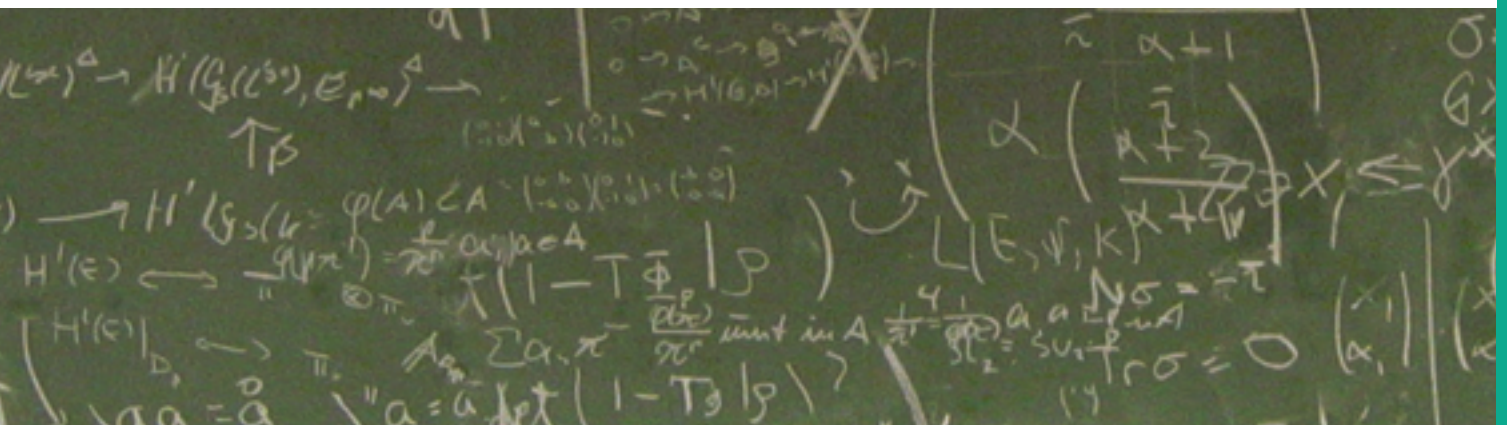
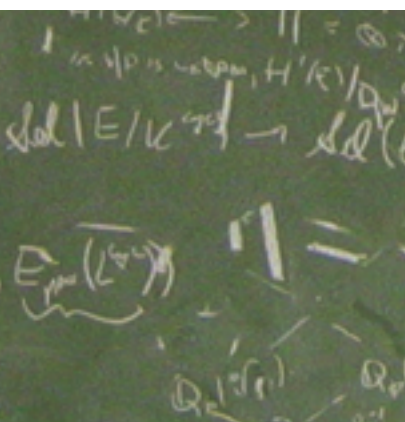


# The leadership effect

Can headteachers make a difference?



edited by James O'Shaughnessy



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## Executive summary

We expect more of our school leaders than ever before. Gone is the view of the headteacher as *primus inter pares*; they are now supposed to be visionary leaders, curriculum specialists, disciplinarians, senior managers, community representatives and, just occasionally, teachers too. They are expected to transform the worst state schools and maintain performance in the best. But is this emphasis on leadership justified? Can headteachers make a difference?

The added pressure to perform has led to a worsening recruitment crisis. Average applications per headteacher post are falling, the cadre of existing heads is ageing and approaching retirement, and an incredible 60 per cent of governors are unhappy with the quality of applicants for vacant posts. Fewer and fewer teachers aspire to lead their schools, with stress and government interference cited as contributing factors. Perhaps we are expecting more of our headteachers than they can deliver.

Our belief in the power of leadership is based on the existing school effectiveness literature, but it has a fatal flaw: by relying on stakeholders' perceptions of influence rather than objective measures, this qualitative research is able to establish a correlation between good heads and good performance but not a causal link. Policy Exchange therefore commissioned Jeff Searle and Peter Tymms at the Curriculum, Evaluation and Management (CEM) Centre at Durham University to quantify the impact of headteachers on school performance: the "leadership effect". We believe this is the first time such an analysis has been attempted. It works on the assumption that because it is very unlikely that a new headteacher will be of exactly the same quality as the old head, then his or her ability or inability to influence school performance and pupil attitudes

will show up in greater or no greater variation of results compared to schools that have not changed their headteacher.

“ Probably the most important thing headteachers can do for their pupils is to make sure that there are good teachers in their classrooms ”

### Findings

- Searle and Tymms found no difference in performance, on average, between schools that did and schools that did not change their headteacher. This led them to conclude that headteachers have little impact on the quality of learning and on the attitudes of pupils in their school, at least in the first five years of their appointment.
- The reason for the lack of headteacher impact on pupil performance and attitudes is, they believe, because schools are "loosely coupled" organisations where the ability to influence performance diminishes rapidly the further one is from the pupil. This means that individual teachers have much more impact on learning than heads, whose influence can generally only be wielded indirectly through the staff.
- Probably the most important thing headteachers can do for their pupils is to make sure that there are good teachers in their classrooms. Headteachers are important, they conclude, but not in the way that officialdom has perceived them in England for the last ten years.

### Interpretations

Policy Exchange asked two leadership experts to interpret the research:



- Dr Daniel Moynihan, Principal of the Harris City Technology College, Croydon, disagrees with Searle and Tymms, arguing that because good schools are likely to attract applications from good heads, and poor schools from poor heads, we should not expect schools with a new head to start performing differently. In fact, the existence of good performance beyond the tenure of a good head can be interpreted as a sign of success: by embedding a good staff, ethos and management structures a good head can provide a legacy of success that survives a huge turnover of staff and pupils. Dr Moynihan believes good heads can also make a difference in failing schools, but only if given the right powers and freedoms to do so.
  - According to Alison Wolf, Sir Roy Griffiths Professor of Public Sector Management at King's College, London, we should not be surprised to find that headteachers do not have much effect on school performance. Despite protesting our belief in the power of leadership, we implicitly desire uniformity and therefore encourage the "bureaucratisation" of institutions like schools so that we have a stable system overall. This comfort blanket of stability can be hard to throw off, and an underperforming school is only likely to do so through a systematic improvement in the quality of its teaching staff. The government should therefore explore the use of financial incentives to attract good teachers to underperforming schools.
- the best schools, which have most to lose from a volatile system that depends on individual heads for success. On the other hand stability in underperforming schools has a pernicious effect, and we want "superheads" to lead them out of failure. But we cannot have both in a monolithic system. The academy scheme has made some progress in dealing with failure, but far more radical change is needed to give underperforming schools the freedom and resources they need to succeed:
- Any state school deemed to be underperforming for two or more years requires dramatic change. It should be taken over by an existing school, federation, trust, academy or even private company with a track record of educational success. Crucially, this would apply to any underperforming school, of which there may be as many as 1,500 in England, not just those with disadvantaged intakes.
  - Having replaced the senior management and the governance structure, the school would enjoy a new regulatory regime under which the new leadership team would have the kind of freedoms enjoyed by independent schools. This means complete freedom to hire and fire staff, exemption from national pay bargaining, and the ability to reward successful teachers or teachers in hard to recruit subjects. They would be free to disapply the national curriculum and to impose their own standards of discipline.
  - Having the freedom to attract the best staff is not enough; underperforming schools also need the resources to do so. We therefore propose the use of an "advantage premium" – a doubling of per pupil funding for children who have attended a failed school – to help schools teaching these victims of failure to attract the best heads and teachers.

#### Recommendations

On the one hand we crave stability, and so ensure that headteachers are unable to have much impact on performance. This suits

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# 1

## Introduction

### Holding out for a hero

James O'Shaughnessy

*Head of Research, Policy Exchange*

#### Introduction

When commissioning research into what effect school leaders – that is, headteachers – have on school performance, it never occurred to us that there was any possibility that the answer could come back: “None”. Why would it? Our culture esteems leaders highly in all fields, and it seems counter-intuitive to suppose that our schools leaders are not able to, well, lead. Besides, the school effectiveness literature (Leithwood et al, 2004; Hallinger & Heck, 1996) all points in the same direction: headteachers do make a difference; indeed of the in-school influences they are second only to teachers in the impact they can have on school performance. As the former Chief Inspector of Schools and head of Ofsted Mike Tomlinson said in his 1999-2000 annual report, the importance of high quality leadership “cannot be overestimated”.

Compare this to the stark conclusion offered at the end of Chapter 2, where Jeff Searle and Peter Tymms of the CEM Centre at Durham University, who carried out this research into headteacher effectiveness, state “that headteachers have little impact on the quality of learning [by which they mean ‘deep learning’, as opposed to the simple collection of examination points], at least in the first five years of their appointment. This is a strong conclusion and contrary to received wisdom. It needs some explanation.” Indeed it does,

and in addition to Searle and Tymms’s interpretation of their own findings, we also asked two leadership experts to comment on the research: Alison Wolf, Sir Roy Griffiths Professor of Public Sector Management at King’s College, London, and Dr Daniel Moynihan, Principal of the Harris City Technology College, Croydon. But before we answer the question “whither leadership?” we need to explain “why leadership?”

“ The government is desperate to understand better what drives improvement within schools ”

#### Why leadership?

There is more pressure than ever to find out why many of our schools are simply not good enough. Large increases in school funding have not brought about dramatic improvements in results. The House of Commons Education and Skills Select Committee recently found that school standards have been on an upward trend since 1990, and that the 50 per cent real terms increase in the schools budget since 1997 has not affected this overall trend. As a result, the government is desperate to understand better what drives improvement within schools.

Based on the school effectiveness literature, it has alighted on the idea that raising the quality of school leadership will result in the great leap forward that everyone desires. The government has introduced a number of schemes and qualifications aimed at improving school leadership, including the National College for School Leadership (NCSL), the National Professional Qualification for Headship (NPHQ) and the Leadership and Management Programme for New Head Teachers (HEADLAMP). PricewaterhouseCoopers (PWC) was commissioned to carry out an independent review of school leadership, and its terms of reference are explicit: “The core purpose of this independent study is to provide a comprehensive and independent account of existing, emerging and potential models of effective headship.”

It is assumed that headteachers can be and are effective, and that the characteristics of effective leadership can be taught. This has particular relevance to the debate about school underperformance. As Daniel Moynihan points out in Chapter 3, there are around 1,500 underperforming schools in England, the majority of which serve disadvantaged communities. These examples of state failure have serious implications for social mobility, economic competitiveness and social justice; they are, thankfully, high up the political agendas of all the main political parties. The fact that research from the United States suggests that school leadership can have an influence on school performance, and that its impact appears to be greatest in schools where the learning needs of students are most acute, seems to confirm that concentrating on improving our school leaders is one important way to deal with education failure.

#### Quantifying the “leadership effect”

The existing consensus appears to be straightforward: headteachers do make a difference, especially in areas of disadvan-

tage, and if we could only create better trained and qualified leaders then our schools would improve.

It seemed only right, given this extraordinary emphasis on, even belief in, the power of leadership, to ask whether this focus on headteachers can be justified. While there is some evidence to suggest that the quality of leadership does affect achievement in English schools, this “leadership effect” has never been quantified. As Searle and Tymms point out, there is a fatal flaw in the existing leadership research. It concludes that headteachers make a difference because the people the researchers interview – teachers, support staff, parents, heads themselves – say they do, but there has been no attempt to quantify this effect objectively. Despite this weak evidential base, important decisions are being made and huge sums of taxpayers’ money are being spent. This is bad policymaking. What Policy Exchange wanted to do, therefore, was to quantify this “leadership effect” and, having quantified it, to discover how headteachers make a difference to their schools’ performance, both positively and negatively.

In carrying out their statistical analysis, the methodology used by Searle and Tymms was informed by one previously used to examine the fate of underperforming Premiership football teams that changed their managers during the season (Audas, Dobson & Goddard, 2002). This piece of research investigated whether teams that changed their manager were more or less likely to be relegated or stay up than those that did not. On average, it made no difference at all. This may be scant reassurance for the supporters of the lesser Premiership teams, who anticipate April and May with dread each year, but it gave us the basis for our analysis.

What we wanted to understand was whether, over a six-year period, changing the headteacher made a difference to school performance and the attitudes of

pupils within a school. We believe this is the first time such an analysis has been made, and it is only possible thanks to the detailed data collected by the CEM Centre. I am immensely grateful to Jeff and Peter for the opportunity to pioneer this approach with them.

The analysis works on the assumption that because it is very unlikely that a new headteacher will be of *exactly* the same quality as the old head, then his or her ability or inability to influence school performance and pupil attitudes will show up in greater or no greater variation of results compared to schools that have not changed their headteacher. If headteachers *do* make a difference, in an improving school a good head is likely to be replaced by one who is less good and so performance will go down, and in a deteriorating school a poor head is likely to be replaced by a better one and so performance will improve. Having estimated the size of this variation, what we have called the “leadership effect”, we then wanted to explore through interviews how headteachers make a difference and whether changes to national education policy could enhance their ability to raise academic achievement in their schools.

### Interpreting the results

What Searle and Tymms found was that, on average, there appeared to be no difference in performance between those schools that did change their headteacher and those that did not. They admit that their conclusion, that “headteachers generally have little impact on the academic learning and attitudes of pupils during at least the first five years of their employment”, is extremely challenging. Most people, within and outside education, can think of heads who have transformed their schools. Moynihan is one of them, and he takes issue with the assumptions on which the Searle and Tymms research is based, pointing out that their findings can be seen to confirm that head-

teachers do make a difference. The fact that top-performing schools do not slip back towards the average when they lose a good head is, he believes, evidence of the quality of the outgoing head in ensuring that his or her legacy of success lives on through the systems, culture and staff he or she has fostered. This lack of regression to the mean is evidence of good leadership, not of its absence. At the other end of the performance spectrum, we should not expect underperforming schools to necessarily attract potential headteachers who are better than the previous incumbent. The potential career risk is high, which puts off many good candidates, while the opportunity to create positive change is small.

Nevertheless, stability – that is, the ability of a school to withstand the shock of changing its headteacher – appears to be the norm. New headteachers do not seem, on average, to be able to turn around underperforming schools within a six-year period; the most successful schools are even more stable and can shrug off the impact of losing a headteacher. Thus the quantitative research outlined in Chapter 2 points towards the conclusion that headteachers do not have much impact on performance.

So if headteachers do not make much difference to performance, what does? Searle and Tymms argue that within schools other factors – such as ethos, the culture of learning and especially the quality of the teaching staff – are far more important in determining how a school performs. The headteacher can affect these, but only very slowly. All the headteachers interviewed during their research agreed that cultural change and a good quality teaching staff who “buy into” the school’s overall strategy are prerequisites for success. But it may take a great deal of time before the foundations of success can be laid, with improved results coming only after seven or more years. Because they are larger, secondary schools are even harder to change than primary schools: it is more

difficult to affect the culture and subcultures of a large comprehensive than a small village school. At the same time, primary school performance is more volatile because of the small and varying quality of intakes year-on-year, so a strong culture, ethos and staff is arguably even more important in order to iron out these inconsistencies and to ensure a constantly good standard of education.

#### The paradox of stability

Searle and Tymms argue that because schools are “loosely coupled” organisations, where the headteacher can only influence teaching and learning indirectly, we should not be surprised that headteachers do not make a big difference to performance. Schools act like shock absorbers and are very conservative in nature; they find change difficult. What is more, according to Alison Wolf, that is the way we want it. We desire what she calls the “bureaucratisation” of institutions like schools so that we get some sort of uniformity. If our schools were more dependent on headteacher performance the system as a whole would be much more volatile and difficult to predict, which could lead to even less confidence in the system than exists now.

Wolf believes that we overvalue leaders and leadership, at the expense of good management. Promoting the concept of the “head as superhero” is wrong on several counts. It is unrealistic, because heads find it difficult to make that much difference; it is counterproductive, because the added pressure to push up results is not matched by added powers to make a difference, so potential leaders are deterred from applying for promotion; and it is undesirable, because a system where heads were heroes would be inherently unstable and volatile. What we want is a good system, not just a few good schools, and this cannot be based on transformational leaders who are, by definition, exceptional.

The huge termly and yearly turnover of staff, pupils and even heads means that schools, in Moynihan’s words, have to “inoculate” themselves against change to ensure there is any sort of consistency in provision. Too often this consistency is not correlated to quality, which brings us to the paradox at the heart of the debate about the effectiveness of our school leaders. On the one hand, we know that the best schools have a strong ethos that is able to withstand the loss of staff and pupils and yet retain high performance over the long run. So we encourage schools to develop and lock in a stable culture. A key part of this strategy is limiting the power of heads so they are unable to upset this culture.

On the other hand, we expect and want our headteachers to make a difference where that culture has a negative, rather than positive, impact on learning. In these circumstances they need wide-ranging powers, probably of a kind that would be quite disruptive if exercised by the headteacher of a successful school. But the best schools move away from this “head as superhero” model towards one that guarantees stability despite the turnover of heads, staff and pupils. Interviewed for this report, Dr Anthony Seldon, the Master of Wellington College, commented that the strongest 25 per cent of independent schools have a fixed identity where the personality or even quality of the headteacher is almost irrelevant. So we value stability where the quality of education on offer is good, yet demand that headteachers have the power to override this stability when it is no longer deemed to be fulfilling its purpose. How do we square this circle?

#### Where are our future leaders?

Before attempting to answer that question, it is worth outlining just why it is such a pressing issue. In recent years the role of headteacher has swelled to include a staggering array of professional tasks and com-

petencies. They are expected to be educational visionaries, instructional and curriculum leaders, assessment experts, disciplinarians, community builders, public relations and communications experts, budget analysts, facility managers, as well as guardians of various legal, contractual and policy mandates and initiatives. Furthermore, they are increasingly expected to make up for the absence of positive influences outside the classroom.

This has created significant extra pressure on the teaching profession and on headteachers in particular. The expectation that they will produce positive change, and produce it quickly, is high. Yet as Wolf points out, because we implicitly desire stability and uniformity within our education system, headteachers are restricted in the ways they are allowed to drive improvement. Historically, our approach has been to emphasise leadership in terms of personal qualities and abilities, rather than concentrating on the tools of management.

The role of headteacher has been elevated beyond the old-fashioned view of *primus inter pares*. We expect far more of our heads than we ever did, and certainly expect much more of them than we do of even our most senior classroom teachers. They have taken on many more administrative and managerial tasks, with less time for teaching. For an ordinary teacher the “push” factors away from becoming a head are large and growing. This would not matter if the “pull” factors were stronger, but although they are well-paid positions becoming a headteacher does not bring with it a CEO-style leap in salary, while the opportunities to really make your mark on a school are small. The powers headteachers have to change the things that matter are minimal: it is difficult to fire bad teachers or recruit the best ones, the national curriculum is too rigid, and powers to impose discipline and exclude disruptive pupils are heavily circumscribed.

Who would want to take up the post under these conditions?

“ The combination of rising levels of responsibility with only a minimal increase in power and authority has led to severe recruitment problems ”

The unfortunate answer is that fewer and fewer teachers aspire to lead their schools. The combination of rising levels of responsibility with only a minimal increase in power and authority has led to severe recruitment problems. According to a 2006 NCSL survey of headteacher recruitment:

- A quarter of heads are over the age of 55 and the volume of early retirements is high.
- Average applications per headship are falling: in primary schools, from 6.0 applications per place in 2002-04 to 5.4 in 2004-05; in secondary schools from 16.0 in 2001-02 to 12.8 in 2004-05.
- 60 per cent of the chair of governor respondents feel that the overall quality of candidates is poor.
- Re-advertising rates for headships have doubled in the last ten years.
- The top “school-based” reasons given by teachers for not becoming a headteacher are stress, less pupil contact and less teaching time.

And we have not even reached the retirement peak, which is due in 2009-10.

This picture of a stressed workforce of whom too much is expected is further embellished with data from a survey by the National Association of Headteachers (NAHT). It found that the most important way of helping its members to improve their lives and to do their jobs properly would be a reduction in red tape.

This chimes with the experiences of the headteachers interviewed by Searle and Tymms. They expressed profound frustration with the interference of central government and in particular with the changing assessment regimes they faced. There was a strong sense of “it doesn’t matter what we do because the goalposts are always changing”, which creates yet another reason why teachers are deterred from leadership roles. Seen this way, the current recruitment crisis for heads is entirely understandable.

The Department for Education and Skills (DfES) would say that headteachers have much more autonomy than they did, which is undoubtedly true. Since the 1980s there has been a welcome shift towards headteachers, rather than local education authorities, managing their schools, but that kind of comparison is by its very nature backward-looking. Instead we should be asking what powers headteachers could be exercising that they are not already, and drawing on examples of success to build our own set of reforms. In Alberta, Canada, for example, heads have a significant amount of freedom. They control school expenditure and have full discretion in hiring staff and purchasing services. In return, they need to meet high standards. Some charter schools in the United States are even more successful. Headteachers have incredible amounts of autonomy for the specific purpose of turning around the lives of some of the hardest-to-help children. As a result they are able to achieve something that escapes English schools: *absolute*, not just relative, success for the most disadvantaged pupils.

#### Leading schools out of failure

We have built a school system based around the principle of stability while at the same time trumpeting the power of headteachers to ride to the rescue when a school is struggling. But you cannot have a

monolithic school system that allows both of these to be true. As a result, we have cemented failure at the bottom of the school sector and at the same time deterred thousands of potentially good school leaders. This situation is unsustainable.

