

**2020 REVIEW**

**TRANSPORT**

**STAFF DRAFT ASSESSMENT PAPER  
CGC 2018-01/18-S**

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## TRANSPORT

* 1. This paper covers the assessments of transport net expenses and investment. Net expenses are assessed in the Transport category, while transport investment is a component of the Investment category.

### 2015 REVIEW APPROACH

#### Services included in this category

* 1. The Transport category comprises expenses relating to bus, rail (passenger and freight), and ferry services, ports and other maritime related services, and air transport. The expenses include the cost of passenger concessions and State administration expenses. Any user charges or other revenue are netted off.
  2. States also subsidise school bus services but those expenses are in the School education category.
  3. The transport investment component covers investment in the acquisition of extra, or upgraded, infrastructure, where investment is defined as gross capital expenditure less depreciation.

#### Category and component expenses

* 1. The Transport category is assessed in two components:
* urban transport net operating expenses
* non-urban transport subsidies.
  1. Table 1 shows that the provision of urban transport is the dominant expense, representing 93% of the total category expense.

Table 1 Transport category expenses by component, 2016-17

|  |  |  |
| --- | --- | --- |
|  | Amount | Proportion of total expenses |
|  | $m | % |
| Urban transport | 12 472 | 93 |
| Non-urban transport | 1 009 | 7 |
| Total | 13 481 | 100 |

Source: Commission estimates based on State‑provided data, 2018 Update.

* 1. Table 2 shows transport investment.

Table 2 Transport investment, 2016-17

|  |  |  |
| --- | --- | --- |
|  |  | Amount |
|  |  | $m |
| Transport investment |  | 7 774 |

Source: Commission estimates based on State‑provided data, 2018 Update.

#### Data sources and assessment methods

##### Net urban transport operating expenses

* 1. The conceptual case. Evidence gathered during the 2015 Review shows that the transport task increases as cities become more populous and that, after taking account of fares and other revenues, State governments spend more per capita in larger cities than in smaller ones. Table 3 shows per capita net expenses for cities of different sizes. It also shows that, of the population living in urban centres with populations over 20 000, 73% live in cities with a population over 1 million (Sydney, Melbourne, Brisbane, Perth and Adelaide). This is where per capita net recurrent expenses are the highest.

Table 3 Per capita net expenses by Australian city size, 2009-10 to 2011-12

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 20 000 to 50 000 | 50 000 to 100 000 | 100 000 to 250 000 | 250 000 to 1 000 000 | 1 000 000 to 2 500 000 | 2 500 000 and over | Total |
| Population ('000) | 1 221 | 714 | 876 | 2 113 | 4 949 | 8 080 | 17 953 |
| Per capita net expense ($pc) | 25 | 46 | 106 | 188 | 321 | 426 | 311 |

Source: Commission estimates based on State data, 2015 Review.

* 1. The transport consultants engaged for the 2010 Review[[1]](#footnote-1) advised that, in general, public transport operating subsidy per capita rises as city size increases because of the greater quantity of travel per capita made by public transport. In addition, the quantity of travel by public transport (as measured by passenger-kilometres) rises even faster in growing urban centres because average trip distance increases as urban area grows. Based on this advice, the Commission considered urban population size was an appropriate proxy for the transport task in the 2010 and 2015 Reviews.
  2. Table 4 shows the transport task as measured by per capita passenger-kilometres and per capita net expenses for the State capital cities.

Table 4 Per capita net expenses and transport task by capital city, average of 2009‑10 to 2011-12

