



Department
for Education

The impact of college mergers in Further Education

Research report

September 2019

**Authors: Danail Popov and Giacomo
Cattoretti – Frontier Economics**

Contents

List of figures	4
List of tables	6
Glossary	7
Executive Summary	8
Context	8
Approach	10
Findings	12
Implications for future work	13
Introduction	15
Context for the study and specific research questions	15
Summary of approach taken	15
Structure of the report	16
Methodology	17
Selecting key outcomes of interest	18
Financial Outcomes	18
Non-Financial Outcomes	19
Final list of Outcomes	21
Sample of mergers analysed	22
Constructing pre-merger college outcomes	22
Descriptive analysis	24
FE sector trends	24
Comparing merged colleges with non-merged colleges and over time	24
Econometric analysis	24
Findings	29
Descriptive analysis findings	29
FE sector trends	29
Comparing merged colleges with non-merged ones	30
Comparing colleges pre- and post-merger	31
Econometric findings	34

Financial Outcomes	35
Non-financial Outcomes	37
Comparison of characteristics across merged colleges	39
Conclusions	42
ANNEX A MERGING COLLEGES DATA	44
ANNEX B SUMMARY STATISTICS	46
Comparison of sample to post sample period	51
ANNEX C DETAILED ECONOMETRIC RESULTS	53
Model specifications	53
Results summary from specification 1	55
Results summary from specification 2	56
ANNEX D DETAILED COMPARISON OF CHARACTERISTICS ACROSS COLLEGES	60
Composite ranking based on key metrics	60
Individual metric college rankings	61
Comparison of college performance by characteristics	63
Relative size of colleges undergoing a merger	63
Rurality of college location	64
Region of merger	65
Pre-merger trends in performance	66
ANNEX E INDIVIDUAL COLLEGE FINANCIAL VARIABLES	68
ANNEX F INDIVIDUAL COLLEGE SUCCESS RATES	115

List of figures

Figure 1 FE College Mergers from 1993 to 2018	8
Figure 2 Map of mergers from 2005 to 2015	9
Figure 3 FE College Merger sample (2005-2015)	10
Figure 4 Counterfactual options	11
Figure 5 Summary of econometric results	13
Figure 6 Methodology overview	17
Figure 7 Hypothesis tree for key financial outcome selection	19
Figure 8 Technical and Conceptual feasibility of non-financial variables	20
Figure 9 Example of controlling for college specific trends	27
Figure 10 Example of controlling for overall sector performance	27
Figure 11 Example of controlling for overall sector performance and college specific trends	28
Figure 12 Average financial outcomes for merged colleges	31
Figure 13 Average non-financial outcomes for merged colleges	31
Figure 14 Average profit margin of merged colleges compared to sector average	32
Figure 15 Distribution of profit margin for merged colleges compared to sector	33
Figure 16 Average debt as a % of income for merged colleges compared to sector average	33
Figure 17 Comparison between success rates of merged and non-merged colleges	34
Figure 18 Success rates pre- and post-merger compared to sector average	39
Figure 19 Variation in college performance post-merger – top 5 and bottom 5 performing colleges	41
Figure 20 Average Operating Profit Margin (2004-2017)	46
Figure 21 Average Staff costs (as a % of income) (2004-2017)	47

Figure 22 Average Income per £ of fixed asset (2006-2017)	47
Figure 23 Average Current Ratio (2004-2017)	48
Figure 24 Average interest payments (as a % of income) (2005-2017)	48
Figure 25 Average total debt (as a % of income) (2005-2017)	49
Figure 26 Average college income (£'000s) (2004-2017)	49
Figure 27 Average success rate for Level 3 courses (2005-2015)	50
Figure 28 Average success rate for all courses (2005-2015)	50
Figure 29 Map of mergers from 2005 to 2015	51
Figure 30 Map of mergers from 2016 to 2017	52
Figure 31 Distribution of mergers by income size between sample period and 2016-2017	52
Figure 32 Top and Bottom 5 ranking for profitability only	61
Figure 33 Top and Bottom 5 ranking for staff costs only	62
Figure 34 Top and Bottom 5 ranking for debt burden only	62
Figure 35 Average college rank by relative size of merger (lower is better)	63
Figure 36 Average college rank by rurality of location (lower is better)	64
Figure 37 Average college rank by merger region (lower is better)	65
Figure 38 Average college rank by merger region split into various ranking subcomponents (lower is better)	66
Figure 39 Average 3-year change in pre-merger profitability for top 5 and bottom 5 colleges, ranked according to overall composite ranking	67

List of tables

Table 1 Outcome variables and hypothesised effect	12
Table 2 Key outcome variables	21
Table 3 Example of pre-merger history for a merged college (total income)	23
Table 4 Example of pre-merger history for a merged college (debt as a % of income)	23
Table 5 Average FE college performance between 2005 and 2015	30
Table 6 Average financial outcomes for merged and non-merged colleges	30
Table 7 Average non-financial outcomes for merged and non-merged colleges	30
Table 8 Econometric results from baseline model (financial outcomes)	35
Table 9 Econometric results from alternative model (financial outcomes)	36
Table 10 Econometric results from baseline model (non-financial outcomes)	37
Table 11 Econometric results from alternative model (non-financial outcomes)	38
Table 12 Econometric results from baseline model	55
Table 13 Fixed effects model with leads and lags - levels of financial variables	56
Table 14 Fixed effects model with leads and lags – growth rates of financial variables	57
Table 15 Fixed effects model with leads and lags - levels of success rate variables	58
Table 16 Fixed effects model with leads and lags – growth rates of success rate variables	59

Glossary

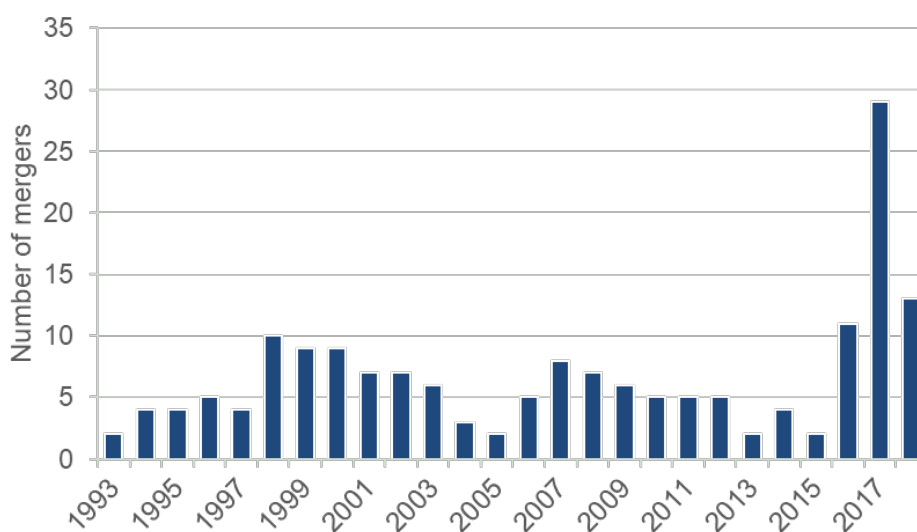
Term	Abbreviation
Area Review	AR
Association of Colleges	AoC
Department for Education	DfE
Education and Skills Funding Agency	ESFA
Further Education	FE
Institute for Fiscal Studies	IFS
Local Education Authority	LEA
National Vocational Qualification	NVQ
Office for Standards in Education, Children's Services and Skills	OFSTED

Executive Summary

Context

Merger activity has been a pervasive feature of the further education (FE) market for many years with 171 college mergers from 1993 to 2018, averaging roughly six per year. Merger activity has increased considerably in recent years following the Area Review (AR) process. There were 53 mergers in the three years since 2015, more than the number in the preceding decade (see figure below).

Figure 1 FE College Mergers from 1993 to 2018



Source: Frontier Economics, <https://www.aoc.co.uk/about-colleges/college-mergers>

College mergers - particularly since 2010 - have happened in a challenging financial environment for the FE sector. According to the Institute for Fiscal Studies (IFS)¹ funding per student aged 16-18 in FE fell by 8% in real terms between 2010 and 2018. Funding for adult education in FE was reduced by 45% over the same period. However, the number of adult learners fell by one million, such that spending per learner remained roughly constant in real terms. In addition to funding issues, a renewed policy focus towards apprenticeships and away from classroom based learning has created additional financial pressure for colleges since most apprenticeships have ended up being delivered by other provider types. This has meant that colleges have not received a large proportion of total funding for apprenticeships.

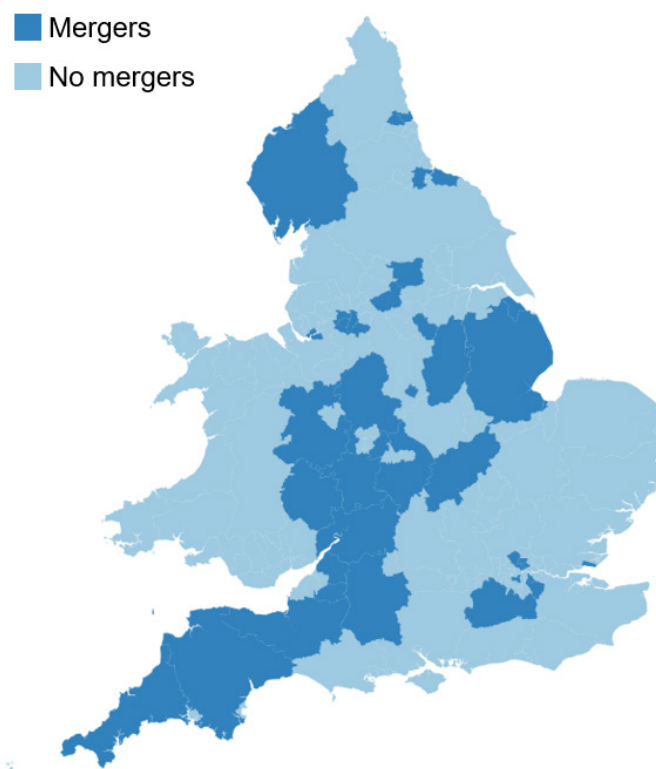
¹ <https://www.ifs.org.uk/publications/13307>

Given the increased college merger activity in recent years, it is important to understand whether or not these have proved to be a successful route to improving college performance. The question is relevant to informing future government policy as to whether, and in which circumstances, mergers are an effective tool for driving improvements in the sector.

This report examines how college mergers affect performance using an entirely quantitative approach. The focus is on financial performance with some analysis of quality as proxied by success rates. We have drawn on College Accounts from the Education and Skills Funding Agency (ESFA), which are a rich source of financial data. We have looked at a range of financial outcomes including operating profit, debt, interest payments and others. We have also measured changes in the quality of provision following mergers using success rates from the National Achievement Rates Tables.

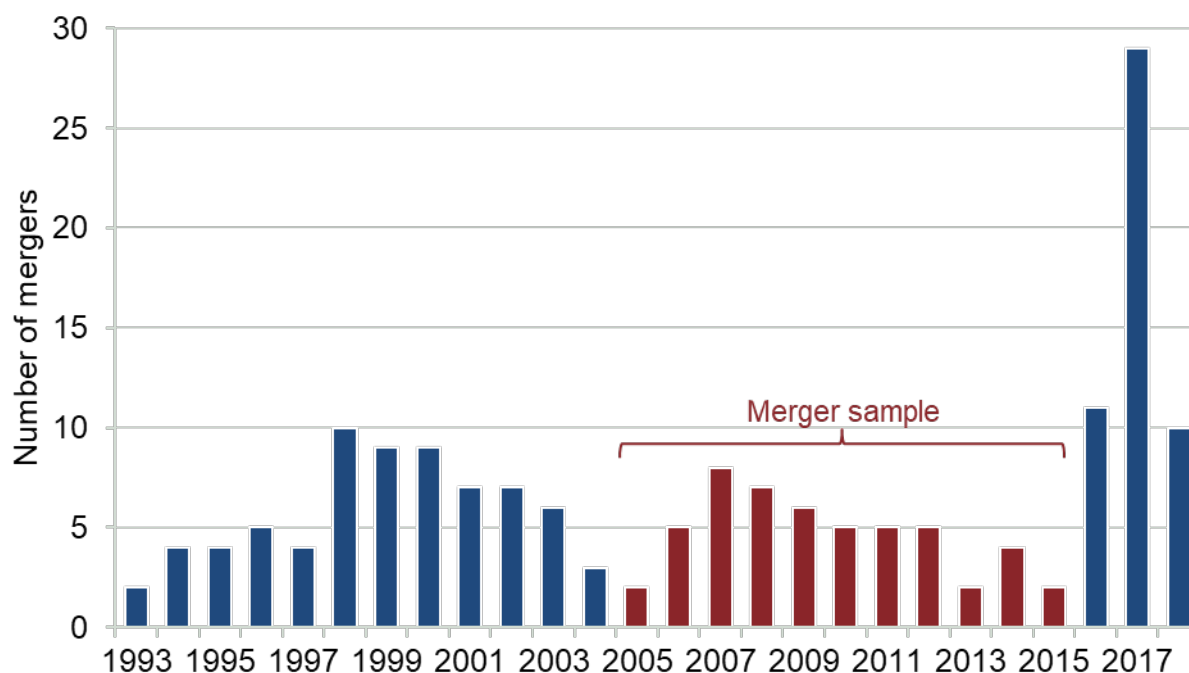
It is important to note that due to data availability, our work covers the period 2005 - 2015 which precedes the Area Review process. Our sample includes 40 college mergers which occurred predominantly in the South West, Midlands and North West as shown in Figure 2 and Figure 3. A full list of mergers can be found in Annex A.

Figure 2 Map of mergers from 2005 to 2015



Source: Frontier Economics analysis of Association of Colleges data. Mapping based on Local Education Authorities.

Figure 3 FE College Merger sample (2005-2015)



Source: Frontier Economics, <https://www.aoc.co.uk/about-colleges/college-mergers>

Approach

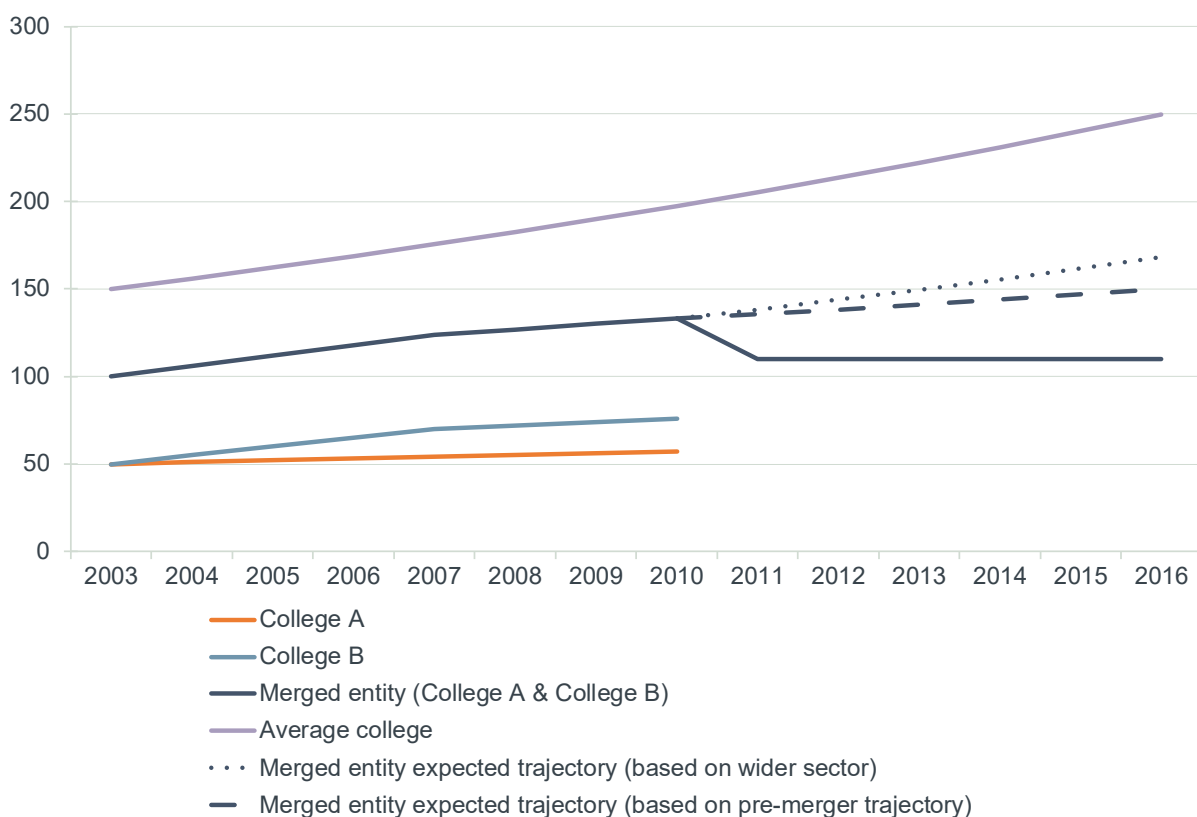
In order to understand the impact of merging we need to compare the performance of merging colleges to those of suitable comparators. The key issue we face is that whilst we can observe the performance of merged colleges we do not know what would have happened to merging colleges had they not merged - the counterfactual. There are several options for constructing a counterfactual (illustrated in Figure 4):

- **Option 1: Compare merging colleges with non-merging colleges (dotted line in Figure 4).** This approach provides a useful starting point and can provide robust findings if merging colleges are, on average, similar to non-merging colleges. However, if the colleges that merge are of a particular type (for example, those which have financial difficulties), comparing them with the wider sector may lead to flawed conclusions. For example, if two poorly performing colleges merge and following the merger their performance stabilises (albeit remaining relatively weak), comparing against the better-performing wider sector may wrongfully conclude that the merger has had a negative impact.
- **Option 2: Compare merging colleges with pre-merger trajectories (dashed line in Figure 4).** This approach quantifies the pre-merger performance of merging colleges and uses their pre-merger trajectories to predict what would have happened to them in the absence of a merger. In practice, this involves

taking the average rate of change of the variable of interest across the relevant colleges² and applying the same growth rate to the post-merger period. This is represented in Figure 4 as the merged entity line in dark blue before 2010 and the dashed line from 2010 onwards. The advantage of this approach is that it considers the circumstances of the merging colleges while the drawback is that it does not consider wider sectoral trends.

- **Option 3: Hybrid of options 1 and 2.** A hybrid approach which accounts for the individual colleges' historical trends as well as the wider sectoral trends provides a useful third approach for the counterfactual. This approach considers both the specific circumstances of the merging colleges as well as wider sectoral trends.

Figure 4 Counterfactual options



Source: Frontier Economics stylised example

² In the pre-merger period, we combine the variable of interest across the relevant colleges. This estimates what a merged entity would have looked like in the pre-merger period, had it merged then. For example, if college A has an income of £10,000 and college B has an income of £20,000 in the pre-merger period, the hypothetical pre-merger entity would have an income of £30,000.

Given the difficulty in establishing a robust counterfactual and the advantages and disadvantages of the options set out above, we have experimented with all possible specifications and reported the results from all models.

Findings

We tested whether mergers have had a positive impact on several outcome variables relating to college performance. Table 1 illustrates the variables that were tested and what a hypothesised positive outcome might look like.

Table 1 Outcome variables and hypothesised effect

Outcome variable	Hypothesis	Hypothesised positive post-merger effect
Profit Margin	Cost reductions post-merger drive increased profitability	Increase
Staff cost (as a % of income)	Rationalisation of administrative staff leads to cost reductions	Decrease
Income per £ of fixed assets	Rationalisation of fixed assets leads to cost reductions	Increase
Interest (as a % of income)	Larger colleges able to refinance debt	Decrease
Debt (as a % of income)	Larger colleges able to refinance debt	Decrease
Level 3 Success Rate	Combined colleges able to deliver better quality learning post-merger due to financial improvements	Increase
Success Rate (across all levels)	Combined colleges able to deliver better quality learning post-merger due to financial improvements	Increase

Source: Frontier Economics

Our main finding (shown in Figure 5) is that there is no strong statistical evidence of college mergers leading to an improvement or deterioration of college performance on average. We find that, on average, the effect of merging is statistically indistinguishable from zero. Our methodology allows us to rule out the influence of individual college histories as well as the wider sectoral trend. This finding is robust to the different model specifications we have explored and applies to all financial and non-financial outcomes we have examined.

Figure 5 Summary of econometric results

Outcome variable	Estimated merger effect	Significant at 5% level?
Profit Margin	- 0.65%	No
Staff cost (as a % of income)	+ 0.10%	No
Income per £ of fixed assets	+ £0.01	No
Interest (as a % of income)	+ 0.03%	No
Debt (as a % of income)	+ 2.54%	No
Level 3 Success Rate	+ 1.00%	No
All Success Rate	- 0.67%	No

Source: Frontier Economics analysis of ESFA and DfE data

It is worth noting that although we find no effect *on average*, the performance of merging colleges varies a great deal. The average effects we find masks underlying variation where merging is positive for some colleges and negative for others. Indeed, some simple descriptive analysis of the data reveals that, following a merger, some colleges receive a boost in performance while others don't.

To explore this issue, we created an index of college performance based on three financial indicators (profitability, fixed cost synergies and debt refinancing) and ranked colleges based on their average performance in the three years before and after a merger. The results from this analysis show considerable variation in college performance post-merger although we find no clear differences in the characteristics (such as size, location and proximity of merging parties) of the best and worst performers – that is, it is difficult from this analysis to conclude what factors make mergers successful.

Implications for future work

Our work has drawn on the best available secondary data to examine the impact of mergers on college performance in the decade preceding the Area Review process. We find that, on average, merging does not lead to either an improvement or deterioration in performance. Exploratory work looking to unpick how the effect of merging varies by college reveals considerable variation in outcomes.

The data we used had some limitations which are worth noting:

- We did not have access to detailed information on the rationale of different mergers and the anticipated benefits. As such, we were not able to distinguish between mergers which happened for commercial reasons and 'rescue' mergers.
- We did not have data on any financial assistance (from Government) that merging parties may have accessed. Our understanding is that this type of assistance was uncommon but to the extent that it did occur, our data would not have captured it.

Collection of data on the rationale for, and expected outcomes from, mergers as well as any financial assistance provided should be a priority going forward to enable future work in the area.

The most obvious limitation of our work is that it does not cover mergers which happened as part of the Area Review (AR) process as data on these recent mergers was not yet available at the time the analysis was conducted. Given that the general environment facing the sector has changed so much in recent years and that the motivations for merging have also changed, it would be advisable to expand our work to cover at least the first wave of AR mergers. This could be done using quantitative and qualitative methods. Specifically, we recommend:

- Descriptive quantitative analysis of ESFA College Accounts data to examine how financial performance of AR mergers changes post-merger;
- Quantitative comparisons of AR merger outcomes against suitable comparators. The design of the AR process and availability of data from the Restructuring Facility enables several comparisons which were not possible in this study, such as colleges which were expected to merge at a later date or comparisons with recommended mergers which did not materialise; and
- Deep dives into specific merger cases to understand in detail the factors which make mergers successful or unsuccessful. We envisage case studies involving interviews with relevant stakeholders as well as analysis of bespoke merger documentation and data (e.g. documents setting out the rationale for mergers, anticipated merger outcomes etc.).

Together with our work, the new research would inform future government policy as to how and when mergers work well to improve performance and the circumstances when this is not the case.

Introduction

Context for the study and specific research questions

Merger activity has been a pervasive feature of the FE market for many years with 171 college mergers since 1993, averaging roughly six per year. Historically this has tended to be driven by the failing financial health of the merging parties rather than any proactive efforts to improve performance from either a financial or provision perspective.

However, the recent Area Review process has required colleges to consider their futures including explicit encouragement to consider mergers. There have been 39 mergers across 2017 and 2018 alone with yet more on the cards.

The Area Review process, which commenced in late 2015, coincided with significant funding reductions from austerity as well as the shift in policy focus towards apprenticeships and away from classroom based learning. This has created additional financial pressures for colleges.

Considering this, our main question of interest for this report is whether or not mergers have proved to be a successful route to improving college performance. The question is relevant to informing future government policy as to whether, and in which circumstances, mergers are an effective tool for improving college performance.

Whilst this analysis does not consider the mergers that occurred as part of the Area Review process, this may help inform the extent to which the recent wave of mergers from the Area Review process was different to those which occurred previously as well as whether further mergers might be desirable. It could also help to identify the types of mergers where additional support from DfE might prove necessary to achieve the ultimate objectives of improvements in college financial and learner performance.

Finally, it helps improve the evidence base regarding what works in terms of mergers and spreads best practice regarding any future mergers. To our knowledge, this is the first large scale quantitative study of the effect of mergers in FE. As such, it should be seen as a first step which future research could build and improve on.

Summary of approach taken

Our approach to measuring the effect of FE college mergers relies on an entirely quantitative analysis of college-level outcomes, both financial and quality-related.

Secondary data on financial performance reported by the Education and Skills Funding Agency was aggregated and analysed in order to measure the impact of mergers on

college-level financial performance. Data on learner success rates for all courses, as well as only level 3 type courses, from the National Achievement Rate Tables was used to measure the impact on college-level quality of provision.

To be able to measure the impact of mergers, our approach compares post-merger performance with what performance would have been expected without the merger. This is challenging as merged college performance against measurable metrics may look no better than pre-merged college performance. However, this does not mean that there has not been an effect. The merger could have acted to reduce or restrict the decline that would have occurred in its absence. We discuss the different options for dealing with the issues around the counterfactual in the methodology section.

