

# Roads

## Overview

- 1 On 19 October 2023, the Commission issued a [consultation paper](#) on the roads assessment. The Commission considered changes since the 2020 Review and their implications for the assessment method.
- 2 The Commission proposed to retain the 2020 Review assessment method. Following consideration of state views, the Commission proposes 4 modifications:
  - remove routes to mines, national parks, gas wells and ports from the rural road network
  - hold constant the urban/rural split for light and heavy vehicle traffic volume for the duration of the review, instead of updating it every 2 years
  - use the Rawlinsons cost gradient rather than the general cost gradient
  - discount the assessment by 12.5%.
- 3 A summary of state responses to each consultation question is included below, as well as the Commission's draft position and the draft 2025 Review assessment method.
- 4 State submissions can be viewed [here](#).

## Consultation questions

### **Q1. Do states support retaining the 2020 Review method of assessing urban road length, using population as the driver for large towns?**

#### **State views**

- 5 Victoria, Queensland and the Northern Territory supported using population as the driver for urban road length. Although the ACT supported the proposed assessment if no alternative was available, it also supported allowing for higher road lengths in smaller capital cities due to different levels of dispersion in small capitals compared to similarly sized non-capitals. New South Wales supported the proposed assessment using population, but considered that other geographical factors such as elevation also affected costs.

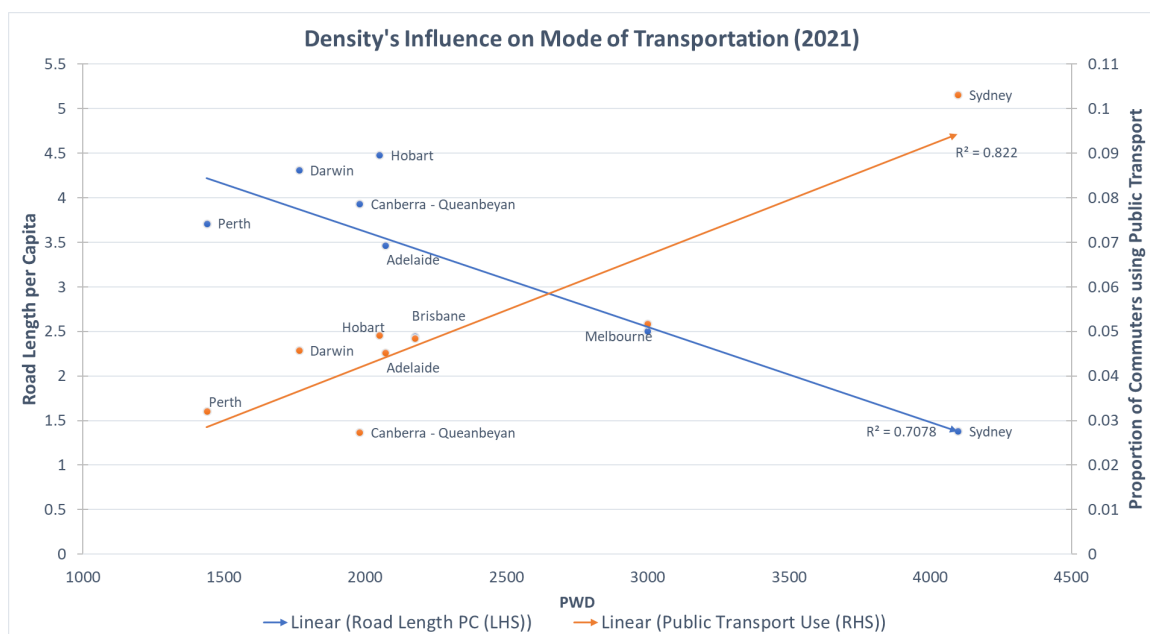
#### **Does road length per person fall as cities grow?**

- 6 Western Australia, South Australia and Tasmania did not support using urban populations as a proxy for road length in urban areas. They said that there is a strong inverse relationship between population density and road length in capital cities,

mirroring the relationship the Commission relies upon in its transport assessment. They said that this makes conceptual sense as larger public transport provision reduces the need for road length.

- South Australia presented findings from international literature and an analysis of Commission data to argue that increased population-weighted density increases public transport needs and decreases road length by comparable amounts (Figure 1). Although the relationship between population density and road length was not seen in non-capital cities, South Australia said there may be other factors not currently assessed and recommended further work being conducted as more data become available.

