Queensland response to the Draft Report Addendum (Transport), 2025 Methodology Review

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Queensland Government

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Overview of Queensland's position

While Queensland continues to have significant concerns about key aspects of the transport assessment methodology and model, Queensland acknowledges the modified positions outlined in the Commission's recently released transport assessment addendum report.

Queensland's previous Tranche 1 and Tranche 2 submissions, as well as submissions put forward by Western Australian, South Australia and Tasmania, have outlined a range of rigorous and evidence-backed arguments as to why the current transport expenditure and investment methodologies are significantly flawed, thereby resulting in outcomes that are not appropriately aligned with HFE outcomes.

Queensland welcomes the Commission's acknowledgment of the validity of key elements of Queensland's concerns, reflected in some of the key changes and positions proposed by the Commission.

The proposed changes to the methodology and model demonstrate that the Commission is considering taking some positive steps towards developing a more conceptually sound, policy neutral and fit for purpose transport assessment. **These proposed changes will clearly improve the effectiveness of the transport assessment.**

Queensland also strongly supports the proposal by the Commission to engage an independent expert for the 2030 Review and welcomes the opportunity to work with this expert as part of the next Review to develop a more fit for purpose and policy neutral assessment of transport need.

Importantly, many of the key issues that Queensland raises in this submission regarding the limitations of the current transport expenses and investment models have been discussed in substantial detail in Queensland's previous Tranche 1 and Tranche 2 submissions. Therefore, where appropriate, this submission references the detailed analysis and evidence outlined in Queensland's previous submissions as the critical evidence and rationale to be considered by the Commission in support of Queensland's positions.

Summary of Queensland responses to specific positions

A summary of Queensland's positions on each of the Commission's positions on the Transport assessment, as outlined in the Draft Report and related Addendum, is provided in the following table, with further detail in the remainder of the submission.

Commission draft position	Queensland response
The Commission considers the regression model broadly remains appropriate for assessing urban transport need.	**Do not support**, however notes and supports the significant improvements proposed to the original model.
The Commission claims, that despite the disruption caused by COVID-19, states will over time adjust their supply to account for any change in use patterns and key assumptions underpinning the regression model remain valid.	**Do not support**, however notes and supports the significant improvements proposed to the original model.
The Commission considers the model adequately captures economies of passenger density through the log treatment of passenger numbers in the regression and proposes retaining all variables currently used in the regression model, including the population-weighted density and heavy rail passenger variables.	**Do not support**, however notes and supports the significant improvements proposed to the original model.

The Commission proposes updating the regression with new state net expense data for 2022–23 and 2023–24.	**Support**
The Commission proposes calculating population-weighted density using the square kilometre grid instead of Statistical Area Level 1s (SA1s).	**Support**, however continues to hold concerns related to the policy neutrality and fitness of purpose of any PWD-based variable.
The Commission proposes indexing 2016 Census passenger numbers using Bureau of Infrastructure, Transport and Research Economics kilometres travelled, until census data unaffected by COVID-19 is available.	**Do not support** using data based on trips for work as a proxy for passenger numbers. **Supports** indexing 2016 Census data with BITRE data. **Recommends** that 2026 Census data, once available, should be annually updated using BITRE data.
The Commission proposes to use the Bureau of Infrastructure and Transport Research Economics data to adjust the 2016 Census data when re-estimating the regression. Once census data unaffected by COVID-19 are available, the Commission proposes to return to using unadjusted census data.	**Do not support** using data based on trips for work as a proxy for passenger numbers. **Supports** indexing 2016 Census data with BITRE data. **Recommends** that 2026 Census data, once available, should be annually updated using BITRE data.
The Commission proposes modelling passenger numbers using a regression model.	**Do not support**
The Commission considers that the approach adopted in the 2020 Review of blending the urban centre characteristics model (75%) with state urban population shares (25%) adequately accounts for limitations in the model and the uncertainty inherent in the assessment.	**Do not support** **Recommend** increasing the blending share of urban population on a permanent basis.
The Commission considers 2016 Census Journey to work data to be the best option until 2026 Census data become available and that 2021 Census data on distance travelled to work provide a reliable measure of network complexity. Given issues with contemporality in using 2016 Census data, the Commission proposes a temporary increase to the blending ratio by 10 percentage points (to a 65:35 blend between the model and urban population shares) to account for data issues related to COVID-19.	**Strongly support** increasing the urban population blending share of the assessment. **Do not support** decreasing the urban population blending share of the assessment once 2026 Census data become available. **Recommend** increasing the blending share of urban population on a permanent basis.
The Commission proposes that the dummy variable to reflect ferries that provide an intra-urban area service should continue to be used in the model and that Newcastle will be assessed as having a ferry service.	**Do not support** retaining the ferry dummy variable. **Recommend** assessing ferry need based on the proportion of

	total passengers using ferry services
The Commission considers that it would not be appropriate to update the regression model without updating the net expense data. Updated 2022–23 net expense data have been requested from states and will be incorporated into the regression and proxy variables updated where possible. The results will be presented in an addendum to the Draft Report.	**Agrees** that it would not be appropriate to update the model without updating net expenses data.
The Commission proposes that an equal per capita assessment of non-urban transport expenditure remains appropriate.	**Do not support**
The Commission proposes that inter-urban transport expenses are best assessed in the non-urban transport assessment.	**Support**
The Commission proposes to retain the current method of allocating V/Line expenses until 2026 Census data are available.	**Support,** with additional recommendations.
The Commission will seek external advice on the urban transport assessment prior to the next methodology review. The advice would include retesting the assumptions underpinning the urban centre characteristics regression model using relevant 2026 Census data.	**Strongly support**, with recommendations.
The Commission proposes to blend urban centre characteristics with urban population squared.	**Do not support** **Recommend** that population squared is replaced with urban population.
The Commission proposes to move pipeline and other transport COFOG-A (1171) from the urban transport component to the non-urban transport component.	**Support**
The Commission proposes to continue to assess school transport expenses in the urban transport component.	**Do not support**
The Commission proposes that Darwin and Townsville will no longer be classified as having urban transport ferries.	**Do not support**
The Commission proposes to continue blending estimates for the urban transport investment assessment based on population squared with estimates based on the recurrent transport model, weighting these elements 25% and 75% respectively.	**Do not support** **Recommend** that population squared is replaced with urban population and that the blending share of urban population is increased. If population squared is retained, **support** not increasing the blending share in the investment assessment.

Queensland's additional/alternative recommendations for the transport & transport investment assessments
Queensland **recommends** that the population squared should be removed from the investment assessment as a priority and replaced with urban population.
Queensland **recommends** that the Commission make an adjustment to urban transport actual expenses to reapportion all interurban rail expenses, particularly those in New South Wales and Queensland, from the urban transport assessment to non-urban transport assessment.
Queensland **recommends** that the Commission remove non-urban school student transport expenses from the urban transport assessment and assess these expenses with non-urban transport.
Queensland **recommends** that the Commission consider differentially assessing state need for long-distance non-urban transport and interurban non-urban transport as a part of the 2030 Review.
Queensland **recommends** that the most appropriate assessment of non-urban transport would be based on a measure of regional population.
Queensland **recommends** that the Commission should assess ferry need based on the proportion of public transport users taking ferries and **recommends** that the Commission appropriately assess all SUAs with urban ferry needs. If the Commission decides against assessing ferry need using a proportional method and excludes multiple SUAs with high ferry need, Queensland **recommends** removing ferry expenses from the urban transport assessment and assessing this need with non-urban transport. If the Commission retains the ferry dummy variable and assesses ferry transport needs with urban transport, Queensland **recommends** that SUAs should only be assessed as having ferry need if at least 1 per cent of public transport passengers use ferries as their primary mode of transport (based on BITRE-indexed ABS Census data).
Queensland **recommends** that 2026 Census data, once available, should be annually updated using BITRE data.
Queensland **recommends** that the urban population blending for both expenses and investment is increased **on a permanent basis**. If the population squared variable is retained in the investment assessment, Queensland **supports** not increasing the blending share of population squared in the investment assessment.

