Research Report DFE-RR151

A profile of teachers in England from the 2010 School Workforce Census

Education Standards Analysis & Research Division

Department for Education

Summary of Key Findings

Overview of the School Workforce and its Deployment

See Chapter 1 for details

- In November 2010, there were a total of 407,000 staff in maintained nursery and primary schools, 325,000 in maintained secondary schools, 46,000 in maintained special schools, 38,000 in academies and a further 34,000 working in centrally employed posts.
- Although academies accounted for a minority of teachers and other school workforce roles, their share of the workforce has been growing and is set to continue to do so at increased pace for the school year commencing in 2011 due to the expansion of the academies programme.
- The largest increases since 2000 have been seen for support staff, with a much more gradual growth in teacher numbers. Teachers then made up 71% of the total school workforce; by November 2010, the balance had shifted so that this share had reduced to 53% due to the growth in teaching assistants (from 14% to 25%) and in other support staff (from 15% to 22%).
- November 2010 data suggest that academies have more vacancies as a percentage of teachers in post than maintained secondary schools both for classroom and leadership roles.
- Higher proportions of teachers in leadership grades (35%), and of unqualified teachers (33%), were male than was the case for classroom teachers (25%).
- Academies pay fractionally more on average to younger classroom teachers than do maintained secondary schools, but the overall average salary for academies is pulled down by their younger *age mix,* and is slightly lower than that for maintained secondary schools. Academies also pay the highest average leadership salaries across age groups.
- The 'degree or higher' group of qualifications was relatively more popular in maintained secondary schools (76%) and academies (73%) than in nursery and primary schools (59%) and special schools (51%). BEds accounted for relatively larger shares of teachers in nursery and primary schools (23%) and special schools (20%) than in secondary schools and academies (both 8%).
- Leadership teachers were more likely to hold BEds (32% of head teachers, 24% of deputy/assistant heads vs. 14% of classroom teachers) or Certificates of Education (9% of heads, 6% of deputies/assistants vs. 4% of classroom teachers).

Teacher Profile & Pay – Variation between Schools

See Chapter 2 for details

- Schools performing below the 2010 KS4 floor standards had a slightly lower proportion of teachers with a degree or higher qualification (70% vs. 79% in schools with high GCSE performance and 76% in mid-performers), but correspondingly more teachers with unknown qualifications
- Academies followed the same pattern when compared with maintained secondary schools (73% compared with 76%).
- Schools where behaviour was rated as 'inadequate' or 'satisfactory' by Ofsted had fewer teachers with Bachelor of Education qualifications (12% / 13%) than schools with 'good' or 'outstanding' behaviour judgements (16% / 17%), and more teachers whose qualifications were unknown.

- Academies had younger than average teacher age profiles, whereas LA nurseries and special schools had older age profiles. High-performing schools at KS4 and those with 'good' or 'outstanding' behaviour both had slightly older than typical teacher age profiles.
- There was a clear pattern of fewer teachers working part-time in below-floor standard schools, and more part-time teachers in high-performing schools at KS2 (22% vs. 27%) and KS4 (12% vs. 22%).
- More classroom teachers in high-performing KS4 schools were on the upper pay scale (60% vs. 56% for mid-performing schools and 50% for below-floor schools); leadership teachers also had higher average pay in high-performing schools than other schools, except in Inner London.
- Similarly, there were more upper pay scale teachers in schools with 'outstanding' behaviour (primary 50% / secondary 59%), and fewer in schools with 'satisfactory' or 'inadequate' behaviour (primary 44% / secondary 54%).
- In considering the analyses of school performance and school behaviour, it is worth thinking about what uncontrolled factors the teacher characteristics may proxy for.
- For example, the gender or age mixes of teachers in a school may reflect gendered self-selection by teachers into more/less challenging schools or communities; part-time working may proxy for the socio-economic status of teachers, communities and pupils, experience of parenthood by teachers, or even the quality or HR and management in a school; black and minority ethnic teachers may be more prevalent in communities with higher deprivation and associated challenges.

Teacher Flows and Wastage

See Chapter 3 for details

- The main source of entrants was newly qualified teachers who accounted for 52% of entrants. The two other sources of entrants were 'returners to the publicly funded sector' and teachers who were 'new to the publicly funded sector'; accounting for 20% and 29% of entrants respectively.
- Leavers from teaching can be grouped into retirements (25%) and movements out of the publicly funded sector (75%). Some of the latter group will have remained in teaching, in the independent sector, further education or teaching outside of England.
- Inflows to and outflows from the publicly funded schools sector have been broadly in balance at 9-11% each over the last decade, causing teacher numbers to rise slowly but steadily as the inflow marginally exceeded the outflow in each year.
- An average cohort of 100 teacher trainees will consist of 75 postgraduates (PGs) and 25 undergraduates (UGs). Typically 63 PGs and 17 UGs complete Initial Teacher Training (a total of 80/100). Five years after completing ITT, on average, 56 of the 100 trainees will be teaching in the maintained sector (43/75 PG trainees and 13/25 UG trainees), with a further 6 in the non-maintained sector (5 PGs and 1 UG).
- Factors statistically associated with non-retirement teacher wastage (potentially cases of 'burn-out') included part-time working patterns, having less than 5 years of teaching experience, overseas or Teach First training, and being aged over 40 for male teachers or over 50 for female teachers.

- Protective factors that made leaving less likely were work-based or undergraduate training routes, more than 10 years of experience and being a head or deputy/assistant head teacher.
- Teachers known to have moved from publicly funded schools to independent schools were disproportionately likely to be male, aged under 40, and of classroom teacher grade.
- Retention within the maintained sector declined more quickly following promotion to a leadership grade for teachers who were aged 35 or over when they were promoted, whereas retention was stronger for teachers aged under 35 when promoted.
- The length of classroom experience before promotion made much more difference to retention for newly promoted leadership teachers aged under 35 than it did for those aged 35 or over. Retention was considerably lower for under 35s if they had less than 5 years of classroom experience.
- Within the group of teachers aged 35 or over at promotion to a leadership grade, there were similar retention rates whether the new leadership teachers had at least 5 years of classroom experience or not.

Teacher Qualifications and Deployment by Subject Taught

See Chapter 4 for details

- Core subjects account for just over half of the total hours taught to years 7-13 in publicly funded schools, but this varies between Key Stages, with the *non-core* subject share of hours taught shifting from a minority (46%) at Key Stage 4 to a majority (58%) at Key Stage 5.
- Increasingly for later Key Stages (4 and 5), this masks variations between schools and pupils in how the curriculum is experienced, but provides a picture of how the total publicly funded schools investment in each Key Stage is divided between subjects.
- Modelling of the relationship between the number of GCSE entrants per subject and the numbers of hours taught estimated that 1,000 extra GCSE entrants in a given subject equated to approximately 300 extra taught hours per week, or 50 extra teachers in that subject.
- The subjects most frequently taught by teachers without post-A level qualifications in a relevant subject were modern foreign languages (other than French), physics and chemistry, with one fifth or more of timetabled hours taught by such teachers. The least frequent were general science, biology and history, with one in ten or fewer timetabled hours taught by teachers without post-A level qualifications in a relevant subject.
- Teachers of modern foreign languages or maths were the least likely to spend more than one fifth of their timetable teaching other subjects (less than one fifth did so), while teachers of separate (triple science) biology, chemistry or physics were most likely (more than four fifths did so).
- Most separate (triple) science teachers also taught general science (perhaps to younger year groups or entrants of different KS4 qualifications); combinations of subjects within modern foreign languages were also common with more than half of Spanish teachers also teaching French, and more than half of German teachers also teaching French.

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Glossary

Academies / City Technology Colleges (CTCs)
The 3 remaining City Technology Colleges are included with the academies.

Agency Staff
Teachers provided by teacher employment agencies are included in the School Workforce Census data analysed in this paper.

Centrally Employed Staff
Centrally employed staff include peripatetic teachers, home tutors and teachers who are employed by education authorities to provide education in institutions other than schools (e.g. hospitals, home tuition, assessment centres and pupil referral units). Advisory teachers previously included as teachers within Form 618g are now classed as other education support staff.

Full-time / Part-time
Full-time teachers and part-time teachers are defined by the proportion of the full-time hours upon which they are employed and have either a permanent contract or a temporary contract for 28 days or more.

Leadership Teachers
Include (a) head teachers, (b) deputy head teachers and (c) assistant head teachers.

Occasional Teachers
Teachers in occasional service have a contract of less than one month, 28 days for SWF, and are employed on the survey date. The 2001 Form 618g survey included, for the first time, occasional teachers without QTS from outside the European Economic Area. The subsequent surveys have included all occasional teachers without QTS.

Qualified Teacher status (QTS)
Qualified teachers are those who have been awarded qualified teacher status (QTS) either by successfully completing a course of initial teacher training (ITT) or through other approved routes.

Teachers
Include (a) Teachers with QTS or with the equivalent gained elsewhere in the EEA; (b) Teachers without QTS, but with a professional qualification gained outside the EEA who have been in service for less than the 4 years, (beyond which full QTS status gained in the UK is required); (c) Instructors without QTS, but with special qualifications in, or experience of, a particular subject.

