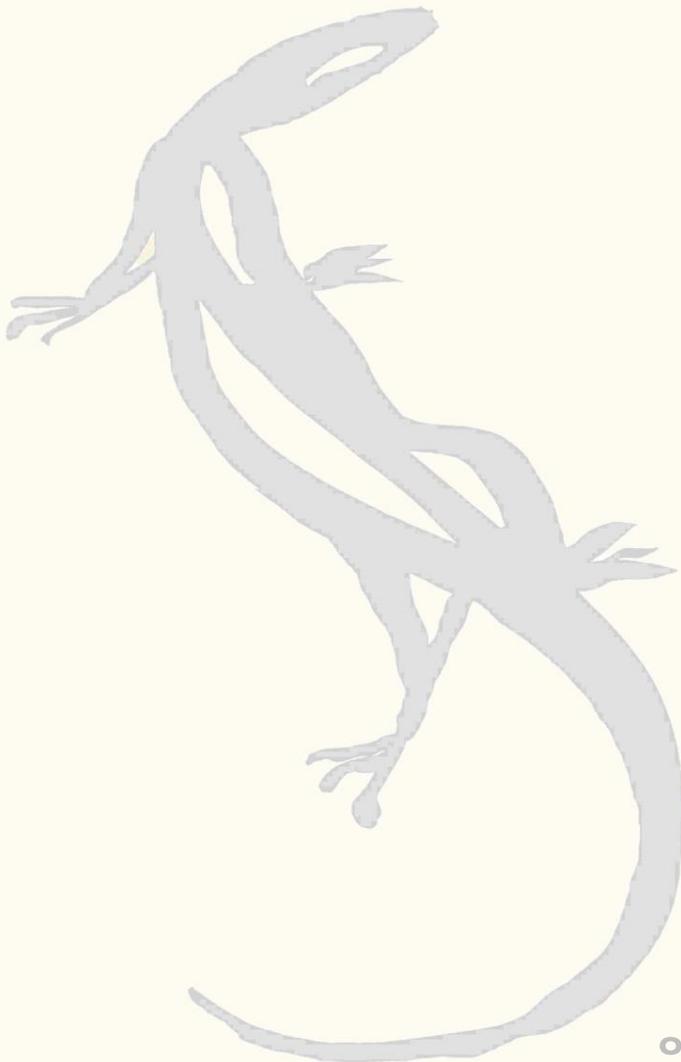


# Barbara Preston Research

## **Submission to the Review of Funding for Schooling (Gonski Review)**

**11 April 2011**



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# Submission: Review of Funding for Schooling

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## Barbara Preston

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### **1. Introduction**

I welcome the opportunity to make a submission to the Review of Funding for Schooling (2011). I have long maintained a keen interest in the social and wider educational impact of government policies on the funding (and regulation) of schools in the different sectors.

This submission is not intended to be comprehensive, but I have drawn on my research to offer a perspective and information that I hope will be of some value to you. While my primary concern is with relationships between the public and private sectors, there are some implications for relationships within sectors - especially between selective schools and 'unselected' schools in the public sector, and high and low fee schools in the private sector.

I first provide some historical background on government policies - the context, debates and struggles around them, and their consequences. These illustrate the difficulties in formulating and implementing good policies on the management of relationships between public and private schools, and the great responsibility you have taken on.

I then briefly discuss several discrete matters:

- measurement of socioeconomic status: the ecological fallacy of the SES scheme and ICSEA version 1.0
- selectivity and residualisation within sectors: selective schools
- responsibility and accountability: the case of the impact of overall enrolment fluctuations
- inequitable funding: boarding and distance education allowances.

I will be very happy to provide additional information or further discuss with you any matters in this submission.

### **2. *Managing the relationships between public and private schools: A 'wicked' problem***

Managing the relationships between public and private schools has always been a 'wicked' policy problem for governments in Australia – it is complex and difficult to understand or define (while sometimes seeming simple), there are very significant externalities (which may be very hard to discern or predict), and there are fundamental conflicts of interest and values, with imbalances in political power.