1 Transport & transport investment

Proposed changes/positions

Based on the information provided in the Draft Report and Addendum related to the transport-related assessments, the Commission's preliminary positions are:

- The Commission considers the regression model broadly remains appropriate for assessing urban transport needs.
- The Commission claims, that despite the disruption caused by COVID-19, states will over time adjust their supply to account for any change in use patterns and key assumptions underpinning the regression model remain valid.
- The Commission considers the model adequately captures economies of passenger density through the log treatment of passenger numbers in the regression and proposes retaining all variables currently used in the regression model, including the population-weighted density and heavy rail passenger variables.
- The Commission proposes updating the regression with new state net expense data for 2022–23 and 2023–24.
- The Commission proposes calculating population-weighted density using the square kilometre grid instead of Statistical Area Level 1s (SA1s).
- The Commission proposes indexing 2016 Census passenger numbers using Bureau of Infrastructure, Transport and Research Economics kilometres travelled.
- The Commission proposes to use the Bureau of Infrastructure and Transport Research Economics data to adjust the 2016 Census data when re-estimating the regression.
- The Commission proposes modelling passenger numbers using a regression model.
- The Commission considers that the approach adopted in the 2020 Review of blending the urban centre characteristics model (75%) with state urban population shares (25%) adequately accounts for limitations in the model and the uncertainty inherent in the assessment.
- The Commission considers 2016 Census Journey to work data to be the best option until 2026 Census data become available and that that 2021 Census data on distance travelled to work provide a reliable measure of network complexity. Given issues with contemporality in using 2016 Census data, the Commission proposes a temporary increase to the blending ratio by 10 percentage points (to a 65:35 blend between the model and urban population shares) to account for data issues related to COVID-19. Once fit for purpose 2026 Census data become available in 2028, the blending ratio will return to the 75:25 split.
- The Commission proposes that the dummy variable to reflect ferries that provide an intra-urban area service should continue to be used in the model and that Newcastle will be assessed as having a ferry service.
- The Commission considers that it would not be appropriate to update the regression model without updating the net expense data. Updated 2022–23 net expense data have been requested from states and will be incorporated into the regression and proxy variables updated where possible. The results will be presented in an addendum to the Draft Report.
- The Commission proposes that an equal per capita assessment of non-urban transport expenditure remains appropriate.
- The Commission proposes that inter-urban transport expenses are best assessed in the non-urban transport assessment.

- The Commission proposes to retain the current method of allocating V/Line expenses until 2026 Census data are available.
- The Commission will seek external advice on the urban transport assessment prior to the next methodology review. The advice would include retesting the assumptions underpinning the urban centre characteristics regression model using relevant 2026 Census data.
- The Commission proposes to blend urban centre characteristics with urban population squared.
- The Commission proposes to move pipeline and other transport COFOG-A (1171) from the urban transport component to the non-urban transport component.
- The Commission proposes to continue to assess school transport expenses in the urban transport component.

Additional Commission positions presented in the addendum report are:

- The Commission proposes that Darwin and Townsville will no longer be classified as having urban transport ferries.
- The Commission proposes to continue blending estimates for the urban transport investment assessment based on population squared with estimates based on the recurrent transport model, weighting these elements 25% and 75% respectively.

Queensland position

Queensland acknowledges the outcomes from the Commission's recently released transport assessment addendum report.

On aggregate, the proposed changes outlined in this addendum demonstrate that the Commission is considering taking positive steps towards developing a more conceptually sound, policy neutral and fit for purpose transport assessment.

As a whole, these proposed changes will significantly improve the transport assessment compared to the original model.

In particular, Queensland considers the proposed changes to calculate PWD using the square kilometre grid approach, the indexation of Census passenger numbers with BITRE data, and increasing the urban population share to 35% in the blending ratio applied in the assessment, are important steps in moving toward a more effective assessment of transport need.

Queensland also strongly supports the positive move by the Commission to engage an independent expert for the 2030 Review and welcomes the opportunity to work with this expert to develop a fit for purpose and policy neutral assessment of transport need.

However, Queensland still has significant concerns with other aspects of the transport assessment. Queensland's most significant concerns relate to the continued inclusion of the population squared variable for the transport component of the investment assessment and the persistent reliability and volatile nature of the results from the urban transport model.

Queensland continues to contend that the population squared variable has substantial limitations and is perversely incentivising capital overinvestment in New South Wales. As Queensland has outlined previously, the relationship between population squared and urban transport asset values observed in data **is not a reflection of need, but rather a result of historically higher investment in Sydney and Melbourne enabled by the historic wealth in these cities being significantly higher than in other Australian cities.**

Meanwhile, the significant changes to the coefficients, standard errors and distribution share by the variables implied by the model, resulting from the proposed change in PWD calculation approach, raise significant questions about the overall reliability of this model.

Queensland considers that the variables in this model are also still unable to account effectively for the differential public transport task arising because of dispersed populations or high concession card holder need.

As such, given the ongoing policy neutrality and reliability concerns related to the broader urban transport model and the continued limitations of any measure of PWD, Queensland recommends that the blending share of urban population is increased to a minimum of 35% on a permanent basis (subject to a detailed review of the entire model as part of the 2030 Review). Further, as Queensland has argued in previous submissions, the urban population share should ideally be increased to 50% if other key elements of the urban characteristics model are to be retained.

The following section outlines Queensland's response to the Commissions positions outlined in the Draft report and the Transport addendum.

Commission position

- *The Commission considers the regression model broadly remains appropriate for assessing urban transport needs, despite the significant concerns raised by most states.*
- *The Commission claims that despite the disruption caused by COVID-19, states will over time adjust their supply to account for any change in use patterns and key assumptions underpinning the regression model remain valid.*

Queensland position

Queensland does not support the continued use of key elements of the urban transport model. As detailed in Queensland's *Tranche 1* & *Tranche 2* submissions, the current model, particularly the PWD variable, has conceptual issues, is arguably not fit for purpose, has major policy neutral concerns, and is likely over-estimating the assessed need for New South Wales.

However, Queensland considers that the **proposed changes outlined in the transport addendum significantly improve the urban transport model.** In particular, these proposed changes help partially mitigate the inappropriate and perverse impact resulting from Sydney's dominance in terms of PWD, thereby lessening the impact of policy decisions on the assessment.

While Queensland notes the significant improvements to the model because of the proposed changes, Queensland contends that there are still outstanding conceptual and practical issues with this model and the urban transport assessment. These outstanding issues are detailed further below in the context of other specific positions put e Commission.