Temporarily Filled Posts
A temporarily filled post is one where a permanent vacancy is available but it is being filled by a teacher with a contract of at least a term but less than one year’s duration. This is irrespective of whether the post has been advertised.

Vacancies
A teacher vacancy refers to a full-time or part-time appointment of at least one term's duration that, on the survey date, had been advertised but not filled. Vacancies include those filled on a temporary basis unless filled by someone with a fixed term contract of one term or more.

Vacancy Rate
The teacher vacancy rate is the number of vacancies expressed as a percentage of qualified teachers in post e.g. full (or head count number of part-time) regular teachers in (or on secondment from) the relevant sector.

Introduction

Background

Changes to the collection of school workforce data by the Department for Education (see 'Data' section below) have resulted in an expansion of the types of analysis that are possible in this area, meaning that questions can now be answered which could not previously.

The Department published a topic note on *school support staff* in June 2010 containing detailed analysis and research on this section of the school workforce. https://www.education.gov.uk/publications/RSG/publicationDetail/Page1/DFE-RTP-10-001

In contrast, this research topic paper focuses on information about the *teacher workforce*, and in particular on new information that can be drawn from the expanded data now available.

Aims

This paper aims to present a broad selection of insights from early analyses of the new school workforce data, making these publicly available and accessible to a non-technical audience in accordance with the Government's transparency agenda.

The **opening chapter** contains a **high-level overview** of the whole school workforce in England, and includes well-known as well as novel findings in order to set the scene for the following chapters. Chapters 2 to 5 then cover specific areas of analysis in greater depth, and focus exclusively on teachers in the school workforce, and in the case of chapters 2, 4 and 5, mainly on new information from the enhanced data that are now available.

Chapter 2 profiles the **characteristics** of the teacher workforce and their **pay** according to various classifications of the **type of school** in which they are deployed. The aim of these analyses is to highlight variations in the teacher profile between schools.

Chapter 3 then returns to previously available data sources to present analyses of **teacher flows**, focusing mainly on **'teacher wastage'** from the publicly funded sector; these analyses use multiple years' data to track teachers through the system, hence they are not yet possible using the new enhanced data which could eventually enable school-level investigation and open up further avenues of analysis of teacher flows.

Chapter 4 then examines the qualifications held by teachers **within the subjects** they teach, the deployment of teachers to particular subjects and Key Stages, and the relationship between **teacher pay and subjects** taught.

Data

In November 2010, the Department for Education changed the way school workforce data were collected. The annual School Workforce Census (SWF) was introduced during 2010 and is now the statutory return for school workforce data. The new census was designed to be the Department's primary source of school workforce data replacing several other exercises such as Form 618g, the school workforce element of the pupil level School Census and the Secondary School Curriculum and Staffing Survey. The census collects similar data to these three exercises but in more detail.

The new census has a different methodology and timing to previous years; however, the majority of workforce statistics should be comparable to previously published data. The main data item affected by the change in timing is the number of teacher vacancies reported by schools. Collecting teacher vacancies data two months earlier (November rather than January) has reduced the total number of vacancies reported.

The SWF collects information from all publicly funded schools including LA maintained schools, Academy schools and City Technology Colleges in England. It excludes sixth form and other further education colleges. It includes LA centrally employed teachers, including those working in Pupil Referral Units (PRU) and centrally employed education support staff who spend the majority of their time in schools. The SWF has been designed to replicate and enhance the data previously collected through the Form 618g survey using similar definitions. See the glossary for information on key definitions.

All the expected returns for SWF 2010 were received from 134 out of 152 LAs. In the authorities that were unable to provide a full return there were 71 schools and 8 central returns that were not submitted or could not be used because they had not been approved. In addition, of the 346 Academy school returns open in November 2010 13 were unable to submit a return.

SWF data are collected at the individual level for all staff in regular employment with a contract of 28 days or more. This includes contracts that were open on the census date and also those that were open but ended during the previous academic year. School staff that did not have an open contract on the census date are not included in teacher numbers but their information are collected as they are essential for the calculation of staff turnover rates.

The SWF collects contract information on the weekly hours worked and pay details of teachers and teaching assistants but not necessarily for other support staff. The hours worked, together with the full-time weekly hours, are used to calculate the full-time equivalent ratio for each staff member. This calculation takes into account where school staff members have more than one open contract. A ratio of one indicates a full-time staff member.

Most analyses that provide head count figures, or proportions based on head count figures, are a count of the number of posts that are filled and not the number of staff members. Around 9 per cent of staff have more than one post. The exceptions are the analyses that cover qualifications and curriculum data which use the highest post

of the teacher. Where staff members have more than one post these are generally part-time posts where the staff member undertakes multiple duties.

Teacher Ethnicity Data
As a result of the introduction of SWF the proportion of teachers that have ethnicity information has increased and this has affected the published breakdown slightly. No estimate has been made of ethnicity breakdown for those teachers who refused to provide ethnicity information or where the LA was unable to provide complete information for other reasons.

Pay Data
Some analyses include data on the numbers of teachers and where they are on their pay scale. This will only include teachers whose post description is consistent with the salary recorded. Although academy schools are free to determine a pay and conditions framework that best reflects their local circumstances, some have adopted the pay scales in the School Teachers' Pay and Conditions Document (STPCD) which apply to maintained schools in England.

Teacher Qualifications Data
Qualifications information was received for 90% of teachers, the percentage of teachers holding a particular level of qualification was derived using a baseline of the total teachers for whom qualifications information was provided. Where a teacher was reported as holding more than one post A-level qualification, the qualification level was determined by the highest level, from degree or higher to other qualification at National Qualifications Framework (NQF) level 4 and non-UK qualifications for which an equivalent NQF level was not provided.

Curriculum Data
Curriculum information was requested from all secondary, middle deemed secondary or all-through schools, with timetabling software that interfaces with their Management Information Systems. A total of 2,493 schools provided this information, therefore curriculum analyses are based only on a sample of teachers (around 66 per cent) teaching secondary school aged pupils. The data have been weighted so that all totals presented provide a grossed up, representative, national picture.

Deployment Data
A teacher's qualification was deemed as 'relevant' to the subject taught if the subject of their qualification, reported using the Joint Academic Coding System (JACS), appeared in the list of JACS codes in the Department's subject mapping. The subjects of qualifications were not received for all qualifications submitted, and in other cases they were incomplete or incorrect. Overall, useable qualifications data was received from 88% of teachers in schools submitting curriculum returns, and this was consistent across subjects.

Vacancy Data
The vacancy information from the November 2010 SWF is not comparable with those for earlier years due to the change in the survey date. Previously the Form 618g survey collected vacancies that were available towards the beginning of the spring term. As the SWF is now collected earlier in the academic year - in the autumn term - it is felt this is likely to reduce the numbers of reported vacancies as

schools will have successfully filled or temporarily filled vacancies that were available at the beginning of the new school year.

Chapter 1. Overview of the School Workforce and its Deployment

Key Findings

- In November 2010, there were a total of 407,000 staff in maintained nursery and primary schools, 325,000 in maintained secondary schools, 46,000 in maintained special schools, 38,000 in academies and a further 34,000 working in centrally employed posts.
- Although academies accounted for a minority of teachers and other school workforce roles, their share of the workforce has been growing and is set to continue to do so at increased pace for the school year commencing in 2011 due to the expansion of the academies programme.
- The largest increases since 2000 have been seen for support staff, with a much more gradual growth in teacher numbers. Teachers then made up 71% of the total school workforce; by November 2010, the balance had shifted so that this share had reduced to 53% due to the growth in teaching assistants (from 14% to 25%) and in other support staff (from 15% to 22%).
- November 2010 data suggest that academies have more vacancies as a percentage of teachers in post than maintained secondary schools both for classroom and leadership roles.
- Higher proportions of teachers in leadership grades (35%), and of unqualified teachers (33%), were male than was the case for classroom teachers (25%).
- Academies pay fractionally more on average to younger classroom teachers than do maintained secondary schools, but the overall average salary for academies is pulled down by their younger *age mix* compared with maintained schools. Academies also pay the highest average leadership salaries across age groups.
- The 'degree or higher' group of qualifications was relatively more popular in maintained secondary schools (76%) and academies (73%) than in nursery and primary schools (59%) and special schools (51%). BEds accounted for relatively larger shares of teachers in nursery and primary schools (23%) and special schools (20%) than in secondary schools and academies (both 8%).
- Leadership teachers were more likely to hold BEds (32% of head teachers, 24% of deputy/assistant heads vs. 14% of classroom teachers) or Certificates of Education (9% of heads, 6% of deputies/assistants vs. 4% of classroom teachers).

This chapter presents a high-level overview of the whole school workforce in England, setting the scene for the following chapters which focus exclusively on teachers. The main variables available in the workforce data are introduced, outlining the national headline numbers and rates in each case. The figures in this chapter were first published in the Statistical First Release 'SFR06-2011: School Workforce in England, November 2010':
http://www.education.gov.uk/rsgateway/DB/SFR/s000997/index.shtml

Section 1.1 begins by mapping the size of the school workforce over time and across school sectors. Section 1.2 then gives statistics on the numbers and rates of teacher vacancies in publicly funded schools; the significant differences between previous

data sources and the School Workforce Census for these data items are described. Section 1.3 introduces an outline description of the characteristics of the workforce, examining the gender and age distributions of teachers in service, and the ethnicity profile of the various roles within the whole school workforce. Key average salary statistics are summarised in section 1.4, followed by the headline range of highest qualifications held by teachers in section 1.5, rounding off this opening chapter.

