FURTHER EDUCATION WORKFORCE DATA FOR ENGLAND

Analysis of the 2015-2016 Staff Individualised Record (SIR) data

FRONTIER ECONOMICS – JUNE 2017
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EXECUTIVE SUMMARY

Frontier Economics was commissioned by the Education and Training Foundation (ETF) to carry out an analysis of the Further Education (FE) workforce in England using the 2015-16 Staff Individualised Record (SIR) dataset. The SIR dataset holds information on standard contracts of employment between FE providers and their members of staff, including information on the contract and on the demographic characteristics of the employee.

Historically SIR data was supplied by FE colleges for each academic year on a voluntary basis, and response rates have varied between years. In 2013-14, only 84 colleges (around a quarter of all colleges) supplied information on 61,524 contracts. Last year the response rate increased to 115 colleges (a third of all colleges) and 79,049 staff contracts. This year, the SIR was extended to cover a broader set of providers including Local Authorities, Independent Training Providers and Third Sector providers in addition to FE Colleges, Sixth Form Colleges and Specialist Colleges. In total, 175 providers supplied data this year with a total 66,061 contracts.

This report provides a descriptive account of the staff working in the FE sector in 2015-16, and where possible draws out comparisons of the workforce across different provider types, with previous years\(^1\) and with the school workforce. In addition to the descriptive account of the FE workforce, this year’s report includes some additional analysis looking at the characteristics of senior managers in the sector and how these have evolved over time.

The key findings from our analysis are:

- Teachers (including assessors and verifiers) represent close to half of the entire FE workforce. The next biggest occupational group are service staff, followed by administrative and managerial staff (including senior managers and other managers).

- Around half of all FE contracts are part-time, a proportion considerably higher than in the general UK workforce which stands at 27\(^\%\)^\(^2\).

- Close to two-thirds of FE staff are female, and this proportion is higher for part-time staff. The proportion of female staff in the FE sector is higher than in the general UK workforce, but lower than in the school workforce where 80\% of staff are female\(^3\).

- Median pay for full-time staff across all occupational groups in FE

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colleges is £26,609. Median pay is lower in independent training providers and other providers at £23,500 and 25,694 respectively. Median pay is highest for senior managers and lowest for Service staff across all provider types.

- Over half of the staff in the FE sector are over the age of 45, indicating FE continues to be a second career for many. This finding is consistent with other work commissioned by the ETF showing that the average age of teacher trainees in FE is 37. The workforce is also predominantly white (86%).

- Looking at trends over time, we can see that the FE workforce has been declining over time at an average rate of around 3% per year. Between 2011-12 and 2014-15, the full-time equivalent employees in FE Colleges fell by 12,300 FTEs.

Key findings from our analysis of the teaching staff data are:

- Teaching staff are older than other staff (close to 40% of teaching staff are aged 50 or older). The average age of teaching staff in FE is 46 years.

- Annual median pay for college teachers is £32,000 and the average is £30,288, much below the average pay of £37,400 for school teachers.

- For the first time in a number of years the SIR captures information on teacher qualifications and continuous professional development (CPD). The data reveals that most teachers (around three quarters) hold a qualification. The most commonly held teaching qualifications are Postgraduate Certificate of Education (PGCE) covering 32% of teachers, Certificate of Education covering 23% of teachers and Level 5 Diploma in Education and Training covering 11% of teachers.

- A third of teachers report main subject area qualifications at QCF Level 6 with another quarter holding main subject area qualifications at QCF Level 7 or higher.

- On average, teachers spend 15 hours on CPD although it is worth noting that a majority of teachers (over 60%) report spending no time at all on CPD.

The key differences in findings across provider types are:

- Full-time working is considerably more common in independent training providers, which are in line with the country average. In colleges, more than half of staff are part-timers and in other training providers (including Local Authorities and Third Sector organisations) almost 70% of staff work part-time.

- Women represent 63% of college staff, 65% of independent

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5 https://getintoteaching.education.gov.uk/funding-and-salary/teacher-salaries
6 Teaching qualification above level 2. A quarter of teachers report having no teaching qualification or holding a teaching qualification below level 2.
provider staff and 79% of other provider staff.

- Independent training providers have the youngest workforce with more than half (ca. 60% of staff) aged under 45. The corresponding proportions are around 50% for colleges and 30% for other providers. The same pattern applies to teaching staff.

- Annual median pay for teachers is £32,000 in colleges, £25,389 in independent training providers and £25,505 in other providers.

The key findings from our analysis of the characteristics of senior managers are:

- Senior manager numbers have declined in line with the wider FE sector workforce and now account for around 1.4% of the workforce.

- Senior managers are older than the general FE workforce with a median age of 51 compared with 46 for teachers and 45 for other staff. The age profile of senior managers has not changed much over the last four years.

- Just over half (55%) of senior managers are women.

- The vast majority of senior managers work full-time. This is the case for 93% of male senior managers and 91% of female senior managers. This pattern of working has not changed over the last four years.

- Median pay for senior managers is £69,000 and there has been little change in that over the last four years.
1. INTRODUCTION

This report presents the findings from an analysis of workforce data from the Staff Individualised Record (SIR) dataset for Further Education (FE) providers in England for 2015-2016.

This is the thirteenth publication in the series of annual SIR reports on the English FE workforce, and the fourth to be produced by the Education and Training Foundation (ETF).

This year, for the first time the SIR data covers a broad range of provider types including Local Authorities, Independent Training Providers and Third Sector providers in addition to FE Colleges, Sixth Form Colleges and Specialist Colleges.

