Northern Territory Schools 2012-2015

What the *My School* website tells us

An analysis of school funding and Staffing trends over recent years based on data published on the My School website

Prepared for the Australian Education Union

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Introduction

The purpose of this paper is to examine what the data from the *My School* website[1] can show us about how the administration and funding of Northern Territory Schools – government schools in particular – has been working out on the ground over the period 2012 -2015. This period covers the time since the Country Liberal Party formed government.

The Northern Territory has a set of schools with unique challenges. In a circumstance where remoteness and high proportions of indigenous students are understood to be factors associated with lower educational outcomes, the Northern Territory has a surfeit of both. Almost 70% of its schools are classified as remote or very remote and around 40% of its school population is reported as indigenous. Almost half of NT government schools report an indigenous enrolment of 95% or higher.

In its submission to the Senate Select Committee on School Funding Investment, the Northern Territory government pointed out that:

> *"The Northern Territory has one of the most socio-economically disadvantaged populations in Australia. In 2015 the average Index of Community Socio-Educational Advantage for NT Government schools was 758, compared to a national average of 1000. Of the 100 most disadvantaged schools nationally, 54 are in the NT. Additionally, 44 per cent of NT students live in remote or very remote locations, compared to 2.2% nationally.*[2]

The Northern Territory is also unique in having no schools located within the geographic designation of "Metropolitan" (i.e. mainland capital city and urban areas with populations of 100,000 or more[3]). Notwithstanding this, there is a significant degree of conurbation around Darwin itself (classified as "Provincial" in the MCEETYA Geographical Location Classification, July 2001) which arguably distinguishes it from other Provincial areas in the territory.

For the purposes of this report, the areas around Darwin and Palmerston (postcodes 0800 to 0820) have arbitrarily been designated as "Urban". Other areas retain their 2015 ACARA classification.

[1] http://www.myschool.edu.au/
[2] http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/School_Funding_Investment/SchoolFundingInvestment/Submissions ; Submission 46
[3] Jones, R; *Geolocation Questions and Coding Index*; Ministerial Council on Education, Employment, Training and Youth Affairs; Canberra; November 2004

Socio-Educational Advantage in the Northern Territory

The *My School* website includes a measure of each school's degree of socio-educational advantage (SEA). This measure takes account of key factors in students' family backgrounds (parents' occupation, school education and non-school education) that have been shown to have an influence on students' educational outcomes at school. In addition to these student-level factors, research has shown that the school-level factors referred to in the introduction influence the degree of educational advantage or disadvantage experienced by students.

The magnitude of these combined effects is presented on the *My School* website in two forms: first, in a profile of the school population in terms of the four "Quarters" of SEA calculated for the nation as a whole[4]. The second form is a numerical Index of Community Socio-Educational Advantage (ICSEA)[5] for each school.

To inform our picture of the territory's schools, we can compare the distribution of SEA in the Government, Catholic and Independent sectors and also look at how SEA is distributed geographically within the territory.