Chapter 1. Overview of the School Workforce and its Deployment

1.1 School Workforce Numbers and Their Teacher Components

Figure 1.1.1 depicts the spread of school workforce members across the three main constituent groups of roles: teachers, teaching assistants, and administrative or other support staff. In November 2010, there were a total of 407,000 staff in maintained nursery and primary schools, 325,000 in maintained secondary schools, 46,000 in maintained special schools, 38,000 in academies and a further 33,000 working in centrally employed posts rather than attached to a specific school.

Although academies accounted for a minority of teachers and other school workforce roles, their share of the workforce as been growing and is set to continue to do so at increased pace for the school year commencing in 2011 due to the expansion of the academies programme under the government elected in May 2010. The maintained secondary sector is shrinking as academies replace schools that were previously LA maintained through conversions. New sponsor-led academies (free schools) are set to compete with existing maintained schools for their pupil intake, which may in time lead to the closure of further maintained schools due to lack of demand for places at them rather than through the existing route of conversion.

Fig. 1.1.1 Full Time Equivalent School Workforce Size by Sector and Role

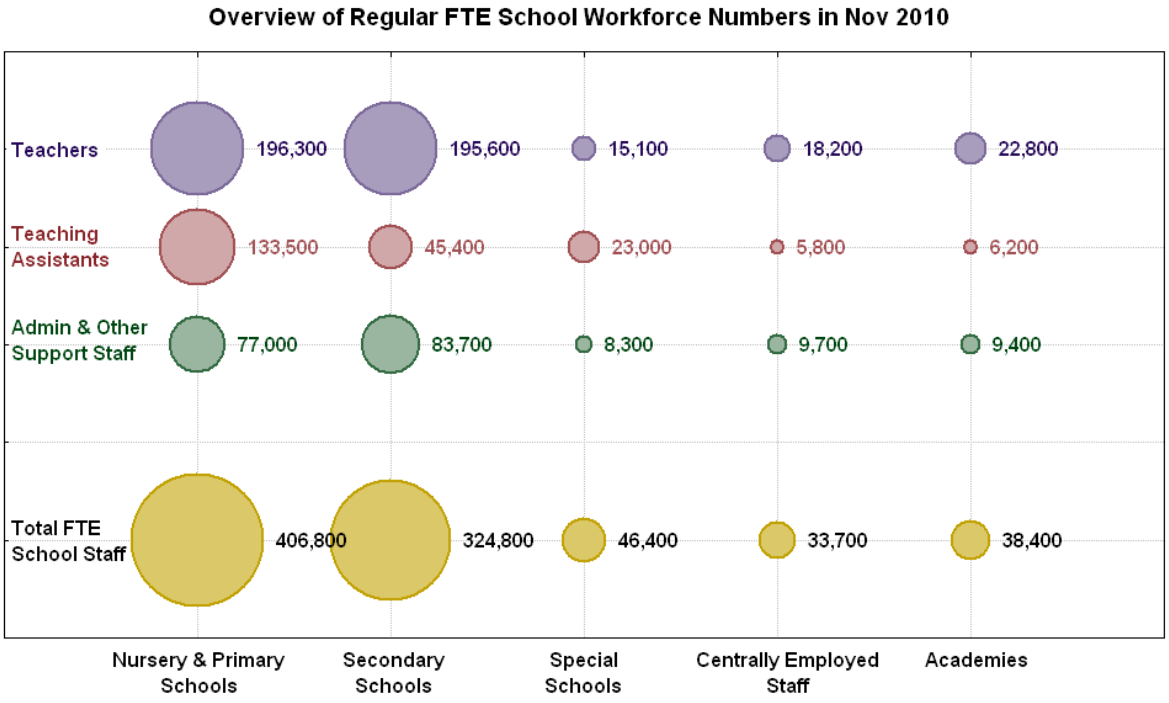


Figure 1.1.2 presents time series data on the growth of the school workforce and how this has been divided between the three role types. The largest increases since 2000 have been seen for teaching assistants and other support staff, with a much more gradual growth in teacher numbers. The teaching assistant full time equivalent (FTE) count more than doubled from 79,000 in January 2000 to 194,000 in January 2010; the improved coverage for support staff in the new School Workforce Census revealed a higher total of 214,000 teaching assistants in November 2010 – a more accurate and complete figure.

Over the same time period the number of FTE other support staff also doubled from 83,000 to 169,000 in January 2010; the preferred figure from the School Workforce Census (SWC) revealed a total of 188,000 other support staff in November 2010. The November 2010 SWC gave a FTE count for regular teachers of 448,000, consistent with the predecessor data source to within 100 teachers. This represented growth of 42,000 teachers from the total of 406,000 in January 2000.

Fig. 1.1.2 Growth of the School Workforce and Teacher Component Since 2000

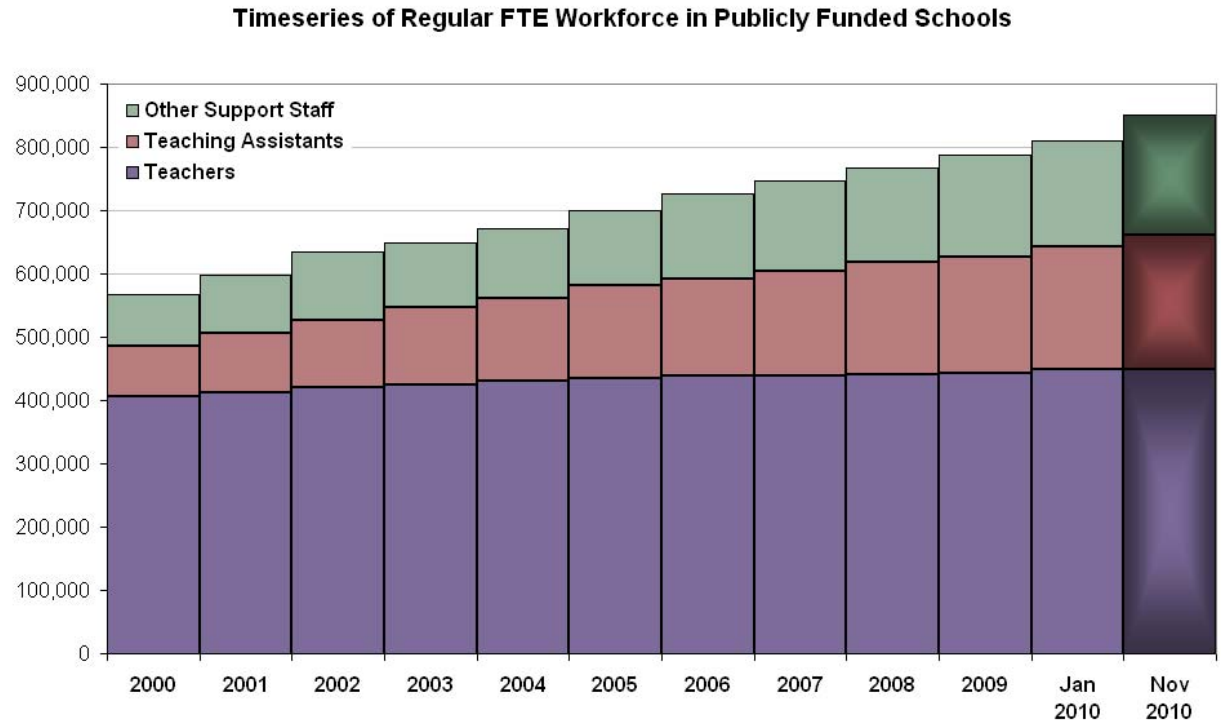
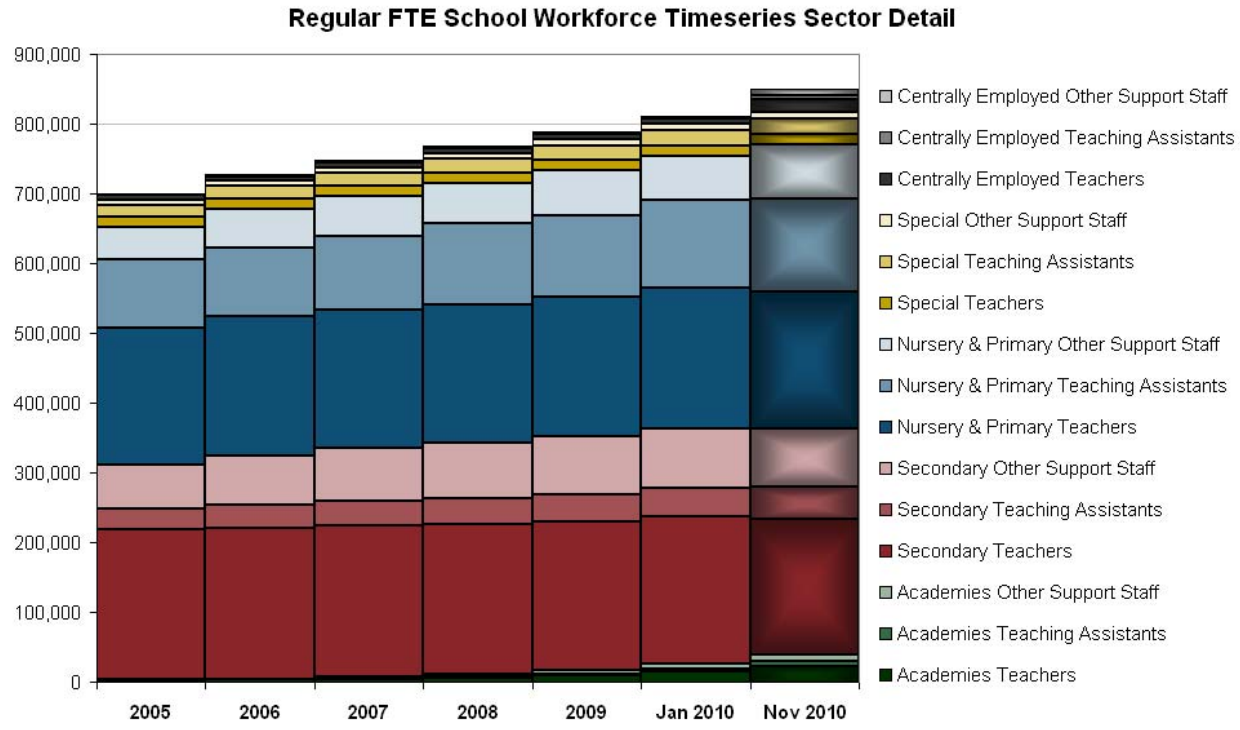