The data contain information on all staff – teaching and non-teaching – covering staff demographics (such as age, gender, ethnicity, disability and sexual orientation), staff occupation and pay, subjects taught and geographical location.

This report provides a descriptive account of the staff working in colleges in 2015-2016 covering all aspects of the data (demographics, pay, subjects taught, etc.).

In total, there are around 1,150 publicly funded FE providers in England delivering learning to around 4 million learners. Around 50% of FE learners participate in General FE Colleges including Tertiary); a further 22% with private providers (publicly funded); around 20% with another publicly funded organisations such as Local Authorities and HE providers; and the remainder at School Sixth Forms, Sixth Form Colleges and Special Colleges.

This report is based on responses from 176 providers of which:

- 91 FE Colleges including General FE Colleges (81), Agriculture and Horticulture Colleges (6), National Specialist Colleges (4);
- 11 Sixth Form Colleges;
- 46 Independent Training Providers; and
- 28 Other providers (including Third Sector Organisations, Local Authorities and others.)
Where possible, the report comments on trends over time, by comparing the findings from the 2015-16 data with those in previous years albeit data comparability issues limit our ability to comment extensively on changes over time.

The rest of the report is organised as follows:

- Section 2 discusses our overall approach to the work including methodology and a detailed description of the data processing we have carried out.
- Section 3 contains the main description of the FE workforce in England in 2015-16.
- Section 4 describes the characteristics of the teaching workforce in English FE in 2015-16.
- Section 5 presents analysis of the characteristics of senior managers in FE.
- Section 6 looks at some trends over time.
- Section 7 concludes.
2. OUR DATA ANALYSIS APPROACH

Original dataset
The analysis in this report is based on Staff Individualised Record (SIR) data. The latest wave of this data is SIR 24 and this was provided to us by SkillsLogic who were responsible for gathering the data and implementing some initial data processing. The scope of the SIR24 survey increased compared to previous years’ surveys through including staff records from independent providers and other non-college providers. In total, we received 66,061 individual staff records from 175 different providers that refer to the period between 1st August 2015 and 31st July 2016.

Data processing
Before starting the actual data analysis we checked each variable for consistency with other observations and related information that is included in other dimensions. Inconsistent records have been set to ‘missing’ to guarantee that the analysis of the respective variable is not biased and to avoid dropping whole records for cases where only one out of many other variables shows inconsistencies.

Grouped around broader topics, the SIR24 covers the following information.

− Further Education (FE) provider information
  o Provider name
  o UK provider number
  o Type of provider
  o Location of the provider

− Staff information
  o Personal characteristics: gender, age, ethnicity, disability status and sexual orientation
  o Contract information: Date of appointment, date of contract start, date of leaving (if applicable), category of work, main subject taught (for teaching staff), and gross annual pay
  o Terms of contract: fraction of fulltime worked, terms of employment, proportion of time spent (i) providing teaching and learning, (ii) supporting teaching and learning, and providing other support.

− Experience/qualification:
  o Highest held qualification
  o Highest held teaching qualification
  o Highest held qualification related to main subject taught
  o CPD hours spent a year.

A few variables show inconsistencies. To control for this we set a few records to missing. The following sets out what the inconsistencies and
under which circumstances we neglect these observations in our analysis.

- **Age.** The ‘age’ variable was set to missing if the recorded age was below 16 or above 100.

  - **Main subject taught.** (i) The ‘main subject taught’ variable was set to missing if the staff member is recorded as being a teacher, but recorded as ‘Not a teacher’ under main subject taught. (ii) Further, the main subjects Maths and Science should usually be reported separately, however some providers still refer to an older system that reported these subjects under one single category. We decided to allocate these records randomly to either Maths or Science. The probability that a record with ‘Maths and Science’ is allocated to either Maths or Science equals the proportions of teachers with correctly coded Maths and Science contracts.

- **Annual pay.** There were a number of cases where staff members were recorded as working for less than the minimum wage, based on their annual pay and the fraction of full-time worked. The ‘annual pay’ variable was set to missing for these records. More generally we set to missing records that reported to work fulltime but earned less than £5000 a year. Both restrictions exclude staff that had a ‘zero-hours’ or ‘voluntary worker’ contract.

- **Proportion of time spent providing teaching and learning, supporting teaching and learning, and providing other support.** These three variables were set to missing if their sum did not equal 100%.

- **Fraction of fulltime.** This year’s survey includes a significant proportion of records that miss information on fulltime. Apart from being interesting in itself, we use this information to aggregate the staff in fulltime equivalents (FTEs), a measure that controls for lower working hours of part-time staff when aggregating staff numbers. In a first step, we recovered information on fulltime based on previous year’s statements of individuals that could be uniquely identified. Secondly, we tested and applied an interpolation approach that estimated for each record the fraction of fulltime that the individual is working.\(^8\)

- **Date of appointment and date leaving.** We flagged observations that either started or left during the reference year of the survey. Whereas this does not influence most parts of the analysis, we exclude those when looking closer at annual pay and the fulltime

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7 Eleven providers reported the Maths and Science is an single category.
8 We assessed the accuracy of these predictions by comparing estimates with actual outcomes when available. These test showed that biases stayed on a low one digit percentage level. See Annexe for more details.
variable. Working only a fraction of the academic year caused confusion when reporting annual pay numbers or stating the fraction of fulltime that has been worked.