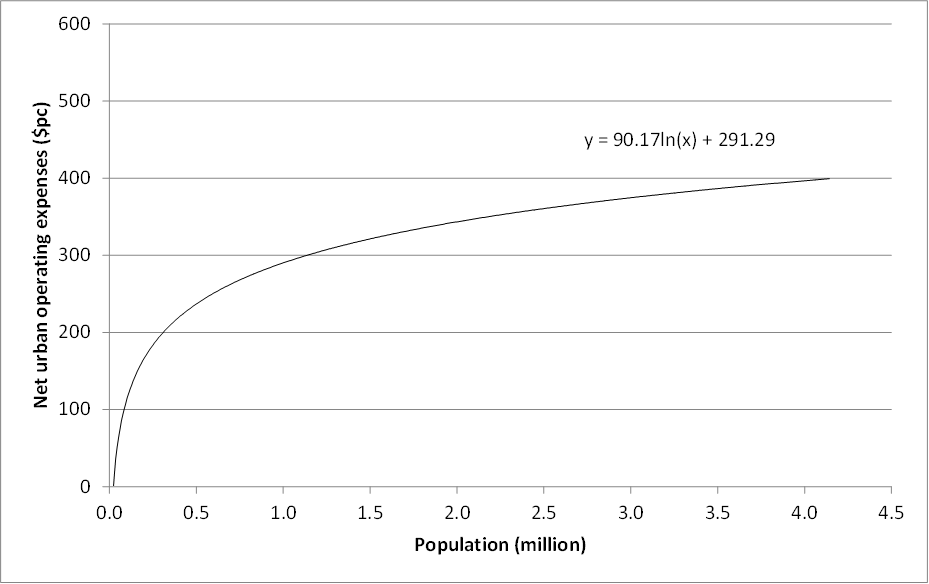
|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Sydney | Melbourne | Brisbane | Perth | Adelaide | Hobart | Canberra | Darwin |
| Per capita net expenses ($) | 560 | 285 | 396 | 322 | 198 | 127 | 245 | 198 |
| Per capita passenger-km | 1 647 | 1 330 | 940 | 760 | 577 | 283 | 520 | 410 |

Note: The per capita net expenses and per capita passenger‑kilometres are not strictly comparable. The per capita net expenses are based on the ABS Significant Urban Areas, which only includes the major urban and near-urban reaches of each capital city. The per capita passenger‑kilometres are based on Greater Capital City Statistical Areas, which are wider geographical areas including the small towns and rural areas surrounding the city. The passenger-kilometre data were obtained from *Long-term trends in urban public transport*, Bureau of Infrastructure, Transport and Regional Economics (BITRE) (2014).

* 1. The data show that, like net expenses, the per capita transport task increases with urban centre population size. This is consistent with the conceptual case supporting the current net recurrent expenditure model used in the 2015 Review.
  2. The scope. The Commission used consolidated general government sector and public non-financial corporation (PNFC) spending and investment on urban passenger services because it considered transport services to be more like general government services than the commercial services provided by many State trading enterprises. Like general government agencies, urban transport enterprises rely on government funds to meet operating costs and pay for major investments; the services stem from social policy objectives; and policies on service delivery and charges are made by government departments.
  3. The model. The following model, which is based on the relationship between net urban transport expenses and urban population, was used to assess urban transport net expenses.

* 1. Figure 1 shows the relationship described in the above equation, derived from State data collected during the 2015 Review. A linear-logarithmic (lin-log) relationship best describes the relationship between urban transport expenditure observed in the state data, where increases in urban centre population tend to increase per capita net expenses at a diminishing rate.

Figure 1 Net expenses by urban population size, average of 2009–10 to 2011–12



Note: City data are not shown for confidentiality reasons.

Source: 2015 Review data returns, State transport departments.

* 1. Urban centres. The urban centres included in the assessment and their populations are defined using ABS Urban Centres/Localities (UCLs) contained within Significant Urban Areas (SUAs). While the definition of urban centres may not capture perfectly the population serviced by the urban transport networks, it is policy neutral.
  2. Urban centres with populations over 20 000 are included.
  3. The Commission treated Newcastle, Wollongong, the Central Coast, the Sunshine Coast and the Gold Coast as separate cities, rather than amalgamating them with their principal cities because the demand for travel by public transport between these satellite areas and the principal city was low relative to public transport travel within each satellite area. This approach was supported by the 2010 Review consultants.

##### Non-urban transport subsidies

* 1. The non-urban transport assessment covers the costs of providing passenger and freight transport services between urban centres. Needs are measured by the State share of population living outside capital cities. Assessed expenses are then adjusted by a location factor that recognises interstate wage differences and regional costs.
  2. Non-urban transport expenses are the general government subsidies to service providers because some of the services covered by this component, such as rail freight and ports, are commercial in nature.

