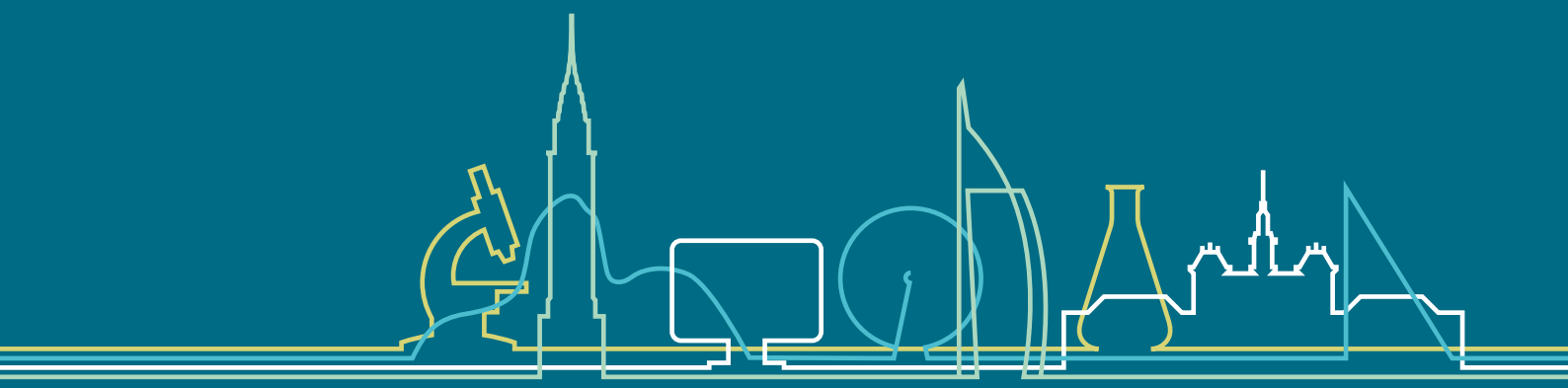
Research report by Alex Elwick and Tony McAleavy
With foreword by Steve Munby

Interesting cities: five approaches to urban school reform



Education Development Trust

Interesting cities: five approaches to urban school reform

Education Development Trust

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Education Development Trust

Education Development Trust, established over 40 years ago as the Centre for British Teaching, is a large educational organisation providing education services for public benefit in the UK and internationally. We aspire to be the world's leading provider of education services, with a particular interest in school effectiveness.

Our work involves school improvement through inspection, school workforce development and curriculum design for the UK's Department for Education, local authorities and an increasing number of independent and state schools, free schools and academies. We provide services direct to learners in our schools.

Internationally we have successfully implemented education programmes for governments in the Middle East, Sub-Saharan Africa and South East Asia, and work on projects funded by donors such as the Department for International Development, the European Commission, the Australian Department of Foreign Affairs and Trade, the World Bank and the US Agency for International Development, in low- and middle-income countries.

Surpluses generated by our operations are reinvested in our educational research programme.

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Foreword

This important report considers education reform in five global cities: London, New York, Dubai, Rio de Janeiro and Ho Chi Minh City. They represent, of course, five hugely different societies in terms of economic development, politics and culture. We chose these cities because each place seemed to have a promising story to tell about policy leading to improved quality outcomes for schools. The global education debate has rightly moved to a focus on quality and this is where the hard work really starts. Improving learning outcomes is difficult and it is easy to be pessimistic and defeatist. However, each of these stories provides grounds for optimism that the right choice of reform policy can make a real difference.

Untangling cause and effect is very difficult but in every one of these cities it is possible to see a connection between policy decisions and improved outcomes. Of course we need to be very careful about truth claims. Maybe these cities benefited from good policy but there are other important factors such as the power of culture and the aspirations of parents that almost certainly played a part. Another word of caution is required about the way the city reforms were introduced. We could not find a single case of reforms that had been trialled using robust impact measurement approaches, such as randomised controlled trials. In every case policymakers simply went straight to scale. As a result we cannot be absolutely sure about causal relationships and the analysis can only be tentative and provisional.

The cities are all distinctive and there is no single detailed blueprint for transformation. Despite this, some common themes emerged. They included a commitment in all the cities to practical measures intended to raise the status of the teaching profession, making school teaching a career of choice for talented graduates. It is possible to change the attractiveness of teaching to potential teachers.

In every one of the cities there was an emphasis on increasing the accountability of education professionals. At the same time there was also a recognition that accountability alone is not enough to drive reform. Teachers and school leaders also need access to first-rate professional development and the best people to provide this are excellent current practitioners.

Another theme that emerges powerfully from the case studies is the importance of leadership. In every city we found high-level political commitment to school reform, often sustained over several years. Our expert witnesses consistently described the centrality of ambitious, energetic and optimistic leadership at all levels, including leadership of the city-wide school system. The senior leaders, without exception, had a distinct Theory of Change and in each case went about implementation of this theory in a relentless, persistent way. The city-wide leaders were sometimes controversial but they were undoubtedly charismatic and driven senior leaders.

The authors of the report were keen not to overstate the achievements of the cities and not to oversimplify the analysis. There are also no grounds for complacency. Michael Barber talks about the need to ensure the irreversibility of the reform agenda. I don't think the achievements in any of these cities meet the irreversibility test yet. Achievements can be fragile and key person dependent. The story from the cities is fundamentally about leadership, but leaders come and go. Some of the key people associated with the transformation of these cities have now moved on. There is a danger that the trajectory of reform may not be sustained. So our optimism must be tempered with some caution. Nevertheless, these case studies do provide grounds for optimism. They show above all that it is possible to take action to break the connection between poverty and educational outcomes.

Steve Munby
Chief Executive
Education Development Trust

Chapter 1

Transforming urban education

All over the world policymakers responsible for urban school systems are exploring approaches to reform, driven by a desire to improve the learning outcomes for the more than one billion children living in the towns and cities of the planet.

The challenge and choice facing policymakers is at first sight bewildering. There is an enormous menu of potential policy levers for school reform. In 2015 the OECD identified no fewer than 63 possible major policy options.[1] The same study analysed over 450 separate initiatives that had been undertaken across 34 member states in recent years.[2] So which options should be chosen and how might they be effectively combined? This study is an attempt to make a modest, pragmatic and empirical contribution to the answering of this question. We explore five promising approaches to the challenges of school reform in five very different urban contexts: Ho Chi Minh City in Vietnam; London in the UK; Dubai in the UAE; Rio de Janeiro in Brazil; and New York City in the USA.

> We explore five promising approaches to the challenges of school reform in five very different urban contexts

These cities are dramatically different from each other in terms of economic development, political structures and culture. However, in each case there is provisional evidence of improved teaching and learning over recent years linked to the implementation of specific reform policies.

Our choice of cities

In choosing these cities we started not with theoretical models for reform but with real world evidence of improved outcomes. We identified places where learning outcomes or the improvement in learning outcomes looked impressive and where the success story appeared to be associated with a distinct approach to education policymaking. This led to our choice of these five cities. In each case there was measurable evidence of either a striking trajectory of improvement or a pattern of relatively high-level performance as measured by reliable test instruments. In each case there appeared to be an interesting policy context associated with the story of positive learning outcomes. Some of the headlines for each city's story are presented below:

- Using the national tests for 16-year-olds in England as the measure, Inner London has gone recently from being the worst-performing of the ten government regions in England to being second only to the more affluent region of Outer London. This extraordinary turnaround took place in just ten years.

[1] OECD 2015a (p.30) [2] OECD 2015a (p.20)

- Vietnam, the poorest country out of all 65 jurisdictions participating in PISA 2012, achieved the 8th best science results in the world. The Vietnamese students outperformed students from much richer countries such as the UK, the USA and most Western countries. We know that the results of the students in Ho Chi Minh City (HCMC) were better still than this impressive national average. HCMC has a graduation rate of 99% for those students enrolled in upper secondary, and a 98% literacy rate amongst those aged 15.
- In 2002 the high school graduation rate in New York City was just 50%. Today the rate is 75%. New York City is a much more disadvantaged place than the larger New York State, but the academic achievement gap has been closing rapidly between the City and the State.
- Dubai is a city-state within the federal United Arab Emirates (UAE). The UAE is the highest-performing state in the Middle East in terms of PISA performance and there was a marked improvement in PISA scores between 2009 and 2012. Results from PISA 2012 showed that Dubai's mean score of 464 in mathematics was higher than the mean result for Jordan (386) and Qatar (376).[3]
- Between 2003 and 2012 the increase in Brazil's PISA scores represented the largest performance gains of any country worldwide, with particularly impressive gains in mathematics. In the city of Rio de Janeiro (Rio) the functional illiteracy rate for 4th–6th grade students fell from 13.6 per cent in 2009 to 3.1 per cent in 2013.

These are, by any standard, interesting performance statistics. Our study sought to investigate the policy contexts within which these apparently impressive outcomes had been achieved.

In London, New York and Rio the reforms were driven by a commitment to close the gap between the performance of students from disadvantaged and more privileged backgrounds

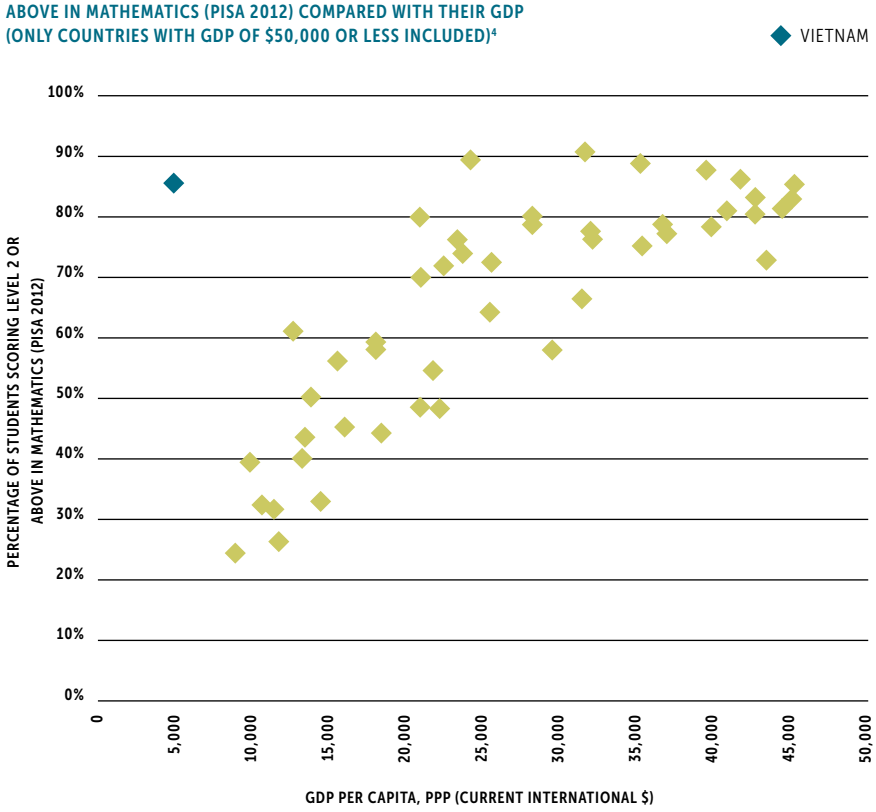
Case studies in education and equity

Our chosen cities were particularly interesting because the reform agenda was explicitly linked to issues of equity. In Dubai the government was concerned to make sure that all the ethnically diverse communities based in the city had access to a good quality of education. In London, New York and Rio the reforms were driven by a commitment to close the gap between the performance of students from disadvantaged and more privileged backgrounds. In London students from high-poverty backgrounds perform spectacularly better in national examinations compared to similar students in other parts of England. In Rio the focus for reform has been the need to improve outcomes for the students who live in highly deprived urban slums. In New York a major driver was a wish to reduce the disparity in outcomes between white students and those from other ethnic groups. The leaders in the cities were driven by a determination to show that there need not be a mechanistic relationship between socio-economic background and learning outcomes.

The Vietnamese story had a rather different global equity dimension. Worldwide there is a close connection between economic advantage and educational outcomes. The 2012 PISA results for mathematics, for example, when mapped against national income show a clear linkage between outcomes and wealth

[3] KHDA 2013

FIGURE 1.1: PERCENTAGE OF STUDENTS SCORING LEVEL 2 AND ABOVE IN MATHEMATICS (PISA 2012) COMPARED WITH THEIR GDP (ONLY COUNTRIES WITH GDP OF $50,000 OR LESS INCLUDED)[4]



at national level (see Figure 1.1). Vietnam is the outlier; the single poorest participating country that has achieved results in line with those of the richest countries. Vietnam appears to show at a global level that income need not determine outcomes.

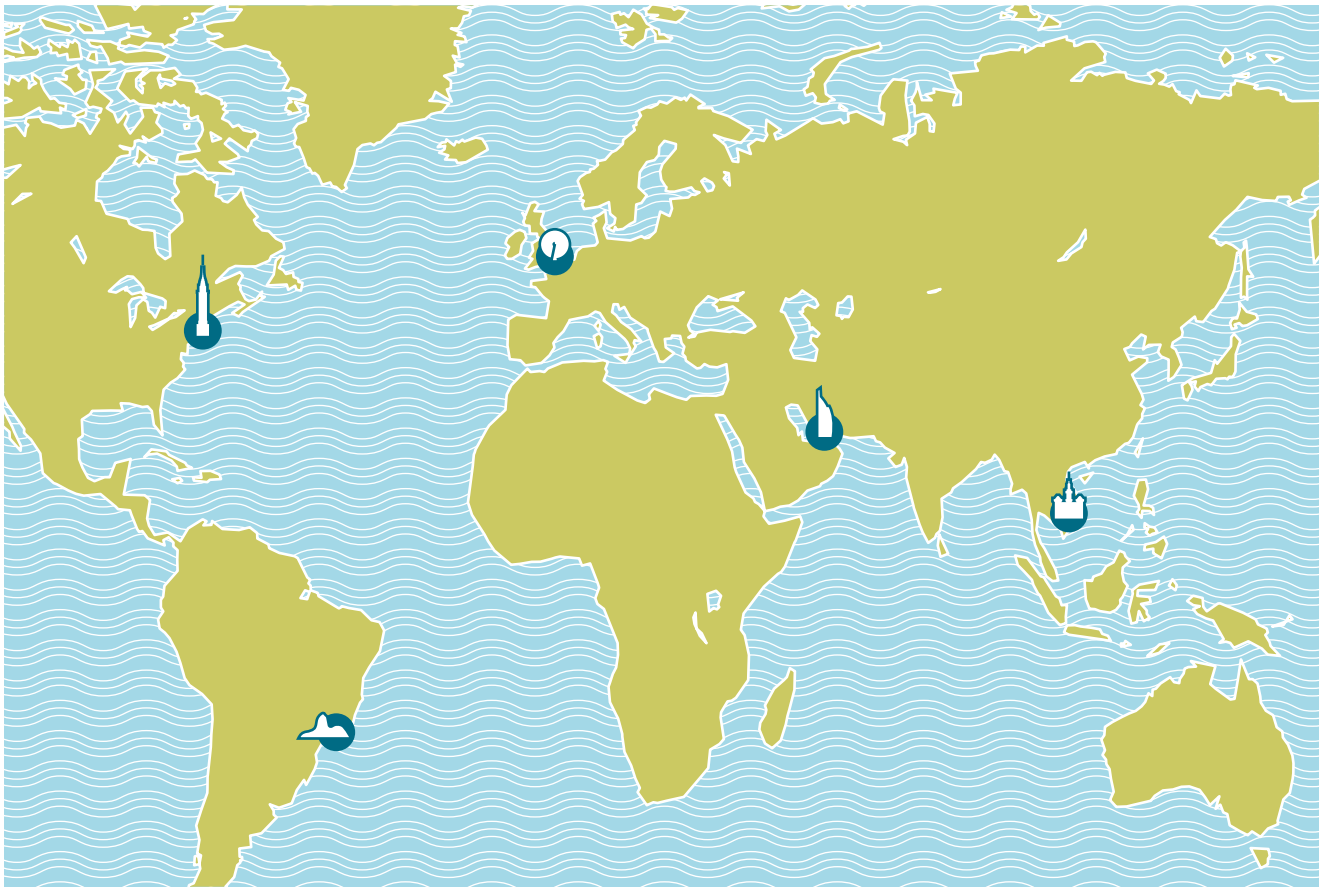
A diverse group of cities

Each city appeared to have an interesting story to tell. The diversity of the cities was also important. We deliberately sought to select a spread of cities in order to represent a range of different geographical and socio-economic contexts. The chosen cities are scattered widely across Europe, North and South America, the Middle East and Asia (see Figure 1.2). While these urban areas are markedly diverse, in each instance the cities constituted either the largest or second-largest centre of population in the respective country, each having a school-age population of at least a quarter of a million. Although only one of the five cities, London, is the national capital, each city is nonetheless nationally and internationally important. All five cities have been listed as 'global cities' on a respected index published by the consultancy firm A.T. Kearney.[5] The Kearney Global Cities Index ranks the world's top metropolitan areas in terms of five broad categories: business activity, human capital, information exchange, political engagement and cultural experience.

We deliberately sought to select a spread of cities in order to represent a range of different geographical and socio-economic contexts

[4] World Bank 2015b; OECD 2014 [5] Hales et al. 2014

FIGURE 1.2: THE FIVE CITIES



Methodology

The analysis in this report is based on three main data sources for each of our global cities:

- A review of relevant literature relating to the city (and in some cases, the country in which each city was located)
- A re-assessment of available data, particularly data relating to student learning outcomes
- In-depth qualitative interviews in each city with 'expert witnesses' from different backgrounds who had been involved in the reform process

The intention was first of all to confirm that school improvement had indeed happened in each of our chosen cities. We also used these sources to attempt to understand what had happened and why it had happened, with a particular emphasis on the views of participants in the reform process.

In total, over 100 key witnesses were interviewed, either individually or as part of small group sessions, from the five cities studied. These expert witnesses were a mixture of policymakers, government officials, university academics, school leaders and teachers.

Our data collection methods primarily focused on education at the school level. A common structure was used for the interviews with expert witnesses. The interview schedules broadly asked participants to describe their country's and city's education system; outline any changes that had taken place, particularly over the last decade; explain how and why they thought changes had occurred and whether these changes had led to improvement; and speculate on future challenges for education within their context.

The methodology was based on that used in two previous reports investigating school improvement in London: *School improvement in London* and *Lessons from London schools.*[6] These studies started from the premise that if you want to make sense of a situation, the best people to ask are those who were actors in different roles in the events. The testimony of these expert witnesses, combined with a thorough literature and data review, can provide unusual insights into the working of the reform process.

The key message of this report is that there are grounds for optimism about our ability to transform school systems

Where are the RCTs? The absence of robust testing of promising interventions

The key message of this report is that there are grounds for optimism about our ability to transform school systems. However, the findings need to be treated as tentative and provisional because the impact evidence is far from conclusive. In the case of the two cities that have received the most extensive analysis – London and New York – there is a lack of consensus among researchers and many of the claims for the effectiveness of policy are contested. This is not surprising because the policies adopted in the focus cities were not subject to exhaustive evaluation through the use of best practice experimental research. We could find no instances where approaches were tested using a randomised controlled trial (RCT) methodology as part of the design of the reforms. Few of the interventions described in this book were initially undertaken on a small-scale pilot basis, with 'roll-out' following on from a rigorous evaluation of the pilot. In almost every case the policymakers in our focus cities simply went straight to scale.

Across all five cities only one intervention can claim to be underpinned by conclusive evidence of impact, and this was the result of an accident. The small schools of choice (SSC) initiative in New York generated 'quasi-experimental' data of a high quality. This was an accidental consequence of the use of a lottery for school admissions purposes in New York. As a result of this lottery system of place allocation, attendance at these schools was randomised, and as such it was possible to make valid comparisons about the learning outcomes partly for students of similar backgrounds who either did or did not attend SSCs. This has made possible a definitive evaluation because 'it is valid to attribute any differences in their future academic outcomes to their access to an SSC.'[7] This research demonstrated conclusively that the introduction of these small schools in New York was highly effective in terms of enhanced learning outcomes.

It cannot be a coincidence that, with the exception of this 'natural experiment', none of the interventions in the cities was subject to rigorous initial scrutiny.

[6] McAleavy & Elwick 2015; Baars et al. 2014 [7] Bloom & Unterman 2013 (p.3)

Policymakers worldwide are impatient about results. They are not typically prepared to wait for the results of pilot phases or experiments involving a control group of schools that are excluded from new improvement interventions. This may be understandable but the result is that impact claims are necessarily weak. This is great pity because the case for replication of the promising practices described in this book would be greatly strengthened if the policymakers in these cities had insisted on more rigorous evaluation.

Some of our expert witnesses reinforced this point about policy and evidence. When asked to explain the change in London schools one of our interviewees replied that we simply do not understand the relative effect of different interventions:

> *'The honest answer is we don't know the reasons. Because we did no randomised controlled trials, we didn't say, "This group will be part of this, this group will be part of this, this group will have both interventions," so it's very hard to know.'*

Each city studied was unique and the five city reform strategies were all distinctive. Key contextual features varied enormously

No single blueprint for reform

Each city studied was unique and the five city reform strategies were all distinctive. Key contextual features varied enormously. The level of decentralisation of decision-making to the city authorities, for example, varied widely from place to place. The US federal government has relatively little power over schools in New York but the ministry of the national government in Vietnam has considerable say over policy in a city such as HCMC.

Although, as we shall see, there were several cross-cutting themes that linked together the reform stories, there were also distinctive city-specific reform strategies. In Rio alone a new city-level curriculum was developed. In HCMC there was little evidence of parental choice of school as an improvement lever but there was a distinctive focus on the need for a new pedagogy. New York was unique in that large schools were often broken up into much smaller units. We can learn from the diversity of reform in these cities as well as from the cross-cutting themes.

The poorer cities in our sample faced some different challenges to those in the more affluent cities, and this led to some different policy priorities. In Rio and HCMC there was insufficient funding available until recently to ensure the provision of a full day shift of schooling in all government schools. Correcting this was rightly a priority in these cities but was not an issue elsewhere.

In four out of five cities the focus for our investigation was on policy intended to improve government schools. The exception was Dubai. The Government of Dubai interprets its responsibilities differently from all of the other government authorities in this study. The private school sector dominates, with almost 90% of students and more than half of Emirati students attending a private school. With public schools being a federal responsibility, the Dubai authorities have concentrated their efforts on improving the quality of the private school system. The result is a flourishing and highly diverse private school system that offers a great variety of curricula across a wide range of fee rates. This policy context was not found in any other city.

Beyond a compartmentalised view of policy effectiveness

Throughout our study we sought to compare policy in practice with the policy guidance that has emerged from the most robust educational research. We made particular use of John Hattie's work, including his influential meta-analysis, *Visible learning*, which was published in 2008. Hattie's findings often coincided with the policies in action. There was, for example, a widespread recognition in our case study cities of the importance of diagnostic assessment and feedback at the level of the individual student. What was more interesting was that, on occasion, there was an apparent disconnect between Hattie's meta-analysis and the lessons from the cities. Our conclusion was that it can be seriously misleading simply to base policy on headline findings relating to the effectiveness of single policies reviewed in isolation. This view has recently been articulated by Hattie himself in the context of the debate about the impact of reduced class size. Hattie's overall meta-analysis suggests that reducing class size is likely to have zero effect on outcomes. Recently he has indicated that reducing class size might indeed improve learning outcomes but only in combination with other strategies. He commented that 'reduction needs to be aligned with specific, evidence-based proposals for investment in teacher expertise to teach differently – and more effectively – in smaller classes.'[8]

The question of policy on class size arose in Vietnam. In HCMC our expert witnesses spoke in consistently positive terms about the beneficial impact of investment in reduced class sizes. This might seem to run against research findings but perhaps the difference is that this policy lever was not used in isolation in HCMC. The reduction in student-teacher ratios in HCMC was explicitly linked to a requirement on teachers to adopt a much more student-centred pedagogy for which substantial teacher training was provided. The investments were aligned carefully with changes in the curriculum and the pedagogy. The reduced class sizes provided an opportunity for changes in teaching styles. So while the reductions in class sizes in Vietnam may not have been solely responsible for improved pupil outcomes, the combined effect of this and investment in teachers and in teacher training is likely to have made a difference.

We saw a similar issue in Rio over the question of grade retention. Hattie has synthesised hundreds of studies, for example looking at the impact of grade retention/repetition whereby students are held back a year if they fail to meet the curriculum requirements of the grade. The headline finding was that overall this policy was likely to have a negative impact on learning outcomes. However, the policy of grade retention/repetition was not abolished but rather introduced by Claudia Costin as part of her apparently successful reform strategy in Rio. At first sight this seems to be entirely contrary to the research evidence. The key difference is that Costin did not simply introduce grade repetition and expect this act alone to drive improvement. She combined grade repetition with a highly individualised catch-up tutoring programme for the students who were not operating at the level of the age-related expectations.

Throughout our study we sought to compare policy in practice with the policy guidance that has emerged from the most robust educational research

[8] Hattie 2015a (p.11)

There is a danger that policy instruments are seen too much in a compartmentalised, atomised way by policymakers. It can be the judicious combination of reinforcing policies that leads to beneficial change.

It is also important to recognise the significance of context. Education policy should not be a question of the application of immutable laws that always operate in the same way in all situations. Although investment in education is not a predictor of pupil outcomes in the majority of Western countries, it appears to be a good predictor of mean pupil performance among middle- and low-income countries.[9] Hattie has suggested that there might be a 'tipping point': a threshold of investment up to which additional expenditure does make a significant difference in terms of learning outcomes. As Vietnam is a lower middle-income country[10] it seems likely that the increased spending on education evident in the period in question was below this threshold and therefore a contributor to improved performance.[11]

Without exception the reformers sought to make professionals more accountable for their work

Cross-cutting improvement themes

Although each city had a unique story there were also key themes that connected several of the different narratives. Our analysis identified seven key themes:

- **Effective leadership at all levels.** We saw a consistent pattern of education reform supported by committed political leadership. In several of the cities, inspirational educational leadership was provided by those in charge of the reform project at city level. At school level, principals and other school leaders played a pivotal role in the practical implementation of reform.
- **Data-driven reform.** The fuel for the engine of reform was, in several cases, reliable performance data. The existence of such data made it possible for the reformers to challenge underperformance and to identify the outlier schools where performance was exceptionally good.
- **Building coalitions for change.** Although some reformers were more successful than others, all recognised the importance of an effective communications strategy. By building coalitions of different stakeholders they sought to create momentum for change. In particular the leaders in each city reached out to teachers, who were potential opponents of change, and to parents, who had the potential to apply local pressure for change.
- **Making teaching a career of choice for talented young people.** The city reform projects often involved a new teacher recruitment strategy. While it is possible to make significant incremental progress by training the existing workforce, it is much easier to make transformational 'step change' progress if the fundamental calibre of the teacher workforce is improved.
- **Combining high accountability with high levels of professional support.** Without exception the reformers sought to make professionals more accountable for their work. This was done in different ways, including school inspection, teacher performance management and the publication of student test results. In every case there was also a recognition that accountability was not enough; teachers also needed access to high quality support through, for example, the provision of better resources and better training.

[9] Hattie 2015a (p.25) [10] World Bank 2015c [11] Hattie 2015a (p.25)

FIGURE 1.3: CROSS-CUTTING IMPROVEMENT THEMES

- **New forms of government school provision.** In several of the cities new types of government school were established as part of the reform agenda. Although the impact of these measures is contested, there is some evidence that the new schools achieved better outcomes than conventional government schools and applied a useful competitive pressure on the whole school system.
- **An emphasis on school-to-school collaboration.** The reformers often sought to strike a balance between creating momentum for change through competition, while at the same time making possible different forms of collaboration across schools. There was, in particular, a tendency to link together high-performing and low-performing schools in order to close the gap in learning outcomes.

Each of these seven key themes is explored in more detail in the following section.

> The reformers often sought to strike a balance between creating momentum for change through competition, while at the same time making possible different forms of collaboration across schools

Key theme 1: Effective leadership at all levels

In each of our case study cities there was evidence of high-level political commitment to school reform, often sustained over many years. Our expert witnesses consistently described the centrality of ambitious, energetic and optimistic leadership at a high political level. We found that the senior leaders in each city had a distinct 'theory of change' and in every case they went about the implementation of this theory in a relentless, persistent way. In London, for example, we saw a highly unusual consistency in policy from 2000 onwards. Similarly, there has been a consistent set of guiding principles for reform in Vietnam since the 1998 Education Act. The Dubai authorities have been pursuing a policy of accountability and support for informed parental choice consistently for a decade.

In New York, London and Rio our expert witnesses repeatedly highlighted the contribution of key individual city-level leaders such as Joel Klein, Tim Brighouse and Claudia Costin. Klein was the schools chief for Mayor Michael Bloomberg.

Brighouse ran the London Challenge project and Costin was the Secretary of Schools for the city of Rio. These were sometimes controversial figures but they were undoubtedly determined and driven senior leaders. In Dubai the work of the Knowledge and Human Development Authority (KHDA) is closely associated with the work of one leader, Dr Abdulla al Karam, who has been the Director General of KHDA since its inception ten years ago.

Several of the city-level leaders had a background outside the sphere of school education. Claudia Costin in Rio was a university academic before moving into the area of school reform. Abdulla al Karam in Dubai has a professional background in information technology. Joel Klein in New York is a lawyer by training. Perhaps the unconventional background of these leaders enabled them to think radical thoughts and to challenge existing orthodoxies when shaping school reform in their cities.

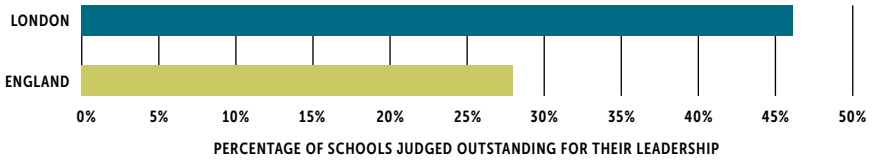
One of the most important forms of leadership that was frequently mentioned by our expert witnesses was that of the headteacher. In London, New York and HCMC there was a strong concept of the headteacher as the instructional leader whose core role was the monitoring and improvement of teaching and not administration. Our Vietnamese witnesses were surprised by the question when we asked whether HCMC headteachers spent much time monitoring teaching quality. Of course, they replied, what else would you expect effective headteachers to do? The New York and Rio reforms explicitly focused on building the capacity of headteachers in such areas as school-based decision-making and data analysis. The leaders of the best schools were expected to act as system leaders and in three of the cities – Rio, London and HCMC – there were formal twinning relationships between highly effective and weak schools. In Vietnam the senior staff of the district education system are almost exclusively drawn from the cadre of highly effective school leaders. This gives them the expertise and the credibility needed to engage in a dialogue about quality with the schools.

The training of school leaders was taken seriously in the cities. London schools benefited from the work of the National College for School Leadership in England. Klein's reforms in New York placed particular emphasis on the development of the capacity of school principals. A new leadership training institute was established in New York. Vietnam has two national institutes for the development of educational leaders including school principals: one for the north and one for the south of the country, based in Hanoi and HCMC respectively. In addition to the training of education leaders the institutes also undertake research into aspects of education management. Future principals and vice-principals are given training prior to taking up their roles.

