



# **COMMONWEALTH GRANTS COMMISSION**

**DRAFT ASSESSMENT PAPER CGC 2003/19**

## **SCHOOLS EDUCATION**

Prepared for the Commission's 2003 Conferences on Draft Assessments

**AUGUST 2003**

## NOTE

Included in this paper are the results of preliminary calculations based on the methods proposed throughout the paper and using the data currently available. Those results are indicative only and should be seen as work in progress. Ongoing changes are being made to standards and factor calculations as new data come to hand. Moreover, the calculations have been done using a prototype assessment system and are subject to ongoing revision as checking processes proceed.

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## INTRODUCTION

1. This paper presents a draft assessment for the four schools education categories for the 2004 Review. It builds on the staff proposals set out in *Discussion Paper 2002/28, Schools Education* and State comments on them provided at the 2002 Conferences and in the 2003 Rejoinder Submissions.

2. The general issues and factors which apply to more than one of the four Schools Education categories are discussed in the body of the paper. Appendixes 1 to 4 summarise the 1999 Review methods and the Commission's decisions relating to the assessment in the 2004 Review for each of the Schools Education categories. The decisions reported in the body of the paper have been applied to the assessments for each of the four categories set out in the appendixes. Any category specific issues are also dealt with in the appendixes.

3. The issues dealt with in the body of the paper are:

- (i) whether the four category structure, used in the 1999 Review, should be retained;
- (ii) the main factors used in the assessments of the school categories (excluding the common factors), particularly the specific issues relating to each of these factors; and
- (iii) the treatment of specific purpose payments.

4. The specific issues covered, in the factor discussion, include:

- (i) how socio-demographic composition should be measured including how post-compulsory enrolments should be measured;
- (ii) how service delivery scale should be measured;
- (iii) how grade cost should be measured; and
- (iv) how non-government school costs should be measured.

### ***Size of school categories***

5. Table 1 shows the total of the standard expenses for the four schools education categories for the six financial years up to 2001-02. In 2001-02, these categories represented 19.9 per cent of total gross standard expenses.

**Table 1** SCHOOLS CATEGORIES — STANDARD EXPENSES, 2003 UPDATE

	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
<b>Government primary</b>						
Standard expenses (\$pc)	302.40	316.66	345.65	361.65	380.05	398.64
% of total standard expenses	8.22	8.20	7.59	7.80	7.83	7.96
<b>Non-government primary</b>						
Standard expenses (\$pc)	78.84	86.70	98.01	106.14	118.57	126.63
% of total standard expenses	2.14	2.25	2.15	2.29	2.44	2.53
<b>Government secondary</b>						
Standard expenses (\$pc)	255.16	274.63	299.94	314.16	329.05	345.52
% of total standard expenses	6.93	7.11	6.59	6.78	6.78	6.90
<b>No-government secondary</b>						
Standard expenses (\$pc)	82.87	93.77	97.18	105.30	114.88	123.40
% of total standard expenses	2.25	2.43	2.13	2.27	2.37	2.46
<b>Total</b>						
Standard expenses (\$pc)	719.28	771.76	840.77	887.25	942.55	994.19
% of total standard expenses	19.55	19.99	18.47	19.15	19.42	19.85

6. In the 2003 Update, these 4 categories redistributed \$576 million in grants from New South Wales, Victoria and South Australia to the other States.

7. User charges associated with these categories were assessed equal per capita in the 1999 Review.

#### ***Assessment Structure, 1999 Review***

8. Table 2 shows the assessment structure adopted for the four schools education categories for the 1999 Review. The table shows the assessment structure adopted for each category, the expense weights for each assessment component and the factors applied to each component.

**Table 2** ASSESSMENT STRUCTURE FOR SCHOOLS EDUCATION, 1999 REVIEW

Factors	Components				
	Fixed costs	Schools	Isolation	Vandalism	National Capital
<b>Government primary</b>					
Component weights	0.78	97.94	0.25	1.00	0.03
Factors assessed	s, ic	d, ic, sds, sdc	i	v	ncap
<b>Non-government primary</b>					
Component weights	0.78	99.22			
Factors assessed	s	sdc, ngc			
<b>Government secondary</b>					
Component weights	0.78	97.98	0.20	1.00	0.04
Factors assessed	s, ic	x, d, gc, ic, sds, sdc	i	v	ncap
<b>Non-government secondary</b>					
Component weights	0.78	99.22			
Factors assessed	s	x, sdc, ngc			

Code:

i	=	isolation	sdc	=	socio-demographic composition
ic	=	input costs	sds	=	service delivery scale
gc	=	grade costs	v	=	vandalism and security
ncap	=	national capital	x	=	cross-border
s	=	administrative scale			

## FOUR CATEGORY STRUCTURE

### *1999 Review*

9. In the 1999 Review, the schools assessment was divided into four separate categories:

- Government primary schools;
- Non-government primary schools;
- Government secondary schools; and
- Non-government secondary schools.

10. The relevant populations for each category were derived from their actual enrolments. An adjustment was made to take account of the policy influence of the different placement of year 7 in the primary or secondary sectors<sup>1</sup>.

### ***Preliminary State views***

11. In their main submissions, all States except New South Wales and the ACT discussed this issue. All, except Victoria, supported the maintenance of the existing four category structure.

12. Victoria said that the assessment of government and non-government schools education should be combined, with the eligible population being all children of specified ages, and with Commonwealth Specific Purpose Payments (SPPs) to non-government schools treated by inclusion. Victoria said that this would allow a better focus on the States' overall education needs, not just the needs in a particular sector. It said that this approach would enhance equity between States.

### ***Staff proposals***

13. Discussion Paper CGC 2002/28 *Schools Education*, built on analysis presented in the previous Discussion Paper CGC 2001/17 *Issues in the Schools Education Categories for the 2004 Review* in which the Commission concluded:

We can find no evidence to change our view that enrolments in government and non-government sectors are largely the result of community preferences and not government policies. We propose to continue to use actual government and non-government student numbers, adjusted only for the placement of Year 7.

This also means that a four-category structure for schools education is necessary to achieve equalisation in a transparent manner. The States fund government and non-government schools differently and thus it is essential that the different cost weights are applied to the policy neutral measure of enrolments in each sector<sup>2</sup>

14. In Discussion Paper CGC 2002/28, staff proposed that the four-category structure be maintained using the 1999 Review method of apportionment. Staff did not support amalgamating these categories because removing the distinction between government and non-government education would undermine the policy neutrality of the Commission's assessments, given the strong effects of non-policy influences on the size of the non-government sector. The paper argued that amalgamating the categories would also

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<sup>1</sup> The secondary sector has a larger proportion of non-government students than the primary sector. This reflects the net movement to the non-government sector at the commencement of secondary education. Therefore, States with Year 7 in the secondary sector will have a higher proportion of students in the non-government sector.

<sup>2</sup> Commission's Discussion Paper CGC 2001/17, p8.

be inconsistent with the way States funded each sector since States only partially funded non-government schools.

### *Further State views*

15. Queensland, South Australia, Tasmania and the Northern Territory supported maintenance of the four category structure using the 1999 Review method of apportioning enrolments. The other States did not comment in their rejoinder submissions.

### *Analysis.*

16. The issues here are whether:

- (i) expenses for all schools should be assessed as one category, or
- (ii) expenses for primary and secondary education should be assessed together (that is 2 categories – government schools and non-government schools).

17. As set out in Discussion Paper 2001/17, we consider that enrolments in government and non-government sectors are largely the result of community preferences and not government policies. Schools education is a State responsibility to which the Commonwealth contributes some assistance. The schools education assessment includes a separate assessment of non-government education because:

- the different propensities of State populations to use non-government schools are not obviously influenced by differences in State government policies; and
- the differential levels of State expenditure on government schools are affected by the propensity of their populations to use non-government schools.

18. We consider, therefore, that removing the distinction between government and non-government education would not be consistent with maintaining policy neutrality in the assessments. We also note that State governments, by their common policy, treat non-government schools differently from government schools. States provide a subsidy to non-government schools that represented about 20 per cent of the total cost of providing education in those schools. Government schools education is directly provided and States are exposed to all the demand and cost influences on these services.

19. There are marked differences in the unit costs of providing primary and secondary education — Australian data shows that the average per student cost of secondary education is about 1.3 times the cost of primary education. Introducing cost weights into a combined assessment of the two education levels could capture this cost differential. We consider, however, that retaining the distinction between the two levels is a more transparent approach. We note that most States that commented supported this view.

20. It follows from these conclusions that the four school categories should be maintained and that the numbers of enrolments for each sector would continue to be derived as the sum of actual enrolments aged 6-14 years, notional enrolments aged 5 and under<sup>3</sup> and notional enrolments aged 15 and over<sup>4</sup>.

21. The notional enrolments, for those aged 5 and under and 15 and over, were divided between the government and non-government sectors in each State according to their actual proportions.

***Commission’s decision***

22. The Commission accepts that a conceptual basis exists for using four categories to assess States’ capacities to provide schools education services. The conceptual case is supported by evidence of the differing cost structures and disabilities between the government and non-government schools and between primary and secondary levels of education. The Commission is satisfied the evidence is comparable and representative, and provides an acceptable basis for undertaking the separate assessments.

23. The Commission’s decision is summarised in Table 3.

**Table 3** COMMISSION DECISION – NUMBER OF CATEGORIES

Decision	Reason
To maintain the four category structure using the 1999 Review method of apportionment.	Combining expenses on government and non-government schools would not lead to a policy neutral assessment given the strong influence of non-policy factors on participation in non-government education.  Maintaining a distinction between primary and secondary education makes for a more transparent assessment given the marked difference in unit costs between the two levels of education.

**SOCIO-DEMOGRAPHIC COMPOSITION**

24. In the 1999 Review, the Commission assessed a socio-demographic composition factor to take account of the joint effects of inter-State differences in the size of the target population for schools education services and socio-demographic composition. The target populations were defined as:

<sup>3</sup> Based on Australian average school participation rates of the 5-year-olds.

<sup>4</sup> Based on Australian average school participation rates of persons aged over 15 adjusted for socio-economic and location influences.

- *for the compulsory ages of school* (assumed to be 6-14 years) — since all States apply a common policy of compulsory schooling for children in this age range, the actual number of enrolments in each school category are used as a policy neutral measure of demand, but with Year 7 students notionally apportioned between the primary and secondary sectors to take account of the policy influence of the different sector placements of Year 7 among States; and
- *for the non-compulsory ages of school* (assumed to be 5 years and under, and students aged 15 years and over) — since attendance in the non-compulsory years were considered to be subject to the effects of different State policies, notional numbers of enrolments in each school category were used as a policy neutral measure of demand. These were calculated by applying the Australian average school participation rates<sup>5</sup> for each of the age groups to the State's population in that age group. In addition, the notional number of students aged 15 years and over was adjusted to take account of influences associated with socio-economic status and urban influences. The notional enrolments were apportioned between the government and non-government secondary school categories according to their shares of actual enrolments.

Adjustments were made to the target populations for Queensland and Western Australia to include pre-Year 1 students, for the ACT to include diplomatic students but delete Jervis Bay students and for the Northern Territory to include enrolments at the former mission schools. For the Northern Territory, there was also an adjustment for the lower participation levels of its Indigenous students.

25. The actual numbers of school students aged 6-14 are a policy neutral measure of demand because all States share a common policy of requiring all children within this age range to be at school. Adjustments were made to the numbers of students aged under 6 in schools because States do not have a common policy regarding the involvement of children of this age in formal schooling. Adjustments were made to the actual numbers of students aged over 15 years because the Commission's past research has shown that participation by these age groups are affected by State policy differences.

26. The socio-demographic composition factors for non-government schools were similarly based on actual numbers of enrolments, including an estimate of those enrolments for the pre- and post-compulsory years of schooling. Cost influences on relative levels of State expenditure on non-government schools were assessed in the 1999 Review in a separate non-governmental schools cost factor.

27. For government education, on the other hand, a range of specific cost weights were applied to student numbers in the socio-demographic composition factor to measure the differential impact on State budgets of different characteristics of students

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<sup>5</sup> For age 5 and under enrolments — the participation rate of 5-year-olds. For age 15 and over enrolments — the participation rate of 15-17 year-olds.

attending government schools. These weights measured cost disabilities associated with the numbers of students with low socio-economic status, with students with low English fluency and with Indigenous students.

28. In addition to these cost weights applied to specific categories of students, a separate vandalism and security factor was assessed. The assumption was that vandalism and security costs increased with urban population size. The factor was applied to a separate component that was assigned a weight for vandalism and security of one per cent of school expenditure.

29. Consistent with the decision the Commission has taken to have a four category structure for the 2004 Review, the target populations for schools education services will be defined in much the same way as in the 1999 Review, except for the treatment of post compulsory students<sup>6</sup> and the Northern Territory adjustment for low Indigenous participation rates<sup>7</sup>.

30. Our decision to have a four category structure also implies that the assessment of socio-demographic composition for non-Government education will remain on the same basis as in the 1999 Review — that is, actual enrolments for ages 6 to 14 and notional student numbers for the pre-and post-compulsory years of schooling.

31. The main issues to be resolved for the assessment of the socio-demographic composition factor, for government primary and secondary education for the 2004 Review, are:

- (i) the additional costs associated with the provision of government primary and secondary education services to particular sub-groups of State populations; and
- (ii) the treatment of the differences among States in levels of participation in the post-compulsory years of schooling.

