

**RESEARCH  
PAPER**

**Level playing field? The implications  
of school funding**

Luke Sibieta, Haroon Chowdry and Alastair Muriel

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## About the authors

The authors of the report are all research economists at the Institute for Fiscal Studies. The Institute for Fiscal Studies is a not-for-profit research institute, which exists to provide top quality economic analysis independent of

government, political party or any other vested interest. The IFS has long been established as the UK's leading independent microeconomic policy research institute.



## Foreword

### Funding and quality

Although education has a high political profile there is surprisingly little debate about the vital question of how schools are funded. A successful funding system for schools needs to encourage equity, targeting resource where it is most required; it should be flexible, responsive to the changing needs of schools and their pupils; and it should encourage diversity in the education system, allowing parents a genuine choice over what form of education best suits their child. Such a system should be clear, transparent and reasonably comprehensible to all stakeholders so that any debate around its improvement can be held on the basis of common knowledge of its current workings.

### Demystifying the system

The lack of debate about the funding of schools reflects how far the current system falls short of this ideal. It is undeniably complex and lacking in transparency. The first objective of this report is to explain clearly the various mechanisms by which funds are distributed from the centre via the local authority to the school level.

The report goes on to examine how the system performs in respect of other criteria, investigating the extent to which current funding is targeted at the most disadvantaged pupils, and how quickly this system responds to changes in the needs of pupils at individual schools. It seems that stability is prized over the required flexibility, and that local authorities can act to reduce the level of targeted funding that eventually reaches individual disadvantaged pupils.

### Funding and choice

The final criterion for assessing the success of the system is the extent to which it promotes parental choice. The current government has been responsible for many initiatives to liberalise the market across the education system and for even more rhetoric about the importance of choice. The report examines whether this has translated into genuine choice

through a diversified supply of schooling. It demonstrates that despite the existence of a degree of pupil-led funding, the current system remains inflexible and actively discourages the entrance of new suppliers of schools.

The government's own wish to encourage a diversity of school providers is therefore undermined by a funding regime which, with a view to controlling costs, aims to avoid creating surplus places, a pre-requisite for choice. I believe that opening up the market of providers and avoiding imposing excessive regulation on them is the best way to realise the potential for reducing costs. That would offset the increased cost of maintaining some surplus places. The government must strike a balance between regulation and choice, and make it transparent.

School funding is too important an issue to be left to be debated by the few and too central to all of our concerns about improving education and equity. This report represents a significant step forward in opening up this debate, describing the system's workings and objectively assessing its strengths and weaknesses.

**Neil McIntosh**

*Chief Executive, CfBT Education Trust*

## Introduction and executive summary

“...the process by which schools are funded has important implications...”

Despite undergoing significant reform in recent years, the system of state school funding in England remains opaque and poorly understood. Yet the process by which schools are funded has important implications, both for the effectiveness with which funds are targeted and for the incentives schools face to attract pupils and improve quality.

The four chapters of this report discuss the following questions:

- How have overall levels of public spending on education and schools in the UK evolved in recent years?
- How does the English school funding system allocate money to individual schools?
- How redistributive is the school funding system, and to what degree do funding variations reflect educational needs and parental background?
- What incentives do state schools face to attract new pupils and to improve school quality?

The following summarises these four chapters:

### Chapter 1 – Overall trends in spending

- Education spending in the UK has seen increases averaging 4.3% a year in real terms over the past ten years, with particularly large increases over Labour’s second term of office. However, this rate of increase will slow to 3.4% a year over the period covered by the 2007 Comprehensive Spending Review (2008–09 to 2010–11). Schools spending in England has enjoyed larger increases than education spending as a whole over the past ten years (averaging 6.0% per year in real terms), with particularly large increases in schools capital spending.
- School spending per pupil has increased by 6.4% a year in real terms under Labour to date, compared with increases averaging 4.7% in the private sector. As a result, state spending per pupil has risen from 50% of the private sector level in 1997–98 to 58% in 2006–07. Gordon Brown promised in Budget 2006 to increase state school spending per

pupil to the level seen in the private sector in 2005–06, but there is no timescale attached to this pledge. Even if there were, it would not guarantee a further narrowing of the *contemporaneous* gap between spending in the state and independent sectors.

### Chapter 2 – The current school funding system

- While the provision of schools may be the responsibility of local authorities, the vast majority of schools’ funding comes from the central government’s education budget.
- Changes to the system over recent years have gradually reduced the discretion local authorities have in distributing these funds. This is the result of increased ‘ring-fencing’ (whereby local authorities are forced to spend grants on specific purposes) and increased use of direct payments and grants that must be passed on to schools in full.
- Other changes have also reduced the discretion local authorities have over school funding in their area, including the Minimum Funding Guarantee, which guarantees minimum increases in funding per pupil for nearly all schools. As well as reducing local authority discretion, the Minimum Funding Guarantee is likely to have made it more difficult to tackle funding inequalities between schools.
- However, powers over funding decisions have not simply been transferred up from local authorities to central government; schools themselves now have an increasing influence on funding decisions via Schools Forums.
- The bottom line is that reforms to the system of state school funding have largely ‘hollowed out’ local authorities, with powers being both transferred up to central government and transferred down to schools.

### Chapter 3 – How redistributive is school funding?

- Funding is skewed towards schools with relatively large numbers of pupils from deprived backgrounds. On average, pupils who are eligible for free school meals

(i.e. pupils from low-income families) attract over 70% more funding to their school than those who are not eligible. This holds true for both primary and secondary schools, and the funding 'premium' that follows FSM pupils has grown over time.

- This extra funding comes both from local authority funding of schools and from direct payments and grants from central government, but the latter are a disproportionate source of the FSM premium given their share of overall funding.
  - Local authorities only allocate around 40–50% of the extra funding they receive for pupils who are eligible for free school meals towards the schools these pupils attend. In other words, local authorities seem to spread the funding targeted at low-income pupils more widely (i.e. 'flatten' it). If local authorities did not flatten extra income in this way, the additional money following a low-income pupil would be roughly 50% higher in secondary schools and more than doubled in primary schools.
  - Under the current system, the amount of funding that schools receive does not respond quickly to changes in their numbers of pupils from deprived backgrounds or with additional educational needs. This persistence of historical funding levels when pupil characteristics change may have been exacerbated by the Minimum Funding Guarantee.
- incentives for all schools to put effort into maintaining and improving their performance.
- However, rigidities elsewhere in the school system blunt the incentives created by parental choice. Of the three criteria often used to determine whether genuine 'school choice' exists (pupil-led funding, supply flexibility and management freedom), the English system probably 'fails' on the last two.
  - The supply side appears to be largely inflexible, with little threat of entry from new providers. New school entry is decided by local authorities, which have little incentive to encourage new entry – not least because they are placed under pressure from both the government and the Audit Commission to keep surplus places to a minimum.
  - School management is constrained by binding collective agreements covering many aspects of school operations, including pay and conditions. Where schools (such as Academies) have been given freedom from these agreements, they appear to have responded with innovation and experimentation. However, Academies supply only a tiny fraction of school places in England, and the success of these experiments is as yet unproven.

### Chapter 4 – Incentives and school funding

- Most money 'follows the pupil' in the English school funding system, with the majority of funding directly determined by pupil numbers (weighted by age and background). This pupil-led funding system is combined with a flexible demand side in which parents are in principle free to apply to any school, informed by school performance information that is published each year.
- But the current system does not live up to the 'school choice' programme enthusiastically described in the 2005 White Paper, in which successful schools expand, new entrants compete with existing providers, and weaker schools either improve their performance or else contract and close. Proponents of such schemes argue that they would create strong

# 1. Overall trends in spending

“ Education is the third largest area of government spending, behind social protection (e.g. state pensions and unemployment benefit) and healthcare. ”

## 1.1 Introduction

Education is the third largest area of government spending, behind social protection (e.g. state pensions and unemployment benefit) and healthcare. Spending on schools is, in turn, by far the largest component of education spending. This chapter will discuss recent and likely future trends in both of these important elements of overall public spending.

Section 1.2 will discuss overall education spending in the UK, both in real terms and as a proportion of national income. It will pay particular attention to its likely evolution over the period covered by the 2007 Comprehensive Spending Review (2008–09 to 2010–11) compared with recent years. It will also compare education spending in the UK with that in other G7 countries. Section 1.3 will focus on trends in schools spending in England. It will examine how total schools spending and its composition have changed over time. It will also look at how schools spending has evolved in per-pupil terms.

Section 1.4 will discuss in detail the pledge made in Budget 2006 by the then Chancellor of the Exchequer, Gordon Brown, that ‘Our long-term aim should be to ensure for 100 per cent of our children the educational support now available to just 10 per cent’. This was a pledge to increase state schools spending per pupil to the level seen in the independent sector at the time. However, it is important to remember that achieving this pledge does not imply closing the *contemporaneous* gap between the state and independent sectors. Moreover, without specifying a time frame over which the pledge is to be achieved, it loses most of its significance. In fact, assuming present trends in state and independent school funding continue, the *lag time* between state and independent schools spending is perhaps more likely to increase rather than to decrease.

## 1.2 Overall education spending

Overall education spending includes spending on schools, but also includes expenditure on higher education and further education. This section will discuss trends in overall education spending in the UK in terms of its level, as a proportion of national income and compared with that in other G7 countries.

### Growth in education spending

In October 2007, the Chancellor announced the full details of the Comprehensive Spending Review (CSR) settlement for UK education. Under this settlement, education spending in the UK is set to rise in real terms<sup>1</sup> from £76.2 billion in 2007–08 to £84.2 billion by 2010–11.

Table 1.1 shows that this settlement implies that UK education spending is planned to grow by an annualised average of 3.4% per year over the three-year period between

**TABLE 1.1.**  
Growth in education spending

Period	Average annual growth (%)
<b>Labour</b>	
2007 CSR: April 2008 to March 2011	+3.4
Plans to date: April 1997 to March 2008	+4.3
Labour 1: April 1997 to March 2001	+2.8
Labour 2: April 2001 to March 2005	+6.1
Labour 3 (to date): April 2005 to March 2008	+3.8
<b>Conservatives</b>	
April 1979 to March 1997	+1.4
<b>Long-term trend (pre New Labour)</b>	
April 1953 to March 1997	+4.0

Sources: HM Treasury, *Public Expenditure Statistical Analyses 2008* (and previous years for figures before 1988–89), [http://www.hm-treasury.gov.uk/media/1/A/pesa0809\\_complete.pdf](http://www.hm-treasury.gov.uk/media/1/A/pesa0809_complete.pdf); HM Treasury website for deflators and GDP numbers, [http://www.hm-treasury.gov.uk/economic\\_data\\_and\\_tools/gdp\\_deflators/data\\_gdp\\_index.cfm](http://www.hm-treasury.gov.uk/economic_data_and_tools/gdp_deflators/data_gdp_index.cfm).

<sup>1</sup>This means after accounting for economy-wide inflation over the period, so that all figures quoted are in 2007–08 prices.

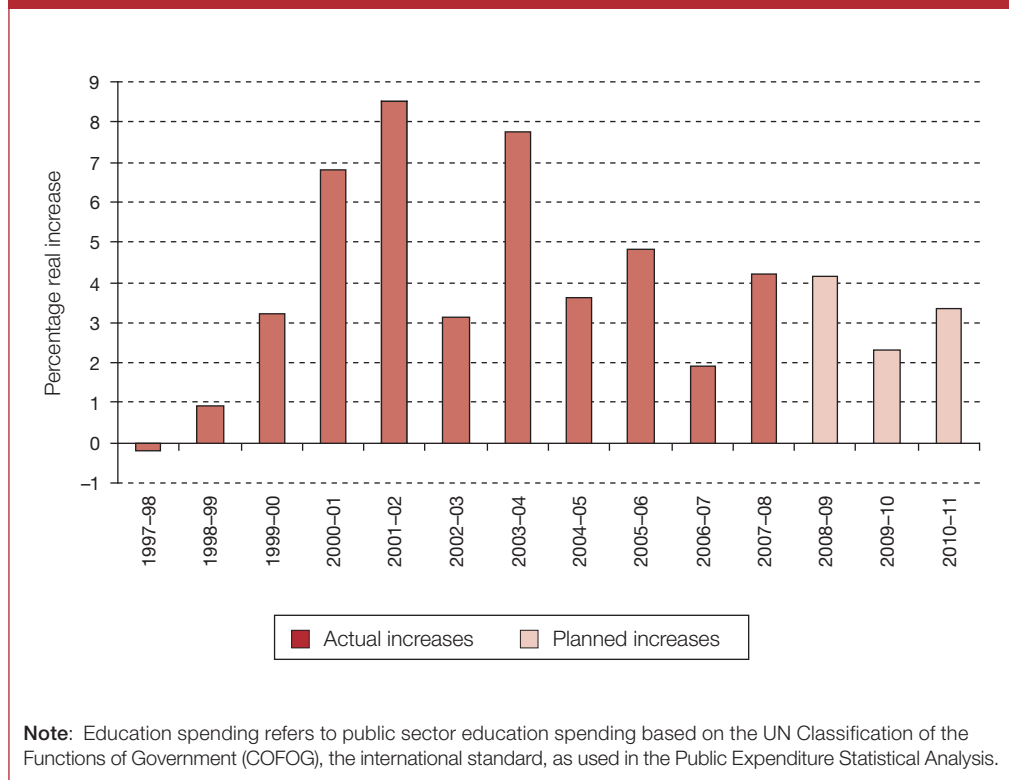


2007–08 and 2010–11, after adjusting for economy-wide inflation. This is lower than the equivalent growth rate over Labour’s third term to date (3.8%) and much lower than the equivalent growth rate over Labour’s second term (6.1%). Instead, it is of a similar magnitude to that seen during Labour’s first term (2.8%), a period including the two financial years (1997–98 and 1998–99) for which Labour had promised to keep broadly to Conservative spending plans set out in Kenneth Clarke’s November 1996 Budget. Although the growth rate during the CSR period is still higher than that seen under the Conservatives between 1979–80 and 1996–97 (1.4%), it is lower than the long-term trend observed between 1953–54 and 1996–97 (4.0%).

Figure 1.1 shows the annual increases in education spending, after adjusting for economy-wide inflation, between 1996–97 and 2007–08, compared with those projected to occur during the period covered by the

CSR. It shows that the relatively slow growth in Labour’s first term can largely be accounted for by slow growth in 1997–98 and 1998–99, during which Labour had made the decision to stick broadly to Conservative spending plans. Since then, there has been strong year-on-year growth in education spending, particularly since 2000–01. One exception to this rule is 2006–07, during which there was an underspend of about £1 billion in the education capital budget (see Box 2.1 on schools capital spending and section on ‘Building Schools for the Future’ in Section 4.3 for more details). This led to a relatively low real-terms increase, based on actual expenditure in 2006–07. Nevertheless, as Table 1.1 shows, the average real-terms growth over the next CSR, if delivered, would represent a slowdown compared with the recent much larger average real-terms increases in education spending delivered over Labour’s second term and its third term to date.

**FIGURE 1.1: Real annual increases in education spending**



Sources: HM Treasury, *Public Expenditure Statistical Analyses 2008*, [http://www.hm-treasury.gov.uk/media/1/A/pesa0809\\_complete.pdf](http://www.hm-treasury.gov.uk/media/1/A/pesa0809_complete.pdf); HM Treasury website for deflators and GDP numbers, [http://www.hm-treasury.gov.uk/economic\\_data\\_and\\_tools/gdp\\_deflators/data\\_gdp\\_index.cfm](http://www.hm-treasury.gov.uk/economic_data_and_tools/gdp_deflators/data_gdp_index.cfm).

“Labour made manifesto commitments in the 1997, 2001 and 2005 general elections to increase education spending as a proportion of national income, over the course of each parliament.”

**Education spending as a share of national income**

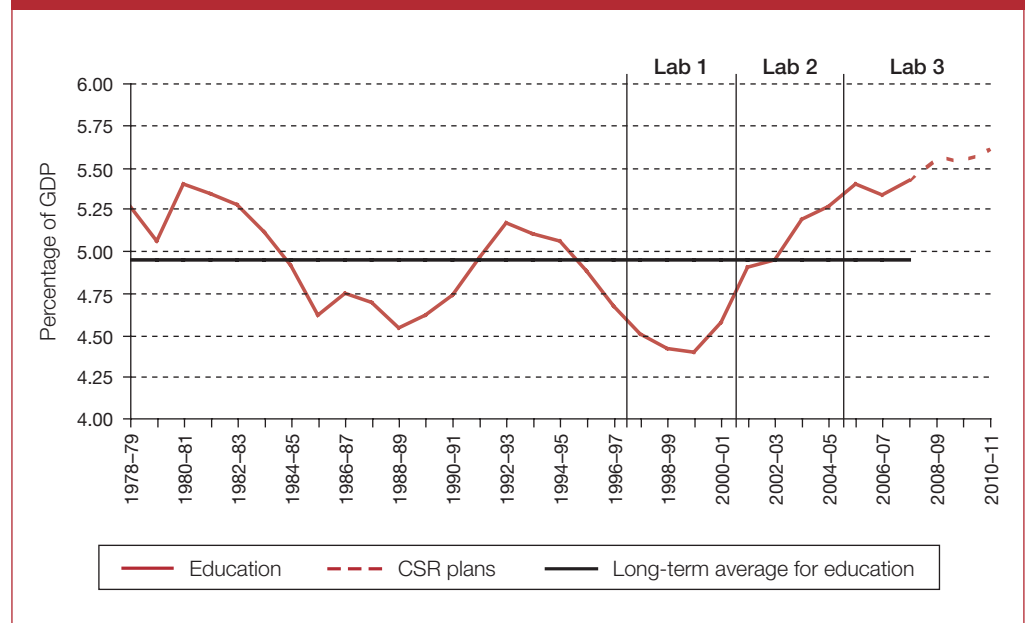
Labour made manifesto commitments in the 1997, 2001 and 2005 general elections to increase education spending as a proportion of national income, over the course of each parliament. Figure 1.2 shows UK education spending as a percentage of national income up until 2007–08 (shown by the solid plotted line) together with the projected share beyond 2007–08, given the CSR settlement for education and assuming real growth in national income of 2½% per year<sup>2</sup> (shown by the dashed plotted line). The solid horizontal line shows the long-term average for education spending as a share of national income between 1978–79 and 2007–08.

Over Labour’s two complete terms of office (indicated by the solid vertical lines), it is clear that education spending at the end of each parliament was higher as a share of national income than it was at the start of the parliament. The manifesto commitment has thus been met across each of Labour’s two

complete terms to date. The CSR settlement for education spending also means that it is likely to be met over Labour’s third term (starting from the third solid vertical line), as education spending as a proportion of national income is projected to be higher in 2009 and 2010 (likely dates for the next general election) than it was in 2005.

However, it is important to note that the main reason why these manifesto commitments have been met – or are likely to be met – is the very strong increase between 1999–2000 and 2007–08. This means that the manifesto commitment was met by a very large margin indeed over Labour’s second term, compared with much smaller margins over Labour’s first and potentially also over its third term. In fact, cuts in education spending as a share of national income in 1997–98, 1998–99 and 1999–2000 meant that education spending as a share of national income was lower on average during Labour’s first term in office than it was during the Conservative government’s parliament from 1992–93 to 1996–97.

**FIGURE 1.2: UK education spending as a percentage of national income**



Sources: HM Treasury, *Public Expenditure Statistical Analyses 2008* (and previous years for figures before 1988–89), [http://www.hm-treasury.gov.uk/media/1/A/pesa0809\\_complete.pdf](http://www.hm-treasury.gov.uk/media/1/A/pesa0809_complete.pdf); HM Treasury website for deflators and GDP numbers, [http://www.hm-treasury.gov.uk/economic\\_data\\_and\\_tools/gdp\\_deflators/data\\_gdp\\_index.cfm](http://www.hm-treasury.gov.uk/economic_data_and_tools/gdp_deflators/data_gdp_index.cfm).

<sup>2</sup>This is the Treasury’s ‘cautious’ assumption for real GDP growth used for its public finance projections.

## International comparison of education spending

Compared with the other G7 countries (the United States, Canada, Japan, Germany, France and Italy), the UK is an above-average spender on education, as shown in Figure 1.3. Public spending on education, at 5.0% of national income in 2004 according to the OECD,<sup>3</sup> is slightly below that in the US (5.1%) and France (5.7%) but is higher than that in Canada, Germany, Italy and Japan. Once private spending on education is included, the UK still devotes the third-highest share of national income to total education spending among the G7 economies (behind the US and France).

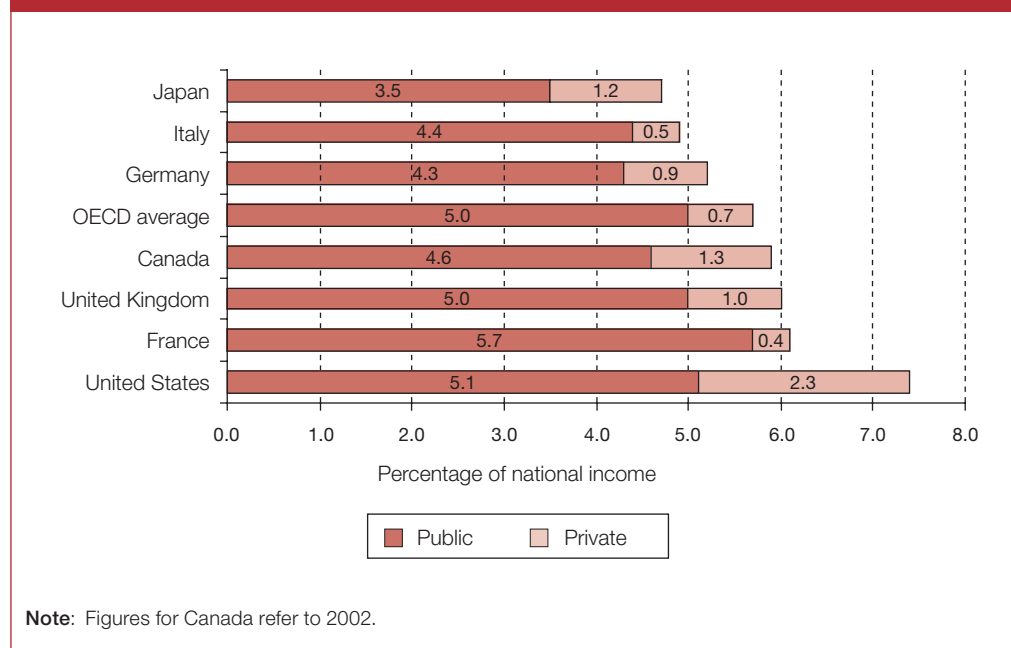
One obvious reason why countries might choose to spend different shares of their national income on education is differences in numbers of school-age children. When we look at per-pupil spending across different stages of education (e.g. primary spending per pupil enrolled in primary schools), a slightly different picture emerges. Table 1.2 on page 12 shows spending per pupil relative to national income across different stages of

education in the G7 countries. Most striking is Japan. Having relatively few children relative to the number of adults, Japan spends more per pupil on primary, secondary and tertiary education than the UK despite devoting a smaller share of national income overall to education. At the primary level, the UK spends more per pupil than Germany or France, but less than Italy, the US and Japan and slightly less than the OECD average. At the secondary level, the UK spends a comparable amount per pupil to Germany, at slightly less than the US and OECD average values, but substantially more than Canada and substantially less than France and Italy. At the tertiary level, the UK spends substantially less per pupil than the US and substantially more than Germany or Italy, but only slightly less than the OECD average.

## 1.3 Overall schools spending

Since the focus of this report is schools spending and how it is allocated, we now move on to discuss trends in schools spending in England. We do not discuss spending on

**FIGURE 1.3: Education spending across the G7 economies and OECD average, 2004**



Sources: Table B2.4 of OECD, *Education at a Glance 2007*, OECD Indicators, <http://www.oecd.org/dataoecd/4/55/39313286.pdf>.

<sup>3</sup>This is slightly less than the figure of 5.2% presented in Figure 1.2.

**TABLE 1.2. Education spending per pupil relative to national income for G7 economies and OECD average, 2004**

	% of GDP	Spending per student relative to GDP, UK = 100			
		Primary	Secondary	Tertiary	All
United States	7.4	116	114	158	130
France	6.1	95	136	103	117
United Kingdom	5.9	100	100	100	100
Canada	5.9	n/a	83	102	89
OECD average	5.7	105	114	111	113
Germany	5.2	77	100	72	87
Italy	4.9	142	127	78	122
Japan	4.8	121	118	117	122

**Note:** Figures for Canada refer to public institutions in 2002 only.

Sources: Tables B1.4 and B2.4 of OECD, *Education at a Glance, OECD Indicators 2007*, <http://www.oecd.org/dataoecd/4/55/39313286.pdf>.

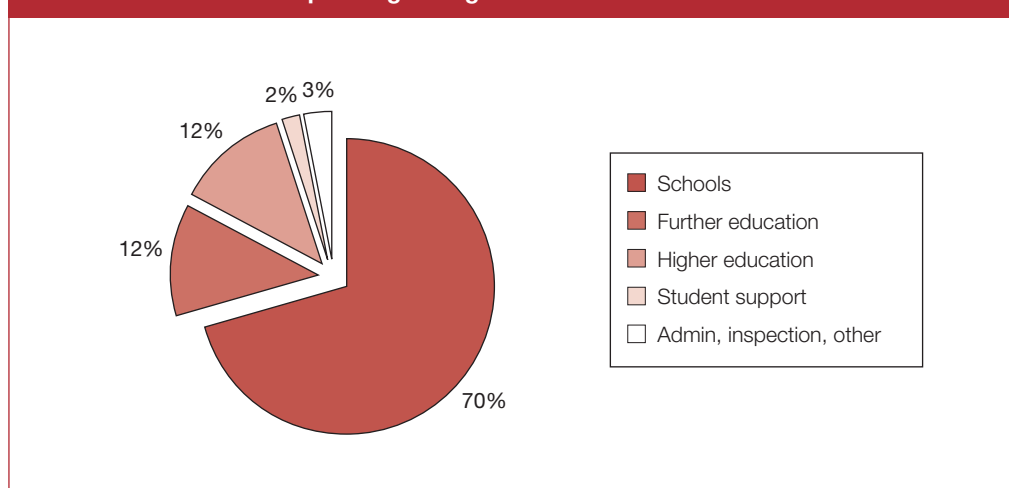
schools in Scotland, Wales or Northern Ireland due to the lack of detailed data comparable to those available for English schools. We begin by discussing trends in the level of schools spending and its changing composition, before discussing trends in measures of spending per pupil.

Figure 1.4 shows the proportion of total education spending in England allocated to schools in 2006–07, and also what proportion was spent on other elements of education spending, such as further education and

student support. Schools spending is clearly the largest single item of all education spending in England, representing over 70% of total education spending in England. How has it evolved over time?

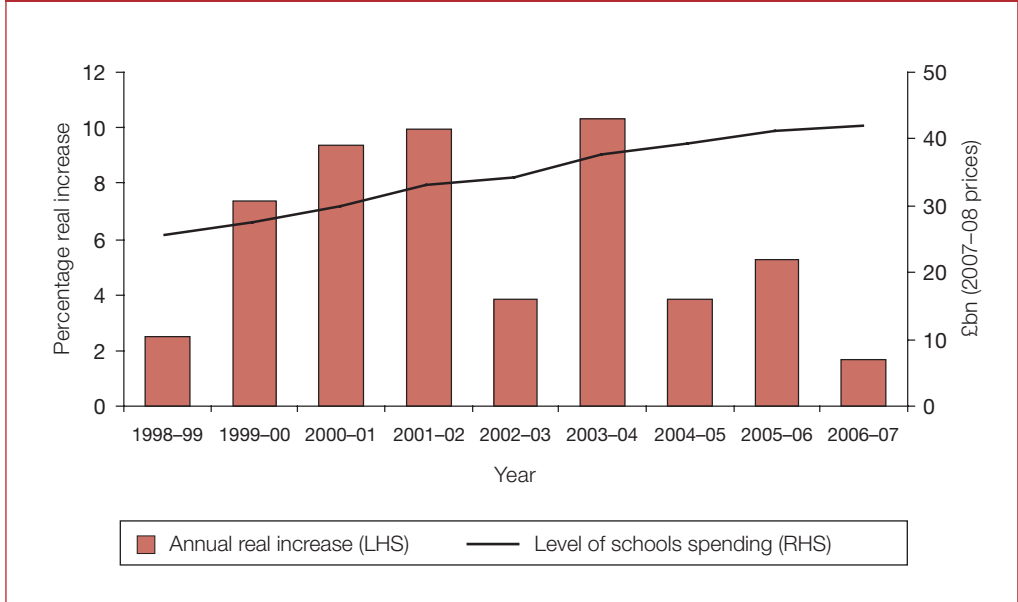
The bars in Figure 1.5 on page 13 show the annual real-terms increases in schools spending between 1997–98 and 2006–07 (on the left-hand axis). The solid line shows the level of schools spending over the same period (in 2007–08 prices) (on the right-hand axis). Together they show that after relatively slow

**FIGURE 1.4: Education spending in England in 2006–07**



Source: Department for Education & Skills, *Departmental Report: 2007*.

**FIGURE 1.5: Changes in schools spending since 1997–98**



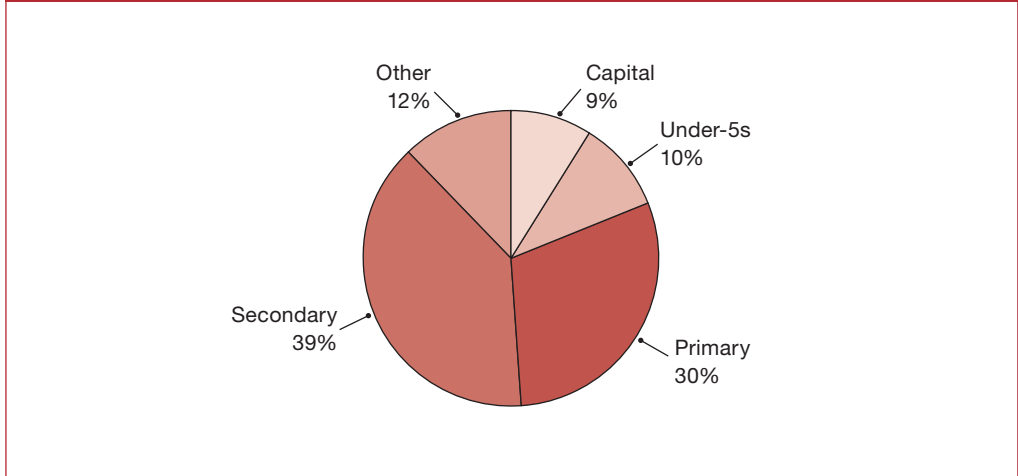
Sources: Table 8.3 of Department for Education & Skills, *Departmental Report: 2007*; HM Treasury website for deflators, [http://www.hm-treasury.gov.uk/economic\\_data\\_and\\_tools/gdp\\_deflators/data\\_gdp\\_index.cfm](http://www.hm-treasury.gov.uk/economic_data_and_tools/gdp_deflators/data_gdp_index.cfm).

growth in 1998–99, schools spending grew significantly between 1998–99 and 2003–04. However, since 2003–04, overall schools spending has grown at a slightly slower rate.

Figure 1.6 shows the composition of schools spending in 2006–07. It shows the proportion of funds schools spend on capital expenditure (e.g. rebuilding or refurbishing school buildings),

current expenditure on the under-5s, primary schools and secondary schools (e.g. teachers’ pay, textbooks, stationery and spending on other consumables), and other spending. This graph clearly shows that the largest component of schools spending is current spending on primary and secondary schools – accounting for 30% and 39%, respectively, of total schools spending in 2006–07. Current

**FIGURE 1.6: Composition of schools spending, 2006–07**



Source: Department for Education & Skills, *Departmental Report: 2007*.



“...capital spending grew by nearly twice as much as overall schools spending.”

