

SOCIO-DEMOGRAPHIC COMPOSITION — ASSESSMENT RESULTS

- 1 This working paper describes the assessment for socio-demographic composition (SDC) and the resulting factors. The development of the assessment method in the 2004 Review is discussed in Volume 7 of the 2004 Review Working Papers.

DESCRIPTION OF THE FACTOR

- 2 Socio-demographic composition disabilities reflect the effect on the cost of providing services of differences between States in the characteristics of their populations. More specifically, this disability factor measures the relative impact that differences between States in the characteristics of State populations (such as age, sex, Indigeniety, income and location) have on costs of State services because of differences in average use patterns and unit costs.

ASSESSMENT METHOD

- 3 The general approach to the factor is to identify the population groups for which services are provided and, if appropriate, sub-groups that use the services more (or less) than average and/or cost more (or less) than average per unit of service provided.
- 4 At its simplest, a State has a positive (or negative) disability if the share of its population in the user group exceeds (or is less than) the national share. The factor reflects an assumption of a direct link between the above (or below) average shares of State populations that potentially use the service and the per capita cost of providing it. Thus if the proportion of a State's population aged 65 and over exceeds the national proportion by 10 per cent, it is assumed, all else considered equal, that the State would incur per capita expenses on services for the aged that are 10 per cent above average.
- 5 The way the factor is calculated varies between categories. In cases where a single user group is identified, the factor is equal to the proportion of a State's population in that group compared with the national proportion. In other cases, where use varies among sub-groups of the relevant population (which is often the total population) or more resources are required to provide the service to some sub-groups, a more detailed approach is applied. That approach

derives notional, cost weighted users for each State based on national average use rates and cost weights.

6 Attachment A contains the guidelines the Commission used when deciding whether a socio-demographic composition factor should be assessed. In brief, a factor was assessed if there was:

- a conceptual case;
- evidence to support that case;
- material differences between States; and
- a way of measuring this difference.

7 Where full national data sets on user groups, their use and unit costs were available, factors could be calculated directly using the available data. When less than full data were available, judgment was used to estimate missing data if the conceptual case was strong, the effects were material and sufficient data were available to allow estimates to be made with confidence.

Incorporating Australian average use rates

8 It was often the case that a part of the population eligible to receive the service (which may be the total population) uses the service more often than other population groups. The disability calculation allowed for this by including use weights. The calculation then proceeded in the following basic steps:

- determining the population sub-groups relevant to the service;
- extracting population data (usually Census) for each sub-group;
- estimating the number of users within each sub-group (usually from administrative data sets);
- calculating Australian average use rates for each sub-group in the population (calculated as Australian total by dividing the number of users within each sub-group by Australian total at population data (usually Census) for each sub-group);
- applying the Australian average use rates (from above) to the population of each group in a State to calculate weighted populations (or service use population) for each State; and
- deriving disabilities by dividing each State's weighted population by its unweighted population and then comparing this proportion to the Australian proportion.

9 In many cases, there were several causes of differences in the use of services. For example, Indigeneity, income or location, as well as age, might affect use of a service. Where possible, weights for population groups with more than one common characteristic were calculated simultaneously (or jointly) to avoid double counting. For example, if the Commission decided that service use differed by Indigeneity and income then a separate use weight would

be calculated for Indigenous low income people, non-Indigenous low income people, Indigenous high income people and non-Indigenous high income people.

- 10 Under the 2004 Review method a weight was calculated for each population sub-group with common characteristics.
- 11 Calculations of Australian average use rates for different sub-groups were usually well supported by data on service use. Where possible national data collections such as those published by ABS and the Australian Institute of Health and Welfare (AIHW) were used. In the absence of full data, partial information (say from one or more States or from related national collections) and judgment were used. The absence or unreliability of State or Australian Government administrative data on the use of services by different groups of people constrained the range of use effects that could be reflected in the factors.
- 12 Basing use weights on national averages aimed to ensure that any effects of an individual State's policy on use in that State, or anomalies in data at State level, did not affect the assessment.
- 13 The process of applying average use rates to disaggregated State population data requires State population to be disaggregated in a similar way. The ability to obtain Census data with many cross-classifications supported the calculations well and enabled them to be done in a way which avoided double counting of effects. Using a single data source (the Census) enabled consistency of population counts across all States and expense categories.