32. In the States' main submissions for this Review, the issues raised about the vandalism and security factor were:

- (i) whether urban size or socio-demographic influences were the main influence affecting vandalism and security costs; and
- (ii) whether the proportion of government school education costs spent on vandalism and security was large enough to warrant a needs assessment.

Because the vandalism and security issues are about cost weights to be applied to subsets of the student population, we have integrated discussion of issues surrounding the assessment of this source of disability with the discussion of socio-demographic cost weights below.

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<sup>6</sup> The method of calculating the number of post- compulsory enrolments has changed — see paragraph 107

<sup>7</sup> This issue will now be treated as a cost disability — see paragraph 81

33. These issues are discussed in the following two sections.

## WEIGHTS FOR SUB-GROUPS OF THE SCHOOL AGE POPULATION

### *1999 Review*

34. Analysis of information provided by the States for the 1999 and earlier reviews indicated that the States generally provided extra resources for students from low socio-economic backgrounds, students with low English fluency, and Indigenous students. Moreover, Indigenous students in remote areas usually cost more to educate than those in non-remote areas. The impact of socio-economic influences on costs was taken into account by applying cost weights to these three categories of students.

35. The cost weights, shown in Table 4 below, were based on the data provided by the States in responses to the Commission's special data collections, in submissions and through workplace discussions. Where the available data allowed, the extra resources per student in the target group were calculated and related to the average student cost to derive the cost weights. Where necessary, the results of these calculations were supplemented by judgment.

**Table 4** SOCIO-DEMOGRAPHIC COMPOSITION WEIGHTS FOR GOVERNMENT SCHOOL EDUCATION CATEGORIES, 1999 REVIEW

	Low fluency	Fluent
<b>Indigenous persons – remote</b>		
Low socio-economic status	1.45	1.35
Other	1.30	1.20
<b>Indigenous persons – non-remote</b>		
Low socio-economic status	1.35	1.25
Other	1.20	1.10
<b>Non indigenous persons</b>		
Low socio-economic status	1.25	1.15
Other	1.10	1.00

Source 2003 Update Working Papers, Volume 4, Table 10, page 47.

36. For the separate vandalism and security factor, the method used was to apply cost weights, based on judgement, to populations according to the size of the urban centres in which they lived. These weights ranged from 1.0 (for persons living in rural areas and in urban centres of less than 100 000 people) to 5.0 (for person in urban centres of more than 2 million people).

### ***Preliminary State views***

37. States comments in main submissions centred on the following issues:
- (i) the introduction of higher cost weights for new arrivals requiring intensive English language courses;
  - (ii) additional cost weights for NESB/CALD<sup>8</sup> students to recognise the higher costs of educating them (beyond ESL costs);
  - (iii) the appropriateness of the present cost weights for Indigenous students — in particular, the cost differential between remote and non-remote students;
  - (iv) introduction of cost weights for special needs students; and
  - (v) whether the impact of drug use should be treated as a disability.
38. The issues raised about the vandalism and security factor were:
- (i) whether urban size or socio-demographic influences were the main influence affecting vandalism and security costs; and
  - (ii) whether the proportion of school education costs spent on vandalism and security was large enough to warrant a needs assessment.

### ***Staff proposals.***

39. In *Discussion Paper CGC 2002/28 Schools Education*, staff put forward the following proposals for assessing socio-demographic composition in the 2004 Review:

- (i) to retain the range and magnitudes of the existing cost weights, although an increase would be considered for the cost weight for Indigenous students in remote areas;
- (ii) to further investigate the need for an additional cost weight for humanitarian migrants although other suggestions for new cost weights such as for special needs students and for the affects of drug use were not supported; and
- (iii) to remove the adjustment for the Northern Territory reflecting the lower participation levels of its Indigenous students.

40. For vandalism and security, staff indicated that they would test the feasibility of developing a factor that measured the effects of population size and socio-economic characteristics. They would also investigate whether vandalism and security should

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<sup>8</sup> States referred to the needs of students from non-English speaking backgrounds (NESB), or from culturally and linguistically diverse (CALD) backgrounds. We have adopted 'CALD' to refer to this group.

continue to be treated as a separate factor, or be folded into the socio-demographic composition factor. To assist with this, States were asked to provide recurrent cost data on:

- (i) the proportion of schools expenditure associated with vandalism and security; and
- (ii) a disaggregation of the vandalism and security expenses; and
- (iii) a comparison, in cost per student terms, of metropolitan and non-metropolitan vandalism and security costs.

### ***Further State views***

41. In rejoinder submissions, Queensland, South Australia and the Northern Territory generally supported the structure of the socio-demographic composition assessment (including the cost weights) adopted for the 1999 Review. The only changes they proposed were:

- (i) an increased cost weight for Indigenous persons (Queensland and the Northern Territory);
- (ii) the introduction of a cost weight for students with special needs (Queensland, South Australia and the Northern Territory).

42. *Cost weight for CALD students.* Victoria said that the cost weight for NESB students with low English fluency should be increased from 1.1 to 1.17. This was based on the additional per student cost of \$789 for English as a second language (ESL) programs above the average per student (government primary and secondary) cost of \$4755 in 2002.

43. Queensland said that the present weight for low English fluency for non-Indigenous students should be maintained at its existing level. Queensland pointed out that its data do not show significantly higher costs for these students. South Australia and the Northern Territory supported continuing the existing weight. This had also been Tasmania's position in its main submission.

44. *Newly arrived migrants and humanitarian refugees.* Regarding newly arrived migrants and humanitarian refugees, Victoria said that a cost weight of 2.6 should be introduced into the assessment for new arrivals based on its cost per student of \$7355 (after deducting the Commonwealth's contribution) above the average per student cost. (New South Wales had advocated a weight of 5 in its main submission.) However, Queensland, Tasmania and the Northern Territory opposed applying any additional weight to this category of student.

45. Queensland said that the impact of humanitarian migrants was too small to justify a further cost weight. Tasmania said that the higher cost of educating new arrivals requiring intensive ESL courses was not a matter for the Commission because the Commonwealth provides funding for these students. In 2002, this contribution was \$3997 per student. The Northern Territory said that the number of humanitarian migrants was insufficient to have a material impact on school expenses. It also said that the additional

costs associated with this type of student were likely to be picked up in the weights applied for low English fluency and low socio-economic status.

46. *Cost weights for students in remote areas.* Western Australia proposed the introduction of a weight of 1.1 for all students in remote areas to reflect the additional resources provided to them by both Commonwealth and State governments. The reasons for these additional resources included less access to educational and cultural activities, difficult climatic conditions, living away from home allowances and the high costs associated with distance education. Table 5 shows the data provided by Western Australia comparing proportions of school students living in remote areas.

**Table 5** PROPORTION OF SCHOOL STUDENTS LIVING IN REMOTE AREAS

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
	%	%	%	%	%	%	%	%	%
Government schools	0.8	0.2	4.4	9.4	5.2	1.5	0.0	46.4	3.2
Non-government schools	0.4	0.0	1.4	3.9	1.4	0.6	0.0	43.4	1.2

Source: Productivity Commission *Report on Government Services 2003* Figure 3.5.

47. *Cost weights for Indigenous students.* Queensland argued for a higher cost weight for Indigenous students. It said that its data showed that Indigenous students with low English fluency living in remote areas cost 74 per cent above the average cost per student. This compared with the Commission’s cost weight of 1.45.

48. Western Australia said that the basic Indigenous cost weight (that is – the weight applied to Indigenous students fluent in English) should be increased from 1.1 to 1.2 for those living in non-remote areas and from 1.3 to 1.4 for those living in remote areas. It referred to the costs associated with planning and delivering education services to Indigenous persons particularly those in remote areas. In particular, Western Australia referred to culture, socio-economic disadvantage, health problems, language differences and general lower education standards to support its case. It said that the findings of the Commission’s Indigenous Funding Inquiry supported a higher weight.

49. The Northern Territory agreed with Queensland that the present cost weight for Indigenous students in remote areas was underestimated. It said that evidence of the need for a higher weight was provided in the Commonwealth’s Quadrennial Administrative Guidelines (2001-04) that applied a weight to Indigenous students in remote areas double that for those in non-remote areas.

50. The Territory argued against the staff proposal to remove the adjustment included in its factor to allow for the low participation rates of its Indigenous population. It pointed out that the Territory incurred additional costs in programs designed to improve the participation of these students. It said that, if this adjustment were removed, the Indigenous cost weight should be increased. Western Australia also said that it incurred additional costs in attempting to raise Indigenous school attendance.

51. *Cost weight for low socio-economic status.* Western Australia said that the 1999 Review cost weight for low socio-economic status of 1.15 was too high and proposed a weight of 1.1. It said that in Western Australia the maximum increase in staffing for

socio-economic disadvantage was 10 per cent. Western Australia also produced data (Table 6) from the Productivity Commission that it said showed that expenditures for the most disadvantaged schools were on average around 10 per cent higher than those of medium disadvantaged schools.

**Table 6** COMPARISON OF STUDENT COSTS BY LEVEL OF DISADVANTAGE

	Least Disadvantage	Medium Disadvantage	Most Disadvantage			
	\$/student	\$/student	Relative to Least <sup>(a)</sup>	\$/student	Relative to Least <sup>(a)</sup>	Relative to Medium <sup>(a)</sup>
<b>Primary</b>						
Vic	4521	4767	1.05	5177	1.15	1.09
SA	6447	6846	1.06	7753	1.20	1.13
Tas	7139	7386	1.03	8170	1.14	1.11
NT	8953	9202	1.03	10977	1.23	1.19
<b>Secondary</b>						
Vic	5718	6086	1.06	6731	1.18	1.11
SA	8085	8973	1.11	9863	1.22	1.10
Tas	8171	8559	1.05	9397	1.15	1.10
NT	11518	12403	1.08	12537	1.09	1.01
Average both sectors <sup>(a)</sup>			1.06		1.17	1.11

(a) The relative weights calculated and inserted by CGC.

Source: Productivity Commission *Report on Government Services 2003*, Tables 3A.54, 3A.91, 3A.105, 3A.128. Victoria's data and for 2001 and all the Other States, 2000-01.

52. *Cost weight for special needs students.* Queensland, South Australia, the ACT and the Northern Territory argued for an additional element to take account of State differences in the proportions of special needs students and the higher cost of providing education to these students. Queensland said that over 4 years (2002-03 to 2005-06) it plans to spend an additional \$60 million for students with disabilities, in government and non-government schools. It also said that the prevalence of students with special needs is increasing.

53. South Australia and the Northern Territory advised that a Ministerial Council for Employment, Education, Training and Youth Affairs (MCEETYA) task force<sup>9</sup> is currently developing a common definition for students with disabilities for use in the national reporting of outcomes. They said that this task might help the Commission to identify the number of students with disabilities and their associated costs on a consistent basis.

54. The ACT said that it has a high incidence of the most severely disabled students resulting from the migration of households with disabled children to the Territory. It proposed a special data collection of disabled children, classified by severity, to measure the relative incidence and extent of children with disabilities in the States. It proposed that

<sup>9</sup> The Performance Measuring and Reporting Taskforce.

numbers of students with disabilities, obtained from the collection, be assigned either a cost weight of 1.4 for those in mainstream schools or a weight of 4.05 for those in special schools.

55. The Northern Territory explained that 13.2 per cent of its student population was classified as disabled compared with the Australian average of 3.5 per cent. In 2000-01, each of these students cost, on average, an additional \$4487. It proposed that, when consistency in classifying disabilities across States has been achieved, the Commission take account of these additional costs in its assessments.

56. Tasmania supported the staff proposal not to assign an additional cost weight to special needs students because this group are likely to be captured in other components of the cost weighting structure.

57. *Cost weight for the effects of drug use.* South Australia, Tasmania and the Northern Territory did not support introducing a cost weight for students affected by drug use. South Australia said that additional costs would only occur if drug users cost more to educate and if there were identifiable differences between States in the number of drug users. South Australia did not think that either of these conditions applies.

58. Tasmania said that any additional costs associated with students who were drug users was likely to be captured in existing cost weights. It also pointed out that it was unaware of any data that reliably measured the cost impacts of drug use in the provision of education across States. The Northern Territory said that all jurisdictions conduct drug programs and that defining a drug user and comparing additional cost weight would be difficult.

59. *Vandalism and security.* Victoria and Queensland wanted vandalism and security to continue as a separate factor. Western Australia favoured vandalism and security being assessed equal per capita. South Australia and the Northern Territory supported this influence being included in the socio-demographic composition factor.

60. Victoria supported basing the vandalism and security assessment on weighted major urban populations as was done for the 1999 Review. It said that its levels of expenditure were similar to the cost weights used in the present assessment. Queensland, Western Australia, South Australia and the Northern Territory opposed basing the assessment on major urban populations. All of these States argued that vandalism and security costs correlated with social dysfunction — not urban influences. Western Australia also said that policy influences were important — its own experience was that a policy of increasing security expenditure had resulted in a much greater decrease in vandalism costs.

61. *Adjustments for non-government schools fully funded by the States.* Tasmania referred to the Commission's treatment of former mission schools in the Northern Territory as government schools, even though they are in the non-government sector, because they are fully government funded. It said that there is a non-government school for children with autism in Tasmania that is virtually fully government funded and argued that it should be treated in the assessment as a government school.

