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

Western Australia's Submission to the

Commonwealth Grants Commission's 2015 Methodology Review

April 2014

Contents

Executive Summary

This submission responds to issues arising from discussions between the Commonwealth Grants Commission (CGC) staff and Treasury officers since our February 2014 submission. In most cases, these are issues discussed at the 3 April 2014 telepresence between CGC staff and all State and Territory (State) Treasuries.

Principles

We are concerned about a number of the 2015 Review proposals. We consider that the implementation of horizontal fiscal equalisation (HFE) could be improved by giving greater consideration to the following five principles:

- simplicity/transparency;
- policy neutrality;
- consistency;
- political economy; and
- deeper analysis.

Mining Revenue

Under a mineral by mineral approach, we believe that the CGC should:

- assess iron ore separately from the other minerals that are currently classified to the ‘high rate’ group;
- continue to assess coal and onshore petroleum separately from minerals currently classified to the ‘low rate’ group; and
- also assess gold, nickel, and salt separately from the other minerals that are currently classified to the ‘low rate’ group.

A better alternative to a mineral by mineral assessment would be an actual per capita assessment as it is simpler, less data intensive and takes account of differing circumstances for the same mineral across States.

There is, and always will be, uncertainty in measuring what the value of production would be if each State had applied the average policy. Therefore, the CGC should discount the Mining Revenue assessments, as per its standard response to uncertainty.

Health

The subtraction approach was a major simplification in the 2010 Review.

The CGC staff have not adequately explained why this approach should be replaced with a set of economic environment factors, which would be complex and rely heavily on judgement.

CCG staff have suggested that not all State services would be substitutable for non-State services. However, this is not a problem as the subtraction approach does not assume this. The subtraction approach assumes that, at the margin, differences in non-State services substitute for State services. Generally, non-State services are substitutable for State services.

Even non-State services that do not have a direct impact on State service provision will have a longer run indirect impact, as they affect health status.

Transport Infrastructure

For urban transport, the CGC staff propose fitting a curve to find the relationship between asset value per capita and population size.

- The shape of the curve depends upon a small number of individual data points, so it is impossible to derive a reliable relationship without adjusting the data points to average policy.
  - This concern also applies to the urban transport recurrent subsidy assessments.
- Adding non-capital cities into the regression analysis will not help unless there is a uniform relationship between asset value and population size.

We believe that there is no conceptual case for national network roads to be assessed separately, and that doing so results in double counting of national network road length and use.

Capital Cost Index

We believe that a capital cost index can be applied widely.

- Although the cost of road materials may be more volatile than materials used for buildings, similar cost drivers are still likely to apply.
- The CGC should continue to assess cost disabilities for plant and equipment.

The Rawlinsons indices are likely to better reflect these capital costs than the existing approach, which compares schools and police recurrent costs.

The CGC should make internal checks of the reasonableness of Rawlinsons data. However, Riders Digest data is much narrower in scope, so less reliable (which probably explains its different results) and less comprehensive, so less useful.

We do not support discounting a capital cost index to adjust for differences in State taxes, as CGC staff analysis shows that it would have a negligible impact.

Interstate Wages

We do not have any objections to the proposed simplifications to the interstate wages regression model, but note that the model is still a ‘black box’ and more extensive rethinking of the model is warranted.

- There are still far too many variables. It is not clear that standardising for all these variables (particularly for demographic composition) is necessary.
- Although the model gives reasonable results for relative private sector wages, it incorrectly shows Western Australia’s public sector wages as significantly below average. Therefore, we have no confidence about the model’s results for State capitals.

Housing

Census data suggests that Indigenous public housing households pay more rent than non-Indigenous public housing households.

If the CGC decides to assess the revenue capacity from indigenous public housing separately to the costs, it is important that the costs of public housing for Indigenous tenants are appropriately reflected. If these costs are underestimated it could reduce overall accuracy of the housing assessment.

Considerations that should be borne in mind are:

- Census data may not take into account rent arrears, which appears to be more common for Indigenous households;
- Indigenous public housing households are on average larger than non-Indigenous, and larger households on average impose greater costs for public housing; and
- the greater size in Indigenous households is driven by a larger number of children, which increases costs by more than rents.

Non-government Schools

CGC staff have asked for States’ policies on funding non-government schools.

Western Australia aims to provide non-government schools at least 25% of non-government school recurrent costs.

Non-government school costs are derived from Australian Government School Recurrent Costs (AGSRC), itself based on the Commonwealth’s annual National School Statistics Collection. Western Australia adjusts this to make it more representative of non-government schools.

