Australian Government

Commonwealth Grants Commission

2020 REVIEW

TRANSPORT

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

APRIL 2018

Paper issued	20 April 2018
Commission contact officer	Kathryn Conroy, 02 6229 8848, Kathryn.Conroy@cgc.gov.au
Submissions sought by	31 August 2018 Submissions should be emailed in Word format to secretary@cgc.gov.au . Submissions of more than 10 pages in length should include a summary section.
Confidential material	It is the Commission's normal practice to make State submissions available on its website under the CC BY licence, allowing free use of content by third parties.  Further information on the CC BY licence can be found on the Creative Commons website (http://creativecommons.org). Confidential material contained in submissions must be clearly identified or included in separate attachment/s, and details provided in the covering email. Identified confidential material will not be published on the Commission's website.

CONTENTS

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

2 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.

3 States also subsidise school bus services but those expenses are in the School education category.

4 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

5 The Transport category is assessed in two components:

- urban transport net operating expenses
- non-urban transport subsidies.

6 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.

7 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

8 ***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.

9 The transport consultants engaged for the 2010 Review[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.

10 Table 4 shows the transport task as measured by per capita passenger-kilometres and per capita net expenses for the State capital cities.

[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.

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).

11 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.

12 ***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.

13 ***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.

$$E_i = \beta * \ln(P_i) + \alpha$$

Where:

i is equal to all cities with a population greater than 20 000

E is the per capita net expense

P is urban population

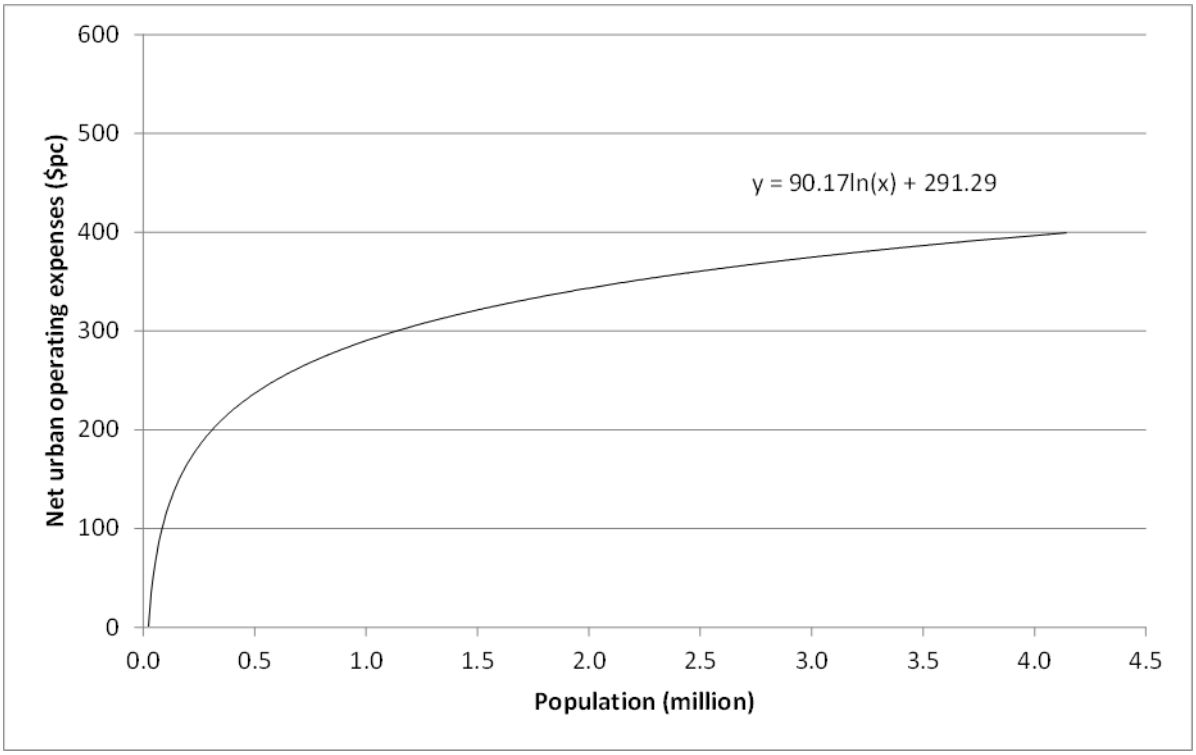
α is a constant[2], and

β is a scaling factor.

[2] This constant is equal to the per capita expense for an urban centre with a population of one million.

14 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.

15 ***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.

16 Urban centres with populations over 20 000 are included.

17 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

18 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.

19 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

20 ***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.

21 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,

$$A_i = P^2 \times 50\%$$

Where:

i is equal to all cities with a population greater than 20 000

A is assets per capita

P is urban population, and

50% is the discount on this assessment.

22 Depreciation expenses are included in the assessment of net urban transport expenses.

23 ***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.

24 Depreciation expenses are assessed in the Depreciation category.

GST redistribution

25 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.

26 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

27 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.

28 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

29 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

30 Work done by the consultant engaged for this review and Commission staff sought to identify the drivers of State urban transport expenses.

31 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.[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).

32 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.

33 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

[3] Consultants engaged for the 2010 Review also found no literature on this issue or the links between city size and transport subsidies.

- 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.

34 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.

35 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.

36 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.

37 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.)

38 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.

39 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.

40 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.

41 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

42 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.

43 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.

44 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

45 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.

46 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.

47 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.

48 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.

49 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

50 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.

51 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.[4] This change will better reflect what States do. A full list of the SUAs with their population is at Attachment A.

52 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.

53 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

54 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.

[4] 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.

CONCLUSION AND WAY FORWARD

55 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.

56 The consultant will also review the case for amalgamating satellite cities with their principal cities.

57 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

58 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-1 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-1 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-1 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-1 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.