**Figure 1 Relationship between density, road length and public transport**



Source: South Australian Treasury, 2025 Review consultation papers tranche 2: Draft South Australia Treasury Submission, p. 16.  
 Note: The Brisbane road length per capita data point coincides and is indistinguishable from its proportion of commuters using public transport in this figure.

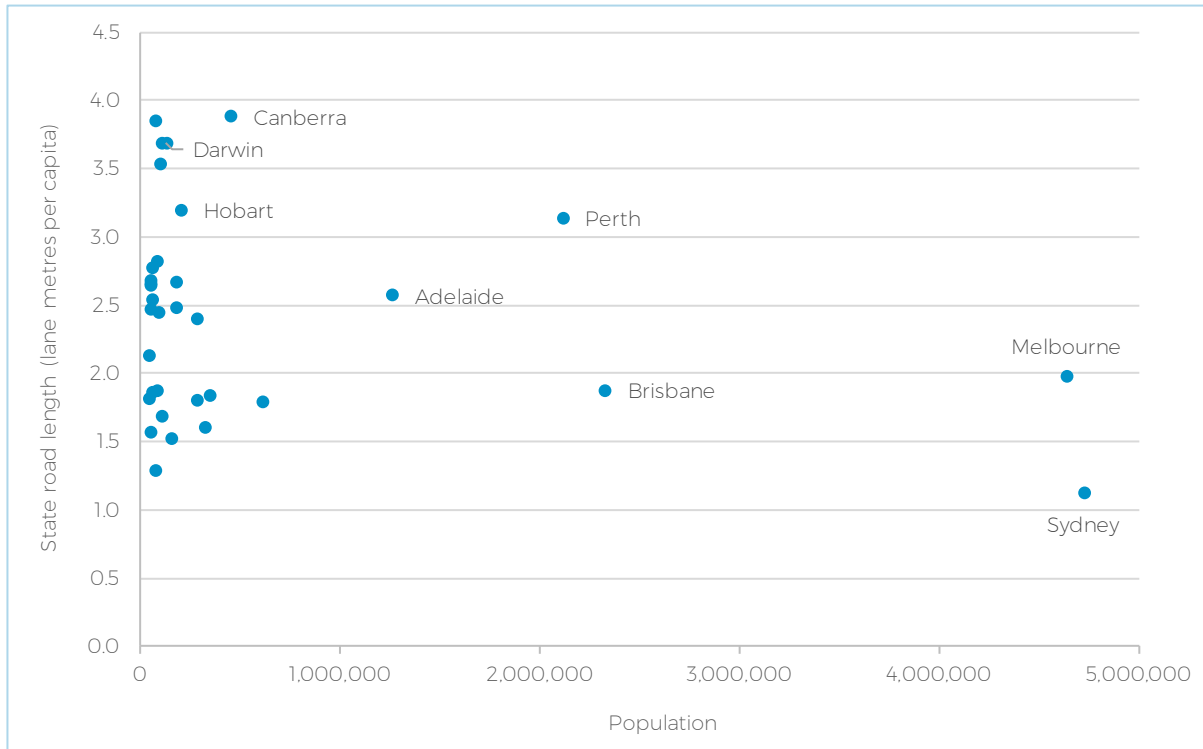
- Western Australia and Tasmania supported splitting the assessment of urban road length for large non-capital cities and capital cities.
  - Both supported assessing capital cities using estimated road length per capita via a fitted line (see the blue line above).
  - Western Australia supported assessing non-capital cities using the average road length per capita for those towns, or alternatively using actual urban road lengths for all large urban centres. Tasmania supported retaining the 2020 Review method for non-capital cities.

### Commission response

- In its consultation paper, the Commission observed that: ‘Although road lengths per capita decline with increasing population size for the capital cities, this

relationship is not evident among the other towns.<sup>1</sup> This can be seen in Figure 2, where there is a downward slope for capital cities, but no relationship for the full complement of urban centres with more than 40,000 people. For example, Darwin has a similar population to Toowoomba and Cairns, but with significantly higher lengths of major roads per capita (3.7 metres for Darwin compared to 1.7 and 1.5 metres respectively).<sup>2</sup> The Commission does not consider it necessary to treat Darwin differently to these other cities, simply due to Darwin’s capital city status.

**Figure 2 Urban major road length per capita and population in large towns, 2021**



Note: Each data point is an urban centre of over 40,000 people. State road length refers to major roads (highways, arterials, sub-arterials and busways). Each road segment has been assumed to have dual lanes.

