COMMONWEALTH GRANTS COMMISSION 2025 METHODOLOGY REVIEW

Wages

South Australian Treasury Submission

South Australia has longstanding concerns about the conceptual validity of the wage costs assessment, including the underlying assumption that private sector wages are an appropriate proxy for the relative wage pressures faced by state governments.

The wage costs assessment affects the outcomes of all of the Commission's expenditure assessments and redistributed $1.6 billion in GST revenue among the states in the 2023 Update. Given the significance of this assessment, it is important that it is underpinned by reliable concepts, assumptions and data, with an appropriate level of discounting where necessary to recognise any limitations.

We welcome the Commission's focus on this assessment as part of the 2025 Review, including the engagement of Professor Alison Preston from the University of Western Australia Business School to review the Commission's assessment method. The review focused on the specification of the underlying econometric model used by the Commission, but also the conceptual case for the assessment.

The issues raised by Professor Preston, particularly the extent to which overall private sector wages are not representative of public sector wages, along with broader data and conceptual issues warrant reconsideration of the Commission's assessment approach. Of particular relevance was Professor Preston's recommendations on the use of female wage data.

If the Commission is inclined to continue with the use of private sector wages as a proxy for public sector wages through an econometric model based on ABS Characteristics of Employment Survey (COES) data, then South Australia recommends:

- The use of female private sector wages as a proxy for wage pressures in the public sector, consistent with the consultant's recommendation.
- That if the use of female private sector wages is not supported, the Commission should consider an alternative approach based on gender-weighted private sector wages, with the weighting applied based on the actual gender composition of public sector employees.
- An increase in the discount applied to the assessment to at least the medium level (25 per cent), noting both the conceptual issues with the

Government of South Australia
Department of Treasury and Finance

proposed approach (which was acknowledged by the consultant) and data issues.

More broadly the Commission should continue to review the assessment approach to determine if there are more appropriate data sources or methodologies available to measure any non-policy influenced differences in public sector wages between jurisdictions.

Question 1: Do states agree on continuing to use private sector wages as a policy neutral proxy for the market pressures faced by public sector employers?

South Australia does not consider private sector wages to be an appropriate proxy for relative public sector wage pressures. The private and public sectors are very different, both in terms of their composition and the types of services they provide.

As noted in previous submissions, South Australia has concerns about the key underlying assumptions of the wages assessment being:

- Private sector wage movements within a state are a good proxy for public sector wage movements.
- Public sector wages are predominantly influenced by wage movements in local or regional labour markets.
- Comparability of public sector workers across jurisdictions.

Whilst private sector wage movements are an influence on public sector wages, this influence alone does not explain movements in the wages for the majority of public sector employees (e.g. nurses and teachers). Public sector wage movements reflect sectorial conditions in job specific labour markets (both locally and nationally) and fiscal strategies/budget position in each jurisdiction.

Regional labour market factors have some impact on public sector wages but for the majority of public sector employees, wage movements in other jurisdictions are an equally or more important factor. In most public sector wage negotiation processes (especially for teaching, nursing and police) relevant unions refer to interstate wages as a key justification for pay rises and changes in working conditions.

Observed inter-jurisdictional wage differentials are more likely to be the result of differences in responsibilities, differences in employment status (e.g. tenure), timing differences from when pay adjustments take effect, the impact of non-wage benefits and other policy choice differences.

South Australia also has concerns about the true comparability of employees across jurisdictions. Jurisdictions with larger labour markets can offer greater and more diverse employment opportunities than smaller jurisdictions. This raises the issue that workforce compositional differences will lead to differences in the standard or quality of services provided between jurisdictions. Governments in larger jurisdictions may have access to a labour supply that is relatively more productive compared to smaller jurisdictions.

These views were broadly supported by the consultant's findings.

As part of Professor Preston's final report, it was noted that the strength of the Commission's current approach was that:

> *"… at an aggregate level, private sector wages are likely not driven by public sector wages. This means that the observed wage relativities are likely 'policy-neutral'."* (Final consultant report, p.18)

This was subject to a significant weakness of the methodology (emphasis added).

> *The weakness of the approach, however, is that there are **significant differences in the character and composition of private and public sector labour markets – particularly by sex**. Public sector employment is concentrated in three main industry sectors – public administration, health and education. Together these sectors account for around 90% of public sector employees. In the private sector these same three industries account for around 21% of all employment. The public sector is also highly feminised (around 65% of public sector workers are female) whereas the majority of workers in the private sector are male.* (Final consultant report, p.19).

These compositional differences, as well as some level of policy influence, result in different – and at times divergent – wage outcomes between the two sectors. A notable example is Professor Preston's finding, based on 2016-2021 data, that average public sector wages in Western Australia are significantly lower than those in New South Wales, despite average private sector wages being significantly higher.

Professor Preston noted that alternative approaches, such as using private or public wages in sectors dominated by state governments (health, education etc) would raise policy neutrality concerns.

