastructure assessments similarly, to the percentage of urban population.

Urban Transport

Western Australia disagrees with the proposal to adopt the consultant's model (with some adjustments). Our concerns with the consultant's model are well documented.[119]

Western Australia considers an EPC public transport assessment would be the most appropriate approach given concerns with the reliability of the method and the data not being fit for purpose.

- The consultant's model does not isolate the underlying factors and State expenditure is not policy neutral.

The CGC has experienced similar concerns with gambling revenues in the 'Other revenue' assessment, where it was unable to isolate underlying factors driving activity in each State, and therefore, was unable to develop a reliable method to differentially assess the taxes.[120] The CGC should undertake an EPC assessment in the Transport assessment, as it did with gambling taxes, and in line with assessment guidelines.

While we do not support the consultant's model, if the model is going to be used then we support the 25% discount to the proportion of State populations living in urban centres.

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[119] Western Australia (December 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review, Consultancy Report on Assessing Urban Transport.*

[120] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review,* Attachment 9, page 6, paragraphs 20-21.

Passengers by public transport mode

In the consultant's proposed model,[121] the supply of public transport variable is proxied by congestion, which is further proxied by bus and train passengers. In the CGC's draft report, the bus and train passenger variable is described as "…the logarithm of passengers by public transport mode to represent mode availability (level of service) and congestion".[122]

We argued in our submission that bus and train passenger counts relate to quantity demanded.[123] They do not capture excess supply. Despite this, the CGC continues to use the passengers by public transport mode as a proxy for mode availability and congestion. The picture below illustrates that this is a fallacy.

Picture 14.1: Passenger train

Mode availability in the picture is 15 seated passengers and some standing room. The number of passengers is 2. Therefore:

- Passengers ≠ Mode availability (supply).

Why are the empty seats not included in mode availability? Would an empty train (as one would find with a returning 'dead run' in peak times) imply that mode availability (hence supply) is zero?

[121] Jacobs (2018), *Urban Transport Consultancy Stage 2 Final Report,* Stage 2 Report to the Commonwealth Grants Commission, IA174500.

[122] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review,* Attachment 18*,* page 7, paragraph 25.

[123] Western Australia (December 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review, Consultancy Report on Assessing Urban Transport,* page 4.

Furthermore, the consultants stated that “Congestion occurs when roads approach their capacity, i.e. when many people use similar routes at the same time”.[124]

We would expect that, for any given population, as more people use public transport, road congestion will generally decrease. However, in the consultant’s model, the logarithm of passengers by public transport represents road congestion (the CGC agrees, as noted above). In other words, according to the consultant and the CGC, as more people use public transport, road congestion increases (as it is represented by passenger numbers).

- Would that same dead running empty train also imply that congestion is zero?
- We consider the inverse to be true, in relation to supply of public transport and congestion on roads.

Modelling passenger numbers

The CGC proposes to use modelled passenger numbers to calculate assessed expenses. In other words, the CGC proposes to use the outputs of an initial model as inputs for the main model. These modelled outputs would then form a proxy of a proxy (passenger numbers) of proxies (congestion and mode availability).

In an email of 16 August 2019, the CGC proposed a different model for public transport passengers than that in the draft report. Although the CGC described the proposed change as not having any material impact on the current assessment, estimated public transport passenger numbers differ significantly from the estimates in the draft report.

- Estimates of heavy rail passengers are 35% higher for Victoria and 54% lower for Queensland under the new model compared to the draft report.
- Similarly, bus and light rail passengers are 77% higher for the Northern Territory and 36% higher for Tasmania.

Table 14.1: Heavy rail passengers

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Actual passengers	455,689	285,731	80,219	69,048	16,322	-	-	-
Draft report passengers	325,534	271,167	171,918	114,642	71,336	-	-	-
New results passengers	401,052	365,958	79,843	59,322	36,548	-	-	-
% difference from actual	-12.0%	+28.1%	-0.5%	-14.1%	+123.9%	n/a	n/a	n/a
% difference from draft report	+23.2%	+35.0%	-53.6%	-48.3%	-48.8%	n/a	n/a	n/a

Source: Western Australian Department of Treasury calculation based on CGC data.

[124] Jacobs (2018), *Urban Transport Consultancy Stage 2 Final Report,* Stage 2 Report to the Commonwealth Grants Commission, IA174500, page 25.

Table 14.2: Bus and light rail passengers

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Actual passengers	182,487	107,895	86,835	50,003	45,377	6,439	15,989	6,830
Draft report passengers	148,094	125,582	84,763	51,520	32,277	3,464	9,934	1,895
New results passengers	161,825	149,489	88,135	61,699	37,533	4,694	12,521	3,354
% difference from actual	-11.3%	+38.6%	+1.5%	+23.4%	-17.3%	-27.1%	-21.7%	-50.9%
% difference from draft report	+9.3%	+19.0%	+4.0%	+19.8%	+16.3%	+35.5%	+26.0%	+77.0%

Source: Western Australian Department of Treasury calculation based on CGC data.

The differences in results between the two models are significant. If the effect of such large changes in passenger numbers are immaterial to the outcome, is passenger numbers an appropriate proxy for supply? Is the 25% discount sufficient?

- Since a policy-neutral driver cannot be reliably identified, we believe that an EPC assessment of urban transport is the most appropriate approach.

Ferry services

The CGC added a dummy variable for ferry services to the consultant's proposed model. The use of a dummy variable in this instance is inappropriate and will not achieve HFE. In fact, the dummy variable will disproportionally benefit States with below population share, non-zero ferry services.

- For example, Western Australia has limited ferry services (only a single service using three ferries on the Swan River) compared to New South Wales and Queensland. However, Western Australia is assessed at the same ferry expenditure per capita as New South Wales and Queensland.

An EPC assessment would address this issue.

Potential double counting

Light rail passenger numbers are proposed to be added to bus passenger numbers in the initial model because the CGC considers that they are close substitutes. Western Australia accepts that these two modes of transport could be used as substitutes. However, they could also be used as complements.

- There is a possibility of double counting when a passenger uses both modes as part of one journey.

An EPC assessment would address this issue.