While Rittel and Webber's (1973) formulation<sup>1</sup> of a wicked problem broadly fits, there appears to be at least one key difference in some current understandings of such policy problems, and which is apparent in the Review's Emerging Issues Paper: the place of explicit values. I endorse the primary place you have given equity of educational outcomes, and your definition of it:

differences in educational outcomes should not be a result of differences in wealth, income, power or possessions. (p.18)

I urge you to be guided by the value of equity in educational outcomes as you develop your recommendations and consider likely and possible consequences that are unintended and very long term, as well as intended and short and medium term. You should do all you can to ensure that your recommendations ameliorate, rather than exacerbate, the vicious circle of residualisation<sup>2</sup> of the public sector that has been in train since the 1970s. In fact it would be wonderful if the vicious circle of residualisation was turned around!

In this section I illustrate the 'wickedness' of the policy problem that governments have in managing the relationships between public and private schooling through both regulation and funding. I begin over a century ago with the decade-long struggle of the Victorian director-general of education to establish public schools that could provide a full secondary education through to matriculation, against the powerful opposition of the private secondary schools lobby. I then go to the early years of the current era (the 1970s and 1980s) and their heritage<sup>3</sup>.

## Frank Tate and the struggle for public secondary schooling in Victoria

More than a hundred years ago, Frank Tate, the director general of education in Victoria, fought against the powerful opposition of private schooling interests for the establishment of public secondary education providing matriculation access to the University of Melbourne. He

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<sup>1</sup> In their 1973 paper, 'Dilemmas in a general theory of planning', in the journal *Policy Sciences*, Rittel and Webber present their formulation of a wicked problem under ten headings. In addition to the ten headings, they also point out that the social processes to which such policy problems are addressed often have the 'character of zero-sum games' (p. 168). This could well be added explicitly under an eleventh heading. The ten headings are:

1. There is no definitive formulation of a wicked problem (defining wicked problems is itself a wicked problem).
2. Wicked problems have no stopping rule.
3. Solutions to wicked problems are not true-or-false, but better or worse.
4. There is no immediate and no ultimate test of a solution to a wicked problem.
5. Every solution to a wicked problem is a "one-shot operation"; because there is no opportunity to learn by trial-and-error, every attempt counts significantly.
6. Wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan.
7. Every wicked problem is essentially unique.
8. Every wicked problem can be considered to be a symptom of another problem.
9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem's resolution.
10. The planner has no right to be wrong (planners are liable for the consequences of the actions they generate).

<sup>2</sup> In the early 1980s I drew from the social welfare literature and the concept of the continuum of 'residual' to 'universal' public social services to argue for the importance of understanding the complex and dynamic relationships between school sectors when policies (on matters such as funding) are being developed and judged. This implied that those concerned with public education, and all Australian citizens concerned with our nation's future, have a legitimate interest in government policies directly concerned with private schooling because such policies would inevitably have an impact on public schooling and the wider society. In addition, policy-makers need to ensure support for public schooling to avoid or reduce residualisation - such support includes the funds available to ensure high quality, and measures to ensure the valuing of and participation in public education by all sections of society. (Preston, 1984)

<sup>3</sup> This section draws from a paper on schooling as civic heritage, presented at the 2008 conference of the Independent Scholars Association of Australia (Preston, 2008).

graphically portrayed the nature of the problem as he saw it, and in his 1905 annual report he wrote:

(those who reject full state secondary schooling do so) because they regard such an extension as an attack upon their own class interest and privileges . . . At present we merely throw out a few ropes<sup>4</sup> from the upper storey (to selected pupils, whereas what should be provided are) broad stairways for all who can climb. (Selleck, 1982, p. 157)

Tate returned to the theme in his 1908 *Preliminary report of the Director General upon observations made during an official visit to Europe and America, with recommendations referring to state education in Victoria*, in which, according to his biographer, Dick Selleck, he ‘gave Victorians credit for some idealism and concern with social equality, but . . . rebuked them for their apathy and financial meanness’ (Selleck, 1982, p. 185). Tate wrote:

At present we have no intermediate schools of the higher elementary type, and the secondary storey is locked against the mass of the people, and can be entered only by private stairways for which a heavy toll is charged. . . . We need a broad open stairway accessible to all. (Selleck, 1982, p. 186)

The private school lobby argued against public secondary education because ‘state secondary schools would always be inadequate because they could not provide effective character training’ (p. 183), and there was a real competitive threat to some private schools in the establishment of low fee and fee free public schools in the same locality (pp. 188-189). And, of course, for the Victorian legislature, the establishment of state secondary schools would involve an increase in state expenditure (p. 183).