##### Investment and depreciation

* 1. Urban transport investment. The urban transport investment assessment allows for the impacts on investment in transport infrastructure of:
* city size, through a capital stock factor, which is calculated as the average of factors derived from:
* a population model, which reflects the effects of city size on the need for assets per capita
* State shares of urban population (urban centres with population above 20 000)
* population growth
* the cost of urban transport infrastructure, through a capital cost factor which reflects the relative construction, wage and regional costs.
  1. The population model is based on the observation of an upward sloping linear relationship between city size and assets per capita. The Commission’s analysis showed that assessed asset values per capita were driven by the square of urban centre populations if the relationship between city size and asset values was linear and had a zero intercept. The Commission adopted this simplified model, which is described as follows,

* 1. Depreciation expenses are included in the assessment of net urban transport expenses.
  2. Non-urban transport investment. Non-urban transport investment is assessed within the other services component of the Investment category. The assessment recognises the impact of service use and interstate differences in population growth on the relative need for infrastructure as well as the impact of differences between States in the cost of infrastructure.
  3. Depreciation expenses are assessed in the Depreciation category.

##### GST redistribution

* 1. Table 5 shows the GST redistributed by the assessment of Transport recurrent costs.

Table 5 GST impact, Transport assessment, 2018 Update

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Redist (a) |
|  | $m | $m | $m | $m | $m | $m | $m | $m | $m |
| **Urban transport** |  |  |  |  |  |  |  |  |  |
| Urban centre size | 258 | 700 | -495 | 22 | -112 | -216 | -50 | -107 | 980 |
| Wage costs | 10 | -25 | -15 | 45 | -15 | -12 | 6 | 5 | 67 |
| Component total | 267 | 669 | -508 | 68 | -126 | -219 | -45 | -106 | 1 004 |
| **Non-urban transport** |  |  |  |  |  |  |  |  |  |
| Non-urban population | 52 | -104 | 140 | -57 | -34 | 22 | -25 | 5 | 219 |
| Regional costs | -14 | -9 | 0 | 13 | 6 | 1 | -1 | 4 | 25 |
| Wage costs | 1 | -3 | -2 | 5 | -2 | -1 | 1 | 1 | 8 |
| Component total | 40 | -111 | 139 | -44 | -30 | 21 | -25 | 11 | 211 |
| Category total | 307 | 557 | -369 | 23 | -157 | -198 | -70 | -95 | 888 |

(a) Totals may not add-up due to interactions.

Source: Commission calculation, 2018 Update.

* 1. Table 6 shows the GST redistributed by the urban transport component of the Investment category.

Table 6 GST impact, urban transport investment, 2018 Update

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | NSW | Vic | Qld | WA | SA | Tas | ACT | NT | Redist (a) |
|  | $m | $m | $m | $m | $m | $m | $m | $m | $m |
| Population growth | -29 | 166 | -20 | -38 | -46 | -27 | 2 | -8 | 168 |
| City size | 193 | 478 | -306 | -131 | -128 | -50 | -30 | -26 | 672 |
| Capital costs | 33 | -49 | -12 | 22 | 1 | -1 | 3 | 2 | 61 |
| Total | 198 | 595 | -338 | -147 | -173 | -78 | -25 | -33 | 793 |

(a) Totals may not add-up due to interactions.

Source: Commission calculation, 2018 Update.

### ISSUES AND ANALYSIS

* 1. The main issues to be considered are:
* whether there is a sufficiently robust conceptual case to retain the general approach adopted in the 2010 and 2015 Reviews
* whether the models underpinning the recurrent and infrastructure urban transport assessments can be improved
* the definition and size of urban areas
* the assessment of non-urban transport subsidies.
  1. The treatment of Commonwealth payments for investment on the National Network Rail projects is discussed in Draft assessment paper CGC 2018-01/18-S *Roads*.

#### Conceptual case

* 1. In the last two reviews, some States have criticised the conceptual case supporting the assessment model as weak and lacking theoretical underpinning. The conceptual case rests on the following propositions:
* population is the main non-policy influenced driver of urban transport expenses
* per capita net expenses increase with urban population size.