## *Analysis*

62. The issues which emerge from the State comments are as follows:

- (i) cost weight for CALD students including for new arrivals and humanitarian refugees;
- (ii) cost weight for all students living in remote areas;
- (iii) Indigenous students — cost weights;
- (iv) cost weight for low socio-economic status;
- (v) adjustment for special needs students;
- (vi) adjustment for costs associated with drug use;
- (vii) adjustment for vandalism and security costs; and
- (viii) adjustments for non-government schools fully funded by the States.

63. These issues are dealt with below. Each issue is discussed and the Commission's decision recorded.

64. **Cost weight for CALD students including for new arrivals and humanitarian refugees.** Our analysis of information provided by the States about their education policies and practices indicates that all States continue to commit additional resources to providing education services to students with a non-English speaking background. The additional resources are in the form of specialised teachers and in additional teaching time required to provide education services to students with low English fluency. In the 1999 Review, the cost weight of 10 per cent was derived based on analysis of the school costs data.

65. New South Wales and Victoria argued that the 1999 Review weight was inadequate, and Victoria provided supporting data. These data imply a cost weight of 1.17. However, Victoria said its data referred to students eligible for ESL programs who were essentially newly arrived migrants — students for whom English is a second language and who have enrolled at an Australian school for less than seven years. Victoria's data are consistent with the present cost weight of 1.1 which is applied to a broader group, namely students from families who speak a language other than English at home and who report low English fluency. Most of the other States supported no change for this cost weight.

66. As shown in Table 7, New South Wales, Victoria and South Australia have much higher proportions of humanitarian migrants than the other States, but only New South Wales and Victoria argued for additional cost weights for this category of student. New South Wales said that the additional costs associated with humanitarian refugees were due to the additional time and resources required in determining their education status and needs as a result of their traumatic experiences and lack of educational attainment. New South Wales suggested a weight of 5 for this population based on the time spent by

educational providers in meeting these needs being 5 times longer than that for the average child.

**Table 7** HUMANITARIAN SETTLER ARRIVALS BY STATE, 1999-2000

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Humanitarian Settler Arrivals	3097	2122	550	854	494	37	66	46	7266
Share of total population (%)	0.05	0.04	0.02	0.05	0.03	0.01	0.02	0.02	0.04
Relative to Australian average	1.257	1.179	0.409	1.202	0.864	0.206	0.550	0.618	1.000

Source: Settler arrivals numbers derived from NSW main submission - Migration Flows to the States 2000, DIMA

67. The cost weight measuring the additional time and resources devoted to teaching English to students with low English fluency will capture a portion of the costs attributed to humanitarian migrants. A plausible case has been made that there are other more substantial costs associated with providing education services to humanitarian migrants that are more cultural than linguistic. These costs could be assessed by including a sub-factor within the socio-demographic composition factor based on the numbers of humanitarian refugees per capita in each State. This factor would be weighted by 0.2 per cent which would allow that this sub-population costs five times its population share of State schools education expenses. Because this sub-factor would be added with the general socio-demographic composition factor double counting with the adjustment for low fluency included in the general factor will be avoided.

68. Newly arrived migrants from non-English speaking countries (other than refugees) do incur additional costs within the education system but these are likely to be predominately associated with the provision of English tuition. The cost weight of 10 per cent to be applied to all students with low English fluency should take account of most of the costs associated with newly arrived migrants.

69. Table 8 shows the socio-demographic composition factors for Government Primary and Secondary Education with and without the inclusion of an adjustment factor for the additional costs associated with humanitarian refugees.

70. **Commission decision.** The Commission accepts that a strong conceptual basis exists for additional costs being incurred for students for whom English is a second language (including newly arrived migrants and humanitarian refugees) due to the common policy of the States to provide specialised teaching resources and extra teaching time. Current data from which these cost weights can be calculated are limited, although Victoria's data are consistent with maintaining the cost weight at its 1999 Review level. Given the strength of the conceptual case and its judgement that the impact of this disability has a material effect on States' budgets, the Commission has decided to continue to include a cost weight of 10 per cent for students with low English proficiency.

71. The Commission acknowledges that a conceptual case has been made for additional increased costs being associated with humanitarian migrants due to the additional services required for this sub-population over and above English language tuition. There

are good data available to measure the total number of refugees arriving annually in each State although cost data are of lesser quality. The Commission noted that, although the costs due to this sub-population are small enough to fail a materiality test, there is wide disparity in the degree of impact in each State. In addition this is a case where cultural influences are important. On balance, the Commission decided to include the adjustment shown in Table 8 within the socio-demographic composition factor for the 2004 Review.

**Table 8** SOCIO-DEMOGRAPHIC COMPOSITION FACTORS WITH, AND WITHOUT, INCLUDING AN ADJUSTMENT FOR HUMANITARIAN REFUGEES

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
<i>Govt Primary</i>								
With adjustment for Humanitarian Refugees	0.98836	0.96324	1.04780	0.99465	0.93550	1.16493	0.94324	1.64403
Without adjustment	0.98794	0.96276	1.04867	0.99502	0.93546	1.16639	0.94389	1.64634
<i>Govt Secondary</i>								
With adjustment for Humanitarian Refugees	0.96408	0.90091	1.10805	1.15000	0.99332	1.06903	0.92619	1.18290
Without adjustment	0.96361	0.90030	1.10904	1.15067	0.99340	1.07030	0.92681	1.18429

72. **Cost weight for all students living in remote areas.** Western Australia argued for an additional cost weight for all students<sup>10</sup> living in remote areas. To the extent that these costs are associated with the small size of schools in remote areas, the cost of distance education, or with additional expenses related to distance such as local and inter-regional travel costs and locality allowances paid to teachers and other staff, they are assessed as service delivery scale and dispersion disabilities in the present assessment. The present assessment also includes additional cost weights for Indigenous students and for students with low socio-economic status. An additional cost weight would be justified if costs other than those already accounted for within the assessment could be identified and shown to be material. However, such data are not presently available.

73. **Commission decision.** The Commission accepts that there may be additional costs associated with the provision of education to students in remote areas. It considers, however, that some part of these costs is accounted for within the present assessment. If data were available to identify the extent of costs not yet accounted for and if the impact of these costs, such as those associated with living away from home allowances, was found to be material and with differential effects among States, we are prepared to include a further cost element in the assessment.

74. **Cost weights for Indigenous students.** In the 1999 Review, the Commission increased the school participation rate for the Northern Territory for the 6 to 14 years age group because it accepted the Northern Territory's argument that it had particular

<sup>10</sup> Other States limited their proposals to Indigenous students in remote areas.

difficulties in providing services to Indigenous children living in remote areas. This was in addition to the cost weights applied to the numbers of Indigenous students in remote areas. Lower participation of Indigenous children in the compulsory years of schooling affects education costs through measures to encourage Indigenous children to attend school and to see the benefits of education. We intend to increase the cost weight applied to remote Indigenous children to recognise these costs rather than include them as an aspect of demand.

75. Victoria (in its main submission) said that Indigenous cost weights applied in the 1999 Review were too high compared with the weight applied for low English fluency. Other States argued for higher Indigenous cost weights and generally focused on the need for a higher weight for Indigenous persons living in remote areas. The findings of the Commission's Indigenous Funding Inquiry supported the view that costs of providing education services to Indigenous students living in remote areas were 35 to 75 per cent above the Australian average<sup>11</sup>.

76. For Indigenous students living in remote areas, the evidence suggests that the 1999 Review cost weight was too low. Under its Indigenous Education Strategic Initiatives Program (IESIP), the Commonwealth applies a cost differential of two for funding directed to Indigenous students in remote areas<sup>12</sup>. New South Wales applies a cost weight of 1.75 in its Indigenous education funding for remote areas<sup>13</sup>. An increase in the cost weight for Indigenous students living in remote areas appears warranted on the available data and evidence.

77. Some portion of the additional costs allowed for in the Commonwealth's IESIP funding will be taken account of in our assessment by the cost weight assigned to low English fluency, by the assessment of costs associated with population dispersion and in the assessment of service delivery scale costs in small rural schools. The size of the remaining portion cannot be directly calculated from available data but we are satisfied that it is substantial enough to warrant an increase in the cost weights applied to Indigenous students in remote areas.

78. We do not have sufficient data from which to estimate appropriate cost weights directly. However, we have decided to use judgement, on the basis of which we have increased the cost premium applied to remote Indigenous students by 50 per cent. This changes the base weight for remote Indigenous students (before the addition of weights for low English fluency and low-income status) from 1.2 to 1.3. We have been provided with no evidence on which we could base a revaluation of the cost weight applied to Indigenous students in non-remote areas. As a result no change is proposed to the present weight. Table 9 compares the 1999 Review costs weights with those proposed for the 2004 Review.

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<sup>11</sup> Indigenous Funding Inquiry Report, chapter 9, page 209.

<sup>12</sup> Commonwealth Grants Commission, *Report of the Indigenous Funding Inquiry*, Volume 1, Table 9-4, page 207.

<sup>13</sup> Commonwealth Grants Commission, *Report of the Indigenous Funding Inquiry*, Volume 2, page 262.

79. This shows that the weights we propose to use for Indigenous students in remote areas are still well below the cost differentials used by the Commonwealth and New South Wales.

**Table 9** COMPARISON OF COST WEIGHTS FOR INDIGENOUS PERSONS LIVING IN REMOTE AREAS.

	Low fluency		Fluent	
	1999 Review	2004 Review	1999 Review	2004 Review
Low socio-economic status	1.45	1.70	1.35	1.50
Other	1.30	1.45	1.20	1.30

80. **Commission decision.** The Commission accepts that a conceptual basis exists to differentially assess the cost impact of Indigenous students. The Commission also considers that the evidence indicates that the cost weight for Indigenous students living in remote areas should be increased. However, it does not consider there is sufficient evidence to justify changing the cost weight for Indigenous students not living in remote areas.

81. The Commission decided that it would discontinue the adjustment for low participation for the Northern Territory. It considered that, as much of the low participation in the Territory is associated with Indigenous persons living in remote areas, costs associated with improving their participation rates will be included in the increased cost weights. In this way, such costs incurred by other States will also be recognised.

82. **Low socio-economic status.** The cost weight of 1.15 included in the 1999 Review assessment was derived by judgement after analysis of available data from the States. In submissions for this Review, most States have not challenged either the inclusion of a weight for socio-economic status or its value. Western Australia, however, proposed a change in the cost weight for low socio-economic status. It recommended that it be reduced from 1.15 to 1.10 based on data published by the Productivity Commission. However, these data suggest an average additional cost weight of 1.10 only when comparing students classified as most disadvantaged with those classified to be disadvantaged at a medium level. When comparing most disadvantaged students with least disadvantaged students the implied cost weight rises to 1.17. Depending on the numbers of students in the medium and least disadvantaged categories, this implies a cost weight for the most disadvantaged of between 10 and 17 per cent.

83. **Commission decisions.** The Commission accepts that a conceptual case exists that the costs of providing schools education are affected by the socio-economic status of students. Although the conceptual case is supported by limited data, the Commission considers that the conceptual case is strong enough to warrant inclusion of a cost weight for low socio-economic status in the assessment. It proposes to retain the 1999 Review cost weight for socio-economic status.

84. **Costs of special needs students.** It is recognised that the costs of providing services to special needs students are much higher than for other students. Table 10 compares the proportion of students with disabilities in each State.

**Table 10** STUDENTS WITH DISABILITIES —2000

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT(a)	Aust
	%	%	%	%	%	%	%	%	%
Government Schools	4.2	3.4	3.0	4.0	4.5	4.7	3.7	14.9	3.9
Non-government Schools	2.6	1.6	1.4	1.3	2.9	1.3	1.2	2.8	2.0
All Schools	3.7	2.8	2.5	3.0	4.1	3.8	2.8	12.4	3.3

(a) The NT advises caution regarding these figures. Source data is being examined for accuracy.

Source: South Australian submission — original DETYA (unpublished)

85. Four of the five States which commented on this aspect of the assessment advocated including an additional weight for students who have special needs. However, we understand the currently available data are not comparable across States. We also understand that States use different definitions of students with disabilities and have different approaches to diagnosis and classification. The Northern Territory, by its comments, obviously has some concerns with the currently available data. Queensland told us that its number of students with disabilities was low because of under-diagnosis, particularly in remote areas where schools did not have access to specialists. The Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA) also appears to have concerns. It is setting up a task force study to develop a common definition of reporting outcomes for students with disabilities. This study, to be completed later this year, may overcome some of the these data problems if it can adequately deal with subjectivity and interpretation issues.

86. **Commission decisions.** The Commission accepts that students with disabilities cost more to educate, but doubts that the currently available data are good enough to objectively and reliably measure the differential cost impacts of these students among States. For this reason, the Commission has decided, at this stage, not to assess an additional cost weight for special needs students in the 2004 Review assessment. However, we do consider that this is an important issue which is likely to have a material impact on State budgets. We may wish to review this decision in future should suitable data become available<sup>14</sup>.

87. **Drug users.** Drug education programs in schools are conducted by all jurisdictions. There is also no evidence that school costs associated with drug use have differential impacts across States. Therefore, there is not a strong case to include a separate element in the assessment for the cost influence of drug taking.

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<sup>14</sup> If a cost weight for special needs student subsequently introduced, it may also be appropriate to review some other cost weights to avoid double counting. An example of this is if Indigenous students in remote areas were found to be overly represented among students requiring special needs.