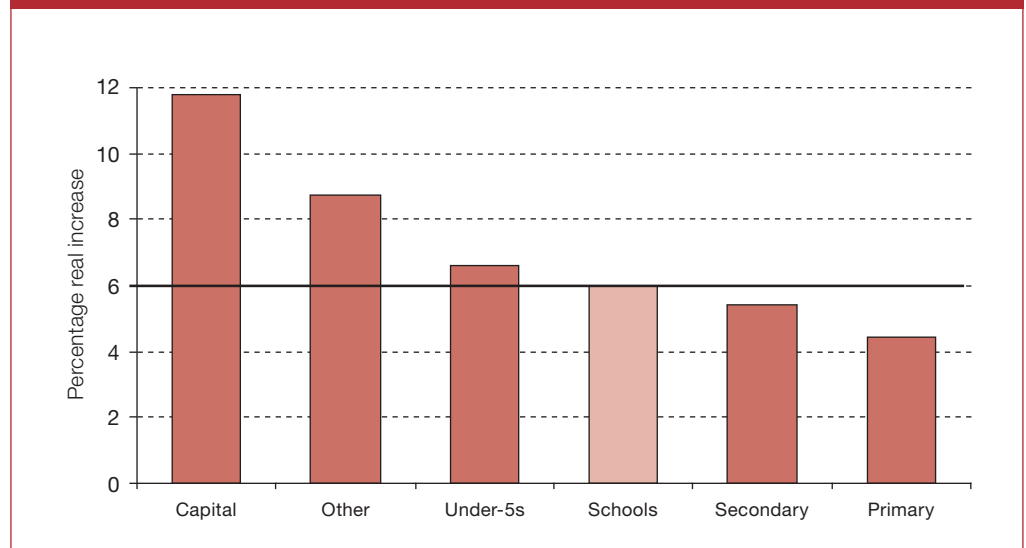
spending on the under-5s accounted for 10% of total spending in 2006–07, whilst all capital spending on schools represented a further 9% in the same year. The remainder of schools spending can be accounted for by ‘other spending’, which represented 12% of total schools spending in 2006–07.

How have spending on these elements of schools spending changed over the past ten years? Which have grown by more than overall schools spending and which have grown at a slower rate? The bars in Figure 1.7 show the real-terms annual average growth in each of these items of education spending, together with that in overall schools spending, between 1997–98 and 2006–07. The graph shows that capital spending, other spending and spending on the under-5s all grew by more than overall schools spending – in particular, capital spending grew by nearly twice as much as overall schools spending. Current spending on both primary and secondary schools grew by slightly less than

the overall level of schools spending over this period. This is not to say that current spending on primary and secondary schools has fallen since 1997–98; it has just grown at a slower rate than overall schools spending. Moreover, a large part of the increase in overall spending can be accounted for by large increases in capital spending, much of which is likely to have been spent on primary and secondary schools.

When comparing the relative generosity of schools spending over time, one may also wish to take account of long-term trends in pupil numbers. Table 1.3 shows the annualised average growth rates in overall UK education spending, schools spending in England and schools spending per pupil in England for various periods (note that a time series on spending per pupil in the state sector is shown in Figure 1.10). Some of these numbers are slightly different from those presented earlier, which results from a number of issues relating to consistency over time.<sup>4</sup>

FIGURE 1.7: Changes in elements of schools spending since 1997–98



Sources: Table 8.3 of Department for Education & Skills, *Departmental Report: 2007*; HM Treasury website for deflators, [http://www.hm-treasury.gov.uk/economic\\_data\\_and\\_tools/gdp\\_deflators/data\\_gdp\\_index.cfm](http://www.hm-treasury.gov.uk/economic_data_and_tools/gdp_deflators/data_gdp_index.cfm).

<sup>4</sup>Since consistent figures on schools spending and per-pupil spending are only available back to 1997–98, we have to exclude 1996–97 from the calculations for Labour’s first term (this is why the growth rate in UK education spending for Labour’s first term is different from that presented in Table 1.1). Moreover, since we do not yet know schools spending in 2007–08, we have to exclude 2007–08 from Labour’s third term to date (this is why the growth rate in UK education spending for Labour’s third term to date is different from that presented in Table 1.1). The figures for planned growth in schools spending and per-pupil spending during the period covered by the Comprehensive Spending Review 2007 relate to planned spending growth by central government; they do not account for likely growth in extra spending undertaken by local authorities (see Chapter 2 for more details).

“ Over Labour’s first two terms in office, schools spending in England grew at a faster rate than education spending in the UK as a whole. ”

**TABLE 1.3. Comparative annualised average real growth rates in education spending, schools spending and schools spending per pupil**

Period	Education (UK)	Schools (England)	Schools, per pupil (England)
Labour 1 (97–98 to 00–01)	3.8%	6.4%	7.7%
Labour 2 (00–01 to 04–05)	6.1%	7.0%	8.4%
Labour 3 (up to 06–07)	3.5%	3.5%	3.2%
Labour to date (97–98 to 06–07)	4.8%	6.0%	6.4%
CSR (07–08 to 10–11)	3.4%	2.9%	3.4%

**Notes:** Spending on schools in England up to 2006–07 includes extra expenditure undertaken by local authorities, whilst per-pupil spending relates only to central government expenditure. Per-pupil spending also includes capital expenditure undertaken through the Private Finance Initiative, whilst schools spending in England does not.

Source: Authors’ calculations based on: Department for Education & Skills, *Departmental Report: 2007*; Comprehensive Spending Review 2007; HM Treasury, *Public Expenditure Statistical Analyses 2008*, [http://www.hm-treasury.gov.uk/media/1/A/pesa0809\\_complete.pdf](http://www.hm-treasury.gov.uk/media/1/A/pesa0809_complete.pdf). HM Treasury website for deflators and GDP numbers, [http://www.hm-treasury.gov.uk/economic\\_data\\_and\\_tools/gdp\\_deflators/data\\_gdp\\_index.cfm](http://www.hm-treasury.gov.uk/economic_data_and_tools/gdp_deflators/data_gdp_index.cfm).

Over Labour’s first two terms in office, schools spending in England grew at a faster rate than education spending in the UK as a whole. Furthermore, since pupil numbers fell over both these periods, school spending per pupil grew even faster as these increases were spread over a shrinking pupil population. However, over Labour’s third term (up until 2006–07), UK education spending grew at the same rate as schools spending in England, and they both grew faster than per-pupil spending on schools in England (suggesting that pupil numbers have increased very slightly over this period).

Current plans going forward, if delivered, imply that education spending in the UK and schools spending and schools spending per pupil in England will grow at similar rates between 2007–08 and 2010–11 (the period covered by the Comprehensive Spending Review 2007). However, all of these growth rates are noticeably slower than their respective growth rates over the period under Labour to date (up to 2006–07).

### 1.4 Gordon Brown’s spending-per-pupil pledge

In Budget 2006, the then Chancellor of the Exchequer, Gordon Brown, stated that ‘Our long-term aim should be to ensure for 100 per

cent of our children the educational support now available to just 10 per cent’. He clarified this aim by pledging to increase spending per pupil in the state sector to the level then being spent per pupil in the private sector. According to Treasury figures, this meant increasing funding per pupil in the state sector from around £5,000 per pupil to around £8,000 (the private sector level in 2005–06), the equivalent of £5,310 and £8,500 respectively in 2007–08 prices. Here we set out the implications of the CSR settlement for the achievement of this aspiration, followed by a discussion of the pledge’s significance.

Figure 1.8 on page 16 shows the amount spent by the private sector per head in 2005–06 – £8,500 in 2007–08 prices. For 2007–08, it is estimated that state school spending per head will be about £5,550 in real terms (to the nearest £10). This includes all public spending in state schools – in other words, all streams of funding to finance current spending (e.g. Dedicated Schools Grant, Standards Funds and funds allocated by non-departmental bodies, such as the Learning and Skills Council grant) and all streams of funding for capital spending (e.g. Building Schools for the Future and ICT). The 2007 Comprehensive Spending Review announced that state school spending per head was planned to reach over £6,600 by 2010–11, the

equivalent of £6,110 in 2007–08 prices. We estimate that of this £560 (£6,110 – £5,550) per head real-terms increase,<sup>5,6</sup>

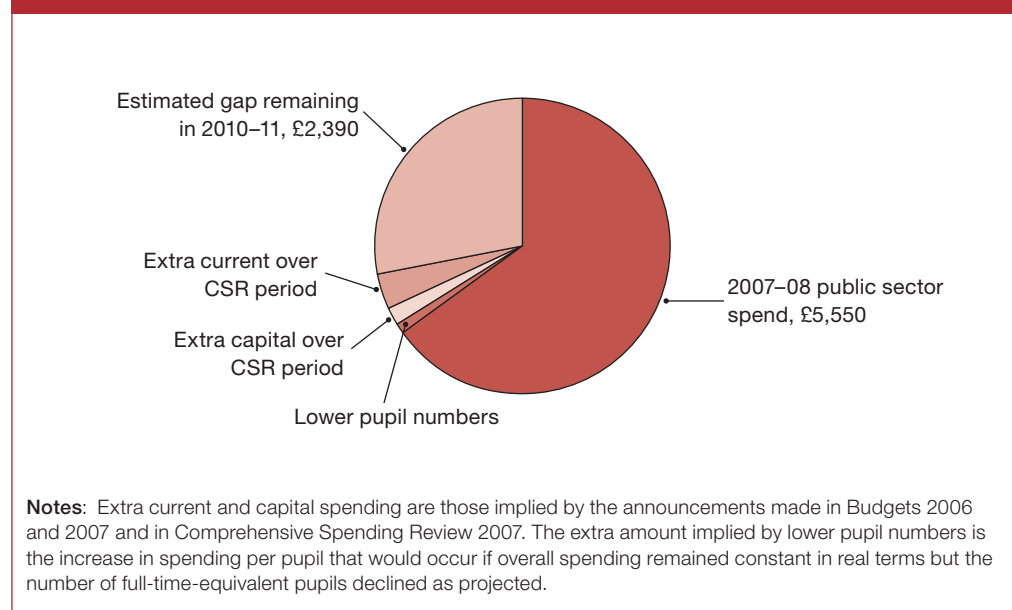
- £90 will come from falling pupil numbers;
- £160 will come from extra capital spending;
- £320 will come from extra current spending.

This would leave a remaining real-terms gap between state per-pupil spending and the 2005–06 level of private sector spending per pupil of £2,390 in 2010–11 (2007–08 prices). If the gap were to be closed entirely in 2010–11, it would require about an extra £18.0 billion in real-terms schools spending. The government is unlikely to close the gap immediately, so it makes sense to try to understand how quickly state spending per head would need to grow in real terms beyond 2010–11 to meet this aspiration in specific years.

Figure 1.9 on page 17 shows the real-terms growth rate, in terms of state spending per head beyond 2010–11, required to meet this pledge for each year between 2015–16 and 2025–26. Naturally, to meet the pledge in earlier years requires higher growth rates.

To set Figure 1.9 in some context, the figures announced in Comprehensive Spending Review 2007 imply that state school spending per head will grow by 3.4% in real terms between 2007–08 and 2010–11. If this growth were continued beyond 2010–11, the aspiration would not be met until about 2020–21. Alternatively, if school spending per head were to grow at the underlying rate of growth in the economy (assumed at 2.5% real per year<sup>7</sup>) and thus remain constant as a share of GDP, it would be 2023–24 before this pledge were met.

**FIGURE 1.8: Total private sector spend in 2005–06, £8,500 (2007–08 prices)**



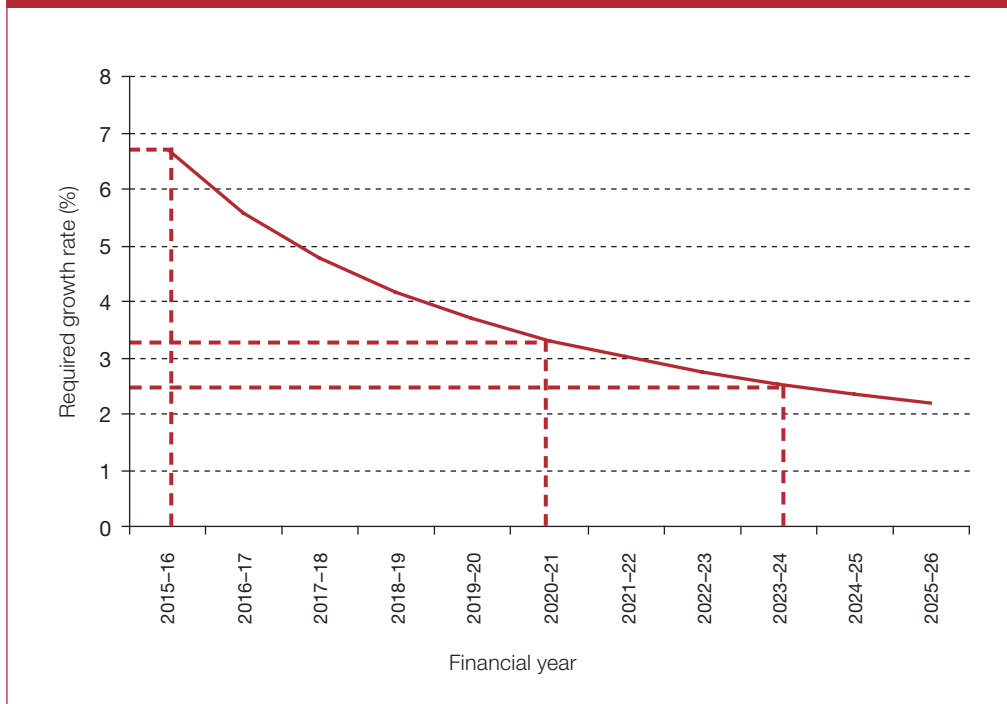
Source: Budgets 2006 and 2007; Comprehensive Spending Review 2007; authors' calculations.

<sup>5</sup>Extra current and capital spending are those implied by the announcements made in Budgets 2006 and 2007 and in Comprehensive Spending Review 2007. The extra amount implied by lower pupil numbers is the increase in spending per pupil that would occur if overall spending remained constant in real terms but the number of full-time-equivalent pupils declined as projected.

<sup>6</sup>Note that figures do not sum exactly due to rounding.

<sup>7</sup>This is the 'cautious' assumption for underlying growth after 2007–08 built into HM Treasury's public finance projections.

**FIGURE 1.9: Required growth rates to meet spending-per-pupil pledge in years between 2015–16 and 2025–26**



Sources: See Sources for Figure 1.8; authors' calculations.

However, it is important to remember what meeting this pledge would mean in practice. One thing it is unlikely to achieve is closure of the *contemporaneous* gap (the gap between private and state school spending *in the same year*). This is because spending per pupil in the private sector is likely to continue growing in real terms.

To illustrate this point, Figure 1.10 on page 18 shows the level of spending per head in the state sector between 1997–98 and 2007–08. It also shows a proxy for spending per head in the independent sector up to 2006–07 (the average day-fee for day schools in the independent sector), which may not be an ideal measure of spending per pupil in the independent sector. For instance, some independent schools have access to other sources of income, e.g. rental income or income from capital; on the other hand, some independent schools may have higher running costs (e.g. renting land or maintaining listed buildings). However, this is the best proxy for spending per head in the independent sector currently available. The diamond in Figure 1.10

shows the planned level of spending per head in the state sector for 2010–11, expressed in today's prices, as stated in the 2007 CSR.

In 1997–98, the private sector spent about £5,990 per head (2007–08 prices). As is shown in Figure 1.10, state school spending per head is scheduled to reach this level at some point between 2007–08 and 2010–11. This means that if Mr Brown had made the pledge in 1997, rather than Budget 2006, then this pledge would be met at some point between 2007–08 and 2010–11. However, since spending per head in the independent sector has grown over the same period, there will still be a substantial *contemporaneous* gap. To be fair, it is true to say that the contemporaneous gap has narrowed slightly between 1997–98 and 2006–07. Spending per head in the state sector was 58% of the independent sector level in 2006–07, compared with about 50% in 1997–98. This is the result of the fact that spending per pupil rose by 6.4% per year in real terms over this period in the state sector, compared with 4.7% per year in the independent sector.

**FIGURE 1.10: Closing the gap? The evolution of real spending per head in the public and private sectors (2007–08 prices)**



Sources: For public spending per pupil, see Budgets 2006 and 2007, Comprehensive Spending Review 2007, and Department for Education & Skills, *Departmental Report: 2007*. Figures for private sector spending per pupil are taken from the annual census of independent schools conducted by the Independent Schools Council from various years, [http://www.isc.co.uk/Publications\\_ISCensus.htm](http://www.isc.co.uk/Publications_ISCensus.htm).

The length of time it takes to achieve Mr Brown's pledge is the most important indicator of its significance. This is because the time taken to achieve the pledge marks the 'lag time' between state and private school spending per head. Reducing this lag time would mean shortening the time it takes for public sector spending per head to reach the level of private sector spending per head in a given year. As we stated earlier, if this pledge had been made in 1997, rather than Budget 2006, then it is likely to be met at some point between 2007–08 and 2010–11, so the current lag time is about 11–12 years.

To reduce the lag time, per-pupil state spending would need to reach per-pupil spending in private schools in 2005–06 around (or before) 2016–17 or 2017–18. However, if the current growth in spending per pupil continues beyond 2010–11, then this level is unlikely to be met before 2020–21, as we have shown above. If the lag time between private and state school spending per head is to be reduced, then state school spending per

head will need to grow by more than 3.4% in real terms. Reducing the lag time by just 1–2 years (and so achieving the pledge in 2015–16) would actually require a real-terms growth rate in per-pupil state school spending in excess of 6% beyond 2010–11.

## 1.5 Conclusion

Education spending in the UK has seen relatively large increases over the past ten years, particularly over Labour's second term of office. However, this rate of increase will slow as a result of lower planned annual increases over the period covered by Comprehensive Spending Review 2007. Schools spending in England has also seen relatively large increases over the past ten years, with particularly large increases in capital spending.

There have also been strong increases in total school spending per pupil. This was the focus of a pledge made by Gordon Brown, in



Budget 2006, which stated that state school spending per pupil would reach the level currently seen in the independent sector. However, it is important to remember that achieving this pledge does not imply closing the *contemporaneous* gap between the state and independent sectors. Moreover,

without specifying a time frame over which the pledge is to be achieved, it loses most of its significance. In fact, if present trends in state and independent school funding were to continue, the *lag time* between state and independent school spending would increase rather than decrease.

## 2. The current school funding system

“...the vast majority of the money provided for schools is not raised locally, but comes from central government’s education budget...”

### 2.1 Introduction

Chapter 1 analysed trends in overall education spending in the UK as a whole, and schools spending in England specifically, but what is the source of this spending and how is it distributed to schools? The provision of schooling has historically been the responsibility of local government (local authorities). However, the vast majority of the money provided for schools is not raised locally, but comes from central government’s education budget, funded from taxation collected centrally and overall government borrowing. The government decides how much of its education budget it wants to allocate to individual local authorities in the form of grants. Local authorities are then free to top up this central funding with money from other sources (e.g. council tax) and decide how much to spend on central services and administration and how much to spend on the budgets of schools collectively. Finally, local authorities must decide how to allocate funds to individual schools.

This chapter begins by describing the mechanisms by which the overall level of schools spending in England is distributed to local authorities and how local authorities in turn allocate these funds to schools in their area (Section 2.2). We then move on to discuss the key features of the current system, together with its advantages and disadvantages (Section 2.3). Finally, we describe the government’s plans for the school funding system in the near future (Section 2.4).

### 2.2 How are funds allocated to schools?

The process by which funds are allocated to schools in England effectively comprises six stages. The first four stages involve decisions taken by central government about how to

allocate funds to local authorities (though local authorities do have some influence over the fourth of these stages). The final two stages involve decisions taken by local authorities in allocating funding to schools. The first four stages are illustrated in Figure 2.1 on page 21, while the final two stages are illustrated in Figure 2.3 on page 26.

It should be noted that this is a characterisation of how funds are allocated to schools, rather than an exact representation of a decision path with earlier stages taken as given. Central government clearly takes account of how much it would like to spend on schools and grants to local authorities at the same time as it is setting the overall level of education spending. This is particularly the case within the spending review cycle, which is supposed to work as a bottom-up process.

#### Funding from central government to local authorities

##### Stage 1: Set the overall spending on education in England

The process starts with the government deciding on the total amount of education spending in England.<sup>1</sup> This budget is set within the context of the spending review cycle, which tends to happen every two or three years. For example, Spending Review 2004 set the level of overall education spending in England for 2005–06 and 2006–07 and set an indicative plan for 2007–08.<sup>2</sup> More recently, Comprehensive Spending Review 2007 set the overall level of education spending in England for 2008–09, 2009–10 and 2010–11.<sup>3</sup> This overall education budget is represented by the first box in Figure 2.1 (labelled ‘Stage 1’).

##### Stage 2: Divide the education budget between schools and other functions

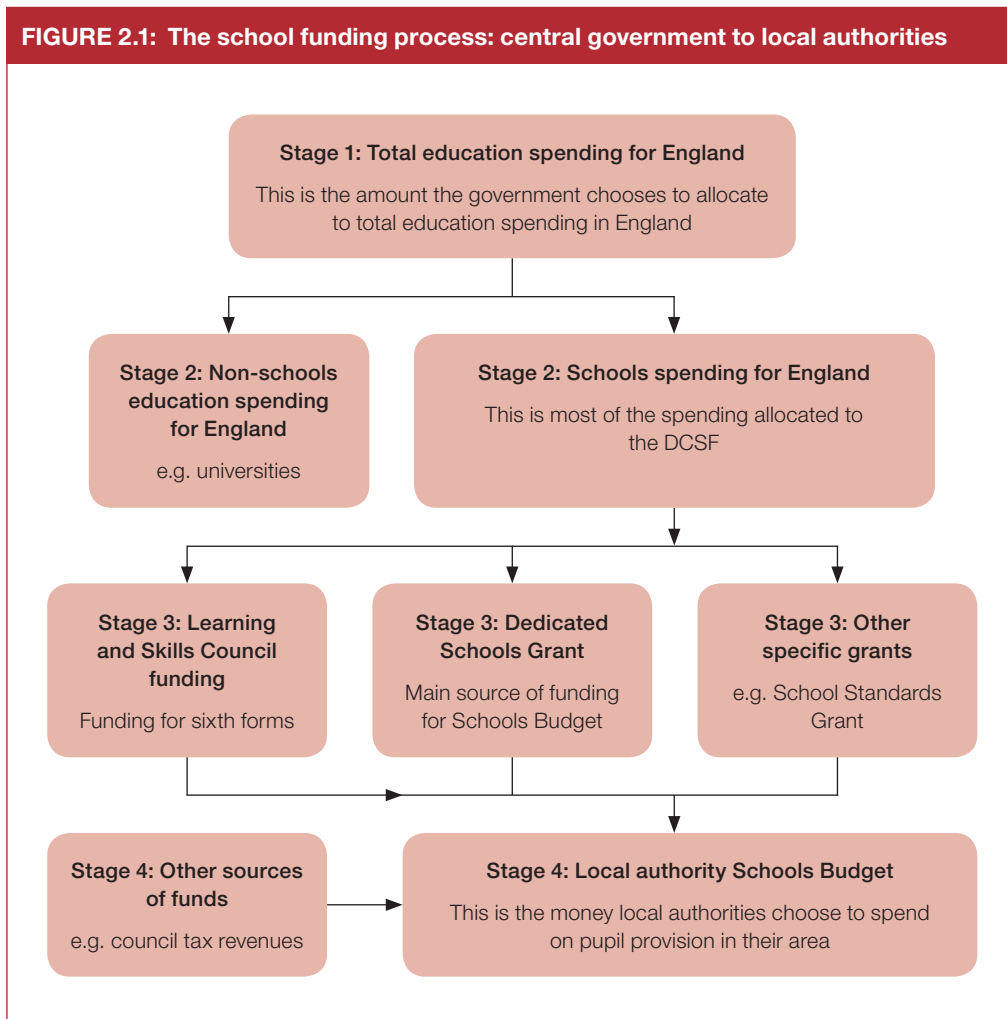
Having set the total education budget, the government must then divide the funds between spending on schools (around 70%

<sup>1</sup>As already stated in Chapter 1, we do not here consider education spending in Scotland, Wales and Northern Ireland. This is due to the lack of detailed data comparable to those available for England.

<sup>2</sup>These were first announced in Budget 2004.

<sup>3</sup>These were first announced in Budget 2007.

**FIGURE 2.1: The school funding process: central government to local authorities**



of total education spending in England) and other functions such as universities and further education. These boxes are labelled ‘Stage 2’ in Figure 2.1. In June 2007, the Department for Education & Skills was split into two separate departments – the Department for Children, Schools & Families (DCSF) and the Department for Innovation, Universities & Skills (DIUS). The splitting of education spending into schools and other functions thus now loosely corresponds to splitting education spending *between* departments, whilst previously it was a split *within* the Department for Education & Skills.

**Stage 3: Set the level of grants to local authorities**

As Figure 2.1 makes clear, the money earmarked for spending on schools is not simply passed on to local authorities for them

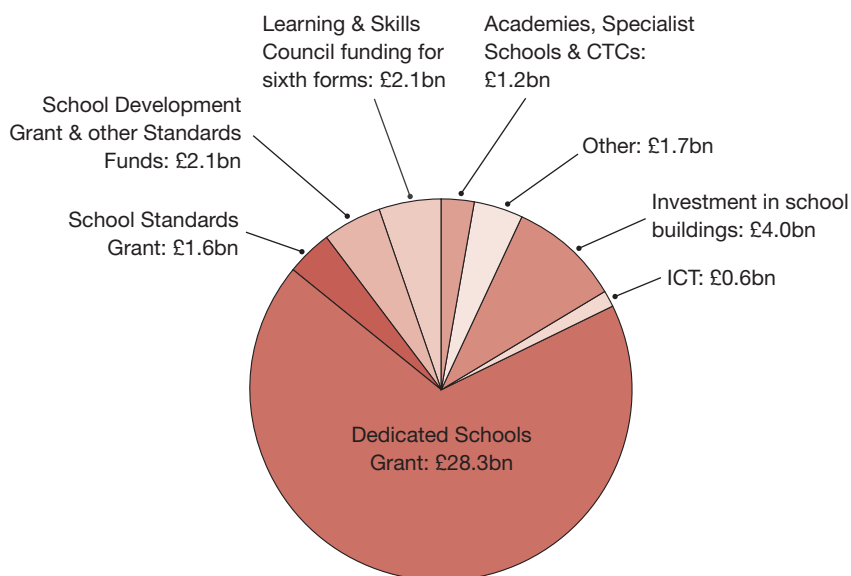
to spend as they see fit. Instead, the DCSF divides it into numerous grants (represented by the three boxes labelled ‘Stage 3’ in Figure 2.1), each allocated according to different criteria and subject to different rules regarding what they can be spent on.

The effect of these rules is to constrain local authority freedom over their Schools Budget significantly. Indeed, an increasing fraction of education funds are allocated directly from the DCSF to schools, with the local authority acting as no more than a ‘middleman’, passing the money into schools’ bank accounts. Figure 2.2 on page 22 shows the planned division of schools spending in 2007–08.

As Figure 2.2 makes clear, by far the largest grant to local authorities is the **Dedicated**

“The DSG is ‘ring-fenced’, meaning that local authorities must spend it on pupil provision as part of their Schools Budget...”

FIGURE 2.2: Planned schools spending in England, 2007–08



Note: ‘Other’ category includes funding for school meals, National Strategies, ‘modernising the teaching profession’ and ‘other miscellaneous programmes’.

Source: Table 8.2 of Department for Education & Skills, *Departmental Report: 2007*.

**Schools Grant (DSG).** At £28.3 billion, the DSG makes up nearly 70% of the government’s planned £41.5 billion total spending on schools in 2007–08. This grant is the primary source of funds for schools’ ‘recurrent expenditure’, i.e. spending on teacher salaries, support staff salaries and other non-pay items such as books and equipment.

The DSG is ‘ring-fenced’, meaning that local authorities must spend it on pupil provision as part of their Schools Budget (see Stage 4 below). They cannot spend DSG funds on their own administration costs or on the provision of services not related to education.

The amount each local authority receives in DSG per pupil is calculated as a basic increase on what it received the previous year, plus extra elements distributed on the basis of ‘ministerial priorities’.<sup>4</sup> This is the so-called ‘spend-plus’

method – which started in 2006–07, based on local authority spending on schools in 2005–06, which was closely related to the formula in use that year for Schools Formula Spending Shares (the previous main grant to local authorities for schools spending). These allocations were calculated on the basis of a basic amount per pupil with top-ups for area costs and for deprivation. The result is that each local authority has a different level of DSG per pupil.

Another important feature of the DSG is that it is decided on a multi-year basis. At the start of the CSR funding cycle, local authorities and schools receive information on their DSG allocations for all three years based on estimates of pupil projections. These estimates are then adjusted as actual pupil numbers become known over the funding cycle. For instance, in the next funding cycle

<sup>4</sup>In 2007–08, funds to reflect ‘ministerial priorities’ were allocated on the basis of the number of pupils classed as having relatively low prior attainment, the number of pupils qualifying for free school meals and the number of pupils in each Key Stage, amongst other factors.

– for 2008–11 – local authorities were notified of their indicative DSG allocations on 12 November 2007. Allocations for 2008–09 will be finalised in June 2008, while the indicative allocations for 2009–10 and 2010–11 will be finalised when pupil numbers for January 2009 and 2010 are available.

Table 2.1 summarises the level of the DSG and all the other grants shown in Figure 2.2, indicating whether or not they are ‘ring-fenced’ for the Schools Budget (all of them are), whether or not local authorities have any say over how they are allocated and their intended purpose.

After the DSG, the next-largest component of schools spending (at £4.6 billion) is capital spending, i.e. grants for **investment in school buildings and Information and Communication Technology (ICT)**.

This category includes the government’s ‘Building Schools for the Future’ programme and several other capital grants and credit approvals, discussed in greater detail in Box 2.1 on page 24.

Another significant element of planned schools spending, at £1.6 billion in 2007–08, is the **School Standards Grant**, a direct grant from the DCSF to schools. The School Standards Grant consists of a block of money per school (currently £12,000 for primary and secondary schools, £29,000 for special schools), topped

up with extra money per pupil (£114 per pupil for primary and special schools, £121 per pupil for secondary schools). The local authority coordinates paying this money into schools’ bank accounts, but the formula for distributing it is decided by central government. Once it reaches the school, this money is not ring-fenced – schools are free to spend it as they see fit.

Alongside the main School Standards Grant, there is also a separate grant called the **School Standards (Personalisation) Grant**, set at £300 million in 2007–08. This money is intended to support ‘personalised learning’ during and beyond the school day and is allocated to schools on the basis of pupil numbers, weighted according to measures of deprivation and need (the number of pupils qualifying for free school meals and the number of pupils classed as having low prior attainment).

Another specific grant available to most schools in 2007–08 is the **School Development Grant (SDG)**, representing £1.7 billion of the £41.5 billion in total planned school spending for 2007–08. This grant is not intended for any specific purpose, but is for schools to spend on anything that ‘supports improvements in teaching and learning’.

In an effort to reduce the complexity created by 50+ grants within the Standards Fund, the

**TABLE 2.1. Summary of grants for schools in England, 2007–08**

	Level in 2007–08	Ring-fenced?	Subject to any local authority control?	Purpose
Dedicated Schools Grant	£28.3bn	✓	Some	Revenue spending on schools
Capital spending	£4.6bn	✓	Some	School buildings, ICT etc.
School Standards Grant	£1.6bn	✓	✗	Revenue spending on schools
School Standards (Personalisation) Grant	£0.3bn	✓	✗	‘Personalised learning’
School Development Grant	£1.7bn	✓	Some	‘To support improvements in teaching and learning’
Learning and Skills Council Grant	£2.1bn	✓	✗	Sixth-form funding
Academies	£1.2bn	✓	✗	Academies

Source: See Source for Figure 2.2.