Infrastructure Assessment

The CGC intends, as recommended by the consultants, to use the model developed for recurrent expenses (75%) to assess investment needs, discounted to the square of the urban population. The CGC justifies this decision:

> The consultants concluded that the drivers of expenses and investment (demand for services and the level of services) were sufficiently similar to assess both by using one model.[125]

Western Australia considers the proposed model is inappropriate to assess recurrent transport expenditure and to assess infrastructure needs. The timing and nature of investment is strongly influenced by political factors, competing demands, economic cycles and funding availability. Since a policy neutral driver cannot be reliably identified, we believe that an EPC assessment of urban transport investment is the most appropriate approach. Our position has been put forward in detail in our previous submissions.

However, if the CGC accepts that the drivers of expenses and investment are sufficiently similar to assess both using one model, why does it propose to discount the recurrent model to the percentage of urban population and the infrastructure assessment to the square of the urban population?

- Both the urban transport expenditure and the infrastructure assessments should be discounted similarly, by the percentage of urban population.
- Using two different baselines for the discounting seems to acknowledge that the two assessment categories are different. In addition, the conceptual case for the square of the urban population remains unclear and is questionable (in the 2015 Review the CGC applied a 50% discount to the square of the population).
- We do not support the use of the recurrent model to assess investment needs. However, if the model is going to be used, we would consider that the 25% discount should be to the proportion of State populations living in urban centres, rather than the square of the urban population. This would be more consistent and appropriate.

[125] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review,* Attachment 18, page 31, paragraph 126.

15. Services to Industry

Key Points

- This assessment is much improved.
- However, our view is that:
  - much ‘business development’ relates to existing industries and so should be assessed according to industry size;
  - assessing 25% of ‘other industries regulation’ according to population is unjustified and immaterial; and
  - regional costs should be assessed for ‘business development’ as not all costs occur in capital cities.

We support the improvements to this assessment. It is simpler and more intuitive.

However, we think the assessment could be further improved.

Concept of ‘business development’

We remain of the view that the split of expenses should not be into ‘regulation’ and ‘business development’, but rather into ‘expenses related to existing industry’ (assessed according to industry size) and ‘expenses related to new industry’ (assessed EPC).[126]

The problem with the CGC’s approach is perhaps easiest illustrated using drought relief, which the CGC classes as ‘business development’.

The CGC’s theory is that, because the ACT has virtually no agriculture, it will spend on trying to establish other industries. However, States with agriculture spend a lot on drought relief when it does not rain, and do not spend on drought relief when it does rain. Hence, the CGC’s assessment says that (under average policy) the ACT will spend a lot on trying to develop (say) manufacturing industries when it does not rain, but will put little effort into developing these industries when rainfall is plentiful. This does not appear a reasonable interpretation of average policy to us.

‘Other industries regulation’ population component

The CGC is proposing assessing 25% of ‘other industries regulation’ according to population size rather than industry size, as some regulations target consumers.[127]

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[126] Western Australia (October 2018) *Western Australia’s Submission to the Commonwealth Grants Commission’s 2020 Methodology Review – Draft Assessment Papers*, pages 139-140.

[127] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 19, page 17, paragraph 82.

We queried what regulations were deemed to target consumers, and CGC staff advised that such regulations would include fair-trading and consumer protection, workplace health and safety regulation, industrial relations, and (to some extent) construction industry regulation.[128]

These costs will, to some extent, be higher in States with larger relevant industry sectors. For example, a buoyant merchandising industry will raise more fair-trading issues, and higher employment will increase workplace health and safety regulation.

In addition, assessing 25% of 'other industries regulation' by populations is not materially different from using industry size for all of 'other industries regulation'.

Hence, this population assessment is not appropriate.

'Business development' regional costs

We remain of the view that the CGC should assess regional costs for 'business development'.

The CGC has stated that it will not assess 'business development' regional costs because a significant proportion of these costs:

- are incurred in the capital city; or
- are provided as grants or subsidies to business or industry.[129]

In our submission on the draft assessment papers, we addressed the CGC's concern that most costs are incurred in the capital city.[130] However, the draft report did not acknowledge our argument.

Our argument is that, for example, most school expenses occur in the capital city, most police services occur in the capital city and most health costs occur in the capital city. Despite this, all assessments have a regional costs adjustment, because part of the costs occur outside the capital city. These regional cost factors are not large, because the regional cost gradient is weighted by the small proportion of the service that occurs outside the capital city.

Hence, it is not relevant that most 'business development' costs occur in the capital city – all that is relevant is that some 'business development' costs occur outside the capital city.

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[128] E-mail from CGC staff, 13 September 2019.

[129] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 19, page 18, paragraph 94.

[130] Western Australia (October 2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers*, page 142.

- Our previous submission listed our Business Development Commissions, which are outside the capital city, and also referred to 'agriculture regulation'.[131]
- Of the 'business development' expenses, 43% relate to agriculture and mining.[132] Both of these are inherently regional.

Regardless, as the CGC proposes to assess 'business development' costs EPC, it would be reasonable to take the general regional cost gradient and weight it by population. If all 'business development' costs only occurred in the capital city, then 'business development' costs should be assessed as proportional to capital city populations, rather than total populations.

At staff level, the CGC has also suggested that it is inappropriate to assess regional costs because 'business development' costs are policy influenced. This should not matter, as the regional cost factors would be applied to average policy expenses (i.e. EPC expenses).

[131] *ibid.*, pages 141-142.

[132] E-mail from CGC staff, 27 September 2019.

16. Physical and Financial Assets

Key Points

- The proposal to assess gross investment is misleading and should not be adopted.
  - If the CGC does adopt it, then the CGC should include the algebraic derivation of the gross investment formula from the depreciation and net investment formulae.
- There are also some timing mismatches in the CGC's gross investment formula.
- The police investment assessment requires a split of the police recurrent regional assessment into use and cost. The best solution to this would be to assume that the cost portion is as per the 2015 Review police regional cost factors.
- We support the CGC's proposals:
  - to not freeze stock factors from start to end of year;
  - to not assess the cost of land purchases; and
  - to cease the discount on net borrowing.

Investment

Gross versus net investment

The draft report has strengthened our view on the non-transparent nature of the gross investment assessment. The proposed method is misleading and poorly explained. Anyone without an extensive background in the CGC's capital assessments would struggle to get a clear understanding of the conceptual basis for the proposed assessment, based on the draft report.

An example is the CGC's explanation of start of year stock (italics added):

> K_0 is calculated as K_1 minus gross investment. While it can, for practical purposes, be thought of as the stock of assets at the start of the year, it more accurately represents *the stock of those assets that will not be consumed during the year that were held at the start of the year*.
> ($K_0 = K_1$ – Gross investment; or $K_0 = K_1$ – Net Investment + Depreciation).[133]

[133] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Supplementary information, page 35, Box 3.