##### Drivers of expenses

* 1. Work done by the consultant engaged for this review and Commission staff sought to identify the drivers of State urban transport expenses.
  2. However, the specific question relevant to the assessments (‘what drives the net expenditure of urban transport services’) is not addressed directly in the Australian or the international literature.[[2]](#footnote-3) The literature looks separately at the factors affecting the major determinants of costs and revenue (the demand for, the supply of, and the costs of transport services).
  3. The drivers of the use of public transport, price elasticities and the impact of urban form on public transport are major focuses of research. Some research also examines how public transport supply matches social needs and how privatisation affects costs.
  4. The literature indicates that demand for public transport is influenced by many factors whose effects vary from place to place and time to time. Those influences include:
* non-policy influences:
* urban area population size and its composition in terms of age and socio‑economic status (including car ownership and car travel costs)
* urban form including: size of urban area; distances between residential areas and areas of economic activity; population density; and whether economic activity is concentrated in one or many centres
* geographic features (such as harbours) which affect route design and trip times
* city history, which may have affected the location of economic activity and the pattern of development
* policy influences
* service quality, including efficiency
* public transport fares
* availability of car parking and its costs
* congestion and car travel trip times
* government policies on land use, environmental issues, access to central areas.
  1. The supply and costs of transport may be affected by:
* non-policy influences:
* the demand for services and how it is spread through the day and week
* the socio-economic characteristics of users (which may affect the need to provide some services and/or targeted fare concessions)
* congestion and its effect on operating speeds
* trip lengths
* costs of inputs, especially wages and equipment
* topography
* policy influences
* mode of transport provided
* efficiency and other operating policies, including the extent of contracting/privatisation
* fare levels
* the extent to which transport is used to address other policy goals, such as environmental and city developmental issues.
  1. Infrastructure specific drivers include the following non-policy influences:
* population and economic growth and the location of that growth
* the need to retro-fit new facilities into a well-established environment, which creates a need for costly underground and, based on current and proposed projects in Sydney and Melbourne, above ground facilities
* changing technology, including new train technology, which changes the specifications of new infrastructure often leading to new control infrastructure and upgrades of existing infrastructure. These costs occur in all States but more so in the big cities as they are linked to city, task and fleet size.
  1. The non-policy influences fall into two broad groups: population size and characteristics, and urban form and topography. The 2015 Review recurrent and infrastructure models recognise the impact of population size on urban transport expenses. For the 2020 Review, Commission staff have engaged a transport consultant to investigate whether the models should and, if so, could be refined to explicitly incorporate population characteristics and urban form.
  2. As in the Commission’s other assessments, policy influences are reflected in the average expenses. Some States have said the data for some cities (especially Sydney, where they believe the urban transport system is inefficient) should be adjusted to remove policy influences. They also said Sydney and Melbourne have too much influence on the results. (That said, staff consider that Sydney’s per capita net expenses are more in line with the net expenses of other large cities than Melbourne’s. Melbourne’s per capita net expenses are low, which may be partly because a proportion of the expenses of its train network, covering cities such as Melbourne, Geelong, Bendigo and Ballarat, are classified as non-urban transport expenses. It is possible that some of those expenses should be reclassified as urban transport expenses.)
  3. We are not inclined to adjust individual State data because it would move the assessment away from what States do and towards what they should do. Also, it would be inconsistent with the Commission’s other assessments.
  4. Essentially, cities can be grouped according to population size (for example, one group could be Sydney and Melbourne, with populations above 4 million; another group could be Brisbane, Perth and Adelaide, with population of 1 to 3 million). The logarithmic shape of the model accounts for growth rates of per capita net expenses that are inherently different between the groups. So, the assessed per capita net expenses for Brisbane, Perth and Adelaide are an average of cities that can be classified into that group, while those of Melbourne and Sydney are an average of cities that can be classified into that group.
  5. The Commission applies the same approach to its other assessments. The assessment of use and costs by remoteness for various services is an example of this. There are six States with population in very remote areas, but three (Queensland, Western Australia and the Northern Territory) have 87% of the Australian population living in very remote areas. These three States essentially set the average level of service and cost in very remote areas. The Commission does not adjust the data for those States for any differences between their policies or efficiency and those of the other States. The remoteness and regional costs assessment redistributes about $2.3 billion, which is more than the transport assessments.
  6. Moreover, any attempt to adjust the data for individual cities to better reflect average policy would be fraught with difficulties. For example, how should the average level of efficiency be calculated for Sydney? Is Melbourne more efficient or are its lower expenses due to a lower level of service? Are the efficiency and service levels for a city with a population of, say, 2 million relevant to a city of, say, 4 million?

##### Increasing per capita expenses

* 1. Australian data show that per capita net expenses increase with urban population size. The Commission’s assessments reflect this. Commission staff’s review of literature shows the Australian experience is not unique. Table 7, Table 8 and Table 9 indicate the experience also occurs generally in Spain, France and the United States.