## BOX 2.1: Schools capital spending

Grants to finance schools capital spending (e.g. investment in school buildings or ICT) are allocated in a similar fashion to funds to finance recurrent expenditure. Some grants are allocated to local authorities, which can choose how to spend them (often in agreement with other governmental bodies), whilst some grants must be passed directly to schools. Currently, the most important of these grants include Devolved Formula Capital, Building Schools for the Future and the Primary Capital Programme. These three funding streams are briefly described below.

**Devolved Formula Capital** is a direct grant for capital spending at the school level. Central government allocates each school a base amount and extra amounts depending on pupil numbers and stage of education. 'Unmodernised' schools receive a higher base amount and higher extra amounts per pupil than 'modernised' schools. Schools are classed as 'modernised' if they have renewed or refurbished 80% or more of their floor space in the last ten years. Schools can then spend these funds on new buildings, ICT or maintenance, or they can save the funds for a large future project. Total allocations are expected to amount to just under £1 billion per year between 2008–09 and 2010–11.

**Building Schools for the Future (BSF)** is a very large source of schools capital funding for secondary schools. The programme is intended to allow all local authorities to rebuild 50% of their estate and to carry out major refurbishments on 35% and minor refurbishments on 15%. Local authorities are joining this programme in a series of waves, determined by levels of social deprivation and relative educational need. However, before local authorities can receive funds from the BSF programme, they must agree projects with other governmental bodies (e.g. Partnerships for Schools, which is in charge of the BSF programme). Funds are then allocated to local authorities as conventional grants, funds to allow local authorities to borrow the required amount or PFI credits. Planned expenditure on this programme is about £9.33 billion (inclusive of PFI credits) over the three years from 2008–09 to 2010–11.

However, the BSF programme has been very slow to get off the ground. For instance, planned expenditure on the BSF programme was £1 billion for 2006–07, whilst actual expenditure on it was only £220 million.<sup>a</sup> Moreover, at the launch of the programme in 2004, it was hoped that a total of 100 new schools would be either refurbished or rebuilt by the end of 2007.<sup>b</sup> However, recent reports suggest that only about nine schools have so far been refurbished or rebuilt under the programme.<sup>c</sup> Many commentators have put these delays down to the complexity of the bidding process and agreeing projects with Partnerships for Schools.<sup>d</sup>

The **Primary Capital Programme** is the equivalent of the BSF programme for the primary sector. However, the process of agreeing projects is a lot simpler than for the BSF programme. Funds are allocated to local authorities either based on a flat-rate amount or based on a formula to reflect relative educational need. Planned expenditure on this programme is £150 million in 2008–09, rising to £1.1 billion in 2010–11.

### Notes to Box 2.1

<sup>a</sup> Comparing figures for planned BSF spending in the DfES Departmental Report 2007 with that in the DfES Departmental Report 2005, <http://www.dfes.gov.uk/aboutus/reports/#ydr>.

<sup>b</sup> [http://www.teachernet.gov.uk/\\_doc/6094/BSF%20Public%20Launch%20Document%20Feb%202004.pdf](http://www.teachernet.gov.uk/_doc/6094/BSF%20Public%20Launch%20Document%20Feb%202004.pdf).

<sup>c</sup> <http://news.bbc.co.uk/1/hi/education/7228964.stm>.

<sup>d</sup> 'Labour's £45bn school building plan stalls', *Guardian*, 16 January 2007, <http://education.guardian.co.uk/schools/story/0,,1991243,00.html>.

“ *Local authorities hold back part of the Schools Budget for ‘central services’ which they provide directly to pupils, such as high-cost special educational needs (SEN) provision and Pupil Referral Units.* ”

SDG was expanded in 2006–07 to include a number of other small, specific grants previously allocated on the basis of quite specific criteria, including funds for gifted and talented pupils, enterprise learning and extra funds for pupils in Specialist Schools.

The SDG is allocated on the basis of pupil numbers and historic SDG funding (schools get a flat-rate increase per pupil on the previous year’s amount), plus extra amounts for items such as Specialist Schools and Training Schools.

Unlike the School Standards Grant (which goes directly to schools), local authorities are allowed to retain some School Development Grant money for central functions that ‘support teaching and learning’. However, the government has introduced rules to restrict the amount retained by local authorities in real terms: in 2006–07 and 2007–08, they are permitted to retain the cash amount they retained in 2005–06, but no more. This clearly creates an incentive not to retain any less than in previous years, lest they want to retain more in future years.

**Schools’ sixth-form funding** makes up another sizeable fraction of total schools spending. Up until 2002–03, sixth forms were funded through the main grant from central government for education services. However, from 2002–03 onwards, they were funded via the combination of a ring-fenced grant from the Learning and Skills Council (LSC) and any extra funds local authorities chose to allocate to sixth forms. The LSC grant is routed in a similar fashion to the School Standards Grant, in that school-level allocations are calculated by the LSC and are then forwarded to local authorities, which must pass on all of these funds to individual schools. The grant from the LSC for sixth forms represented £2.1 billion of the planned £41.5 billion spending on schools in 2007–08.

We have now accounted for approximately £38.7 billion of the £41.5 billion planned spending on schools in 2007–08. A further £1.2 billion is set to be spent on funding the government’s Academies Programme (see Chapter 4 for more details on Academies), the Specialist Schools Programme and City

Technology Colleges (CTCs). The remainder is allocated on the basis of other specific grants: a Targeted School Meals Grant, funds for ‘modernising the teaching profession’ and other miscellaneous programmes.

#### **Stage 4: Set the level of the ‘Schools Budget’**

The fourth stage is for local authorities to set the value of their Schools Budget. This must be at least as large as their Dedicated Schools Grant allocation. In this way, the Dedicated Schools Grant is essentially ring-fenced – it defines the amount of money that local authorities must allocate to the Schools Budget. However, local authorities are free to add to this amount, if they so wish, from local council tax revenues and other grants that are not ring-fenced, so they do have some control over the level of the Schools Budget (as indicated in Stage 4 of Figure 2.1).

#### **Funding from local authorities to schools**

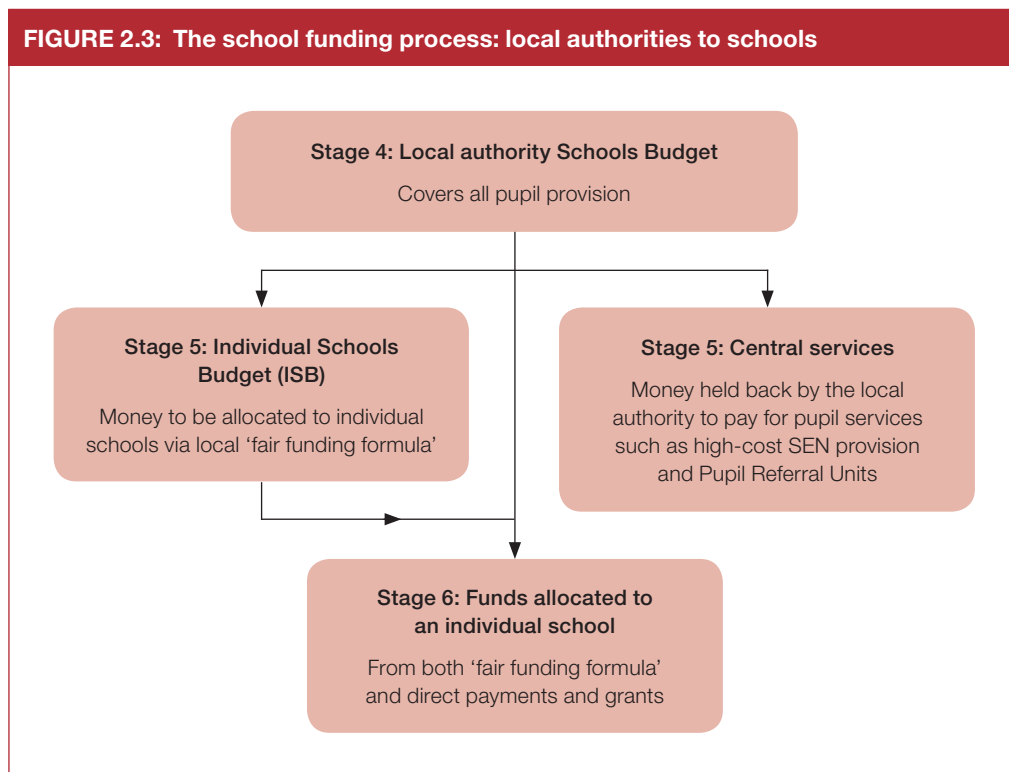
The final two stages of the funds allocation process involve local authorities choosing how to allocate funds to schools. They are shown in Figure 2.3 on page 26.

#### **Stage 5: Deduct money from the Schools Budget for central services**

Not all of the money in the Schools Budget goes directly to schools (though most does). Local authorities hold back part of the Schools Budget for ‘central services’ which they provide directly to pupils, such as high-cost special educational needs (SEN) provision and Pupil Referral Units. The remainder of the Schools Budget (i.e. anything not held back for central services) goes into the Individual Schools Budget (ISB). In 2006–07, local authorities spent about 12% of their Schools Budgets on central services, with some local authorities spending substantially more (over 20% of their Schools Budget) and some substantially less (less than 5% of their Schools Budget).

Central government again limits local authority autonomy at this stage, by forbidding the central service budget from growing faster than the Individual Schools Budget. This restriction is known as the Central Expenditure Limit. This creates another incentive for local authorities not to reduce their expenditure on central services, lest they want to spend more in future years.

**FIGURE 2.3: The school funding process: local authorities to schools**



### Stage 6: Distribute Individual Schools Budgets and direct payments

Individual Schools Budgets are allocated by local authorities using a local 'fair funding formula', created by the local authority itself but subject to numerous constraints. Funding schools according to a clear formula is intended to ensure that, within a local authority, schools with the same characteristics and the same numbers of pupils receive the same amount of funding.

However, central government imposes at least three constraints on local authorities at this stage (all described in detail in Section 2.3). First, the factors that a local authority may take into account in its 'fair funding formula' are quite tightly circumscribed. For example, until recently, local authorities had to allocate at least 75% of funding on the basis of pupil numbers; most continue to do so.

The second constraint is that schools are guaranteed (by central government) a minimum increase in their per-pupil funding (known as the Minimum Funding Guarantee or MFG), meaning that the local authority's funding formula will

be overruled if it prescribes a funding increase below the minimum guarantee. In practice, this constraint is highly significant – as many as 25% of schools received increased funding as a result of the MFG in 2007–08.

The third constraint on local authorities at this stage is that several of their grants (notably the School Standards Grant) must be passed directly into schools' bank accounts, in full, according to a formula determined by central government. The local authority has no say at all in how these funds are distributed (this is represented by the arrow going straight from Stage 4 to Stage 6 in Figure 2.3).

We now move on to discuss these constraints in more detail.

## 2.3 Key features of the current school funding system

The brief description in Section 2.2 misses out some of the more complex constraints under which local authorities must work when distributing funds to schools. In recent

years, local authorities' budget-setting powers have been greatly reduced, as a result of two complementary trends:

- increased delegation of funding decisions to the school level;
- increased ring-fencing of funds at the central government level.

These trends have effectively reduced the power of local authorities within the school funding system, with many decisions previously made at the local authority level now being made either earlier (at the central government level) or later (at the school level).

Indeed, in the wake of the 2003–04 school funding 'crisis' (see Box 2.2 on page 28), the possibility of removing local authorities from the funding process altogether – leaving central government to fund schools directly – was discussed<sup>5</sup> but ultimately rejected. The current system represents a sort of halfway house, with local authorities' role in school funding tightly circumscribed but not completely eliminated.

In this section, we discuss the key features of the current school funding system (introduced in Section 2.2), with particular emphasis on the extent to which they limit local authorities' autonomy.

### Ring-fencing

As described in Section 2.2, the largest element of local authorities' funding for schools now takes the form of a ring-fenced Dedicated Schools Grant, which can only be spent on pupil provision. This considerably limits local authorities' freedom at Stage 4 of the budgeting process described above.

Prior to the introduction of the DSG, local authorities could choose to spend some portion of their education allocation from central government on other services if they wished (e.g. if information from a local level suggested that residents cared more about

improving services other than education). Now, however, local authorities must set a Schools Budget that is greater than or equal to their Dedicated Schools Grant allocation (although they are still free to spend *more* than their central allocation, by topping education funding up from other sources). This means that ring-fencing the DSG has led to a meaningful restriction on local authorities that would otherwise have chosen to set a Schools Budget at a lower value than their Dedicated Schools Grant allocation. Local authorities do have discretion in how they allocate the level of their Schools Budget to individual schools (see 'Formula funding' below).

Advocates of ring-fencing argue that it ensures that *all* local authorities spend their full central allocation for pupil provision on pupil provision, rather than on other services. On the other hand, critics of the Dedicated Schools Grant have raised the concern that it might nonetheless discourage local authorities from topping up their Schools Budget from other sources,<sup>6</sup> because authorities may feel less accountable for setting their Schools Budget. By attempting to 'level up' authorities that had spent less than their full grant provided for pupil provision, these critics argue that the government might 'level down' authorities that previously spent more. Either way, ring-fencing of the DSG is surely an example of an additional constraint on local authorities that has been introduced in recent years (although this trend is not restricted to education and schools specifically).

However, it should be noted that local authorities were already under considerable pressure to pass on increases in funding prior to the introduction of the Dedicated Schools Grant, under a policy known as 'passporting'.<sup>7</sup> The DSG formalised such pressures and put added pressure on local authorities that were spending less on schools than they were previously being allocated.

<sup>5</sup> See, for example, 'Blair faces new row over school funds', *Guardian*, 31 December 2003, <http://education.guardian.co.uk/schoolfunding/story/0,,1114308,00.html>.

<sup>6</sup> See, for example, page 4 of M. Atkinson, C. Gulliver, E. Lamont and R. White, *The New School Funding Arrangements 2006–07: The Local Authority Perspective*, LGA Research Report 2/06, NFER, Slough, 2006.

<sup>7</sup> For instance, see <http://www.teachernet.gov.uk/docbank/index.cfm?id=7896>.

## BOX 2.2: The 2003–04 school funding ‘crisis’

Several features of the current school funding system – in particular, Minimum Funding Guarantees and the ring-fenced Dedicated Schools Grant – were introduced in the aftermath of difficulties experienced by the school funding system in 2003–04, which caused considerable controversy.

Problems began to surface in Spring 2003, with many schools expressing concern that they were not receiving large enough funding increases to cover increases in costs and would thus have to lay staff off. In April 2003, for example, the *Guardian* reported that schools across the country were ‘complaining of shortfalls amounting to £500m, with some having to make teachers redundant to compensate for the shortfall’.<sup>a</sup>

The Education Secretary responded by blaming local authorities, claiming that they were failing to ‘passport’ all of their education formula funding into education, and challenging them to release ‘the missing millions’.<sup>b</sup> Nonetheless, the government was forced to provide extra funds for ‘schools in financial difficulties’, as well as allowing schools to use their capital budgets for day-to-day running costs.

When the Audit Commission investigated the events of 2003, it rejected both the schools’ and the Education Secretary’s accounts of the crisis, reaching the somewhat surprising conclusion that ‘there was not a widespread funding crisis in spring 2003. Government action was prompted by perception and assertion rather than accurate information ... [I]n responding to significant concerns expressed by many schools and councils, the government did not have reliable information about the state of school finances’.<sup>c</sup> Moreover, the Commission found ‘no evidence that councils failed to allocate schools funding made available by the government’.<sup>d</sup> The Audit Commission instead blamed the confusion on the ‘late announcement of changes to major specific grants (particularly the Standards Fund) ... leaving some schools better off than expected and some schools with less funding than anticipated’.<sup>e</sup>

Whether or not the financial crisis was illusory, its effects on the school funding system were very real indeed. A ring-fenced Dedicated Schools Grant was introduced to replace education formula funding to local authorities. The government also introduced Minimum Funding Guarantees at both local authority and school level, in an effort to introduce greater stability into the funding system. These features of the funding system remain in place to the present day, and are discussed in greater detail in Section 2.3.

### Notes to Box 2.2

<sup>a</sup> ‘Clarke challenges local authorities over schools shortfall’, *Guardian*, 24 April 2003.

<sup>b</sup> *Ibid.*

<sup>c</sup> Audit Commission, *Education Funding: The Impact and Effectiveness of Measures to Stabilise School Funding*, 2004, page 2.

<sup>d</sup> *Ibid.*, page 3.

<sup>e</sup> *Ibid.*, page 2.

## Minimum Funding Guarantees

Another recent development in the school funding system has been the introduction of the Minimum Funding Guarantee, which sets the minimum rate at which per-pupil funding can increase in every school in England. For instance, in 2007–08, the MFG was set at 3.7% in cash terms, so practically every school in England received a per-pupil increase in funding of 3.7% or more in cash terms.<sup>8</sup>

By guaranteeing schools a minimum increase in their per-pupil funding, the government significantly reduces the discretion of local authorities in distributing increases in grants received from central government. It also limits the impact that local authorities’ formulae can have on the distribution of funds to schools. Wherever an authority’s local formula prescribes a smaller increase than the guarantee, the formula is ignored and the

<sup>8</sup> Lower increases must be approved by Schools Forums and/or the Secretary of State.

“ While local authorities are free to design and develop their own funding formulae, in practice the contents of the formula are circumscribed by central regulations. ”

school receives the guaranteed increase. The implications of this for funding inequalities are discussed at greater length in Chapter 3.

### Formula funding

While local authorities are free to design and develop their own funding formulae, in practice the contents of the formula are circumscribed by central regulations.<sup>9</sup> Schools Forums must be consulted about certain changes to the formula.<sup>10</sup>

The most important element of this formula is pupil numbers, though authorities may weight these numbers according to pupil age (known as ‘age-weighted pupil units’ or AWPUs) to focus resources on certain age groups. Generally speaking, local authorities provide flat-rate amounts for the number of pupils in each Key Stage, with more provided for later Key Stages. For example, a local authority may allocate £2,000 for every pupil aged 7–11 but £2,500 for every pupil aged 11–14. There are significant variations in the *absolute* and *relative* amounts provided on the basis of such age-weighted pupil units, but secondary schools generally receive more than primary schools for an additional pupil. Other important elements of the formulae used by local authorities include:

- additional pupil-led funding, e.g. additional contributions for schools with sixth forms;
- potential indicators of social deprivation, e.g. number of pupils qualifying for free school meals and number of pupils with English as an additional language;
- special educational needs (with statements) – specific provision for statemented pupils with special educational needs;
- special educational needs (without statements) – funding for pupils without statements who are still judged to have special educational needs;
- school factors, e.g. amount per square metre covered by schools;
- site factors, e.g. business rates bill.

The extent to which such formulae provide extra funding for pupils with additional educational needs is discussed in Chapter 3, particularly with regard to how much extra funding local authorities provide for pupils from deprived backgrounds (proxied by whether they are eligible for free school meals).

### Spend-plus

Since 2004–05, most grants to schools have been increased by a flat-rate amount, with extra amounts for individual schools or local authorities then calculated via a formula. This is the so-called ‘spend-plus’ methodology.

Partly as a result of the Minimum Funding Guarantee, the main sources of increase in most grants to local authorities have been flat-rate increases in per-pupil terms. For instance, in 2007–08, the main source of increase in DSG allocations was a 5.0% increase in per-pupil terms (5.1% in London), 3.7% for the Minimum Funding Guarantee and 1.3% in extra funding to help implement this MFG. One should note that schools were also guaranteed a 3.7% increase in their School Development Grant and School Standards Grant.

These were not the only increases in funds provided to local authorities for spending on schools. Other increases in the DSG were allocated on the basis of pupil numbers, the number of pupils classed as having poor prior attainment and the number of pupils qualifying for free school meals. These are the increases in spending to reflect ‘ministerial priorities’. Similarly, increases in other grants were made on the basis of similar characteristics, but also on the basis of initiatives such as extra funds for Specialist Schools. Therefore, most grants were increased by a flat-rate amount, with then a little extra calculated via a formula.

As already noted, the Minimum Funding Guarantee limits the impact of local formulae on allocations to individual schools. The relative importance of flat-rate increases throughout the school funding system has similar implications,

<sup>9</sup> See, for example, Schools Finance (England) Regulations 2008, available at <http://www.teachernet.gov.uk/docbank/index.cfm?id=12462>.

<sup>10</sup> Schools Forums were set up by the government to give schools greater involvement in the distribution of funds by the local authority. Forums must be consulted by local authorities at several points in the budgeting cycle and they have certain decision-making powers.



“ Even the government has acknowledged that the increase in the number of grants has made the school funding system more complex. ”

as such increases may limit the ability of government at all levels to pursue the objective of an equitable (or efficient) allocation of funds. The Audit Commission, in its 2004 report on education funding, noted that ‘the minimum guarantee does not resolve issues of funding inequalities that might exist at school level. It has the potential to embed them and postpone them being tackled’.<sup>11</sup>

### Increased use of direct grants

The government has made increasing use of funding streams (such as the School Standards Grant or grants from the Learning and Skills Council for sixth forms) allocated directly from central government to schools.<sup>12</sup> Central government decides the formula for distributing these funds, leaving local authorities as little more than ‘middlemen’, coordinating paying the funds into schools’ bank accounts. Even the government has acknowledged that the increase in the number of grants has made the school funding system more complex (see ‘Further into the future’ in Section 2.4).

In general terms, complexity can be justified on the grounds that increased complexity (lots of different grants, in this case) allows the government to pursue more objectives than in a simpler system (a single grant) since, for example, it potentially allows more precise targeting. Whether or not the present system is ‘unnecessarily complex’ is a difficult judgement. Such additional grants are allocated on the basis of other criteria, e.g. initiatives such as Specialist Schools. However, as already noted, schools are guaranteed per-pupil increases in such grants, and at a similar level to the Minimum Funding Guarantee.

### The importance of historic funding levels

Given the spend-plus approach, the most important element that determines allocations for local authorities and levels of per-pupil funding for individual schools for a given year is what they received *last* year. This is due to the existence of minimum increases in the old system and the guaranteed flat-rate

increases per pupil evident in the current system. The main implication of these guaranteed flat-rate increases is that changes in allocations to local authorities and schools can only respond slowly to changes in the composition of pupil populations, and subsequent spending requirements, across and within local authorities.

For instance, if a school once contained a large proportion of pupils with additional educational needs (such as those qualifying for free school meals or those with English as an additional language), then it will (in the past) have received relatively high allocations in per-pupil terms. Even if the proportion of pupils with additional educational needs is currently declining, the school will continue to receive high allocations in per-pupil terms due to the operation of minimum per-pupil increases.

Similarly, if a school once contained a small proportion of children with additional educational needs, but this grows over time, then its per-pupil funding will not rise as fast as it might in the absence of a dependence on historical funding levels. This is simply because money that could have been spent on providing funds for additional educational needs is currently being spent on maintaining the historical per-pupil funding levels of other schools. This means that per-pupil funding levels respond to some extent to changes in the composition of the pupil population, but at a fairly slow rate.

Thus, there appears to be a trade-off between allowing the system to respond to changes in pupil populations and ensuring minimum per-pupil increases in local authority allocations – i.e. a trade-off between equity and stability – with the current system favouring stability in per-pupil funding levels.

### Multi-year budgeting

The introduction of multi-year budgeting from 2006–07 onwards was generally welcomed by local authorities and schools. It means that local authorities and schools know in advance

<sup>11</sup> Page 11 of Audit Commission, *Education Funding: The Impact and Effectiveness of Measures to Stabilise School Funding*, 2004.

<sup>12</sup> The formula for allocating funds for sixth forms is decided by the Learning and Skills Council itself.

their likely budgets for future years, and these are fixed when more accurate estimates of pupil numbers become available.

The rationale for such a system was to give local authorities and schools greater certainty in their budgeting processes. This greater certainty over future budgets should allow for greater long-term planning of resource use, which could ensure that resources are allocated in a more efficient manner. However, providing schools with indicative allocations generally prevents local authorities from changing their formulae from year to year. This may give schools greater certainty over future budgets, but it prevents local authorities from responding (via their formulae) to unforeseen changes in circumstances.

### Schools Forums

These bodies were set up by the government to give schools greater involvement in the distribution of funds by local authorities. Forums must be consulted by local authorities at several points in the budgeting cycle, giving schools greater influence over how local authorities distribute funds. They are also able to approve deviations from the government's budgeting rules in certain circumstances. For instance, they are able to permit derogations from the Minimum Funding Guarantee, if such changes affect less than 50% of pupils, and they are also able to vary the level of the Central Expenditure Limit.

### Summary

In summary, central government has taken increasing control over the school funding system in recent years. It has ring-fenced virtually all of the grants it allocates to local authorities, in order to ensure they are all spent on pupil provision. It has also legislated that nearly all schools must receive minimum funding increases per pupil (the Minimum Funding Guarantee). In addition to this, it has introduced many new direct grants, over whose allocation local authorities have no say. Central government has also chosen to increase most grants by flat-rate amounts, with extra amounts calculated via formulae (known as spend-plus). The combination of the Minimum Funding Guarantee and spend-plus has cemented the importance of historical

funding levels in determining current funding levels, making it that much more difficult to tackle any funding inequalities. This issue is discussed further in Chapter 3.

At the same time, there has been an increased delegation of funding decisions to schools. For instance, schools have complete say over how direct government grants are spent – previously, most extra funding would have had to come via local authorities, which may have decided to spend the extra funds slightly differently. Schools also have increasing say over local-authority-wide decisions, via Schools Forums.

## 2.4 Future plans

The government has already announced some proposals for the school funding system over the next funding cycle, 2008–09 to 2010–11. We summarise some of these plans below.

### Lower increases

The main change for future operation of the school funding system will be smaller per-pupil increases in the Dedicated Schools Grant. This means that there will be lower guaranteed increases in the funds that are passed on to schools, both in terms of the overall increase in the Dedicated Schools Grant and in terms of the minimum per-pupil increases that must be allocated to individual schools.

The basic increase in the DSG will be 3.1% per pupil for 2008–09 (another 1.5% is then allocated on the basis of ministerial priorities). This figure is lower than the 5% per pupil most local authorities received in 2007–08. The main reason for this is the lower planned increases in overall education spending in England over the period covered by Comprehensive Spending Review 2007 compared with previous spending reviews (discussed in Chapter 1). These will feed through to lower planned increases in schools spending.

### Lower levels of the Minimum Funding Guarantee

When the Minimum Funding Guarantee was introduced in 2004–05, it was set at 4% in cash terms for both primary and secondary schools.

“ Local authorities delegating less than 80% of their funding for deprived pupils towards those pupils were told that they would face particular scrutiny. ”

This compares with an average cash-terms per-pupil increase of 6.0% in the main grant allocated to local authorities for schools spending at that time. The MFG was thus set at around two-thirds of the value of the average cash-terms increase, so represented quite a significant constraint on local authorities. It was similarly constraining in 2005–06. However, by 2007–08, the MFG had declined to 3.7%, which is about 55% of the level of the average per-pupil increase in local authorities' DSG allocations.

Over the period covered by the 2007 Comprehensive Spending Review (2008–09 to 2010–11), the MFG will be set at 2.1% in cash terms. Its level relative to the average cash-terms increase in DSG allocations will also be lower over the CSR period compared with previous years. For example, in 2008–09, the ratio of the MFG to the average per-pupil increase in the DSG will be about 46%. This makes the MFG slightly less constraining than in previous years.

It is also noteworthy that, in contrast to previous years, the Minimum Funding Guarantee has been set below the government's broad assessment of cost pressures in schools. The government has stated that this policy decision was made on the assumption of efficiency savings in schools,<sup>13</sup> but it also clearly allows local authorities greater autonomy over funding decisions compared with previous years, when the MFG was set at the same level as the government's broad assessment of cost pressures.

### Exceptional circumstances

In recent years, local authorities have complained that no account is taken of sudden changes to pupil numbers that sometimes occur after funding levels have been finalised in the spring of each year based on pupil numbers from January. For instance, if a large number of migrants with children move into a local authority after January in a particular year, then

local authorities will have to fund these pupils from their existing allocation, even if these pupils have additional educational needs, such as English not being their first language.

The government has thus proposed an 'Exceptional Circumstances' Grant. Local authorities will be allocated an amount of grant if they experience growth in pupil numbers between January and October<sup>14</sup> in excess of a given threshold (in 2008–09, this threshold is set at pupil growth of 2.5% between January and October).

### Review of deprivation funding

In December 2005, the government published a review of deprivation funding, which concluded that 'Local authorities' decisions on the balance of funding between schools are not leading to deprivation funding being accurately or consistently targeted towards schools in deprived areas'.<sup>15</sup> Alongside this, the government published a technical survey on how measures of deprivation are currently used in school funding formulae, together with the advantages and disadvantages of different indicators. In light of this, local authorities have been asked to review the way deprivation is treated in their school funding formulae in time for the next funding cycle (between 2008–09 and 2010–11). Local authorities delegating less than 80% of their funding for deprived pupils towards those pupils were told that they would face particular scrutiny.<sup>16</sup>

### School balances

The government also seems concerned that many state schools in England have been spending less money than they were given. Across England, state schools had accrued total balances of £1.6 billion by the end of the financial year 2005–06 – around 5% of total school funding in 2007–08. Over 90% of schools had positive total balances in 2005–06, though most of these positive balances were fairly small – more than half

<sup>13</sup> <http://www.teachernet.gov.uk/docbank/index.cfm?id=12219>.

<sup>14</sup> September in the case of children with additional language needs.

<sup>15</sup> Page 4 of Department for Education & Skills and HM Treasury, *Child Poverty: Fair Funding for Schools*, December 2005, [http://www.teachernet.gov.uk/\\_doc/9404/ACF9795.doc](http://www.teachernet.gov.uk/_doc/9404/ACF9795.doc).

<sup>16</sup> Department for Children, Schools & Families, *Additional Notes for the Discussion between CSAs and LA Officers*, 2007, <http://www.teachernet.gov.uk/docbank/index.cfm?id=11682>.

were less than £50,000. However, around a fifth of these balances were larger than £100,000, and more than 300 schools had balances in excess of £500,000.<sup>17</sup>

To deal with this concern, the government proposed taking away 5% of these balances every year and redistributing this money to other schools in the same local authority.<sup>18</sup> The incentives created by this proposed levy were potentially very strong, because the government planned to apply the charge to the *stock* of positive balances, rather than to the yearly *flow* into those balances. This meant that the same money would be subject to the 5% tax every year. Thus a school that took no action would lose nearly a quarter of its balance every five years – hundreds of thousands of pounds, for the schools with the largest balances.

After concern was voiced by schools, local authorities and opposition parties, this policy was abandoned. In a statement to Parliament, the Schools Minister, Jim Knight, announced that ‘Rather than proceed now we will continue to discuss these detailed concerns with schools and work with local authorities to lower excessive surplus revenue balances’. But he also said that ‘If the levels reported do not show a significant reduction we will come forward with further action, having resolved the technical issues, for implementation during the following spending review period’.<sup>19</sup>

However, it should be noted that many local authorities already operate 100% clawback mechanisms for schools with ‘excessive balances’. These are defined as balances that are not committed to specific projects and are above 8% of total spending for primary schools and 5% of total spending for secondary schools. The 100% clawback provides a strong incentive for schools to spend their allocations and a very strong disincentive against building up surpluses that are not committed to specific projects.

### Further into the future

Looking beyond the next school funding cycle, the government is also consulting on how the schools funding system will operate from 2011–12 onwards.<sup>20</sup> Some of the options for reform in the proposed terms of reference include: returning to a single formula for calculating the Dedicated Schools Grant; and merging the School Development Grant, School Standards Grant and other smaller grants into the Dedicated Schools Grant.

## 2.5 Conclusion

While the provision of schooling may be the responsibility of local authorities, the vast majority of funding for schools comes from the central government’s education budget. Furthermore, changes to the school funding system following the (illusory) school funding crisis of 2003–04 have reduced the discretionary powers of local authorities regarding how these funds are distributed. Such changes tended to favour stability, possibly at the expense of tackling funding inequalities. However, powers over funding decisions have not simply been transferred up from local authorities to central government; schools themselves now have an increasing influence on local authorities’ funding decisions via Schools Forums.