The investment in leadership capacity appeared to pay dividends. Take the example of London. After a decade of reform the school leaders of London were judged by the national school inspectors to be more effective than school leaders in every other region of England. There was a particularly wide difference between the percentage of leaders judged Outstanding (the top grade) in London compared to England as a whole (see Figure 1.4).

In London, New York and HCMC there was a strong concept of the headteacher as the instructional leader whose core role was the monitoring and improvement of teaching and not administration

FIGURE 1.4: PERCENTAGE OF SCHOOLS GRADED OUTSTANDING FOR THEIR QUALITY OF LEADERSHIP IN LONDON AND IN ALL ENGLAND[12]



Key theme 2: Data-driven reform

Good quality performance data appears to be an essential precondition for system reform. A preoccupation with management information about student outcomes was found in all the cities. Benchmarking the performance of schools allowed the authorities to identify both positive and negative outliers: high-performing schools and weaker schools serving similar communities. This made possible the identification of the best practice and the targeting of support.

A concern for data underpinned all the major reform initiatives that were enacted in London from 2000 onwards. In particular, London Challenge placed performance data at the heart of the programme. The schools that received the highest level of support were identified through the use of consistent data-based criteria. There was careful benchmarking of school performance against other schools with similar characteristics. This 'family of schools' data was a major feature of the London methodology. The use of data in London was greatly assisted by the reforms in assessment and school inspection that had taken place at national level in England in the decade before 2000. By 2000 a robust national system of student testing and school inspection was in place that generated a substantial body of performance data. The use of the data for benchmarking purposes was singled out by expert witnesses in London as a particularly powerful form of management information:

> *'I thought the way the data allowed you to pair schools ... was a revelation, so I could go to a head of a school in East London and I could say "I know you tell me you're like no-one else in Tower Hamlets, so what about this school in Hammersmith – it's got exactly the same proportion of boys there, exactly the same proportion of free school meals ... now tell me why you're not doing as well as that school?"'* (Former district education official)

The New York approach was very similar, with an emphasis on data-based benchmarking. Klein, like Brighouse, saw the power of comparative performance data as a spur to improvement.[13] As in London, New York schools were grouped together based on their intake and the students they served.[14] One of our expert witnesses emphasised the importance of precise benchmarking:

> *'Apples to apples on performance – meaning we didn't compare principals in high-poverty communities with principals in middle-income communities. We looked at comparable schools; we measured progress as the key variable.'* (Former senior official)

The schools that received the highest level of support were identified through the use of consistent data-based criteria

[12] Ofsted 2015 [13] Klein 2014 (p.201) [14] Nadelstern 2013 (p.21)

Claudia Costin in Rio also placed data at the heart of her approach to reform. She introduced key tests at the end of each two-month curriculum block. This provided a rapid feedback loop. These bi-monthly tests (in Portuguese, mathematics, science and writing) provided a management tool for school principals and city officials. As in London, the emphasis was on benchmarking performance. The data was analysed at every level of the system down to individual students. 28,000 individual students in Grades 4–6 were identified as being 'at risk' in terms of their literacy and a highly successful catch-up programme was put in place. During Costin's initial period in office the new testing framework allowed her to identify students who were functionally illiterate, leading to the inception of remedial classes to help them catch up.[15] Costin set a target of ensuring 95% functional literacy for 6th Grade students by 2016. This target was comfortably exceeded and by 2013 Rio had achieved a 97% literacy rate. None of this would have been possible without the emphasis on data.

Key theme 3: Building coalitions for change

All the policymakers in our case study cities saw that there was a need to 'win hearts and minds' of different groups, particularly of teachers and parents. In each case they sought to build momentum for change by reaching out to the key stakeholders.

All the policymakers in our case study cities saw that there was a need to 'win hearts and minds' of different groups, particularly of teachers and parents

The introduction of a new inspection regime in Dubai from 2007 was accompanied by a careful communications campaign so that different stakeholders were well informed about the rationale behind the reforms. The government wanted some very different groups to support the changes: private school owners, school principals and teachers, the business community, media and parents. This communications campaign has been very successful, to such an extent that the new transparency about school performance is now effectively irreversible. Parents and the media now see transparent inspection data as a clear entitlement. The best schools appear to welcome scrutiny and the opportunity to engage in a professional dialogue about school effectiveness.

In the very different context of HCMC, our interviews with stakeholders also suggested that there had been a highly successful communications strategy resulting in a shared understanding of the reform agenda at every level of the system, including professionals of all types as well as parents and community groups. The authorities in HCMC had apparently created an effective 'coalition for change', with parents as a key part of the coalition. The teachers and school leaders that we interviewed consistently mentioned their successful engagement with parents as partners in educational transformation.

Tim Brighouse in London took communications with stakeholders very seriously. In particular, he was keen to enlist the support of the staff of underperforming schools as part of the reform coalition. Sensing that these schools were feeling demotivated by extensive negative publicity, he deliberately designated them as 'Keys to Success schools' in order to create a positive, constructive relationship with the teachers.

In her reflections on the reform project in Rio, Claudia Costin has stressed that the success of her programmes was only possible as a result of a deliberate policy of engaging with the workforce. She said: 'You can only transform education together

[15] Costin 2014

with the teachers.'[16] The new curriculum in Rio was co-constructed by city officials and serving teachers so that teachers would have a sense of real ownership of the proposed approach to learning. Costin was aware that there were limits to the extent to which she could ask for more from the workforce. She was constantly mindful that she might provoke teachers into resistance. She described, in interesting terms, how she consciously set a 'speed' for the reforms at a level that she thought the workforce could tolerate: 'The speed was given by the capacity of having teachers on board. We challenged them to the limit, but not more than the limit.'[17]

Although all the policymakers attempted to reach out to teachers, some were more successful than others. Claudia Costin in Rio made teacher engagement a priority but she also had significant disagreements with the city's teaching union and the schools were disrupted by a serious teachers' strike in 2013. Joel Klein in New York had great difficulty establishing a good working relationship with the school workforce and saw this as his greatest source of frustration when looking back at the New York reforms.

Key theme 4: Making teaching a career of choice for talented young people

It has long been known that in educationally high-performing countries, such as Finland and Japan, talented school-leavers often choose to become school teachers because teaching is a respected profession, seen on a level with other prestigious professions such as medicine and law. The status of teachers in any society is linked to history and culture. However, it is possible to make changes in the way teaching is perceived. Policymakers in several of the case study cities made strenuous efforts to improve the quality of new recruits to school teaching. They achieved considerable success.

In HCMC there was an emphasis on the professionalisation of the workforce. The qualification level of primary and lower secondary school teachers has improved considerably since 2000. There was a consensus among our Vietnamese expert witnesses that the current generation of teachers was the best ever; one government official in HCMC told us that he believed that the quality of teaching staff was now 'exceptionally high'.

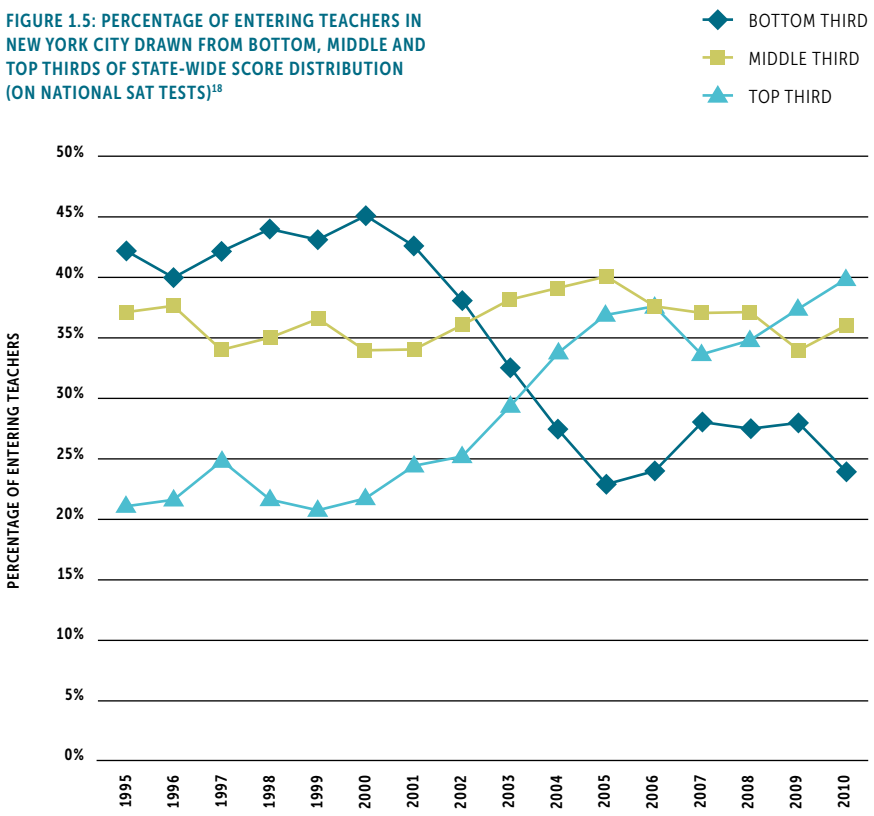
In New York, Klein made the transformation of teacher quality into a top priority. The entry requirements for teaching were raised and there was a dramatic improvement in the likelihood of young people who were in the top third in the pre-university aptitude test choosing to become teachers. This dramatic improvement is shown in Figure 1.5.

The key teacher recruitment reform in London was the programme called Teach First which began in 2003. Teach First provided a new route into teaching for some of the highest-performing graduates of top UK universities. These recruits made a commitment to teach for two years in very disadvantaged government schools in London. The Teach First programme contributed significantly to a new perception of teaching in London as a high-status profession for idealistic and talented graduates. The scheme was extremely successful and helped change perceptions in London

The new curriculum in Rio was co-constructed by city officials and serving teachers so that teachers would have a sense of real ownership of the proposed approach to learning

[16] Pearson 2011 [17] Costin 2014

FIGURE 1.5: PERCENTAGE OF ENTERING TEACHERS IN NEW YORK CITY DRAWN FROM BOTTOM, MIDDLE AND TOP THIRDS OF STATE-WIDE SCORE DISTRIBUTION (ON NATIONAL SAT TESTS)[18]



about teaching as a career for ambitious young people. As one of our expert witnesses said:

> *'What it did was it said that teaching is, you know, a top class thing to go into. You know, it made it desirable to be a teacher.'* (Headteacher)

Key theme 5: Combining high accountability with high levels of professional support

The reform strategies in all five cities combined robust scrutiny of professional performance with substantial programmes of support. In HCMC the challenge and the support operated at the level of the school and, particularly, at the level of the individual teacher. Each teacher was subject to a rigorous programme of performance management. Each teacher also had access to systematic mentoring and extensive professional development. The 2013 OECD analysis of the performance management of Vietnamese teachers that was undertaken as part of the PISA process revealed a striking situation in Vietnam compared to OECD averages. Vietnamese teachers were much more closely monitored and much more likely to receive professional support and to be rewarded for good professional performance compared to the OECD norms.

In London the principal forms of accountability came via a tough national regime of school inspections and reliable national tests for all 11- and 16-year-olds, for which the results were published. Tim Brighouse, the director of the London

In HCMC the challenge and the support operated at the level of the school and, particularly, at the level of the individual teacher

[18] Lankford et al. 2014 (p.28)

Challenge programme, accepted these accountability methods but felt that there was an imbalance between these high levels of challenge and the low levels of support. He ensured that London teachers, particularly those in low-performing schools, also received greatly enhanced levels of training and coaching.

The Dubai reforms, especially, placed a big emphasis on the power of accountability through school inspection leading to published inspection reports. It seems that high accountability through inspection can lead to improvement through at least two mechanisms: the results of the inspection can be used by parents to apply pressure for change; and the inspection expectations can also be used by schools themselves for the purpose of improvement planning. The research of Melanie Ehren into inspection systems in six European countries has shown the importance of this latter possibility. Ehren has demonstrated that inspection can enhance schools' internal management capacity by providing a picture of excellence that school leaders can internalise via their own school development planning.[19] Our expert witnesses in Dubai confirmed this tendency, with the inspection Framework view of excellence (or 'outstanding' provision in the words of the Framework) featuring prominently in the internal planning of school leaders:

> *'Our school improvement plans are based completely on, almost completely on, the recommendations and on the frameworks and what it is to be Outstanding.'* (School director)

The inspection system in Dubai began in 2007. By 2011/2012 it was clear to the policymakers that there was a need to mobilise the knowledge about best practice identified through inspection. The result was the 'What Works' initiative, launched in 2012. This series of ongoing professional development events has been designed as a way to foster collaboration between schools and is focused on the sharing of best practice. It is run by schools for schools, with support from KHDA.'[20] The accountability mechanisms have created a common vocabulary relating to school quality in Dubai. The What Works programme allowed teachers across schools to use the common vocabulary in a dialogue about school improvement.

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FIGURE 1.6: PERCENTAGE OF STUDENTS IN SCHOOLS WHERE THE PRINCIPAL REPORTED THE FOLLOWING MONITORING METHODS[21]

	Tests or assessments of student achievement	Teacher peer review of lesson plans, assessment instruments and lessons	Principal or senior staff observations of lessons	Observations of classes by inspectors or other persons external to school
Vietnam	98	83	97	85
OECD average	78	60	69	27

FIGURE 1.7: PERCENTAGE OF STUDENTS IN SCHOOLS WHOSE PRINCIPAL REPORTED THAT APPRAISALS OR FEEDBACK LED DIRECTLY TO THE LISTED ACTIONS[22]

	A change in salary	A financial bonus	Opportunities for professional development	A change in the likelihood of career advancement	Public recognition from the principal	A role in school development initiatives
Vietnam	72	92	98	95	99	92
OECD average	27	30	73	53	79	81

[19] Schoolinspections 2014 [20] Thacker & Cuadra 2014 (p.26) [21] OECD 2013b (p.156) [22] OECD 2013b (p.157)

Key theme 6: New forms of government school provision

In Rio, New York and London the reforms involved the introduction of new forms of government school that provided competition to conventional government schools. In each case there was a sense that many government schools in disadvantaged areas had completely failed in terms of learning outcomes and had thereby harmed the life chances of their students. The 'Schools of Tomorrow' in Rio, the academies in London and the charter schools and Small Schools of Choice in New York were all established on the sites of previous government schools that had repeatedly failed over many years. In each city these new schools served the cities' most disadvantaged communities and sought to establish a new 'no excuses' culture that rejected the apparent inevitability of failure on the part of high-poverty students.

In Rio, New York and London the reforms involved the introduction of new forms of government school that provided competition to conventional government schools

Establishing new schools was a central component of Klein's reforms in New York. One of our expert witnesses summed up his philosophy as follows:

> *'Get rid of the lowest performing schools, create new ones that were mission-driven, working at a scale that made it more feasible to address the needs of individual kids and then opening up the options for kids to be able to pick the places that were going to be the best fit for them and their families.'* (Academic in New York)

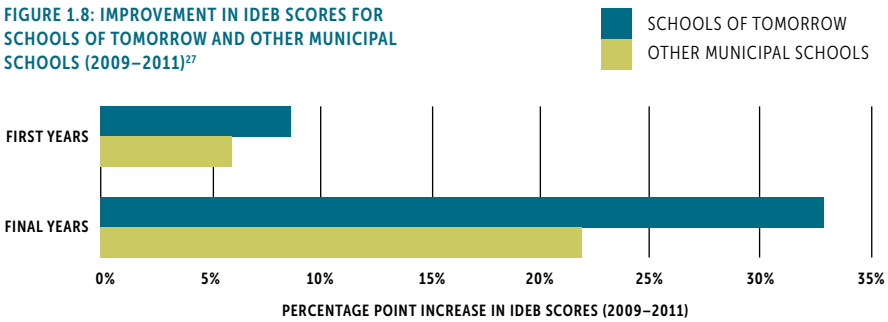
Klein used two types of new school. The small schools of choice (SSCs) were, as the name suggests, considerably smaller institutions than the often enormous failed schools that they replaced. Sometimes several diverse SSCs were established on a campus where once a single large school had existed. The SSCs have some of the best impact data of any initiative described in this report and the indications are very positive. Klein also encouraged charter school operators to expand the charter school sector in the city. These schools were free from municipal control and often had a distinctive curriculum.

The new academies in London were very similar to New York charter schools. The academies were publicly funded autonomous schools that were not required to follow the national curriculum and were freed up from municipal control. Many of them were organised in formal collaborative arrangements, known as 'chains'.[23] The programme began in 2002 when some chronically underperforming London schools, and schools in other areas of England, were closed and re-opened as academies. Although the evidence for their performance is mixed, the best new academies are now seen as some of the highest-performing government-funded schools in England.[24] Our expert witnesses discussed the direct and indirect effect of these academies; the direct impact was concerned with the turnaround of individual previously failing schools, the indirect impact came through the way the new schools injected a new form of competitive pressure into the London system.

In both London and New York the new schools were typically established in high-poverty areas. This was also the approach in Rio. Costin identified 151 schools in the urban slums where learning 'was almost impossible.'[25] The schools were closed and re-opened as 'Escolas do Amanha', that is 'Schools of Tomorrow'.[26] These new schools had improved facilities and learning resources, better quality teachers and an extended school day.

[23] DfE 2015b (p.1) [24] NAO 2012 [25] New York City Global Partners 2011 (p.1) [26] Costin 2014

FIGURE 1.8: IMPROVEMENT IN IDEB SCORES FOR SCHOOLS OF TOMORROW AND OTHER MUNICIPAL SCHOOLS (2009–2011)[27]



Student assessment data suggests that the Schools of Tomorrow programme has been highly successful. There was a dramatic reduction in truancy rates after the opening of the schools. In terms of standardised test scores, students in these schools made rapid progress in the early years of the project (see Figure 1.8).

Key theme 7: An emphasis on school-to-school collaboration

Expert witnesses in several of our case study cities identified the importance of collaborative arrangements between schools and particularly between school leaders. In HCMC there are regular meetings of headteachers at district level to undertake joint problem solving. Interviewees described the vertical and horizontal dimensions of these meetings, by which they meant that there was a collaborative horizontal or peer-to-peer element to the process as well as a form of vertical or 'top-down' accountability built in to these arrangements. In HCMC there are also formal partnership arrangements between some of the more effective and less effective schools, brokered by the middle-tier authorities.

Expert witnesses in several of our case study cities identified the importance of collaborative arrangements between schools and particularly between school leaders

At the heart of the London Challenge methodology was a twinning relationship between the low-performing schools and high-performing schools which were designated as teaching schools. The heads of the teaching schools and other outstanding headteachers provided coaching support to the heads of the low-performing schools. While collaborative relationships were central to the London reform project there was also a recognition that schools needed assistance when working collaboratively. Highly effective headteachers may need training, for example, in order to work as consultant headteachers providing coaching to others.

Collaboration is also the central principle of the Dubai What Works initiative. Our interviewees in both London and Dubai considered that they had moved from a period of high competition to a phase characterised by a mix of competition and collaboration.

In Rio, Claudia Costin herself personally brokered partnership arrangements between the leaders of the best-performing schools and the worst-performing schools. As in London the data was the basis for the twinning arrangements. Costin called the high-performing schools 'godmother schools'. In Rio, as in London, there was an expectation that one of the responsibilities of a high-performing school was that it should undertake outreach of this sort.

[27] Prefeitura do Rio de Janeiro 2014 (p.42–3)

Chapter 2

Ho Chi Minh City, Vietnam

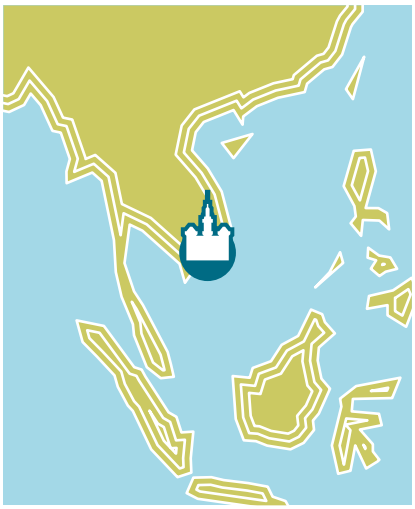
Vietnam is the easternmost country on the Indochina peninsula in south east Asia and, with around 93 million inhabitants, it is the world's 13th most populous country. Its largest city, Ho Chi Minh City (formerly Saigon), is located in the south of the country and has a population of almost eight million.

Vietnam stunned the world[28] when, in the 2012 international PISA tests, it was ranked 17th out of the 65 participating countries.[29]

Vietnam's performance in the PISA tests was surprising given its status as a lower/middle-income country[30] and the fact it had the lowest GDP per capita of any of the countries participating.[31]

Education in Vietnam follows a 5-4-3 pattern, with students from the age of six undertaking five years at primary school, four years at lower secondary and three years at upper secondary. Education across the country is organised by the Ministry of Education and Training (MOET), although much decision-making power relating to pre-schools and general education is decentralised to provincial Departments of Education and Training (DOETs).[32]

Vietnam's success in the 2012 PISA tests prompted its inclusion in this study, and as the evidence from PISA strongly suggests that high performance is likely to occur in urban areas, the largest of these in Vietnam has been selected: Ho Chi Minh City (HCMC).



Ho Chi Minh City, Vietnam

As with all five cities in this study, the research method adopted involved a review of available literature; analysis of performance data where it existed (particularly international test data which allows for comparison external to Vietnam); and a series of in-depth qualitative interviews. Ten 'expert witnesses' were interviewed from HCMC, including teachers, school principals, teacher trainers, education department officials and academics. A further group of researchers and teachers working in Vietnam responded to a questionnaire by email.

Figure 2.1 shows that in 2012 Vietnam outperformed the OECD average across all three domains measured by PISA (mathematics, reading and science), performing particularly well in science.[33]

Vietnam also had a much smaller percentage of low performers in each of the three subjects, as can be seen from Figure 2.2, and comparable levels of top-performers. This suggests that the country's performance is not down to a small number of high-performing students pulling up the average, but is the result of a more equitable system with narrower gaps between high performers and low.

[28] World Bank 2013 [29] OECD 2014 [30] World Bank 2015a [31] OECD 2013a [32] World Bank 2011 (p.6) [33] 'In each test subject, the score for each participating country is the average of all student scores in that country.' Scores are normally distributed around a mean of 500 with a standard deviation of 100 (OECD 2015b).

FIGURE 2.1: TABLE SHOWING SCORE AND RANK OF VIETNAM AND THE OECD AVERAGE FROM 2012 PISA TESTS[34]

	Mathematics		Science		Reading	
	Score	Rank	Score	Rank	Score	Rank
Vietnam	511	17th	528	8th	508	19th
OECD average	494		501		496	

FIGURE 2.2: TABLE SHOWING PERCENTAGE OF LOW AND TOP PERFORMERS IN VIETNAM, AS MEASURED BY PISA 2012[35]

	% of low performers (scoring below Level 2)			% of top performers (scoring at Level 5 or 6)		
	Mathematics	Science	Reading	Mathematics	Science	Reading
Vietnam	14.2	9.4	6.7	13.3	4.5	8.1
OECD average	23.0	18.0	17.8	12.6	8.4	8.4

The performance of Vietnam is all the more extraordinary when you take into account the economic situation of the country. Comparing mathematics results in PISA with GDP per capita, Figure 2.3 shows a strong global correlation between income levels and performance – with the one significant outlier (highlighted in blue) being Vietnam, the country with the lowest income.

Based on the PISA index of economic, social and cultural status (ESCS) (an index created from five variables, including parental education and availability of educational resources at home)[36] Vietnam comes last of all the participating countries. Parental education is widely accepted as a strong predictor of children's educational outcomes,[37] yet Vietnam once again seems to buck this trend.

Although results of the 2012 PISA tests, published in 2013, caused a particular stir, two other significant studies had already recognised that Vietnam's education system was rapidly improving. The World Bank's 2011 report on Vietnam, in conjunction with the UK's Department for International Development (DFID) and the Government of Belgium, noted that the country's performance was:

> *'Overall quite remarkable. In particular, when we consider the combined increase in attendance, completion and standardized scores. This increase suggests that there has been no trade-off between quantity and quality so far, but that higher quality may have reinforced the motivation to stay in and complete school.'*[38]

Similarly, Oxford University's Department of International Development has carried out a long-term study in four countries, including Vietnam,[39] which found that 'Vietnam is a beacon of hope' and that pupil performance there is 'truly exceptional'.[40]

One of the most impressive aspects of the Vietnam story is the modesty of representatives of the Vietnamese government, who are keen to point out that much more remains to be done and that the system is far from perfect. There are challenges, for example, in the rate of school completion. As Figure 2.4 shows, the school drop-out rate is still high, although it is lower in urban areas and has been steadily decreasing. The primary to secondary transition rate was only 93.4 per cent in 2012 and only 87.1 per cent for females.[41]

One of the most impressive aspects of the Vietnam story is the modesty of representatives of the Vietnamese government, who are keen to point out that much more remains to be done and that the system is far from perfect

[34] OECD 2014 [35] OECD 2014 [36] OECD 2003 [37] Dubow et al. 2009 [38] World Bank 2011 (p.12) [39] Young Lives 2014 [40] Boyden 2013 [41] UNESCO 2015

FIGURE 2.3: PERCENTAGE OF STUDENTS SCORING LEVEL 2 OR ABOVE IN MATHEMATICS (PISA 2012) COMPARED WITH THEIR GDP (ONLY COUNTRIES WITH GDP OF $50,000 OR LESS INCLUDED)[42]

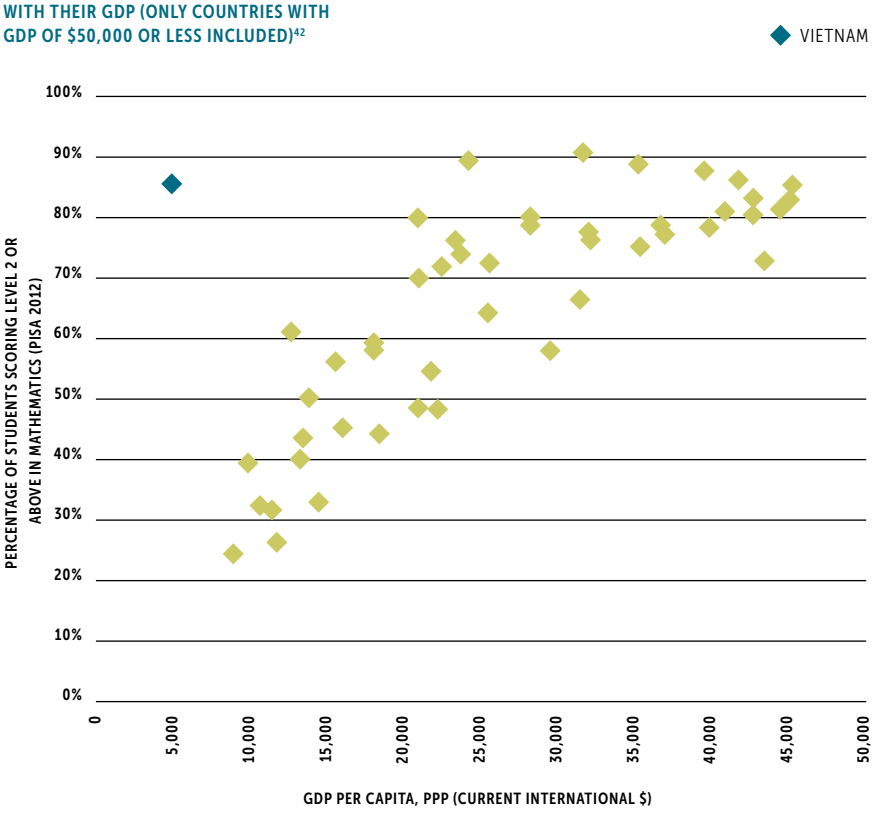
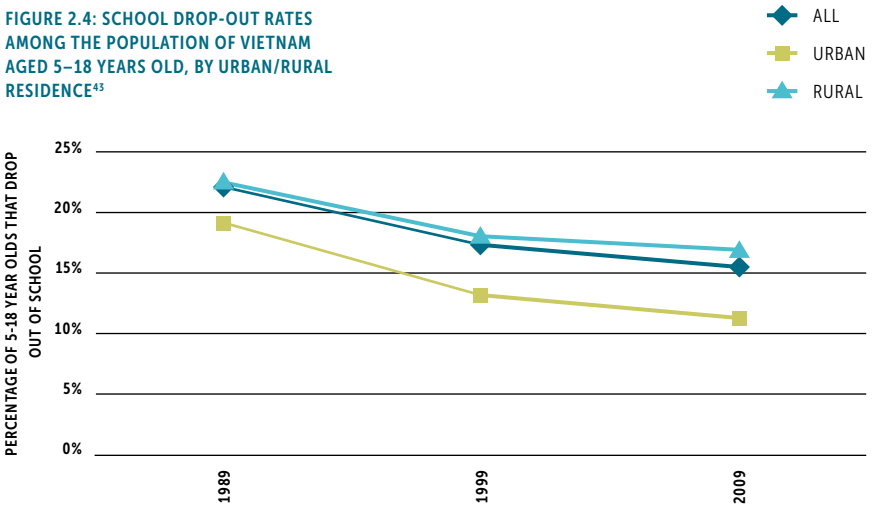
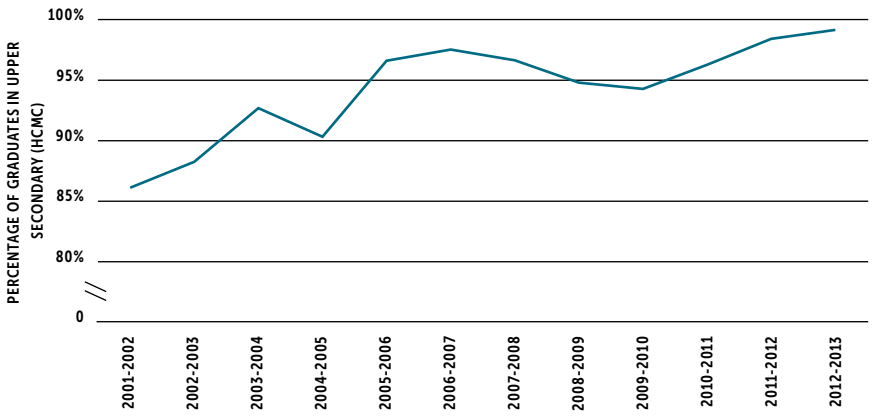


FIGURE 2.4: SCHOOL DROP-OUT RATES AMONG THE POPULATION OF VIETNAM AGED 5–18 YEARS OLD, BY URBAN/RURAL RESIDENCE[43]



[42] World Bank 2015b; OECD 2014 [43] General Statistics Office of Vietnam 2010 (p.35)

FIGURE 2.5: PERCENTAGE OF UPPER SECONDARY STUDENTS WHO GRADUATE IN HCMC



The evidence from PISA and other studies shows that Vietnam's success is magnified in urban areas. PISA 2012 results show that the average performance of a pupil from a rural area, after accounting for socio-economic status, was 547 (OECD average 479), and from a city was 574 (OECD average 498).[44] Meanwhile the Young Lives project administered basic literacy and numeracy tests to 1,000 eight-year-olds, which showed that urban children outperformed their rural peers in all cases.[45] This provides a rationale for selecting one of the country's major cities in terms of investigating this success in a more concentrated locale. The choice of Ho Chi Minh City was prompted by data from the 2009 Vietnam Population and Housing Census, which shows that of all the provinces in Vietnam, HCMC had the third-highest proportion of over five-year-olds with completed upper, secondary and higher education and the joint-highest literacy rate of the population aged 15 and older.[46]

Graduation rates in HCMC have steadily improved over the past 15 years – see Figure 2.5 – so that in 2013 over 99% of students enrolled in upper secondary completed their education. Similar figures for the whole of Vietnam show that this trend is reflected across the country, although to a lesser extent.[47]

The poorest students in Vietnam perform virtually as well as even the least poor in Ethiopia, Peru and India

An equitable system

A paper commissioned for the Education for All (EFA) Global Monitoring Report, 2013–14, suggests that when matched up to three comparator countries, the poorest students in Vietnam perform virtually as well as even the least poor in Ethiopia, Peru and India.[48] In addition, the relationship between social background (measured by household wealth) and performance is weakest in Vietnam.[49] This suggests that the Vietnamese system is more equitable, a position supported by interviews with key witnesses in HCMC.