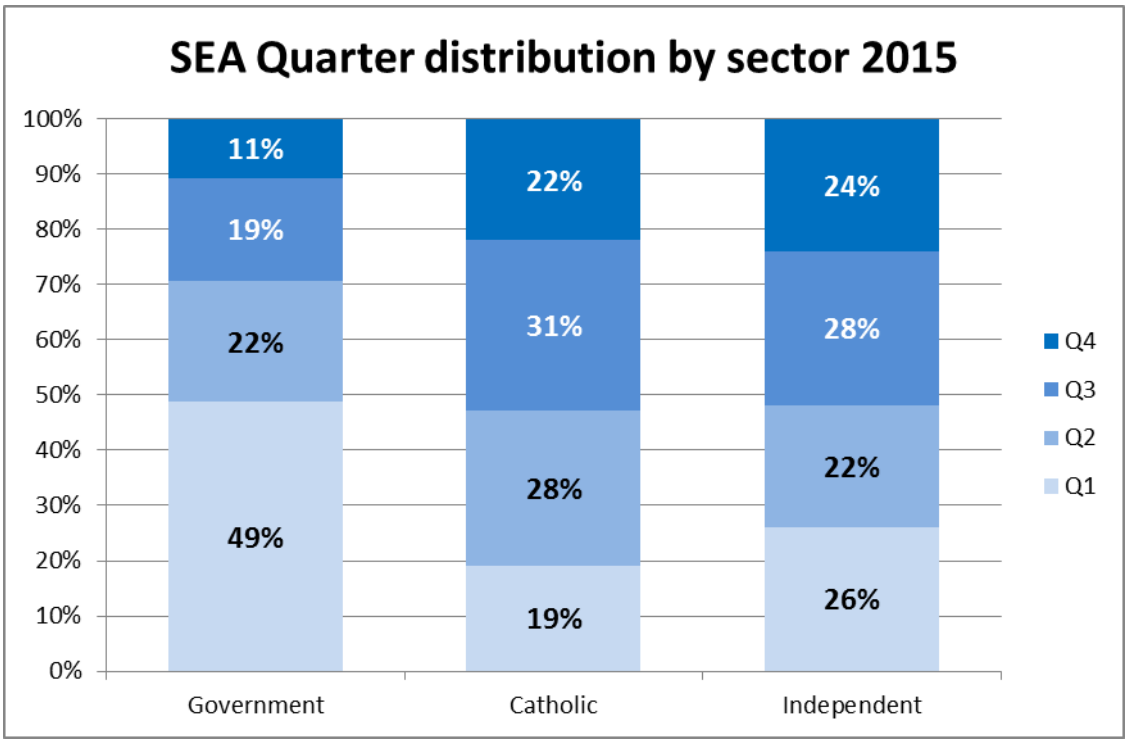

Figure 1 Socio-educational advantage quarter distribution for Northern Territory schools in 2015 by sector. Source: *My School* website, 2016

In Figure 1 above, Q1 represents families with the lowest degree of socio-educational advantage and Q4 the highest. We see at once that the quarters are unevenly spread among the three sectors: Government schools have around half the proportion of Q4 families and around double the proportion of Q1 families compared to non-government schools.

[4] The quarters are calculated using only the student-level factors of educational advantage.
[5] For further explanation, see http://www.acara.edu.au/_resources/About_icsea_2014.pdf