Figure 1.1.3 reveals some overall growth in the publicly funded secondary schools workforce since 2005 (from 312,000 in January 2005 to 363,000 in November 2010), driven by growth in the academies workforce which has not been entirely offset by losses from the maintained secondary schools workforce, although the FTE number of regular teachers in maintained secondaries has fallen from 215,000 in January 2005 to 196,000 in November 2010. Growth in the maintained nursery and primary schools workforce since 2005 has been concentrated in the support staff categories.

The flows into and out of the publicly funded schools teacher workforce which drive the changes in its size over time are explored in Chapter 3.

Fig. 1.1.3 Sector and Role Detail of the School Workforce Since 2005



In January 2000, teachers were recorded as 71% of the total school workforce (see figures 1.1.4a and 1.1.4b); by November 2010, the balance between teachers and other staff had shifted so that this share had reduced to 53% due to the growth in teaching assistants (from 14% to 25%) and, to a lesser degree, in other support staff (from 15% to 22%). Although the change in data source and collection timing which came with the introduction of the School Workforce Census was responsible for some of this change, the majority of it resulted from real increases in the numbers of support staff; only 1-2 percentage points of the differences for each role were related to the change in data source.

Fig. 1.1.4a Share of the School Workforce Who Were Teachers in 2000

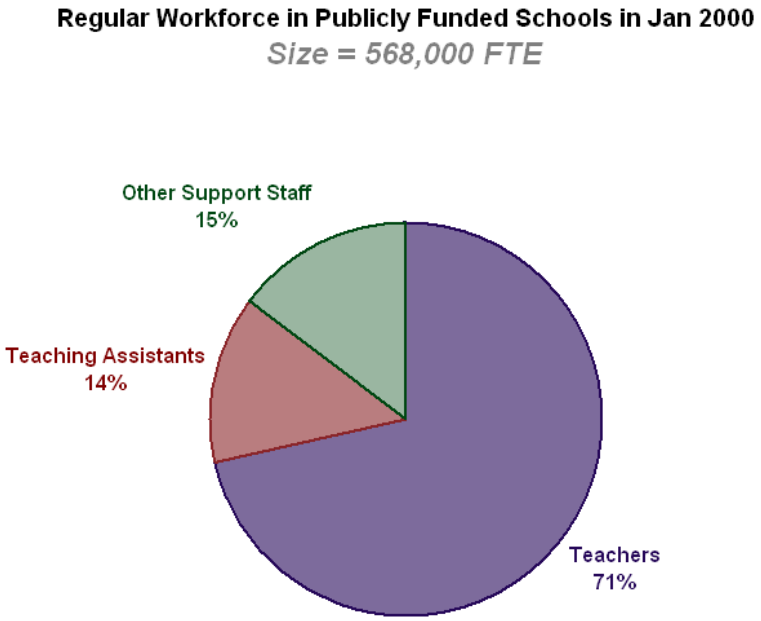
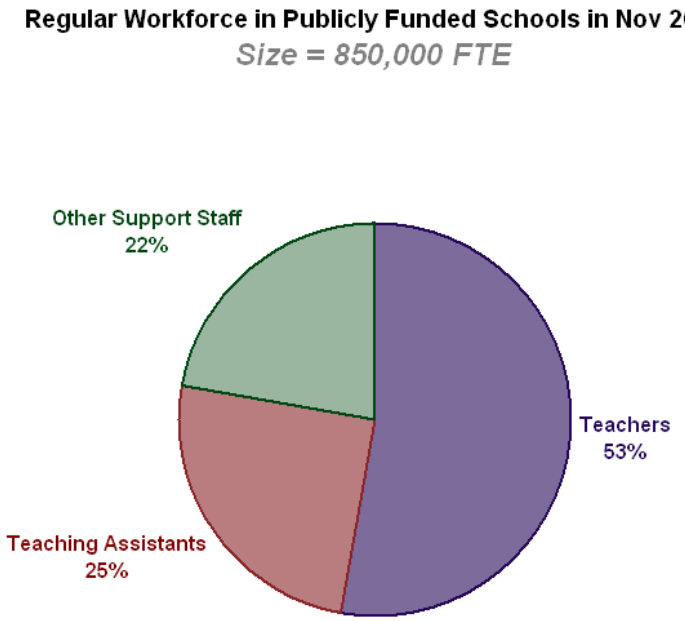


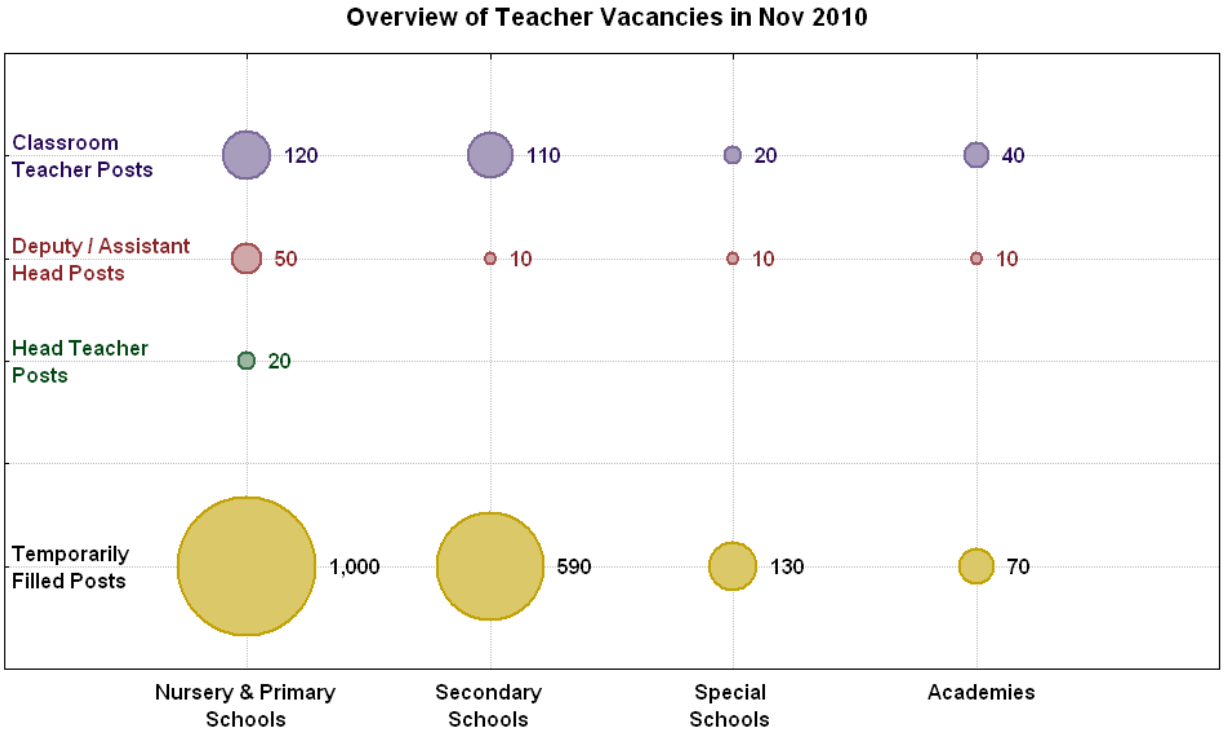
Fig. 1.1.4b Share of the School Workforce Who Were Teachers in 2010



1.2 Teacher Vacancies

Figure 1.2.1 presents a snapshot of the spread of teacher vacancies across school sectors in November 2010. There were over 200 classroom teacher vacancies in maintained mainstream schools, and around one quarter as many again in academies and special schools. Around 100 leadership grade vacancies were recorded across all publicly funded schools. There were around five temporarily filled posts for each actual vacancy (fewer in academies), giving an indication of the size of wider turnover and recruitment issues in the supply of teachers.

