



REVIEW OF  
THE SES SCORE  
METHODOLOGY



NATIONAL  
**CATHOLIC  
EDUCATION**  
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## Executive summary

The National Catholic Education Commission (NCEC) is committed to a school funding model that supports choice and access for all Australians through the widespread provision of diverse non-government schools that have a range of fee levels and operating models. The diversity of educational opportunities across non-government schools, and their provision of choice to all families across the socio-economic spectrum, is a strength of our nation's education landscape.

The NCEC believes the public good is best served by a funding system that is needs-based, sector blind and supports diverse non-government schools in all communities where they are desired. Providing choice and access to all families, irrespective of place of residence, is an aspiration that can best be achieved through a funding model that enables choice, including the choice of low-fee, inclusive schools in all communities. The submission sets out these aspirations of Catholic education, which align with the Australian Government's policy objectives.

The analysis presented in the submission highlights how the current application of SES scores to capacity to contribute fails to deliver on these objectives. Capacity to contribute (CTC) relies solely on an indirect—and therefore imprecise—measure of parental characteristics, which is notionally intended to be a means test. The current CTC and SES settings impose high fee expectations irrespective of school context and are insensitive to individual circumstances. In combination, these factors can deny access and choice to families, particularly those whose level of advantage is not representative of where they live.

The recommendations of this submission address the issues raised:

1. The SES Review should:
  - a. examine the extent to which SES scores advantage some schools and disadvantage others; and
  - b. establish whether the SES score measure of CTC is truly needs-based (for example, do SES scores enable low-fee, inclusive non-government schools to exist in all communities).
2. The NSRB should recommend that the Australian Government make alterations to the funding model and SES measure sufficient to make a diverse non-government school sector available to all Australia families, either by:
  - a. restoring the system-average SES scores while also improving the SES scoring methodology (for example, higher income thresholds to better discriminate middle- and high-income families); or
  - b. incorporating direct measures into the determination of base funding (for example, including school resources in the calculation of school capacity to contribute).
3. In addition to the recalculation of SES that schools can currently request, the NSRB or another independent body should oversee an evidence-based appeal process that:
  - a. enables schools with unique circumstances to access a transparent and independent determination of the appropriate level of government support;
  - b. reviews CTC indicators and processes at least every four years; and
  - c. updates measures whenever new data are available.

## 1. Aspirations of Catholic education

Catholic education aspires to provide the possibility of a non-government schooling option for families who desire it. Catholic school communities are geographically, economically and socially diverse including many low fee schools - but also higher fee schools - educating more than 766,000 students in a network of over 1,700 schools across Australia. Catholic schools exist in all states and territories, in metropolitan through to very remote communities, and cover a range of school types, including special schools, majority Aboriginal and Torres Strait Islander schools, special assistance schools, boarding schools and sole-provider schools. Catholic schools have increasing numbers of Indigenous students and students with disability; they aim to make Catholic education available in all communities where it is feasible to do so.

Catholic schools aspire to provide choice in education for parents, welcoming families from across the socio-economic spectrum. Diverse school communities foster solidarity and responsibility and work together for the common good. To support diverse communities, the National Catholic Education Commission (NCEC) is committed to a needs-based and sector blind funding model that enables the possibility for low-fee non-government alternatives to public schooling to exist wherever communities desire that choice. Our submission makes recommendations to assist the NSRB to advise the Government to support these core principles of diversity, choice and access for all.

## 2. Government policy objectives in funding non-government schools

Parental choice and access to inclusive, low-fee non-government schools—and student diversity within schools—deserves government support. This is explicit in the Terms of Reference for the SES review:

[...] the Government is committed to supporting parental choice and diversity in the schooling system. This means supporting the full breadth of the non-government sector through needs-based funding arrangements.<sup>1</sup>

Yet there is a fundamental disconnect between the aspiration of the Government and the school funding model legislated by the Government. The current funding model will not deliver effectively and equitably on the principles of choice and access for all because it does not enable accessible, low-fee non-government schooling in all communities. Reliance solely on an area-based SES score to determine capacity to contribute is, in practice, reliance on an imprecise method for assessing need. A consequence of determining capacity to contribute on area-based SES scores is that deductions from base funding for schools increase markedly as SES scores rise. To meet the schooling resource standard (SRS), the funding model expects schools to charge parents annual fees up to \$8,762 per student for primary education and \$11,011 per student for secondary education, excluding capital levies (that is, up to 80 per cent of SRS base funding).<sup>2</sup> These high fee expectations for non-government schools can limit choice and access for some families – especially families whose true SES is below the average for their area of residence. The NCEC considers that this aspect of the SES measure of capacity to contribute (CTC) is inconsistent with the Government’s stated objectives in relation to school choice and diversity.

