

*In this submission it is suggested that the averages which are presented as benchmarks for each school have not been calculated in the manner stated on the My School website. Instead, the averages have been calculated using a method which may have disadvantaged some schools, particularly schools with very low or very high ICSEA scores.*

The NAPLAN results for each school show three types of average for each domain

- the average score for the school
- the average score for statistically similar schools (the “SIM” average)
- the average score for all Australian schools.

It is implied on the My School website that each “SIM” average is the average score for the (up to) 60 schools which are nominated as being statistically similar to the school being viewed. For example, the following information is given on the Fact Sheet *About ICSEA*:

The ICSEA value determines which schools are listed as statistically similar on the *My School* website. Up to 60 statistically similar schools are grouped here.

Comparisons are made between the average NAPLAN scores achieved by students at the school being viewed and the average for the group of schools to which it is statistically similar.

I suggest that the following question should be asked:

“Is each “SIM” value the average of the 60 statistically similar schools?”

The answer to that question is almost certainly “no”. A follow-up question is

“Have the “SIM” values been calculated using mathematical equations which were derived from the data for all schools?”

The answer to that question is almost certainly “yes”. I say that because it is possible to reproduce the equations using the data given on the My School website.

In particular, it is most likely that polynomial equations have been used. This is not just a technical detail which is of interest only to statisticians. Polynomial equations may not produce a good fit to data, particularly at the extremes. For the NAPLAN results this means that the benchmark “SIM” averages for some schools may be distorted, particularly for schools with very low or very high ICSEA scores. It may be claimed that the “SIM” values are reliable, on average, but if the results for individual schools are distorted then that is unacceptable.

All of that aside, the My School website gives detailed technical information

on ICSEA and consistency would require that similar information should be given on the calculation of the “SIM” averages. Only then can there be a discussion on whether the current method of deriving the equations, which represents 1920’s technology, should be replaced with a more up-to-date method.