1. Principles

Key Points

- Based on the CGC staff's current proposed assessments, we believe there are five principles to which the CGC should give greater consideration in implementing HFE:
  - simplicity/transparency;
  - policy neutrality;
  - consistency;
  - political economy; and
  - deeper analysis.

We are concerned about a number of the 2015 Review proposals in the discussion papers released by CGC staff. With this in mind, we discuss five principles that should be given greater consideration in the implementation of HFE.

Simplicity/Transparency

Methods should commend themselves as being reasonable and involving few and reasonable judgements.

Examples of non-transparent assessments include the wages and proposed health assessments.

- The interstate wages regression model is demonstrably unreliable and a 'black box' model (see Chapter 6 of this submission); and
- The proposed health assessment has a complex structure, involves many judgements, has limited data to support the method, relies on unwarranted assumptions about segmentation in the health market, and lacks clarity on how to assess the various economic environment factors (which may require a series of mini-subtraction models) (see Chapter 3 of this submission).

  - By comparison, the current community health subtraction model is an example of an inherently reasonable assessment, based on the assumption that overall health spending should be fairly equal across States, adjusted for demographics and costs.

Policy Neutrality

Without policy neutrality, HFE is inequitable, damaging to the economy in the long run, and risks increasing interstate differentials.[1]

Areas like mining revenue and public transport currently lack policy neutrality (see Western Australia's February 2014 submission).

Consistency

The assessments should be more consistent in their approach, particularly in the use of a long run approach and discounting.

- A long run approach is, appropriately, currently taken for the wages and capital assessments. A short run approach involves micro-level analysis, which is impractical and potentially distortionary. Examples of a short run approach include the CGC staff's current questioning of:
  - whether non-State health service provision substitutes for State expenses or not (as discussed in Chapter 3 of this submission); and
  - whether there are lags in private sector wage pressures flowing through to State policies.
- The CGC staff's aversion to discounting in the Mining Revenue assessment is bewilderingly inconsistent to their response to uncertainty in a range of expense assessments, including the Justice Services socio-demographic assessment and the location common factor assessments.

[1] See *Fiscal Federalism 2014: Making Decentralisation Work*, OECD Publishing, 2013, page 111.

Political Economy

The reality of the political environment can justify some discounting.

- Political risks include quarantining of Commonwealth payments and future HFE reform.
- For example, royalties are currently fully equalised, but the mining States have no assurance that:
  - Commonwealth grants received by the more populous States or the fiscally weaker States will not be quarantined; and
  - HFE will still exist to compensate them when their minerals are exhausted.

Deeper Analysis

The CGC needs to look beyond the policy-influenced outcomes that it observes. For example, the urban public transport assessments should reflect evidence of the balance of disabilities between small cities (low cost, low patronage) and large cities (high cost and high demand), rather than relying on fitting curves through data for individual States that are affected by efficiency, revenue effort and level of service. This is discussed in Chapter 4 of this submission.

2. Mining Revenue

Key Points

- Under a mineral by mineral approach, it is important to not group together minerals with different standard royalty rates and different distributions across States.
  - Iron ore should be assessed separately from the other minerals that are currently classified to the 'high rate' group. (If iron ore is assessed separately from all other minerals, there is no need to disaggregate it into lump and fines.)
  - Coal and onshore petroleum should continue to be assessed separately from minerals currently classified to the 'low rate' group. (An option would be to group the fuel minerals, and possibly bauxite, together, as long as the composition of the group remains fixed).
  - Gold, nickel, and salt should be assessed separately from the other minerals that are currently classified to the 'low rate' group. We have an open mind on further disaggregation.
- A better alternative to a mineral by mineral assessment would be an actual per capita assessment as it is simpler, less data intensive and takes account of differing circumstances for the same mineral across States.
- There is, and always will be, uncertainty in measuring what the value of production would be if each State had applied the average policy.
  - Therefore, the CGC should discount the Mining Revenue assessments, as per its standard response to uncertainty.

The CGC staff have asked which minerals States believe should be separately assessed under a mineral by mineral approach.

We consider separate assessments to be more accurate, so minerals should be assessed separately where this will have a material impact. This can be achieved by not grouping together minerals which have:

- different standard royalty rates; and
- different distributions across States of value of production (hereafter just referred to as 'production').

Even small royalty rate differences (e.g. of half a percentage point) can have large impacts for minerals with a substantially different distribution of production across States (provided there is significant national production). On the other hand, if a State has broadly similar shares of two minerals, then even if those minerals have different royalty rates there will be limited difference in net terms for that State between grouping those minerals and assessing them separately.

On this basis, we have identified the minerals that we think should be assessed separately. We have based our conclusions on whether we think there would be a material impact from assessing these minerals separately. As Western Australia dominates production of the majority of minerals, most material impacts will generally be for Western Australia. However, there may be minerals that other States can identify which would give material impacts for those States.