Commission position

- *The Commission considers the model adequately captures economies of passenger density through the log treatment of passenger numbers in the regression and proposes retaining all variables currently used in the regression model, including the population-weighted density and heavy rail passenger variables.*

Queensland position

Queensland agrees that an assessment based solely on log variables (if they were appropriately policy neutral) would theoretically assess economies of density and urban transport need. However, Queensland asserts that the current model, even once the proposed changes are considered, cannot adequately account for economies of density through the passenger-related variables currently included in the model.

This is primarily because these variables only account for 33 per cent of the model's distribution outcomes compared to 60 per cent of the model's distribution outcomes being driven by PWD.

Overall, the continued dominance of PWD in the urban transport model means that the urban transport assessment will continue to inherently assume the presence of *diseconomies* of density rather than the economies of density that would be expected.

As outlined in detail in previous Queensland submissions, the presence of diseconomies of density in efficient operated public transit networks has been widely rejected in academic literature.[1] **The continued dominance of PWD and the inherently assumed diseconomies of density indicate that the overall model remains conceptually unsound or severely contaminated by policy decisions in dominant states.**

Queensland however notes that the updated regression does address concerns about the dominance and non-intuitive significance of the heavy rail passenger variable compared to the bus and light rail passenger variable. The revised regression and resulting coefficients confirm that bus and light rail passengers are relatively more costly than heavy rail passengers as Queensland asserted in its *Tranche 1* & *Tranche 2* submissions. This reflects the critical task that buses play in transport networks compared to heavy rail, resulting in fewer opportunities for networks requiring buses to benefit from economies of density.

Commission position

- *The Commission proposes updating the regression with new state net expense data for 2022–23 and 2023–24.*
- *The Commission considers that it would not be appropriate to update the regression model without updating the net expense data.*

Queensland position

Queensland supports updating the regression with new state net expense data for 2022–23 and 2023–24. This will improve the contemporaneity of the assessment compared to using data from before the 2020 Review. Queensland agrees that it would not have been appropriate to update the regression without the 2022-23 net expense data.

However, updating the regression will not address the remaining underlying issues with the model and will leave the assessment not fit for purpose and not policy neutral

Despite the continued dominance of PWD in the model, Queensland notes that the updated regression is substantially more closely aligned with academic evidence in relation to the log passenger number variables and is consistent with the conceptual case that the average cost of a bus or light rail passenger is significantly higher than the average cost of a heavy rail passenger. This indicates that the proposed methodological and data changes, including the resulting updated regression, significantly improves the validity of the model.

Commission position

- *The Commission proposes calculating population-weighted density using the square kilometre grid instead of Statistical Area Level 1s (SA1s).*

Queensland position

Queensland supports the Commission calculating PWD using the proposed square kilometre grid instead of Statistical Area Level 1s (SA1s). This approach represents a significant improvement and would mitigate some of the policy neutrality and geographic distortionary issues previously identified in relation to the specific SA1 boundaries.

[1] For further discussion on this issue see Queensland Treasury 2023. *Assessment consultation papers – Tranche 1 – 2025 Methodology Review: Queensland submission.* Pages 59-63; Queensland Treasury 2024. *Assessment consultation papers – Tranche 2 – 2025 Methodology Review: Queensland submission.* Pages 28-36.

Most notably, this proposed change makes positive steps towards reducing New South Wales' policy dominance in this assessment, reflecting the fact that the more 'random' one square kilometre grid approach to calculating PWD reduces the perverse policy impacts of using specific SA1s as the geographic basis for this element of the assessment.

Queensland continues to hold substantial concerns around the policy neutrality and fitness of purpose of any PWD variable. In particular, Queensland contends that square kilometre grids may still result in geographic factors inequitably impacting assessed urban transport need, and may still be substantially under-estimating Brisbane's true assessed need compared to other major cities because of unique geographic factors, most prominently extensive floodplains and urban forests.

However, Queensland appreciates that, in the absence of the removal of PWD as a dominant factor in the model, this proposed change in approach represents a significant improvement and will help mitigate some of the policy neutrality issues and distortionary impacts previously identified in relation to the use of SA1s.

Commission position

- *The Commission proposes indexing 2016 Census passenger numbers using Bureau of Infrastructure, Transport and Research Economics kilometres travelled, until census data unaffected by COVID-19 is available.*
- *The Commission proposes to use the Bureau of Infrastructure and Transport Research Economics data to adjust the 2016 Census data when re-estimating the regression. Once census data unaffected by COVID-19 are available, the Commission proposes to return to using unadjusted census data.*

Queensland position

As outlined in detail in Queensland's previous submissions, trips for work are not an adequate proxy for public transport need. These trips only account for about a third of all public transport demand and using them as a proxy for total need ignores the substantial and differential task of providing services to non-commuters and fails to deliver an assessment recognising actual need.

As such, Queensland does not support using data based solely on trips for work given that this data excludes the substantial concession card holder and student transport tasks.

However, should the Commission retain the urban transport model, Queensland supports indexing and adjusting 2016 Census passenger numbers using Bureau of Infrastructure, Transport and Research Economics kilometres travelled. This method would improve the contemporaneity of the assessment and account for changes to transport usage because of the COVID-19 Pandemic.

Queensland further recommends that 2026 Census data, once available, should be annually updated using BITRE data to ensure the assessment continues to be as contemporaneous as possible.

Commission position

- *The Commission proposes that the dummy variable to reflect ferries that provide an intra-urban area service should continue to be used in the model and that Newcastle will be assessed as having a ferry service.*
- *The Commission proposes that Darwin and Townsville will no longer be classified as having urban transport ferries.*

Queensland position

Queensland does not support retaining the ferry dummy variable. The ferry dummy variable unfairly assesses all SUAs with a ferry service, regardless of how minimal or uneconomic this service is, as having the same need and running at the same level of efficiency.

As such, this ignores the substantially increased ferry service need in Queensland SUAs compared to other SUAs, such as Melbourne and Perth.

Overall, this position **is counter intuitive. For example, 2016 Census data indicates that Melbourne has only around one-tenth of the per capita ferry use of Brisbane[2]** and 2022-23 BITRE data continues to indicate that there are a negligible number of ferry trips in Melbourne.[3] As such, Queensland considers it is inappropriate and completely misleading to adopt an approach that implies, and therefore assesses, the two SUAs as having the same per capita need.

Overall, given the magnitude of difference in ferry need across different SUAs (including Melbourne and Brisbane), the proposed changes to the dummy variable, as outlined in the addendum, do not result in a variable that is fit for purpose.

Consistent with the Commission's initial position, Queensland recommends that the Commission replace the ferry dummy variable with a variable that reflects the proportion of total public transport passengers using ferry services. This would more adequately recognise that not all SUAs offering ferry services face the same task.

Further, Queensland does not support the Commission's position to cease assessing Townsville as having a ferry service. While ferry services in Townsville do not necessarily travel within the urban area, there is still a conceptual case that there is a clear transport need for these services to meet the needs of a material proportion of the urban population in that area.

Indeed, based on 2016 Census data, on a per capita basis, approximately 3 times as many urban commuter trips are on ferries in Townsville compared with Melbourne.[4] Therefore, the Commission's proposal to not assess Townsville suggests the Commission will be not assessing SUAs with relatively higher proportional ferry need while continuing to assess SUAs with lower proportional ferry need.