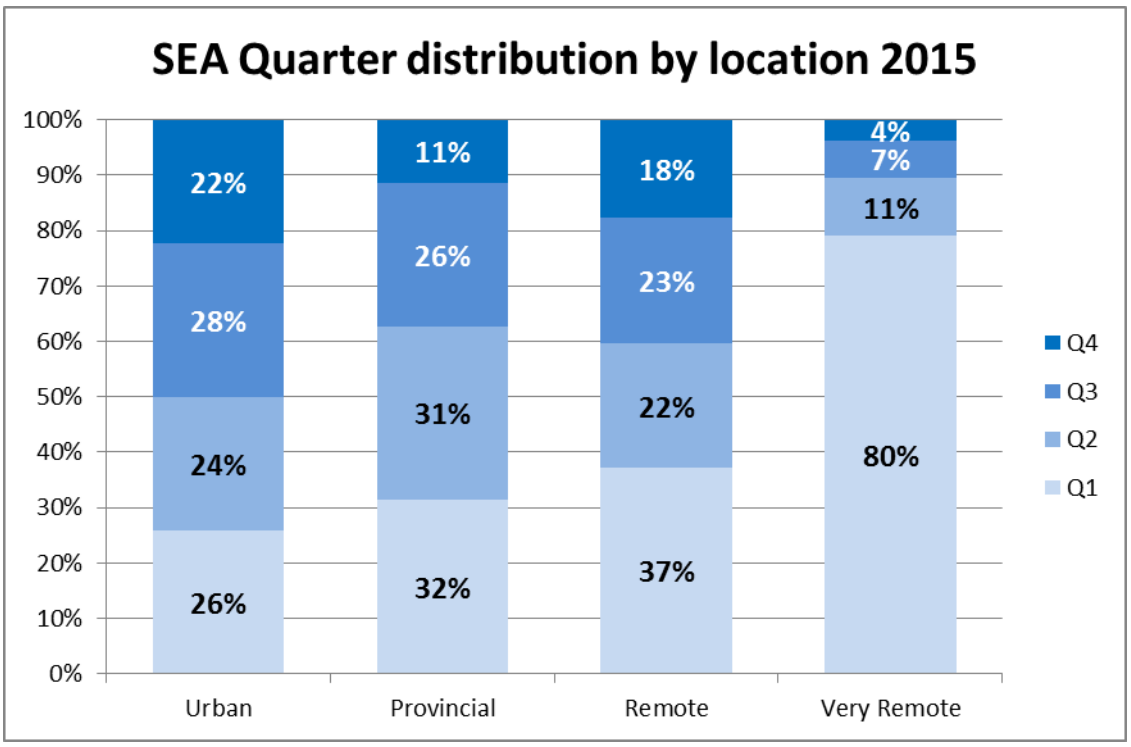

Figure 2: Socio-educational advantage quarter distribution for Northern Territory schools in 2015 by location. Source: *My School* website, 2016

The striking feature in the geographic distribution of SEA (Figure 2) is the not altogether surprising finding that 80% of Q1 students are to be found in very remote locations. Not surprising; because remoteness in itself is an important factor in SEA and also because most (~85-90%) of the schools in very remote locations have high, if not completely, indigenous enrolments – also an important SEA determinant.

Given the high degree of disadvantage this represents, it should be expected that government funding policies would substantially favour resourcing government schools, especially those in remote and very remote schools, as a high priority.

Government funding of Northern Territory schools

The *My School* website provides school finance information for the years since 2009 and up to 2014, the most recent funding year for which information is reported. For the purposes of this report, we will consider the funding years 2012 to 2014.

NT schools receive funding from three directions: The NT government, the Federal government, and other, generally private sources. Government schools are funded largely by the territory government, with some federal funding. Non-government schools are funded largely by federal government, with additional funding from fees and other private sources as well as the territory government.

Recurrent income is money received by a school for expenditure relating to ongoing operating costs of the school (e.g. teaching and non-teaching staff salaries, school operating costs).

		2014 School count*	NT Government recurrent funding per student			Net Change 2012-14	% change 2012-14
			2012	2013	2014		
All	All locations	184	$ 11,571	$ 11,932	$ 10,829	-$742	-6.4%
	Urban	34	$ 10,411	$ 11,030	$ 10,256	-$155	-1.5%
	Provincial	24	$ 9,529	$ 10,191	$ 9,274	-$255	-2.7%
	Remote	38	$ 11,233	$ 11,336	$ 10,386	-$846	-7.5%
	Very Remote	88	$ 15,261	$ 15,254	$ 13,349	-$1,912	-12.5%
Government	All locations	148	$ 14,698	$ 15,256	$ 13,706	-$992	-6.7%
	Urban	25	$ 12,983	$ 13,955	$ 12,920	-$64	-0.5%
	Provincial	16	$ 12,518	$ 13,480	$ 12,117	-$401	-3.2%
	Remote	28	$ 16,478	$ 16,882	$ 15,036	-$1,442	-8.7%
	Very Remote	79	$ 17,215	$ 17,125	$ 14,979	-$2,236	-13.0%
Catholic	All locations	16	$ 2,627	$ 2,966	$ 3,189	$562	21.4%
	Urban	6	$ 2,782	$ 2,797	$ 2,900	$119	4.3%
	Provincial	3	$ 2,315	$ 2,698	$ 3,581	$1,265	54.7%
	Remote	3	$ 2,767	$ 2,787	$ 3,157	$390	14.1%
	Very Remote	4	$ 2,300	$ 3,782	$ 3,406	$1,107	48.1%
Independent	All locations	20	$ 2,924	$ 3,069	$ 3,236	$312	10.7%
	Urban	3	$ 2,897	$ 2,932	$ 3,013	$115	4.0%
	Provincial	5	$ 3,062	$ 3,464	$ 3,524	$462	15.1%
	Remote	7	$ 2,872	$ 2,796	$ 3,121	$250	8.7%
	Very Remote	5	$ 2,489	$ 2,694	$ 3,147	$657	26.4%

