

in brief...

Urban schools: does money make a difference?

It might seem self-evident that a school's resources influence its pupils' educational outcomes, yet so many studies have found little association between greater funding and improved academic achievement. **Steve Gibbons** and colleagues examine whether money makes a difference in the context of urban primary schools in England.

The question of whether there is a link between school resources and pupil outcomes is very important at a time of public spending cuts. In education, these cuts are arising because nominal expenditure on almost everything has been frozen while inflation is rising. The one exception is the government's 'pupil premium' policy, which pays schools a specific sum of money for each child from an economically disadvantaged background – as measured by whether they are eligible to receive free school meals.

The amount is currently £430 per disadvantaged pupil and it is set to rise to £600 in 2012/13. Because only 17% of pupils are eligible to receive free school meals, this does not work out as a large amount on average. But while it is not enough to outweigh the effects of inflation on overall school expenditure (which is falling in real terms), it has important distributional consequences for how resources are allocated between schools.

Our research looks at whether changes to schools' resources really make much difference to pupil achievement, as measured by key stage tests at the end of primary school. We are able to do this because of a quirk in the national funding formula.

This quirk is related to the 'area cost adjustment', which is intended to compensate for differences in the costs of

Cuts to school funding are likely to have negative consequences for pupils' academic achievement



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employing teachers between local authorities. In reality, however, closely neighbouring schools in adjacent local authorities are not recruiting in different labour markets, and their teachers are paid according to national pay scales that do not correspond to the area cost adjustments.

The result is that schools that are just yards apart on either side of a local authority boundary can get very different levels of funding. This has led to various local campaigns against the perceived unfairness of the arrangements – for example, the ‘fair deal for Haringey schools’ campaign. For research purposes, the arrangements are useful because they make it possible for us to compare schools that are similar in every respect except for differences in school funding.

We evaluate whether schools with different levels of expenditure (arising from the funding anomaly) have different outcomes in national tests in English, maths and science at the end of primary school (key stage 2 tests). The analysis is carried out using the National Pupil Database (a census of all pupils in state schools) between 2004 and 2009.

Since our strategy relies on schools being near a local authority boundary, the schools in our sample tend to be in urban areas with a higher than average intake of disadvantaged pupils. Our research design ensures that the schools we are comparing on either side of the local authority boundary really are similar. We only compare community schools with a similar level of disadvantage (as measured by the intake of pupils eligible to receive free school meals) that are within 2km of the comparison school (on the other side of the boundary).

We also check that the schools look similar in other respects – for example, their ethnic mix, the proportion of pupils who speak English as a first language, school size and neighbourhood house prices – and that pupils are not moving across boundaries in response to funding differences between schools. All our checks suggest that the methodological design is appropriate for measuring the true causal impact of the funding differences between schools.

The results show large effects of expenditure on educational attainment at the end of primary school. They suggest that an additional £1,000 per pupil paid to schools in these urban areas (close to local authority borders) raises pupil test scores at key stage 2 significantly. The effect is equivalent to moving one in five pupils currently achieving level 4 in maths (the target grade) to level 5 (the top grade) and just under a third of pupils currently at level 3 in maths to level 4.

The effects of expenditure also tend to be higher in schools with more disadvantaged pupils. These effects are large. They suggest that cuts to funding in schools will

The pupil premium could close the performance gap for schools with lots of pupils from low-income families

have consequences for pupils’ academic achievement. More positively, they suggest that the pupil premium could have a very beneficial effect and will help to close the performance gap for schools that enrol high shares of pupils from low-income families.

We cannot use this analysis to say what types of expenditure are more or less effective for raising pupil achievement. But we provide some insights by looking at how the overall funding differences affect spending in various categories.

We find that additional income tends to get spent disproportionately on items other than teaching costs (the biggest item), with small increases in the shares spent on learning and computer resources, professional services and supplies. This might be because small expenditure differentials cannot easily be used to employ additional teachers and the inflexibility of pay structures limits any pay for performance.

The main insight of our analysis is that funding matters considerably more than analysts and media commentators often suggest. We should be concerned about the consequences of cuts to real expenditure in state schools. Local campaigners have also been right to raise concerns about school funding inequalities generated by the area cost adjustment in the national formula.

This article summarises ‘Does Additional Spending Help Urban Schools? An Evaluation Using Boundary Discontinuities’ by Steve Gibbons, Sandra McNally and Martina Viarengo, Centre for the Study of the Economics of Education Discussion Paper No. 128 (<http://cee.lse.ac.uk/ceedps/ceedp128.pdf>).

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More discussion of this study is on the SERC blog: <http://spatial-economics.blogspot.com/2011/09/urban-schools-more-money-better.html>