- **Non-unique cases.** The combination of UK provider number, the staff reference number and the number of contracts that an individual has within one provider should enable to uniquely identify an observation within the survey. For a few cases this is not the case however, and most of these can be explained through contract extensions. When analysing job growth and turnover rates we decided to neglect all observation that are not uniquely identified.

**Providers responding and reclassification for comparison**

Many conclusions in this report will be drawn based on a comparison of provider types. In total, this year’s SIR includes information on ten different types. To enable a comparison we aggregate the provider types into three categories: Colleges, Independent, and Other. Table 1 explains how the original provider classification has been regrouped and gives information on how many different providers are included in each category and how much of the total sample they represent.

**Table 1 Share of records by aggregated provider classification**

<table>
<thead>
<tr>
<th>Provider Type</th>
<th>No. of records in SIR24</th>
<th>No. of providers in SIR24</th>
<th>As %age of total records</th>
<th>As %age of total records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Horticulture College</td>
<td>Colleges</td>
<td></td>
<td></td>
<td>5.2%</td>
</tr>
<tr>
<td>General Further Education College</td>
<td>Colleges</td>
<td>100</td>
<td>88.2%</td>
<td>75.8%</td>
</tr>
<tr>
<td>National Specialist College</td>
<td>Colleges</td>
<td></td>
<td></td>
<td>2.2%</td>
</tr>
<tr>
<td>Sixth Form College</td>
<td>Colleges</td>
<td></td>
<td></td>
<td>4.9%</td>
</tr>
<tr>
<td>Independent training provider</td>
<td>Independent</td>
<td>46</td>
<td>6.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Adult (19+) education provider</td>
<td>Other</td>
<td></td>
<td></td>
<td>0.2%</td>
</tr>
<tr>
<td>Local Authority training provider</td>
<td>Other</td>
<td></td>
<td></td>
<td>0.5%</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
<td>26</td>
<td>5.3%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Specialist Designated College</td>
<td>Other</td>
<td></td>
<td></td>
<td>0.3%</td>
</tr>
<tr>
<td>Third sector / charity training provider</td>
<td>Other</td>
<td></td>
<td></td>
<td>0.1%</td>
</tr>
</tbody>
</table>

Source: Frontier Economics Analysis of Staff Individualised Record (SIR 24).

Note: Total number of records: 66,061.
3. PROVIDERS PROFILES

Colleges
As noted in Table 1 above, the SIR 24 collection received responses from 100 Colleges in total (of which 98 supplied usable data), This is equivalent to around 30% of all Colleges in England. In terms of the sample split, the majority of responses (79%) came from General Further Education Colleges (GFECs), 11% from Sixth Form Colleges (SFCs), 6% from Agriculture and Horticulture Colleges and 4% from National Specialist Colleges.

This means that overall GFECs are overrepresented in the SIR 24 sample while SFCs are underrepresented (they account for 11% of the SIR 24 data but 28% of all colleges). As a whole, however, the Colleges supplying SIR 24 data appear to be broadly representative of the sector - they account for 30% of all colleges and also 31% of all learners, 31% of staff and 32% of college income.

Figure 1 College sample composition in SIR 24

Source: Frontier Economics analysis of SIR 24.

Colleges are not a homogenous category and there are clear differences between them - the difference between the smallest and largest colleges in the sample can be tenfold or even greater in terms of staff and student numbers. On average, however, GFECs have 6,443

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9 A small number of responses were excluded from analytical work due to the small number of records reported in the data.
10 For example, the smallest colleges in the sample have just over 100 staff while the largest have staff over 1,000 in FTE terms.
students, of which 2,433 are between 16 and 18 years old and therefore most likely to be full time students. GFECs receive on average £23,162,282 funding from funding body grants. Funding makes up 81 per cent of total income for colleges. 82% of colleges were judged good or outstanding for their overall effectiveness at their most recent Ofsted inspection.

The average GFEC employs 507 full-time equivalent people, of which 256 are teaching staff. Teachers make up 42 per cent of total staff employed by colleges. 9.7 per cent of all teachers teach engineering and manufacturing technologies and 4.4 per cent of all teachers teach mathematics courses. The median pay of college staff is £27,927, whereas teaching staff have a median pay of teaching staff is £32,000. 58 per cent of all college staff is female and the average employee working in a college is 45 years old.

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11 SFA data: SFA_and_EFA_funded_learners_S3.1c__Total_learners, 2014-15
12 SFA data: SFA_and_EFA_funded_learners_S3.1a_16-18_Learners, 2014-15
13 SFA data: Income_T1.1_Funding_body_grants, 2014-15
14 Including the Skills Funding Agency, the Education Funding Agency, the Higher Education Funding Council for England and others.
15 AOC: College Key facts; percentages based on 2014-15 (latest numbers): https://www.aoc.co.uk/sites/default/files/Aoc%20College%20Key%20Facts%202016%20webversion.pdf
16 AOC: College Key facts; percentage is based on year 2015/2016; percentage is lower for 2016/2017.
17 SFA data: S4.1i_Total_staff_number_as_per_finance_record and S4.1b_Teaching_staff_FTEs, 2014-15
18 SIR data
Independent training providers (ITPs)
The SIR 24 contains responses from 46 ITPs, equivalent to around 8% of all ITPs in England\(^1\). Most of the ITPs supplying data are relatively small with fewer than 50 staff. There are also a handful of large providers and one very large provider with over 1,000 staff (see Figure 2). Comparing the sample with the population of ITPs\(^2\) we can see that large providers\(^2\) are somewhat overrepresented and small providers\(^2\) underrepresented in the SIR 24 – large providers and small providers make up 12% and 27% of the SIR 24 sample but only 5% and 48% of the population of ITPs.