This concern around the policy neutrality of alternative measures led to the conclusion that the Commission's approach was "**reasonable**". In other words, if you want to measure wage differences between jurisdictions, with non-policy influence being the primary concern, then this is probably the least worse option available. It was not a resounding endorsement. It questions the overall reliability of the measure and the level of discount that should be applied to the assessment.

Importantly, this was also followed by a recommendation (recommendation number 2) from Professor Preston to use only female private sector regional wage structures as a proxy given the different composition of private and public sectors. This is discussed further below.

Question 2: Do states agree that the Commission should continue to use all private sector employees to proxy for public sector drivers of costs?

As indicated above, South Australia does not consider private sector wages alone to be an appropriate proxy for public sector wage pressures. However, if the Commission is not able to identify an alternative data source or method for this purpose, we consider that female private sector wages would be a better proxy than overall private sector wages.

This approach would reduce the distortionary impact of private sector wage data for industries such as mining and construction, which have few to no equivalent public sector provision and have a very different workforce profile than the public sector. It also reflects that the composition of the public sector is predominantly female, which varies to the private sector which has more males than females[1].

The Commission accepts that restricting its model to workers with similar characteristics to public sector workers would increase the conceptual validity of the model, but also considers this would increase the risk of state policy influence and reduce the available sample size, with implications for the reliability of the model.

The concerns raised by the Commission are discussed below, but South Australia considers that in such a trade-off, a greater weighting should be applied to a more accurate measure of the concept the Commission is trying to capture. Any residual concerns around policy influence or sample size could be recognised through a discount, consistent with the Commission's standard practice.

Commission concerns

Policy neutrality for a measure based on gender should not be a significant concern given it is measuring wages across all sectors. We do not see this as an issue preventing a switch to female only private sector wages.

We do recognise that using female only private sector wages does restrict the overall sample size and results in an increase in standard errors in an individual year. South Australia has had significant concerns with the overall volatility of the wages cost assessment, and reducing the sample size may lead to an increase in volatility. However, to address concerns around volatility the Commission is proposing to combine estimates from several years, which South Australia supports. This increases the effective sample size and should reduce standard errors. In combination, the measures can result in improved conceptual validity and a reduction in volatility relative to the current assessment approach[2].

The Commission has also noted that relative "whole of sector" private wages are more closely correlated to public sector wages (correlation coefficient of 0.72) than female private sector wages (correlation coefficient of 0.63). Given the Commission's observation that relative public sector wages are highly policy

[1] Final consultant report, page 19. 65% of public sector workers are female.
[2] Any reduction in volatility will depend on the method for combining estimates across years and is subject to modelling of actual impacts.

influenced, the fact that one potential proxy is more closely correlated to relative public sector wages than another cannot be considered to be an indication that it is more appropriate. In this instance, the more relevant consideration is the extent to which the characteristics being captured by the alternative proxies align to the characteristics of the public sector workforce.

<u>Alternative options</u>

Gender weighted private sector wages

Professor Preston suggested the Commission use female only private sector wages as it is more representative of the public sector workforce than the total private sector workforce including men and women.

An alternative approach would be to use gender weighting for private sector wages. Under this approach, the individual state coefficients for private sector male wages and private sector female wages would be weighted by the overall share of males and females within the public sector (eg a 35% weighting for males and 65% weighting for females).

Gender weighting would better match the composition of the public sector workforce than total private sector wages given the differences in composition of males and females between the two sectors. It also has the advantage of increasing the overall sample size and should result in a reduction in standard errors relative to using female only private sector wages.

Other options

Other options that the Commission could consider include:

- Applying the female only coefficient to the government sectors/assessments that that are predominately compromised of female workers (eg health, education and welfare) and the total private sector wage coefficient to other assessments.

- Removing workers from industry sectors that have little relationship with the public sector, for example mining. This would need to be done on a basis which seeks to limit policy neutrality concerns, but it is considered that the removal of some outlier industries could generally improve the overall model without significantly adding to policy neutrality concerns.

Question 3: Do states support the continued use of the Characteristics of Employment survey data?

As outlined in previous submissions, particularly our response to the 2021 New Issues paper, South Australia has concerns with the reliability of the Characteristics of Employment Survey (CoES) data and its suitability as a reliable, policy neutral source of information on interstate wage differences.

These concerns include:

- The ABS's explanatory notes for the CoES advised that the survey was designed to primarily provide estimates at the Australia level and urges caution in attempting to use data at a state level due to high sampling errors.

- Relative standard errors (RSEs) are also very high for many of the components used in the CGC's wages model, such as earnings for the main education categories by 3-digit ANZSIC industry group, and 3-digit ANZSCO occupation, in previous years these have contained RSEs greater than 25%. Some components have had RSEs greater than 50% and the ABS considered these to be too unreliable for general use.

We appreciate that the Commission has sought to partially address some of these issues as part of the Review through adjustments to the underlying methodology, including combining estimates across years.

We also recognise that the consultant recommended that the Commission should continue to use CoES for estimation purposes given issues associated with potential alternative data sets (HILDA, Census).