88. **Commission decisions.** The Commission does not consider that a conceptual case exists for including drug users in a socio-demographic composition factor.

89. **Vandalism and security.** Victoria and Queensland responded comprehensively to the request for cost data. Victoria's data showed that vandalism and security costs, in per student terms, were 4.5 times higher in metropolitan areas compared to the rest of the State. The data also implied that Victoria's vandalism and security costs represented about 0.5 per cent<sup>15</sup> of its government schools expenditure.

90. Queensland provided a table showing costs attributed to vandalism by school district. It also provided other data which suggested that in 2001-02 Queensland spent about 0.2 per cent<sup>16</sup> of government schools expenditure on vandalism and security. Queensland said that its data showed that it experiences a greater proportion of vandalism in school facilities located in socially stressed communities regardless of size. However, as shown in Table 11, when these data are aggregated by urban centre size they do show that costs per student increase with urban size.

**Table 11** VANDALISM COSTS

Population size	Cost per Student	Weight
	\$	
Brisbane	8.80	1.97
Other Centres with population greater than 20 000	7.85	1.76
Centres with populations less than 20 000	4.46	1.00

Source: Derived from data in the Queensland Rejoinder submission 2003.

91. Western Australia provided total expenses on vandalism and security for three recent years. These suggested that the proportion of government school expenses spent on vandalism and security was between 1 and 1.5 per cent.

92. Tasmania estimated that its vandalism and security costs over the last 3 years were about 1 per cent of the cost of providing school services.

93. The State responses to the Commission's request for data, suggested that there are significant differences between States in the proportions of education expenses arising from vandalism and security. However, these differences may be due to data inadequacies. It also appeared that many of these costs are accounted for at the school level and are treated as part of a school's general running expenses. For example, Queensland said that school principals can determine if additional security patrols are needed and can draw additional funds from their own budgets.

94. During workplace discussions, the Commission heard about high levels of vandalism in the poorer areas of large cities as well as in remote centres with high proportions of Indigenous persons.

<sup>15</sup> Vandalism and security - \$16.508m. Total government school education - \$3518.126m

<sup>16</sup> Vandalism \$3.212m, security - \$2.295. Total government school education - \$2770.323.

95. No State has argued that socio-economic status did not have an influence on the levels of vandalism, but the smaller States generally argued that urban size was not an influence. Conceptually, there is little doubt that social stress affects vandalism and security costs. But available data<sup>17</sup> do not allow its impact to be measured. Consequently, there is not enough evidence to include an additional allowance for it in the general socio-economic status cost weights assessed for schools education. On the other hand, our judgement is that the available data, while patchy, does suggest that vandalism and security costs are subject to urban influences that can be measured.

96. For conceptual and practical reasons, an assessment for vandalism and security is best done as part of the socio-demographic composition factor. Including allowance for the impact of vandalism and security costs within the joint factor calculation of socio-demographic influences has the advantage that double counting of effects can be avoided.

97. **Commission decisions.** The evidence indicates that vandalism and security costs have an impact on State budgets that the Commission considers to be material. While the evidence is not comprehensive, the Commission considers it points to a differential impact which is small but material. It is therefore of the view that vandalism and security disabilities should be assessed. It also considers that the assessment is best dealt with within the joint socio-demographic assessment because this approach enables interactions between influences to be systematically evaluated.

98. The Commission notes that a relationship can be measured between vandalism and security costs and urban size. The Commission considers this sufficient to allow an assessment of disabilities to be made, using this judgement. It therefore has weighted the student populations of Sydney and Melbourne by 1.01 and those of Brisbane, Perth and Adelaide by 1.005. These weights reflect an average of differentials indicated by the Victorian and Queensland data and a judgement about the proportion of schools expenses incurred on vandalism and security. No adjustment to the socio-economic status weight have been made.

99. Insufficient data are available to enable satisfactory measurement of the links between socio-economic influences and vandalism and security costs.

100. Table 12 shows the socio-demographic composition factors for Government Primary and Secondary Education with and without the inclusion of an adjustment factor for the additional costs associated with urban influences.

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<sup>17</sup> Queensland referred to particular urban centres in its data arguing that their relative high costs were due to social issues such as high unemployment levels. New South Wales, in arguing for increased allowances for urban influences, provided data that showed higher theft, fire and vandalism costs in the western suburbs of Sydney.

**Table 12** EFFECT OF INCLUDING AN ADJUSTMENT FOR URBAN INFLUENCES

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
<i>Govt Primary</i>								
With adjustment for urban influences	0.98836	0.96324	1.04780	0.99465	0.93550	1.16493	0.94324	1.64403
Without adjustment	0.98731	0.96097	1.05026	0.99588	0.93643	1.17008	0.94740	1.65130
<i>Govt Secondary</i>								
With adjustment for urban influences	0.96408	0.90091	1.10805	1.15000	0.99332	1.06903	0.92619	1.18290
Without adjustment	0.96299	0.89873	1.11059	1.15135	0.99425	1.07368	0.93022	1.18805

101. **Adjustments for non-government schools fully funded by the States.** Information obtained from the Commonwealth Department of Education Science and Training (DEST) indicates that the funding arrangements for the Northern Territory's mission schools are unique. There is an agreement between the Commonwealth and the Territory dating from 1979 that the Territory would fully fund these schools and that this additional responsibility would be reflected in the Territory's share of general revenue grants<sup>18</sup>. As part of the agreement, the Commonwealth does not provide funds for these schools through the Non-government Schools SPP. We understand that there are no similar arrangements in other States and the special school mentioned by Tasmania receives Commonwealth funding. It is therefore appropriate to continue treating mission schools as if they were government schools in the Commission's assessments but there is no case for extending this treatment to other schools in other States.

102. **Commission decisions.** We conclude that the mission schools in the Northern Territory are a special case and that these schools should continue to be treated as government schools in our assessments. We are not convinced that any similar cases exist in other States.

## MEASUREMENT OF POST-COMPULSORY ENROLMENTS

### *1999 Review.*

103. In the 1999 Review, the Commission adopted a method of calculating standardised numbers of post-compulsory enrolments that assigned the standard (that is, Australian average) age participation rates to each State, adjusted for the impact that the urban influences and socio-economic status of their populations had on post-compulsory enrolments. These influences of these effects on participation were measured using ABS Socio Economic Indexes for Areas (SEIFA) in the following way.

<sup>18</sup> Arrangement confirmed in a letter from the Commonwealth Minister for Education to the responsible Minister in the Northern Territory, May 1979 (copy held by the Commission).

- (i) Regression analysis was used to establish the relationship between post-compulsory participation and the socio-economic status and urban influences of State populations, measured by the ABS SEIFA which focussed on urban and rural advantage. This was used to generate standardised participation rates for urban and rural areas<sup>19</sup>.
- (ii) Separate estimates of the total 15 to 17 year-old populations were made for urban Statistical Local Areas (SLAs) and rural SLAs for each State.
- (iii) The notional standardised number of students aged 15 years and over was calculated for each SLA by applying the standardised participation rate in (i) to the population estimates made in (ii). For each State the estimates were aggregated separately for urban and rural areas.
- (iv) The total standard number of students aged 15 years and over was calculated for each SLA by applying the Australian average participation rate to its 15 to 17 year-old populations. For each State the estimates were aggregated separately for urban and rural areas.
- (v) Each State's standardised number of students age 15 years and over in (ii) was rescaled so that the Australian total for standardised students equalled the total standard number of students aged 15 years and over in (iv).
- (vi) The ratio of the total notional standardised number of students (15 years and over) in (v) to the total standard number of students (15 years and over) in (iv) was calculated for each State.

104. The ratio calculated at step (vi) above was used to calculate standardised post-compulsory enrolments as one step in the calculation of socio-demographic composition factors for Government Secondary Education and Non-government Secondary Education.

105. In effect, the 1999 Review assessment attributed about one third of the difference between actual and standard post-compulsory enrolments to non-policy influences.

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<sup>19</sup> The regression models specified used the rate of post-compulsory enrolments as the dependent variable and socio-economic influences as independent variables. These were estimated using the 1996 Census data at SLA levels for urban and rural areas of each State. The estimated models explained about one-third of the variation in participation rates of 15-17 year-olds.

Assuming that virtually all non-socio-economic influences on post-compulsory enrolments were due to State policy influences, the regression models were rerun by introducing seven binary State-dummy variables and treating NSW as the reference State. These models explained approximately two thirds of the differences in participation rates.

## **2004 Review**

106. Discussion Paper CGC 2003/03 *Education, Analysis of Post-compulsory Enrolments* issued in June 2003 sets out the issues associated with the policy neutral estimation of post-compulsory enrolments. It presents the latest analysis of post-compulsory enrolments undertaken by staff using regression techniques to model the effects of non-policy and policy influences on post-compulsory participation rates in each State. This discussion paper followed detailed discussion of issues associated with the policy neutral measurement of post-compulsory enrolments in two previous discussion papers: CGC 2001/17 *Issues in the Schools Education Assessments for the 2004 Review* and CGC 2002/28 *Schools Education*. The analysis was also informed by the comments of the States in their main submissions and at the November staff level conference and, particularly, by the analyses commissioned by Victoria from consultant, Dr Stephen Lamb.

107. The main differences between the 1999 Review model and the model proposed as the basis for assessment of influences on levels of post-compulsory enrolments for the 2004 Review are:

- (i) SEIFA, an index designed by ABS to capture a select set of socio-economic variables, has been replaced with a range of independent socio-economic variables to more transparently explain the variability in post-compulsory enrolments across States; and
- (ii) specific variables have been included to represent State policy effects to increase the capacity of the model to explain State differentials in post-compulsory enrolments.

108. The proposed assessment method for the 2004 Review attributes almost two-thirds of the difference between actual and standard post-compulsory enrolments to non-policy influences.

109. State responses to the work described in *Discussion Paper CGC 2003/03 Education, Analysis of Post-compulsory Enrolments* will not be available in time for inclusion in the draft assessments. We have decided to use the results of the analysis reported in the discussion paper to calculate the socio-demographic composition factors for Government and Non-government Secondary Education to be included in the category assessments shown in this paper<sup>20</sup>. The regression analysis will be amended where necessary and socio-demographic factors recalculated for inclusion in the final 2004 Review assessments after receipt of the States' final views. Staff have requested data from the States to test the influence of the provision of VET in schools on post-compulsory participation and intend to consider including this variable in the final specification of the regression analysis.

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<sup>20</sup> Note that the socio-demographic composition factors shown in this paper are not the same as those shown for illustrative purposes in *Discussion Paper CGC 2003/03 Education, Analysis of Post-compulsory Enrolments*. The factors shown in this paper include the changes to cost weights discussed in the previous section of this paper and also correct an error in the way the post-compulsory adjustment factors were included in the calculation of the factors shown in the discussion paper

110. The adjustment factors derived from the analysis reported in *Discussion Paper CGC 2003/03* are shown in the following Table 13.

**Table 13** PROPOSED POST-COMPULSORY ADJUSTMENT FACTORS BASED ON PARTICIPATION RATES, 2004 REVIEW

Adjustment Factors	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
1999 Review	1.00070	1.00799	0.98642	1.01560	0.98758	0.96954	1.07584	0.92368	1.00000
2004 Review	1.00958	1.03416	0.97159	0.96437	1.01034	0.95828	1.03435	0.74605	1.00000

***Summary of the Commission’s decisions — socio-demographic composition***

111. Table 14 provides a summary of the Commission’s decisions regarding the socio-demographic composition factor.

**Table 14** SUMMARY OF COMMISSION DECISIONS – SOCIO-DEMOGRAPHIC COMPOSITION

Decision	Reason
To measure the impact of differential participation rates among States of post compulsory students by reference to specific non-policy influences.	This is considered a more accurate measure than the SEIFA Index used in the 1999 Review.
To include a small adjustment for humanitarian arrivals.	The cost impacts, while small, differ widely among States.
To make an allowance for Indigenous students in remote areas but not for all students.	Some additional costs of providing education in remote areas are taken account of in the service delivery scale and dispersion assessments. There is sufficient evidence to support an additional cost weight for Indigenous students in remote areas but not enough to support a cost weight for non-Indigenous students.
Indigenous students:	
Low participation rates for 6-14 year old students — to discontinue the 1999 Review adjustment.	This issue is related more to cost than use.
Cost weights — to use the 1999 Review weights for those in non-remote areas but, for those in remote areas, increase the 1999 Review additional cost weights by 50 per cent.	Information obtained from the Commission’s Indigenous Funding Inquiry, data provided by States and the level of Commonwealth IESIP funding suggest that the 1999 Review weights for Indigenous persons in remote areas were too low. Includes cost adjustment for student attendance programs.
Low socio-economic status — to retain the 1999 Review weights.	There is a conceptual case that low socio-economic status affect costs, but the supporting data are limited. Therefore, insufficient justification to change.
Special needs — not to assess.	There is a conceptual case that special needs students cost more, but comparable policy free data measuring the numbers of these students are not available.
Drug users — not to assess.	No conceptual case.
Vandalism and security – Adjust for influence of urban size.	Data provided by States indicates that costs increase with urban population size. Insufficient data to evaluate and measure the impact of socio-economic influences.
Adjustment for non-government schools fully funded by States – Continue to treat only the former mission schools (non-government) in the Northern Territory as government schools.	The former mission schools are a special case, where the Territory fully funds these schools.