The average ITP employs 93 staff or 79 staff in full time equivalents. Of those around 19 are teachers.

**Figure 2 ITPs in SIR 24 by size**

Source: Frontier Economics analysis of SIR 24.

Other providers
The SIR 24 contains responses from 26 providers which are not ITPs or GFECs. The majority of providers in this category are Local Authorities (73%), the remaining being third sector organisations and Adult learning providers. Local authorities vary in size – the larger ones have over 500 staff and the smaller ones in the region of 50-100 staff. Adult learning providers and third sector organisations are small with typically fewer than 20 staff. The average Local Authority provider employs 170 staff or 90 staff in full time equivalents. Of those around 30 are teachers.

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\(^{2}\) ITPs with direct contract with the SFA

\(^{21}\) Defined as those in receipt of over £10m in SFA funding

\(^{22}\) Defined as those in receipt of less than £1m in SFA funding
4. PROFILE OF THE FE WORKFORCE

In this section we provide an overview of the FE workforce in England based on the sample of providers responding to the 2015-16 Staff Individualised Record (SIR 24) dataset. We describe the characteristics of the workforce, including analysis of occupation, staff turnover, gender, share of part time/fulltime workers, age, ethnicity, sexual orientation, disability status and annual pay.

Occupation

In 2015-16 the SIR recorded 66,061 contracts across 172 FE providers. In line with previous years, teaching staff remain the largest occupational group, representing around 42% of all contracts. Service staff, who account for 20% of contracts and Administrative staff, who account for 17% of contracts, are the second and third largest groups respectively.

Table 2 Staff breakdown by occupational group in FE colleges in England, 2015-16

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Records in sample</th>
<th>As %-age of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Manager</td>
<td>4,181</td>
<td>7.1%</td>
</tr>
<tr>
<td>Senior Manager</td>
<td>800</td>
<td>1.4%</td>
</tr>
<tr>
<td>Administrative staff</td>
<td>10,325</td>
<td>17.4%</td>
</tr>
<tr>
<td>Technical staff</td>
<td>3,514</td>
<td>5.9%</td>
</tr>
<tr>
<td>Service staff</td>
<td>11,919</td>
<td>20.1%</td>
</tr>
<tr>
<td>Teaching staff</td>
<td>25,070</td>
<td>42.3%</td>
</tr>
<tr>
<td>Assessors and verifiers</td>
<td>2,466</td>
<td>4.2%</td>
</tr>
<tr>
<td>Apprentice</td>
<td>933</td>
<td>1.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>59,208</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Frontier Economics Analysis of Staff Individualised Record (SIR 24).
Note: Total number of records: 66,061.

The occupational breakdown differs across different FE provider types (see Figure 3). Teaching staff in independent providers represent a lower fraction of the overall staff, whereas administrative staff, as well as assessors have a relatively higher share.
Figure 3 Type of occupation by provider type

![Graph showing type of occupation by provider type]

Source: Frontier Economics Analysis of Staff Individualised Record (SIR 24).
Note: Total number of contracts: 66,061.

**Staff turnover**

We analyse staff turnover using two measures:

- The **turnover rate** is the number of contracts ending within the 2015-16 teaching year as a percentage of all contracts at the beginning of that year.
- The **net employment change** is the change in the total number of contracts between the beginning and end of the 2015-16 teaching year, expressed as a proportion of all contracts at the beginning of that year. This measures whether the workforce has increased or decreased over the year.

We must note that our analysis of the turnover rate is based on the **number of contracts** and not the **number of staff** because the SIR data is at a contract rather than individual level.

Overall, there was a 12% turnover rate and a 2% increase in staff numbers (as measured by the employment change). The increase in staff numbers is particularly notable given declines of 1.7% in 2014-15 and 2.7% in 2013-14.

Table 3 compares the staff turnover rate and net employment change across each occupational category. Both measures are notably higher for apprentices which is to be expected given the fixed duration of apprenticeship. Among the other occupations, staff turnover is highest for Senior Managers (14.3%), Assessors and Verifiers (13.0%), and Administrative and Professional staff (13.1%).
Staff numbers have increased in all occupations except Senior Managers and Other Managers, which now make up 6.7% and 1.7% of the FE workforce respectively. The largest increases occurred for Apprentices (35.7%), Assessors and Verifiers (7.9%), and Word Processing, Clerical and Secretarial staff (7.8%).

**Table 3 Turnover and net employment change rates by occupational groups**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Turnover Rate</th>
<th>Staff Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Manager</td>
<td>11.9%</td>
<td>-2.0%</td>
</tr>
<tr>
<td>Senior Manager</td>
<td>12.3%</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Administrative staff</td>
<td>13.0%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Technical staff</td>
<td>11.4%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Service staff</td>
<td>10.6%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Teaching staff</td>
<td>11.2%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Assessors and verifiers</td>
<td>13.1%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Apprentice</td>
<td>46.2%</td>
<td>35.7%</td>
</tr>
</tbody>
</table>

Source: Frontier Economics Analysis of Staff Individualised Record (SIR 24).

Note: Total number of contracts: 66,061. The high turnover rate of apprentices can be mostly explained by the nature of this working category. The high growth rate will represent a relatively small number of individuals, but does show a large increase in the number of apprentices being taken on by FE providers.