We consider it essential that iron ore is assessed separately from the other minerals that are currently classified to the 'high rate' group as iron ore has a lower royalty rate than other 'high rate' minerals. We expect that this change will be material as Western Australia produces almost all the iron ore, but a minimal share of export coal and onshore petroleum and less than half of the bauxite.

If iron ore is assessed separately from other minerals, then disaggregating it into fine and lump will have a very immaterial impact, including because Western Australia dominates the production of both of these.

Likewise, we also consider it essential that export coal and onshore petroleum be assessed separately[1] from all the minerals that are currently classified as 'low rate'. We expect that this change will be material as Western Australia has almost half of the national production of 'low rate' minerals excluding iron ore (a much bigger proportion than for export coal and onshore petroleum) and the standard royalty rate for 'low rate' minerals is much lower than for export coal and onshore petroleum.

[1] Whether or not domestic coal should be separately assessed from export coal should depend upon materiality and practicality (including confidentiality concerns). An option would be to group the fuel minerals (and possibly bauxite) together, as long as the composition of the group remains fixed.

The same logic would justify separating gold, nickel and salt from other minerals currently classified as ‘low rate’. Gold, nickel and salt have lower standard royalty rates than other ‘low rate’ minerals, and Western Australia has a much higher share of gold, nickel and salt compared to other ‘low rate’ minerals (excluding iron ore).[2]

Apart from this, we have an open mind on which minerals should be assessed separately. The greater the extent of the disaggregation, the more accurate the result, but there will be a point where further disaggregation is not material.

Also, we note that extensively disaggregated assessments will tend to give similar results to an actual per capita (APC) assessment. In our submissions, we supported an APC assessment as it is simpler, less data intensive, and takes account of differing circumstances for the same mineral across States.

At the April 2014 telepresence, CGC staff indicated that they are considering specific adjustments to the revenue base for differences among States in the promotion of mining, but are not considering discounting. As indicated at the telepresence, we have significant concerns with this approach.

At the November 2013 telepresence, the CGC staff were adamant that discounting is the CGC’s preferred method of dealing with uncertainty. However, despite the uncertainty over the policy neutrality of actual mining production, CGC staff seem unwilling to countenance discounting of the Mining Revenue assessments.

Various parties have claimed that the value of mining production can be measured accurately. However, in practice, there are a number of problems with production data. Even if actual production could be measured accurately, the CGC’s assessments require not actual production, but production under average policies. There is, and always will be, considerable uncertainty over the extent to which production under the average policies corresponds to actual production.

As noted in our February 2014 submission, we consider that the Mining Revenue assessment should be discounted by 33-50%, including because of this uncertainty.

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2 When testing the materiality of separating these minerals from other ‘low rate’ minerals, it is important to recognise that the impact of separating all three is substantially greater than the sum of the impacts of separating each by itself. This is because separating out (say) gold increases the standard royalty rate of the remaining ‘low rate’ minerals, and hence the difference between the ‘low rate’ royalty rate and the nickel and salt royalty rate.

3. Health

Key Points

- The main substantive change that CGC staff are proposing for the health assessments is to replace the subtraction approach to assessing non-State services with a set of economic environment factors.
- The subtraction approach was a major simplification in the 2010 Review. The CGC has not adequately explained its concerns with the subtraction approach.
  - CGC staff have suggested that States do not adjust their expenses promptly in response to changes in non-State expenses. However, lagged response times result in different standards of service among the States in any case.
- The CGC staff have been unable to explain how the economic environment factors would be calculated, but admit that they would rely heavily on judgement.
- Although not all State services would be substitutable for non-State services, the subtraction approach is still valid, as non-State services are generally substitutable for State services.
- Even non-State services that do not have a direct impact on State service provision will have a longer run indirect impact, as they affect health status.

The CGC staff have asked for State views on their proposed new health assessments.[1]

As per the *Proposed Assessments* Discussion Paper,[2] this involves two categories - Public Hospitals and Community Health.

The Public Hospitals category would be assessed in four components.

- The admitted patients and patient transport components correspond to the existing Admitted Patients category.
- The emergency departments and outpatients components are currently assessed within the existing Community and Other Health Services category.

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1 Actions arising from the telepresence of 3 April 2014.
2 CGC 2013-07-S *Proposed Assessments*, Chapters 11 and 12.

The Community Health category would cover the remaining expenses currently covered by the existing Community and Other Health Services category.

As the four components of the Public Hospitals category would be assessed separately, the main substantive change that is proposed is the replacement of the subtraction approach to assessing non-State services with a set of economic environment factors (to be assessed in each of the emergency departments and outpatients components of the Public Hospital category and in the Community Health category).