The sample of mergers analysed includes all colleges which merged between 2005 and 2015. Whilst data exists between 2004 and 2017, we have excluded mergers in 2004 and 2017 due to the need of at least one year of data before and after a merger to evaluate impact.

We have also excluded any mergers which occurred from 2016, given the commencement of the Area Review period where the policy environment differed substantially.

Structure of the report

The report is structured as follows:

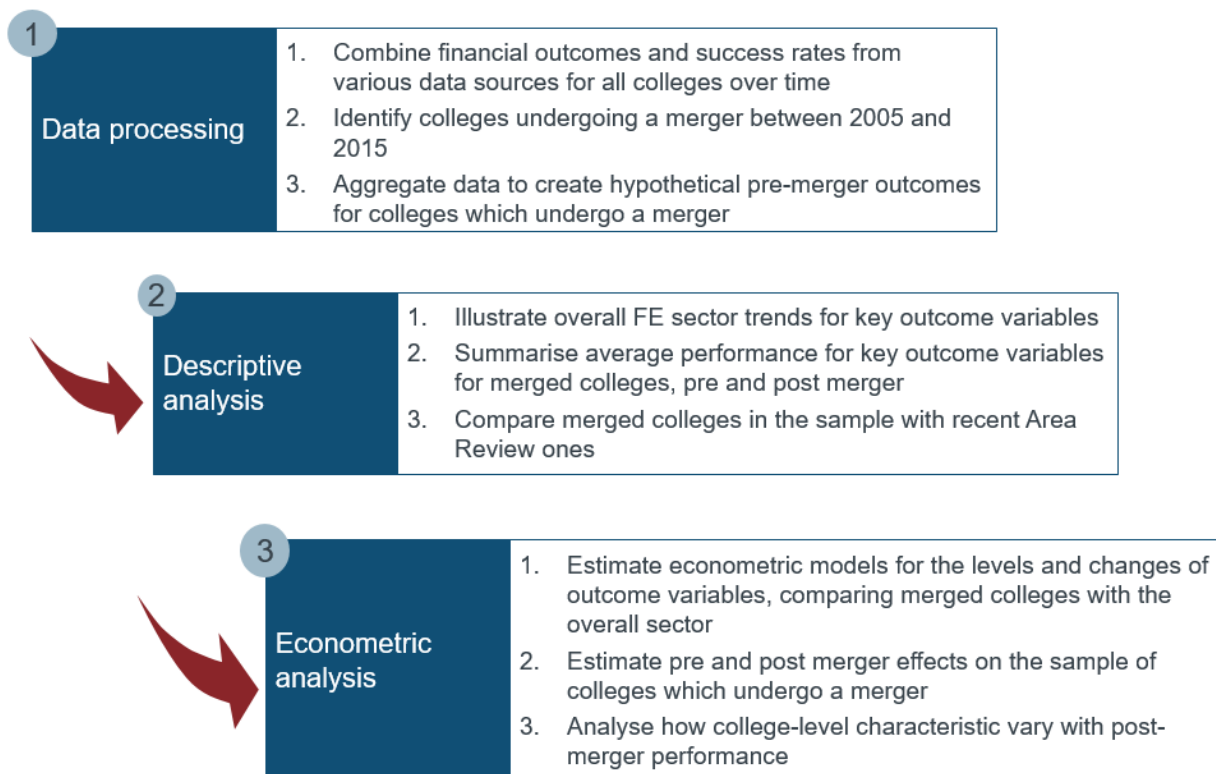
- Chapter 2 presents our methodology;
- Chapter 3 details our findings;
- Chapter 4 concludes.

Additional detail containing a series of tables and figures showing the performance of merging colleges is contained in the Annex. The Annex also contains a full set of econometric results.

Methodology

Our methodology involved three steps described in Figure 6.

Figure 6 Methodology overview



Source: Frontier Economics

First, we searched for relevant datasets and collated all available data for the analysis. Second, we used this data to produce descriptive statistics of merging college performance before and after they merged. Finally, we used multivariate econometric analysis to estimate the effect of merging on college performance, controlling for other relevant factors. We provide more detail on the methodological steps below.

We combined financial performance data from the Education and Skills Funding Agency (ESFA)³ and college success rates data⁴ from the Department for Education (DfE) to create a panel dataset of college financial and non-financial performance between 2005 and 2015.

³ Most recent data can be found at the following link: <https://www.gov.uk/guidance/esfa-financial-management-college-accounts>

⁴ Most recent tables can be found at the following link: <https://www.gov.uk/government/collections/sfa-national-success-rates-tables>

Selecting key outcomes of interest

Financial Outcomes

We aggregated and analysed secondary data from college-level financial statements reported by the ESFA in order to analyse FE college financial outcomes from 2005⁵ to 2015⁶.

Given the large number of financial variables reported for each college in the financial statements (more than 350), we implemented a *hypothesis based* approach to select a subset of key financial outcomes to be analysed. Based on conversations with both DfE and ESFA staff, we focussed on the impacts of mergers on college costs as a way of driving college profitability post-merger.

We also report other hypotheses which were not considered further, mainly those concerning drivers of college *revenue*. Given approximately 80% of college revenue is made up of funding body grants⁷, it is unlikely that merger synergies, such as exploiting increased size or economies of scope, can influence college revenue through grant funding.

Figure 7 represents a summary of our hypothesis based approach. We identified several hypothesised drivers of college-level profitability, split into either college revenue or costs drivers. Several financial variables are reported below each driver, which measure the impact of a certain driver on college finances. A description of the channel through which each driver affects college-level profitability is also reported in the figure.

College-level profitability was selected as a relevant outcome because it summarises the overall financial position of a college, considering both revenue and cost components contemporaneously. We use a college's *operating profit margin* to measure any evidence of changes to profitability.

Two additional cost-side drivers were included in the analysis to explore hypotheses around the drivers of any post-merger improvement in profitability:

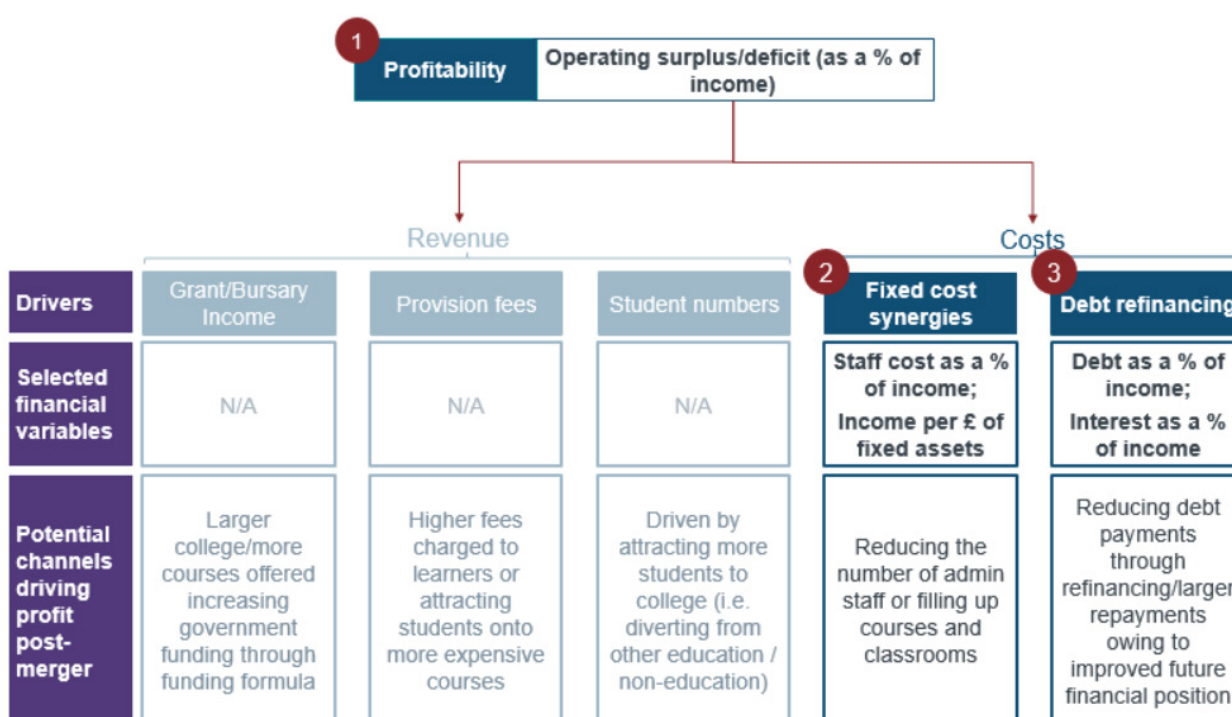
⁵ 2005 refers to the year 2004/05 as reported in the ESFA financial accounts.

⁶ Most variables reported in the financial statements were measured consistently over time. However, some variables were not reported in all years of our sample. These variables were dropped from our analysis. In particular, EBITDA margin was only reported in ESFA accounts from 2015 onwards and learner numbers were not reported before 2009.

⁷ Calculated as a simple average across all colleges using 2016 ESFA financial accounts.

- **Fixed cost synergies** – we hypothesised that colleges which undergo a merger may be able to combine and rationalise fixed assets, such as buildings and administrative staff, in order to reduce cost. We use a college’s *staff costs (as a % of income)* and *income per £ of fixed assets* to measure any evidence of realised fixed cost synergies.
- **Debt refinancing** – we hypothesised that colleges which undergo a merger may be able to use their combined balance sheet and potential synergies to renegotiate loans, reducing their debt burden. We use a college’s *debt and interest (as a % of income)* to measure any evidence of realised debt refinancing.

Figure 7 Hypothesis tree for key financial outcome selection



Source: Frontier Economics

Non-Financial Outcomes

The inclusion of non-financial outcomes was reflective of the educational mission of FE colleges. The main hypothesis we sought to test was whether mergers had any positive or negative impact on the quality of FE provision in a college. Data on learner success rates for all courses, as well as NVQ level 3 type courses alone, from the National Achievement Rate Tables, was used to measure the impact on college-level success rates.

College-level success rates are an indirect proxy for college-level teaching quality as they measure the proportion of learners who have successfully completed their course.









Increases in the overall success rate may be driven by improved teaching and school quality but may also be driven by changes in course offerings at the college level as well as changes in college intake over time.




To reduce the influence that changes in course make-up have on measuring college teaching quality, we include the success rate for only courses with NVQ Level 3 status. The success rate of a single, widely available, qualification is more consistent across college and across time. However, unlike the overall success rate, it only reflects a subset of teaching within a college.

As shown in Figure 8, several variables measuring college quality were considered but rejected based on technical and conceptual feasibility grounds. A college's *OFSTED rating* was considered as providing a balanced view of college quality. However, there are conceptual issues around the length of time between inspections as well as technical issues regarding the difficulty in quantifying and combining ratings across colleges in the pre-merger period. We concluded that combining ratings to create a pre-merger average OFSTED rating, a fundamental step to conducting our methodology, was not feasible. For these reasons, it was agreed that OFSTED ratings should not be included as an outcome in our analysis.

Variables related to the number of learners as well as learner satisfaction were excluded based on their technical feasibility. The short length of the time period available for the data, dating only from 2010 onwards, implied that the sample size would be too small to provide statistically reliable results.

Figure 8 Technical and Conceptual feasibility of non-financial variables

Variable	Description	Technical feasibility	Conceptual feasibility	Overall feasibility
Success Rate	Percentage of students who have successfully completed courses offered by a college			An indirect measure of college quality, potentially driven by course make-up and pupil quality
OFSTED rating	The OFSTED rating for a college (i.e. Outstanding, Good, Requires Improvement, Inadequate)			Combining ratings of colleges is methodologically difficult and colleges are not inspected frequently
Number of learners	Number of learners in a particular FE college			The measure used to capture number of learners varies in definition over time
Learner surveys	Performance indicator measuring learner satisfaction			The indicators vary very little over time and data doesn't go far back in time

Guide:  No feasibility issues  Minor feasibility issues which require caveats  Major feasibility issues which are difficult to overcome

Source: Frontier Economics

Final list of Outcomes

The final list of key outcomes selected for analysis is reported in Table 2.

Table 2 Key outcome variables

Variable	Outcome category	Description and hypothesis	Source
Operating Profit (as a % of income)	Financial	Measures <i>overall financial position</i>	ESFA College Accounts
Staff costs (as a % of income)	Financial	Measures whether any <i>fixed cost synergies</i> occur post-merger	ESFA College Accounts
Income per £ of fixed asset	Financial	Measures whether any <i>fixed cost synergies</i> occur post-merger	ESFA College Accounts
Debt payments (as a % of income)	Financial	Measures whether any <i>synergies occur to refinance debt</i> post-merger	ESFA College Accounts
Interest payments (as a % of income)	Financial	Measures whether any <i>synergies occur to refinance debt</i> post-merger	ESFA College Accounts
Overall college success rate	Non-financial (quality)	Measures whether mergers impact learner success rate	National Achievement Rate Tables
Success rate – NVQ Level 3+ courses	Non-financial (quality)	Measures whether mergers impact learner success rate	National Achievement Rate Tables

Sample of mergers analysed

The sample of mergers analysed includes all colleges which merged between 2005 and 2015. Whilst data exists between 2004 and 2017, we have excluded mergers in 2004 and 2017 due to the need of at least one year of data before and after a merger to evaluate its impacts. We have also excluded any mergers which occurred during the Area Review period from 2016, given the differences in policy environment during the Review period.

The sample includes forty (40) mergers, which occur in several regions. A complete list of all mergers included in the sample is reported in Annex A. Heat maps showing the location of mergers is shown in Figure 29 in Annex B.

Constructing pre-merger college outcomes

We used data reported by the Association of Colleges (AoC) to identify the colleges which underwent a merger. The AoC database contains a full list of all merger activity in England since 1993 and provides the names of merging parties and the dates of the mergers. A matching exercise was undertaken between college names and college UKPRN codes to match merged colleges with financial and success rate data.

For each merged college, we created a pre-merger history, aggregating the outcomes from the relevant colleges in the pre-merger period. We create a yearly time series for all years before a merger, which we can compare with the post-merger data on a like-for-like basis. This allows us to compare a merged college's performance with the aggregate performance across the various colleges before they merged.

Table 3 uses the merger between City of Bath College and North Radstock College in 2014-15 to create Bath College as an example of the aggregation process pre-merger. For certain outcomes, we can combine outcome variables together, such as college income. We simply add the income data of City of Bath and North Radstock colleges together to obtain a pre-merger value for Bath College in 2013-14, as shown below.

Table 3 Example of pre-merger history for Bath College (total income)

Year	Bath College (merged entity)	City of Bath College	North Radstock College
2013-14	24,144,000 (estimated)	16,839,000	7,305,000
2014-15	19,489,000	N/A	N/A
2015-16	22,291,000	N/A	N/A
2016-17	19,841,510	N/A	N/A

Source: Frontier Economics analysis of AoC and ESFA data

Table 4 illustrates pre-merger aggregation with outcomes reported in percentages such as *debt as a % of income*. In order to calculate the pre-merger outcome, we must take a weighted average. Specifically, we must first derive total debt across both colleges and then divide total debt by combined income.⁸

Table 4 Example of pre-merger history for Bath College (debt as a % of income)

Year	Bath College (merged entity)	City of Bath College	North Radstock College
2013-14	25.12% (estimated)	18.09%	41.08%
2014-15	29.61%	N/A	N/A
2015-16	26.8%	N/A	N/A
2016-17	19.92%	N/A	N/A

Source: Frontier Economics analysis of AoC and ESFA data

⁸ Mathematically, total debt for both colleges is written as $\frac{Debt_{merged}}{Income_{merged}} = \frac{Debt_{CollegeA} + Debt_{CollegeB}}{Income_{CollegeA} + Income_{CollegeB}}$

Descriptive analysis

We conducted a descriptive analysis to explore key trends in the financial and success rate outcome variables. We also use this analysis to help inform more detailed statistical methods to estimate the effect of college mergers and to help interpret results considering recent policy developments in the FE sector.

FE sector trends

We firstly analysed trends in the key outcome variables in our analysis, as reported in Table 2. We were able to quantify average sector trends⁹ for FE colleges and unpick key drivers of overall FE sector financial health and quality.

Comparing merged colleges with non-merged colleges and over time

We then compared the performance of colleges which underwent a merger to those which did not. The average difference reflects whether the performance across the sample of colleges which merged was different from performance across the wider sector. We also compared the average outcomes of colleges before and after a merger as an alternative way of summarising the impact of mergers.

Comparing performance of merged and non-merged colleges over time is one way of evaluating the effects of mergers. However, any differences in performance might be driven by differences between the type of college which decides to undergo a merger. This analysis helps inform whether or not the wider sector is a helpful *comparison group* or *counterfactual* for colleges which undergo a merger. We discuss the different counterfactual options considered in the study in the next section.

Econometric analysis

One of the objectives of our econometric analysis is to find a suitable counterfactual against which the performance of merged colleges can be compared in order to estimate the effect of mergers. Another is to be able to test whether any impact identified from mergers is statistically different from zero. Finally, econometrics allows us to control for a range of other factors which may affect college performance but are unrelated to merging.

⁹ There are a small number of colleges which don't report their financial performance in the ESFA data. Thus, the average performance measured may not be fully reflective of the sector.

Economic theory suggests several possible suitable counterfactuals, which we considered when deciding on a certain methodology (see box overleaf).

Theoretical approaches to identifying counterfactual outcomes

Controlling for all other relevant factors

This approach includes and controls for all relevant factors which may affect college performance, in order to isolate the effect of a merger on college outcomes. By stripping out the effect of all relevant factors, the colleges which do not undergo a merger can be compared with merged colleges, acting as a counterfactual. Practical issues lie in both identifying and collecting data on all relevant outcomes which determine college performance.

Difference-in-Differences

This approach compares the difference in outcomes across two groups: for colleges before and after a merger as compared to a group of colleges which did not undergo a merger over the same time period. Assuming the trends of the two groups were similar in the pre-merger period, the non-merged groups acts as a counterfactual to the group of colleges which underwent a merger. Practical issues lie in whether an appropriate counterfactual group of colleges which did not merge can be identified.

Matching on observables

This approach builds on the difference-in-differences approach by selecting colleges which look similar to those which merged based on a set of key characteristics. One can construct a counterfactual group which has many key common characteristics. Practical issues revolve around whether the set of characteristics are indeed relevant as well as the extent to which these comparator colleges exist.

Quasi-experimental methods

These approaches rely on certain mechanical determinants of a merger, for example a specific financial health cut-off, or factors which can be exploited to define a counterfactual. For example, if a merger were to only occur below a certain financial health score cut-off, colleges which had a financial health score just above the determined cut-off would be comparable to colleges which were slightly below the cut-off. Practical issues revolve around identifying whether any mechanisms exist which would allow for these methods.

Finding a suitable counterfactual for merging colleges in our dataset is a challenging task. It is not clear if the overall FE sector is a good comparator since colleges that merge could disproportionately be those that are in financial difficulty. Thus, comparing the post-merger performance of merged colleges against colleges in the wider sector that did not merge may lead to a biased measurement of the merger effect.

It is also not sufficient to compare the performance of colleges before and after they merged. This is because even in the absence of a merger, colleges may have experienced year-on-year changes in performance in line with the fluctuations observed across the sector due to factors that affect all colleges in a similar way. One approach may be to control for a range of relevant college- and time-specific characteristics, in effect stripping out their effect. However, given the small sample of mergers available, we are unable to include a wide range of college characteristics.

Our econometric analysis is based on the difference-in-differences framework outlined above. The main analysis uses the sector average as the counterfactual while also controlling for any college-specific and wider sector trends. This allows us to estimate the effect of college mergers accounting for any changes to the wider sector which may have influenced the performance of colleges.

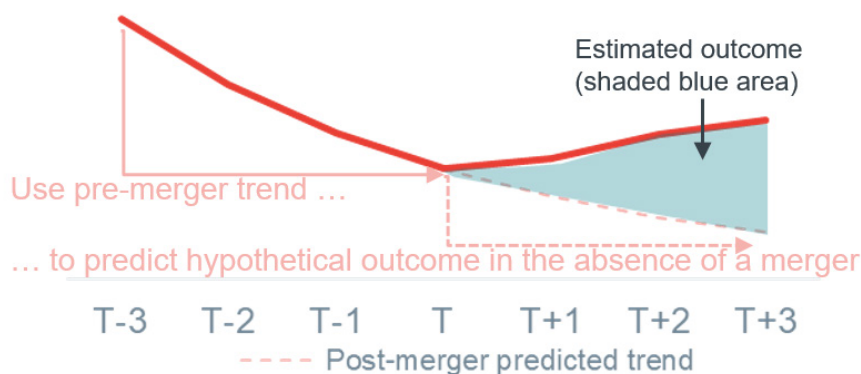
The following section provides further details on the three different econometric models we have considered in our analysis. The three econometric models are:

1. Controlling only for college-specific trends;
2. Controlling only for wider sector trends; and
3. Controlling for both college-specific and wider sector trends.

Note that in all charts below, the solid red line represents the actual observed outcomes while the dashed lines represent the counterfactual (or estimated) outcomes. The blue shaded area represents the estimated impact of the merger between year T and year $T+3$.

1. **Controls for college-specific trends:** In the absence of a merger, we hypothesise that a college would have continued its trajectory in the pre-merger period.

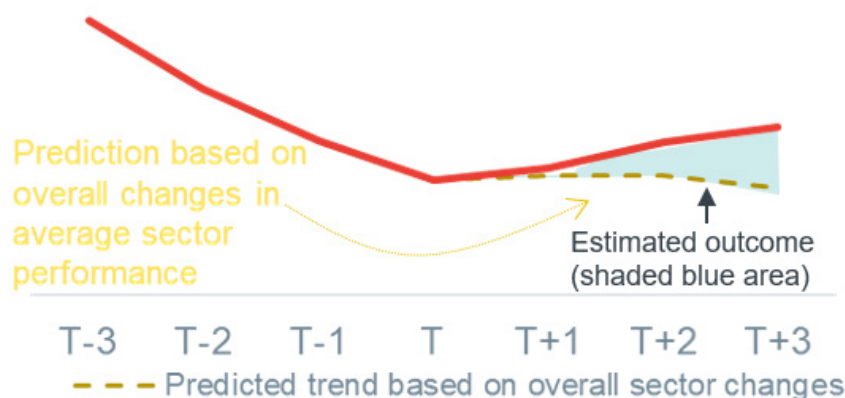
Figure 9 Example of controlling for college specific trends



A “fixed effects” econometric model allows us to construct a predicted outcome in the hypothetical scenario of colleges not merging. This model controls for fixed factors for each individual college. Comparing the predicted outcome to the actual outcome allows us to estimate the merger effect relative to the pre-merger college trend.

2. **Controls for average sector performance post-merger:** In the absence of a merger, we hypothesise that a college would have experienced year-on-year growth rates similar to the sector.

Figure 10 Example of controlling for overall sector performance

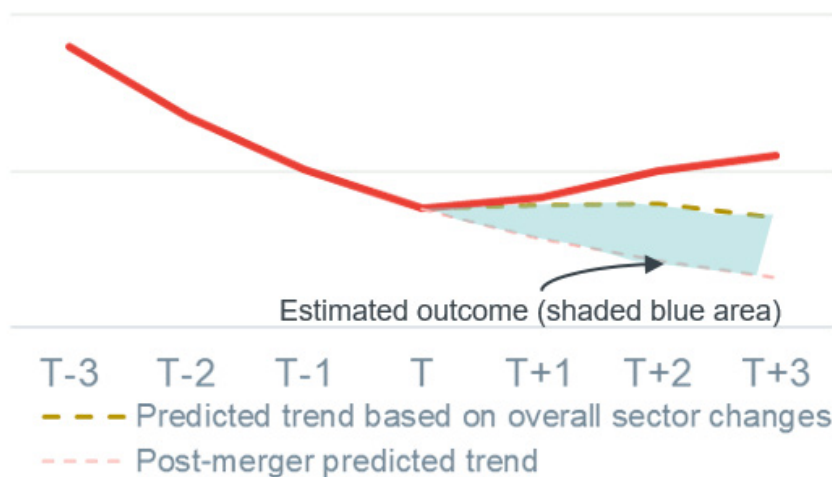


By including categorical variables for each year in our model, we can estimate the average sector outcomes in the post-merger period. The dashed yellow line represents what we would anticipate would have happened to performance, in line with wider sector trends. The shaded blue area represents the uptick in college performance, relative to what we estimate would have happened to the college in the absence of a merger, in line with the average sector uptick from years T to $T+3$.

3. **Controlling for college-specific trends and average sector performance post-merger:** By combining the approaches discussed in (1) and (2), we

estimate the merger effect controlling for both college-specific and sector-wide trends. The regression method we employ provides a simple way to include both controls.

Figure 11 Example of controlling for overall sector performance and college specific trends



The difference-in-differences model that we estimate isolates sector-wide changes (identified in Figure 10) that may have happened from any college level changes (identified in Figure 9) and allows us to quantify the merger effect (highlighted in Figure 11).

We considered several different versions of the econometric specification to enable a comprehensive understanding of merger effects on different financial (e.g. profitability, staff costs, debt etc.) and non-financial variables (e.g. success rates). These are described in the Annex C.