A better description than the italicised words above would be "the stock of assets that would be held at the end of the year if States purchased no replacement or new assets during the year".

Also, the final line of the above quote is technically incorrect. It should have an extra set of brackets – shown in bold in the following correction:

> (K_0 = K_1 – Gross investment; or K_0 = K_1 – **(**Net Investment + Depreciation**)**).

The draft report also states:

> The Northern Territory expressed concerns with grouping a volatile (investment) assessment with a stable (depreciation) assessment. The Commission considers this to be one of the attractions of combining these assessments. While not changing the dollar value of the volatility, it does reduce the relative or apparent volatility of the investment assessment. In particular, it reduces the prospect or frequency of a State being assessed as needing negative investment.[134]

The proposed approach does not change the volatility, it just hides it. Our concern is that the unknowledgeable will not be aware of such volatility.

Fundamentally, the capital assessments are built on the concept of enabling each State to own an assessed level of per capita stock at the end of each year. This requires depreciation expenses proportional to assessed stock, and net investment reflecting the change in capital stock. Although the gross assessment formula can be derived from the net investment and depreciation formulae, it hides the underlying logic.

Newcomers to the CGC's capital assessments are likely to think they understand the approach, when they do not appreciate the subtleties. Features of a net investment assessment may trouble those with limited understanding, but it is preferable to be aware of this than to be lulled into a false sense of complacency.

At the very least, the draft report should include an algebraic derivation of the gross investment formula from the two separate depreciation and net investment formulae.

- The draft report certainly should not say: "The investment formula, from the 2015 Review, remains unchanged …".[135]
- Although the high-level formula has been written identically, the definition of start of year stock (K_0) in that formula has been changed, so it is no longer the same formula.

[134] *ibid.*, Attachment 21, page 12, paragraph 40.
[135] *ibid.*, Supplementary information, page 35, Box 3.

Timing mismatches

We note that there are a couple of timing mismatches within the CGC's formulae.

Firstly, the separate formula for assessed depreciation that is required to produce the CGC's formula for assessed gross investment uses start-of-year population shares and start-of-year stock factors, but uses end-of-year cost factors.

Secondly, there is a mismatch between the timing of assessed gross investment and standard gross investment.[136]

The CGC's formula for gross investment is:[137]

$$\widehat{GI}_i = \left[\left(\frac{K_1}{P_1} p_{i,1}\delta^u_{i,1}\right) - \left(\frac{(K_1 - GI)}{P_0} p_{i,0}\delta^u_{i,0}\right)\right]\delta^c_{i,1}$$

This can be rearranged algebraically to:

$$\widehat{GI}_i = K_1\left(\frac{p_{i,1}}{P_1}\delta^u_{i,1} - \frac{p_{i,0}}{P_0}\delta^u_{i,0}\right)\delta^c_{i,1} + GI\frac{p_{i,0}}{P_0}\delta^u_{i,0}\delta^c_{i,1} \qquad Equation\ (1)$$

In this formula:

$\widehat{GI}_i$ is assessed gross investment of State *i*

K_1 is the national total value of infrastructure stock at the end of the year

GI is national gross investment in the year

$p_{i,0}$ and $p_{i,1}$ are the populations in State *i* at the start and the end of the year

P_0 and P_1 are the national populations at the start and the end of the year

$\delta^u_{i,0}$ and $\delta^u_{i,1}$ are the stock factors of State *i* at the start and the end of the year

$\delta^c_{i,1}$ is the cost factor of State *i* at the end of the year

However, for practicality, the CGC uses current-year populations as end-of-year populations and previous-year populations as start-of-year populations.

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136 This mismatch already applies to net investment and net borrowing. The CGC's gross assessment would extend it to depreciation.

137 Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Supplementary information, page 35, Box 3. This formula uses the algebraic definition of K_0 in that Box.

Hence, the CGC would calculate gross investment needs for State *i* as follows:[138]

$$Needs_i = \widehat{GI}_i - GI\frac{p_{i,1}}{P_1} \qquad\qquad Equation\ (2)$$

Inserting the Equation (1) expression for assessed gross investment into Equation (2) gives the following:

$$\begin{aligned} Needs_i &= K_1\left(\frac{p_{i,1}}{P_1}\delta^u_{i,1} - \frac{p_{i,0}}{P_0}\delta^u_{i,0}\right)\delta^c_{i,1} + GI\frac{p_{i,0}}{P_0}\delta^u_{i,0}\delta^c_{i,1} - GI\frac{p_{i,1}}{P_1} \\ &= K_1\left(\frac{p_{i,1}}{P_1}\delta^u_{i,1} - \frac{p_{i,0}}{P_0}\delta^u_{i,0}\right)\delta^c_{i,1} + GI\left(\frac{p_{i,0}}{P_0}\delta^u_{i,0}\delta^c_{i,1} - \frac{p_{i,1}}{P_1}\right) \\ &= K_1\left(\frac{p_{i,1}}{P_1}\delta^u_{i,1} - \frac{p_{i,0}}{P_0}\delta^u_{i,0}\right)\delta^c_{i,1} + GI\frac{p_{i,0}}{P_0}\left(\delta^u_{i,0}\delta^c_{i,1} - 1\right) - GI\left(\frac{p_{i,1}}{P_1} - \frac{p_{i,0}}{P_0}\right) \end{aligned}$$

The first two terms in the final expression above are what we would expect in a correct calculation (i.e. movement in stock per capita and a disability assessment of investment). However, the third term subtracts a spurious shift in population shares multiplied by gross investment.