Table 7 Government subsidies by city size, Spain

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No of cities | Population | Total subsidies | Subsidy per capita |
|  | No. | Million | Million € | € |
| Madrid |  | 6.3 | 167.5 | 26.7 |
| Barcelona |  | 4.9 | 152.0 | 30.9 |
| 500 000 to 1 000 000 people | 4 | 2.7 | 28.6 | 10.5 |
| 100 000 to 500 000 people | 36 | 7.3 | 31.5 | 4.3 |
| 50 000 to 100 000 people | 40 | 2.8 | 6.1 | 2.2 |
| 20 000 to 50 000 people | 9 | 0.3 | 0.7 | 2.3 |

(a) Data are for 2008.

Source: Ruiz-Montanez M (2017), ‘Financing public transport: a spatial model based on city size’, European Journal of Management and Business Economics, Vol 26, issue 1.

Table 8 Government subsidies by city size, France

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | No of cities | Population | Total subsidies | Subsidy per capita | Subsidy as % of total revenue |
|  | No. | Million | Million € | € pc | % |
| Paris metropolitan area | 1 | 11.96 | 5 415 | 452.8 | 60.2 |
| Cities over 400 000 | 12 | 11.99(a) | 2 979 | 248.5 | 78.6 |
| Cities under 400 000 | 14 | 4.2(b) | 1 288 | 306.7 | 85.9 |
| Cities over 200 000 | 11 | 2.75(c) | 565 | 205.5 | 88.4 |
| Cities 100 000 to 200 000 | 44 | 6.6(d) | 1 029 | 155.9 | 87.6 |
| Cities 50 000 to 100 000 | 64 | 4.8(d) | 356 | 74.2 | 86.2 |
| Cities under 50 000 | 41 | 1.03(e) | 57 | 55.3 | 89.1 |

(a) Based on actual populations for 9 cities and an assumed 0.5 million for the other 3.

(b) Population assumed to be 0.3 million.

(c) Population assumed to be 0.25 million.

(d) Population assumed to be at the mid-point of the range.

(e) Population assumed to be 0.025 million.

Source: Ruiz-Montanez M (2017), ‘Financing public transport: a spatial model based on city size’, European Journal of Management and Business Economics, Vol 26, issue 1.

Table 9 Government subsidies by city size, United States, 2011

|  |  |  |
| --- | --- | --- |
| City population size |  | Subsidies per capita |
|  |  | US$ pc |
| over 5 million |  | 167 |
| 3 to 5 million |  | 126 |
| 2 to 3 million |  | 110 |
| 1 to 2 million |  | 68 |
| 0.5 to 1 million |  | 45 |
| 0.3 to 0.5 million |  | 34 |
| 0.05 to 0.3 million |  | 32 |
| Total |  | 95 |

Note: The American data contains 368 cities. The data reported in this table is based on a staff calculation. We were not able to ascertain the consistency of reporting in each city.

Source: US National Transit Database.

* 1. Some European research argued per capita subsidies rise with city size because the number of routes needed to connect each suburb to the others grows faster than the growth in the number of suburbs. For example, a city of 2 suburbs requires 1 route to connect them, 3 suburbs require 3 routes, 4 suburbs require 6 routes, 5 suburbs require 10 routes, 6 suburbs require 15 routes and so on.
  2. City size drives the total level of travel in cities. Many factors affect how that travel is split between private and public means. Nevertheless, the Australian and international data show per capita net expenses for public urban transport services increase with city size, which strongly supports the basis of the current assessment approach.

|  |
| --- |
| Staff propose to recommend the Commission:   * retain the current general approach to the assessment of recurrent and infrastructure urban transport expenditure because the conceptual case that city population is a major driver of net expenses and assets for public transport systems is strong and supported by data. |

#### Urban transport expenses and infrastructure models

* 1. In the last two reviews, some States expressed concerns about the models used to assess urban transport net expenses and infrastructure requirements, including:
* using population as the sole driver of net urban operating expenses
* the appropriate shape of the relationship between population and per capita expenses and asset values.
  1. As part of the 2020 Review, the Commission has engaged a consultant with expertise in transport economics with two primary objectives:
* to develop a model or models that can be used to assess States’ urban transport recurrent and infrastructure expenditure requirements
* provide confidence for States that the model/s and data used are reliable and fit for purpose.
  1. The consultancy was in two stages. The stage 1 report has been circulated to States. As part of stage 2, the consultant will explore whether current models can be improved by including a more comprehensive set of non-policy influences, such as population characteristics, urban form and topography. Commission staff have collected data from each State on urban transport expenditure, assets and use by urban centre to help that modelling.
  2. Once stage 2 of the consultancy has been completed, staff will provide the stage 2 report to States for comments. After receiving comments, staff will develop assessment proposals for net expenses and investment for the Commission.
  3. If the consultant cannot develop simple and intuitive models that better capture State needs than the current ones, staff would propose to retain the current approach and update it using the recently collected data.