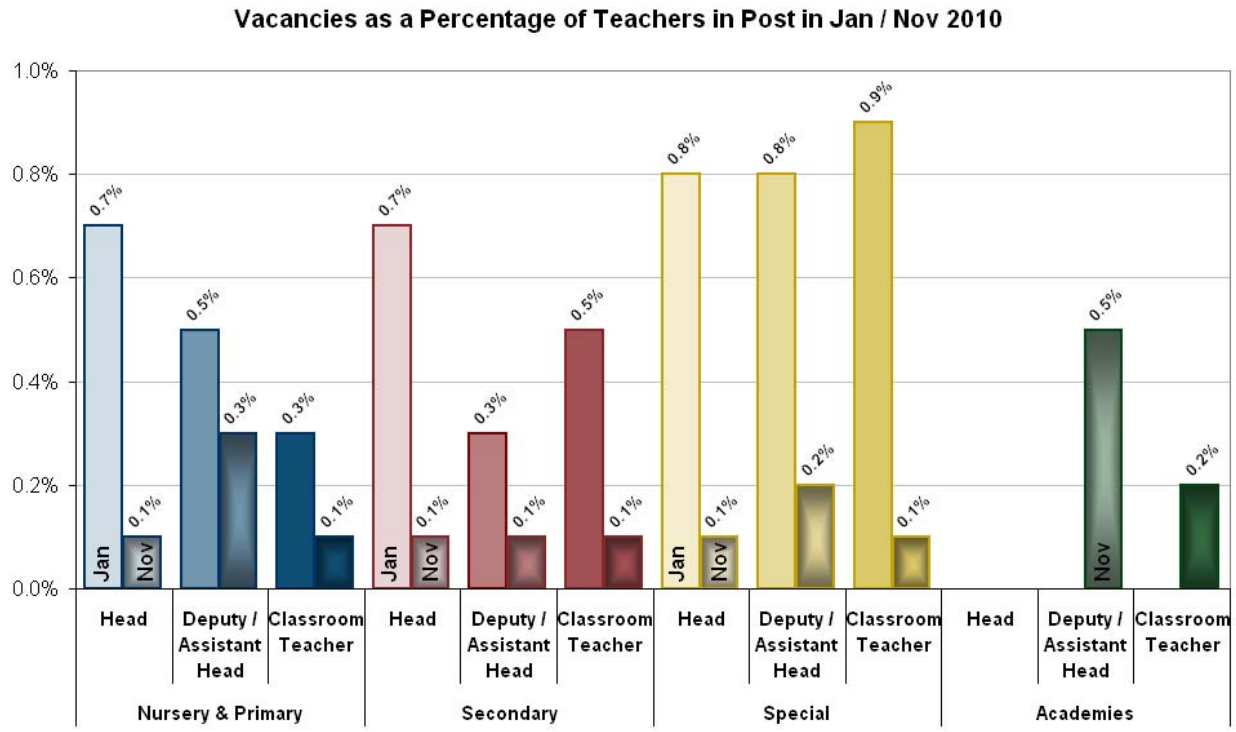
Fig. 1.2.1 November 2010 Teacher Vacancies by Sector and Grade



As is immediately apparent from figure 1.2.2, the vacancy landscape is very different in November when the SWC count is taken than in January when the predecessor data collection took place. The pattern of vacancy rates between different teacher grades and school sectors varies between the two data collection points as well as the overall magnitude of the rates, which was always much smaller in November than the preceding January. It is evident that the two vacancy data sources are not comparable and cannot be combined in a time series however cautious the interpretation.

Drawing comparisons within the November 2010 data, the data suggest that academies have more vacancies as a percentage of teachers in post than maintained secondary schools both for classroom and leadership roles, or at least that this was the case during the autumn term.

Fig. 1.2.2 Comparison of January and November 2010 Teacher Vacancy Rates



1.3 Teacher Characteristics

Higher proportions of teachers in leadership grades (35%), and of unqualified teachers (33%), were male than was the case for classroom teachers (25%). Figure 1.3.1 shows the size of the male teacher minority for each teacher grade in terms of full time equivalent (FTE) numbers.

Fig. 1.3.1 Teacher Gender by Grade

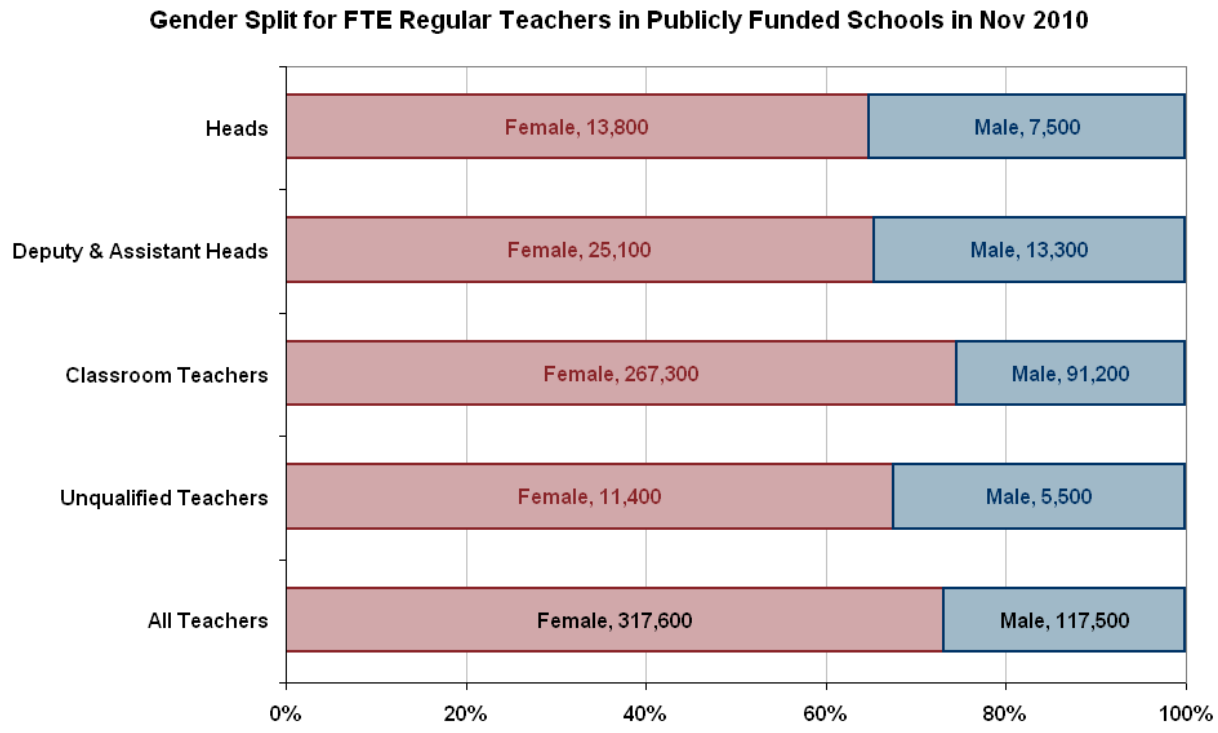
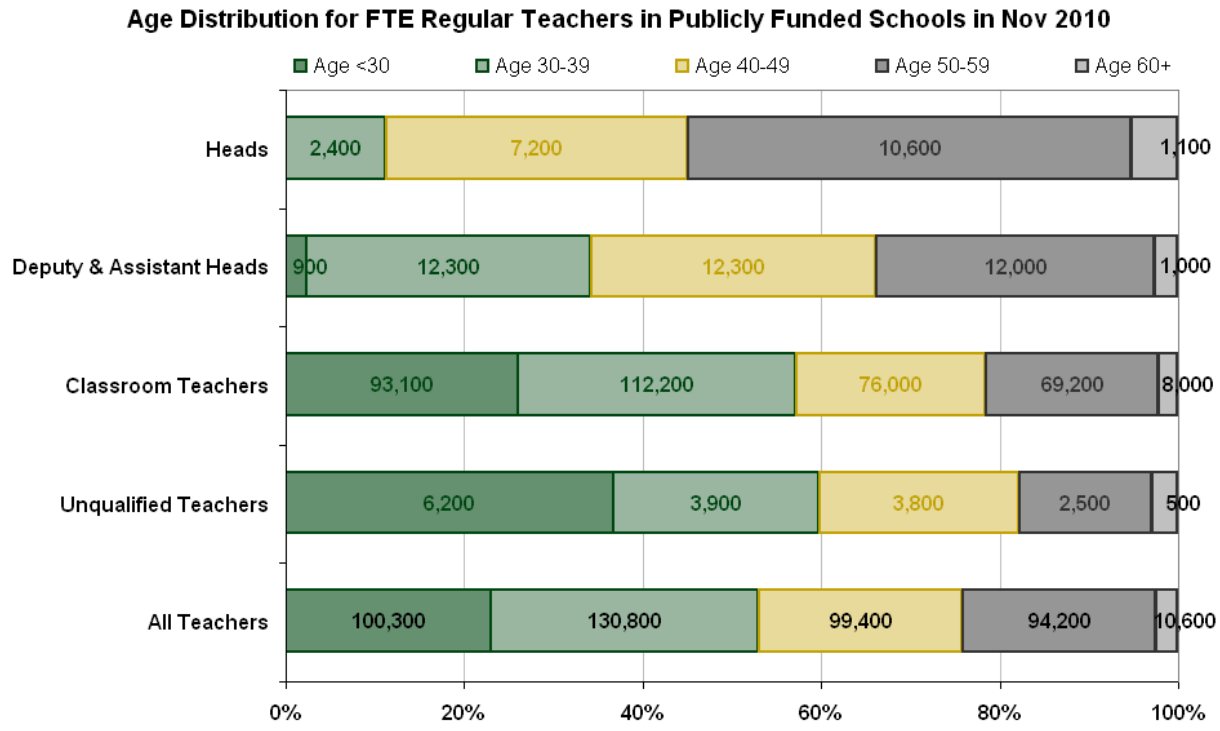


Figure 1.3.2 depicts the age distribution of teachers in service for each grade. As would be expected, senior grades are positively associated with age, the unqualified teacher group (including trainees on employment based routes) having the largest proportion of younger teachers and the head teacher group having the least younger teachers and the most older teachers.