An official from the Bureau of Education and Training (BOET) in District 8 (HCMC is divided into 24 districts) stated that he believed the improvement in HCMC had been 'widespread and consistent' across the city, while both teachers and principals working in the city used similar language to emphasise the parity amongst schools.

[44] OECD 2014 [45] Young Lives 2006 [46] General Statistics Office of Vietnam 2010 [47] General Statistics Office of Vietnam c.2014 [48] Rolleston et al. 2013 (p.11) [49] Rolleston et al. 2013 (p.27)

This view was supported by the Young Lives study: their report for UNESCO specifically noted that 'in Vietnam standards are high and the specific targeting of inequality in national policy is likely linked to a relatively equitable distribution of school quality.'[50]

Our expert witnesses were convinced that the effectiveness of the schools had improved in recent years. Experienced teachers stated that they had seen 'rapid developments over time,' that the schools were 'well structured, with a strong linkage between learning levels,' and that 'there have been widespread improvements in all facets of schools.

Our expert witnesses were convinced that the effectiveness of the schools had improved in recent years

The theory of change

The approach to educational reform in HCMC, as in much of Vietnam, is multi-faceted. The strategy for reform is based on greater investment in both teachers and resources; the adoption of a new curriculum and new, modern, student-centred teaching methods; and the increased professionalisation of the workforce – all supported by focused and committed political leadership.

The Vietnamese model assumes that investment is necessary but not sufficient. Investment alone does not necessarily bring about change, but the targeted use of funds to improve teacher standards and training has enabled more modern forms of pedagogy to become embedded. The story of reform in HCMC also reveals the importance of stakeholder engagement and communication. Stakeholders at every level of the system have a remarkable understanding of the reform agenda and the role that they must play. There is an impressive coalition for change in HCMC that includes both professionals at all levels of the system and parents.

FIGURE 2.6: THEORY OF CHANGE

[50] Rolleston et al. 2013 (p.31)

Focused and sustained leadership

The reform of Vietnam's education system has taken place over a period of more than 15 years. Our expert witnesses described a consistent reform policy that could be traced back to political decisions in the period 1998–2000. As early as 2006 the World Bank commented favourably on the long-term approach adopted by the government of Vietnam which was showing both determination and consistency in their actions to reform school education.[51] During the subsequent decade the government of Vietnam has continued to take action based on a clear and consistent theory of change most recently articulated through the Education Development Strategic Plan 2011–2020, which identified key solutions towards meeting the objective to 'basically and comprehensively renovate national education toward standardization, modernization, socialization, democratization and international integration' by 2020.[52] These solutions include increased investment in school education, the reform of the curriculum and improved pedagogy, and the development of the teacher workforce and school leaders.[53]

The reform of Vietnam's education system has taken place over a period of more than 15 years

Building a coalition for change

Our interviews with stakeholders in HCMC suggested that there had been a highly successful communications strategy resulting in a shared understanding of the reform agenda at every level of the system, including both professionals of all types and parents and community groups. A school principal highlighted the 'close collaboration among relevant authorities, including the BOET, DOET and MOET', noting that 'parents are an important link in this chain as well.' An official from HCMC mentioned how this close collaboration supported a focused approach to education involving:

> *'... many training sessions for not only principals and vice-principals but also heads of subject groups and chairmen of trade unions across educational institutions so that they will ... form a strong force for accomplishing the overall mandate of education sector in the district.'* (BOET official)

The authorities in HCMC had apparently created an effective 'coalition for change', with parents as a key part of the coalition. All of the teachers interviewed mentioned the role of parents in educational transformation: 'the improvement comes from better awareness among parents of the importance of education for their next generations' (teacher); and 'improvement comes from the requirements of parents and pupils themselves' (teacher). Another principal that we interviewed emphasised the importance of parental engagement, and the role educators needed to play in 'propagating' or promoting the importance of education:

> *'We have to do a good job of propagating education and its importance to the general public. Our experience is that if we want to do any activity successfully and effectively, the first step is to gain agreement and support from parents.'* (Principal)

[51] World Bank 2006 (p.37) [52] Tan Dung 2012 [53] Tan Dung 2012

Through communications and coalition building an impressive collective self-confidence and a marked sense of collective efficacy had developed. Although the views of this group of people are not objective, and we should be wary of so-called 'halo effects',[54] we found evidence of an enormous sense of optimism within the city. Principals highlighted the 'dedication and enthusiasm among teachers' and a teacher trainer urged the world to 'replicate the strong determination and dedication of teachers [in HCMC] who have a big heart for education.'

Investment in education

Many of the interviewees believed increased government spending on education to be an important factor that enabled the city to improve its education system. Interviewees made remarks such as 'I strongly believe that the key factor behind this improvement is the investment into education' (teacher); 'the biggest drive behind this change is the investment into education' (principal); and 'the education system in HCMC in recent years has received kind attention from the city leadership in terms of large investments into infrastructure, equipment and teachers ... accordingly, the quality of teaching and learning has sharply increased, especially in general education' (BOET official).

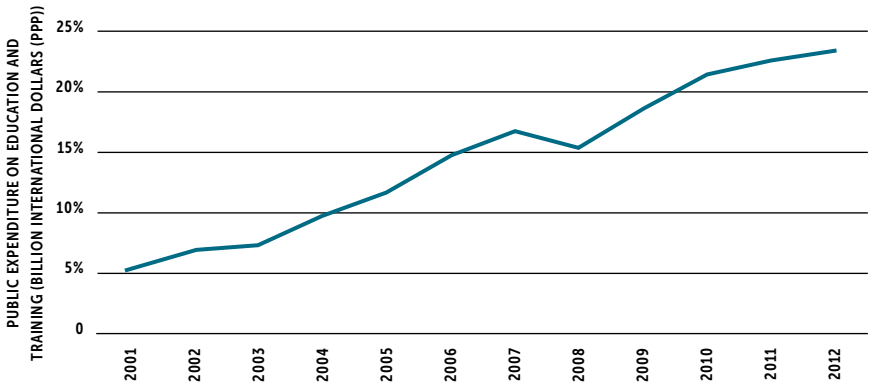
The perception of investment is supported by the facts. The Vietnamese government has invested heavily in recent years. As can be seen from Figure 2.7, public expenditure on education has increased dramatically since at least 2001 in Vietnam.

When compared internationally, Figure 2.8 shows that Vietnam invested a greater proportion of its public expenditure budget on education than all but 11 other countries in 2010 (out of 134 countries studied).

Although investment in education is not a predictor of pupil outcomes in the majority of Western countries, it appears to be a good predictor of mean pupil performance among low-income countries.[55] John Hattie's extensive meta-analysis of research evidence suggests that there is a 'tipping point': a certain threshold of investment up to which additional expenditure does make a difference. As Vietnam

Although investment in education is not a predictor of pupil outcomes in the majority of Western countries, it appears to be a good predictor of mean pupil performance among low-income countries

FIGURE 2.7: TOTAL PUBLIC EXPENDITURE ON EDUCATION IN VIETNAM (IN BILLION INTERNATIONAL DOLLARS, PPP)[56]



[54] Nisbett & Wilson 1977 [55] Hattie 2015a (p.25) [56] Vietnam Ministry of Education and Training 2013

FIGURE 2.8: PISA COUNTRIES' EXPENDITURE ON EDUCATION AS A PERCENTAGE OF TOTAL PUBLIC EXPENDITURE[57]

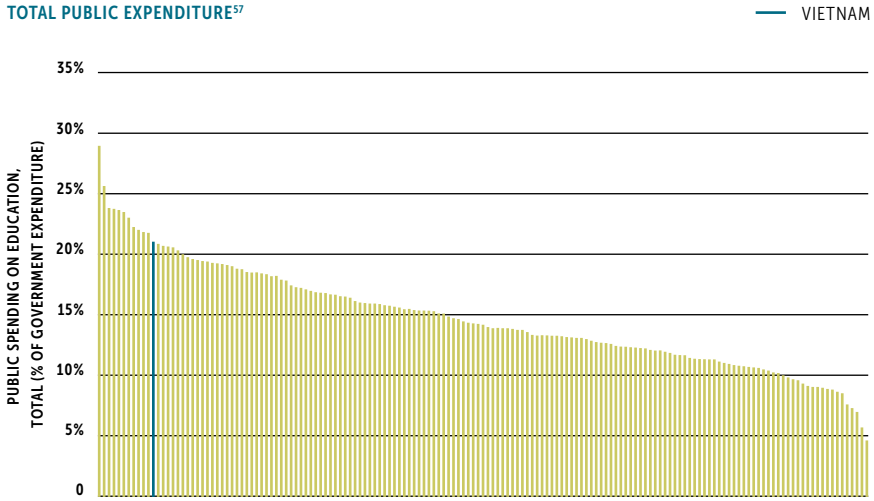
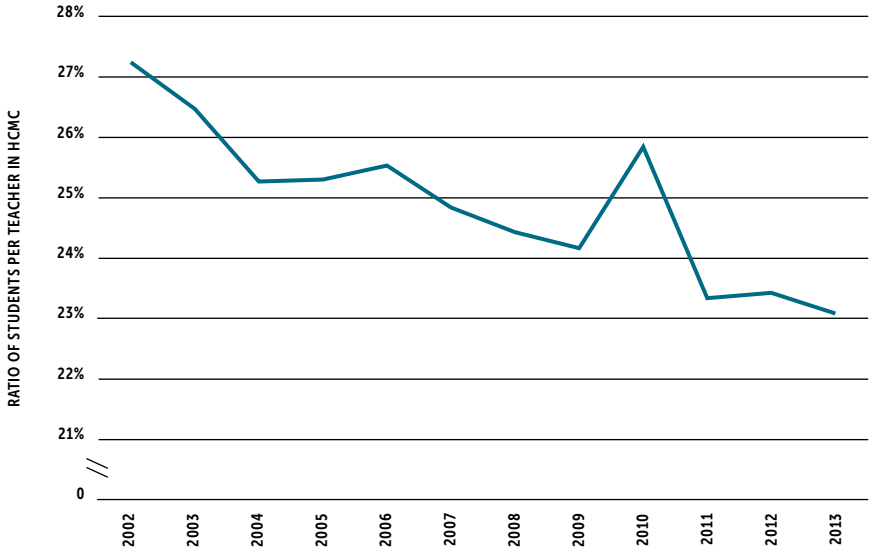


FIGURE 2.9: RATIO OF STUDENTS TO TEACHERS IN HCMC[58]



[57] World Bank 2015d [58] General Statistics Office of Vietnam c.2014

is a lower/middle-income country[59] it seems likely that the spending increases were below this threshold and therefore contributed to improved performance.[60]

Investment, of course, is not enough. The question is how the extra money was spent. In HCMC the investment in education allowed class sizes to be reduced and also made possible an increase in hours of instruction. One teacher remarked that:

> *'Previously, the number of students per class used to be bigger but presently in HCMC many more schools have been added, especially in the inner city. Therefore, the number of students per class has decreased to 20–25 such that schools find it easier to apply active teaching methods more effectively. This is among the most outstanding changes in the HCMC education system in recent times.'* (Teacher)

While class sizes were reduced, school buildings were also improved. Investment in infrastructure and school buildings was described as 'widespread and increasingly visible' by a school principal, and a district official noted that 'satellite sites' of preschools (often located in buildings not specially designed for educational use) had largely been abolished to make way for 'well-built institutions with nice playgrounds and infrastructure for all children.' Such changes meant that 'nowadays, all children within District 8 have equal opportunities to learning in terms of infrastructure and equipment' (BOET official).

The reduced class sizes provided an opportunity for changes in teaching styles

Figure 2.9 shows the ratio of students to teachers in HCMC, which has decreased from over 27 students to around 23 per teacher in 2013 (only including teachers involved in direct instruction).[61]

There is a global debate about the effect of reforms such as the reduction in class size and the improvement of infrastructure. Hattie has suggested that reducing class size, for example, in isolation is not enough. He noted that 'reduction needs to be aligned with specific, evidence-based proposals for investment in teacher expertise to teach differently – and more effectively – in smaller classes.'[62] The story from Vietnam seems to conform to this. The investments were aligned carefully with changes in the curriculum and pedagogy. The reduced class sizes provided an opportunity for changes in teaching styles. So while the reduction in class sizes in Vietnam may not have been solely responsible for improved pupil outcomes, the combined effect of this and investment in teachers and in teacher training is likely to have made a difference.

We saw a similar pattern with investment in educational technology. The Vietnamese had adopted a twin track, with improved hardware closely linked to training and expectations regarding changes in professional practice. The expert witnesses repeatedly emphasised the importance of investment in learning resources, particularly the provision of much improved IT equipment within schools in HCMC:

> *'In terms of equipment, IT has developed very fast in all schools. I have visited many schools in United States of America and feel so proud that schools in general in HCMC are similar to that in USA in all senses. Of course, I am not talking about all schools in HCMC. There are some schools in remote areas which are not that "luxurious". However, that is a general trend which we are trying to reach one day.'* (DOET official)

[59] World Bank 2015c [60] Hattie 2015a (p.25) [61] In 2010 there was a slight drop in the number of teachers while the number of pupils continued to rise rapidly; this anomaly was addressed in 2011 when a large number of additional teachers were recruited. [62] Hattie 2015a (p.11)

'All preschools, primary schools, lower secondary schools have equipped themselves with interactive whiteboards through which teachers are also given the chance to make best use of IT applications in their teaching and learning practices.' (BOET official)

'In my school, in every classroom, the audio system has been installed including projectors, speakers, interactive whiteboards.' (Principal)

As with the reduced class sizes, there was an expected trade-off between increased resources and changed pedagogy. This relationship was highlighted by one teacher we interviewed:

'IT applications help us to teach interactively. When students acquire knowledge and skills from that interactive whiteboard, I see that they are so happy and excited to interact with us directly.'

The concept of school leadership found in HCMC corresponds closely to the idea of the instructional leader, whose primary function is to monitor and improve the quality of teaching

School leadership

Headteachers play a pivotal role in the school system in HCMC. In addition, the senior managers who manage the 'middle tier' school effectiveness organisations – the DOET and BOET – are invariably former headteachers chosen for their effectiveness as school leaders. There are regular meetings of headteachers at BOET level to undertake joint problem solving. Interviewees described the vertical and horizontal dimensions of these meetings, by which they meant that there was a collaborative horizontal or peer-to-peer element to the process and there was also a form of vertical or 'top-down' accountability built in to these arrangements. There are also formal partnership arrangements between some of the more effective and less effective schools, brokered by the middle-tier authorities.

There are some distinctive features to school leadership in Vietnam. Unusually, headteachers are elected by staff members, including both teaching and non-teaching staff and approved by the authorities. Headteachers have a greater degree of site-level autonomy than is found in many systems. They have a degree of discretion regarding finance. They have control over staff appointments, with the exception of the appointment of vice-principals.

The concept of school leadership found in HCMC corresponds closely to the idea of the instructional leader, whose primary function is to monitor and improve the quality of teaching. As a result, the performance management of teachers featured prominently in the work of the headteachers of HCMC. Our interviewees expressed surprise when we asked the question about whether headteachers were involved in the observing of their staff. They took it for granted that this was the central accountability of the effective headteacher.

The training of school leaders is taken seriously. Vietnam has two national institutes for the development of educational leaders including school principals: one for the north and one for the south of the country, based in Hanoi and HCMC respectively. In addition to the training of education leaders the institutes also undertake research into aspects of education management. Future principals and vice-principals are given training prior to taking up their roles.

Changes in curriculum and pedagogy

One major milestone in the education reform journey of Vietnam was the adoption of a 'National Curriculum of Basic Education' in 2002 to cover primary and lower secondary education.[63] This required teachers to approach pedagogy in a much more student-centred way. The 2002 curriculum set out to 'strengthen students' ability to cooperate and self-study and to apply knowledge in practice.'[64] Part of the underlying philosophy of this curriculum was that it 'should focus on children, based on their positive activities to help them create the demands of studies and learn how to teach themselves, seek and acquire new knowledge by themselves.'[65] The approach signalled a partial move away from the traditional Vietnamese pedagogy towards a new, modern pedagogy. Our expert witnesses repeatedly described the importance of the subsequent push for teachers to adopt the new pedagogy.

A 2006 World Bank report highlighted that since 2000 'Vietnam has continuously made efforts to build an education system ... with a learner-centred approach to education ... [and] to meet people's diverse learning needs.'[66] It was clear throughout the interviews conducted almost a decade later that these changes in curriculum and pedagogy ('teaching content and methods') remained particularly prominent aspects of the reform agenda in the minds of our witnesses. Every single one of those interviewed mentioned these reforms as having a considerable effect on the education system and they all identified such changes as playing some part in Vietnam's education success.

A principal from HCMC suggested that since the turn of the century the style of pedagogy has changed significantly, moving away from a 'one-way style of communication' within the classroom. The 'old-fashioned' method of traditional teaching was characterised as 'passive' by teachers and principals alike, with one teacher stating that:

> *'10–15 years back, in most cases, teachers were the key speakers in the class; students just sat silently to listen passively to what the teacher was saying. Students did not raise questions or seek further clarifications from the teachers. Students were learning in a very passive way.'* (Teacher)

An official from the DOET in HCMC believed that previously 'students did not know how to apply what they had learnt in the classroom, nor did they know how to solve real world problems. The official criticised the traditional teaching method for not 'bringing together knowledge from various subjects', instead treating them as stand-alone and isolated from each other.

In contrast, the current situation in HCMC was viewed far more positively, with a mixed approach favoured amongst the majority of those interviewees working in schools:

> *'Both a traditional approach and new teaching approach are combined to teach students. In doing so, we have drawn the best of both approaches together. Specifically, when it comes to the traditional approach, the teacher would play*

One major milestone in the education reform journey of Vietnam was the adoption of a 'National Curriculum of Basic Education' in 2002 to cover primary and lower secondary education

[63] UNESCO c.2001 (p.3) [64] Bodewig & Badiani-Magnusson 2014 (p.120) [65] UNESCO c.2001 (p.5) [66] World Bank 2006 (p.37)

an active role in terms of transferring core knowledge and skills to students, using textbooks and guidebooks. When it comes to the new approaches, we have allowed the use of modern teaching methods such as group-work, inquiry-based approaches, active teaching and learning.' (Teacher)

A university vice-dean emphasised that the context of the situation helped determine the blend of teaching methods and an official from District 8 BOET said that 'a combination of teacher-centred and student-centred approaches are applied, coupled with the real-life knowledge embedded in the lessons given by teachers.'

The new modern pedagogy was described in depth by many of the interviewees. Broadly speaking it was characterised as 'leaving room for the students to work for themselves' and adopting a 'child-centred approach' (both quotes from teachers). As a result of specific methods – such as 'problem-solving methods, inquiry-based methods, active teaching and learning, game methods, group-work' (teacher) – contact time between teachers and students was 'optimised' (Principal).

Andreas Schleicher noted in a 2015 article that 'students [in Vietnam] are expected to leave education not just able to recite what they have learned in class, but to apply those concepts and practices in unfamiliar contexts.'[67] The curriculum reforms were linked to a view of 21st-century workforce requirements. In particular there was an emphasis on the need for both academic achievement and the development of the soft skills needed in the modern workplace:

'The bottom line is that as our society is growing very fast with increasing requirements at work: students must be ready to work in the competitive environment. It is the teacher's job to prepare students with such skills.' (University vice-dean)

'They learn not just academic knowledge but also life skills through what is known as integrated learning.' (Principal)

'Nowadays, however, the active teaching method has focused on fostering skills for students, teaching them how to think – "meta-cognitive thinking" – or learning how to learn.' (DOET official)

'Classroom teachers must be able to create momentum for students, letting them know the real purpose of schooling, why they should go to school instead of staying back home, inspiring them in educational activities.' (Teacher)

In particular there was an emphasis on the need for both academic achievement and the development of the soft skills needed in the modern workplace

The changes in curriculum and pedagogy in Vietnam were the result of national directives from the MOET, but the evidence from the interviewees suggests that the education community in HCMC was at the forefront of these changes, adopting them readily and rapidly. The clear message which emerged from those educators spoken to was that a combined approach had been pursued, retaining aspects of the traditional method of teaching while encouraging 'active learning' through a raft of new approaches and teaching styles.

[67] Schleicher 2015

Improving the teacher workforce

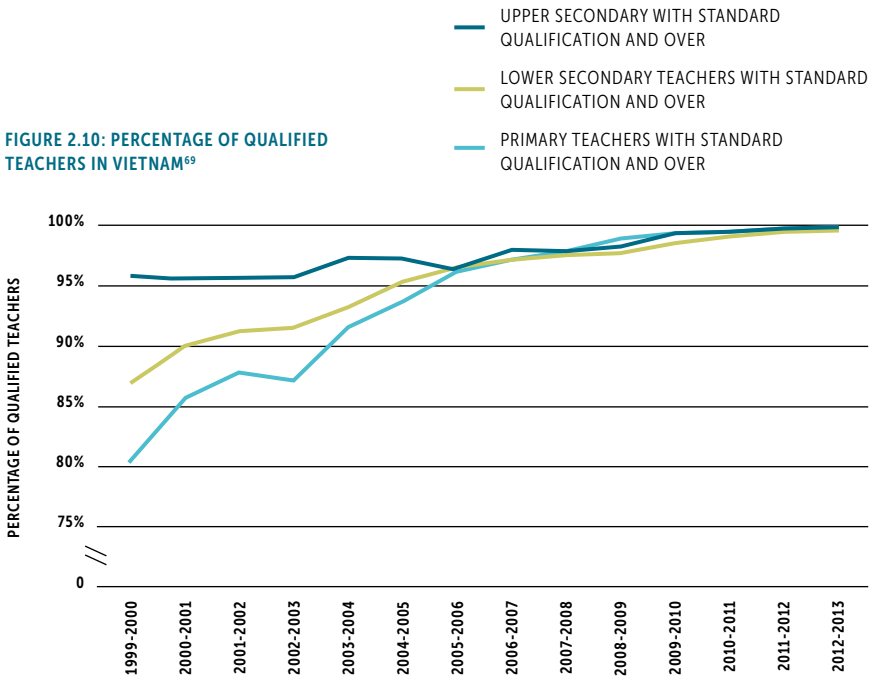
There has been a marked improvement in the qualification levels of the teacher workforce since 2000. Teachers in Vietnam are required to possess a teaching qualification: as shown in Figure 2.10 (from the Vietnamese Ministry of Education and Training), around 99% of teachers at all stages are now qualified. The improvement in qualification levels has been more marked in the primary and lower secondary phases.

The trend towards a better qualified workforce appeared to be particularly notable in HCMC. One of the teachers interviewed, who had spent time teaching in other parts of Vietnam before HCMC, remarked that 'compared to teachers in other provinces of the country, teachers of general education in HCMC generally have higher qualifications.' Interviewees suggested that it was now possible to attract highly skilled people into the school teaching profession. A DOET official told us: 'I strongly believe that quality of teaching staff is exceptionally high – there is no teacher who is "under-qualified" according to the standards set out by the MOET.'

The performance management of teachers is a very prominent feature of the Vietnamese system. Vietnam adopted teacher professional standards in 2007, differentiated by education stage and by seniority. These standards encompass a teacher's knowledge, pedagogical skills, attitudes and behaviour.[68] These standards are used as a key means of improving the profession and are closely tied to a number of accountability measures. PISA 2012 showed that monitoring of teachers in Vietnam is far more widespread than in the vast majority of countries or the OECD average (see Figure 2.11).

The trend towards a better qualified workforce appeared to be particularly notable in HCMC

FIGURE 2.10: PERCENTAGE OF QUALIFIED TEACHERS IN VIETNAM[69]



[68] World Bank 2011 (p.8) [69] Vietnam Ministry of Education and Training 2013

FIGURE 2.11: PERCENTAGE OF STUDENTS IN SCHOOLS WHERE THE PRINCIPAL REPORTED THE FOLLOWING MONITORING METHODS[70]

	Test or assessments of student achievement	Teacher peer review of lesson plans, assessment instruments and lessons	Principal or senior staff observations of lessons	Observations of classes by inspectors or other persons external to school
Vietnam	98	83	97	85
OECD average	78	60	69	27

FIGURE 2.12: PERCENTAGE OF STUDENTS IN SCHOOLS WHOSE PRINCIPAL REPORTED THAT APPRAISALS OR FEEDBACK LED DIRECTLY TO THE LISTED ACTIONS[71]

	A change in salary	A financial bonus	Opportunities for professional development	A change in the likelihood of career advancement	Public recognition from the principal	A role in school development initiatives
Vietnam	72	92	98	95	99	92
OECD average	27	30	73	53	79	81

Meanwhile, these monitoring activities are more likely to have direct consequences for the teachers in Vietnam than elsewhere (e.g. a change in salary) (Figure 2.12).

Although such strong connections between measures of teacher performance and salary/career progression mark Vietnam out when compared with other PISA countries (only one other country had such a high percentage of principals reporting these connections) the interviews did not suggest that teachers resented this level of accountability. One teacher said:

> *'The teachers in HCMC are highly regarded for their high level of professionalism, dedication, and strong determination: a great desire for students' successes. Also, teachers are very hard-working in trying to update their knowledge and skills ... I believe that teachers always act as the key agents to the successes of students. It is therefore extremely important to devise proper policies for teachers so that they have a strong incentive to work in teaching occupations.'* (Teacher)

As well as the strong accountability system in Vietnam, there exists an extensive network of support for teachers through training and mentoring: 99 per cent of principals in Vietnam reported that there was a teacher mentoring programme within their school.[72] There is university-level training as well as sessions on pedagogy run by the BOET or DOET; one principal noted that she sends teachers on these sessions and then expects them to share the training with other staff members. There is also an experimental school connected to Sai Gon University which gives trainee teachers the chance to 'experiment new teaching styles' according to one our interviewees who was involved in teacher training.

Continuing education for teachers is compulsory in Vietnam; over half of teachers surveyed in PISA 2102 (all mathematics teachers) had attended a programme of professional development within the previous three months.[73] Teachers are expected to attend training institutes during the summer vacation. In addition there is substantial informal professional development as teachers jointly plan schemes

As well as the strong accountability system in Vietnam, there exists an extensive network of support for teachers through training and mentoring

[70] OECD 2013b (p.156) [71] OECD 2013b (p.157) [72] OECD 2013b (p.153) [73] OECD 2013b (p.102)

of work together. There are weekly 'professional briefing sessions' in which teachers reflect together on how well their teaching has gone and develop plans together.

Outstanding teachers are designated as 'key teachers' for the purpose of professional development and run school-based professional development workshops using materials developed centrally. Training sessions of this type have been provided, for example, related to the pedagogical approaches that underpin the new curriculum such as whole-class presentation, managing class discussion, collaborative work and interactive learning.

There is now a new consensus about teaching, combining traditional, more didactic approaches with newer methods that are more learner-centric

Summary

Following a strong performance in PISA 2012 Vietnam caught the world's attention. Our research suggests that this success was not just a one-off, and that the education system in the country has been steadily improving for over a decade, particularly in major cities such as HCMC. The national and local government implemented a reform programme based on a comprehensive theory of change using a small number of linked key policy levers: targeted investment, a changed curriculum and pedagogy, and a focus on teacher quality. Alongside this, there has been an emphasis on communications and the creation of a social coalition for change. Educators have engaged widely with stakeholders throughout, capitalising on what one interviewee referred to as the 'human factor':

> *'I believe that people are always the most important factors in the entire process. When I refer to people, I mean everyone in the process: including relevant authorities; educational managers; teachers; parents. Put it this way, if infrastructure and equipment are well-furnished, but there is no good teacher there to teach students, then there is no quality education. Therefore, it is the human factor that creates the success story in education.'* (Teacher)

Education reform in Vietnam has enjoyed committed political support, and this was evident in discussions with participants in HCMC. There has been a striking harmonisation of activity at the different levels of political influence in the city (at national, municipal and district level) which has enabled a coherent approach to the reform measures. Investment in additional resources in HCMC has been closely linked to pedagogical changes. There is now a new consensus about teaching, combining traditional, more didactic approaches with newer methods that are more learner-centric. This combination of investment, particularly to reduce class sizes, together with better training for teachers and the implementation of a new approach to teaching appears to have made a substantial contribution to HCMC's, and Vietnam's, success.

Chapter 3

London, UK

London, the capital of the UK, is the most populous city in Europe. With over 8.6 million inhabitants, it accounts for over a tenth of the entire population of the country.

Education in London, organised across 33 districts or local authorities (LAs), has experienced a remarkable transformation since 2000; with school-level attainment rising dramatically over the past 15 years.

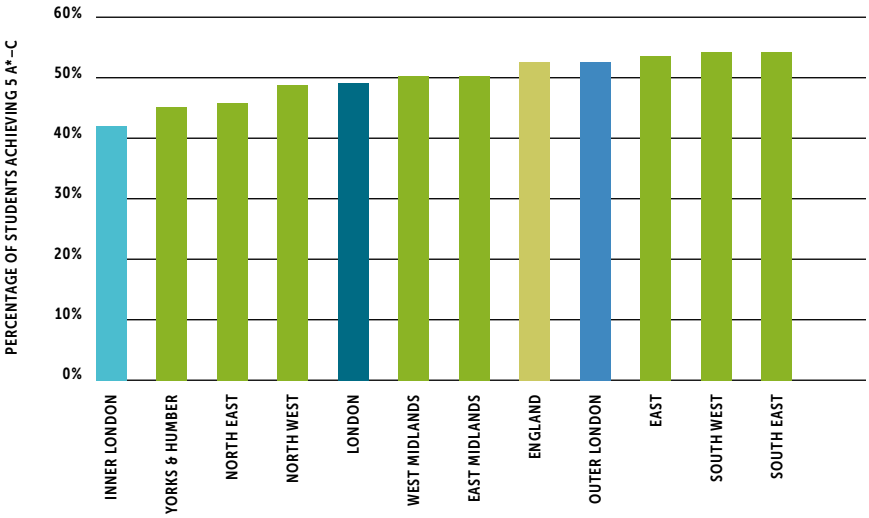
The investigation of London's education journey was based upon two previous studies conducted by Education Development Trust and Centre for London.[74] As well as reviewing literature and conducting a thorough analysis of available data, 25 experts were interviewed who had been involved in London's education reforms, including academics, headteachers, local government officials and politicians. Focus group interviews were also conducted with 26 participants at five London schools, involving a mixture of teachers and school leaders.