## CALCULATING THE SOCIO-DEMOGRAPHIC COMPOSITION FACTOR

112. Attachment A provides a detailed description of the method of assessment used to derive the socio-demographic composition factors for the four schools education categories.

113. The socio-demographic composition factors for the Government Primary and Secondary Education categories account for the joint effects of the relevant student population and its socio-demographic composition. The assessment of socio-demographic effects was based on the cost weighting of twelve distinct (student) population groups. The socio-demographic composition factors for Non-Government Primary and Secondary Education categories are based solely on the relevant student populations.

114. Different factors were assessed for each year of the assessment period for all four school categories. A comparison of the 2001-02 factors assessed for the 2003 Update and the 2004 Review are given below.

**Table 15** SOCIO-DEMOGRAPHIC FACTORS FOR GOVERNMENT PRIMARY EDUCATION, 2001-02

Standardised enrolments	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
2003 Update	0.99035	0.96394	1.04808	0.98933	0.93710	1.16811	0.95638	1.56618	1.00000
2004 Review	0.98836	0.96324	1.04780	0.99465	0.93550	1.16493	0.94324	1.64403	1.00000

**Table 16** SOCIO-DEMOGRAPHIC FACTORS FOR NON-GOVERNMENT PRIMARY EDUCATION, 2001-02

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
2003 Update	1.02441	1.11614	0.85839	0.90185	0.98234	0.87443	1.34149	0.79058	1.00000
2004 Review	1.02441	1.11614	0.85839	0.90185	0.98234	0.87443	1.34149	0.79058	1.00000

**Table 17** SOCIO-DEMOGRAPHIC FACTORS FOR GOVERNMENT SECONDARY EDUCATION, 2001-02

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
2003 Update	0.96024	0.89076	1.11545	1.17156	0.98273	1.07912	0.95852	1.21887	1.00000
2004 Review	0.96408	0.90091	1.10805	1.15000	0.99332	1.06903	0.92619	1.18290	1.00000

**Table 18** SOCIO-DEMOGRAPHIC FACTORS FOR NON-GOVERNMENT SECONDARY EDUCATION, 2001-02

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
2003 Update	0.92793	1.00161	1.08692	1.16818	0.94127	0.77457	1.21686	0.77490	1.0000
2004 Review	0.93177	1.01509	1.07849	1.13981	0.95211	0.76945	1.19362	0.71427	1.0000

115. The school enrolment data used to calculate this factor are available each year. The dissection of the school population into socio-demographic sub-groups is based on 2001 Census data and cannot be updated until the next Census. The adjustment for non-policy effects on post-compulsory enrolments is derived from analysis of detailed 2001 Census data and cannot be updated between Censuses. Migration data are available for each year so the humanitarian refugees element of the factor calculation can be updated annually.

## SERVICE DELIVERY SCALE

### *1999 Review*

116. The service delivery scale (SDS) factor reflects the diseconomies associated with the provision of small schools in sparsely populated areas. That is, it reflects the higher costs incurred in having a relatively large number of staff in small schools and the need for some form of out-of-school tuition when the traditional approach of providing education is more costly. It differs from the dispersion factor that reflects higher costs of communication, travel, freight and some allowances paid to staff in dispersed centres.

117. The service delivery scale factor allowed for both:

- (i) the higher costs per unit of service in small schools compared with large schools, principally arising from higher staff to student ratios; and
- (ii) the effects of differences in State's patterns of settlement on the number of small schools.

118. The method adopted by the Commission to calculate the SDS factor for the 1999 Review incorporated the following implicit assumptions:

- (i) that in-school education was provided for all students except those in isolated areas where alternative out-of-school education was provided;

- (ii) that in sparsely settled areas, States aggregated school populations, often providing school transport, to achieve some economies of scale; and
- (iii) that, nevertheless, all States maintained small schools which they resourced at higher than average rates.

119. Since data showing the in-school costs for each school were not available in a comparable form, the model used staff numbers as a proxy for costs. It was based on a comparison of differences in student to staff ratios by Urban Centres/Localities (UC/Ls)<sup>21</sup>, or expanded UC/Ls where required. Staffing data, both teaching and non-teaching, were taken from the Commission’s special data collection. The notional numbers of government school students in the UC/L (or expanded UC/L) were estimated using the government to non-government school proportions at the statistical division level or statistical sub-division level applied to the populations aged 5-11 years (primary) and aged 12-17 years (secondary).

120. The ‘expanded UC/L’ included government schools located outside a UC/L but within a 60-kilometre boundary from its centroid for primary students, or an 80 kilometre boundary from its centroid for secondary students. These straight-line distances were regarded as the maximum distances students were expected to travel each way to school under average policies. As straight line distance between two points differs from the actual road distance (sinuosity), adjustment of distances from the centroids to UC/L boundaries were necessary to better reflect the actual distances travelled by students in each State. Table 19 shows the travel distance adjustments for each State.

**Table 19** SINUOSITY ADJUSTED DISTANCES (KILOMETRES) FOR PRIMARY AND SECONDARY SCHOOL STUDENTS

State	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
Sinuosity Adjustment	1.23	1.20	1.29	1.14	1.21	1.37	1.00	1.14	1.23
Distance (Primary Schools)	49	50	47	53	50	44	60	53	49
Distance (Secondary Schools)	65	67	62	70	66	58	80	70	65

121. Depending on the number of government school children there, the UC/Ls and expanded UC/Ls were separated into seven school groups (see Table 20 and Table 21) to reflect varying service delivery scale disabilities — the first group experiencing the highest and the last none. For each group, the student to staff ratios that reflected the influence of average policies was calculated as shown below.

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<sup>21</sup> Under this ABS classification system, an Urban Centre is generally defined as a population cluster of 1000 or more people. A Locality is generally defined as a population cluster of between 200 and 999 people. People living in Urban Centres are classified as urban for statistical purposes while those in Localities are classified as rural (i.e. non-urban). Each Urban Centre and/or Locality (UC/L) is bounded (i.e. a boundary for it is defined) and composed of one or more whole Collection Districts (CDs). UC/Ls are defined for each Census and are current for the date of the Census.

**Rural balance.** The number of primary and secondary school students in the rural balance for each State were estimated by taking the total number of students outside a UC/L or extended UC/L boundary adjusted for sinuosity. These were the students that the Commission considered to require out-of-school tuition. As a guide to the costs incurred due to these students it was assumed that they would be similar to the costs of providing distance education — the student to staff ratios for the primary and secondary students in the rural balances were assumed to be the same as the Australian average student to staff ratio for distance education<sup>22</sup>.

**Other school groups.** The Australian average student to staff ratios were estimated for each of the other school groups.

**Table 20** STUDENT TO STAFF RATIOS FOR PRIMARY SCHOOL GROUPS

	Rural Balance	School Size Groups (students)					
		0–30	30–60	60–100	100–200	200–350	350+
Ratio for 1999 Review	6.00	8.60	9.95	11.43	12.13	14.79	15.55

**Table 21** STUDENT TO STAFF RATIOS FOR SECONDARY SCHOOL GROUPS

	Rural Balance	School Size Groups (students)					
		50–100	100–150	150–200	200–500	500–800	800+
Ratio for 1999 Review	5.00	7.56	8.12	8.83	9.22	9.69	10.11

122. Based on the above information, school costs under the average policy for a UC/L or an expanded UC/L can be represented as shown below. The school costs for a State was estimated by adding the costs for all UC/Ls (including expanded UC/Ls) in that State.

$$\text{School cost under average policy} = \sum_{i=1}^7 \frac{\text{Notional school population of school group in a UC/L or an expanded UC/L}}{\text{Student to staff ratio for the corresponding school group}}$$

where  $i$  represents any of the seven school groups in Table 20 and Table 21.

123. **Standard school costs.** The standard school costs for primary and secondary schools were determined by assuming that UC/Ls and expanded UC/Ls did not suffer any

<sup>22</sup> Based on the Commission’s judgement about the resource needs for distance education, the per capita cost of distance education of primary school students was represented by a student to staff ratio of 6 to 1. The ratio for secondary students was estimated to be 5 to 1.

diseconomies of scale. The formula used for determining the standard school costs for a State was:

$$\text{Standard school cost} = \frac{\text{Notional school population in a State}}{\text{Standard student to staff ratio for Australia}}$$

124. For primary school students, the standard student to staff ratio was 15.6 to 1 and for secondary students the ratio was 10.1 to 1.

### ***Preliminary State views***

125. The issues raised by States in their main submissions were:

- (i) Does the existing model adequately take account of standard policies affecting the maintenance of uneconomic schools in rural areas –
  - should the factor be based on population densities (Victorian model) or assumed maximum student travel distances (CGC model)?
- (ii) To what extent should travel time influences (for example, road sinuosity, rough terrain) be taken into account?
- (iii) What are the appropriate student to staff ratios for students deemed by the method to be receiving out of school tuition (distance education)?
- (iv) Whether an adjustment should be made for the service delivery scale costs associated with ‘hub’ schools.

### ***Staff Proposals***

126. In Discussion Paper 2002/28 *Schools Education*, staff indicated that they were inclined to favour a model based on UC/Ls expanded using travel distance criteria, rather than the population density model proposed by Victoria. The travel distance model seemed to better reflect the main issue education authorities have to consider on whether to establish, or maintain, small schools in rural areas. Furthermore, the policy logic of the Victorian method based on the density of Census Collection Districts (CDs) was not clear since the method appeared to have the potential to assign contiguous CDs to scale affected or non-scale affected categories. However, staff did propose the following revisions to the 1999 Review method to calculate the SDS factor:

- (i) *Treatment of students in the rural balance.* The 1999 Review method assigned a high level of resources for students in the rural balance who were deemed in the model to be receiving out of school tuition. The standard student to staff ratio applied to these students was estimated by reference to the student to staff ratios for distance education. Staff

proposed to revise these ratios from 6:1 (1999 Review) to 15.6:1 for government primary and from 5:1 (1999 Review) to 15.6:1 for government secondary

- (ii) *Use actual instead of notional student numbers.* The existing method calculates the notional number of students for each UC/L (including expanded UC/Ls) based on school age populations and the estimated proportions of these attending government schools. Staff said that they would consider simplifying this method by using the actual number of students in government schools (separately for primary and secondary), which were available in the State responses to the Education Special Data Collection for this Review.
- (iii) *Hub schools.* Explore the influence on the factor of treating Indigenous students at homeland learning centres and hub schools differently.
- (iv) *Adjustment for double counting.* The present SDS model does not include a specific adjustment to account for the costs weights applied to Indigenous students in the socio-demographic composition factor. Therefore the inclusion of Indigenous students in the service delivery scale calculations could lead to double counting. Staff proposed to investigate whether double counting occurs and the level of adjustment that needs to be made to eliminate it.

### ***Further State views***

127. New South Wales, Victoria and the Australian Capital Territory did not comment in their rejoinder submissions on the SDS factor for schools education.

128. In their rejoinder submissions, Queensland, South Australia, Tasmania and the Northern Territory commented on the issue of whether to use population density or travel distance in the SDS calculations. They said that the Commission should continue to use travel distance around UC/Ls as the basis for the calculation of service delivery scale rather than an approach based on population density.

129. Queensland supported the retention of the existing sinuosity index used to adjust the travel distance around UC/Ls.

130. Queensland, Western Australia and South Australia raised the appropriateness of the treatment of students in the rural balance in the calculation. These States supported the proposal to review the current method of treating students in the rural balance. They said that the student to staff ratio of 15:1 used in Discussion Paper CGC 2002/28 should be adjusted downwards because staff numbers alone were not a sufficient measure of the additional resources needed to provide distance education. In view of this, Western Australia, South Australia and the Northern Territory supported a re-examination of the method of estimating the student to staff ratio applied to students

deemed to be receiving out of school tuition in the model. It was suggested that the following additional costs of distance education should be taken into account:

- (i) technological costs in delivering services;
- (ii) development of learning material; and
- (iii) teacher visits and visits by students and their families to distance education centres.

131. Western Australia said that it did not support the use of data on actual student numbers in the calculation, because such data were susceptible to policy influences. It also said that school administrative costs were an additional source of disabilities and the standard student to staff ratios should be adjusted to reflect these.

132. South Australia said that data for part-time students should be included in the calculation.

133. The Northern Territory emphasised the need to adjust the factor to account for specific disabilities due to the treatment of hub schools. It said that adjustment was required to account separately for the students and staff of smaller homeland and outstation centres, which were inappropriately grouped with regional hub schools in the 1999 Review method.

#### ***Analysis and Commission's decisions***

134. This section deals in turn with each issue raised by the States in response to *Discussion Paper CGC 2002/28* and the Commission's decision are recorded. The issues discussed are as follows:

- (i) population density vs travel distance;
- (ii) the sinuosity index;
- (iii) treatment of students in the rural balance;
- (iv) actual vs notional enrolments;
- (v) school administration costs;
- (vi) the appropriate treatment of hub schools;

135. **Population density vs travel distance.** The 1999 Review method attempted to reflect an Australian average policy regarding the location and resourcing of small schools. Justification for changing the method would require evidence that:

- either the assumptions about average policy which are implicit in the method are incorrect; or

- an element of the method or its structure was not consistent with average policies.

Whether the assessment should be based on the population density of CDs in the rural balance or on travel distance needs to be considered within this framework.

