Department for Education

The Academies Programme

Methodology

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1   The National Audit Office's 2010 report on *The Academies Programme*[1] examined the performance of academies to date in improving the educational achievement and attainment of pupils, contributing to community cohesion and using features of the academies model to support school improvement, governance, financial management and value for money. The report also considered the Department for Education's management of the Programme to date, and the implications of our findings for its future expansion.

2   The principal methods used for this study were:

- quantitative analysis of school-level and pupil-level data to examine academic attainment and achievement, rates of absence and exclusion, and trends in pupil intake;

- a regression analysis of aspects of the academies model and their association with school improvement;

- financial analysis of academies' recurrent funding and expenditure data;

- a survey of Principals and Finance Directors at open academies;

- a survey of the Directors of Children's Services of top-tier local authorities;

- case-study visits to 22 academies; and

- documentary review of the Department for Education's Programme management information.

3   These methods are described in more detail below.

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1   National Audit Office, *The Academies Programme*, HC 288, 2010-11.

Quantitative analysis of school-level and pupil-level data

Analysis of academies' performance

4   Our statistical analysis of academies' performance covered the following areas:

- pupils attaining five or more A*-C grade GCSEs or equivalent, both overall and including English and mathematics, 2002-03 to 2008-09;

- authorised and non-authorised pupil absences, 2002-03 to 2008-09;

- episodes of persistent pupil absence, 2005-06 to 2008-09;

- pupil entries for GCSE and GCSE equivalent examination awards at Key Stage 4, 2006-07 to 2008-09;

- scores achieved in latest Ofsted inspections up to 31 March 2010 for: overall effectiveness, achievement and standards, personal development and well-being, quality of provision, and leadership and management;

- pupils making three levels of progress from Key Stage 2 to Key Stage 4 in English, 2006-07 to 2008-09;

- pupils making three levels of progress from Key Stage 2 to Key Stage 4 in mathematics, 2006-07 to 2008-09;

- fixed-period exclusions (one or more episodes), 2005-06 to 2008-09; and

- permanent exclusions, 2005-06 to 2008-09.

5   The sources we used were pupil-level data from the Department for Education's National Pupil Database, and school-level data from the National Strategies database and full (Section 5) Ofsted inspection judgements.

6   We used data from the 62 academies that had been open long enough to have GCSE results in at least 2007-08 and 2008-09, and had a predecessor school or schools. This number does not include academies that were either city technology colleges or independent schools, as the intake of these schools has significantly higher prior attainment and lower eligibility for free school meals than other schools in the Programme. Former primary schools becoming all-through academies were also omitted.

7 Using comparator schools allowed us to analyse the value added by academies relative to schools facing very similar challenges. We carried out a bespoke comparison of the performance of academies with similar maintained schools to take account of the following external factors known to significantly impact on school performance:

- deprivation, as measured by the proportion of students eligible for free school meals; and

- prior attainment of students as measured by national test results in the last year of primary school (Key Stage 2).

As there is more scope for schools with lower starting points to make greater improvements, we also controlled for similar starting points in terms of the proportions of students achieving five or more A*-C grade GCSEs or equivalent (including English and mathematics).

8 To reflect changes in the types of schools becoming academies over time, we analysed performance using two separate groups of comparator schools: the first matched with the 21 'earlier academies' opening before 2006-07 (105 comparator schools, using 2002-03 data as the base year), and the second with the 41 'later academies' that opened in or after 2006-07 (205 comparator schools, using 2006-07 data as the base year). From the base year we tracked attainment over time to 2008-09 in academies and the comparison groups.

9 We followed the technique used by the Department for Education to find comparator schools that were statistically similar to academies. This technique is called propensity score matching, and uses a statistical package to calculate the probability of a maintained school being similar to an academy based on the variables listed in paragraph 7.

10 Each academy was matched to five maintained mainstream schools. As a replacement method[2] was used where there were clusters of very similar academies, some schools were selected as comparators for more than one academy. However, the majority of the schools in the comparison groups were selected only once. Thirty-seven schools were selected twice, eleven were selected three times, and seven were selected four times. Three schools were selected five times.

11 Where the same comparator school was selected more than once, weighting was applied to attribute a higher proportion of the comparator group's attainment figures to that school. For example where a comparator school was chosen twice, its performance data were effectively counted twice; where a comparator school was chosen three times its figures were multiplied by three, and so on.