London, UK

Students in London now outperform every other region in the country based upon school leavers' examinations; a greater number of London's students progress to university compared to the rest of the country;[75] and the gap in attainment between the most disadvantaged students and others is lower in London than in the rest of England.

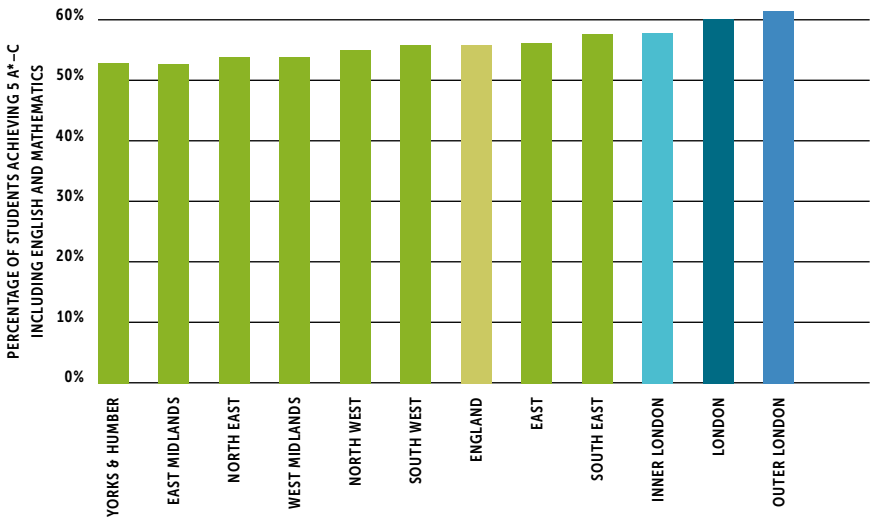
London's improvement can be most markedly seen when compared with the rest of England: Figure 3.1 shows the performance at GCSE (General Certificate of Secondary Education, the standard school leavers' examinations in England, sat at age 15/16) of students by region. Inner London (comprising 14 of the most

FIGURE 3.1: PERCENTAGE OF STUDENTS ACHIEVING 5 A*–C AT GCSE IN 2003, BY REGION[76]



[74] McAleavy & Elwick 2015; Baars et al. 2014 [75] HEFCE 2012 (p.3) [76] DfES 2004

FIGURE 3.2: PERCENTAGE OF STUDENTS ACHIEVING 5 A*–C INCLUDING ENGLISH AND MATHEMATICS AT GCSE IN 2014, BY REGION[77]



deprived LAs in the country[78]) was ranked last of all the regions in 2003 (shown in blue), while London as a whole was ranked sixth out of the nine overarching regions.

By 2014, as can be seen in Figure 3.2, London was the best-performing region in the country, with inner London outperforming every other area aside from outer London.

The inspection body in England, Ofsted, inspects all publicly funded schools and some private schools. Figure 3.3 shows the percentage of schools inspected in London that achieved either a Good or Outstanding judgement (the top two categories) – which has increased each year since a new framework was introduced in 2010. Good or better schools now account for 86 per cent of all schools in London (compared with 81 per cent in England as a whole), with just one per cent of schools rated as Inadequate (the lowest category).[79]

It is also possible to use school inspection results to compare how the most deprived schools do. Figure 3.4 shows that while London outperforms England by five percentage points across all schools, the gap increases to nine percentage points when only taking into account the most deprived schools. This suggests that London has created a more equitable system in which the correlation between the level of deprivation and the attainment of students is weaker.

The level of equity in London can also be demonstrated by comparing how the city's most disadvantaged students do in national examinations. Figure 3.5 shows how high-poverty students performed in each of England's local authorities in 2014; with those in London generally doing significantly better than those across the rest of the country. The performance of high-poverty students in London has also improved at a much greater rate than in other regions: in 2012 54 per cent achieved five or more good grades in their GCSEs compared with 40 per cent of high-poverty students in the next best performing region.[80]

Good or better schools now account for 86 per cent of all schools in London (compared with 81 per cent in England as a whole), with just one per cent of schools rated as Inadequate (the lowest category)

[77] DfE 2015a [78] DfE 2014 [79] Ofsted 2015 [80] Greaves, Macmillan & Sibieta 2014

FIGURE 3.3: OFSTED JUDGEMENTS OF SCHOOLS IN LONDON[81]

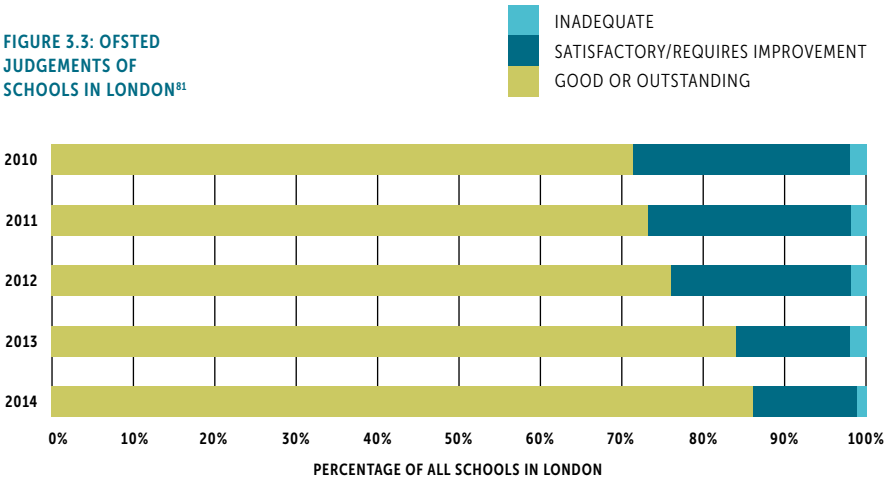


FIGURE 3.4: INSPECTION GRADES FOR ALL SCHOOLS AND MOST DISADVANTAGED SCHOOLS (PERCENTAGE OF SCHOOLS JUDGED GOOD OR BETTER)[82]

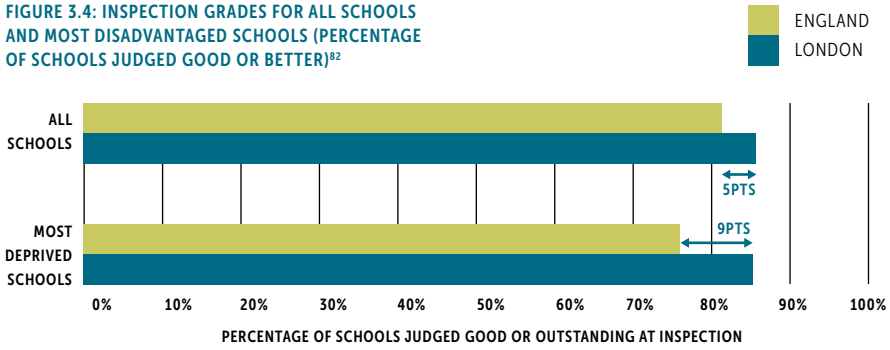
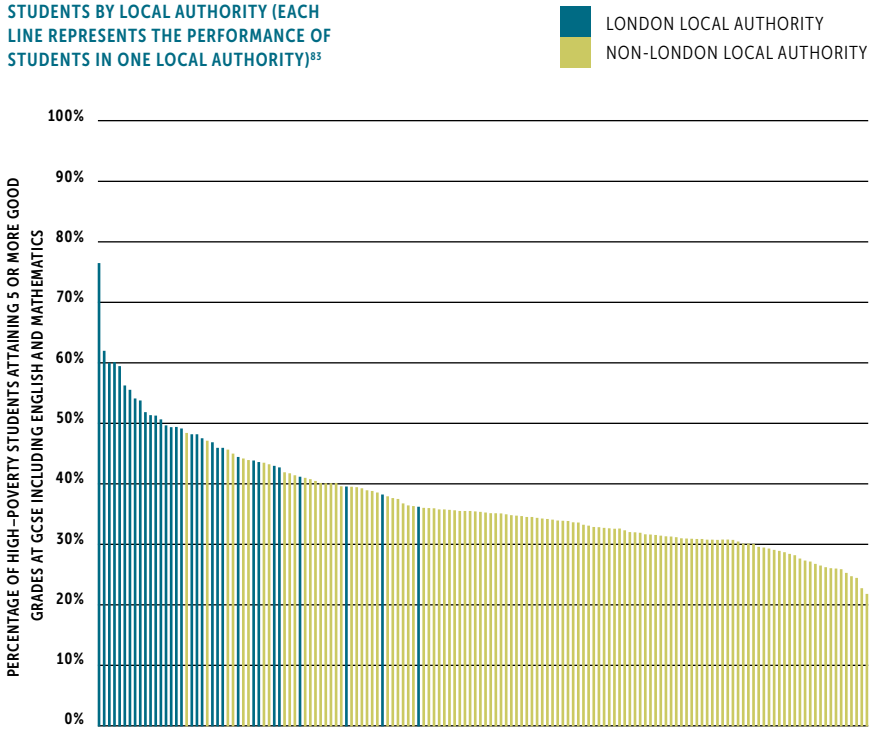


FIGURE 3.5: RESULTS OF HIGH-POVERTY STUDENTS BY LOCAL AUTHORITY (EACH LINE REPRESENTS THE PERFORMANCE OF STUDENTS IN ONE LOCAL AUTHORITY)[83]



[81] Ofsted 2015 [82] Ofsted 2015 [83] Ofsted 2014

It should be noted that London's students are different from those in the rest of England; in particular London has a higher proportion of non-white British students than the country as whole. It can be shown that this particular ethnic mixture is partly responsible for London's high-performing results, although when using the standard government performance measures, even controlling for ethnicity and prior achievement, students in London still perform significantly better.[84]

A lack of authoritative evidence – apportioning relative success to each of the reforms enacted in London – can be partly attributed to the lack of randomised controlled trials related to the implementation of such reforms. As such, a number of competing theories have been advanced which attempt to explain London's success (e.g. that the improvement in London at GCSE was caused by an improvement at primary level[85]). This study draws heavily on the views of the expert witnesses that were interviewed in order to identify the range of factors involved, although it does not attempt to differentiate just how much relative impact each had.

It should be noted that London's students are different from those in the rest of England; in particular London has a higher proportion of non-white British students than the country as whole

The theory of change

Political support for London's reforms has been unusually sustained and has made possible the implementation of a reform strategy based on a coherent theory of change. Built upon strong leadership at every level of the system, and the use of school leaders as system leaders, the internal effectiveness of schools has changed for the better. London's reforms, focused on a successful school improvement programme, were underpinned by particularly effective use of data. Programmes such as Teach First brought greater numbers of talented and idealistic new teachers into schools serving disadvantaged communities and the UK government's academies programme made new forms of school governance possible and opened up the system to new providers.

FIGURE 3.6: THEORY OF CHANGE

[84] Burgess 2014 (p.29) [85] Greaves, Macmillan & Sibieta 2014 (p.6); Blandson et al. 2015

Political support

Political support for the changes enacted in London has remained remarkably consistent over a continuous period of time. The five-year election cycle in the UK has a tendency to encourage short-termist political thinking, and yet the London reforms were allowed to take root and establish over the course of a decade. Significantly, high-performing countries such as Singapore, Japan and Finland have an unusual pattern of greater policy consistency over time.[86]

Support for reform came from the highest level. One of the interviewees was a former junior government minister who described how during the early 2000s both the Prime Minister and successive education ministers personally endorsed London school reform as a priority:

> *'Then, politically, you know, this was a programme that Tony Blair, Estelle Morris, Charles Clarke, David Miliband, you know, all of the senior people in the government that were there when it was set up, they believed in it, it came from them and it had buy-in at the senior level. I think, again, if we hadn't had that it might not have had the impact that it did.'* (Former government minister).

The five-year election cycle in the UK has a tendency to encourage short-termist political thinking, and yet the London reforms were allowed to take root and establish over the course of a decade

Leadership at every level

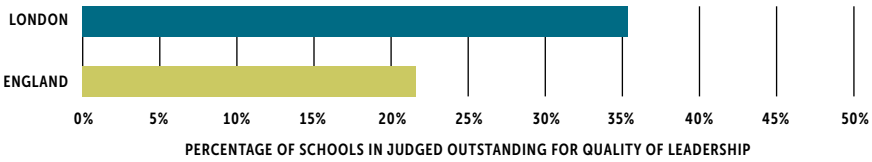
At its heart, it could be argued that the London story was about effective leadership at every level. As one headteacher put it: 'It's all about leadership, isn't it? So whether it's leadership at local authority level, whether it's leadership at the Department [for Education] level, or whether it's leadership at the school level.'

The interviewees had, without exception, a highly positive view of the overall quality of the leadership in London schools now, after more than a decade of reform. One former minister talked about 'the amazing headteachers' of London today. A senior academic talked about the 'exceptional leaders and systems leaders' of London who were the architects of innovative new approaches to leadership that are now widespread in London.

> *'There was an increasing sense in London schools that London teachers and London headteachers, London leaders, were there for all the children in London, not just the children that were in their school.'* (Former headteacher).

After a decade of reform the school leaders of London were judged by Ofsted to be more effective than those in every other region of England, with a wide difference in the percentage of leaders judged Outstanding (see Figure 3.7).

FIGURE 3.7: PERCENTAGE OF SCHOOLS GRADED OUTSTANDING FOR THEIR QUALITY OF LEADERSHIP[87]



[86] Slater 2013a (p.30) [87] Ofsted 2015

While many headteachers before 2000 had been preoccupied with 'firefighting' and school-level crisis management, the headteachers of today had the opportunity and ability to focus on the leadership of learning.

An effective school improvement programme

The London Challenge programme, a combination of approaches which together focused on school improvement in London,[88] was rolled out in two phases, firstly across London's secondary schools from 2003 to 2008, and then to also include primary schools, from 2008 to 2011. The key tenet of the programme was to provide targeted support to two high-priority groups: schools in five key districts (where the government was particularly concerned about performance); and underperforming schools across London that were subsequently described as 'keys to success' (KTS) schools.

At the heart of the school improvement work was a twinning relationship between the low-performing schools and high-performing schools which were designated as teaching schools. The heads of the teaching schools and other outstanding headteachers provided coaching support to the heads of the low-performing schools. One educationalist who was interviewed outlined the underlying ethos behind the programme:

> *'And that sounds a little bit idealistic but I kind of think there was a bit of that, and still is. So that sense of collaborating for the London child rather than just for the child that goes to your school is really important. But, you know, that's sort of underpinned by a kind of moral purpose; that we're here not just for our own self-aggrandisement or for the benefit of our own school; we're here for the system in London.'* (Former headteacher)

Our interviewees regularly cited the people involved in education in London as the crucial lever which enabled improvement: a senior official who had worked at the Department of Education said: 'I personally put that down to very much better leadership of schools who focused on teaching and learning, and who became very clever at enabling teachers to improve their game', while the leader of a chain of schools described the 'one absolutely critical aspect in the London Challenge' as having 'the right people, then you've got a chance.' The differentiating factor in a number of local authorities can also be traced back to some inspirational individuals: senior figures working in Tower Hamlets (an inner London local authority) were directly named by interviewees and credited with driving improvement through their own set of policies: 'building quite collaborative models … and bringing in some great headteachers' (former education department official).

Professional development was another important part of the London Challenge programme: teachers were able to engage in one of two development programmes which led to further accreditation. A former schools inspector reflected that: 'The development of the leaders, recognition, means of recognition, salary scales, and a general climate in which the teaching profession in London was recognised as being important was key to the success.'

At the heart of the school improvement work was a twinning relationship between the low-performing schools and high-performing schools which were designated as teaching schools

[88] Ogden 2013

An independent evaluation of London Challenge identified some of the indicators of success during the final years of the programme, 2008–2011:

- The number of schools performing academically 'below the floor target' (a minimum standard used by the government at the time) fell at a greater rate than the national rate.
- The gap between the performance in tests of economically disadvantaged students and non-disadvantaged students narrowed at both primary and secondary levels.
- The percentage of schools achieving Good or Outstanding grades from Ofsted increased at a higher rate than the national average.[89]

Improving teacher quality and supply

There is considerable evidence that variability in teacher effectiveness is the factor that has the most marked impact on pupil outcomes after a pupil's socio-economic background.[90] Attracting and retaining the most effective teachers, therefore, can be one of the best ways to improve results for a school system.

Teacher supply was of particular concern in London during the 2000s, following a period in 2001 when vacancy rates were over three times those across the rest of the country.[91] One of the interviewees noted:

> *'At that time London schools had a serious shortage of teachers and they were very demoralised institutions … And the teachers themselves were leaving London in considerable numbers or leaving teaching, and the gaps they created were often being filled by part-time people, temporary people or people from abroad.'* (Education department consultant)

One of the key reforms which helped to reduce this shortage, as well as improving the standard of teaching across the city, was the creation of Teach First: the first cohort of new teachers started work in 2003. Teach First provided a new route into teaching for some of the most academically able graduates of UK universities. These recruits made a commitment to teach for two years in some of the more economically disadvantaged government schools in London. The Teach First programme contributed significantly to a new perception of teaching in London as a high status profession for both idealistic and talented recruits.

> *'But what it [Teach First] did was it said that teaching is, you know, a top class thing to go into. You know, it made it desirable to be a teacher … The idea 20 years ago that, you know, Russell Group universities [an association of 24 particularly high-performing and research-focused universities in the UK] would have a roadshow coming to them which attempted to pick out the best graduates to go into teaching … they'd have been laughed out, wouldn't they?'* (Headteacher)

In the past many well qualified teachers have sought posts in schools serving relatively prosperous communities. Teach First changed this by requiring participants to teach in the capital's most disadvantaged schools; contributing to a renewed sense of energy and optimism in these schools.

Teach First provided a new route into teaching for some of the most academically able graduates of UK universities

[89] Hutchings et al. 2012 [90] OECD 2006; Ko & Sammons 2013 [91] DCSF 2009

There is now a body of around 1,400 Teach First teachers in London, amounting to roughly six per cent of the teaching population[92] and the programme places around 800 new teachers in London schools each year.[93]

> *'As far as the teachers themselves were concerned ... there was a considerable change of approach I think brought about by Teach First. I know the number is only relatively small compared with the total number of teachers in London, but I think the effect of those teachers was considerable in these schools and there are schools now which have ... 50% of their staff are ex-Teach First-ers. I think that's been ... a really important development bringing, if you like, a different attitude into teaching. A much more of a can-do attitude and I think that's had a knock-on effect with the teachers who might otherwise have been inclined to sit there and say, "We can never do much for these youngsters given their home background".'* (Education department consultant)

As well as improving the raw supply of teachers, Teach First is often credited with improving the overall quality and effectiveness of the workforce: one headteacher believed that the new route had helped to get 'better graduates in,' while another interviewee said of them:

> *'They are high quality people who wouldn't have probably come into teaching normally because Teach First has made teaching quite a high status thing for those people and they wouldn't have done it before. So we are getting great graduates who know their subject and are able people.'* (Head of a group of schools)

Diversification of the school system

The school system in London has become more diverse since 2000, with the introduction of a new form of school – academies – particularly driving this move towards diversification. Academies are publicly funded independent schools that are not required to follow the national curriculum. There are currently over 4,000 academies in England, and more than half of these are organised in formal collaborative arrangements, colloquially known as academy chains.[94] While some London schools benefited from improved local authority support, others were removed from local authority control and were designated as academies. Several commentators believe that allowing new providers of education services who compete for students with existing providers can drive change and improvement: Hill stated that 'school diversity and choice can undoubtedly contribute to school improvement'[95] and Sahlgren's research into school choice and education quality argued that increasing choice (e.g. by allowing new providers entry to the market) 'can be especially important for disadvantaged students'.[96]

The school system in London has become more diverse since 2000, with the introduction of a new form of school – academies – particularly driving this move towards diversification

The first academies opened in London in 2002 and replaced failing schools with new schools that were removed from district control and run instead by a government-approved 'sponsor'. Although the evidence for their performance is mixed, the best new sponsored academies are now some of the highest-performing government-funded schools in England.[97] Some of our expert witnesses discussed the direct and indirect effect of these academies:

[92] Teach First 2013 [93] Baars et al. 2014 (p.79) [94] DfE 2015b (p.1) [95] Hill 2012 (p.12) [96] Sahlgren 2013 (p.97) [97] NAO 2012

'I don't think you should underestimate the importance of the academies – their input into London. Because it did mean that where there needed to be a structural solution, there was a structural solution available. I think it's very important that that avenue was opened.' (Senior educationalist)

'The local authority have had these schools, they had failed, their own solution didn't work … taking them away from that culture and saying you are now part of an independent movement where expectations are different, terms and conditions are different, things are going to be different, was a short sharp shock that allowed those schools to change their culture … For us though, the kind of schools we have taken on and I am sure for ARK and Oasis [two academy chains with schools in London] and the other academy chains that have done it, it has been removing them from the monolithic culture where failure has been accepted.' (Head of a group of schools)

One academy leader explained that the schools his chain takes on are those 'where the school has failed and local solutions haven't worked – often over an extended period of time.' In this way, he argues, academies acted as a backstop, injecting 'new hope, new drive, [a sense that] things are going to be different and a more robust approach to running the school.'

In addition, since 2010 schools that receive a Good or Outstanding inspection judgement have been able to 'convert' to academy status, which has seen the number of academies across England, but particularly in London, increase sharply. In addition, s shows the percentage of secondary school students attending an academy in London in 2010 and again in 2014.

One of the recurring themes that emerged throughout the investigation into London schools was the effective use of education performance data at every level of the system

Effective use of data

One of the recurring themes that emerged throughout the investigation into London schools was the effective use of education performance data at every level of the system. The data was used both to identify underperformance and to target support.

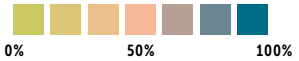
'I thought the way the data allowed you to pair schools … was a revelation, so I could go to a head of a school in East London and I could say "I know you tell me you're like no-one else in Tower Hamlets, so what about this school in Hammersmith – it's got exactly the same proportion of boys there, exactly the same proportion of free school meals … now tell me why you're not doing as well as that school?"' (Former district education official)

'A large part of our focus is identifying areas where we can develop and improve and that is down to using things like improving our data analysis, making sure staff are able to analyse their own data.' (Teacher)

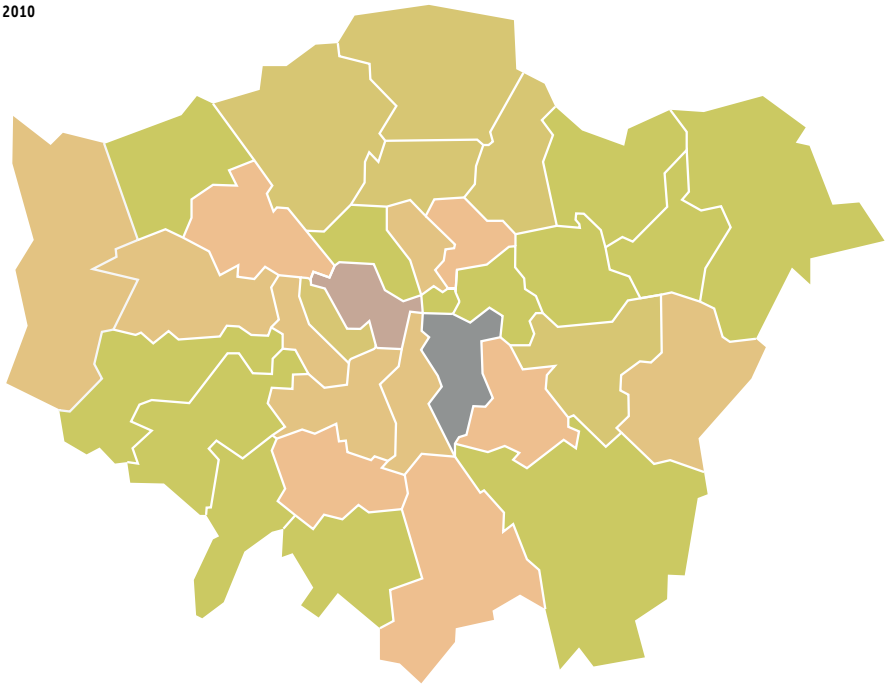
Interviews with stakeholders showed that a preoccupation with data drove virtually all the major initiatives that were enacted in the 2000s:

- London Challenge placed performance data at the heart of the programme. The schools that received the highest level of support were identified through the use of consistent data-based criteria.

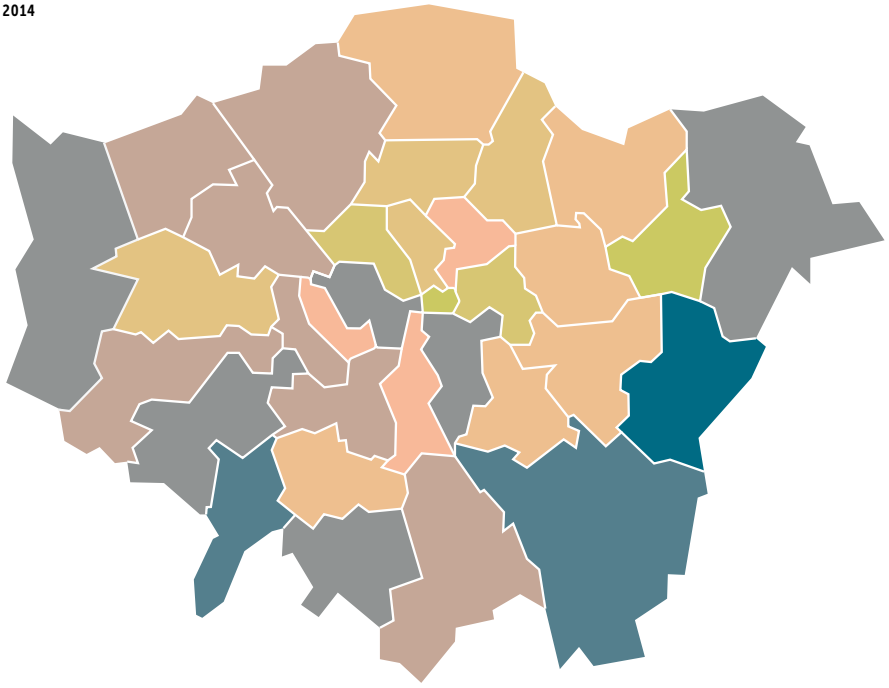
FIGURE 3.8: CHANGE IN THE NUMBER OF STUDENTS STUDYING AT A SECONDARY ACADEMY, 2010–2014[98]



2010



2014



[98] DfE 2010; DfE 2014

- The best academies emphasised data analysis and student target-setting as central components of their educational methodology. These schools have been consistently praised by Ofsted for the way that they use data to guide their work.
- The most effective local authorities placed a substantial emphasis on the need to support school improvement through systematic data analysis. A recent report on the transformation of the Tower Hamlets district states that 'a particular strong feature to drive school improvement has been the emphasis put upon the collection, dissemination and analysis of assessment data.'[99]
- Teach First makes careful use of data, targeting the deployment of its teachers through the use of deprivation data in order to ensure that these teachers are serving communities with a disproportionate share of disadvantaged students.

The London reforms made the school itself the main setting for professional development

Professional development

A further defining characteristic of the London reforms was that they were all concerned with the improvement of teaching quality through better professional development. Programmes like Teach First were built around intensive development opportunities, while according to a local authority education official:

> *'A lot of local authorities in London have developed highly regarded development programmes for teachers, bringing teachers together across the secondary sector by kind of leadership issue or by specialist subjects; so you see local authorities making a contribution to professional development there.'* (Local authority education official)

There was also a shared rejection of traditional forms of professional development which used 'off-site' training workshops as the main mechanism for professional development. Instead of attending courses at teacher centres or other central places, the London reforms made the school itself the main setting for professional development:

> *'The whole concept of what professional development looks like has been changed from going on courses and programmes, to be being much more about what happens in the classroom and coaching and mentoring and teachers working together on improving and observing and coaching.'* (Former government adviser)

> *'But the very best schools of course saw that as an opportunity, so that when someone was stepping up and working out beyond the school ... that gave opportunity to others in the school to be rewarded and to be given the development opportunities to, you know, one or two days a week, be leading in a role that was the next step up on their own career path.'* (Educationalist)

[99] Woods, Husbands & Brown 2013 (p.25)

Summary

London's education system has undergone a remarkable transformation over the past ten years, to the extent that it now constitutes the best-performing region in England in terms of national test results, and has the greatest proportion of top schools according to the national inspection body. A complicated system of governance makes unpicking the London story difficult, but it is clear that at each level there was a strong theory of change based upon: the use of data to target support and provide challenge; professional development programmes which were practitioner-led; and effective leadership across the board. This was built upon sustained political will over time.

The exact model adopted in London varied by district: some local authorities introduced new forms of school governance through academies; others received additional support through the London Challenge programme; and some districts addressed teacher shortage and quality issues with the aid of the Teach First scheme. Throughout these reforms it was obvious, speaking to those directly involved, that there was a real appetite for change, and a positive belief that change was possible through working together:

> *'I think there is a real spirit of collegiality across London schools … there is a real pride in being in a London school and being part of this very successful movement … and even though people know that circumstances can be challenging they also know that there is support out there because the support will come from other London headteacher colleagues.'* (Headteacher)

London's education system has undergone a remarkable transformation over the past ten years, to the extent that it now represents the best-performing region in England in terms of national test results

Chapter 4

Dubai, UAE

Located on the southeast corner of the Arabian peninsula, the city-state of Dubai is one of seven emirates that make up the United Arab Emirates (UAE). The population of Dubai is 2.3 million, 34 per cent higher than in 2008, due to a large influx of expatriates.[100]

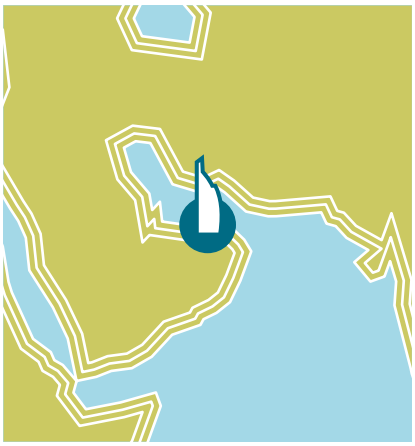
Dubai's population is very young: nearly 45% is aged 29 years and younger. The presence of this young population in Dubai places pressure on the education sector.