The subtraction approach was one of the major achievements of the simplification agenda in the 2010 Review. The subtraction approach and the direct capital assessment were the only genuine simplifications achieved in the 2010 Review - all other 'simplifications' involved doing the same detailed analysis with a little less detail.

The *Proposed Assessments* Discussion Paper described the subtraction approach as "the simple assessment of private sector influences".[3] It also stated the following.

- "[a] downside to this change in method is undoing the simplification gained in the 2010 Review".[4]
- "Under the subtraction model approach we did not need to directly consider the substitutability of emergency department services."[5]
- "The commission concluded that States had a 'fall-back' responsibility for providing services not provided by the non-State sector or in areas where it is uneconomic for private providers to operate. Hence, the commission adopted a subtraction model to assess those expenses."[6]

These positive statements about the subtraction method are the only written judgements on the subtraction approach so far released by the CGC.[7]

3 *ibid*, page 61, paragraph 13.
4 *ibid*, paragraph 41.
5 *ibid*, page 66, paragraph 43.
6 *ibid*, page 70, paragraph 3.
7 The CGC also noted that some States had criticised the subtraction method, but this criticism can be levied against almost every assessment.

Despite this, the CGC staff are proposing to replace the subtraction approach with three separate economic environment factors, each weighted by a separate proportion of expenses determined by judgement.[8] The staff have been unable to explain how these factors will be calculated, but readily admit that the entire process will rely heavily on judgement.

The CGC staff have made one verbal criticism of the subtraction approach – claiming that non-State service expenditures are volatile, and they do not believe that States adjust their service provision as quickly as the resulting assessments.

However, the CGC is not trying to assess actual State expenses, it is trying to assess what State expenses would be under average policy.

- If a State starts at average policy, and non-State services decline in that State, but that State only moves slowly to fill the gap, that State will be providing a lower standard of service in the meantime. This is not a problem as States are free to provide whatever standard of service that they wish. The CGC is required to provide funding so that the State could, if it wished, maintain the average standard of service.

The CGC staff are of the view that not all State services are substitutable for non-State services. The subtraction approach does not assume that all State services are substitutable - only that, at the margin, differences in non-State service substitute for State services. The issue is whether or not some non-State services are substitutable. Generally, all non-State services will be substitutable, as the State is the provider of last resort for health services. There are few types of health services in which the State has no involvement.

[8] The only evidence used by CGC staff is the proportion of emergency department patients who indicated in the 2012-13 Australian Bureau of Statistics patient experiences survey that they could have attended a general practitioner (GP). The CGC staff used this to conclude that 25% of emergency department services are substitutable. However, we note that, in 2012-13, this proportion could have been as high as 37.7% (summing “time of day/day of week”, “waiting time for GP appointment too long”, and “other” – which includes “GP not taking new patients”, “do not have regular GP” and “closer than GP when needed”). Also, this survey provides no information of relevance to outpatient services.

The CGC staff's concern also takes a myopic view of health services. For example, in the short run, a lack of private dental care may not impact on State service provision. However, a lack of dental care over the long term can lead to heart problems, which will impact on the requirement for hospital services. If the CGC is not going to fund States to provide an average standard of dental care for their residents, then it must fund States with low dental care for the additional hospital services that will be required in future. The same applies to many other non-State primary health care-type

4. Transport Infrastructure

Key Points

- Including non-capital cities in the regression analysis will not help unless there is a uniform relationship between asset value and population size.
- The shape of the curve depends upon a small number of individual data points, so it is impossible to derive a reliable relationship without adjusting the data points to average policy. This concern would also apply to any 'holistic' assessment.
- We believe that there is no conceptual case for NNR roads to be assessed separately, and that doing so results in double counting of NNR road length and use.

At the 3 April 2014 telepresence, CGC staff sought States' views on the following proposed changes to the transport infrastructure assessment since the October 2013 *Proposed Assessments* Discussion Paper.[1]

- Instead of using only the eight capital cities, CGC staff propose to use all urban centres with a population of more than 20,000.[2]
- If States are able to provide data on asset holdings by city each year, CGC staff now propose to update urban transport disabilities annually instead of freezing the disabilities until the model relationship can be re-estimated.

In addition, CGC staff asked how a 'holistic' assessment of urban transport needs might be undertaken (in response to comments from South Australia).

Finally, CGC staff asked for views on whether the 50% discount for National Network Roads (NNR) is still necessary and whether it made a difference if capital grants were for general road construction assistance rather than for construction on the national network.

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[1] CGC 2013-07-S *Proposed Assessments*, Chapter 20.