**Table 4 Turnover and net employment change rates by occupational groups, by provider type**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Colleges</th>
<th>Turnover Growth</th>
<th>Independent</th>
<th>Turnover Growth</th>
<th>Other</th>
<th>Turnover Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Manager</td>
<td>13%</td>
<td>-4%</td>
<td>9%</td>
<td>12%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Senior Manager</td>
<td>13%</td>
<td>-6%</td>
<td>10%</td>
<td>9%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Administrative staff</td>
<td>13%</td>
<td>-1%</td>
<td>12%</td>
<td>18%</td>
<td>13%</td>
<td>-1%</td>
</tr>
<tr>
<td>Technical staff</td>
<td>12%</td>
<td>2%</td>
<td>4%</td>
<td>22%</td>
<td>9%</td>
<td>-2%</td>
</tr>
<tr>
<td>Service staff</td>
<td>11%</td>
<td>4%</td>
<td>14%</td>
<td>7%</td>
<td>3%</td>
<td>11%</td>
</tr>
<tr>
<td>Teaching staff</td>
<td>12%</td>
<td>0%</td>
<td>11%</td>
<td>16%</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>Assessors and verifiers</td>
<td>12%</td>
<td>4%</td>
<td>17%</td>
<td>22%</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Apprentice</td>
<td>52%</td>
<td>25%</td>
<td>23%</td>
<td>67%</td>
<td>17%</td>
<td>200%</td>
</tr>
</tbody>
</table>

Source: Frontier Economics Analysis of Staff Individualised Record (SIR 24).

Table 4 shows that employment growth is very different across different provider types. In colleges the only categories experiencing positive growth are technical staff, service staff and assessors and verifiers. Independent providers report staff increases during 2015/16 for all occupations.

**Part time workers**

Firstly, Figure shows what fraction of staff work full time across different provider types. Within independent providers 74% of staff work full time. In contrast, in FE colleges 46% of staff work full time and in other providers the fraction is even lower at 30%. We observe a similar
tendency among part-time workers, where more staff from independent providers can be found in the upper part of the distribution compared to colleges and other providers, that is to say part-timers in independent providers work more hours than part-timers in other provider types.

**Figure 4 Shares of staff by fraction of full-time and provider type**

Source: Frontier Economics analysis of SIR 24.

**Gender**

Figure illustrates that on average more than half of the FE workforce is female (60% of full-time equivalent staff). Given that women are more likely to work part-time (see Figure ) this measure will underestimate the proportion of the total number of women working in FE as a share of the overall number. The proportions vary across occupational groups, but women are in the majority in all occupations except technical staff. While women are in the majority of managerial staff, the proportion of female FTEs in senior managerial roles (53%) is below the average for all FTEs (60%).
Figure 5 Share of female and male FTE workers per occupation type

Source: Frontier Economics analysis of SIR 24.

Figure illustrates that women are more likely than men to work part-time across all provider types. The share of part time workers differs however quite strongly across provider types. In colleges, 62% of women and 41% of men work part time. Looking at independent training providers, we observe that only 32% of women and 14% of men work part time. Other providers have the highest share of part time workers in their workforce.

Figure 6 Proportion of men and women by working hours as proportion of working full-time

Source: Frontier Economics analysis of SIR 24.
Note: Part time cover all staff records that work less than 100% of fulltime.
**Age**

Figure 7 shows the age distribution of staff working in FE providers split into the three aggregate types. In general, the highest proportion of staff is between 50 and 54 years old. There are however differences across providers. More generally, colleges (45 years) and independent providers (42 years) have a much younger workforce compared to other providers (51 years).

**Figure 7 Proportion of staff by age bands in FE colleges in England**

Source: Frontier Economics analysis of SIR 24.

Note: Age was undefined on 1% of all contracts. Measure based on FTEs.
**Ethnicity**

Figure 8 illustrates that the workforce in FE colleges is primarily White British. In detail, White British represent 93% of the workforce of independent providers, 84% of Colleges and 87% of other providers.

**Figure 8 Ethnicity of staff by provider type in England**

Source: Frontier Economics analysis of SIR 24.
Note: Proportions exclude 5,305 records where ethnicity is reported as unknown. Measured in FTEs.
Sexual Orientation

The SIR includes a question on sexual orientation (see Figure 9). The graph excludes the share of missing responses and records that report their sexual orientation as ‘Unknown’. The two categories represent 17% and 33% of the total workforce, an improvement in the share of records providing information on sexual information relative to last year when this information was available for only a third of records.

Figure 9 Sexual orientation of FE staff in England

Source: Frontier Economics analysis of SIR 24.
Disability

Close to 6% of staff in FE reported having some form of disability. However, over half of these staff members chose not to disclose the nature of their disability. Of those indicating their disability, the most common was a physical impairment (2% of all staff across provider types). Comparing across provider types, it is not clear that there are any systematic differences between provider types.

Figure 10 Disability status of FE staff in England by provider type

Source: Frontier Economics analysis of SIR 24.
Note: Proportions exclude 4,846 records where ethnicity is reported as ‘Unknown’ and 2,200 records with missing information (both representing 14% of total staff).

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23 On the face of it, other provider types appear to employ relatively fewer staff without a disability compared to independent providers and colleges. However, these providers also have higher proportion of responses classified as ‘prefer not to say’ and missing values which indicate that this finding may be driven by the way the data reporting is done rather than a genuine difference in employment patterns.
Annual Gross Pay
Slight differences in the distribution of annual pay for staff can be seen when comparing provider types (see Figure 11). Median pay is £26,609 for college staff, £23,500 for staff in independent providers, and £25,694 for staff in other provider types. The vast majority of full time staff (71.8%) earn between £15,000 and £40,000 a year.