There is a mixture of public and private schools in Dubai serving Emirati nationals and expatriates (the latter of whom make up the majority of the population in the city). Over 89 per cent of all students in Dubai attend a private school, including a rising number of Emirati nationals (despite public schooling being free for Emiratis to access).[101]

As with all five cities included in this project, the educational journey of Dubai was investigated through a mixed-methods approach. Relevant literature was reviewed; data (particularly related to student performance in Dubai (and the UAE) and school inspection data) was analysed; and key witnesses to the education system were interviewed. In Dubai small group interviews with 31 teachers, school directors and school staff were carried out, drawn from seven different private schools, teaching a variety of curricula.

In terms of international tests of student outcomes, the UAE achieved significantly higher scores in PISA 2012 than it did in 2009, making it 'one of only six countries that saw a significant improvement to their PISA ranking out of the 65 countries that took part in PISA 2012.'[102]

Figure 4.1 shows the UAE's scores in PISA 2009 and 2012. These figures indicate that the UAE has made a marked improvement over the period. The UAE outscores all other participating countries in the MENA region.[103]



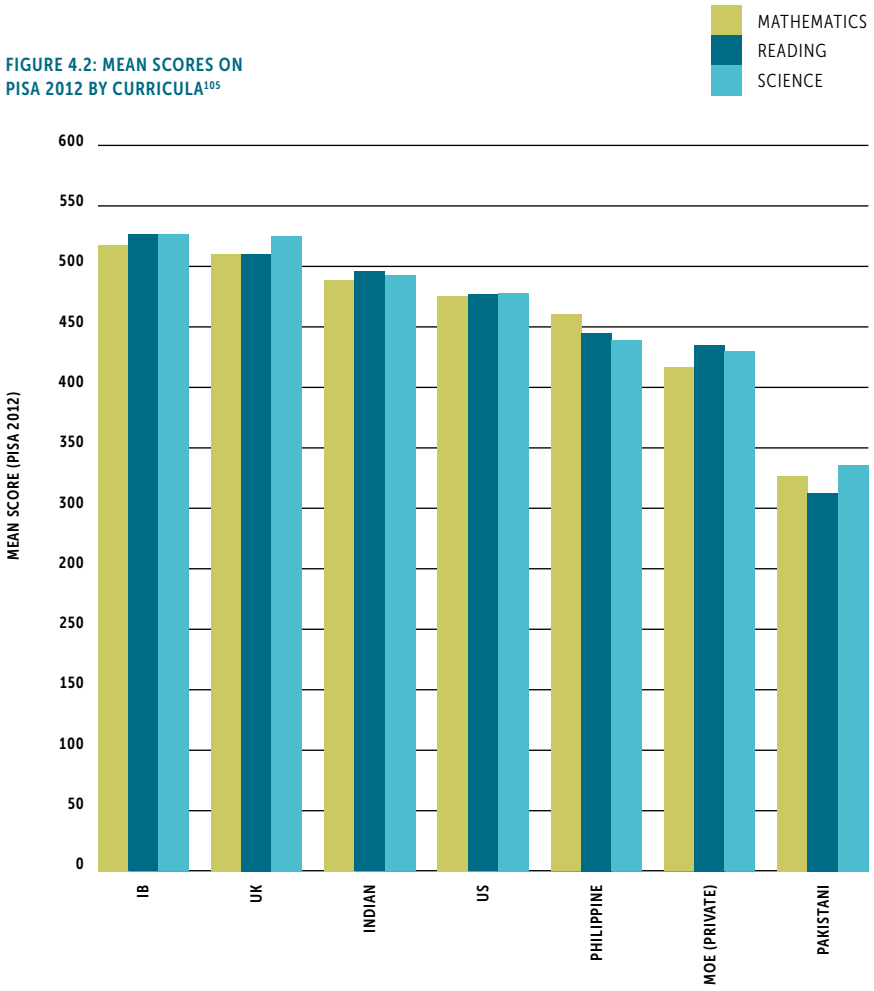
Dubai, UAE

FIGURE 4.1: CHANGE IN UAE PISA SCORES (2009 TO 2012)[104]

	2009	2012	Difference
Mathematics	421	434	+13
Reading	431	442	+11
Science	438	448	+10

[100] Dubai Statistics Center 2015 [101] KHDA 2015a [102] Pearson Middle East 2014 [103] OECD 2014 [104] UAE MOE 2013 (p.9)

FIGURE 4.2: MEAN SCORES ON PISA 2012 BY CURRICULA[105]



Dubai's education system is remarkably diverse, with 173 private schools offering 16 different national and international curricula.[106] There are marked differences in the performance of schools teaching these different curricula, as shown in Figure 4.2. The International Baccalaureate (IB) and UK curricula schools both performed above the OECD average across all three subjects,[107] while private schools teaching the Ministry of Education curricula, and those following a Pakistani curricula had lower-than-average performance.

Recognising the pivotal role of high quality education in attracting foreign talent and building a knowledge-based economy, the government's Dubai Strategic Plan underscores the UAE-wide vision for promoting human capital excellence and preparing Dubai's workforce for a high value, knowledge-based economy.[108]

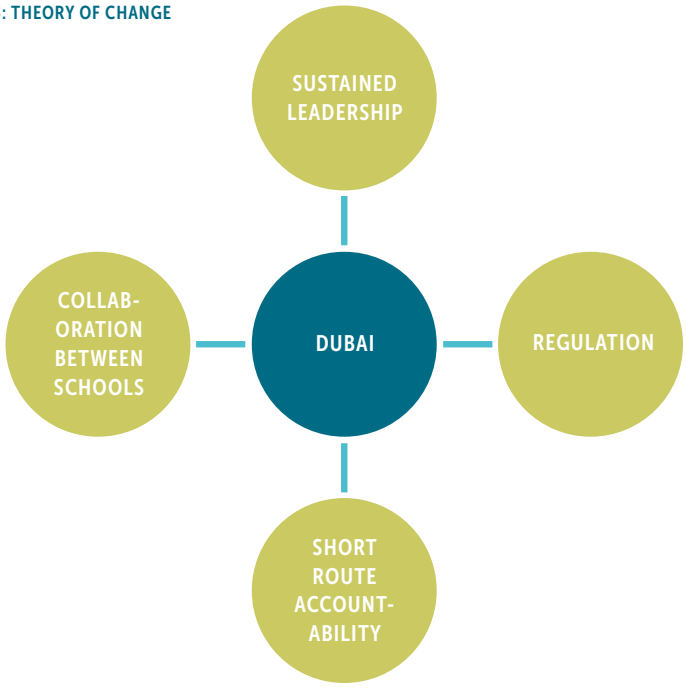
Dubai's education system is remarkably diverse, with 173 private schools offering 16 different national and international curricula

[105] KHDA 2014a (p.31) [106] KHDA 2015b [107] OECD 2014 [108] Government of Dubai 2015

The theory of change

Dubai has gradually driven improvement in its private school system through a combination of support and challenge. Consistent leadership of key bodies has allowed reform to embed and has enabled Dubai's government to introduce regulation of the private school system. A form of 'short route' accountability has been introduced for parents in Dubai through the publication of school inspection reports. Simultaneously, the government provides a forum for collaboration and support networks, so that schools are encouraged to work together in order to drive improvement.

FIGURE 4.3: THEORY OF CHANGE



Consistent leadership of key bodies has allowed reform to embed and has enabled Dubai's government to introduce regulation of the private school system

Accountability

Dubai's private education system is regulated by the Knowledge and Human Development Authority (KHDA). KHDA was established in 2006 with a mandate to develop the school sector in Dubai, particularly through monitoring performance and quality in the emirate's private schools. At the end of 2007 an inspection organisation was set up, known as the Dubai Schools Inspection Bureau (DSIB), which is an agency of KHDA.

The main functions assigned to the DSIB were to:

(i) 'set standards for education quality including the indicators for measuring them;'

(ii) 'adopt a reporting system to measure and monitor school performance using those standards and to publish those reports.'[109]

[109] Thacker & Cuadra 2014 (p.23)

FIGURE 4.4: MEAN ACHIEVEMENT SCORES ON PISA 2012 ACROSS SCHOOL INSPECTION RATINGS IN DUBAI[110]

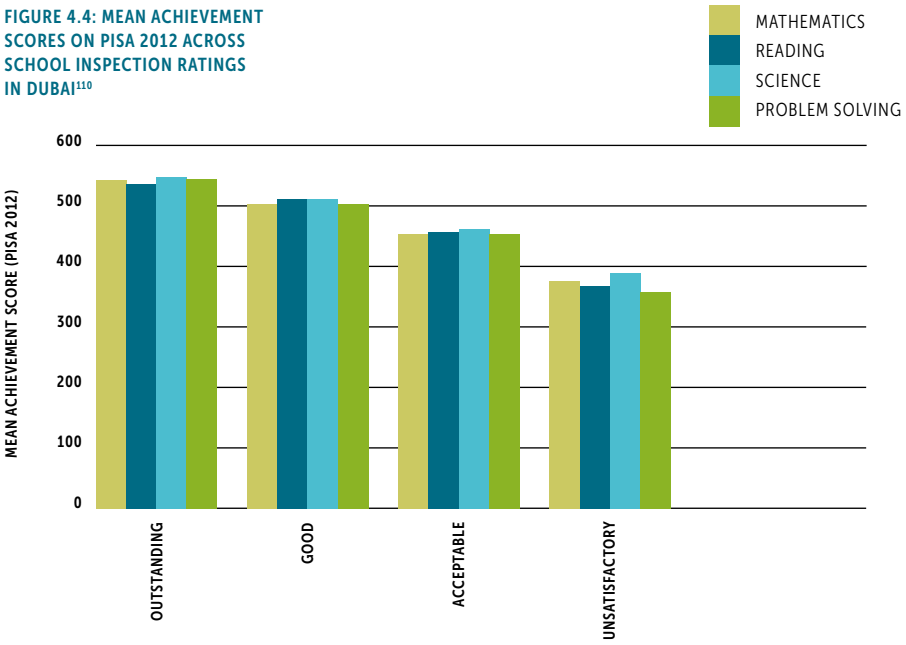
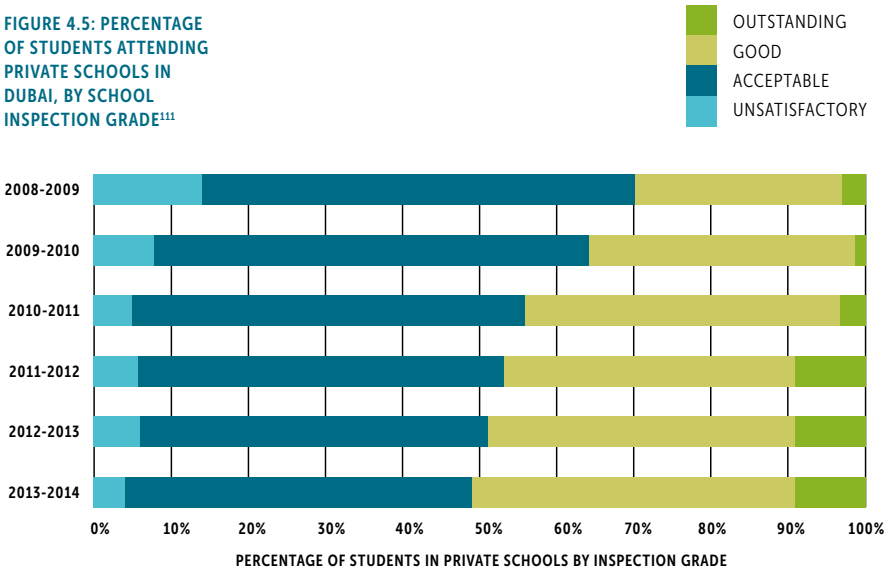


FIGURE 4.5: PERCENTAGE OF STUDENTS ATTENDING PRIVATE SCHOOLS IN DUBAI, BY SCHOOL INSPECTION GRADE[111]



[110] Inspection ratings from 2011/12; KHDA 2013 (p.61) [111] KHDA 2014a (p.10)

The inspection ratings of DSIB can be corroborated to some extent by comparing the average performance on PISA 2012 with school inspection categories. Figure 4.4 shows the scores of schools on the PISA 2012 tests according to their inspection category.

Since inspections began, the number of students attending a private school rated as either Good or Outstanding has steadily climbed, as can be seen in Figure 4.5. Combined with the responses of our interviewees, this suggests that since the inspection framework and regime were introduced (and it should be noted that the results of inspections are published by KHDA) schools have responded in an effort to improve their rating.

Since inspections began, the number of students attending a private school rated as either Good or Outstanding has steadily climbed

As well as using inspection as a means to hold schools to account, the Dubai government – through the DSIB and KHDA – uses the inspection framework in order to improve standards and drive change. The interviewees confirmed this role:

> *'The inspection regime has actually had an influence on that [school improvement] … that has an influence on how you mould the school too, and you focus more of your resources in that particular area.'* (School director)

> *'Our school improvement plans are based completely on, almost completely on, the recommendations and on the frameworks and what it is to be Outstanding. I mean that's what we've set for our goals.'* (School director)

Perhaps unsurprisingly, school directors noted the impact of inspection on their school improvement agenda; there is considerable research which shows that similar practices happen in England in response to Ofsted inspections.[112] Respondents from the seven schools involved in this research were generally very positive about the role of inspection and the benefits that Dubai's accountability system brought. One teacher described the approach as 'constructive criticism', while a school director viewed inspection as a 'catalyst' for change within his school. Other interviewees reflected on the dialogue that inspection made possible:

> *'It's not, "I'm coming to judge you." Yes, we're going through this period, but it's more "we're coming to help you to improve and get to the maximum level that you possibly can" in a very harmonious way. Not in an aggressive or degrading manner.'* (Teacher)

> *'Personally I welcome inspection because what we get is four or five people who've never seen the school before come and have a look at it with fresh eyes and they'll say, "This is good, this needs work on, this is your way forward" … there has been a much improved dialogue.'* (School director)

These views were confirmed by a small-scale survey carried out by David Hicks, Principal of Emirates International School, a private school in Dubai, which found that 'in general, inspections are perceived to have contributed positively to overall school improvement in the schools which participated … inspections are perceived to have impacted positively upon classroom practice and upon processes for tracking students' progress.'[113]

Through the inspection framework, the government of Dubai has encouraged schools to change their pedagogy – moving away from traditional approaches

[112] Ehren 2014 (p.2) [113] Hicks 2013 (p.50)

towards a more modern pedagogy in which the teacher is cast as the 'facilitator', according to one school director. A teacher described it as 'the whole move away from that knowledge-based curriculum that we were all taught in, where it was all about learning knowledge … it has become a far more skills-based curriculum.' School staff were generally quite clear in their attribution for this change to the inspection process:

> *'I joined the school in 2009. Concerning the teaching and learning back then it was whole class instruction, no differentiation, the teacher goes to the class, explains, and then goes out. With the inspection over the years we have differentiation now, different levels in teaching, the methodology has changed from that time to now.'* (Teacher)

The DSIB Inspection Handbook describes the following as (amongst others) some features of outstanding schools:

- 'Students are independent, reflective learners;'
- 'Students are motivated and eager participants in their learning. They are actively involved in their own learning and development, and show increasing skills as learners;'
- 'Teachers' interactions with students ensure they are always active participants in achieving meaningful and relevant learning;'
- 'Teaching strategies very successfully meet the individual needs of students.'[114]

Research into inspection systems in six European countries has shown that over the long term, inspection can improve schools' capacity to improve and effectiveness by 'the fact that school inspections set expectations on good education.'[115] Interviewees also acknowledged that along with inspection, other elements drive improvement. One school director highlighted the internal drive for improvement that schools need to have:

> *'You have to have this willingness to constantly challenge what you are, on a day-to-day, week-to-week basis, 40 to 45 weeks of the year. If the only springboard for improvement was inspection you would never, ever have a good school.'* (School director)

Consistent system leadership

Sustained and consistent leadership at the highest levels of Dubai's school system has ensured that reform has been able to take root, embed and flourish, leading to the marked improvement in outcomes for the emirate. As with many of the other cities in this study, strong and visible leadership from key individuals has resulted in a focused approach towards reform.

Before the establishment of KHDA, members of the KHDA Board led the development of Dubai's Knowledge Village in 2002 as part of the 'free zone' concept aimed at developing a pool of qualified local talent. The vision for developing quality education services in Dubai is set out in the Dubai Strategic Plan 2015 which underscores the need for high quality education institutions as a key factor in economic development.

As with many of the other cities in this study, strong and visible leadership from key individuals has resulted in a focused approach towards reform

[114] KHDA 2014b [115] Schoolinspections 2014

There has been a long period of consistency in terms of the leadership at KHDA and the DSIB, with both organisations retaining many of their senior leaders since their inception.

Support and collaboration

One of the key ways in which KHDA has moved beyond an approach based primarily on accountability measures as a means to challenge schools is the 'What Works' initiative, launched in 2012. This series of professional development events has been designed as a way to foster collaboration between schools and is focused on the sharing of practices that work in schools. It is run by schools for schools with support from KHDA.[116] The initiative has seen considerable support from across Dubai's private schools, with over 1,500 educators taking part in 2012/13.[117] The World Bank's 2014 report on Dubai's private education system suggested that:

> *'It may not necessarily be competition that is helping schools to improve. Market forces put pressure on schools to improve, certainly, but that does not necessarily help them in the process of improvement. Rather, what does seem to help is the opposite of competition, collaboration.'*[118]

School inspections created a common vocabulary about quality that all Dubai's private schools can relate to, and this is the connecting factor between and among schools.

School inspections created a common vocabulary about quality that all Dubai's private schools can relate to

Teachers saw these collaborative sessions as a chance to learn from each other, and as a means to drive school improvement:

> *'That's where I got the ideas: "oh this is how the other schools are monitoring their kids / are tracking their kids," and so I come back and make these things. So having that ability to attend their sessions was huge – just seeing what other schools were doing that would get the "Outstandings" or even if they were just moving from Acceptable to Good – just hearing how did they do it was huge.'* (Teacher)

One teacher suggested that this collaborative initiative represented a significant change, stating that 'a few years ago we contacted different schools to try and be involved in this and were told blankly no, they wouldn't do anything with us,' whereas now schools are much more open. As a school director noted: 'everybody is wanting the same thing, they are all on the same page.' A different school director emphasised some of the challenges around competition that derives from Dubai's private school system:

> *'I think it's very interesting and very challenging as well because you're talking about sharing what works among a bunch of competitors. When you look at … the private school business model here, we're looking at trying to share best practices amongst schools who are trying to sell their school over that school and I think it's a very challenging thing to do because it's not … it's in educator's natures to share, to beg, borrow or steal, copy, do whatever we can because it's about our kids, about our students.'* (School director)

[116] Thacker & Cuadra 2014 (p.26) [117] Thacker & Cuadra 2014 (p.26) [118] Thacker & Cuadra 2014 (p.44)

It was clear through discussions with staff from seven different schools that they all bought into the ethos of the 'What Works' programme; whether that went against their natural instincts to regard each other as competitors, or whether they were more open to the idea of sharing from the outset:

> *'We're a global community of educators and the colour of your skin doesn't matter you know ... one doesn't have to be so insular and frightened ... That friendliness and friendship that has, I think, been remarkable, is because of KHDA and therefore the growth of our school globally.'* (School director)

School improvement

Perhaps in response to the inspection framework, or as a result of greater engagement with the global discourse on school improvement, school directors in Dubai have recently adopted innovations and approaches to drive improvement in their own schools.

School directors in Dubai have recently adopted innovations and approaches to drive improvement in their own schools

One example of such an innovation is the use of peer review. In 2012 Parkville Global Advisory found that 'compared to only 56% of principals in 2007, over 82% of [them] reported teacher peer reviews taking place in 2011,' which the World Bank has suggested showed that a trend towards more collaboration was emerging in Dubai.[119] One of the school directors interviewed made direct reference to such a scheme in their school:

> *'Yes but I think what's important is the mentoring that happens and they've got to ensure that if they're not up to speed they observe their peers and when they observe their peers they've got to identify two best practices that they're good at and that's what carries the momentum for us. So we're not only dependent on professional development workshops that happen but that does happen a lot but I think an equally powerful parallel is the peer mentoring that happens and not only within the department but across, you know within departments as well.'* (School director)

There was further evidence from interviews that collaboration extended interactions at What Works sessions, with one school director remarking that 'it's a big family ... we go to workshops together, we have exchange programmes, we have competitions for the children, the teachers get together,' and another noting the partnerships his school has formed with other schools, despite having different owners.

Several school leaders and teachers suggested that their school had actively changed the staff structure through the use of distributed models of leadership, often in order to directly improve performance:

> *'Distributing that leadership and having middle-level leaders and those sorts of things help support that whole structure and reviewing our performance in that sense really has made a difference.'* (Teacher)

Instead of emphasising the role of a small senior leadership team, school directors talked about bringing all staff 'to the table' in order to brainstorm, or encouraging

[119] Parkville Global Advisory 2012 (p.36) cited in Thacker & Cuadra 2014

staff 'in pockets throughout the school, through entire faculties' to 'bring their ideas.' Another director espoused the idea that the role of the principal was to 'let the team do the work' and provide a level of 'support' rather than exerting control.

Teachers, in particular, were often vocal in expressing their beliefs that they were increasingly afforded the opportunity to be creative and innovative in their roles: 'I feel that here, leadership allows us to be more creative; they give us more freedom'; 'it's about adapting dynamically'. This view was supported by school directors: 'we decided that we were going to invent, invent what we don't have and make do and therein started this intensive journey of self-training'; 'I will support you, please take risks, get out there, I don't mind if you fail as long as you learn.'

Community engagement and optimism

Changes in practice within Dubai's private education system, whether directly encouraged by KHDA or not, have been supported by strong stakeholder engagement and by a general sense of optimism within schools. School inspection data found that '86 per cent of schools had good or better involvement with parents and the community',[120] while one school director remarked that 'parents are on board' and another said 'it's become a united family with all these projects and innovations that we've undertaken and the parents are very proud that this is a thinking school.' A teacher noted: 'and our student voice is very strong in our school ... we work on projects together, we work on policies together with the students in the senior school ... they play a very integral role in the, in the functioning of the school on a day-to-day basis.'

School inspection data found that '86 per cent of schools had good or better involvement with parents and the community'

School staff were overwhelmingly positive when talking about their school and the education system more widely. They shared a passion for their practice and spoke with optimism and positivity:

> *'I mean I want whatever students are here for this time to be successful and then if, if they go on, then fine but I want them to be able to move on and be successful somewhere else and not have to go somewhere and be at a detriment or be behind. You know I want to give them the best education I can and I think that [the] team and the majority of the teachers as well feel the same way and when you have that kind of vibe that goes through you know it's, it works the same as negativity or positivity, it's contagious.'* (Teacher)

> *'I think what it is that people like ... it's being part of a successful team, you can't necessarily say why it's successful but you know that it is and you all have your different roles to play in that team. So being part of something which is successful and it feels right is, I think, the most motivating factor because we're all doing different roles in that.'* (School director)

[120] KHDA 2014a

Summary

The private school system in Dubai is unique, in that almost 90 per cent of students in the city attend a private fee-paying institution. This uniqueness in turn presents a potential challenge for the Government of Dubai in terms of the extent to which it can improve schools which it does not run or own. The creation of KHDA and DSIB in order to make schools accountable, and as a means of encouraging school improvement, has enabled the government to drive up standards through inspection. The Inspection Handbook sets out a clear framework which schools should meet, which this research has shown in turn influences schools' own improvement plans. As well as these clear priorities, a highly incentivised system (the level of fees a school is allowed to charge is dictated by inspection gradings, as is a school's ability to expand) and the publicly available nature of inspection reports, ensures schools are encouraged to improve their grade.

However, as Michael Fullan argues, 'successful system reform is a judicious mixture of push [challenge/pressure] and pull actions';[121] improving education requires more than accountability and challenge. In light of this, KHDA launched the 'What Works' initiative in 2012 as a means to provide support for schools, encourage collaboration and create a forum for sharing of best practice, at a school-to-school level. A key point made by interviewees was that such an approach has changed the culture in Dubai, moving away from an environment driven by competition, to one much more focused on working together. KHDA has effectively brokered a school improvement dialogue through the What Works events. School directors in Dubai have also pursued other strategies in order to drive improvement, including the formation of partnerships, staff visiting other schools and engaging teachers in peer review and mentoring schemes. As one school director said, 'What Works will stimulate an idea and then we will make it flower.'

In addition to these two broad aspects of reform introduced by KHDA, other themes to emerge from the research include the use of models of distributed leadership within schools and the inculcation of a culture of innovation and creativity. The changes in Dubai have been supported through engagement with all stakeholders (especially students and parents) and a general sense of positivity around such reform.

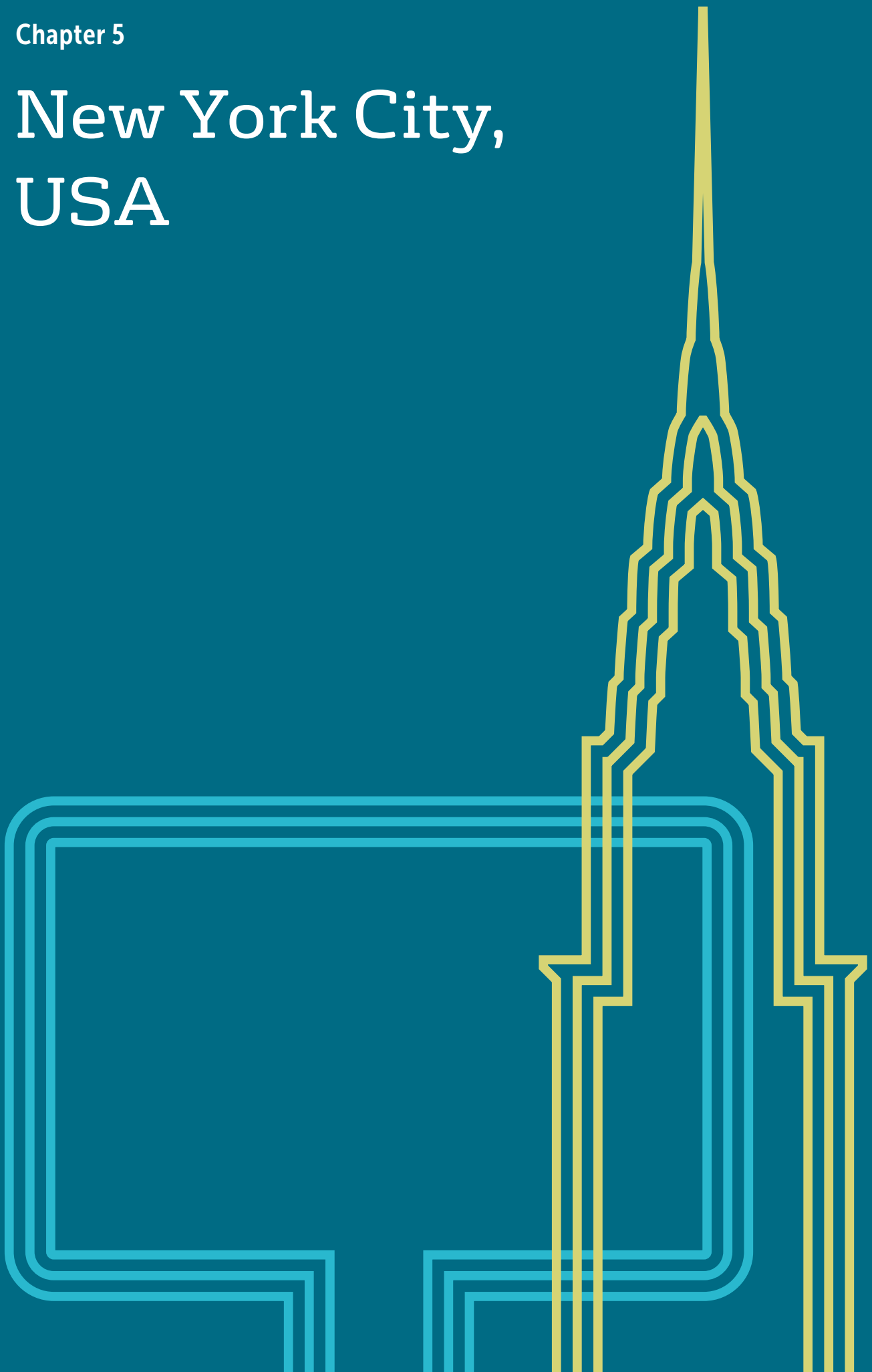
Dubai's school system has moved forward rapidly in the past eight years, with improvements in international tests mirrored by an increase in the number and proportion of students at schools rated as Good or Outstanding at inspection. A general trend of Emirati students choosing to attend private schools, combined with disaggregated PISA results suggests that the private school system in Dubai outperforms government-run public schools. The Government of Dubai has employed a clear theory of change, based at first on accountability, combined later with support and collaboration. As one teacher remarked, in Dubai 'we have a culture of change and moving forward.'

The changes in Dubai have been supported through engagement with all stakeholders (especially students and parents) and a general sense of positivity around such reform

[121] Fullan & Boyle 2014 (p.10)

Chapter 5

New York City, USA

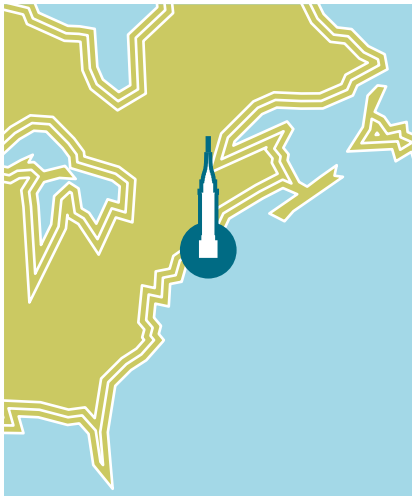


New York City (NYC) is the largest city in the USA, with a population of around 8.5 million. It is divided into five municipal boroughs and is part of the larger state of New York.

Schools in NYC are overseen by one administrative body: the NYC Department of Education (DOE). The NYC DOE is the biggest school system in the USA, and one of the biggest in the world,[122] catering for over a million students in over 1,800 schools.[123]

From 2002 until 2014 the city was governed by Mayor Michael Bloomberg who, upon election, enacted changes almost immediately to shift responsibility for education from a state-created board to the mayor's office. Bloomberg pursued many education reforms during his time in office under the banner of 'Children First'.

Education in NYC – as is typical of the rest of the USA – is free, from kindergarten through to grade 12. Elementary education encompasses kindergarten through to 5th grade, middle school includes grades 6–8, and high school refers to grades 9–12. NYC's schools are extremely diverse ethnically: around 15 per cent of students are Asian; 28 per cent black; 40 per cent Hispanic; and just 15 per cent white (compared to the state as a whole, where 46 per cent of students are white).[124]



New York City, USA

In total, eight key witnesses to NYC's educational journey were interviewed as part of this research, including city and state department of education officials, academics, and a school principal.

Since Bloomberg took responsibility for education in New York high school graduation rates have climbed and drop-out rates have decreased, year on year, as shown in Figure 5.1.

Improvement in New York City is particularly impressive when one considers the high numbers and proportion of students from traditionally low-performing groups. Figure 5.2 compares the percentage of three such groups in NYC and New York State.[125]

Despite having a higher proportion of such groups, students in NYC have shown far greater improvement on national assessments than those in the rest of the state, or across the USA as a whole – see Figure 5.3.