Findings

Descriptive analysis findings

FE sector trends

Overall, FE colleges have experienced a general decline in financial performance since 2005, whilst experiencing an increase in the average student success rate (see Table 5). Specifically, between 2005 and 2015:

- The average FE college operating profit margin decreased from 1.3% to 0%. This may be driven by declining funding per pupil given to FE colleges since 2010¹⁰ given that most college income (83% on average) originates from funding body grants¹¹.
- The current ratio of colleges¹² has also fallen over time, although the largest drop in current ratio occurred between 2015 and 2017 as shown in
 -
 - Figure 23 in the Annex.
- Debt payments as a percentage of yearly income have increased by almost 16 percentage points, from 8.3% to 24.1%. Furthermore, interest payments as a percentage of income have increased from 0.4% to 1% of income during the same period.
- Staff costs have decreased by 1.3 percentage points. Whereas staff costs were equal to around 67% of college income in 2005, staff costs were on average 66% of college income in 2015.
- Student success rates have gone up by 11.5 percentage points, bringing the average success rate across all courses to 83%. This increase has been largely driven by Level 3 courses, which have seen an increase in success rate of 15 percentage points.

¹⁰ 2018 Annual Report on Education Spending in England – Institute of Fiscal Studies
<https://www.ifs.org.uk/uploads/publications/comms/R150.pdf>

¹¹ Number calculated using ESFA College Accounts data from 2005 to 2015.

¹² Current ratio is defined as Current Assets of a college divided by its Current Liabilities.

Table 5 Average FE college performance between 2005 and 2015

Year	Operating Surplus (as a % of income)	Staff costs (as a % of income)	Current Ratio	Interest payments (as a % of income)	Debt as a % of income	Success Rate (Level 3)	Success Rate (All Courses)
2005	1.3%	66.8%	1.89	0.4%	8.3%	69.1%	71.6%
2015	0.0%	65.5%	1.86	1.0%	24.1%	84.2%	83.1%
<i>Change 2005 to 2015</i>	<i>-1.3 percentage points (p.p.)</i>	<i>-1.3 p.p.</i>	<i>-0.04</i>	<i>0.6 p.p.</i>	<i>15.7 p.p.</i>	<i>15.0 p.p.</i>	<i>11.5 p.p.</i>

Source: Frontier Economics analysis of ESFA and National Success Rate Tables

Comparing merged colleges with non-merged ones

On average, colleges which have undergone a merger are more than two times larger than the sector average in terms of their income. These colleges are more likely to face financial difficulties as evidenced by lower profit margins and higher debt burdens as well as lower success rates, as shown in Table 6 and Table 7. The averages reported below are calculated between 2005 and 2015 and include both the period before and after a merger for colleges which underwent a merger.

Table 6 Average financial outcomes for merged and non-merged colleges

College	Income (thousands)	Profit Margin	Staff costs (as a % of income)	Current Ratio	Interest payments (as a % of income)	Debt as a % of income
Non-Merged	£16,631	1.40%	66.3%	1.92	0.75%	16.93%
Merged	£43,993	-0.40%	64.6%	1.38	0.87%	20.31%

Source: Frontier Economics analysis of ESFA College Accounts

Table 7 Average non-financial outcomes for merged and non-merged colleges

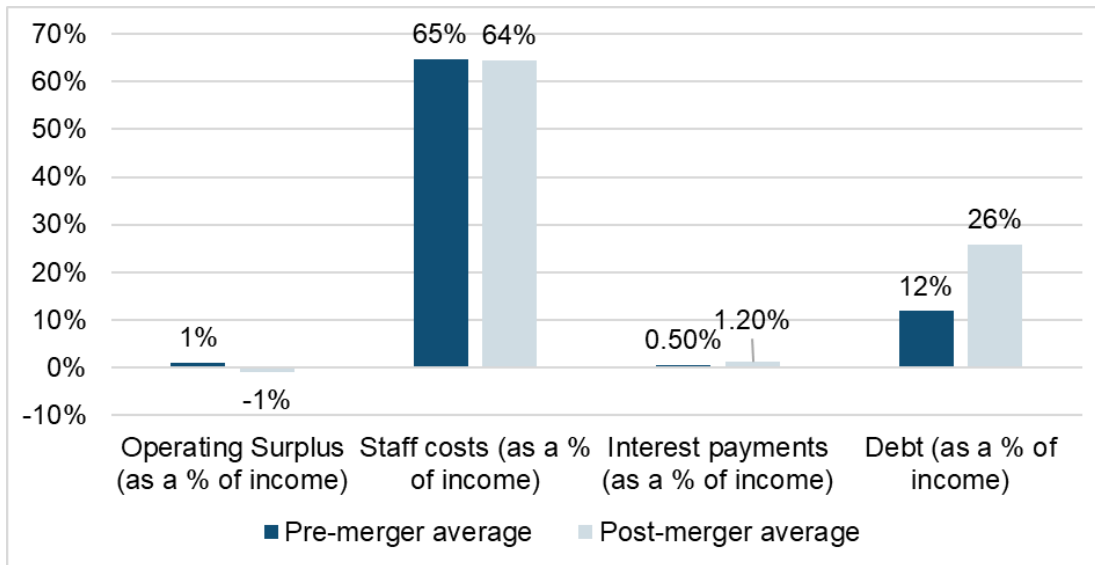
College	Success Rate (Level 3)	Success Rate (All Courses)
Non-Merged	81%	81%
Merged	76%	79%

Source: Frontier Economics analysis of National Success Rate Tables

Comparing colleges pre- and post-merger

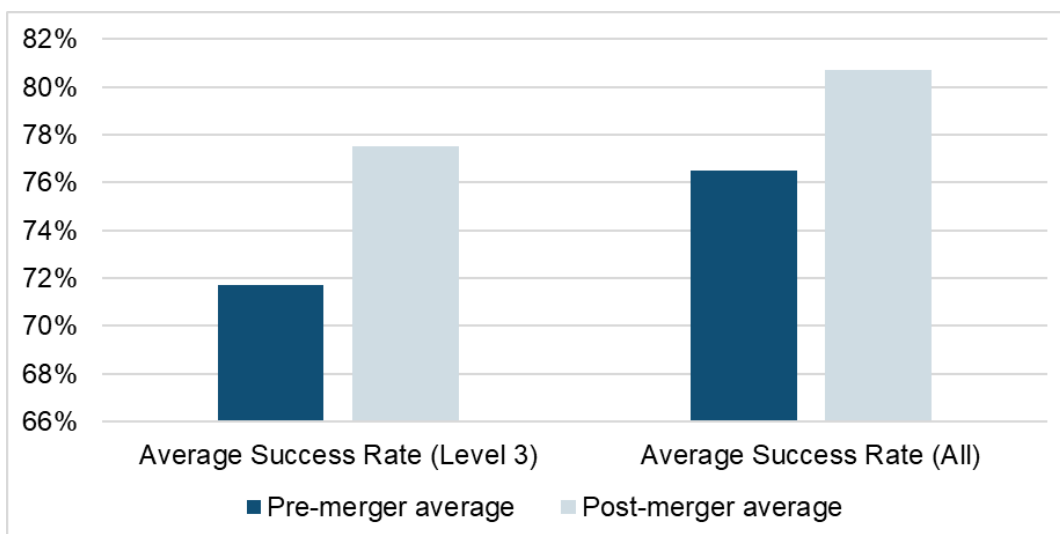
Figure 12 and Figure 13 report the average performance pre- and post-merger for financial and success rate outcomes for colleges which underwent a merger in our sample. On average, colleges experience decreases in profit margins as a percentage of their income in the period after a merger as compared to the period before. Furthermore, interest and debt as a percentage of income are, on average, higher post-merger than pre-merger. Finally, success rates are, on average, higher in the post-merger period.

Figure 12 Average financial outcomes for merged colleges



Source: Frontier Economics analysis of ESFA College Accounts

Figure 13 Average non-financial outcomes for merged colleges



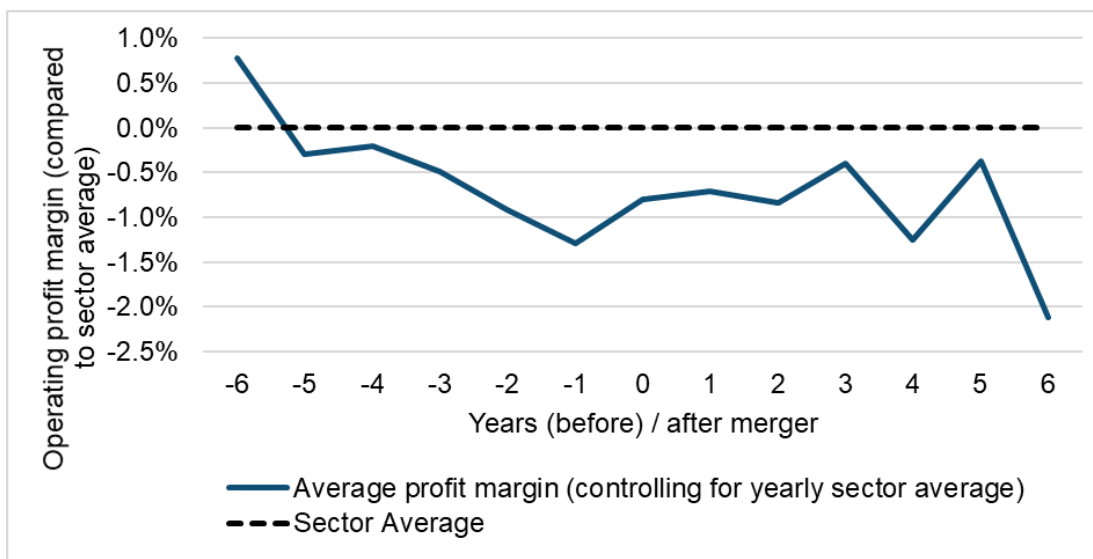
Source: Frontier Economics analysis of National Success Rate Tables

Whilst Figure 13 and Figure 14 describe the change in performance of colleges after a merger, this analysis is unable to disentangle the effect of wider sector trends in influencing post-merger performance. For example, whilst merged colleges appear to exhibit higher success rates post-merger, it is unclear whether the merger, rather than the wider FE sector trend, have contributed to the increases in success rates. By comparing the pre- and post-merger performance with comparable colleges, we can determine whether certain changes were observed in the broader FE sector.

Comparing merged colleges both pre- and post-merger and against sector average

Figure 14 compares the average performance of FE colleges in the six years before and after a merger with the wider sector. Whilst a comparison of average performance pre- and post-merger confirms the finding that merged colleges have lower profit margins after a merger, colleges which undergo a merger experience average profits which are markedly lower than the sector average over the six years pre- and post-merger. This implies that colleges which underwent mergers are not likely comparable to the sector when considering profitability, given their differences in profit.

Figure 14 Average profit margin of merged colleges compared to sector average

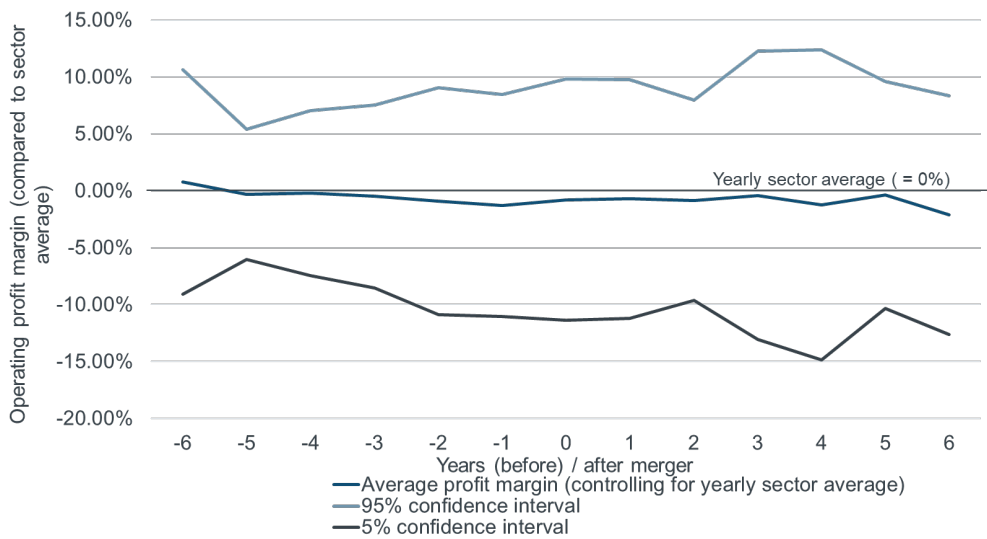


Source: Frontier Economics analysis of ESFA College Accounts

Figure 15 plots the distribution of profit margins for colleges which underwent a merger compared to the sector average and at different points in time. Overall, the chart shows that the decline in the average profit margin reported in Figure 14 masks a significant dispersion in profit margin changes compared to the sector average across colleges. Whilst the average profit margin for merged colleges is 1.3 percentage points lower than

the sector average 4 years after a merger, this varies widely, ranging between 15 percentage points lower and 12 percentage points higher.

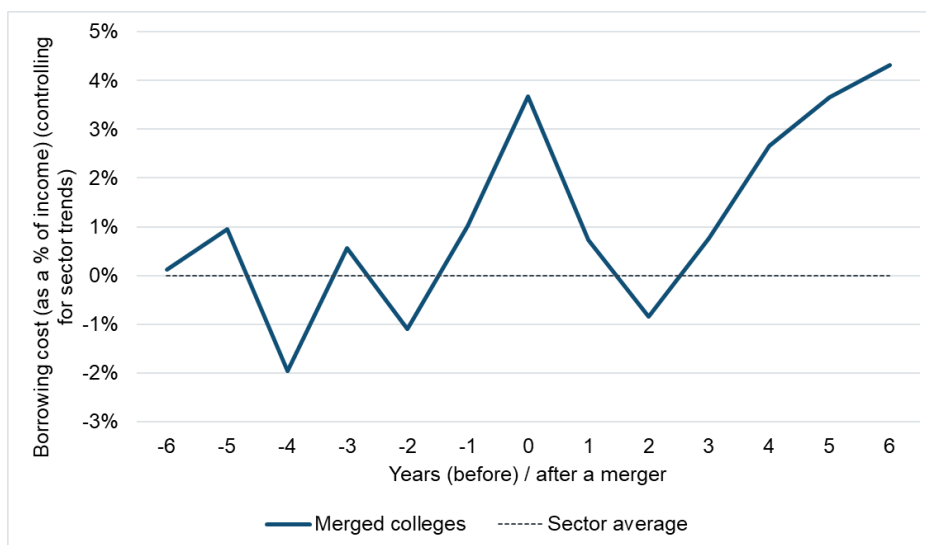
Figure 15 Distribution of profit margin for merged colleges compared to sector



Source: Frontier Economics analysis of ESFA College Accounts

Figure 16 compares debt as a percentage of income six years before and after a merger with the wider sector. In this case, colleges which undergo a merger appear to have similar trends in their relative debt as compared to the sector. In subsequent years following a merger, there is evidence to suggest that the average amount of relative debt for merged colleges grows at a faster rate than the sector average.

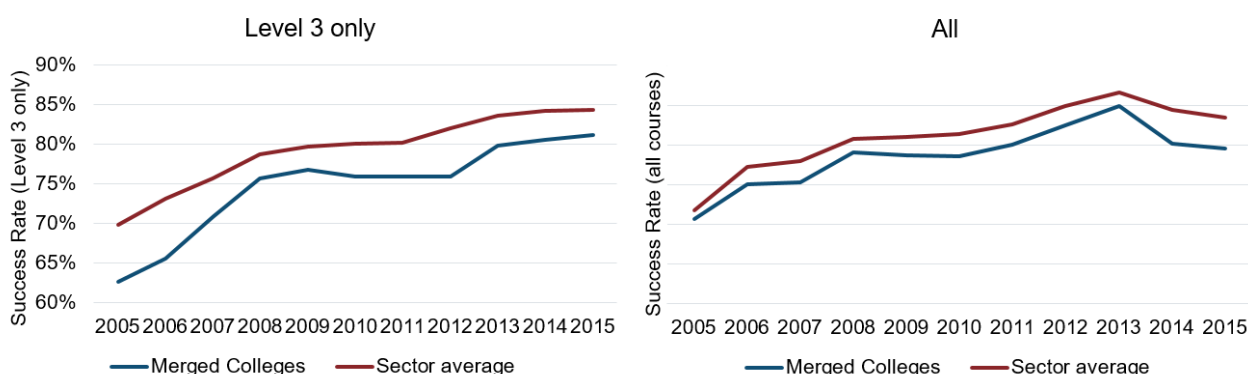
Figure 16 Average debt as a % of income for merged colleges compared to sector average



Source: Frontier Economics analysis of ESFA College Accounts

Figure 17 highlights success rates for merged colleges compared with the sector average. Success rates have been increasing over time for merged colleges, but they have followed the overall sector trend. The percentage point difference between NVQ Level 3 success rates has been stable over time and has increase slightly for all courses in the sample period.

Figure 17 Comparison between success rates of merged and non-merged colleges



Source: Frontier Economics analysis of National Success Rate Tables

It is worth noting that **the descriptive analysis presented in this chapter is not able to quantify whether differences between colleges and across time are statistically different from each other.** For example, a descriptive analysis is unable to determine whether the relative decline in profitability or uplift in relative debt for merged colleges is sufficiently large to be considered different. Using Figure 15 as an example, there is a large variation in profitability post-merger with merged colleges having profit margins between 10% higher and 15% lower than average. Given the degree of variation in the data, the average observed decrease in profit margin is unlikely to be representative of most colleges which undergo a merger.

We turn to econometric analysis in the next section of the report, which accounts for both general sector trends as well as the amount of variation across colleges within a certain variable when estimating the impact of mergers on FE colleges.

Econometric findings

This section presents the results of econometric analysis of the impact of mergers on college financial and non-financial outcomes. Overall, our results suggest that there is no statistically significant relationship (positive or negative) between merging and financial and non-financial outcomes. We do, however, see considerable variation in outcomes for different colleges – in some cases outcomes improve markedly while in others a merger is followed by a deterioration in performance. It is not clear whether

factors such as college size, location and proximity of merging parties can explain why some mergers work out better than others.

Financial Outcomes

As described previously, we estimated a baseline econometric specification on five different financial metrics: profitability, staff costs as a percentage of income, income per pound of fixed assets, interest payments as a percentage of income and debt as a percentage of income. For each financial metric, we estimated the impact of mergers on financial outcomes compared to the sector average, controlling for college and year fixed factors. The table below summarises the results of these econometric tests:

Table 8 Econometric results from baseline model (financial outcomes)

Financial variable	Estimated merger effect - on levels	Significant at 10% level? - Levels regression	Estimated merger effect - on YoY growth	Significant at 10% level? - YoY growth regression
Profit Margin	- 0.65%	No	- 0.29 p.p.	No
Staff cost (as a % of income)	- 0.10%	No	- 0.31 p.p.	No
Income per £ of fixed assets	+ £0.01	No	- £0.06	No
Interest (as a % of income)	+ 0.03%	No	+ 0.06 p.p.	No
Debt (as a % of income)	+ 2.54%	No	- 0.47 p.p.	No

Source: Frontier Economics analysis of ESFA College Accounts

As indicated by the columns on statistical significance in the table above, none of the financial outcomes changed by a statistically significant amount following a merger. The effect of college mergers on financial performance, in other words, was statistically indistinguishable from zero at the 10% level (and, by implication, at the more widely used 5% level).

In Table 9, we show the results from an alternative model specification. In this specification, based on a sample of colleges which merged, we estimate the effects of a merger on the outcome variables for specific years before and after the merger. This allows us to test whether, for example, colleges which experienced declining performance pre-merger performed differently to other colleges post-merger.

This alternative model differs from the one described previously, as it seeks to test for the presence of any effect on college performance in the years before and after a merger. Instead of testing average performance in the post-merger period, as compared to average performance in the pre-merger period, our alternative model tests the merger effect on a year-by-year basis. The average yearly outcome in the three years before and after a merger is compared to college outcomes outside of that period.

There is little evidence of significant pre- or post-merger effects on financial variables up to 3 years before/after for merged colleges, as summarised in the table below, as compared to performance outside of the 3 years before/after a merger.

The only exception is some evidence that, compared to the period more than 3 years before and after a merger, college profit margins were 1 percentage point lower two years before a merger. This is consistent with our hypothesis that colleges tend to undergo mergers when in positions of financial distress.

Table 9 Econometric results from alternative model (financial outcomes)

Time before/after merger	Profit Margin	Staff cost (as a % of income)	Income per £ of fixed assets	Interest (as a % of income)	Debt (as a % of income)
T - 3	- 0.40%	- 0.20%	+ £0.06	- 0.10%	+ 0.00%
T - 2	- 1.1%**	+ 0.20%	- £0.03	- 0.10%	- 1.00%
T - 1	- 0.60%	+ 0.20%	- £0.03	- 0.2%*	+ 0.00%
T (merger year)	- 0.30%	- 0.50%	- £0.05	- 0.20%	+ 2.00%
T + 1	- 0.60%	- 0.10%	+ £0.01	- 0.20%	- 2.00%
T + 2	+ 0.40%	+ 0.60%	+ £0.00	- 0.3%*	- 4.00%
T + 3	+ 0.10%	+ 0.90%	- £0.02	- 0.20%	- 1.00%

Source: Frontier Economics analysis of ESFA College Accounts

Note: *indicates significant at 10% level, **indicates significant at 5% level and ***indicates significant at 1% level

Several factors can lead to the lack of statistical significance:

1. A relatively small number of mergers are analysed – the current dataset contains information on 40 mergers. In general, studies with small sample sizes are less likely to be able to identify significant effects.

2. There will be mergers occurring for different reasons, for example strategic and rescue mergers. We lack data on the rationale for mergers, as well as other data such as financial support, and are therefore unable to control for these.
3. Large variations in post-merger performance exist – there are large differences in post-merger performance amongst merged colleges. As shown in Figure 15, some colleges experience large increases in performance whilst others experience large declines. This increases the potential range of observed post-merger effects, implying both positive and negative effects are possible.

Overall the econometric analysis is not able to provide conclusive evidence of positive or negative results of mergers on colleges’ financial performance. The Annex provides details of other specifications we tested for robustness checks – the results of those specifications are consistent with our results.

Non-financial Outcomes

We have run our baseline econometric specification on two different non-financial metrics: success rates for Level 3 courses only and success rates for all courses according to the methodology specified above. The table below summarises the results:

Table 10 Econometric results from baseline model (non-financial outcomes)

Non-financial variable	Estimated merger effect - on levels	Significant at 10% level? - Levels regression	Estimated merger effect - on YoY growth	Significant at 10% level? - YoY growth regression
Level 3 Success Rate	1.00%	No	-1.15 p.p.	Yes
All Success Rate	-0.67%	No	0.05 p.p.	No

Source: Frontier Economics analysis of National Success Rate Tables

The results indicate that mergers have:

- No statistically significant effect on the level of success rates on average (either on Level 3 success rates or on all success rates);
- No statistically significant effect on the growth rates of all success rates on average; and
- A small, negative but significant impact on the average growth rates of Level 3 success rates – that, is we find that merging is associated with a slower growth rate in Level 3 success rates as compared to colleges which do not undergo a merger.

A subsequent analysis of merger impacts in the 3 years before and after a merger, as is described above, explores the estimated decline in the growth rate of level 3 success rates further.

Table 11 Econometric results from alternative model (non-financial outcomes)

Time before/after merger	Percentage point (p.p.) change - Level 3 Success Rate	Percentage point (p.p.) change - All Success Rate
T - 3	1 p.p.*	-0.7 p.p.
T - 2	-1.1 p.p.	-0.9 p.p.
T - 1	1 p.p.	0.7 p.p.
T (merger year)	-1.4 p.p.	0.2 p.p.
T + 1	0.2 p.p.	-0.7 p.p.
T + 2	1.9 p.p.	0.6 p.p.
T + 3	-1.7 p.p.*	-0.8 p.p.

Source: Frontier Economics analysis of National Success Rate Tables

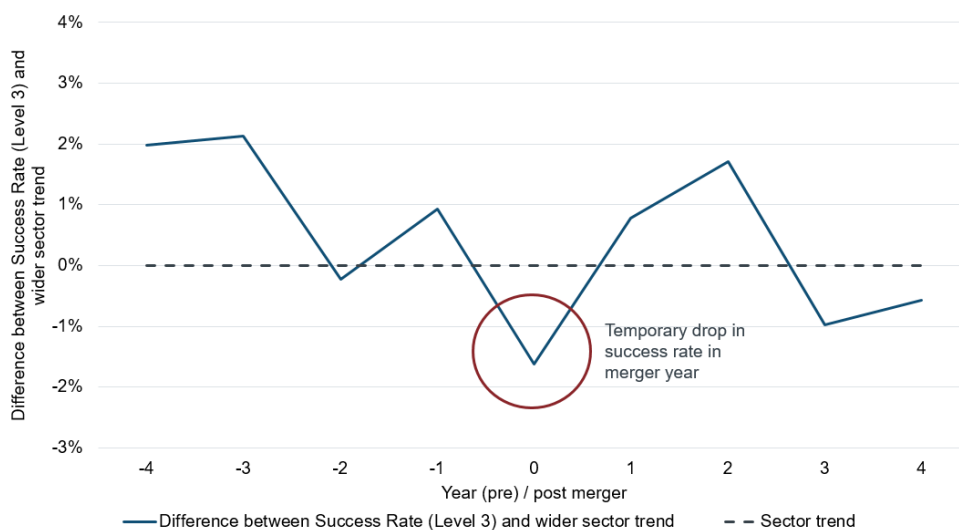
Note: *indicates significant at 10% level, **indicates significant at 5% level and ***indicates significant at 1% level

While the finding of a significant effect on the growth rate of Level 3 success rates seems noteworthy, further inspection suggests that this result is driven by:

- A temporary drop in Level 3 success rates (depicted in Figure 18 below) of merged colleges in the merger year compared to the wider sector, and;
- A sharp reduction in the average Level 3 success rate 3 years after a merger.