Legislation allowing general public secondary schooling in Victoria was eventually passed in 1913. However, there were restrictions: public secondary schools could not be located where they were in direct competition with existing private secondary schools. That heritage has remained live in Victoria.

### The development of the current era

For almost a century public school enrolments were around 80% of all Australian school enrolments. Then, from the early 1980s, this rapidly changed, and now public school enrolments are less than 66% (Table 1). Not only have enrolment shares changed, but so has the social composition of the respective sectors, with students from lower socio-economic backgrounds increasingly concentrated in public schools, and students with higher socio-economic backgrounds increasingly concentrated in Catholic and independent schools (Preston, 2007, p. 9).

In the 1970s a vicious circle of residualisation of the public school system was established.

**TABLE 1. Percentage share of all school enrolments in public and private schools, selected years, 1890 to 2010**

Year	1890	1900	1940	1954	1964	1971	1976	1981	1986	1991	1996	2001	2006	2010
<b>Public</b>	83%	80%	79%	78%	76%	78%	79%	78%	74%	72%	71%	69%	67%	66%
<b>Private</b>	17%	20%	21%	22%	24%	22%	21%	22%	26%	28%	29%	31%	33%	34%

Source: Australian Bureau of Statistics, various publications; recent decades: *Schools Australia*, Cat. No. 4221.0

Note: 2010 public sector share: 65.6%

<sup>4</sup> This is reference to the ‘continuation schools’ for the preparation of public school teachers, who could progress to the University of Melbourne, and the small number of country agricultural high schools being established that could also provide access to the university, again officially for teacher education.

The fall in the public sector's share of enrolments and the changing balance of social makeup should have come as no surprise. Matters such as 'choice' play only a small part, and disguise the reality: individual families (and communities) make decisions about schooling within the context of history and the framework of policy – including capital and recurrent funding levels and conditions, and regulation and accountability requirements.

These developments in enrolment share and social makeup were anticipated in widely read government reports. In 1972, in the report that laid the foundations for the current system of public funding of private schools, the Interim Committee for the Australian Schools Commission wrote:

There is a point beyond which it is not possible to consider policies relating to the private sector without taking into account their possible effects on the public sector whose strength and representativeness should not be diluted . . . As public aid for non-government schools rises, the possibility and even the inevitability of a changed relationship between government and nongovernment schooling presents itself. (Interim Committee for the Australian Schools Commission (Karmel Committee), 1973, para. 2.13)

The Commonwealth Government ignored this caution – largely because of the power of the Senate during the Whitlam years, and the political orientation of the Fraser Government.

A little over a decade later the Schools Commission again expressed a warning:

A continuing significant decline in the government school sector's share of overall enrolment is likely to change substantially the social composition of the student population in government schools, with potentially significant negative consequences for the general comprehensiveness of public school systems. The cumulative effect of these financial, educational and social consequences could, in the long term, threaten the role and standing of the public school as a central institution in Australian society. Such a development would be unwelcome to most citizens and is inconsistent with the stated policies of governments, as well as the major school interest groups, government and nongovernment. (Commonwealth Schools Commission, 1985, para 20)

The Hawke government sought to take some action in response, and was in small part successful with the implementation of the New Schools Policy, which had some constraint on the establishment and expansion of private schools where they might damage existing public and private schools. But this paled beside the impact of private school interests in Victoria around 75 years earlier.

The constraints of the Hawke and Keating governments were terminated by the Howard government, and the residualisation of public schooling gathered pace.

The recommendations of this Review will lay the groundwork for the next era.

### ***3. Measurement of socioeconomic status: the ecological fallacy***

The SES scheme for allocating general recurrent funds to private schools is based on an area-based index of socio-economic status. It is thus like version 1.0 of the Index of Socio-Educational Advantage (ICSEA) used to determine 'similar' schools<sup>5</sup> on the My School website until recently. Both are based primarily on a measure of the socio-economic status of the ABS Census Collection Districts (CDs – of around 215 households) in which students live. The weighted average of the index scores of all the home CDs of students provides the major component of the measure of a school's socio-economic status (or 'socio-educational advantage').

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<sup>5</sup> 'Similar' schools are those with similar ICSEA scores - calculated to have similar socio-educational advantage.