Incorporating Australian average unit cost rates

- 14 It is often the case that the States as a whole decide to devote more resources to some groups of people (such as people with low income or Indigenous people). It is also the case that providing a service to people with particular characteristics is more difficult and more expensive (such as people with low English fluency or Indigenous people) than providing the service to other people. These cost differences relate to the cost of providing each episode of service and are separate from any cost effects due to differences in the relative use of the service. The socio-demographic composition factors often allowed for the differences in cost per episode of service.
- 15 The factors were calculated by applying Australian average unit cost weights to State populations already weighted by average use rates (if differences had been observed and measured). These were disaggregated by the different characteristics. The per capita use and cost weighted population of each State relative to the Australian per capita use and cost weighted population gave the factor for each State.
- 16 The application of Australian average unit cost weights followed a process similar to that for Australian average use weights. The process involved:
 - determining the population sub-groups relevant to the service;
 - extracting population data (usually Census) for each sub-group;

- estimating the number of users within each sub-group (usually from administrative data sets);
- estimating the amount/proportion of expenditure on each sub-group;
- obtaining an average unit cost weight for each group (by dividing the amount/proportion of expenses on each sub-group by the number of users within each sub-group (usually from administrative data sets)) and implicitly expressing the average cost of providing a service to the chosen group of people as a proportion of the average cost of providing a service to all people (for example, a cost weight of 1.5 implied that for every \$1 spent on the average user \$1.50 needed to be spent on the high cost group);
- applying the average unit cost weight for each group to the service use population of each group in each State to create weighted populations for each State; and
- determining disabilities by dividing each State's weighted population by its unweighted population and then comparing this proportion to the Australian proportion.

17 Assessing Australian average unit cost weights thus required data that:

- demonstrated that particular sub-groups of people had an effect on the cost of providing a service; and
- allowed the size of that sub-group to be measured in each State.

18 There was a greater use of judgment by the Commission in setting Australian average unit cost weights. States often did not keep data on the extra resources they devoted to servicing some groups of people¹. Thus, the Commission used cost data from only a few States, or based the Australian average weights on judgment informed by workplace visits, Commonwealth policy, academic studies, and other information such as the findings of the Indigenous Funding Inquiry. (For example, the extra costs in servicing remote Indigenous people were often based on data or evidence from States that had a significant number of remote Indigenous people in their population. The Australian average unit cost weight for humanitarian refugees was suggested by one State.)

19 Use and unit cost weights, or an overall cost weight incorporating use and unit cost impacts, have been applied in the calculation of the SDC disability factor.

The range of population characteristics reflected in disabilities

20 The major population characteristics the Commission recognised under the 2004 Review method as having an impact on the use and unit costs of providing services were:

- age and sex;
- socio-economic status, measured by:
 - (i) income: persons were considered to have low socio-economic status if:

¹ It is also sometimes the case that a plausible argument can be made that servicing some people would cost more but States cannot demonstrate that they provide those services.

- the income of the household in which they lived was less than \$31 200 (2001 Census), \$33 800 (2006 Census); or
 - their individual income was less than \$20 800²; or
 - they were on a social security benefit or pension;
 - (ii) concession holder status: Australian Government health care or pensioner card holder numbers were used in the concessions categories;
 - (iii) unemployment status; or
 - (iv) other indicators, such as people over 60 years who lived alone (this was used in the Aged care services category);
- location/region of residence — which recognised that the use of services varied depending on where people live. In some categories cost differences by location have been recognised in a socio-demographic composition factor. Where this occurred the Commission endeavoured to make sure there was no double counting with other factors recognising cost differences, such as dispersion and input costs. For the 2004 Review method, the locational dimension was generally implemented using an Accessibility/Remoteness Index of Australia (ARIA)³ type classification to define similar locations or regions within each State;
 - cultural and linguistic background — four impacts were recognised for the 2004 Review method:
 - (i) differences in service use rates by people who have a non-English speaking background, measured using information from administrative data sets;
 - (ii) costs of translation services and extra servicing time, recognised by applying cost weights to people with low English fluency;
 - (iii) costs relating to cultural background, recognised by applying cost weights to people with culturally or linguistically different background⁴; and
 - (iv) costs relating to humanitarian migrants; and
 - Indigeneity — for the 2005 Update method, four impacts were recognised:
 - (i) differences in the extent to which Indigenous people used particular services, usually based on administrative data and ABS experimental estimates of the Indigenous population;

² These are the upper limits of income band in which Henderson poverty line income and the OECD 50% median income fell in the 2001 and 2006 Censuses.

³ The National Key Centre for Social Applications of Geographical Information Systems (GISCA) at the University of Adelaide has developed a range of such indexes. The Department of Health and Aged Care sponsored the development of the original ARIA index. The ABS uses ARIA+ (a national index) in its Australian Standard Geographical Classification. GISCA has also developed a State-based version for the Commission (SARIA).