The starting point for proposals for reform ought to be the substantial PWC report on school leadership. However, although its analysis is revealing, its recommendations are, in the best tradition of government reform, extremely timid. The report points out that too many headteachers do not spend enough time on strategic issues. They tend to focus on operational matters, reflecting the fact that many of them would prefer to be in the classroom teaching. There is also huge frustration at the “initiative-itis” of central government, which Searle and Tymms also found in their research. Where the PWC report is particularly helpful is in outlining the basic repertoire of leadership skills: building vision, developing people, redesigning the organisation, and managing teaching and learning. It argues that schools need flexibility to structure themselves differently, but it fails to produce recommendations for structural reform that would help headteachers lead their schools better.

#### *A shock to the system*

So what would make a difference? The PWC report focuses on improving training for our school leaders, but this is nowhere near sufficient to address the problems in our most difficult schools. We need to move away from policies based solely on increasing the number of certified candidates and focus far more attention on reforming incentives and working conditions to allow failing schools to become more competitive and to attract good leadership candidates.

One interesting recent finding that Moynihan highlights is that schools coming out of “special measures”, the most

serious failure rating, make a faster improvement than those identified as having “serious weaknesses”, the next most serious rating. For a school to go into special measures involves massive upheaval, with clear public recognition that it has failed in its basic purpose and the imposition of a drastic set of measures to improve performance. The evidence suggests that this kind of systemic upheaval is a powerful way to shock schools out of failure and complacency, but that anything less is not shocking enough. Moynihan argues that the process of becoming an academy provides just such a shock to schools serving underprivileged pupils, and he passionately defends the academy system as a vehicle for dealing with such schools. But, he argues, the criteria for becoming an academy need to be broadened to encompass not only schools with disadvantaged intakes but *all* underperforming schools, regardless of intake.

I believe that there is not only a need for more schools to be able to become academies, but for the model itself to be diversified so that these schools could be more flexible in deciding how to overcome the difficulties they face. We need more school models as well as more schools taking advantage of them. The existing academy programme does go some way to achieving this, but it should go much further. Thus underperforming schools should be restructured specifically so that heads and senior management *are* able to make a difference. Schools which were judged to be substandard by Ofsted for two consecutive years or more ought to be compelled to join a trust, federation, school, academy or even private company with a track record of successfully providing education. A short timeframe is justified because we know that change under the current regulatory regime is painfully slow. Having received this shock, they would be in a position to take advantage of the new freedoms available.

As discussed earlier, such a system is inherently volatile, and so these models should only be applied to underperforming schools where sensitivity to the quality of an incoming head and staff is vitally necessary to jolt them out of their often decades-long experiences of failure. These alternative models need to involve much greater freedom for the school management, along the lines available in US charter schools or independent schools here in the UK. This would involve giving more power to headteachers to affect the things that matter, such as the ability to properly manage their staff, including complete freedom to hire and fire, freedom from the constraints of national pay scales and pay-bargaining, and the ability to reward staff for performance or if they teach in underprovided areas like maths or the sciences. They should also be free to vary the curriculum and to impose their own standards of discipline.

But, some readers may ask, if you want to give these schools more autonomy why not extend this freedom to the selection of pupils? After all, the quality of the pupil intake affects performance as much if not more than the quality of the staff. But this is an ideological and evidential dead end. Research suggests that market-based reforms of education only drive up standards across all groups if schools are restricted in their ability to choose their intake (Hoxby, 2003). If schools can select there is a strong tendency towards social segregation and unfairly distributed benefits, a phenomenon that already blights many of our state schools. We cannot select our way out of failure.

#### *Recruiting the best staff to the worst schools*

So having introduced a system that applies a shock to underperforming schools and restructures them in such a way that they are more sensitive to a change of leadership, it is vital to ensure that the best heads and teachers can be attracted to these



schools to take advantage of these new conditions.

As Searle and Tymms point out in their conclusion, “probably the most important thing the headteacher can do for the pupils is to make sure that there are good teachers in the classrooms”. This is a point on which Moynihan and Wolf concur, and while it sounds simple the implications are enormous. Wolf points to research which shows that it is very difficult to recruit and keep good teachers in the most challenging schools (Hanushek, Kain & Rivkin, 2004). The complex needs of the pupils in these schools make them difficult to teach, and consequently the best teachers tend to end up in the best, and most middle-class, schools. Although it is not explicit, it seems fair to assume that the same rule applies for headteachers too. Schools with disadvantaged intakes do not have the resources to “break the bank” to keep good staff, while rigid pay spines and national pay-bargaining would make it almost impossible to do so even if they did. Yet it is precisely in these schools that good staff could potentially make the biggest positive difference to performance.

““Transforming” heads need to know they have the freedom to make a difference, to put in place the structures, system and cultures that will maintain a school’s success far into the future””

It is important to draw on the experience of the independent sector here. As Seldon points out, although the best independent schools succeed almost regardless of their headteachers, so ingrained in their fabric are the elements of success, the lower one goes down the performance tables the more sensitive to the quality of the headteacher a school becomes. This is true in the independent sector because, due to the very light regulatory burden,

the headteacher is in control of many more of the crucial drivers of success. Seldon believes that there are essentially two kinds of successful leader: “maintaining” ones, who keep a steady hand on the tiller, and “transforming” ones, who have the ability to radically change the way their schools operate, given the chance. The crucial thing is to get the right type of heads into the right schools. “Transforming” heads need to know they have the freedom to make a difference, to put in place the structures, system and cultures that will maintain a school’s success far into the future. It is that opportunity which many heads in the state sector lack. The trick is to get these transformational leaders into the schools that need them most.

So having given underperforming state schools the freedom to succeed, the question is how to get the best heads and staff into the schools where they can make the most difference? I believe there is a solution here, one which draws on work that Charlotte Leslie and I carried out for Policy Exchange in 2005 and on similar proposals from Professor Julian Le Grand of the London School of Economics. We know that it is possible to tempt the best staff into difficult schools given the right incentives and working environment. The latter is easier to fix in the sense that the restrictions are regulatory. Giving schools more structures to choose from would help bring extra flexibility and professional autonomy and provide an attractive working environment for teachers. But incentives are more complicated because they require either additional funds or funds to be ciphred from elsewhere, and they need a robust distributional basis that effectively targets need.

In *More Good School Places* we proposed an “advantage premium”, a doubling of state funding in the form of a quasi-voucher for pupils who have been to schools classed as having failed. The

vast majority of the schools affected serve very disadvantaged areas, although the purpose of the advantage premium is to focus on educational failure, which as Moynihan points out can affect anyone, rather than material disadvantage. The pupils would be liable for this extra funding if they left their school or if the entire senior management and governance structure of their school was replaced. The scheme as we envisaged it would be paid for by scrapping four central government discretionary spending programmes. Another source of at least some of the funding required – around £4 billion annually – ought to be the Building Schools for the Future capital spending programme. It betrays a strange set of priorities to be spending colossal sums rebuilding successful schools when the money could be spent bring the best teachers to the worst-performing ones.

The purpose of this premium payment is twofold: first, to price these pupils back into the admissions market where they are often unfairly discriminated against, both overtly and covertly; and second, to provide the schools educating these pupils with the additional funds to help them to overcome the setbacks the failure of state education has caused. This extra money could be used to provide extra pay to recruit the best headteacher available, or to recruit more and better staff to the school. The additional funding also provides a strong signal to the best headteachers as to where their skills are needed most.

This additional funding to compensate children affected for being failed by the state, coupled with the menu of regulatory freedoms listed above, would attract excellent headteachers to the places where they can make most difference – the worst schools. Successful schools, which have weaned themselves off the need for a “superhead”, would be unaffected. In time, even the most challenging schools under

the leadership of the best heads should be able to manage themselves out of reliance on a head and on to other, stronger and more permanent factors.

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# 2

## The impact of headteachers on the performance and attitudes of pupils

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### Summary

Although individual accounts clearly recorded the impact of headteachers in some areas, and although we did find statistical evidence that some schools with new headteachers had slightly improved value-added scores, the study concludes that headteachers generally have little impact on the academic learning and attitudes of pupils during at least the first five years of their employment. They are, however, very important in a number of other ways, not least in the appointment and retention of good staff.

Results of the statistical analyses:

- Schools which had improved consistently were studied and were found to be as likely to have had a new headteacher as not.
- Schools which had maintained high value-added scores were also studied and no link could be found to the appointment of a new headteacher.
- A series of scatter plots linking a school's value-added scores in 2005 to the scores in previous years were studied in detail but no evidence was found linking the appointment of a new headteacher to the value-added scores.

- The last three procedures were applied to attitude measures. These resulted in similar conclusions.

Results of the interview analyses:

- The interviews with headteachers revealed a wide variety of situations, approaches, tactics and strategies.
- A consensus emerged that quality education and a rise in pupil achievement require strategic direction and an appropriate school staffing structure.
- A second essential factor was getting the right blend of quality teachers, deployed to maximise their strengths
- All the headteachers were critical of the official performance measures used to judge their school, and of the way in which these can be manipulated to suggest a school is performing well when it is not.

### Introduction

School effectiveness research is now nearly 40 years old. It began after the publication in the United States of the Coleman report (1966), which was interpreted as showing that schools did not make a difference to

the future of their pupils; what mattered was the home background. In fact, the report was largely misinterpreted, but nevertheless the influence of schools was seen to be weak. Later research, starting in England with the *Fifteen Thousand Hours* study by Rutter et al, and followed by many others around the world, indicated that only a small proportion of the variability seen in children's progress could be attributed to the secondary school they attended. Pupils' progress is influenced by many factors and, with 85-90 per cent of the variability in performance being attributed to factors not linked to the school, it is understandable that the Coleman report was interpreted as saying that schools did not make a difference. Further, the question can be raised as to what amount of the variability that is linked to a school can be linked to the headteacher. Schools are complex places: there is an ethos which builds up over the years, but pupils and parents come and go, and teachers, as well as the political and social climates within which schools operate, change over time.

Much of the extensive research into school effectiveness has been summarised in the handbook edited by Teddlie and Reynolds (2000), and one interpretation of this vast amount of evidence is that there are few clear findings. There is no blueprint for a successful school, although there may be blueprints for unsuccessful schools. Headship has been studied intermittently throughout this period and a single "finding" has dominated people's thinking: where the performance indicator known as "value-added" indicated a high performing school, there was also a perception among the teachers that the headteacher was strong and gave curriculum leadership. The research on which this "finding" was based was correlational; that is it gave a measure of the degree of association between school performance and school leadership. But correlation does not mean causation and it could be that where a school is doing well

the headteacher is perceived to be strong and virtuous; and where a school is doing badly the headteacher is perceived in a less positive light. Those perceptions do not mean there is a direct causal relationship nor do they rule one out. One very interesting finding comes from the Louisiana School Improvement Study run by Teddlie and Stringfield (1993). They compared schools' value-added scores against the power of the headteacher to hire and fire the staff. Where there was no such capacity the headteacher appeared to have no influence on the value-added scores, and where there was, the headteacher appeared to have an influence.

Despite the weakness of the evidence of headteachers' ability to directly influence pupils' value-added scores, there is a clear official position in the UK that the headteacher is pivotal. While head of Ofsted and Chief Inspector of Schools, Maurice Smith is on record as saying that the headteacher is the single most important feature for value-added in a school (Smith, 2006). This study looks at that claim in some detail through analysing data covering several years to see what happens to pupils' performance and attitudes when a new headteacher comes into post. Never before has there been data of this quality available and it is the key to discovering whether a headteacher makes a difference. If the headteacher really does make a difference when he or she changes, we would expect to see a change in the value-added and attitude scores because the new headteacher is likely to be better or worse than the previous one. We also asked a sample of headteachers what they thought were the key factors to the value-added in their school. It is important to note at this point that we used value-added scores across a range of subjects to get an aggregate of the quality of the pupil's learning within the school. In secondary schools this is different from looking at the attainment overall, as measured by the proportion of pupils who achieve five A\* to C grades at GCSE. One

might expect a headteacher to be able to increase the number of GCSE subjects that a pupil takes and thus increase the proportion of five A\* to C grades in the school. But this study is about the quality of the learning of the children in the classroom, which is the key to education.

### *Methodology*

This study investigated the claim that the headteacher is a crucial factor in the value-added scores of their schools and the attitudes of their pupils. The issue was addressed by assessing the impact of a newly-appointed headteacher on the pupils' value-added and attitudes scores, for Year 11 in secondary schools and Year 4 in primary schools.

The value-added measures were designed to record the relative quality of learning in school. They were based on cognitive measures for each subject and then aggregated with weighting across the whole school. Two datasets, each of about 500 schools, for the six years from 2000 to 2005, were constructed and the dates when headteachers changed were established. Schools where there was a change in headteacher were compared with schools where there was not. Full details of the approach used during the statistical analyses can be found in Appendix B.

Finally, interviews were conducted with a sample of headteachers from the primary and secondary schools asking "what does make a difference?" and "what could make a difference?" to the performance of the pupils in their school.

### *The meaning of value-added*

For the primary schools the value-added measurement is taken towards the end of Year 4 and in secondary schools following GCSE examinations in Year 11. The value-added scores are those measured in the CEM Centre's projects (Tymms and Coe, 2003) assessing Performance Indicators in Primary Schools (PIPS) and Year 11 Information System (YELLIS).

It is possible to measure a school's average attainment using information from a formal test, such as grades achieved at GCSE, and these have the advantage of being easy to understand. Two commonly used measures of a school's average attainment are the number of pupils who achieve five or more GCSEs at grade C or better, and the total points score. In the former no notice is taken of what the GCSE subjects are. In the latter each grade achieved is awarded a number of points and so is affected by the total number of GCSEs taken in a school. More recently, equivalent grades and point scores have been attached to GNVQ qualifications taken at age 16 but the equivalence to GCSE is an area of some controversy. There are thus limitations in these *raw score* measures when it comes to comparing achievement between pupils, between cohorts of pupils and between schools. The value-added approach seeks to provide a measure of the underlying quality of individual pupil achievement across a range of academic subjects.

A value-added score provides a fair comparison because it compares like with like in relation to a measure of prior achievement or ability. In the YELLIS project, pupils take a baseline test in Year 10, from which their likely achievement at GCSE is predicted. Then, for each subject, the amount by which they do better or worse than predicted is recorded as their value-added score. For primary schools we focused on the PIPS Year 4 tests of reading and mathematics as the outcomes and used our measures of developed ability (vocabulary and non-verbal ability) as the predictors.

### *Calculation of value-added scores: secondary schools*

The CEM Centre holds data on value-added scores in individual subjects for 517 schools for the continuous six-year period 2000-2005. These 517 schools are broadly

representative of secondary schools across the country. The value-added scores were measured for each pupil in each subject and standardised. They were then aggregated to give a score for each subject and a weighted average was calculated according to the number of pupils who took each subject. This composite value-added score represents the whole school performance and is used in this study.

#### *Calculation of value-added scores:*

##### *primary schools*

The CEM Centre holds value-added scores in mathematics and reading for 686 schools for the continuous six-year period 2000-2005. These 686 schools are broadly representative of primary schools across the country. Following the secondary school procedure the scores were manipulated to give a value-added score to represent the whole school.

##### *Cohort size and reliability*

Some primary schools are small and this means that their value-added measures fluctuate notably from year to year. We have corrected for this by using a shrinkage procedure. This applies only to schools with small numbers in a cohort and further details are available in the Appendix 2. In the primary data some schools were too small to study, even with the correction procedure in place, and had to be dropped. About 100 primary schools with fewer than 16 pupils in their Year 4 cohorts fell into this category. No schools were lost from the secondary schools for such reasons.

##### *Measurement of attitudes*

Attitude was measured by asking the pupils a range of questions about how they felt about aspects of school, and their responses were recorded on a Likert scale. They were averaged to give a single attitude score. The questions used have been developed over time and, through inter-

views and other research, have been established as valid; that is, they do measure what they purport to measure. Attitude measurements should also be reliable; that is, reproducible on a second occasion. So an attitude score is based on what pupils reported at the time of taking the test and their perceptions of their school experience may, and probably do, vary over time.

#### Statistical analysis

##### *Changes of headteachers*

The DfES provided data on all headteachers in England currently in post. However, the department does not archive data from previous years. This information was obtained from past editions of the School Government Publishing Company's Primary and Secondary Schools Directory.

These data were not always complete, and we found some inconsistencies between current DfES school reference numbers and those used in the past. Where we could not be sure we had valid data on the headship of a school for the past six years, we did not include the school in the final datasets for statistical analysis. This left a dataset of 440 records for secondary schools and 557 records for primary schools.

Summary data on the changes in headteacher are shown in the tables below. The year refers to the end of a school year to be consistent with the academic performance data. We cannot be certain at which point during a school year a new headteacher was actually appointed, although it is likely to have been from the previous September. Thus, for example, a change recorded in the table as 2002, means a new headteacher was in post at the end of the 2001-02 school year.

The percentages are with respect to the 440 secondary schools records in the file. In 214 schools, or 48.6 per cent, there was no change in headteacher.

**Table 2.1: Secondary Schools**

Year	2000	2001	2002	2003	2004	2005	Total
N° of changes	35	27	40	43	52	29	226
%	8.0	6.1	9.1	9.8	11.8	6.6	51.4

- On average, about 8.5 per cent of secondary schools change their headteacher each year.
- There were 26 secondary schools where the headteacher changed twice and it is notable that some appointments only lasted for one year.

The percentages below are with respect to the 557 primary school records in the file. In 316 schools, or 56.7 per cent, there was no change in headteacher.

**Table 2.2: Primary Schools**

Year	2000	2001	2002	2003	2004	2005	Total
N° of changes	83	24	25	46	22	41	241
%	14.9	4.3	4.5	8.3	3.9	7.4	43.3

- On average, about 7.2 per cent of primary schools change headteacher each year.
- There were 52 primary schools where the headteacher changed twice and three primary schools in which the headteacher changed three times. Again it is notable that some appointments only lasted for one year.

*The impact of new headteachers appointed in 2003*

For an initial investigation into the impact of a newly appointed headteacher, 2003 provided an appropriate year in that we had three years of results before then, and three after. A headteacher recorded as appointed in 2003 would have probably

been in post since September 2002, and so might be expected to influence the 2003 results.

In comparing the performance and attitude data before and after 2003, we consider only those schools where a new headteacher was appointed for 2003 and there was no later appointment. This gave 37 schools for both the secondary and primary levels.

The table below shows the mean values and the standard deviations for the value-added and attitude scores before and after 2003.<sup>1</sup>

**Table 2.3**

**Secondary schools**

- A: Value-added before 2003
- B: Value-added after 2003
- C: Attitude before 2003
- D: Attitude after 2003

	A	B	C	D
Mean	0.06	-0.03	3.46	3.40
Standard deviation	0.10	0.12	0.09	0.10

**Primary schools**

	A	B	C	D
Mean	-0.24	-0.62	2.54	2.57
Standard deviation	2.79	2.60	0.14	0.16

For both value-added and attitude, the scoring system is different for primary and secondary schools, but we need only focus on the changes in the values. If the newly-appointed headteacher was having a *notable* impact we would expect to see a significant rise in the mean values across the 37 schools for both value-added scores and attitudes scores. This is not the case. Similarly the standard deviations hardly change indicating similar

1. The terms mean and standard deviation are explained in Appendix B

levels of variation before and after the appointment, although this should be qualified by noting it is only based on three years of data. We investigated these findings further using a statistical test (paired sample *t* test) to see if any statistically significant differences were indicated. For secondary schools, the change in the mean for both value-added and attitude was significantly lower ( $P < 0.05$ ).

However, the average results presented in the table do disguise the variation in the data, and it is interesting to look at this in more depth.

For secondary schools, the mean value-added score actually decreased after 2003 for 32 of the 37 schools, and notably so for sixteen schools, where on the basis of a statistical model we would expect six schools to do so.<sup>2</sup> Similarly where we would expect six schools to make a notable increase in mean value-added, only two schools of these 37 did so. A similar pattern is seen in the attitude data, where the mean value actually decreased for 27 of the schools, but only notably so for eight of the schools. There were only two increases of similar magnitude.

For primary schools, the mean value-added score decreased for 21 of the 37 schools and notably for eight schools. Similarly four schools showed a notable increase. For the attitude data, the mean value decreases in fifteen of the schools and notably so for four schools with notable increases in seven of the schools.

Thus for both primary and secondary schools, although there was some positive or negative change following the appointment of a new headteacher, in general the trend was downwards.

This preliminary analysis has been somewhat simplistic in being based only on the schools where the headteacher changed in 2003, and comparing results before and after, with nothing conclusive arising from it. We thus continue the

investigation exploring the data in more detail.

#### *Data over all six years: correlations and scatter plots*

The tables below show the correlations for the value-added scores year on year and between years for the 440 record secondary file and 557 record primary file.

**Table 2.4: Correlations over one year for value-added**

	2000-01	2001-02	2002-03	2003-04	2004-05
Secondary	0.84	0.83	0.84	0.83	0.87
Primary	0.35	0.31	0.35	0.31	0.33

**Table 2.5: Correlations over several years for value-added**

	2000-02	2000-03	2000-04	2000-05
Secondary	0.80	0.77	0.76	0.75
Primary	0.33	0.34	0.30	0.19

The year-on-year correlations for the secondary schools are more or less constant at a little over 0.8. This indicates a strong relationship in the value-added scores from one year to the next, and this is reinforced by similarly strong correlations between the scores for 2000 and subsequent years. For example the correlation between a school's value-added score in 2005 and 2000 was 0.75. The relationship for primary schools is considerably weaker, typically a little over 0.3.