Table 1: Northern Territory government recurrent funding to all schools, 2012-2014.
Source: *My School* website 2014-16[6]

The top row of Table 1 shows that there was a 6.4% overall reduction in per-student recurrent funding across all territory schools in the period under consideration. However, this reduction was not evenly spread across all schools, sectors, and regions.

Government schools bore most of the reduction (i.e. 6.7%, or an average of $992 per student). By contrast, Catholic schools in the same timeframe received an *increase* in their NT Government recurrent funding of 21.4% from a smaller base, amounting to a gain around $562 per student. Independent schools also received an increase - also from a smaller base - of around 10.7% or $312 per student.

[6] Includes only schools with published finance data. Special schools are not included in this or other analyses.

These findings already appear anomalous in the context of the distribution of socio-educational disadvantage discussed earlier. However the picture becomes even more anomalous when we consider the geographic distribution of funding changes.

Reduction in territory government funding of government schools was greatest (13% or around $2,236 per student) in the very remote (i.e. most disadvantaged) schools. Comparing this to the picture for non-government schools demonstrates an inexplicable inversion of thinking, since the territory government funding to non-government schools generally showed a *greater increase* in provincial and remote areas than in the more urban areas.

		2014 School count*	All Government recurrent funding per student			Net Change 2012-2014	% change 2012-14
			2012	2013	2014		
All	All locations	184	$ 17,206	$ 17,145	$ 16,708	-$498	-2.9%
	Urban	34	$ 14,487	$ 14,419	$ 14,443	-$44	-0.3%
	Provincial	24	$ 13,974	$ 14,060	$ 13,841	-$133	-1.0%
	Remote	38	$ 17,801	$ 17,652	$ 17,502	-$299	-1.7%
	Very Remote	88	$ 23,300	$ 23,287	$ 21,679	-$1,621	-7.0%
Government	All locations	148	$ 18,696	$ 18,428	$ 17,409	-$1,287	-6.9%
	Urban	25	$ 15,739	$ 15,674	$ 15,455	-$284	-1.8%
	Provincial	16	$ 15,371	$ 15,157	$ 14,537	-$834	-5.4%
	Remote	28	$ 20,913	$ 20,527	$ 19,181	-$1,732	-8.3%
	Very Remote	79	$ 23,215	$ 22,795	$ 20,652	-$2,563	-11.0%
Catholic	All locations	16	$ 14,457	$ 15,351	$ 16,667	$2,210	15.3%
	Urban	6	$ 11,485	$ 11,415	$ 12,470	$985	8.6%
	Provincial	3	$ 10,470	$ 11,038	$ 12,216	$1,746	16.7%
	Remote	3	$ 12,756	$ 13,257	$ 15,380	$2,624	20.6%
	Very Remote	4	$ 25,752	$ 29,717	$ 30,202	$4,451	17.3%
Independent	All locations	20	$ 11,887	$ 12,431	$ 13,378	$1,491	12.5%
	Urban	3	$ 10,021	$ 10,390	$ 10,846	$824	8.2%
	Provincial	5	$ 10,988	$ 11,984	$ 12,528	$1,540	14.0%
	Remote	7	$ 12,859	$ 13,195	$ 14,507	$1,648	12.8%
	Very Remote	5	$ 19,834	$ 19,576	$ 23,121	$3,287	16.6%

Table 2: Total public recurrent funding (i.e. territory and federal) for Northern Territory schools 2012-2014. Source: *My School* website, 2014-2016

The anomalies continue when funding from all governments – territory and federal government – is considered. Government schools lost an average of almost $1300 per student or around 6.9% of 2012 total government funding. By contrast, Catholic school students gained an additional $2210 per student or 15.3% of their all-government funding. Independent school students gained almost $1500 each or 12.5% compared to their 2012 funding.