In the past, the Government has supported its objective for a diversity of schools by enabling non-government school systems to access funding arrangements that offset shortcomings in the SES score methodology. These arrangements have included:

<sup>1</sup> Terms of Reference - Review of the SES score methodology, 2017, p.1: <https://www.education.gov.au/review-socio-economic-status-ses-score-methodology>

<sup>2</sup> *Australian Education Act 2013, revised 2017*. Capacity to contribute percentages by SES score are defined in the Act and range from 10% of SRS per student for schools at or below SES 94 to 80% of the school’s SRS at or above SES 125.

- excluding system schools from the SES model (2001 to 2004);
- funding for funding-maintained schools contributing to systems (2005 to 2012); and
- system average SES scores with a 'bowed' capacity to contribute function for primary students (2013 to 2017).

Averaging across the SES scores of all schools in a system has, over the past five years, enabled non-government systems to provide, for many families, the option of diverse alternatives to government schooling, irrespective of place of residence. In 2016, for example, there were 133,394 students in 385 non-government schools with SES scores of 105 and above where fees, charges and parental contributions were less than \$4,000 per student. The average fee expectation across primary and secondary schools in these higher SES areas is from \$4,146 (SES 106) to \$9,887 (SES 125 and above). Low-fee schools in these areas are, technically, unviable as legislation sets CTC without regard for the actual resources available to a school to fund its operations.

The removal of system-average SES scores in the 2017 revision of the Australian Education Act has established explicit fee expectations for every non-government school. A consequence is that low-fee non-government schools will continue to be provided in middle- and high-SES areas only through some combination of:

- large reallocations of funding away from low-SES schools in school systems;
- parents paying higher fees; or
- significant reductions in the resources critical to a quality education.

Obstacles exist to these solutions. Governance, legal and justice considerations can, for example, prevent or impede systems reallocating funding to support low-fee alternatives in all communities. An illustrative case is the Australian Capital Territory where disadvantaged families are dispersed across highly advantaged areas. Given the high fee expectations associated with SES scores, more affordable non-government schooling options are not enabled for all families in the territory.

High fee expectations associated with high area-average SES scores assume low levels of need in the entire school community. To the extent that schools aim to be accessible to families with SES scores below their area average, the funding model can restrict the ability of non-government systems to deliver 'parental choice and diversity in the schooling system', as explained above. This is especially true in middle- and high-SES areas where deductions from Government funding are greatest. NCEC considers the current conception of need-based funding – linked to an imprecise measure of need – to be incompatible with the Government's stated policy objective: that is, to ensure that diverse schooling options exist, offering choice and access to all Australian families.

### **3. Strengths and limitations of the SES score methodology**

While SES scores have the benefit of administrative simplicity, their major limitation is their exclusive use of Statistical Area 1 (SA1) data to classify families for the purposes of capacity to contribute. The SES score methodology assumes all families within the same SA1 are accurately represented by the average characteristics of their area.

In practice, the precision of SES as a measure any school's capacity to contribute will depend entirely on the degree to which that school's students align with the average characteristics of their residential areas. For some schools, SES scores may be fit for purpose, a reasonably accurate, convenient and cost-effective way to measure capacity to contribute. However, where schools attract unrepresentative populations, for example, the poorest or wealthiest families within an SA1, a clear potential for bias exists. The issue is summarised in the Victoria University report:

A key theme of all concerns raised is that there may be systematic bias in the SES score, with certain schools or school sectors receiving an SES score not accurately reflecting the school community's SES. For example, the Census income data used to calculate the SES score may lead to a systematic bias favouring one non-government school sector over another.<sup>3</sup>

Systematic bias will occur if parents who are more disadvantaged compared to the average characteristics of the SA1 in which they reside are more likely to choose government or low-fee non-government schools while parents with higher incomes than the average of their SA1 are more likely to choose high-fee non-government schools. In this hypothetical example, the SES of students in each school type will overstate the capacity to contribute of the low-fee school while understating the capacity to contribute of the high-fee school.

For low-SES schools, fees are typically minimised because of the context of these school and funding arrangements to support them. Differences in family advantage across schools are more likely to occur in those SA1s where populations are diverse - and a choice exists over non-government schools charging different fees. It is in these schools, servicing diverse populations, that the capacity to contribute expectation based on SES scores is most likely to fail as true a measure of school need. In 2015, for example, 193 schools recorded private income of \$10,000 (or more) per student above the capacity to contribute indicated by their SES scores. Current legislation allocates these schools the same amount of Government funding as schools with lower fees and less advantaged student populations solely because they have the same SES scores.