#### *Scatter plots for value-added; line of best fit and predictability*

In the scatter plots below the much stronger correlation for secondary schools than for the primary schools can be seen. However, we see in the secondary data that

2. The statistical model assumes a bell shaped, or normal distribution, which is supported by the data; a school is said to be notable if its data lies beyond 1 standard deviation from the mean.



some points lie some distance away from the line of best fit, indicating a noticeable change in the value-added for that particular school from 2000 to 2001. It is this variation in value-added from year to year that we aim to link to the change in headship.

Figure 2.1: Secondary schools

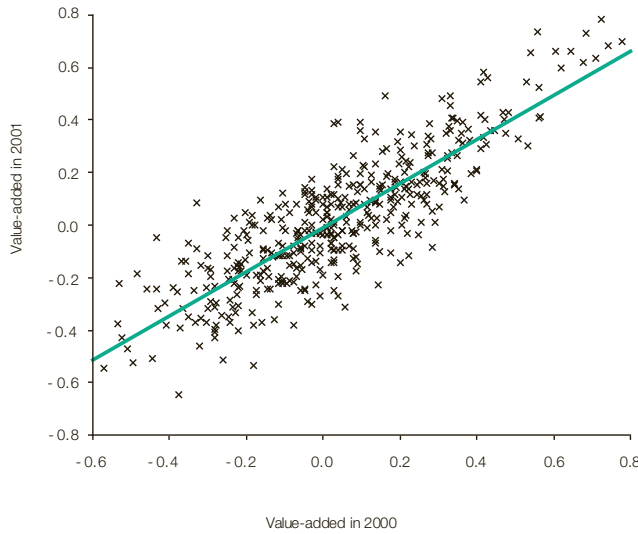
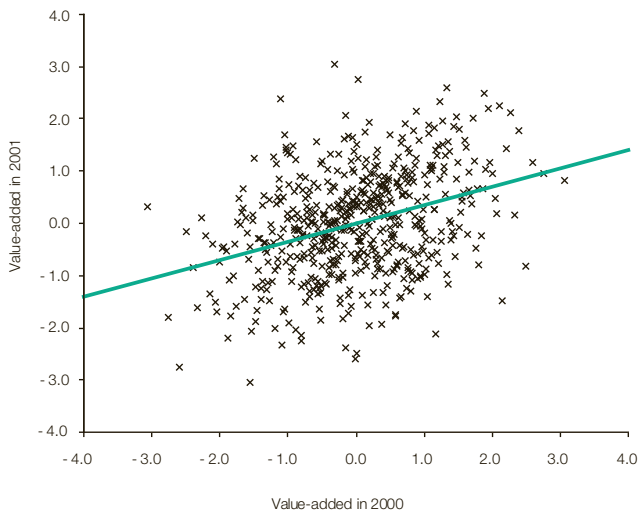


Figure 2.2: Primary schools



The table below shows the correlations for the associated attitude scores.

Table 2.6

**Correlation over one year for attitudes**

A: 2000-01  
 B: 2001-02  
 C: 2002-03  
 D: 2003-04  
 E: 2004-05

	A	B	C	D	E
Secondary	0.64	0.58	0.59	0.52	0.55
Primary	0.40	0.33	0.32	0.36	0.24

**Correlation over several years for attitudes**

	B	C	D	E
Secondary	0.58	0.51	0.41	0.45
Primary	0.27	0.22	0.21	0.12

The correlations for the secondary schools, around 0.6, although weaker when compared to the value-added correlations, are still seen to be stronger than for the primary schools which are around 0.3.

It might be expected that attitude to school would correlate highly with performance. But the table below shows that for the secondary schools the relationship is weak but positive and, interestingly, higher in more recent years.

Table 2.7: Correlations between attitudes and value-added scores

	2000	2001	2002	2003	2004	2005
Secondary	0.31	0.32	0.39	0.38	0.37	0.45
Primary	0.01	0.04	0.07	-0.02	0.10	0.10

For primary schools there is no connection between attitude to school and their value-added measures. This may be because young children are usually enthusiastic and want to please. They may also answer attitude questions in a different way from older children. For example, they may be more influenced by recent events and be less inclined to take a broader perspective. It may also have to do with the different ethos surrounding year 4 and year 10 teaching and the different priorities and culture of primary and secondary schools.

*Why may the correlation for secondary schools be much stronger than for primary schools?*

The secondary cohorts are considerably larger than those of the primary schools, and the value-added is calculated at age 16 (Year 11) across a range of GCSE subjects. These subjects will vary between pupils in the schools, but all will contain the national curriculum subjects of English, mathematics and science. The value-added for the primary schools has been calculated for year 4 pupils, age 8 or 9, based on the two areas of mathematics and reading. Thus we would expect greater consistency in the secondary school correlations. Further, secondary schools are generally much larger than primary schools and so the results are much more stable. This has implications for the power of a headteacher to influence a school. A secondary school is a very large organisation with its own culture and sub-cultures. The correlations show considerable stability from year to year and this suggests that it may be harder for a secondary school headteacher to influence quality across the whole school than a primary school headteacher. On the other hand the results in the primary schools fluctuate mainly because of small numbers. The average Year 4 size was 36 whereas the average Year 11 size was 179.

*Improving and deteriorating schools*

One may hypothesise that the variation in

the quality of headteachers could lead to some schools improving continuously and some deteriorating. The next section explores this possibility.

*Improving and deteriorating secondary schools*

We define an improving school as a school where in four years out of the five the value-added was at least as great as in the previous year. Similarly we define a deteriorating school as one in which the value-added is less than the previous year for four out of the five years. The table below shows the number of schools in each category, together with the number of changes of headteacher in a particular year.

**Table 2.8: Improving/deteriorating secondary schools and when the headteachers changed**

	2000	2001	2002	2003	2004	2005	no change	total
<i>Improving</i>								
5 years	-	-	1	-	-	-	-	1
4 years	2	2	2	2	1	1	12	22
<i>Deteriorating</i>								
5 years	-	-	-	-	1	-	3	4
4 years	3	4	7	8	5	7	40	74

We note that there are more deteriorating schools than improving schools, and we now focus on the improving schools and look further at the changes occurring in the value-added scores for the 23 schools that we identified. The table below details the value-added scores of the improving schools and the years when headteachers changed.

The table shows little evidence of any pattern. The most improving schools were about as likely to have changed their headteacher as not and the years when the headteacher changed were spread evenly over the six years.

**Table 2.9: Value-added scores for improving secondary schools**

School	av size	2000	2001	2002	2003	2004	2005
<i>No change in headteacher</i>							
S1	198	-0.29	-0.24	-0.24	-0.21	-0.12	-0.35
S2	208	-0.36	-0.36	-0.35	-0.12	-0.19	-0.13
S3	36	0.33	0.06	0.41	0.42	0.47	0.52
S4	175	-0.22	-0.18	-0.05	0.01	0.10	-0.14
S5	278	0.00	0.11	0.20	0.12	0.12	0.15
S6	74	0.04	0.20	0.24	0.13	0.14	0.38
S7	52	0.76	0.81	0.83	0.84	1.03	1.02
S8	319	-0.03	0.07	0.07	0.21	0.06	0.17
S9	137	-0.23	-0.18	-0.12	-0.08	-0.07	-0.21
S10	120	-0.41	-0.25	-0.22	-0.30	-0.29	-0.09
S11	547	-0.37	-0.32	-0.31	-0.06	-0.24	-0.16
S12	187	-0.36	-0.19	-0.03	0.22	-0.28	-0.21
<i>Year of change of headteacher indicated by shading</i>							
S13	197	<b>-0.04</b>	0.09	0.00	0.01	0.02	0.09
S14	118	<b>0.21</b>	0.30	0.22	0.29	0.30	0.31
S15	207	0.00	<b>0.02</b>	0.12	0.01	0.06	0.08
S16	74	0.29	<b>0.17</b>	0.21	0.34	0.40	0.72
S17	81	0.69	0.71	<b>0.88</b>	0.68	0.90	0.90
S18	173	-0.24	0.03	<b>0.13</b>	0.16	0.16	0.20
S19	150	-0.07	-0.02	<b>0.02</b>	0.18	0.01	0.06
S20	59	0.61	0.81	0.50	<b>0.55</b>	0.62	0.66
S21	241	0.13	0.17	0.24	<b>0.10</b>	0.14	0.24
S22	28	0.50	0.70	0.72	0.72	<b>0.48</b>	0.81
S23	247	-0.39	-0.26	-0.26	-0.06	-0.17	<b>-0.12</b>

**Table 2.10: Secondary schools with a large increase in value-added**

School	av size	2000	2001	2002	2003	2004	2005
<i>No change in headteacher</i>							
S24	174	-0.45	-0.05	-0.30	-0.21	-0.20	-0.41
S25	296	0.04	0.40	0.11	0.02	0.08	-0.04
S26	160	-0.34	0.09	-0.13	-0.17	-0.36	-0.25
S27	49	0.31	0.43	0.22	0.19	0.62	0.48
S28	92	-0.08	-0.11	-0.24	0.20	-0.01	-0.15
S29	49	-0.31	-0.33	-0.66	-0.25	-0.22	-0.54
S30	125	-0.19	-0.56	-0.43	-0.68	-0.22	-0.27
S31	163	0.38	0.10	0.48	0.50	0.41	0.46
<i>Year of change of headteacher indicated by shading</i>							
S32	99	-0.14	<b>-0.13</b>	-0.22	0.25	-0.05	-0.21
S33	108	0.11	<b>0.24</b>	0.70	0.19	0.37	0.11
S34	106	-0.37	-0.07	<b>-0.50</b>	-0.04	-0.26	-0.02
S35	187	0.03	0.40	0.20	<b>0.11</b>	-0.19	-0.05
S36	206	0.22	0.15	0.27	<b>-0.05</b>	0.61	0.05
S37	157	0.09	-0.18	-0.45	<b>-0.53</b>	-0.15	-0.48

In most cases the improvement in these schools could be described as steady, rather than dramatic, allowing for a decrease in the value-added in one year in five. An increase of 0.25 or more, however, is an exceptional performance and might be expected in about 5 per cent of the schools in a particular year. Increases of this order can be seen in school S3, 2001-02; S6, 2004-05; S11, 2002-03; S16, 2004-05; S17, 2003-04 and S22, 2004-05.

Looking carefully at Table 2.9 *there is no discernible difference between schools where there was a change in headteacher and those where there was not.*

There is considerable variation in the average size of the cohorts in this table, suggesting that size of the cohort is not an important factor in maintaining improvement.

For the deteriorating schools there are again about as many where the headteacher had changed as not and, as noted earlier, there are more deteriorating schools than improving schools. But there is little evidence of any pattern in the data.

#### *Large increases in value-added and sustainability: secondary schools*

We needed first to decide what we meant by a large increase in value-added from one year to the next. We chose to define a large increase as one of 0.35 or more. This was chosen so that only a small proportion of the schools in the dataset satisfied the criterion. This criterion identified 14 schools out of the 440 (about 3 per cent).

Table 2.10 shows the schools in the dataset where there was a year-on-year increase in the value-added score of 0.35 or more.

In the schools where the headteacher did not change, only in S27 and S31 was the improvement sustained in the following years, although this might also be

true of school S30. In the schools where the headteacher did change, S32 shows a marked improvement three years after appointment, which is not sustained, and S33 shows a marked improvement in the second year after appointment, which can be argued as sustained. In S34 the large increase two years after appointment was not sustained. In S35 the large improvement was made before a change in headteacher, whereas in schools S36 and S37 the large increase occurs two years after appointment but is not sustained.

These fourteen schools were selected on the basis of a large change in the value-added score between two consecutive years. On less strict criteria we found many more schools showing a consecutive year-on-year improvement, but *we could still not discern any pattern in those schools where a new headteacher had been appointed.*

#### *Improving and deteriorating primary schools*

We pursued the concept of improving and deteriorating schools in the same way as for secondary schools. Thus we defined an improving school as a school where in four years out of five, the value-added was at least as great as in the previous year. Similarly we defined a deteriorating school as one in which the value-added was less than the previous year for four out of the five years in which a change took place.

Table 2.11 shows the number of schools in each category, together with the number of changes of headteacher in a particular year. The numbers in brackets refer to a second change in headteacher within the six-year period.

The numbers of improving and deteriorating primary schools are similar, as is the number of times the headteacher changed in each category. We again focus on the improving schools and look fur-

**Table 2.11: Improving/deteriorating primary schools and when the headteacher changed**

	2000	2001	2002	2003	2004	2005	no change	Total
<i>Improving</i>								
5 years	-	-	-	-	-	-	-	0
4 years	9	3	1	3 (4)	3 (1)	2	27	48
<i>Deteriorating</i>								
5 years							1	
4 years	6	3 (1)	1	5 (3)	4 (1)	5 (2)	20	45

**Table 2.12: Improving primary schools with no change in headteacher**

School	av size	2000	2001	2002	2003	2004	2005
<i>No change in headteacher</i>							
P1	30	-3.33	-0.70	0.54	1.05	2.34	-0.52
P2	41	-2.48	0.24	-2.71	-0.35	3.35	3.52
P3	105	-7.70	-2.54	-1.00	-0.21	-5.02	-1.08
P4	24	-0.91	1.21	4.19	-3.02	1.76	2.57
P5	21	-8.23	-4.22	-2.96	9.04	-7.26	-5.94
P6	28	-2.87	1.10	-1.05	0.38	2.20	2.50
P7	39	2.97	3.82	4.22	0.82	4.63	5.57
P8	31	-2.99	-0.92	0.99	5.27	-0.39	1.34
P9	31	-3.81	2.51	-5.33	-3.48	-2.75	3.90
P10	43	-4.50	-3.01	-2.20	3.42	-0.53	-0.26
P11	23	1.91	3.91	-3.61	-3.10	-0.87	1.50
P12	36	-3.18	-2.21	0.58	-0.89	1.85	1.91
P13	28	-5.01	0.10	2.47	5.03	0.94	2.71
P14	29	-1.34	0.40	4.40	4.83	3.59	3.97
P15	29	-3.01	1.32	5.36	-1.03	-0.55	3.83
P16	35	-2.73	-2.07	4.55	-3.87	2.20	3.32
P17	28	-0.06	1.66	5.91	8.06	3.16	5.74
P18	35	-5.42	-1.41	-0.09	0.43	1.53	-1.46
P19	24	-3.12	1.02	1.04	3.52	5.01	-2.66
P20	19	-8.96	-1.93	2.32	-7.22	-4.90	0.44
P21	38	-1.96	-0.98	4.18	-2.24	1.14	1.43
P22	28	-0.94	-0.46	2.37	3.94	-0.64	3.26
P23	40	-2.35	-0.34	0.38	5.60	-0.26	1.33
P24	21	-0.07	2.16	3.33	4.78	-0.83	1.37
P25	29	2.08	2.38	7.02	8.63	1.84	4.63
P26	19	-5.71	-5.04	-4.72	2.79	-1.50	-1.11
P27	28	-5.72	-4.72	-2.20	0.92	-2.30	-0.52

ther at the changes occurring in the value-added scores for the 48 schools that we identified.

**Table 2.13: Improving primary schools with a change in headteacher**

School	av size	2000	2001	2002	2003	2004	2005
<i>Year of change of headteacher indicated by shading</i>							
P28	27	<b>2.74</b>	-5.36	-2.63	-0.07	0.32	1.79
P29	27	<b>-0.24</b>	1.39	5.15	-0.82	0.09	11.22
P30	63	<b>-0.75</b>	-0.35	0.53	1.65	2.16	1.42
P31	16	<b>-1.77</b>	-1.53	0.03	2.14	-1.44	2.17
P32	31	<b>-0.76</b>	7.21	1.04	1.97	3.98	4.98
P33	23	<b>-8.62</b>	-1.72	-0.52	-0.35	-2.62	7.26
P34	31	<b>2.59</b>	3.32	-2.38	0.15	0.72	6.30
P35	41	<b>-7.43</b>	-5.67	-3.59	<b>-0.20</b>	0.10	-5.77
P36	46	<b>-2.64</b>	-1.65	3.33	<b>4.87</b>	4.62	5.92
P37	20	-0.09	<b>-11.26</b>	-6.92	-4.74	0.79	1.83
P38	38	-2.98	<b>3.58</b>	2.42	<b>6.32</b>	6.53	7.02
P39	38	-0.07	<b>6.60</b>	9.71	<b>-5.40</b>	-1.18	-1.01
P40	59	0.55	2.82	<b>5.57</b>	-2.38	-0.61	1.99
P41	34	-4.20	-2.65	-7.30	<b>-2.53</b>	1.37	1.43
P42	30	-1.13	0.40	1.21	<b>-4.48</b>	-3.47	-2.73
P43	39	-5.99	-1.70	-0.30	<b>1.11</b>	<b>-5.41</b>	1.51
P44	43	-3.37	-1.43	-1.12	-1.30	<b>0.96</b>	8.54
P45	30	-5.70	-1.27	4.27	-2.09	<b>-0.97</b>	5.37
P46	39	0.09	1.59	-3.29	-2.76	<b>-1.67</b>	-0.34
P47	54	2.24	4.61	2.43	2.51	4.69	<b>6.53</b>
P48	49	-5.59	-4.39	-2.19	-2.40	1.77	<b>5.42</b>

**Table 2.14: Primary schools with a large gain in value-added in one year**

school	av size	2000	2001	2002	2003	2004	2005
<i>No change in headteacher</i>							
P49	36	-2.81	1.78	-3.75	-3.93	-10.59	14.98
P50	22	-20.69	1.19	-2.43	-8.47	-3.02	13.05
P51	46	-10.06	-11.53	-10.18	-18.54	0.24	2.56
P52	23	-3.69	0.39	-6.10	5.68	-4.76	-4.51
P53	24	-3.19	-1.11	0.31	-3.53	8.57	-2.35
P54	55	6.45	2.24	7.40	-12.48	5.74	6.96
P55	22	1.72	-3.95	-8.05	3.51	-0.95	-0.95
P56	16	1.71	0.72	-13.13	-1.21	-2.23	-4.04
P57	27	-4.03	10.06	-1.05	1.22	-0.30	-3.32
P58	19	2.06	3.95	-8.92	2.75	0.39	-2.30
<i>Year of change of headteacher indicated by shading</i>							
P59	30	<b>4.30</b>	-7.48	4.40	6.78	4.68	-1.42
P60	30	<b>-0.41</b>	-5.08	6.83	0.07	4.01	4.09
P61	39	<b>2.38</b>	<b>2.57</b>	3.26	-4.54	7.29	-0.79
P62	22	<b>-6.91</b>	<b>-5.76</b>	9.45	<b>0.79</b>	-3.85	-6.29
P63	33	-1.16	<b>11.51</b>	4.60	1.96	0.07	-5.57
P64	28	-0.11	<b>-9.94</b>	1.09	<b>-3.12</b>	0.24	-3.43
P65	31	3.95	-2.09	<b>10.03</b>	2.77	1.13	0.69
P66	33	2.94	-3.10	<b>10.39</b>	8.67	4.64	<b>-3.84</b>
P67	28	-5.52	-13.74	<b>-2.31</b>	-3.83	2.39	<b>-2.59</b>

Most of the scores in Table 2.12 show a steady increase over the six years, allowing for a decrease in any one year. However, some of the scores and changes are quite dramatic, although it should be recalled that primary schools have mostly small cohorts and these scores are based on mathematics and reading only. A score of 7 or more would be exceptional and expected in about 5 per cent of the schools in any one year; similarly for a score of  $-7$  or less and some of these scores illustrate this level of variation. For example, school P5 shows a large improvement in 2003, only for it to fall away again; P9 loses the improvement seen in 2001 in 2002 before rebuilding it. Similarly P20 shows improvement in 2001 and 2002, only to lose it again in 2003. In Table 2.12 there was no change in headteacher.

Table 2.13 is again of the improving schools, but for those where there was a change in headteacher. We can pick out similar examples to those in the above table. In school P28, in the year following appointment the value-added drops before gradually being rebuilt. In P29, there is a dramatic improvement in 2005 after six years in post. In P32 there is a large improvement in the second year of appointment in 2001, which then slips before being rebuilt. In P33, the newly appointed headteacher in 2000 has seen the value-added grow by nearly 16 points up to 2005. In P37, the newly appointed headteacher in 2001 first saw a dramatic decrease before it is gradually increased. In P39, the gains made under the new headteacher in 2001 are not sustained by the next new headteacher in 2003. In P44 there is a substantial increase in 2005, following the appointment of a new headteacher in 2004.

As with secondary schools *we could find no indication that the schools where a new headteacher was appointed were different from those that had a stable headship.*

*Large increases in value-added and sustainability: primary schools*

Similarly to secondary schools, we needed to select a value to define a large increase in value-added from one year to the next. For the primary school value-added scores this change was taken as 11, which resulted in 19 schools out of the 557 being selected, or about 3 per cent. Table 2.14 shows the schools in the dataset where there was a year-on-year increase in the value-added of at least 11.