[2] Urban centres are defined as ABS Urban Centres/Localities within Significant Urban Areas.

Inclusion of Non-Capital Cities in Regression Analysis

In our February 2014 submission, we argued that the case for the proposed urban transport assessment is very weak. Even if non-capital cities are included in the regression, the following two concerns remain.

- We do not believe there is a uniform relationship between city size and the per capita value of assets or recurrent subsidies.
  - Including non-capital cities in the regression analysis would only help estimate the relationship between asset value and population size if there is a uniform relationship. If per capita asset value were to follow a step function instead (say, when going from buses to rail), then data points before the step would provide no information on the relationship after the step, thus introducing spurious accuracy into the assessment.
- The results are highly influenced by State policies (regardless of whether non-capital cities are included).
  - For example, Figure 2 on page 92 of our February submission indicated that by excluding Sydney, the relationship between per capita asset values and population size plateaus. We believe that the same result could be obtained by retaining the Sydney data point sans policy influences, as previous analysis has indicated that Sydney has greater than average policy spending. This is particularly problematic as there is no strong conceptual case to determine exactly what the shape of the curve should be. The only solution would be to identify policy differences and to remove them from the data.

‘Holistic’ Assessment of Urban Transport Needs

We have no objection to the CGC exploring the idea of a ‘holistic’ assessment of urban transport needs, subject to our concerns above. However, we note that until the policy influences can be removed and a strong conceptual case can be developed for a suitable functional form, the reliability of any assessment will be severely diminished.

As such, we would recommend the CGC staff explore these more fundamental issues before pursuing a change in other more technical aspects of the assessment.

We also note that a holding cost approach would require a population dilution component for urban transport assets, like the existing Net Lending assessment.

Availability of Data on Asset Holdings by City

We are following up with the relevant agencies to ascertain whether this data is available on an annual basis and will liaise with the CGC accordingly.

Treatment of National Network Roads (NNR)

As discussed in our February submission, we believe that there is no conceptual basis for assessing additional ‘national disabilities’. To do so would result in double counting because NNR road length and use are included in the general road assessment.

Accordingly, we consider it irrelevant whether capital grants for roads are assigned for general road construction assistance rather than assistance for NNR construction as we don’t believe NNR should have a special assessment.

5. Capital Cost Index

Key Points

- Rawlinsons indices have the advantage of enabling construction of an index using sub-State data. CGC staff should make internal checks of the reasonableness of this data.
  - We support the Discussion Paper suggestion that areas which are not sampled could have their costs estimated using comparable regions for which data is available.
- Riders Digest is much narrower in scope, so less reliable (which probably explains its different results) and less comprehensive, so less useful.
- Rawlinsons will not pick up service delivery scale, which would still need to be assessed.
- We do not support discounting the assessment to adjust for differences in State taxes, as CGC staff modelling suggests it would have negligible impact.
- Although the cost of road materials may be more volatile than materials used for buildings, similar cost drivers are still likely to apply and Rawlinsons is more likely to reflect these costs than the existing comparison of schools and police recurrent costs.
- The CGC should continue to assess cost disabilities for plant and equipment. As this only comprises 10% of investment, it would be simplest to apply the same disabilities as for construction.

The CGC staff requested comment on the staff discussion paper *A Capital Cost Index*[1] (referred to within this chapter as "the Discussion Paper"), which queried whether it might be appropriate to apply a capital cost index (rather than recurrent cost index) in the infrastructure assessment based on a combination of the capital city and regional indices produced by Rawlinsons.

[1] CGC 2014-02-S.

Rawlinsons and Sub-State Costs

Clause 4 of the Discussion Paper states that Rawlinsons' regional (intrastate) indices are calculated by comparing the cost of a building in the capital city with the costs of the same building in regional and remote towns. We consider that internal checks of the reasonableness of the Rawlinsons approach should be undertaken and the data adjusted accordingly. For example, the cost of construction in Western Australia's north should be comparable to or greater than that in Darwin.

We note that, according to the Discussion Paper, Rawlinson's only covers 87% of Western Australia's population.[2] However, we are open to the suggestion that costs in regional areas that are not covered by Rawlinson's could be estimated on the basis of sampled regions with a similar degree of remoteness (clause 18 of the Discussion Paper).[3] This approach would be superior to using an index that did not distinguish at all between sub-State areas.

Data from Riders Digest

The Discussion Paper compares information from the Riders Digest tender price index to Rawlinsons, noting that the results differ.

However, the Discussion Paper identifies that the Riders Digest information is based on costs for just two buildings in each capital city (whereas Rawlinsons covers a wider range of construction activity).