It was finally recognised that ICSEA 1.0 involved an ecological fallacy<sup>6</sup> resulting not only in widespread inaccuracy, but in systematic bias against public schools (Australian Curriculum and Assessment Authority, 2011, p. 16). The area-based index was replaced by one based on actual student data (ICSEA 2.0, primarily based on information about the education and occupation of parents of actual students). (Appendix 1 provides ABS Census-derived indirect evidence of the systematic bias against public schools of area-based measures of socio-economic dis/advantage. See also Table 2 in section 4 below.)

The reasons for recognising the bias of ICSEA 1.0 are relevant for the SES scheme, though the systematic nature of the bias is less easy to publicly demonstrate<sup>7</sup>. Observations (confirmed by Census data) of neighbourhoods (CDs) around Australia indicate that, irrespective of whether the neighbourhood is high or low SES, the lower SES children tend to attend public schools, and the higher SES attend private schools. Similarly, of those who attend private schools, the lower SES children would tend to attend low fee schools, and higher SES children would tend to attend high fee schools.

Therefore, an area-based measure is not appropriate as a valid measure of ‘need’ (according to the socio-economic status of a school’s student body) within the private sector as well as across all sectors.

#### **4. Residualising within sectors: selective schools**

The nature and impact of selective public schools are very important in determining fair allocation of resources according to need and equity of educational outcomes.

The number, size and location of selective schools varies between and within states. In NSW around 10% of all public secondary schools are selective schools (around half of those are fully selective, half partially selective). In some localities the percentage is much greater. Wherever there are selective schools there are ‘unselected’ schools<sup>8</sup>, which (a) lose many of their high ability students to selective schools, and (b) must accept the lower ability students who would have attended the selective school if it had been comprehensive. In addition, the unselected schools would enrol the difficult and disruptive students who would be excluded from the selective school (as well as from private schools). The higher the proportion of all enrolments that are in selective schools, the greater the impact on unselected schools (similarly, as noted above, the higher the proportion of enrolments in private schools, the greater the impact on public schools). (As selective schools often draw enrolments over large distances, an unselected school may not be in the same locality as the selective school, and the impact on such unselected schools may be difficult to discern.)

Selective schools have two fold selectivity: on academic grounds (the explicit selectivity according to entry tests), and according to family socio-economic background.

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<sup>6</sup> When outlining the plans for ICSEA version 2.0 at the Australian Bureau of Statistics NatStats conference (Sydney 15-17 September 2010), Barry McGaw noted that Version 2.0 would ensure the ‘appropriateness of like-school comparisons [by measuring] socio-educational advantage without ecological fallacy’ (<http://blog.abs.gov.au/Blog/natstats.NSF/dx/professor-barry-mcgaw.htm>).

<sup>7</sup> In 2004 I argued that the SES scheme involved an ecological fallacy – see for example (Preston, 2004, p. 8)

<sup>8</sup> I am using ‘unselected’ to refer to schools directly impacted by the loss of potential high ability students to selective schools and by the enrolment of lower ability and disruptive students who would have attended the selective school if it was not selective. I use ‘nonselective’ for all other public schools that do not discriminate on the grounds of academic ability.

Students at public selective schools tend to be high SES. In addition, and very importantly, they tend to be higher SES than their neighbours, which makes selective schools very different from the public sector as a whole (see section 3 above and Appendix 1). ICSEA 1.0 was area-based, while ICSEA 2.0 is based on direct data on the education and occupations of students' parents. The average ICSEA 2.0 score for selective public schools is very similar to that of high fee private schools. And the increase between the area-based ICSEA 1.0 and ICSEA 2.0 is greater for public selective schools than for high fee private schools, indicating that public selective schools are more selective on SES grounds from neighbourhoods (CDs) than are high fee private schools, and thus less representative of the neighbourhoods of their students than are high fee private schools. (See Table 2)

**TABLE 2. Average ICSEA 1.0 and ICSEA 2.0 scores for the major categories of NSW secondary schools**

	ICSEA 1.0 (2010)	ICSEA 2.0 (2011)	Change
<b>All public schools</b>	978	960	-18
<b>Selective public schools</b>	1088	1150	+62
<b>High fee private schools</b>	1112	1157	+45
<b>Catholic schools</b>	1036	1037	+1

Source: Unpublished research by Chris Bonner

Note: ICSEA 1.0 is the Index of Socio-Educational Advantage used on the My School Website throughout 2010 – it was primarily based on the socio-economic status of the neighbourhood (Census Collection District) in which students live. ICSEA 2.0 is the index now being used – it is primarily based on direct data on the education and occupation of students' parents.