Source: Commission calculation using ABS population data and road lengths from Geoscience Australia, [National Roads](#) [ESRI ARC geodatabase file format], Digital Atlas website, 2023, accessed 27 July 2023.

- Sydney has fewer kilometres of major urban roads per capita than other cities, but this may reflect the urban form and historical development of the city. While roads with high traffic volumes in other cities are almost universally arterial roads, Sydney has many suburban streets that attract large traffic volumes. Roads classified as arterials or other major roads form 13% of the total road network in Sydney, the lowest proportion in any city, well below the 17% average across capital cities, or 24% in Canberra and 22% in Darwin. In the absence of a nationally comparable

<sup>1</sup> Commonwealth Grants Commission (CGC), 2025 Methodology Review: Roads consultation paper, CGC, Canberra, 2023, p 11.

<sup>2</sup> Major urban roads in the Commission’s (and South Australia’s) analysis refer to roads classified as highways, arterial or sub-arterial roads in the Geoscience Australia dataset. This is used as a proxy for state roads.

classification of roads, it is not clear that the pattern in Figure 1 or Figure 2 is reliable for Commission purposes.

- 11 The 2 papers cited by South Australia found negative relationships between net population density and road expenses for governments. However, these papers were examining aspects of the road network not considered by the Commission's assessments. Mattson examined the expense burden for state governments and local (municipal) governments combined in the USA.<sup>3</sup> Cleveland et. al. focussed on Canadian local roads, excluding highways altogether (which would be state-managed in Australia), and did not analyse any cost data.<sup>4</sup> The Commission's assessment is intended to only capture roads that are state government owned and operated, as local government spending is out of scope of the Commission's work.
- 12 The Commission has identified additional United States of America based-research (Holcombe and Williams<sup>5</sup>) that found no statistically significant relationship between urban sprawl (relatively low density development), highway expenses and vehicle kilometres travelled.
- 13 Infrastructure Australia is working with states to publish the National Service Level Standards for roads, which will be a nationally comparable dataset classifying roads on a consistent basis. The Commission will investigate using this dataset in its assessments when it becomes available.

### Commission draft position

- 14 The Commission proposes to retain population as the driver for urban road lengths in towns of over 40,000 people, and to investigate the suitability of using the National Service Level Standards data when they become available.

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<sup>3</sup> J Mattson, 'Relationships between Density and per Capita Municipal Spending in the United States'. *Urban Science*, 2021, 5(3):69, doi:10.3390/urbansci5030069.

United States Census Bureau, [2021 State & Local Government Finance Historical Datasets and Tables](#) [data set], census.gov, 2023, accessed 29 Apr 2024.

<sup>4</sup> T Cleveland, Tristan, P Dec and D Rainham, 'Shorter Roads Go a Long Way: The Relationship Between Density and Road Length Per Resident Within and Between Cities'. *Canadian Planning and Policy / Aménagement Et Politique Au Canada*, 2020, 2020(1):71-89, doi:10.24908/cpp-apc.v2020i0.13406.

<sup>5</sup> R G Holcombe and D W Williams, 'Urban Sprawl and Transportation Externalities', *The Review of Regional Studies*, 2010, 40(3):257-273.

## Q2. Do states agree that the 2020 Review synthetic rural road network should not be updated?

### State views

- 15 Victoria, Queensland, Tasmania, the ACT and the Northern Territory supported retaining the 2020 Review method for the synthetic rural road network. South Australia did not oppose the proposal. New South Wales and Western Australia had issues with the assessment.
- 16 New South Wales disagreed with including all routes to mines, gas wells, ports and national parks, as these are often the responsibility of the private sector or local governments. Roads to national parks are also often maintained at a lower standard to other state roads.
- 17 New South Wales criticised the current method for using the *shortest* route between towns. It said that using the *quickest* route often shortens the synthetic network (due to the way connections are routed) and better reflects actual road use. It identified several examples of routes it considered to be incorrect, such as using a sub-optimal route or not terminating at the correct junction. New South Wales estimated this issue affects around 5,000 lane kilometres (1.5% of the rural road network).
- 18 Western Australia had issues with the expenses allocated to road length, discussed further in the section [Using National Transport Commission data to apportion expense categories](#).
- 19 New South Wales, the ACT and the Northern Territory supported investigating the use of National Service Level Standards for roads data to update this assessment when they become available, potentially as part of an update. Western Australia also supported updating the synthetic road network, if necessary, prior to 2030.
- 20 Victoria and South Australia supported rural road lengths being re-examined as part of the next review.