Even if the quality of Riders Digest data were comparable to Rawlinsons, it does not have data for Hobart or regional areas.

Other Issues

We understand that the Rawlinsons cost indices relate to the cost per square metre. Therefore, it will not pick up the need for non-optimal building sizes in small remote towns. Consequently, service delivery scale will still need to be assessed in addition to use of Rawlinsons data.

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2 *ibid*, page 6.

3 If necessary, construction costs could be adjusted to reflect differences in recurrent costs where sufficiently comparable regions are not available.

Western Australia agrees with the CGC staff's conclusion that there should be no discount to represent the effect of different revenue efforts, as their modelling of the actual differences in relevant State taxes suggests it would have negligible impact.[4]

Rawlinsons does not cover roads and the Discussion Paper states that road material costs may be more volatile than building material costs, as there are fewer material inputs to roads. However, we would expect that road materials would still be more expensive in remote areas due to embedded freight costs and diseconomies of smaller scale purchasing and storage. Also, Rawlinsons is more likely to reflect road costs than the existing schools and police recurrent cost comparisons used by the CGC.

The Discussion Paper lists[5] three options for assessing relative costs of plant and equipment – no cost disabilities, use existing recurrent disabilities, or apply Rawlinsons. We are opposed to the option of assessing no cost disabilities for plant and equipment, as it is intuitive that their cost would be affected by freight, and the higher wages required for their installation in remote areas. In the absence of knowing whether the recurrent disabilities or Rawlinsons gives the more accurate picture, we suggest that the CGC take the simplest approach of assuming that plant and equipment have the same cost disabilities as construction (particularly as they only comprise about 10% of total investment).

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[4] CGC 2014-02S, page 6, paragraph 15.

[5] *ibid*, paragraph 27.

6. Interstate Wages

Key Points

- We do not have any objections to the proposed simplifications to the model, but note that the model is still a 'black box'.
  - The proposed simplifications, while welcome, are minor and do not address this issue.
  - There are still far too many variables. It is not clear that standardising for all these variables (particularly for demographic composition) is necessary.
  - Although the model gives reasonable results for relative private sector wages, it incorrectly shows Western Australia's public sector wages as significantly below average. Therefore, we have no confidence about the model's results for State capitals.
- While reducing the number of variables is a good start, it remains unclear at this stage that this will give the best approach (as opposed to rethinking the model entirely).

Proposed Simplifications

We believe that the existing Interstate Wages Regression model is effectively a 'black box' and welcome any review of the model or proposals for simplification.

In their Discussion Paper,[1] the CGC staff identify three minor simplifications to the model:

- Remove effects coding and use simple dummy variables;
- Remove female interaction variables; and
- Remove the variable of hours worked less than 15 hours and greater than 60 hours.

[1] CGC 2014-01-S *Simplifying the Interstate Wages Regression Model.*

We have no objections to the above simplifications, noting the following:

- The removal of coding effects and use of simple dummy variables produces the same outcome while removing a layer of complexity in the coding. This is a welcome change.
- We support the removal of female interaction variables as we do not believe they impact significantly on the results. For example, females may earn less than males nationally, but a State with fewer males may have to pay females (and males) wages that are higher than the national average (e.g. to meet labour shortages).
- We support the removal of the variables of hours worked less than 15 hours and greater than 60 hours, but note that there are many other variables (as discussed below) that also should be removed from the model. On this note, while removing some variables is a start, it is a piecemeal approach which does not address the deeper issues of complexity and transparency in the model (see below).

Concerns with Existing Model

While the Discussion Paper is a good start, it does not adequately address the existing complexity of the model, nor the lack of transparency.

Even after removing these variables, the number of variables (in excess of 100) is still far too high.

It is not clear that any standardisation for demographic composition is required. For example, although people with better qualifications have higher earning capacity, a State with a surplus of people with better qualifications will only employ a limited number of those people in higher paid positions. In fact, in a competitive market that State will be able to pay less for those staff, due to the greater supply of suitably qualified people.

It is not even clear that standardisation for industry is required, given that workers can transfer between industries. For example, the Western Australian public sector has to compete with the mining industry for staff who are qualified teachers and nurses.

It is also the case that the model does not consistently give reasonable results. Although it shows Western Australian private sector wages as relatively high, which is intuitively reasonable, it shows Western Australian public sector wages as relatively low. However, data from the Australian Bureau of Statistics and Australian Taxation Office shows that Western Australian public sector wages are relatively high when comparing comparable positions.[2]

We also have concerns with basing the model on capital city rather than whole of State wages, particularly given the spurious results for the public sector.

As such, we strongly suggest the CGC investigate whether there are alternative simpler models available for assessing the Interstate Wages factor.