|  |
| --- |
| Staff propose to:   * provide the report on stage 2 of the consultancy to States for comments. After receiving those comments, staff will develop assessment proposals for net expenses and investment for the Commission. |

#### Definition of urban areas

* 1. We propose to retain the 2015 Review definition of urban areas: ABS Urban Centres/Localities (UCLs) contained within Significant Urban Areas (SUAs). This was supported by our 2020 Review consultant in their stage 1 report.
  2. In the last review, only SUAs with population above 20 000 were included. For the 2020 Review, staff propose to include all SUAs. This would increase the number of urban areas from 65 to 106. The vast majority of SUAs have a population above 10 000 and the majority have public transport services.[[3]](#footnote-4) This change will better reflect what States do. A full list of the SUAs with their population is at Attachment A.
  3. In the 2015 Review, Queensland made a case to amalgamate the Gold Coast with Brisbane. For this review, we asked the consultant to review whether and, if so, which satellite cities should be amalgamated with their principal city. In the stage 1 report, the consultant proposed the following two criteria be used to decide whether or not satellite cities should be amalgamated with their principal city.
* A public transport travel time threshold of 120 minutes between the principal and satellite city centres in morning peak hours be applied. This threshold indicates the maximum commute travel time between the principal and satellite cities.
* The proportion of inter-city commute trips is greater than 5 per cent of satellite intra-city commute trips. This criterion indicates a minimum level of labour market integration between the principal and the satellite city.
  1. The analysis based on these criteria will form part of stage 2.

|  |
| --- |
| Staff propose to recommend the Commission:   * retain the 2015 Review definition of urban areas: ABS UCLs contained within SUAs * include all SUAs in the assessment of urban transport because most of them have public transport services. * decide whether or not some satellite cities should be amalgamated with their principal city based on the results of the analysis using the two quantitative criteria proposed by the consultant. |

#### Non-urban expenses

* 1. We propose to retain the 2015 Review assessment of non-urban transport services, which is based on State shares of population outside capital cities. The assessment was supported by States in the last review.

|  |
| --- |
| Staff propose to recommend the Commission:   * retain the 2015 Review assessment of non-urban transport services, which is based on State shares of population outside capital cities. |

### Conclusion and way forward

* 1. Commission staff propose to retain the overall regression-based approach to the assessment of urban transport recurrent and infrastructure needs. However, staff have engaged a consultant to review the models and see whether they can be improved.
  2. The consultant will also review the case for amalgamating satellite cities with their principal cities.
  3. Because of delays in finalising State financial and use data, we now expect a final report on stage 2 of the consultancy in the second half of 2018. Once completed, we intend to share the report with State Treasuries and seek their comments. After receiving comments, staff will develop proposals for the Commission.

#### Proposed assessment structure

* 1. Staff propose the following assessment structure for this category in the 2020 Review.

Table 10 Proposed Transport category structure

|  |  |  |
| --- | --- | --- |
| Component | Disability | Influence measured by disability |
|  | | |
| Urban transport | Urban centre size | Recognises that the cost of State provided urban passenger transport services increases with urban centre population size. |
|  | Location | Recognises the differences in wage costs between States. |
| Non-urban transport | Non-urban population | Recognises the costs of providing passenger and freight transport services between urban centres. |
|  | Location | Recognises the differences in wage costs between States and in the cost of providing services to different areas within a State. |

Table 11 Proposed urban transport investment component structure

|  |  |  |
| --- | --- | --- |
| Component | Disability | Influence measured by disability |
|  | | |
| Urban transport | Capital stock | Recognises the impact of city size on the need for urban transport infrastructure. |
|  | Population growth | Recognises the impact of differences in population growth on the need for urban transport infrastructure. |
|  | Capital cost | Recognises the impact of differences between States in the cost of urban transport infrastructure. |

## Attachment A: SUAs Proposed for Inclusion

* 1. Table Table A-1 shows the complete list of SUAs, which are all proposed for inclusion in the urban transport assessments.
  2. Staff note that, for capital cities, SUA is a typically smaller measure of urban population than the ABS measure of greater capital city statistical areas (GCCSA). The GCCSA reflects the functional extent of each of Australia’s capital cities, including persons who live within the urban centre as well as those in small towns and rural areas surrounding the city. However, the urban transport assessment primarily aims to capture disabilities associated with intra-urban transport expenses.