While Queensland would prefer a proportional assessment of urban ferry need across all SUAs, if the Commission decides to not proportionally assess need, or excludes SUAs with need (such as Townsville), Queensland recommends removing all ferry expenses from the urban transport assessment.

Assessing these expenses as equal per capita would be more appropriate than the current dummy variable approach, given the lack of consistency in the inclusion of assessed SUAs and the magnitudes of difference in ferry need in different SUAs.

If the Commission retains the ferry dummy variable, despite this variable being not fit for purpose, Queensland recommends that SUAs should only be assessed as having ferry need if at least 1 per cent of public transport passengers use ferries as their primary mode of transport (based on BITRE-indexed ABS Census data). This would better reflect the differential need for ferry services and ensure that SUAs with very minimal ferry need (less than 1 per cent) are not assessed as having the same need as SUAs with 10 times as much relative ferry need.

[2] Australian Bureau of Statistics 2017. *Census of Population and Housing: Method of Travel to Work*. Australian Government: Canberra.

[3] Bureau of Infrastructure and Transport Research Economics 2023. *Australian Infrastructure and Transport Statistics: Yearbook 2023*. Department of Infrastructure, Transport, Regional Development, Communications and the Arts: Canberra.

[4] Australian Bureau of Statistics 2017. *Census of Population and Housing: Method of Travel to Work*. Australian Government: Canberra.

Commission position

- *The Commission proposes modelling passenger numbers using a regression model.*

Queensland position

Queensland does not support modelling passenger numbers using a regression model. Queensland contends that using a population groupings approach, as adopted by the Commission as part of the outcomes of the 2020 review, is better able to decrease the impact of policy decisions from extreme outliers on assessed need.

Population groupings result in a range of SUAs being placed in the same category (for example, all SUAs with a population of over 2.5 million). This allows the blending of passenger numbers in these groupings and decreases the impact that one SUA's policies can have on determining need.

By combining multiple SUAs, the policy impacts of any single jurisdiction will be diluted and becomes less influential on the results of the assessment. As populations increase, policy decisions will be further diluted as more SUAs are included in the higher population groupings, which will further improve policy neutrality for this area of the assessment.

If the Commission maintains the population groupings approach, it should not alter the population thresholds. Altering the thresholds could further decrease policy neutrality of the assessment and increase the impact of policy decisions of a single jurisdiction on assessed need.

Commission position

- *The Commission considers that the approach adopted in the 2020 Review of blending the urban centre characteristics model (75%) with state urban population shares (25%) adequately accounts for limitations in the model and the uncertainty inherent in the assessment.*

Queensland position

Queensland does not support retaining the current level of blending between urban centre characteristics and state urban population shares as the longer-term basis for the model. As stated, Queensland recommends that the Commission discontinue the use of the urban centre characteristics model and instead assess urban transport based primarily on concession card holder shares and urban population shares.

At a minimum, Queensland recommends that the Commission **increase the weighting applied to the urban population in the blending on a permanent basis. This would help ensure that, at least for the life of this review, that the proposed change would help address the policy contamination that is currently inappropriately redistributing significant amounts of GST, as well as the reliability issues with the urban transport model.**

Commission position

- *The Commission considers 2016 Census Journey to work data to be the best option until 2026 Census data become available and that that 2021 Census data on distance travelled to work provide a reliable measure of network complexity. Given issues with contemporality in using 2016 Census data, the Commission proposes a temporary increase to the blending ratio by 10 percentage points (to a 65:35 blend between the model and urban population shares) to account for data issues related to COVID-19. Once fit for purpose 2026 Census data become available in 2028, the blending ratio will return to the 75:25 split.*

Queensland position

Queensland strongly supports increasing the urban population blending share of the assessment and the Commission's initial proposed increase to the blending ratio by 10 percentage points.

The increased weighting given to the urban population share factor is a critical step in reducing the distortionary impacts of the current urban characteristics model, which are exacerbated by the current 75% weighting applied to the regression model outcomes in the blended assessment.

However, the temporary nature (until 2026 Census data is available) of the proposed change to the urban transport assessment is considered insufficient. As outlined throughout Queensland's submissions, reliability and policy neutrality issues have substantially impacted, and will continue to substantially impact, the urban transport assessment.

Given these continuing issues, a permanent increase in the blending share of urban population is justified. Overall, Queensland recommends that the **increases to the urban population blending to a minimum of 35% (and as Queensland has argued in past submissions, ideally increased to 50% if the other key elements of the urban characteristics model are to be retained) be implemented on a permanent basis.**

Commission position

- *The Commission proposes that an equal per capita assessment of non-urban transport expenditure remains appropriate.*

Queensland position

Queensland does not support retaining an EPC assessment of non-urban transport expenditure since it doesn't adequately assess need and the cost of service delivery.

As outlined in detail in previous Queensland submissions, there are clear differential drivers of non-urban transport expenditure. As such, Queensland recommends that non-urban transport is differentially assessed based on measures of regional population. Key arguments raised include:

- There is a significant long-distance non-urban transport task in more dispersed states, such as Queensland, which increases the need for these services relative to more concentrated states.
- Because of economies of scale and density, long-distance non-urban transport services are significantly more costly to run (per passenger kilometre) compared to urban or interurban transport services. As a result, States with a high long-distance non-urban transport need will require higher levels of expenditure to provide the same level of service.

Commission position

- *The Commission proposes that inter-urban transport expenses are best assessed in the non-urban transport assessment.*
- *The Commission proposes to retain the current method of allocating V/Line expenses until 2026 Census data are available.*

Queensland position

Queensland supports the Commission's proposal to assess interurban transport expenses in the non-urban transport assessment. As such, Queensland notes and agrees with the Commission's decision to continue apportioning V/Line expenses using the current methods.

However, to ensure consistency in the treatment of inter urban transport services across jurisdictions, Queensland considers it is critical the Commission consider similar adjustments to the South East Queensland and Sydney transport networks, including key inter-urban transport expenses such as

Queensland Rail services to the Gold Coast and Sunshine Coast, and NSW TrainLink services from Sydney to Newcastle, Wollongong and the Central Coast.

Queensland analysis indicates that substantial inter-urban expenses in Queensland and New South Wales should be reallocated from urban transport to non-urban transport to ensure the Commission has a consistent definition of non-urban transport across states.[5] To facilitate this more appropriate allocation of expenses, a method similar to how V/Line expenses are allocated could be adopted.

Further, Queensland contends that a significant proportion of COFOG (Classification of the Functions of Government) coded urban ferry expenses are related to non-urban transport, according to the Commission's definitions.

Given this, Queensland recommends that the Commission ensure ferry need is differentially assessed based on the proportion of trips taken by ferry for urban areas which have a nearby ferry service (even if it is, based on the Commission's definition, a non-urban ferry service). If the Commission does not accept this recommendation, Queensland recommends that all ferry expenditure is removed from the urban transport assessment and assessed equal per capita.

Commission position

- *The Commission will seek external advice on the urban transport assessment prior to the next methodology review. The advice would include retesting the assumptions underpinning the urban centre characteristics regression model using relevant 2026 Census data.*

Queensland position

Queensland strongly supports the Commission engaging an external advisor to review the urban transport model for the 2030 Review.

Queensland recommends that any external advisor engaged should have a broad scope to scrutinise and recommend changes to the urban transport model and transport assessment as a whole, including examining the merits and limitations of key elements of the existing approach, including the use of PWD and population squared.