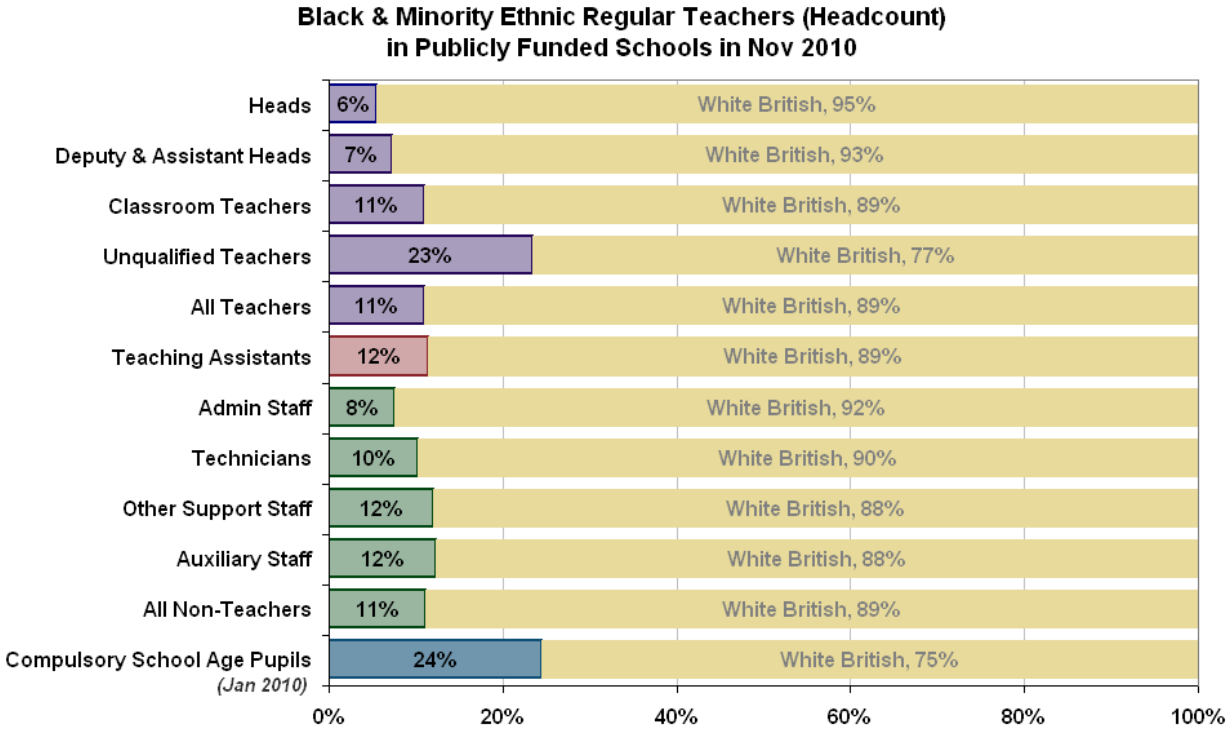
Fig. 1.3.2 Teacher Age Profile by Grade



The overall rates of black and minority ethnicity (BME) for each category of school staff, and for pupils of compulsory school age for comparison, are displayed in figure 1.3.3. The lowest rates of BME backgrounds, at under 10%, are observed for the leadership teacher grades; classroom teachers and all categories of support staff have one half the pupil BME rate or less. Of all the school staff roles, only unqualified teachers have a similar rate of black or minority ethnicity to pupils (23% vs. 24%).

Further information on school teacher characteristics appears in Chapter 2, where variations between different categories of schools are examined.

Fig. 1.3.3 School Workforce and Pupil Rates of BME Ethnicity

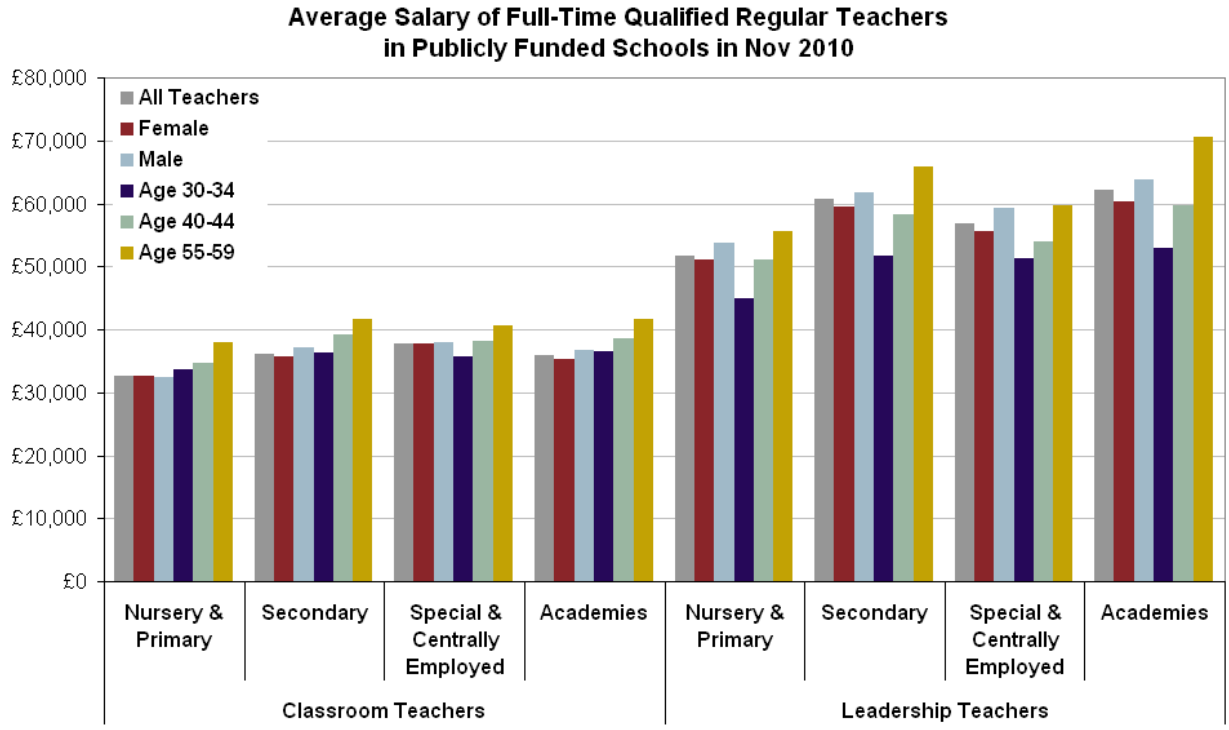


1.4 Teacher Pay

Teacher pay is a complex subject area influenced by geographical variation as well as the age and experience distribution of teachers in service within a given group. More detailed analyses appear in Chapter 2 which examines these differences along with the differences between selected categories of school.

Figure 1.4.1 gives a summary of average salaries for key groups of teachers to provide a flavour of the range and scale of teacher pay in November 2010. Beginning with classroom teachers, other than in nursery and primary schools, average salaries for all the age/gender/sector groups displayed are over £35,000; they are at least £40,000 for teachers aged 55-59 outside of the nursery and primary sector.

Fig. 1.4.1 Teacher Pay by Sector and Grade with Age and Gender Detail



Considering the grey bars which represent the overall average across genders and ages, the special schools and centrally employed group have the highest average salary of the sectors, due to their older than average age profile. Secondary schools have the next highest average teacher salary, followed by academies, then nursery and primary schools.

Academies pay slightly more on average to younger teachers than do maintained secondary schools, but the overall average salary for academies is pulled down by the younger *age mix* of their teacher force compared with maintained schools. The academies average salaries are also influenced by the geographical pay area spread for this type of school (see section 2.7 for further analysis).