However, given ongoing concerns with the ability of the assessment to accurately represent non-policy influenced wage differences faced by the public sector across jurisdictions, we consider that there should be ongoing review and consideration of alternative data sources. The current level of discounting should also be reviewed due to the inherent data limitations.

Modelling specification questions

Question 4: Do states agree the Commission should use hourly wages rather than weekly wages as the dependent variable? Question 5: Do states support including usual hours of work in the model as 3 categories, part-time, full-time and more than full-time hours?

South Australia supports the proposed approach of using hourly wages as the dependent variable in the regression model, and usual hours worked with dummy variables for part-time, full-time and more than full-time hours as independent variables.

Question 6: Do states support replacing imputed work experience and imputed work experience squared with 5-year age groups?

South Australia supports the proposal to replace imputed work experience variables with 5-year age groups. We note Professor Preston's comments that this approach would also be more appropriate given the large share of females in the public sector and the fact that potential experience is a poor proxy for female experience.

Question 7: Do states agree with the Commission's proposed criteria for including control variables in the model?

The Commission's proposed criteria for assessing the inclusion of the control variable in the model includes:

- There should be a strong conceptual case for it to affect an individual's wages.
- It should materially affect average state coefficients over the 5 years for which consistent data is available.
- It should improve the overall fit of the model.
- It should not increase the average standard error of the sate coefficients over the 5 years for which consistent data exists.

South Australia notes the Commission's proposed criteria but considers that these should be broad guidelines and that not all criteria must be met. There can be a trade-off between the different criteria, for example the magnitude of change in a coefficient versus the change in standard error, which would warrant case by case consideration.

Question 8: Do states support using a less complex model by replacing industry group categories with industry division categories and removing the interaction terms with gender and every other independent variable?

On the basis that including the detailed industry group and interactions between gender and all the other explanatory variables results in a very limited impact on state coefficients, South Australia supports their removal. This will simplify the model with marginal impact on the modelled outcome.

Reducing volatility

Question 9: Do states agree with the proposed approach to combine estimates of relative differences in states' wages across years?

South Australia supports combining estimates of relative differences in state wages across years.

The current year-by-year assessment approach results in significant variability in relative wage costs. The changes are not representative of actual wage movements and largely reflect sampling errors, with the changes in coefficients falling within the standard errors. The standard three-year averaging approach used by the Commission does not overcome issues with the variability between years in the assessment. As outlined in the Commission's papers, over just three update years (2020 to 2023) the volatility in the assessment has resulted in changes in the GST distribution of more than $50 per capita for a state on 8 occasions and more than $100 per capita on 3 occasions. South Australia is a jurisdiction that has been impacted by these large swings in GST redistributions from the wages assessment. The resultant GST re-distributional impacts between years from the assessment creates significant budgeting issues.

The Commission has proposed an approach using indexed and weighted annual data from 2016-17. This approach uses the full time series of available survey estimates of relative wage costs. Professor Preston acknowledged that the Commission's proposed methodology was sound, but complex. In the final report, Professor Preston suggested an alternative approach of using pooled data over a moving 3-year average.

It is recognised that under the 'practicality' principle, the Commission should seek to use simple, reliable and fit for purpose methods. However, simplicity in itself should not be an overriding factor. Given the significant year-to-year variability in the current wages assessment a more complex methodology may be warranted to reduce volatility, provided the result are consistent with underlying equalisation.

As noted in the Wages Costs Addendum paper, the Commission's proposed approach of combining indexed annual estimates resulted in an absolute annual movement in state relativities of 0.3% over the period 2019-20 to 2021-22. Under the alternative method of pooling data over a 3-year moving average resulted in a comparable variance of 0.6%.

On the basis that the Commission's methodology results in reduced year-to-year volatility, South Australia provisionally supports the proposed methodology. However, we would like to work with Commission staff over the coming period to examine the methodology in more detail.

Discounting the assessment

Question 10: Do states agree that a 12.5% discount remains appropriate?

In the 2020 Review, the Commission retained the 12.5% discount that has applied to the wage costs assessment since the 2010 Review, reflecting concerns about:

- how well private sector wages can be used as a proxy for wage pressures in the public sector;
- how accurately the data used in the assessment measures relative wage costs; and
- how accurately the Commission's econometric model controls for differences in productivity.

Experience with the assessment since the 2020 Review supports South Australia's long held view that the discount applied to the assessment needs to be increased to at least the medium (25%) level.

The consultant's report supported the view that there are underlying issues with the conceptual basis for the assessment. As previously outlined, this includes that there are significant differences between the composition of the public and private sectors and that there is evidence of separation between the sectors. Although there is limited evidence available at this point in time, the increased incidence of remote working in public sectors may also influence future wage outcomes and differences between states over the review period.

Further, South Australia believes that the consultant's report clearly supported greater recognition of the gender composition of public sectors in the Commission's modelling approach. It is important that gender based adjustments are made to the model and any residual data concerns be addressed through an adjustment to the level of discount.

Government of South Australia
Department of Treasury and Finance