Most of these schools show dramatic changes in the value-added. For example, school P49 between 2003 and 2005, and P50 between 2000 and 2001, and again between 2004 and 2005. For P54, 2003 looks to be an anomalous year, and similarly 2002 for P56, whereas P57 had a good year in 2001.

In P59 and P60 we see the value-added fall after appointment of a new headteacher in 2001, but this then recovers. This is seen similarly in P62, where the year after the new headteacher arrived in 2001 the value-added increased, only to be lost again with the arrival of the next headteacher in 2004. The other schools also show large increases which are not sustained.

In primary schools, for the value-added to be substantially positive, both the mathematics scores and reading scores need to be good, and in relatively small cohorts this is difficult to sustain. Thus the large swings in the primary school scores. These occur irrespective of whether there is a new headteacher in post or not.

*We could discern no tangible difference between those schools where the headteacher changed and those where there was no change.*

We return now to the use of scatter plots as another way of investigating the impact of a newly appointed headteacher.

*Predicting value-added and links to a new headteacher*

The analyses reported so far indicate no clear pattern of impact associated with the appointment of a new headteacher. In order to investigate further whether any such pattern can be discerned we started by predicting the latest set of value-added scores from the schools' results in previous years. Then the predicted values are compared with the actual values achieved in 2005, using scatter plots.

This analysis was restricted to schools where there had only been one change in headteacher so that the comparison is between schools where there was no change and those where there was one change.

For secondary schools this results in a data file of 414 records; 200 schools with one change of headteacher and 214 schools with no change. For primary schools this results in a data file of 502 records; 186 schools with one change of headteacher and 316 schools with no change.

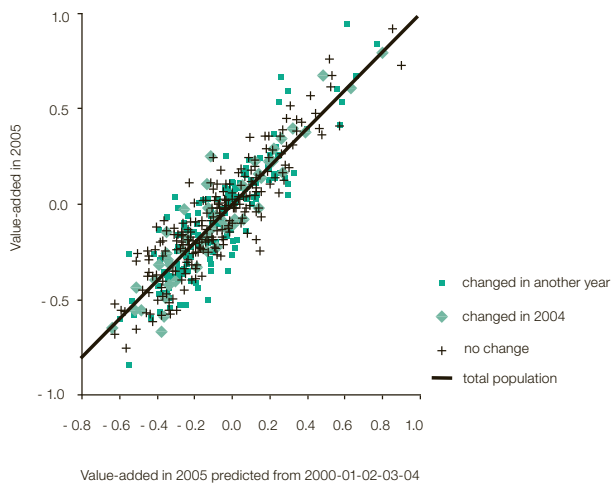
It would be expected that, on average, schools that did particularly well in one year would slip in a following year, and those doing particularly poorly would increase their value-added in a subsequent year. This phenomenon is known as regression to the mean and further details of the analyses are given in Appendix B.

*Scatter plots for secondary schools*

The scatter plot below shows the actual value-added scores in 2005 on the vertical axis, plotted against the predicted values on the horizontal axis. In this scatter plot the predicted values have been calculated from the previous five years of 2000 to 2004.

A line of best fit is drawn through the data. The plotted points are shown in three categories; schools where there was

Figure 2.3



a change of headteacher in 2004 (indicated by a diamond), schools where there was a change of headteacher in another year (indicated by a box), and schools where there was no change of headteacher (indicated by a black cross). The headteachers of the schools highlighted by a diamond have had two years in which to make an impact.

*Interpretation of the scatter plots*

If a school is doing well and consistently achieves high value-added scores it would appear in the top right-hand corner of the graph near to the line, where a high value-added score is both predicted and achieved. Our hypothesis is that a new headteacher is unlikely to be as good as a spectacularly good headteacher and so the highlighted schools in the top right-hand corner of the graph should be below the line. *There is no evidence to support this hypothesis.*

The hypothesis might be stated in reverse in the bottom left-hand corner of the graph where a new headteacher is in a school where previous value-added scores have been low and thus the predicted value for 2005 will be low. If a new headteacher

is having an impact, we would expect to see the actual score in 2005 to be higher than the predicted score, and there should be a tendency for the highlighted schools in the bottom left hand corner to be above the line. *Again there is no evidence to support this hypothesis.*

However, it might be that the scatter plot above does not support the hypothesis because the new headteacher did not have enough time to exert an influence and so we continue this analysis by looking at the scatter plots between the actual value-added scores in 2005, and the predicted scores from earlier years from when a new headteacher was appointed.

In Figure 2.4 the value-added in 2005 has been plotted against its predicted value from the value-added in 2000-03. Schools where the headteacher changed in 2003 have been highlighted. The graph shows similar characteristics to the previous one. The next three scatter plots also exhibit this characteristic, although the farther back from 2005 we go, the greater the scatter in the graph.

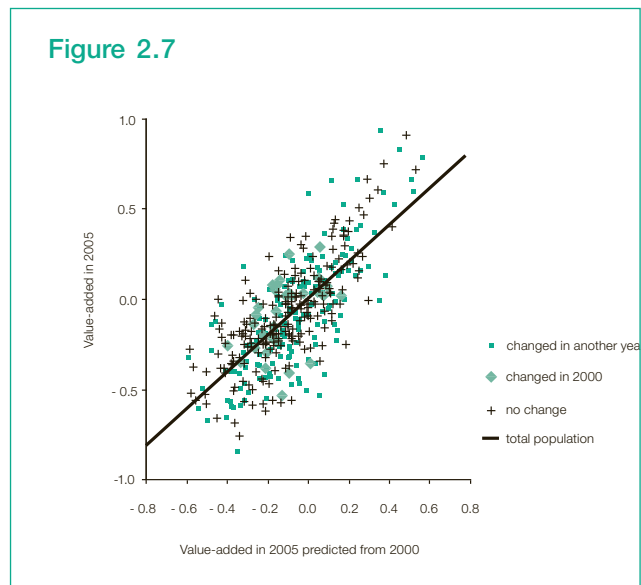
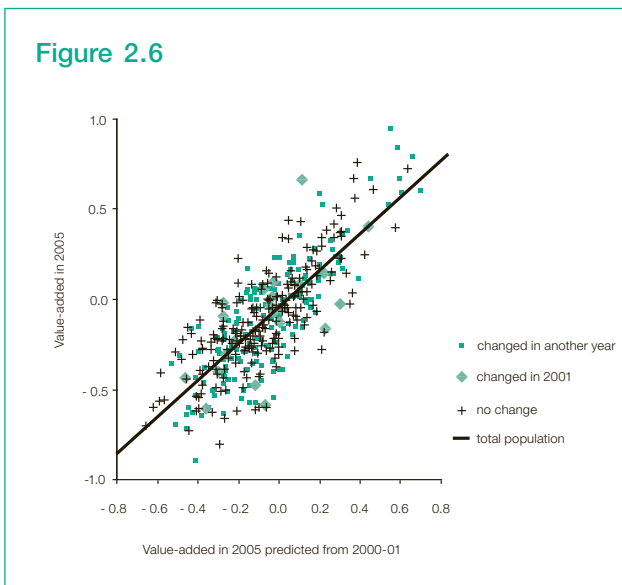
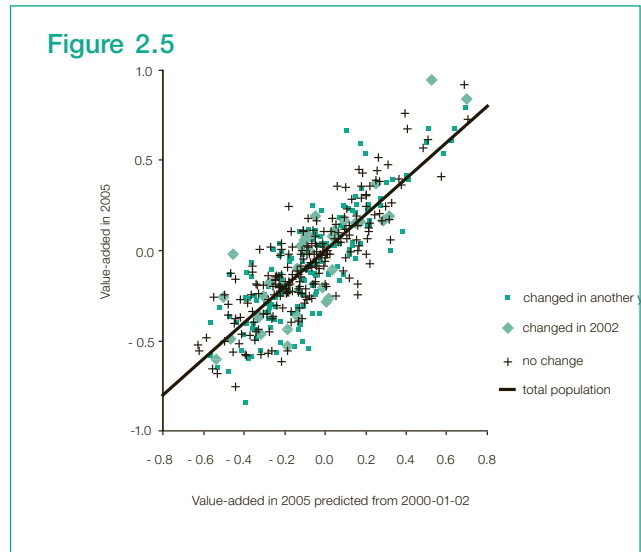
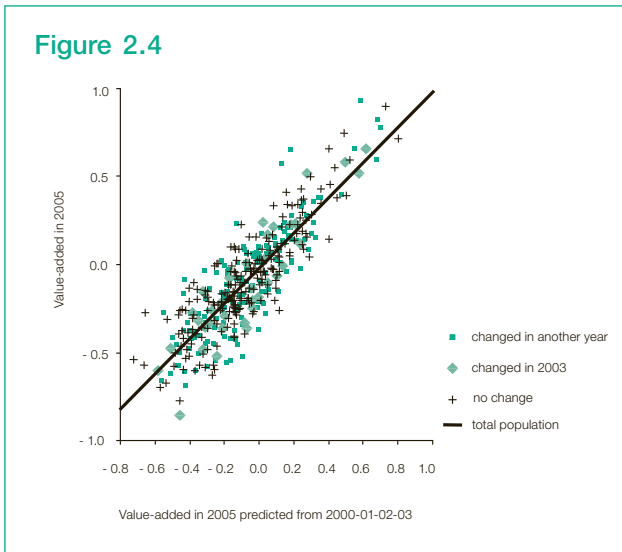
Since a straight line may not be the best fit for a line through the data, Figure 2.8 shows a curve fitted through the scatter plot for the previous graph.

This indicates that schools with high value-added are more stable than schools with low value-added scores but it makes no difference to the conclusions reached so far.

It may be that new headteachers made a difference to their schools value-added scores, but we have been unable to detect clear statistical evidence of this over the six-year time period of this study.

*Scatter plots for primary schools*

The equivalent set of scatter plots for primary schools is given in Figures 2.9 to 2.13. We noted earlier that there is less consistency in the primary school data compared to the secondary school and this is seen in the scatter plots.



*Interpretation of the scatter plots*

In all the scatter plots for the primary school data, the highlighted schools are seen to appear both above and below the line of best fit, with no particular pattern. Contrary to the hypothesis that headteachers in primary schools may be more influential over the value-added scores of their school because they are smaller, there is no indication that the newly-appointed headteachers had an impact on the value-added scores in a period up to five years.

*Analysis of the attitude data*

We carried out an equivalent analysis for

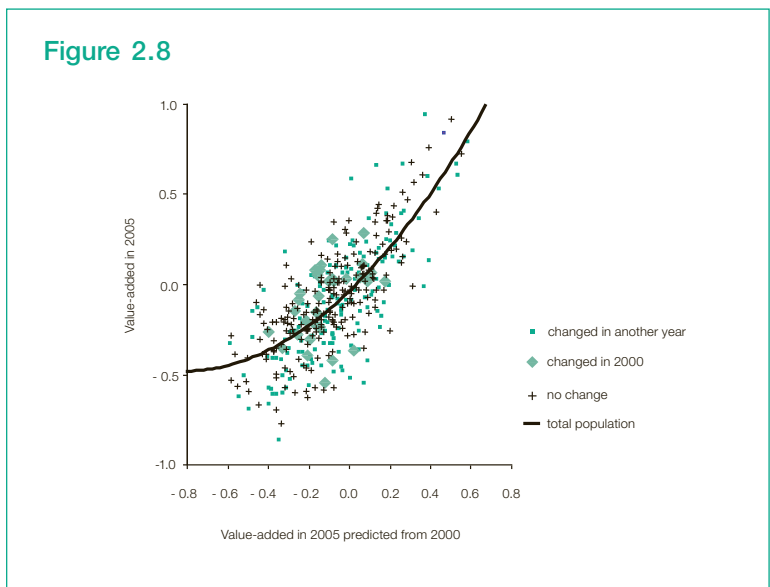




Figure 2.9

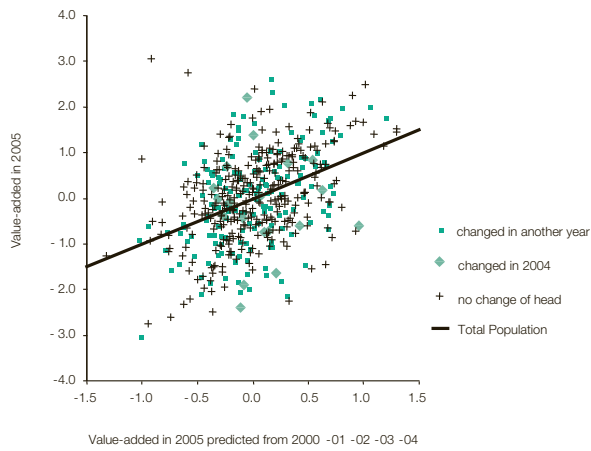


Figure 2.10

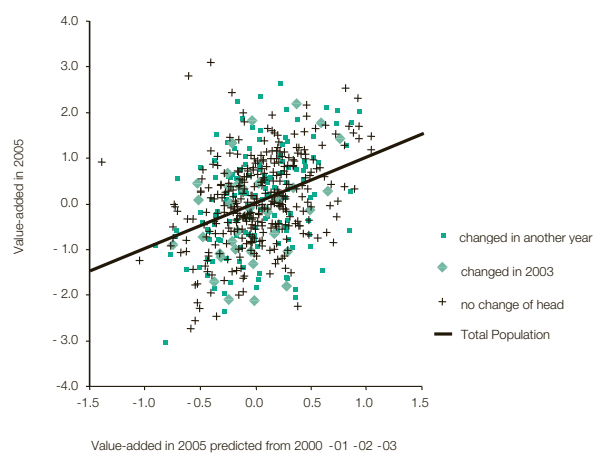


Figure 2.11

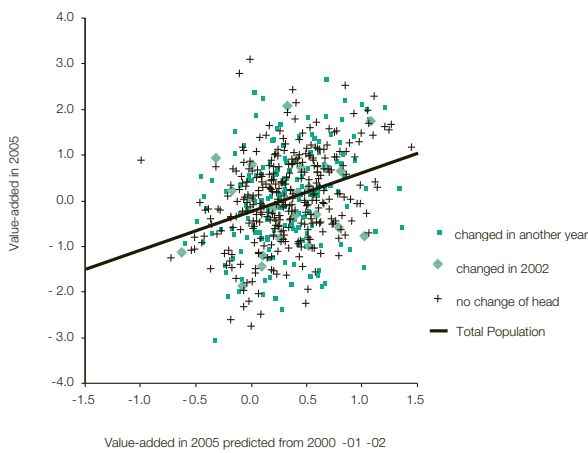


Figure 2.12

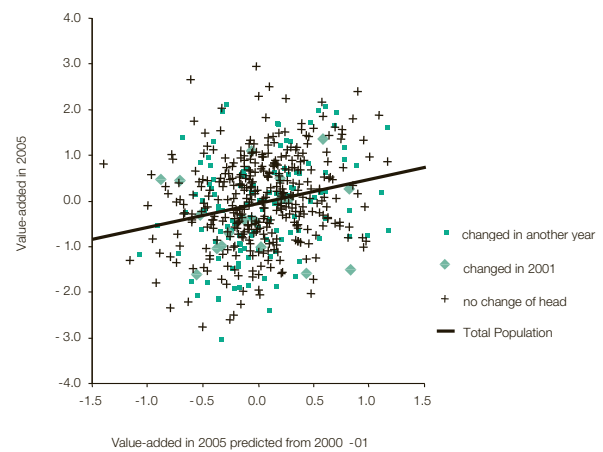
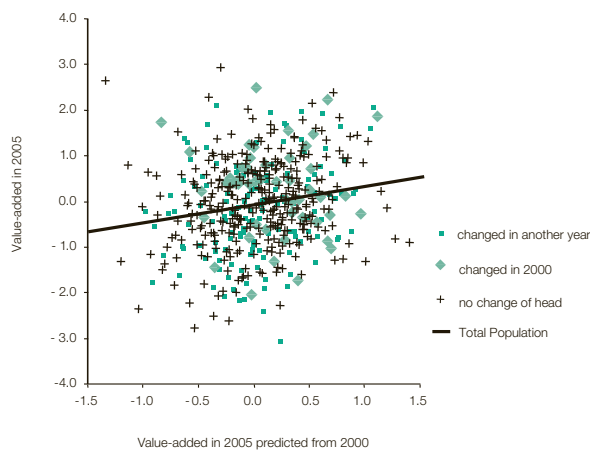


Figure 2.13



attitude. This analysis follows very similar patterns to the value-added analyses and reaches the same conclusion: there is no indication that the newly-appointed headteachers had an impact on the attitude scores. The analysis of the attitude data is in Appendix A.

Interpreting the statistical analysis  
There is no evidence that the appointment of a new headteacher is followed by the raising of value-added or attitude scores in either the primary or secondary schools in this study.

There is greater stability, and thus predictability, in the secondary schools than in the primary schools. This can be attributed to larger cohorts and the inclusion of a greater range of academic subjects in the calculation of the value-added score.

What happens in a particular school would seem to be due to the circumstances of that school. Many factors come into play, among which the teaching staff is perhaps the most important. The capacity of the headteacher to influence the value-added scores, and thus the quality of learning in a school, appears to be minimal and is certainly not something that can be changed in the short term.

#### Interviews with headteachers

We interviewed headteachers from schools where value-added scores had been improving, including schools where there had been a change of headteacher and those where there had not. We also interviewed headteachers from schools where there had been no significant change in the value-added score over the six years of this study. These schools were selected from the statistical analysis in the previous section of this report. About one third of the headteachers who were invited agreed to be interviewed. This resulted in interviews with headteachers of eight secondary schools and four primary schools.

All the interviews were carried out on the telephone, notes were taken and the interviews transcribed. The analyses reported below followed detailed reading and categorisation, and checks on the accuracy of a sample of the records. In the interviews we conducted with headteachers we could not discern any real differences in opinion between those schools we had identified as improving and which had had a new headteacher

within the last five years, and those where there was no change of headteacher. The same was true for those schools where there was no apparent improvement and the value-added was essentially stable. We therefore report the results without differentiation. However, headteachers of the primary schools and secondary schools did have different perspectives and they are separated below.

#### *Interviews with secondary school headteachers*

We report on the interviews with respect to:

- The headteacher's explanation of their school's recent performance at GCSE
- The headteacher's interventions to raise performance
- The headteacher's views on national policy

#### *The headteacher's explanation of their school's recent performance at GCSE*

Headteachers gave the following reasons for recent improvement in their schools' value-added scores:

*"There was a corporate lack of confidence in the school and so staff were trained in the proper use of the YELLIS data, (setting targets, monitoring performance), and the improvement has been very much data driven."*

*"The school had a small sixth form, which was discontinued to allow the teachers to focus on the 11-16 pupils. In the following year the school had its best ever GCSE results."*

*"We established sound Key Stage 3 results first, achieving 60 per cent to 80 per cent of pupils at levels 5, 6 or 7. Performance at GCSE was built upon this; for example we achieved 70 per cent of the pupils with a maths grade of A to C this year. However, if we now raise this target it will be much harder to achieve."*

*“We introduced an ‘alternative curriculum’ that is vocationally based so that all pupils could experience some success. This raised the pupils’ self esteem and had a spin-off into the GCSE subjects they were studying, particularly mathematics and English. These were enhanced by revision classes and extra resources such as the London Challenge. There was also practice in examinations in mathematics and English. Pupils developed positive attitudes, which together with target setting and monitoring led to the increase in value-added performance.”*

This headteacher noted a “buzz of success” in his school and a “feel good factor” which were accompanied by a rise in good behaviour.

*“The key point was keeping the focus on the whole school and the leadership team speaking with one voice. Successful transmission of that voice to the teaching staff led to the increase in value-added . . . how the leadership team speak with one voice and how that transmits to the staff is a vital ingredient in adding value. Teacher performance management was introduced and all teachers were aware of individual pupil’s targets.”*

The headteacher in this school mentioned the salary threshold as an incentive to staff to help pupils to achieve their targets. He noted a rise in the GCSE grade A to C pass rate together with a rise in the value-added scores as measured by YELLIS.

Another headteacher made a similar point about giving strategic direction and ensuring that a consistent message went out to the staff about the intention and implementation of the strategy. However, he did not impose the strategy in detail but encouraged diverse leadership, leaving it to his middle managers to interpret and implement the strategy. He emphasised the importance of his staff and fitting a school structure around them, “it’s about the people and the way you adapt

the structure in order to raise standards.”

One headteacher explained how he had been appointed to bring about change in a failing inner-city comprehensive school. His task was to change the culture of acceptance among the teachers and governors of a low A to C pass rate at GCSE. He had to convince them that it was both necessary and possible to change the culture within the school. The chair of governors told him: “I run the school and you do what I say”. After some confrontation, this individual now supports the headteacher. A deputy head and some teachers who were also sceptical of change were “dealt with”. This headteacher was emphatic that change comes from within a school and not the outside. He made four points about changing culture as a means to raising achievement:

- *“In the first 12 to 24 months you have got to be incredibly strong.”*
- *“You have got to be very clearly focused on what needs doing.”*
- *“You have got to stick at it and make sure you get there.”*
- *“Sceptical staff will come on board when they start to see some success.”*

After five years of sticking to his principles, he believes that he now has a settled and competent staff who support him. The percentage of five grade A to C passes at GCSE increased over that time.