<sup>17</sup> Numbers based on Department for Children, Schools & Families, Section 52, Data Archive, Outturn Table 2 for 2005–06, <http://www.dfes.gov.uk/localauthorities/section52/subPage.cfm?action=section52.default&ID=64>.

<sup>18</sup> See *School and Early Years Funding Arrangements 2008–11: Explanatory Note for Local Authorities*, which can be found at <http://www.teachernet.gov.uk/docbank/index.cfm?id=11544>.

<sup>19</sup> <http://www.teachernet.gov.uk/docbank/index.cfm?id=12186>.

<sup>20</sup> See [http://www.teachernet.gov.uk/\\_doc/11686/Review%20of%20DSG%20Distribution%20Formula%20TORs%20Aug%2007.doc](http://www.teachernet.gov.uk/_doc/11686/Review%20of%20DSG%20Distribution%20Formula%20TORs%20Aug%2007.doc).

### 3. How redistributive is school funding?

“...on average, a large amount of funding appears to be directed towards social deprivation.”

#### 3.1 Introduction

A key requirement of a school funding system is that it allocates resources in a transparent manner, and it may also be desirable that these resources are shared out in what is perceived to be an equitable manner. This chapter will focus on the extent to which funding is targeted towards pupils from deprived backgrounds, those with English as an additional language (EAL) and those with special educational needs (SEN). We concentrate on the first of these attributes, defined in terms of eligibility for free school meals (FSM), for which children from low-income families are generally eligible. We do not come to any normative conclusions about the amount of targeting, i.e. we say nothing in this chapter about whether the present system is fair or appropriate in its level of redistribution. It is a matter for others to decide the extent to which the present targeting of deprivation amounts to ‘fairness’.

The chapter shows that, on average, a large amount of funding appears to be directed towards social deprivation. Our estimates suggest that pupils who are eligible for FSM attract over 70% more income to the school than pupils who are not eligible for FSM; this is broadly true in both primary and secondary schools. Moreover, these FSM premiums have grown over time. We also show that this extra funding comes both from local authorities’ formulae and from direct payments and grants from central government, with the latter being a disproportionate source of the FSM premium.

However, our work also shows that local authorities (LAs) only allocate around 40–50% of the extra funding they receive for pupils who are FSM-eligible towards the schools these pupils attend. In other words, LAs seem to spread the funding targeted at low-income pupils more widely (i.e. ‘flatten’ it). This flattening makes school funding less redistributive (on the basis of social deprivation) than the government intends. We find that the FSM premium would be more

than doubled in primary schools and 50% higher in secondary schools if LAs did not flatten out their resources at all.

Having seen that there are substantial FSM premiums despite allocations to schools being flattened by local authorities, we then consider whether school funding responds to changes in pupil characteristics from year to year. The sensitivities we find here are much weaker (and often not statistically significant). This leads us to conclude that while schools with more FSM-eligible pupils receive substantially more funds, this is likely to be because current deprivation is strongly correlated with historical levels of deprivation: funding does not seem to respond from year to year to changes in deprivation from year to year. Such a result is unsurprising, given that the Minimum Funding Guarantee explicitly states that funding per pupil must increase by a given amount for practically all schools (see Chapter 2 for more details).

The rest of this chapter proceeds as follows. Section 3.2 introduces key terms and illustrates the current state of funding per pupil in English maintained schools and how it has evolved over the last few years. The core analysis commences in Section 3.3, where we use statistical techniques to try to account for the variation in school income that is observed in the data and we discuss the excess deprivation-led funding that schools receive (termed the ‘FSM premium’). Section 3.4 compares the FSM premium in the income that local authorities distribute to schools from their Individual Schools Budgets with what they actually receive from central government on that basis, and asks whether local authorities pass on deprivation-led funding in the manner that the government intends. The section also looks at how the allocation of social deprivation funding varies by region. Section 3.5 adds a time dimension to the analysis by looking at the responsiveness of school financial resources to short-term changes in needs. Section 3.6 concludes this chapter.



## 3.2 Descriptive statistics

### Key terms used in this chapter

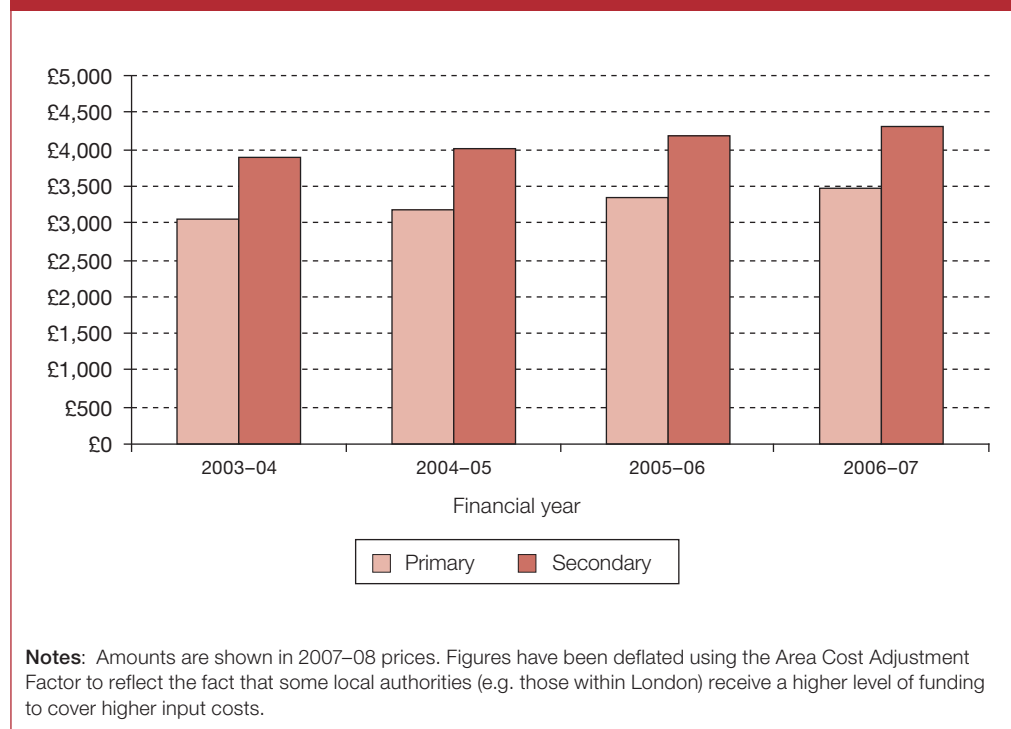
- **Total state income (funding):** all the income that schools receive from state sources. It comprises funds received from local authorities via the LA funding formula plus direct government grants.
- **Direct government grants:** payments from central government made directly to individual schools via the LA. Most of these must be passed on to each school in their entirety.
- **LA formula income:** the funds that LAs decide to allocate to schools in accordance with a funding formula that they choose.
- **Individual Schools Budget (ISB):** the total amount of money that an LA has to distribute to individual schools in its area. The LA distributes its ISB to schools through its own funding formula.
- **Free school meals (FSM):** an indicator of low household income recorded in the PLASC data-set (see Section A.2 in

Appendix A for more information). Around 15% of pupils in maintained schools are eligible for FSM. In a quarter of all maintained schools, the proportion of FSM pupils exceeds 22%.

### The average level of funding per pupil

We now provide a basic summary of the evolution and composition of raw funding per pupil, i.e. total state funding divided by the number of pupils enrolled. Figure 3.1 demonstrates the levels of total funding per pupil during the financial years from 2003–04 to 2006–07, for both primary and secondary schools. Secondary schools receive considerably more per pupil than primary schools do, with an additional £830 per pupil in 2006–07 (in 2007–08 prices). Primary schools have experienced average annual real-terms increases in per-pupil funding of roughly 4.3% over this period, while secondary schools have seen annual average increases of 3.5% in real terms. In 2003–04, primary and secondary schools received £3,055 and £3,880 per pupil, respectively,

**FIGURE 3.1: Total state funding per pupil**



Sources: Authors' calculations using Section 52 Outturn Table B, 2003–04 to 2006–07, <http://www.dfes.gov.uk/localauthorities/section52/>; HM Treasury website for deflators, [http://www.hm-treasury.gov.uk/economic\\_data\\_and\\_tools/gdp\\_deflators/data\\_gdp\\_index.cfm](http://www.hm-treasury.gov.uk/economic_data_and_tools/gdp_deflators/data_gdp_index.cfm).



“...for both primary and secondary schools, per-pupil funding varies considerably.”

while in 2006–07 the figures were £3,470 and £4,300. Note that these estimates of per-pupil spending are different from those shown in Chapter 1, both in terms of their absolute value and in terms of their growth over time. The main reason for this is that the estimates shown in Figure 3.1 exclude capital spending and spending on central services by LAs (both of which are included in Chapter 1).

Figures 3.2a and 3.2b on page 37 illustrate how the composition of school funding has changed over time, in terms of the proportions coming from local authority formulae and from direct government grants. On average, schools tend to receive around 85% of their income from the LA's formula: among primary schools, LA funding rose slightly from 84% to 86% of total state funding between 2004–05 and 2006–07, while for secondary schools the increase was from 83% to 85% over the same period. Direct government grants have declined as a share of total income because they have generally been flat in real terms. Between 2003–04 and 2006–07, they grew by an average annual rate of 1.2% for primary schools (up from £471 to £489 in 2007–08 prices) and they fell slightly for secondary schools, by 0.2% per year (down from £666 to £662).

These statistics provide an informative summary of the aggregate generosity of school funding but are of limited wider use. First, most schools will not receive exactly the average amount of funding per pupil. Second, these figures do not reveal anything about how such resources are distributed across schools, so it is not possible to see who the relative beneficiaries from such funding arrangements are. As was stated in the introduction to this chapter, we would expect to find some redistribution in the system to the extent that funding is targeted towards pupils with additional educational needs or towards those from more disadvantaged areas. To investigate this in more depth, we now analyse the distributional implications of school funding.

### The distribution of funding per pupil

Figure 3.3 on page 38 shows the distributions of funding per pupil for 2003–04 (in red) and 2006–07 (in black). An initial glance reveals there to be a large amount of variation

across schools in the level of total funding per pupil; this variability has increased over time, particularly for primary schools. Primary schools appear to receive a mean income per pupil of around £3,500 in 2006–07 (marked by the solid vertical line), 13.6% higher than in 2003–04 (marked by the dashed vertical line). The distributions themselves possess a strong rightward skew, indicating that some primary schools are receiving much more than the average amount. A small number of primary schools received per-pupil funding of at least twice the average amount in 2006–07; these are generally very small establishments with an average of 40 pupils. For secondary schools, the distributions are more symmetric around their respective means (roughly £3,900 in 2003–04 and £4,300 in 2006–07). Nevertheless, for both primary and secondary schools, per-pupil funding varies considerably.

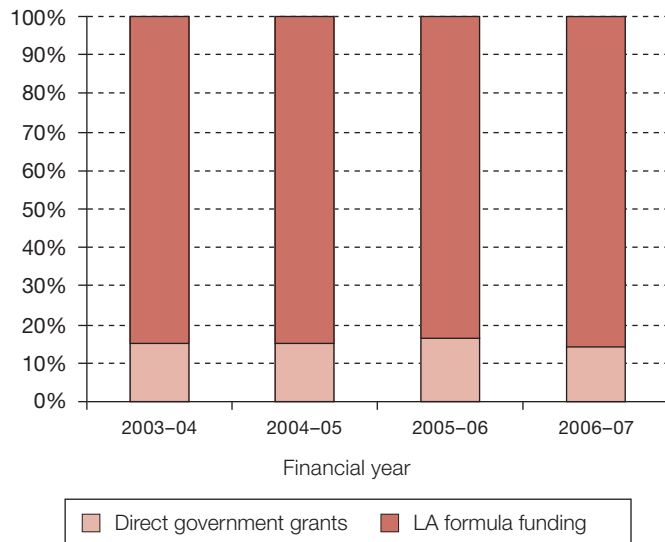
The distributions of schools' expenditure per pupil in 2006–07 look qualitatively similar to the distributions in Figure 3.3 as total funding and total expenditure are closely related, differing only when schools accumulate or reduce their cash balances. Furthermore, the distributions of total funding per pupil in 2004–05 and 2005–06 also look qualitatively similar to Figure 3.3, apart from being rightward shifts of the distributions in 2003–04, reflecting the fact that funding per pupil has generally risen over time.

Given such large variation in funding per pupil, the focus in the rest of this chapter will be on explaining why this variation exists and to which characteristics of schools it is related.

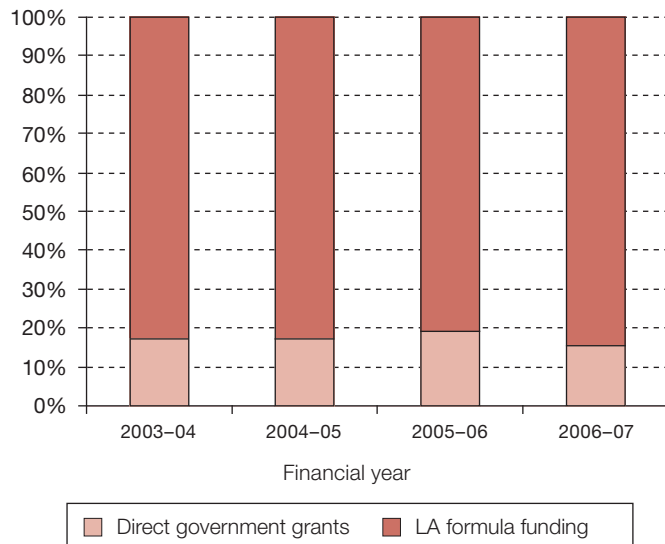
### 3.3 Determinants of school income

In order to analyse in more detail the distribution of state school funding, we make use of the ordinary least squares (OLS) regression-based methods outlined in Section A.3 of Appendix A. This enables us to consider how a school's financial resources vary according to changes in the characteristics of a school or its pupils along several different dimensions simultaneously, such that we can isolate the impact on school funding of varying one school or pupil characteristic while holding

**FIGURE 3.2a: Composition of primary school funding**



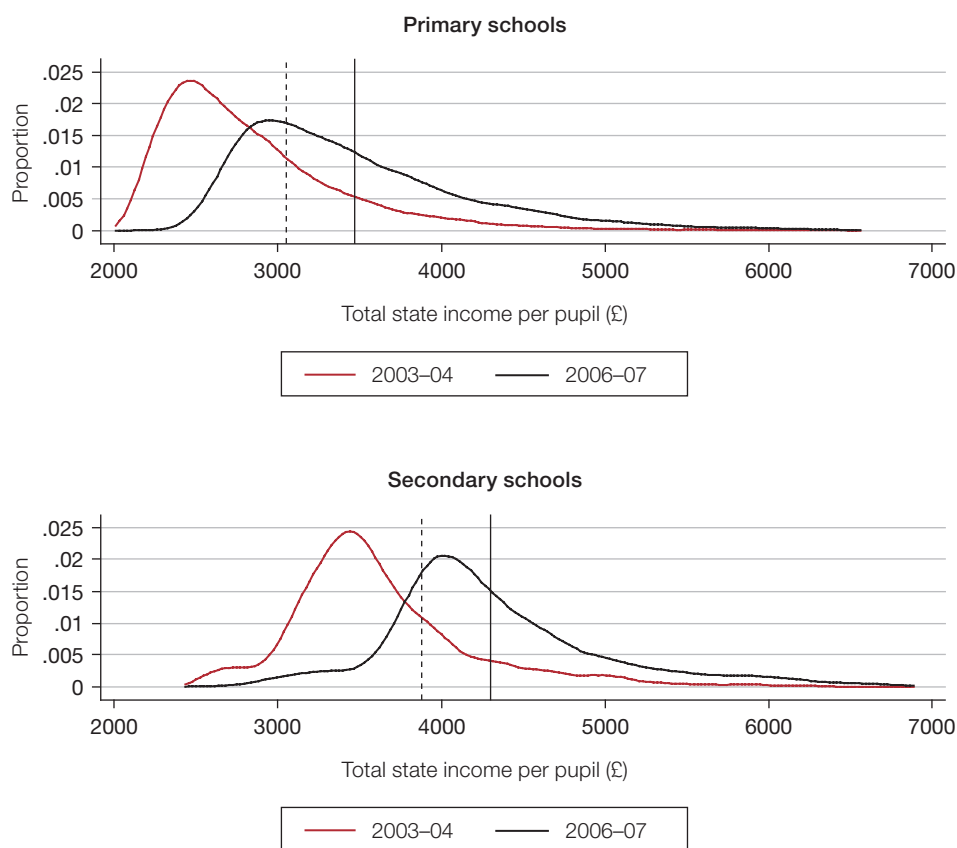
**FIGURE 3.2b: Composition of secondary school funding**



**Notes:** Amounts are shown in 2007-08 prices. Figures have been deflated using the Area Cost Adjustment Factor to reflect the fact that some local authorities (e.g. those within London) receive a higher level of funding to cover higher input costs.

Sources: Authors' calculations using Section 52 Outturn Table B, 2003-04 to 2006-07, <http://www.dfes.gov.uk/localauthorities/section52/>; HM Treasury website for deflators, [http://www.hm-treasury.gov.uk/economic\\_data\\_and\\_tools/gdp\\_deflators/data\\_gdp\\_index.cfm](http://www.hm-treasury.gov.uk/economic_data_and_tools/gdp_deflators/data_gdp_index.cfm).

**FIGURE 3.3: Distribution of total funding per pupil**



**Notes:** Amounts are shown in 2007–08 prices. Figures have been deflated using the Area Cost Adjustment Factor to reflect the fact that some local authorities (e.g. those within London) receive a higher level of funding to cover higher input costs.

Sources: For funding, see Sources for Figure 3.1; for pupil and school characteristics, see Section A.2 in Appendix A.

all others fixed.<sup>1</sup> Hence, for example, it allows us to ask how much extra funding a school receives for an extra pupil that is eligible for FSM or for an extra pupil with a statement of SEN – holding everything else constant. We investigate this separately for primary and secondary schools since we know that the system of school funding works slightly differently at different stages of education. We also leave out special schools, since funding for these schools is allocated in a more complicated fashion.

Our method therefore traces out an implicit funding formula. The most salient aspects of this formula, for the 2006–07 financial year, are presented in Table 3.1 on page 39, with full details in Table B.1 in Appendix B; Tables B.2, B.3 and B.4 repeat the exercise for 2005–06, 2004–05 and 2003–04 respectively. The regression results for the two separate components of school income – LA formula income and direct government grants – can be found in Tables B.5–B.8 and Tables B.9–B.12 respectively in Appendix B. As usual, all figures are presented in 2007–08 prices.

<sup>1</sup> See Section A.2 of Appendix A for specific details of the pupil and school characteristics used in this analysis.

**TABLE 3.1. Implicit formula for total state funding per pupil, 2006–07**

	Primary	Secondary
<b>Total state income</b>		
Base per-pupil amount	£2,141***	£3,118***
Extra amount per FSM pupil	£1,531***	£2,404***
Extra amount per EAL pupil	£283***	-£144
Extra amount per SEN pupil (statement)	£9,711***	£8,855***
Extra amount per SEN pupil (no statement)	£343***	£441***
Sample size	17,333	3,339
R-squared	0.96	0.95
<p><b>Notes:</b> * significant at 10% level; ** significant at 5% level; *** significant at 1% level. R-squared is the proportion of the variance of the dependent variable that is explained by the variance of the pupil and school characteristics we include in the regression. Amounts are shown in 2007–08 prices. Figures have been deflated using the Area Cost Adjustment Factor to reflect the fact that some local authorities (e.g. those within London) receive a higher level of funding to cover higher input costs.</p>		

Sources: For funding, see Sources for Figure 3.1; for pupil and school characteristics, see Section A.2 in Appendix A.

Each number in Table 3.1 represents our estimate of the average impact of a certain characteristic on a school's total income, holding all other characteristics fixed. Hence the first row in the table indicates that in 2006–07, primary schools received, on average, a basic amount of £2,141 per pupil, while secondary schools received £3,118 per pupil. These amounts are for an extra non-FSM, non-EAL, non-SEN pupil – because the analysis holds these characteristics fixed. The rest of the numbers in Table 3.1 illustrate how much funding various types of pupil attract *in addition* to the basic per-pupil amount. Hence, on average, an extra pupil who is eligible for FSM attracts £2,141 + £1,531 = £3,672 in a primary school, while in a secondary school the addition of such a pupil would bring an extra £3,118 + £2,404 = £5,522. The numbers £1,531 and £2,404 represent the respective FSM 'premiums' for primary and secondary school pupils – the average extra funding allocated per FSM pupil on top of the base amount.

Similarly, an extra primary school pupil with FSM *and* EAL would, on average, bring extra funding of £1,531 + £283 = £1,814. In secondary schools, the EAL premium is negative but not statistically significant, which means that it is not precisely estimated enough

for us to be able to distinguish whether or not it makes any difference to funding levels.

The R-squared values at the bottom of Table 3.1 show the proportion of the variation in total funding that is explained by the characteristics analysed. The R-squared is extremely high: it indicates that our regression model explains 96% of the variation in primary school funding and 95% of the variation in secondary school funding. We are therefore confident that the regressions presented in this chapter identify the key factors that determine the amount of money schools receive.

It is now apparent that considerable redistribution is taking place on the basis of additional educational needs: a primary school would seem to receive, on average, around 71% more money for admitting a pupil from a disadvantaged background (as measured by FSM) than for a pupil who is not. A secondary school would seem to receive 77% more income for doing so. Therefore, schools with many low-income families generally receive more funding than schools in other areas. Schools also receive additional funding for admitting children with severe special educational needs: the premiums attached to a pupil with a statement of SEN are roughly 450% in primary schools and 280% in secondary schools.

We now focus in more detail on the redistribution of funding according to deprivation (as measured by FSM eligibility).

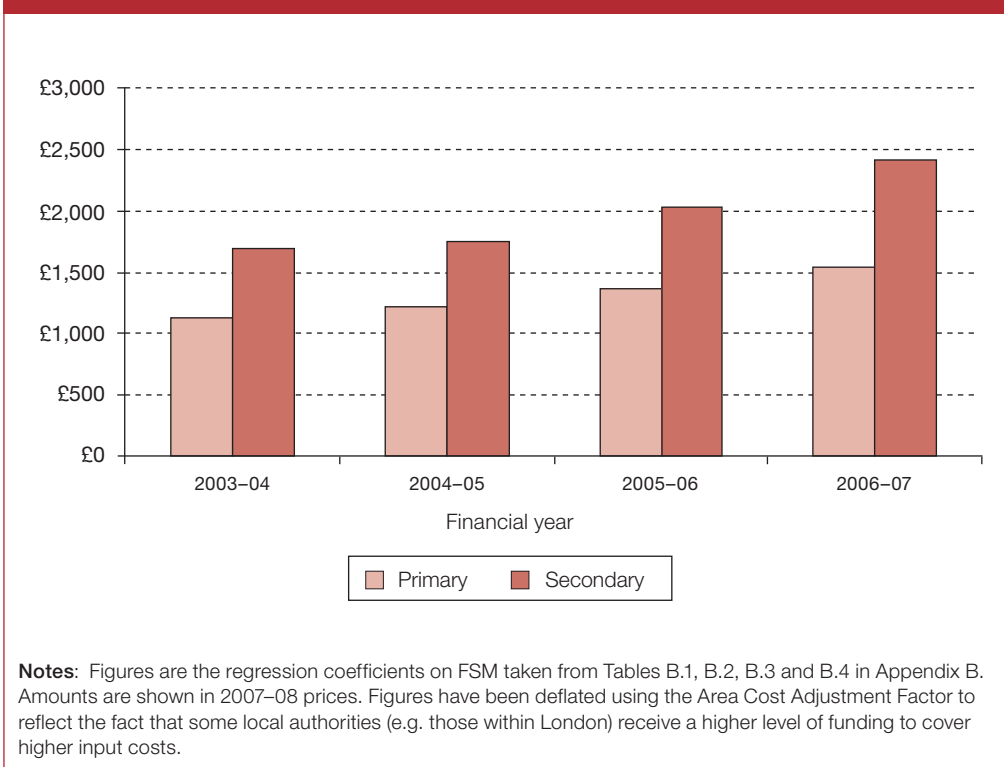
## The FSM premium

Figure 3.4 plots the evolution of the FSM premium for primary and secondary schools from 2003–04 to 2006–07. The real-terms funding premium attached to FSM pupils has risen strongly over the period, growing by an annualised average of 11.0% per year in primary schools (from £1,121 to £1,531 between 2003–04 and 2006–07) and by 12.6% per year in secondary schools (from £1,684 to £2,404 between 2003–04 and 2006–07). In absolute terms, it is the case that more resources are being allocated on the basis of FSM each year. However, the FSM premium has also grown faster than the basic per-pupil amount over this period. As a result of the FSM premium's increasing share, funding per pupil has become more redistributive in relative terms as well. In 2003–04, for every pound of funding allocated universally (via the basic per-pupil amount), an additional 58 pence was allocated for pupils

with FSM in primary schools, while secondary schools received an additional 61 pence. Yet in 2006–07, primary schools attracted an extra 71 pence of FSM funding for each pound of universal per-pupil funding, while secondary schools received an extra 77 pence. The system of school funding has therefore become more targeted over this period, with deprivation-based funding acquiring greater importance, particularly for secondary schools.

We now turn our attention to the source of this redistribution by splitting up the baseline per-pupil amount and the FSM premium into the portions accounted for by LA formulae and by direct government grants. This decomposition, presented in Table 3.2 on page 41, is based on the regressions for each income source in 2006–07 – see Tables B.5 and B.9 in Appendix B. The table is replicated for previous years in Tables C.1, C.2 and C.3 in Appendix C. The figures in bold in Table 3.2 sum vertically to approximately equal the FSM premiums given in Table 3.1 – to recap, these were roughly £1,500 for primary schools and roughly £2,400 for secondary schools in 2006–07.

**FIGURE 3.4: Evolution of FSM premium**



Sources: For funding, see Sources for Figure 3.1; for pupil and school characteristics, see Section A.2 in Appendix A.

**TABLE 3.2. Average funds provided to schools by source, 2006–07**

	Primary	Secondary
<b>Main LA formula</b>		
Base amount per pupil	£2,022	£2,883
Extra per FSM pupil	<b>£1,020</b>	<b>£1,257</b>
Total per FSM pupil	£3,041	£4,140
<b>Direct government grants</b>		
Base amount per pupil	£122	£241
Extra per FSM pupil	<b>£489</b>	<b>£1,148</b>
Total per FSM pupil	£612	£1,389
<p><b>Notes:</b> Amounts are shown in 2007–08 prices. Figures have been deflated using the Area Cost Adjustment Factor to reflect the fact that some local authorities (e.g. those within London) receive a higher level of funding to cover higher input costs.</p>		

Sources: For funding, see Sources for Figure 3.1; for pupil and school characteristics, see Section A.2 in Appendix A.

Looking at the breakdown provided in Table 3.2, we see that direct funding from government sources provides a very small amount of the baseline per-pupil funding (5.7% for primary schools and 7.7% for secondary schools), but a disproportionately large amount of FSM-targeted funding. It accounts for 32% of the FSM premium in primary schools and 48% of the FSM premium in secondary schools (shown in Figures 3.5a and 3.5b on page 42). This is despite the fact that direct government grants as a whole accounted for only around 14% of total primary school income and 15% of total secondary school income in 2006–07. Hence it appears that earmarked government funds are more closely targeted towards FSM pupils than the other income that schools receive, thereby making the school funding system more redistributive than it would be if all the resources were allocated through the main LA formula.

This point is illustrated by Figures 3.5a and 3.5b, particularly when contrasted against Figures 3.2a and 3.2b. Over the period from 2003–04 to 2006–07, direct government grants accounted for around 30%, on average, of the primary school FSM premium and around 45%, on average, of the secondary school FSM premium (rising from 39% to 48%). Both these proportions are increasing over time; in other words, the direct government grant component of the FSM premium is increasing

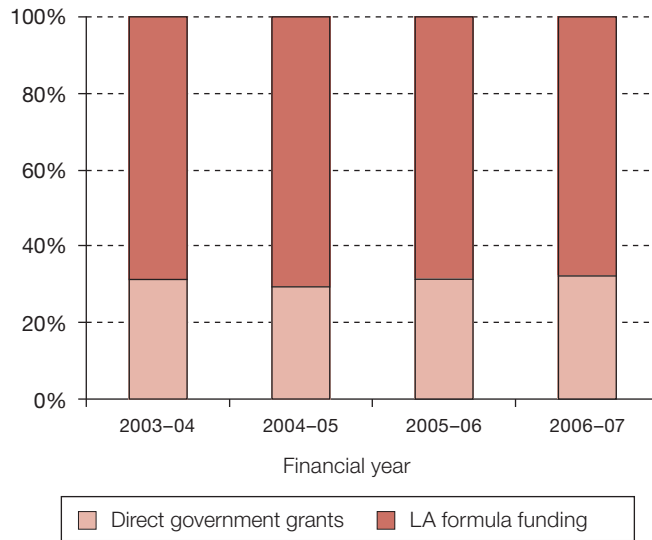
at a faster rate than the LA formula component. This suggests that, even though direct grants from central government have grown only marginally for primary schools and have levelled out for secondary schools (per pupil in real terms), this slowdown has been outweighed by ever-increasing targeting on pupils eligible for FSM. The strengthened focus of supplementary income on social deprivation then leads it to account for an increasing proportion of the FSM premium.

### 3.4 LA-level versus school-level deprivation funding

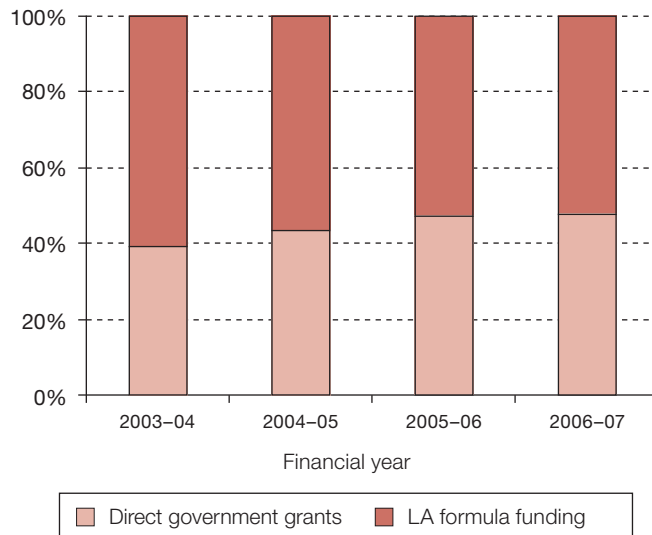
As we have seen in Section 3.3, for each pupil eligible for FSM, schools appear to receive a substantial amount of extra funding (approximately £1,500 per FSM pupil in primary schools and £2,400 per FSM pupil in secondary schools). The bulk of this money comes from the local authority's formula (approximately £1,000 per FSM pupil in primary schools and £1,300 per FSM pupil in secondary schools), though a large and growing amount also comes through direct grants and payments (£500 in primary schools and £1,100 in secondary schools). Whether this constitutes a 'fair' distribution is a subjective question, and we leave it for others to judge whether these constitute appropriate premiums.



**FIGURE 3.5a: Composition of primary FSM premium**



**FIGURE 3.5b: Composition of secondary FSM premium**



**Notes:** Figures are calculated from the FSM coefficients in Sections B.2 and B.3 of Appendix B, where all amounts are in 2007-08 prices and have been deflated using the Area Cost Adjustment Factor to reflect the fact that some local authorities (e.g. those within London) receive a higher level of funding to cover higher input costs.

Sources: For funding, see Sources for Figure 3.1; for pupil and school characteristics, see Section A.2 in Appendix A.

