COMMONWEALTH GRANTS COMMISSION 2023 UPDATE OF GST REVENUE SHARING RELATIVITIES

WAGES DATA CONSULTATION

ACT Government Submission

ACT GOVERNMENT SUBMISSION

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BACKGROUND

On 13 January 2023, Commonwealth Grants Commission (CGC) staff circulated a consultation paper for the 2023 Update of Goods and Services Tax (GST) Revenue Sharing Relativities (Update). The paper regards Australian Bureau of Statistics (ABS) Characteristics of Employment (CoE) data that is used by the CGC to calculate the relative wage cost differences between the states and territories.

The CGC uses a regression model that captures various factors that influences wages paid to private sector employees, including occupation, industry, gender, migrant status, hours worked, and state/territory of employment. The relative size of the regression coefficients for state/territory of employment are then used by the CGC to calculate the relative wage levels for private sector employees in each jurisdiction. These relative wage levels are then used as a policy-neutral proxy for the relative wages states and territories need to pay their public sector employees.

The regression model uses actual earnings as the dependent variable. However, the model uses usual hours of work as an independent variable, and not actual hours worked, or hours worked used to calculate most recent pay. The CGC made this decision as usual hours of work are an effective proxy measurement for the hours that casual employees get paid for over time, while also measuring the hours that salaried employees are compensated for. This variable selection however is vulnerable to distortion through shocks to actual hours worked, and therefore actual earnings.

CGC staff have identified that such a shock appears to have occurred for the data used for the 2020-21 assessment year. The 2020-21 assessment year is based on the 2021 CoE survey, which was conducted in August 2021. At that time, five states and territories – New South Wales, Victoria, Queensland, the ACT, and the Northern Territory – were at least partially in lockdown due to the COVID-19 pandemic. Consequently, a higher-than-normal percentage of workers identified as having worked fewer hours than normal over the survey period – 17.5 per cent of workers in August 2021, compared with 13.5 per cent in August 2017, 14.2 per cent in August 2019, and 15.1 per cent in August 2022. CGC staff also identified a significant spike in the number of workers who worked fewer than their usual hours due to either being unemployed or stood down, or for “other reasons” – both of which are consistent with the enactment of lockdown policies.

As workers worked fewer than their usual hours, their actual pay was also lower than normal. However, their usual hours of work themselves were unchanged. For the purposes of the wage costs regression, this results in states and territories that were in lockdown appearing to have lower wage costs than they would under normal economic circumstances – changing the national average wage cost level and biasing the state/territory of employment regression coefficients.

CGC staff have proposed two approaches for addressing this issue in the 2023 Update – either using an alternative measure of hours worked to usual hours, indicating a preference to use hours of work used to calculate most recent pay, or adjusting the ABS data to remove survey respondents who worked fewer than their usual hours of work for lockdown-consistent reasons. CGC staff have provided states and territories with regression outputs comparing the two options, as well as outputs from unadjusted data.

ACT POSITION

From the outset, the ACT notes that states and territories have had little time to consider their positions on the issue with wage data identified by CGC staff, on account of both the timing of the release of the 2023 Update report, and the timing of the provision of the data to the CGC by the ABS. Further, as has been noted by CGC staff, the short timeframe for consideration of this issue has also restricted the ability of the CGC itself to interrogate potential alternative data sources that could be used in place of usual hours of work for the regression model to ensure that they are fit for purpose. Given this, the ACT considers that this issue should be considered again for the 2024 Update as part of the CGC's consultation with states and territories through the Update process, and that whichever approach that is adopted by the CGC for the 2023 Update should be considered temporary.

In analysing the regression outputs supplied for the two options presented by the CGC in the paper, the ACT notes that the R-squared values for the model using hours of work used to calculate most recent pay (alternative data model) is consistently higher than both the adjusted and unadjusted usual hours of work models. Table 1 below shows the Adjusted R-squared values across the three models for the four years of data that CGC staff tested.

Table 1 – Adjusted R-squared Values for Proposed Models

	2019	2020	2021	2022
Unadjusted Data	0.636	0.603	0.590	0.581
Adjusted Data	0.634	0.611	0.596	0.579
Alternative Data	0.739	0.716	0.736	0.711

Source – Commonwealth Grants Commission

Moreover, a similar pattern is illustrated with respect to the standard errors for the coefficient estimates for the state/territory of employment dummy variables in the regression, with the alternative data model consistently having lower standard of errors over the four years of data for all states and territories. The mean standard of errors for each of the four years is show in Table 2 across the three models.

Table 2 – Mean State/Territory Dummy Variable Standard Errors for Proposed Models

	2019	2020	2021	2022
Unadjusted Data	0.0135	0.0145	0.0139	0.0137
Adjusted Data	0.0137	0.0146	0.0143	0.0138
Alternative Data	0.0118	0.0125	0.0122	0.0121

Source – Commonwealth Grants Commission

The above analysis suggests that the alternative data model has the best goodness of fit of all three options presented by the CGC staff and has the most reliable estimates of the state/territory of employment coefficients, which are the drivers of the relative wage cost levels determined by the CGC. On this basis, the ACT considers that the alternative data model is the best option presented by the CGC for addressing the anomalous CoE data. Given that this change from the existing method would be in response to a data quality issue, the ACT considers that it would be within the CGC's Terms of Reference for the 2023 Update to make this change.

The ACT notes however that if the CGC were to adopt the alternative data model, this would constitute a fundamental, econometric change in the regression model – in effect, the alternative data model is a distinct econometric model from the existing model using usual hours of work data. As such, comparability issues could arise if the CGC were to use the alternative data model for only some of the assessment years of the 2023 Update (i.e., just the 2021 CoE data). To maintain comparability of the regression outputs, and therefore the assessed relative wage levels, across the assessment years, the ACT recommends that the alternative data model be used for all assessment years in the 2023 Update. Should the CGC choose not to apply the alternative data model to all assessment years, the ACT considers that the CGC should adjust the 2021 CoE data to remove respondents who worked fewer than their usual hours due to lockdown-consistent reasons to maintain cross-assessment year comparability.

Chief Minister, Treasury and Economic Development Directorate

February 2023