[2] The differing results are discussed in our February 2014 submission, pages 121-125.

7. Housing

Key Points

- The CGC staff have stated that Indigenous public housing households recorded paying more rent in the 2011 Census than non-Indigenous public housing households.
  - The reasons for this finding need to be understood, as (if this were to be incorporated into the revenue assessment) it could be accompanied by underestimated Indigenous costs in the cost assessment, reducing overall accuracy.
- Considerations that should be borne in mind are:
  - answers to the Census question on which the finding is based may not take into account rent arrears, which is more common for Indigenous households;
  - Indigenous public housing households are on average larger than non-Indigenous, and larger households on average impose greater costs for public housing; and
  - the greater size in Indigenous households is driven by a greater number of children and where public housing households are larger due to more children, this has a larger impact on costs than on rent revenue.

The *Proposed Assessments* Discussion Paper found (using 2011 Census data), that Indigenous public housing households pay more rent than non-Indigenous public housing households, concluding that Indigeneity (among other factors), “should be assessed as part of a revenue assessment”.[1]

The reasons behind this finding need to be fully understood as revenue capacity might be considered higher for public housing with Indigenous tenants compared to non-Indigenous tenants. If the associated costs of Indigenous public housing are not adequately reflected, this finding would distort the public housing assessments. Consequently, we have examined this issue further since our February 2014 submission.

[1] CGC 2013-07-S *Proposed Assessments*, page 101.

Rent and Arrears

The Discussion Paper stated that rents paid were captured in response to the 2011 Census question "How much does your household pay for this dwelling?"[2] We do not consider it likely that households in arrears would discount their answer accordingly.[3]

The Western Australian Department of Housing has provided the following figures for public housing households that are in arrears.

Table 1: Proportion of Western Australian public housing tenants in arrears [(a)]

	Indigenous %	Non-Indigenous %	Unknown %	All %
In arrears	30	10	8	12
Not in arrears	70	90	92	88

Source: Western Australian Department of Housing.

(a) End February 2014.

Table 2 provides statistics from the Western Australian Department of Housing on average size of household by Indigeneity and arrears status.

Table 2: Average household size of Western Australian public housing tenants in arrears [(a)]

	Indigenous (persons)	Non-Indigenous (persons)	Unknown (persons)	All (persons)
In arrears	4.2	2.4	2.8	3.2
Not in arrears	3.4	1.5	1.7	1.8

Source: Western Australian Department of Housing.

(a) End February 2014.

2 *ibid*.

3 It is also likely that households would include their water usage costs (payable to the Housing Authority) and other tenant debts, which may also be in arrears.

The tables show that:

- the proportion of Indigenous households in arrears is three times higher than that for non-Indigenous households;
- Indigenous households are, on average, larger than non-Indigenous households; and
- the average size of households in arrears is larger than that not in arrears.

As such, larger households, which are more likely to be Indigenous, tend to be charged more rent and are more likely to be in arrears.

Any assessment of revenue by Indigeneity would have to be adjusted for arrears in rent (and other non-rent payments) to present an accurate estimate of the actual revenue being received.

Linking Revenues and Costs

If Indigenous households are found to generate more public housing revenue (on the basis of rent paid, not rent charged), it is important to ensure that an accurate assessment of the contribution of Indigenous households to public housing costs is also undertaken. An accurate assessment of Indigenous revenue accompanied by an underestimate of Indigenous cost would, overall, be distortionary.

In our February 2014 submission, we provided evidence that, on average, Indigenous households imposed higher costs than non-Indigenous, including with reference to household size.

We have since become aware that CGC staff may consider the larger Indigenous households as being due to groups of Indigenous adults living together, which might tend to increase dwelling size and assessed rent roughly proportionally.

Our view is that the larger average Indigenous household size tends to be driven by a higher proportion of children to adults in Indigenous public housing tenancies compared to non-Indigenous public housing tenancies.

The Department of Housing has provided us with the following data on public housing tenancies.

Table 3: Western Australian public housing tenancies [(a)]

	Single adult with children	Couples with children	Multiple family groups	No children
Indigenous	3,224	864	801	2,274
Non-Indigenous	1,833	493	353	5,466
Unknown	3,358	989	802	14,639
Indigenous/Non-Indigenous	1.8	1.8	2.3	0.4

Source: Western Australian Department of Housing.

(a) End February 2014.

There are 80% more Indigenous than non-Indigenous households in public housing who are single with children or couples with children. However, there are less than half as many Indigenous households with no children as corresponding non-Indigenous households.

To gain a different perspective, we have obtained further data from the ABS on the number of Australian public housing residents by State, Indigeneity and age range. This data is summarised in Table 4.