Table A- Proposed SUAs for inclusion in urban transport assessments

|  |  |  |  |
| --- | --- | --- | --- |
| State | SUA | Treatment | Population, 2016-17 |
| NSW | Sydney | Currently included | 4 612 509 |
| Vic | Melbourne | Currently included | 4 552 897 |
| Qld | Brisbane | Currently included | 2 236 741 |
| WA | Perth | Currently included | 1 965 142 |
| SA | Adelaide | Currently included | 1 284 254 |
| Qld | Gold Coast - Tweed Heads | Currently included | 567 674 |
| NSW | Newcastle - Maitland | Currently included | 474 229 |
| ACT | Canberra - Queanbeyan | Currently included | 405 306 |
| NSW | Central Coast | Currently included | 323 316 |
| NSW | Wollongong | Currently included | 295 706 |
| Qld | Sunshine Coast | Currently included | 291 324 |
| Vic | Geelong | Currently included | 241 924 |
| Tas | Hobart | Currently included | 192 870 |
| Qld | Townsville | Currently included | 178 139 |
| Qld | Cairns | Currently included | 151 067 |
| Qld | Toowoomba | Currently included | 127 292 |
| NT | Darwin | Currently included | 126 826 |
| Vic | Ballarat | Currently included | 96 939 |

Table A- Proposed SUAs for inclusion in urban transport assessments (continued)

|  |  |  |  |
| --- | --- | --- | --- |
| State | SUA | Treatment | Population, 2016-17 |
| Vic | Bendigo | Currently included | 94 544 |
| Tas | Launceston | Currently included | 83 565 |
| Qld | Mackay | Currently included | 80 182 |
| Qld | Rockhampton | Currently included | 75 229 |
| WA | Bunbury | Currently included | 73 026 |
| NSW | Gold Coast - Tweed Heads | Currently included | 70 102 |
| Qld | Bundaberg | Currently included | 67 852 |
| NSW | Coffs Harbour | Currently included | 66 435 |
| Vic | Melton | Currently included | 59 778 |
| NSW | Wagga Wagga | Currently included | 53 996 |
| Qld | Hervey Bay | Currently included | 53 186 |
| NSW | Albury - Wodonga | Currently included | 49 380 |
| Vic | Shepparton - Mooroopna | Currently included | 48 403 |
| NSW | Port Macquarie | Currently included | 46 015 |
| Qld | Gladstone - Tannum Sands | Currently included | 44 449 |
| Vic | Traralgon - Morwell | Currently included | 40 143 |
| NSW | Tamworth | Currently included | 39 200 |
| NSW | Orange | Currently included | 39 120 |
| NSW | Canberra - Queanbeyan | Currently included | 38 207 |
| Vic | Albury - Wodonga | Currently included | 37 743 |
| Vic | Mildura - Wentworth | Currently included | 37 359 |
| NSW | Bowral - Mittagong | Currently included | 36 285 |
| NSW | Dubbo | Currently included | 36 150 |
| WA | Geraldton | Currently included | 35 438 |
| NSW | Bathurst | Currently included | 34 804 |
| NSW | Nowra - Bomaderry | Currently included | 34 345 |
| Vic | Warrnambool | Currently included | 32 904 |
| WA | Busselton | Currently included | 32 240 |
| WA | Albany | Currently included | 31 919 |
| WA | Kalgoorlie - Boulder | Currently included | 30 788 |
| Vic | Warragul - Drouin | Currently included | 28 959 |
| NSW | Lismore | Currently included | 28 341 |
| Tas | Devonport | Currently included | 27 206 |
| SA | Mount Gambier | Currently included | 26 920 |
| NSW | Nelson Bay | Currently included | 26 702 |