Although NYC performs below the state on the National Assessment of Educational Progress (NAEP) tests, at both grades 4 and 8, in reading and mathematics the city has shown greater gains from 2003 to 2013 – closing the gap to state performance levels.

[122] Fullan & Boyle 2014 (p.21) [123] NYC DOE 2015a [124] NYC DOE 2015b; New York State Education Department (NYSED) 2015a [125] Due to differences in reporting definitions these figures are not entirely comparable, but state definitions (NYSED 2015b) would suggest that, if anything, the gap is likely to be even higher (e.g. in NYC 'economically disadvantaged students' refers only to those in receipt of free/reduced-price lunches, whereas the state figures include a whole host of other potential qualifiers (in addition to free or reduced-cost lunches))

FIGURE 5.1: HIGH SCHOOL GRADUATION AND DROP-OUT RATES IN NYC[126]

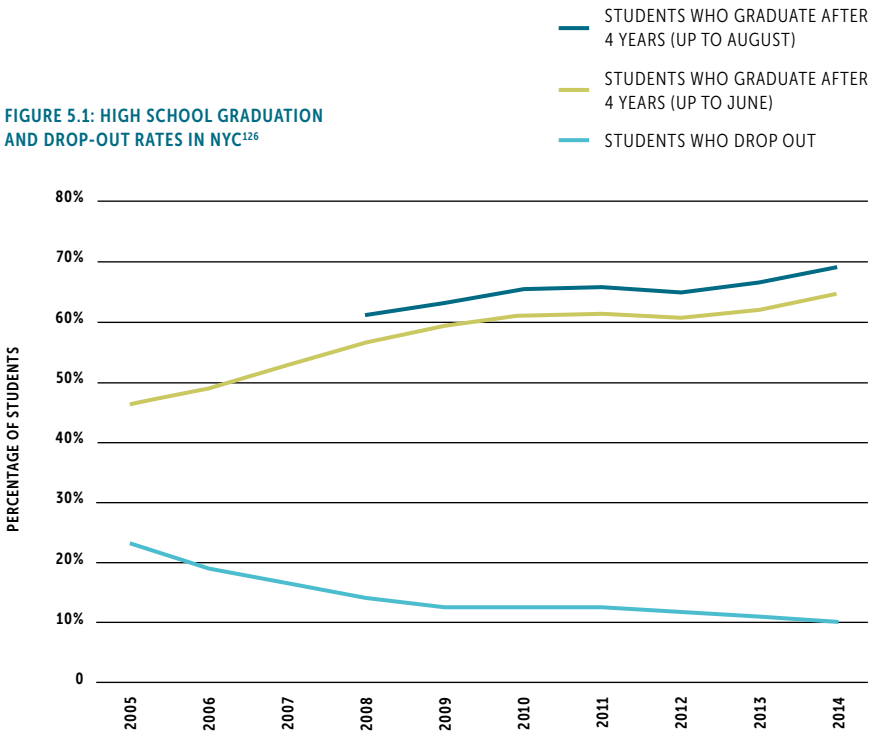
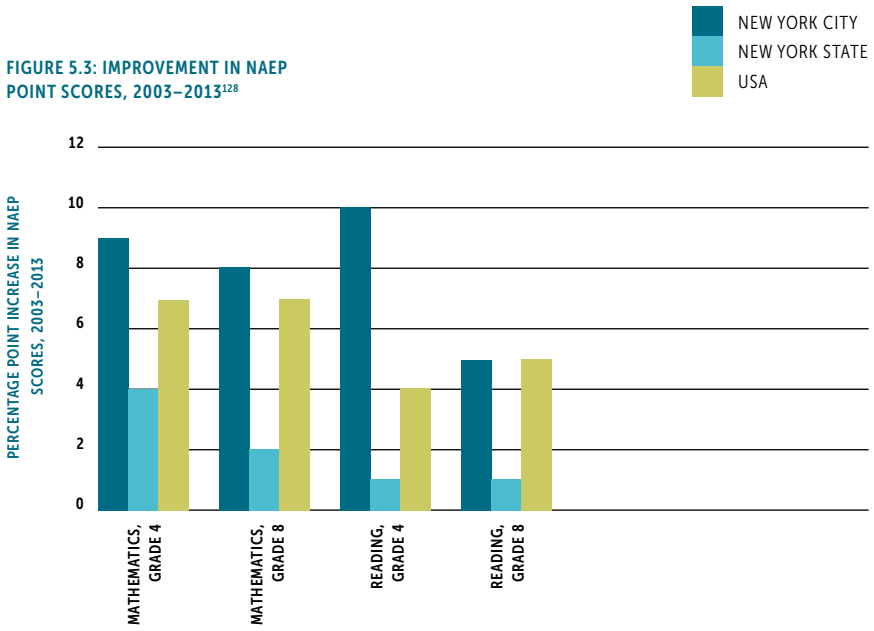


FIGURE 5.2: PERCENTAGE OF TOTAL STUDENTS IN PARTICULAR CATEGORIES, NYC VS. NEW YORK STATE COMPARISON (2013–2014)[127]

	New York City	New York State
Students with disabilities	18.6%	16%
Students with limited proficiency in English	13.3%	8%
Economically disadvantaged students	79.7%	53%

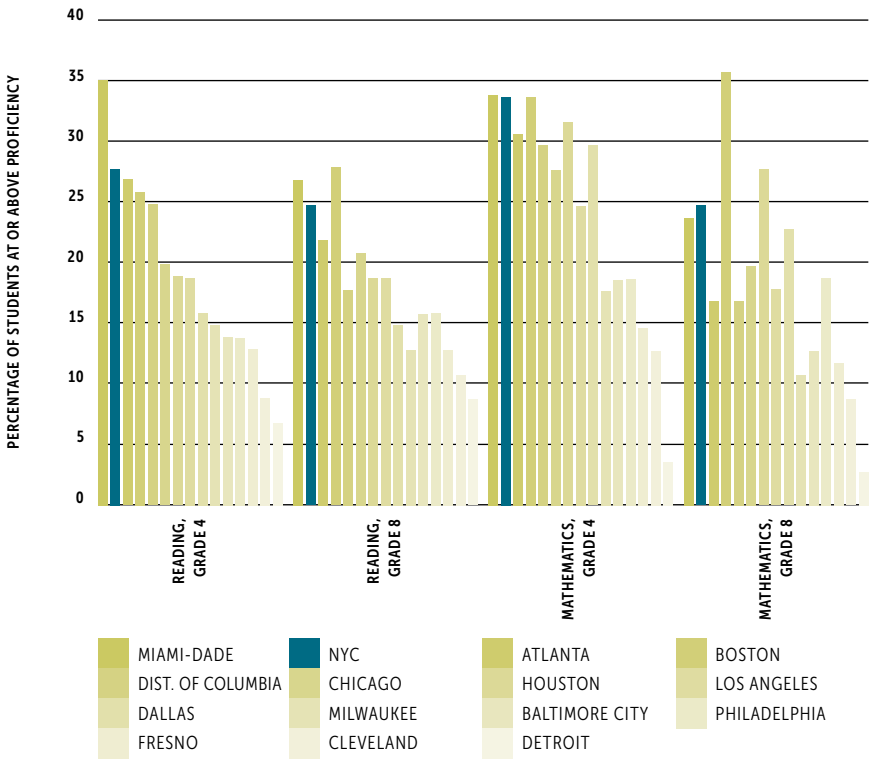
FIGURE 5.3: IMPROVEMENT IN NAEP POINT SCORES, 2003–2013[128]



[126] NYC DOE 2014a [127] NYSED 2015a; NYC DOE 2015b [128] NYC DOE 2013

Given that almost 80 per cent of NYC's student population qualify for free or reduced-cost lunches (over 800,000 children) the most useful comparisons of its performance are made with other cities in the USA serving similar high-needs groups. Figure 5.4, based on NAEP test data from 2013, shows the percentage of students classified as 'proficient' in a number of urban districts with similar levels of economic disadvantage. NYC is ranked in the top three of these 15 cities in each instance (reading and mathematics at grades 4 and 8).

FIGURE 5.4: PERCENTAGE OF STUDENTS AT OR ABOVE PROFICIENCY ON NEAP TESTS (2013) IN URBAN DISTRICTS SERVING HIGH NEEDS POPULATIONS[129]

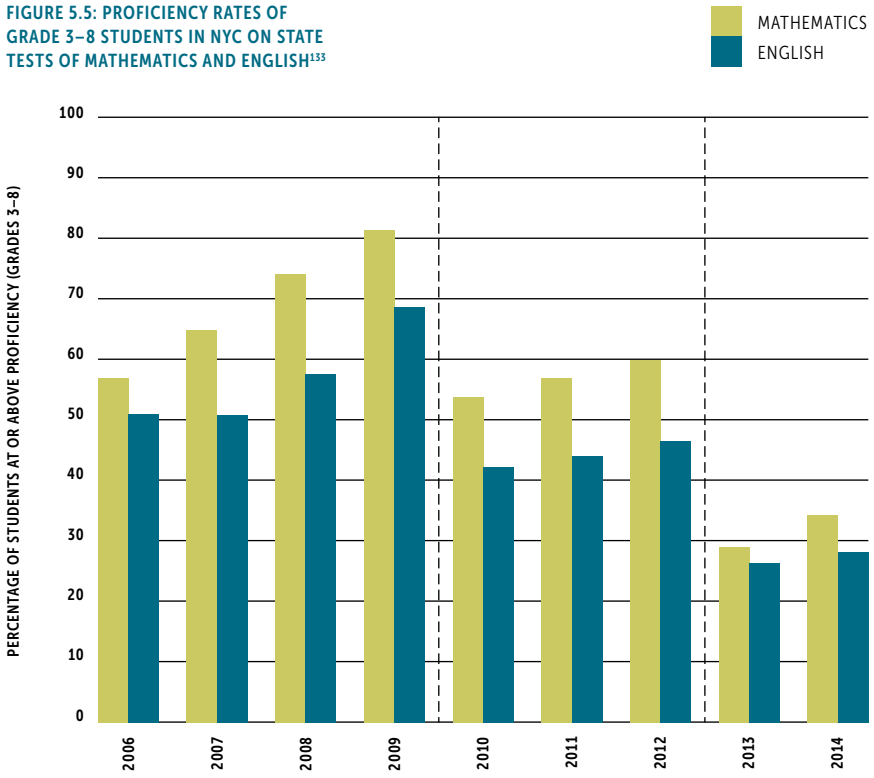


NYC is ranked in the top three of these 15 cities in each instance

[129] NYC DOE 2013

Proficiency rates in state tests also indicate improving performance trends in NYC, shown in Figure 5.5. As can be seen from this graph, there were two distinct drops in the level of students attaining a standard of 'proficient', in 2010 and then in 2013. This is due to changes in the assessment measures: in 2010 the cut score was changed[130] which meant students had to score considerably higher on these tests in order to be classified as proficient. In 2013 a new, more rigorous, 'Common Core' exam was introduced to reflect the new curriculum being taught across the country (with the result that New York State is rated as the top 'truth-teller' in the USA in terms of closeness between scores on state tests and NAEP tests[131] and has the strongest state proficiency levels[132]). As such, although it is not possible to make comparisons across this entire time period, it is possible to do so within each 'bracket' – and in each case there is an upward trend in outcomes.

FIGURE 5.5: PROFICIENCY RATES OF GRADE 3–8 STUDENTS IN NYC ON STATE TESTS OF MATHEMATICS AND ENGLISH[133]



[130] Kemple 2013 (p.13) [131] Achieve 2015 [132] Peterson & Ackerman 2015 [133] NYC DOE 2014b

The theory of change

The upward trend in NYC's academic outcomes over the past ten years has coincided with the reform programme initiated by Bloomberg and his chancellor, Joel Klein, and the systemic changes that enabled their programme to be enacted. New forms of school structure were introduced alongside a drive to improve the quality of teachers, particularly by removing poorly-performing teachers from the classroom and improving the standard of entrants to the profession. The standard of school leadership was also targeted through the creation of a new training facility and increased autonomy for school leaders was accompanied by enhanced, data-driven, accountability.

FIGURE 5.6: THEORY OF CHANGE

Michael Bloomberg made a series of structural changes to the school system in NYC

Political leadership

Once he had brought education under the remit of the mayor's office, Michael Bloomberg made a series of structural changes to the school system in NYC, appointing Joel Klein (a lawyer with no formal experience in the education sector) to head up the DOE as Chancellor.

> *'Mayor Bloomberg and his first schools chancellor, Joel Klein, exercised that control in a two-phase process: first centralizing authority to eliminate layers of red tape and establish citywide norms, and then devolving authority to school principals in exchange for greater accountability for the academic performance of their students.'*[134]

[134] Kelleher 2014 (p.19)

The Children First reforms were driven by 'a philosophy of change' from the outset according to Klein[135] and although the Bloomberg/Klein reforms did not always meet with universal approval, there was nonetheless a significant level of political support within the mayor's office. Change was pursued relentlessly by those in power. Eli Broad, a philanthropist who heads up the Broad Foundation, said of NYC that 'the strong leadership by the mayor, the chancellor, and a progressive teachers' union has allowed the nation's largest school system to dramatically improve student achievement in a relatively short period of time'[136] when awarding NYC the Broad Prize in 2007.[137]

The Children First reforms were driven by 'a philosophy of change' from the outset

Bloomberg and Klein initiated a period of increased centralisation in NYC, removing layers of bureaucracy from the system, which later enabled them to devolve authority and responsibility more easily to the school principals (see below). Schools in the city had previously been accountable to district superintendents[138] and community school boards – a 'top-down structure where superintendents could dictate a school's approach, even if it wasn't in the best interests of students.'[139] These powerful hierarchies were replaced with 10 regional offices, directly accountable to the chancellor, and with much less authority and power than their predecessors.[140]

Two senior officials who formerly worked at the DOE both commented on the importance of political support that had backed up the changes during the 2000s in NYC:

> *'Now we spent a lot of time, both at the mayor's level and my level, working with politicians, keeping them onside, sometimes you'd have to negotiate, sometimes you'd push harder than they might have liked.'* (Former senior official at the NYC DOE)

> *'[Political support] is essential – the fact that the mayor was supportive, was willing to accept responsibility for public education in a way that previous mayors had not.'* (Former senior official at the NYC DOE)

The restructuring of NYC's education system has not escaped criticism: Randi Weingarten, president of a powerful teaching union in the city, asked in 2007: 'How many more of these restructurings must we go through?'[141] and in his analysis of school reform in NYC, Michael Fullan suggested that the changes were not entirely effective because they emphasised structural issues rather than deep cultural issues. Fullan said that 'restructuring has prevailed over reculturing.'[142]

School leadership

The global literature suggests that school leaders play a crucial part in the success of high-performing and rapidly improving school systems.[143] In NYC Klein believed that school principals and leaders were a crucial 'piece in the education puzzle,' describing them as 'key agents of reform' and 'the most important piece.'[144] This view was echoed by a former official from the education department:

[135] Klein 2014 (p.22) [136] Medina 2007 [137] 'Awarded each year to honor urban school districts that demonstrate the greatest overall performance and improvement in student achievement while reducing achievement gaps among low-income students and students of color.' (The Broad Foundation 2015) [138] Nadelstern 2013 (p.15) [139] Gonen 2015 [140] Fullan & Boyle 2014 (p.27) [141] Gonzalez 2007 [142] Fullan & Boyle 2014 (p.58) [143] Slater 2013b (p.40) [144] Klein 2014 (p.61 & 184)

> *'The principal is the key leverage point in a large urban school district. And getting the best people you can find, supporting them, developing them [is crucial].'* (Former senior official at the NYC DOE)

As well as devolving responsibility to principals, reform in NYC also made the professional development of school leaders a priority, with an emphasis on ensuring that school leaders had the skills to make best use of their enhanced responsibilities. This led to the creation of a new training and development centre for school leaders in NYC.

There was a 'tight-loose' quality to the NYC approach to centralisation-decentralisation. Eric Nadelstern, a member of Klein's team, articulated this as follows: 'the more authority you share, the more influential you become'[145] and it was clear, both through discussing with interviewees and evaluating literature on the topic, that although reforms in NYC did centralise some aspects of the education system (e.g. the removal of district superintendents) there was nonetheless a gradual roll-out of increased autonomy, at first through a pilot scheme known as the 'Autonomy Zone' and gradually to all schools. One of the ways in which the DOE increased autonomy was by decentralising the support networks available to schools – giving each principal the choice of one of 55 networks which they could affiliate to and buy support from, based upon the needs of their school.[146]

As well as devolving responsibility to principals, reform in NYC also made the professional development of school leaders a priority

Klein's retrospective view was that the principals went from being 'the weakest players in the whole system'[147] to become a positive force for improvement as they were gradually given greater control over their staff and their budget. As a former DOE official said, 'they need the right to recruit, they need supports and they ultimately need the right to terminate teachers. You can talk about fair processes and all that, but controlling your human resources is number one. Number two, controlling your budget.' The same official then explained how a lack of autonomy in certain areas restricted decision-making in others:

> *'A simple example. People would say let's all have 22 to one class size. And so if you're a principal meeting that requirement may mean you end up with virtually no discretionary funds. Let's say you wanted to do an intervention program for struggling readers. And I was much more of the view: give principals budget based on a fair allocation formula and then let them decide. Give them control over their budgets.'* (Former senior official in the NYC DOE)

While a school principal we interviewed agreed that it was important 'to make sure that the funding source is coming to the principal so we can use that when we see something fit for the population that we have,' and while she welcomed greater discretionary authority, she was also critical of the removal of a level of hierarchy above school leaders:

> *'When the mayor changed the power structure, the superintendents weren't really as in control of their schools as they needed to be. There were other people who were almost lateral people who were your supervisors who you had to report to. In that, it created almost a sort of combative situation between people – "Who am I actually reporting to and why am I reporting to someone who is less senior to me?"'* (School principal)

[145] Nadelstern 2013 (p.18) [146] Kelleher 2014 (p.15) [147] Klein 2014 (p.41)

The increased autonomy introduced in NYC did enable the DOE to introduce a new funding formula intended to enable school leaders to target support at those who most needed it:

> *'Fair Student Funding was really intended to tie appropriate per capita weights that reflected student need and the intention behind that, I believe, was to incentivise exactly the sort of micro-building level decisions that a principal would be making in favour of students that schools had historically found it difficult to serve. In other words, students who were special education or who were over-age per grade or were reading below grade level now carried an additional funding weight in the hopes that schools would reorient themselves toward better serving higher numbers of those kids.'* (Former special adviser to the chancellor)

In order to improve the quality of leadership and to enable principals to use their new freedoms effectively, a development programme was initiated – the NYC Leadership Academy. Nadelstern saw this academy as serving multiple ends:

> *'The initiative served to create a cadre of leaders loyal to the chancellor and his efforts to place children first. It also served as something of a wake-up call for those who directed university principal preparation programs that the future was not what it used to be.'*[148]

In order to improve the quality of leadership and to enable principals to use their new freedoms effectively, a development programme was initiated – the NYC Leadership Academy

Many of the candidates for the academy came directly from the school system, having previously been effective teachers.[149] The programme centred on 'solution-driven training … how you deal with budget, how you deal with angry parents, how you get teachers who are resistant aligned with your mission, etc.' (former senior official in the city education department). Two of the interviewees talked at length about the importance of developing strong principals (their choice of language implying an ability to stand up to pressure from, for examples, teachers and their unions):

> *'I think if you don't have really good, strong principals, your schools are just not going to work well.'* (Former senior official in the city education department)

> *'I don't think you can have a successful system without successful schools and you can't have successful schools without strong principals.'* (Academic and former special assistant to the chancellor)

Accountability

The basic policy of providing more autonomy to school principals was tied to a more stringent accountability system. As one of the interviewees said:

> *'What we were attempting to do was create networks that were autonomous as well and that loosely orbited the Department of Education for accountability purposes only.'* (Former senior official at the NYC DOE)

All of the principals who signed up to the pilot Autonomy Zone 'had a performance contract with the city' (former senior official in the NYC DOE); school inspections

[148] Nadelstern 2013 (p.7) [149] Nadelstern 2013 (p.8)

by external experts, known as 'quality reviews,' were introduced; and each school received a graded progress report based upon variables including school environment, student performance and progress.[150] Accountability was based on data-based benchmarking. Schools were grouped together based on their intake and the students they served,[151] which mean that comparison was:

> *'Apples to apples on performance – meaning we didn't compare principals in high-poverty communities with principals in middle-income communities. We looked at comparable schools; we measured progress as the key variable.'* (Former senior official in NYC DOE)

According to Klein, for the first time in NYC 'people were getting information about kids and using it to help them improve.'[152]

The appointment of Jim Liebman to the role of chief accountability officer at the DOE accelerated the development of this new accountability regime which provided a much greater range of data on individual schools, both in terms of progress and 'quality' – judged through the inspection visits which looked at leadership, classroom instruction, teacher practice and staff use of data to inform instruction.[153]

School structures

Perhaps the most radical reform instigated by Bloomberg and Klein was their policy of identifying underperforming schools and closing them. Enabled by the new accountability measures the DOE had put in place, it was possible to isolate the worst-performing schools according to the quality reviews, progress reports and an extensive survey of teachers and parents.[154]

> *'Our research showed that at least 10 per cent [of schools] were chronically underperforming ... we began to target the most troubled schools for closure.'*[155]

Although, as is shown later, stakeholder engagement was a priority for the DOE, it was accepted that the only way to bring about meaningful change was to take drastic and sometimes unpopular action:

> *'In so doing, it was necessary to break through the rules, roles and relationships that had grown up over the decades. And get people re-focused in new ways on achieving higher levels of student performance.'* (Former senior official in the NYC DOE)

One of our expert witnesses, who was a senior charter school executive, endorsed the strategy, commenting that when a culture of failure is ingrained, the only option is to sweep the board clean. This view was echoed by Nadelstern, who claimed that 'large failed organizations, including schools, never reinvent themselves.'[156] More than 160 of NYC's public schools either closed or were scheduled to close during Bloomberg's time in office:[157] mostly large high schools in disadvantaged areas. The strategy was at times unpopular.[158] Similar approaches have been adopted in other parts of the USA. Recent research, for example, from

Perhaps the most radical reform instigated by Bloomberg and Klein was their policy of identifying underperforming schools and closing them

[150] Kelleher 2014 (p.22) [151] Nadelstern 2013 (p.21) [152] Klein 2014 (p.201) [153] Nadelstern 2013 (p.22) [154] Nadelstern 2013 (p.22) [155] Klein 2014 (p.78) [156] Nadelstern 2013 (p.36) [157] Fertig 2014 [158] NYC Public School Parents 2012

Ohio into the closure of 198 schools 'reveals that children displaced by closure make significant academic gains on state math and reading exams after their school closes.'[159]

Several of our expert witnesses strongly endorsed the approach.

> *'What we had was a lot of schools that were low performing, dreadfully low performing, twenty-five, thirty percent graduation rates, with two thousand, three thousand kids.'* (Former senior official in the NYC DOE)

In order to maintain a supply of school places, these large, failing schools were replaced with many more small schools, often co-located in the same building. According to Nadelstern 'the creation of a critical mass of new small schools was the single most important breakthrough strategy of the Klein administration.'[160] The new schools were distinct from their predecessors, with entirely new bodies of staff:

> *'So the new schools really were entirely new organisations, which I think makes a real difference in terms of preserving the model and implementing it in a way that was distinct from the larger factory-style high schools.'* (Former special adviser to the chancellor)

In order to maintain a supply of school places, these large, failing schools were replaced with many more small schools

These small schools were 'located mainly in disadvantaged communities' and were academically non-selective.[161] Research into 123 of these small schools that were created between 2003 and 2008 paints a remarkable picture. As a result of NYC's lottery system of place allocation (see below) attendance at these schools was randomised, and as such it is possible to make comparisons between students who get in and those who do not, and 'it is valid to attribute any differences in their future academic outcomes to their access to an SSC [small school of choice].'[162]

Figure 5.7 shows that graduation rates in these small schools are significantly higher, as are results in the English Regents exam (an end-of-high-school test where a score of 75 or more is used to indicate college readiness).

The authors of the research, who have published several studies, all of which provide positive evidence of the impact small schools have made,[163] went on to say that 'SSCs in New York City continue to markedly increase high school graduation rates for large numbers of disadvantaged students of color, even as graduation rates are rising at the schools with which SSCs are compared.'[164]

FIGURE 5.7: ESTIMATED EFFECTS OF SSCS ON 4-YEAR HIGH SCHOOL GRADUATION AND COLLEGE READINESS (GRADUATION RATES 2009–2011; EXAM SCORES 2005–2011)[165]

	Outcome (%)	Outcome (%)
	Target SSC enrolees	Control group counterparts
Graduated from local high school	70.4%	60.9%
English Regents exam score of 75 or above	40.2%	33.4%
Maths A Regents exam score of 75 or above	24.6%	24.7%

[159] Carlson & Lavertu 2015 [160] Nadelstern 2013 (p.33) [161] Bloom & Unterman 2013 (p.1) [162] Bloom & Unterman 2013 (p.3) [163] MDRC 2015 [164] Bloom & Unterman 2013 (p.111)
[165] Bloom & Unterman 2013 (p.8)

One of our expert witnesses, an education department official, outlined why he thought small schools had been so successful in NYC:

> *'The first reason is they're simply easier to manage. It's very difficult to find people who can effectively manage a school of 5,000. It's much easier to find someone who can manage a school of 500 ... Whereas, if you have 400–500 kids in a school, then you have 20–25 teachers and they each have 20–25 kids in a class and that strikes me as the right ratio ... And small schools differed from the large failed schools they replaced in that they could grow slowly and carefully as we phased them in. It built a strong culture and they could build from the ideas on up, rather than from the oppression of precedent and tradition.'* (Former senior official in the NYC DOE)

As the official noted, the new small schools were phased in slowly – 'ramped up one grade at a time'[166] which was one of the key reasons they 'worked so well', according to Nadelstern.[167]

As well as creating a host of new small schools, the DOE in NYC revolutionised the system whereby children were allocated a school place. The selection process that favoured those from an already advantaged background was replaced with a complex lottery that allowed both students to rank their school preferences and schools to express certain admissions criteria, and then matched student to school in a system described by Klein as one which 'maximized the total good across the entire school population.'[168] One of our expert witnesses described it as:

> *'A universal choice system that no longer tied students to local communities [but] allowed them access to any high school in the city with a whole portfolio of schools that were ranging from purely unscreened schools where there was absolutely no admissions criteria to those that had pretty high stakes.'* (Academic)

The rationale for the new approach of closing failing schools and opening new small schools of choice was succinctly summarised by an interviewee who had spent a considerable time researching the NYC system:

> *'Get rid of the lowest-performing schools, create new ones that were mission-driven, working at a scale that made it more feasible to address the needs of individual kids and then opening up the options for kids to be able to pick the places that were going to be the best fit for them and their families.'* (Academic)

The DOE in NYC revolutionised the system whereby children were allocated a school place

New forms of schooling

The increased level of choice in NYC, partly achieved through district-run SSCs, was extended still further by an open invitation from the DOE to charter school organisations; encouraging them to open new schools in the city. Charter schools are public schools that are free to attend, often supported by private financial backers. They are not conventional government schools as they are not controlled by traditional school boards or hierarchies. Their proponents believe that charter schools provide greater accountability (charters are granted by the government

[166] Klein 2014 (p.78) [167] Nadelstern 2013 (p.37) [168] Klein 2014 (p.110)

and come up for renewal at regular intervals, with underperforming schools 'required by law to be shut down'[169]), while also giving principals greater freedom to innovate.[170]

> *'Charter schools were built on a model of empowerment and accountability, which made great organisational sense.'*[171]

> *'Very often in charter schools you don't have to deal with the other b**t. It's very clear that your job is to raise student performance and as long as you do that, you're left to do your job.'* (Former senior official in the NYC DOE)

Although charter schools nationally have achieved mixed results,[172] those in NYC do overall seem to outperform other district schools. Taking advantage of the lottery system used to allocate places in order to provide quasi-experimental data, Hoxby's 2009 review found that:

> *'By the end of third grade, the charter school students' scores are just about five points higher than those of their lotteried-out counterparts. By the end of the sixth grade, their scores are about 21 points higher than those of their lotteried-out counterparts. And so on up to the eighth grade, at which time their scores are about 30 points higher than those of their lotteried-out counterparts.'*[173]

Although charter schools nationally have achieved mixed results, those in NYC do overall seem to outperform other district schools

The authors state that this 30-point gap is similar to the difference in student performance in Scarsdale (one of NYC's most affluent suburbs) and Harlem (a particularly disadvantaged district where many of the city's charter schools are located)[174] – which suggests that charter schools close the attainment gap significantly for their more disadvantaged intake.

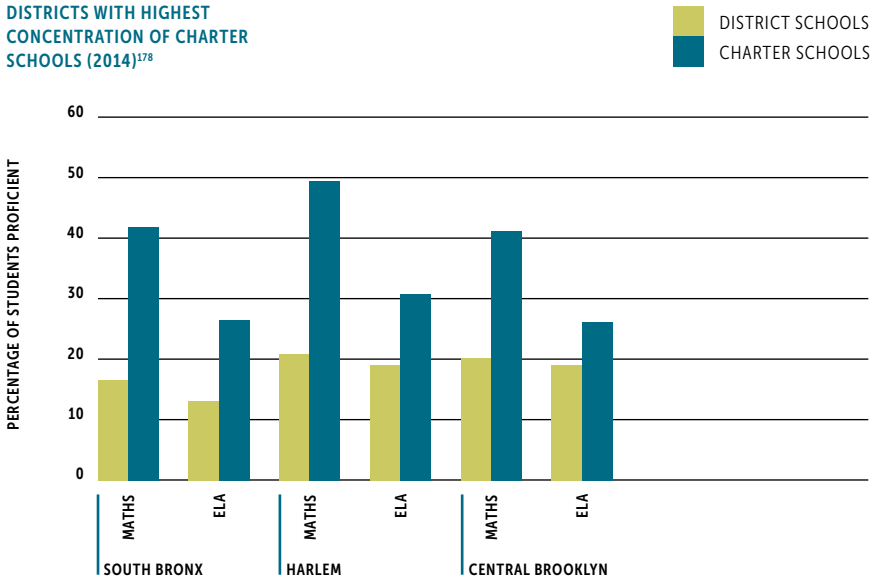
Further evidence was provided by a 2013 study by CREDO (The Centre for Research on Education Outcomes) which showed that 'on average, students in New York City charter schools learned significantly more than their virtual counterparts in reading and mathematics'.[175] This study again took advantage of the lottery system to pair charter school students up with a 'virtual twin' in the form of a conventional government school. In line with the findings of Hoxby's 2009 report, improvement was identified in both reading and mathematics, although it was significantly more pronounced in mathematics. CREDO's 2015 report on charter schools in urban districts found that charters in NYC obtained greater learning gains in both mathematics and reading when compared with average achievement of all schools in the region.[176]

As can be seen in Figure 5.8, in each of the three neighbourhoods in NYC where charter schools are most concentrated, the percentage of students deemed 'proficient' in mathematics and English is higher in charter schools than in district-run schools.