Turning to leadership grade teachers, outside of the nursery and primary sector, the

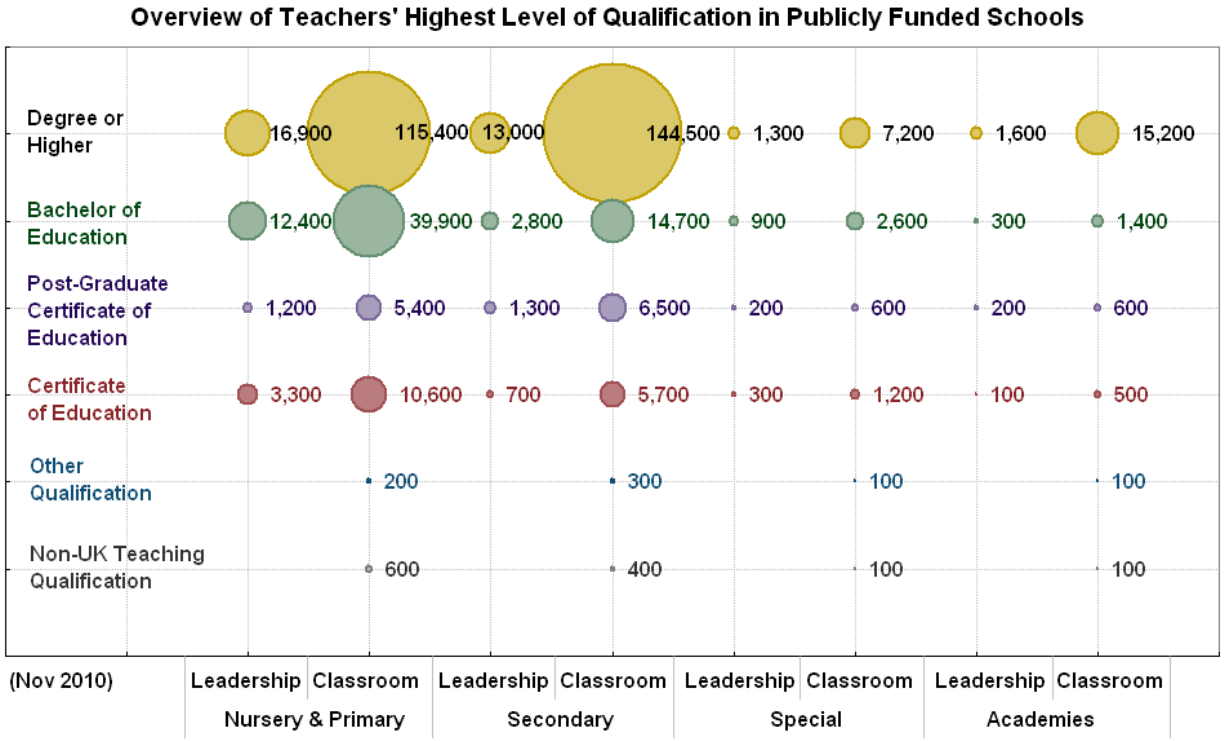
average salaries for the groups displayed start at around £50,000. Academies pay the highest average salaries across age groups and to both genders. Maintained secondary schools pay the next highest leadership salaries with male teachers and those aged 55-59 averaging over £60,000.

Leadership teachers in nursery and primary schools who are under 55 years of age, and those across school sectors who are aged 30-34 have average salaries of £45,000-£55,000. Salaries above £55,000 are typical for leadership teachers aged 40 or older in maintained secondary schools and academies, and for those aged 55 or older in special schools, centrally employed roles, or nursery and primary schools. Those aged 55 or older in maintained secondary schools or academies average over £65,000 per year.

1.5 Highest Qualifications Held by Teachers

Other than centrally employed teachers, for whom a large proportion of highest qualification data is unavailable, a degree or higher qualification is the most commonly held highest qualification type for all school sectors and teacher grades (see figure 1.5.1). Bachelor of Education qualifications were the next most frequently reported as the highest held across the board, followed by Certificates of Education in nursery, primary and special schools, but by Post Graduate Certificates of Education in maintained secondary schools or academies.

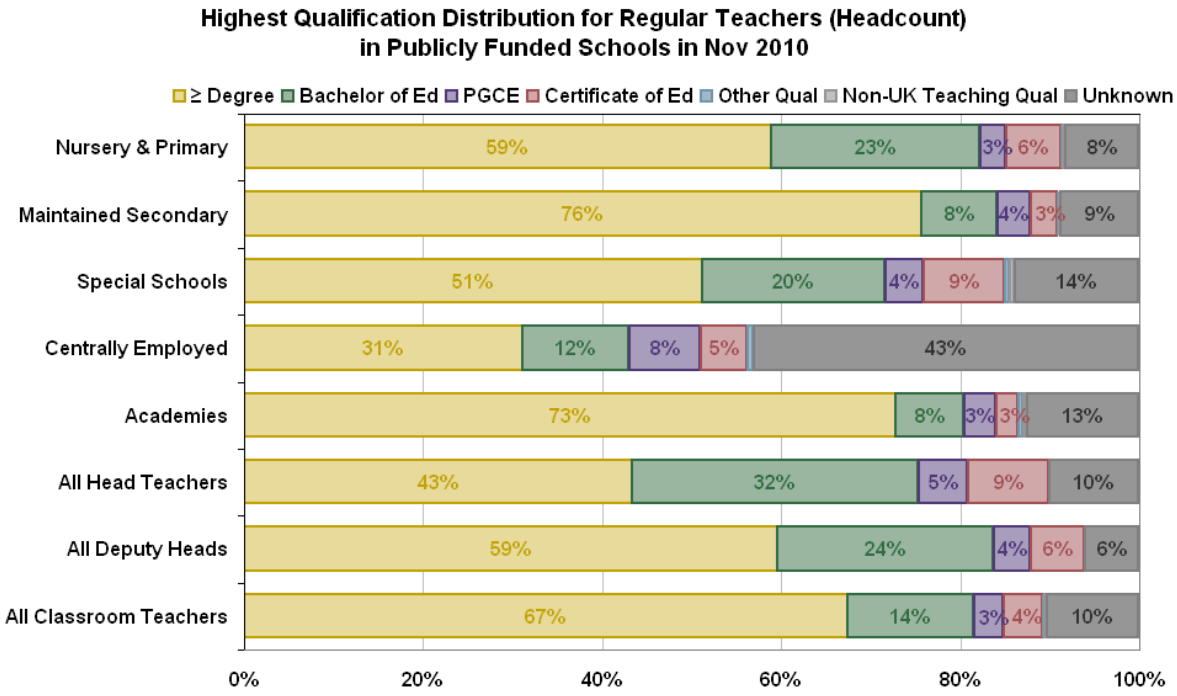
Fig. 1.5.1 Highest Qualifications Held by Teachers with Sector and Grade Detail



The degree or higher group of qualifications was relatively more popular in maintained secondary schools (76%) and academies (73%) than in nursery and primary schools (59%) and special schools (61%). BEds accounted for relatively larger shares of teachers in nursery and primary schools (23%) and special schools (20%) than in maintained secondary schools and academies (both 8%). PGCEs accounted for 3-4% of teachers across sectors. See figure 1.5.2.

Leadership teachers were more likely to hold BEds (32% of head teachers, 24% of deputy/assistant heads vs. 14% of classroom teachers) or Certificates of Education (9% of heads, 6% of deputies/assistants vs. 4% of classroom teachers). Leadership teachers were correspondingly less likely to hold degree or higher qualifications than classroom teachers were. This can be explained through the distribution of leadership teachers between sectors; as primary schools tend to be smaller than secondary schools, over three-quarters of head teachers were primary heads; BEds are a particularly popular route into teaching for those wishing to teach in primary schools, so it is unsurprising that leadership teachers in particular in nursery and primary schools hold higher shares of them.

Fig. 1.5.2 Comparison of Highest Qualification Distributions



Chapter 2: Teacher Profile & Pay - Variation between Schools

Key Findings

- Schools performing below the 2010 KS4 floor standards had a slightly lower proportion of teachers with a degree or higher qualification (70% vs. 79% in schools with high GCSE performance and 76% in mid-performers), but correspondingly more teachers with unknown qualifications
- Academies followed the same pattern when compared with maintained secondary schools (73% compared with 76%).
- Schools where behaviour was rated as 'inadequate' or 'satisfactory' by Ofsted had fewer teachers with Bachelor of Education qualifications (12% / 13%) than schools with 'good' or 'outstanding' behaviour judgements (16% / 17%), and more teachers whose qualifications were unknown.
- Academies had younger than average teacher age profiles, whereas LA nurseries and special schools had older age profiles. High-performing schools at KS4 and those with 'good' or 'outstanding' behaviour both had slightly older than typical teacher age profiles.
- There was a clear pattern of fewer teachers working part-time in below-floor standard schools, and more part-time teachers in high-performing schools at KS2 (22% vs. 27%) and KS4 (12% vs. 22%).
- More classroom teachers in high-performing KS4 schools were on the upper pay scale (60% vs. 56% for mid-performing schools and 50% for below-floor schools); leadership teachers also had higher average pay in high-performing schools than other schools, except in Inner London.
- Similarly, there were more upper pay scale teachers in schools with 'outstanding' behaviour (primary 50% / secondary 59%), and fewer in schools with 'satisfactory' or 'inadequate' behaviour (primary 44% / secondary 54%).

This chapter examines the qualifications, characteristics, working patterns and pay of teachers in England according to various categories of school in which they serve. For each feature or characteristic of the teachers, schools are divided into sectors, governance types, National Curriculum test performance categories and Ofsted behaviour judgements, in order to assess the variations in the teaching profile according to these school groupings.