12 In all cases, we also compared the performance of academies with all maintained mainstream schools nationally, excluding academies, city technology colleges, special schools and pupil referral units.

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2 The replacement method means that once a school has been selected it is returned to the pool of schools so it has another chance of being selected.

13   When examining overall GCSE attainment and absence and exclusion rates we used school-level data. As the percentages in the school-level files were rounded to one decimal place, this gave a difference of 0.1 percentage points compared with departmental statistical releases, which are calculated from pupil-level data.

14   We used pupil-level data to compare the performance of pupils from different backgrounds. Specifically, we examined the performance of the following groups:

- pupils eligible for free school meals;

- pupils for whom English is an additional language; and

- pupils who have special educational needs.[3]

We did not report pupil-level performance by ethnicity categories due to the small numbers involved in several cases (less than 50 pupils).

Analysis of academies' intake compared to neighbouring schools

15   We examined whether there is any association between the opening of an academy and a change in the intake of its nearest neighbouring schools. We also examined the distance travelled, on average, by a pupil going from his or her home to an academy, compared to pupils at the nearest neighbouring schools.

16   Neighbouring schools were selected first if located within 1.5 miles of an academy. If there were less than two relevant schools within 1.5 miles, the two nearest schools were selected. Only schools within the same local authority were considered, except for London academies where neighbouring schools could include those from adjacent local authorities, reflecting pan-London admission arrangements.

17   Analysis included all academies that opened from 2002-03 to 2009-10 except former city technology colleges, former independent schools, and former primary schools becoming all-through academies.

18   We examined the percentage of year seven pupils eligible for free school meals attending neighbouring schools from one year before the academy opened through to two years after opening, and compared these percentages with year seven pupils eligible for free school meals going to the academy in the year of opening and the succeeding two years.

19   Our separate comparison of 'distance travelled' analysed the average distance travelled from home to school by pupils in each academy cohort, compared with pupils at neighbouring schools. This was a one-year 'snapshot' of 2009-10, since trend data for this measure are very limited (first published in 2008-09).

3   Includes pupils with a SEN statement, as well as pupils at 'School Action' and 'School Action Plus' (i.e. who require support, but whose schools meet their needs without a statement).

Regression analysis of aspects of the academies model and their association with school improvement

20   We ran a multiple regression with an output variable of the 62 academies' average annual growth rate in percentage of five or more A*-C grade GCSEs or equivalent (including English and mathematics), both in absolute terms and relative to each academy's comparator schools.

21   The purpose of the regression analysis was to test features of the academies' model for correlations with higher rates of school improvement, and hence identify possible critical success factors for future implementation. Management information from the Department and data from our academies survey were used to identify possible predictors for testing. These were:

- whether the academy had one or more predecessor schools;

- deprivation index in the academy's local authority area;

- percentage of pupils registered as eligible for free school meals in 2008-09;

- sponsorship type, classified under these categories:

    - faith-based charitable organisation

    - charitable organisation

    - corporate

    - higher education provider

    - further education provider

    - successful school

    - local authority co-sponsor

    - chain containing more than two academies

    - chain containing more than five academies

- whether the academy's new building or refurbishment was ready on opening;

- number of years the academy has been open;

- whether the academy had a deficit greater than 5 per cent of its 'General Annual Grant';

- whether the academy recognised trade union membership for pay negotiations;

- whether the academy paid its staff according to nationally agreed pay scales;

- whether the academy used performance-related pay for senior leadership;

- whether the academy used performance-related pay for teaching staff;

- whether the Finance Director held a CCAB accountancy qualification;

- whether the academy operated 'fair banding' for admissions;

- whether the academy participated in their local authority's 'fair access' protocol;

- whether the academy participated in the local Children's Trust Board;

- whether the Principal Designate felt they had been in post long enough prior to opening;

- whether the Principal Designate had been Headteacher of the predecessor school;

- whether the academy Senior Leadership Team was in place before opening;

- whether necessary staff restructuring had taken place before the academy opened;

- whether there was a teacher representative on the academy governing body; and

- whether there was a parent representative on the academy governing body.

22 Despite including data on this wide range of factors, it was not possible to produce a stable model which identified any statistically significant associations. We therefore concluded that quantifying which aspects of the academies model are the most influential on school improvement is extremely difficult. However, as the programme expands and more trend data become available across more academies, future attempts at such analysis may produce more meaningful results.