In both ICSEA 1.0 and 2.0, the scale has a mean of 1000 and a standard deviation of 100. ICSEA values range from around 500 (representing extremely disadvantaged backgrounds) to about 1300 (representing schools with students from very advantaged backgrounds) (Australian Curriculum and Assessment Authority, 2011, p. 2).

This data should be considered indicative only. It is based on averages for whole schools, with no weighting for enrolment size. 'All public schools' is from a large representative sample. The 'selective public schools' are all fully selective. Christian and other low fee independent schools are not included. High fee Catholic independent schools are included with other high fee independent schools.

It is generally recognised that selective schools will usually have higher average NAPLAN scores than 'similar' schools because of the nature of their student intake selected on academic ability – it is almost a truism. It must be equally recognised that unselected schools will have lower average NAPLAN scores than 'similar' schools because of their student intake (having lost high ability potential students to selective schools, and accepted lower ability students who would have attended selective schools if they were not selective) – again almost a truism, but a rarely recognised one. In addition, selective schools would seldom initially enrol difficult or disruptive students, or if they did, would expel or exclude them. Unselected public schools would then be left with the difficult and disruptive students excluded from selective public schools as well as from private schools. The larger the proportion of all enrolments in selective schools, and in private schools, the greater the negative impact on unselected public schools, and on all nonselective public schools generally.

It is not easy to find evidence one way or another regarding the actual educational effectiveness of selective schools. However, the NAPLAN data on the My School website appears to provide no positive evidence for any particular educational effectiveness of selective schools – in fact the opposite. Selective schools tend to have much higher NAPLAN scores at year 7 compared with 'similar' schools, which is unsurprising. But what is interesting is that at year 9 the difference is generally much less: on average the year 9 score at the selective schools is 5% greater than the

year 7 score, while at the ‘similar’ schools it is more than 7% greater<sup>9</sup>. Thus, selective schools appear to have no better quality of teaching than ‘similar’ schools (though they may well provide more advanced curriculum options, especially at the senior level).

As you develop your recommendations I urge you to take full account of the nature and circumstances of selective schools, on the one hand, and, even more importantly, unselected schools on the other. Unselected schools tend to be doubly residualised as they lose potential high ability students (and high SES students) to selective public schools as well as to private schools, and must accept students excluded from those schools.

## **5. Responsibility and accountability: overall enrolment fluctuations**

The responsibility and accountability to the wider society of private schooling is an inherently difficult matter to determine and to develop policy on. Matters of financial audit and adherence with regulations on curriculum, teacher qualifications, health and safety of students and employees, and so on, are relatively simple. But much more difficult are those matters involving an impact on public schooling (or other private schools) and subtle, but no less profound, impacts on society.

Such difficulties are indicated by the respective sectors’ responses to overall enrolment fluctuations resulting from a change in school starting age and the progressive movement through the grades of a small cohort. Such a change commenced in Tasmania in the early 1990s, and more recently in Western Australia. In both states the public sector has borne far more than its share of the disruption, with significantly greater reduced share of overall enrolments in the successive grade levels of the small cohort. In addition, the private sector has usually ratcheted up its advantage, maintaining a greater-than-trend enrolment share after the enrolment trough has passed through (Preston, 2008, pp. 131-133). The small Western Australian cohort passed through year 8 (the first year of secondary schooling) in 2010. Overall enrolments fell by 38.6%, but substantially more in the public sector (44.2%) and less in the Catholic and independent sectors (30.5% and 31.8%). The public sector share fell from 57.1% in 2009 to just 51.9% in 2010 (Table 3). If all sectors equally shared the impact of the fall in enrolments there would be no change in the three sectors’ enrolment shares.