### Commission response

- 21 The Commission agrees that the synthetic rural road network is not always reflective of travel patterns on rural roads. Some routes are also now out of date.
- 22 The current inclusion of routes to mines, gas wells, ports and national parks may overcomplicate the model, and imply an unrealistic degree of precision. The Commission also recognises that some mining roads are owned and maintained by the private sector and that some roads to national parks are maintained at a lower standard compared to the average state government-managed road, which would reduce costs. Removing these routes would reduce the rural road network by 43,000 lane kilometres, or 13%.

- 23 Using the quickest route between 2 centres, rather than the shortest distance, would require all roads to have an estimate of achievable speed. Some datasets have a measure of this (although it is often legal speed limits rather than practically achievable speed limits). The dataset used by the Commission to produce its synthetic road network does not contain these data. While there will be individual connections between 2 centres where the shortest and quickest routes differ, these are likely to have a minimal impact on the total assessed road length.

### **Commission draft position**

- 24 The Commission proposes to retain the 2020 Review methods for synthetic rural road network but remove the routes to mines, national parks, gas wells and ports.
- 25 The Commission will investigate the suitability of using the National Service Level Standards data when they become available.

## **Q3. Do states agree that traffic volume should continue to be assessed using data from the Bureau of Infrastructure and Transport Research Economics and the National Transport Commission?**

### **State views**

- 26 All states supported using Bureau of Infrastructure and Transport Research Economics and the National Transport Commission data as an interim measure.
- 27 Western Australia and the ACT encouraged the Commission to explore alternative data sources.
- 28 Victoria recommended applying a medium (25%) discount to affected assessments (heavy vehicle use and traffic volume) to recognise the discontinuation of the Survey of Motor Vehicle Use and the increasing unreliability of the data.

### **Commission response**

- 29 The Commission considers that the Bureau of Infrastructure and Transport Research Economics and the National Transport Commission data continue to be the most reliable, despite the discontinuation of the Survey of Motor Vehicle Use.
- 30 Further analysis of traffic volume data using traffic counters has failed to produce usable results. Traffic counters capture a very small percentage of the road network, with large differences in coverage between states, and no capture of end-to-end journeys. Additionally, Western Australia has no traffic counter data suitable for trend analysis due to frequently moving the location of counters.
- 31 Since the release to the states of the roads consultation paper for the 2025 Methodology Review, the National Transport Commission has advised it will no longer provide highly disaggregated traffic volume data due to the discontinuation of the Survey of Motor Vehicle Use and its concerns with the data's increasing

unreliability. This dataset was previously used to split heavy and light traffic volumes between rural and urban areas.

- 32 The Bureau of Infrastructure and Transport Research Economics provides data split by capital city/non-capital city and state. However, using these data as a proxy for urban/rural would greatly understate urban traffic volume and misidentify urban traffic as rural traffic.

### **Commission draft position**

- 33 The Commission will hold the current shares of urban/rural traffic for light vehicles and heavy vehicles constant until a suitable data source is found.
- 34 Instead of applying a medium discount to this driver, as suggested by Victoria, the Commission proposes to apply a low discount (12.5%) to the entire roads assessment, as discussed under the [Overall validity of the assessment and discounting](#) section of this chapter.

## **Other issues raised by states**

### **Unrecognised urban road cost drivers**

- 35 New South Wales proposed that the urban road component should also assess:
- older networks
  - high mean slope
  - densely populated and congested urban areas.
- 36 New South Wales noted that congestion in the Greater Sydney area added to costs by requiring all road maintenance to be conducted at night.

### **Commission response**

- 37 Historical factors such as age of network are not typically assessed across any category. The investment assessment gives states the capacity to replace depreciated assets.
- 38 The Commission agrees that slope affects costs, and data are available to calculate slope across the national road network. However, it is difficult to quantify the additional expense related to slope, independent of other environmental factors. These other factors are discussed further under Influence of rainfall and soil composition, below.
- 39 The Commission agrees that congestion affects maintenance and safety costs. New South Wales cited a cost premium of 16% for conducting maintenance work in

the Greater Sydney area due to having to conduct 100% of this work after hours.<sup>6</sup> Assuming these cost premiums applied in Sydney and Melbourne, but nowhere else in Australia, the GST impact would not be material (Table 1). In practice, most larger towns and cities across all states would likely conduct at least a portion of their maintenance work after hours, which would further reduce any relative cost premium for Sydney and Melbourne.