“...local authorities will always flatten their main allocation from central government...”

Instead, we ask whether local authorities pass on the full amount they receive per extra FSM pupil in their area to the schools these FSM pupils attend, or whether they ‘flatten’ (spread) the extra amount they receive across all pupils in their area. The government clearly believes the latter to be the case. In its report on social deprivation and school funding, *Child Poverty: Fair Funding for Schools*,<sup>2</sup> it stated that

*Most LAs do not pass the full value of their [additional educational needs] allocation from central government on to their schools using an [additional educational needs] or similar measure ... local authorities are flattening the distribution of funds by deprivation level as they pass them from central government to their schools, resulting in outcomes which can be seen as inequitable.*

As evidence, it cites its own survey of local authorities’ formulae:

*Taking six authorities ... with average FSM-linked deprivation levels in their schools within 1.5 percentage points of 20 percent, the amount per pupil in their [Individual Schools Budget] distributed on deprivation factors was £22, £125, £127, £136, £136 and £200.*

These values are much lower than the FSM premiums we have presented in our analysis, suggesting that our results provide much less evidence of flattening. This is because we do not base our analysis on the amounts that local authorities record as being allocated on the basis of social deprivation. Instead, our analysis has attempted to find out how much extra local authorities allocate on the basis of FSM through all factors contained in their formulae. Differences emerge if local authorities are recording deprivation funding in other categories (e.g. additional pupil-led funding or school-specific factors) or if other factors used by local authorities are correlated with FSM eligibility (e.g. if FSM eligibility is higher in schools with sports facilities and local authorities directly fund sports facilities, this would lead our methodology to record an FSM premium).

We can extend our methodology to analyse directly whether local authorities ‘flatten’ their allocations from central government. We do this by simply asking whether local authorities implicitly receive more on the basis of FSM eligibility than they allocate to individual schools, controlling for a range of other factors that may affect funding (e.g. number of pupils).

On one level, local authorities will always flatten their main allocation from central government (the Dedicated Schools Grant; see Chapter 2 for more details). This is because some of the funds are spent on central services rather than being allocated to individual schools, e.g. on Pupil Referral Units. In 2006–07, local authorities spent about 12% of their Schools Budgets on central services, with some local authorities spending substantially more (over 20% of their Schools Budget) and some substantially less (less than 5% of their Schools Budget). Since we do not know which pupils benefit from these services, we cannot hope to know whether or not this part of their allocation is flattened.

Instead, we can ask whether or not the total amount of funding that local authorities choose to allocate to all schools in their area is flattened. We do this by comparing the extra amount per FSM pupil contained within their total budget for individual schools (the Individual Schools Budget; see Chapter 2 for more details) with the amount they actually allocate to individual schools through their respective formulae (which we have already shown in Table 3.2).

It is important to note that local authorities do have discretion over how much of their Schools Budget is allocated to their Individual Schools Budget (ISB). When we refer to ISB income, we mean total funding from the government after local authorities have decided how much to spend on central services. Therefore, our analysis implicitly assumes that central government is happy with the balance of local authority funding between individual schools and central services. If the government wanted deprived local authorities to spend less on central services than our analysis

<sup>2</sup><http://www.teachernet.gov.uk/docbank/index.cfm?id=9404>.

would underestimate the degree of flattening. Conversely, if the government wanted deprived local authorities to spend more on central services then our analysis would overestimate the degree of flattening.

Table 3.3 shows, for 2006–07, the implicit formula we calculate using OLS for the total amount local authorities receive from central government to allocate to schools (Tables D.1, D.2 and D.3 in Appendix D show the full results for 2006–07, 2005–06 and 2004–05 respectively<sup>3</sup>). This analysis is analogous to that carried out for schools in the previous section – except that here the unit of analysis is the local authority and the outcome of interest is the local authority’s Individual Schools Budget. The grey figures in the table are the corresponding amounts of money local authorities pass on to schools via the LA formula – these have been taken directly from Table 3.2. According to Table 3.3, local authorities’ ISBs have an average FSM premium of £2,781 for primary schools; that is, for each primary FSM pupil, the local authority receives additional income (over and above a basic per-pupil amount) of

£2,781. Meanwhile, the average FSM premium for secondary pupils in the ISB is £2,415. However, local authorities only allocate £1,020 (on average) of additional funding to primary schools for each FSM-eligible pupil and £1,257 (on average) of additional funding to secondary schools for each FSM-eligible pupil. Hence local authorities receive approximately twice as much in extra funds from central government for FSM pupils as the amounts that they actually allocate to primary and secondary schools on this basis. This is certainly evidence of flattening: local authorities appear to spread their ISB income across schools in such a way as to make it less targeted on social deprivation than the government intends.

Based on the figures in Tables 3.1, 3.2 and 3.3, we can quantify the extent to which flattening serves to weaken the amount of redistribution in the school funding system by asking what the FSM premiums would be if local authorities did not flatten their ISBs at all. On average, LAs receive an extra £2,781 for each FSM-eligible pupil at a primary school and an extra £2,415 for each FSM-eligible

**TABLE 3.3. Implicit formula for total primary and secondary school budgets, 2006–07**

	Primary		Secondary	
Base per-pupil amount	£2,557***		£3,313***	
Amount passed on to schools		£2,022		£2,883
Extra amount per FSM pupil	£2,781***		£2,415***	
Amount passed on to schools		£1,020		£1,257
Sample size	148		148	
R-squared	1		1	

**Notes:** \* significant at 10% level; \*\* significant at 5% level; \*\*\* significant at 1% level. R-squared is the proportion of the variance of the dependent variable that is explained by the variance of the pupil and school characteristics we include in the regression. Figures are in 2007–08 prices and have been deflated by the Area Cost Adjustment Factor to reflect the fact that some local authorities (e.g. those within London) receive a higher level of funding to cover higher input costs. SEN pupils with and without statements had to be considered together as there was very little variation in the proportions of pupils with statemented SEN across local authorities. Figures in grey are the estimated basic per-pupil amount and FSM premium that schools receive from LA formula income; see Table 3.2.

Sources: Authors’ calculations using Department for Children, Schools & Families, Section 52, Budget Table 1 for 2006–07, <http://www.dfes.gov.uk/localauthorities/section52/subPage.cfm?action=section52.default&ID=64>; HM Treasury website for deflators, [http://www.hm-treasury.gov.uk/economic\\_data\\_and\\_tools/gdp\\_deflators/data\\_gdp\\_index.cfm](http://www.hm-treasury.gov.uk/economic_data_and_tools/gdp_deflators/data_gdp_index.cfm). For pupil and school characteristics, see Section A.2 in Appendix A.

<sup>3</sup>The 2003–04 data are not used in Section 3.4 because of numerical instability in the OLS regressions of local authority ISBs for that financial year.

“ Our work suggests that the government was right to conclude that local authorities, on average, seem to flatten their allocations. ”

pupil at a secondary school. In the absence of flattening, these amounts would be passed on to schools as the FSM premiums that schools receive from LA formula income. Adding to these the FSM premiums in direct government grants (given in Table 3.2) would then yield a total FSM premium – taking into account all state funding – of £3,270 for primary schools and £3,563 for secondary schools. These hypothetical figures are much higher than the total FSM premiums that schools receive in practice, given in Table 3.1. In the absence of flattening, the total FSM premium would be around 114% higher in primary schools and 48% higher in secondary schools.

Note, however, that these percentages may be upper bounds as the calculations have held constant the way that direct government grants are allocated to schools. If the degree of targeting in direct payments to schools is chosen so as to compensate disadvantaged schools for the occurrence of flattening, then direct government grants may be lowered (or made

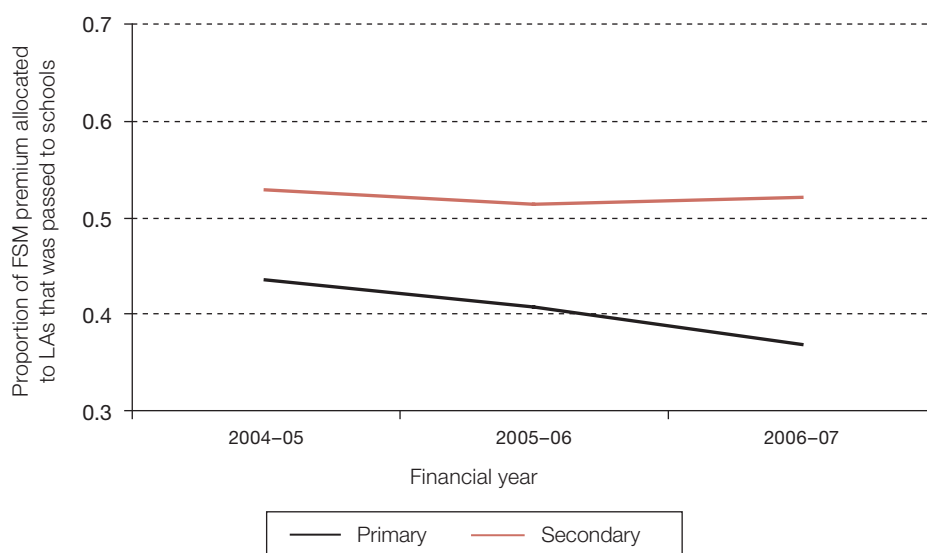
less redistributive) in response to a reduction in the amount of flattening. This would then weaken the resulting increase in the FSM premium.

### The extent of flattening over time

Figure 3.6 shows the proportion of the extra funds local authorities had available for primary and secondary schools on the basis of FSM that they passed on to schools for 2004–05, 2005–06 and 2006–07. It shows that the degree of flattening has increased over time for primary schools and remained broadly the same for secondary schools.

Our work suggests that the government was right to conclude that local authorities, on average, seem to flatten their allocations. The degree of flattening has also been increasing over time for primary schools, meaning that with these schools there is an increasing tendency for local authorities to spread their resources out in a manner that is less redistributive than the government intends.

**FIGURE 3.6: Proportion of funds implicitly allocated to local authorities on the basis of FSM that was passed on to individual schools**



**Notes:** Data are based on the coefficients on FSM in Tables B.5, B.6 and B.7 in Appendix B and Tables D.1, D.2 and D.3 in Appendix D. Amounts are in 2007–08 prices and have been deflated by the Area Cost Adjustment Factor to reflect the fact that some local authorities (e.g. those within London) receive a higher level of funding to cover higher input costs.

Sources: See Sources of Figure 3.1 and Table 3.1.

### Geographic variation in local authority allocations

In this section, it has emerged that schools tend to receive less supplementary income from their local authorities per FSM-eligible pupil than local authorities have in their Individual Schools Budget. That is not to say that local authorities are holding funds away from schools (since the ISB is, by its very nature, passed on to schools in its entirety); instead, it implies that local authorities distribute some portion of the FSM-targeted income to schools on the basis of characteristics other than FSM. It may be the case, for example, that some local authorities allocate a relatively larger share of their ISB via the basic per-pupil amount (or a fixed per-school amount) and a relatively smaller share through the FSM-based allocation. In particular, a local authority containing many poor neighbourhoods – and many FSM-eligible pupils – might choose to allocate a large share of its ISB through the basic per-pupil amount; doing so would implicitly target disadvantaged pupils (by virtue of their prevalence). This would achieve a similar allocation of funds across schools to that which a more targeted formula would, but might be simpler to operate.

To investigate this, we conduct two exercises that illustrate how the basic per-pupil allocation and FSM premium that schools receive from LA formulae vary between disadvantaged and affluent local authorities. The first analysis looks at the FSM premium by LA-level deprivation, while the second looks at the FSM premium by region of England.

The first analysis is based on grouping local authorities according to the proportion of pupils at maintained schools who are eligible for FSM. We calculate this proportion for each local authority and define ‘quintiles’ of it by ordering it and splitting it up into five equally-sized groups. The first (bottom) quintile contains the fifth of schools with the lowest prevalence of FSM at the LA level – these are therefore the schools that are situated in the most affluent LAs. At the other end of the scale, the fifth (top) quintile identifies the 20% of schools in the most deprived LAs. Using this breakdown, we repeat the analysis of Section 3.3 – for LA formula income instead

of total state income – to estimate the basic per-pupil amount and FSM premium that schools receive from their LA at each level of local deprivation. The results are presented separately for primary and secondary schools in 2006–07 in Table 3.4 on page 47.

The figures in Table 3.4 are consistent with the idea hypothesised above: in more deprived areas, local authorities seem to distribute a higher basic per-pupil amount alongside a lower FSM premium. In other words, flattening occurs to a greater extent in poorer areas. For primary schools, the poorest LAs allocate a basic per-pupil amount of £2,108 on average (£181 more than in the least deprived LAs), while the FSM premium in their formula is £927 (£616 less than in the least deprived LAs). For secondary schools, the formulae of the most disadvantaged LAs imply on average a basic per-pupil amount of £3,017 (£357 more than in the least deprived LAs), while the FSM premium is roughly half of that in the least deprived LAs. It is worth noting that all the differences in Table 3.4 between the most and least deprived LAs are statistically significant at the 1% level. Therefore there is strong evidence that poorer LAs are more likely to flatten out their resources.

The second analysis examines how LA formula allocations vary by the region of England in which the school is located. In light of Table 3.4 and the arguments made above, we might expect LAs in traditionally disadvantaged regions of England to fund schools more intensively on the basis of pupil numbers and less intensively on the basis of social deprivation – in other words, to flatten their allocations. This issue is examined by repeating the analysis above for each Government Office Region in England instead of each deprivation quintile; the results are presented in Table 3.5 on page 48.

There does appear to be some relationship between regional deprivation and LA allocations, but the relationship is not as clear-cut as for the previous case. For primary schools, the basic per-pupil element of LA formula income does not vary by a large amount across the country, although the highest and lowest values (in Yorkshire and the South East respectively) are statistically

significantly different from each other. Furthermore, lower per-pupil allocations are generally associated with higher FSM premiums in LA funding – this is notably demonstrated by the East Midlands and the South East, where flattening is quite limited. The FSM premiums in LA formula income for primary schools vary much more across the country than the basic per-pupil amount does, with the difference between the highest and lowest values (East of England and London respectively) being statistically significant at the 1% level.

Local authority allocations to secondary schools interact with region in a very similar way to allocations to primary schools. In London, where some of the most disadvantaged neighbourhoods are situated, the basic per-pupil amount of £3,010 is nearly the highest in England while the FSM premium is the lowest in England at only £874. This is where the most flattening seems to occur. Conversely, secondary schools in the East Midlands receive

a much lower per-pupil amount (£2,685) but a much higher FSM premium (£2,305) in their LA formula income. This latter figure is around twice as much as the FSM premium in some other regions (North West, West Midlands, London and South East).

A consistent pattern in both Table 3.4 and Table 3.5 is that there is much less variation across different areas in the amount of money that LAs allocate to schools on the basis of total pupil numbers than there is in the additional funding that they allocate to schools for FSM-eligible pupils. Basic per-pupil allocations are quite tightly set around an average of £2,000 for primary schools and £2,800 for secondary schools. The FSM premium in LA allocations, by contrast, is more dispersed around a ballpark average of £1,100 for primary schools and £1,500 for secondary schools. The regional variations in flattening therefore seem to be driven by local authorities adjusting their FSM premium in order to maintain a stable basic per-pupil amount.

**TABLE 3.4. LA formula allocations in terms of basic amount and FSM premium, by LA deprivation level, 2006–07**

	Basic per-pupil amount	FSM premium
<b>Primary schools</b>		
Least deprived LAs	£1,927***	£1,543***
Second-least deprived LAs	£2,067***	£1,096***
Moderately deprived LAs	£1,967***	£1,125***
Second-most deprived LAs	£2,068***	£995***
Most deprived LAs	£2,108***	£927***
<b>Secondary schools</b>		
Least deprived LAs	£2,660***	£1,623***
Second-least deprived LAs	£2,930***	£2,251***
Moderately deprived LAs	£2,746***	£1,542***
Second-most deprived LAs	£2,954***	£1,468***
Most deprived LAs	£3,017***	£845***
<p><b>Notes:</b> * significant at 10% level; ** significant at 5% level; *** significant at 1% level. Amounts are shown in 2007–08 prices. Figures have been deflated using the Area Cost Adjustment Factor to reflect the fact that some local authorities (e.g. those within London) receive a higher level of funding to cover higher input costs.</p>		

Sources: For funding, see Sources for Figure 3.1; for pupil and school characteristics, see Section A.2 in Appendix A.



**TABLE 3.5. LA formula allocations by region, 2006–07**

	Basic per-pupil amount	FSM premium
<b>Primary schools</b>		
North East	£2,001***	£1,022***
North West	£2,022***	£1,063***
Yorkshire and the Humber	£2,106***	£1,158***
East Midlands	£1,949***	£1,165***
West Midlands	£2,071***	£847***
East of England	£2,015***	£1,330***
London	£2,099***	£820***
South East	£1,930***	£1,218***
South West	£2,040***	£1,202***
<b>Secondary schools</b>		
North East	£2,781***	£1,841***
North West	£2,896***	£1,190***
Yorkshire and the Humber	£2,931***	£1,507***
East Midlands	£2,685***	£2,305***
West Midlands	£3,013***	£1,190***
East of England	£2,812***	£1,875***
London	£3,010***	£874***
South East	£2,683***	£963***
South West	£2,807***	£1,612***

**Notes:** \* significant at 10% level; \*\* significant at 5% level; \*\*\* significant at 1% level. Amounts are shown in 2007–08 prices. Figures have been deflated using the Area Cost Adjustment Factor to reflect the fact that some local authorities (e.g. those within London) receive a higher level of funding to cover higher input costs.

Sources: For funding, see Sources for Figure 3.1; for pupil and school characteristics, see Section A.2 in Appendix A.

### 3.5 Dynamics of deprivation funding over time

The final strand of analysis in this chapter focuses in more depth on the response over time of school funding. Up to now, we have analysed how the income that schools (and local authorities) receive in a given year is related to the *contemporaneous* characteristics of their pupils – particularly the extent of deprivation and additional educational needs. In other words, we have used the variation between different schools at the same point in time to see what factors

determine the *level* of school funding. This provides one way of evaluating the degree of redistribution in the school funding system. However, as was mentioned in Section 3.2, we are most interested in how funding responds to certain pupil characteristics or to changes in those characteristics. This question is inherently dynamic, pertaining more to the *growth* of funding than the level. As such, the ‘static’ methods that have been employed up to this point may not be very informative.

To conduct a more dynamic analysis, we combine the four years of data (2003–04 to

“...if Leafy Suburb High School took in 100 more FSM pupils this year than it did last year, then, all else being equal, by how much would its funding be expected to rise?”

2006–07 inclusive) to look both across schools and over time. The question we then ask is whether – and the extent to which – changes in the characteristics of pupils at a certain school lead to a change in total resources. For example, if Leafy Suburb High School took in 100 more FSM pupils this year than it did last year, then, all else being equal, by how much would its funding be expected to rise?

The methodology we use to answer this question is very similar to that used in our static models, except that this time the outcome of interest is the *change* in a school’s total state funding from one year to the next, and the explanatory factors considered are the *changes* in pupil characteristics over the same period. Table 3.6 presents the impacts of key pupil characteristics on the change in total state funding between 2005–06 and 2006–07 (the full results can be found in Table E.1 in Appendix E, while the same exercise for 2004–05 to 2005–06 is shown in Table E.2, and Table E.3 contains the results for changes from 2003–04 to 2004–05).

The impacts in Table 3.6 reveal some striking differences when compared with the cross-sectional impacts in Table 3.1. Here, primary schools receive a basic amount of £1,843 for each additional pupil (about 86% of the corresponding base amount in Table 3.1), while secondary schools receive a basic amount of

£2,474 for each additional pupil (about 79% of the corresponding base amount in Table 3.1). Funding still appears to follow the pupil in this analysis, but it occurs to a lesser extent. However, the most notable discrepancies are in the estimated premiums for pupils with additional educational needs. Note that the estimated FSM premiums are much lower than before (and even slightly negative for primary schools). Instead, they are quite similar to the government’s estimates of FSM premiums from its survey of local authorities (see Section 3.4). The lack of statistical significance of these estimates means that we cannot reject the notion that there might be *no* FSM premium. An increase in the number of FSM pupils at a school from one year to the next brings little, if any, extra funding over and above the basic per-pupil amount.

Furthermore, for secondary schools, only the EAL premium listed in Table 3.6 is statistically different from zero at the conventional 5% level of significance. This not only suggests that funding does not follow FSM pupils at secondary school level, but also – perhaps more worryingly – suggests that secondary school funding does not reflect a definite SEN premium either, even for the most severe cases where a pupil has a statement of SEN.

For primary schools, however, some premiums are noteworthy. It appears that an extra EAL pupil brings with them a premium of £640

**TABLE 3.6. First-differences estimates of total funding, 2005–06 to 2006–07**

	Primary	Secondary
Base per-pupil increase	£1,843***	£2,474***
Extra increase per FSM pupil	-£99	£528
Extra increase per EAL pupil	£640***	£488**
Extra increase per SEN pupil (statement)	£1,824***	£1,486
Extra increase per SEN pupil (no statement)	£66	£145
Sample size	17,213	3,328
R-squared	0.22	0.20

**Notes:** \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%. R-squared is the proportion of the variance of the dependent variable that is explained by the variance of the pupil and school characteristics we include in the regression. Amounts are shown in 2007–08 prices. Figures have been deflated using the Area Cost Adjustment Factor to reflect the fact that some local authorities (e.g. those within London) receive a higher level of funding to cover higher input costs.

Sources: For funding, see Sources for Figure 3.1; for pupil and school characteristics, see Section A.2 in Appendix A.

“...school incomes per pupil do not respond markedly to immediate changes in circumstances.”

on top of the universally-allocated £1,843. To the extent that EAL and FSM are correlated with one another – that is, children with EAL are disproportionately more likely to be FSM-eligible as well<sup>4</sup> – this does at least provide some capacity for redistribution in school funding, albeit far more limited than the estimates in Table 3.1 implied. It is also reassuring to see that an extra primary school pupil with a statement of SEN leads to a total increase in funding (£3,667) that is almost double the basic per-pupil increase. But again, this is drastically lower than the increase in a school’s income that would occur based on the results in Table 3.1: according to the figures presented there, an extra primary school pupil with a statement of SEN would raise a school’s total income by £11,852.

It is crucial at this point to try to reconcile the differences that have emerged between the two sets of estimates. Those in Table 3.1 illustrate the relationship between the level of total school resources in 2006–07 and pupil characteristics in 2006–07. By contrast, Table 3.6 shows the relationship between the 2006–07 year-on-year change in school income and the 2006–07 year-on-year change in pupil characteristics. The latter relationship is far weaker (in terms of magnitude and statistical significance), implying that school incomes per pupil do not respond markedly to *immediate* changes in circumstances. This is further highlighted by the relatively low R-squared coefficients: for both primary and secondary schools, year-on-year changes in pupil characteristics only explain around a fifth of the ensuing change in school resources. The remaining 80% of the variation in the growth of school funding appears to be driven by factors outside the model.

Despite the fact that school funding is not very sensitive to recent changes in pupil characteristics, Table 3.1 makes clear that the current level of a school’s income is very strongly related to current pupil characteristics. These characteristics are highly persistent over time – the total number of pupils in a school in one year will be very similar to the total number

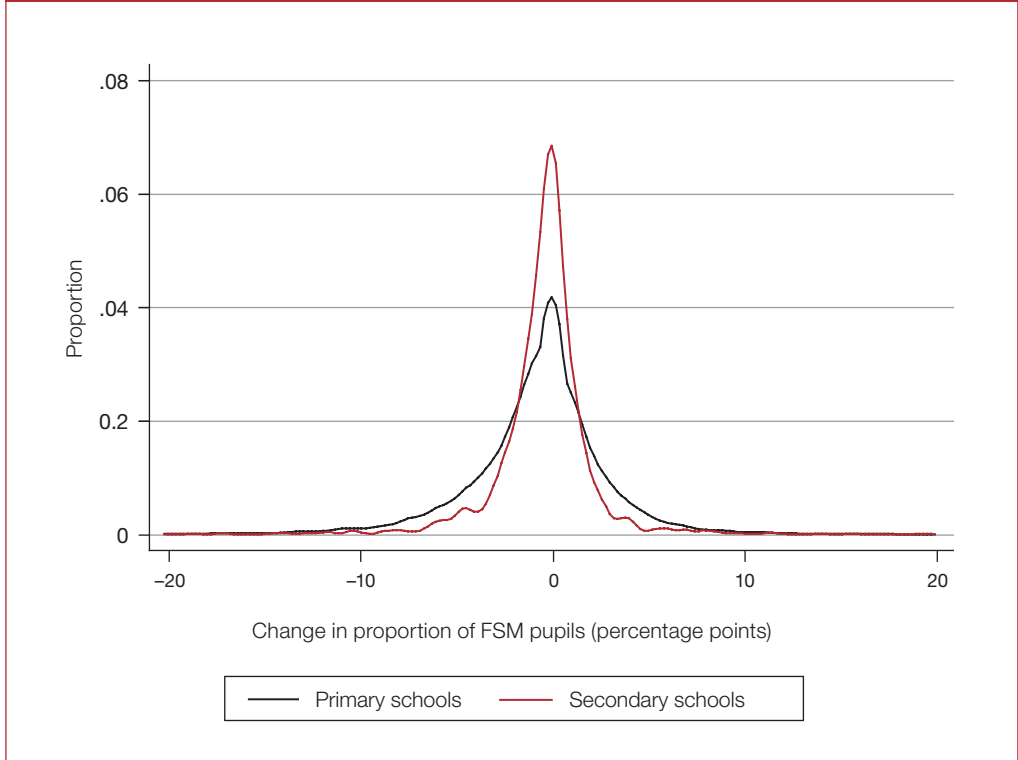
of pupils at the same school in another year. In a disadvantaged neighbourhood, poverty may be a sustained phenomenon, in which case the proportion of pupils at a local school who are FSM-eligible will be stable over time. This is confirmed by Figure 3.7 on page 51, which shows the distribution of the change in the proportion of pupils eligible for FSM between 2005–06 and 2006–07. At both primary and secondary schools, the proportion of pupils who are FSM-eligible appears to be relatively constant, with the change from 2005–06 to 2006–07 being heavily concentrated around zero. However, a small number of schools are subject to significant changes: about 22% of primary schools and 15% of secondary schools were subject to a change in excess of 2 percentage points between 2005–06 and 2006–07.

Nevertheless, given the stability over time of the number of FSM pupils, the current number is essentially an indicator of historical levels of the number of FSM pupils. Therefore, one potential explanation for the difference in estimates is that medium- or long-term trends in school circumstances, as summarised by current levels, affect school resources, while short-term deviations may have little or no immediate impact. Hence this hypothesis suggests that school funding responds slowly and adaptively to changes in pupil characteristics. Put another way, there is considerable inertia in the dynamics of school funding allocations.

Another issue that may play a role is the Minimum Funding Guarantee (MFG), described in Chapter 2. This measure, introduced in 2004–05, stipulates a lower bound on the growth rate of per-pupil funding (3.7% for primary schools and 4.0% for secondary schools in 2006–07) and therefore inhibits local authorities’ discretionary capacity to redistribute funding increases along specific dimensions – such as social deprivation. Schools with declining numbers of FSM pupils, for instance, may find that their reductions in per-pupil funding are offset by MFG top-up payments. By receiving the MFG, they are

<sup>4</sup>In 2006–07, for example, 32% of secondary pupils with EAL were also FSM-eligible, compared with only 13% of secondary pupils who did not have EAL.

FIGURE 3.7: Change in proportion of FSM-eligible pupils, 2005–06 to 2006–07



Sources: See Section A.2 in Appendix A.

therefore being insulated against fluctuations in funding per pupil caused by changing pupil numbers, i.e. their income becomes less sensitive to changes in pupil characteristics. Hence the existence of MFG payments might also account for part of the discrepancy between the levels estimates in Table 3.1 and the growth estimates in Table 3.6. Individual local authorities may also have operated similar measures to the MFG prior to 2004–05, either at the pupil level or at the total level, in which case the MFG would have just extended and formalised the level of inertia in the school funding system. Furthermore, even if schools do not receive MFG top-up payments, the existence of these guaranteed per-pupil increases serves to make current funding largely determined by historical funding levels. This would naturally lead to a lower

degree of responsiveness to changes in pupil characteristics over time.

We are not the first to come to the conclusion that the MFG may have restricted the ability of the school funding system to redistribute funding for social deprivation. The Audit Commission (the government’s independent spending watchdog) came to the same conclusion in its 2004 report on education funding,<sup>5</sup> stating that

*The continuation of a minimum guarantee for all schools will prevent councils and School Forums from tackling funding inequalities in their area as quickly as they would wish to or should.*

As part of its report on social deprivation and school funding,<sup>6</sup> the government conducted a

<sup>5</sup> <http://www.audit-commission.gov.uk/reports/NATIONAL-REPORT.asp?CategoryID=&ProdID=960ADD80-D961-11d8-8C73-00105A74CE79>.

<sup>6</sup> Department for Education & Skills and HM Treasury, Child Poverty: Fair Funding for Schools, 2005, <http://www.teachernet.gov.uk/docbank/index.cfm?id=9404>.

survey of local authorities. Summarising local authorities' feelings vis-à-vis the MFG, the report states that

*It was felt that the MFG was undermining the threshold-based factors which are particularly significant in targeting high deprivation levels, because the MFG artificially preserves high levels of funding which are no longer needed and is itself*

*absorbing a higher and higher proportion of total funding.*

However, it is important to note that the MFG is not a complete barrier for local authorities that want to target more funding at social deprivation, as our case study of the London Borough of Haringey shows (see Box 3.1).

## BOX 3.1: Review of deprivation funding in Haringey

As stated in Chapter 2, the government launched a review of deprivation funding in December 2005, which asked local authorities to review the way deprivation is treated in their school funding formulae in time for the next funding cycle between 2008–09 and 2010–11. In this box, we look at the experience of one local authority in particular that had already decided to review the way it allocated funding on the basis of deprivation factors – the London Borough of Haringey.

The London Borough of Haringey is not a typical local authority. Over a third of pupils in Haringey are eligible for free school meals, making it one of the poorest local authorities in England. However, some parts of Haringey are relatively affluent, such as Crouch End, Muswell Hill and Highgate (located in the west of the borough).

Given that it is located in London and is relatively poor, we would expect to observe fairly low FSM premiums, given our previous decompositions of the FSM premium by region and by proportion of children eligible for FSM. If we repeat such analysis for primary schools within Haringey in 2006–07, we do indeed observe a low FSM premium in terms of formula funding – less than £100 compared with about £820 for primary schools in London as a whole and £1,020 in England as a whole.<sup>a</sup> Such a low value could just be the result of statistical uncertainty (i.e. with just over 60 primary schools, it is more difficult to estimate the FSM premium). The London Borough of Haringey also uses other factors, apart from eligibility for FSM, to define social deprivation for funding purposes. Nevertheless, eligibility for FSM is an important indicator of social deprivation and one cannot simply ignore the observation of seemingly low amounts allocated on the basis of FSM eligibility. Therefore, Haringey seems to typify some of the problems with the present school funding system.

However, this is unlikely to remain the case for future years. In its recent consultation concerning how it will fund schools over the three years up to 2010–11,<sup>b</sup> the London Borough of Haringey proposed a large increase of funding on the basis of social deprivation. Prior to 2008–09, it distributed about 8% of its Individual Schools Budget on the basis of social deprivation. It has proposed to increase this to 16% by 2010–11, which is about the same amount that Haringey is allocated from central government on the basis of social deprivation.

For example, in 2008–09, Haringey has currently been allocated a cash-terms increase in its Dedicated Schools Grant of 4.1% per pupil. The borough plans to increase funding for pupils without additional educational needs by the Minimum Funding Guarantee (i.e. 2.1%) and to channel *all* additional funds towards increasing funding for pupils with additional educational needs.