Figure 18 highlights the variance in the outcome, which may explain why the finding is not significant at the conventional 5% level of significance.

Figure 18 Success rates pre- and post-merger compared to sector average



Source: Frontier Economics analysis of National Success Rate Tables

Comparison of characteristics across merged colleges

Given our work suggests that the average effect of mergers is indistinguishable from zero, we analyse variation in individual level college performance. A composite score for each college, based on college profitability, fixed cost synergies and debt burden, is created to summarise and rank post-merger performance. This composite rank provides a balanced view of relative financial performance across the 3 key metrics. It is also used to identify colleges which have under/outperformed their peer group and test whether certain college characteristics differ by post-merger performance.

We have used the composite rank of post-merger performance and analysed how it correlates with the following college characteristics:

- Relative size of colleges undergoing a merger;
- Rurality of college location;
- Region of merger, and;
- Pre-merger trends in performance.

We use the average change in three college financial outcomes (profitability, fixed cost synergies and debt burden) comparing the three years before with the three years after a merger. For each college and across the three financial metrics, we measure the average change in performance and rank colleges relative to all other mergers in the sample.

The combination of the three metrics provides a balanced view of financial performance. Ranking colleges by one metric only, such as profitability, excludes all the other concurrently important financial performance metrics. We report the individual college metric rankings in the Appendix and highlight how some colleges may be performing relatively well in one metric whilst performing less well in another.

The ranking is sensitive to the time period considered, the financial metric chosen and the methodology used to calculate composite ranking. Given this limitation, it should be interpreted with due caution.

The results from this analysis (shown in Figure 19) show considerable variation in college performance post-merger. For example, the best performing merger across all three metrics is South Essex College of Further and Higher Education where the profit margin increased by 8%, staff costs reduced by 6% and the level of debt as a proportion of income fell by 5% compared to the three years pre-merger. At the other end of the spectrum is K College where profits fell considerably, and staff costs and debt increased significantly.

On the whole, we find no clear differences in the characteristics (such as size, location and proximity of merging parties) of the top and bottom performers – that is, it is difficult from this analysis to conclude what factors make mergers more or less successful.

Additional analysis describing how the college ranking varies by college characteristics can be found in the Annex.

Figure 19 Variation in college performance post-merger – top 5 and bottom 5 performing colleges

College Name	Ranking based on composite score	Change in Profit Margin (3 years after vs 3 years before)	Change in Staff costs (as a % of income) (3 years aft...)	Change in debt (as a % of income) (3 years aft...)
South Essex College of Further and Higher Education	1	8%	-6%	-5%
Salford City College	2	4%	-4%	-4%
The College of Haringey, Enfield and North East London	3	2%	-10%	-2%
South Nottingham College	4	2%	-5%	-3%
Sparsholt College	5	-1%	-7%	-3%
...
Stockport College	36	-3%	6%	16%
Stockton Riverside College	37	-4%	7%	12%
Kirklees College	38	-14%	5%	32%
Sutton Coldfield College	39	-12%	9%	16%
K College (South and West Kent College)	40	-25%	8%	58%

Source: Frontier Economics analysis of ESFA data

Conclusions

This report examines how college mergers affect performance using an entirely quantitative approach and focusing on financial performance. We have drawn on College Accounts data from the ESFA and have looked at a range of outcomes including operating profit, debt, interest payments and others. We have also checked whether the quality of provision changes following mergers using success rates from the National Achievement Rate Tables. It is important to note that due to data availability, our work covers the period 2005 - 2015 which precedes the Area Review process.

We have used descriptive and econometric analysis and have experimented with several different counterfactuals:

- Comparing merging colleges with non-merging colleges;
- Comparing merging colleges before and after a merger; and
- Comparing merging colleges before and after a merger but also accounting for wider sectoral trends.

We find no strong statistical evidence of college mergers leading to an improvement or deterioration of college performance on average. That is, we find that on average the effect of merging is statistically indistinguishable from zero. This finding is robust to the different model specifications we have explored and applies to all financial and non-financial outcomes we have examined.

We also find that while the average effect of merging is not significantly different from zero, the performance of merging colleges varies a great deal. For some colleges, a merger is followed by significant improvement in observed performance while for others this is not the case. Using secondary data alone, however, it is not clear what factors may drive the difference in performance. We have looked at several characteristics (such as size, location and proximity of merging parties) of the top and bottom performers and have found no obvious patterns.

It is worth noting that our work was based on data which had limitations:

- We did not have access to detailed information on the rationale for different mergers and the anticipated benefits. As such we were not able to distinguish between mergers which happened for commercial reasons and 'rescue' mergers.
- We did not have data on any financial assistance (from Government) that merging parties may have accessed. Our understanding is that this type of assistance was uncommon but to the extent that it did occur, our data would not have captured it.

Collection of data on the rationale for, and expected outcomes from, mergers as well as any financial assistance provided should be a priority going forward to enable future work in the area.

The other obvious limitation of our work is that it does not cover mergers which happened as part of the Area Review process as data on these recent mergers was not yet available at the time the analysis was conducted. Given that the general environment facing the sector has changed so much in recent years and that the motivations for merging have also changed, it would be advisable to expand our work to cover at least the first wave of Area Review mergers. This could be done using quantitative and qualitative methods. Specifically, we recommend:

- Descriptive quantitative analysis of ESFA College Accounts data to examine how financial performance of college mergers in the AR period changes post-merger;
- Quantitative comparisons of AR merger outcomes against suitable comparators. The design of the AR process and availability of data from the Restructuring Facility enables several comparisons which were not possible in this study such as colleges which were expected to merge at a later date or comparisons with recommended mergers which didn't materialise; and
- Deep dives into specific merger cases to understand in detail the factors which make mergers successful or unsuccessful. We envisage case studies involving interviews with relevant stakeholders as well as analysis of bespoke merger documentation and data (e.g. documents setting out the rationale for mergers, anticipated merger outcomes etc.).

Together with our work, the new research would inform future Government policy as to how and when mergers work well to improve performance and the circumstances when this is not the case.

ANNEX A MERGING COLLEGES DATA

In the following section we report the colleges in the sample of mergers occurring between 2005 and 2015. The college names are the names of the most recent college entity. Information on the individual colleges which have merged to create the colleges below can be found on the Association of Colleges website¹³.

College Name	Merger Year
Central Sussex College	2005
Tyne Metropolitan College	2005
College of West Anglia	2006
Riverside College Halton	2006
Stockport College	2006
Brooklands College	2007
Guildford College	2007
Lincoln College	2007
Sparsholt College	2007
Trafford College	2007
Kirklees College	2008
Manchester College	2008
Petroc	2008
Stockton Riverside College	2008
Truro and Penwith College	2008
Wiltshire College	2008
Salford City College	2009
South Staffordshire College	2009
South Thames College	2009
The College of Haringey, Enfield and North East London	2009
Colchester Institute	2010
Derby College	2010
Grimsby Institute of Further and Higher Education	2010
K College (South and West Kent College)	2010
South Essex College of Further and Higher Education	2010
Barnet and Southgate College	2011
Bromley College of Further and Higher Education	2011
Gloucestershire College	2011
Leeds City College	2011
South Nottingham College	2011

¹³ <https://www.aoc.co.uk/about-colleges/college-mergers>

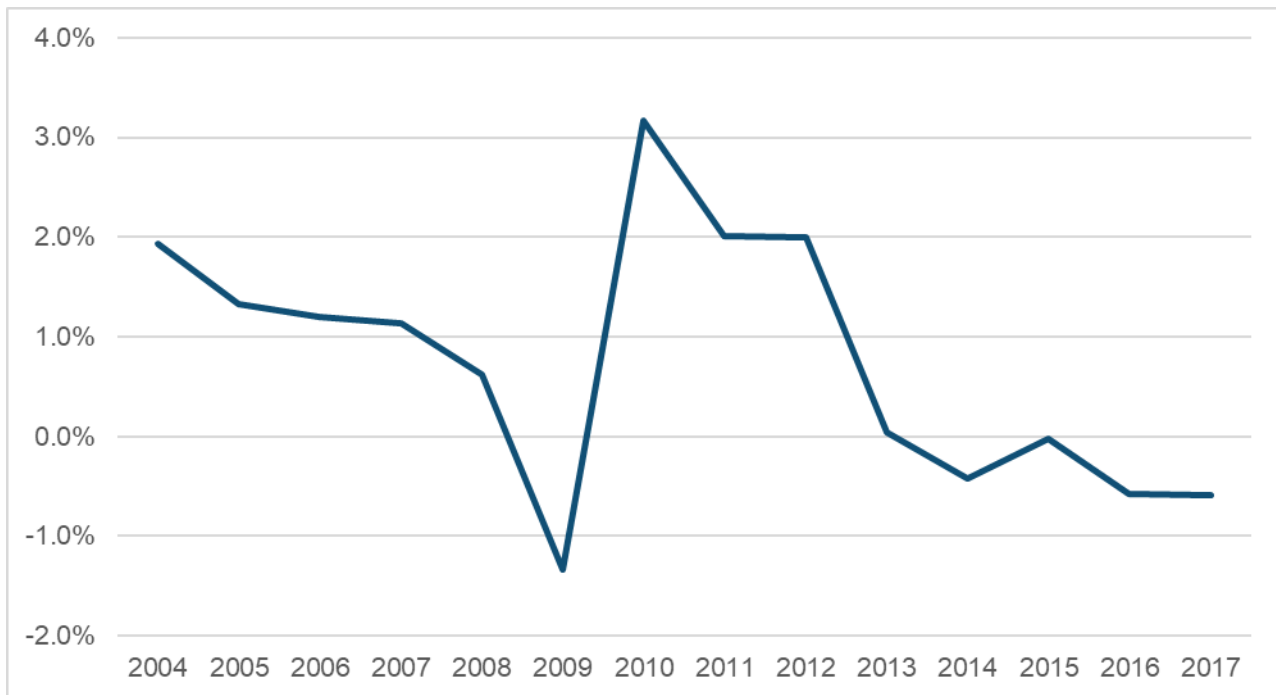
Easton and Otley College	2012
LeSoCo	2012
South Gloucestershire and Stroud College	2012
South and City College Birmingham	2012
Herefordshire and Ludlow College	2013
Sutton Coldfield College	2013
Heart of Worcestershire College	2014
Newcastle College	2014
Bath College	2015
Cornwall College Group	2015

Source: Association of Colleges

ANNEX B SUMMARY STATISTICS

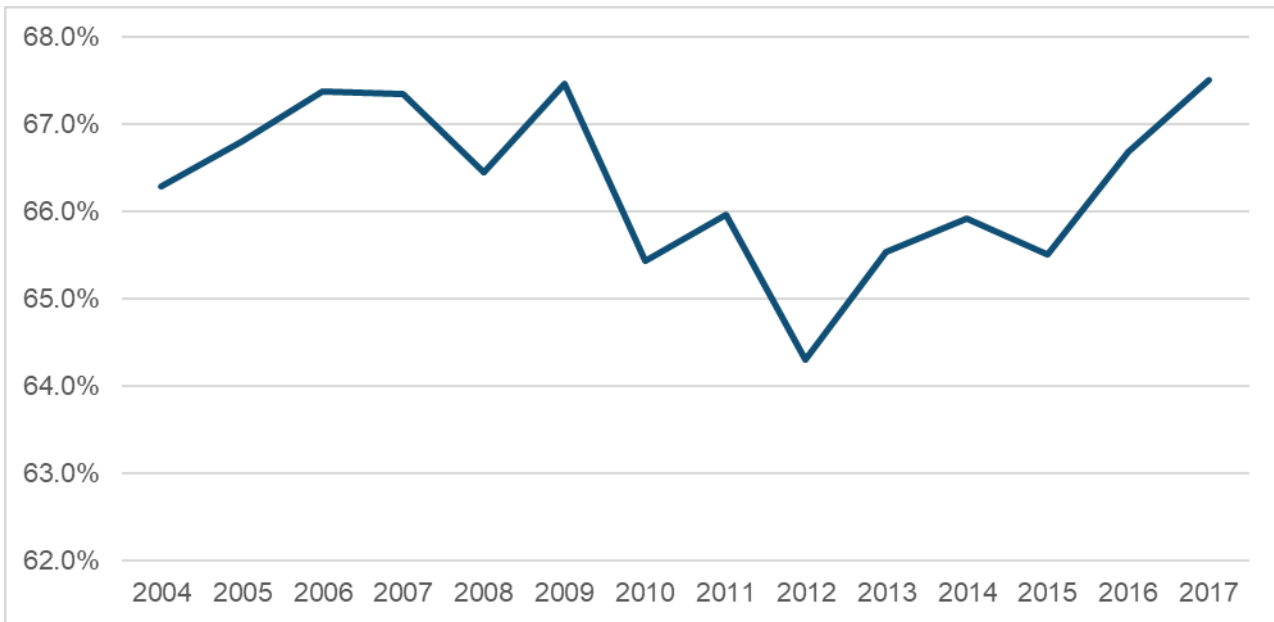
The maximum period included was 2004 to 2017 however, for certain variables, the data only allowed a reporting of averages for a subset of this period. The charts show the average performance, of all FE colleges (including those that did not merge) in England.

Figure 20 Average Operating Profit Margin (2004-2017)



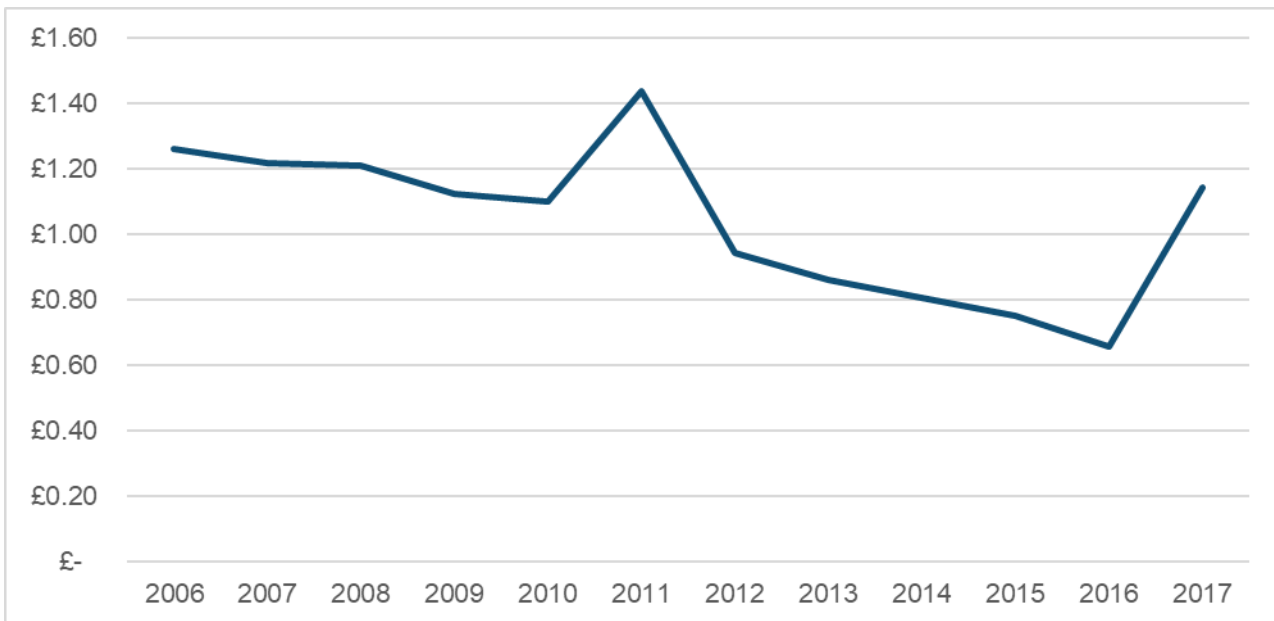
Source: Frontier Economics analysis of ESFA College Accounts

Figure 21 Average Staff costs (as a % of income) (2004-2017)



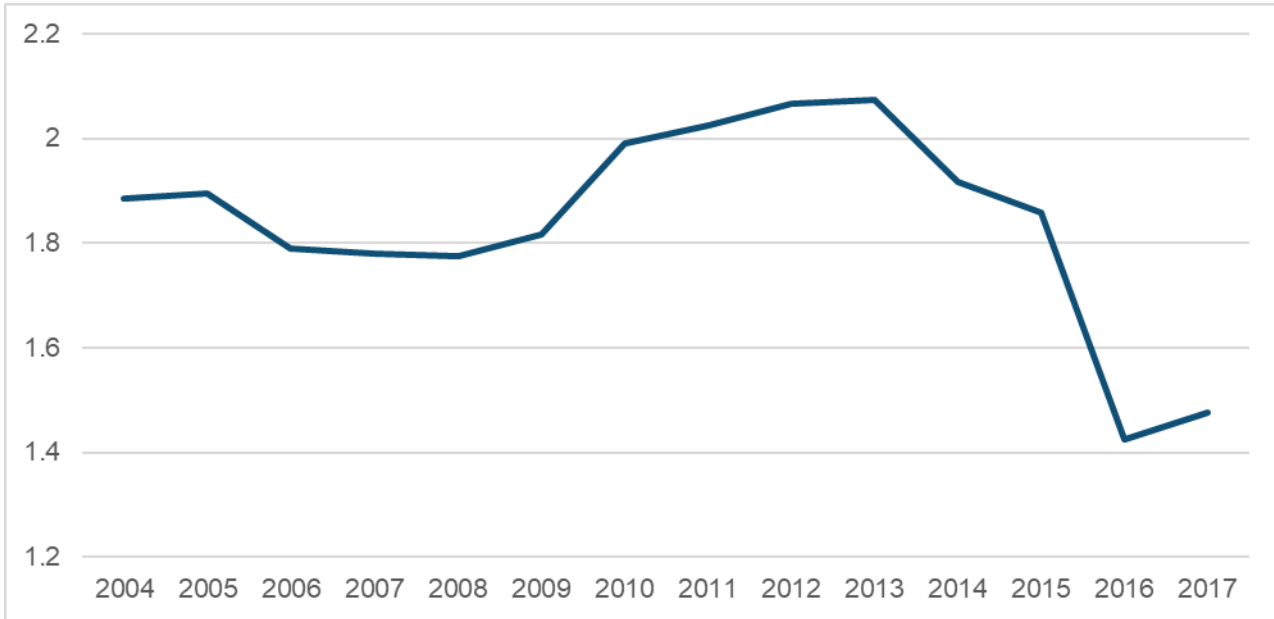
Source: Frontier Economics analysis of ESFA College Accounts

Figure 22 Average Income per £ of fixed asset (2006-2017)



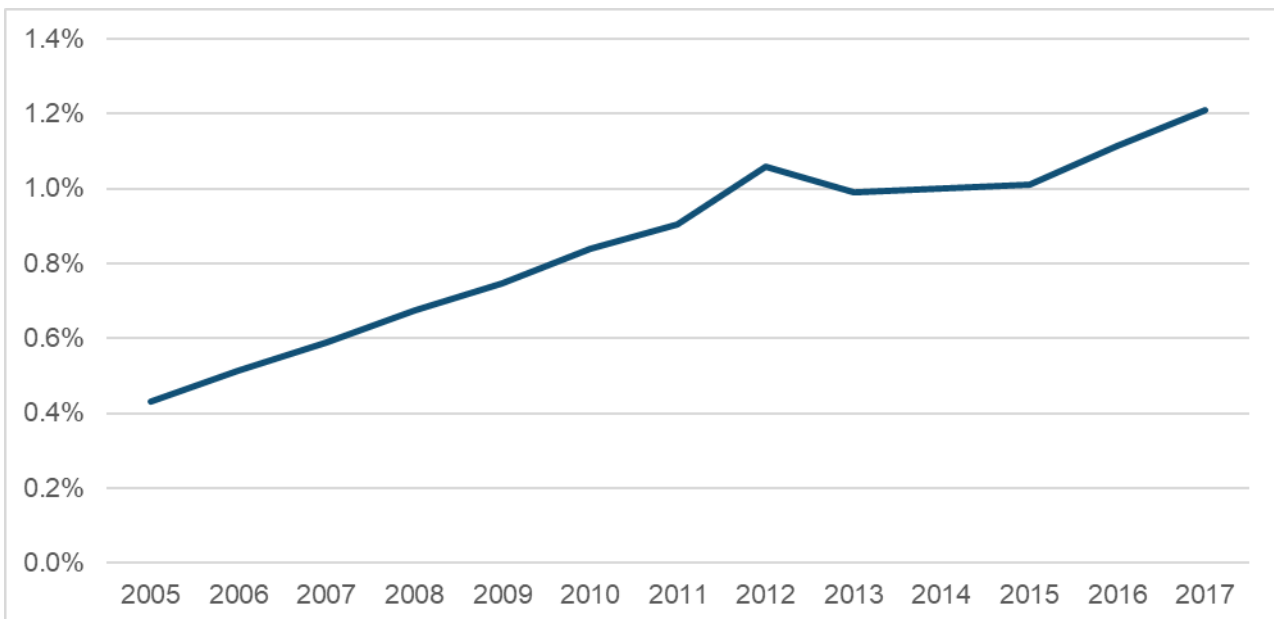
Source: Frontier Economics analysis of ESFA College Accounts

Figure 23 Average Current Ratio (2004-2017)



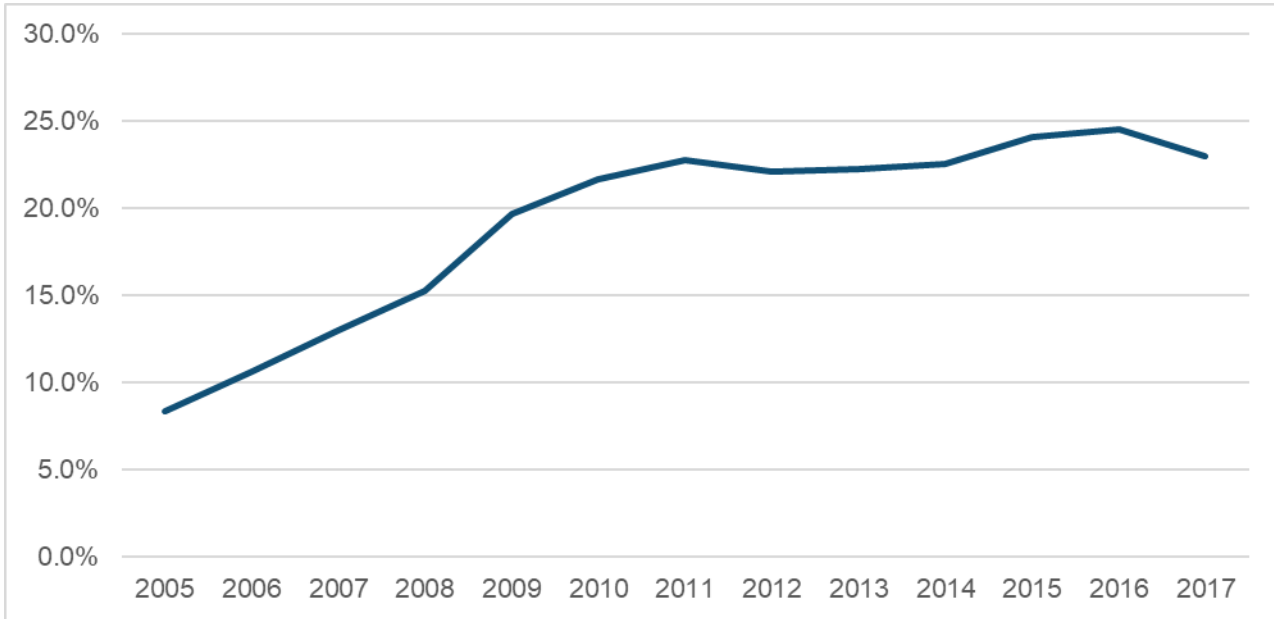
Source: Frontier Economics analysis of ESFA College Accounts

Figure 24 Average interest payments (as a % of income) (2005-2017)



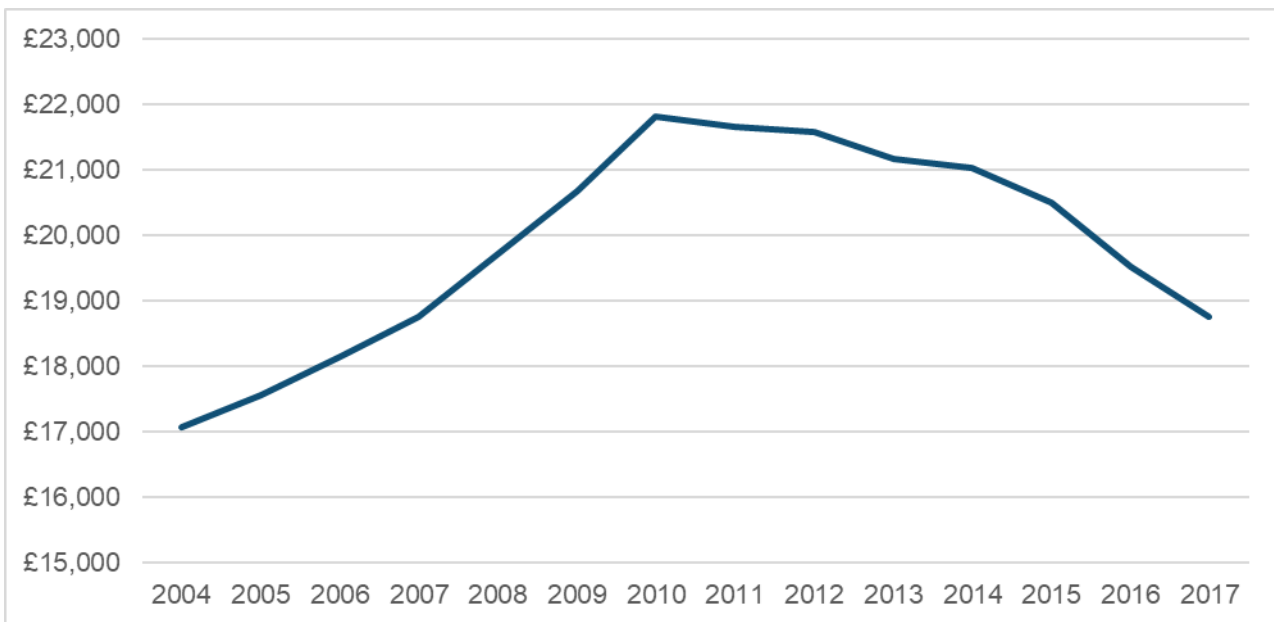
Source: Frontier Economics analysis of ESFA College Accounts