The geographic anomalies also continue with the table showing more remote government schools losing more than their urban counterparts in both in dollar and percentage terms, while more remote non-government schools gained more.

A student in a very remote government school has had his or her funding cut by around $2,500 over the same period that a student in a very remote Catholic school has gained nearly $4,500. It is hard to frame this circumstance in any other way than that money is being taken from students in government schools and given to non-government schools.

		2014 School count*	Net Recurrent Income per student			Net Change 2012-2014	% change 2012-14
			2012	2013	2014		
All	All locations	184	$ 18,573	$ 18,513	$ 18,222	-$351	-1.9%
	Urban	34	$ 15,901	$ 15,969	$ 16,287	$386	2.4%
	Provincial	24	$ 15,669	$ 15,543	$ 15,182	-$487	-3.1%
	Remote	38	$ 19,658	$ 19,459	$ 19,543	-$115	-0.6%
	Very Remote	88	$ 23,905	$ 23,946	$ 22,510	-$1,395	-5.8%
Government	All locations	148	$ 19,191	$ 18,909	$ 17,914	-$1,277	-6.7%
	Urban	25	$ 16,270	$ 16,201	$ 16,023	-$247	-1.5%
	Provincial	16	$ 15,877	$ 15,574	$ 14,931	-$946	-6.0%
	Remote	28	$ 21,434	$ 20,972	$ 19,579	-$1,855	-8.7%
	Very Remote	79	$ 23,646	$ 23,289	$ 21,225	-$2,421	-10.2%
Catholic	All locations	16	$ 16,847	$ 17,579	$ 19,224	$2,377	14.1%
	Urban	6	$ 14,428	$ 14,286	$ 15,733	$1,304	9.0%
	Provincial	3	$ 12,764	$ 13,006	$ 13,346	$582	4.6%
	Remote	3	$ 15,359	$ 15,616	$ 18,430	$3,071	20.0%
	Very Remote	4	$ 26,755	$ 30,679	$ 32,085	$5,330	19.9%
Independent	All locations	20	$ 16,831	$ 17,354	$ 18,888	$2,057	12.2%
	Urban	3	$ 15,254	$ 16,401	$ 18,324	$3,071	20.1%
	Provincial	5	$ 15,849	$ 16,266	$ 16,640	$791	5.0%
	Remote	7	$ 18,041	$ 18,291	$ 20,289	$2,248	12.5%
	Very Remote	5	$ 23,177	$ 22,807	$ 26,704	$3,527	15.2%

Table 3: Net recurrent funding from all sources, less allowed deductions, for Northern Territory schools 2012-2014. Source: *My School* website, 2014-2016

Net recurrent income (Table 3) is the amount of income received by a school from the Australian and territory governments, plus fees, charges, parent contributions and other private sources, less certain deductions specified by the ACARA protocols. In simple terms, it is the total funding that the school is able to use for its educational programs.

Sadly, the picture for the distribution of net recurrent income per student is much as we have seen before, with the exception that rather more income appears to be available to non-government urban schools, probably from their fees and private sources.

While a very remote government school had $2,421 less to spend on each student than it had in 2012, very remote Catholic schools had $5,330 more to spend on their students, the bulk of it from government sources.

Staffing of Northern Territory government schools

When we follow the money available to government schools as recurrent funding, we find that the vast bulk of it is expended in the form of salaries for teaching and non-teaching staff. Thus, changes in funding typically reflect changes in school staffing, which in turn usually relate to changes in school enrolment. For this reason, it is useful to consider changes in school enrolment and staffing over the period in question from 2012 to 2015.