⁴ The number of people to fit this description can be defined in a number of different ways, including: (i) people born in non-English speaking countries; (ii) people with low-English fluency; or (iii) humanitarian migrants.

Table 1 Socio-demographic characteristics for which disabilities were assessed — 2004 Review method (continued)

	Age			Sex			Low income			CALD			Indigeneity			Remote general			Remote Indigenous			Other		
	u	c	uc	u	c	uc	u	c	uc	u	c	uc	u	c	uc	u	c	uc	u	c	uc	u	c	uc
Water, Sanitation and Protection of the Environment																								
Concessions Component								✓																g
General Subsidies														✓										k
Non-urban Transport																								
Concessions Component																	✓							i
General Subsidies														✓										
Urban Transit																								
Concessions Component	✓							✓																i
Pricing														✓										
General Public Services																								
Regulation and Planning Services																								m
Ethnic Affairs Component										✓														
Depreciation																								n

u = use weight c = cost weight uc = combined use cost weight

- a Differential cost weights for cost weights for capital cities.
- b Differential cost weight for humanitarian refugees.
- c Differential cost weights based on State's assessed Government expenses.
- d Differential use weight for labour force status.
- e Differential use weight for students living within 60kms (Government primary students and 80kms (Government secondary students) from the nearest school.
- f Differential use weight for single people.
- g These factors are weighted by SARIA for urbanisation effects as well as remoteness.
- h A weight of 1.1 was applied to the population of Sydney and Melbourne.
- i Relevant population based on health care card and pensioner card holders.
- j Cost weight based on the cost of delivering services to different geographical regions of the State.
- k Cost weight based on size, location, water availability and water quality.
- l Differential use weights for non-metro residents and concession travellers.
- m Relevant population based on recipients of unemployment benefits (including CDEP).
- n In the Depreciation assessment socio-demographic factors were assessed using a global approach. For the buildings and plant and equipment components of Depreciation a socio-demographic factor was assessed using broad functional groups — Education (27 per cent), Health (29 per cent), Law and Order (9 per cent) and other (35 per cent). The socio-demographic composition factor for the welfare housing component of Depreciation was assessed using the socio-demographic composition factor for housing depreciation, which is explained in the Housing working paper.

RESULTS FOR 2006-07

- 22 Table 2 shows the categories in which a socio-demographic composition factor was assessed in the 2008 Update and the factor assessed for 2006-07.

Table 2 **Socio-demographic composition factors, 2008 Update, 2006-07**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Hospital Patient Fees	1.02006	0.97501	1.00735	0.99544	1.01258	1.19359	0.76782	0.68937
Pre-school Education	1.00892	0.96580	1.03259	0.99407	0.93188	0.99645	0.89170	1.65204
Government Primary Education	1.00827	0.98112	1.00983	0.98022	0.92614	1.16269	0.88482	1.54832
Non-government Primary Education	1.02507	1.05947	0.91835	0.91355	1.02735	0.88427	1.34490	0.69988
Government Secondary Education	0.98792	0.90112	1.09649	1.08363	0.97233	1.05833	0.97491	1.20706
Non-government Secondary Education	0.95287	0.99417	1.01998	1.17478	0.98932	0.78590	1.27377	0.70229
Vocational Education and Training	0.98326	0.96684	1.03668	1.03928	0.97720	0.99118	1.02386	1.39890
Transport of Rural School Children	0.92493	0.91939	1.27122	0.77100	1.03687	2.11909	0.06026	0.97400
Inpatient Services								
Acute inpatient services	1.00551	0.96316	1.00686	1.00050	1.03360	1.16824	0.70804	1.40333
Non-acute inpatient services	1.01570	0.99590	0.97116	0.94352	1.13983	1.05445	0.76905	0.91039
Non-inpatient and Community Health Services								
Community health services	0.98791	0.92943	1.02753	1.04427	0.96208	0.98307	0.83761	2.71177
Emergency department services	1.00719	0.99147	0.99850	0.98564	1.00178	1.03017	0.89778	1.22387
Outpatient services	1.01104	0.99616	0.99109	0.97413	1.02394	1.05717	0.85544	1.08300
Population and Preventive Health Services								
Breast cancer screening	1.01484	1.00338	0.96632	0.96355	1.07609	1.08453	0.90318	0.84521
Communicable disease control	0.77995	0.79043	1.30302	1.09030	1.10050	0.83899	0.92713	6.14877
Organised immunisation	1.02909	0.98362	0.97004	0.95416	1.05022	1.05977	0.78243	1.32523
Other public health	1.00428	0.98719	0.99906	0.99116	1.01066	1.03715	0.90680	1.26055
Family and Child Services								
Child and youth support	0.94368	0.72754	1.11496	1.17812	0.87292	1.08107	0.65606	6.75220
Child care	1.00092	0.97375	1.04102	1.01963	0.91665	0.98928	0.97687	1.29749
Aged and Disabled Services								
Aged care services	1.03944	1.03865	0.89917	0.89158	1.20558	1.12031	0.69504	0.49230
Disability services	0.99378	0.99042	1.00917	1.02279	0.95903	0.95787	1.04361	1.36364
Municipal rate concessions	1.00859	1.00052	0.97476	0.88015	1.22418	1.34429	0.58766	0.56982
Homeless and General Welfare								
Other welfare	1.00309	0.89943	0.99300	1.01700	0.99963	1.12907	0.63196	3.59924
Supported Accommodation Assistance Program	0.99723	0.90767	0.99007	1.02196	0.99988	1.09359	0.66941	3.62554
Housing								
Private rental and home purchase assistance	1.03221	0.98545	0.98223	0.88273	1.17595	1.22682	0.59755	0.61745
Public housing maintenance	0.99477	0.88469	1.01210	1.05887	1.10223	1.06529	0.75138	2.64232
Public housing management	0.98990	0.88916	1.00872	1.06911	1.04550	1.00445	0.77739	3.17617
User charges	1.00097	0.91546	1.00066	1.03773	1.10663	1.05241	0.80179	2.04207
Services to Indigenous Communities	0.29773	0.00510	1.24168	1.94292	0.45502	0.02862	0.00000	41.72639
Police	0.99095	0.95879	1.02411	1.03104	0.97935	1.01359	0.98883	1.65925
Administration of Justice	0.96183	0.86256	1.07260	1.11233	0.91546	1.00503	1.03466	3.61724