This third term could be avoided if the CGC were to reformulate assessed gross investment based on actual start-of-year national stock (K_0) as follows:[139]

$$\widehat{GI}_i = \left[\left(\frac{(K_0 + GI)}{P_1}p_{i,1}\delta^u_{i,1}\right) - \left(\frac{K_0}{P_0}p_{i,0}\delta^u_{i,0}\right)\right]\delta^c_{i,1}$$

This can be rearranged algebraically to the following:

$$\widehat{GI}_i = K_0\left(\frac{p_{i,1}}{P_1}\delta^u_{i,1} - \frac{p_{i,0}}{P_0}\delta^u_{i,0}\right)\delta^c_{i,1} + GI\frac{p_{i,1}}{P_1}\delta^u_{i,1}\delta^c_{i,1} \qquad\qquad Equation\ (3)$$

Needs would still be calculated by Equation (2):

$$Needs_i = \widehat{GI}_i - GI\frac{p_{i,1}}{P_1}$$

However, the CGC would use the Equation (3) expression for assessed gross investment, which when substituted into Equation (2) gives:

$$\begin{aligned} Needs_i &= K_0\left(\frac{p_{i,1}}{P_1}\delta^u_{i,1} - \frac{p_{i,0}}{P_0}\delta^u_{i,0}\right)\delta^c_{i,1} + GI\frac{p_{i,1}}{P_1}\delta^u_{i,1}\delta^c_{i,1} - GI\frac{p_{i,1}}{P_1} \\ &= K_0\left(\frac{p_{i,1}}{P_1}\delta^u_{i,1} - \frac{p_{i,0}}{P_0}\delta^u_{i,0}\right)\delta^c_{i,1} + GI\frac{p_{i,1}}{P_1}\left(\delta^u_{i,1}\delta^c_{i,1} - 1\right) \end{aligned}$$

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[138] That is, assessed gross investment *minus* standard per capita national investment.

[139] This uses K_0 differently from the draft report, which uses K_0 as the constructed concept of $K_1 - GI$.

This is a more reasonable expression. It would also resolve the first mismatch, by having depreciation assessed using end-of-year data (which are, in practice, current year data).

The second mismatch also occurs in the calculation of net borrowing needs. This would also be removed by basing assessed net borrowing on actual start-of-year national net financial assets.

Police regional costs

The CGC has identified a difficulty with measuring cost factors for police investment, as the recurrent regional assessment for police covers both use and cost.

We have identified three solutions to this, as follows.

1. Assume police remoteness is all a stock factor, and ignore Rawlinsons.
   - This is very simple to implement.
   - However, it has the disadvantages that it:
     - omits the valid contribution that Rawlinsons gives; and
     - it picks up movements in cost factors from start to end of year.
2. Assume police remoteness is all a cost factor, but use Rawlinsons to adjust for differences in costs for the same remoteness region across States.
   - This will pick up part of the differences among States in Rawlinsons factors.
   - However, it has the disadvantages that:
     - it ignores movement in stock factors from start to end of year; and
     - it would be complex to implement.
3. Assume the cost component of police regional assessment is as per the 2015 Review, and average this cost factor with Rawlinsons.
   - This has the advantage of bringing Rawlinsons cost factors to account.
   - It is fairly simple to implement.
   - It picks up movement from start to end of year in stock factors, but not cost factors.
   - It has the disadvantage that it uses old 2015 Review police regional cost factors, but this would only affect the split of the 2020 Review total regional cost assessment and hence how much of that assessment is averaged with Rawlinsons. Hence, any errors are likely to have only a small impact.

Given the advantages and disadvantages listed above, we consider the third option (to use the 2015 Review police cost gradient) to be the appropriate approach.

Other issues

We support that, since the draft assessment paper, the CGC has proposed:

- to not freeze stock factors from start to end of year; and
- to not assess the cost of land purchases.

Both of these proposals are consistent with the arguments in our draft assessment papers submission.

Net borrowing

We support that the CGC proposes to cease the discount on net borrowing.

We have always been of the view that higher population growth does not increase the rate of revaluation of any financial assets. Hence, the discount has never been justified.

17. Wage Costs

Key Points

- At the very least, the CGC should engage an expert econometrician with expertise in many-variable models to evaluate the wage model's fitness for purpose and econometric specification.
- Ideally, the CGC should replace the wages regression model with an adjusted private average weekly earnings (AWE) indicator, as this appears to be a better fit with the CGC's assessment guidelines.

The CGC wages regression model

Western Australia supports the assessment of wage differences across States. However, HFE depends to a significant extent on the accurate assessment of wages because wage costs account for the largest element of State expenditure.

We have raised concerns with the CGC on several occasions about its regression model. We regard the model as misspecified and overly complicated. An excessive number of variables creates problems where they can potentially have explanatory significance due to random chance, rather than due to being valid explanatory variables.

In addition, the significance of valid explanatory variables (including State variables) can be reduced by other (valid or invalid) explanatory variables in the model.

- Specifically, for the 2017-18 regression, the State variables for Victoria, New South Wales and the ACT are statistically significant only at the 20%, 24% and 51% level, respectively. This implies that these States' wages are statistically not different from the Northern Territory (which forms the baseline). Queensland is only just statistically significant at the 10% level.
- This is a concern, given that State coefficients directly drive the assessment results. Further, these State variable coefficients are a residual effect of the regression, rather than the primary question being asked.

Western Australia considers that the CGC should engage an expert econometrician, particularly with expertise in many-variable models, to review the wage model's fitness for purpose and econometric specification.

Western Australia's general concerns were heightened following the 2019 Update report, which suggests that the estimated wage pressures in Western Australia fell from 5% above the national average in 2016-17 to 1% below the national average in 2017-18 (prior to the 12.5% discount).

- Although we do not dispute a softening of wage pressures in Western Australia, the magnitude of change seems implausible.

However, the CGC maintains that using around 800 variables is not overfitting because:

> The inclusion of a large number of variables in the Commission's model reduces the possibility that relevant variables may be omitted and increases the accuracy of the modelled estimate.[140]

This statement seems to contradict the standard practice followed by the CGC in regression analysis. For example:

In the Transport assessment:

> A number of States, notably Victoria and Tasmania, were concerned that some variables, such as student numbers and income, were not included in the consultants' preferred model. The consultant has tested a range of variables, including the two mentioned above. Variables were not included when they did not improve the model. In any case, many of them were correlated with other variables included in the model and their effects on costs would, therefore, already be captured by the variables included in the model.[141]

In the Schools assessment:

> The Commission was inclined to use the same regression model for State spending on non-government schools as for government schools. However, a negative cost weight for Indigenous students in all years seemed unreliable, and so the model has been slightly adjusted to remove this variable.[142]

> …the weight for Indigenous students produced using this approach appeared unreliable, and so this variable was removed from the model. Across the different years tested the outer regional coefficient was sometimes smaller than the remote coefficient, while in other years it was not. On this basis, both outer regional and remote variables were retained.[143]

[140] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 24, page 8, paragraph 32.

[141] *ibid*., Attachment 18, page 14, paragraph 59.

[142] *ibid*., Attachment 10, page 20, paragraph 75.

[143] *ibid*., Supplementary information, page 7, paragraph 19.