Figure 25 Average total debt (as a % of income) (2005-2017)



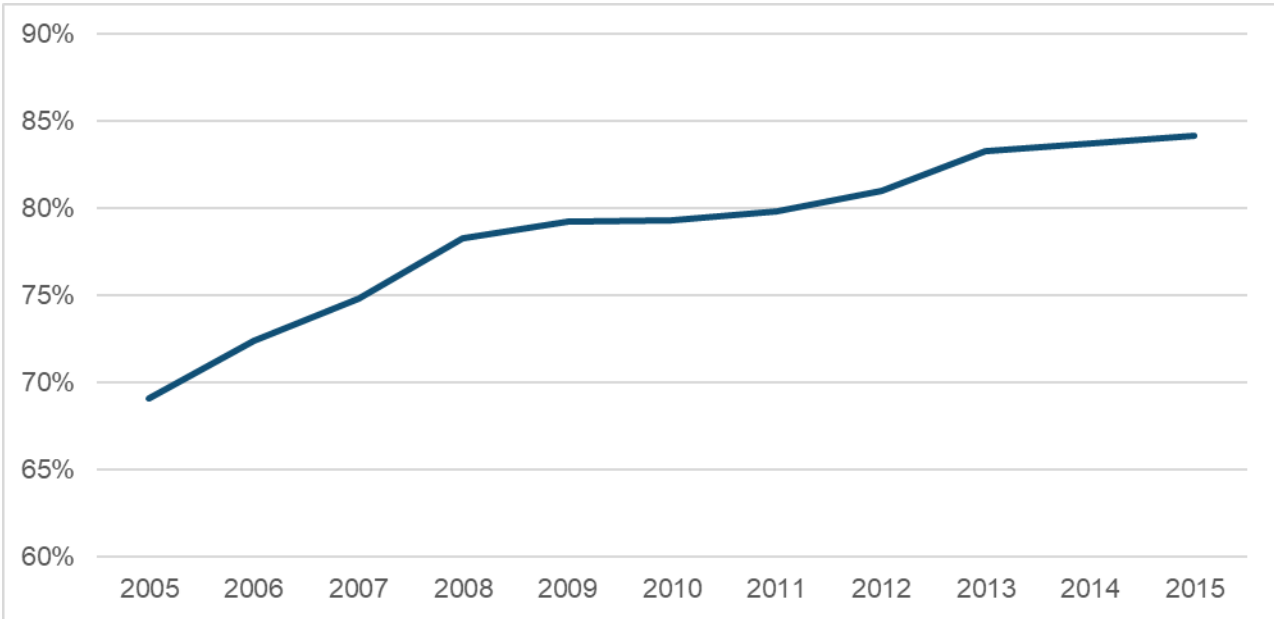
Source: Frontier Economics analysis of ESFA College Accounts

Figure 26 Average college income (£'000s) (2004-2017)



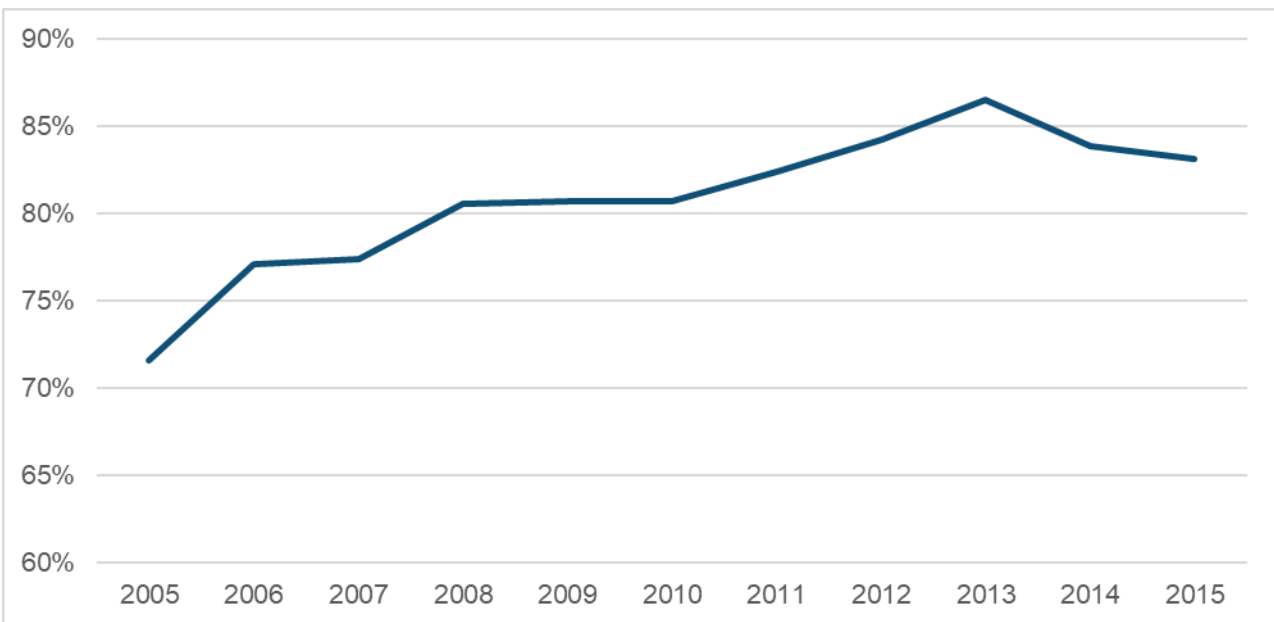
Source: Frontier Economics analysis of ESFA College Accounts

Figure 27 Average success rate for Level 3 courses (2005-2015)



Source: Frontier Economics analysis of National Achievement tables

Figure 28 Average success rate for all courses (2005-2015)



Source: Frontier Economics analysis of National Achievement tables

Comparison of sample to post sample period

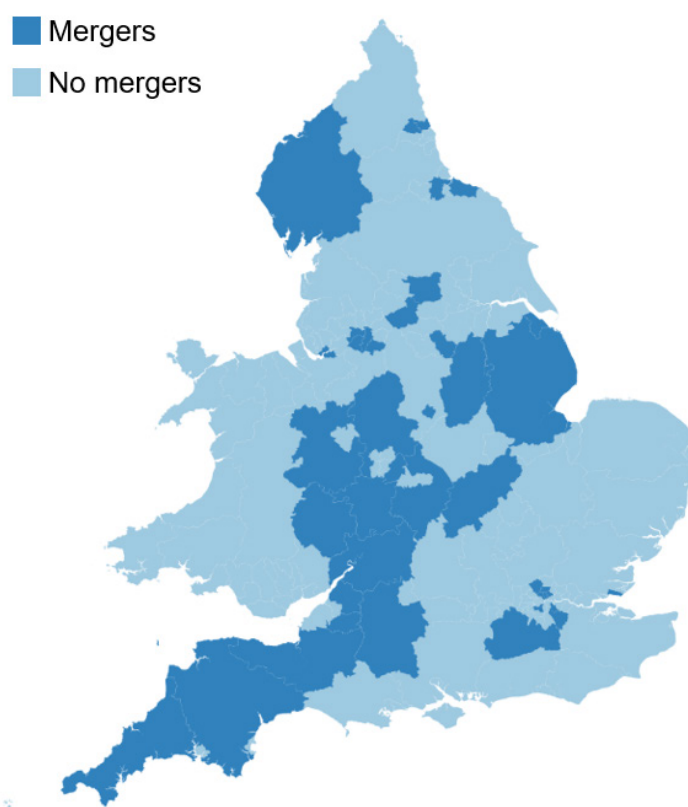
The sample used in our analysis runs from 2005 to 2015. Starting from late 2015, the Area Review process was initiated, which changed the policy environment for mergers in the FE sector. We report the comparison of mergers in our sample with mergers that occurred in 2016 and 2017, the last year of our data collection. This allows us to address issues of external validity of findings and highlight relevant caveats.

Whilst mergers in our sample are mostly concentrated in the South West, West, North East and North West, as shown in Figure 29, mergers between 2016 and 2017 occurred mostly in the South, East and North West, as shown in

Figure 30. Furthermore, mergers which occurred in our sample are, on average, larger in terms of the merging colleges' combined yearly income than mergers which occurred between 2016 and 2017, as shown in Figure 31.

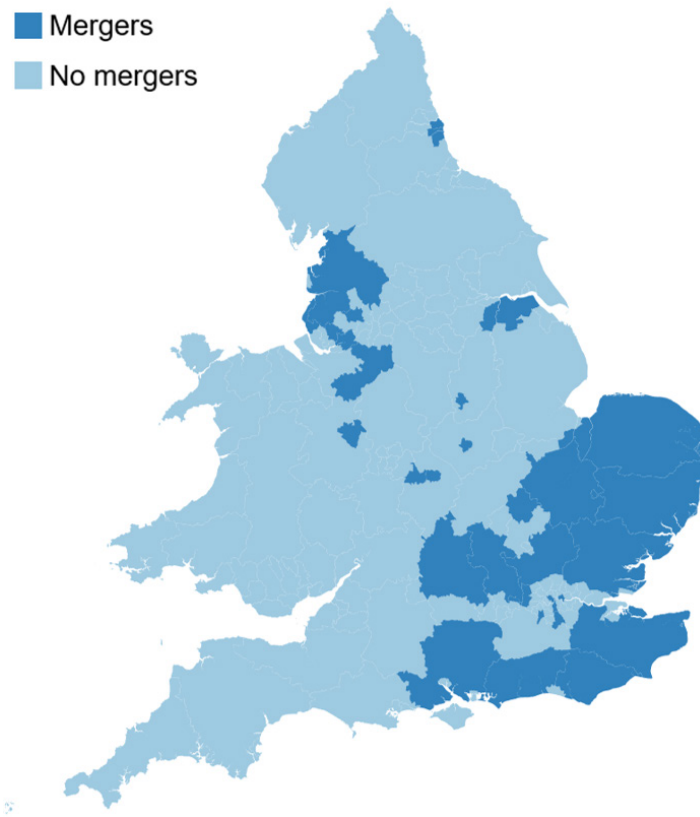
Both these findings imply caution must be exercised when extrapolating the findings of our report to mergers which occurred after 2015.

Figure 29 Map of mergers from 2005 to 2015



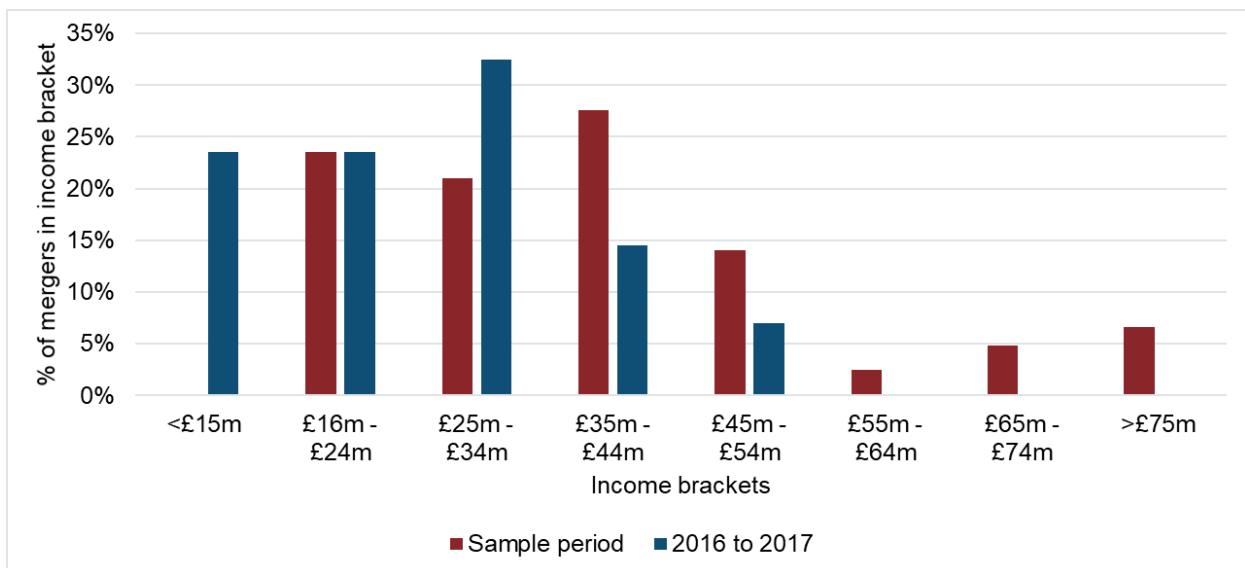
Source: Frontier Economics analysis of Association of Colleges data. Mapping based on Local Education Authority boundaries.

Figure 30 Map of mergers from 2016 to 2017



Source: Frontier Economics analysis of Association of Colleges data. Mapping based on Local Education Authority boundaries.

Figure 31 Distribution of mergers by income size between sample period and 2016-2017



Source: Frontier Economics analysis of ESFA college financial accounts data

ANNEX C DETAILED ECONOMETRIC RESULTS

Model specifications

The model specifications which we used in our work are described below.

Specification 1 - Difference-in-differences

The baseline model quantifies the effect of mergers compared to the sector average and controlling for college-specific and sector-wide trends. This is done by estimating a college-level fixed effects model which includes yearly categorical variables.

In order to assess the impact of mergers on profitability, fixed cost synergies and debt burden, the same specification is run for five different financial variables:

- i. profitability;
- ii. staff costs as a percentage of income;
- iii. income per £ of fixed asset;
- iv. interest payments as a percentage of income; and,
- v. debt as a percentage of income

To analyse non-financial performance, we consider success rates to be the primary variable of interest. We run our econometric model separately for

- i. Level 3 success rates; and
- ii. All success rates

The equation estimated using OLS is specified below. This is done across all colleges (i) in the FE sector from years 2005 to 2015 (t):

$$y_{i,t} = \alpha + \beta \text{postmerger}_{i,t} + \gamma_i + \theta_t + \epsilon_{i,t}$$

Postmerger is a variable equal to 1 if a college has been involved in a merger and 0 otherwise, γ_i are college fixed effects and θ_t are time fixed effects. Standard errors ($\epsilon_{i,t}$) are clustered at the college level. The estimated effect of a merger on a certain outcome variable, represented by $y_{i,t}$, is represented by β .

In addition to assessing the impact of mergers on outcomes, we quantified the impact of mergers on the growth rates in outcomes.

To further understand the impact of mergers on college performance, we estimated the average college outcome in the three years immediately before and after the merger. This specification tested whether colleges which merge tend to display relatively poor performances prior to merging or vice versa. The use of this specification is complementary to the baseline difference-in-difference model because it can test for anticipatory effects. More specifically, it can estimate whether colleges experienced a significant deterioration in outcomes before a merger and were able to recover shortly after a merger.

As for the baseline specification, this specification is also run for 14 different dependent variables (five measures of financial performance and two measures of non-financial performance, in levels and growth rates separately).

Specification 2 – Fixed effects model with leads and lags

In order to further understand the impact of mergers on college performance, we estimate the performance of merging colleges in the three years immediately before and after a merger. We estimate a fixed effects model with dummy variables for three leads and lags of the merger year on a restricted sample of only the colleges that merge.

The choice of data selection is a key distinction compared to specification (1) which uses data on all colleges. The results of specification (2) compare the pre-and post-merger outcomes for merging colleges, while controlling for college-specific effects and *sector-wide effects observed among merged colleges only*.

The equation estimated using OLS is specified below. This is done across all 40 colleges which underwent a merger in our sample (i) from years 2005 to 2015 (t):

$$y_{i,t} = \alpha + \sum_{t=-3}^{-1} \delta_t \text{merger}_{i,t} + \beta_0 \text{merger}_{i,t} + \sum_{t=1}^3 \kappa_t \text{merger}_{i,t} + \gamma_i + \theta_t + \epsilon_{i,t}$$

Merger is a variable equal to 1 if a college has undergone a merger in a specific year and 0 otherwise. We estimate 3 lags (δ_t) and 3 leads (κ_t) of the merger effect, estimating the yearly effect on the outcome up to 3 years before and after a merger. γ_i are college fixed effects and θ_t are time fixed effects. Standard errors ($\epsilon_{i,t}$) are clustered at the college level. The contemporaneous estimated effect of a merger on a certain outcome variable, represented by $y_{i,t}$, is represented by β_0 . The average outcome variable 2 years before a merger is estimated by (δ_{t-2}) and the effect 2 years after is estimated by (κ_{t+2}), for example.

Results summary from specification 1

Results from the difference-in-differences model across all colleges are presented below. The estimates of beta coefficient are reported, alongside their statistical significance, which correspond to the estimation of the merger effect.

Table 12 Econometric results from baseline model

Variable	Estimated merger effect - on levels	Estimated merger effect - on YoY growth
Profit Margin	-0.65%	-0.29 p.p.
Staff cost (as a % of income)	0.10%	-0.31 p.p.
Income per £ of fixed assets	£0.01	-£0.06
Interest (as a % of income)	0.03%	0.06 p.p.
Debt (as a % of income)	2.54%	-0.47 p.p.
Level 3 Success Rate	1.00%	-1.15 p.p.*
All Success Rate	-0.67%	0.05 p.p.

Source: Frontier Economics analysis of ESFA College Accounts

Note: *** significant at the 1% level, ** significance at 5%, * significance at 10%

Results summary from specification 2

Results of the fixed effects model with leads and lags of the merger year are presented below. This model aims to analyse the time profile of performance of merging colleges in the years before and after a merger. The model is run separately on the levels and growth rates for five different financial variables and two different success rate variables.

Table 13 Fixed effects model with leads and lags - levels of financial variables

Time before/after merger	Profit Margin	Staff cost (as a % of income)	Income per £ of fixed assets	Interest (as a % of income)	Debt (as a % of income)
T - 3	-0.4%	-0.24%	£0.06	-0.1%	0.4%
T - 2	-1.1%**	0.22%	-£0.03	-0.1%	-1.4%
T - 1	-0.6%	0.21%	-£0.03	-0.2%*	-0.1%
T (merger year)	-0.3%	-0.48%	-£0.05	-0.2%	2.1%
T + 1	-0.6%	-0.12%	£0.01	-0.2%	-2.3%
T + 2	0.4%	0.62%	£0.00	-0.3%*	-4.0%
T + 3	0.1%	0.85%	-£0.02	-0.2%	-1.5%

Source: Frontier Economics analysis of ESFA College Accounts

Note: *** significant at the 1% level, ** significance at 5%, * significance at 10%

Table 14 Fixed effects model with leads and lags – growth rates of financial variables

Time before/after merger	YoY change - Profit Margin	YoY change - Staff cost (as a % of income)	YoY change - Income per £ of fixed assets	YoY change - Interest (as a % of income)	YoY change - Debt (as a % of income)
T - 3	0.3%	1.16%	-£0.04	0.0%	2.7%
T - 2	-0.7%	0.80%	-£0.08	0.0%	-1.4%
T - 1	0.8%	0.15%	-£0.00	-0.1%	2.8%
T (merger year)	0.5%	-0.43%	-£0.02	0.1%	2.1%
T + 1	-0.1%	0.54%	£0.06	-0.1%	-4.3%**
T + 2	0.0%	1.5%*	-£0.02	-0.1%**	-0.5%
T + 3	-1.0%	0.06%	£0.00	0.0%	1.1%

Source: Frontier Economics analysis of ESFA College Accounts

Note: *** significant at the 1% level, ** significance at 5%, * significance at 10%

Table 15 Fixed effects model with leads and lags - levels of success rate variables

Time before/after merger	Level 3 Success Rate	Success Rate – All courses
T – 3	1.6%*	-0.4%
T - 2	0.7%	-0.6%
T - 1	1.5%	0.1%
T (merger year)	0.1%	0.5%
T + 1	0.1%	-0.3%
T + 2	1.7%**	0.7%
T + 3	0.2%	0.3%

Source: Frontier Economics analysis of National Achievement tables

Note: *** significant at the 1% level, ** significance at 5%, * significance at 10%

Table 16 Fixed effects model with leads and lags – growth rates of success rate variables

Time before/after merger	Percentage point (p.p.) change - Level 3 Success Rate	Percentage point (p.p.) change - All Success Rate
T - 3	1 p.p.*	-0.7 p.p.
T - 2	-1.1 p.p.	-0.9 p.p.
T - 1	1 p.p.	0.7 p.p.
T (merger year)	-1.4 p.p.	0.2 p.p.
T + 1	0.2 p.p.	-0.7 p.p.
T + 2	1.9 p.p.	0.6 p.p.
T + 3	-1.7 p.p.*	-0.8 p.p.

Source: Frontier Economics analysis of National Achievement tables

Note: *** significant at the 1% level, ** significance at 5%, * significance at 10%

ANNEX D DETAILED COMPARISON OF CHARACTERISTICS ACROSS COLLEGES

Composite ranking based on key metrics

A composite ranking of colleges is constructed based on profitability, fixed costs and debt in the following way:

Steps in calculating the composite rankings

1. The change in average profitability, fixed costs and debt in the three years before and after a merger is calculated for each merged entity.
2. Colleges are ranked by the magnitude of changes in profitability, fixed costs and debt – this creates three sets of rankings:
 - I. By increase in profitability;
 - II. By decrease in fixed costs; and
 - III. By decrease in debt
3. The rankings for these three metrics are combined to calculate a unique performance score (or composite score) for each college – this is done by taking a simple average of the three different rankings. For instance, if college x is ranked 6 on profitability, 11 on fixed costs and 13 on debt, its composite score would be 10.
4. Colleges are ranked by their composite score to get the composite ranking.

The method of ranking colleges by their composite score provides a balanced view of their financial performance across three key metrics – profitability, fixed costs and debt. College rankings by any one metric alone do not provide a comprehensive account of financial performance. Such rankings are also sensitive to the choice of financial metric. For instance, Brooklands College ranks 1 in profitability improvements but ranks 34 (out of 40 colleges) in debt reduction.

The following sections provide details of the college performance (as indicated by the composite rankings) by various college characteristics. The ranking is sensitive to the time period considered, the financial metric chosen and the methodology used to calculate composite ranking. Given this limitation, it should be interpreted with due caution.

Individual metric college rankings

We report the top 5 and bottom 5 college for each individual metric below. The colleges which are reported as being highest ranked for increases in profitability do not always fully correspond to colleges being ranked highest for decreases to staff costs and debt as a percentage of income.

These results highlight the variation within performance across the three individual metrics selected. For this reason, we have sought to combine the rankings of college across metrics, to give a more balanced picture of performance.