Table 2 Socio-demographic composition factors, 2008 Update, 2006-07 (continued)

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Corrective Services								
Community-based corrections	0.96447	0.88373	1.06586	1.11312	0.91910	0.97824	1.00723	3.21974
Juvenile detention	0.91924	0.57794	1.19067	1.25323	0.80701	1.22089	0.65012	9.14077
Prisons	1.05768	0.88745	0.97747	1.03071	0.79669	0.90228	1.03109	3.69496
National Parks and Wildlife Services	0.24874	0.00141	1.26840	2.52544	0.41756	0.06689	0.00000	37.36479
Electricity and Gas								
Concessions	0.99208	1.03064	0.97330	0.86575	1.17128	1.32789	0.62160	0.91556
General subsidies	0.80589	0.46947	1.44904	1.87049	0.97429	1.26829	0.00240	4.04209
Water, Sanitation and Protection of the Environment	0.99208	1.03064	0.97330	0.86575	1.17128	1.32789	0.62160	0.91556
Non-urban Transport								
Concessions	1.09137	0.98718	0.95783	0.87401	1.04878	1.26170	0.00000	1.03631
General subsidies	1.04033	0.95214	1.02797	1.01347	0.97322	1.19782	0.00000	1.51096
Urban Transit								
Concession passenger use	0.95799	1.04606	0.97407	1.03232	1.13309	0.83908	1.21392	0.47004
General Public Services								
Ethnic affairs	1.22546	1.25538	0.56976	0.86315	0.76629	0.30483	1.00189	0.57011
Regulatory and planning services	1.00266	0.98931	0.99242	0.97263	1.02079	1.06637	0.92671	1.39757
Depreciation	0.99885	0.98418	1.00849	1.00633	0.99524	1.02693	0.98037	1.19841

CONTRIBUTION TO GST REVENUE DISTRIBUTION**Effect of assessment on grants**

23 Table 3 shows the category's contribution to the distribution of GST revenue and Health Care Grants (hereafter described as GST revenue) implied by the 2007 Update and the 2008 Update.

Table 3 Socio-demographic composition, effect of assessment on GST revenue distribution, 2007 Update and 2008 Update

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total redist'd
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Redistribution from EPC resulting from the 2007 Update assessment (a)	-687.3	-1292.3	788.3	257.4	55.0	166.6	-204.4	916.8	2184.1
Redistribution from EPC resulting from the 2008 Update assessment (a)	-429.3	-1226.7	558.6	204.1	2.4	156.6	-207.8	942.0	1863.8
Total effect of revisions and updating^(b)	258.1	65.6	-229.7	-53.3	-52.6	-10.0	-3.4	25.3	348.9

(a) Assuming same pool and a constant population.