The CGC also refers to a consultant who during the 2010 Review, supported the functional form of the regression model. However, the CGC does not mention the consultant employed as part of the 2016 Update who (in conference discussions) was not supportive of the functional form of the model. Furthermore, the 2010 Review consultant stated:

> …if there were ever significant shifts in the size of estimated state effects across time (that did not seem to correspond to changes in inter-state differences in the cost of living), or state effects that the CGC believed were out of line with other effects, then the CGC might need to use its judgement to make some adjustment to the estimated state effects before applying them to calculate wage and salaries factors.[144]

According to the CGC:

> … it retains the right to exercise judgement if its best endeavours to build a reliable assessment do not lead to an outcome consistent with its observations and understanding of State circumstances. Where the Commission deviates from the guidelines, it will aim to explain clearly its reasoning.[145]

In the next section we present our observations and understanding of State circumstances, supported by ABS data, which are not consistent with the outcome of the 2019 Update CGC wages regression model results.

- We could not find any empirical support for the CGC wages regression model results. To the contrary, all available indicators indicate that wage pressures in Western Australia are above the national average, even when adjusted for industry composition.

CGC interstate wage cost factors compared to ABS wage indicators

In our 2020 Review Draft Assessment Papers submission,[146] we highlighted the differences in magnitude between the CGC model results and ABS indicators such as Average Weekly Earnings (cat. no. 6302.0). We suggested that the CGC under-estimates wage costs for Western Australia.

Although each ABS wage indicator is developed and measured in a different way and for a different purpose, it is reasonable to expect that the CGC interstate wage cost factors would be generally consistent with the overall trends of the ABS wage indicators.

[144] Borman report (2009), *Responses on issues relating to wage input costs,* Email from Tim Carlton (17 Feb 2009), Question 11.

[145] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 24, page 8.

[146] Western Australia (2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers,* page 152.

Table 17.1 illustrates the CGC interstate wage cost factors, as well as five ABS wage indicators, converted to interstate wage cost factors. All the ABS wage indicators indicate the same relative direction of wage pressures, with New South Wales, Western Australia, the Northern Territory and the ACT exhibiting higher than average wages, while Victoria, Queensland, South Australia and Tasmania exhibit lower than average wages.

- The direction of the CGC interstate wage cost factors is not consistent with the ABS wage indicators for Victoria and Western Australia.

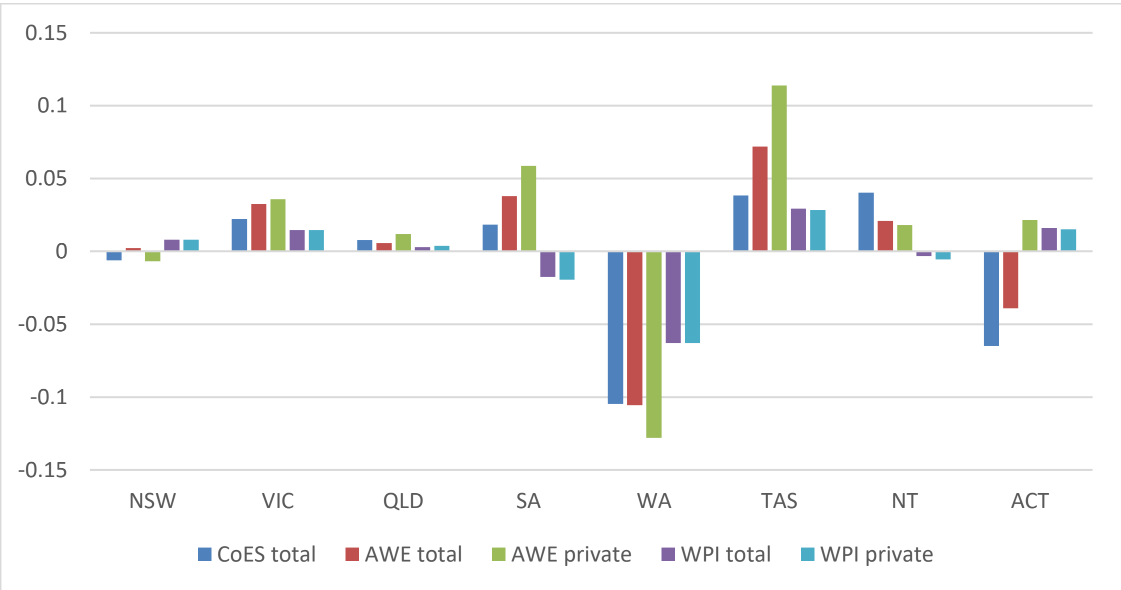
Table 17.1: Comparative analysis of the CGC's interstate wage cost factors and ABS wage indicators

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
CGC (2017-18)	1.010	1.007	0.993	0.955	0.988	0.947	1.054	1.086
CoES (2018)	1.017	0.984	0.985	0.936	1.092	0.909	1.014	1.151
Total AWE (Nov 2018)	1.008	0.974	0.987	0.917	1.093	0.875	1.033	1.125
Private AWE (Nov 2018)	1.017	0.971	0.981	0.896	1.116	0.833	1.036	1.065
Total WPI (Jun 2018)	1.002	0.992	0.990	0.972	1.051	0.918	1.057	1.070
Private WPI (Jun 2018)	1.002	0.992	0.989	0.974	1.051	0.919	1.059	1.071

Note: The WPI indicators use the CGC's undiscounted 2007-08 wage factors as a base.

Figure 17.1 similarly shows that the CGC wage cost factor for Western Australia in 2017-18 is significantly lower than all comparable ABS wage indicators.