136. Based on the information provided in its submission, the logic of Victoria's method based on the density<sup>23</sup> of CDs is not clear because the method appears to have the potential to assign contiguous CDs to scale affected or non-scale affected categories. A model based on UC/Ls expanded using travel distance criteria is preferred because it reflects more closely the main issue that education authorities have to consider when deciding whether to establish, or maintain, small schools in rural areas. In rejoinder submissions, no State disagreed with this perception of how States view small schools in rural areas.

137. **Commission's decision.** The Commission is satisfied that under standard policy States would maintain schools in rural areas that would be below the optimum size to avoid scale diseconomies. There is therefore a conceptual case for assessing service delivery scale factors for the Government Primary and Secondary Education categories. Based on its understanding of how States under standard policy decide where to site and maintain a small school, the Commission decided that the assessment of service delivery scale for schools education would be based on travel distance around urban centres and localities rather than population density. This is because distance is one of the key criteria which States consider when siting new schools or amalgamating existing schools.

138. **Sinuosity index.** The service delivery scale calculations presented in this paper are based on the sinuosity indexes calculated for the 1999 Review. It is appropriate to continue using the previous indexes because it is unlikely that the physical characteristics of roads will have changed to any significant degree in the intervening years. This is the same assumption as has been made in the assessment of dispersion disabilities for the 2004 Review where the same type of adjustment for sinuosity is included in the element of the dispersion factor covering local travel.

139. **Commission's decision.** The Commission considers that the physical characteristics of roads will affect time taken to travel between centres and this in turn affects the accessibility of schools. It has decided to retain the sinuosity adjustments adopted for the 1999 Review.

140. **Treatment of students in the rural balance.** Additional information provided by Western Australia, South Australia, Tasmania and the Northern Territory was used to revise the student to staff ratios for distance education in Table 8 of the Discussion Paper CGC 2002/28. Table 22 provides the information that the States provided.

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<sup>23</sup> Under this method the number of students in the rural balance are those in the least density populated CDs.

**Table 22** STUDENT TO STAFF RATIOS FOR DISTANCE EDUCATION

Category	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Primary or secondary				4.3:1	11.9:1			8:1
Primary	14:1	12:1	13:1			9.1:1	na	
Secondary		12:1	13:1				na	

Source: State responses to the Commission's Policy & Practice request for education, 2002; and Rejoinder Submissions, 2003.

141. This information suggests an average student to staff ratio of 12.5:1 for distance education for both primary and secondary education categories. We see a case, however, for supplementing the student/staff ratio with an adjustment for the additional cost factors identified by some States. The service delivery scale assessment method uses student to staff ratios based on total staff (teaching and non-teaching) as a proxy for the total cost of providing education services in schools of varying sizes. It is consistent with this general approach to use a lower student/staff ratio as the proxy for resources applied to distance education.

142. **Commission's decision.** The Commission decided that there was a good conceptual case for imputing a level of resource usage to the numbers of students residing outside UC/Ls or expanded UC/Ls and deemed by the model to be receiving out of school tuition. Based on judgement, we consider the additional costs associated with distance education to be material. Therefore, for the notional number of students needing distance education services, we have decided to apply student/staff ratios of 11.0:1 for students in primary education and 10.5:1 for students in secondary education.

143. **Actual vs notional enrolments.** In the Education Special Data Collection for this Review, States were asked to report enrolments in government primary and secondary schools identifying the UC/L in which each school was located. States were also asked to use the travel distance criteria (including the sinuosity adjustment) to list schools which were not in a UC/L but which were within the catchment for a UC/L. All States provided the requested information, which made it possible to use actual enrolments as the basis for the assessment. This basis is superior to that used in the 1999 Review. The method used in the 1999 Review calculated the population aged 5-17 years as a proxy for school enrolments and derived government school enrolments by applying standard government/non-government proportions. The use of actual<sup>24</sup> student numbers should provide empirically more accurate results because it produces student numbers that are directly compatible with the staff numbers that are also provided by the States.

144. The model uses the actual data for each State to calculate Australian standard student/staff ratios for seven school groups to reflect varying service delivery scale disabilities — the first group experiencing the highest and the last none. Because standard ratios are used to derive the service delivery scale factor, it is not possible for any one State's data to unduly influence the results.

<sup>24</sup> The Commission use actuals only where there is no policy contamination. This is the assumption underpinning student numbers in this exercise.

145. **Commission’s decision.** The Commission considers that a conceptual case exists for using the actual enrolment data provided by the States in calculating standard student staff ratios. It is satisfied that these data allow for a policy neutral measure of the service delivery scale disability experienced by each State.

146. **School administration costs.** There is no need for a specific adjustment for the administrative resources in schools because the service delivery scale model uses the numbers of teaching and non-teaching staff.

147. **Commission decision.** The Commission considers that no specific adjustment is required to account for administrative resources in schools because the service delivery scale model is based on total staff including non-teaching staff.

148. **Treatment of hub schools.** To better provide schools services to Indigenous students, the Northern Territory has introduced the concept of hub schools where a schools service is provided from a number of facilities grouped around a central location. In the 1999 Review model, these schools were treated as one administrative entity. The Northern Territory has argued that the model should be changed to include each hub school as a separate entity.

149. **Commission decision.** The Commission considered that the cost weights applied to remote Indigenous students took account of a range of influences including the extra costs associated with hub schools. Therefore, no specific allowance for them should be included in the calculation of this factor.

150. The Commission’s decisions are summarised Table 23.

**Table 23** SUMMARY OF COMMISSION DECISIONS – SERVICE DELIVERY SCALE

Decision	Reason
Method of calculation – travel distance or population density - to use travel distance.	Education authorities are more likely to consider travel distances for students over population density when deciding where to locate small schools
Sinuosity adjustments - maintain the 1999 Review method.	The physical characteristics of roads affect travel time and therefore accessibility to schools.
Students in the rural balance - adopt student to staff ratios of 11.0 for primary schools and 10.5 for secondary schools balance	To recognise the additional costs incurred in providing distance education services based on information provided by States.
Actual enrolments or school age populations - actual enrolments.	Actual enrolments are a better measure in calculating student / staff ratios.
School administration costs - not to make a specific adjustment	Unnecessary as the model includes non teaching staff.
Treatment of hub schools - not to take account of their higher costs	The extra costs associated with hub schools are included in the range of influences measured by the cost weights applied to remote Indigenous students within the socio-demographic composition factor calculation.

**Proposed method**

151. The method used for the calculation of service delivery scale factors for the 2004 Review is basically the same method used in the 1999 Review — with these exceptions:

- (i) the actual numbers of enrolments in government primary and secondary schools<sup>25</sup> (provided by States in the Education Special Data Collection) are used to derive standard student/staff ratios rather using the school age population and standard government/non-government proportions to derive a proxy measure of actual enrolments;
- (ii) the student/staff ratio applied to students deemed to be receiving out of school tuition has been adjusted upwards; and
- (iii) an adjustment has been made to remove double counting between the service delivery scale factor and the Indigeneity cost weights included in the socio-demographic composition factor.

152. The standard student to staff ratios which have been derived for the 2004 Review service delivery scale factor are shown in Table 24 and Table 25.

**Table 24** STANDARD STUDENT TO STAFF RATIOS FOR GOVERNMENT PRIMARY SCHOOL GROUPS, 2004 REVIEW

	Rural Balance	School Size Groups (students)					
		0-12.5	12.5-35	35-45	45-60	60-20	120+
Govt Primary Education	11.00	4.98	8.41	9.98	9.66	10.66	12.95

**Table 25** STANDARD STUDENT TO STAFF RATIOS FOR GOVERNMENT SECONDARY SCHOOL GROUPS, 2004 REVIEW

	Rural Balance	School Size Groups (students)					
		0-50	50-100	100-150	150-200	200-350	350+
Govt Secondary Education	10.50	6.19	7.63	7.65	8.13	7.95	10.15

153. Table 26 shows the proposed service delivery scale factor for government primary schools. Table 27 shows the proposed service delivery scale factor for government secondary schools.

<sup>25</sup> These numbers include the full-time equivalent numbers of part-time students.

**Table 26** SERVICE DELIVERY SCALE FACTOR FOR GOVERNMENT PRIMARY SCHOOLS, 2004 REVIEW

State	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
2004 Review	0.99877	0.99886	1.00006	1.00005	1.00262	1.00521	0.98805	1.03182	0.99877
1999 Review	0.99271	0.98495	1.00570	1.01223	1.01311	1.03777	0.96522	1.13680	1.00000

**Table 27** SERVICE DELIVERY SCALE FACTOR FOR GOVERNMENT SECONDARY SCHOOLS, 2004 REVIEW

State	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Australia
2004 Review	0.99303	0.99493	1.00251	1.00934	1.01826	1.02678	0.98020	1.07748	0.99303
1999 Review	0.99406	0.99245	1.00300	1.00622	1.00799	1.04011	0.96058	1.10444	1.00000

## GRADE COST

### *1999 Review*

154. The grade cost factor is designed to take account of the additional per student cost of students in the senior years of secondary education. For government secondary education, this was assessed by applying a cost weight of 1.2 to the standardised numbers of students in Years 11 and 12 in each State. The weight was based on judgement after taking account of information provided by some States. The standardised numbers of students, to which this weight was applied, were derived in the calculation of post-compulsory enrolments.

### *Preliminary State Views*

155. In the States' submissions for this Review, the main issues for the grade cost factor were:

- (i) whether the cost weight, reflecting the higher per student costs for some grades should be changed; and
- (ii) whether it is large enough to justify its retention.

156. In its main submission, Victoria said that the cost weights for senior level students should be reviewed and increased. In particular, based on an inquiry undertaken in Victoria, it argued that Year 12 students should receive a weight of at least 1.3. It also

advocated replacing standardised student numbers with the actual number of Year 11 and Year 12 students as the basis for the factor.

157. No other State commented on this factor.

### ***Staff proposals***

158. Staff sought State comments on the Victorian proposal that the cost weight for years 11 and 12 should be increased to 1.3. Staff also noted the relatively small size of the 1999 Review factor and suggested that its retention may be reviewed.

### ***Further State views***

159. Victoria and Queensland indicated that the factor should be retained. Victoria continued to support a higher cost weight and revised its earlier proposal by suggesting the weight should be increased to at least 1.5. It supported this by:

- (i) providing data for several secondary colleges showing that, on average, Year 11 and 12 class sizes were 35 per cent smaller than those of Year 9; and
- (ii) pointing out that teacher salaries and non-teaching costs are higher in the senior years.

160. Queensland, Western Australia, South Australia, Tasmania and the Northern Territory disagreed with Victoria and all indicated that the cost weight of 1.2 adopted for the 1999 Review is still appropriate.

161. Queensland, in its response to the Commission's Special Data Collection for schools education, indicated that its normal class sizes were 30 for Years 8-10 and 25 for Year 11 and 12. This implies a cost weight of 1.2 for students in Years 11 and 12 relative to students in Years 8-10.

### ***Analysis***

162. All six commenting States affirm that costs per student are higher in the senior grades of secondary school. This supports the existence of a grade cost disability.

163. Cost data from which the cost weight can be directly calculated are limited. Only Victoria provided any cost data illustrating how much higher costs are in the senior grades. These supported a weight of 1.5. The Queensland staffing data implied a cost weight of about 1.2. Five of the six commenting States support retaining the 1999 Review grade cost weight.

164. The grade cost factor redistributes about \$9 million in the 2003 Update.

***Commission decision.***

165. The Commission accepts that a conceptual case has been made that students cost more to educate in senior school grades. It notes that data to measure these additional costs are limited. Although Victoria was the only State to provide detailed cost data, it appears that it has a very different policy from that of the other States which have confirmed the continuing applicability of the 1999 Review cost weight. The Commission proposes to retain the 1999 Review cost weight. The Commission notes that the impact of senior school grades on State budgets is small, but considers it sufficiently material to justify retaining the factor for the 2004 Review.

166. The Commission's decision is summarised in Table 28.

**Table 28** COMMISSION DECISION — GRADE COST

Decision	Reason
To retain the 1999 Review cost weight of 1.2 for students in years 11 and 12.	All but one of the commenting States indicated that, from their experience, they considered this weight appropriate.

***Proposed method***

167. The factor was based on notional Year 11 and 12 enrolments, which were weighted by 1.2 to reflect their higher per student costs.

168. The method used is described below.

- (i) Calculate the standard percentages that government Year 11 and Year 12 students represent of total government secondary students aged 15 years and over. These percentages are used to allocate the standardised number of students aged 15 years and over between those in years 10 and below, and those in Years 11 and 12.
- (ii) Estimate the additional number of notional Year 11 and 12 students for each State by multiplying:
  - the additional cost weight (0.2) for Years 11 and 12;
  - the standardised number of government secondary students aged 15 years and over; and
  - the standard percentage that Years 11 and 12 students represent of total government secondary students aged 15 years and over.
- (iii) Calculate each State's (and Australia's) weighted relevant population by adding the additional number of Year 11 and 12 students to the government secondary schools relevant population.

- (iv) Calculate each State's (and Australia's) weighted to unweighted relevant population ratio by dividing the sum of secondary relevant populations and the additional students calculated in step (iii) by the unweighted relevant populations.
- (v) Divide each State's ratio by the Australian ratio to derive the grade cost factor.

169. The grade cost factor<sup>26</sup> for government secondary education is shown in Table 29. The changes reflect the changes in the notional numbers in the notional numbers of students in each State.