Queensland also recommends that any external advisor engaged be a respected transport economist, preferably working as an academic at an Australian university. It is Queensland's view that this would help ensure any external advice received is accountable and independent.

Queensland further recommends that the engaged consultant also investigates the historical and economic factors underpinning the value and volume of urban transport capital in Australian cities and the extent to which Commission transport assessments have incentivised and disincentivised urban transport expenditure and capital investment.

This work should be completed well before the Commission releases its draft report as part of the 2030 methodology review.

Queensland would welcome the opportunity to engage further with the Commission and other states at the appropriate time to help inform consideration and development of appropriate terms of reference and scope of this review, given the critical need to consider a more appropriate approach to accurately assess states' relative need in terms of the provision of effective and efficient transport services.

[5] Refer to *Minimum Necessary Change 5: Introduce a differential assessment of interurban non-urban transport and long-distance non-urban transport.*

Commission position

- *The Commission proposes to blend urban centre characteristics with urban populations squared.*
- *The Commission proposes to continue blending estimates for the urban transport investment assessment based on population squared with estimates based on the recurrent transport model, weighting these elements 25% and 75% respectively.*

Queensland position

Queensland does not support the ongoing blending of urban centre characteristics with urban population squared and, as outlined in detail in previous submissions, instead recommends that the population squared variable should be replaced entirely with urban population shares, which is a more appropriate factor and also to ensure consistency between the expenses and investment assessments.

Importantly, Queensland argues, as outlined and supported by detailed analysis and evidence in previous submissions, that any correlation between population squared and actual asset shares **is not a real reflection of need, but rather is simply a result of a long period of higher levels of investment in Sydney and Melbourne compared to other cities because of a range of factors.**

A key determinant of this higher-than-average capital investment is that Sydney and Melbourne had significant private rail investments and a much higher public fiscal capacity than other Australian cities throughout the 19th and 20th centuries.[6]

The ongoing use of this variable is further exacerbating historic differences in state capacity and preventing most states from providing necessary urban transport infrastructure.

Relying on historical transport infrastructure capital data to support the rationale for the population squared variable is inappropriate, as despite the likely degree of correlation between the two factors, this does not necessarily represent causation.

Consistent with the expenses assessment, Queensland recommends that, if urban population is used in the investment assessment, that the blending ratio be increased on a permanent basis to help mitigate the substantial policy neutrality and reliability issues with key elements of the assessment.

However, if the Commission continues to use population squared, Queensland supports not increasing the share of the assessment for population squared blending.

Increasing the blending share of population squared would further exacerbate the distortionary impacts of this variable and the historic differences in state capacity which currently result in outcomes not aligned with HFE and not effectively providing most states with the fiscal capacity required to provide urban transport infrastructure in line with actual need.

Commission position

- *The Commission proposes to move pipeline and other transport COFOG-A (1171) from the urban transport component to the non-urban transport component.*

Queensland position

Queensland supports assessing pipeline and other transport expenses in the non-urban component. These expenses are not related to urban transport and occur almost exclusively in non-urban areas.

[6] R. Lee 2010. *Transport: An Australian History.* University of New South Wales Press: Sydney.

Commission position

- *The Commission proposes to continue to assess school transport expenses in the urban transport component.*

Queensland position

Queensland does not support continuing to assess school transport expenses in the urban transport component. Assessing school student need as the same as urban transport ignores the drivers of need for these services, which are significantly different to drivers of other urban transport need.

As argued in Queensland's Tranche 2 submission, a fit for purpose assessment of school transport need is best achieved by differentially assessing urban and non-urban school transport based on school student shares. As such, Queensland recommends that all school transport expenses are estimated and reallocated from the urban transport assessment to differential urban and non-urban school student transport assessments. The rationale for removing non-urban school student transport expenses from the urban transport assessment was discussed in detail in Queensland's *Tranche 2* submission, with the key arguments raised by Queensland including:

- Non-urban school student transport is related to transport expenses from outside of urban areas and related primarily to provision of services for students living in non-urban areas. There are no drivers in the urban transport assessment relevant to school student need or non-urban population needs and, therefore, it is inappropriate to assess these expenses as part of the current urban transport assessment.
- There are additional pressures increasing school student transport need in non-urban areas which increase the proportion of students needing public transport to access education. Furthermore, the increased travel distances required in non-urban areas will also result in higher costs for the delivery of non-urban school transport services.

At a minimum, Queensland recommends that non-urban school student transport is removed from the urban transport assessment and assessed with non-urban transport.

2 Queensland's additional concerns with the transport & transport investment assessments

While Queensland agrees that the changes proposed by the Commission, in particular the updated regression model and changes to the PWD variable, represent a significant improvement to the urban transport assessment, these changes do not fully address the underlying conceptual and policy neutrality issues with the assessment.

In particular, as outlined in detail in previous submissions, Queensland continues to have significant concerns with the following issues within the transport assessment:

- The continued equal per capita assessment of non-urban transport and inconsistent treatment of interurban transport expenses.
- The proposed continued inclusion of the population squared variable,
- The persistent reliability and policy neutrality issues with the urban transport model,
- The lack of comparability of ferry services in the assessment.

Each of these issues are discussed in further detail below, with additional recommendations proposed by Queensland to help further address the current limitations of the assessment methodology.

Issues with the proposed EPC assessment of non-urban transport and inconsistent treatment of interurban expenses

Queensland does not support an EPC assessment of non-urban transport. Assuming that all states have an equal task in transporting persons into or between SUAs disadvantages states with more dispersed populations. Queensland strongly recommends that the Commission, as part of its external review of the Transport assessment for the 2030 methodology review, include the non-urban transport task within scope of the review.

While conceptually Queensland is opposed to an EPC assessment of non-urban transport, Queensland is also concerned that a large proportion of non-urban transport expenses are currently inappropriately assessed within the urban transport assessment, including interurban rail services in South-East Queensland and urban New South Wales and non-urban school student transport.

These issues are materially impacting on states' fiscal capacity. Queensland considers that some key changes could be made to the non-urban transport assessment, as discussed below, that would improve equalisation outcomes.

Queensland, Western Australia, and New South Wales all have substantial non-urban transport networks, as well as interurban services. The Commission should further investigate, prior to the release of the 2025 review outcomes, whether it is appropriately apportioning only urban expenses that meet the need within an urban area in the urban transport assessment. Any expenses that relate to transport between urban areas should be accounted for in the non-urban transport assessment.

Queensland, Western Australia and New South Wales all have non-urban networks and provide non-urban transport services by coach, rail and air. The key difference between these states is that New South Wales and Western Australia have more centralised populations, while Queensland has a more dispersed population. This highlights that there are **substantial differences in need that need to be fully considered and recognised in the assessment.**

Incorrectly allocated non-urban transport expenses

Interurban non-urban rail transport

The Commission currently makes a data adjustment to move interurban V/Line expenses from urban to non-urban transport. This includes ensuring that the costs of providing services between Melbourne and other SUAs is assessed as non-urban transport. **Queensland strongly supports making this adjustment.** However, similar interurban services in New South Wales and Queensland are currently inappropriately assessed as urban transport.

