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# Review of Funding Systems

# Background paper for Advisory Group

**Funding to support small schools**

24 June 2016

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**Introduction**

The Review of Education Funding Systems for early learning and schooling is seeking, as part of the broader Education Work Programme, to ensure funding is directed to the size of the education challenge early learning services, schools and Communities of Learning face, and towards growing the learning and achievement of all children and young people.

The funding model we are exploring through the Review comprises a standard per-student funding amount together with additional funding for children and young people who are most at risk of educational under-achievement. The model envisages providing supplementary funding where necessary to maintain the educational viability of particular schools and services, consistent with ensuring a network of services and schools.

The purpose of this paper is to inform thinking about the appropriate nature and level of this supplementary funding. The focus is on funding to support the educational viability of small schools.

In this paper we outline and make a preliminary assessment of current funding arrangements, comprising both operational grant funding and staffing entitlement, that have been designed to support small schools or have this effect. Some of these funding streams are referred to as base funding, while others are only loosely related to roll size and have the effect of delivering proportionately greater funding to smaller schools.

**Interface between supplementary funding and network design**

The provision of supplementary (or base) funding increases average per-student government expenditure for students who attend small compared to larger schools. From an efficiency and value for money perspective it is important that funding to support the viability of smaller schools sits alongside active network management.

The level and design of supplementary funding has the potential to influence incentives for communities seeking to establish and retain particular schools.

**The structure of the school network**

Small primary schools are a particular feature of the network of state and state-integrated schools. In 2015, 33% of contributing and full primary schools had rolls of 100 or fewer students, and 19% had 50 or fewer students.

Small intermediate schools are not as common. In 2015, 10% of intermediate schools had a roll of between 101 and 200 students. There were no intermediate schools with a roll of less than 100.

Among secondary schools 7% have a roll of 200 or less, while 2% have a roll of 100 or less.

Perhaps the greatest change in the network over recent years has been the increase in the number of composite schools, particularly those with small rolls; 63% have rolls of less than 200 while 26% have rolls of 100 or less. One component of this increase is the establishment of wharekura.

Communities of Learning and other school clustering arrangements are presenting new opportunities and ways to think about the network.

**Base operational grant funding**

Schools’ operational grant funding includes a specific base component which differs by school type. In the 2015 school year, total base funding was $77.1 million, accounting for 5.4% of total expenditure on operational grant funding. Table 1 provides information on the level of expenditure across school types.

**Table 1: Value of base funding component by school type 2015[[1]](#footnote-1)**

|  |  |  |  |
| --- | --- | --- | --- |
| School type | Base funding  $million | Share of total base funding | Share of total roll |
| Primary | $27.8 | 36% | 53% |
| Intermediate | $2.9 | 4% | 7% |
| Secondary (year 9 to 15) | $18.1 | 23% | 26% |
| Secondary (year 7 to 15) | $10.7 | 14% | 8% |
| Composite | $14.5 | 19% | 6% |

Separately some other components of operational grant funding either specifically include a base component, such as ICT funding, or effectively include a base element, such as heat, light and water and the property maintenance grant.

The structure of the base component of operational grant funding is complex. The initial value of base funding differs significantly depending on school type, as does the rate and structure of abatement as the school roll increases, and the final value of base funding. Key features are summarised in Table 2.

**Table 2: Structure of base operational grant funding by school type (2016)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Full/ Contributing Primary | Intermediate | Secondary  Year 7 – 15 | Secondary  Year 9 - 15 | Composite  Year 1 – 15 |
| $27,936 for up to 25 students  $2,684 for over 403 students  (90% abatement) | $54,341 for up to 300 students  $3,249 for over 527 students  (94% abatement) | $166,378 for up to 375 students  $61,235 for over 900 students   (64% abatement) | $136,338 for up to 300 students  $61,235 for over 900 students  (56% abatement) | $151,012 for up to 250 students[[2]](#footnote-2)  $61,235 for over 900 students  (60% abatement) |

The current structure of base funding implies that different school types face different levels of fixed costs, and that costs correlate differently to changes in roll size. It is also notable that schools receive a level of base funding irrespective of roll size.

The structure of the base component is not underpinned by quality costing information. In large part it dates back to 1990 when the overall operational grant was developed. The model for operational grant funding was initially developed on the basis of what schools actually spent and was calibrated against the projected budgets of a representative cross section of 24 New Zealand schools. However, following negotiations between the government and the sector, it was agreed that the resulting funding would have seen some schools “unfairly funded” and funding was subsequently distributed based on a statistical assessment that ensured that no school would end up worse off.

Since 1990 base funding has been adjusted on an ad-hoc basis. Adjustments have sought to reflect policy decisions of the time, general movements in inflation and allocations to Vote Education in a given Budget round.

In 2010, a high level review of base funding was undertaken, initially by Ernst and Young and subsequently by the Ministry. Both reviews sought to ascertain what basket of inputs faced by schools exhibited fixed cost profiles. In both cases the analysis was based on Financial Information Data System data, which is derived from schools’ annual financial accounts. This data is subject to differences in the way schools record and report costs and does not provide the level of granularity required to enable a proper identification of the inputs that go into running a school and subsequently their prices. Notably, each came to slightly different conclusions about what the basket of inputs should be.