### Notes to Box 3.1

<sup>a</sup> Such analysis could not be repeated for secondary schools since there are only about ten secondary schools within the London Borough of Haringey.

<sup>b</sup> [http://www.haringey.gov.uk/index/children\\_and\\_families/education/projects\\_consultations\\_inspections/educationconsultations/deprivation\\_funding.htm#attached\\_files](http://www.haringey.gov.uk/index/children_and_families/education/projects_consultations_inspections/educationconsultations/deprivation_funding.htm#attached_files).

### 3.6 Conclusion

Through analysis of school- and local-authority-level financial data, this chapter has shown that there appears to be quite a substantial amount of resources targeted at schools for pupils who are eligible for FSM, relative to pupils who are not. In 2006–07, schools received a basic amount of about £2,100 per pupil of primary age and £3,100 per pupil of secondary age. If these pupils were eligible for FSM, schools received about £1,500 extra in the primary sector and about £2,400 extra in the secondary sector for each one, suggesting that schools receive over 70% extra funding for each pupil who is eligible for FSM.

Chapter 2 argued that a significant reform to the school funding system over the past ten years has been the increased use of direct payments and grants (most of which must be passed on directly to schools). This has increased the complexity of the school funding system and reduced local authority discretion; it is possible the greater complexity itself may have helped disguise the discretion that LAs exert in ‘flattening’ their allocations on the basis of social deprivation. From the government’s perspective, reduced LA discretion might be an acceptable by-product in the hope of increasing the overall level of redistribution. This chapter has shown that direct payments and grants are indeed a disproportionate source of the FSM premium we observe across schools, i.e. they are more redistributive than are local authorities’ main formulae. These grants, such as the School Standards Grant and Standards Funds described in Chapter 2, have made the school funding system in England more redistributive. Bypassing the local authorities in order to increase redistribution might thus have been a wise choice, given the evidence of ‘flattening’.

However, one significant problem with the current school funding system is its inability to respond rapidly to changes in pupil characteristics over time. Our analysis of changes in school funding across time has shown that an increase in the number of FSM pupils appears to be rewarded much less generously than our analysis of individual years showed. Whilst the FSM premiums for primary and secondary schools were about £1,500

for primary schools and £2,400 for secondary schools, they were only around £500 for secondary schools (and slightly negative for primary schools) for changes in the number of FSM pupils between 2005–06 and 2006–07; neither of these increases is statistically significantly different from zero. This leads us to conclude that, while on average schools with more pupils eligible for FSM receive substantially more funds, this is likely to be because current deprivation levels are strongly correlated with historical deprivation levels. Funding from year to year does not seem to respond to changes in deprivation very much at all. Ultimately, the funding system seems to deliver more resources to schools that are permanently disadvantaged, but does far less well at delivering funds to schools that are newly disadvantaged. In this context, the inertia of school funding may have implications for school choice: a cynical, well-informed parent might have an incentive to relocate to a gentrifying area, where the local schools will continue to enjoy high per-pupil funding as a result of the past socio-economic composition of the neighbourhood.

The slow response of school funding seems to be in line with what we would expect, given other features of the funding system. For instance, the Minimum Funding Guarantee (MFG) explicitly ensures that all schools receive increases in funding per pupil above certain thresholds, and other cash floors operated by local authorities prevent schools’ budgets from decreasing much from year to year. This means that money that could be spent on redistribution has to be spent on ensuring that overall school budgets do not change much from year to year (in per-pupil and absolute terms). For instance, under the MFG, a school whose intake is becoming less deprived over time will receive at least the same per-pupil funding as it did in previous years, even though it has fewer pupils from deprived backgrounds, whereas the money could perhaps have been better spent on greater levels of funding for schools whose intakes are becoming successively more deprived.



## 4. Incentives and school funding

“Advocates of pupil-led funding systems argue that they can create strong incentives for schools to raise their students’ attainment...”

### 4.1 Introduction

A significant amount of money ‘follows the pupil’ in the English school funding system. That is, the majority of funding received by English schools is directly determined by pupil numbers (weighted according to their age). This system has been described by the economist Julian Le Grand as ‘the equivalent of an education voucher system’<sup>1</sup> – albeit one in which the voucher can only be used in state-run schools, not taken into the private sector, and cannot be topped up with additional money from parents.

Advocates of pupil-led funding systems<sup>2</sup> argue that they can create strong incentives for schools to raise their students’ attainment – because by doing so, the school will attract more pupils (and so more funds). Successful schools will expand, and innovative new schools will enter the market to compete with existing schools, while failing schools will be forced either to improve their performance or else to shrink and close. Such pupil-led funding systems, which aim to harness parent choice as a force to drive up standards in all schools, are often known simply as ‘school choice’ schemes.

The government’s 2005 Schools White Paper appeared to embrace school choice ideas explicitly and enthusiastically. Tony Blair noted in his introduction to the White Paper that ‘there is increasing international evidence that school choice systems can maintain high

levels of equity and improve standards’.<sup>3</sup> He wrote approvingly of both the Swedish ‘free schools’ system<sup>4</sup> (discussed in Box 4.1) and the Florida school vouchers programme.<sup>5</sup> The White Paper itself sets out the government’s vision of an education system ‘that is dynamic, with weak schools replaced quickly by new ones, coasting schools pushed to improve and opportunities for the best schools to expand and spread their ethos and success throughout the system’.<sup>6</sup>

This chapter assesses the extent to which the government has succeeded in creating the dynamic, incentive-based school system envisaged by the White Paper. We judge the system according to three benchmarks, based on the ‘three essential elements’ of school choice programmes that the economist Caroline Hoxby – a prominent advocate of such reforms – has argued are necessary for genuine choice in the education system:<sup>7</sup>

- **Funding follows the pupil:** We begin in Section 4.2 by confirming that significant funding really does ‘follow the pupil’ in the English school system.
- **Supply-side flexibility:** In Section 4.3, we consider whether the supply side of the education system is flexible enough to respond to parental choice. Are new schools free to enter the system and compete with existing providers? Are successful schools free to expand while failing schools contract and close? The White Paper acknowledges the necessity of such flexibility, stating that ‘if

<sup>1</sup> Page 108 of J. Le Grand, *Motivation, Agency and Public Policy*, Oxford University Press, Oxford, 2003.

<sup>2</sup> Milton Friedman is usually credited as the ‘inventor’ of education vouchers (M. Friedman, *Capitalism and Freedom*, University of Chicago Press, Chicago, 1962).

<sup>3</sup> Page 4 of Department for Education & Skills, *Higher Standards, Better Schools for All*, 2005, <http://www.dfes.gov.uk/publications/schoolswhitepaper/>.

<sup>4</sup> In the Swedish system, a growing number of state-funded independent schools compete with existing state schools for pupils – receiving their funding from the government on a per-pupil basis. Parents are free to set up such a school themselves if they are not happy with the school places in their area.

<sup>5</sup> In the Florida voucher programme, children in persistently failing schools are given vouchers (or ‘opportunity scholarships’) to find places in other schools.

<sup>6</sup> Page 20 of Department for Education & Skills, *Higher Standards, Better Schools for All*, 2005, <http://www.dfes.gov.uk/publications/schoolswhitepaper/>.

<sup>7</sup> See, for example, C. Hoxby, *School Choice: The Three Essential Elements and Several Policy Options*, Education Forum, Wellington, New Zealand, 2006.

## BOX 4.1: Sweden's 'free schools'

Since 1992, Sweden has operated a school system with a striking degree of freedom of entry, combined with a funding system in which money follows the pupil (a universal voucher). A new independent school can be opened by anyone, from parents' groups and cooperatives to charities and private companies, and the school will receive public funding, on a per-pupil basis, provided it meets certain criteria (see below). These state-funded independent schools are sometimes known simply as 'free schools'.

In order to qualify for state funding, schools must apply for accreditation from the National Agency for Education (NAE), proving that they meet certain basic criteria including compliance with the national curriculum and various quality targets. There is a strong presumption that schools applying for accreditation will be approved, and the local municipality (which funds schools in its area) has no 'veto' over the creation of a new school. If the school is approved, the municipality is bound by law to fund it according to the number of pupils it attracts.

Schools receiving public funding may not charge additional fees, or select pupils by ability, religion or ethnic origin. They are, however, allowed to make a profit, and many of Sweden's independent schools are now run by private companies.

In the wake of the 1992 reforms, the number of independent schools receiving public funding has risen dramatically, from 70 schools (educating less than 1% of pupils) when the reforms were introduced, to nearly 800 schools (educating almost 10% of pupils) by 2006.<sup>a</sup>

The effect that these independent schools have on existing municipal schools was analysed by the economists F. Mikael Sandström and Fredrik Bergström. They focused in particular on the concern that the presence of independent schools may have a negative impact on pupils remaining in existing municipal schools. The authors found no evidence that this is the case, concluding that their findings 'support the hypothesis that school results in public schools improve due to competition'.<sup>b</sup>

This finding was echoed, perhaps surprisingly, by the headmaster of one such Swedish municipal school (the Brunn School), competing with an independent school nearby, when he was interviewed by the BBC in 2007. Brunn School's headmaster, Goran Lovgren, stated that 'the impact of free schools has been better quality – competition has kept us on our toes'. He went on to note, however, that 'the danger is that I don't get enough pupils so I can't do a good job because we don't have enough money'.<sup>c</sup>

The Swedish school system is a useful benchmark for this chapter, because it combines all three of Hoxby's 'essential elements' for school choice:

- pupil-led funding – the voucher funding system ensures that money follows the pupil;
- supply flexibility – the liberal rules for opening new schools and the absence of local government 'veto' have fostered considerable supply flexibility;
- management freedom – within the rules on quality and curriculum, schools are free to pursue a variety of pedagogical methods. Sandström and Bergström note that 30% of Sweden's free schools follow some distinct pedagogical idea, such as Montessori, Waldorf, Freinet or Reggio Emilia.<sup>d</sup> Wage-setting for teachers has also been devolved to municipalities (from central government) since the mid-1990s.

### Notes to Box 4.1

<sup>a</sup> Page 10 of M. Sandström, 'School choice reforms from Sweden', in J. Stanfield (ed.), *The Right to Choose? – Yes, Prime Minister!*, Adam Smith Institute, London, 2006, [http://www.adamsmith.org/images/uploads/publications/Road\\_Map\\_Education.pdf](http://www.adamsmith.org/images/uploads/publications/Road_Map_Education.pdf).

<sup>b</sup> F. M. Sandström and F. Bergström, 'School vouchers in practice: competition will not hurt you', *Journal of Public Economics*, 2005, vol. 89, pp. 351–80.

<sup>c</sup> 'Swedish model of "free schools"', *BBC News Online*, 20 November 2007, <http://news.bbc.co.uk/1/hi/education/7103636.stm>.

<sup>d</sup> F. M. Sandström and F. Bergström, 'School vouchers in practice: competition will not hurt you', *Journal of Public Economics*, 2005, vol. 89, pp. 351–80.

“...the performance of schools cannot be considered in isolation from the school funding system and the incentives it creates.”

parents want a school to expand to meet demand, it should be allowed to do so quickly and easily ... And if parents want to open a school, then it should be the job of the local authority to help them make this happen’.<sup>8</sup>

- **Management freedom:** In Section 4.4, we discuss how much freedom is given to schools’ management. Are head teachers free to innovate – with regard to teaching methods, staff compensation and so on – in an effort to raise attainment and attract pupils? Again, the White Paper acknowledges that such freedom is necessary, noting that ‘every school needs to be free to develop a distinctive ethos and to shape its curriculum, organisation and use of resources’.<sup>9</sup> Indeed, the government used the White Paper to announce a new class of self-governing ‘Trust Schools’ – state-funded schools supported by a charitable trust, which control their own assets and employ their own staff. The White Paper also reiterated the government’s commitment to the Academies programme, which establishes independent schools funded by the state. These schools enjoy even broader management freedoms than Trust Schools.

The central point of this chapter is that the performance of schools cannot be considered in isolation from the school funding system and the incentives it creates. Indeed, understanding the incentive structure of the school system casts light on many of the problems that the government has identified in English education.

## 4.2 Pupil-led funding – *de facto* vouchers?

Chapters 2 and 3 have already provided some evidence of the extent to which funding ‘follows the pupil’ in the English school system. In Chapter 2, we noted that nearly

70% of all government spending on schools is distributed to local authorities at a flat rate per pupil, through the Dedicated Schools Grant. Most of this money is in turn distributed to schools by local authorities through formulae – which distribute most of the authorities’ funds according to pupil numbers. Chapter 3 provided further evidence, showing that on average a school acquiring an additional pupil can expect to receive an extra £2,000 to £3,000 (more if that pupil is from a deprived background).

Figure 4.1 on page 57 provides another way of presenting the pupil-led nature of the English school funding system. It shows the average fraction of a school’s budget share (the money the school receives from its local authority) that was derived from pupil-led factors in 2005–06. On average, nearly 85% of a secondary school’s budget share (and 75% of a primary school’s) is determined entirely by pupil-led factors. Since much of the SEN and school-specific funding is also based on pupil numbers, these figures represent a lower bound on the amount of money that follows the pupil.

The money received by the school from the local authority (shown in Figure 4.1) is topped up with direct grants and payments from central government – notably the School Standards Grant and the School Development Grant – but, as Chapter 2 made clear, these centralised funding streams are themselves largely pupil-led.

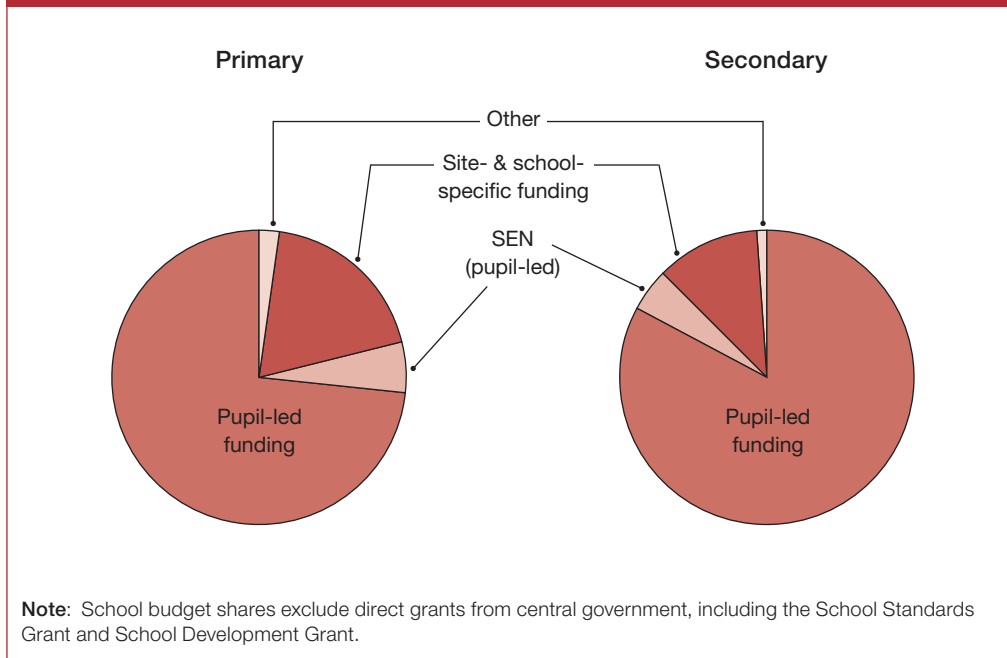
It appears, then, that Julian Le Grand’s characterisation of the English school funding system as a *de facto* voucher system is entirely accurate. Moreover, Chapter 3 established that the English ‘voucher’ (the money that follows the pupil) is substantially larger if the pupil is from a deprived background or has special educational needs. In this sense, it is a crude version of the ‘positively discriminating voucher’ that Le Grand proposed in 1989<sup>10</sup> – an education voucher that favours poorer families.

<sup>8</sup> Page 21 of Department for Education & Skills, *Higher Standards, Better Schools for All*, 2005, <http://www.dfes.gov.uk/publications/schoolswhitepaper/>.

<sup>9</sup> Page 25 of Department for Education & Skills, *Higher Standards, Better Schools for All*, 2005, <http://www.dfes.gov.uk/publications/schoolswhitepaper/>.

<sup>10</sup> J. Le Grand, ‘Markets, equality and welfare’, in J. Le Grand and S. Estrin (eds), *Market Socialism*, Clarendon, Oxford, 1989.

**FIGURE 4.1: School budget shares by source of funding, 2005–06**



Sources: Authors' calculations using 2005–06 Section 52 data, Budget Table 2, <http://www.dfes.gov.uk/localauthorities/section52/>.

However, Chapter 3 also made clear that the funding system is slower to respond to changes in the make-up of a school's intake than an explicit voucher system would be, with the result that funding for deprivation and special educational needs is more correlated with historical levels of deprivation than with year-to-year changes.

In practice, levels of deprivation within schools are also highly correlated from year to year.<sup>11</sup> This might lead us to conclude that the unresponsive nature of England's school funding system is somewhat benign – that we have a static funding system for a comparatively static school system. From an incentives perspective, however, this would be a mistake.

In particular, Chapter 3 found that the funding premiums for pupils from deprived backgrounds are far smaller when we consider year-to-year changes. This suggests that, at

the margin, a head teacher admitting a pupil from a deprived background (or with a special educational need) will have to wait several years for funding to 'catch up'. This may act as a disincentive to attract such pupils, since they are likely to require additional resources which the school will only receive after a 'lag'. By contrast, a school with a historically high proportion of pupils from deprived backgrounds but with this proportion falling over time might temporarily enjoy *increased* resources per pupil, as the funding system continued to provide resources based on historic (rather than current, lower) levels of deprivation.

While schools are forbidden (by admission rules) from selecting pupils on the basis of family background, there remains considerable concern that some schools find ways to do so<sup>12</sup> – whether by simply breaking the rules (e.g. asking parents questions about their income) or by using more subtle means (e.g.

<sup>11</sup> The correlation of schools' proportion of pupils receiving free school meals from one year to the next is over 98%. Similarly high correlations are found for the proportions of pupils with English as an additional language and of pupils with statements of special educational needs.

<sup>12</sup> See, for example, 'Schools flouting admissions rules are "biased against poorer families"', *Times Online*, 17 January 2008, <http://www.timesonline.co.uk/tol/news/uk/education/article3203000.ece>.

“ If schools are not free to expand and contract with changing demand, and new schools are not able to enter the system, ‘choice’ is likely to be limited in practice. ”

selectively marketing the school in more affluent neighbourhoods). It is worth noting that the funding ‘lag’ identified in Chapter 3 exacerbates the incentives for schools to engage in such behaviour. In these circumstances, an explicit ‘positively discriminating voucher’ (which followed the pupil without a lag) could improve the equity of school funding (as well as the efficiency) relative to the current system – by mitigating this disincentive to attract pupils requiring additional resources.

More generally, the complexity of England’s school funding system (see Chapter 2) means that it lacks the transparency of more conventional voucher schemes. Different local authorities receive, and disburse, different amounts per pupil; and the extra money for deprivation and special educational needs also varies from authority to authority.

In summary, then, the principle of pupil-led funding is demonstrably at the heart of the English school funding system. Moreover, the implicit sum of money (‘voucher’) that follows a pupil from school to school varies according to pupil characteristics, with additional money attached to pupils from deprived backgrounds and those with special educational needs. However, the money that follows the pupil appears to do so with a ‘lag’ – which seems likely to worsen the disincentives for schools to attract pupils from disadvantaged backgrounds.

### 4.3 Supply-side flexibility

Before we examine the supply side of England’s school system in detail, it is worth noting that the *demand* side of the system is highly flexible. Parents in England have the right to apply to any school they wish – they need not apply to a school in the same local authority as the one in which they live, nor to the school nearest to their home. To help inform parents’ choice of school, the government publishes league tables of

school performance each year. These give details of schools’ performance on a variety of measures, from raw results (such as the proportion of students gaining 5 GCSEs with grades A\* to C) to ‘value added’ (pupil achievement taking into account their prior attainment) and, more recently, ‘contextual value added’ (pupil achievement taking into account prior attainment plus other characteristics such as sex, ethnicity, age and deprivation).

The demand side, then, appears to be flexible, but what about the supply side? Even the most ardent supporters of pupil-led funding would concede that it is not, by itself, sufficient to create a system of genuine ‘school choice’. If schools are not free to expand and contract with changing demand, and new schools are not able to enter the system, ‘choice’ is likely to be limited in practice. Intuitively, advocates of school choice argue that existing schools should face the threat of entry by new schools and the threat of expansion by successful schools, because this creates incentives for all existing schools (not just poor performers) to devote costly effort to keeping quality high, lest they lose pupils and their associated funding.<sup>13</sup>

The fact that funding follows the pupil would be irrelevant in a system in which there are only as many places as there are pupils, because pupils become a ‘captive audience’ and even poorly-performing schools would fill their places, so facing no sharp incentive to put costly effort into improving. In such a system, gaining a place at the best schools becomes a ‘zero-sum game’: successful schools will be oversubscribed, with places rationed using a system such as catchment areas (selection based on how far parents live from the school) or lotteries (although these have been used rarely in England to date).<sup>14</sup> Places in successful, oversubscribed schools will go to those with parents wealthy enough to afford a home near the school or lucky enough to win the lottery.

<sup>13</sup> It is worth noting in this context that head-teacher pay appears to increase as school size increases. See T. Besley and S. Machin, ‘Are public sector CEOs different? Leadership wages and performance in schools’, Working Paper, 2008, <http://econ.lse.ac.uk/staff/tbesley/papers/pubsecceo.pdf>.

<sup>14</sup> The local authority of Brighton and Hove this year allocated places at some oversubscribed secondary schools on the basis of lotteries. See, for example, ‘Lottery decides on school places’, *BBC News Online*, 4 March 2008, <http://news.bbc.co.uk/1/hi/england/sussex/7278283.stm>.

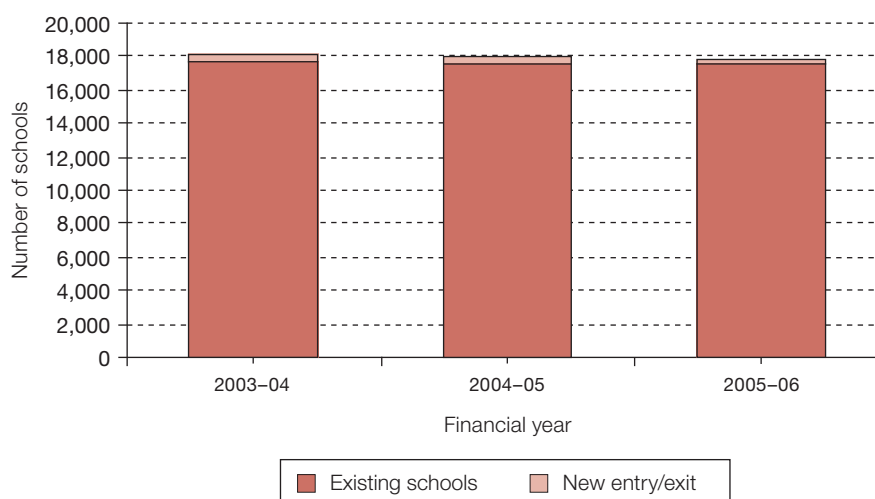
## School entry and exit

Let us first consider the threat of entry and exit, by asking whether existing schools face a credible threat of entry from new providers and the real possibility of closure if they fail to attract pupils. Figures 4.2a and 4.2b provide rudimentary evidence in this regard. Figure 4.2a shows the fraction of all primary schools each year that were either (i) just opening or (ii) about to close, while Figure 4.2b shows the same

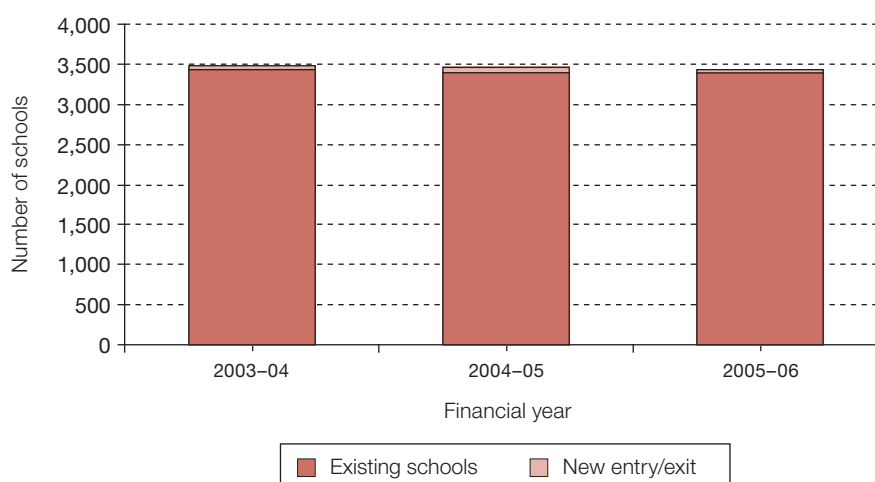
statistics for secondary schools. It is immediately clear that entry and exit are exceedingly rare in the English education system.

In each of the three years since 2003–04, around 2% of all primary schools have just entered or will exit (and around 1.5% of all secondary schools). The latest year of data shows particularly low entry and exit rates – less than 1.2% in both primary and secondary

**FIGURE 4.2a: New entry and exit in England's primary school system**



**FIGURE 4.2b: New entry and exit in England's secondary school system**



Source: Authors' calculations using Section 52 data and PLASC (see Appendix A for more information regarding these data-sets).



school sectors. Sweden's school system saw more than twice this level of entry and exit over the same period.<sup>15</sup>

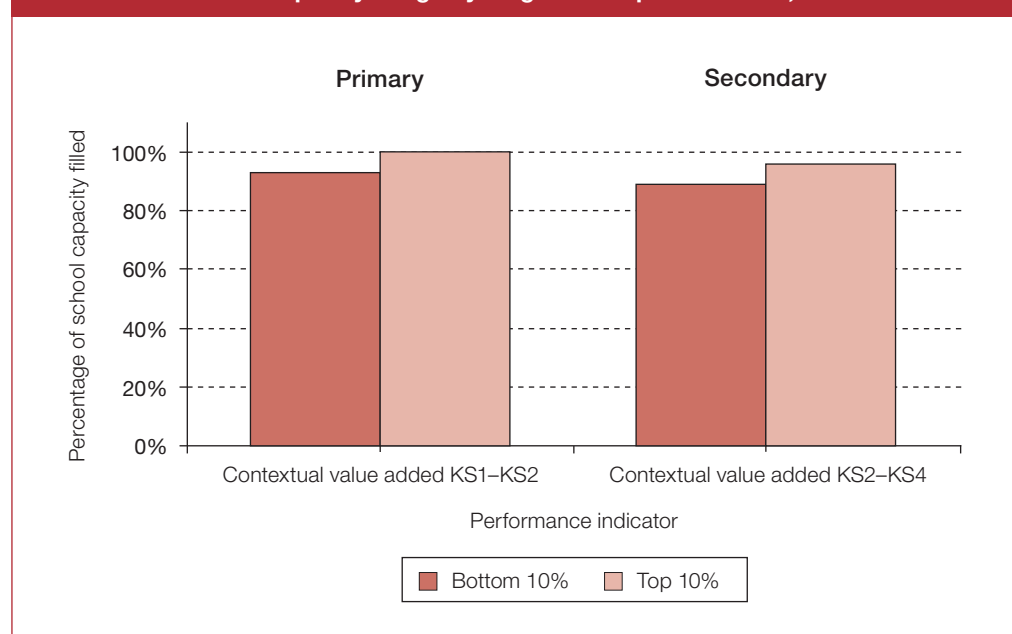
Caution is needed, however, when interpreting these low levels of entry and exit. It is not actual entry or exit that matters for school incentives, but the *threat* of entry and the *possibility* of exit. The low levels of entry and exit observed among English schools could be the result of barriers to entry, but they could also be the result of existing schools simply performing well enough to discourage new entrants.

Lacking any straightforward means of quantifying the threat of entry, we must rely on other suggestive (but not conclusive) evidence. We might ask, for example, whether poorly-performing schools nonetheless manage to fill most of their places. Figure 4.3 provides some evidence on this question, showing capacity usage in schools performing well above the

national average and in those performing well below average, given the characteristics of their intake (the top and bottom 10% of schools on the contextual value added measure for various Key Stages). The potential capacity of a school is a standard measure used by the Department for Children, Schools & Families, calculated based on the number and size of workspaces available in the school.<sup>16</sup>

The graph shows that primary schools performing well above the national average in contextual value added (Key Stage 1 to Key Stage 2) are essentially 'full', using almost 100% of their capacity on average. But schools that perform well below average can still expect to fill 93% of their capacity. For secondary schools, the best-performing schools (using contextual value added from Key Stage 2 to Key Stage 4) fill around 96% of their capacity, while those performing well below average still fill around 89% of their capacity.

**FIGURE 4.3: School capacity usage by league table performance, 2005–06**



Source: Authors' calculations using National Pupil Database and EduBase (see Appendix A for more information on these data-sets). Schools with fewer than 20 valid test results were dropped from the sample.

<sup>15</sup> Authors' calculations using Swedish National Agency for Education, *Descriptive Data on Pre-School Activities, School-Age Childcare, Schools and Adult Education in Sweden 2006*, <http://www.skolverket.se/sb/d/356/a/1326>. A lower bound on entry and exit in the compulsory schooling system from 2004–05 to 2005–06 is 2.5%.

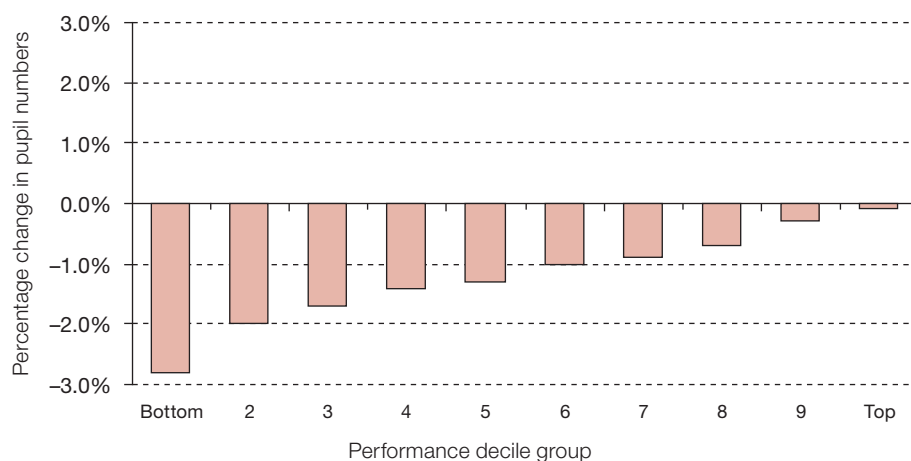
<sup>16</sup> See Department for Education & Skills, *Assessing the Net Capacity of Schools*, 2002, <http://www.dfes.gov.uk/netcapacity/docs/DfES-NetCapacity.pdf>.

In both the primary and secondary school systems, then, even poorly-performing schools appear to fill about 90% of their capacity, with entry and exit of schools extremely rare. Taken together, these results do not appear entirely consistent with the White Paper vision of a system 'that is dynamic, with weak schools replaced quickly by new ones'.

