

Funding and efficiency in secondary schools in England

September 2019



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Introduction

In this report, we look at school funding policy, considering the Johnson government's proposal to allocate additional funding to schools using a model which ensures baseline funding of £5,000 per secondary pupil and which returns overall school funding to pre-austerity levels. We use the DfE's own efficiency ratings of secondary schools, which compare the progress made to the amount of funding received per pupil by each school, to see the impact of the current funding policy.

The Institute for Fiscal Studies has [noted](#) that this baseline top-up approach "would increase the level of funding in low-funded local authorities and reduce the spread of differences across local authorities... the effects are relatively small, particularly for secondary schools". We consider the regional variation of funding and the impact this is having on the progress of secondary school pupils and comment that a small effect on funding may be better than a large one. The IFS points out several other flaws in the proposed top-up and suggests "a different, and potentially more coherent, approach would be to use any extra funding to increase the basic amounts that exist in the national funding formula".

A consideration of the impact of current funding policies suggests that more thinking needs to be done, or at least that the national funding formula should be fully implemented across all local authorities. It also suggests that, rather than simply redistributing

funding away from better funded schools (especially those in London) to make funding fairer, we should learn from the successes of more efficient schools and apply that learning to the allocation of funding.

A consideration of the factors affecting efficiency also suggests that the new Progress Eight measure of school performance is not yet reflecting the social demographic of secondary schools.

The various factors affecting efficiency are all linked and so conclusions are difficult to make, but we see that bigger schools are more efficient as are those with lower proportions of pupils in receipt of free school meals. Meanwhile, better funded schools make worse progress and achieve worse Ofsted ratings.

School efficiency can be a useful market segmentation tool and we have prepared this report for our clients, who may be anticipating increased school spending. However, the IFS have commented on the affordability of the proposals and sound a cautious note about the plans, with which we close this introduction, noting that they: "would cost about £4.7 billion if policymakers reversed cuts of 8% since 2009–10. Continuing to protect schools from increases in employer pension contributions would cost a further £1.5 billion. Not doing so would reduce schools' purchasing power by about 3% in a single year."

School efficiency

What we mean by efficiency

The DfE defines the School Efficiency Metric as the standardised progress score divided by standardised income. A full description of the way it's calculated – different for primary and secondary is on the [DfE website](#).

Essentially the better progress a school's students make for the same income, the higher its efficiency. The DfE expresses this in deciles, **1 being the most efficient** and 10 the least efficient. The tool which the DfE publishes allows schools to compare themselves with 49 'similar' schools to see a relative efficiency compared to these similar schools. However, in this report we look at national efficiency – comparing each school to **all** other schools, so that we can explore the factors that have an effect on efficiency. (In practice, however, we note that all but 106 schools have the same decile, whether national or within the group). All data is taken from the [October 2018 figures](#).

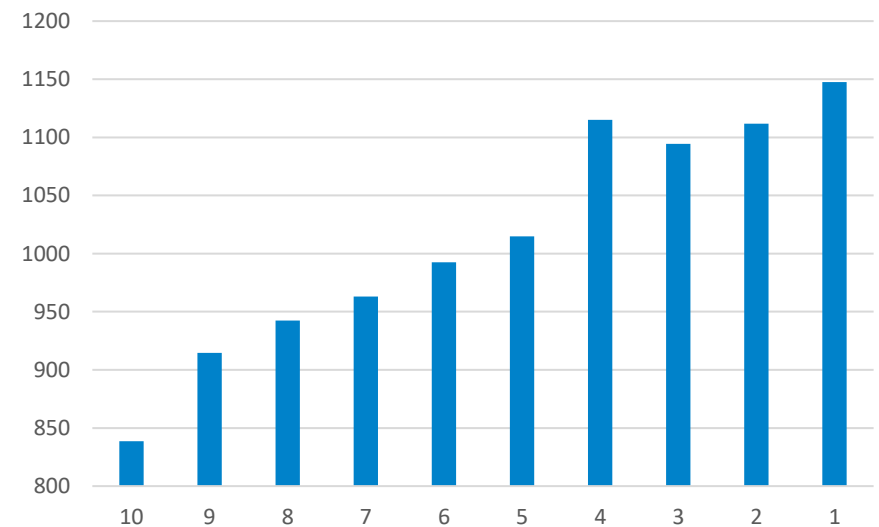
We might imagine anything that allows schools to spend more efficiently or to make better progress would result in them being in lower national efficiency deciles.