(b) This figure shows the change in the amount redistributed among the States between the 2007 Update and the 2008 Update. It does not necessary equal the difference in the total redistribution from EPC between the two inquires.

24 Compared with an equal per capita assessment, the 2008 Update assessment of socio-demographic composition redistributed \$1 863 million to Queensland, Western Australia, South Australia, Tasmania and the Northern Territory.

25 Table 4 shows the contribution of each socio-demographic composition assessment to the distribution of GST Revenue for the 2008 Update.

Table 4 Socio-demographic composition, effect of assessment on GST revenue distribution by category, 2008 Update^(a)

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total redist'd
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Pre-school Education	-0.1	-5.5	4.3	0.3	-2.3	0.4	-0.8	3.8	8.8
Government Primary Education	-2.9	-65.4	46.0	-21.2	-64.8	44.7	-17.8	81.4	172.1
Non-government Primary Education	11.8	20.5	-22.0	-10.1	1.8	-3.2	6.1	-4.9	40.2
Government Secondary Education	-74.2	-237.6	188.3	105.0	-17.1	11.9	-3.5	27.2	332.5
Non-government Secondary Education	-21.2	-0.1	8.0	23.0	-2.7	-7.2	6.3	-6.0	37.2
Vocational Education and Training	-46.3	-41.0	58.0	17.8	-12.8	1.8	1.1	21.3	100.0
Transport of Rural School Children	-23.1	-15.2	46.8	-24.2	1.8	19.2	-5.0	-0.4	67.8
Inpatient Services									
Acute inpatient services	-21.9	-163.5	70.6	-8.9	86.4	51.2	-82.3	68.4	276.6
Non-acute inpatient services	2.3	-6.0	-4.0	-15.3	34.7	2.1	-11.1	-2.7	39.1
Non-inpatient and Community Health Services									
Community health services	-25.1	-72.6	25.8	19.3	-8.8	-0.3	-12.8	74.5	119.6
Outpatient services	1.8	-9.2	4.6	-6.9	9.6	6.3	-10.1	3.9	26.2
Emergency department services	-2.9	-11.3	8.3	-0.2	0.4	2.8	-4.3	7.2	18.7
Population and Preventive Health Services									
Other public health	-0.4	-3.4	1.3	-0.2	0.9	0.9	-1.3	2.3	5.3
Communicable disease control	-19.3	-14.2	13.7	4.4	-1.8	-1.1	-0.4	18.7	36.8
Organised immunisation	3.3	-1.3	-2.1	-1.9	1.3	0.5	-1.4	1.7	6.8
Breast cancer screening	1.0	0.4	-1.3	-0.8	1.1	0.3	-0.4	-0.4	2.8
Family and Child Services									
Child and youth support	-51.0	-149.3	51.3	39.0	-20.3	5.1	-11.8	137.0	232.4
Child care	0.1	-0.7	0.8	0.1	-0.6	0.0	-0.1	0.4	1.4
Aged and Disabled Services									
Disability services	-7.9	-9.3	6.0	7.9	-9.8	-2.9	2.8	13.4	30.0
Aged care services	19.6	16.2	-29.3	-17.2	23.4	4.2	-8.2	-8.8	63.4
Municipal rate concessions	0.2	-0.3	-1.4	-5.8	9.3	4.3	-3.7	-2.6	13.7
Homeless and General Welfare									
Other welfare	-12.4	-40.4	12.9	7.7	0.7	5.3	-8.8	35.0	61.7
Supported Accommodation Assistance Program	-4.9	-13.6	4.0	2.8	0.3	1.5	-2.8	12.6	21.3
Housing									
Public housing maintenance	-20.2	-66.3	6.5	15.5	12.4	1.8	-7.7	58.2	94.3
Public housing management	-9.0	-38.1	5.0	11.5	3.7	-0.3	-4.4	31.7	51.8
Private rental and home purchase assistance	1.5	-1.9	0.5	-2.3	3.6	1.4	-1.7	-1.0	7.0