Figure 11 Annual Gross Pay of staff by provider type (fulltime staff only)

Source: Frontier Economics analysis of SIR 24.
Note: For comparability the graph only reports the annual pay for fulltime staff. Also, we excluded records that either started or left the provider during reference year of the survey.

Looking at differences in median pay by category of work in Figure 12, we see that the median pay across categories of work is actually very similar between provider types. Only teachers in colleges earn more than their colleagues in other types of provider, and senior managers in independent providers earn around £15,000 less compared to the others, albeit it is worth noting that independent providers are also on average smaller in terms of staff numbers.
Figure 12 Median annual pay by provider type and category of work (fulltime staff only)

Source: Frontier Economics analysis of SIR 24.
Note: For comparability the graph only reports the annual pay for fulltime staff. Also, we excluded records that either started or left the provider during reference year of the survey.
Focusing on colleges, Figure 13 portrays regional differences between staff. Not surprisingly, staff in the London are paid more than staff in other regions.

**Figure 13 Median annual pay by category of work and region (fulltime staff only)**

Source: Frontier Economics analysis of SIR 24.

Note: Colleges, fulltime staff only. Records that started or left the provider during the reference year have been excluded.
5. SENIOR STAFF

This section focuses on senior staff in colleges, independent providers and other providers. Comparisons are made looking at differences in pay and other characteristics over time. To benchmark the information from senior staff we include information on teaching staff and all other staff.

Senior managers include Chief Executives such as Principals, Managing Directors, Heads of Local Authority Education services, and Second Tier Managers (e.g. Vice Principals, Directors of Academic Programmes).

Annual Gross Pay
Senior management in independent providers receive a median pay of £50,000, which is considerably less than their counterparts in colleges (£74,000) and other providers (£66,000). This may be related to provider size – as previously noted in Chapter 2 ITPs are considerably smaller than GFECs. Their annual pay is also roughly twice as much as the pay for teaching staff and all other staff.

Figure 14 Median pay of senior managers, teaching staff and other staff by provider type

Source: Frontier Economics analysis of SIR 24.
Note: Colleges, fulltime staff only, and excluding records that started or left the provider during the reference year of the survey.

In order to analyse trends over time, we have focused on a sub-set of providers (all of which are FE colleges) who have supplied SIR data in the last four years. There are 29 such providers and so the findings in this section have been derived from a relatively small sample of the FE college sector so should be interpreted in this context.
When observing trends over time, the majority of senior managers earned an annual pay between £50,000 and £70,000, with the managers in the pay class £70,000 - £80,000 experiencing a significant increase in the latest period. Around 20% of all senior staff earned £100,000 or more. Median pay for the selected 29 providers rose from £67,500 in SIR21 (covering the academic year 2012/2013) to £75,090 in SIR24.

**Figure 15 Pay distribution of senior managers, teaching staff and other staff over time**


**Note:** Colleges, fulltime staff only, and excluding records that started or left the provider during the reference year of the survey. Comparison over time considers only 29 colleges that have reported consistently across the three surveys.

**Age**

Compared to teachers and other staff, the median age of senior managers is consistently about 6-7 years older. Over time we can observe a slight, but not substantial age decrease in all groups.
Figure 16 Median age of senior managers, teaching staff and other staff across time

![Bar chart showing median age of senior managers, teaching staff, and other staff over time for SIR21, SIR22, SIR23, and SIR24.]

Source: Frontier Economics analysis of SIR21, SIR22, SIR23, and SIR24. Comparison over time considers only 29 colleges that have reported consistently across the three surveys.

**Share of full time senior management by gender**

The share of senior management working full time has only dropped slightly since 2012/2013. Female senior managers have a slightly higher share of part timers compared to men but the difference is very small and hasn’t changed over time (see Figure 17).

Among senior managers who work part time, the majority work 80%, i.e. 4 days a week, a finding which is consistent across time.

**Figure 17 Share of full-time employed within senior management by gender**

![Bar chart showing share of full-time employed senior managers by gender for SIR21, SIR22, SIR23, and SIR24.]

Share of fulltime senior management by gender

Figure gives information on how the number of senior staff developed over time compared to previous years and compared to the overall number of staff in a college. We see that the number of senior staff in colleges reduced within three years by approximately 13%. At the same time their share of overall staff decreased marginally from 1.53% to 1.47%. According to this the decrease in senior management numbers followed the overall trend of declining staff numbers in colleges.

Figure 18 Growth of senior managers and share of senior managers of all FTE staff

Source: Frontier Economics analysis of SIR21, SIR22, and SIR23. Note: Senior staff in SIR 21 builds the base year for the growth comparison in the following year. The difference in numbers represents the percentage growth or decline compared to that base year. SIR24 data was not included in this figure due to discrepancies with FTE.
6. PROFILE OF THE TEACHING WORKFORCE IN FE

In this section we look at the characteristics of teachers in FE, the single largest occupational category in the sector accounting for 42% of staff.

We first look at the demographic characteristics of teachers and highlight any differences between different provider types, and where possible, with the school workforce. We then analyse in more detail teachers’ pay, subjects and teacher numbers across providers, and teachers’ turnover rates.

Summary

- Teaching staff are older than other staff (close to 40% of teaching staff are aged 50 or older). The average age of teaching staff in FE is 46 years. Teachers in independent providers tend to be younger while teachers in other provider types (e.g. Local Authorities, charities) are on average older (see Figure).