**Table 29**      **SCHOOLS COMPONENT — GRADE COST FACTORS, 2001-02**

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
2003 Update	1.00172	1.00267	0.99545	0.99595	0.99965	1.00527	1.00736	1.00311
2004 Review	1.00199	1.00342	0.99505	0.99453	1.00031	1.00498	1.00632	0.99715

170. Enrolment data are available for each year allowing this factor to be updated annually.

## NON-GOVERNMENT SCHOOL COSTS

### *1999 Review*

171. The non-government schools cost factor measured the differential cost to the States of providing subsidies for non-government education. It was based on the per student grants paid by the Commonwealth to non-government schools using the Education Resource Index (ERI) calculated by the then Commonwealth Department of Education Training and Youth Affairs (DETYA). The Commission adopted this basis for the factor because, in the 1999 Review, the majority of States indicated they used it, to varying degrees, as the basis for distributing recurrent payments to non-government schools. Also, the Commonwealth SPP for non-government schools was distributed amongst the States, at the time of the 1999 Review, according to the ERI scores of the non-government schools within each State.

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<sup>26</sup> Although the 1999 Review method is used the factor will differ slightly from that of the 2003 Update because of the revised method of calculating post compulsory enrolments in the socio-demographic composition factor.

### ***Staff proposals***

172. In *Discussion Paper CGC 2002/28 Schools Education*, staff noted that basing this factor on the ERI method was not an option for the 2004 Review, because, since the Commonwealth has abandoned ERI, it is no longer updated. Staff said that they would attempt to devise a method that reflected the way most States fund non-government schools. This was likely to be complicated because most States still used ERI as the basis for their grant allocations and were yet to develop alternative methods. The discussion paper also noted that the method adopted might have implications for the treatment of the SPPs for non-government schools<sup>27</sup>.

### ***State views***

173. Queensland and Western Australia said that the method adopted should reflect an average of the methods adopted by States to distribute funds to non-government schools. Western Australia also said that, if the reviews which States are conducting into methods of funding non-government schools do not produce broadly consistent outcomes, the Commission should look into deriving its own measure based on the underlying factors driving non-government school funding. These may include dispersion, socio-economic status and Indigeneity.

174. South Australia advocated an approach that did not use either the ERI or the Commonwealth's Socio-economic status (SES)<sup>28</sup> method. It said a factor based predominantly on socio-economic indicators should be used. Tasmania said that it accepted the need to replace the ERI method, but had no specific recommendation on what should replace it. The Northern Territory referred to its main submission where it proposed using the socio-demographic composition, service delivery scale and isolation factors assessed for government schools.

### ***Analysis***

175. The disability to be assessed here relates to the relative impact on State government budgets of the policy common to all States of providing assistance to non-government schools. The focus is on the level of assistance and the factors affecting it. The cost structures of non-government schools are relevant to measurement of this disability only if it is the common policy of the States to calculate the total amount of assistance in a way that reflects those costs.

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<sup>27</sup> In the 1999 Review, the Commission adopted the Commonwealth's formula in deriving the non-government schools cost factor. Therefore it made little difference if the SPP was treated by inclusion or exclusion. The discussion paper explained that if the Commission adopts a method that differs from that used by the Commonwealth, it may be appropriate to treat the SPP for Non-Government schools by exclusion. The new method does differ from that used by the Commonwealth. As discussed under Specific Purpose Payments, these payments will be treated by exclusion.

<sup>28</sup> The SES method of distributing funds to non-government schools is based on the SES index score of the home address location for each student. The SES index was calculated specifically for this purpose.

176. According to the responses which the States provided to the Commission during this review describing their education policies and practices, the methods most States use to decide the per student level of grants to non-government schools involve three (sometimes implicit) steps:

- (i) an average grant per non-government school student is calculated as a fixed proportion (ranging between 20 per cent and 26.5 per cent) of total costs per student in the government sector;
- (ii) the average grant per student is multiplied by the numbers of enrolments in the non-government schools sector to derive a total pool of funds; and
- (iii) the total pool of funds is distributed on one of three bases:
  - equal per capita,
  - a measure of relative need (in most cases using the Commonwealth's superseded ERI formula); or
  - a mixture of equal per capita and needs.

177. Under this standard funding policy what each State spends is affected by:

- (i) the number of enrolments in its non-government sector; and
- (ii) the range of cost influences affecting the cost per student of government education.

178. It follows from this analysis that, under standard policy, State budgets would not be affected by the methods adopted by the States to distribute the total pool of funds amongst non-government schools.

179. The link between government schools costs and the total funds made available to non-government schools means that the assessment needs to focus on the influences which affect the relative levels of government school costs rather than the influences affecting the costs of non-government schools.

### ***Commission decisions.***

180. The Commission accepts that a conceptual basis exists for the assessment of a non-government schools costs factor. The conceptual case is supported by the evidence on how the majority of States determine the total amount of grant to be made available to non-government schools, which is by reference to the cost of education in government schools. The Commission is satisfied that this information provides a strong basis for assessing the disability based on differences in the average cost per student of government schools education. This evidence indicates that costs per student (calculated on a standardised basis) vary between States to a degree that will have an impact on State budgets that the Commission considers to be material.

181. The Commission's decisions are summarised in Table 30.

**Table 30** COMMISSION DECISIONS — NON-GOVERNMENT SCHOOLS COST FACTOR

Decision	Reason
A non-government schools costs factor will be included in the assessment for the Non-government Primary and Secondary Education categories.	The standard way in which States provide assistance to non-government schools means that the unit cost of this assistance will differ between States for reasons beyond States' control.
The factor will be calculated from the standardised expenses per student for each State derived from the Government Primary and Secondary Education assessments	Because the standard policy of the States is to link total payments to Non-government schools with the cost of government school education, it is appropriate to assess the cost disability faced by each State using government school data.

### *Proposed method*

182. A non-government schools cost factor for the 2004 Review has been calculated using the relative levels of standardised expenses per standardised number of students in the government sector in each State. This method of calculating a non-government schools cost factor would be policy neutral and not affected by the different use levels of government schools in each State. Table 31 shows standardised costs per student in the government primary and secondary education categories.

**Table 31** STANDARDISED COSTS PER STUDENT<sup>(a)</sup>, 2001-02

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Govt Primary Education	5491	5211	5338	5564	5255	5051	5297	9024	5421
Govt Secondary Education	7735	7426	7599	7934	7583	7420	7859	13324	7702

(a) Calculated for each State by dividing standardised expenses for the Government Primary and Secondary Education categories by the standardised numbers of students derived from the calculation of the socio-demographic composition factor for the each category.

183. This is a major change from the 1999 Review method that focussed on the methods adopted by the States to distribute grants among non-government schools. However, it reflects more closely what States do.

184. The Cost Factor for Non-government Primary Education was calculated by dividing standardised expenses for Government Primary Education by standardised enrolments for government primary schools. Standardised enrolments were derived from the calculation of the socio-demographic composition factor for Government Primary Education. The same method, using data for government secondary schools, was applied to derive Cost Factors for Non-government Secondary Education.

185. Table 32 shows the Non-government Schools Cost factors derived for the 2004 Review for 2001-02. For comparison, two sets of cost factors are shown for the 2003 Update: the actual factors used in that Update and factors using data for the 2003 Update but calculated using the proposed 2004 Review method.

**Table 32** NON-GOVERNMENT SCHOOLS COST FACTORS, 2001-02

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
<i>Non-Govt Primary</i>								
2003 Update - Actual	0.99083	0.98941	1.02730	1.01550	1.00200	0.96714	0.95845	1.09312
Proposed method	1.00227	0.97131	0.98686	1.03827	0.98104	1.01249	0.97263	1.43387
2004 Review	1.01288	0.96134	0.98481	1.02635	0.96938	0.93179	0.97714	1.66463
<i>Non-Govt Secondary</i>								
2003 Update - Actual	0.99465	0.96392	1.05894	1.01184	1.00525	0.95235	0.97900	1.25441
Proposed method	1.00039	0.98342	0.97790	1.02537	0.97744	1.03957	1.06375	1.41158
2004 Review	1.00428	0.96418	0.98664	1.03016	0.98452	0.96338	1.02042	1.72993

186. This factor uses the outputs from the assessments for Government Primary and Secondary Education. It can be updated each year.

## CROSS BORDER

187. The main issue for the cross border factor was whether to retain the 1999 Review method of assessment or use the actual net number of enrolments of students aged 15 years and over attending school in the ACT but living in New South Wales.

### *1999 Review method*

188. A cross-border factor was calculated for the ACT covering government and non-government school categories to take account of the costs associated with the use of its post-compulsory education services<sup>29</sup> by students aged 15 years and over resident in New South Wales. The method used the above average proportion of 14 year-old<sup>30</sup> non-resident students to calculate a notional number of net cross-border students age 15 years and over. This calculation was based on standard participation rates for the post-compulsory ages. The additional students were then allocated to the government and non-government

<sup>29</sup> This factor does not take account of students of compulsory school age as these students are included in the socio-demographic composition factor which uses actual enrolments.

<sup>30</sup> 14-year-olds were used as this is the oldest age of compulsory schooling for all States. This was done to avoid complications associated with participation rate issues for post-compulsory aged students

secondary school categories according to the actual proportions in each sector of students aged 15 years and over.

189. A separate calculation of this factor was made for each year of the review period.

### ***Staff proposals***

190. Staff indicated that as no State commented on this factor, it saw no reason to change the method of assessment.

### ***State views***

191. In its rejoinder submission, the ACT said that the method should be changed. Instead of basing the factor on the standardised numbers of students aged 15 years and over resident in New South Wales attending ACT schools, it proposed using the actual numbers of such students.

### ***Analysis***

192. Using actual enrolments as proposed by the ACT would be inconsistent with the socio-demographic composition factor that uses notional enrolments for students in the post-compulsory years to exclude the impact of policy influences. The school enrolment data showed that the net cross border movement of students from New South Wales to the ACT in 2002 was about 11 per cent<sup>31</sup>.

### ***Commission decisions***

193. The Commission accepts that a strong case has been made that the net movement of post-compulsory students into ACT schools from New South Wales has a material affect on the ACT budget. Data are available to measure the impact with an acceptable margin of error. The Commission decided that the factor should continue to be assessed using standard participation rates because actual enrolments would not be a policy neutral measure.

194. The Commission's decisions are summarised in Table 33.

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<sup>31</sup> This was derived by comparing the participation rates of 14 year-olds in the ACT (1.092) with the Australian average (0.981). 14 year-olds were used as a proxy for 15 years and over to avoid issues associated with post compulsory participation rates.

**Table 33** COMMISSION DECISIONS —CROSS BORDER

Decision	Reason
To continue to assess a cross border factor for the Government and Non-government Secondary Education categories.	A strong case has been made that the net movement of post-compulsory students into ACT schools from New South Wales has a material affect on the ACT budget
To use the 1999 Review method to calculate the cross border factors for New South Wales and the ACT — that is, based on standard participation rates for the post-compulsory ages.	Actual enrolments are not used for the socio-demographic composition factor, therefore it is not appropriate to use them for the cross border assessment.

***Proposed method***

195. The steps used to calculate the factor are given below. The method aggregates government and non-government secondary school data as this factor is used for government and non-government secondary school categories. Using differences in participation rates of 14-year-olds, this method is designed to measure the net flow of cross border students between New South Wales and the ACT.

- (i) Calculate the ACT's and the Australian 14 year old participation rate (the proportion of their 14-year old population at school).
- (ii) Calculate the ratio of the ACT's 14 year old student participation rate to the Australian 14 year olds' participation rate.
- (iii) Calculate the standard number of ACT students aged 15 years and over by applying the standard 15-17 year old participation rate to the ACT 15-17 year old population. [Note: Students over 17 years are assumed to be between 15 and 17 years.]
- (iv) The standardised number of students aged 15 years and over in the ACT (that is, designed to include the standard number of students, the notional number of cross-border students and actual number of diplomatic students) is calculated by applying the ratio derived in step (ii) above to the ACT's standard number of students aged 15 years and over. [NOTE: This method assumes that the ACT to standard ratio calculated for 14 year olds is applicable to the non-compulsory school ages (that is, 15 years and over).]
- (v) The number of cross-border students (aged 15 and over), assumed to be NSW residents is calculated by subtracting from the number of students calculated in (iv):
  - the standard number of ACT students aged 15 and over in (iii); and
  - the number of students aged 15 and over from diplomatic families.

(vi) The relevant populations for government and non-government secondary education categories are aggregated and adjusted by:

- adding the cross-border students in (v) to the ACT relevant populations; and
- deducting the cross-border students from the NSW relevant populations.

(vii) The factors for NSW and the ACT are the ratios of their adjusted relevant populations (government and non-government secondary aggregated) divided by their un-adjusted relevant populations.

196. This factor is calculated separately for each year.

197. The cross border factors for the government and non-government secondary school education categories are shown in Table 34.

**Table 34** CROSS BORDER FACTORS — SCHOOLS COMPONENT

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Cross border	0.99726	1.00000	1.00000	1.00000	1.00000	1.00000	1.05059	1.00000

198. Enrolment data are available for each year allowing this factor to be updated annually.

## NATIONAL CAPITAL

### *1999 Review*

199. A national capital factor was assessed to take account of the additional costs incurred by the ACT in providing government school education services to students from the diplomatic community. The additional costs for the primary and secondary categories were assessed as being \$2 million for each level of schooling.