In New South Wales, inter-city services currently provide non-urban transport services between Sydney and 11 other SUAs (Central Coast, Wollongong, Newcastle-Maitland, Morisset-Cooranbong, Singleton, Muswellbrook, Bathurst, Lithgow, Nowra-Bomaderry, Bowral-Moss Vale, Goulburn, with further local bus connections to the SUAs of Medowie and Nelson Bay).[7]

Based on the NSW TrainLink *2022-23 Annual Report*, a substantial net expense of at least $900 million annually is required to run these non-urban services.[8] **These non-urban or inter-urban expenses should not be assessed as urban transport.**

Queensland recommends that the Commission adjust New South Wales' urban expenses data to remove these non-urban expenses and ensure that the assessment of interurban expenses remains consistent between states and with the definition of non-urban transport.

In Queensland, the South-East Queensland TransLink network covers four SUAs (Brisbane, Gold Coast-Tweed Heads, Sunshine Coast, Gympie). This significant proportion of the transport task in this network is providing passenger services between Brisbane and other SUAs, which should be considered in the assessment as non-urban transport. **Indeed, over a quarter of Queensland Rail vehicle kilometres are for interurban services.[9]**

Given this, Queensland recommends that the Commission also adjust Queensland's urban expenses data to remove these non-urban expenses and ensure that the allocation of interurban expenses remains consistent between states and is appropriately captured within the definition of non-urban transport.

Non-urban school student transport

The appropriate treatment of non-urban school student transport expenditure is another area that the Commission should consider as part of its 2030 external review.

The need for non-urban school transport is for services specifically related to transporting students over significant distances to access education. The provision of these services often has no interaction with service delivery of other transportation services. As such, **the need for these services has no correlation with the determinants of need for urban transport and, rather, is determined primarily by the extent of the school student population living in non-urban areas. As such, using urban transport-related variables to assess need for non-urban student travel is highly inappropriate.**

For the 2025 review, Queensland recommends the Commission remove all GFS coded non-urban school student transport expenses from the urban transport assessment and, instead, assess this need as part of non-urban transport. The key drivers of non-urban transport need (i.e. more dispersed populations and larger regional populations) are much more closely aligned with the drivers of non-urban school student transport need compared to the variables that drive the urban transport assessment (in particular, the PWD and urban population variables).

[7] NSW TrainLink 2023. *Annual Report 2022-23: Volume 1.* NSW Government: Sydney.

[8] NSW TrainLink 2023. *Annual Report 2022-23: Volume 2.* NSW Government: Sydney.

[9] Based on Queensland Rail vehicle kilometres.

Reliability issues related to data quality and regression outputs

The Commission's assessment of urban public transport need at an SUA level is not aligned with 'what states do'. Both New South Wales and Queensland have highly integrated rail networks covering multiple SUAs. Separating expenses between these SUAs is highly impractical and derived data will likely not be representative of the actual need or expense in individual SUAs. Further, different states will disaggregate these expenses differently, meaning data is not comparable. **This severely limits the quality of data for these SUAs and by extension the reliability of the model.**

Beyond integrated networks, states often award contracts to private companies operating services in multiple SUAs (for example, Kinetic operates government-subsidised urban bus services in Bundaberg, Cairns, the Gold Coast, Mackay, Rockhampton, Townsville and the Sunshine Coast) or subsidises public transport for passengers regardless of their location (the School Transport Assistance Scheme is open to all eligible Queensland state school students, regardless of location).[10]

Again, disaggregating these expenses between SUAs is also complex, requiring a high level of judgement, and will be done differently in different states. **Overall, this suggests that the data will be of low quality and incomparable between different SUAs. Again, this suggests that there is a high level of unreliability and uncertainty in the urban transport model as a whole.**

Furthermore, many transport networks not just provide services within an SUA, but between SUAs or to surrounding non-urban locations. For example, Rockhampton and Yeppoon form one integrated bus network, and as does Maryborough and Hervey Bay.[11] Meanwhile, buses across South-East Queensland regularly cross SUA boundaries.[12]

Buses across many of Queensland's urban networks travel outside of the UCLs, making a proportion of the transport task non-urban by Commission definitions.[13]

As discussed above, it is likely that a significant proportion of ferry expenses accounted as urban also technically represent non-urban services, including support for services in Townsville, Cairns, Airlie Beach, Gladstone, Yeppoon, Hervey Bay and the Moreton Bay Islands. **These issues further highlight that there are significant data limitations in the urban transport assessment.**

These reliability concerns are reinforced by the significant changes in variable coefficients and standard errors that have resulted from the change in how PWD is calculated. If the underlying model was robust, reliable and valid, the change to the PWD variable should have had a minimal impact on other variables.

In particular, the substantial decrease in the relative importance of the heavy rail variable highlights a significant limitation of the model, as discussed in detail in Queensland's previous submissions. This variable is highly correlated with PWD and its substantial change because of the change in the PWD variable suggests, as Queensland has previously indicated is likely, that there could have been a high level of multicollinearity between key variables in the previous model.

Given the likelihood of multicollinearity in the previous model, Queensland holds concerns that similar issues could still be present in the updated regression.

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[10] Department of Transport and Main Roads 2024. *Service contract areas and routes.* Accessed 9 August 2024. Available at https://www.tmr.qld.gov.au/travel-and-transport/public-transport/declared-service-contract-areas/service-contract-areas-and-routes; Department of Transport and Main Roads 2024. *School Transport Assistance Scheme.* Accessed 9 August 2024. Available at https://www.qld.gov.au/transport/public/school/school-transport-assistance/school-transport-assistance-schemes.

[11] TransLink 2024. *Rockhampton, Yeppoon and surrounds bus routes*. Queensland Government: Brisbane; TransLink 2024. *Fraser Coast bus routes*. Queensland Government: Brisbane.

[12] TransLink 2024. *Gold Coast network map*. Queensland Government: Brisbane; TransLink 2024. *Sunshine Coast network map*. Queensland Government: Brisbane; TransLink 2024. *Logan network map*. Queensland Government: Brisbane; TransLink 2024. *Moreton Bay network map*. Queensland Government: Brisbane; TransLink 2024. *Redlands network map*. Queensland Government: Brisbane.

[13] TransLink 2024. *Rockhampton, Yeppoon and surrounds bus routes*. Queensland Government: Brisbane; TransLink 2024. *Fraser Coast bus routes*. Queensland Government: Brisbane; TransLink 2024. *Cairns bus routes*. Queensland Government: Brisbane; TransLink 2024. *Gympie bus routes*. Queensland Government: Brisbane; TransLink 2024. *Toowoomba bus routes*. Queensland Government: Brisbane; TransLink 2024. *Ipswich network map*. Queensland Government: Brisbane; TransLink 2024. *Whitsundays network map*. Queensland Government: Brisbane.

Overall, a combination of factors including significant data quality limitations, a lack of data comparability and issues relating to multicollinearity indicate that the underlying urban transport model is highly unreliable. Given this, its relative weighting in the urban transport assessment should be reduced.

Queensland recommends, to limit the impact of these data quality and reliability issues on GST redistribution, that the urban population blending share should be increased to at least 50 per cent, and on a permanent basis as long as key elements of the urban characteristics model are maintained.

Issues with the population squared variable

As outlined in detail in previous submissions, Queensland does not support the continued use of the population squared variable in the urban transport investment assessment. This variable is perversely incentivising capital overinvestment in New South Wales.