Figure 17.1: Difference between CGC interstate wage cost factors and ABS wage indicators, 2017-18

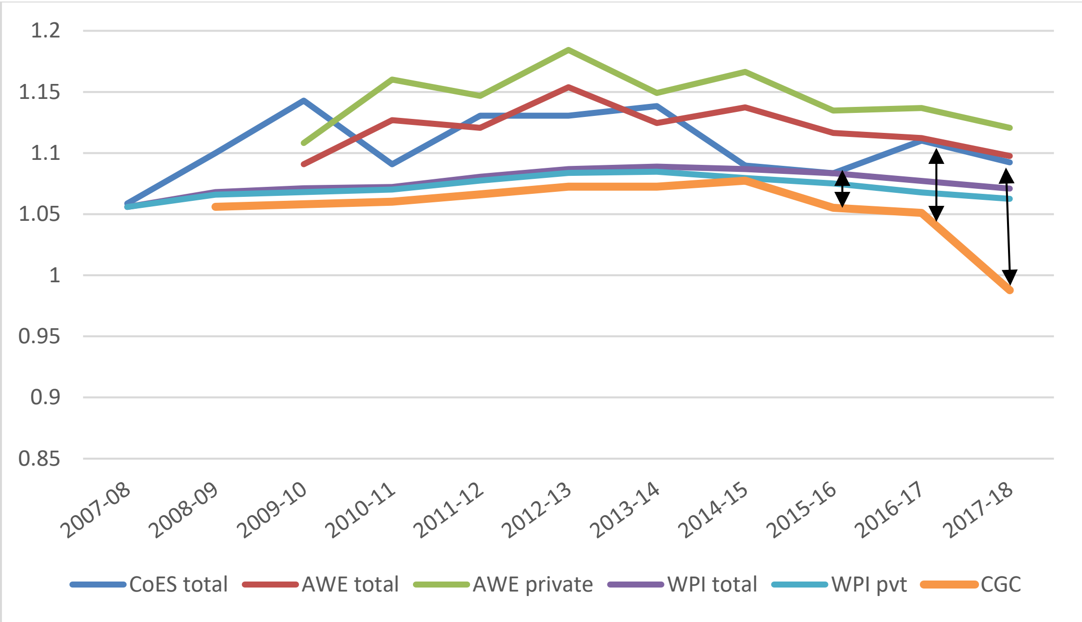


Note: The WPI indicators use the CGC's undiscounted 2007-08 wage factors as a base.

The CGC's wage factor would be expected to reasonably match the ABS Wage Price Index (WPI) indicators (as both are controlled for compositional differences between States) but does not. Nor does the CGC's wage factor match the ABS Characteristics of Employment Survey (CoES) and Average Weekly Earnings (AWE) indicators after controlling for compositional differences between States.[147]

Figure 17.2 shows a volatile relationship between CoES and CGC factors, with a large increase in their difference over the past three years, which is inexplicably driven by volatility in the CGC wage cost factors.

Figure 17.2: CGC wage cost factors and ABS wage indicators for Western Australia, 2007-08 to 2017-18



The CGC explains in its 2019 Update report:

> One of the main drivers of the redistribution in this update was the substantial reduction in the 2017-18 relative wage levels for Western Australia flowing from the latest ABS CoES data. In this update, 2014 CoES data have been replaced by 2017 data. The CoES shows that relative wage levels peaked in Western Australia in 2014-15 and fell below average in 2017-18, reducing its GST distribution by $360 million.[148,149,150]

[147] See Western Australia (2018), *Western Australia's Submission to the Commonwealth Grants Commission's 2020 Methodology Review – Draft Assessment Papers,* pages 151-152. More recent Western Australian analysis, which standardises private ordinary time AWE for industry composition, suggests that the impact of industry composition is around 6 percentage points for Western Australia. For November 2018, private ordinary time AWE for Western Australia adjusted for industry composition is estimated at 5.5% above the national average, in stark contrast with the CGC's -1.2% estimate. This amounts to a relative wage difference of 6.8%.

[148] Commonwealth Grants Commission (2019), *Report on GST Revenue Sharing Relativities, 2019 Update*, page 28, paragraph 1.30.

[149] To calculate States' grant shares for each year, the CGC applies data from a lagged, three-year rolling average. For 2019-20, the data years are 2015-16, 2016-17 and 2017-18.

[150] The $360 million GST reduction in 2019-20 is $230 million more than Western Australia expected based on the ABS wage price index.

In addition, an email to Western Australia from the CGC Secretary on 19 February 2019 stated:

> The wage costs results provided to the States reflect the changes in the wages data set (the ABS Characteristics of Employment Survey (CoES)).

However, CGC results do not reflect changes in CoES data. Figure 17.2 shows that the relative CoES median weekly earnings for Western Australia is higher in 2017-18 than it was in 2014-15. Indeed, it is 9.2% above the Australian average in 2017-18 (including compositional effects).[151]

- Given that changes in CoES data are not sufficient to explain the CGC's substantial reduction in Western Australia's 2017-18 relative wage levels, we can only assume it is the CGC's regression model that is driving such implausible results.

Employer surveys *versus* household surveys

Different ABS wage indicators are measured in different ways and for different purposes. The ABS produces earnings statistics from several different sources, including household (e.g. CoES) and employer (e.g. AWE) surveys, which provide a wide range of data for a variety of purposes.

The decision on which data to draw depends on the purpose and type of analysis to be undertaken. There are benefits and limitations to both that should be taken into account (see Table 17.2).

Employer surveys such as the AWE survey provide superior earnings and industry size data, whereas household surveys such as CoES provide detailed data on socio-demographic characteristics.

- Ultimately, the CGC is interested in wage differences between States, adjusted for State-specific differences.

Adjusting for structural State differences based on industry composition is a readily available alternative which does not require regression analysis and provides an overarching adjustment that captures various characteristics of employment.

Controlling for industry will automatically provide reasonable control for occupation, education, migrants and other attributes. Any potential loss in comprehensiveness will be offset by an increase in simplicity and improvement in data quality.

[151] Note that the published CoES data relates to both the public and private sector. If the CGC is correct that Western Australian private weekly CoES earnings dropped below average, relative *public* median weekly earnings would have had to increase significantly in 2017-18 (well in excess of 9.2% since the public sector wage bill is smaller than the private sector wage bill). This seems improbable, especially since Government of Western Australia employees' wage increases in 2017-18 were restricted to $1,000 per annum.

Table 17.2: Benefits and limitations of employer and household surveys

Employer surveys earnings data	Household surveys earnings data
Benefits	
• More accurately reported earnings as data are obtained from employers' payrolls; • Components of earnings collected separately (i.e. ordinary time and overtime earnings); and • Consistent business characteristics (such as industry and business size), as this information is maintained on the ABS Business Register.	• Earnings by socio-demographic characteristics; • Earnings by a range of employment characteristics, such as paid leave entitlements; and • Greater geographic information about place of usual residence including Statistical Area level 4 under the Australian Statistics Geography Standard.
Limitations	
• Limited socio-demographic characteristics of employees; • Limited information about characteristics of employment; and • Only State/Territory geographic information about place of work available.	• Earnings are less robust, with reliance on respondents' accurate recall of (pre-tax) earnings; • Some respondents report on behalf of others in the household which can affect the quality of data reported; • Fewer and less robust information about business characteristics; and • Components of earnings estimates not available.