School size

Clearly, smaller schools find it less easy to be efficient:

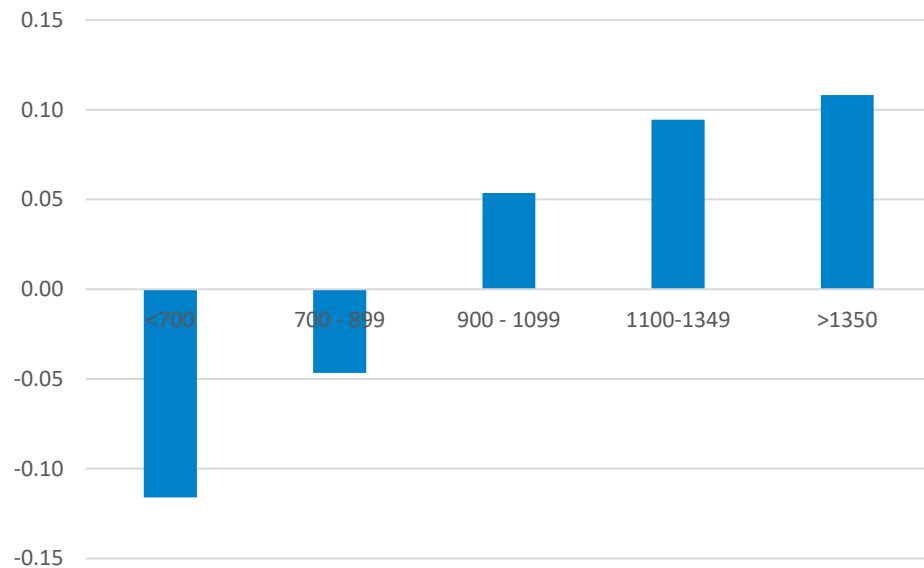
Efficiency national decile vs average size - secondary



10th decile schools – the least efficient – tend to be disproportionately small. Note that grammar schools and special schools are excluded from this data.

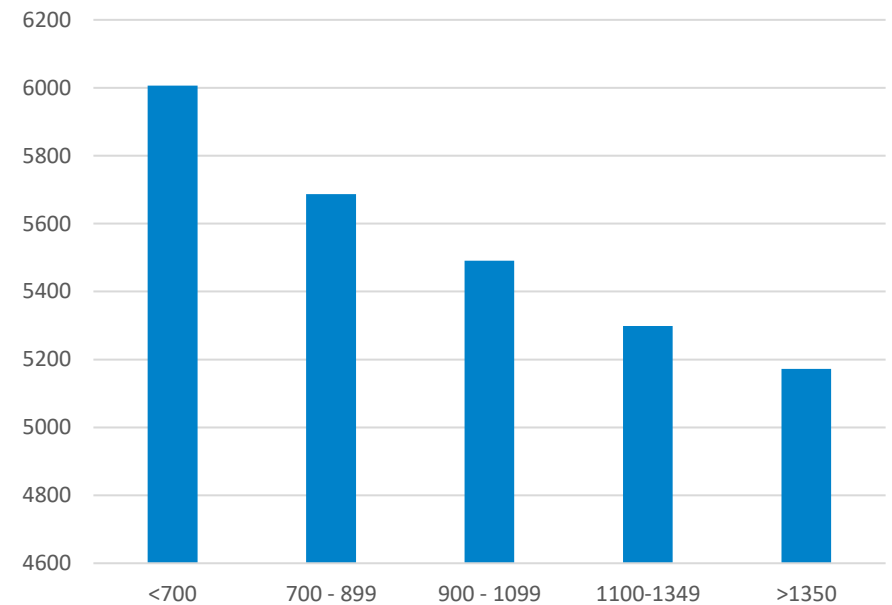
There is common view that children do better at smaller schools, but when looking at Progress 8 (P8), the opposite is seen to be true – on average, only schools with above 900 pupils achieve positive progress:

Size band vs average P8



However, smaller schools do tend to receive better per pupil funding:

Size band vs income per pupil

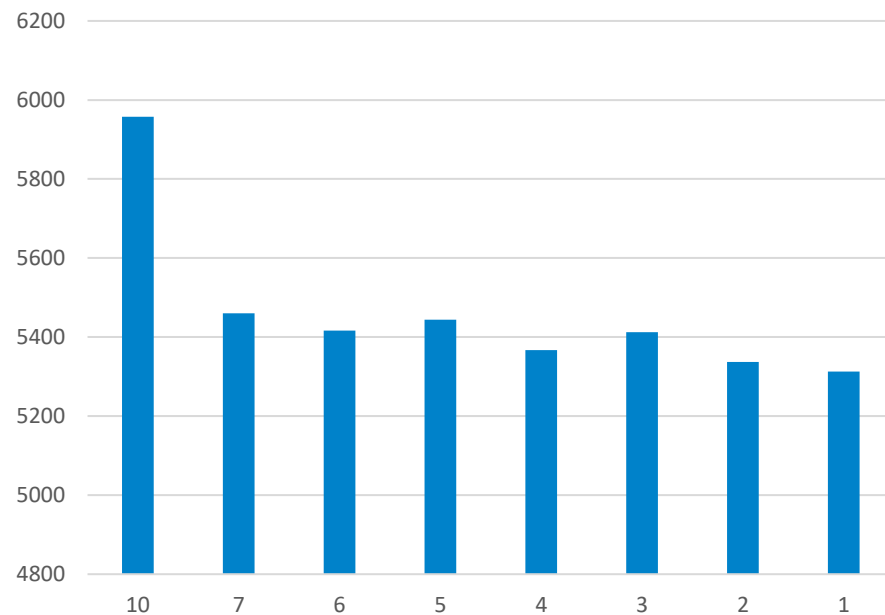


So, it seems that smaller schools are really up against it when it comes to efficiency – their metrics are being negatively affected by both low progress and high income.