**TABLE 3. Percentage of all year 8 enrolments, government, Catholic and independent sectors, Western Australia, 2006 to 2010**

	2006	2007	2008	2009	2010	Change in enrolments, 2009 to 2010
<b>Government</b>	59.9%	58.2%	57.6%	57.1%	51.9%	-44.2%
<b>Catholic</b>	20.3%	21.1%	21.0%	20.8%	23.6%	-30.5%
<b>Independent</b>	19.8%	20.7%	21.4%	22.1%	24.5%	-31.8%

Source: Australian Bureau of Statistics (2011) *Schools Australia*, Cat. No. 4221.0

Note: Year 8 is the first year of secondary school in Western Australia

Such large fluctuations in school enrolments can be very disruptive. They have occurred on a larger scale and over a longer time period as localities have experienced demographic change as

<sup>9</sup> There is no indication from the data on individual schools or domains that a higher year 7 score is associated with a lesser difference between year 7 and year 9 once the difference between selective and similar schools is accounted for - though the selective schools’ NAPLAN scores are on average higher than those of ‘similar’ schools, there is overlap, and there is variation between and within domains.

greenfields suburbs of families with young children mature. In the early years, first primary schools, then secondary schools, can be overcrowded, with temporary buildings and other difficulties. As the age bulge moves beyond school age, enrolments shrink, curriculum offerings become limited, and there is pressure to close schools - with all the conflict that entails. Private schools do not have to take all comers during the expanded enrolment years, thus forcing the public sector to take more than its share of the burden. Similarly, private schools can increase marketing efforts and other strategies to maintain a desirable enrolment level as overall student enrolment numbers shrink. We have seen this pattern repeat over and over again as new areas are opened up and mature – especially on the fringes of the metropolitan cities, and throughout Canberra.

The Review Committee should consider how such as lack of responsibility (however unintended) should be responded to in terms of public funding and regulation.

There are parallel issues in the advantage private schools and sectors can take from their market position in the recruitment of teachers, including recruitment, induction and support of first year out teachers, for which the public sector undertakes a disproportionate responsibility.

## ***6. Inequitable funding: boarding and distance education allowances***

The matter of boarding and distance education allowances appear not to be within the narrow scope of the Review. However, these Centrelink benefits have significant implications for educational equity, and should be considered by the Review Committee.

The arguments are complicated, and I have discussed them in detail elsewhere<sup>10</sup>. I will just make major points here:

- The basic (not income tested) boarding allowance is substantial: \$7,141 pa (the additional means tested allowance is \$2,366 pa) (2011 rates).
- There are very few boarding facilities for school students that do not require high tuition fees and high boarding fees. Therefore the large majority of those who are in a position to take advantage of boarding allowances are able to afford very high fees.
- The geographic isolation rules are very generous (and have not changed, other than metrification, since the allowance was introduced in the early 1970s) – at least 16 kilometres from the nearest public school and at least 4.5 kilometres from the nearest available transport service (or 56 kilometres in total from the nearest public school, irrespective of transport services).
- Given the generous criteria for ‘isolation’, it is quite possible (and quite common) for those who have no difficulty getting to a country primary school to be classified as too ‘isolated’ to get to the secondary school in the same town, and thus receive the boarding allowance as a substantial subsidy for attending the high fee independent school they would have attended irrespective of the allowance.
- The distance education allowance is only \$3,570 pa.
- Distance education is the only option for the large majority of genuinely isolated students who cannot afford a very high fee independent boarding school.

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<sup>10</sup> For example, my 1999 submission to the rural and remote education inquiry of the Human Rights and Equal Opportunity Commission, which is included as an appendix to my submission to the Senate Employment, Workplace Relations and Education References Committee Inquiry into Commonwealth funding for schools at [http://www.aph.gov.au/senate/committee/eet\\_ctte/completed\\_inquiries/2002-04/schoolfunding/submissions/sub074.pdf](http://www.aph.gov.au/senate/committee/eet_ctte/completed_inquiries/2002-04/schoolfunding/submissions/sub074.pdf)

- Quality distance education involves much more than the computer hardware and software, books and other materials that can be bought for \$3,570 a year. For example, substantial travel for excursions, camps and residential educational events should also be supported, and senior secondary students must have ample opportunities to get to know firsthand post-school educational institutions.

In summary: boarding allowances generally provide a very substantial payment to the high income/wealth families of students who would have attended high fee independent schools irrespective of the accessibility of appropriate local public schools. In contrast, the distance education allowance is quite inadequate for the educational needs of lower SES genuinely isolated students who have no choice.<sup>11</sup>

These allowances provide a stark example of differences in public funding for educational opportunities that are a result of differences in political power and influence, augmenting differences in wealth, income, and possessions. The Review Committee should make appropriate recommendations regarding these allowances, and/or take them into account when making other recommendations.