Source: Australian Bureau of Statistics cat. no. 6310.0 Employee Earnings, Benefits and Trade Union Membership, Australia, August 2013.

Using AWE is more consistent with the CGC's assessment guidelines

We propose that the CGC, as part of the 2020 Review, replaces the current regression model with private AWE data as published by the ABS, with an adjustment for industry composition differences.

Western Australia is of the opinion that enough evidence exists that the current wage model does not produce results that are consistent with labour market observations and State circumstances to merit a judgement in favour of an AWE-based model.

Table 17.3 compares the appropriateness of the current CGC wages regression model and adjusted private AWE, based on the CGC's proposed assessment guidelines.[152]

[152] Commonwealth Grants Commission (2017), *2020 Review: The Principle of HFE and its implementation. Staff Discussion Paper CGC 2017-02-S*, page 44, paragraph 198.

Table 17.3: Applying the CGC's assessment guidelines to the wage's disability and method

<table>
<tr><th>The Commission will include a disability in a category when:</th><th>The CGC wages regression model</th><th>Adjusted private AWE</th></tr>
<tr><td>• a case for the disability is established, namely:
– a sound conceptual basis for these differences exists
– there is sufficient empirical evidence that material differences exist between States in the levels of use or unit costs, or both, in providing services or in their capacities to raise revenues.</td><td colspan="2">✓
✓</td></tr>
<tr><td>• a reliable method can be devised that is:
– conceptually rigorous (for example, it measures what is intended to be measured, is based on internal standards and is policy neutral)
– implementable (the disability can be measured satisfactorily)
– where used, consistent with external review outcomes.</td><td>X
X
X</td><td>✓
✓
✓</td></tr>
<tr><td>• data are available that are:
– fit for purpose — they capture the influence the Commission is trying to measure and provide a valid measure of States' circumstances
– of suitable quality — the collection process and sampling techniques are appropriate; the data are consistent across the States and over time and not subject to large revisions.</td><td>X
X</td><td>✓
✓</td></tr>
</table>

Informal discussions with the ABS reinforced our view that private AWE data would be a viable alternative, and that a structural adjustment for industry differences could conceptually be calculated and applied.

As noted above, it is considered that private AWE data, reported by employers from payroll data, are of superior quality to CoES data, which are self-reported by households.

We would also welcome the CGC engaging with the ABS on whether the CoES data are fit for purpose, and on possible alternative indicators for the CGC wages assessment.

18. Geography

Key Points

- An assessment of interstate non-wage costs should be retained, based on either the 2015 Review or the 2010 Review methods.
- We have concerns with the draft report arguments against:
  - use of continuous Accessibility and Remoteness Index of Australia (ARIA) scores;
  - ceasing ARIA truncation; and
  - introducing an ‘extremely remote’ classification.
- We support the CGC’s proposal to cease discounts on most regional cost gradients.
- The admitted patients cost gradient used in the general gradient should include the patient remoteness loading, as well as the hospital remoteness loading.
- We have concerns with the proposed regional cost gradients for:
  - prisons and courts (discussed in the *Justice* chapter of this submission);
  - welfare (discussed in the *Welfare* chapter);
  - water subsidies (discussed in the *Services to Communities* chapter); and
  - business development (discussed in *Services to Industry*).

Interstate non-wage costs

The 2015 Review methods include a ‘location adjustment’, which recognised that:

- although Hobart and Darwin are classified as ‘regional’, this overstates their costs because they share various characteristics with other capital cities; and
- Perth and Canberra have additional costs from their isolation – in previous reviews these had been termed ‘interstate non-wage costs’ and earlier as ‘isolation costs’.

The draft report proposes ceasing this ‘location adjustment’, due to uncertainties over its conceptual basis. However, it did acknowledge that “interstate non-wage costs are likely to increase Western Australia’s costs in a way that is not assessed in other categories.”[153]

This proposal was not expected, as the draft assessment papers said that CGC staff proposed recommending that the CGC “maintain 2015 methods to measure Interstate non-wage costs.”[154]

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[153] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 25, page 19, paragraph 75.

[154] Commonwealth Grants Commission (2018), *2020 Review Geography Used by the Commission, Staff Draft Assessment Paper CGC 2018-01-23-S*, page 18.

Since the draft report, CGC staff have suggested to us that, if we want the assessment retained for Western Australia, we should examine the cost pressures of isolation and provide evidence. Unfortunately, there has been insufficient time within which to conduct the analysis and respond to the draft report. However, a lack of such an assessment represents a failure to capture an accepted disability.

We will give some further consideration to this issue ahead of the final report but note the following.

In the 2010 Review, the CGC assessed the cost of freight and interstate travel. Table 18.1 shows the factors that the CGC assessed, and the resulting needs if those factors were applied to the 2017-18 total expenses from the 2019 Update.[155]

Table 18.1: 2010 Review Interstate non-wage cost assessment applied to 2017-18 assessment year

	2010 Review isolation factors			2017-18 Needs [(b)]	
	Freight	**Travel**	**Combined [(a)]**	**$pc**	**$m**
NSW	0.99901	0.99972	0.99876	-13	-100
Vic	0.99899	0.99975	0.99877	-13	-80
Qld	0.99962	0.99982	0.99947	-5	-27
WA	1.00185	1.00037	1.00225	+23	+59
SA	1.00070	1.00017	1.00090	+9	+16
Tas	1.00728	1.00217	1.00948	+97	+51
ACT	1.00441	1.00117	1.00561	+57	+24
NT	1.01620	1.00650	1.02273	+232	+57
8-States	*0.99998*	*0.99999*	*1.00000*	*0*	*0*

Source: Western Australian Department of Treasury calculations using Commonwealth Grants Commission (2010), *Report on GST Revenue Sharing Relativities, 2010 Review*, Volume 2, Chapter 24, Table 24-5 and Table 24-7.

(a) Factors added and scaled using 2017-18 populations from 2019 Update.

(b) The 2019 Update gives national total expenses for 2017-18 of $10,194 per capita. Needs are calculated by applying the combined 2010 Review isolation factors to this national per capita total.

These needs exceed $35 per capita for the ACT,[156] and are also substantial for Western Australia.

[155] In the 2010 Review, the CGC scaled the factors so as to apply them to total expenses. Hence, these factors can be applied to latest total expenses (implicitly assuming that national freight and travel expenses have grown in line with total expenses).