Which is the bigger factor, progress or income?

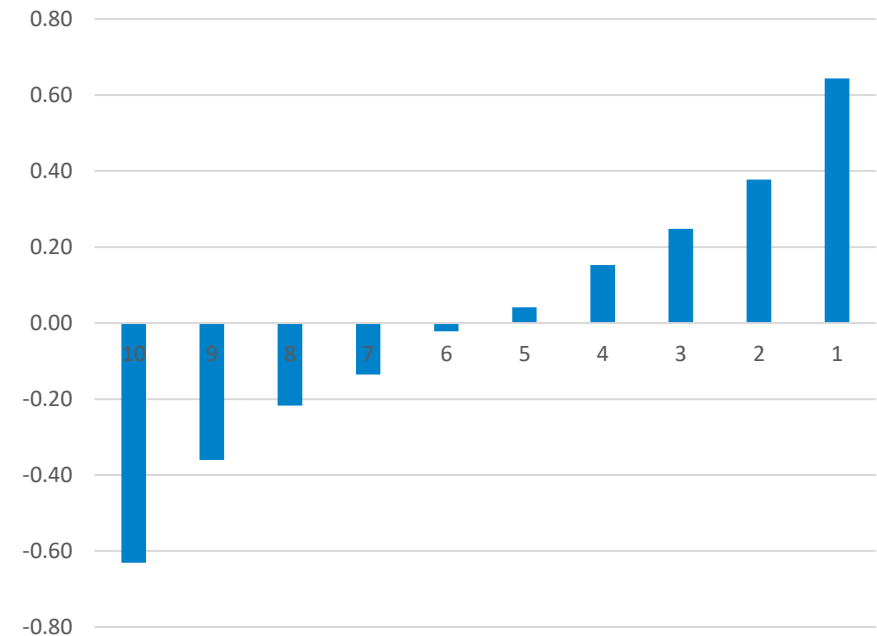
The picture is complicated somewhat by the fact that some 10th decile schools may be receiving additional funding: these schools constitute something of an outlier:

Efficiency national decile vs average income per pupil



Ignoring the outlier, the other average pp income of the other size bands varies by less than 3% from the average. This implies that poor progress is a bigger driver to low efficiency – or to put it another way, the **amount of per pupil funding received makes little difference on progress**: if anything, those that receive less income per pupil make better progress – perhaps because they are in bigger schools.

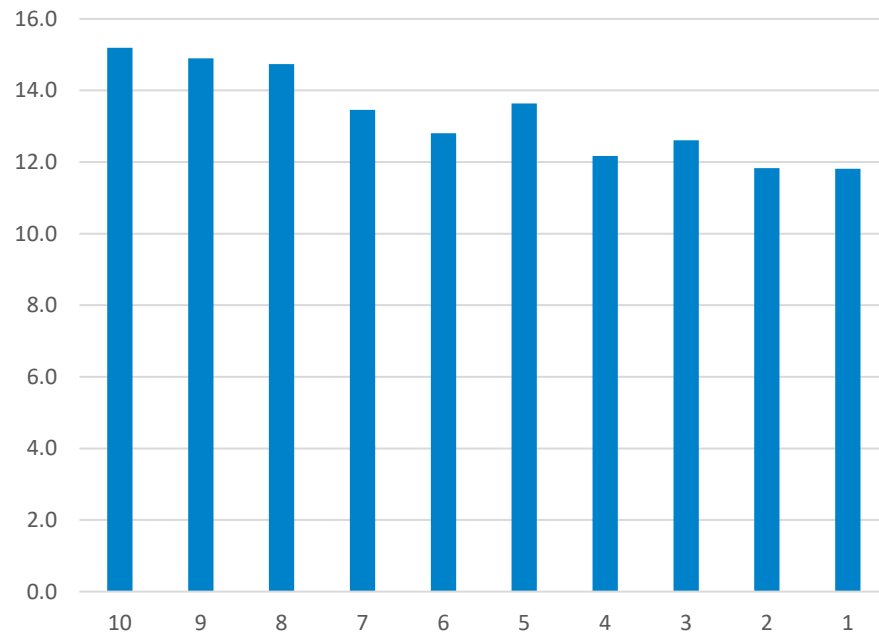
Efficiency national decile vs average P8



What are the implications for social mobility?