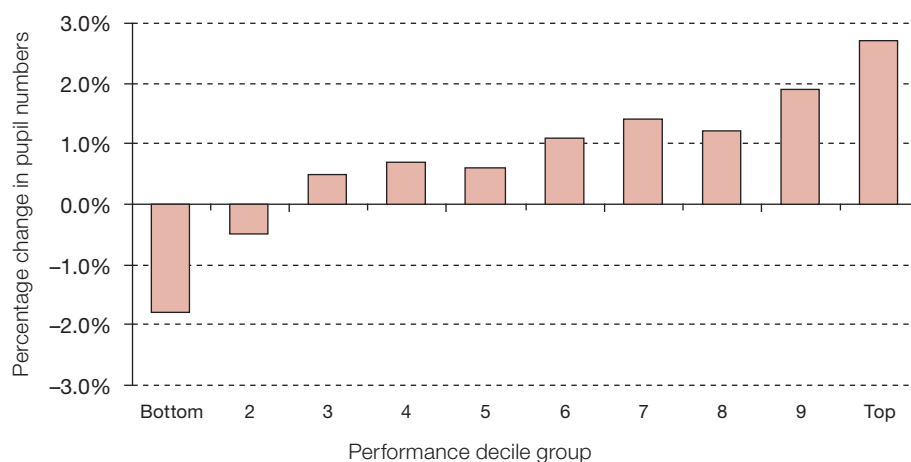
## School expansion and contraction

What about the second part of the White Paper's supply side vision – of 'opportunities for the best schools to expand'? Do we see better-performing schools expanding, while weaker schools contract? Figures 4.4a and 4.4b offer some evidence in this regard, showing the percentage change

**FIGURE 4.4a: Change in primary school pupil numbers in 2005–06, by KS1–KS2 value added in 2004–05**



**FIGURE 4.4b: Change in secondary school pupil numbers in 2005–06, by KS2–KS4 contextual value added in 2004–05**



Source: Authors' calculations using National Pupil Database and EduBase (see Appendix A for more information on these data-sets). Schools with fewer than 20 valid test results were dropped from the sample.

“ The English school system exhibits many of the problems one might expect from a relatively fixed supply of school places. ”

in the number of pupils attending schools between 2004–05 and 2005–06, according to their performance in 2004–05. Figure 4.4a divides primary schools up into ten groups (deciles) according to their performance on the Key Stage 1 to Key Stage 2 value added performance measure in 2004–05.<sup>17</sup> It is clear that the primary school sector is, in the aggregate, contracting – as the primary-school-age population in England has been falling for several years. Schools in the bottom decile of value added, however, contracted by more than those performing better, with the bottom decile contracting by over 2.5%, on average, and the top decile contracting by less than 0.5%. Indeed, the relationship between performance and contraction appears strikingly consistent across the distribution, with higher performance correlated with slower contraction.

Figure 4.4b shows the same measure of expansion and contraction, this time among secondary schools and using performance on the *contextual* value added performance measure (taking into account pupil characteristics) in 2004–05.<sup>18</sup> Again, we see a fairly consistent correlation between performance and school expansion/contraction, with the worst-performing schools on average contracting by over 1.5% and the strongest-performing schools expanding by over 2.5%.

These results must be interpreted with caution, however, because on their own they tell us nothing about causation. While it is possible that parental demand for places in strongly-performing schools could drive weaker schools to contract (or contract more quickly, in the case of primary schools), the direction of causation could run the other way. That is, it seems likely that schools in areas with rapidly declining pupil numbers will face many problems (e.g. maintaining a relatively fixed stock of school buildings with lower per-pupil funds), which may adversely affect their performance.

The evidence presented so far, while preliminary at best, sketches the outlines of a system in which the stock of schools is broadly fixed (little entry and exit), poorly-performing schools still fill most of their capacity but the decline in the number of school-age children provides a margin for contraction in weaker-performing schools.

This characterisation of the English school system chimes with that reported by Burgess *et al.* (2006), in their analysis of school choice in England. They report that

*The school system has been more-or-less a closed system – that is, roughly speaking there are as many school places as children, and each school can neither expand nor contract very rapidly. This is not of course exactly the case – there are excess places in some areas, and schools can change size. But one useful analogy for the system is a modified game of musical chairs – there are enough chairs for everyone, but some are more desirable than others.*<sup>19</sup>

It should be clear that a ‘musical chairs’ system is far from ideal in terms of the incentives it creates for schools to put costly effort into raising pupil attainment. Schools that are all-but-guaranteed to fill their capacity, facing little or no threat of entry from new providers even if their performance is below the national average, do not face sharp incentives to improve their performance, even in a system of pupil-led funding.

The English school system exhibits many of the problems one might expect from a relatively fixed supply of school places. The government worries that ‘the affluent can buy choice ... by moving house’<sup>20</sup> because house prices are generally higher near better-performing schools (oversubscribed schools frequently allocate their places based on proximity to the school). Gibbons and Machin (2001) examine this effect for houses near primary schools, finding

<sup>17</sup> Contextual value added only became available for primary schools in 2005–06.

<sup>18</sup> Unlike primary schools, secondary schools do have contextual value added information available in 2004–05.

<sup>19</sup> Page 14 of S. Burgess, A. Briggs, B. McConnell and H. Slater, ‘School choice in England: background facts’, Centre for Market & Public Organisation (CMPO), Working Paper no. 06/159, 2006, <http://www.bristol.ac.uk/cmppo/workingpapers/wp159.pdf>.

<sup>20</sup> Page 42 of Department for Education & Skills, *Higher Standards, Better Schools for All*, 2005, <http://www.dfes.gov.uk/publications/schoolswhitepaper/>.

that a 10% improvement in the proportion of children reaching the government's expected level (Level 4) at Key Stage 2 translates into a house price premium of between 5.2% and 8.4%, depending on the region.<sup>21</sup> Anecdotal evidence suggests that parents may even resort to temporarily splitting up their families in order to rent a property close to a good school, others hiring lawyers to force changes in their local school's admissions policies and still others feigning newfound religious fervour (for as long as it takes to gain their children places in a strongly-performing religious school), all in an effort to gain an advantage in the admissions process.<sup>22</sup>

### Opening a new school

Given this apparently vigorous demand for places in strongly-performing schools, the lack of new entry in the English system seems puzzling. Why are new schools not being created to compete with existing providers for pupils and funds? Answering this question requires us to consider the process by which a new school is created in the English system.

Under current legislation, the decision to open a new school rests with the local authority.<sup>23</sup> The 2006 Education and Inspections Act states that local authorities must exercise their powers 'with a view to securing diversity in the provision of schools, and increasing opportunities for parental choice'.<sup>24</sup> It also imposes a duty on local authorities to 'consider parental representations'<sup>25</sup> for a new school and to reply to those parents with a statement setting out what the authority plans to do and what its reasons are.

Whether a local authority has an *incentive* to approve a new school is less clear. On the one hand, we might expect local authorities to compete with one another for per-pupil funds in much the same way that schools are supposed to compete in a system of pupil-led funding. On the other hand, in the short run, a local authority that creates a new school is creating 'surplus places' – if no new pupils are attracted to the area, the authority will be left spreading a fixed amount of funding over a larger number of school places, until it shrinks or closes schools elsewhere.

In practice, concern with surplus places appears to loom large in local authorities' priorities. The Audit Commission (the government's independent spending watchdog) has argued that authorities should aim for a level of no more than 10% of surplus places in aggregate, and no more than 25% surplus in individual schools.<sup>26</sup> As Sturdy and Freedman (2007) argue in a recent Policy Exchange report on the English education system, 'given that the [Audit] commission is the auditor for local authorities, it would be a brave local authority that ignored its 10 per cent and 25 per cent benchmarks'.<sup>27</sup>

Local authorities are also required to submit information on the proportion of surplus places in their area to the DCSF each year. In submitting this information, authorities are told by the Department that 'for each school which has a surplus of 25% or more (and at least 30 places surplus) the commentary should provide details of how the school is performing and what action is underway, or planned, for the future of the school'.<sup>28</sup>

<sup>21</sup> S. Gibbons and S. Machin, *Valuing Primary Schools*, Centre for the Economics of Education, London, 2001, <http://cee.lse.ac.uk/cee%20dps/CEEDP15.pdf>.

<sup>22</sup> See, for example, 'Pressure time in the school race', *BBC News Online*, 9 October 2007, <http://news.bbc.co.uk/1/hi/education/7033607.stm>.

<sup>23</sup> Prior to 2006, School Organisation Committees (SOCs) ultimately ruled on the need for new schools. These committees included representatives from existing local schools, whom we might expect to have a clear incentive to resist new entry. This may partly explain static supply of school places in recent years. SOCs were abolished in the 2006 Education and Inspections Act.

<sup>24</sup> Education and Inspections Act 2006, Part 1, Section 2, which inserts this clause into the Education Act 1996.

<sup>25</sup> *Ibid.*, Part 1, Section 3.

<sup>26</sup> Page 5 of Audit Commission, *Higher Standards, Better Schools for All: More Choice for Parents and Pupils – The Audit Commission's Response*, 2006, <http://www.audit-commission.gov.uk/Products/NATIONAL-REPORT/FC8B4B31-C278-4987-8EFA-DA0F2C20A6DB/ACResponseHigherStandardsBetterSchoolsforAll.pdf>.

<sup>27</sup> Page 27 of E. Sturdy and S. Freedman, *Choice? What Choice? Supply and Demand in English Education*, Policy Exchange, London, 2007, <http://www.policyexchange.org.uk/images/libimages/311.pdf>.

<sup>28</sup> Department for Children, Schools & Families, Local authority guidance letter accompanying the surplus places return, 2006, <http://www.dfes.gov.uk/netcapacity/docs/LA%20Guidance%20letter%20-%202006.doc>.

Perhaps the most eloquent testament to the lack of incentives for local authorities to establish new schools is the sheer infrequency with which they do so. Despite the government's White Paper pledge that 'if parents want to open a school, then it should be the job of the local authority to help them make this happen', so far only one school has been opened by parents under the new legislation (receiving a great deal of national press coverage in the process).<sup>29</sup> Placing the supply of new school places under the control of a body charged with minimising costs from surplus places does not seem an arrangement likely to foster a dynamic supply side. The priority among many local authorities remains closing and amalgamating schools, rather than encouraging new entry.<sup>30</sup>

Where new schools are opened in the English system, they are often previously 'failed' schools that have, after persistent under-achievement, been closed and then reopened

with a new name, new management and some degree of refurbishment. Of the 'new' secondary schools that opened in 2005–06, for example, two-thirds were in fact previously 'failed' schools reopened in this way. Most of the reopened schools were reopened as Academies. Indeed, the Academies programme warrants some discussion, as it has become an important source of new entry in the secondary school system.

### The Academies programme

An Academy is a state-funded independent school, supported by one or more sponsors, that operates outside the control of local authorities (see Box 4.2 for more details). They are often set up in deprived areas where a persistently failing school has been closed. The Academy's sponsors are expected to contribute both to the running of the Academy (e.g. appointing members to the governing body) and financially, paying £2 million into

#### BOX 4.2: How are Academies different from other maintained schools?

Academies differ in a number of important respects from other schools in England's maintained sector. While still funded by the state, they operate independently of their local authority, with funding for running costs coming directly from the Department for Children, Schools & Families. They are provided with significant funds for refurbishment and/or rebuilding before they open. (On average, around £24 million has been spent on new buildings and other capital investment when an Academy opens.<sup>a</sup>)

Academies must have a 'sponsor' – which could be an individual or a body such as a charity, a university or another school. The sponsor appoints the governing body and is expected to provide vision, ideas and 'challenge', as well as providing £2 million towards a long-term endowment for the Academy (except where this is waived – see main text).

Academies are free to set their own pay and conditions outside of the national collective bargaining agreements and have greater flexibility with regard to teaching methods and curriculum. Section 4.4 discusses the ways in which Academies have (perhaps tentatively) begun to make innovative use of their greater management freedoms.

Academies are also responsible for their own admissions policies (subject to a code of practice), where other schools have their admissions managed by the local authority.

#### Note to Box 4.2

<sup>a</sup> Average for the first 26 Academies, calculated by the National Audit Office; see page 32 of National Audit Office, *The Academies Programme*, 2007, [http://www.nao.org.uk/publications/nao\\_reports/06-07/0607254.pdf](http://www.nao.org.uk/publications/nao_reports/06-07/0607254.pdf).

<sup>29</sup> The Elmgreen secondary school in the Lambeth local authority. See, for example, 'Adventures at the blackboard', *The Economist*, 6 September 2007, [http://www.economist.com/world/britain/displaystory.cfm?story\\_id=9767633](http://www.economist.com/world/britain/displaystory.cfm?story_id=9767633).

<sup>30</sup> See, for example, Teachernet guidance on reorganisation, <http://www.teachernet.gov.uk/management/fallingschoolrolls/reorganisation>.

a long-term endowment for the Academy's educational needs.<sup>31</sup>

According to the DCSF, by September 2007 there were 83 Academies open in 49 local authorities, with a further 50 projected to open in each of the next three years.<sup>32</sup> In absolute terms, then, the Academies programme remains small. Even if the government meets its target of 200 Academies open by 2010, they will still make up little more than 6% of all secondary schools.

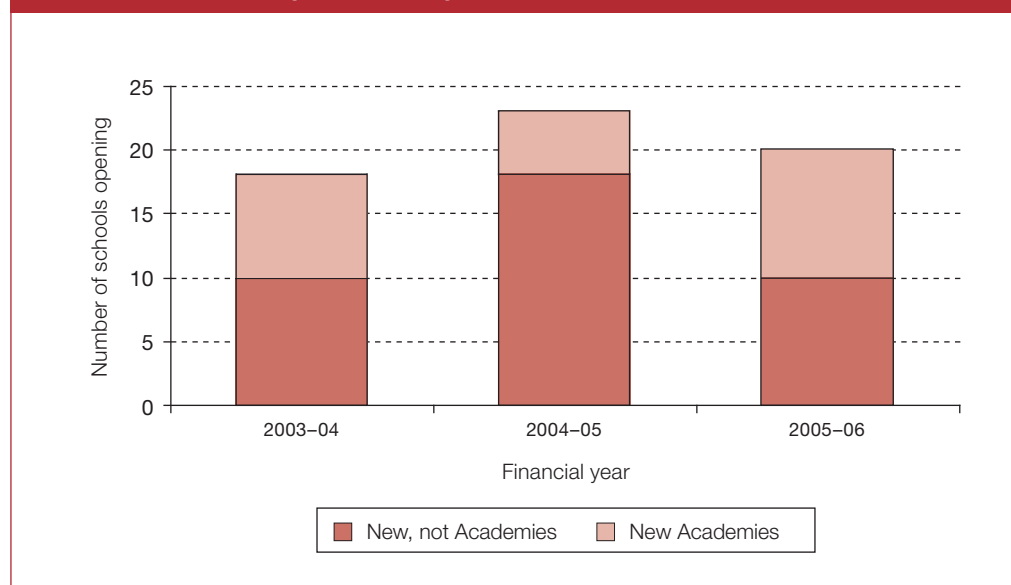
Yet with new entry so rare in the English school system, the Academies programme takes on a new significance since it is an important source of entry. As Figure 4.5 shows, in 2005–06, half of all new secondary schools were Academies.

While these schools usually replace existing struggling schools – and hence do not

represent a true increase in capacity – they are important because they are qualitatively different from the schools that they replace. Box 4.2 details some of the differences between Academies and other secondary schools.

The Academies programme does not provide the same threat of entry as Sweden's system of parent-created 'free schools', however, because there are significant hurdles to opening an Academy – in particular, the need to find a sponsor and the £2 million of private funding.<sup>33</sup> There are signs, however, that the government has started to relax these stringent funding requirements. Under changes made to the programme last year, the £2 million requirement is waived if an Academy is sponsored by a university, a private school or a successful state school.<sup>34</sup>

**FIGURE 4.5: Secondary school entry and Academies**



Source: Authors' calculations using Section 52 data and EduBase (see Appendix A for more information on these data-sets).

<sup>31</sup> For the first Academies, this £2 million was spent on the capital costs of the school, but this has now changed. See page 5 of National Audit Office, *The Academies Programme, 2007*, [http://www.nao.org.uk/publications/nao\\_reports/06-07/0607254.pdf](http://www.nao.org.uk/publications/nao_reports/06-07/0607254.pdf).

<sup>32</sup> See the DCSF Standards Site, <http://www.standards.dfes.gov.uk/academies/projects/?version=1>.

<sup>33</sup> On the other hand, Academies have some advantages over the initial incarnation of the 'free schools', because they receive the full per-pupil funding also given to other state schools, whereas Sweden's 'free schools' initially received only 85% of the funding given to other municipal schools (though this was later raised to 100%).

<sup>34</sup> See statement to Parliament by Ed Balls on 10 July 2007, available at <http://www.publications.parliament.uk/pa/cm200607/cmhansrd/cm070710/debtext/70710-0004.htm>, Column 1322, which sets out the waiver for universities and state schools. Lord Adonis announced the extension of this waiver to private schools in October 2007 ([http://www.dfes.gov.uk/pns/DisplayPN.cgi?pn\\_id=2007\\_0174](http://www.dfes.gov.uk/pns/DisplayPN.cgi?pn_id=2007_0174)).



Perhaps more radically still, the government has opened the door for independent (private) schools to join the state secondary sector as Academies – provided they stop charging fees and conform to the rules (e.g. on admissions and curriculum) that apply to other schools in the maintained sector. This aspect of the Academies programme is currently limited in impact (three independent schools have so far chosen to become Academies<sup>35</sup>), but could potentially become very important for new entry to England's school system, since such schools really would represent new capacity in the state education system. Rather than allowing school 'vouchers' to be taken to independent schools, the government appears to be attracting (some) independent schools into the state system. It seems likely, however, that it will be financially struggling independent schools that may be the first to be tempted by this arrangement.

From the point of view of supply-side flexibility, Academies certainly introduce a limited amount of contestability into an otherwise largely static maintained sector. However, a number of aspects of the way the Academies programme has been implemented have ensured its impact remains limited. The insistence on a £2 million private contribution, combined with the high capital costs of building Academies, creates significant financial barriers. The government has also insisted that the Academies programme should focus on raising standards 'in the most disadvantaged and challenging areas'.<sup>36</sup> While this focus on areas of greatest need is understandable, it means that coasting schools in less deprived areas do not face the threat of entry, nor the incentives for improvement that threat creates.

### **'Building Schools for the Future' – a missed opportunity?**

The 'Building Schools for the Future' (BSF) programme, in which over £9 billion is to be

provided in capital funding for the rebuilding and refurbishment of secondary schools in England, has already been described in Box 2.1. However, the way in which BSF funds are disbursed suggests that the programme will do little to foster greater flexibility in the supply of schools.

In order to gain BSF funds, local authorities must submit a 'Strategy for Change', outlining their 'educational aspirations for the area' along with 'the plan for [their] secondary school estate'<sup>37</sup> over the next decade. This Strategy document must include a ten-year pupil-place projection, along with a map or chart showing each school in the authority and how its status will change following BSF investment.<sup>38</sup>

This 'ten-year plan' method of distributing BSF funds would seem to entrench the inflexibility of England's supply of school places. Supply remains centrally determined by local authorities, rather than being led by parental demand or the willingness of individuals to open schools and compete for pupils where they see an opportunity to succeed. There may be one-off gains in flexibility, as local authorities use their 'Strategy for Change' to amalgamate or close schools with falling rolls – but thereafter the supply of school places will remain largely fixed and centrally controlled.

In terms of fostering a 'dynamic' schools system, this may represent a missed opportunity. For one of the chief difficulties in establishing new schools (as in the Swedish system) is the capital cost of building them. Under a per-pupil funding system, the creation of a new school does not increase the government's *pupil-led* funding, but does increase the outlay required for school buildings and infrastructure. In creating the BSF programme, the government set aside a large pot of money for capital spending – at least some of which could have been used to

<sup>35</sup> See 'Private school to become Academy', *BBC News Online*, 2 October 2007, <http://news.bbc.co.uk/1/hi/education/7023850.stm>.

<sup>36</sup> See Department for Children, Schools & Families, 'Academies programme: frequently asked questions', <http://www.standards.dfes.gov.uk/academies/faq/?version=1>.

<sup>37</sup> Page 2 of Partnerships for Schools, *School Strategy for Change Guidance*, 2008, [http://www.p4s.org.uk/documents/BSF\\_Guidance\\_Documents/SchoolStrategyforChangeGuidanceJanuary2008.pdf](http://www.p4s.org.uk/documents/BSF_Guidance_Documents/SchoolStrategyforChangeGuidanceJanuary2008.pdf).

<sup>38</sup> Partnerships for Schools, *Strategy for Change: Guidance for Local Authorities in BSF Wave 4*, 2006, [http://www.p4s.org.uk/documents/BSF\\_Guidance\\_Documents/StrategyforChangeGuidanceforLocalAuthoritiesinWave4July2006.doc](http://www.p4s.org.uk/documents/BSF_Guidance_Documents/StrategyforChangeGuidanceforLocalAuthoritiesinWave4July2006.doc).

fund innovative new entrants wherever parents, charities or businesses wished to set them up. Instead, this money is to be distributed by central planning, under the control of local authorities. The supply of places will remain inflexible and pupil-led funding's impact on school incentives will remain limited.

### 4.4 Freedom of management

The final element of England's 'school choice' arrangements that we consider in this chapter is freedom of management. For parental choice to create incentives for improved performance, Hoxby argues that 'schools must be able to innovate with regard to pedagogy, staff compensation, the organisation of work, and the allocation of the budget among uses such as technology, personnel, longer school days, longer school years, and so on'.<sup>39</sup> To what extent do schools in England enjoy such freedom?

The short answer is that school management in England is quite tightly constrained. With regard to teacher pay and conditions, for example, all schools in England's maintained sector (with the exception of Academies and a handful of former Grant-Maintained Schools) must abide by the provisions of an agreement known as the School Teachers' Pay and Conditions Document (STPCD). Since attracting and retaining the right staff is one of the most significant aspects of a head teacher's job, the binding nature of the STPCD represents a considerable constraint on management freedom.

The STPCD is a statutory document, with the same legal force as an Act of Parliament, which sets out teachers' pay scales and the rules for advancement. It also sets out statutory

provisions on working time (e.g. the maximum number of days that teachers can be required to spend working with students), professional duties and some areas of conditions of service such as cover. Maintained schools must also abide by the Burgundy Book, which is a national agreement between local authorities and teachers' organisations regarding sick pay, maternity pay and notice periods.

The system of pay for teachers remains rigid, despite the introduction of 'performance-related pay' reforms in 2001, which might have given head teachers more flexibility. Teachers in all maintained schools start on a 'main pay scale' with six increments, and each September move up to the next 'point' of the pay scale, subject to satisfactory performance (and two points if their performance is deemed excellent).<sup>40</sup> Their pay increases by between £1,500 and £2,000 between each point. The only regional variation permitted in the system is a distinction between inner London, outer London, the fringe of London and the rest of the country.

The performance pay reforms introduced an 'upper pay scale', which teachers can apply to move onto (known as 'crossing the Performance Threshold') once they have reached the top of the main pay scale. In order to cross the threshold, teachers must have their performance assessed according to categories such as professional development and pupil attainment.<sup>41</sup> Both statistical and anecdotal evidence, however, suggests that performance pay in the English system 'is more akin to a general pay rise for eligible teachers'<sup>42</sup> than it is to a true performance-related pay scheme. In the first round of applications to cross the threshold, 88% of eligible teachers applied and 97% of these were found to meet the standard.<sup>43</sup>

<sup>39</sup> Page 20 of C. Hoxby, *School Choice: The Three Essential Elements and Several Policy Options*, Education Forum, Wellington, New Zealand, 2006.

<sup>40</sup> See Teachernet, *Teachers' Pay*, <http://www.teachernet.gov.uk/management/payandperformance/pay/>.

<sup>41</sup> See Annex A of Teachernet, *Threshold Assessment 2007/08, Round 8: Guidance*, [http://www.teachernet.gov.uk/\\_doc/11742/THRESHOLD\\_R8\\_Guidance\\_\(English\)\\_FINAL%5B1%5D.pdf](http://www.teachernet.gov.uk/_doc/11742/THRESHOLD_R8_Guidance_(English)_FINAL%5B1%5D.pdf).

<sup>42</sup> Page 1 of S. Burgess, B. Croxson, P. Gregg and C. Propper, 'The intricacies of the relationship between pay and performance for teachers: do teachers respond to performance related pay schemes?', Centre for Market & Public Organisation (CMPO), Working Paper no. 01/35, 2001, <http://www.bris.ac.uk/Depts/CMPO/workingpapers/wp35.pdf>.

<sup>43</sup> See E. Wragg, G. Haynes, C. Wragg and R. Chamberlin, *Performance Related Pay: The Views and Experiences of 1000 Primary and Secondary Headteachers*, Teachers' Incentives Pay Project Occasional Paper 1, University of Exeter, 2001.

One head teacher, writing in a recent study of head teachers' impact in English schools, suggests that

*The existing system of threshold salary assessment ... is too often seen by staff as a right based on length of service rather than on performance. Headteachers who refuse to award the rise to particular staff often stand alone in the face of significant organised union pressure. Since in practice the system has led to a rise for the vast majority of teachers, it would have been far better if it had been presented as just that, a well-earned salary increase for all teachers, rather than being spun as the outcome of the introduction of rigorous performance management. The result of all of this is that performance management in many schools is almost toothless.<sup>44</sup>*

Academies are among the only state schools in England free to set their own pay, conditions and working-time arrangements for new staff. Though Academies remain a relatively new addition to England's stock of schools, there are already signs of the innovative use to which these freedoms have been put, with some Academies introducing longer school days and longer academic years and experimenting with finding new ways of organising lessons (e.g. introducing two-hour learning sessions with a break in the middle).<sup>45</sup> One Academy in Bristol has experimented with paying pupils directly for their GCSE results.<sup>46</sup> While the success or otherwise of these developments will be judged by parents and pupils, they exemplify the innovation

made possible by new entry combined with management freedom.

Even Academies work under significant restrictions, however. Most Academies replace failed schools in deprived areas, and they are obliged to rehire staff from the previous school with their old pay and conditions protected<sup>47</sup> in all but the most exceptional circumstances.

The flexibility that Academies enjoy with regard to teacher pay has so far been exercised cautiously, with the teachers' union ATL noting that 'in practice [Academies' pay scales] bear a close resemblance to the provisions of the STPCD'.<sup>48</sup> When one Academy sponsor (chairman of the Carpetright chain) announced that he would offer discounted carpets to his staff, as well as a modest £200 performance-related bonus, the story made the front page of the *Financial Times*.<sup>49</sup>

Calls for all schools to be offered the management freedoms currently enjoyed by Academies have been flatly rejected by the DCSF.<sup>50</sup> Maintained schools wishing to experiment outside the restrictions of education legislation and the STPCD must apply for a time-limited order from the Secretary of State for the DCSF under the 'Power to Innovate' scheme.<sup>51</sup> Even if the trial is approved, however, the school must still revert to existing practice at the end of the trial unless permanent changes are made to the legislation in question.

<sup>44</sup> Dr Daniel Moynihan, Principal of Harris City Technology College, Croydon, writing at pages 46–47 of J. O'Shaughnessy (ed.), *The Leadership Effect: Can Headteachers Make a Difference?*, 2007, <http://www.policyexchange.org.uk/images/libimages/249.pdf>.

<sup>45</sup> See, for example, Training and Development Agency for Schools, *Case Study of the Marlowe Academy*, 2007, [http://www.tda.gov.uk/remodelling/extendedschools/resources/casestudies/remodelling/marlowe\\_academy.aspx?p=1&pages=all](http://www.tda.gov.uk/remodelling/extendedschools/resources/casestudies/remodelling/marlowe_academy.aspx?p=1&pages=all).

<sup>46</sup> See, for example, 'Head defends GCSE pupil pay-outs', *BBC News Online*, 23 August 2007, <http://news.bbc.co.uk/1/hi/england/bristol/6960673.stm>.

<sup>47</sup> Under Transfer of Undertakings (Protection of Employment) Regulations, known as 'TUPE'.

<sup>48</sup> ATL, *Guide: Pay and Conditions in Academies*, 2006, [http://www.atl.org.uk/atl\\_en/resources/report/report\\_archive/Archive2006/december/guide.asp](http://www.atl.org.uk/atl_en/resources/report/report_archive/Archive2006/december/guide.asp).

<sup>49</sup> 'Carpetright chief piles on the incentives for academy teachers', *Financial Times*, 28 November 2007, <http://www.ft.com/cms/s/0/cd7f5aba-9d54-11dc-af03-0000779fd2ac.html>.

<sup>50</sup> See, for example, *Hansard (House of Commons Daily Debates)*, 15 October 2007, <http://www.publications.parliament.uk/pa/cm200607/cmhansrd/cm071015/text/71015w0031.htm>, Column 890W, in which Schools Minister Jim Knight states that the DCSF 'has no plans to extend these freedoms more widely'.

<sup>51</sup> See Teachernet, *The Power to Innovate*, <http://www.teachernet.gov.uk/management/pti/>.

### 4.5 Conclusion

England's school funding system operates as a *de facto* voucher system, in which most school funding follows the pupil (although this 'voucher' cannot be taken into the private sector, unlike some explicit voucher schemes). The amount of per-pupil funding is significantly larger if the pupil has special educational needs or comes from a deprived background, making it akin to Julian Le Grand's 'positively discriminating voucher' scheme. However, this funding appears to follow the pupil with a 'lag', which may exacerbate the disincentive for schools to attract pupils from deprived backgrounds.

England's largely pupil-led funding arrangement is combined with a flexible demand side in which parents are free to apply to any school, and school performance information is published by the government each year to help inform parents' decisions. This system superficially resembles the sort of 'school choice' programme enthusiastically described in the 2005 White Paper, in which successful schools expand, new entrants compete with existing providers, and weaker schools either improve their performance or else contract and close. Proponents of such schemes argue that they create strong incentives for all schools to put costly effort into maintaining and improving their performance.

However, rigidities elsewhere in England's school system appear to effectively blunt the incentives created by parental choice. Of the three criteria that Caroline Hoxby argues should be used to decide whether genuine 'school choice' exists (pupil-led funding, supply flexibility and management freedom), the English system probably 'fails' on two out of three.

The supply side appears to be largely inflexible, with little threat of entry from new providers. New school entry is decided by local authorities, which have little incentive

to encourage new entry and are placed under pressure from both the government and the Audit Commission to keep costs down and surplus places to a minimum. Both the government and local authorities continue to manage the school system by regulating quantity, rather than regulating prices (through per-pupil funding) in a system of flexible supply. There is evidence, however, of strongly-performing schools expanding (or contracting more slowly in the case of primary schools) and weaker-performing schools contracting.

School management is constrained by binding collective agreements covering many aspects of school operations, including pay and conditions. Where schools such as Academies have been given freedom from these agreements, they appear to have responded with immediate innovation and experimentation – but such schools represent a tiny fraction of England's supply of school places, and the success of their experiments remains to be evaluated.

Given these rigidities, even ardent proponents of pupil-led funding would not expect the English system to create the significant incentives for improved performance that 'school choice' is supposed to engender. In a system of inflexible supply, parent demand is not harnessed as a force to drive up standards – instead, securing places at the best-performing schools is a zero-sum game, and one that better-off parents tend to 'win'. That is, if schools do not have to compete with one another, then parents do. The English system is perhaps a prime example of the fact that pupil-led funding does not *by itself* create positive incentives for schools to improve.

Given the incentives in the English system, we should perhaps not be surprised that the government and its schools watchdog (Ofsted) frequently express concern about 'coasting schools'<sup>52</sup> – those that perform well enough to avoid severe sanction, but underperform given their intake of pupils. In the English

<sup>52</sup> See, for example, Ofsted, *The Annual Report of Her Majesty's Chief Inspector 2006/07, 2007*, <http://www.ofsted.gov.uk/portal/site/Internet/menuitem.e11147abaed5f711828a0d8308c08a0c/?vgnextoid=d2c24aaa79395110VgnVCM1000003507640aRCRD>.

system as it is currently structured, we might expect coasting schools to be the norm rather than the exception. A system with a credible threat of entry would force a coasting school to consider the possibility of a new entrant opening nearby and attracting pupils and funds. This threat alone may be enough to motivate the coasting school to improve. In England's 'musical chairs' system, in contrast, a coasting school may fill most of its capacity regardless of performance. With no threat of entry, there is little incentive for the coasting school to make costly effort to improve.

The £9 billion 'Building Schools for the Future' programme could potentially have provided funding for new entrants in England's secondary school system, along the lines of the Swedish 'free schools' model. However, the government has chosen to spend the money through centralised local authority planning, which will do little to improve supply-side flexibility and nothing to improve the incentive structure of the English education system.