[156] They are also material for Tasmania and the Northern Territory. However, we recognise that the CGC might argue that for Hobart and Darwin the isolation cost is offset by their nature as a capital city (although we see these as two different disabilities – interstate isolation, as distinct from an adjustment to regional costs).

Use of ARIA

ARIA++

The CGC noted in the draft report that during its State visit to Western Australia, we raised the prospect of using ARIA++.[157] While it was raised in a presentation from a line agency, Western Australian Department of Treasury does not advocate its use.

The CGC then attributed this prospect to a quote from our Draft Assessment Paper submission.[158] However, the quote did not mention ARIA++, instead advocating for a continuous ARIA score, the removal of the ARIA truncation, or the introduction of a sixth region. These are all discussed below.

Continuous ARIA score

We have argued that the CGC could use the ARIA scores for each location, rather than just the five categories of remoteness.

The CGC responded that this "would preclude the Commission from building an assessment based on observations of what States do in a policy neutral way, …".[159]

However, we believe the CGC has misinterpreted our proposal.

- We envisage the CGC collecting cost per user for each location across the country (as it does at present), but instead of grouping them into the five remoteness regions, it could regress them against the ARIA score for each location.
- The CGC could then determine the relationship between cost per user and ARIA score.

The result would be policy neutral as long as the relationship was not overly driven by individual States.

- The recurrent Transport assessment used this approach in the 2015 Review.
- However, unlike that assessment, which suffered from a single location (such as Sydney) determining the position of the relationship for that location, this approach would benefit from multiple data points for each State.

Ideally, this would be done for specific locations, each with its own ARIA score. However, it could be done with regions, using the ARIA score averaged across the region.

[157] Commonwealth Grants Commission (2019), (Draft) *Report on GST Revenue Sharing Relativities, 2020 Review*, Attachment 25, page 7, paragraph 15.

[158] *ibid.*, Attachment 25, page 7, paragraph 15.

[159] *ibid.*, Attachment 25, page 8, paragraph 21.

This would overcome the problem of two States having towns/areas that are given the same remoteness classification, even though they have very different ARIA scores (e.g. one State's area with an outer regional classification, but with a score that is almost inner regional, compared to another State's area with the same outer regional classification, but with a score that is almost remote).

Truncating ARIA scores

We have argued against the truncation of ARIA scores.

The CGC acknowledged that the 1,266 km truncation "is a simplification of the real-world relationship between distance and cost", but considers "that there are diminishing effects of distance." It states that: "The difference in remoteness between a major city and a location 500 km from a major city is much more profound than the difference between two locations 2 000 km and 2 500 km from a major city."[160]

However, the CGC's example understates the issue. For example, in Western Australia we have Newman (1,266 km from Perth) and Kalumburu (3,670 km from Perth, or about 2.9 times as far from Perth as Newman).

- Kalumburu is over 2,000 km from Newman (a very remote town). To get that sort of distance in any other State would require travelling the extremities of Queensland (from Brisbane to almost the top of the York Peninsula).

No other State has locations that distant from its capital city. The most remote location in New South Wales from Sydney is Cameron Corner (1,591 km). That is only slightly further than Newman to Halls Creek (1,527 km). Not only is Kalumburu further than that from Newman, but so are Ord River, Kununurra, Wyndham and Oombulgurri.

So, the truncation is not warranted due to the extreme distances in Western Australia beyond 1,266 km that have a substantial impact on costs for the State.

Extremely remote regions

We have argued for an additional remoteness region of 'extremely remote'.

The CGC acknowledged that 'very remote' regions are not homogenous. However, it noted that this would only redistribute funding within the existing 'very remote regions'.[161]

We do not regard this as a problem. For example, the split between 'inner regional' and 'outer regional' areas only redistributes funding among the 'regional' areas. That is how HFE works.

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160 *ibid.*, Attachment 25, page 8, paragraph 20.

161 *ibid.*, Attachment 25, page 8, paragraph 22.

Specific regional cost gradients

We support the useful presentation of the regional cost gradients in Table 1 and Table 2 of the *Geography* attachment of the draft report.[162]

It would be useful to add to Table 1 the values of the general gradient.

We support that, in most cases, the CGC is no longer discounting the regional cost disabilities, as it recognises that it has the best estimates it can derive.

However, we are concerned with the way the admitted patients regional cost gradient is used in the general cost gradient (calculated as an average of the schools and admitted patients gradients).

The *Geography* attachment of the draft report has an admitted patients regional cost gradient[163] that matches the hospital remoteness loading in the *Health* attachment but excludes the patient remoteness loading in that attachment.[164]

- We understand that the admitted patients assessment includes the patient remoteness loading (and impacts of remoteness on standard use rates).
- However, only the hospital remoteness loading is used in the general gradient. We believe that this understates the general cost gradient.
  - An example of costs picked up by the patient remoteness loading is that a capital city resident may get a cut attended to on the same day, but a remote patient may not go to hospital (because of difficulty of access) until the cut becomes infected.
  - Although this example may be health-specific, lack of access in remote areas is likely to result in more complex solutions for other services as well. For example, access delays may require more serious interventions for services such as child protection and regulatory activities.
  - Even the patient remoteness loading does not pick up further remoteness costs for admitted patients, such as the cost of patient travel, remote patients being kept in capital city hospitals longer because they cannot be easily readmitted, and (for the cut example above) if lack of access results in the need for a different treatment such as amputation.
  - Furthermore, other services may have their own remoteness costs that are not applicable to admitted patients.

[162] *ibid.*, Attachment 25, pages 4-5.

[163] *ibid.*, Attachment 25, page 4, Table 1.

[164] *ibid.*, Attachment 12, page 13, Table 6.

The patient remoteness loading should be included in the admitted patients gradient used in the general gradient (which as we note above, still does not pick up all remoteness costs for admitted patients). If those cost pressures are considered too unique to admitted patients, then the general gradient should be based solely on the schools gradient, or the schools gradient averaged with another more relevant gradient.

Also, we have specific concerns with the following gradients (discussed further in the relevant functional area chapters of this submission).

- Prisons and courts – the general gradient should be used, instead of a flawed judgement-based adjustment.
- Welfare – service delivery scale should be retained.
- Water subsidies – this gradient should not be discounted by 50%, as the raw gradient is already as low as it could possibly be even if more data were available.
- Business development – regional costs should be assessed.