Since enrolment is a key determinant of staffing, it is necessary to consider these two variables together. There is a number of ways in which this can be done. For the purposes of this report we will examine the numbers of students enrolled per teacher. This is usually referred to as the student / teacher ratio and we will be looking at variations in this number for government schools across the period in question.

Enrolment FTE				% Change
2012	2013	2014	2015	2012-15
29,137.4	29,100.7	29,187.8	28,558.7	-2.0%

Table 4(a): NT government school enrolments 2012-2015

Reported figures show a 2% reduction in NT government school enrolments overall in the period concerned, compared to …

Teaching Staff FTE				% Change
2012	2013	2014	2015	2012-15
2555.0	2394.4	2389.8	2216.0	-13.3%

Table 4(b): NT Government school staffing 2012-15 (full-time equivalent)

… a 13.3% reduction in teaching staff …

Non-Teaching Staff FTE				% Change
2012	2013	2014	2015	2012-15
1155.2	1093.7	1027.0	1039.9	-10.0%

Table 4(c): NT Government schools non-teaching staff 2012-15

… and a 10% reduction in non-teaching staff. The number of government schools was essentially stable over the period, so the implication is that the overall student/teacher ratio (and the student/non-teaching staff ratio) must have increased (i.e. more students per teacher).

The regional figures bear this out, however once again the distribution of change was uneven, with more remote schools generally subject to greater increases in student/teacher ratio.

	Students per teacher 2012	Students per teacher 2013	Students per teacher 2014	Students per teacher 2015	% Change in Students per teacher
All Locations	11.4	12.2	12.2	12.9	13.0%
Urban	13.1	13.6	13.4	14.3	9.3%
Provincial	13.4	14.0	13.9	14.5	7.7%
Remote	10.8	11.7	11.4	12.3	14.1%
Very Remote	9.3	10.2	10.6	11.0	18.0%

Table 5: Student/Teacher ratios; NT Government schools 2012-2015

While an increase in student-teacher ratio implies an increase in class sizes, there is no way to accurately assess what that increase might be in a particular case, or even in general. What we can say is that, whatever the change in class sizes for urban schools, it's likely to be greater in the very remote schools.

Year to year staffing changes.

The general increase in student teacher ratios may not be the most unfortunate feature of policies affecting the staffing of government schools. Stability of teaching staff and educational programs is of critical importance in all schools, but arguably it is even more critical in disadvantaged schools where students may be less resilient to change.

The concern can be illustrated with the case of just one small school in a remote area of the Northern Territory which will not be identified here.