Figure 32 Top and Bottom 5 ranking for profitability only

College Name	Profitability score rank	Change in Profit Margin (3 year after vs 3 years before)
Top 5 Colleges		
LeSoCo	1	10%
Brooklands College	2	9%
Barnet and Southgate College	3	7%
Derby College	4	6%
Grimsby Institute of Further and Higher Education	5	4%
Bottom 5 Colleges		
Guildford College	36	-6%
NCG	37	-6%
Heart of Worcestershire College	38	-6%
Kirklees College	39	-8%
K College (South and West Kent College)	40	-10%

Source: Frontier Economics analysis of ESFA college accounts AoC data

Figure 33 Top and Bottom 5 ranking for staff costs only

College Name	Staff cost score rank	Change in Staff costs (as a % of income) (3 year after vs 3 years before)
Top 5 Colleges		
Brooklands College	1	-12%
The College of Haringey, Enfield and North East London	2	-10%
Barnet and Southgate College	3	-10%
Sparsholt College	4	-7%
London South East Colleges (LSEC)	5	-7%
Bottom 5 Colleges		
Stockport College	36	6%
Bath College	37	7%
Stockton Riverside College	38	7%
LeSoCo	39	10%
Lincoln College	40	12%

Source: Frontier Economics analysis of ESFA college accounts and AoC data

Figure 34 Top and Bottom 5 ranking for debt burden only

College Name	Debt burden score rank	Change in debt (as a % of income) (3 year after vs 3 years before)
Top 5 Colleges		
South and City College Birmingham	1	-13%
NCG	2	-10%
South Essex College of Further and Higher Education	3	-9%
Salford City College	4	-4%
South Staffordshire College	5	-4%
Bottom 5 Colleges		
Kirklees College	36	25%
Colchester Institute	37	28%
Central Sussex College	38	37%
Barnet and Southgate College	39	38%
K College (South and West Kent College)	40	71%

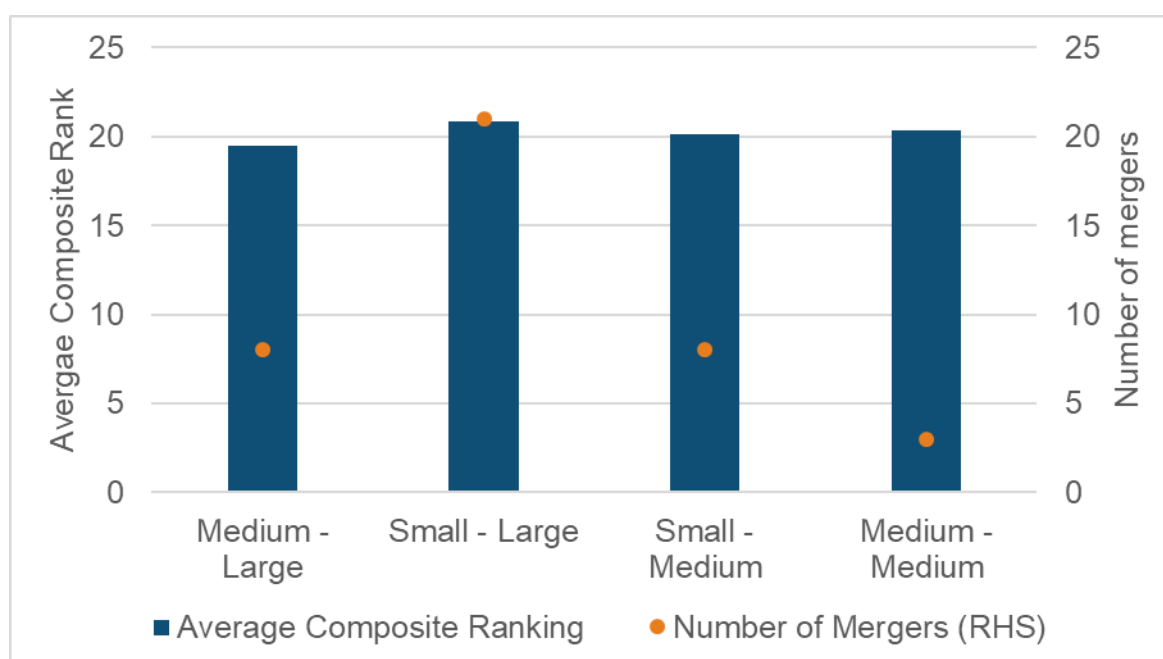
Source: Frontier Economics analysis of ESFA college accounts and AoC data

Comparison of college performance by characteristics

Relative size of colleges undergoing a merger

Mergers are categorised by the relative sizes of merging colleges pre-merger. This is done by creating college size categories (Small, Medium and Large) using a college's position in the distribution of FE college income. A college with income in the lowest quartile is defined as small, and large if its yearly income is in the highest quartile, with the remaining colleges being classed as medium.

Figure 35 Average college rank by relative size of merger (lower is better)



Source: Frontier Economics analysis of ESFA college accounts and AoC data

The following broad trends emerge:

- Most mergers in our sample are between a small college and a large college (depicted by the category “Small-Large” in the chart): 21 out of 40 mergers in our dataset are instances of a large college merging with a small one. We do not observe any mergers between two small colleges or between two large colleges.
- Financial performance does not vary substantially by size of merging colleges: The average composite ranking across sizes categories is similar across all merger combination types.

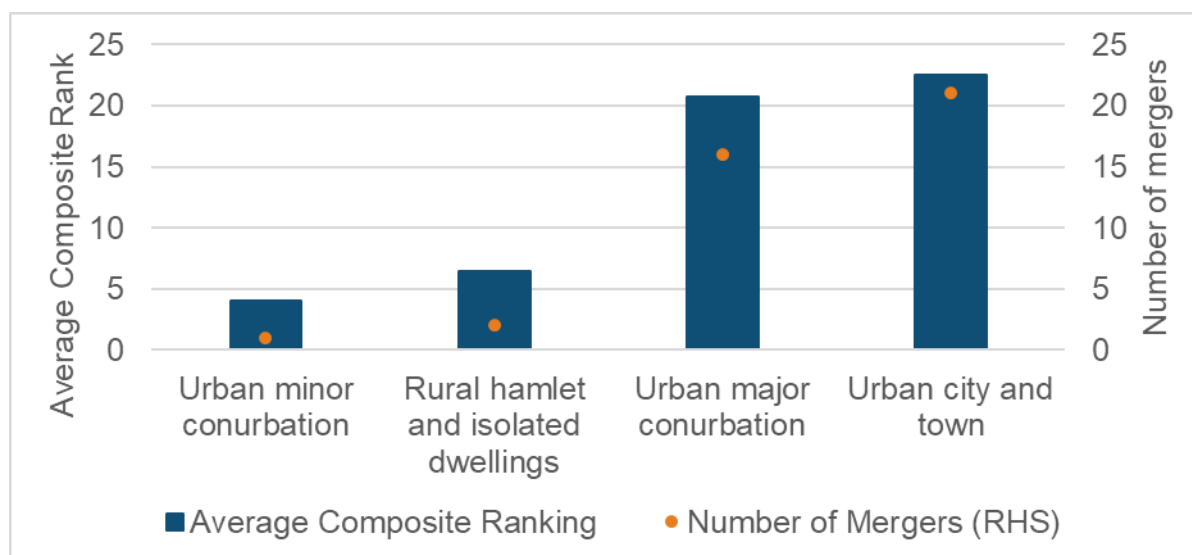
Note that the sample sizes for many categories are small and these results should be interpreted with caution.

Rurality of college location

We have used data from the *Get Information about Schools*¹⁴ database to identify the geographic setting of a college. The data relies on the location of the head office of the merged college, as is reported in the database. The classification of urban and rural is reported at the Output Area level¹⁵.

As shown in Figure 36, most mergers in our sample are between colleges in urban areas. Only 2 out of 40 college mergers in the sample took place in rural hamlets or isolated dwellings. The small sample of rural mergers doesn't allow for comparison of performance against urban mergers. On average rural mergers have a composite ranking of 6 which appears to be substantially better than the average ranking of 16 across the three 'urban' categories – however, this result may be driven by the small sample size, so caution must be exerted when comparing mergers in urban and rural settings.

Figure 36 Average college rank by rurality of location (lower is better)



Source: Frontier Economics analysis of ESFA college accounts and AoC data

¹⁴ <https://get-information-schools.service.gov.uk/>

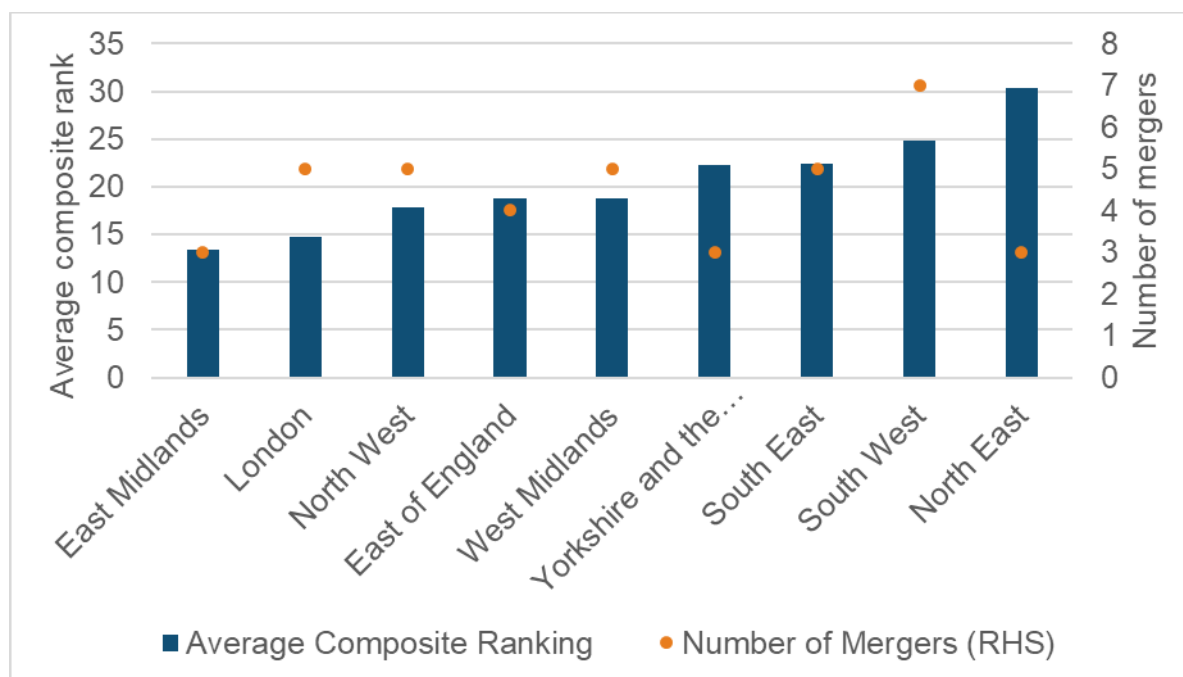
¹⁵

<https://www.ons.gov.uk/methodology/geography/geographicalproducts/ruralurbanclassifications/2001ruralurbanclassification/ruralurbandefinitionenglandandwales>

Region of merger

We have used data from the *Get Information about Schools*¹⁶ database to identify the region of a college. The data relies on the location of the school's head office, as is reported in the database.

Figure 37 Average college rank by merger region (lower is better)



Source: Frontier Economics analysis of ESFA college accounts and AoC data

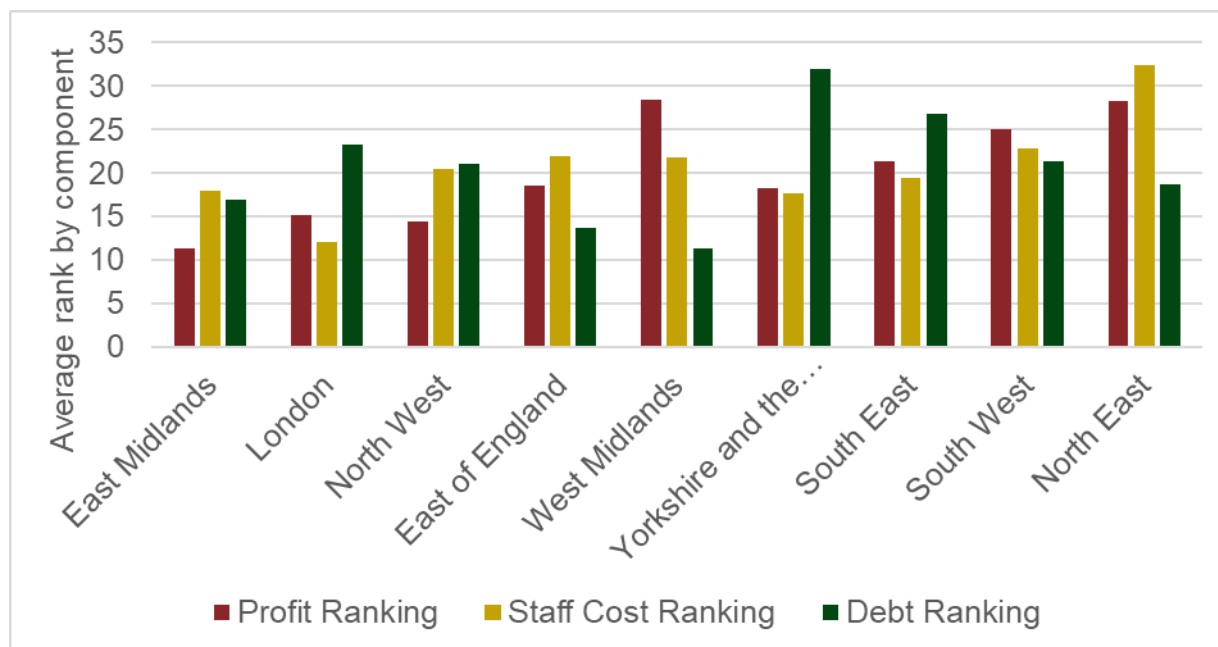
Figure 37 shows the average college post-merger performance rank by region. Given the sample sizes for these categories are small, with on average only 5 colleges per region, the results should be interpreted with caution. The following patterns emerge from the data on composite rankings:

- There is variation across average post-merger performance for mergers in our sample – the best performing region, the East Midlands, has an average composite ranking of 13 whereas the average rank in the worst performing region, the North East, is 30.
- The East Midlands, London and the North West are the three regions with the best (lowest) composite ranking: relative to others, mergers in these regions have had marginally higher increases in financial performance 3 years after merging (compared to 3 years before).

¹⁶ <https://get-information-schools.service.gov.uk/>

There is substantial variation across the financial metrics which make up the composite average. Figure 38 provides a comparison of each component used to calculate the college rank by region.

Figure 38 Average college rank by merger region split into various ranking subcomponents (lower is better)



Source: Frontier Economics analysis of ESFA college accounts and AoC data

We observe the following patterns:

- Mergers in the East Midlands had the best relative performance on profitability improvements.
- London mergers had the best relative performance on staff cost reductions.
- Mergers in the North West had relatively good performance on profitability and average performance on staff costs and debt reduction.

It is important to note that more research is required to robustly conclude that merger effects vary by region. These results are sensitive to the time period considered, the financial metric chosen and the methodology used to calculate the composite ranking.

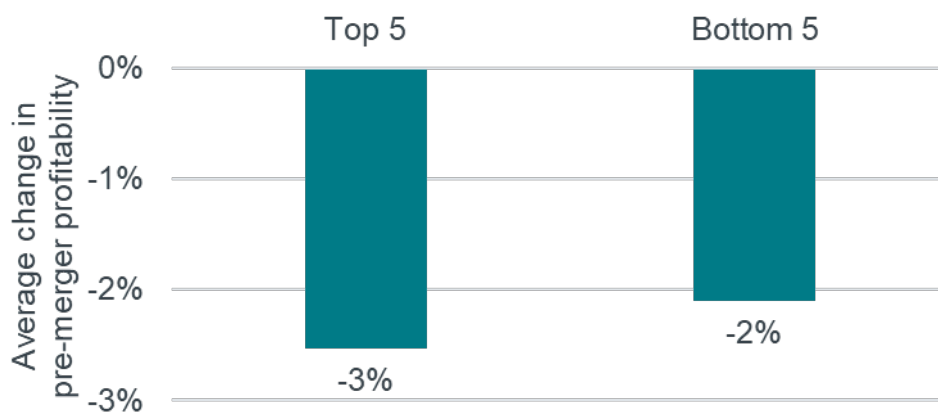
Pre-merger trends in performance

A college's post-merger performance might be influenced by the degree of pre-merger underperformance. This may be the case for rescue mergers, whereby the combination of a high-performing large college with an underperforming one hinders the post-merger

performance of the joint college. We test whether poor financial performance in the pre-merger period is associated with lower performance in the post-merger period.

As shown by Figure 39, there is very little difference in the pre-merger performance of the five best and five worst colleges, in terms of their post-merger improvement. This suggests that pre-merger profitability is not a strong predictor of post-merger performance.

Figure 39 Average 3-year change in pre-merger profitability for top 5 and bottom 5 colleges, ranked according to overall composite ranking



Source: Frontier Economics analysis of ESFA college accounts and AoC data

ANNEX E INDIVIDUAL COLLEGE FINANCIAL VARIABLES

The following tables detail the financial outcome variables used in our econometric models. For each college in our sample, we report the average variables from the years 2003/2004 (classified as 2004) to 2016/2017 (classified as 2017), averaging across all colleges which underwent a merger:

- Operating profit margin (as a % of yearly college income)
- Staff costs (as a % of yearly college income)
- College annual income per £ of fixed assets
- Interest payments (as a % of yearly college income)
- Debt payments (as a % of yearly college income)

We report the name of the merged entity, as reported in the 2015/2016 financial year college accounts data. This is because all values reported are a combination of the colleges which underwent a merger, even in the pre-merger period. The years which particular college merge can be found in Annex A.

Yearly data has been included for all colleges which underwent a merger during the relevant period of analysis. Data on college performance in the post-merger period was taken directly from the ESFA accounts. Data on individual colleges was combined in the pre-merger period to make it comparable to the merged college in the post-merger period. ESFA account data was used to aggregate the outcome variables using the methodology as reported in the main body.

There are a number of missing values, which are reported as blank cells in the tables below, due to the following reasons:

- College fixed asset data is only reported in the ESFA college accounts from 2005/2006 onwards, implying the calculation of income per pound of fixed assets can only be done starting from then.
- Certain colleges are missing financial data, as their data is not present in the yearly ESFA financial accounts. An example of this is Brooklands College, which is missing data in 2008/2009.

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Barnet and Southgate College	2004	-2%	61%		0%	0%
Barnet and Southgate College	2005	-1%	65%		1%	5%
Barnet and Southgate College	2006	0%	67%	£0.92	0%	5%
Barnet and Southgate College	2007	-2%	70%	£0.93	0%	7%
Barnet and Southgate College	2008	-5%	66%	£1.04	0%	7%
Barnet and Southgate College	2009	-9%	68%	£0.71	1%	-29%
Barnet and Southgate College	2010	-5%	64%	£0.61	1%	42%
Barnet and Southgate College	2011	1%	60%	£0.57	2%	44%
Barnet and Southgate College	2012	2%	56%	£0.69	2%	46%
Barnet and Southgate College	2013	-1%	54%	£0.60	3%	44%
Barnet and Southgate College	2014	2%	58%	£0.74	3%	43%
Barnet and Southgate College	2015	-2%	59%	£0.68	3%	42%
Barnet and Southgate College	2016	4%	59%	£0.56	3%	43%
Barnet and Southgate College	2017	0%	60%	£0.54	3%	43%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Brooklands College	2004	-2%	68%		0%	0%
Brooklands College	2005	-4%	67%		0%	0%
Brooklands College	2006	-8%	76%	£1.14	0%	1%
Brooklands College	2007	-4%	68%	£0.96	0%	22%
Brooklands College	2008	-6%	62%	£1.02	1%	21%
Brooklands College	2009					
Brooklands College	2010	14%	55%	£1.37	1%	19%
Brooklands College	2011	0%	67%	£1.00	1%	26%
Brooklands College	2012	0%	63%	£1.02	1%	25%
Brooklands College	2013	0%	60%	£1.10	1%	23%
Brooklands College	2014	-1%	56%	£1.22	1%	20%
Brooklands College	2015	29%	50%	£1.30	1%	18%
Brooklands College	2016	1%	47%	£0.81	1%	18%
Brooklands College	2017	0%	41%	£0.87	2%	16%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Bromley College of Further and Higher Education	2004	4%	66%		0%	0%
Bromley College of Further and Higher Education	2005	2%	68%		0%	2%
Bromley College of Further and Higher Education	2006	-2%	71%	£1.58	0%	2%
Bromley College of Further and Higher Education	2007	1%	71%	£1.41	0%	11%
Bromley College of Further and Higher Education	2008	-1%	71%	£1.28	1%	15%
Bromley College of Further and Higher Education	2009	-2%	70%	£0.99	1%	17%
Bromley College of Further and Higher Education	2010	-4%	73%	£0.79	0%	17%
Bromley College of Further and Higher Education	2011	1%	69%	£0.82	0%	14%
Bromley College of Further and Higher Education	2012	4%	66%	£0.70	0%	14%

Higher Education						
Bromley College of Further and Higher Education	2013	1%	64%	£0.66	0%	15%
Bromley College of Further and Higher Education	2014	-2%	65%	£0.57	0%	26%
Bromley College of Further and Higher Education	2015	2%	72%	£0.54	0%	18%
Bromley College of Further and Higher Education	2016	-8%	68%	£0.52	0%	22%
Bromley College of Further and Higher Education	2017	-2%	67%	£0.51	2%	22%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
The College of Haringey, Enfield and North East London	2004	-4%	63%		0%	0%
The College of Haringey, Enfield and North East London	2005	-1%	65%		0%	5%
The College of Haringey, Enfield and North East London	2006	0%	69%	£0.89	0%	5%
The College of Haringey, Enfield and North East London	2007	2%	68%	£0.91	0%	4%
The College of Haringey, Enfield and North East London	2008	5%	63%	£0.96	0%	4%
The College of Haringey, Enfield and North East London	2009	1%	59%	£1.14	0%	3%
The College of Haringey, Enfield and North East London	2010	5%	57%	£1.13	0%	2%
The College of Haringey, Enfield and North East London	2011	2%	59%	£1.10	0%	2%
The College of Haringey, Enfield and	2012	4%	51%	£1.00	0%	2%

North East London						
The College of Haringey, Enfield and North East London	2013	1%	54%	£0.89	0%	2%
The College of Haringey, Enfield and North East London	2014	0%	59%	£0.79	0%	2%
The College of Haringey, Enfield and North East London	2015	2%	56%	£0.69	0%	1%
The College of Haringey, Enfield and North East London	2016	4%	58%	£0.47	0%	2%
The College of Haringey, Enfield and North East London	2017	3%	58%	£0.52	0%	2%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Colchester Institute	2004	-6%	65%		0%	0%
Colchester Institute	2005	1%	64%		0%	0%
Colchester Institute	2006	2%	64%	£0.92	0%	0%
Colchester Institute	2007	1%	65%	£0.94	0%	1%
Colchester Institute	2008	-2%	68%	£0.78	0%	12%
Colchester Institute	2009	-29%	68%	£0.70	0%	46%
Colchester Institute	2010	2%	65%	£0.69	0%	42%
Colchester Institute	2011	-1%	67%	£0.71	2%	38%
Colchester Institute	2012	-1%	68%	£0.68	2%	35%
Colchester Institute	2013	-5%	70%	£0.71	2%	31%
Colchester Institute	2014	-2%	61%	£0.75	2%	29%
Colchester Institute	2015	3%	65%	£0.65	2%	30%
Colchester Institute	2016	-7%	73%	£0.58	2%	34%
Colchester Institute	2017	2%	69%	£0.56	2%	32%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Cornwall College Group	2004	1%	64%		0%	0%
Cornwall College Group	2005	2%	67%		1%	19%
Cornwall College Group	2006	0%	68%	£0.94	1%	19%
Cornwall College Group	2007	1%	68%	£0.88	1%	21%
Cornwall College Group	2008	0%	71%	£0.89	1%	19%
Cornwall College Group	2009	-3%	71%	£0.90	1%	20%
Cornwall College Group	2010	2%	65%	£1.01	1%	19%
Cornwall College Group	2011	4%	62%	£0.98	1%	21%
Cornwall College Group	2012	3%	67%	£0.90	1%	22%
Cornwall College Group	2013	-2%	70%	£0.83	1%	25%
Cornwall College Group	2014	-2%	69%	£0.77	1%	27%
Cornwall College Group	2015	-14%	75%	£0.69	1%	26%
Cornwall College Group	2016	-6%	72%	£0.69	1%	25%
Cornwall College Group	2017	-1%	64%	£0.70	1%	24%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Central Sussex College	2004	-1%	68%		0%	0%
Central Sussex College	2005	0%	67%		1%	22%
Central Sussex College	2006	0%	69%	£0.82	1%	23%
Central Sussex College	2007	1%	70%	£0.68	2%	42%
Central Sussex College	2008	2%	69%	£0.65	1%	46%
Central Sussex College	2009	-13%	72%	£0.67	2%	56%
Central Sussex College	2010	13%	65%	£0.74	2%	43%
Central Sussex College	2011	0%	70%	£0.74	2%	44%
Central Sussex College	2012	-1%	72%	£0.60	3%	71%
Central Sussex College	2013	-36%	93%	£0.49	4%	132%
Central Sussex College	2014	-4%	67%	£0.50	5%	133%
Central Sussex College	2015	5%	63%	£0.52	4%	128%
Central Sussex College	2016	-68%	73%	£0.52	5%	166%
Central Sussex College	2017	0%	70%	£0.82	13%	191%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Bath College	2004	0%	68%		0%	0%
Bath College	2005	-5%	70%		1%	12%
Bath College	2006	-3%	71%	£0.87	1%	12%
Bath College	2007	5%	64%	£0.88	1%	12%
Bath College	2008	-2%	67%	£0.89	1%	14%
Bath College	2009	0%	64%	£0.97	0%	13%
Bath College	2010	-2%	66%	£0.96	1%	13%
Bath College	2011	-1%	64%	£0.95	1%	17%
Bath College	2012	-2%	62%	£0.84	1%	19%
Bath College	2013	-6%	64%	£0.78	1%	19%
Bath College	2014	0%	63%	£0.79	1%	25%
Bath College	2015	1%	66%	£0.59	1%	30%
Bath College	2016	-4%	65%	£0.69	1%	27%
Bath College	2017	-13%	75%	£0.63	1%	20%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Manchester College	2004	0%	69%		0%	0%
Manchester College	2005	2%	69%		0%	7%
Manchester College	2006	2%	72%	£1.31	0%	13%
Manchester College	2007	3%	72%	£1.63	1%	10%
Manchester College	2008	2%	69%	£0.98	1%	23%
Manchester College	2009	-2%	74%	£1.84	1%	9%
Manchester College	2010	1%	78%	£1.67	0%	10%
Manchester College	2011	4%	73%	£1.49	0%	13%
Manchester College	2012	3%	71%	£1.56	0%	11%
Manchester College	2013	3%	72%	£1.33	0%	20%
Manchester College	2014	2%	72%	£1.32	1%	19%
Manchester College	2015	0%	73%	£1.40	1%	17%
Manchester College	2016	0%	71%	£1.58	1%	14%
Manchester College	2017	2%	70%	£1.57	1%	13%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Derby College	2004	-4%	67%		0%	0%
Derby College	2005	-4%	68%		1%	21%
Derby College	2006	-1%	66%	£1.24	1%	9%
Derby College	2007	1%	69%	£1.33	0%	6%
Derby College	2008	1%	69%	£0.78	0%	3%
Derby College	2009	-18%	68%	£0.70	0%	16%
Derby College	2010	-3%	64%	£0.63	0%	23%
Derby College	2011	-2%	66%	£0.65	0%	13%
Derby College	2012	8%	64%	£0.65	0%	18%
Derby College	2013	-4%	59%	£0.61	0%	30%
Derby College	2014	6%	57%	£0.57	0%	24%
Derby College	2015	5%	63%	£0.56	0%	23%
Derby College	2016	-7%	67%	£0.50	0%	13%
Derby College	2017	0%	66%	£0.52	0%	12%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Easton and Otley College	2004	4%	57%		0%	0%
Easton and Otley College	2005	4%	56%		0%	0%
Easton and Otley College	2006	6%	58%	£0.86	0%	10%
Easton and Otley College	2007	1%	64%	£0.80	1%	17%
Easton and Otley College	2008	6%	56%	£0.92	1%	12%
Easton and Otley College	2009	6%	55%	£0.74	1%	28%
Easton and Otley College	2010	3%	59%	£0.61	2%	27%
Easton and Otley College	2011	5%	57%	£0.62	1%	26%
Easton and Otley College	2012	4%	57%	£0.65	1%	25%
Easton and Otley College	2013	0%	60%	£0.61	1%	25%
Easton and Otley College	2014	-5%	66%	£0.58	1%	25%
Easton and Otley College	2015	1%	62%	£0.55	1%	25%
Easton and Otley College	2016	-10%	66%	£0.53	1%	25%
Easton and Otley College	2017	-1%	71%	£0.55	1%	23%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Gloucestershire College	2004	4%	62%		0%	0%
Gloucestershire College	2005	8%	62%		0%	0%
Gloucestershire College	2006	4%	65%	£0.78	0%	0%
Gloucestershire College	2007	3%	67%	£0.55	0%	1%
Gloucestershire College	2008	1%	68%	£0.59	0%	0%
Gloucestershire College	2009	-3%	70%	£0.56	0%	0%
Gloucestershire College	2010	7%	62%	£0.60	0%	0%
Gloucestershire College	2011	10%	61%	£0.62	0%	21%
Gloucestershire College	2012	9%	60%	£0.66	0%	19%
Gloucestershire College	2013	0%	67%	£0.64	0%	18%
Gloucestershire College	2014	-9%	73%	£0.62	0%	18%
Gloucestershire College	2015	3%	66%	£0.64	1%	16%
Gloucestershire College	2016	-5%	73%	£0.64	2%	7%
Gloucestershire College	2017	-1%	78%	£0.66	2%	7%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Grimsby Institute of Further and Higher Education	2004	0%	63%		0%	0%
Grimsby Institute of Further and Higher Education	2005	0%	64%		0%	10%
Grimsby Institute of Further and Higher Education	2006	5%	60%	£1.62	0%	8%
Grimsby Institute of Further and Higher Education	2007	3%	60%	£1.57	1%	6%
Grimsby Institute of Further and Higher Education	2008	4%	59%	£1.74	0%	5%
Grimsby Institute of Further and Higher Education	2009	-3%	62%	£1.81	1%	4%
Grimsby Institute of Further and Higher Education	2010	-1%	61%	£1.18	1%	4%
Grimsby Institute of Further and Higher Education	2011	6%	60%	£0.97	1%	1%
Grimsby Institute of Further and Higher Education	2012	7%	53%	£1.00	0%	15%