200. This factor was designed to take account of the above average cost per student of providing school services to children of diplomatic families. It was not intended to reflect the number of students from diplomatic families that were already included in the relevant populations from which the socio-demographic composition factor was calculated.

### ***Staff proposals***

201. Staff indicated that they would review this factor to ensure that it captured only the standardised level of costs in accordance with the general principles for assessment. This was in response to comment from Victoria, Western Australia and South Australia that they considered the \$4 million an excessive amount and that there may be double counting.

### ***State views***

202. In its rejoinder submission, the ACT said that the assessment should include above standard costs because the ACT had no control over the number of diplomatic students enrolling in its schools. The ACT supported the continuation of the 1999 Review amount of \$4 million.

### ***Analysis***

203. The data provided by the ACT indicates that about one per cent of its government school students are children from diplomatic families. This is some 360 students. The likely additional costs associated with these students arise for low English fluency because low socio-economic status is unlikely to be an issue. We do not know what proportion are not fluent in English but our judgement is that it is unlikely to be more than 50 per cent. The additional low fluency cost weight proposed for the socio-demographic composition factor is 10 per cent. Applying this additional cost weight to 180 students costing about \$6600<sup>32</sup> each suggests a total additional cost of about \$120 000.

204. Even assuming that all of the 50 per cent of students with low English fluency need high cost intensive English language courses, these courses usually last only a few months. Speculating that the average length of stay of diplomats is at least 2 years, there seems no reason for assessing an additional cost weight greater than 10 per cent. Even if the additional cost weight was doubled to 20 per cent, the additional cost would only amount to about \$250 000.

### ***Commission decision***

205. The limited data point to the additional costs associated with students from diplomatic families. These students do have an impact on the ACT budget. However, the Commission does not consider the impact to be material. It therefore proposes not to assess a national capital factor for the school education categories.

206. The Commission's decision is summarised in Table 35.

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<sup>32</sup> The Australian average cost per government student (primary and secondary added) in 2001-02.

**Table 35** COMMISSION DECISION — NATIONAL CAPITAL FACTOR

Decision	Reason
Not to assess a national capital factor	The estimated additional cost is not material.

## SPECIFIC PURPOSE PAYMENTS

### *1999 Review*

207. In the 1999 Review, specific purpose payments for both government and non-government schools were treated by inclusion.

### *Staff proposals*

208. In Discussion Paper CGC 2002/28 *Schools Education*, staff proposed to review the method of treating SPPs for non-government school education after deciding on the method to be used in the calculation of the non-government school cost factor. If the method used in assessing this factor differed from the Commonwealth model, it was considered that it may be appropriate to exclude SPPs for non-government schools.

### *State views*

209. In rejoinder submissions, South Australia and the Northern Territory supported treating SPPs for non-government schools by inclusion. South Australia said that non-government schools remain an area of State responsibility and expense. It also said the Commission needed to assess whether the new approach for distributing Commonwealth grants met equalisation criteria. The Northern Territory said this SPP was provided to meet the expenditure needs of the States for non-government schools. Tasmania said it would reserve comment until the method of calculating the non-government school cost factor was known.

210. **Discussion Paper.** In response to Discussion Paper CGC2003/02 *Treatment of Commonwealth Revenue Payments*, which proposed to treat Commonwealth payments to non-government schools by exclusion, Western Australia, South Australia and the Northern Territory supported the use of inclusion for these payments. Tasmania did not comment on this proposal, the ACT reserved its position and New South Wales and Queensland did not respond to the discussion paper.

211. Western Australia said the Commonwealth payments were not distributed according to need. It said that States also provided funding to non-government schools, so these SPPs were substitutable for State expenditures.

212. South Australia argued that, contrary to the view expressed in the Commission's paper that recurrent grants for non-government schools should be excluded because the States were acting as Commonwealth agents, the funding of non-government schools was not solely a Commonwealth responsibility. States spent about \$70 per capita on these schools over and above the Commonwealth payment.

213. Victoria supported the proposal to exclude the SPP for non-government schools. It said that exclusion was consistent with the Commission's proposed framework for SPPs because non-government schools were not primarily a State Government responsibility and the SPPs:

- (i) were 'on passed' to non-government schools — the State merely acted as an agent for the Commonwealth;
- (ii) had no direct impact on State budgets; and
- (iii) were distributed in line with the Commonwealth Government's assessment of needs of students in non-government schools.

### ***Commission decisions***

214. The Commission decided to exclude Commonwealth payments for non-government schools because, in being passed on in full to non-government schools, they bypass State budgets. The Commission also decided to continue to treat Commonwealth payments for the Indigenous Education Strategic Initiatives Program (IESIP) for government schools by inclusion because they do impact on State budgets. Full details of the Commission's decisions are recorded in Draft Assessment Paper *CGC 2003/78 Treatment of Specific Purpose Payments*.

## **USER CHARGES**

### ***1999 Review***

215. Table 36 shows the standard user charges<sup>33</sup> for six financial years. In 2001-02, this category represented 5.60 per cent of total user charges, and 2.4 per cent of the gross standard expenses for the schools education categories. We understand that these revenues come from a variety of miscellaneous charges and sales. They generally do not include revenues from in-school fund raising activities or parental contributions.

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<sup>33</sup> The standard user charges for 1998-99, 1999-2000 and 2000-01 have been revised. For an explanation of these revisions please see the 2003 Update, *Supporting Information*, Chapter 2.

**Table 36** SCHOOLS CATEGORIES — STANDARD USER CHARGES,  
2003 UPDATE

	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
\$pc	22.47	23.69	19.10	19.79	22.78	23.90
% of total user charges	6.86	6.71	5.07	5.03	5.60	5.60

216. User charges were assessed equal per capita in the 1999 Review.

***State views***

217. The treatment of user charges for the Schools education categories was not discussed by States

***Commission decision***

218. The Commission’s decision is summarised in Table 37.

**Table 37** COMMISSION DECISION — USER CHARGES

Decision	Reason
To adopt an equal per capita method of assessment.	No disabilities affecting the States’ relative capacities to raise revenue from user charges have been identified.

***Effect of assessment on grants***

219. Using the proposed EPC method of assessment for user charges will have no impact on grants.

**ASSESSMENT STRUCTURE FOR 2004 REVIEW**

220. Table 38 shows the assessment structure to be used for the four schools education categories for the 2004 Review. The table shows the assessment structure for each category, the expense weights for each assessment component and the factors to be applied to each component.

**Table 38** ASSESSMENT STRUCTURE FOR SCHOOLS EDUCATION, 2004  
REVIEW

Factors	Components		
	Fixed costs	Schools	Isolation
<b>Government primary</b>			
Component weights	0.0045	99.44	0.0011
Factors assessed	s, ic	d, ic, sds, sdc	i
<b>Non-government primary</b>			
Component weights	0.0165	98.35	
Factors assessed	s	sdc, ngc	
<b>Government secondary</b>			
Component weights	0.0045	99.46	0.0009
Factors assessed	s, ic	x, d, gc, ic, sds, sdc	i
<b>Non-government secondary</b>			
Component weights	0.0145	98.55	
Factors assessed	s	x, sdc, ngc	

Code:

i	=	isolation	sdc	=	socio-demographic composition
ic	=	input costs	sds	=	service delivery scale
gc	=	grade costs	x	=	cross-border
s	=	administrative scale			

## ATTACHMENT A

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### PROPOSED METHOD FOR CALCULATING THE SOCIO-DEMOGRAPHIC COMPOSITION FACTOR

1. The socio-demographic composition factor accounts for the joint effects of the relevant student population and its socio-economic composition.

2. For the government school categories, the socio-economic disability was based on the cost weighting of twelve distinct (student) population groups. These allow for the additional costs incurred in teaching particular sub-groups of the relevant population. Those groups were derived from three population characteristics.

- (i) English language *fluency* divided into two sub-groupings, 'low fluency' and 'fluent'.
- (ii) *Socio-economic status* was based on income and was divided into two sub-groupings, 'low income' and 'high income'.
- (iii) *Indigeneity* divided into three sub-groupings, 'remote Indigenous', 'non-remote Indigenous' and 'non-Indigenous'.

Twelve sub-groups arise from the combination of these three characteristics (2 x 2 x 3).

3. Table A-1 shows the cost weights used. These weights are used for both government primary and government secondary school categories, but not for the non-government school categories. The non-government school socio-demographic composition factors are based solely on relevant populations.

4. The socio-demographic composition factor was derived by:
- (i) dividing each State's relevant student population into the twelve different socio-economic groups using Census information;
  - (ii) weighting the population in each group with cost weights;
  - (iii) summing the weighted relevant populations to derive total weighted student population; and
  - (iv) converting those weighted student populations into factor using the following formula:

$$\text{Factor} = \frac{(\text{State adjusted student population} / \text{State mean resident population}) / (\text{Australian adjusted student population} / \text{Australian mean resident population})}{}$$

**Table A-1** SOCIO-DEMOGRAPHIC COMPOSITION WEIGHTS FOR GOVERNMENT SCHOOL EDUCATION CATEGORIES

	Low fluency	Fluent
<b>Indigenous persons – remote</b>		
Low socio-economic status	1.7	1.5
Other	1.45	1.3
<b>Indigenous persons – non-remote</b>		
Low socio-economic status	1.35	1.25
Other	1.2	1.1
<b>Non indigenous persons</b>		
Low socio-economic status	1.25	1.15
Other	1.1	1.0

5. The relevant populations for the four school categories were calculated separately as shown below

*Government Primary*

6. The relevant populations comprised:
- (i) actual enrolments for government primary school students aged 6 years old and above to year six;
  - (ii) notional enrolments for year 7 primary students;
  - (iii) notional enrolments for students aged 5 years and under based on Australian average participation rates of children aged five years;
  - (iv) for Queensland ‘pre-year 1’ students (in full-time equivalent terms) classified by DETYA, but not the ABS, as primary school students;
  - (v) for the Northern Territory:
    - students in former ‘mission’ schools which the ABS classifies as ‘non-government students’; and
  - (vi) for the ACT:

- none of the students attending the school in Jervis Bay; and
- all children aged 5 and under from diplomatic families attending government primary schools.

7. A notional number of year 7 primary students was calculated because some States have year 7 in primary education but other States have it in secondary. The method used was to notionally apportion all year 7 students — for both government and non-government sectors combined — between primary and secondary education levels according to the Australian average proportion of year 7 students in these levels. The notional number of primary students was then divided between the government and non-government levels for each State according to their year 6 proportions<sup>34</sup>.

*Non-government primary*

8. The same method as *government primary* is used applied to non-government primary enrolment data.

*Government secondary*

9. The relevant populations comprised:

- actual enrolments for government secondary students from year 8 and aged less than 15 years old;
- notional enrolments for year 7 secondary students (as described under Government primary above);
- notional enrolments for students aged 15 years and over based on standardised participation rates after taking account of the influences associated with socio-economic status as described in Discussion Paper CGC 2003/03 *Education – Analysis of Post-compulsory Enrolments*;
- for the Northern Territory students in former ‘mission’ schools which the ABS classifies as ‘non-government students’; and
- for the ACT — all persons aged 15 years and over from diplomatic families attending government secondary schools.

*Non-government secondary*

10. The same method as *government secondary* used but applied to non-government secondary enrolment data.

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<sup>34</sup> For primary education, the government and non-government allocations were based on year 6 proportions instead of year 7 proportions to avoid grant design effects. (For secondary schools year 8 proportions are used). This is because secondary education, in every State, has a greater proportion of non-government students than does primary, and year 7 proportions are similar to the level in which it is placed.

*All school categories*

11. Different factors were assessed for each year of the assessment period for all 4 school categories. A comparison of the 2001-02 factors assessed for the 2003 Update and the 2004 Review is given below.

**Table A-2** SOCIO-DEMOGRAPHIC FACTORS FOR GOVERNMENT PRIMARY EDUCATION, 2001-02

Standardised enrolments	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
2003 Update	0.99035	0.96394	1.04808	0.98933	0.93710	1.16811	0.95638	1.56618	1.00000
2004 Review	0.98836	0.96324	1.04780	0.99465	0.93550	1.16493	0.94324	1.64403	1.00000

**Table A-3** SOCIO-DEMOGRAPHIC FACTORS FOR NON-GOVERNMENT PRIMARY EDUCATION, 2001-02

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
2003 Update	1.02441	1.11614	0.85839	0.90185	0.98234	0.87443	1.34149	0.79058	1.00000
2004 Review	1.02441	1.11614	0.85839	0.90185	0.98234	0.87443	1.34149	0.79058	1.00000

**Table A-4** SOCIO-DEMOGRAPHIC FACTORS FOR GOVERNMENT SECONDARY EDUCATION, 2001-02

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
2003 Update	0.96024	0.89076	1.11545	1.17156	0.98273	1.07912	0.95852	1.21887	1.0000
2004 Review	0.96408	0.90091	1.10805	1.15000	0.99332	1.06903	0.92619	1.18290	1.0000

**Table A-5** SOCIO-DEMOGRAPHIC FACTORS FOR NON-GOVERNMENT SECONDARY EDUCATION, 2001-02

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Aust
2003 Update	0.92793	1.00161	1.08692	1.16818	0.94127	0.77457	1.21686	0.77490	1.0000
2004 Review	0.93177	1.01509	1.07849	1.13981	0.95211	0.76945	1.19362	0.71427	1.0000