The point is illustrated by research demonstrating that low-fee schools tend to attract higher proportions of Commonwealth Concession Card holders and higher proportions of educationally disadvantaged students than is the case for high-fee schools with identical SES scores.<sup>4</sup> Independent research commissioned by the NCEC further supports the finding that, within SA1s, high and low school fees sort families into schools according to their incomes. Children of lower-income families in an SA1 are more likely to attend (predominantly low-fee) systemic schools, while higher-income families in the same SA1 are more likely to send their children to other non-government schools. SES scores therefore appear to systematically underestimate the disadvantage present in low-fee systemic schools in certain communities, while underestimating the capacity to contribute for others.<sup>5</sup>

The imprecise nature of an area-based SES measure was recognised in the conclusions of the *Review of Funding for Schooling Final Report (2011)*, which acknowledged 'a potentially large degree of inaccuracy as the students attending a particular school are not necessarily representative of the socioeconomic averages of the areas in which they live'.<sup>6</sup> NCEC agrees that the potential for inaccuracy that results when applying an area-average score to estimate a family's socio-economic status, and the leap from this to the calculation of school need, is the most important shortcoming of the SES score methodology.

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<sup>3</sup> Victoria University, *The Socio-Economic Status (SES) score methodology used in recurrent school funding arrangements*, research paper prepared for the Australian Department of Education and Training, November 2017, p.3.

<sup>4</sup> Catholic Education Commission of Victoria, *The special deal of a lifetime: SES scores, school fees and school funding*, December 2017.

<sup>5</sup> Acil Allen Consulting, *SES and CTC modelling and analysis*, report to the National Catholic Education Commission, February 2018 (unpublished). Statistical tests (ANOVA F-test and T-test) show that for over 25,000 SA1s where children attend both systemic Catholic and other non-government schools, the mean SA1 income of families with children at Catholic schools is below, and statistically different from, the mean of other non-government schools. These results suggest that area-average SES scores hide substantial variation in the demographic composition of schools with identical scores.

<sup>6</sup> Gonski et al, *Review of Funding for Schooling Final Report*, 2011, p.177.

With respect to the Government's policy objectives, the potential for bias in SES scores matters because accuracy is a requirement for Government funds to be directed to those schools where need is greatest. Wherever area-average SES scores overestimate a school population's capacity to contribute, need is underestimated in that school's Government funding allocation. Conversely, if students' SES scores underestimate school capacity to contribute, need is overestimated. The consequence is that public funding is misdirected.

**Recommendation 1**

That the SES Review should:

- examine the extent to which SES scores advantage some schools and disadvantage others; and
- establish whether the SES score measure of CTC is truly needs-based (for example, do SES scores enable low-fee, inclusive non-government schools to exist in all communities).

**4. Refinements or alternative methodologies that could be considered**

The method used to assess capacity to contribute should be as accurate as possible in measuring the financial means of parents/guardians to fund the education of each of their children. It should include both family income and family wealth and account for family size. However, the NCEC recognises challenges in implementing the ideal measure. For example, "family" wealth is difficult to define and measure.

Though direct measures are preferable, improvements to the area SES index may be possible, to better reflect its purpose as a measure of capacity to contribute. For example, the Education and Occupation dimensions of the SES index could include only the student-relevant population in SA1s, rather than all persons aged over 15 years. Whether the income dimensions sufficiently distinguish high income families from other families could also be investigated.

A key limitation to improving CTC estimates based solely on area-average SES score is that improvements to an index will not eliminate inaccuracy in the SES score when that score is attributed to a student. As with any imprecise measure, a potential for bias will continue to depend on how much the true SES of families in an SA1 differs from their area score and the extent to which school fees sort families by their demographics. With this limitation in mind, the NCEC asks the NSRB to recommend the Australian Government consider two alternative options.

**Option 1. Improve SES accuracy through averaging across all students and all schools in systems**

The NCEC considers that bias in SES score estimations of CTC could be substantially reduced through a combination of improved SES scores (as suggested above) and restoration of the student-average SES scores for all students who attend schools in systems – as recommended by the *Review of Funding for Schooling* (2011). Averaging student SES scores across all schools reduces the imprecision that arises whenever area-based measures are used to estimate individual characteristics. Combined with improvements in SES score design, this option is a pragmatic and proven way of enabling systems to continue to provide a diversity of schools across Australia, within a funding model that may otherwise limit the viability of low fee schools in some communities<sup>7</sup>. While the restoration of student-average SES scores would provide for greater consistency in the treatment of systemic schools it carries the limitation that it cannot be applied to all schools.