- Women account for 64% of all staff and 58% of teaching staff. In colleges and independent providers, the proportion of female teachers is consistent with the sector average. In other provider types, women represent close to three quarters of all teachers.

- Around 84% of teaching staff in colleges are White British. This ratio is higher in independent providers and lower in other provider types.

- Annual median pay for college teachers is £32,000 and the average is £30,288, much below the average pay of £37,400 for school teachers.

- For the first time in a number of years the SIR captures information on teacher qualifications and continuous professional development (CPD). The data reveals that most teachers (around three quarters) hold a teaching qualification. The most commonly held teaching qualifications are Postgraduate Certificate of Education (PGCE) covering 32% of teachers, Certificate of Education covering 23% of teachers and Level 5 Diploma in Education and Training covering 11% of teachers.

- A third of teachers report main subject area qualifications at QCF Level 6 with another quarter holding main subject area qualifications at QCF Level 7 or higher.

- On average, teachers spend 15 hours on CPD although it is worth noting that a majority of teachers (over 60%) report spending no time at all on CPD.

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24 https://getintoteaching.education.gov.uk/funding-and-salary/teacher-salaries
25 Around the quarter report holding no relevant teaching qualification
Teacher pay

Annual median pay (for fulltime teachers only) for college teachers is £32,000 and the average is £30,288, much below the average pay of £37,400 for school teachers. Teacher pay is higher in colleges than in other provider types as shown in Figure 19. Managerial staff is the only occupational group earning consistently more than teaching staff.

Source: Frontier Economics analysis of SIR24 data

https://getintoteaching.education.gov.uk/funding-and-salary/teacher-salaries
As in previous years, there is some variation in teacher pay by region. The highest median pay is in London at £36,613 followed by East and Midlands at £32,246 and South at £31,673 and North at £31,218. The regional variation in teacher pay is consistent across provider types.

**Continuous professional development (CPD)**

For the first time this year, the SIR collected data on CPD. The data shows that on average, teachers spend 15 hours on CPD although it is worth noting that the average masks a very unequal distribution as shown in Figure 22.

In fact a majority of teachers (over 60%) report spending no time at all on CPD. Of the remaining 40%, relatively similar numbers report between 1-5 hours up to 21-25 hours. The single largest value reported by teaching staff is between 26 and 30 hours. 12% of teachers report values higher than 30 hours.
Teacher qualifications
In addition to CPD data, the SIR collected data on teacher qualifications for the first time in over 7 years. The data shows that around a quarter of teachers are qualified up to Level 7 or higher with a similar proportion being qualified below Level 5. The largest group (with around half of teachers) are teachers qualified to Level 5 or Level 6.

Figure 23 Highest qualification held in main subject area

Source: Frontier Economics analysis of SIR24 data
There is some variation in the qualifications of teachers by subject area. For example, a third of Science teachers\(^{27}\) are qualified above Level 6 while the ratios are lower for teachers of English and Mathematics and still lower in other subject areas.

**Figure 24 Highest qualification held in main subject area**

![Highest qualification held in subject area (teaching staff only)](chart)

Source: Frontier Economics analysis of SIR24 data

In addition to highest qualification in main subject area the SIR collected information on the highest teaching qualification for teachers\(^{28}\). This is summarised in the figure below. The majority of teachers (around three quarters) hold teaching a qualification (Level 2 or higher) with a quarter holding either no teaching qualification or a lower level qualification (below Level 2).

The most commonly held teaching qualifications are Postgraduate Certificate of Education (PGCE) covering 32% of teachers, Certificate of Education covering 23% of teachers and Level 5 Diploma in Education and Training covering 11% of teachers.

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\(^{28}\) This information is available for 51% of teachers in the data. For the rest the teaching qualification is either unknown or missing.
Figure 24 Highest teaching qualification held (teachers only)

Source: Frontier Economics analysis of SIR24 data
7. TRENDS OVER TIME

For analysing trends over time we again apply the approach of only looking at providers that have reported staff records throughout all previous four SIR waves. More specifically, we use the time series to draw conclusions on the distribution of staff working in different occupation types. We analyse how median pay has developed over time and we look more closely at the ethnic distribution of the workforce. Finally, we report how the median age and the fulltime share have changed within occupation types.

Occupational distribution

Figure 25 indicates that there have been little changes in staff composition over time. The share of teaching staff dropped from 51% to 45% between the previous two data collections. On the other hand the share of administrative staff and technical staff increased slightly. Note that apprentices are a new staff category in this year’s and cannot yet be compared with figures over time.

Figure 25 Distribution of FTE staff in work categories

Pay
Figure 26 shows how different earning groups evolved over time. The data reveals a modest increase in median earnings (on FTE basis) from £28,500 (in SIR21) to £29,500 in SIR24. The latest data shows an increase in the number of employees with annual earnings of £30,000 – £34,999.

**Figure 26 Distribution of pay bands over time (fulltime staff only)**

Ethnicity
Looking at ethnicity, there appears to be an increase in the share of White British staff from 76% to 82% over the last four years. However, we have found evidence that this change may not be genuine but rather may be an artefact of the data and so cannot be confident in this finding.

Figure 27 Ethnic distribution of FTE staff over time


Age
Median age has remained similar over time with senior managers being the oldest occupation group (51 years), followed by assessors at 47 years. Across all staff, median age has been constant at 46 years. Other work commissioned by the ETF looking at individuals undertaking Initial Teacher Education (ITE) shows that the average age of initial teacher trainee is 37, down from 38 two years ago.