The lack of randomised controlled trials (RCTs) amongst the interventions enacted in NYC means that there is very little definitive and uncontested evidence relating to which aspects of the reform programme might be responsible for improvements. Criticism of NYC's education system has often come from the academic Diane Ravitch, who has identified instances where charter schools serve different populations from those of their district-run counterparts.[177] This might

[169] Klein 2014 (p.81) [170] National Alliance for Public Charter Schools 2015 [171] Klein 2014 (p.112) [172] Kelleher 2014 (p.32) [173] Hoxby et al. 2009 (p.IV–8) [174] Hoxby et al. 2009 (p.IV–8)
[175] CREDO 2013 (p.14) [176] CREDO 2015 (p.12–15) [177] Ravitch 2012

FIGURE 5.8: PROFICIENCY RATES (ALL GRADES) IN THE THREE DISTRICTS WITH HIGHEST CONCENTRATION OF CHARTER SCHOOLS (2014)[178]



explain some of the difference in performance when comparisons are drawn within individual areas; however, it would not account for the improved performance identified by CREDO's 2013 study which created pairs of individual students. Furthermore, the 2015 CREDO study suggested that charter schools in NYC have 14% of students in special education and 81% students in poverty, while traditional public schools in the city have 14% of students in special education and 82% of students in poverty.[179]

By 2013, there were 183 charter schools in NYC and 337 new SSCs[180] out of around 1,800 schools in the city as a whole: around a quarter;[181] representing a significantly increased level of school choice and competition and – given that both SSCs and charter schools have been shown to outperform other district-run schools – a means to increase levels of performance.

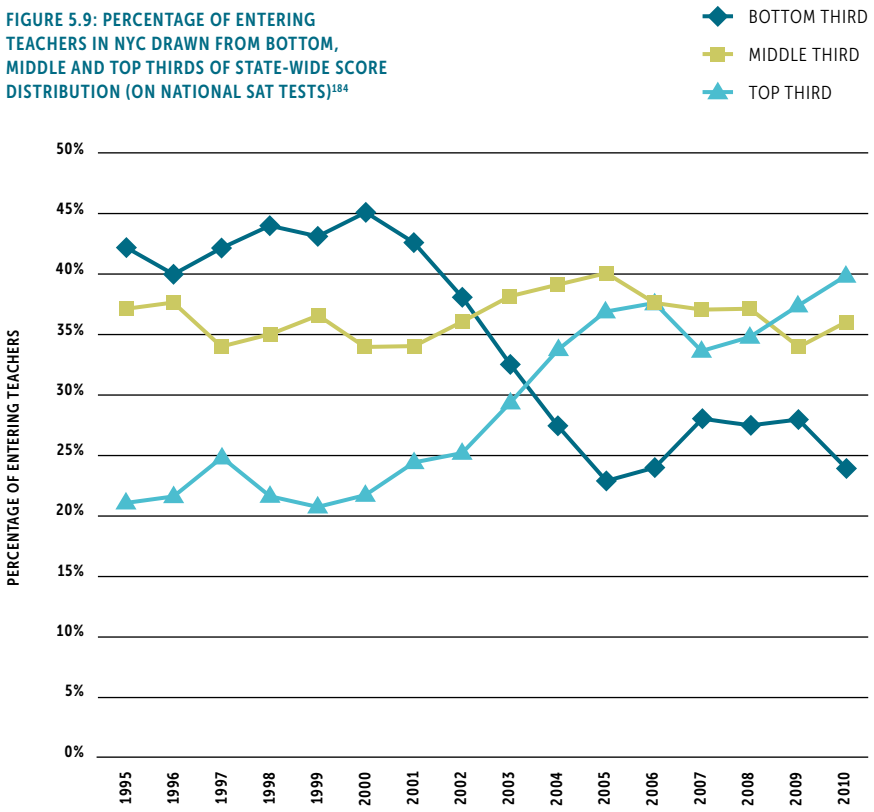
Teacher quality

Addressing the quality of teachers was another critical action point for Klein: 'the biggest factor in the education equation is teacher quality.'[182] He has discussed the need to professionalise teachers and remove poor teachers,[183] a point of view shared by the senior charter school executive interviewed as part of this research project. This individual was a former adviser to the chancellor and noted that teacher quality was closely tied to the increased autonomy that had been given to principals, allowing them to make 'more strategic and detailed decisions about how the funding that they have is going to be used' in terms of the teachers they recruited and the resultant blend of experience: 'so they can decide on the mix of teachers within their building to make sure they are able to attract high quality teachers but at a decent price' (academic and former special assistant to the chancellor).

Addressing the quality of teachers was another critical action point for Klein

[178] NYC Charter School Center 2014 [179] CREDO 2015 (p.7) [180] Kelleher 2014 (p.27–8) [181] NYC DOE 2015a [182] Klein 2014 (p.189) [183] Klein 2014 (p.189)

FIGURE 5.9: PERCENTAGE OF ENTERING TEACHERS IN NYC DRAWN FROM BOTTOM, MIDDLE AND TOP THIRDS OF STATE-WIDE SCORE DISTRIBUTION (ON NATIONAL SAT TESTS)[184]



There is evidence that the quality of teachers recruited in NYC did indeed improve during the Klein years. Figure 5.9 shows the distribution of new teachers in terms of their SAT scores (a standardised test often used for college admissions in the USA).

> *'In 1999, 43 percent of individuals hired to teach in NYC are drawn from the bottom third of the SAT distribution; by 2010, 24 percent are. In 1999, 21 percent of novice NYC teachers have SAT scores in the top third; by 2010 this figure increases to 40 percent.'*[185]

One of our interviewees, a school principal, suggested that the 'criteria to become a teacher have got more rigorous – which is good' and that the standard had improved, describing the majority of teachers in NYC as 'people who are trying to look for the best methods to convey the information to the students.'

The previously deep-rooted dysfunctional nature of NYC schools is often blamed on the stranglehold that teaching unions held over the administration.[186] Amongst other counterintuitive practices (in terms of improving learning outcomes for students) were requirements that teachers had to be appointed based on seniority and not ability; after three years' service teachers would automatically receive tenure, making it very difficult to remove them; and the fact that there was a complete lack of autonomy for principals in terms of who they could hire (right down to their assistant/deputy principals).

There is evidence that the quality of teachers recruited in NYC did indeed improve during the Klein years

[184] Lankford et al. 2014 (p.28) [185] Lankford et al. 2014 (p.28) [186] Klein 2014

The removal of poorly-performing tenured teachers was so difficult that 'reassignment centres' were created (so-called 'rubber rooms') where teachers were paid their full salaries while not teaching, awaiting disciplinary hearings. Although the arbitration process was streamlined, the removal of incompetent teachers still took years to complete.[187]

A former senior official in the city education department that we interviewed believed that the most 'important relationship in a school district is the relationship between kids and teachers and everyone and everything external to schools ought to exist in support of that relationship.' Although the Bloomberg/Klein reforms were not able to solve completely the problem of removing poor teachers from the system, they did establish new pathways for training teachers; open up the market for hiring teachers and transferring them; and instituted pay increases and a limited system of performance-related pay in order to attract better applicants.[188]

Difficulties in the creation of a coalition for change

There was a close alignment in NYC between the different levels of political leadership and their influence over education – Joel Klein often talks of how direct the lines of communication were between the Mayor's Office and the Department of Education.[189] Klein wanted to create a coalition for change with all the key stakeholders, including the teachers. However, he became increasingly frustrated because Union regulations did not allow him to communicate in the same way with teachers in the NYC school system:

> *'I just wish I had had the ability to explain to them directly what we were doing and why and to hear and address their reactions.'*[190]

Klein cites high approval ratings for his work in 2010 from both principals and parents, but was dismayed by the comparatively low figures he received from teachers in the city. Unable to interact directly with teachers en masse, Klein felt he had been robbed of the opportunity to explain his theory of change and was instead being judged on false information propagated through the media.

The restructuring of NYC's education system by Mayor Bloomberg helped to win him three successive election victories and brought about clear educational improvement

Summary

Over the past ten years graduation rates in NYC have climbed and drop-out rates have decreased. Schools in the city have closed the attainment gap with their counterparts across New York State despite serving a more economically disadvantaged population. In 2013 the city's performance on national tests placed it amongst the best urban school districts in the country when compared with cities serving similar populations.

The restructuring of NYC's education system by Mayor Bloomberg helped to win him three successive election victories and brought about clear educational improvement. While not always popular amongst teachers and the unions, the reforms nonetheless largely carried public support (with some notable exceptions around the closure of schools) and contributed to a trend of enhanced performance.

[187] Freedman 2007 & Kugler 2010 [188] Kelleher 2014 (p.42) [189] Klein 2014 [190] Klein 2014 (p.196)

Schools Chancellor for much of Bloomberg's time in office, Joel Klein led the reform effort, particularly focusing on improving equality across the city. As well as introducing fairer systems of funding, policies such as encouraging charter schools to open were often explicitly aimed at helping disadvantaged students who had been historically let down by the government school system.

> *'I think that was one of his accomplishments. I think he managed to put together a system to channel dollars into schools with high need populations. I do believe that Joel was very much committed to social equity in education.'* (Academic and former special assistant to the chancellor)

Klein and Bloomberg rooted out poor performance, with an aggressive policy of school closures matched by the opening of hundreds of new small schools which gave parents and students greater choice. Their reforms were based on a view that improving the quality of teachers and principals was an essential precondition for school improvement:

> *'Whatever else we do, we need to make teaching a well-respected profession that attracts our best college graduates and ensures that they have the training in the subject area they will teach as well as in pedagogy and classroom management.'*[191]

Klein regularly talks about inspiring or motivating people to do the best for children and his ability to 'energise everyone in the city' helped to drive the transformation of NYC's education landscape.[192]

Policies such as encouraging charter schools to open were often explicitly aimed at helping disadvantaged students who had been historically let down by the government school system

[191] Klein 2014 (p.283) [192] Klein 2014 (p.84)

Chapter 6

Rio de Janeiro, Brazil

Rio de Janeiro is the second-largest city in Brazil and is capital of the state of Rio de Janeiro.[193]

The education system in Brazil consists of optional pre-school (available for children aged 2–5); two stages of free and compulsory basic education from age 6 to age 14: 'first years' (grades 1–5, ages 6–10) and 'final years' (grades 6–9, ages 11–15); and upper secondary education from age 15 to age 17.[194]

There are 1,457 pre-school and basic education schools in Rio de Janeiro (often known simply as Rio). Of these, 449 cater for early years and 1,008 are at the 'fundamental' level (basic education), with 661,120 students enrolled.[195] In the city of Rio the vast majority of basic education schools are run by the city municipality, whereas all upper secondary schools are run by the state. Figures on the number of secondary schools in the city are not readily available (data is only collected at state level), although there are 164,756 students.[196]

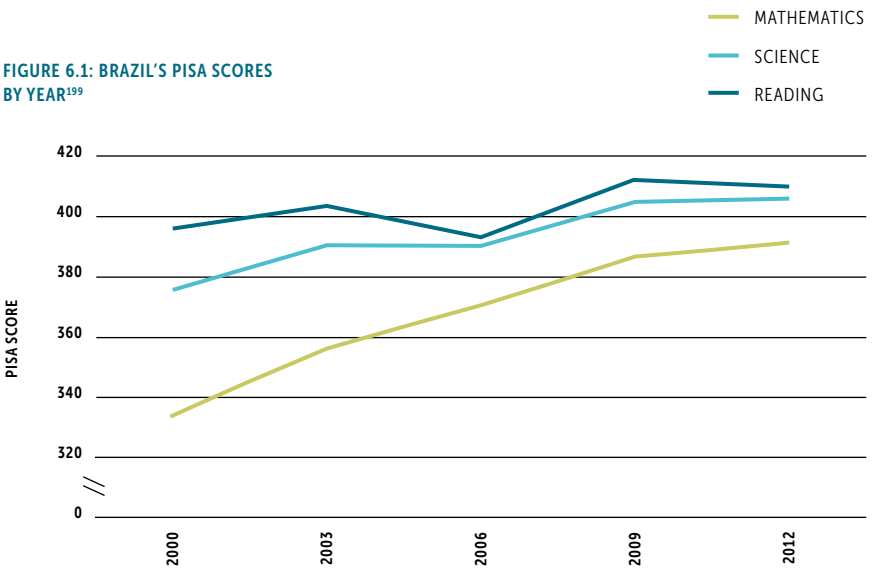
With schools run by both the municipal and state governments 'there is not a clear division of labour'[197] between the two and responsibility is shared. It should also be noted that a large number of students in Rio go to private schools: nationally around 13% of students go to private schools in Brazil.[198]

The research into Rio involved carrying out interviews with eight key experts, including teachers, a school director, academics, and state and city education department officials, in addition to data and literature analysis.

One of the reasons Rio was selected for this study was Brazil's rapid improvement in international PISA tests since 2000, particularly in mathematics (Figure 6.1).

Rio de Janeiro, Brazil

FIGURE 6.1: BRAZIL'S PISA SCORES BY YEAR[199]



[193] Unless otherwise specified, all uses of 'Rio' or 'Rio de Janeiro' in the text will refer to the city and not the state. [194] OECD 2011 (p.181) [195] Prefeitura do Rio de Janeiro 2015 [196] INEP 2014a [197] Costin 2014 [198] OECD 2013c (p.7) [199] OECD 2015c

Although Brazil performs below the OECD average, its average performance has improved considerably; its mathematics results make Brazil 'the country with the largest performance gains since 2003.'[200] The OECD estimates that only around half the improvement in mathematics and science can be attributed to changes in demographics or social-economic composition of the student population, suggesting that the schools in Brazil have become more effective.[201] There is also evidence that the improvement 'has been most pronounced among students with the lowest levels of performance',[202] suggesting that Brazil has moved towards becoming a more equitable system.

Although Brazil performs below the OECD average, its average performance has improved considerably

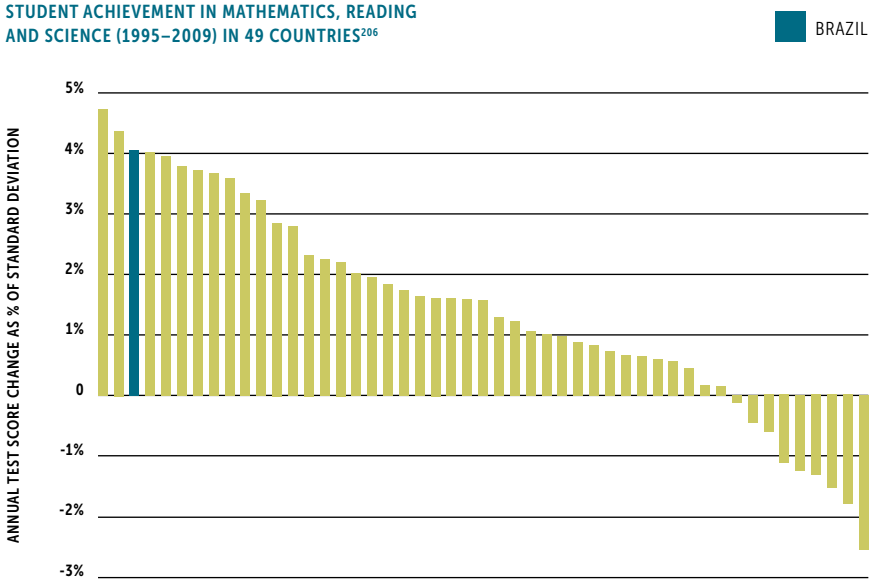
Figure 6.2 shows the annual growth in student achievement of 49 countries (1995–2009), based upon international comparative tests. Brazil, highlighted in blue, has only been bettered by Latvia and Chile in this time period.

According to Hanushek and his colleagues, 'gains made by students in [the top-improving 11 countries, i.e. including Brazil] are estimated to be [the equivalent of] at least two years' worth of learning.'[203]

As well as taking part in PISA regularly since 2000, Brazil has implemented a series of national tests known as the 'Basic Education Evaluation System' (shortened to SAEB in Portuguese). One aspect of this system is the 'Prova Brasil', administered every other year to students in the 5th and 9th grades (at the end of the two stages of basic education).[204] The Prova Brasil tests students in mathematics and Portuguese.[205]

Figures 6.3 and 6.4 show the standardised average Prova Brasil scores for municipal schools in Rio, compared to those in Brazil as a whole. The former shows the results of tests in 5th grade (at the end of 'first years' schooling) and the latter shows the 9th grade results (at the end of 'final years' schooling).

FIGURE 6.2: OVERALL RATE OF ANNUAL GROWTH IN STUDENT ACHIEVEMENT IN MATHEMATICS, READING AND SCIENCE (1995–2009) IN 49 COUNTRIES[206]



[200] OECD 2013c (p.1) [201] OECD 2013c (p.1–3) [202] OECD 2013c (p.3) [203] Hanushek, Peterson & Woessmann 2012 (p.4) [204] INEP 2014b [205] Prova Brasil scores are combined with student flow data (promotion, repetition and graduation rates) in order to give individual schools, districts, states and the country as a whole a rating on the basic education development index (IDEB). 'Each school's data are scaled as an index score from one to 10, with the levels aligned to scores on PISA. The use of the two factors achievement and promotion to the next grade, ensures that schools are not given incentives to hold back students from the tested grades or to encourage them to drop out of school. The goal is to reach the average score on PISA in 2021, the year before the 200th anniversary of Brazilian independence' (OECD 2011: p.184). The IDEB scores have generally not been used in this report as Rio followed a deliberate policy from 2009 to stop automatic progression (the automatic transition of students from grade to grade based upon age) – which has resulted in a drop in so-called 'approval rates' since then, making IDEB scores difficult to compare over the time period. [206] Hanushek, Peterson & Woessmann 2012 (p.28)

FIGURE 6.3: AVERAGE SCORE IN NATIONAL MATHEMATICS AND PORTUGUESE TESTS (MUNICIPAL SCHOOLS ONLY), FIRST YEARS[207]

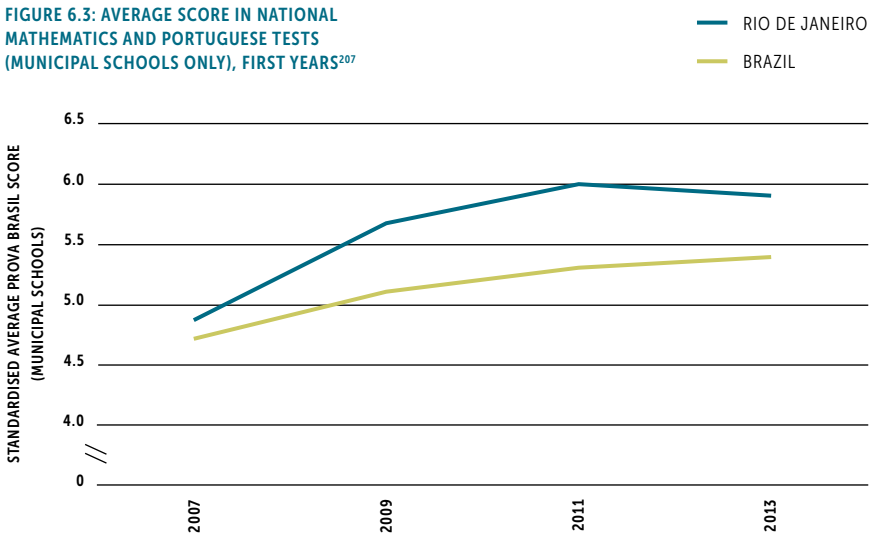


FIGURE 6.4: AVERAGE SCORE IN NATIONAL MATHEMATICS AND PORTUGUESE TESTS (MUNICIPAL SCHOOLS ONLY), FINAL YEARS[208]

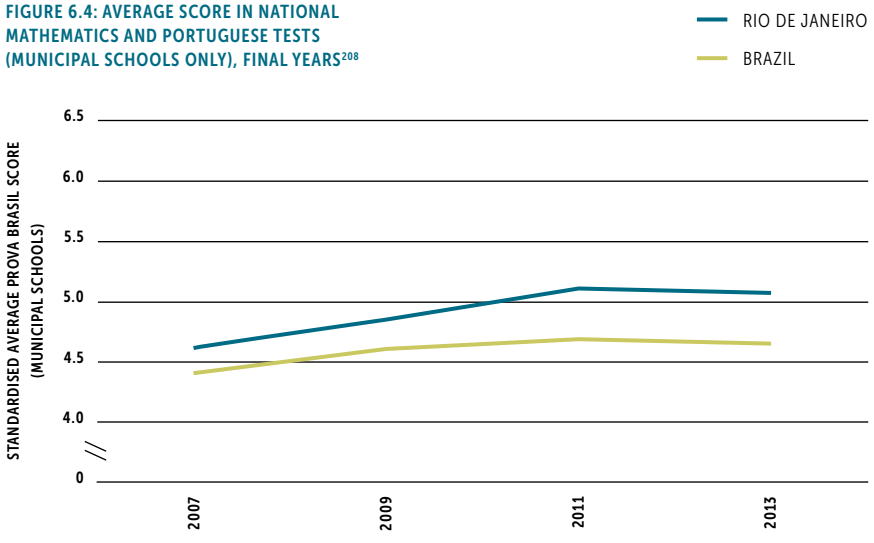
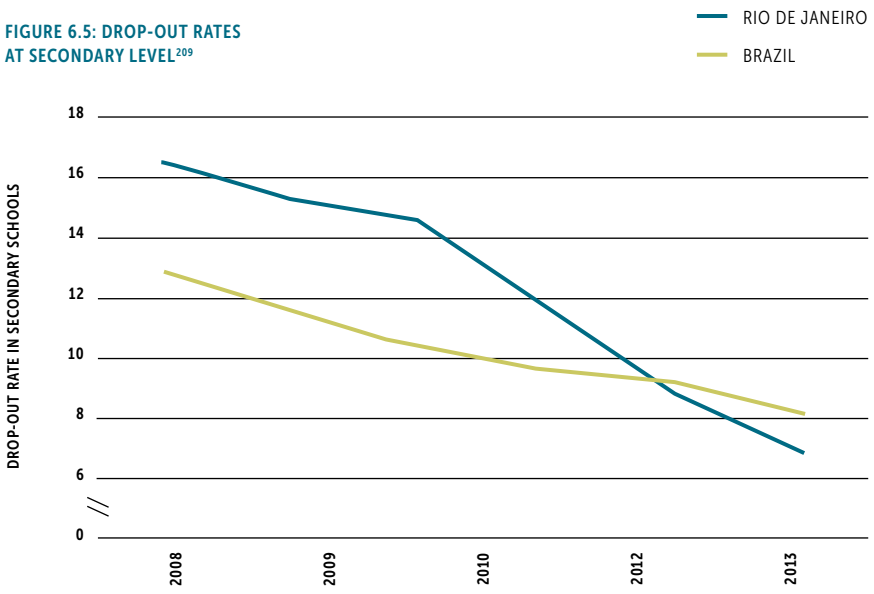
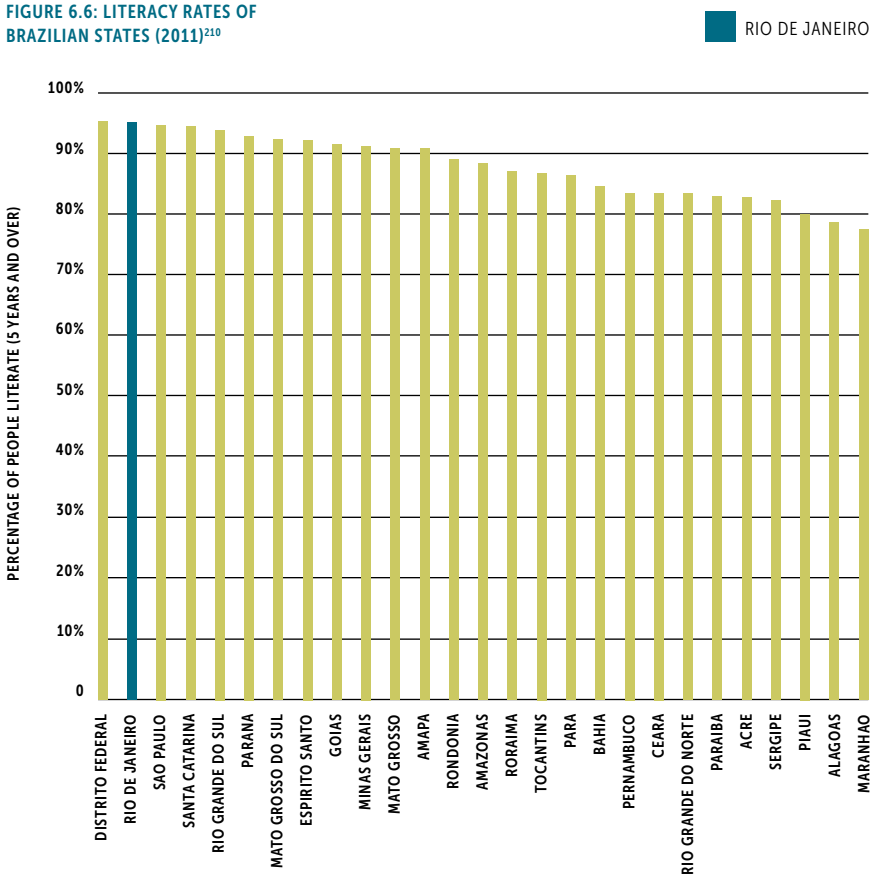


FIGURE 6.5: DROP-OUT RATES AT SECONDARY LEVEL[209]



[207] INEP 2015 [208] INEP 2015 [209] Todos Pela Educaco 2015

FIGURE 6.6: LITERACY RATES OF BRAZILIAN STATES (2011)[210]



As can be seen from these two graphs, schools in Rio have improved since 2007, and have done so at a greater rate than those across the country as a whole.

While it is not possible to isolate test scores for upper secondary schools (as these are run by the state in Rio rather than the municipality and cannot be disaggregated from all other schools in the state), it is possible to track drop-out rates across the city's secondary schools, as shown in Figure 6.5. Again, this graph indicates that schools in Rio have been improving year on year at a greater rate than other schools in the country.

Figure 6.6 shows that the state of Rio de Janeiro has the second-highest literacy rates in Brazil behind the Federal District (a relatively small district primarily consisting of the capital, Brasilia).

As with the PISA scores, test results on Brazil's national assessments have shown that the improvements of recent times have increased the extent to which the education system is equitable in terms of outcomes for different groups:

> *'Gains have been generally somewhat larger for students from families with fewer academic resources ... [they] are definitely not falling farther behind their more advantaged counterparts; to the contrary, they may be gaining on advantaged students.'*[211]

Schools in Rio have improved since 2007, and have done so at a greater rate than those across the country as a whole

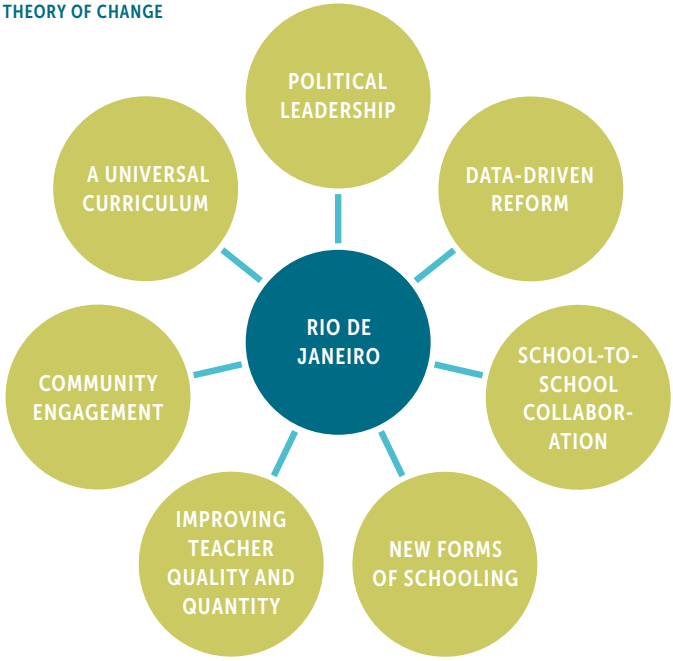
[210] Knoema 2015 [211] Carnoy et al. 2014 (p.28–9)

The theory of change

Since 2008 the city of Rio has been governed by Mayor Eduardo Paes. Along with his Secretary of Education (2009–2014) Claudia Costin, Paes drove a programme of reform in Rio's basic education schools. Costin in particular enacted reforms based on a clear theory of change in Rio. She believed in the need for data-driven reform that was targeted at underperformance and areas of weakness within the system. A streamlined curriculum built around high expectations was introduced to bring focus to the work of schools. Costin encouraged collaboration between schools and introduced new forms of schooling in order to accelerate the pace of reform. Steps were taken to increase the number of teachers working in the city and to improve teaching quality (particularly in terms of classroom teaching practice), through more rigorous selection and enhanced training and professional development. Energetic steps were taken to ensure community engagement in order to gain traction and support for the reform agenda.

A streamlined curriculum built around high expectations was introduced to bring focus to the work of schools

FIGURE 6.7: THEORY OF CHANGE



Political leadership within an increasingly decentralised system

Our expert witnesses consistently identified the significance of the leadership of Claudia Costin. Her remarkable contribution was made possible because of the way that the Brazilian education system has been increasingly decentralised over the last 20 years. Since the early 2000s in particular there has been a significant transfer of decision making from state to municipal level.[212] Basic education schools (grades 1–9) are now almost all run by the municipality in Rio. In one analysis of the Rio story The Economist identified this political decentralisation as an important factor

[212] Leme, Paredes & Souza 2009

because it allowed for 'a good idea [to] be put into practice everywhere,' across the city.[213] Critically, Costin had the authority to initiate city-wide reforms, such as the provision of new curriculum guidelines and the introduction of bi-monthly student assessments (addressed in more detail below).[214]

Costin was responsible for a campaign of transformational change which one of the interviewees, a university academic, described as 'management shock'. Another witness, a school director, paid tribute to the way Costin energised the municipality and ensured a 'unified' focus on school improvement. One of her key reforms (which remains 'work in progress') is the gradual transition towards single-shift schooling. Many schools teach students in one of either two or three shifts a day (morning, afternoon and evening), meaning many young people in Rio only study at school for around 20 hours a week. Costin identified instructional time as an extremely important issue and began increasing the number of school hours, although such a process required considerable investment:

> *'We decided all the schools will have seven hours a day and not four as they are now. So we made a complicated plan to have them all in one shift. Which means at the end of the day double the schools.'*[215]

According to the city government around 20 per cent of the schools in Rio operated in a single-shift pattern by 2014 and 'by 2016, the municipal school network will have 35 per cent of its students studying full-time, based on a single seven-hour timetable, with more classes in Portuguese, mathematics and science.'[216] Those schools that already teach full-time have shown improved performance: 'in IDEB 2013 [the latest round of national tests], the Early Years [grades 1–5] advanced 17% compared to 2009, while in the Final Years [grades 6–9] growth was even higher, reaching 51.4%.'[217]

The global literature suggests that instructional time is a particularly important variable in determining learning outcomes. Interestingly, reforms in both Ho Chi Minh City and Rio placed this issue at the centre of the reform agenda. One recent meta-analysis has suggested that significant increases in instructional time can have a demonstrable beneficial effect on student outcomes.[218] John Hattie has also undertaken a meta-analysis that did not find any correlation between hours of instruction and average PISA scores.[219] However, all the countries involved in his analysis provided more contact time than was formerly the norm in Rio. Costin was convinced that this question of instructional time mattered. She stated that each of the top 15 performing countries in PISA taught for seven hours a day, and on this basis she wanted the same for students in Rio.[220]

The global literature suggests that instructional time is a particularly important variable in determining learning outcomes

A curriculum based on clear expectations

As well as increasing the amount of time students spent at school, Costin introduced a new, standardised curriculum in all the schools across the basic education system. The new curriculum was organised in two-month blocks and determined 'precisely what every child should learn.'[221] To support teachers in the delivery of the curriculum, additional guidance and materials were produced and the municipal government created an online platform – 'Educopedia' – which was populated by the teachers themselves and provided digital support materials.[222]

[213] *The Economist* 2011 [214] Bruns, Evans & Luque 2012 (p.111) [215] Costin 2014 [216] Prefeitura do Rio de Janeiro 2014 (p.2–3) [217] Prefeitura do Rio de Janeiro 2013a [218] Farbman 2015 (p.3) [219] Hattie 2015a (p.27) [220] Tadeu 2012 [221] Tadeu 2012 [222] Robinson 2015

In an interview Costin emphasised the importance of getting teacher 'buy-in'. The new curriculum had been designed in a close partnership with the city's teachers:

> *'Teachers weren't really resistant to the new curriculum. We built it together, and teachers piloted and evaluated it.'*[223]

For Costin a clearer curriculum was essential because it allowed teachers to 'precisely define learning expectations and standards so that teachers could know what was expected at each grade level.'[224] All of Rio's schools now teach this single curriculum and our expert witnesses described how this had resulted in consistently high expectations across the system. From a position where 'each school, each teacher, decided what content they were going to teach the students, what syllabus they were going to follow' (senior official in the state education department), Rio moved to a common curriculum that helped teachers. This was described by one of our interviewees, a senior official in the municipal education department, as among Costin's first and most important actions.