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<sup>7</sup> Gonski et al, *Review of Funding for Schooling Final Report*, 2011, p.177. Endorsing 'block funding', the 2011 Review noted that Australian Government funding for all systems should be assessed and calculated at the system rather than the school level, including that the 'enrolment weighted average SES score of all the schools' in a system should be used as the basis for estimating the quantum of the private contribution that should count towards meeting the resource standard in non-government systems.

Consequently, the provision of low-fee stand-alone schools across Australia, irrespective of sector or religious affiliation, would continue to face disadvantage wherever those schools draw from the poorest families in SA1s. Conversely, some schools across all sectors would continue to be advantaged by the continued use of area SES scores.

### **Option 2. Combine SES scores with school resources to measure capacity to contribute**

The NCEC considers that the NSRB should recommend to the Australian Government that SES scores be combined with direct measures of school resources to more accurately measure each school's capacity to contribute. A school funding model based partly on school resources and partly on student SES scores would have the advantage of:

- correcting for shortcomings in how parental capacity to contribute is measured;
- encouraging access by enabling schools to remain inclusive and accessible through fees targeted to the population they serve;
- offering parents greater school choices
- facilitating better targeting of public funding to those schools below the SRS.

Analysis commissioned by the NCEC suggests that including school private income in the measurement of capacity to contribute, combined with SES scores or direct measures of parental characteristics, supports the principle of diverse non-government schools in all communities. The analysis suggests that counting the resources of schools as 50 per cent of the capacity to contribute calculation is sufficient to ameliorate any overestimation of capacity to contribute associated with area SES scores.<sup>8</sup>

The major consequence of including school resources in the capacity to contribute calculation is that public funding would be better directed to high-need, low-resource schools that are currently providing a non-government schooling choice to less wealthy families, regardless of where they live. By moderating the high CTC expectations associated with SES scores, a resource-based approach supports the Government's policy objectives of diversity and school choice for all Australian families. The disadvantage of including private income in CTC calculations is that means-testing schools could weaken incentives to raise fees. The NCEC considers, however, that a well-designed taper rate would minimise disincentives. Precedents for income testing that employ taper rates exist in several areas of Australian public policy, including marginal tax rates and taper rates on income support payments and child care subsidies.

#### **Recommendation 2**

The NSRB should recommend that the Australian Government make alterations to the funding model and SES measure sufficient to make a diverse non-government school sector available to all Australia families, either by:

- restoring the system-average SES scores while also improving the SES scoring methodology (for example, higher income thresholds to better discriminate middle- and high-income families); or
- incorporating direct measures into the determination of base funding (for example, including school resources in the calculation of school capacity to contribute).

### **5. Other considerations**

The NCEC recognises that the usefulness of capacity to contribute indicators can be measured by the extent to which appeals are required. However, it is difficult for any methodology, no matter how

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<sup>8</sup> Acil Allen Consulting, *SES and CTC modelling and analysis*, report to the National Catholic Education Commission, February 2018 (unpublished).

robust, to accommodate every school context. Some schools have atypical populations, which is why an appeal process is needed in the legislation.

As it currently stands, the appeal process has been onerous, a barrier to appealing SES scores. While schools have rigorous data that provide strong evidence for an appeal, the appeal process requires schools to survey parents, even when the information has already been provided by parents. While a survey could remain as an option in the process that could be invoked if needed, the NCEC proposes that it should not be mandatory.

Irrespective of any changes recommended to SES scores or the introduction of alternatives, NCEC believes processes would be further enhanced by regular review and assessment of the fitness for purpose of capacity to contribute measures so that any unintended consequences or anomalies do not continue to be embedded and exacerbated over time.

Finally, while this submission complies with the NSRB Terms of Reference for the review of SES score measure of CTC, the NCEC considers there is an urgent need for broader debate on non-government schools' capacity to contribute. Capacity to contribute is the most important determinant of the quantum of Government funding for many schools. Catholic systemic schools alone will contribute \$2.3 billion toward their schooling resource standard in 2018<sup>9</sup>. The financial penalty that SES scores appear to impose on schools in higher SES areas is a consideration pertinent to the NSRB, in relation to the question of whether current arrangements impede or assist schools to reach their resource standard.

**Recommendation 3**

In addition to the recalculation of SES that schools can currently request, the NSRB or another independent body should oversee an evidence-based appeal process that:

- enables schools with unique circumstances to access a transparent and independent determination of the appropriate level of government support;
- reviews CTC indicators and processes at least every four years; and
- updates measures whenever new data are available.

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<sup>9</sup> The CTC contribution for Catholic systemic schools was calculated from the Australian Government's latest funding estimation tool which applies CTC percentages based on school SES levels, as legislated for in the *Australian Education Act, 2013*.