29 We know that this is a variable that is not very well reported with many missing and unknown values, particularly in the earlier years of data. Tracing individuals over time, we can see that individuals who were in later years classed as White British had previously been reported as unknown.
Mode of working

The share of staff working full time shows different trends depending on the type of occupation. For professions within senior management or administration staff we see little changes over time, Teaching staff and assessors show a step increase in full time numbers. Considering all staff, the fraction of full time contracts has increased from 46% in SIR 21 to 51% in SIR 24.

Figure 29 Share of fulltime employed of overall staff records over time

Estimates of total workforce changes

Frontier Economics previously estimated the overall size of the FE workforce based on SIR data as well as survey data covering Work Based Learning (WBL) and Adult and Community Learning providers (ACL). The estimates based on 2013-14 data suggested an overall workforce of 326,000 staff. The vast majority of staff (250,000) were employed in GFECs. The WBL and ACL workforces were estimated to be at around 51,000 and 25,000 respectively. Based on the observed year to year decline in the GFEC workforce in the SIR data it is possible to update the workforce estimates. The decline in staff numbers between SIR 22 and SIR 24 is around 8%. If we apply this rate of decline to all provider types, we would have a workforce of 230,000 staff in GFECs and 69,000 staff in other provider types (ITPs, Local Authorities, Third Sector providers and others).
8. CONCLUSIONS

This report provides a descriptive account of the staff working in the FE sector in 2015-16, and where possible draws out comparisons of the workforce across different provider types, with previous years\(^{30}\) and with the school workforce. In addition to the descriptive account of the FE workforce, this year's report includes some additional analysis looking at the characteristics of senior managers in the sector and how these have evolved over time.

The key findings from our analysis are:

- Teachers (including assessors and verifiers) represent close to half of the entire FE workforce. The next biggest occupational group are service staff, followed by administrative and managerial staff (including senior managers and other managers).

- Around half of all FE contracts are part-time, a proportion considerably higher than in the general UK workforce which stands at 27%\(^{31}\).

- Close to two-thirds of FE staff are female, and this proportion is higher for part-time staff. The proportion of female staff in the FE sector is higher than in the general UK workforce, but lower than in the school workforce where 80% of staff are female.

- Median pay for full-time staff across all occupational groups in FE colleges is £26,609. Median pay is lower in independent training providers and other providers at £23,500 and 25,694 respectively. Median pay is highest for senior managers and lowest for Service staff across all provider types.

- Over half of the staff in the FE sector are over the age of 45, indicating FE continues to be a second career for many. This finding is consistent with other work commissioned by the ETF\(^{32}\) showing that the average age of teacher trainees in FE is 37. The workforce is also predominantly white (86%).

- Looking at trends over time, we can see that the FE workforce has been declining over time at an average rate of around 3% per year. Between 2011-12 and 2014-15, the full-time equivalent employees in FE Colleges fell by 12,300 FTEs.

Key findings from our analysis of the teaching staff data are:

- Teaching staff are older than other staff (close to 40% of teaching staff are aged 50 or older). The average age of teaching staff in FE is 46 years.


- Annual median pay for college teachers is £32,000 and the average is £30,288, much below the average pay of £37,400 for school teachers.\(^3^3\)

- For the first time in a number of years the SIR captures information on teacher qualifications and continuous professional development (CPD). The data reveals that most teachers (around three quarters) hold a qualification.\(^3^4\) The most commonly held teaching qualifications are Postgraduate Certificate of Education (PGCE) covering 32% of teachers, Certificate of Education covering 23% of teachers and Level 5 Diploma in Education and Training covering 11% of teachers.

- A third of teachers report main subject area qualifications at QCF Level 6 with another quarter holding main subject area qualifications at QCF Level 7 or higher.

- On average, teachers spend 15 hours on CPD although it is worth noting that a majority of teachers (over 60%) report spending no time at all on CPD.

The key differences in findings across provider types are:

- Full-time working is considerably more common in independent training providers which are in line with the country average. In colleges more than half of staff are part-timers and in other training providers (including Local Authorities and Third Sector organisations) almost 70% of staff work part-time.

- Women represent 63% of college staff, 65% of independent provider staff and 79% of other provider staff.

- Independent training providers have the youngest workforce with more than half (ca. 60% of staff) aged under 45. The corresponding proportions are around 50% for colleges and 30% for other providers. The same pattern applies to teaching staff.

- Annual median pay for teachers is £32,000 in colleges, £25,389 in independent training providers and £25,505 in other providers.

The key findings from our analysis of the characteristics of senior managers are:

- Senior manager numbers have declined in line with the wider FE sector workforce and now account for around 1.4% of the workforce.

- Senior managers are older than the general FE workforce with a median age of 51 compared with 46 for teachers and 45 for other staff. The age profile of senior managers has not change over the last four years.

- Just over half (55%) of senior managers are women.

- The vast majority of senior managers work full-time. This is the

\(^3^3\) [https://getintoteaching.education.gov.uk/funding-and-salary/teacher-salaries](https://getintoteaching.education.gov.uk/funding-and-salary/teacher-salaries)

\(^3^4\) Around the quarter report holding no relevant teaching qualification
case for 93% of male senior managers and 91% of female senior managers. This pattern of working has not changed over the last four years.

- Median pay for senior managers is £69,000 and there has been little change in that over the last four years.