While it is not possible without more detailed information on school costs to draw final conclusions about the specific level of base funding that should be provided for different types of schools, we offer the following broad observations:

* It is not clear that in practice the nature and level of fixed costs (e.g. board of trustee fees and expenses, rates, audit fees, etc) faced by different school types are as different as suggested by the current funding arrangements.
* Overall, it would appear that secondary and composite schools are relatively generously treated as compared to primary schools across all roll sizes.
* The idea that all schools receive base funding, albeit a smaller amount for larger schools, seems inconsistent with an objective that base funding is to support a viable network of provision.

We also note that overall the structure of base funding is relatively complex. For example, from publicly available information it would appear that Victoria, Australia has a simpler structure of base funding with a substantially common approach across different school types. Further, at high roll levels, base funding abates to zero.

*Questions for discussion*

*What inputs into the operation of a school hold a low correlation to roll size?*

*How do these differ between different school types?*

*How could Communities of Learning help address challenges for small schools?*

*Is it desirable that base funding fully abates as roll size increases to provide more per-student funding?*

*What does this mean for current levels of base funding?*

**Base staffing**

A number of components reflecting different roles are used to determine a school’s overall staffing entitlement (management/leadership, delivery of the curriculum and pastoral care) but schools have flexibility in how they use their entitlement.

We have classified the following as providing ‘base’ entitlement because each is either designed to ensure that small schools have sufficient staffing to operate the school and deliver the curriculum; and/or have the effect of providing, on average, substantially more full-time teacher equivalents (FTTEs) per student at lower rolls:

* Base Management/Professional Leadership Staffing.
* Maximum Average Class Size (MACS) – applies to primary and intermediate schools and the year 7 and 8 component of year 7 to 15 secondary schools and of composite schools.
* Base Curriculum Staffing – applies to years 9 to 13 of secondary and composite schools.
* Additional Guidance Staffing – applies to years 9 to 13 of secondary and composite schools.

Separately, we note that while Variable Management Staffing increases with roll size, it does not increase proportionately, providing relatively more resourcing to smaller schools.

**Table 3: Estimated quantum of staffing entitlement (2015)[[3]](#footnote-3)**

|  |  |
| --- | --- |
| Staffing Component | Estimated Number of FTTEs |
| Base Management/Professional Leadership | 1,723 |
| Maximum Average Class Size Policy | 457 |
| Base Curriculum Staffing | 2,306 |
| Additional Guidance Staffing | 835 |

These components of staffing entitlement are estimated to account for some 13% of total staffing entitlement provided to schools.

***Base professional leadership/management***

Primary and intermediate schools receive Base Professional Leadership Staffing while secondary and composite schools receive Base Management Staffing. Both provide a maximum of 1 FTTE of staffing entitlement which is reached at a roll of 250 students.

The management of schools has become more complex over time, including as a result of increasing workplace health and safety compliance requirements and changes in technology. Property management also takes a considerable amount of management time, with the most recent estimates suggesting an average of 15 hours per week being spent in this area.

Small schools may struggle to fulfil their management obligations with the entitlement provided through the combination of the Professional Leadership/Base Management and Variable Management components.

***Primary schools - Maximum Average Class Size policy***

Primary schools receive additional base staffing entitlement through the Maximum Average Class Size (MACS) policy. Modelling indicates that this accounts for some 363 FTTEs across all primary schools.

The MACS policy is a ‘safety net’ which applies when staffing entitlement generated by curriculum staffing ratios is insufficient to provide 1 FTTE for every 25 students. It only applies when a school has a roll of less than 176 students. The policy means that a primary school of 176 students is guaranteed 7 FTTEs.

A criticism of the MACS policy is that at particular roll levels, schools receive a whole FTTE with the addition of just one extra student. Occasionally, schools have offered incentives to attract students when their roll is close to a resourcing threshold. However, there is little evidence that a significant portion of the primary school network engage in this practice. Other than at rolls of around 25 students (the step up from 1 to 2 FTTEs), data shows a reasonably smooth distribution of schools around MACS tipping points.

Notwithstanding the ‘cliff’ feature of the MACS policy, it would appear to be an efficient approach to staffing small primary schools. An alternative policy would likely involve either higher levels of staffing entitlement or mean that some students would be taught for at least some of the time in significantly larger classes than at present.

A MACS of 25 is not unreasonable given the underlying curriculum staffing ratios over Years 1 to 8 and the year span a teacher may be required to teach across, especially in particularly small schools (e.g. rolls of 50 or less).

***Intermediate Schools - Maximum Average Class Size policy***

The MACS policy also applies to intermediate schools. Modelling indicates that the MACS policy accounts for some 12 FTTEs for this group of schools.

In intermediate schools the MACs value of 25 is relatively generous, given the underlying curriculum staffing ratio for years 7 and 8 of 29 students for one FTTE. Compared to a MACS value of 29 (consistent with the underlying curriculum staffing ratios), schools at particular roll levels receive one additional FTTE.