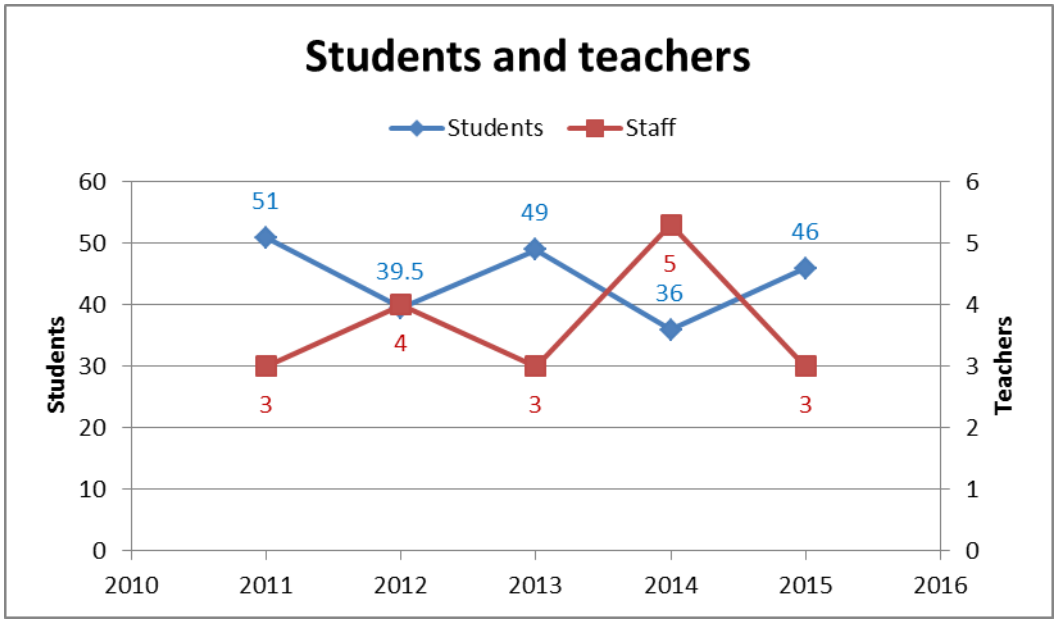

Figure 3: Enrolment and staffing variation in a small, remote area NT school, 2011-2015

The graphs track the numbers of students (blue) and staff (red) over the period from 2011 to 2015. It is difficult to imagine what confluence of policy and circumstances might have given rise to the situation that as student numbers increased, staffing numbers decreased and vice-versa. There could be a range of possible explanations for an individual case of this kind of year-to-year variance, however looking at the NT government system as a whole, the degree of this kind of variance, both up and down, is quite extraordinary, compared to other jurisdictions.

To gain an inter-jurisdictional perspective, the mean and standard deviation for year-to-year variations in student teacher ratio were calculated for all NT government schools with data reported for the years 2012-2015. The same figures were calculated for New South Wales and Queensland government schools. The results are presented in Table 6:

Jurisdiction	NSW	Qld	NT
Average year-year variation in student / teacher ratio; 2012-15.	+0.01	+0.11	+0.21
Standard deviation of year-year variation in student / teacher ratio 2012-15.	1.31	1.67	3.42

Table 6: Analysis of variation in student/teacher ratios for schools in NSW, Qld and NT; 2012-15

The overall gain and loss variations in NSW almost cancelled out (average of +0.01), while there was a small overall increase in Queensland (0.11). Not only was the average size of the year-to-year variation in staffing greater in the NT schools (0.21) than in NSW or Queensland, but the size of the individual *variations* in NT schools (SD=3.42) was more than double that of NSW (SD=1.31) and double that Queensland (SD=1.67).

What this means on the ground for NT students is that their chances of seeing their school arrangements (and possibly their educational programs) rearranged from year to year is much higher than in other jurisdictions. When a small school such as the one illustrated in the graph has three teachers one year, five the next and then back to three, with no apparent relation to the actual enrolment, continuity of teacher-student rapport and stability of educational programs must be compromised.

It is not in the scope of this paper to explore the underlying reasons for this variability of staffing in NT schools. Unfilled vacancies and/or the policy of staffing on attendance rather than enrolment, or a host of other factors may be responsible, but it is something which should be the subject of urgent study and policy commitment on behalf of the NT education authorities and the government.

Disclaimer

The tables and graphs in this paper have been prepared from financial and other data published on the ACARA *My School* website (www.myschool.edu.au) over the period 2014 – 2016. The dataset represents over 180 schools of all types and in all locations across the Northern Territory.

The data provides opportunities to examine the detail and impact of government policies in ways not normally possible from other sources.

Where relevant data for a school was incomplete, that school has been excluded from particular calculations. Special schools have also been excluded from this analysis. Such exclusions would have minimal effect on the 'per-student' calculations used throughout this paper. Where it has been possible to validate results in this paper against official sources, they have been found to agree very closely and often exactly.

Notwithstanding these considerations, the data is more than adequate as a basis for examining the general intent, direction and impact of government funding policies over recent years. It is not warranted for any other purpose. ACARA has not endorsed any of the findings or conclusions in this paper