Higher Education						
Grimsby Institute of Further and Higher Education	2013	3%	57%	£0.91	1%	14%
Grimsby Institute of Further and Higher Education	2014	2%	59%	£0.78	1%	15%
Grimsby Institute of Further and Higher Education	2015	4%	58%	£0.79	1%	14%
Grimsby Institute of Further and Higher Education	2016	-3%	64%	£0.70	1%	15%
Grimsby Institute of Further and Higher Education	2017	-4%	68%	£0.60	1%	15%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Guildford College	2004	1%	59%		0%	0%
Guildford College	2005	1%	61%		0%	0%
Guildford College	2006	2%	61%	£1.59	0%	0%
Guildford College	2007	-4%	65%	£1.56	0%	0%
Guildford College	2008	-5%	67%	£1.59	0%	0%
Guildford College	2009	-10%	72%	£1.59	0%	0%
Guildford College	2010	0%	59%	£1.88	0%	0%
Guildford College	2011	3%	60%	£1.73	0%	0%
Guildford College	2012	2%	57%	£1.64	0%	0%
Guildford College	2013	-5%	62%	£1.55	0%	0%
Guildford College	2014	-18%	66%	£1.47	0%	0%
Guildford College	2015	6%	58%	£1.28	0%	12%
Guildford College	2016	-1%	63%	£1.13	0%	3%
Guildford College	2017	-5%	70%	£1.06	0%	0%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Riverside College Halton	2004	-1%	67%		0%	0%
Riverside College Halton	2005	-1%	69%		1%	21%
Riverside College Halton	2006	-2%	63%	£0.98	1%	22%
Riverside College Halton	2007	4%	63%	£1.07	1%	16%
Riverside College Halton	2008	3%	67%	£1.04	1%	14%
Riverside College Halton	2009	-4%	71%	£0.97	1%	13%
Riverside College Halton	2010	6%	65%	£0.98	1%	18%
Riverside College Halton	2011	-1%	74%	£0.89	1%	21%
Riverside College Halton	2012	1%	64%	£0.94	1%	19%
Riverside College Halton	2013	1%	64%	£1.01	1%	14%
Riverside College Halton	2014	1%	62%	£1.00	1%	20%
Riverside College Halton	2015	1%	58%	£1.16	1%	19%
Riverside College Halton	2016	3%	56%	£1.24	1%	20%
Riverside College Halton	2017	0%	61%	£1.18	1%	17%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Herefordshire and Ludlow College	2004	-3%	67%		0%	0%
Herefordshire and Ludlow College	2005	-3%	63%		0%	0%
Herefordshire and Ludlow College	2006	0%	61%	£1.79	0%	1%
Herefordshire and Ludlow College	2007	15%	58%	£1.04	0%	1%
Herefordshire and Ludlow College	2008	4%	65%	£0.60	0%	0%
Herefordshire and Ludlow College	2009	3%	60%	£0.56	0%	1%
Herefordshire and Ludlow College	2010	-4%	71%	£0.48	0%	11%
Herefordshire and Ludlow College	2011	1%	67%	£0.47	0%	8%
Herefordshire and Ludlow College	2012	7%	61%	£0.47	0%	8%
Herefordshire and Ludlow College	2013	-3%	66%	£0.49	0%	7%
Herefordshire and Ludlow College	2014	0%	65%	£0.52	0%	7%
Herefordshire and Ludlow College	2015	2%	65%	£0.43	0%	7%
Herefordshire and Ludlow College	2016	-3%	65%	£0.47	0%	6%
Herefordshire and Ludlow College	2017	2%	65%	£0.55	0%	5%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Kirklees College	2004	-4%	62%		0%	0%
Kirklees College	2005	0%	62%		0%	4%
Kirklees College	2006	-1%	64%	£1.21	0%	3%
Kirklees College	2007	-1%	65%	£1.13	0%	2%
Kirklees College	2008	5%	56%	£1.31	0%	2%
Kirklees College	2009	-5%	64%	£1.15	0%	1%
Kirklees College	2010	-26%	68%	£1.06	1%	48%
Kirklees College	2011	-12%	74%	£0.57	3%	54%
Kirklees College	2012	1%	62%	£0.44	3%	64%
Kirklees College	2013	-6%	66%	£0.39	3%	73%
Kirklees College	2014	0%	64%	£0.33	3%	64%
Kirklees College	2015	2%	65%	£0.33	3%	68%
Kirklees College	2016	-14%	63%	£0.36	3%	58%
Kirklees College	2017	-26%	68%	£0.40	3%	53%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Leeds City College	2004	0%	66%		0%	0%
Leeds City College	2005	1%	67%		0%	10%
Leeds City College	2006	0%	67%	£1.85	0%	8%
Leeds City College	2007	1%	66%	£2.11	0%	7%
Leeds City College	2008	1%	66%	£2.01	0%	7%
Leeds City College	2009	-8%	65%	£1.44	0%	7%
Leeds City College	2010	-4%	69%	£1.25	0%	10%
Leeds City College	2011	0%	67%	£1.19	0%	11%
Leeds City College	2012	-2%	64%	£1.11	0%	15%
Leeds City College	2013	-3%	64%	£0.90	1%	37%
Leeds City College	2014	0%	65%	£0.85	2%	38%
Leeds City College	2015	-1%	68%	£0.75	2%	39%
Leeds City College	2016	-3%	66%	£0.68	2%	41%
Leeds City College	2017	25%	66%	£0.61	2%	37%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
LeSoCo	2004	0%	66%		0%	0%
LeSoCo	2005	0%	69%		0%	6%
LeSoCo	2006	0%	70%	£1.55	0%	5%
LeSoCo	2007	4%	68%	£1.62	0%	0%
LeSoCo	2008	-9%	68%	£2.19	0%	0%
LeSoCo	2009	-3%	68%	£1.89	0%	1%
LeSoCo	2010	-8%	76%	£1.65	0%	4%
LeSoCo	2011	-3%	73%	£1.54	0%	0%
LeSoCo	2012	0%	67%	£1.79	0%	0%
LeSoCo	2013	-8%	82%	£1.26	0%	0%
LeSoCo	2014	-43%	80%	£1.29	0%	0%
LeSoCo	2015	18%	82%	£0.89	0%	0%
LeSoCo	2016	0%	72%	£0.59	0%	4%
LeSoCo	2017	-15%	74%	£0.50	0%	0%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
College of West Anglia	2004	4%	60%		0%	0%
College of West Anglia	2005	3%	61%		0%	3%
College of West Anglia	2006	-2%	67%	£1.00	0%	1%
College of West Anglia	2007	8%	59%	£1.47	0%	1%
College of West Anglia	2008	2%	62%	£1.21	0%	0%
College of West Anglia	2009	-25%	68%	£1.55	0%	0%
College of West Anglia	2010	2%	61%	£1.70	0%	0%
College of West Anglia	2011	0%	58%	£1.71	0%	0%
College of West Anglia	2012	-20%	67%	£1.25	0%	0%
College of West Anglia	2013	4%	61%	£0.86	0%	26%
College of West Anglia	2014	2%	62%	£0.81	1%	25%
College of West Anglia	2015	4%	62%	£0.73	1%	22%
College of West Anglia	2016	-2%	61%	£0.57	1%	22%
College of West Anglia	2017	0%	65%	£0.58	1%	19%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Lincoln College	2004	4%	46%		0%	0%
Lincoln College	2005	1%	65%		0%	0%
Lincoln College	2006	8%	63%	£1.01	0%	0%
Lincoln College	2007	9%	65%	£0.85	0%	0%
Lincoln College	2008	8%	65%	£0.86	0%	0%
Lincoln College	2009	5%	71%	£0.88	0%	0%
Lincoln College	2010	1%	74%	£1.04	0%	0%
Lincoln College	2011	0%	74%	£1.03	0%	0%
Lincoln College	2012	2%	69%	£0.94	0%	0%
Lincoln College	2013	-2%	66%	£0.80	0%	12%
Lincoln College	2014	-1%	62%	£0.73	0%	15%
Lincoln College	2015	-15%	67%	£0.68	1%	44%
Lincoln College	2016	-14%	66%	£0.73	1%	46%
Lincoln College	2017	8%	61%	£1.08	1%	32%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Petroc	2004	4%	61%		0%	0%
Petroc	2005	1%	66%		1%	10%
Petroc	2006	-3%	71%	£1.11	1%	15%
Petroc	2007	0%	68%	£1.20	1%	17%
Petroc	2008	1%	66%	£1.48	0%	12%
Petroc	2009	-7%	65%	£1.54	1%	14%
Petroc	2010	-2%	67%	£1.55	1%	22%
Petroc	2011	-2%	69%	£1.47	1%	22%
Petroc	2012	1%	63%	£1.47	1%	22%
Petroc	2013	-1%	59%	£1.41	1%	19%
Petroc	2014	-2%	58%	£1.31	1%	17%
Petroc	2015	-1%	58%	£1.10	1%	16%
Petroc	2016	-2%	68%	£0.70	1%	18%
Petroc	2017	1%	71%	£0.71	1%	16%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Newcastle College	2004	5%	59%		0%	0%
Newcastle College	2005	10%	57%		0%	4%
Newcastle College	2006	7%	62%	£0.75	0%	7%
Newcastle College	2007	7%	60%	£0.94	0%	6%
Newcastle College	2008	4%	60%	£1.02	0%	15%
Newcastle College	2009	0%	58%	£1.38	1%	10%
Newcastle College	2010	4%	55%	£1.24	1%	11%
Newcastle College	2011	4%	51%	£1.11	1%	34%
Newcastle College	2012	4%	51%	£0.95	1%	30%
Newcastle College	2013	4%	50%	£1.06	0%	20%
Newcastle College	2014	3%	51%	£1.05	0%	12%
Newcastle College	2015	0%	54%	£0.91	0%	12%
Newcastle College	2016	-23%	62%	£0.85	1%	19%
Newcastle College	2017	-4%	56%	£0.71	1%	23%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Salford City College	2004	23%	66%		0%	0%
Salford City College	2005	0%	68%		0%	8%
Salford City College	2006	-1%	70%	£1.29	0%	10%
Salford City College	2007	2%	68%	£1.11	1%	25%
Salford City College	2008	2%	67%	£1.21	1%	22%
Salford City College	2009	-1%	67%	£1.02	2%	24%
Salford City College	2010	4%	66%	£1.42	1%	16%
Salford City College	2011	6%	65%	£1.51	1%	15%
Salford City College	2012	5%	62%	£1.50	1%	14%
Salford City College	2013	3%	64%	£1.29	1%	12%
Salford City College	2014	-4%	70%	£1.16	1%	15%
Salford City College	2015	1%	63%	£1.07	1%	19%
Salford City College	2016	1%	62%	£0.95	1%	21%
Salford City College	2017	3%	59%	£0.86	1%	20%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
South Essex College of Further and Higher Education	2004	10%	58%		0%	0%
South Essex College of Further and Higher Education	2005	-1%	52%		1%	25%
South Essex College of Further and Higher Education	2006	1%	55%	£0.61	1%	24%
South Essex College of Further and Higher Education	2007	-1%	67%	£0.53	2%	28%
South Essex College of Further and Higher Education	2008	6%	61%	£0.61	1%	23%
South Essex College of Further and Higher Education	2009	0%	62%	£0.62	2%	20%
South Essex College of Further and Higher Education	2010	-6%	66%	£0.63	1%	19%
South Essex College of Further and Higher Education	2011	1%	63%	£0.71	1%	16%
South Essex College of Further and Higher Education	2012	2%	58%	£0.66	1%	14%

Higher Education						
South Essex College of Further and Higher Education	2013	26%	53%	£0.68	1%	27%
South Essex College of Further and Higher Education	2014	1%	54%	£0.47	1%	73%
South Essex College of Further and Higher Education	2015	-1%	49%	£0.52	1%	51%
South Essex College of Further and Higher Education	2016	-5%	52%	£0.49	1%	44%
South Essex College of Further and Higher Education	2017	-1%	56%	£0.46	1%	46%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
South and City College Birmingham	2004	-1%	66%		0%	0%
South and City College Birmingham	2005	-4%	68%		1%	34%
South and City College Birmingham	2006	0%	64%	£0.92	2%	31%
South and City College Birmingham	2007	1%	69%	£0.66	3%	55%
South and City College Birmingham	2008	0%	71%	£0.72	2%	40%
South and City College Birmingham	2009	1%	67%	£0.71	1%	45%
South and City College Birmingham	2010	-7%	74%	£0.68	1%	48%
South and City College Birmingham	2011	3%	69%	£0.67	1%	49%
South and City College Birmingham	2012	3%	66%	£0.71	1%	45%
South and City College Birmingham	2013	2%	64%	£0.78	2%	34%
South and City College Birmingham	2014	1%	71%	£0.72	2%	34%
South and City College Birmingham	2015	-15%	79%	£0.74	2%	34%
South and City College Birmingham	2016	-3%	70%	£0.71	2%	35%
South and City College Birmingham	2017	-1%	72%	£0.70	2%	34%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
South Nottingham College	2004	1%	62%		0%	0%
South Nottingham College	2005	-3%	68%		0%	6%
South Nottingham College	2006	8%	62%	£0.98	1%	15%
South Nottingham College	2007	1%	66%	£1.13	1%	11%
South Nottingham College	2008	2%	67%	£0.81	1%	47%
South Nottingham College	2009	-1%	48%	£1.26	1%	32%
South Nottingham College	2010	-9%	61%	£1.04	1%	35%
South Nottingham College	2011	1%	56%	£1.01	1%	37%
South Nottingham College	2012	-2%	51%	£1.07	1%	39%
South Nottingham College	2013	5%	54%	£1.11	1%	31%
South Nottingham College	2014	-6%	55%	£1.00	1%	35%
South Nottingham College	2015	-2%	51%	£0.98	1%	38%
South Nottingham College	2016	-3%	55%	£1.00	1%	31%
South Nottingham College	2017					

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Trafford College	2004	-1%	69%		0%	0%
Trafford College	2005	1%	70%		1%	9%
Trafford College	2006	0%	72%	£1.28	0%	10%
Trafford College	2007	-5%	73%	£1.38	0%	12%
Trafford College	2008	3%	69%	£1.34	1%	12%
Trafford College	2009	-5%	73%	£1.02	0%	17%
Trafford College	2010	11%	63%	£0.75	0%	32%
Trafford College	2011	3%	69%	£0.68	1%	39%
Trafford College	2012	-1%	64%	£0.67	2%	40%
Trafford College	2013	26%	64%	£0.59	2%	33%
Trafford College	2014	-3%	68%	£0.52	2%	30%
Trafford College	2015	-5%	72%	£0.50	2%	32%
Trafford College	2016	-2%	66%	£0.49	2%	33%
Trafford College	2017	-4%	69%	£0.51	2%	32%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Sparsholt College	2004	5%	56%		0%	0%
Sparsholt College	2005	0%	61%		2%	25%
Sparsholt College	2006	2%	61%	£0.61	1%	19%
Sparsholt College	2007	3%	59%	£0.58	1%	17%
Sparsholt College	2008	2%	54%	£0.64	1%	13%
Sparsholt College	2009	-1%	55%	£0.61	1%	11%
Sparsholt College	2010	3%	47%	£0.70	1%	9%
Sparsholt College	2011	-3%	55%	£0.62	1%	22%
Sparsholt College	2012	1%	57%	£0.59	1%	22%
Sparsholt College	2013	0%	55%	£0.56	1%	20%
Sparsholt College	2014	-2%	56%	£0.49	1%	26%
Sparsholt College	2015	-2%	58%	£0.46	1%	26%
Sparsholt College	2016	4%	54%	£0.44	1%	27%
Sparsholt College	2017	3%	55%	£0.47	1%	23%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Stockport College	2004	2%	67%		0%	0%
Stockport College	2005	1%	71%		0%	0%
Stockport College	2006	-3%	74%	£1.03	0%	0%
Stockport College	2007	-1%	77%	£1.03	0%	3%
Stockport College	2008	-1%	74%	£0.99	0%	8%
Stockport College	2009	-2%	74%	£0.63	1%	36%
Stockport College	2010	-15%	81%	£0.53	0%	48%
Stockport College	2011	-13%	78%	£0.57	1%	59%
Stockport College	2012	2%	63%	£0.71	3%	55%
Stockport College	2013	-5%	69%	£0.64	4%	49%
Stockport College	2014	-15%	71%	£0.58	3%	47%
Stockport College	2015	-27%	76%	£0.49	4%	77%
Stockport College	2016	-104%	72%	£0.70	6%	110%
Stockport College	2017	-28%	79%	£0.66	5%	116%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
South Thames College	2004	4%	60%		0%	0%
South Thames College	2005	2%	62%		0%	1%
South Thames College	2006	1%	65%	£1.17	0%	13%
South Thames College	2007	0%	68%	£0.81	1%	26%
South Thames College	2008	3%	65%	£0.53	1%	33%
South Thames College	2009	-2%	65%	£0.42	3%	85%
South Thames College	2010	1%	63%	£0.36	3%	45%
South Thames College	2011	1%	64%	£0.34	2%	45%
South Thames College	2012	2%	62%	£0.34	2%	44%
South Thames College	2013	-1%	66%	£0.29	2%	41%
South Thames College	2014	-2%	65%	£0.29	2%	40%
South Thames College	2015	-12%	71%	£0.27	2%	42%
South Thames College	2016	38%	70%	£0.24	2%	45%
South Thames College	2017	-12%	71%	£0.25	2%	30%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Stockton Riverside College	2004	4%	60%		0%	0%
Stockton Riverside College	2005	1%	61%		2%	25%
Stockton Riverside College	2006	-1%	64%	£0.85	2%	32%
Stockton Riverside College	2007	2%	65%	£0.87	2%	33%
Stockton Riverside College	2008	3%	64%	£0.81	2%	29%
Stockton Riverside College	2009	-9%	70%	£0.44	2%	58%
Stockton Riverside College	2010	1%	67%	£0.45	2%	33%
Stockton Riverside College	2011	-1%	74%	£0.42	2%	35%
Stockton Riverside College	2012	-1%	72%	£0.40	2%	37%
Stockton Riverside College	2013	-2%	70%	£0.40	2%	46%
Stockton Riverside College	2014	1%	68%	£0.39	2%	40%
Stockton Riverside College	2015	7%	63%	£0.42	2%	37%
Stockton Riverside College	2016	3%	67%	£0.51	3%	34%
Stockton Riverside College	2017	2%	71%	£0.50	3%	35%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
South Gloucestershire and Stroud College	2004	5%	63%		0%	0%
South Gloucestershire and Stroud College	2005	6%	64%		1%	39%
South Gloucestershire and Stroud College	2006	2%	65%	£0.70	2%	28%
South Gloucestershire and Stroud College	2007	2%	66%	£0.64	2%	32%
South Gloucestershire and Stroud College	2008	3%	65%	£0.72	1%	31%
South Gloucestershire and Stroud College	2009	-1%	68%	£0.74	1%	28%
South Gloucestershire and Stroud College	2010	3%	63%	£0.76	1%	27%
South Gloucestershire and Stroud College	2011	3%	64%	£0.77	1%	27%
South Gloucestershire and Stroud College	2012	-4%	69%	£0.79	1%	27%
South Gloucestershire and Stroud College	2013	-1%	66%	£0.81	1%	25%
South Gloucestershire and Stroud College	2014	2%	65%	£0.71	1%	24%

South Gloucestershire and Stroud College	2015	-1%	69%	£0.69	1%	35%
South Gloucestershire and Stroud College	2016	0%	66%	£0.59	2%	34%
South Gloucestershire and Stroud College	2017	2%	66%	£0.64	1%	30%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Sutton Coldfield College	2004	20%	65%		0%	0%
Sutton Coldfield College	2005	0%	66%		0%	4%
Sutton Coldfield College	2006	3%	64%	£0.91	0%	8%
Sutton Coldfield College	2007	8%	63%	£1.02	0%	6%
Sutton Coldfield College	2008	4%	61%	£1.06	0%	5%
Sutton Coldfield College	2009	-1%	62%	£1.08	0%	5%
Sutton Coldfield College	2010	3%	59%	£1.11	0%	5%
Sutton Coldfield College	2011	2%	55%	£0.99	0%	13%
Sutton Coldfield College	2012	1%	58%	£0.89	1%	13%
Sutton Coldfield College	2013	1%	61%	£0.64	0%	16%
Sutton Coldfield College	2014	0%	61%	£0.70	1%	14%
Sutton Coldfield College	2015	-25%	76%	£0.61	1%	23%
Sutton Coldfield College	2016	-5%	61%	£0.52	1%	42%
Sutton Coldfield College	2017	-1%	63%	£0.56	1%	39%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
South Staffordshire College	2004	2%	67%		0%	0%
South Staffordshire College	2005	0%	67%		1%	14%
South Staffordshire College	2006	1%	67%	£0.91	1%	22%
South Staffordshire College	2007	6%	62%	£0.89	1%	24%
South Staffordshire College	2008	4%	61%	£0.99	1%	21%
South Staffordshire College	2009	-1%	61%	£1.09	1%	19%
South Staffordshire College	2010	4%	59%	£1.11	1%	18%
South Staffordshire College	2011	3%	61%	£1.03	1%	17%
South Staffordshire College	2012	2%	63%	£0.84	1%	19%
South Staffordshire College	2013	-5%	69%	£0.75	1%	26%
South Staffordshire College	2014	0%	68%	£0.65	2%	27%
South Staffordshire College	2015	-6%	72%	£0.60	2%	26%
South Staffordshire College	2016	0%	67%	£0.58	2%	26%
South Staffordshire College	2017	-22%	70%	£0.66	2%	27%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Truro and Penwith College	2004	9%	64%		0%	0%
Truro and Penwith College	2005	16%	59%		0%	0%
Truro and Penwith College	2006	10%	61%	£0.72	0%	0%
Truro and Penwith College	2007	11%	60%	£0.81	0%	0%
Truro and Penwith College	2008	19%	58%	£0.78	0%	0%
Truro and Penwith College	2009	12%	63%	£0.63	0%	0%
Truro and Penwith College	2010	13%	61%	£0.56	0%	0%
Truro and Penwith College	2011	15%	62%	£0.52	0%	0%
Truro and Penwith College	2012	12%	64%	£0.48	0%	0%
Truro and Penwith College	2013	7%	66%	£0.41	0%	0%
Truro and Penwith College	2014	2%	69%	£0.39	0%	0%
Truro and Penwith College	2015	2%	68%	£0.45	0%	0%
Truro and Penwith College	2016	-3%	71%	£0.43	0%	0%
Truro and Penwith College	2017	2%	72%	£0.37	0%	0%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Tyne Metropolitan College	2004	-1%	66%		0%	0%
Tyne Metropolitan College	2005	-1%	67%		0%	3%
Tyne Metropolitan College	2006	-1%	66%	£0.87	0%	6%
Tyne Metropolitan College	2007	-3%	69%	£0.83	0%	9%
Tyne Metropolitan College	2008	0%	69%	£0.64	1%	10%
Tyne Metropolitan College	2009	-18%	70%	£0.57	1%	9%
Tyne Metropolitan College	2010	1%	62%	£0.56	0%	8%
Tyne Metropolitan College	2011	4%	60%	£0.53	0%	21%
Tyne Metropolitan College	2012	0%	62%	£0.45	1%	22%
Tyne Metropolitan College	2013	-1%	63%	£0.48	1%	18%
Tyne Metropolitan College	2014	2%	63%	£0.43	0%	15%
Tyne Metropolitan College	2015	1%	69%	£0.69	0%	14%
Tyne Metropolitan College	2016	-1%	64%	£0.75	0%	11%
Tyne Metropolitan College	2017	31%	47%		0%	6%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
K College (South and West Kent College)	2004	5%	62%		0%	0%
K College (South and West Kent College)	2005	2%	66%		1%	10%
K College (South and West Kent College)	2006	-5%	69%	£1.07	1%	10%
K College (South and West Kent College)	2007	-2%	67%	£1.01	0%	9%
K College (South and West Kent College)	2008	-7%	68%	£0.97	0%	19%
K College (South and West Kent College)	2009	-3%	70%	£0.50	0%	107%
K College (South and West Kent College)	2010	-5%	70%	£0.30	1%	147%
K College (South and West Kent College)	2011	-14%	70%	£0.35	0%	116%
K College (South and West Kent College)	2012	-44%	82%	£0.31	5%	102%
K College (South and West Kent College)	2013	-29%	78%	£0.29	3%	90%
K College (South and West Kent College)	2014	20%	33%	£0.67	1%	22%