***Year 9 to 15 secondary schools - Base Curriculum Staffing and Additional Guidance Staffing***

Year 9 to 15 secondary schools receive Base Curriculum Staffing and Additional Guidance Staffing entitlement. Modelling indicates that as a group these schools receive an estimated 1,311 FTTEs from Base Curriculum Staffing and 500 FTTEs from Additional Guidance Staffing.

The formulae for Base Curriculum Staffing and Additional Guidance Staffing share a common structure, and are, therefore, discussed together. Schools receive Base Curriculum Staffing of a minimum of 0.5 FTTEs and Additional Guidance Staffing of 0.18 FTTEs for every year level with at least one student. The amount increases to a maximum of around 1.2 FTTE of Base Curriculum Staffing and 0.45 FTTEs of Additional Guidance Staffing when there are 40 students in the year level. This means a school with five year levels receives a maximum of 6 FTTEs of Curriculum Base Staffing and 2.3 FTTEs of Additional Guidance Staffing at a roll of around 200 students.

The justification for linking the level of Base Curriculum Staffing and Additional Guidance Staffing to the number of year levels is unclear. It leads to anomalous impacts for junior high schools and senior secondary schools; and also for composite schools with very small secondary rolls (see below).

The level of base staffing provided through these arrangements appears relatively generous compared to primary schools. And unlike primary and intermediate schools, base staffing entitlement is not withdrawn or abated as roll size increases beyond 200 students. These elements are key drivers of the high average per-student cost of small year 9 to 15 secondary schools.

***Year 7 to 15 secondary schools***

The MACS policy, Base Curriculum Staffing and Additional Guidance Staffing apply to Year 7 to 15 secondary schools. (A similar approach applies to junior high schools – Year 7 to 10 schools). Modelling indicates that as a group, Year 7 to 15 secondary schools receive some additional 66 FTTEs through the MACS Policy, 574 FTTEs from Base Curriculum Staffing, and 216 FTTEs from Additional Guidance Staffing.

The key question is the appropriateness of applying two different approaches to addressing the implications of small size to a single institution. Such schools are likely to view themselves, and operate as, a single institution – not a separate intermediate and secondary school.

***Composite schools***

Composite schools are treated in a similar way to Year 7 to 15 secondary schools. Although in the case of Māori medium schools (which are significant for this group) the underlying curriculum staffing ratios mean that they do not receive MACS support. Large composite area schools also receive an additional management staffing allowance of 2 FTTEs once their roll reaches 750 students.[[4]](#footnote-4)

Modelling indicates that composite schools as a group receive some 17 FTTEs of staffing entitlement through MACS, 421 FTTEs through Base Curriculum Staffing and 119 FTTEs through Additional Guidance Staffing.

Small composite schools generally have small secondary components, and in some cases do not have any students in particular secondary year levels.

Two key issues arise in relation to composite schools:

* the appropriateness of applying two different approaches to mitigate the impact of small size on a single institution (the same issue as with Year 7 to 15 secondary schools)
* the appropriateness of the level of support provided through Base Curriculum Staffing and Additional Guidance Staffing where the secondary roll is very small.

**Preliminary conclusions**

The analysis indicates there are opportunities to reduce the level of funding that is provided through base funding arrangements. This would allow more funding to be delivered on a per-student basis.

Current arrangements for staffing entitlement involve very different approaches for addressing the impact of small size between the primary and secondary schooling sectors, and do not consistently reflect a focus on managing the impact of fixed costs. Further, in the case of secondary schools, there is an inconsistency in approach between operational funding where base funding abates with roll size, and staffing entitlement where the base element is retained irrespective of roll size.

For primary schools, base elements of staffing entitlement appear to be set at minimum possible levels – small primary schools would probably struggle to effectively deliver the curriculum if base staffing entitlements were to be reduced. In comparison base elements of staffing entitlement for secondary schools are significantly more generous.

It would also be useful to explore a new approach to base staffing entitlement for composite schools and secondary schools with a combination of primary and secondary levels that does not artificially divide these schools into two institutions.

*Questions for discussion*

*What considerations should drive base staffing levels?*

*How could Communities of Learning mitigate some of these drivers?*

*Are different staffing arrangements to mitigate the impacts of small size justified across different types of schools?*

*Is it desirable to develop a single mechanism for mitigating the impact of small size for schools that have both primary and secondary year levels?*

1. Does not include base funding for other school types, such as special schools. Uses July 2015 roll. [↑](#footnote-ref-1)
2. Composite schools with a roll of less than 250 that have been established since 2010 are funded under an interim funding formula. They receive $56,939 plus $2,232 per Year 9 to Year 13 student, capped at $135,061. [↑](#footnote-ref-2)
3. The estimated FTTE values have been derived from modelling using March roll data. They are only indicative of actual allocations for the 2015 school year. [↑](#footnote-ref-3)
4. Introduced in Budget 2012. This recognised that composite schools over 750 students operate as distinct schools requiring an appropriate management structure. [↑](#footnote-ref-4)