**Table 1 GST impact of applying a potential night-time road works cost weight to Sydney and Melbourne, 2024-25**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Change in GST distribution (\$m)	54	66	-62	-31	-15	-5	-5	-2	-114
Change in GST distribution (\$pc)	6	9	-11	-11	-8	-8	-10	-7	-4

Source: Commission calculation using 2024 Update data and weights from the Transport for New South Wales, CGC 2025 Methodology Review Presentation, 13 March 2024, slide 28.

### Commission draft position

40 The Commission proposes no additional cost drivers to the urban roads component.

### Influence of rainfall and soil composition

41 New South Wales said the assessment should recognise additional costs associated with rainfall. Water weakens the supports underlying road pavements, increasing maintenance costs, and increasing safety costs to maintain landscaping and remove vegetation hazards. States experience different rainfall levels. Soil type also affects maintenance and construction. Clay soils, more common in the eastern states are the weakest soil types, which interacts with high rainfall to increase costs.

### Commission response

42 The Commission agrees there is a conceptual case that rainfall and soil type affect recurrent and capital costs. While national rainfall and soil type information is available, the Commission would require a model for the relationship between soil type, rainfall and road maintenance or construction costs.

43 The House of Representatives Standing Committee on Regional Development, Infrastructure and Transport’s Inquiry into the implications of severe weather events on the national regional, rural, and remote road network found ‘significant data gaps’ on information about road assets, and ‘a lack of standardised data and sharing across all levels of government.’<sup>7</sup> Nevertheless, it noted the need for sealing roads against water ingress due to severe weather events, and the high cost associated with building and maintaining roads to this standard.

<sup>6</sup> Transport for New South Wales, CGC 2025 Methodology Review Presentation, 13 March 2024, slide 28.

<sup>7</sup> House of Representatives Standing Committee on Regional Development, Infrastructure and Transport, [Inquiry into the implications of severe weather events on the national regional, rural, and remote road network](#), Parliament of Australia, Canberra, 2023, accessed 12/03/2024, p viii.



- 44 Other studies have found conflicting relationships between environmental factors and road costs.<sup>8</sup>
- 45 While the Commission recognises that environmental factors play a role in determining costs, the relationship between environmental variables and expenses is complex. Several national agencies such as Infrastructure Australia and the Bureau of Infrastructure and Transport Research Economics have concluded there are issues with data availability when assessing the impact of climate on the need for road asset maintenance.<sup>9</sup>

### Commission draft position

- 46 The Commission proposes not to add additional cost drivers to reflect rainfall and soil composition to the roads assessment in this review.

### Using National Transport Commission data to apportion expense categories

- 47 Western Australia said that the National Transport Commission data do not reflect road expenses, as the purpose of this collection is to allocate costs between light vehicle and heavy vehicle users.
- 48 Servicing and operating expenses and low-cost safety and traffic improvement expenses are both currently allocated 100% to general vehicle traffic volume. Western Australia said that some of these costs are driven by road length. For example, these categories include expenses such as monitoring of road pavement conditions, drain and vegetation clearing, signage repair, off-road repairs and maintenance (servicing and operating expenses) and installing audible edge lines, sealing road shoulders and repairing barrier fencing on higher risk rural roads (low-cost safety and traffic improvement expenses).

### Commission response

- 49 As noted by Western Australia, the National Transport Commission's cost allocation matrix was developed to apportion costs for heavy vehicle users, and not necessarily to split costs between states. However, the National Transport Commission is the leading authority for these data, and therefore the Commission does not consider it has the data to make changes to the cost allocation matrix.

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<sup>8</sup> J Balston, S Li, I Iankov, J Kellett, & G Wells, [Quantifying the Financial Impact of Climate Change on Australian Local Government Roads, Infrastructures](#), 2017, 2(1):2, accessed 12/03/2024.  
Austroads, [Improving Cost Allocation by Road Type](#), AP-T195-12, Austroads Ltd, Sydney, 2012, accessed 12/03/2024, p 31.

<sup>9</sup> Infrastructure Australia, [An Assessment of Australia's Future Infrastructure Needs: The Australian Infrastructure Audit 2019](#), Infrastructure Australia, Australian Government, 2019, accessed 11/04/2024.  
Bureau of Infrastructure and Transport Research Economics (BITRE), [Road and Rail Supply Chain Resilience Review: Phase One report](#), BITRE, Australian Government, 2023, accessed 11/04/2024.