Financial analysis

23 We analysed funding and expenditure data from the following data sets:

- academy 'General Annual Grant' allocations, 2002-03 to 2009-10;

- academy trusts' statutory accounts, 2002-03 to 2008-09;

- academies' detailed supplementary income and expenditure returns, 2002-03 to 2008-09;

- maintained-school *Consistent Financial Reporting (CFR) Benchmarking* data, 2008-09; and

- bespoke financial data from our survey of academy Principals and Finance Directors.

24 The purpose of the financial analysis was to compare patterns of income and expenditure between academies, and between academies and maintained schools.

Survey of all open academies

25 We carried out a web-based survey of academy Finance Directors and Principals. The survey ran between 8 March and 1 June 2010, and 165 of 203 academies (81 per cent) responded.

26 The survey was informed by our case study visits (see below), and its purpose was to gather bespoke data that was not held by the Department centrally on the following areas:

- financial management;

- admissions and curriculum;

- relationships with other local schools, local education providers, the local authority and the wider community;

- leadership and staffing;

- governance; and

- support provided to the academy.

Survey of Directors of Children's Services at top-tier local authorities

27 We commissioned Carol Goldstone Associates to carry out a web-based survey of Directors of Children's Services at all top-tier local authorities.[4] Three versions of the survey were used, depending on whether local authorities had:

- open academies;

- no open academies, and no plans to open any by September 2012; or

- no open academies, but plans to open some by September 2012.

The survey ran between 18 February and 30 April 2010, and in total 86 of 152 local authorities (57 per cent) responded. Of these, 43 already had academies open within their area, 15 of which had one academy and 28 of which had two or more academies. Twenty-two were authorities that did not have academies currently, and had no plans to open any. Twenty-one were authorities that did not currently have academies, but had plans to open some in the near future.

4   The model for establishing academies at the time of the study fieldwork required agreement from local authorities before academies could be set up within their boundaries. Under the Academies Act 2010, this agreement is no longer needed for new academies to be established.

28 The purpose of the survey was to collect attitudinal and factual information on the following themes:

- challenges and benefits of having academies in the local authority;

- the wider community impact of academies;

- availability of critical success factors for further academies; and

- future plans and support for academy provision.

Case study visits to 22 academies

29 Between December 2009 and March 2010, we undertook day-long visits to 22 academies, chosen to cover a range of geographical areas, sponsorship types and structures, years of opening, GCSE performance, and Ofsted grades. Detailed discussions were held with senior leaders, Finance Directors, governors, teaching and non-teaching staff, pupils and parents.

30 The purpose of these visits was to obtain detailed qualitative data on the benefits and challenges of the academies model, including:

- transition from predecessor schools;

- curriculum/teaching and learning;

- wider community impact;

- financial management; and

- governance.

31 The academies we visited were:

- Barnfield South Academy, Luton

- Barnfield West Academy, Luton

- Barnsley Academy, Barnsley

- Bradford Academy, Bradford

- Burlington Danes Academy, Hammersmith & Fulham, London

- City Academy Bristol, Bristol

- David Young Community Academy, Leeds

- Gateway Academy, Thurrock

- Haberdashers' Aske's Knights Academy, Lewisham, London

- Harris Academy Merton, Merton, London

- John Madejski Academy, Reading

- London Academy, Barnet, London

- Manchester Academy, Manchester

- Marlowe Academy, Ramsgate

- Northampton Academy, Northamptonshire

- Paddington Academy, Westminster, London

- Stockley Academy, Hillingdon, London

- The Thomas Deacon Academy, Peterborough

- Walsall Academy, Walsall

- The West London Academy, Ealing, London

- Trinity Academy, Doncaster

- Unity City Academy, Middlesborough

Documentary review of Department for Education Programme management information

32 We reviewed the Department for Education's management information on the Academies Programme. This information included:

- strategic risk and financial risk registers for the Programme;

- performance-management data on open academies;

- pre-opening and 'implementation sign-off' documentation for new academies;

- financial-management and school-improvement guidance issued to academies; and

- documentation relating to the transfer of financial and performance-management functions from the Department to the Young People's Learning Agency.

33 To inform our understanding of Programme-management arrangements and quality of data, we also conducted semi-structured interviews with key staff from the Department for Education and the Young People's Learning Agency.