Table A- Proposed SUAs for inclusion in urban transport assessments (continued)

|  |  |  |  |
| --- | --- | --- | --- |
| State | SUA | Treatment | Population, 2016-17 |
| NT | Alice Springs | Currently included | 26 038 |
| Tas | Burnie - Wynyard | Currently included | 25 139 |
| Qld | Maryborough | Currently included | 24 737 |
| NSW | Ballina | Currently included | 24 679 |
| SA | Victor Harbor - Goolwa | Currently included | 24 586 |
| NSW | Taree | Currently included | 24 031 |
| NSW | Goulburn | Currently included | 23 014 |
| SA | Whyalla | Currently included | 22 475 |
| NSW | Morisset - Cooranbong | Currently included | 22 169 |
| NSW | Armidale | Currently included | 21 215 |
| NSW | Forster - Tuncurry | Currently included | 21 021 |
| NSW | Griffith | Propose inclusion | 19 620 |
| Qld | Mount Isa | Currently included (a) | 19 136 |
| Vic | Wangaratta | Propose inclusion | 18 942 |
| Vic | Bacchus Marsh | Propose inclusion | 18 865 |
| Qld | Gympie | Propose inclusion | 18 700 |
| NSW | Grafton | Propose inclusion | 18 595 |
| NSW | Broken Hill | Propose inclusion | 18 040 |
| Qld | Yeppoon | Propose inclusion | 17 952 |
| NSW | St Georges Basin - Sanctuary Point | Propose inclusion | 17 919 |
| SA | Murray Bridge | Propose inclusion | 17 376 |
| Vic | Gisborne - Macedon | Propose inclusion | 16 627 |
| WA | Karratha | Propose inclusion | 16 390 |
| Vic | Horsham | Propose inclusion | 15 927 |
| NSW | Batemans Bay | Propose inclusion | 15 862 |
| NSW | Ulladulla | Propose inclusion | 15 417 |
| Vic | Moe - Newborough | Propose inclusion | 15 391 |
| SA | Port Lincoln | Propose inclusion | 14 961 |
| Vic | Sale | Propose inclusion | 14 765 |
| WA | Broome | Propose inclusion | 14 568 |
| NSW | Camden Haven | Propose inclusion | 14 534 |
| WA | Port Hedland | Propose inclusion | 14 445 |
| Qld | Warwick | Propose inclusion | 14 187 |
| SA | Port Pirie | Propose inclusion | 14 125 |
| Qld | Emerald | Propose inclusion | 14 083 |

Table A- Proposed SUAs for inclusion in urban transport assessments (continued)

|  |  |  |  |
| --- | --- | --- | --- |
| State | SUA | Treatment | Population, 2016-17 |
| NSW | Singleton | Propose inclusion | 13 673 |
| SA | Port Augusta | Propose inclusion | 13 465 |
| Vic | Bairnsdale | Propose inclusion | 13 240 |
| Vic | Echuca - Moama | Propose inclusion | 13 140 |
| Tas | Ulverstone | Propose inclusion | 12 938 |
| NSW | Lithgow | Propose inclusion | 12 184 |
| Vic | Colac | Propose inclusion | 12 172 |
| NSW | Kempsey | Propose inclusion (b) | 12 120 |
| NSW | Mudgee | Propose inclusion (b) | 11 902 |
| WA | Yanchep | Propose inclusion (b) | 11 526 |
| Vic | Swan Hill | Propose inclusion (b) | 10 848 |
| NSW | Muswellbrook | Propose inclusion | 10 771 |
| WA | Esperance | Propose inclusion (b) | 10 631 |
| Qld | Kingaroy | Propose inclusion (b) | 10 397 |
| Vic | Portland | Propose inclusion | 10 307 |
| NSW | Parkes | Propose inclusion | 10 290 |
| NSW | Echuca - Moama | Propose inclusion | 5 779 |
| NSW | Mildura - Wentworth | Propose inclusion | 3 974 |

(a) Mount Isa’s population fell under 20 000 in 2016-17.

(b) New SUA, 2016 Census.

Source: ABS data return, October 2017. Estimated resident population.

1. *2010 Review of* *State Government Subsidised Urban Public Transport Services: Consultant Advice*, Institute for Sustainable Systems and Technologies, University of South Australia, April 2009. [↑](#footnote-ref-1)
2. Consultants engaged for the 2010 Review also found no literature on this issue or the links between city size and transport subsidies. [↑](#footnote-ref-3)
3. The Mildura – Wentworth and Echuca – Moama SUAs are split between New South Wales and Victoria. On the New South Wales’ side, the population is below 10 000. [↑](#footnote-ref-4)