Further, Queensland is extremely concerned that the Commission appears to have not appropriately considered or addressed in its draft report the arguments and concerns of Queensland, South Australia, Tasmania, Western Australia and the Northern Territory regarding this variable. Indeed, both the draft report and addendum report failed to note the significant analysis of population squared presented by Western Australia in their *Tranche 1 submission*.[14]

Queensland recommends that the population squared variable is replaced by urban population, as a minimum necessary change to ensure that GST redistributions are not further perversely distorted. Queensland's *Tranche 2 submission* clearly outlined the numerous issues with the population squared variable and why it should be removed as a priority during the 2025 Review. These issues include:

The population squared variable lacks economic validity - and has substantial design limitations:[15]

When the population squared variable was introduced in the 2015 Review, the Commission assumed a linear relationship between asset values and urban population. Queensland asserts that this assumption does not reflect reality or evidence, and as such the variable has never been fit-for-purpose, is based on policy contaminated data, and the justifications for its inclusion are not consistent with the Commission's commitment to quality assurance.

Indeed, Queensland contends that the relationship between population squared and urban transport asset values observed in data **is not a reflection of need, but rather a result of historically higher investment in Sydney and Melbourne enabled by the historic wealth in these cities being significantly higher than in other Australian cities.** As such, this variable is only further exacerbating historic differences in state capacity, with the current methodology resulting in unfair GST distribution outcomes which are actually contributing to preventing most states from providing necessary urban transport infrastructure.

Overall, by its nature, the population squared variable represents an even more significant and inappropriate form of the incorrect approach to measuring assessed need adopted in the urban transport expense regression. This variable suffers from all the same economically conceptual shortcomings as key elements of the urban transport assessment model and its inclusion in the urban transport investment assessment is resulting in significant redistributions that are inconsistent with fiscal equalisation outcomes.

[14] See Department of Treasury Western Australia 2023. *Western Australia's Submission to the Commonwealth Grants Commission's 2025 Methodology Review – Tranche 1 Assessments.* Pages 80-83.

[15] For further discussion on this issue see Queensland Treasury 2024. *Assessment consultation papers – Tranche 2 – 2025 Methodology Review: Queensland submission.* Pages 63-65.

The population squared variable lacks a conceptual foundation and is not policy neutral: [16]

The population squared variable incorrectly assumes that, in the absence of policy decisions, significant diseconomies of scale and density are present in Australian urban transport capital. Economic literature consistently refutes this assumption, demonstrating that economies of density and scale are expected.

Instead, the model is based on a flawed assertion that associated policy decisions by jurisdictions, particularly in Sydney and Melbourne, have reflected increased need. **Overall, the population squared variable lacks a conceptual framework, is not policy neutral and is not fit-for-purpose.**

Furthermore, the variable was developed using policy contaminated data which reflected the impact of previous and ongoing policy decisions on the relative cost and nature of public transport services being provided.

Overall, it is clear urban transport capital policies in the Sydney SUA are being incorrectly and inappropriately compensated through use of the population squared variable, which is redistributing GST in a way that is not aligned with actual need.

The population squared variable has the potential to incentives certain states to overinvest in urban transport capital:[17]

As outlined previously in Queensland's *Tranche 2* submission, total urban transport investment has increased by 438 per cent over the 7 years from 2015–16 to 2022–23. This exponential increase has coincided with the introduction of the population squared variable, while the increased expenditure has been driven by megaprojects in Sydney and Melbourne.

As a result, New South Wales and Victoria are being inappropriately reimbursed through the urban transport investment assessment, which is operating on a quasi-APC basis and will continue to operate on a quasi-APC basis, because of its reliance on the population squared variable.

As discussed in Queensland's *Tranche 2 submission*, there is evidence and literature clearly suggesting that these megaprojects and level of expenditure in Sydney and Melbourne are not necessarily aligned with actual urban transport need.

The Commission's own investment assessments for other categories indicate that New South Wales and Victoria broadly invest in infrastructure at a higher level than needed when considered in the context of sociodemographic compositions. Therefore, Queensland has significant and justifiable concerns that they also overinvest in urban transport capital, and that the current assessment approach is incentivising this outcome.

Given these factors, Queensland <u>strongly recommends</u> that the population squared variable is removed from the urban transport investment assessment as a priority.

Should the Commission consider continuing to use the population squared variable, detailed consideration should be given to the merits of this factor as part of the 2030 external review.

[16] For further discussion on this issue see Queensland Treasury 2024. *Assessment consultation papers – Tranche 2 – 2025 Methodology Review: Queensland submission.* Pages 65-72.

[17] For further discussion on this issue see Queensland Treasury 2024. *Assessment consultation papers – Tranche 2 – 2025 Methodology Review: Queensland submission.* Pages 72-77.

3 Queensland's additional recommendations

Queensland does not support the continued usage of the urban transport model and the population squared variable over the longer term as the model continues to lack a strong conceptual basis.

Queensland continues to recommend that urban transport and transport investment need would be appropriately assessed in a policy neutral manner by blending 50:50 urban population shares and concession card holder shares.

However, Queensland acknowledges that the updated regression model will clearly improve the urban transport assessment and Queensland welcomes the proposed changes and use of an updated model as a positive sign that the Commission is committed towards developing a more fit for purpose and policy neutral transport assessment.

In addition to those proposed changes, and summarising the issues discussed above, Queensland **recommends** that the following changes would further enhance the transport-related assessments and help mitigate the policy neutrality and reliability issues over the life of the 2025 Review.

Replace population squared with urban population in the urban transport investment assessment.

Queensland strongly opposes the use of the population squared variable in the urban transport investment assessment. This was extensively discussed in Queensland's *Tranche 2 submission* and summarised above.

Given the extremely perverse nature of the population squared variable, Queensland recommends that it should be removed from the investment assessment as a priority and replaced with urban population.

Adjust New South Wales and Queensland urban transport expenses to ensure that interurban rail expenses are assessed with non-urban transport.

Currently the Commission only adjusts Victorian interurban expenses. Queensland is concerned that there are further interurban transport expenses currently assessed in the urban transport assessment, particularly in Queensland and New South Wales.

As such, Queensland recommends that the Commission make an adjustment to urban transport actual expenses to reapportion all interurban rail expenses from urban transport to non-urban transport**.**

Remove non-urban school student transport expenses from the urban transport assessment and assess these expenses with non-urban transport.

Queensland recommended in its Tranche 2 submission that urban and non-urban transport should be differentially assessed and we continue to support this approach.

As such, Queensland recommends that the Commission remove non-urban school student transport expenses from the urban transport assessment and assess these expenses with non-urban transport.

Non-urban school student transport is currently assessed with urban transport. However, the need for these services has similar drivers to other non-urban transport, including population dispersion and high regional populations.

Other arguments supporting the rationale for this change include:

- There are no drivers in the urban transport assessment relevant to school student need or non-urban population needs and, therefore, it is inappropriate to assess expenses in the urban transport assessment.

- There are additional pressures affecting school student transport need in non-urban areas, including an increased proportion of students needing public transport, increased travel distances and higher costs of delivery.

As part of the 2030 review consider assessing long-distance non-urban transport and interurban non-urban transport.

Interurban non-urban transport is significantly more costly and has very different drivers of need compared to urban transport. Likewise, long-distance non-urban transport also has distinct, different drivers of need and cost.

Given this Queensland recommends that the Commission consider differentially assessing state need for long-distance non-urban transport and interurban non-urban transport.