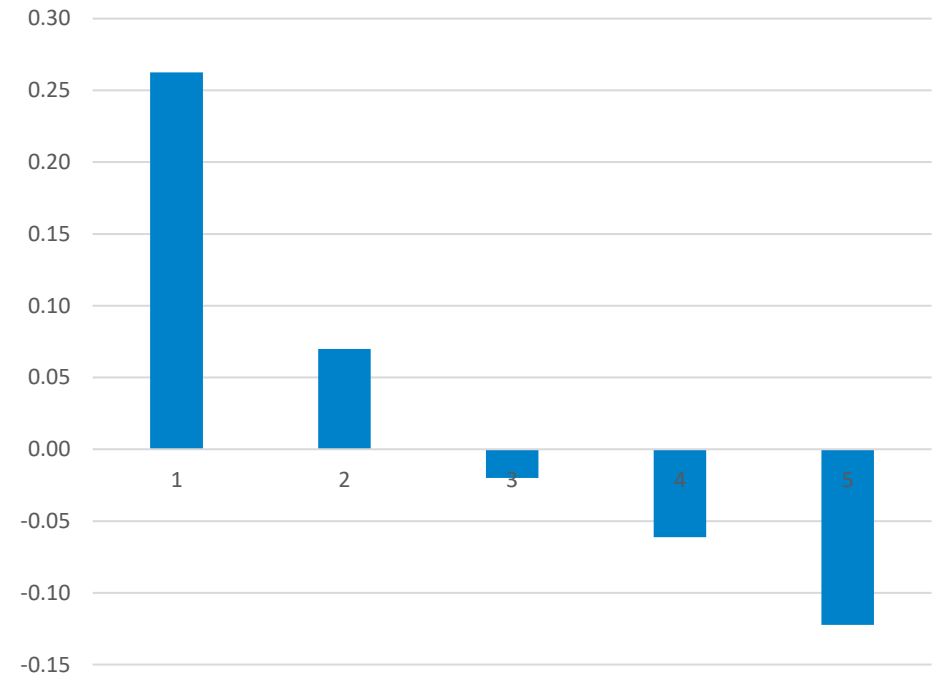
The national average % FSM for the schools covered in this data is 13.6%, which is also the average for the 5th decile. There is some variation between this and the 1st and the 10th decile: the 1st decile has around 15% lower FSM than average, while the 10th is about 10% higher.

Efficiency national decile vs average % FSM



%FSM has a significant impact on progress:

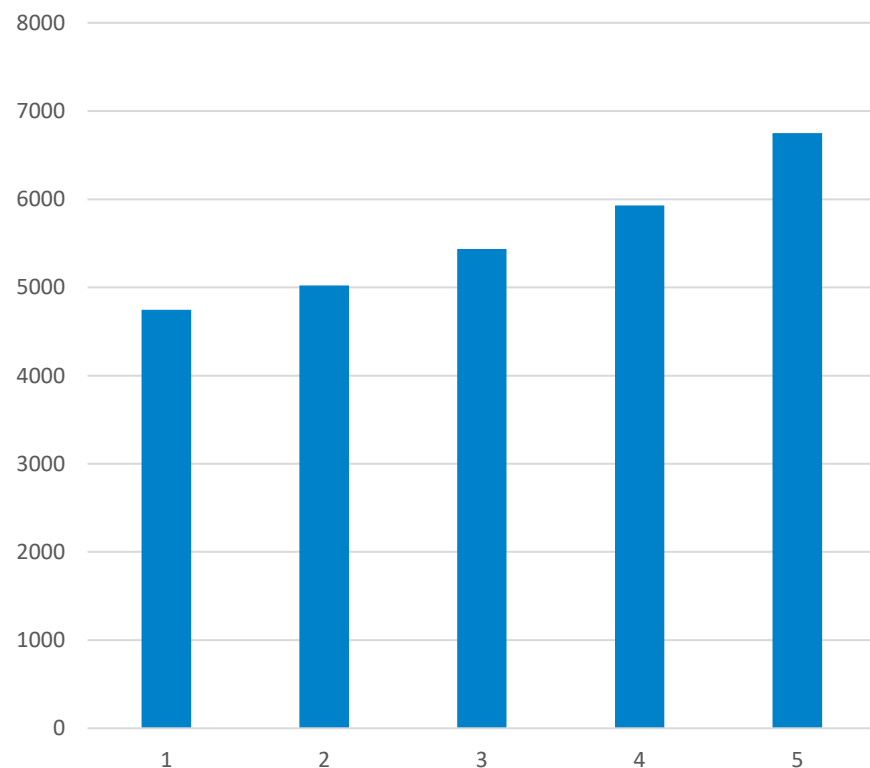
%FSM band vs average P8



Where 1 is lowest %FSM band. Each band contains similar numbers of secondary schools.

The current school funding arrangements award higher per pupil income to schools with higher FSM, the resulting pattern being:

% FSM band vs average pp income



Schools in the highest % FSM band (5) receive 24% more per pupil than the middle band, while those in the lowest FSM band receive 12% less – so there is an exponential financial benefit to FSM proportion.

The combination of FSM and funding factors to progress suggest that the model of funding schools preferentially to close the social mobility gap is not (yet) working. Pupil premium funding has been in place for nine years but the new national funding formula gives additional support to schools with high %FSM, but this is not yet fully implemented.

Are MATS or single academies more efficient?