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<sup>11</sup> In addition, boarding allowances, and boarding generally, tend to be associated with money leaving rural areas for the cities. There are very few boarding facilities (including hostels) that are not in major metropolitan or large regional cities (though Western Australia is a partial exception). Not only are there not the multipliers from expenditure on the salaries of local teachers and other school expenditures that would be associated with students attending country schools (whether boarding or day, public or private), but there is expenditure boarders' families take to the cities – in fees and other direct boarding school costs, and in expenditure on accommodation and travel associated with visits, and incidental, but significant, city expenditures that would otherwise occur in country towns (clothing, whitegoods, furniture, even groceries). To counter this requires strong support for quality schooling in rural towns and country cities, and the provision of quality boarding facilities in country towns and cities.

## **Appendix 1. Evidence of the systematic bias of area-based measures of the socio-economic status of schools**

Through 2010 I investigated the systematic bias against public schools of ICSEA 1.0, and made presentations and prepared articles (Preston, 2010a, 2010b, 2010c, 2010d). The following draws primarily from Preston 2010d, prepared before the availability of ICSEA 2.0 confirmed ICSEA 1.0's general bias against public schools.

Systematic bias of ICSEA could only be investigated indirectly, and conclusions could not be applied to specific schools. The Australian Curriculum, Assessment and Reporting Authority (ACARA), which is responsible for ICSEA and the My School website, did not make the CD-level component of ICSEA 1.0 available, so a broadly similar, publicly available index, the ABS Index of Education and Occupation (IEO)(ABS 2008), was used to determine relative socio-economic status (SES) of Census Collection Districts (CDs). A CD is composed of around 215 households.

Using the ABS Census data access and analysis online tool, TableBuilder, the dataset of all Australian CDs (approximately 35,000) with their IEO score was matched with two datasets: first, all school students living with their families in each CD, by level of school (primary or secondary) and type of school attended (public, Catholic, or independent), by family income (LOW, MEDIUM or HIGH – approximately one third of Australian school students in each range) (Tables A.1 and A.2), and, second, all school students living with their families in each CD, by level and type of school, by whether the student had a home internet connection (Table A.3).

The CDs were sorted into their nation-wide deciles (ten groups with equal numbers of CDs in each) of IEO scores from most disadvantaged to most advantaged.

It is very apparent that private schools, both Catholic and independent, tend not to serve low SES neighbourhoods. Irrespective of family income, more than 80% of primary and secondary students living in the lowest SES decile CDs attend public schools, while in the highest SES decile CDs fewer than 60% of primary students and fewer than 35% of secondary students attend public schools.

In even the lowest SES decile CDs there are HIGH income families, and in even the highest SES decile CDs there are LOW income families. In every decile of relative disadvantage, a larger proportion of public school students had LOW family incomes and a smaller proportion had HIGH family incomes than did private school students. Tables A1 and A2 set out the data discussed in the following paragraphs.

***In the most disadvantaged CDs*** (the lowest SES decile of national CDs), 64% of ***primary*** public school students had LOW family incomes and only 8% had HIGH family incomes. In contrast, only 50% of the students in Catholic primary schools had LOW family incomes and 15% had HIGH family incomes (for independent school students the figures were a little less pronounced than for Catholic schools: 56% had LOW family incomes and 13% had HIGH family incomes). At the ***secondary*** level the pattern was even more pronounced – 59% of students at government schools had LOW family incomes, and 11% had HIGH family incomes, while only 42% of students at Catholic schools had LOW family incomes and 24% had HIGH family incomes, and 48% of students at independent schools had LOW family incomes and 20% had HIGH family incomes. It is notable that students living in these most disadvantaged CDs around Australia and attending Catholic schools tended to have higher incomes than their neighbours attending either public or independent schools.

***In the most advantaged CDs*** (the highest SES decile of national CDs), 16% of ***primary*** public school students had LOW family incomes and 65% had HIGH family incomes. In

contrast, only 11% of the students in Catholic primary schools had LOW family incomes and 74% had HIGH family incomes, and just 8% of independent primary school students had LOW family incomes and 81% had HIGH family incomes. At the *secondary* level the pattern was again even more pronounced – 23% of students at government schools had LOW family incomes, and 54% had HIGH family incomes, while 13% of students at Catholic schools had LOW family incomes and 71% had HIGH family incomes, and just 9% of students at independent schools had LOW family incomes and 80% had HIGH family incomes.