Queensland also continues to contend that the most appropriate assessment non-urban transport would be based on a measure of regional population.

Assess ferry service need based on a better measure of need, such as the proportion of public transport users taking ferries in individual urban areas rather than an arbitrary dummy variable.

The ferry dummy variable inappropriately assesses all SUAs with a ferry service as having the same need for these services. Table 1 outlines ferry usage in a range of SUAs, showing the proportion of total trips to work using ferry services, the percent of public transport users taking ferries, whether the ferry dummy variable applies in the SUA, and the ferry service need relative to Melbourne SUA.

Table 1 shows that Sydney and Brisbane have 11 times and 10 times more ferry need per capita relative to Melbourne. Despite there being these orders of magnitude higher need in these SUAs, the Commission proposes to assess them through the ferry dummy variable, which implies they have an equal per capita need. This clearly demonstrates that the ferry dummy variable currently being considered is not fit for purpose.

Further, Table 1 also shows that the ferry dummy variable is not applied at all to several other SUAs with a higher proportion of ferry usage, as at the 2016 Census, relative to SUAs assessed as having ferry services (such as Perth and Melbourne).

Table 1: Passenger ferry need across different Australian SUAs.

SUA	Ferry use (% total trips)	Need relative to Melbourne	Ferry Dummy Variable	Percent of Public transport users taking ferries
Airlie Beach - Cannonvale	1.56%	72	NO	44%
Gladstone	1.40%	64	NO	32%
Sydney	**0.25%**	**11**	**YES**	**2%**
Brisbane	**0.21%**	**10**	**YES**	**3%**
Hervey Bay	0.08%	4	NO	17%
Cairns	0.08%	3	NO	5%
Yeppoon	0.07%	3	NO	4%
Townsville	0.06%	3	NO	7%
Perth	**0.02%**	**1**	**YES**	**0%**
Mount Isa	0.02%	1	NO	12%
Melbourne	**0.02%**	**1**	**YES**	**0%**

Source: Commonwealth Grants Commission data.

Overall, SUAs with minimal ferry service provision should not be assessed as having as high a need as SUAs with a higher proportion of commuters using ferries. Indeed, 2016 Census data indicates that there is an almost equal proportion of ferry commuters in Mount Isa as there are in Melbourne.[18] This data highlights how minimal the nature of the task is in Melbourne (and other SUAs with an extremely small ferry task) and how assessing these SUAs as having the same ferry need as other SUAs (which proportionally higher ferry need) is extremely non-intuitive.

As such, Queensland recommends that the Commission should assess ferry need based on the proportion of public transport users taking ferries. This would more adequately recognise that not all SUAs offering ferry services face the same task.

Furthermore, Queensland notes that there is unassessed need for ferries in many regional SUAs including Townsville, Cairns, Hervey Bay, Gladstone, Yeppoon and Airlie Beach. As shown in Table 1, these urban areas have a much higher than average proportion of ferry users and water transport is essential for connecting these cities to their surrounding regions. **As such, state urban ferry expenditure is required to support these ferry services and infrastructure in these cities.** In the COFOG, these expenses are often classified (and therefore assessed) as urban transport expenses.

Given this, Queensland recommends that the Commission ensure ferry need is differentially assessed based on proportion of trips taken by ferry for urban areas which have a nearby ferry service (even if it is, based on the Commission's definition, a non-urban ferry service).[19] Using a proportional assessment including all SUAs would ensure all ferry needs in all SUAs are assessed, without requiring any judgement of what constitutes an urban ferry service by the Commission and would better reflect 'what states do' and actual ferry transport need.

While Queensland would prefer a proportional assessment of urban ferry need across all SUAs, if the Commission decides to not proportionally assess need, or excludes SUAs with need (such as Townsville), while also including SUAs with minimal ferry use, Queensland recommends removing all ferry expenses from the urban transport assessment.

Assessing these expenses as equal per capita would be more appropriate than the proposed dummy variable approach, given the lack of consistency in the inclusion of assessed SUAs and the many magnitudes of difference in ferry need in different SUAs.

If the Commission retains the ferry dummy variable, despite this dummy variable being not fit for purpose, and continues assessing ferries in the urban transport assessment, Queensland recommends that SUAs should only be assessed as having ferry need if at least 1 per cent of public transport passengers use ferries as their primary mode of transport.[20]

As shown in the "Percent of Public transport users taking ferries" column Table 1, this would effectively exclude SUAs with a minimal ferry task. Doing this would ensure that SUAs such as Melbourne and Perth are not inappropriately assessed as having the same ferry need as SUAs (such as Sydney and Melbourne) which have need which is many orders of magnitude higher.

Annually updating 2026 Census data, once available with BITRE data.

Queensland recommends that 2026 Census data, once available, should be annually updated using BITRE data to ensure the assessment continues to be as contemporaneous as possible. This would better reflect any changes to public transport usage that occur in-between censuses and allow for a more accurate reflection of the actual public transport task.

[18] Australian Bureau of Statistics 2017. *Census of Population and Housing: Method of Travel to Work*. Australian Government: Canberra.

[19] Proportion of total trips for work. Based on 2016 Census data indexed using BITRE data.

[20] Based on 2016 Census data indexed using BITRE data.

Increase the urban population blending share in the expenses and investment assessment, on a permanent basis.

Queensland recommends that the urban population blending for both expenses and investment is increased on a permanent basis.

Increasing the proportion of the assessment related to urban population would recognise the increased need from increasing density coupled with the increased complexity from increasing population dispersion. Other supporting arguments for using urban population as a variable include:

- The substantial volume of academic literature that clearly suggests the presence of economies of scale for urban transport networks. Thus, an assessment according to urban population share is the most appropriate method.
- The substantial volume of academic literature and international experience that unanimously suggests economies of density in heavy rail networks. This would suggest that costs would be higher in lower PWD SUAs. Assessing urban transport need according to urban population shares would ensure there are no policy influenced distortions that are currently driving redistribution that contrast with economies of density.
- The significant literature that suggests that Sydney's urban transport network is providing more services relative to need compared to other urban transport networks in Australian and global cities. The costs being associated with PWD in the model are largely driven by this level of servicing policy as opposed to actual need.

Furthermore, there are significant continuing reliability issues with the urban transport model, including:

- The use of trips for work as a proxy for public transport passengers is inadequate, given that trips for work account for less than 40 per cent of trips on urban public transport in Australia.
- It is probable that even using the much-improved square-kilometre grid calculation for PWD, geographic differences between SUAs will still not be adequately assessed. As such, cities with above-average flooding risk will likely be disadvantaged, even though these factors do not impact public transport need.
- PWD, which is heavily influenced by policy decisions in Sydney, continues to dominate the regression.
- There are significant data quality issues which make it difficult to accurately disaggregate costs between SUAs and between urban and non-urban transport. Further, it is highly likely that data has been disaggregated differently in different states, limiting the comparability and use of this data for informing Commission decisions.

Overall, these reliability issues indicate that there is a significantly high level of uncertainty within the transport assessment. Increasing the blending share of urban population, on a permanent basis, would reassure states that data quality or modelling errors are not overly impacting GST redistribution.

More importantly, increasing the proportion of the assessment based on urban population would produce an assessment more closely aligned with need for urban transport in a policy neutral manner.


AUDAX AT FIDELIS
Queensland
Government