Table 4 **Socio-demographic composition, effect of assessment on GST revenue distribution by category, 2008 Update^(a) (continued)**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total redist'd
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Services to Indigenous Communities									
Community government	-55.8	-46.5	-15.7	-1.3	-11.4	-4.3	-3.1	138.0	138.0
Police									
Community safety and support	-11.7	-29.8	10.8	7.1	-4.5	0.8	-0.6	28.0	46.6
Crime investigation and judicial processes	-10.3	-26.1	9.5	6.2	-4.0	0.7	-0.6	24.5	40.9
Road safety and traffic management	-2.7	-7.1	2.7	1.8	-1.1	0.2	-0.2	6.4	11.1
Administration of Justice									
Criminal courts	-18.9	-45.9	18.5	15.1	-8.7	-0.1	0.9	39.2	73.7
Corrective Services									
Prisons	30.6	-48.8	-14.0	2.9	-27.4	-4.5	0.8	60.3	94.7
Juvenile detention	-10.1	-28.0	8.9	7.0	-3.7	1.3	-1.6	26.2	43.4
Community-based corrections	-3.0	-6.7	2.6	2.3	-1.3	-0.1	0.0	6.3	11.2
National Parks and Wildlife Services									
Indigenous involvement in parks	-11.9	-10.8	-0.1	7.1	-3.3	-1.0	-0.7	20.8	27.9
Electricity and Gas									
Concessions	-2.9	1.2	0.4	-3.0	4.1	2.6	-2.0	-0.4	8.3
General subsidies	-14.9	-30.3	20.9	20.0	-0.5	1.4	-3.7	7.1	49.3
Water, Sanitation and Protection of the Environment									
Concessions	-4.8	2.0	0.8	-4.9	6.8	4.3	-3.4	-0.7	13.8
Non-urban Transport									
General subsidies	4.7	-4.8	2.4	1.0	-0.8	1.7	-6.2	2.0	11.8
Concessions	3.0	-1.0	-0.3	-1.0	0.5	0.7	-2.0	0.1	4.3
Urban Transit									
Concession passenger use	-8.7	7.2	-3.3	2.0	6.3	-2.4	2.2	-3.4	17.7
General Public Services									
Regulatory and planning services	-6.2	-4.4	2.4	-0.2	1.7	2.1	-1.7	6.3	12.6
Ethnic affairs	1.1	0.9	-1.3	-0.2	-0.3	-0.2	0.0	-0.1	2.1
Depreciation									
Plant and equipment	-3.5	-11.5	6.9	2.0	-0.2	1.8	-1.0	5.6	16.3
Buildings	-2.3	-7.1	4.1	1.2	-0.2	1.1	-0.6	3.7	10.1
Total	-429.3	-1226.7	558.6	204.1	2.4	156.6	-207.8	942.0	1863.8

(a) Excludes the following: Debt Charges (ACT Phase-in Factor and Quantity of Borrowing Factor), Superannuation (Accrued Expenses Factor and Historical Costs Factor), Schools (Non-government Cost Factor and Grade Cost Factor).

- 26 Socio-demographic composition factors had a large impact on the distribution of GST revenue. This was because of 3 effects.
- The large differences between States in the proportion of high need and high cost population groups.
 - Introduction of 2006 ABS Census data into selected factors for all years including and after 2004-05.
 - Major use and cost data changes.
- 27 The proportion of State populations for a number of the population characteristics is shown in Table 5 and 6. They also show the change in proportion between the 2001 and 2006 Censuses. Attachment B of the *Relative Fiscal Capacity of the States 2008* contains further information on population location and composition.
- 28 The greatest difference in the composition of States populations was in regard to the proportion of Indigenous people and the proportion of people outside major cities. The main drivers of redistribution by the Census change were low income and Indigeneity. These two elements were the main socio-demographic drivers of differences in expense needs in the 2008 Update.
- 29 New South Wales and Victoria were assessed to have the lowest expense needs because a below average proportion of their populations are Indigenous. Both States received a greater share of GST revenue from the Census because they experienced a less than average fall in the proportion of the populations on low incomes.
- 30 Queensland and Western Australia received a greater than average per capita grant. They had an above average proportion of Indigenous people and population aged 0-19 (higher use group for school services). These groups formed a smaller proportion of Queensland's and Western Australia's population than in the Northern Territory, which was why the per capita GST revenue distribution to these two States is smaller. The increase in GST share was slightly offset by a decrease in share due to the Census. Queensland's and Western Australia's proportion of population on low incomes fell by more than the average between the 2001 and 2006 Censuses. As a result they have both gone from having an above average proportion of the population of their population with low income to having a below average proportion.
- 31 South Australia and Tasmania were assessed as having higher expense needs mainly because they had a higher than average number of low income earners and a higher than average proportion of people aged 65 and over (high use group for health services, aged and disability services, concessions). In addition, Tasmania had a higher than average proportion of its population living outside major cities, and a higher than average proportion of its population that are Indigenous. The Census reduced the GST share to South Australia because their proportion of Indigenous population fell while the average grew. The Census increased the GST share in Tasmania because of the above average increase in the proportion of the population aged over 65.