50 During the recent National Transport Commission review of heavy vehicle charges, the Victorian Department of Treasury and Finance commissioned its own cost allocation report, which continued to allocate servicing and operating expenses and low-cost safety and traffic improvement expenses as being driven by traffic volume, and not by road length, as suggested by Western Australia.<sup>10</sup> Compared to the National Transport Commission data, the Victorian report allocated more costs to heavy vehicle use, but was based largely on Victorian data and thus the Commission does not consider it to be representative of national allocations.

### **Commission draft position**

51 The Commission proposes to continue using the National Transport Commission data as it is the best available source for this dataset.

### **Culverts and floodways**

52 Western Australia said the bridges and tunnels component is incomplete due to not assessing the length of culverts and floodway crossings.

### **Commission response**

53 Based on National Transport Commission classifications, the Commission currently assesses culvert expenses within the bridges and tunnels component and floodway crossings in the rural roads and urban roads components, using length, and heavy and light vehicle use. Culverts and floodway crossings have lower costs per kilometre than bridges and tunnels, but higher costs than standard roads.

54 The Commission requested data from states on the lengths, recurrent and capital costs for floodway crossings and culverts. Some of these data are not available for most states, and the Commission has concerns about the consistency of the available data.

55 As noted in the discussion on the Influence of rainfall and soil composition, the Commission accepts the conceptual case that environmental factors affect the cost of the building and maintaining the state road network, however, reliable data on states' relative costs are not currently available.

### **Commission draft position**

56 The Commission proposes to retain the existing assessment of bridges and tunnels.

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<sup>10</sup> T Martin, [Road Cost Allocation Literature Review Findings](#), report to the Victorian Department of Treasury and Finance, Australian Road Research Board, 2017, accessed 12/03/2024.  
Houston-Kemp, [Review of the parameters used to allocate road infrastructure costs to heavy vehicles](#), report to the National Transport Commission, Houston-Kemp, 2017, accessed 12/03/2024.

## Regional costs

- 57 Western Australia noted the roads category applies the general cost gradient, which doesn't capture the true costs in remote regions. It considers the Rawlinsons indices to be a better alternative.

### Commission response

- 58 During the 2020 Review, the Commission used a general regional cost gradient, based on the costs of service delivery for schools and hospitals, to assess the impact of remoteness on rural road lengths and bridges and tunnels. Rawlinsons measures the construction costs of various types of buildings. The Commission agrees with Western Australia that the impact of remoteness on the cost of maintaining roads is likely to be more similar to the costs of constructing a building than it is to the costs of service delivery.

### Commission draft position

- 59 The Commission proposes to replace the general cost gradient with the Rawlinsons construction cost gradient for rural road lengths and the bridges and tunnels component.

## Commonwealth infrastructure payments

- 60 Half of Commonwealth payments for national road and rail networks are treated as having no impact on the GST distribution. This discount is applied because roads and transport infrastructure projects can have national objectives related to the efficient movement of people and goods, which the Commission's assessments do not capture.
- 61 Queensland supported continuing to apply the 50% discount of National Road Network Commonwealth payments. It noted that the selection of national road and rail network projects is largely determined by the Commonwealth.

### Commission response

- 62 The Commission considers that roads of national significance are a driver of spending need that it does not otherwise assess. The best available proxy for state needs to spend on such roads is 50% of the Commonwealth payments for such roads. This is because these roads are also of state significance. Under this treatment, 50% of national network payments and their related expenditure are removed from the adjusted budget. The remaining 50% are assessed under the infrastructure category, applying state needs for roads (for road network payments) and transport (for rail network payments).
- 63 The Commission considers that nothing has changed since the 2020 Review that would warrant a change to this assessment. However, the forthcoming National Service Level Standards for roads dataset may identify roads of national significance

on a consistent basis. As such, for the next methodology review, there is a possibility that Commonwealth payments for roads of national significance may be treated as fully impacting on the GST distribution.

### **Commission draft position**

- 64 The Commission proposes to retain the 50:50 no impact/impact blended treatment of national network road and rail network payments, and to continue monitoring the development of the National Service Level Standards for roads.

### **Overall validity of the assessment and discounting**

- 65 New South Wales said that the ratio of actual spending to assessed spending is below 1 in some states. Where this occurs, states have very low actual expenses compared to their assessed expenses but maintain their roads to a similar standard as other states, which suggests that the Commission's assessments are missing major drivers of costs.
- 66 Victoria said that with the deteriorating quality of traffic volume data due to the discontinuation of an ongoing Survey of Motor Vehicle Use, the Commission should discount this part of the assessment.