All the headteachers mentioned the need to get the right mix of teachers for their school. One commented: “I think teachers have all the tools that they need. I think it’s getting the blend right in your situation that is the big problem.”

#### *The headteachers’ interventions to raise performance*

A range of interventions were used in an effort to raise performance.

One suggested that, as an essential pre-

cursor, schools should “introduce a uniform, insist it is worn, and generally impose discipline standards and raise the level of pupil behaviour, involving parents as necessary.”

Tracking each pupil’s performance was a common theme. One headteacher gave further detail:

*“Staff were trained by the LEA in 2001 in target setting and target getting; i.e. using data to set realistic targets and monitoring progress towards them so that action could be taken as necessary to achieve them. This training was recently repeated.”*

His staff had come to accept using numbers and statistics with the aim of improving standards. This year he noted that 65 per cent of his Year 11 pupils agreed positively with the attitude questionnaire statement, “I really like school.”

The headteacher who introduced an alternative vocationally-based curriculum had carried out an initial trial with about 15 pupils. The success of this trial led him to open out this initiative to all his Year 10 and 11 pupils.

The headteacher from an independent school had observed that girls were much better at personal organisation than boys, so he intervened with a planner/diary scheme to help the pupils to manage their homework. This resulted in an increase in value-added for both boys and girls and gender gap was narrowed. He also pointed out that his school did not have a conventional form tutor structure but instead each pupil had a personal tutor and met regularly with his or her tutor on a one-to-one basis. At these meetings any issues were discussed, taking as long as necessary to resolve them and agree a way forward. A reward system was also introduced, again aimed particularly at middling performance boys, covering a whole range of

school activities, not just academic lessons. For many boys, who believed they could not do school work, this had had a positive effect and they now made more effort. The headteacher thought that together these initiatives had resulted in an increase of a grade at GCSE for many pupils. And although it might not be possible to replicate his interventions in a state school, he believed that raising pupil self-esteem was paramount to success, a view shared by other headteachers.

At the inner-city comprehensive school, the headteacher focused on three aspects of his initial interventions:

- He took the leadership team for a residential weekend to a “nice hotel”, where they carried out a needs analysis for the school, and agreed a development plan with targets and dates for implementing action. By working together, everyone signed up to it, although there were some exceptions who were “dealt with”.
- Absenteeism in the afternoons was a big problem. He identified this as resulting from the Year 11 privilege of being allowed to leave the school premises at lunchtime; family members and friends would go with them and pupils did not return. He stopped this and “sealed the school down”. Pupils must now sign out and are allowed to do so only for good reason, such as a medical appointment.
- He encouraged discussion about the school culture and what the school was there for. This was to challenge an existing culture among staff of cliques and rumours in which teachers watched their backs and were careful not to upset certain people. This produced a much more positive atmosphere, making staff believe that change was possible, and a rise in pupil achievement followed.

He added, “it’s about being the leader, it’s about winning hearts and minds, and it’s about people.” Now that his middle management team had accepted a lot of the leadership and management responsibility he could relinquish this, as was “absolutely right and proper”.

*Headteachers’ views on national policy*

The headteachers were asked what changes would help them to improve performance in their schools. Most responded by criticising how that performance is measured.

“ One headteacher said those who had been awarded honours for outstanding good performance should now hand them back ”

There was a consensus of concern about how school performance has been measured and will be measured in the future. The five GCSE passes at grades A to C was open to manipulation: a school’s performance could appear very different when mathematics and English were to be included in the five GCSEs. One headteacher noted that his current 63 per cent A to C would drop to 52 per cent if mathematics and English had been included. Another cited a more dramatic drop from 75 per cent to 45 per cent. He pointed out the stress that this change would impose on mathematics and English teachers, since the results of individual teachers could dramatically affect the perception of the performance of the whole school. The equivalence of vocational qualifications to academic GCSE subjects imposed by the DfES, and also the variation in difficulty of GCSE subjects, provided other ways in which a school could improve its standing in league tables. One headteacher said that it was easy to take time from the national curriculum subjects and allocate it to other

curriculum areas to enhance results. Another highlighted the introduction of contextualised value-added (CVA) as a quick fix. CVA is based on a complex formula that takes into account an individual pupil’s personal circumstances, such as ethnic origin and qualification for free school meals, in calculating value-added. Headteachers thought the introduction of CVA added to the controversy over just what five A to C grades at GCSE actually means. It would result in schools that were regarded as good becoming schools where there was cause for concern, and vice versa, leaving parents and public confused. One headteacher said those who had been awarded honours for outstanding good performance should now hand them back.

One headteacher noted that five A to Cs was the headline figure and so gave priority to improving the percentage of pupils achieving this. He compared a large comprehensive school to a super-tanker in that it takes a long time to respond to the turn of a wheel. The simplicity of five A to C grades as a measure was recognised and some headteachers liked it as such, although some had no faith in it and wanted a value-added system in its place. However, some saw a tension between information that comes from the CEM Centre’s YELLIS project, and information that comes through the Fischer Family Trust’s system based on progress at the Key Stages. One headteacher said he used both systems to set targets for his pupils, but another thought that the Fischer Family Trust targets did not stretch his pupils. Someone else said that, together with CVA, it was so confusing; why could the experts not come up with an acceptable, understandable system? However this headteacher added: “It isn’t just about the results, it’s about making life exciting for people so that they can see improvement.”

Another headteacher emphasised that if we were to recognise that every child counted and that every child mattered,

then value-added was what mattered, as then every child could be seen to make progress. He hoped for some creative thinking in measuring achievement, but any measure had to be available publicly well before applications for school places closed.

How improvement is to be seen or acknowledged would appear to be the key issue, especially so at a local level. One headteacher mentioned local employers and the need for a school to aim for functional numeracy and literacy, employability and work skills in its Year 11 pupils. These did not sit comfortably alongside government targets. Another headteacher put the view that schools should provide a good education for their community, with *good* somehow based in a value-added measure.

A headteacher from Leicestershire, where pupils move to 14-19 schools after Key Stage 3, pointed out a feature that is probably unique to that structure. The high schools, with pupils up to age 14, get the best Key Stage 3 results in the country. He put this down to the schools being able to focus on Key Stage 3 with their eldest pupils and to the strong competition among the high schools for the best results. He then raised the issue that if Key Stage 3 was to be the baseline for value-added, schools such as his would have very little scope to show any improvement. He also noted that the 14-19 schools in Leicestershire were relatively large (630 pupils in his current Year 10), which tended to stabilise whole school performance indicators when compared to smaller schools. The points this headteacher made reinforce the question of how value-added should be measured, and what the baseline should be.

Another headteacher raised a more general issue. He asked, if achievement was apparently raised at age 16, what happened next? His concern was that many young people would have been brought to a peak

in their potential and would not be able to cope with post-16 advanced courses, although their pre-16 qualifications indicated they should be able to. In addition, pupils might be successful at GCSE and at A-level, but in terms of general knowledge they knew very little and, further, didn't know they knew very little.

#### *Interviews with primary school headteachers*

The headteachers of the primary schools largely explained the changes in value-added in their schools through interventions that had been put into place. Thus in reporting on these interviews we have merged the first two headings used for the secondary schools into one. The broad headings we report under are:

- School performance and intervention
- Headteacher's views on national policies

#### *School performance and intervention*

The primary headteachers we interviewed explained their perceptions of changing value-added in their schools through their own interventions in the last few years. In three schools this had involved moving away from traditional groupings by age, to groupings based on social maturity.

Two headteachers described in detail radical moves away from the traditional primary school model of one teacher, one class, which they said had brought about considerable improvement. Recognising the strengths and weaknesses of their teaching staff had been vital. "As far as I am concerned, teaching is something that you look at in terms of teams and you try and fit your best teachers into the classes that suit their particular teaching styles. You also try and set up a whole school system of teaching that brings all those teaching styles together in the best possible way to maximise the opportunities for the children."

In one of these schools, children move during the day between classrooms,

between pupil groupings and between teachers, so that all can benefit from different teachers' strengths and from specialist resources. His staffing structure was, he said, "revolutionary". He felt that his system met the needs of all children, from the most able to those who had special needs, but in a way that no child was labelled. "For me the big advantage of the system is that every child is treated in the same way. I think the typical model that you find in schools is that children are in class for a year group or a mixed year group class and then certain children are selected to go for such classes as booster or Springboard maths, or further literacy strategy, but the average child, if there is such a thing, is often left out of that chance to get a little bit of individual attention. . . It's all about every child getting every opportunity, and it's been fantastic; it really has . . . revolutionary stuff, eh! "

One headteacher said the gender gap in his school had been partly addressed by choosing books and drama activities aimed at boys. But he believed the most significant improvement in boys' performance was due to being taught by the several male teachers in his school.

One headteacher of a small inner-city school with a constantly changing and largely ethnic population said that the arrival of some new children, whose English may be very limited, could drastically alter her school's results in terms of targets being met or not met. As a consequence she could not say whether her school was getting better or worse. She explained that she recognised the needs of various groups of children and had put in place various initiatives, such as Springboard maths, and was currently using *Aspire*, but she also emphasised the importance of extra curriculum activities, anything from caving to theatre visits, to help to build confidence; she wished to develop the whole child. An important aspect of this in the ethnic communities

had been to target classes at parents, particularly mothers of children where English may not be spoken at home. She noted how this was changing attitudes to education, in that a stronger mother would have greater influence over her children. She argued that this was generally building social capital within the community, which was reflected in a better attitude to school among both parents and their children.

A headteacher from a similar small school in another city said much the same thing and she too had put many initiatives in place to support groups of pupils. These included English as an additional language; further literacy support and Springboard maths. She also noted that many of her children had social maturity problems that needed to be addressed before any effective learning could take place.

Another headteacher had also focused on the gender gap between boys and girls in literacy. He, too, had invested in books aimed at encouraging boys to read, but had also introduced "reading champions", following a similar, and successful, initiative in writing. This had involved in-service training and collaboration with other schools. His school had moved away from the National Literacy Strategy prescribed hour: "We haven't actually been doing that for some time because there are several needs of the children we didn't feel this addressed and also felt that there were particular age groups that it suited more than others." He said the move to a more holistic approach based on three weeks, had resulted in 67 per cent of his pupils reaching at least level 5 in literacy, which he described as "a stunning improvement". He noted that the revisions to the National Literacy Strategy were now moving in this direction. He was planning a similar change in the way the school taught mathematics. This headteacher also explained that these curriculum changes had taken place in association with what he called "a

radical restructuring of the school's staff", in which subject co-ordinators had been replaced with curriculum group leaders who were responsible for a group of subjects and a team of teachers who met regularly to plan the initiatives for those subjects. So the staff mostly drove initiatives in the school themselves in association with the headteacher. "It's made the staff more of a 'one' in terms of Key Stage work and across year group work...I am very much a believer in class teaching but I think you would be silly to ignore the strengths of your staff."

#### *Headteachers' views of national policies*

The headteacher who had described his changes as "revolutionary stuff" – and evidence did support that they were effective – was asked if he thought his management policy and staffing structure would transfer successfully to other schools. He considered there were two essential prerequisites: first, the size of the school; his had about 400 pupils and so the staff was large enough to provide the flexibility his curriculum structure required. Secondly, the school building needed to have spare rooms available, so that support groups and specialist activities could take place. He considered one of the most important aspects of what he had been able to do concerned planning, preparation and assessment time (PPA time). In his school this was covered by fully qualified and experienced teachers rather than teaching assistants, and he had explicitly not allowed teaching assistants to cover any classes. He suspected that this was only possible in 15-20 per cent of current primary schools: "The biggest bone of contention that I see is the introduction of PPA time without proper funding for teachers, because if it's not going to be better for the children you shouldn't do it. I just feel that schools that can't do that must be delivering a less successful curriculum, I really do."

A similar comment about transferability was made by another headteacher, whose school has more than 500 pupils. He believed that you needed a school large enough to justify a middle management system. He also noted the need for quality staff. "I'd like to think the way our school is structured and the way the school is led is actually quite different. I'm a consultant leader with the NCLS so I do visit some other schools and our school is very differently managed to other schools, and the whole key to it is the quality of the staff; you've got to have that before you can move along." This headteacher also noted the diminishing influence of the local authority in how schools were managed. "The influence of the LEA is minimal and it's getting smaller. I really don't have a great deal to do with the LEA. LEA policy certainly didn't affect the way I do things in this school, no. In my authority, the power of people like this [inspectors] is greatly diminished and most heads feel that they have far more autonomy now."

Another headteacher complained that she was under too much pressure and that there was too much change: "Teachers can't work in a straitjacket." She believed that children were being alienated by too much pressure to attain: "There has to be a balance between numeracy and literacy targets and the development of the whole child." She believed the teachers in her school worked hard, but got no recognition of that in current performance measures based on progress in the Key Stages. The information she got from the PIPS project was very useful, while information from National Curriculum levels was somewhat arbitrary. She considered that the introduction of CVA was superficial: "CVA does not reflect significant differences between children, it does not look deeper into their personal situations." The other headteacher from an inner-city school also noted that CVA would do her school no favours. She noted that ethnic



families did not want information about their personal situations made public and that qualification for free school meals was a crude measure anyway. These families and their wishes needed to be respected. Performance measures were crucial but the way they were being used by the government was not helpful.

Both of these inner-city primary headteachers were hopeful for some helpful and meaningful measures of progress for their children, but they didn't know how to achieve them. They were just aware that the present system did not reflect what they did for their children. One said the present approach would damage the teaching profession.

#### Interpreting the interviews with headteachers

It is clear from the summaries above that schools are very complex places and that headteachers take very different approaches even though there is a degree of consensus among them. The diversity of approach doubtless reflects both the local circumstances in which they find themselves and also their own personal differences. Headteachers are aware that the staff with whom they work are crucial to a school's success. They are also mindful of the public face of the school and several described how they were able to improve the league table positions of their schools, something which is different to changing the underlying quality of learning.

What emerges from these interviews is a consensus among secondary headteachers of dissatisfaction about how their schools are judged. Many have noted that the criteria for deeming a school to be a *good* school keep changing. One pointed out the confusion in policy: performance is to be measured by the percentage of pupils gaining five or more GCSEs at grades A to C, including mathematics and English, yet at the same time government is driving for-

ward a 14-19 vocational curriculum. He called this a catch-22 situation, and came back to a local or community based argument. "You've therefore got to take away the bench-marking from five A to Cs, and you've got to allow professionals and parents some common sense in the interpretation of what a school is doing in order to add value to its pupils." He broadened this to include all the stakeholders within a school community, noting that these would vary both within an LEA and also across the country.

Another emerging theme is that it may be relatively easy for the government to change the way in which school performance is judged, but for large comprehensives in complex social situations, change can only be brought about slowly. "I would say that sustainable leadership is about a minimum of five years, and that's just to change basic ethos, culture and the way we do things around here. If you change standards at the same time, I would say you are on a bonus." He thought it would take between five and eight years to make a profound difference, noting however that new appointments, particularly at middle management level, brought in fresh ideas and that a school was in constant state of evolution.

So it would seem that all involved in policy development should agree how school performance should be measured, and then apply it consistently over many years, without changing the measures and the benchmarks. There is clearly dissatisfaction about current performance measures, and these headteachers cannot see that the new proposals are going to make things any better for them; rather the opposite. This is clearly an area that needs further review, especially since they have no confidence in quick fixes and know that change takes several years to bring about.

There is a clear need for strategic direction from the headteacher, but a strategy that is understood and accepted by the

staff. The staffing structure was of great importance, and teachers and middle managers should be deployed so that their strengths can benefit all pupils in the school. Good quality staff were vital in all aspects of the delivery of the school curriculum.

### Conclusions

This detailed and extensive report has concluded that headteachers have little impact on the quality of learning and on the attitudes of pupils in their school, at least in the first five years of their appointment. This is a strong conclusion and contrary to received wisdom. It needs some explanation. Several of the headteachers we interviewed suggested that the most important element in their schools was the staff and that it was necessary to work through and with the people who were available. We argue that this is the key to understanding the findings of the report. Others described how they had been able to turn around a failed school or to improve the results. Indeed they had been able to improve schools' positions in league tables but they had done it in ways that involved entering more pupils for subjects, going for easier subjects, and so on. Very rarely are headteachers able to have an impact on the learning in the classrooms of their staff. Improving the numbers of passes and positions in league tables are important for schools, and important for Ofsted inspections, but do not affect the deep learning of pupils.

Schools are "loosely coupled" organisations in which the headteacher and the senior management operate together and influence departments (Weick, 1976). The departments operate in units and influence the teachers in those departments. The teachers in turn affect the pupils. Each of the links in the organisation is loose but important and together all those loosely coupled and hierarchically linked groups form the school, with

an ethos and a culture and a way of working. But the headteachers' influence is through departments into teachers and then into classrooms. It is easy to see that the impact of a headteacher is, at best, indirect. There is a general principle in education that proximal effects are the greatest and we can expect the greatest impact that the headteacher can have is on the feelings and attitudes of the staff. If we had conducted a study of the attitudes of the staff we believe that a change of headteacher would make a very large difference. The impact of headteachers is indirect and staff will protect their pupils against the influence of a malign headteacher or continue to produce poor results despite a great and inspiring head.

“Headteachers have a vital role in relating to the outside world, in working with governors, parents, and Ofsted”

Headteachers have a vital role in relating to the outside world, in working with governors, parents, and Ofsted, the official body for inspecting schools. That is an important function and in the grand scheme of things can make a difference between a school being a failed school or not, partly because of the perceptions that are created. The strategic direction set by headteachers is vital. This might involve introducing a new subject or building a new sixth form, raising money and so on. They also have a key role in attracting and appointing new staff.

But we are still left with a puzzle as to why we failed to conclude the same as others have concluded. We go back to what we said in our introduction about surveys of staff attitudes. Staff saw the head as a strong leader, particularly a curriculum leader, when the pupils made rapid progress. We stated that this finding was

correlational and not necessarily causal. Further, many of the stories about the importance of the headteacher are written by headteachers or former headteachers and are often anecdotal. The speech by Maurice Smith, the head of Ofsted, which identified the headteacher as the most important factor in a school's value-added scores, was based on anecdote and hearsay rather than research-based evidence. (Tymms & Merrell, 2006).

Our alternative view is that the most important thing in the school is the relationship between the teacher and the pupil, and increasingly the research evidence is supporting this conclusion. Probably the most important thing headteachers can do for their pupils is to make sure that there are good teachers in their classrooms. Headteachers are important, but not in the way that officialdom has perceived them in England for the last ten years.

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# 3

## Headteachers can and do make a difference

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### Introduction

In her 2005-06 report, Christine Gilbert, the Chief Inspector of Schools, suggested that too many schools, around one in twelve of the state schools inspected, were inadequate. For secondary schools inspected the figure was one in eight, double the figure for primary schools. With a total of around 20,000 schools in England, she implied that there are around 1,500 inadequate schools. This very serious situation turns into a crisis if, as Searle and Tymms suggest, the very people tasked with bringing about the necessary improvement – headteachers – are powerless to influence learning. In this event, where shall we look for assistance to improve the life chances of young people?

Fortunately, the study by Searle and Tymms is only one measuring the effectiveness of headteachers. There are many other substantial studies that link leadership to learning and these show that headteachers can, and do, make a difference.

As the headteacher of a significantly improved school, where improvement was evident not just in headline examination results and increased demand for places but also in terms of the YELLIS value-added system (Searle & Tymms, 2006), I know that leadership *can* make a significant difference to learning. If school lead-

ers *do* have an impact on learning, the nature of that impact and its size depend not only on the ability of the headteacher, but also on wider factors including school context, teacher supply, funding regimes and the extent to which government provides a sufficiently diverse market in alternative school structures that school leaders can use to raise standards.

### Evidence for the effectiveness of headteachers

A meta-survey of four dozen large-scale statistical studies undertaken between 1990 and 1998 suggests that the quality of school leadership does make a significant difference to student learning (Hallinger & Heck, 1996a, 1996b, 1998). However, such research indicates that, although significant, the difference made to learning by leadership alone is small (Leithwood et al, 2004).

So why is the impact on learning small? Despite the central role given to school leaders in determining school performance, leadership is just one of many influences on achievement. The nature of the students, their individual socioeconomic groupings, the concentrations of these groups in a school, parental interest and income, student gender, special needs, first

languages spoken, ethnicity and mobility, and the quality of the teaching staff will all have an impact on student learning and examination performances.

“ A school that consistently produces good value-added figures will probably do so because of the appointment of a strong team of able staff, and the introduction and consistent use of robust systems for student tracking, monitoring, assessment and behaviour management ”

Taken together, the studies reviewed by Hallinger and Heck imply that the quality of school leadership explains between 5 to 7 per cent of the disparity in student learning across schools. This may not seem a great deal, but it represents about a quarter of the total difference that schools alone make to achievement. Research suggests that, after adjusting for the characteristics of students, schools make a difference of 12 to 20 per cent to final achievement (Leithwood et al, 2006). So schools explain up to 20 per cent of differences in achievement and other factors explain about 80 per cent, with headteachers accounting for a quarter of the school-determined difference. Differences in the quality of teaching in individual classrooms explain more than one third of the variation in student achievement between schools, making headteachers the next most powerful in-school influence on learning after classroom teaching (Leithwood et al, 2004).

The wider evidence, therefore, suggests that headteachers make an indirect, but important difference to learning. Perversely, the Searle and Tymms research, rather than denying this contention, can be interpreted as partly supporting it.