## Conclusion

School spending has risen by a large amount over the past ten years, as has education spending overall. The system by which funds are allocated to state schools in England is a complex one, and one that has been subject to significant reforms in recent years. Although the system is complex, it has some very important implications indeed, both for targeting social deprivation and educational needs and for the incentives schools face to improve performance.

Traditionally, economists present trade-offs between equity on the one hand, largely concerning issues of fairness, and efficiency on the other hand. For example, higher levels of taxation may allow society to redistribute more money from rich to poor, but they may discourage individuals from working to generate income in the first place.

However, there does not appear to be a trade-off between equity and efficiency in the context of school funding, where they actually seem to be complementary. Pupil-led funding, with extra funding for pupils from deprived backgrounds or with special educational needs, should encourage schools to improve quality in order to attract new pupils and should provide significant, additional resources for pupils with greater educational need. Such a system of school funding has been described by the economist Julian Le Grand as a kind of 'positively discriminating voucher', albeit one that cannot be taken to the independent sector and cannot be topped up.

The real trade-off for school finance is between equity and efficiency on the one hand and stability and predictability on the other hand. While a degree of stability in school funding is certainly desirable, many aspects of the current system were developed in reaction to the (illusory) 2003–04 school funding 'crisis'. These developments seem to favour stability over equity and efficiency. The Minimum Funding Guarantee – implemented by central government from 2004–05 onwards – has institutionalised the importance of historical school funding levels in determining current school funding levels. This makes tackling funding inequalities more difficult. However,

local government is not without blame either. We present evidence to suggest that local authorities do not pass on the full amount they receive on the basis of social deprivation; instead, many local authorities 'flatten' this funding, choosing to spread it over all pupils in their area.

A large amount of extra funding does appear to follow pupils from deprived backgrounds, with these pupils attracting about 70% more funding than other pupils. However, this funding appears to follow the pupil with a 'lag', which may exacerbate the disincentive for schools to attract pupils from deprived backgrounds.

A preference for stability and predictability extends to other aspects of the English school system, which may prevent the present school funding system from realising the potential benefits from pupil-led funding. One might expect pupil-led funding to provide strong incentives for schools to attract pupils and to improve school quality. However, in order for this to occur, there must be a certain degree of supply-side flexibility and management freedom. Whilst there is some evidence to suggest that poorly-performing schools contract and highly-performing schools expand, efforts to minimise the number of 'surplus places' in the system ensure that even poorly-performing schools can expect to fill over 90% of their places. School management is constrained by binding collective agreements covering many aspects of school operations, including pay and conditions. Where schools such as Academies have been given freedom from these agreements, they appear to have responded with immediate innovation and experimentation – but such schools represent a tiny fraction of England's supply of school places, and the success of their experiments remains to be evaluated.

Given these rigidities, even ardent proponents of pupil-led funding would not expect the English system to create the significant incentives for improved performance that 'school choice' is supposed to engender. In a system of inflexible supply, parent demand is not harnessed as a force to drive up



standards – instead, securing places at the best-performing schools is a zero-sum game, and one that better-off parents tend to ‘win’. That is, if schools do not have to compete with one another, then parents do. The English system is perhaps a prime example of the fact that pupil-led funding does not *by itself* create positive incentives for schools to improve.

The present system of school funding is also quite complex, as demonstrated by the fact that we spent 14 pages describing the system (Chapter 2) and even more analysing how much it allocates to different types of pupils (Chapter 3). Just as a complicated tax

system may blunt incentives to work hard or invest money, a complex school funding system may make incentives to attract pupils from different backgrounds so opaque that they are ignored altogether by schools. It would surely be preferable to have a simpler and more transparent school funding system, where the level of extra funding for pupils from differing backgrounds is more easily discernible and thus appropriate or fair amounts could become the subject of political debate. Such a system could simultaneously promote equity and generate incentives for schools to up their game.

## Appendices

**Appendix A:** Data and methodology

**Appendix B:** School-level OLS results

**Appendix C:** The FSM premium

**Appendix D:** LA-level OLS results

**Appendix E:** First-differences results

## A. Data and methodology

In Chapter 3, we make use of publicly available financial data on schools' individual levels of funding and expenditure, known as Section 52 data. We also make use of school and pupil characteristics documented in the Pupil Level Annual School Census (PLASC) and EduBase (school-level information) to analyse the differences in funding and expenditure across such characteristics. For example, we consider how much greater funding is in schools with greater numbers of pupils eligible for free school meals. To do this, we use traditional ordinary least squares (OLS) regression techniques to calculate implicit formulae for school funding. This is necessary because we do not observe the actual formulae used by local authorities; we instead estimate these formulae on the basis of pupil and school characteristics, and actual funding levels.

This appendix describes in detail the data and methods we use.

### A.1 Section 52 data

Local authorities are required under Section 52 of the School Standards and Framework Act 1998 to prepare a Budget Statement before the beginning of each financial year, i.e. by 31 March. After the end of that financial year, they are then required to prepare an Outturn Statement.

The Budget Statement contains two tables. Table 1 contains planned levels of education expenditure on different items by local authorities. Amongst other things, it shows the planned level of local authorities' 'Schools Budget'. As discussed in Chapter 2, this is the amount that local authorities spend on schools: it includes both the money that they choose (or are required) to allocate to individual schools (via the 'Individual Schools Budget') and the amount that they choose to spend on central services. It also shows the level of direct payments and grants that local authorities must pass on to individual schools, e.g. via the School Standards Grant or School Development Grant. Table 1 is available from 2000–01 to 2007–08. Table 2 contains,

amongst other things, the total amount each school is budgeted to receive from local authority formulae, together with the amount it is budgeted to receive from other direct grants and payments. This information is also available between 2000–01 and 2007–08.

The Outturn Statement also contains two tables. Table A contains local-authority-level information, which shows actual levels of expenditure on different items. This is available between 1999–2000 and 2006–07 (and was known as Table 1 up until 2001–02). Table B details the actual amount of funding that schools received on the basis of local authorities' formulae, the amount they received from direct grants and payments, and the amount they received from other sources of income (e.g. from renting out sports facilities). As we saw in Chapter 2, the first two of these items constitute the total level of state funding received by schools in individual years; we call this 'total state funding'. Table B also shows the level of revenue expenditure at the school level. This covers expenditure on teachers' pay, books, rent and other consumables. Expenditure can be higher than total state funding where schools are either drawing down reserves or receiving income from other sources. Alternatively, expenditure can be lower than total state funding where schools are building up financial reserves. Table B is also available between 1999–2000 and 2006–07 (and was known as Table 2 up until 2001–02).

Most of our analysis focuses upon total state funding as detailed in Outturn Statement Table B, decomposed into income from local authorities' individual formulae and direct grants and payments. We briefly discuss school-level expenditure, but only to show that measures of expenditure per pupil are similar to measures of total state funding per pupil. We also make use of Budget Statement Table 1 to analyse the level of school spending at the local authority level. Chapter 4 (in which we analyse the incentives created by the school funding system) makes use of Budget Statement Table 2, as this details the individual components of local authorities' formulae. We only look at data from 2003–04 onwards

to maximise the consistency of categories of income and expenditure over time.

It should be noted that the Section 52 data do not cover capital expenditure or funds provided to meet this expenditure, so measures of spending or total state income per pupil in individual years will be lower than those presented in Chapter 1. This is because the measures of spending per pupil in Chapter 1 included expenditure on capital.

All figures are presented in 2007–08 prices and have been scaled by the Area Cost Adjustment Factor to reflect the fact that some areas receive more in order to cover higher costs of inputs, e.g. local authorities in London receive greater amounts to cover London Weighting in teachers' salaries.

## A.2 Pupil and school characteristics

The non-financial data we exploit come from two data-sets collected by the Department for Children, Schools & Families (DCSF). The first is the Pupil Level Annual School Census (PLASC), which is a database of all pupils attending state schools in England. This census was first carried out in January 2002 and records pupil-level information – such as date of birth, year group, home postcode, ethnicity, special educational needs (SEN), entitlement to free school meals (FSM) and whether English is spoken at home – plus a school and local authority identifier. This data-set has been linked with the English National Pupil Database (NPD), an administrative data-set maintained by the DCSF comprising academic outcomes (in the form of Key Stage test results) for all children aged between 7 and 16. We aggregate the information in this data-set to calculate the following school-level characteristics:

- the total number of pupils enrolled;
- the total number of pupils in school-provided nursery places;
- the total number of FSM-eligible pupils;
- the total number of pupils with English as an additional language (EAL);
- the total number of boarding pupils;

- the total number of pupils with a statement of SEN;
- the total number of pupils with SEN but without a statement.

The second data-set, also maintained by the DCSF, is EduBase. This is a register of all educational establishments in England and Wales, containing detailed administrative and geographical information about each school as well as some basic characteristics of the pupils who attend (such as age, sex and SEN). From this data-set, we use the following information in our analysis:

- school type;
- school phase of education (primary or secondary);
- whether the school has a sixth form;
- school postcode (in order to map in geographic indicators).

We link each year of Section 52 data with the preceding academic year's PLASC data: for example, the financial information contained in the 2006–07 Section 52 outturns is linked to the pupil and school information in PLASC 2005–06. This is done to reflect as accurately as possible the information on which central government and local authorities base their decisions of how much to allocate to individual schools.

## A.3 Methodology

In order to analyse the distribution of state school funding, we make use of ordinary least squares (OLS) regression-based methods. This enables us to consider how school funding levels *respond* to changes in the characteristics of a school or its pupils (in particular, those described in Section A.2) along several different dimensions simultaneously, such that we can isolate the impact on school funding of varying one school or pupil characteristic while holding all others fixed. So, for example, OLS allows us to ask how much extra funding a school receives for an extra pupil who is eligible for FSM or for an extra pupil with a statement of SEN – holding everything else constant. We do this

separately for primary and secondary schools since we know that the system of school funding works slightly differently at these different stages. We leave out special schools, since funding for these schools is distributed in a more complicated fashion.

We also conduct similar analysis at the local authority level to see how much extra local authorities implicitly receive for an extra pupil eligible for FSM. We then compare this with the extra that is allocated to individual schools to see whether local authorities 'flatten' their allocations from central government.

It is important to note that while this allows us to calculate approximate *implicit* formulae for school funding, it does not give us the actual *explicit* school funding formulae. However, diagnostic tests suggest that the *implicit* formulae give extremely similar results to the actual level of funding received by schools.

Finally, as a robustness check, we also verified whether the FSM premium is constant along the range of the number of pupils enrolled at a school. This has been assumed in the regressions in Chapter 3, but it may be the case that the impact of FSM-eligibility on school income differs according to school size. In particular, the very smallest schools might have exceptionally large values of per-pupil funding (and the FSM premium) that are unrepresentative of the 'true' allocation of funds to schools. To investigate this issue further, we performed the analysis explicitly controlling for the prevalence of small schools (defined as having a total enrolment below the 10th percentile). Doing so made no appreciable difference to our estimates of the basic per-pupil amount or the FSM premium, which remained very similar to the figures in Table 3.1 in Chapter 3.

## B. School-level OLS results

### B.1 Total income

TABLE B.1. Total income, 2006–07		
	Primary	Secondary
Base per-pupil amount	2,141.489***	3,117.736***
Extra amount per FSM pupil	1,530.713***	2,404.442***
Extra amount per EAL pupil	282.809***	-143.849
Extra amount per SEN pupil with statement	9,710.881***	8,854.888***
Extra amount per SEN pupil without statement	342.652***	441.417***
Extra amount per boarding pupil	-248.426	719.983**
Extra amount per nursery pupil	1,599.754***	2,696.144
Extra amount for being foundation school	-13,333.346***	-66,854.111***
Extra amount for being Voluntary Aided or Voluntary Controlled school	-13,696.206***	-60,987.680***
Extra amount for having a sixth form		63,484.115
Extra amount per sixth-form pupil		1,910.214***
Constant	131,010.690***	333,174.763***
Number of observations	17,333	3,339
Number of LAs	148	148
R-squared	0.96	0.95
Mean income per pupil	3,470.15	4,300.40
Median income per pupil	3,301.58	4,188.98



TABLE B.2. Total income, 2005–06		
	Primary	Secondary
Base per-pupil amount	2,079.749***	3,002.907***
Extra amount per FSM pupil	1,354.963***	2,027.650***
Extra amount per EAL pupil	250.135***	-83.172
Extra amount per SEN pupil with statement	9,055.708***	8,794.373***
Extra amount per SEN pupil without statement	236.674***	361.897***
Extra amount per boarding pupil	-19,456.502***	530.885**
Extra amount per nursery pupil	1,747.537***	12,852.132***
Extra amount for being foundation school	-10,964.483**	-66,875.283***
Extra amount for being Voluntary Aided or Voluntary Controlled school	-9,786.279***	-61,701.341***
Extra amount for having a sixth form		77,588.987**
Extra amount per sixth-form pupil		1,984.066***
Constant	131,417.899***	372,852.862***
Number of observations	17,459	3,362
Number of LAs	148	148
R-squared	0.96	0.96
Mean income per pupil	3,359.06	4,192.67
Median income per pupil	3,190.29	4,095.29

**TABLE B.3. Total income, 2004–05**

	Primary	Secondary
Base per-pupil amount	1,988.719***	2,872.948***
Extra amount per FSM pupil	1,215.387***	1,749.508***
Extra amount per EAL pupil	299.199***	3.119
Extra amount per SEN pupil with statement	8,303.084***	7,501.928***
Extra amount per SEN pupil without statement	216.366***	472.265***
Extra amount per boarding pupil	-270.341	309.947*
Extra amount per nursery pupil	1,524.514***	-3,144.013
Extra amount for being foundation school	-10,922.823***	-42,074.451**
Extra amount for being Voluntary Aided or Voluntary Controlled school	-8,659.128***	-54,740.346***
Extra amount for having a sixth form		79,142.838***
Extra amount per sixth-form pupil		2,067.354***
Constant	124,152.769***	348,060.614***
Number of observations	17,610	3,373
Number of LAs	148	148
R-squared	0.96	0.96
Mean income per pupil	3,182.30	4,007.22
Median income per pupil	3,025.66	3,914.77

TABLE B.4. Total income, 2003–04		
	Primary	Secondary
Base per-pupil amount	1,938.469***	2,768.981***
Extra amount per FSM pupil	1,120.541***	1,684.393***
Extra amount per EAL pupil	300.060***	-34.924
Extra amount per SEN pupil with statement	7,760.037***	6,917.522***
Extra amount per SEN pupil without statement	186.878***	390.923***
Extra amount per boarding pupil	-2,539.231***	177.064
Extra amount per nursery pupil	1,384.207***	-11,954.930***
Extra amount for being foundation school	-11,248.681***	-67,373.624***
Extra amount for being Voluntary Aided or Voluntary Controlled school	-7,987.233***	-64,470.418***
Extra amount for having a sixth form		105,016.019***
Extra amount per sixth-form pupil		2,008.103***
Constant	118,321.890***	357,130.519***
Number of observations	17,713	3,400
Number of LAs	148	148
R-squared	0.96	0.95
Mean income per pupil	3,055.38	3,880.33
Median income per pupil	2,901.97	3,795.99

**B.2 LA formula**

**TABLE B.5. LA formula, 2006–07**

	Primary	Secondary
Base per-pupil amount	2,021.657***	2,883.400***
Extra amount per FSM pupil	1,019.807***	1,256.957***
Extra amount per EAL pupil	114.301***	-73.429
Extra amount per SEN pupil with statement	9,123.761***	7,844.679***
Extra amount per SEN pupil without statement	154.360***	230.118**
Extra amount per boarding pupil	-265.511	527.620**
Extra amount per nursery pupil	1,604.085***	-4,017.515
Extra amount for being foundation school	-14,629.741*	-70,923.927***
Extra amount for being Voluntary Aided or Voluntary Controlled school	-12,766.985***	-66,642.706***
Extra amount for having a sixth form		80,850.385**
Extra amount per sixth-form pupil		1,692.039***
Constant	97,596.580***	173,103.635***
Number of observations	17,333	3,339
Number of LAs	148	148
R-squared	0.94	0.96
Mean LA formula per pupil	2,997.28	3,654.39
Median LA formula per pupil	2,862.80	3,614.35

**TABLE B.6. LA formula, 2005–06**

	Primary	Secondary
Base per-pupil amount	1,880.202***	2,687.626***
Extra amount per FSM pupil	922.535***	1,070.018***
Extra amount per EAL pupil	68.024**	-31.311
Extra amount per SEN pupil with statement	7,574.988***	7,428.364***
Extra amount per SEN pupil without statement	62.176	218.980
Extra amount per boarding pupil	-15,731.984***	78.842
Extra amount per nursery pupil	1,546.294***	6,261.053***
Extra amount for being foundation school	-12,982.633***	-56,424.372***
Extra amount for being Voluntary Aided or Voluntary Controlled school	-9,489.466***	-39,710.442***
Extra amount for having a sixth form		69,493.205**
Extra amount per sixth-form pupil		1,447.316***
Constant	102,876.664***	169,236.551***
Number of observations	17,407	3,353
Number of LAs	147	147
R-squared	0.94	0.95
Mean LA formula per pupil	2,818.72	3,396.14
Median LA formula per pupil	2,687.83	3,393.53

**TABLE B.7. LA formula, 2004–05**

	Primary	Secondary
Base per-pupil amount	1,807.867***	2,652.084***
Extra amount per FSM pupil	860.274***	1,018.078***
Extra amount per EAL pupil	90.585***	-23.632
Extra amount per SEN pupil with statement	7,271.251***	6,476.774***
Extra amount per SEN pupil without statement	105.694**	68.397
Extra amount per boarding pupil	-560.935	318.634*
Extra amount per nursery pupil	1,438.422***	-4,161.096***
Extra amount for being foundation school	-14,947.472***	-61,842.279***
Extra amount for being Voluntary Aided or Voluntary Controlled school	-8,106.283***	-55,696.423***
Extra amount for having a sixth form		72,799.887***
Extra amount per sixth-form pupil		1,547.469***
Constant	93,746.952***	167,898.392***
Number of observations	17,425	3,339
Number of LAs	147	147
R-squared	0.96	0.96
Mean LA formula per pupil	2,688.89	3,318.44
Median LA formula per pupil	2,567.46	3,289.17



**TABLE B.8. LA formula, 2003–04**

	Primary	Secondary
Base per-pupil amount	1,756.550***	2,561.926***
Extra amount per FSM pupil	761.782***	1,012.429***
Extra amount per EAL pupil	90.504***	-25.228
Extra amount per SEN pupil with statement	6,493.261***	5,210.289***
Extra amount per SEN pupil without statement	135.139***	126.526
Extra amount per boarding pupil	1,487.549**	47.433
Extra amount per nursery pupil	1,331.910***	-4,076.794***
Extra amount for being foundation school	-13,515.772***	-45,897.044***
Extra amount for being Voluntary Aided or Voluntary Controlled school	-7,870.066***	-44,315.338***
Extra amount for having a sixth form		70,125.420**
Extra amount per sixth-form pupil		1,364.044***
Constant	91,021.803***	188,337.441***
Number of observations	17,713	3,400
Number of LAs	148	148
R-squared	0.96	0.95
Mean LA formula per pupil	2,587.57	3,219.56
Median LA formula per pupil	2,474.17	3,199.25

**B.3 Government grants**

**TABLE B.9. Government grants, 2006–07**

	Primary	Secondary
Base per-pupil amount	122.154***	240.808***
Extra amount per FSM pupil	489.439***	1,147.715***
Extra amount per EAL pupil	180.499***	-86.639
Extra amount per SEN pupil with statement	732.521***	1,204.235**
Extra amount per SEN pupil without statement	181.910***	227.351**
Extra amount per boarding pupil	-2.757	190.069
Extra amount per nursery pupil	33.256	6,769.987***
Extra amount for being foundation school	7,391.292*	-4,985.380
Extra amount for being Voluntary Aided or Voluntary Controlled school	-1,538.427	3,566.532
Extra amount for having a sixth form		-18,976.344
Extra amount per sixth-form pupil		257.384***
Constant	35,427.121***	158,691.314***
Number of observations	17,333	3,339
Number of LAs	148	148
R-squared	0.51	0.39
Mean government grants per pupil	488.59	662.36
Median government grants per pupil	430.83	583.68

**TABLE B.10. Government grants, 2005–06**

	Primary	Secondary
Base per-pupil amount	190.846***	308.012***
Extra amount per FSM pupil	418.224***	949.638***
Extra amount per EAL pupil	192.144***	-40.947
Extra amount per SEN pupil with statement	1,373.226***	1,570.790*
Extra amount per SEN pupil without statement	181.465***	141.415
Extra amount per boarding pupil	-4,566.795	461.096**
Extra amount per nursery pupil	207.436***	-335.860
Extra amount for being foundation school	1,447.072	-14,697.869
Extra amount for being Voluntary Aided or Voluntary Controlled school	-1,465.185*	-22,644.257**
Extra amount for having a sixth form		6,532.489
Extra amount per sixth-form pupil		534.459**
Constant	33,099.465***	213,488.821***
Number of observations	17,407	3,353
Number of LAs	147	147
R-squared	0.53	0.37
Mean government grants per pupil	555.67	802.36
Median government grants per pupil	492.89	689.38

**TABLE B.11. Government grants, 2004–05**

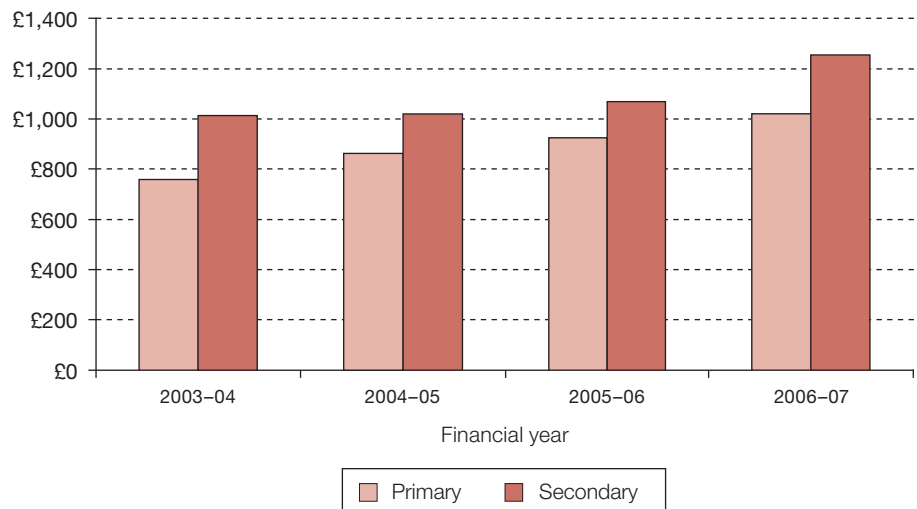
	Primary	Secondary
Base per-pupil amount	180.410***	225.041***
Extra amount per FSM pupil	359.391***	783.927***
Extra amount per EAL pupil	210.960***	-0.524
Extra amount per SEN pupil with statement	1,034.988***	1,284.770***
Extra amount per SEN pupil without statement	119.280***	373.789***
Extra amount per boarding pupil	285.010**	31.292
Extra amount per nursery pupil	90.071**	986.431
Extra amount for being foundation school	2,207.856	8,727.434
Extra amount for being Voluntary Aided or Voluntary Controlled school	-1,028.056	-2,078.271
Extra amount for having a sixth form		-948.983
Extra amount per sixth-form pupil		528.146***
Constant	31,480.503***	185,253.281***
Number of observations	17,425	3,339
Number of LAs	147	147
R-squared	0.57	0.43
Mean government grants per pupil	499.82	700.00
Median government grants per pupil	453.72	621.57

**TABLE B.12. Government grants, 2003–04**

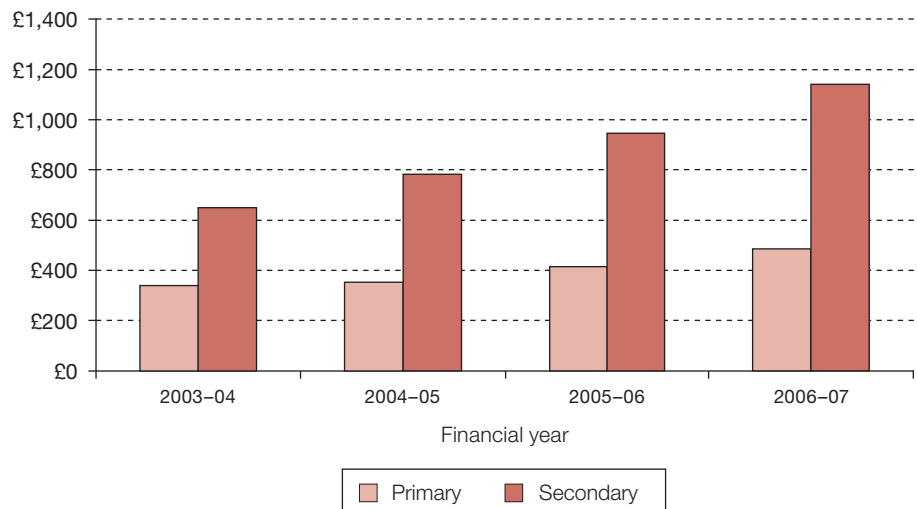
	Primary	Secondary
Base per-pupil amount	179.856***	208.735***
Extra amount per FSM pupil	348.429***	654.762***
Extra amount per EAL pupil	208.928***	20.619
Extra amount per SEN pupil with statement	1,273.593***	1,842.079***
Extra amount per SEN pupil without statement	60.365**	237.719***
Extra amount per boarding pupil	-4,022.153***	94.796
Extra amount per nursery pupil	55.320	-7,878.454***
Extra amount for being foundation school	1,091.102	-11,694.851
Extra amount for being Voluntary Aided or Voluntary Controlled school	-394.269	-15,601.046
Extra amount for having a sixth form		27,211.873
Extra amount per sixth-form pupil		647.431***
Constant	28,667.245***	173,878.646***
Number of observations	17,713	3,400
Number of LAs	148	148
R-squared	0.54	0.38
Mean government grants per pupil	471.29	665.78
Median government grants per pupil	418.92	588.17

## C. The FSM premium

**FIGURE C.1. FSM premium in LA formula income**



**FIGURE C.2. FSM premium in government grants**





**TABLE C.1. Average funds provided to schools by source, 2005–06**

	Primary	Secondary
<b>Main LA formula</b>		
Base amount per pupil	£1,880	£2,688
Extra per FSM pupil	<b>£923</b>	<b>£1,070</b>
Total per FSM pupil	£2,803	£3,758
<b>Direct government grants</b>		
Base amount per pupil	£191	£308
Extra per FSM pupil	<b>£418</b>	<b>£950</b>
Total per FSM pupil	£609	£1,258

**TABLE C.2. Average funds provided to schools by source, 2004–05**

	Primary	Secondary
<b>Main LA formula</b>		
Base amount per pupil	£1,808	£2,652
Extra per FSM pupil	<b>£860</b>	<b>£1,018</b>
Total per FSM pupil	£2,668	£3,670
<b>Direct government grants</b>		
Base amount per pupil	£180	£225
Extra per FSM pupil	<b>£359</b>	<b>£784</b>
Total per FSM pupil	£539	£1,009

**TABLE C.3. Average funds provided to schools by source, 2003–04**

	Primary	Secondary
<b>Main LA formula</b>		
Base amount per pupil	£1,757	£2,652
Extra per FSM pupil	<b>£762</b>	<b>£1,012</b>
Total per FSM pupil	£2,519	£3,664
<b>Direct government grants</b>		
Base amount per pupil	£180	£209
Extra per FSM pupil	<b>£348</b>	<b>£655</b>
Total per FSM pupil	£528	£864

## D. LA-level OLS results

**TABLE D.1. Total Individual Schools Budgets, 2006–07**

	Primary	Secondary
Base per-pupil amount	2,557.369***	3,313.495***
Extra amount per FSM pupil	2,781.168***	2,415.266***
Extra amount per EAL pupil	22.616	-363.156*
Extra amount per SEN pupil (with and without statements)	-255.256	-155.350
Extra amount per boarding pupil	11,407.077	-11,120.779
Extra amount per nursery pupil	-4,570.818***	-8,689.472
Extra amount per sixth-form pupil		697.775
Constant	-239,028.683	-645,623.891
Number of observations	148	148
R-squared	1	1

**TABLE D.2. Total Individual Schools Budgets, 2005–06**

	Primary	Secondary
Base per-pupil amount	2,414.710***	3,126.191***
Extra amount per FSM pupil	2,268.741***	2,090.479***
Extra amount per EAL pupil	19.319	-332.444
Extra amount per SEN pupil (with and without statements)	113.342	259.523
Extra amount per boarding pupil	933,679.515	-3,948.272
Extra amount per nursery pupil	-3,594.583***	159,430.764***
Extra amount per sixth-form pupil		760.888
Constant	-744,894.737	-841,910.034
Number of observations	148	148
R-squared	1	1

**TABLE D.3. Total Individual Schools Budgets, 2004–05**

	Primary	Secondary
Base per-pupil amount	2,249.509***	2,880.701***
Extra amount per FSM pupil	1,980.340***	1,928.856***
Extra amount per EAL pupil	-49.116	-388.492*
Extra amount per SEN pupil (with and without statements)	453.608	948.073
Extra amount per boarding pupil	-74,680.056**	3,148.444
Extra amount per nursery pupil	-2,190.722**	46,332.904
Extra amount per sixth-form pupil		938.104*
Constant	-825,658.027	-761,038.752
Number of observations	148	148
R-squared	1	0.99

## E. First-differences results

**TABLE E.1. Change from 2005–06 to 2006–07**

	Primary	Secondary
Base per-pupil increase	1,843.121***	2,473.706***
Extra increase per FSM pupil	-99.393	527.791
Extra increase per EAL pupil	640.136***	488.105**
Extra increase per SEN pupil with statement	1,824.175***	1,486.113
Extra increase per SEN pupil without statement	65.901	145.355
Extra increase per boarding pupil	-207.771	-589.015**
Extra increase per nursery pupil	-95.592	-25,954.481***
Extra increase per sixth-form pupil		1,355.524***
Constant	20,290.288***	107,463.164***
Number of observations	17,213	3,328
R-squared	0.22	0.20
Number of LAs	148	148

**TABLE E.2. Change from 2004–05 to 2005–06**

	Primary	Secondary
Base per-pupil increase	1,561.554***	2,430.187***
Extra increase per FSM pupil	280.848***	742.231***
Extra increase per EAL pupil	555.287***	-96.845
Extra increase per SEN pupil with statement	1,686.479***	1,717.987**
Extra increase per SEN pupil without statement	17.934	107.867
Extra increase per boarding pupil	66.416	-122.620
Extra increase per nursery pupil	-161.230	-6,187.453
Extra increase per sixth-form pupil		1,099.778***
Constant	32,679.824***	175,085.120***
Number of observations	17,354	3,344
R-squared	0.23	0.28
Number of LAs	148	148

**TABLE E.3. Change from 2003–04 to 2004–05**

	Primary	Secondary
Base per-pupil increase	1,363.296***	2,472.301***
Extra increase per FSM pupil	335.388***	148.473
Extra increase per EAL pupil	184.288**	224.465*
Extra increase per SEN pupil with statement	1,737.004***	629.214
Extra increase per SEN pupil without statement	70.126	147.567
Extra increase per boarding pupil	-335.568	-677.081
Extra increase per nursery pupil	-64.201	3,983.799
Extra increase per sixth-form pupil		-89.293
Constant	22,173.114***	136,637.101***
Number of observations	17,484	3,359
R-squared	0.18	0.14
Number of LAs	148	148

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- *Review of international literature on admissions*, National Foundation for Educational Research
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CfBT Education Trust  
60 Queens Road  
Reading  
Berkshire  
RG1 4BS  
0118 902 1000  
[www.cfbt.com](http://www.cfbt.com)