### **Commission response**

- 67 The Commission uses the ratio of actual to assessed spending as an indicator when considering the accuracy of its assessments. For an expense category, there are 4 reasons why a ratio can differ from one:
- a state may provide above or below average quality services
  - a state may be more or less efficient than average
  - government finance statistics measuring state actual spending may be inaccurate
  - the Commission may not be accurately capturing all drivers of state need.
- 68 The Commission considers that there are drivers of state spending on roads that are not measured (such as soil type and rainfall), or that are not measured with high accuracy (for example, the synthetic road network is an approximate proxy of the state network).
- 69 However, there is evidence that the Government Finance Statistics for some states are of low quality. Over the 4 assessment years of the 2024 Update, New South Wales spent between 100% and 167% of what the Commission assessed it as needing to spend on roads (Table 2). While capital spending on roads may be lumpy, recurrent spending is less likely to be so.
- 70 The variation over time, evident particularly in New South Wales, Victoria and Tasmania suggests there is a high level of variability in how a particular service is classified. With such variability within individual jurisdictions, there is likely even greater variability between jurisdictions. The Commission is not confident, for

example, that the low apparent spending on roads in South Australia reflects low actual spending on roads.

- 71 The Commission considers that the poor quality of data on state actual spending means that it is not possible to use the ratio of actual to assessed spending as an indicator to assess the overall validity of the roads assessment.

**Table 2 Ratio of actual to assessed spending on roads, 2024 Update**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
	%	%	%	%	%	%	%	%	%
2019-20	99.6	153.2	75.0	97.3	32.5	93.2	150.5	74.0	100.0
2020-21	126.7	141.5	65.2	85.3	27.2	73.7	123.3	58.9	100.0
2021-22	129.0	129.5	71.5	92.2	24.2	99.6	111.4	40.8	100.0
2022-23	167.2	78.0	70.3	88.9	29.1	42.1	120.2	72.6	100.0

Source: Commission calculation.

- 72 The Commission considers that the assessment of road expenditure is not as accurate as some other assessments. It is concerned with the reliability of:
- total actual state spending on roads
  - the synthetic rural road network as a reflection of state rural road length needs
  - heavy and light vehicle traffic volume data
  - the relative importance of road length, heavy and light vehicle traffic as drivers of expense needs
  - the comprehensiveness of major drivers of differences in spending need.
- 73 Given the range of uncertainties, the Commission considers a discount of the assessment is warranted. The level of discount is subject to judgement. In the Commission’s other assessments, low (12.5%) discounts are used to recognise proxy data in the health assessment, and concerns with interstate comparability for property values in the land tax assessment.
- 74 Similar magnitudes of uncertainty apply for the roads assessment. While the Commission remains of the view that overall the assessment is largely fit for purpose, given concerns with some aspects of the assessment, it considers a discount of 12.5% is appropriate.

### Commission draft position

- 75 The Commission considers that overall the roads assessment remains appropriate, although given its concerns with some aspects of the assessment, proposes to introduce a discount of 12.5%.

## Draft 2025 Review assessment method

76 Following consideration of state views, the Commission proposes to retain the 2020 Review assessment method with 4 modifications:

- the rural road network no longer includes routes to mines, national parks, gas wells and ports
- the urban/rural split for light and heavy vehicle traffic volume is held constant for the duration of the review instead of being updated every 2 years
- Rawlinsons cost gradient is used rather than the general cost gradient
- the assessment is discounted by 12.5%.

77 Table 3 shows the proposed structure of the 2025 Review roads assessment.

**Table 3 Proposed structure of the roads assessment**

Component	Driver	Influence measured by driver	Change since 2020 Review?
Rural roads	Length	Recognises that the length of the rural road network influences costs. Routes to mines, national parks, gas wells and ports have been removed.	Yes (a)
	Traffic	Recognises that traffic volume influences costs.	No (a) (b) (c)
	Heavy vehicles	Recognises that heavy vehicles damage roads.	No (a) (b)
	Regional costs	Recognises the differences in the cost of providing services to different areas within a state (applied to road length only).	Yes (a) (d)
	Wage costs	Recognises the differences in wage costs between states.	No
Urban roads	Length	Recognises that the length of the urban road network influences costs.	No (a)
	Traffic	Recognises that traffic volume influences costs.	No (a) (b) (c)
	Heavy vehicles	Recognises that heavy vehicles damage roads.	No (a) (b)
	Wage costs	Recognises the differences in wage costs between states.	No
Bridges and tunnels	Length	Recognises that the length of bridges and tunnels influences cost.	No (a)
	Heavy vehicles	Recognises heavy vehicles damage bridges and tunnels.	No (a) (b)
	Regional costs	Recognises the differences in the cost of providing services to different areas within a state.	Yes (a) (d)
	Wage costs	Recognises the differences in wage costs between states.	No