#### Challenging the assumptions

Searle and Tymms assume that the impact of changing a headteacher ought to be seen

in regression in school performance towards the mean. This is the suggestion that, because the chance of a headteacher being replaced by somebody of exactly the same quality is remote, an outstanding headteacher is most likely to be replaced with a less effective one, causing achievement to fall back, and a less effective head is most likely to be replaced with a better one, causing learning to improve. The fact that this does not happen – on average there is no difference in performance between schools that change their headteachers and those that do not – is taken as evidence that leaders make no difference to learning.

But this assumption is open to question: why should changing the head always lead to regression to the mean? In the case of the replacement of heads of high-achieving schools, it is unclear why replacing an outstanding leader by a less able one should reduce value-added immediately, or even after a few years. Effective headteachers who build successful schools are not usually the “hero heads” portrayed in the media who have single-handedly turned a school around. On the contrary, a school that consistently produces good value-added figures will probably do so because of the appointment of a strong team of able staff, and the introduction and consistent use of robust systems for student tracking, monitoring, assessment and behaviour management. Once embedded, these systems are highly likely to persist even after the headteacher who created them has departed. Strong leaders create strong leadership teams and their schools can run themselves for long periods. In fact, Searle and Tymms discuss evidence that high value-added schools have more stability in their outcomes than schools with low value-added. This stability points to the persistence of the effects of a very able headteacher into the future, even after he or she has left. Here, lack of regression to the mean may be evidence of the power of excellent leadership and its lasting effects.

The authors also assume that when the headteacher changes in less effective schools, the successor will be more able than the previous incumbent and therefore these schools should improve towards the mean. The fact that the schools in this sample did not improve is taken as evidence of the inability of *all* headteachers to improve learning. But we know nothing about the nature of these schools, nor of the characteristics of the headteachers who take them on. Some of the lowest achieving schools are very challenging places indeed and have been graveyards for the careers of many good leaders. There are many exceptional and brave headteachers willing to put their reputation on the line by taking on very tough, low-achieving schools and who do an excellent job, but in general the field of applicants for such posts is numerically weak and often lacking in terms of experience. Too often, the same group of headteachers is recycled between challenging schools in the guise of associate headteachers appointed by a local authority or by a temporary staff agency as a quick fix. The important point here is that because of the career risk in the most challenging schools, the new headteacher may be of similar ability to, rather than better than, the previous incumbent.

The underperformance of such schools is not, in my view, evidence of the lack of effectiveness of headteachers in general. Instead it is more likely to be evidence of the enormous difficulty of improving learning in communities where disadvantaged children are clustered together and where chaotic personal lives, poor health, low expectations, social and housing problems are the norm. It demonstrates that leadership is often unable to “trump” other, more severe, social and economic effects. In such places, students have all these things to cope with before they settle down to learn.

#### How headteachers make a difference

Despite the challenging conclusions of the Searle and Tymms research, I believe headteachers do make a difference and that their research may, indirectly, provide a basis for this conclusion. But even then headteachers’ influence is almost always indirect, as the vast majority can directly teach only a tiny fraction of the lessons in a school. Their influence is exercised through choice of staff, organisational structure, policies for monitoring of learning, training programmes, the power of persuasion, and by modelling high professional standards for others to see.

The nature of school leadership is such that headteachers work mainly *through* their staff, without whose willing co-operation their influence can be neutered. Evidence for this type of “leadership by assent” is provided by research which found that teachers “inoculate” themselves against the influence of headteachers when their leaders are seen to move on every two or three years – as often happens in challenging schools (Hargreaves et al, 2003). Once “inoculated” it takes considerable determination on the part of a committed leader to bring about change. In this case, the professionally autonomous culture of teaching means that a new head may well have little effect for quite some time, until staff believe the head is worth following because he or she will stay the course. This view is also consistent with the Searle and Tymms research.

Even where a very able headteacher is found, his or her priority may be to secure the physical safety of the students from other parents, members of the local community and often from each other. In this situation, learning may not be top of the agenda for a year or more. The head will need to identify the strong and weak teachers, provide support and training, gather evidence for capability proceedings, deal with trade unions and find per-

manent, quality replacements, usually for a plethora of temporary staff of mixed competence and commitment. If these replacement staff are found, they will often be young, inexperienced, newly qualified and will need to learn their trade. By the time all of this takes place, more than five years or six years will have elapsed. It is possible that in lower achieving schools a period of five years is simply too short to be able to measure gains in learning. Many other improvements, which are precursors to improved learning, such as better attendance, better behaviour and a better curriculum, are likely to have been established in the meantime, however.

This leaves those in the middle, a subset of which will be so-called “cruising” schools. These are identified by Ofsted as schools which on the face of it are achieving good results, but which in terms of achievement in relation to ability are underperforming. In these “cruising” schools the forces of reaction may be strong. The prevailing culture of a critical mass of staff is likely to be that students are doing “well enough” compared to national averages and there is no reason for radical change.

In these places the “loosely coupled” and heavily unionised nature of schools plays an important part in making it harder for headteachers to bring about improvement. Schools are not rigid hierarchical organisations. Teachers tend to operate in a professionally autonomous culture, albeit less so than before, with the National Curriculum but with no universally agreed methodology for the job. In these schools inertia and all too often an old style “smoke stack” approach to industrial relations make change difficult.

Exceptionally determined headteachers can and do make a huge impact in these schools, but more can and should be done to help all headteachers to be as effective as possible.

What can be done to help headteachers?

#### *Deregulation of teacher salaries and more reliable performance management*

The Searle and Tymms study of the impact of new headteachers between 2000 and 2005 took place against the backdrop of the greatest teacher shortage this country has ever seen. Even ten years ago a national advertisement for a teacher of mathematics, science, foreign languages, design technology or ICT in the state sector would have produced a large field. Today it is no exaggeration to say it is nearly impossible in many parts of England to attract even a mediocre field in these subjects. Many headteachers are faced with the choice of trying to move weaker teachers on, only to find that they cannot replace them or can do so only with weaker, short-term supply staff who have no commitment to the school. In urban areas particularly, headteachers find they cannot improve learning in key subjects because they cannot find staff. One answer is for the government to liberalise the teacher salary structure and to provide schools with the budget to pay premium salaries to staff in these subjects.

Taxpayers are unlikely to be satisfied if schools are given extra cash to pay teachers simply because they work in disadvantaged areas. Teachers receiving this money would need to be demonstrably good at their jobs. This requires a performance management system that enables headteachers to make fine judgements between staff and reward them accordingly. The existing system of threshold salary assessment, designed to reward “good” teachers with progression to an improved salary scale, 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 teach-

ers, 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. Government should review arrangements for linking pay and performance and ensure that rigorous performance management systems centring on student outcomes (adjusted for context) lie at their core, and that headteachers are supported in implementing them.

*Targeted funding to give headteachers market power where it is needed most*

Ministers would probably argue that additional resources are not needed because education spending has never been higher. This is true, but spending is not fully targeted at the most disadvantaged areas; and when it is, spending is too often of a short-term nature that acts as a disincentive when appointing staff. Instead of a standard pupil funding unit set by the local authority, schools should receive a funding unit based on the characteristics of each individual student. This would ensure that those schools in the most challenging areas had the funds to hire high quality staff and so improve learning. Furthermore it would provide an incentive to other schools to take their share of these students and thus reduce the ghetto effect of clustering of disadvantaged students in the worst schools. O'Shaughnessy and Leslie's proposed "advantage premium" and similar ideas for additional per pupil funding to help overcome educational disadvantage, such as Julian Le Grand's "positively discriminating education voucher" or Alan Milburn's "education credit", deserve serious consideration.

Dealing with failure

The influence or otherwise of headteachers across the school system is a vital consideration, but their effect on educational fail-

ure and its impact on our poorest children is arguably of greatest importance. How can headteachers be helped to make more of a difference in our worst schools? It is informative to look at the outcomes of Ofsted inspections. Following inspection, the least effective schools are placed in the failing category of "special measures". This involves a very public, and demoralising, announcement that the work of the school is simply not good enough and that in the absence of rapid improvement the school will be shut. These schools are subject to further monitoring by Ofsted until they either improve or close. According to the Audit Commission, around two thirds of these schools change their headteacher (National Audit Office, 2006). Significantly, evidence suggests that schools in special measures are more likely to improve and to sustain their improvement than schools categorised as having "serious weaknesses", which are relatively more effective but still causing concern. This improvement is not only in headline examination results, but also in terms of the quality of teaching as measured by inspectors (Sammons & Matthews, 2005).

“ School failure gives a new head sufficient clout to overwrite dysfunctional attitudes and replace them with a new approach ”

To understand why this should be so, it is useful to examine the characteristics of ineffective schools. These include a non-rational approach to evidence of failure, fear of outsiders, internal cliques and dread of change (Reynolds, 1995). A culture of failure and a strong tendency to blame outside factors is firmly embedded in these places. When a new headteacher joins, resistance to change, vociferously supported by teacher unions, may be too difficult to overcome. However, when the school is



publicly failed and placed in special measures, the whole community is given notice that the situation cannot persist. A new headteacher can point to Ofsted and its on-going monitoring, and make clear the consequences of not changing. School failure gives a new head sufficient clout to overwrite dysfunctional attitudes and replace them with a new approach.

Schools in the serious weaknesses category possess similar cultural barriers to improvement, and although less unsatisfactory they tend not to make such rapid progress. The main reason seems to be that they lack the galvanising impact of a new beginning, raised expectations, outside monitoring and the additional support that this can give to a headteacher when tackling long established and dysfunctional practices.

Low achieving schools with serious weaknesses are rightly not placed in the category of special measures and neither are the larger group of underachieving and cruising schools. But in both types of school, because of the factors mentioned above, it can be difficult for a head to improve the quality of learning without some kind of external driving force in support. How can this be provided?

#### Structures promote standards

Academies are state funded independent schools established by sponsors from business, faith or voluntary groups. Sponsors and the Department for Education and Skills (DfES) provide the capital costs for the academy and running costs are met in full by the DfES. Sponsors may or may not have experience in education, but they bring drive, dynamism and a track record of success. The criteria for opening an academy have generally been that the school must be failing to provide a satisfactory education and be in an area of social disadvantage. Sponsors appoint a new headteacher to most academies.

Academy GCSE results in 2006 show that the proportion of students passing good GCSE grades increased by 6 per cent, more than three times the national average, in what were previously some of the country's worst schools. Searle and Tymms might argue that this improvement is due to substitution of easier for more difficult courses (Searle & Tymms, 2006), yet unpublished data from the DfES clearly show that for academies opened in 2002-04 *student learning*, as measured by Ofsted's contextualised value-added scores, on average has improved over time.

The latest evaluation of academies in 2006 found that 80 per cent of students in brand new academies and 72 per cent from academies replacing weak and failing schools thought their school work had improved since joining and three-quarters thought their headteacher to be "really good" (PricewaterhouseCoopers, 2006). It seems that it is possible for a new headteacher, in the context of an academy, to impact very positively on student attitudes, engagement and most importantly, on learning.

Why is this? In an academy, a new headteacher is backed by high levels of expectation surrounding a newly rebranded school, with a new governing body supported by external sponsors and a clear expectation that things will improve. Instead of believing that failure is inevitable, the message is broadcast that failure is not an option and that although external influences can make recovery difficult, it is just a question of time before things turn around. Academies can fail, of course, but the positive expectation that surrounds their establishment can cut through the existing culture of a school very quickly.

A new headteacher in a new academy can have a clear impact, and this is so in some of the worst performing and most dysfunctional schools in England. If this solution can work here, it can also work in schools that are not failing but which have

serious weaknesses and where the research evidence suggests that it is much harder to bring about sustained improvement. An academy solution can also work in the larger number of schools identified as performing inadequately once their circumstances are taken into account.

The problem is that many underperforming schools are not in disadvantaged areas and do not currently qualify for academy status. With Ofsted implying the existence of around 1,500 underperforming or underachieving schools, the need for action is great. Evidence from schools in the serious weaknesses category compared to those in special measures illustrates how difficult it can be to bring about improvement without external stimulus and support. Conversion to an academy could provide this external stimulus, but only if government changes policy so that school underachievement regardless of socioeconomic circumstances, rather than social disadvantage, becomes the primary criterion for creating an academy.

Headteachers can and do make an important difference, but the effectiveness

of school leaders could be further improved by government deregulation of teacher salaries, a funding regime more closely targeted to need, and a movement from a monolithic system of uniform models of school structure towards greater competition involving outside sponsors and trusts, not only for failing schools but for every school and every child.

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# 4

## Putting managers in their place

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### Introduction

This country expects a great deal of its head-teachers. Successive governments have embraced the idea of leadership as a route to educational excellence with unusual enthusiasm. Many countries worry about, and try to improve, management skills in their public services, including publicly funded education. We are unusual in having a generously funded central institution, the National College for School Leadership (NCSL), which is dedicated primarily to developing leadership.

On the NCSL's website you can find its purpose, which is "to make a difference to children's lives through excellent school leadership – growing and supporting current and future school leaders so that they can have a positive impact within and beyond their schools". You can also find its corporate goals, which are to:

- Transform children's achievement and well-being through excellent school leadership.
- Develop leadership within and beyond the school.
- Identify and grow tomorrow's leaders.
- Create a fit for purpose, national college.

Totally absent from all of this is the word "management". It is all about leadership, *tout court*. It implies that it is the individual, as a

visionary, who will matter and who will "transform" (sic) children's achievement; we assume for the better! This apparent infatuation with leadership as an effective policy tool is what makes the Searle and Tymms analysis potentially so important.

The authors conclude that a change of head commonly has little effect on school development and, conversely, that major changes in school performance are not obviously associated with leadership change at the very top. This is, of course, highly counter-intuitive; but if they are right we should surely re-evaluate our policies for improving educational quality, including the not insubstantial sums dedicated to leadership training in an institution entirely devoted to that end. But how seriously should we take their findings?

There are two ways of evaluating the results. One is to ask whether they are consistent with other research, not only in education but also in other public services. The second is to ask how far the data and analyses allow one to reach any definitive conclusions about the importance of headship.

Does leadership matter? A look at the wider evidence

At one level, no one is going to deny that leaders are important. We can all think of examples of extraordinary people, includ-

ing teachers and heads, who have achieved amazing things. Most of us can also think of people who, in senior leadership positions, have severely damaged or even destroyed their institutions or their countries (think of Napoleon, never mind Hitler).

But the whole point about exceptional people is that they are just that – they are not, by definition, the norm. What matters for the quality of our education, or health, or, for that matter, our dry-cleaning or the coffee we buy at the station, is not what happens in the outer reaches of the distribution but what happens in the great bulk of institutions. Does the existence of remarkably good and remarkably bad individuals at the top of some institutions mean that, for a sector as a whole, leadership is *the*, or even *a*, critical factor in providing high-quality service?

#### *Valuing the predictable*

It seems unlikely. In the 20th century, the great sociologist Max Weber and the Nobel prize-winning economist Ronald Coase observed and explained the degree to which our civilisation, with its unprecedented levels of wealth, depends on impersonal institutions rather than independent or charismatic individuals (Weber 1924/1952; Coase 1988). Weber analysed bureaucracy, which he characterised as an “iron cage”, squeezing out individuality and spontaneity, but also with enormous strengths. Bureaucratic institutions are bound by rules and are therefore predictable; they treat people equally rather than because of who they are, or whether they are charming, pretty or likeable. Because they are defined by rules, and keep records and files, they can also be very large and can endure for a very long time. The rules define the job – usually in a way which is quite routinised – meaning that people can come and go but the organisation continues.

Schools, hospitals, passport offices, examination boards and prisons are all

essentially bureaucratic organisations in which procedures and rules provide for continuity in the face of what is often very rapid staff turnover. But so are private sector companies. Coase pointed out that, even though ours is supposedly a market economy, most of what happens in private business is not the result of individuals contracting with each other, or buying and selling. It involves large organisations based on command and control, that is, superiors telling other people what to do. Hierarchical institutions are often more efficient because working out individual contracts for every transaction that takes place would be impossibly slow and expensive.

“ You cannot set down for schooling the sort of detailed procedures, covering almost every eventuality, which enable McDonald’s franchises to be run in such a standardised way all over the world ”

Under the Roman Empire, individual teachers taught pupils in homes and public buildings, relying on word-of-mouth referrals. The better and more charismatic the teacher, the more pupils came. No modern system could be run that way. Of course, it is simpler to produce hamburgers or DVD players, or provide retail banking services, than to educate millions of children with different talents and interests and widely varying backgrounds. You cannot set down for schooling the sort of detailed procedures, covering almost every eventuality, which enable McDonald’s franchises to be run in such a standardised way all over the world. Moreover, McDonald’s customers are all volunteers with straightforward requirements and a willingness to pay, posing none of the motivational challenges of the typical secondary school. Nonetheless, the sheer scale of modern education, with not only heads, but also teachers, support

staff, and pupils moving in and out of schools in vast numbers, underlines the need for organisation, and indeed bureaucratisation, which is what we duly have.

The McDonald's analogy (or, if you prefer, Marks & Spencer) also underlines that what we are trying to provide in compulsory education is good quality *across the system*. In other words, while we may want to allow for certain amounts of variation in content, and may believe that a good deal of individuality in teaching styles plus institutional autonomy make for better outcomes, we also want standardisation. We want our outcomes, in the form of high achievement, or at the very least, uniform minimum standards, to be the same whether you are in Stockport, Southwark or Southampton.

#### *Managers, leaders and professionals*

This does not mean that you do not need leaders (or top managers). One of the things that all effective organisations require, whether small or large, bureaucratic or creatively chaotic, is the ability to take decisions; which means being clear about who can take them. In most cases that means a single hierarchy with someone at the top who has the ultimate say – the chief executive or the board, the head-teacher or the head plus governors. In other cases, including some of our most successful universities, decision-making is far more widely distributed. But if it is not clear where decisions of a particular type are made you will get a great deal of waste, inefficiency and drift.

Large institutions in modern societies can function well because they do not leave this to a free-for-all. (And many of them do function well. We tend to fasten onto the things that do not work, and take for granted the extraordinary nature and productivity of many modern enterprises.) They allocate responsibilities and powers clearly to different office-holders or managers at many different points in the hier-

archy; and they go on functioning, whether or not they are headed by an inspirational leader. If we relied only on the exceptional and the “transformational” we would be in very bad trouble.

Sir Roy Griffiths, in whose memory my university chair is named, argued strongly for clear management structures when he reviewed the NHS for Margaret Thatcher. He remarked that, “if Florence Nightingale were carrying her lamp through the corridors of the NHS today, she would almost certainly be searching for the people in charge,” concluding that lack of clarity and accountability was seriously undermining the ability of clinicians to carry out their professional duties effectively or efficiently. He recommended a proper management structure; but also, and equally importantly, that senior NHS managers should, in many if not most cases, be doctors themselves.

Both these points apply equally to education. NHS managers generally have a bad name among doctors, but decades of constant and costly reorganisations of the health service, and repeated failures to establish clear decision-making structures or to curb sudden political interventions, reinforce rather than disprove Sir Roy's argument. His other argument stands too. A characteristic of key public services, notably health and education, is that they depend to a very large degree on highly specialised professionals. Senior NHS managers need professional expertise, not just for credibility, but to ensure that they actually understand the professional skills and expertise that are what their service is ultimately about.

If you need an emergency knee operation you do not call in the neurology registrar. If the pathology lab is short-staffed, it will not get much help from the team of experienced operating theatre sisters. Equally, if the A-level maths teacher is off sick, it is irrelevant whether or not the German or geography teachers have free periods. If your business studies teacher

hands in her notice just as the new school year starts, you do not get in contact with the runner up for the art department post you filled last week. Primary teachers are far more generalist, but here too, professional skills are required. You cannot simply work your way up, starting in the school kitchen.

This really does distinguish health and education from McDonald's, though not from all private sector concerns, and strongly affects the way in which they need to be run. The nature of employees' duties involves a great deal of independent professional judgement. This underlines the limitations of what managers or leaders of such institutions can do. If the professionals are not themselves well-trained and highly competent, nothing management does can make up for this.

Moreover, you cannot replicate "professional-intensive" organisations in the way that the founders of a successful retail store or airline can expand their business. In the case of McDonald's – or Marks & Spencer or Ryanair – it is possible for one particular "service" model to take over a large part of the market very quickly because a high proportion of what they are doing is standardised. If competitors are inferior they can go to the wall and people in the locality will still be served.

#### *Leadership matters, but less than we think*

Overall, then, the general social science and management literature suggests that leadership is likely to be a fairly small part of what creates a good school, let alone a good school system. This may be seen as fortunate. To repeat a previous point, it is above all a good *system* we are after: one in which all schools do a good job by their students. If it was only possible to run a good school or a good hospital on the basis of exceptional leadership we would have a real problem.

Nonetheless, it is still possible that heads' leadership can make a big differ-

ence, over and above competent management by the whole administrative team. Even though unusually good and unusually bad heads are outliers by definition, they may offer lessons for the system as a whole; either ways of lifting all the boats or, conversely, of building in mechanisms that prevent some schools being very bad.