- 32 The ACT is assessed to have low expense needs because they have a lower than average proportion of Indigenous people, people on low income, people with low English proficiency and people aged over 65. The Census reduced the ACT's share of GST because of the greater than average fall in the proportion of the population on low income, slower than average increase in the proportion of the population with low English proficiency and a fall in the proportion of the population that are Indigenous.
- 33 The Northern Territory received the highest per capita GST revenue share as a result of socio-demographic factors. It had a demographic composition that was vastly different to other States. The main differences were the high proportion of Indigenous people (29 per cent higher than the average) and people living in remote areas (37 per cent higher than the average). These two disabilities compounded as this high needs group was predominantly located in remote areas where costs per unit of service were generally higher. The Northern Territory also had the highest proportion of people with low English proficiency, those aged 0-19. The Census resulted in an increase of redistribution towards the Northern Territory because of the above average increase in the proportion of their Indigenous population.

Table 5 Proportion of State populations by selected socio-demographic characteristic — 2001 to 2006 Census

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aus
	%	%	%	%	%	%	%	%	%
Indigenous									
2001 Census	2.13	0.60	3.57	3.60	1.74	3.77	1.26	29.87	2.44
2006 Census	2.17	0.60	3.58	3.78	1.66	3.45	1.21	31.60	2.50
Change ^(a)	0.04	0.00	0.01	0.18	-0.08	-0.32	-0.05	1.74	0.06
Low income									
2001 Census	30.53	30.06	33.82	31.56	35.06	39.43	20.10	30.63	31.54
2006 Census	28.87	28.17	27.57	25.92	31.23	33.82	16.62	27.38	28.23
Change ^(a)	-1.66	-1.89	-6.25	-5.65	-3.83	-5.61	-3.48	-3.25	-3.31
Low English proficiency									
2001 Census	3.86	4.01	1.18	1.91	2.18	0.41	1.78	7.24	2.99
2006 Census	4.08	4.14	1.32	1.89	2.24	0.47	1.82	5.58	3.09
Change ^(a)	0.22	0.13	0.14	-0.02	0.06	0.05	0.04	-1.66	0.10
Urban areas									
2001 Census	69.01	73.89	67.15	71.98	72.25	51.02	99.42	43.63	70.17
2006 Census	69.13	74.21	68.49	74.42	72.77	50.62	99.70	46.11	70.88
Change ^(a)	0.11	0.32	1.34	2.43	0.52	-0.40	0.28	2.48	0.71

Source: Special data requests 2001 Census and 2006 Census

(a) Percentage point change

Table 6 Proportion of State populations by age — 2001 to 2006 Census

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
	%	%	%	%	%	%	%	%	%
2001 Census									
0-19 yrs	27.72	27.22	28.92	28.99	26.47	28.46	28.76	33.65	27.94
20-64 yrs	59.15	59.71	59.38	59.94	58.87	57.70	62.71	62.58	59.44
65+ yrs	13.13	13.07	11.71	11.07	14.66	13.84	8.53	3.78	12.62
2006 Census									
0-19 yrs	25.61	25.29	26.65	26.45	24.48	25.90	25.59	31.55	25.80
20-64 yrs	60.38	60.86	60.80	61.33	59.90	58.93	64.59	63.74	60.71
65+ yrs	14.01	13.85	12.55	12.21	15.62	15.17	9.82	4.71	13.49
Change ^(a)									
0-19 yrs	-2.10	-1.93	-2.26	-2.54	-1.99	-2.56	-3.17	-2.10	-2.14
20-64 yrs	1.22	1.16	1.42	1.39	1.03	1.23	1.88	1.16	1.26
65+ yrs	0.88	0.77	0.84	1.15	0.95	1.33	1.29	0.93	0.87

Source: Special data requests 2001 Census and 2006 Census

(a) Percentage point change

CHANGES SINCE THE 2007 UPDATE

Effect of assessment on the distribution of GST revenue

- 34 Table 6 shows the redistribution of GST revenue resulting from the assessments in the 2007 Update and the 2008 Update. It also shows the sources of change.
- 35 Changes in the distribution of GST revenue between the 2004 Review and the 2008 Update were brought about because the Commission:
- used revised financial data in the category standards and other revised data in factor calculations for the years 2001–02 to 2005–06 used in the 2007 Update; and
 - replaced 2001–2002 category standards and factors with those of 2006–07 to move forward the five-year period on which GST revenue distribution were based. Moving the five-year period forward in this way ensures the assessments reflect recent trends in State demographic and economic circumstances on the relative costs of those services.