Data on MATs and academies is always a little opaque because of the different types of academies (esp. sponsored or converter) which make up MATs; the size, composition and geographical range of MATs make them difficult to compare. However, we can see that among MATs with 10 or more secondary schools:

- MATs are slightly more efficient: median efficiency (raw score) is 106, compared to 101 for all secondary schools.
- Large MATs are less efficient – only Outwood Grange has a median efficiency (109) that is above average for MATs.

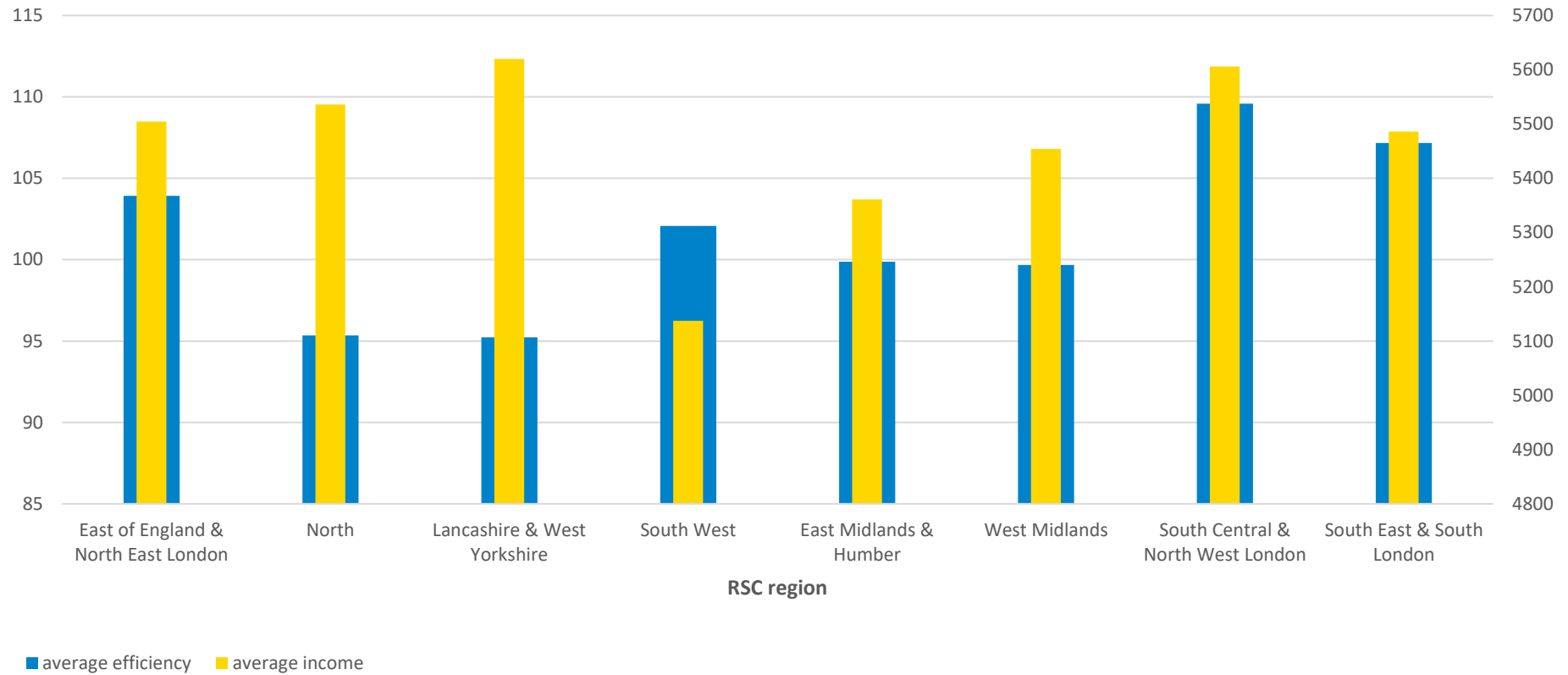
- Four MATs have average efficiencies of under 90:
Academies Enterprise Trust, E-Act, Ark Schools and Northern Education Trust.

These MATs are more likely to contain sponsored academies, whose performance continues (despite forced conversion) to be below that of other schools and academies, which adversely affects the P8 scores.

Regional variation

School funding, despite recent changes to the funding formula, retains an element of regional variation, as does pupil progress, and so efficiency.

Average efficiency vs average income by region



Comparing the average efficiencies of schools and academies in different regions, we see that the most efficient (raw score efficiency >120, where median is 100) are:

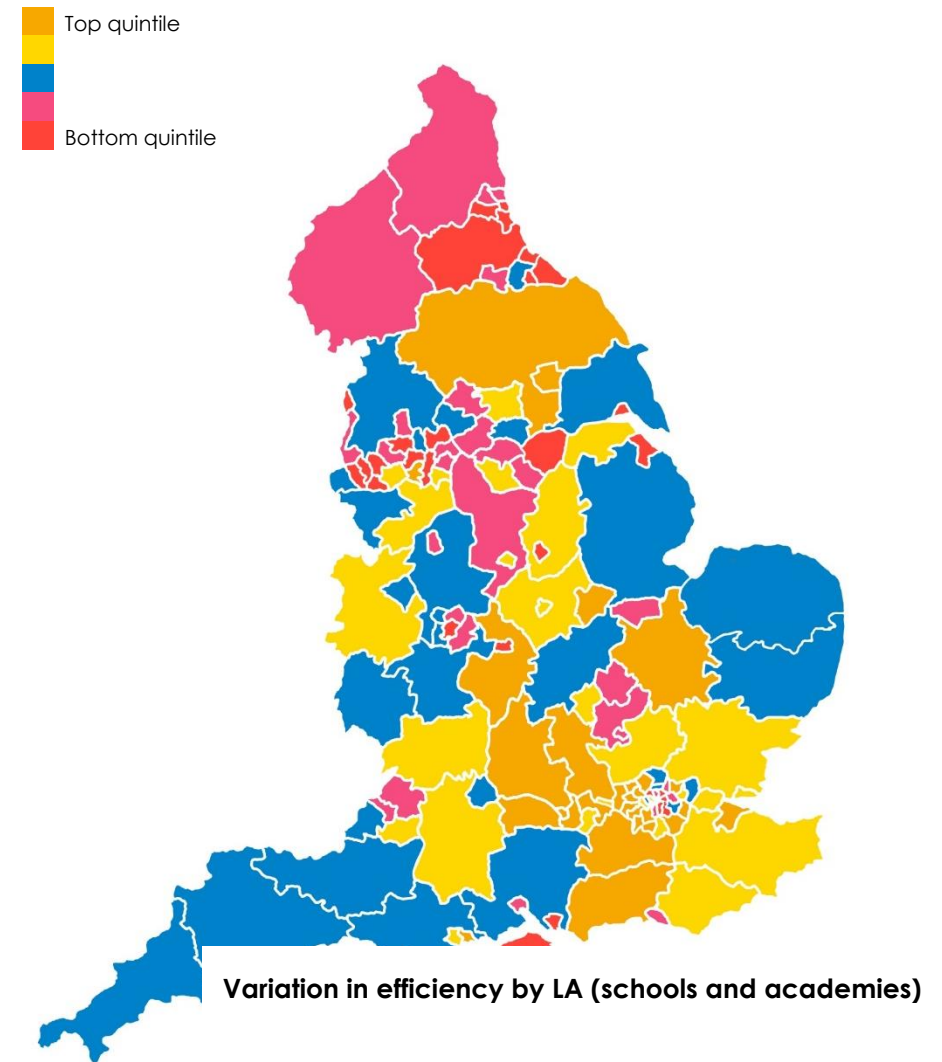
- Sutton
- Kingston upon Thames
- Redbridge
- Barnet
- Merton
- Richmond upon Thames
- Wokingham
- Buckinghamshire
- Hounslow
- Bromley

With the least efficient (<80) being:

- Manchester
- Lambeth
- St. Helens
- Nottingham
- Blackpool
- Knowsley

London schools are among the most efficient, according to the DfE metric, which suggests that rather than simply redistributing funds away from London (as recent, and promised future education policy has), we could perhaps be looking to see how

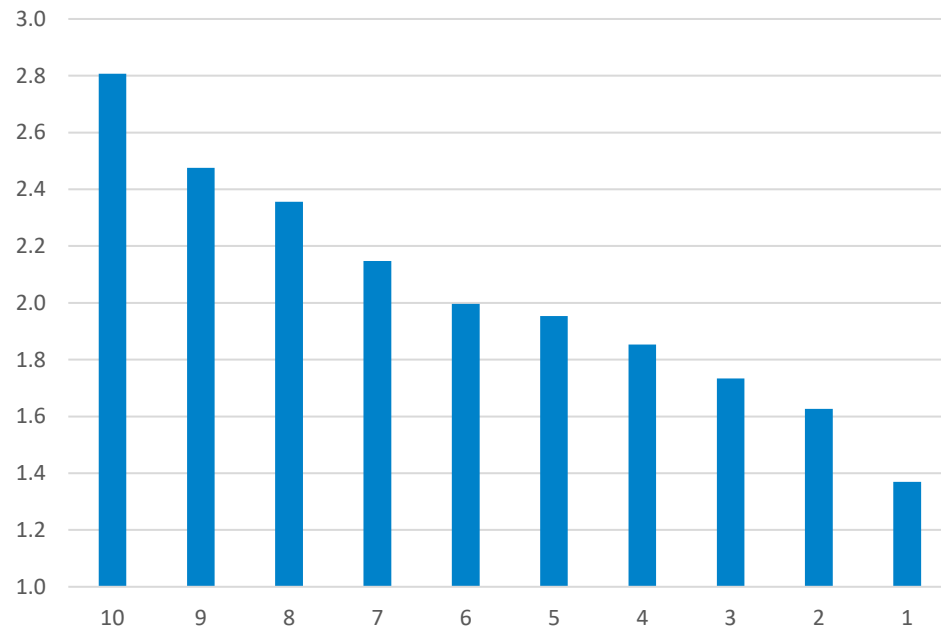
schools in the capital have [made better use of funding](#) to drive school improvement.