The school effectiveness movement hoped that looking at the most effective schools would provide general lessons for all schools. The leadership movement is a variant on this. Leadership, as Searle and Tymms point out, has been identified as one of the factors that, when schools are ranked, mark out the top ones. Then – and this is the crucial bit – components of it are assumed to be teachable. In transmitting these leadership skills, we may thus raise the *average* level of the system as a whole. Do their findings disprove this assumption?

#### Measuring the impact of leadership

In evaluating the results of both the Searle and Tymms research and the school effectiveness literature more generally, it is important to understand how far the results deal with relative, not absolute, performance. This is not an original point and follows from the nature of the statistical techniques available to us, but it is an important one (Goldstein, 1997; Coe & Fitz-Gibbon, 1998). Studies look at the factors associated with performing better or worse than the rest of the sample; they inevitably identify "more effective" and "less effective" schools, irrespective of whether schools as a whole are doing well or badly. In this case, the effectiveness is judged in terms of value-added (itself a relative measure, looking at actual compared to predicted performance), but the general point holds whatever variables are used to measure school outcomes.

It is also worth emphasising that these studies cannot, in themselves, establish causality. The fact that variability in per-

formance is “associated with”, or that performance can be predicted from, a given variable does not mean that one causes the other in any direct way. It may simply be a proxy for something else you have not measured. An example from a related and relevant area will illustrate this point.

I was recently at a meeting discussing a very interesting and nearly completed project on low-achieving pupils. The research includes an extensive multivariate statistical analysis using individual-level attainment data. Schools – as is usual in such studies – seem to have some effect on attainment even after controlling for pupil intake characteristics. However, the results also seem to show that the effect of the local education authority (LEA) is not only important, but much more important than the school, in the sense that a greater proportion of the difference among pupils’ scores is associated with which LEA they attend school in, than with the school itself.

At that meeting were a number of people who are experienced heads – including one of the most successful in the country – or who have decades of experience in administering and delivering education services. They were not so much outraged as utterly bewildered. They simply could not see *how* the LEA could be having this effect: what could the mechanisms be? The result seemed to bear no relationship to the reality on the ground, where LEAs have very little effect these days on how a school is run or even financed. The result must, we concluded, be due to picking up factors that were not explicitly measured but which were associated with the LEA variable. In other words, the staff and policies of the LEA a child lived in probably did not have much to do with “explaining” his or her performance, even though the LEA was “explaining” quite a bit of the variance observed.

How does the literature on leadership bear on these two points? The belief that

leadership is critical rests on classic school effectiveness studies, which look at the variables associated with *relative* effectiveness rather than with attainment of any absolute level of performance or improvement. I would add that the measures of leadership used are limited in nature and scope (though with the advantage for researchers that they provide a scale with multiple values). They tend to be questionnaires administered to staff, asking for their perceptions of whether, for example, the head “shows interest in what is happening in my classes” or “informs us about new teaching methods and materials” (van de Grift & Houtveen, 1999). On the other hand, unlike the LEA “effects” mentioned above, it is quite possible to provide a convincing theory about how leadership may actually be having an impact. In other words, we can hypothesise credibly that there really is a “leadership effect” because we can easily see how headteachers *could* make a difference, and that such an effect is therefore unlikely to be a proxy for something else altogether.

That is why the Searle and Tymms approach is interesting and valuable. It works outwards from the underlying theory, hypothesising that, if heads are indeed very important, discernible results should follow. Much, though not all of the time, we should see evidence of a school changing when the head changes. We should find greater variability of performance and more changes in direction (with performance heading upwards or downwards), among schools where heads have changed recently than where they have not. Or, to be more specific, we would expect to see this in secondary schools. Primary school cohorts are so small that, as Searle and Tymms note, it is really very difficult to conclude anything from year-on-year comparisons.

It is worth spelling this out a little because of the intrinsically relative nature of the measure used here, as in other school

effectiveness research. We assume, in line with the research literature and experience, that not all heads are equal – some are better, some worse than average. Appointment committees select a new head from the population of qualified and available candidates, which is currently rather small and shrinking. They will all want to appoint a head who is better than the departing one, but the nature of the process means that some will appoint one who is better than their predecessor, some will select a worse performer, and others one who is pretty much the same.

This means that we would not expect all schools to change dramatically, even if heads always have a large, direct effect on school performance. Some good heads will be succeeded by good heads, some average ones by average ones, and so on. But in many cases, (relatively) good will follow (relatively) bad, and vice versa. Where there is a major change of quality, if headteachers do affect schools' performance, this will affect the way the school is run substantially and will register in outcome measures. After all, in the two or three years after a head's appointment, the student composition of the school will not change much. The pupils entering the GCSE years will have been enrolled, for the most part, before the new head's arrival. What can start to have an impact are changes stemming from leadership, including changes in the teaching force and how it operates.

Good leadership is not a silver bullet  
So if headteachers make a difference, we would expect this to show in varying performance trends between schools that *do* and schools that *do not* change their head. But, as the authors point out, we really do not find anything. We do not find it among the improving schools on which the authors focus. We also do not find it among the deteriorating schools, which are

surely just as important. In fact, from the general management literature, we might expect more evidence for dramatic and quite rapid declines being associated with new heads than for dramatic improvements. But again, there is no obvious sign of this.

“ Pinning one's hopes and one's money on leadership as a way to improve a whole system is deeply misguided ”

What follows? First, none of these results disproves the existence of some remarkable headteachers who can and do achieve extraordinary results. Among the individual cases in the tables, there may be some such. There are schools showing rapid improvements after a change of head, and this may be the main cause of their improvement: perhaps they have been fortunate enough to recruit a “transformational” head. But such people are, as we would expect, exceptional. We know that because the second, equally important, conclusion is the authors' own – that headship changes do not seem, on average, to have a very important impact on the schools concerned. And that suggests that current policy is misconceived in some fundamental ways.

The assumptions underlying the emphasis on leadership are, as noted earlier, twofold. The first is that the leadership of the school is absolutely critical because the head makes an enormous difference to what happens. The second is that we can extract the core of what remarkable heads achieve and teach it. Perhaps, if the latter were true, the former would become so: but there is no evidence of it here.

This study does not show that heads cannot, or even that they do not, make a difference. But it does suggest, strongly,



that pinning one's hopes and one's money on leadership as a way to improve a whole system is deeply misguided. In fact, one depressing statistic among those collated by the researchers relates to that group of secondary schools which had *two* changes of head teacher in the period under review. This group shows a steady decline, over the six-year period examined, in the proportion of schools with positive value-added – from 14 out of 26 in 2000 to 7 out of 26 in 2005. The number of cases is, of course small, but the data certainly suggest a group of schools whose problems were developing, were recognised and were beyond the power of the heads to rectify. Good leadership is not a silver bullet to deal with failure, and nor should we expect it to be.

The study also does not show that leadership qualities could not, in theory, be taught and used to improve the whole school system. But it certainly finds no evidence of it, and puts the onus of proof on leadership advocates. It is also entirely consistent with the literature on other public services, especially those which, like education, depend on a team of specialised and successful professionals.

We know from research in the US that the best teachers tend to migrate to the best schools unless they can be paid to stay in the more difficult ones, and that such higher pay does have a significant effect on retention (Hanushek, Kain & Rivkin, 2004). If we want to help schools with deprived student bodies probably the most important thing to provide is secure long-term additional funding, rather than endless special initiatives, to help them to build up and keep teams of effective, experienced and well-paid teachers. It is certainly more likely to work than promoting the “head as superhero”.

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## Appendix A: analysis of attitude data

Secondary schools where attitude is improving or deteriorating

Following the same analysis as for value-added scores, we identified the number of schools where the attitude scores increased in four years out of five, or were at least as great as in the previous year. Similarly we identified schools where the attitude score was less than in the previous year for four years out of five.

The table below shows the number of schools in each category, together with the number of changes of headteacher in a particular year.

**Table A.1: Improving/deteriorating secondary schools and when the headteacher changed**

	2000	2001	2002	2003
<i>Improving</i>				
5 years	-	1	-	-
4 years	3	3	5	4
<i>Deteriorating</i>				
5 years	-	-	-	1
4 years	2	4	5	5
	2004	2005	no chg	total
<i>Improving</i>				
5 years	1	-	1	3
4 years	4	1	16	36
<i>Deteriorating</i>				
5 years	-	-	-	1
4 years	7	3	22	48

Again our definition does not recognise those schools where there was a consistently high, or low, attitude score. However, in both categories there were a similar number of schools where there was no change in headteacher, or where a new headteacher was appointed during the six years covered by this investigation.

**Table A.2: Secondary schools with improving attitude scores**

school	av size	2000	2001	2002	2003	2004	2005
<i>No change in headteacher</i>							
AS1	291	3.31	3.31	3.31	3.31	3.31	3.31
AS2	194	3.19	3.24	3.30	3.31	3.46	3.59
AS3	307	3.52	3.57	3.64	3.64	3.58	3.30
AS4	177	3.51	3.51	3.51	3.62	3.35	3.62
AS5	85	3.18	3.33	3.55	3.59	3.43	3.53
AS6	296	3.19	3.25	3.25	3.22	3.26	3.94
AS7	175	3.38	3.47	3.50	3.47	3.55	3.30
AS8	134	3.58	3.65	3.67	3.54	3.59	3.64
AS9	51	3.11	3.33	3.63	3.32	3.53	3.75
AS10	52	3.07	3.44	3.25	3.62	3.63	3.57
AS11	234	3.46	3.50	3.22	3.46	3.47	3.63
AS12	139	3.50	3.62	3.38	3.67	3.73	3.70
AS13	192	3.48	3.56	3.30	3.34	3.45	3.79
AS14	92	3.68	3.69	3.55	3.59	3.63	3.53
AS15	201	3.54	3.70	3.33	3.51	3.54	3.65
AS16	246	3.39	3.27	3.31	3.33	3.42	3.55
AS17	170	3.39	3.14	3.32	3.37	3.40	3.43
<i>Year of change of headteacher indicated by shading</i>							
AS18	246	<b>3.59</b>	3.64	3.68	3.52	3.54	3.58
AS19	170	<b>3.55</b>	3.62	3.69	3.61	3.62	3.75
AS20	137	<b>3.44</b>	3.64	3.64	3.11	3.51	3.72
AS21	108	3.29	<b>3.42</b>	3.50	3.52	3.56	3.59
AS22	223	3.31	<b>3.36</b>	3.50	3.44	3.49	3.60
AS23	119	3.55	<b>3.59</b>	3.71	3.37	3.48	3.67
AS24	130	2.99	<b>3.16</b>	3.11	3.14	3.25	3.31
AS25	85	3.36	3.59	<b>3.59</b>	3.69	3.69	3.54
AS26	176	3.48	3.49	<b>3.59</b>	3.50	3.53	3.59
AS27	248	3.40	3.48	<b>3.50</b>	3.23	3.30	3.38
AS28	173	3.20	3.21	<b>3.35</b>	3.28	3.36	3.40
AS29	150	3.32	3.44	<b>3.22</b>	3.33	3.38	3.49
AS30	144	3.23	3.42	3.42	<b>3.48</b>	3.55	3.44
AS31	243	3.29	3.34	3.36	<b>3.29</b>	3.42	3.46
AS32	86	3.42	3.46	3.56	<b>3.33</b>	3.58	3.72
AS33	129	3.51	3.63	3.59	<b>3.78</b>	3.88	3.95
AS34	105	3.24	3.38	3.20	3.28	<b>3.37</b>	3.41
AS35	94	3.32	3.40	3.40	3.41	<b>3.61</b>	3.80
AS36	273	3.29	3.34	3.24	3.24	<b>3.34</b>	3.34
AS37	129	3.20	3.44	3.07	3.19	<b>3.22</b>	3.23
AS38	137	3.52	3.34	3.36	3.45	<b>3.57</b>	3.57
AS39	199	3.35	3.26	3.33	3.37	3.45	<b>3.51</b>

We focus on those schools where the attitude scores improved. Table A.2

**Table A.3: Secondary schools with a large increase in attitude score**

school	av size	2000	2001	2002	2003	2004	2005
<i>No change in headteacher</i>							
AS40	228	3.62	3.44	3.84	4.58	3.49	3.36
AS41	174	3.29	3.37	3.17	2.72	3.29	3.21
AS42	110	3.49	3.48	3.15	3.56	3.48	3.12
AS43	255	3.52	3.59	3.53	3.39	1.17	3.45
AS44	55	3.72	3.15	3.44	2.92	3.36	3.19
AS45	40	3.58	3.59	3.62	3.42	3.38	3.88
AS46	77	3.56	3.40	3.29	3.67	3.60	3.53
AS47	87	3.38	3.87	3.55	3.71	3.59	3.67
AS48	85	3.18	3.33	3.55	3.59	3.43	3.94
AS49	94	3.53	3.47	3.79	3.52	3.99	3.92
AS50	125	3.56	3.45	3.27	3.36	3.04	3.57
<i>Year of change of headteacher indicated by shading</i>							
AS51	155	<b>3.46</b>	3.36	3.36	3.06	3.45	3.41
AS52	137	<b>3.44</b>	3.64	3.64	3.11	3.51	3.72
AS53	185	<b>3.30</b>	3.27	3.35	3.23	2.68	3.28
AS54	31	3.24	<b>3.57</b>	3.37	3.11	3.53	3.48

shows the attitude scores as measured in the CEM Centre's YELLIS monitoring project for the 39 schools identified as improving in attitude. The schools are denoted AS to distinguish them from the schools identified as improving in value-added scores, discussed in the main text.

The year-on-year changes were mostly small although there were some exceptions, for example the increase for schools AS4 and AS6 from 2004 to 2005. However it can be seen that the score in AS7 dropped by 0.25 between the same two years. The score in AS9 notably increased in 2002, only to decrease by a similarly large amount in the following year. Similar changes could be seen in AS10 from 2000, while AS12 and AS15 showed an anomalous looking drop in 2002. None of the above schools had a change in headteacher; it may be the case that attitudes just vary from year to year.

In the schools where there was a change in headteacher, in AS20 we see

the drop in 2003 was rectified in 2004, whereas the large value achieved in AS23 in 2002 was not sustained. In AS27 the attitude score dropped after the appointment of the headteacher in 2002, whereas in AS35 two large year-on-year increases in the score coincided with the appointment of a new headteacher. Again it is difficult to discern any consistency in the changes as to why and when they occurred.

#### Large increases in attitude scores: secondary schools

Again following the analysis of the value-added scores we identified schools that had shown an exceptionally large increase in attitude score from one year to the next. The table opposite shows the attitude scores in the 15 schools identified as having a change at least as large as the chosen value of 0.375.

In 11 of these 15 schools there was no change in headteacher; several of them are small independent schools. It can be seen that large changes were often not sustained (AS40, AS42) or a large positive change followed a negative one (AS41, AS43) or where there was a change of headteacher in 2000 (AS52 and AS53).

#### Primary schools where attitude is improving or deteriorating

Following the same analysis as for value-added scores, we identified the number of schools where the attitude scores increased in four years out of five, or were at least as great as in the previous year. Similarly we identified schools where the attitude score was less than in the previous year for four years out of five.

The table below shows the number of schools in each category, together with the number of changes of headteacher in a particular year.

**Table A.4: Improving/deteriorating primary schools and when the headteacher changed**

	2000	2001	2002	2003
<i>Improving</i>				
5 years	1	-	1	-
4 years	8	1	3	6
<i>Deteriorating</i>				
5 years	-	-	-	1
4 years	10	1	-	2
	2004	2005	no chg	Total
<i>Improving</i>				
5 years	-	-	-	2
4 years	4	3	28	53
<i>Deteriorating</i>				
5 years	-	1	2	-
4 years	1	3	17	34

Again our definition does not recognise those schools where there was a consistently high, or low, attitude score. Rather more schools were identified as improving than deteriorating, but in both categories there were a similar number of schools where there was no change in headteacher, or a new headteacher was appointed during the six years of this investigation.

We focus on those schools where the attitude scores improved. Table A.5 shows the attitude scores as measured in the CEM Centre's PIPIS monitoring project for the 55 schools identified as improving in attitude. The schools are denoted AP to distinguish them from the schools identified as improving in value-added scores, discussed in the main text.

The year-on-year changes were mostly small, although there were some exceptions, for example, AP1 and AP10 between 2000 and 2001 and AP7 between 2001 and 2002. School AP20 showed a large drop in 2002 but the attitude scores then increased again, whereas AP22 showed a

**Table A.5: Primary schools with improving attitude scores**

School	av size	2000	2001	2002	2003	2004	2005
<i>No change in headteacher</i>							
AP1	51	2.48	2.60	2.60	2.63	2.71	2.67
AP2	23	2.40	2.58	2.64	2.72	2.85	2.65
AP3	65	2.54	2.58	2.67	2.75	2.66	2.78
AP4	31	2.43	2.53	2.67	2.68	2.56	2.61
AP5	32	2.45	2.59	2.77	2.83	2.63	2.73
AP6	43	2.58	2.60	2.69	2.77	2.67	2.71
AP7	29	1.94	2.03	2.29	2.33	2.15	2.36
AP8	30	2.53	2.54	2.63	2.72	2.69	2.78
AP9	88	2.49	2.67	2.76	2.52	2.60	2.73
AP10	31	2.23	2.62	2.76	2.62	2.69	2.74
AP11	39	2.51	2.58	2.76	2.41	2.56	2.72
AP12	47	2.41	2.50	2.50	2.49	2.54	2.74
AP13	28	2.51	2.52	2.52	2.43	2.65	2.67
AP14	55	2.30	2.53	2.65	2.52	2.74	2.80
AP15	29	2.00	2.28	2.52	2.38	2.55	2.59
AP16	32	2.56	2.63	2.71	2.68	2.87	2.96
AP17	32	2.65	2.66	2.74	2.68	2.89	2.67
AP18	56	2.64	2.75	2.62	2.75	2.82	2.71
AP19	43	2.69	2.70	2.51	2.53	2.66	2.88
AP20	22	2.80	2.94	2.55	2.63	2.67	2.70
AP21	39	2.15	2.52	2.49	2.53	2.68	2.80
AP22	4	2.29	2.83	2.48	2.55	2.63	2.47
AP23	55	2.65	2.67	2.45	2.49	2.73	2.93
AP24	32	2.38	2.53	2.30	2.35	2.45	2.46
AP25	17	2.78	2.85	2.55	2.67	2.86	2.43
AP26	23	2.71	2.88	2.18	2.29	2.38	2.87
AP27	19	2.12	2.23	2.11	2.18	2.21	2.80
AP28	30	2.54	2.72	2.66	2.66	2.77	3.00
AP29	42	2.64	2.38	2.56	2.67	2.77	2.94
<i>Year of change of headteacher indicated by shading</i>							
AP30	31	<b>2.27</b>	2.35	2.41	2.58	2.63	2.96
AP31	27	<b>2.56</b>	2.65	2.86	2.88	2.76	2.87
AP32	37	<b>2.23</b>	2.31	2.38	2.78	2.48	2.60
AP33	16	<b>2.53</b>	2.56	2.64	2.81	2.60	2.93
AP34	24	<b>2.42</b>	2.48	2.58	2.59	2.11	2.80
AP35	59	<b>2.32</b>	2.44	2.56	2.57	2.45	2.47
AP36	21	<b>2.28</b>	2.47	2.68	2.61	2.73	2.91
AP37	25	<b>2.54</b>	2.54	2.57	2.48	2.64	2.74
AP38	20	<b>2.65</b>	2.71	2.33	2.50	2.63	2.65
AP39	32	2.18	<b>2.26</b>	2.67	2.12	2.21	2.52
AP40	67	2.40	2.51	<b>2.54</b>	2.54	2.65	2.70
AP41	24	2.31	2.42	<b>2.65</b>	2.67	2.62	2.72
AP42	39	2.63	2.72	<b>2.76</b>	2.31	2.44	2.56
AP43	48	2.46	2.73	2.78	<b>2.79</b>	2.67	2.79
AP44	19	2.21	2.95	3.00	<b>2.67</b>	2.76	2.77
AP45	32	2.46	2.61	2.67	<b>2.31</b>	2.73	2.79
AP46	63	2.46	2.75	2.48	<b>2.54</b>	2.56	2.65
AP47	55	2.58	2.61	2.29	<b>2.45</b>	2.52	2.65
AP48	28	2.29	2.59	2.36	<b>2.37</b>	2.50	2.84
AP49	39	2.54	2.66	2.86	2.30	<b>2.55</b>	2.74
AP50	46	2.66	2.67	2.69	2.34	<b>2.51</b>	2.59
AP51	35	2.53	2.64	2.75	2.78	<b>2.91</b>	2.82
AP52	65	2.53	2.29	2.49	2.56	<b>2.59</b>	2.62
AP53	17	2.75	2.78	3.00	2.59	2.84	<b>2.90</b>
AP54	35	2.18	2.46	2.59	2.12	2.41	<b>2.50</b>
AP55	31	2.24	2.31	2.48	2.41	2.67	<b>2.87</b>

**Table A.6: Primary schools with a large increase in attitude score.**

School	av size	2000	2001	2002	2003	2004	2005
<i>No change in headteacher</i>							
AP56	40	2.45	2.39	2.14	2.83	2.64	2.39
AP57	38	2.18	2.41	2.53	2.18	2.06	2.68
AP58	19	2.24	2.18	2.14	2.25	1.94	2.81
AP59	28	2.13	2.81	2.65	2.32	2.63	2.83
AP60	28	2.36	2.38	2.30	2.25	2.88	2.61
AP61	50	2.05	2.65	2.55	2.29	2.65	2.58
AP62	37	2.49	1.97	2.69	2.65	2.75	2.63
AP63	29	2.63	2.17	2.92	2.41	2.55	2.74
AP64	24	2.88	3.00	2.86	2.28	2.93	2.44
<i>Year of change of headteacher indicated by shading</i>							
AP65	24	<b>2.42</b>	2.48	2.58	2.59	2.11	2.80
AP66	37	<b>2.22</b>	2.47	2.28	2.48	2.03	2.66
AP67	49	2.38	2.16	<b>2.84</b>	2.60	2.40	2.90
AP68	35	2.65	2.31	<b>2.41</b>	2.24	2.86	2.35
AP69	19	2.21	2.95	3.00	<b>2.67</b>	2.76	2.77
AP70	20	2.23	2.64	2.04	<b>2.69</b>	2.71	2.67
AP72	29	2.60	2.11	2.66	2.50	2.17	<b>2.87</b>

large increase in 2001 that was not sustained. School AP26 showed a large drop in 2002, which then steadily increased again, and AP29 similarly had a large drop in 2001, which then steadily increased. None of these changes can be attributed to a change in headteacher.