- (a) The Commission proposes to apply a new 12.5% discount to the roads assessment before the wage costs factor (which is already discounted) is applied.
- (b) In the 2023 Update, the Commission changed this assessment due to the cessation of the ABS Survey of Motor Vehicle Use.
- (c) In the 2024 Update, the Commission used data from the 2022 Update to split traffic volume between urban and rural use. This change was also due to the cessation of the ABS Survey of Motor Vehicle Use. The Commission proposes to hold constant this split between urban/rural light and heavy vehicle traffic volume for the remainder of the review, whereas it was previously updated every 2 years.
- (d) The regional cost weight now uses Rawlinsons construction cost index (previously it used the regional costs general gradient).

## Indicative distribution impacts

78 The impact on GST distribution in 2024-25 from the proposed method changes is shown in Table 4.

**Table 4 Indicative impact on GST distribution (difference from an equal per capita distribution), 2024–25**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total Effect
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
U2024 using R2020 methods	-210	-401	238	247	89	4	-97	130	708
U2024 using draft R2025 methods	-188	-356	188	229	76	1	-86	136	629
Effect of draft method change	22	46	-50	-19	-13	-3	11	6	85
	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc
U2024 using R2020 methods	-25	-57	42	84	47	6	-202	507	26
U2024 using draft R2025 methods	-22	-51	33	77	40	1	-178	531	23
Effect of draft method change	3	6	-9	-6	-7	-5	24	24	3

Note: Based on no change to the wage costs assessment. The effect of that change is shown in the wage costs chapter. The GST pool and population estimates are equivalent to those used in the 2024 Update. The data included in the table have not been subject to full quality assurance processes and as such, should be treated as indicative only. Indicative GST impacts are provided for illustrative purposes only and should not be used to predict impacts on the GST distribution for 2025–26. The draft R2025 method also proposes to hold constant the split of urban/rural light and heavy vehicle traffic volume. Both methods shown above use the same split, therefore this change does not affect the GST impact between these methods.

79 Table 5 shows the proposed changes will have the largest effect on the GST distribution for the ACT and the Northern Territory. A 12.5% discount reduces the effect of the assessment and increases the GST of states with below average needs for roads expenses, such as the ACT, and decreases the needs for states such as the Northern Territory with above average needs.

80 The Northern Territory's GST decrease due to the 12.5% discount was more than offset by the changes to the rural road network and by using Rawlinsons as the remoteness cost weight.

**Table 5 Indicative impact on GST distribution of proposed method changes (disaggregated), 2024–25**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total Effect
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Discount	30	50	-30	-29	-14	-1	13	-19	
Other (a)	-9	-4	-20	10	1	-2	-1	25	
<b>Total</b>	<b>22</b>	<b>46</b>	<b>-50</b>	<b>-19</b>	<b>-13</b>	<b>-3</b>	<b>11</b>	<b>6</b>	<b>85</b>
	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc	\$pc
Discount	4	7	-5	-10	-7	-2	26	-74	
Other (a)	-1	-1	-4	3	0	-3	-3	98	
<b>Total</b>	<b>3</b>	<b>6</b>	<b>-9</b>	<b>-6</b>	<b>-7</b>	<b>-5</b>	<b>24</b>	<b>24</b>	<b>3</b>

Note: Based on no change to the wage costs assessment. The effect of that change is shown in the wage costs chapter.

The GST pool and population estimates are equivalent to those used in the 2024 Update.

The data included in the table have not been subject to full quality assurance processes and as such, should be treated as indicative only.

Indicative GST impacts are provided for illustrative purposes only and should not be used to predict impacts on the GST distribution for 2025–26.

The draft R2025 method also proposes to hold constant the split of urban/rural light and heavy vehicle traffic volume.

Both methods shown above use the same split, therefore this change does not affect the GST impact between these methods.

- (a) Other changes include reducing the rural road network by removing all routes to mines, national parks, gas wells and ports; using Rawlinsons for the regional cost gradient; and updating bridge and tunnel lengths.