In CDs at every decile of relative disadvantage, public school students were less likely to have an internet connection at home. In the most disadvantaged decile of CDs only 56% of primary school students attending public schools had internet connection at home, while around 70% of private school students had home internet connection, and only 68% of secondary school students attending public schools had internet connection at home, while around 80% of private school students had home internet connection. The difference is much less pronounced in the most advantaged deciles because there saturation point was almost reached (nearly every student had a home internet connection), but still students attending public schools were less likely to have a home internet connection.

The same patterns of family income and home internet connection are apparent in Statistical Local Areas (SLAs) around Australia (urban and rural, advantaged and disadvantaged). There are similar findings regarding type of school attended and other general indicators of individual students' educational dis/advantage such as single parent families.

This analysis indicates the inappropriateness of area-based (CD-based) measures of dis/advantage for measuring the dis/advantage of Australian schools attended by students who live in the relevant areas (CDs).

I remain perplexed at the decision to use such a measure on the My School website at its launch, and to continue its use through 2010.

**TABLE A.1**

**Percentage of primary and secondary school students living in Census Collection Districts in each decile from most disadvantaged (1) to most advantaged (10) according to the Index of Education and Occupation, and attending public, Catholic, or independent schools, who have LOW family income, Australia, 2006**

Decile from most disadvantaged to most advantaged	Primary school students			Secondary school students		
	Attending public schools	Attending Catholic schools	Attending independent schools	Attending public schools	Attending Catholic schools	Attending independent schools
1	64%	50%	56%	59%	42%	48%
2	52%	38%	42%	48%	33%	36%
3	46%	33%	35%	43%	28%	30%
4	42%	29%	30%	40%	25%	27%
5	38%	26%	26%	36%	23%	22%
6	35%	23%	21%	33%	20%	19%
7	31%	21%	19%	31%	18%	17%
8	28%	18%	17%	29%	17%	15%
9	23%	14%	14%	26%	14%	12%
10	16%	11%	8%	23%	13%	9%

Source: Australian Bureau of Statistics (2008); Australian Bureau of Statistics 2006 Census data, TableBuilder.

**TABLE A.2**

**Percentage of primary and secondary school students living in Census Collection Districts in each decile from most disadvantaged (1) to most advantaged (10) according to the Index of Education and Occupation, and attending public, Catholic, or independent schools, who have HIGH family income, Australia, 2006**

Decile from most disadvantaged to most advantaged	Primary school students			Secondary school students		
	Attending public schools	Attending Catholic schools	Attending independent schools	Attending public schools	Attending Catholic schools	Attending independent schools
1	8%	15%	13%	11%	24%	20%
2	13%	22%	21%	17%	30%	30%
3	17%	27%	27%	21%	36%	36%
4	20%	31%	34%	25%	39%	40%
5	23%	35%	39%	28%	42%	48%
6	27%	39%	46%	32%	46%	52%
7	33%	44%	52%	36%	51%	57%
8	39%	51%	57%	40%	56%	63%
9	50%	60%	67%	47%	63%	71%
10	65%	74%	81%	54%	71%	80%

Source: Australian Bureau of Statistics (2008); Australian Bureau of Statistics 2006 Census data, TableBuilder.

**TABLE A.3**

**Percentage with home internet connection: primary and secondary school students living in Census Collection Districts in each decile from most disadvantaged (1) to most advantaged (10) according to the Index of Education and Occupation, and attending public, Catholic, or independent schools, Australia, 2006**

Decile from most disadvantaged to most advantaged	Primary school students			Secondary school students		
	Attending public schools	Attending Catholic schools	Attending independent schools	Attending public schools	Attending Catholic schools	Attending independent schools
1	56%	69%	70%	68%	83%	79%
2	68%	77%	79%	77%	89%	85%
3	73%	82%	84%	81%	92%	89%
4	76%	84%	86%	83%	93%	92%
5	79%	86%	88%	86%	94%	92%
6	82%	88%	90%	88%	95%	94%
7	84%	89%	92%	90%	95%	96%
8	87%	91%	94%	91%	96%	96%
9	90%	92%	94%	93%	97%	97%
10	94%	95%	97%	95%	98%	98%

Source: Australian Bureau of Statistics (2008); Australian Bureau of Statistics 2006 Census data, TableBuilder.

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