For the schools where there was a change in headteacher, it is notable that where the new headteacher was appointed in 2000, the attitude scores generally increased thereafter, however in AP 39 the large increase following the new headteacher in 2001 fell away before being recovered in 2005. In AP42, a large drop followed in the year after the new headteacher in 2002, and was then recovered, whereas in school AP45 there was large drop in the year the new headteacher was appointed, followed by a large, and sustained, increase. In AP49 a large increase was associated with the

new headteacher in 2004, with a similar increase in the following year.

Again there is no consistency in the variation in attitude scores, either in schools where there was no change in headteacher, or in those where there was.

Large increases in attitude scores:  
primary schools

Following the analysis of the value-added scores we identified schools that had shown an exceptionally large increase in attitude score from one year to the next. Table A.6 below shows the attitude scores in the sixteen schools identified as having a change at least as large as the chosen value of 0.6

An exceptionally large increase was very difficult to sustain, for example school AP56 in 2003 and AP59 in 2001, but the large increase in school AP62 in 2002 was largely sustained. Large increases in the attitude score were also associated with the new headteacher in AP67 in 2002, AP70 in 2003 and AP72 in 2005, but there is insufficient consistency in the data to make any generalisations.

Predicting attitude scores and links to a new headteacher

There being no discernible pattern we also investigated the attitudes data using regression techniques in the same way as for the value-added scores.

#### *Scatter plots for secondary schools*

The resulting scatter plots for the secondary schools are shown as Figures A.1 to A.5. In each case the actual attitude score in 2005 is on the vertical axis, and its value predicted from previous years is on the horizontal axis.

The interpretation of these scatter plots is the same as for those referring to the value-added scores. The scatter is far wider than for the value-added scores and

these models do not explain the variation in the results as well as the similar models did for value-added. The schools where new headteachers were appointed are again highlighted, and are seen to be scattered about the line of best fit with no discernible pattern.

*Scatter plots for primary schools*

The resulting scatter plots for the primary schools are shown as Figures A.6 to A.10. In each case the actual attitude score in 2005 is on the vertical axis, and its value predicted from previous years is on the horizontal axis.

These scatter plots for the prediction

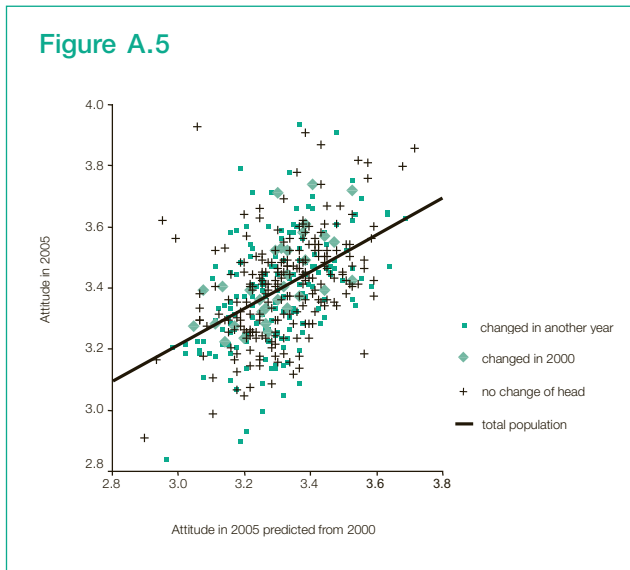
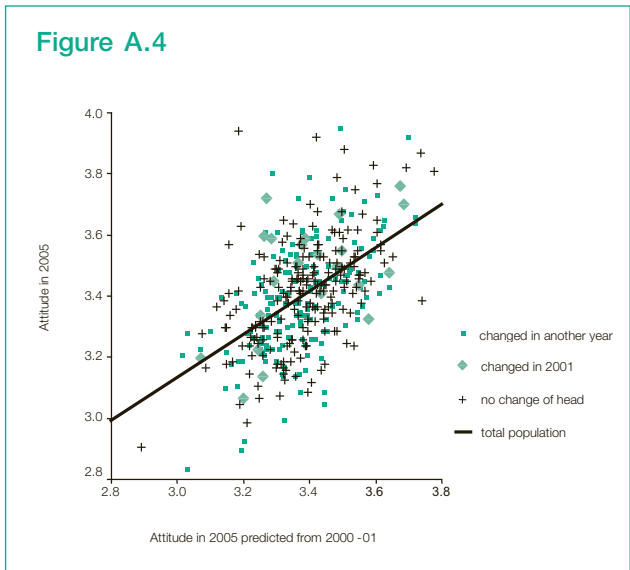
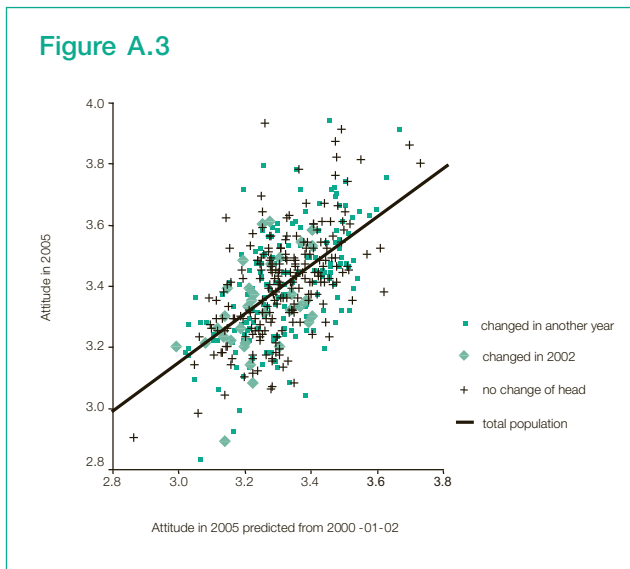
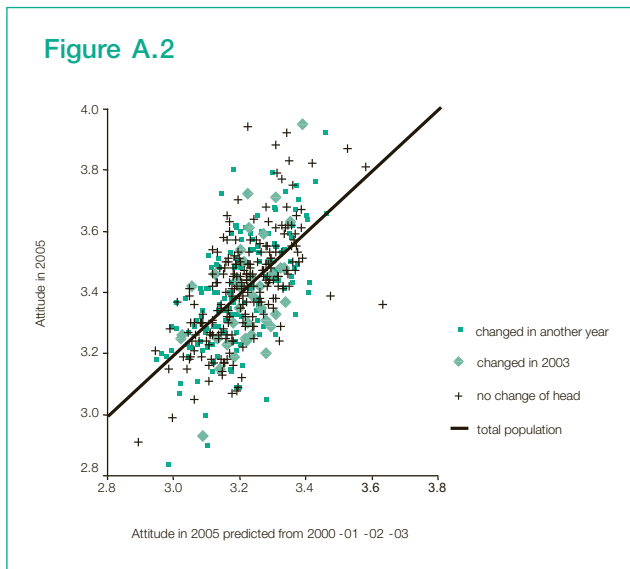
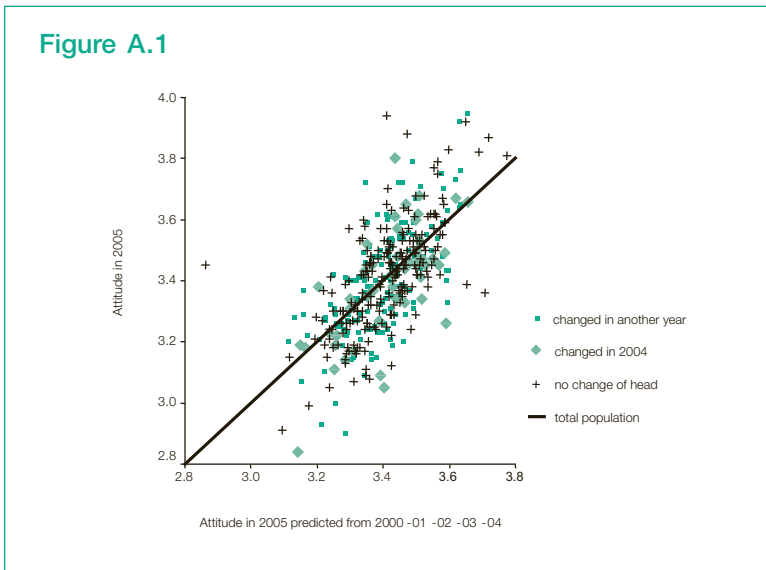
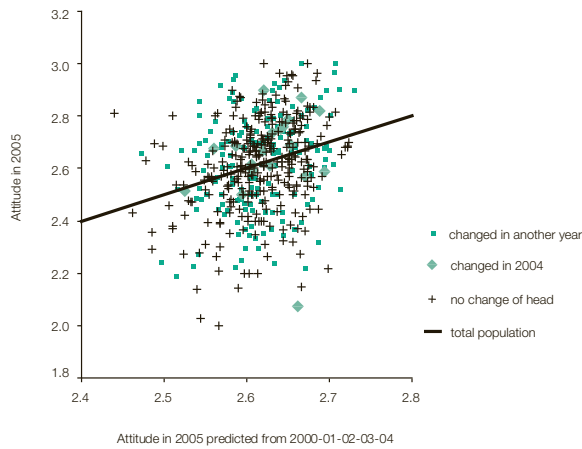


Figure A.6



of the attitude scores in 2005 have been included for completeness, but the scatter is very wide, and the value  $R^2$  is at best 0.07 indicating there is no predictive validity in these models. Again the schools and the year in which new headteachers were appointed have been highlighted, but they are scattered around the line of best fit and again no discernible pattern emerges.

These analyses have not shown any evidence from which we can associate changes in pupils' attitude with the new appointment of a headteacher.

Figure A.7

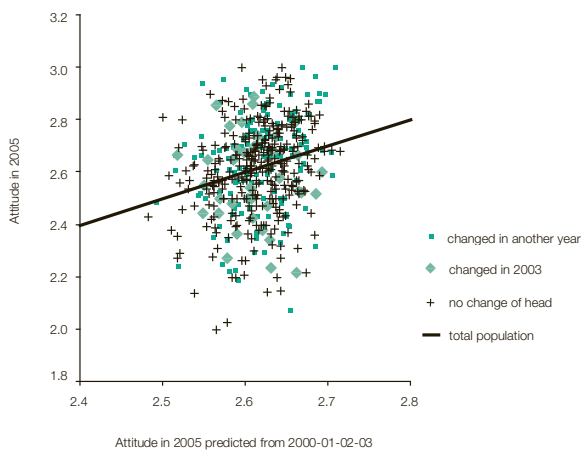


Figure A.8

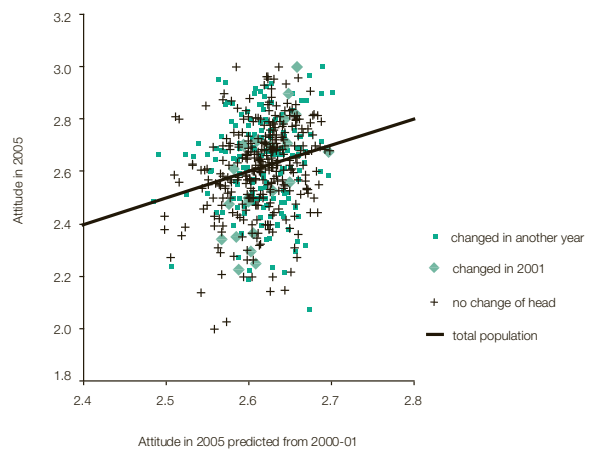


Figure A.9

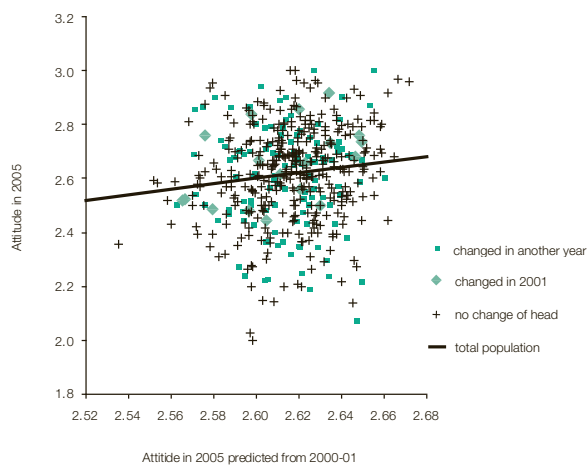
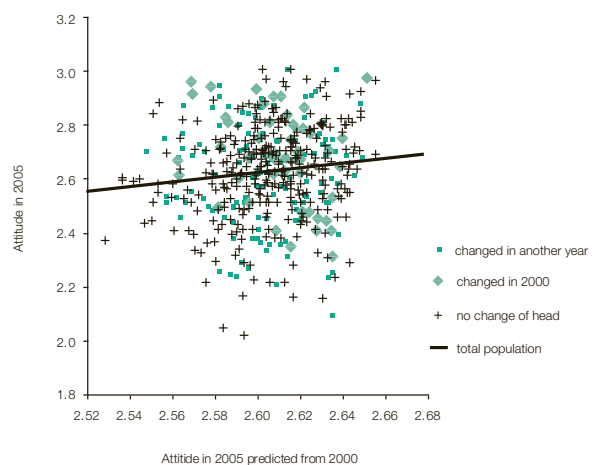


Figure A.10



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## Appendix B: statistics glossary

### Correlation

Correlation is a measure of the strength of association or the relationship between two variables; correlation values can vary between  $-1$  and  $+1$ . A correlation close to  $+1$  indicates a very strong positive relationship; (as one variable increases so does the other), whereas a correlation close to  $-1$  indicates a very strong negative relationship (as one variable increases, the other decreases). A correlation of  $0$  indicates there is no relationship between the variables.

### Scatter plot

A scatter plot shows the value-added scores from one year plotted against the value-added scores for another year; a straight line that best fits the data can be calculated and indicated on a scatter plot; the data typically forms an elliptical shaped scatter cloud around this line. A high correlation is associated with most points lying close to the line, and in this case the ellipse would appear as being narrow.

### Mean, median, standard deviation, variance

The mean of a dataset is commonly called the average. It is the sum of all the values in the dataset divided by how many there are.

The median is the middle value in the dataset when the values are put into numerical order.

The standard deviation is a measure of the spread of the data around the mean value.

The variance is another commonly used measure of the extent of the variation around the mean; the variance is the square of the standard deviation.

### Cohort size and reliability

In this study of value-added scores, there is variation in the value-added scores between pupils in any one particular school, and similarly once these scores are aggregated to give a score for the particular school, there is variation in the scores between the schools themselves. This is often thought of in terms of a level, and we can talk about pupil level variance and school level variance.

The term shrinkage is used, as in effect the data are made smaller by the shrinkage factor. The term reliability is also used, as the smaller the shrinkage factor, the less reliable is the data.

The shrinkage formula we have used is that used in so-called multi-level models

$$R = \frac{ns}{ns+p}$$

Where  $R$  is reliability or shrinkage;  $n$  is number of pupils;  $s$  is school level variance;  $p$  is pupil level variance

In our data the pupil level variance was not known, but we were able to obtain estimates for the reliability  $R$ , using intra-school correlation.

Intra-school correlation,  $c$ , is defined as

$$c = \frac{s}{s+p}$$

Many previous studies have shown that typically the value of  $c$  for secondary schools is  $0.15$  and for primary schools it is typically  $0.2$ . Assuming these values of  $c$  enables us to express the reliability in terms of  $n$ , the number of pupils in a cohort.

Thus

$$R \text{ secondary} = \frac{n}{n+5.67}$$



And

$$R_{\text{primary}} = \frac{n}{n+5.67}$$

And the larger the value of n, the smaller is the shrinkage effect and the higher is the reliability.

For example, for secondary schools the mean cohort size was 179, which gives R=0.97, which is almost negligible. The smallest cohort in the dataset had a size of 28, for which R=0.83

For primary schools the mean cohort size was 32, which gives R=0.89. For a cohort size of sixteen, the reliability R=0.8. We took 0.8 as the cut-off point for reliability and thus rejected all schools with a cohort smaller than sixteen. Thus we did not reject any of the secondary schools data, but did reject the data for about 100 primary schools.

#### Multiple regression

The simplest case of regression has already been discussed under its usual title of correlation, in which the “line of best fit” can be used to predict the value of one variable (the so-called dependent variable or the variable on the y axis) from another (the so called independent variable or the variable on the x axis). The value of the correlation is a measure of the reliability of the prediction. In multiple regression two, or more, independent variables are used to predict the dependent variable.

In all the multiple regressions that follow the dependent variable is the value-added in 2005. Using multiple regression we generated a series of equations to predict the value-added score in 2005 from the data in previous years.

#### Prediction equations for secondary schools

In this section we use notation, for example, va04 to mean the value-added score in 2004.

#### *Prediction for 2005 from 2000*

$$va05 = -0.11 + 0.90va00$$

$$R^2=0.55$$

#### *Prediction for 2005 from 2000 and 2001*

$$va05 = -0.10 + 0.35va00 + 0.66va01$$

$$R^2=0.63$$

#### *Prediction for 2005 from 2000, 2001 and 2002*

$$va05 = -0.10 + 0.15va00 + 0.34va01 + 0.59va02$$

$$R^2=0.70$$

#### *Prediction for 2005 from 2000, 2001, 2002 and 2003*

$$va05 = -0.99 + 0.8va00 + 0.19va01 + 0.35va02 + 0.48va03$$

$$R^2=0.74$$

#### *Prediction for 2005 from 2000, 2001, 2002, 2003 and 2004*

$$va05 = -0.07 - 0.13va00 + 0.20va01 + 0.14va02 + 0.25va03 + 0.53va04$$

$$R^2=0.80$$

The numbers in front of the va terms in the equations, such as 0.66va01, are a measure of

how much of the variation in the dependent variable, here the value-added score in 2005, can be explained by that particular independent variable. Thus, for example, the prediction made for 2005 from 2000 and 2001, the variation in the 2005 value-added, is explained 66 per cent from the value in 2001 and 35 per cent from the value-added in 2000. As more years are brought into the regression the influence of earlier years in explaining the variation diminishes. The statistic R2 is calculated during the regression technique, and is a measure of how well the model as a whole explains the variation in the dependent variable. An R2 value of 0.7 is usually regarded as very good model, so we see that, based on our independent variables, we have a very good model. However, there are many other factors involved in the complex social interactions of a school that will affect examination performance, and that have not been considered in this study.

Prediction equations for primary schools

*Prediction for 2005 from 2000*

$$va05 = 0.01 + 0.18va00$$

$$R2=0.03$$

*Prediction for 2005 from 2000 and 2001*

$$va05 = 0.03 + 0.13 va00 + 0.16va01$$

$$R2=0.05$$

*Prediction for 2005 from 2000, 2001 and 2002*

$$va05 = 0.01 + 0.07a00 + 0.11va01 + 0.24va02$$

$$R2=0.10$$

*Prediction for 2005 from 2000, 2001, 2002 and 2003*

$$va05= 0.01 +0.02va00 + 0.08va01 + 0.20va02 + 0.21va03$$

$$R2=0.13$$

*Prediction for 2005 from 2000, 2001, 2002, 2003 and 2004*

$$va05 = 0.01 - 0.01va00 + 0.06va01 + 0.14va02 + 0.18va03 + 0.22va04$$

$$R2=0.17$$

The values of the coefficients and the values of R2 are very much smaller for the primary schools than the secondary schools. Previous years can explain far less of the variability in the 2005 value-added scores, and the predictive power of even the best model, taking all previous years into account, is very weak.



We expect more of our headteachers than ever before. We want them to transform our worst schools and maintain the best. But is this fair? Can headteachers really make a difference? *The leadership effect* finds that, contrary to the received wisdom, heads have little influence on school performance and pupil attitudes. Perhaps this should not come as a total surprise; because we cherish stability rather than volatility in our schools, the system tends to limit the influence of individuals. Expecting heads to act as “superheroes” in these circumstances is unrealistic.

But what of failing schools, where the effect of stability is pernicious and drastic action is required to bring improvement? This report argues that a new regime is needed to shock these schools out of failure, one which brings the best heads and teachers to the schools where they are needed most and then equips them with the powers, freedoms and resources they need to succeed.