Table 6 Socio-Demographic Composition, effect of assessment on GST revenue distribution, 2007 Update and 2008 Update^(a)

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total redist'd
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Redistribution from EPC resulting from the 2007 Update assessment^(b)									
Indigenous Influences	-365.3	-825.0	291.2	223.8	-115.9	12.4	-37.0	815.7	1343.1
Other socio demographic composition influences ^(c)	-322.1	-467.3	497.0	33.6	170.9	154.3	-167.5	101.1	956.9
Total	-687.3	-1292.3	788.3	257.4	55.0	166.6	-204.4	916.8	2184.1
Redistribution from EPC resulting from the 2008 Update assessment^(b)									
Indigenous Influences	-371.3	-836.0	289.1	230.3	-124.3	8.0	-38.2	842.3	1369.7
Other socio demographic composition influences ^(c)	-58.0	-390.7	269.5	-26.2	126.7	148.7	-169.6	99.7	644.6
Total	-429.3	-1226.7	558.6	204.1	2.4	156.6	-207.8	942.0	1863.8
Total effect of revisions and updating									
Indigenous Influences	-6.0	-11.0	-2.2	6.5	-8.4	-4.4	-1.2	26.6	33.2
Other socio demographic composition influences ^(c)	264.1	76.6	-227.5	-59.8	-44.2	-5.6	-2.1	-1.4	340.7
Total	258.1	65.6	-229.7	-53.3	-52.6	-10.0	-3.4	25.3	348.9

(a) Excludes the following: Debt Charges (ACT Phase-in Factor and Quantity of Borrowing Factor), Superannuation (Accrued Expenses Factor and Historical Costs Factor), Schools (Non-government Cost Factor and Grade Cost Factor).

(b) Assuming same pool and a constant population.

(c) Includes Urban transit, Concessional passenger use – concessional subsidies.

(d) This figure shows the change in the amount redistributed among the States between the 2007 Update and the 2008 Update. It does not necessarily equal the difference in the total redistribution from EPC between the two inquiries.

Changes due to revising average expenses and factors for years 2001-02 to 2005-06

- 36 **Revising average expenses.** Downward revisions were made to average expenses, producing a decrease in the redistribution of GST revenue between the States of \$348.9 million. This change in socio-demographic composition had the largest effect on education (particularly the costs of running government primary and secondary schools), health services (particularly hospitals) and family and child services.
- 37 **Revising factors.** Compared with an equal per capita assessment, the 2008 Update redistributed \$1 863.8 million away from New South Wales, Victoria and the ACT. The revision of Census data and revisions to use/cost data had large effects. The Census revisions had a large redistributive effect on Homeless and general welfare, Inpatient services, Housing and Government school education categories.
- 38 Major use and cost rate changes were made in the Vocational education and training category, in which annual contact hours were revised in years 2004-05 and after and the Inpatients

category, in which National Hospital Morbidity and National Health Survey data were updated also revised in years 2004-05 and above. Revisions to other socio-demographic composition factors were small and were noted for various categories.

Changes in State circumstances — replacing 2001-02 with 2006-07 data

39 The key drivers of this change were:

- changes in the pattern of service use and cost in various categories, particularly Inpatients services and schools categories; and
- the introduction of the 2006 Census data.

40 The socio-demographic composition of the population is the major disability in various category assessments. It redistributed GST revenue to Queensland, Western Australia, South Australia, Tasmania and the Northern Territory. Please see individual category working papers for more detailed information of socio-demographic composition changes.

41 This chapter was prepared by the Law and Order section of the Commonwealth Grants Commission. If you have any questions about its content please contact Daniel Dwyer on (02) 6229 8856 or daniel.dwyer@cgc.gov.au.

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ATTACHMENT A

GUIDELINES FOR ASSESSING A SOCIO-DEMOGRAPHIC COMPOSITION FACTOR

42 A disability was assessed when:

- a conceptual basis for the existence of an SDC disability is established; and
- either
 - (i) there is empirical evidence that differences in the SDC of States' populations have impacts on the costs of provision of State government services; or
 - (ii) there is incomplete evidence that additional use and/or costs are incurred due to SDC influences, but the 'in-principle' case is strong;
- the SDC disability was material; and
- the margin of error associated with the assessment of the disability was acceptably small.

43 Ideally, assessing SDC factors requires data on:

- the number of people in particular socio-demographic groups;
- the utilisation of a service by those population groups; and
- the unit costs of providing the service to those groups.

Unfortunately, such complete data sets rarely exist. However, it is not intended that factors be assessed only where data are complete.

44 The Commission made judgments about the quality of the information available, how representative of the situation for a socio-demographic group across all States it might be, and whether its use would move States' grant shares in the expected direction. Where judgments were made on these issues, the Commission has explained why (or how) it reached its conclusions.