K College (South and West Kent College)	2015	4%	58%	£0.25	3%	48%
K College (South and West Kent College)	2016	0%	64%	£0.23	4%	48%
K College (South and West Kent College)	2017					

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Wiltshire College	2004	2%	65%		0%	0%
Wiltshire College	2005	1%	66%		1%	13%
Wiltshire College	2006	0%	68%	£1.08	1%	12%
Wiltshire College	2007	0%	69%	£1.07	1%	12%
Wiltshire College	2008	11%	63%	£1.08	1%	18%
Wiltshire College	2009	-7%	67%	£1.09	1%	19%
Wiltshire College	2010	-3%	69%	£1.10	1%	21%
Wiltshire College	2011	-2%	67%	£1.11	1%	20%
Wiltshire College	2012	1%	62%	£1.12	1%	19%
Wiltshire College	2013	2%	61%	£1.02	1%	20%
Wiltshire College	2014	0%	59%	£0.98	1%	19%
Wiltshire College	2015	-8%	66%	£0.65	1%	27%
Wiltshire College	2016	-5%	70%	£0.59	2%	34%
Wiltshire College	2017	-1%	67%	£0.62	1%	32%

Name	Year	Operating Profit Margin	Staff costs (as a % of income)	Income per £ fixed asset	Interest payments (as a % of income)	Debt (as a % of income)
Heart of Worcestershire College	2004	4%	62%		0%	0%
Heart of Worcestershire College	2005	2%	65%		1%	18%
Heart of Worcestershire College	2006	2%	63%	£0.97	1%	14%
Heart of Worcestershire College	2007	2%	63%	£0.94	1%	16%
Heart of Worcestershire College	2008	3%	63%	£1.02	1%	12%
Heart of Worcestershire College	2009	0%	62%	£1.15	1%	10%
Heart of Worcestershire College	2010	-1%	62%	£1.10	1%	13%
Heart of Worcestershire College	2011	1%	63%	£1.05	1%	18%
Heart of Worcestershire College	2012	5%	56%	£1.02	1%	15%
Heart of Worcestershire College	2013	2%	52%	£0.97	0%	15%
Heart of Worcestershire College	2014	0%	54%	£0.91	0%	15%
Heart of Worcestershire College	2015	-2%	57%	£0.81	1%	16%
Heart of Worcestershire College	2016	-4%	56%	£0.79	1%	16%
Heart of Worcestershire College	2017	-5%	59%	£0.78	2%	10%

ANNEX F INDIVIDUAL COLLEGE SUCCESS RATES

The following tables detail the success rate outcome variables used in our econometric models. For each college in our sample, we report the average variables from the years 2004/2005 (classified as 2005) to 2014/2015 (classified as 2015), averaging across all colleges which underwent a merger:

- Student success rates for level 3 courses only
- Average student success rates across all courses offered by the FE college.

We report the name of the merged entity, as reported in the 2015 financial year data. This is because all values reported are a combination of the colleges which underwent a merger, even in the pre-merger period. The years which particular college merge can be found in Annex A.

Yearly data has been included for all colleges which underwent a merger during the relevant period of analysis. Data on college performance in the post-merger period was taken directly from the National Achievement Rate Tables (from 2013 onwards) and National Success Rate Tables (before 2013). Data on individual colleges was combined in the pre-merger period to make it comparable to the merged college in the post-merger period. College success rates were calculated using an average in the pre-merger period, weighted by the number of learners in each institution.

There are a number of missing values, which are reported as either blank cells or as “N/A” in the tables below, due to the following reasons:

- Blank cells are due to college level data missing from the national success rate tables.
- We have undergone a manual exercise to match colleges in our merged sample with college success rate data. Colleges which report an N/A indicate we were unable to find success rate data for a particular college. These colleges are:
 - Bromley College of Further and Higher Education

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Barnet and Southgate College	2005	65%	67%
Barnet and Southgate College	2006	63%	74%
Barnet and Southgate College	2007	72%	75%
Barnet and Southgate College	2008	75%	77%
Barnet and Southgate College	2009	71%	75%
Barnet and Southgate College	2010	72%	73%
Barnet and Southgate College	2011	75%	79%
Barnet and Southgate College	2012	77%	83%
Barnet and Southgate College	2013	82%	84%
Barnet and Southgate College	2014	84%	85%
Barnet and Southgate College	2015	81%	83%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Brooklands College	2005	59%	68%
Brooklands College	2006	66%	72%
Brooklands College	2007	61%	63%
Brooklands College	2008	73%	72%
Brooklands College	2009	68%	72%
Brooklands College	2010	64%	67%
Brooklands College	2011	71%	75%
Brooklands College	2012	81%	84%
Brooklands College	2013	81%	87%
Brooklands College	2014	86%	86%
Brooklands College	2015	86%	86%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Bromley College of Further and Higher Education	2005	N/A	N/A
Bromley College of Further and Higher Education	2006	N/A	N/A
Bromley College of Further and Higher Education	2007	N/A	N/A
Bromley College of Further and Higher Education	2008	N/A	N/A
Bromley College of Further and Higher Education	2009	N/A	N/A
Bromley College of Further and Higher Education	2010	N/A	N/A
Bromley College of Further and Higher Education	2011	N/A	N/A
Bromley College of Further and Higher Education	2012	N/A	N/A
Bromley College of Further and Higher Education	2013	N/A	N/A
Bromley College of Further and Higher Education	2014	N/A	N/A
Bromley College of Further and Higher Education	2015	N/A	N/A

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
The College of Haringey, Enfield and North East London	2005	61%	68%
The College of Haringey, Enfield and North East London	2006	66%	81%
The College of Haringey, Enfield and North East London	2007	72%	83%
The College of Haringey, Enfield and North East London	2008	73%	83%
The College of Haringey, Enfield and North East London	2009	74%	82%
The College of Haringey, Enfield and North East London	2010	69%	74%
The College of Haringey, Enfield and North East London	2011	80%	80%
The College of Haringey, Enfield and North East London	2012	78%	85%
The College of Haringey, Enfield and North East London	2013	83%	90%
The College of Haringey, Enfield and North East London	2014	85%	89%
The College of Haringey, Enfield and North East London	2015	77%	86%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Colchester Institute	2005	60%	61%
Colchester Institute	2006	65%	71%
Colchester Institute	2007	72%	72%
Colchester Institute	2008	76%	76%
Colchester Institute	2009	77%	78%
Colchester Institute	2010	75%	79%
Colchester Institute	2011	75%	76%
Colchester Institute	2012	75%	76%
Colchester Institute	2013	81%	82%
Colchester Institute	2014	84%	77%
Colchester Institute	2015	85%	79%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Cornwall College Group	2005	69%	74%
Cornwall College Group	2006	68%	79%
Cornwall College Group	2007	70%	77%
Cornwall College Group	2008	80%	82%
Cornwall College Group	2009	81%	84%
Cornwall College Group	2010	79%	82%
Cornwall College Group	2011	81%	83%
Cornwall College Group	2012	76%	82%
Cornwall College Group	2013	81%	84%
Cornwall College Group	2014	81%	79%
Cornwall College Group	2015	80%	80%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Central Sussex College	2005	74%	61%
Central Sussex College	2006	76%	74%
Central Sussex College	2007	77%	78%
Central Sussex College	2008	81%	79%
Central Sussex College	2009	83%	80%
Central Sussex College	2010	82%	81%
Central Sussex College	2011	80%	79%
Central Sussex College	2012	82%	82%
Central Sussex College	2013	83%	83%
Central Sussex College	2014	83%	80%
Central Sussex College	2015	85%	82%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Bath College	2005	63%	62%
Bath College	2006	68%	72%
Bath College	2007	67%	71%
Bath College	2008	73%	75%
Bath College	2009	77%	74%
Bath College	2010	71%	75%
Bath College	2011	77%	79%
Bath College	2012	79%	84%
Bath College	2013	83%	83%
Bath College	2014	86%	84%
Bath College	2015	84%	79%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Manchester College	2005		
Manchester College	2006		
Manchester College	2007		
Manchester College	2008		
Manchester College	2009	66%	71%
Manchester College	2010	67%	74%
Manchester College	2011	73%	77%
Manchester College	2012	78%	83%
Manchester College	2013	81%	86%
Manchester College	2014	81%	86%
Manchester College	2015	80%	81%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Derby College	2005	64%	72%
Derby College	2006	71%	82%
Derby College	2007	79%	80%
Derby College	2008	78%	80%
Derby College	2009	79%	80%
Derby College	2010	77%	78%
Derby College	2011	76%	80%
Derby College	2012	77%	80%
Derby College	2013	82%	83%
Derby College	2014	80%	82%
Derby College	2015	86%	87%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Easton and Otley College	2005	60%	66%
Easton and Otley College	2006	60%	76%
Easton and Otley College	2007	65%	74%
Easton and Otley College	2008	78%	80%
Easton and Otley College	2009	81%	78%
Easton and Otley College	2010	80%	77%
Easton and Otley College	2011	77%	80%
Easton and Otley College	2012	68%	81%
Easton and Otley College	2013	81%	83%
Easton and Otley College	2014	76%	74%
Easton and Otley College	2015	68%	69%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Gloucestershire College	2005	67%	73%
Gloucestershire College	2006	65%	80%
Gloucestershire College	2007	71%	74%
Gloucestershire College	2008	78%	79%
Gloucestershire College	2009	74%	75%
Gloucestershire College	2010	72%	76%
Gloucestershire College	2011	73%	79%
Gloucestershire College	2012	79%	83%
Gloucestershire College	2013	86%	90%
Gloucestershire College	2014	84%	82%
Gloucestershire College	2015	78%	79%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Grimsby Institute of Further and Higher Education	2005	58%	72%
Grimsby Institute of Further and Higher Education	2006	62%	72%
Grimsby Institute of Further and Higher Education	2007	71%	77%
Grimsby Institute of Further and Higher Education	2008	73%	79%
Grimsby Institute of Further and Higher Education	2009	77%	79%
Grimsby Institute of Further and Higher Education	2010	79%	81%
Grimsby Institute of Further and Higher Education	2011	84%	85%
Grimsby Institute of Further and Higher Education	2012	83%	85%
Grimsby Institute of Further and Higher Education	2013	85%	88%
Grimsby Institute of Further and Higher Education	2014	83%	86%
Grimsby Institute of Further and Higher Education	2015	85%	86%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Guildford College	2005	60%	67%
Guildford College	2006	69%	79%
Guildford College	2007	66%	72%
Guildford College	2008	73%	76%
Guildford College	2009	78%	78%
Guildford College	2010	80%	79%
Guildford College	2011	83%	83%
Guildford College	2012	84%	84%
Guildford College	2013	82%	85%
Guildford College	2014	83%	78%
Guildford College	2015	80%	81%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Riverside College Halton	2005	65%	77%
Riverside College Halton	2006	70%	76%
Riverside College Halton	2007	68%	73%
Riverside College Halton	2008	67%	74%
Riverside College Halton	2009	73%	78%
Riverside College Halton	2010	81%	81%
Riverside College Halton	2011	79%	83%
Riverside College Halton	2012	79%	85%
Riverside College Halton	2013	85%	87%
Riverside College Halton	2014	85%	81%
Riverside College Halton	2015	85%	82%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Herefordshire and Ludlow College	2005	73%	76%
Herefordshire and Ludlow College	2006	75%	74%
Herefordshire and Ludlow College	2007	77%	76%
Herefordshire and Ludlow College	2008	80%	80%
Herefordshire and Ludlow College	2009	80%	77%
Herefordshire and Ludlow College	2010	81%	78%
Herefordshire and Ludlow College	2011	82%	81%
Herefordshire and Ludlow College	2012	83%	84%
Herefordshire and Ludlow College	2013	87%	89%
Herefordshire and Ludlow College	2014	75%	72%
Herefordshire and Ludlow College	2015	87%	79%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Kirklees College	2005	59%	68%
Kirklees College	2006	65%	72%
Kirklees College	2007	66%	71%
Kirklees College	2008	69%	72%
Kirklees College	2009	71%	71%
Kirklees College	2010	71%	69%
Kirklees College	2011	78%	82%
Kirklees College	2012	83%	88%
Kirklees College	2013	84%	89%
Kirklees College	2014	90%	87%
Kirklees College	2015	92%	82%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Leeds City College	2005	67%	73%
Leeds City College	2006	69%	73%
Leeds City College	2007	73%	71%
Leeds City College	2008	72%	73%
Leeds City College	2009	76%	77%
Leeds City College	2010	76%	81%
Leeds City College	2011	74%	79%
Leeds City College	2012	75%	83%
Leeds City College	2013	72%	83%
Leeds City College	2014	79%	80%
Leeds City College	2015	81%	78%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
LeSoCo	2005	60%	71%
LeSoCo	2006	62%	71%
LeSoCo	2007	64%	75%
LeSoCo	2008	70%	76%
LeSoCo	2009	76%	76%
LeSoCo	2010	77%	75%
LeSoCo	2011	68%	72%
LeSoCo	2012	65%	80%
LeSoCo	2013	65%	83%
LeSoCo	2014	80%	82%
LeSoCo	2015	81%	81%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
College of West Anglia	2005	73%	81%
College of West Anglia	2006	78%	80%
College of West Anglia	2007	79%	81%
College of West Anglia	2008	79%	81%
College of West Anglia	2009	79%	82%
College of West Anglia	2010	79%	78%
College of West Anglia	2011	81%	82%
College of West Anglia	2012	80%	88%
College of West Anglia	2013	84%	87%
College of West Anglia	2014	81%	84%
College of West Anglia	2015	81%	80%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Lincoln College	2005	67%	68%
Lincoln College	2006	70%	70%
Lincoln College	2007	66%	62%
Lincoln College	2008	75%	73%
Lincoln College	2009	75%	78%
Lincoln College	2010	81%	83%
Lincoln College	2011	82%	81%
Lincoln College	2012	82%	80%
Lincoln College	2013	81%	85%
Lincoln College	2014	83%	81%
Lincoln College	2015	82%	75%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Petroc	2005	79%	68%
Petroc	2006	77%	78%
Petroc	2007	79%	79%
Petroc	2008	80%	81%
Petroc	2009	78%	77%
Petroc	2010	78%	79%
Petroc	2011	81%	82%
Petroc	2012	80%	82%
Petroc	2013	80%	86%
Petroc	2014	89%	88%
Petroc	2015	90%	88%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Newcastle College	2005	66%	73%
Newcastle College	2006	70%	78%
Newcastle College	2007	73%	79%
Newcastle College	2008	79%	81%
Newcastle College	2009	77%	81%
Newcastle College	2010	75%	83%
Newcastle College	2011	77%	85%
Newcastle College	2012	78%	84%
Newcastle College	2013	81%	85%
Newcastle College	2014	77%	77%
Newcastle College	2015	76%	75%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Salford City College	2005	80%	79%
Salford City College	2006	81%	82%
Salford City College	2007	83%	82%
Salford City College	2008	86%	84%
Salford City College	2009	84%	81%
Salford City College	2010	83%	76%
Salford City College	2011	86%	88%
Salford City College	2012	85%	89%
Salford City College	2013	85%	88%
Salford City College	2014	88%	84%
Salford City College	2015	89%	88%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
South Essex College of Further and Higher Education	2005	60%	67%
South Essex College of Further and Higher Education	2006	65%	72%
South Essex College of Further and Higher Education	2007	72%	72%
South Essex College of Further and Higher Education	2008	76%	76%
South Essex College of Further and Higher Education	2009	78%	79%
South Essex College of Further and Higher Education	2010	79%	81%
South Essex College of Further and Higher Education	2011	73%	81%
South Essex College of Further and Higher Education	2012	77%	79%
South Essex College of Further and Higher Education	2013	80%	82%
South Essex College of Further and Higher Education	2014	82%	79%
South Essex College of Further and Higher Education	2015	83%	75%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
South and City College Birmingham	2005	62%	74%
South and City College Birmingham	2006	64%	77%
South and City College Birmingham	2007	70%	72%
South and City College Birmingham	2008	75%	80%
South and City College Birmingham	2009	79%	84%
South and City College Birmingham	2010	78%	82%
South and City College Birmingham	2011	81%	83%
South and City College Birmingham	2012	78%	84%
South and City College Birmingham	2013	79%	86%
South and City College Birmingham	2014	84%	86%
South and City College Birmingham	2015	82%	88%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
South Nottingham College	2005	60%	68%
South Nottingham College	2006	63%	79%
South Nottingham College	2007	75%	81%
South Nottingham College	2008	81%	85%
South Nottingham College	2009	81%	83%
South Nottingham College	2010	80%	82%
South Nottingham College	2011	75%	83%
South Nottingham College	2012	71%	83%
South Nottingham College	2013	79%	85%
South Nottingham College	2014	79%	83%
South Nottingham College	2015	84%	84%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Trafford College	2005	63%	71%
Trafford College	2006	72%	73%
Trafford College	2007	64%	70%
Trafford College	2008	81%	81%
Trafford College	2009	78%	78%
Trafford College	2010	82%	78%
Trafford College	2011	79%	83%
Trafford College	2012	79%	83%
Trafford College	2013	80%	85%
Trafford College	2014	82%	86%
Trafford College	2015	81%	84%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Sparsholt College	2005	59%	68%
Sparsholt College	2006	61%	73%
Sparsholt College	2007	45%	66%
Sparsholt College	2008	79%	80%
Sparsholt College	2009	79%	81%
Sparsholt College	2010	77%	77%
Sparsholt College	2011	80%	85%
Sparsholt College	2012	85%	86%
Sparsholt College	2013	85%	86%
Sparsholt College	2014	86%	83%
Sparsholt College	2015	86%	80%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Stockport College	2005	69%	63%
Stockport College	2006	73%	74%
Stockport College	2007	77%	78%
Stockport College	2008	77%	80%
Stockport College	2009	76%	79%
Stockport College	2010	78%	82%
Stockport College	2011	76%	81%
Stockport College	2012	74%	81%
Stockport College	2013	74%	77%
Stockport College	2014	78%	79%
Stockport College	2015	80%	77%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
South Thames College	2005	61%	71%
South Thames College	2006	63%	71%
South Thames College	2007	67%	74%
South Thames College	2008	75%	78%
South Thames College	2009	70%	78%
South Thames College	2010	74%	80%
South Thames College	2011	74%	79%
South Thames College	2012	70%	78%
South Thames College	2013	74%	83%
South Thames College	2014	72%	82%
South Thames College	2015	77%	82%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Stockton Riverside College	2005	63%	79%
Stockton Riverside College	2006	72%	79%
Stockton Riverside College	2007	72%	75%
Stockton Riverside College	2008	76%	75%
Stockton Riverside College	2009	81%	76%
Stockton Riverside College	2010	82%	80%
Stockton Riverside College	2011	84%	80%
Stockton Riverside College	2012	83%	81%
Stockton Riverside College	2013	84%	89%
Stockton Riverside College	2014	87%	86%
Stockton Riverside College	2015	86%	87%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
South Gloucestershire and Stroud College	2005	60%	71%
South Gloucestershire and Stroud College	2006	65%	67%
South Gloucestershire and Stroud College	2007	74%	79%
South Gloucestershire and Stroud College	2008	75%	80%
South Gloucestershire and Stroud College	2009	81%	80%
South Gloucestershire and Stroud College	2010	80%	82%
South Gloucestershire and Stroud College	2011	84%	89%
South Gloucestershire and Stroud College	2012	83%	89%
South Gloucestershire and Stroud College	2013		
South Gloucestershire and Stroud College	2014	84%	83%
South Gloucestershire and Stroud College	2015	85%	79%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Sutton Coldfield College	2005	64%	65%
Sutton Coldfield College	2006	70%	75%
Sutton Coldfield College	2007	73%	76%
Sutton Coldfield College	2008	75%	78%
Sutton Coldfield College	2009	75%	77%
Sutton Coldfield College	2010	76%	78%
Sutton Coldfield College	2011	77%	79%
Sutton Coldfield College	2012	81%	82%
Sutton Coldfield College	2013	83%	87%
Sutton Coldfield College	2014	83%	82%
Sutton Coldfield College	2015	81%	81%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
South Staffordshire College	2005	52%	74%
South Staffordshire College	2006	61%	74%
South Staffordshire College	2007	67%	76%
South Staffordshire College	2008	80%	83%
South Staffordshire College	2009	69%	77%
South Staffordshire College	2010	72%	81%
South Staffordshire College	2011	70%	84%
South Staffordshire College	2012	70%	88%
South Staffordshire College	2013	76%	89%
South Staffordshire College	2014	79%	80%
South Staffordshire College	2015	79%	80%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Truro and Penwith College	2005	77%	78%
Truro and Penwith College	2006	78%	84%
Truro and Penwith College	2007	81%	81%
Truro and Penwith College	2008	80%	84%
Truro and Penwith College	2009	80%	82%
Truro and Penwith College	2010	78%	81%
Truro and Penwith College	2011	80%	81%
Truro and Penwith College	2012	82%	82%
Truro and Penwith College	2013	85%	86%
Truro and Penwith College	2014	85%	82%
Truro and Penwith College	2015	88%	84%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Tyne Metropolitan College	2005		
Tyne Metropolitan College	2006	63%	77%
Tyne Metropolitan College	2007	67%	73%
Tyne Metropolitan College	2008	66%	69%
Tyne Metropolitan College	2009	73%	79%
Tyne Metropolitan College	2010	73%	75%
Tyne Metropolitan College	2011	79%	82%
Tyne Metropolitan College	2012	80%	85%
Tyne Metropolitan College	2013	85%	86%
Tyne Metropolitan College	2014	83%	82%
Tyne Metropolitan College	2015	84%	82%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
K College (South and West Kent College)	2005	65%	71%
K College (South and West Kent College)	2006	68%	78%
K College (South and West Kent College)	2007	70%	72%
K College (South and West Kent College)	2008	72%	74%
K College (South and West Kent College)	2009	76%	78%
K College (South and West Kent College)	2010	77%	76%
K College (South and West Kent College)	2011	75%	75%
K College (South and West Kent College)	2012	76%	82%
K College (South and West Kent College)	2013	77%	83%
K College (South and West Kent College)	2014	78%	66%
K College (South and West Kent College)	2015	79%	73%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Wiltshire College	2005	61%	68%
Wiltshire College	2006	64%	71%
Wiltshire College	2007	68%	74%
Wiltshire College	2008	75%	77%
Wiltshire College	2009	81%	78%
Wiltshire College	2010	79%	78%
Wiltshire College	2011	74%	81%
Wiltshire College	2012	75%	81%
Wiltshire College	2013	77%	86%
Wiltshire College	2014	82%	83%
Wiltshire College	2015	87%	79%

Name	Year	Success Rate - Level 3 Courses	Success Rate - All Courses
Heart of Worcestershire College	2005	63%	77%
Heart of Worcestershire College	2006	65%	83%
Heart of Worcestershire College	2007	72%	83%
Heart of Worcestershire College	2008	74%	85%
Heart of Worcestershire College	2009	78%	82%
Heart of Worcestershire College	2010	71%	77%
Heart of Worcestershire College	2011	70%	76%
Heart of Worcestershire College	2012	73%	82%
Heart of Worcestershire College	2013	80%	86%
Heart of Worcestershire College	2014	83%	82%
Heart of Worcestershire College	2015	83%	77%



Department
for Education

© Crown Copyright 2019

Reference: DFE-RR 948

ISBN: 978-1-83870-055-3

The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education.

For any enquiries regarding this publication, contact us at:

www.education.gov.uk/contactus

This document is available for download at www.gov.uk/government/publications