All of Rio's schools now teach this single curriculum and our expert witnesses described how this had resulted in consistently high expectations across the system

Data-driven reform

Testing in Rio happens at two levels. Firstly all students in 5th and 9th grades sit national tests every two years (the 'Prova Brasil'). These assessments are a means to 'evaluate the quality of education in public schools,'[225] with results available at national, state and school level. Results are not made available at the level of individual students. For Costin this was not enough. The Prova Brasil provided a health check on the system but was not the basis for individualised assessment for learning. She introduced the second form of testing. There are now tests in Rio at the end of each two-month curriculum block, run by the municipal education department, with the aim of more regularly and quickly providing feedback to school principals and teachers on the performance not only of schools but also of individual students.[226] The idea of the need for a rapid feedback loop underpinned this reform.

> *'Ongoing assessment and feedback is critical. In Brazil, I have seen a lot of standardised tests that take too long to give feedback to teachers. Without that information teachers can't re-assess the way they teach.'*[227]

The data is presented to schools as the basis for a benchmarking exercise. Costin herself has described how these bi-monthly tests (in Portuguese, mathematics, science and writing) act as a management tool for school principals, allowing them to compare themselves with the system average. A senior official in the state education department noted that these tests also allowed for close monitoring of individual students – to 'check what the weaknesses are' across key curriculum areas and then to provide additional support. There is strong support from the global literature for a focus on assessment for learning and diagnostic feedback at the level of the individual student. Hattie, for example, has noted that based upon his meta-analysis of evidence, 'know thy impact' was one of the critical tasks schools should engage in; suggesting that 'ten- to twelve-week cycles of evaluation are about optimal,'[228] Hattie's advice corresponds very closely to the bi-monthly (i.e. approximately nine weeks) testing undertaken in Rio.

[223] *The Economist* 2011 [224] Robinson 2015 [225] INEP 2014b [226] Prefeitura do Rio de Janeiro 2014 (p.9) [227] Robinson 2015 [228] Hattie 2015b (p.15)

Costin's local reform of assessment was further supported by national changes in assessment. The changes involved a move away from snapshot tests which only included a sample of students, to universal assessment in Portuguese and mathematics for all students in grades 5 and 9. According to our expert witnesses these national tests were important because they allow 'the whole cycle' to be assessed (senior official in the state education department) in an objective manner (education lobbyist). Crucially the test results, which are known as IDEB ('Brazilian Education Quality Index'), are made public and so can be used by parents and communities to apply pressure for improvement. The OECD has suggested that the public nature of scores on the IDEB has helped drive improvement:

> *'The results of IDEB are published broadly, by school, by municipality, by state and for the nation as a whole, and parents and community members are aware of their school's ratings. The target and the actual performance are compared to see which schools are outperforming their targets. This has added public pressure to the push for improved school performance.'*[229]

The ability to compare schools on a like-for-like basis, and the longitudinal nature of the index, tracking schools and regions over time, has meant that 'educators accept the system because they believe it is fair to compare a school's performance against its past performance, rather than set one arbitrary score all schools should reach each year.'[230]

The focus on performance data is not universally popular. One of our expert witnesses described the suspicion and even fear with which some school principals viewed the new systems of data-based accountability:

> *'They are scared of being assessed ... I think there is even a very negative concept about the evaluation and assessment ... The evaluation is in order to improve the programmes but people don't have this concept and the managers don't. But even if you have the concept that evaluations are to improve programmes, there is always a risk that the press and the political parties can make use of these results and it might have a negative impact for the principal, for the mayor or the governor or the president, for all those who in the end are responsible for the management.'* (Academic)

Despite this trepidation on the part of some school principals, there seems little doubt that assessment at school and student levels has helped to drive improvement in the Rio schools.

The focus on performance data is not universally popular

School-to-school collaboration

When in office Costin regularly met with principals of the best-performing schools to discuss their success, and the leaders of the worst-performing schools to identify what was going wrong. One of the direct outcomes from such meetings was action to help schools to collaborate with each other:

> *'Every quarter I meet with the best performing schools for lunch and discuss why they succeeded, and the worst performing schools, and they received a godmother school, a school that is in the same area ... that is having success, and together they plan how to transform learning in that school.'*[231]

[229] OECD 2011 (p.185) [230] OECD 2011 (p.184) [231] Costin 2014

Her approach was similar to that used successfully in London. Data was used to identify schools serving similar students but achieving different results. The high-performing schools – described by her as the godmother schools – were expected to provide support to the weaker schools. Costin believed that it was the responsibility of high-performing schools to help those that were proving to be less effective and, underpinned by the extensive data she had collected, formally instigated such partnerships. Interestingly, she talked about how the effective and ineffective schools planned together. She talked not about the one-way transmission of expertise but a respectful collaborative relationship based on a shared commitment to the students of the area.

Costin believed that it was the responsibility of high-performing schools to help those that were proving to be less effective

Targeting underperformance

Rio is the largest municipal education network in Brazil.[232] The school population is large and resources are finite. Costin decided to use the data to target resources on the most disadvantaged communities and students. This targeted policy agenda identified areas of the city where underperformance was high and individual students were failing – providing additional schooling for them and ending the practice of automatically moving students up a grade:

> *'The reformulation of the pedagogical project of Rio de Janeiro's public (government) education network brought about positive changes to the education scenario in the city. "Automatic passing" was discontinued, parents were encouraged to be more participative in their children's education, and children in risk areas got special attention in the "Schools for Tomorrow."'*[233]

Aspects of this approach run counter to current orthodoxy. Although there is extensive international evidence that grade repetition is detrimental for pupils,[234] some such as Hattie have argued that organising pupils into cohorts based solely on their age, and automatically moving them to the next year and the next curriculum level at a pre-determined time was also potentially damaging.[235] He argued for a more fluid approach based upon the levels students were working at, which seems to align with the structure adopted in Rio.

During Costin's initial period in office the new testing framework allowed her to identify students that were functionally illiterate,[236] leading to the introduction of remedial tutoring classes in order to help them catch up.[237]

> *'In 2009, approximately 28 thousand functionally illiterate students were identified between the 4th and 6th grades in Rio de Janeiro's municipal school network. The Tutoring ('Reforço Escolar') Project was created with a special focus on re-literacy and acceleration to ensure a successful learning process for all students in the network.'*[238]

According to the education department, the scheme was a great success, particularly as it allowed students to return to the correct grade for their age:

> *'From 2009 to 2013, nearly 38,000 students were retaught how to read and write. The functional illiteracy rate fell from 13.6 per cent in 2009 to 3.1 per cent in 2013, comfortably beating the target to reduce to under 5 per cent by*

[232] Prefeitura do Rio de Janeiro 2014 [233] Prefeitura do Rio de Janeiro 2013b (p.58) [234] EEF 2015 [235] Hattie 2015a (p.13) [236] Lacking the literacy necessary for coping with most jobs and many everyday situations. [237] Costin 2014 [238] Prefeitura do Rio de Janeiro 2013b (p.66)

2016. The reinforcement classes allowed 60,500 students to return to classes with other students of roughly their age between 2010 and 2013.'[239]

Extra support for those students who were falling behind was enabled at least partly through greater cooperation between schools and universities. According to an official from the state education department, universities provided materials for teachers and students and additional training for teachers on competencies or skills that had not previously been learned.

New forms of school

Costin targeted at-risk students and at-risk districts. In highly disadvantaged areas she introduced a new type of school. The 'Schools of Tomorrow' programme ('Escolas do Amanha') was designed for students living in particularly challenging contexts in Rio: specifically the 'favelas' (low-income informal urban areas, often controlled by drug dealers and other criminal elements). 151 schools were identified where, in the words of Costin, learning 'was almost impossible ... those schools were the only presence of the state in those areas.'[240] The schools were then re-designated as 'Schools of Tomorrow,'[241] receiving special support, 'including infrastructure improvements, books and materials, and hardship pay for teachers.'[242]

Barbara Bruns and colleagues highlighted the important role that such schools played in these deprived areas, and by implication the benefit that additional focus on such schools can provide:

'Most [young people there] have never set foot outside the favela, been to a Rio beach, or even seen a shopping mall. The school is a respected island in the community and, for many students, the cleanest and safest place they know.'[243]

The programme extended beyond the usual academic curriculum and involved provision of sport, cultural and social welfare facilities. There was an extended school day. Our expert witnesses spoke positively about the work of these schools. The curriculum on offer at these schools was specifically designed to be comprehensive – providing a rounded experience for students:

'The school is a means for the children to grow and to learn how to live in society, and we need to help them with that ... we have to be concerned with the child as a person.' (School director)

Student assessment data suggests that the 'Schools of Tomorrow' programme has brought great benefit to those students it serves. One of the interviewees described the project as 'the most innovative in Rio' (academic). Despite working in such difficult circumstances these schools showed greater improvements than other district schools, as can be seen in Figure 6.8.

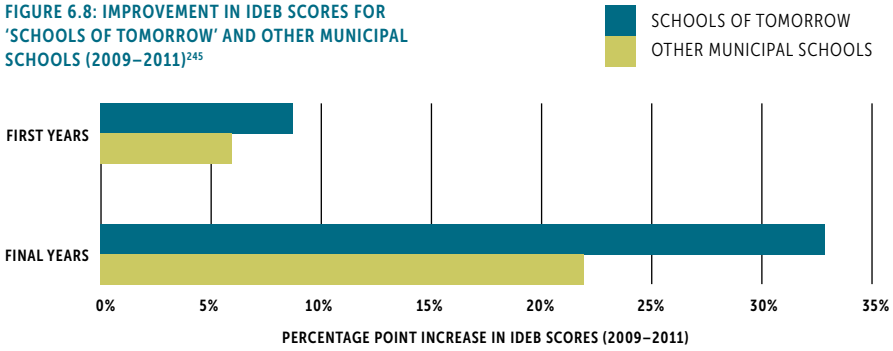
These schools also showed a remarkable improvement in terms of reducing truancy, bringing about a 37.6 per cent decrease between 2008 and 2011:

'The program has proved to be effective both at keeping children at school and in its capacity to promote significant learning gains among people most in need. The initiative's positive impact goes beyond the students, transforming the lives of whole families in deprived areas.'[244]

Student assessment data suggests that the 'Schools of Tomorrow' programme has brought great benefit to those students it serves

[239] Prefeitura do Rio de Janeiro 2014 (p.10–11) [240] New York City Global Partners 2011 (p.1) [241] Costin 2014 [242] Bruns, Evans & Luque 2012 (p.111) [243] Bruns, Evans & Luque 2012 (p.111)
[244] Prefeitura do Rio de Janeiro 2014 (p.42–3)

FIGURE 6.8: IMPROVEMENT IN IDEB SCORES FOR 'SCHOOLS OF TOMORROW' AND OTHER MUNICIPAL SCHOOLS (2009–2011)[245]



Costin said of the programme that 'the most important battle was changing a culture that didn't even think poor kids can learn ... thus the Schools of Tomorrow share a common curriculum with the rest of the city's schools, a common testing schedule and common expectations about success.'[246]

Improving teacher quantity and quality

Teacher quality is widely accepted as one of the most important predictors of a school system's success.[247] Historically there have been problems with recruitment of skilled individuals into the teaching profession in Brazil, but more recently these have begun to ease, particularly in places such as Rio. The municipal government in the city has successfully addressed a teacher recruitment crisis and the profession has been made a more attractive proposition through pay increases and better development opportunities. The reforms have had the combined effect of improving the quality of applicants and also helping those already teaching to improve their skills and knowledge.

> Teacher quality is widely accepted as one of the most important predictors of a school system's success

Our expert witnesses emphasised that there had been a lack of decent preparation for many of the younger teachers entering the system. Owing to the relatively recent introduction of free public education in the country, demand outstripped supply for teachers and the teaching profession was not able to benefit from 'the long tradition of development that occurred in developed countries over the last two centuries.'[248]

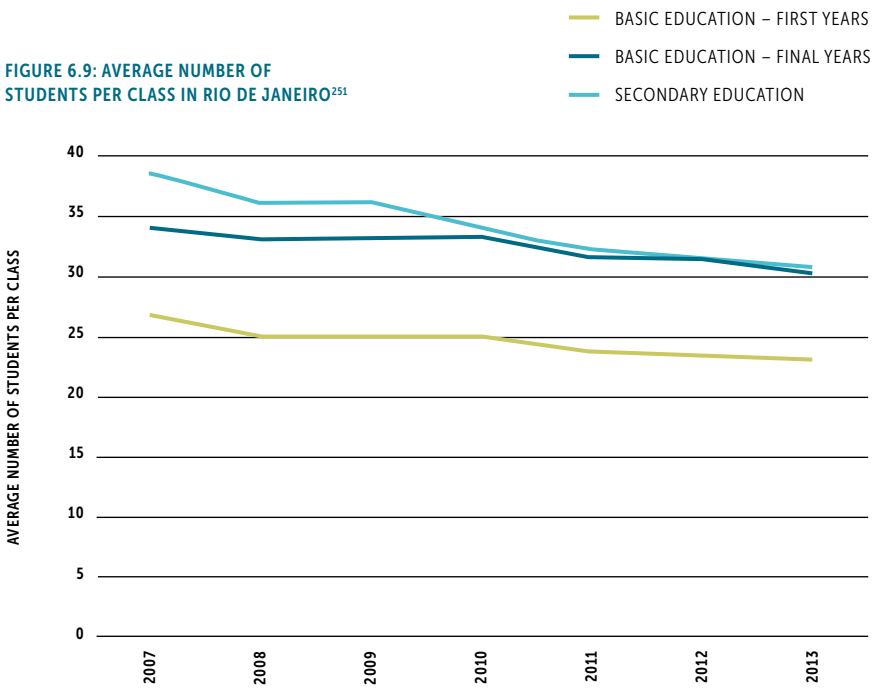
The municipal government described some of the recent achievements in the field of teacher recruitment:

> *'23,363 new teachers have been hired over the five-year period since 2009. By 2014, the municipal teaching network had a total of 42,529 educators in classrooms. The current administration has managed to eliminate the pre-existing deficit of 7,500 teachers. In addition, all teachers hired through public contests have been employed to work for 40 hours per week since 2011.'*[249]

This picture of progress on teacher recruitment is further supported by the OECD who noted that, although the student population had increased across Brazil, 'the proportion of students who are in schools whose principal reported that "the school's capacity to provide instruction is hindered a lot by a lack of qualified teachers" shrank notably between 2003 and 2012.'[250] This pattern is reflected in the student-teacher ratio statistics for Rio, shown in Figure 6.9.

[245] Prefeitura do Rio de Janeiro 2014 (p.42–3) [246] Pearson 2011 [247] Barber & Mourshed 2007 (p.40) [248] OECD 2011 (p.182) [249] Prefeitura do Rio de Janeiro 2014 (p.12) [250] OECD 2013c (p.7)

FIGURE 6.9: AVERAGE NUMBER OF STUDENTS PER CLASS IN RIO DE JANEIRO[251]



In order to improve recruitment of teachers, salaries have been improved: teachers in Brazil now earn around 50 per cent more than the average worker in the country.[252] In Rio the situation is even more generous, with teachers in Rio's municipal education system earning more than in any other of Brazil's state capitals.[253]

Teacher salary has also been supplemented in Rio since 2009 with a performance-related bonus payment. Although some teachers and unions opposed this programme, according to one of the interviewees, Costin believed it to have been an important driver of improvement. The bonus is based on whether a school meets or exceeds its target test score.[254]

> *'We signed an annual management contract ... which is just something that we follow ... where we establish the improvement that the schools should make, based on the history of the school. So the school should evolve from a baseline (which goes for learning and improvement and dropout rates). The schools that attain those goals, each member of the school, from the cook to the principal, received an additional salary if they reached those goals.'*[255]

Although international evidence for the effectiveness of such performance-related pay/bonus programmes is mixed[256] there is some limited evidence that the system employed in Rio has had a positive impact,[257] and that other schemes in Brazil have acted as a useful motivational tool.[258]

While incentives and increased pay helped attract more applicants to the profession, in 2012 a more rigorous selection process was introduced for new teachers in order to improve the quality of those given positions. Critically, the new processes placed an emphasis on classroom performance as well as academic credentials. The new scheme combined the need for formal qualifications and content mastery with a second stage that tested potential teachers' ability to 'master new professional

In order to improve recruitment of teachers, salaries have been improved

[251] Todos Pela Educaco 2015 [252] OECD 2011 (p.182) [253] Prefeitura do Rio de Janeiro 2014 (p.12) [254] Coelho 2012 [255] Costin 2014 [256] OECD 2012 [257] Coelho 2012 [258] Ferraz and Bruns 2012

development content and the quality of their classroom teaching practice.'[259] Candidates who satisfied the initial requirements were required to undergo an 80-hour training course on 'effective classroom management, child development, class preparation, and other hands-on topics' and then teach a sample class to a panel of expert teachers.'[260]

In addition to improving the quality of teachers actually entering the profession, there is evidence that improvement in teacher quality was also driven from the bottom up. A school director interviewed for this research believed that teachers were improving by taking advantage of development and training opportunities themselves:

> *'Well, I think the teachers nowadays are more concerned with their own training … you have many training courses, many conferences, many workshops, and that concern about their own training, is the concern that is part of the teachers nowadays.'* (School director)

There is evidence that improvement in teacher quality was also driven from the bottom up

She did not believe that this renewed sense of interest in development had been forced upon teachers, but was instead due to their own motivation to improve and to 'become better'. The municipal education department's role should not be discounted – teachers are now guaranteed a week's training each year[261] and a teacher training school has been established 'to help educators continually develop their skills':

> *'By carrying out continuing education through in-person, semi-distance and distance courses, municipal teachers expand their horizons and stay abreast of teaching practices and new content discussed in Brazil and around the world.'*[262]

Improvements in the workforce have taken place at the level of both classroom teachers and school principals. Our interviewees pointed out that the approach to appointing principals had changed in recent years, moving away from appointment by political party towards a system of meritocracy:

> *'Also, introduction of meritocracy in the system, for example, in the choice of school directors. Those used to be political appointees. The introduction of meritocracy is actually part of the national education plan and is to be implemented all over Brazil.'* (Senior official in the city education department)

> *'What is important to emphasise here is that we broke away from this appointment by political influence here in Rio de Janeiro … So today the directors of schools, head teachers, co-ordinators, managers – they were all selected on merit and they all have to be teachers who belong to the grid, to the network of schools.'* (Senior official in the state education department)

Costin believed that the success of her programmes in Rio had only been made possible by engaging with the workforce: 'you can only transform education together with the teachers;'[263] 'in addition to building laws, we decided we needed to build ownership from the teachers' perspectives.'[264] She stated that when she first took office she spoke to 1,000 school principals in order to understand where they were coming from.[265]

Costin recognised that there was a need to be mindful of the possibility of provoking teachers into rejection of the reform agenda. She described how as a policymaker

[259] Bruns & Luque 2014 (p.182) [260] Bruns & Luque 2014 (p.182) [261] *The Economist* 2011 [262] Prefeitura do Rio de Janeiro 2014 (p.13) [263] Pearson 2011 [264] Robinson 2015 [265] Costin 2014

she had to set a 'speed' for the reforms that the workforce would tolerate: 'The speed was given by the capacity of having teachers on board. We challenged them to the limit, but not more than the limit.'[266] Several expert witnesses highlighted the issue of teacher resistance to the reform agenda.

> *'Even if these changes can bring benefits for those children, you have a strong reaction from the teachers … teachers react immediately and … belong to a strong union then they end up going on strike and this is very difficult, it's a huge obstacle and if you want to implement these types of measures you will have to negotiate properly with the teachers because the teachers are not really thinking about their students, they're not putting their students first, they're putting themselves first.'* (Academic)

> *'We discussed, communicated a lot with our teachers. I'm not going to say that it was easy. No, it wasn't easy at all when we implemented the minimum syllabus. It wasn't easy to get the support from all the teachers, and we've got to remember that we've got a large network of schools … so we cannot please all the teachers.'* (Senior official in the state education department)

Teacher resistance to the reform agenda manifested itself dramatically in August 2013 when teachers across Rio went on strike for over two months.[267] The strike was organised by a large teaching union in the city and involved both state and municipal teachers. Costin was highly critical of the union: 'The teachers' union was very radical, from the extreme left, but not very representative, opposed to the reforms since the beginning.'[268]

Teacher resistance to the reform agenda manifested itself dramatically in August 2013 when teachers across Rio went on strike for over two months

Like Klein in New York, Costin was unable to create a coalition for change that included all the teachers and the teachers' union. Nevertheless, her achievements in the area of workforce reform were considerable. There are now over 40,000 teachers working in Rio, each earning a competitive wage, and with far greater access to professional development opportunities than previously. The municipal government successfully addressed a recruitment crisis in order to deal with the growing numbers of pupils, and then turned their attention to raising the standard of teachers entering the profession – through a stricter selection process – and those already engaged in the profession.

Community engagement

As well as attempting to engage with teachers, the municipal education department in Rio went to great lengths to also reach out to parents and communities; not only to win support for reform, but also to ensure better support for individual students. A senior official in the state education department noted that in driving reform, open communication was crucial: 'also, transparency in terms of the communication was very much needed, we needed a lot of transparency and communication.' Some evidence of community support for the reform initiatives was the re-election of the city mayor in 2012, by an overwhelming majority.[269]

Costin saw parents as potential partners in learning. As a result her focus on parental involvement centred on the support she saw them being able to provide for their children: 'we want to show that parents can be an element to change schools,'

[266] Costin 2014 [267] Girgenti 2014 [268] Costin 2014 [269] BBC 2012

through what they do at home with their child, and also by holding schools to account more broadly.[270] 'I don't think it's mandatory to have a huge involvement of parental involvement ... but to have some involvement is important, and support from home.'[271]

The education department instigated a number of changes, particularly through their 'Schools of Tomorrow' programme: moving parent-teacher meetings to Saturdays so that parents were able to attend; hiring local residents to teach arts and other extra-curricular activities. As Costin remarked: 'it is important to have good role models. Even in violent areas, there are talented people who want only good for kids.' She encouraged schools to communicate more clearly how parents could help their children with their learning.[272]

There appears to be optimism and a real belief in the city that change is possible

Summary

Brazil as a whole, and Rio in particular, have both shown rapid educational improvement over the last decade, albeit from relatively low starting positions. Since 2008, when a new mayor was elected in the city, the pace of reform has been relentless.

The results are encouraging. Drop-out rates have decreased while test scores have gone up – all in the face of a growing school-age population. Rio de Janeiro now has the second highest literacy rate out of all the states in Brazil.

There appears to be optimism and a real belief in the city that change is possible, linked to a high level of ambition. Rio's future 'municipal plan' aspires for the city to become 'the [state] capital with the best public education system in Brazil.'[273]

Several policy levers have been used in a co-ordinated way. The introduction of a standardised curriculum; the gradual transition towards single shift schooling for all students; and a range of targeted programmes which specifically address underperformance, have all contributed to the reform of Rio schools. In addition, issues with teacher supply have been addressed and the education department has begun to drive up standards in teacher quality, through a more rigorous selection process and better development and training opportunities.

Although Rio's education system is complex – with governance at municipal, state and federal level – there is nonetheless political coherence within the city: for example the Schools of Tomorrow programme 'reflects coordinated efforts from the Municipal Secretaries of Culture, Health, Sports & Entertainment, Social Welfare, Quality of Life, Civil Works, and the Rio State Public Defender.'[274] There has also been continued support for the education reforms: after leaving office Claudia Costin noted that under the new education secretary all was well 'and things are still continuing.'[275]

This combination of a clear reform agenda, supported by sustained political will, has placed Rio at the forefront of Brazil's educational improvement, leading the way for other cities and states in the country. Education reform in Rio is clearly unfinished business but the story is a source of optimism and practical policy lessons for other school systems.

[270] Pearson 2011 [271] Costin 2014 [272] Pearson 2011 [273] Prefeitura do Rio de Janeiro 2013b (p.12) [274] New York City Global Partners 2011 (p.2) [275] Robinson 2015

Chapter 7

Conclusion – interesting cities

We chose the title of this report deliberately. *Interesting cities.* The signs from these cities are, at the very least, promising and it seems reasonable to claim that they have something valuable to tell us about system reform and policymaking.

Some aspects of the story from these cities are interesting but problematic. As stated in Chapter 1, it is disappointing to note that none of the major reforms in any of the cities has been evaluated using the so-called gold standard of a randomised controlled trial investigation. In almost every case policymakers adopted policies for change that appeared desirable but they failed to demonstrate conclusively just how effective the reforms were. The evidence from these five cities is therefore limited, so they cannot be definitely identified as places where learning outcomes have been transformed through the application of specific policies.

We concluded from the evidence available that the achievements in these cities were real but also that they were in some cases fragile. We were impressed by the Vietnamese expert witnesses who were keen to point out that HCMC faced many problems and that it was important not to over-state the significance of the Vietnam 2012 PISA performance. Similarly, policymakers in Rio and Dubai are not remotely complacent and they believe that much remains to be done. The PISA performance of Brazil and the UAE in 2012 was impressive in terms of improvement but remained below OECD averages.

The story from the cities is fundamentally about leadership

The story from the cities is fundamentally about leadership, but leaders come and go. The transformation of schools serving disadvantaged students in Rio was driven by one remarkable woman, Claudia Costin. She was the city's Secretary for Education but now she has left and gone to work for the World Bank. In New York the reform project was energetically led by Mayor Michael Bloomberg and his Schools Chancellor, Joel Klein. These have now moved on. Are the New York achievements in jeopardy now that Bloomberg and Klein are no longer in charge? London appears to have benefited from the inspirational leadership of Tim Brighouse and the policies of the pre-2010 Labour government, such as the London Challenge project. Is there a danger of a loss of momentum in London now that Brighouse has left and the UK is under new political leadership?

So there are many questions that remain and no grounds for complacency or simplistic analysis. At the same time the message from these cities is one of optimism and hope. In each city energetic policymakers have challenged the lazy and immoral assumption that economically disadvantaged students must inevitably fail at school. The results are not conclusive but they are encouraging.

The science of education system reform is in its infancy. Two pioneering thinkers in this field are the Canadian scholar, Michael Fullan and the British writer, Michael Barber. The lessons from the five cities are closely in line with their thinking.

Barber has suggested that effective reform requires not only a well-crafted theory of change but also attention to the detail of implementation. In his groundbreaking study of education reform in the Punjab province of Pakistan he highlighted the importance of persistence:

'Persist. The single word says it all. In Punjab, we're just embarking on year three … It hasn't been easy. It won't get any easier for a long time, but there is visible progress and persistence will be rewarded ultimately.'[276]

The leaders in our case study cities were undoubtedly persistent. They each had a good plan and they stuck to it. In several of the case studies the persistence has continued over decades and this relentless approach appears to be paying dividends.

The leadership approach demonstrated in action in the case study cities corresponded closely to the theoretical models for leadership of system reform developed by Michael Fullan. The leaders had theories underpinned by an optimistic assumption that improvement was, of course, possible because all children, regardless of their background, have a physiological aptitude for learning.

The leaders had theories underpinned by an optimistic assumption that improvement was, of course, possible because all children, regardless of their background, have a physiological aptitude for learning

Policymakers in our case study cities had developed plans involving a small number of carefully identified key priorities. This again was in line with Fullan's theoretical model.[277] In keeping with Fullan's framework, the leaders in the cities crafted reform programmes based on a 'judicious mixture' of interventions including the smart use of data, courageous interventions to tackle failure and the importance of creating a sense that the reform strategy was jointly owned by the key stakeholders.[378]

Fullan has argued over many years for an aligned policy approach that goes beyond the implementation of individual initiatives. In the case study cities there was a consistent recognition that reform needed to be multi-faceted.

In our cities policy was multi-faceted but also concentrated on the things that seem to matter: leadership, teacher quality, data-based accountability, powerful professional learning based on collaboration, building coalitions for change. Our conclusion is that the case for school reform along the lines adopted in these cities is not conclusive but it is strong.

[276] Barber 2013 (p.70) [277] Fullan 2010 (p.24) [278] Fullan & Boyle 2014 (p.10-12)

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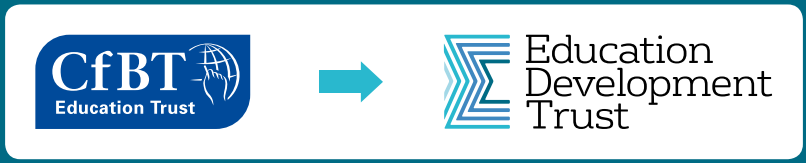
Education Development Trust… we've changed from CfBT

We changed our name from CfBT Education Trust in January 2016. Our aim is to transform lives by improving education around the world and to help achieve this, we work in different ways in many locations.

CfBT was established nearly 50 years ago; since then our work has naturally diversified and intensified and so today, the name CfBT (which used to stand for Centre for British Teachers) is not representative of who we are or what we do. We believe that our new company name, Education Development Trust – while it is a signature, not an autobiography – better represents both what we do and, as a not for profit organisation strongly guided by our core values, the outcomes we want for young people around the world.



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