How does Ofsted reflect any of this?

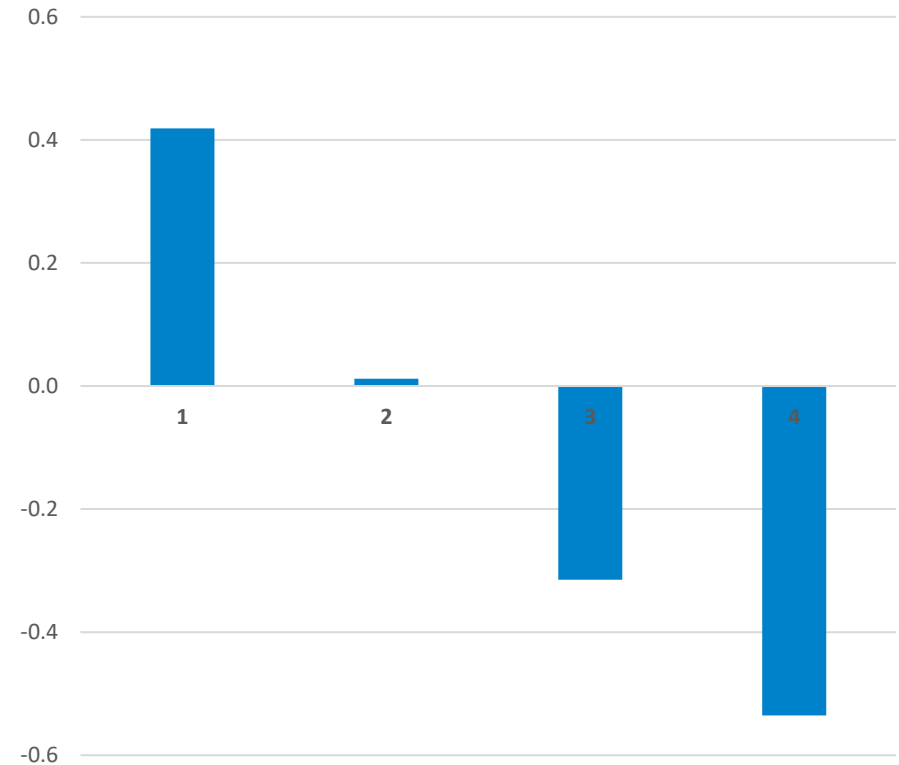
Given the patterns noted above, we might expect Ofsted ratings (1= outstanding) to correspond to school efficiency, with less efficient schools having lower ratings, and so we find it to be:

Efficiency national decile vs average Ofsted overall rating



And we see the lower that rating, the worse the progress and the higher the income:

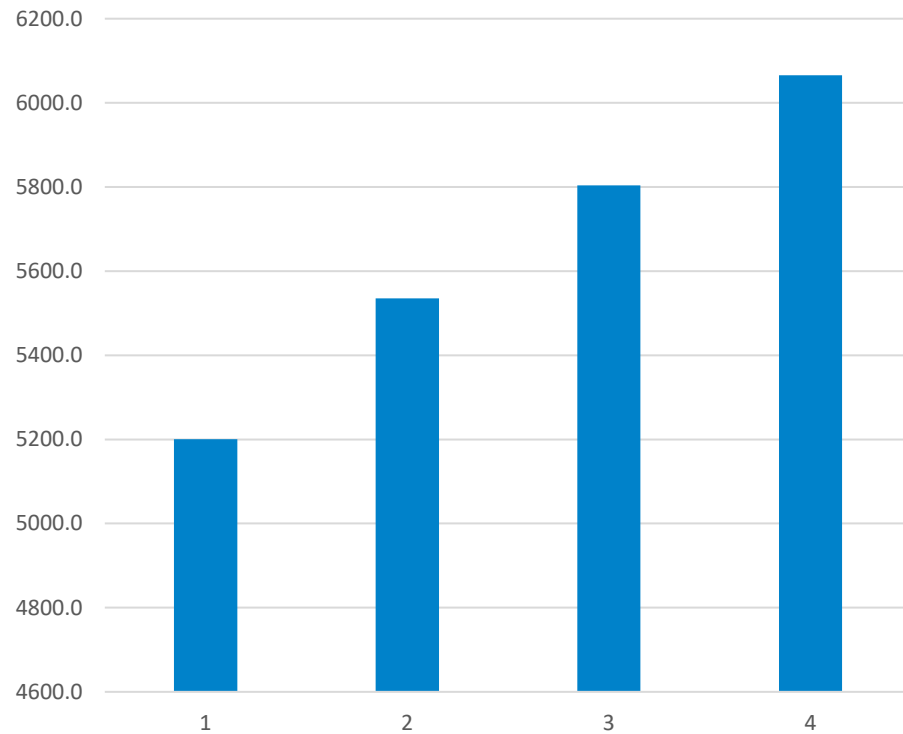
Ofsted overall rating vs average P8



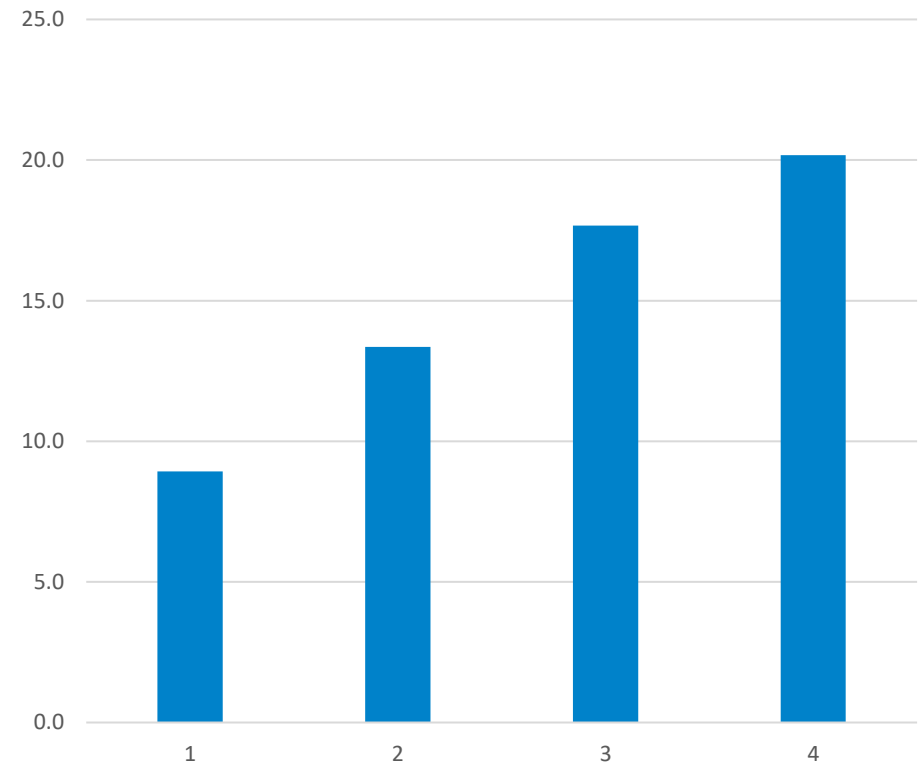
As expected from the observations above, lower rated schools are better funded.

Schools with higher percentage of FSM students are also less likely to be highly rated by Ofsted:

Ofsted overall rating vs average income per pupil



Ofsted overall rating vs average %FSM



Baseline funding

Alongside the government's announcement of additional funding to ensure pre-austerity levels, Boris Johnson promised, during his leadership campaign, to ensure that all schools receive at least £ £5,000 per secondary pupil. The average increase, among those schools who would, in theory, receive any (if the [NFF](#) was fully implemented) is £289 per pupil.

As noted above, additional school funding does not lead to increased school efficiency and when we look at the average per pupil funding increase that would arise from this policy, within each efficiency decile, we find the following:

| Efficiency decile | £pp variation from average |
|-------------------|----------------------------|
| 10 | -£34 |
| 9 | -£30 |
| 8 | -£40 |
| 7 | £10 |
| 6 | £25 |
| 5 | £2 |
| 4 | £43 |
| 3 | £15 |
| 2 | £12 |
| 1 | £0 |

So, more efficient schools may feel penalized by this baselining approach: the most efficient third of secondary schools would not receive any additional funds. So far, the NFF appears to fund less efficient school disproportionately well, even if the variance in these particular figures is relatively small (approx 33% from the median). If the additional funding is awarded according to the same formula, the same inequality will be repeated.

It's worth noting here that the application of the NFF is left to individual local authorities and each LA implements different elements of it.

Commentary

A consideration of these observations suggests that we have a system that:

- 'Wastes' money on smaller schools
- Does not make effective use of funding to improve progress
- Does not (yet) fund measures to address social deprivation appropriately
- Under-reflects the social deprivation among schools' intakes when measuring progress and inspecting schools (despite the new P8 and inspection regimes having been designed specifically to do so).

The logo for Schoolzone features the word "schoolzone" in a sans-serif font. "school" is in black and "zone" is in yellow. The text is centered within a white rectangular area that is framed by a thick yellow border. The border consists of four thick yellow bars: a top bar, a bottom bar, a left bar, and a right bar, which meet at the corners to form a frame around the text.

schoolzone

research@schoolzone.co.uk

(+44) 1242 262906

The logo for the British Educational Suppliers Association (besa) features the word "besa" in a bold, lowercase sans-serif font. To the right of the text is a stylized graphic of three orange and yellow curved lines. Below the text and graphic, the full name "BRITISH EDUCATIONAL SUPPLIERS ASSOCIATION" is written in a smaller, uppercase sans-serif font.

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The logo for MRS Evidence Matters features a circular graphic composed of small, multi-colored squares (red, black, white, and grey) arranged in a ring. To the right of the graphic, the text "MRS Evidence Matters" is written in a sans-serif font, with "MRS" in a larger, bold font. Below this, the text "Company Partner" is written in a smaller font.

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