Table 4: Age distribution of Australian public housing residents [(a)]

	NSW %	Vic %	Qld %	WA %	SA %	Tas %	NT %	ACT %	Aust %
Indigenous									
0-14	39	42	40	40	36	41	35	42	39
15-19	12	12	11	10	11	11	10	12	11
20+	49	46	49	50	53	48	55	45	50
Total	100	100	100	100	100	100	100	100	100
Non-Indigenous									
0-14	17	22	21	19	14	24	21	22	19
15-19	8	9	9	7	7	8	6	9	8
20+	75	70	71	75	79	69	73	69	73
Total	100	100	100	100	100	100	100	100	100

Source: ABS, 2011 Census.

(a) Indigeneity Not Stated comprised about 2% of the total for Australia, and are not included.

Table 4 indicates that half of Australia's Indigenous public housing residents are younger than 20, close to twice the proportion of Australia's non-Indigenous public housing residents.

We contend that the increase in costs generated by households in public housing having more children (see Table 6) is not matched by increased revenue. This is because not all income is fully included when setting rent. Table 5 shows that, in Western Australia, public housing rents are set at 25% of non-child related income, but child-related income is discounted to varying degrees from that figure.

Table 5: Determination of rent of Western Australian public housing tenants [(a)]

Income source	Proportion paid in rent %
General income of tenants and partners (including wages/salary, interest and income from assets)	25
Basic Family Tax Benefit Part A	0
Additional Family Tax Benefit Part A	10
Family Tax Benefit Part B	5
Income of household members ≥ 21 years	25
Income of household members < 21 years	10
Income of household members, students < 25 years	10
Child support (maintenance)	20
Salary sacrificed amounts	25
Any income of householders who are 100 years of age and over	0

Source: Western Australian Department of Housing.

(a) End February 2014.

As a guide to the impact of children and family types on costs, Table 6 shows the maintenance costs of Western Australian public housing tenancies by Indigeneity, family type and household size.

This shows that of the ten average annual maintenance cost categories greater than $5,000 per year, eight relate to Indigenous public housing tenancies and two to non-Indigenous. The table also shows that the overall average maintenance cost for an Indigenous public housing tenancy is $4,812 per year, compared to $2,211 per year for a non-Indigenous public housing tenancy.

In addition, within each category of household type and Indigenous status, there is a general trend for larger households to have higher maintenance costs, and households with children generally have higher maintenance costs than the equivalent households with no children, by Indigeneity.

The higher maintenance costs for Indigenous public housing tenancies must be taken into account to accurately estimate the cost of public housing.

Table 6: Annual average maintenance cost of Western Australian public housing tenancies (a)

	Single adult with children $pa	Couple with children $pa	Multiple family groups $pa	No children $pa	Total $pa
Indigenous	5,333	5,243	5,881	3,533	4,812
Small (1-3)	5,170	4,854	5,693	3,495	4,416
Medium (4-5)	5,262	5,776	5,277	4,547	5,358
Large (6-8)	6,820	4,749	7,980	4,236	6,123
Very Large (9+)	6,051	3,833	4,581		4,624
Non-Indigenous	3,450	3,702	2,362	1,651	2,211
Small (1-3)	2,985	2,794	2,128	1,615	1,907
Medium (4-5)	4,534	4,229	2,488	6,738	4,311
Large (6-8)	5,864	3,451	4,138		4,371
Very Large (9+)		4,025			3,734
Unknown	2,036	2,357	1,913	943	1,239
Small (1-3)	1,814	2,039	1,710	938	1,102
Medium (4-5)	2,719	2,331	2,007	1,607	2,451
Large (6-8)	2,920	2,847	2,734	3,039	2,850
Very Large (9+)		2,151	3,394		2,383
Grand Total	3,607	3,702	3,619	1,379	2,194

Source: Western Australian Department of Housing.

(a) End February 2014.

8. Non-government Schools

Key Points

- Western Australia aims to provide non-government schools at least 25% of non-government school recurrent costs.
- An estimate of non-government school costs is derived from the Australian Government School Recurrent Costs (AGSRC), itself based on the Commonwealth's annual National School Statistics Collection.
- The AGSRC is modified for this purpose:
  - excluding expenses specific to government schooling; and
  - including expenses specific to non-government schooling.
- Grants paid to non-government schools are adjusted to reflect the level of indirect assistance already provided, such that the total assistance is maintained at greater than or equal to 25% of the modified AGSRC.
  - Examples of indirect assistance are support for teacher travel and assistance for high needs students.

At the 3 April 2014 telepresence, the CGC staff requested input from States on how States determine the overall level of States' own funding of non-government schools. Our response is reflected in the Key Points above.