In section 2.1, the highest qualification types held by teachers are presented for each school category, followed by the teacher gender split in section 2.2, the teacher age profile in section 2.3, the teacher ethnicity distribution in section 2.4 and the proportion of teachers with part-time working patterns in section 2.5.

Teacher pay analyses are complicated by the influences of the geographical pay areas used to adjust teacher pay for the cost of living, and by the age profile of teachers in service in particular categories of school. For these reasons, the pay analysis is organised into four sections: section 2.6 on school sectors and governance types by geographic pay area; section 2.7 on pay and school performance by area; section 2.8 on pay and standards of behaviour in schools by area; and section 2.9 on the age variation within teacher pay patterns.

Analyses of the teacher grade mix in various categories of school have been annexed because the patterns are largely driven by school size, with nurseries, primary schools and special schools tending to be smaller than secondary schools and academies, and therefore carrying a larger proportion of leadership teachers. Unsurprisingly, there were no significant variations in the grade mix by governance type, or other interesting findings, as each school tends to have one head teacher and a small number of deputy or assistant heads in the leadership team, leaving school size as the only real variant factor. See Annex A for the analyses of teacher grade.

Data Note on Key Stage 2 School Performance Categories
For the purpose of this report, the following definitions were adopted to identify schools that were high-performing, mid-performing and below-floor standards:

	% achieving level 4 or above in English and maths	*% making expected progress (2 levels) from KS1-2 in English*	*% making expected progress (2 levels) from KS1-2 in maths*
High-Performing	>80%	>92%	>91%
Mid-Performing	60-80%	87-92%	86-91%
Below-Floor	<60%	<87%	<86%

Schools excluded from the analysis:

- *Special schools*
- *Schools with fewer than 11 pupils in their KS2 cohort*
- *Schools that have closed*
- *Schools with missing data for one or more performance measures even after substituting 2009 data where the school boycotted the 2010 KS2 tests*

Data Note on Key Stage 4 School Performance Categories
For the purpose of this report, the following definitions were adopted to identify schools that were high-performing, mid-performing and below-floor standards:

	% achieving 5 grades A-C including GCSE English and maths*	*% making expected progress (3 levels) from KS2-4 in English*	*% making expected progress (3 levels) from KS2-4 in maths*
High-Performing	>60%	>82%	>75%
Mid-Performing	35-60%	72-82%	65-75%
Below-Floor	<35%	<72%	<65%

Schools excluded from the analysis:

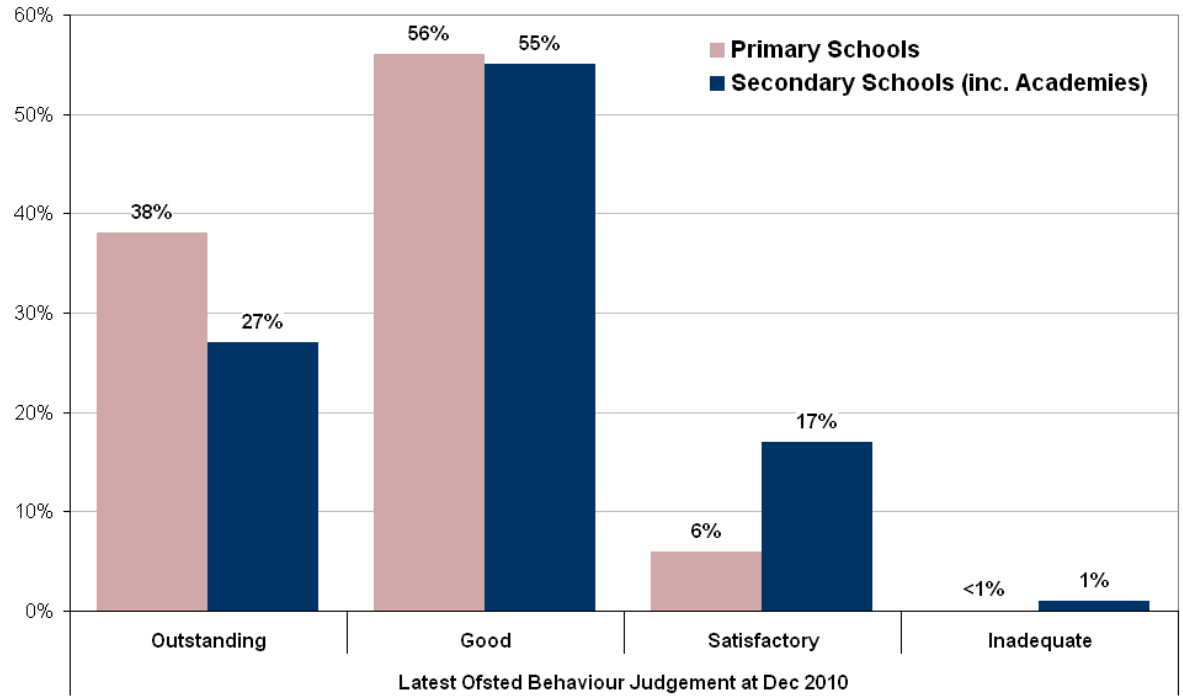
- *Special schools*
- *Independent schools*
- *Schools with fewer than 11 pupils in their KS4 cohort*
- *Schools that have closed*
- *Schools with missing data for one or more performance measures even after substituting 2009 data where the school boycotted the 2010 KS2 tests*

Data Note on Ofsted Behaviour Judgements: *The most recent inspection for each school as at the end of the 2009/10 academic year is used in the analysis – it's important to be aware that some of these inspection judgements will have been 2-3 years old at that time due to the inspection cycle, meaning that some will relate to an earlier inspection framework, and that factors such as pupil intake profiles or the particular head teacher in post may have changed since that time.*

The Ofsted inspection framework is expected to be revised with effect in January 2012 to reflect changes first proposed in the Schools White Paper which are now being taken forward as part of the Education Bill.

There is a different distribution of behaviour judgements dependent on the age of pupils in the school in question as can be seen by comparing maintained primary schools with publicly funded secondary schools:

Fig. DN1. Ofsted Behaviour Judgements Distribution

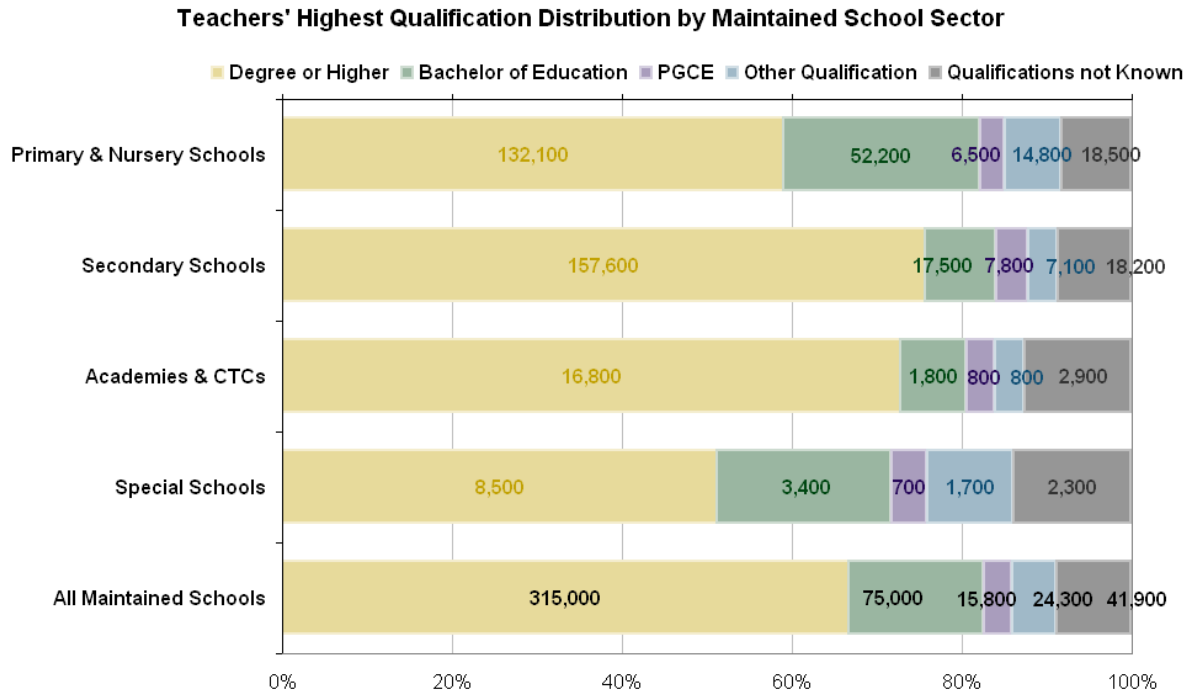


Chapter 2: Teacher Profile & Pay - Variation between Schools

2.1 Highest Qualification of Teachers

Figure 2.1.1 reveals a distinction between primary and special teacher qualification patterns and those for secondary teachers. Maintained secondary schools and academies (including remaining CTCs) had more teachers whose highest qualification was a degree or higher, reflecting the importance of subject specialisms for teachers of years 7-13. Contrastingly, teachers in nursery, primary and special schools had larger shares of teachers with Bachelor of Education qualifications.

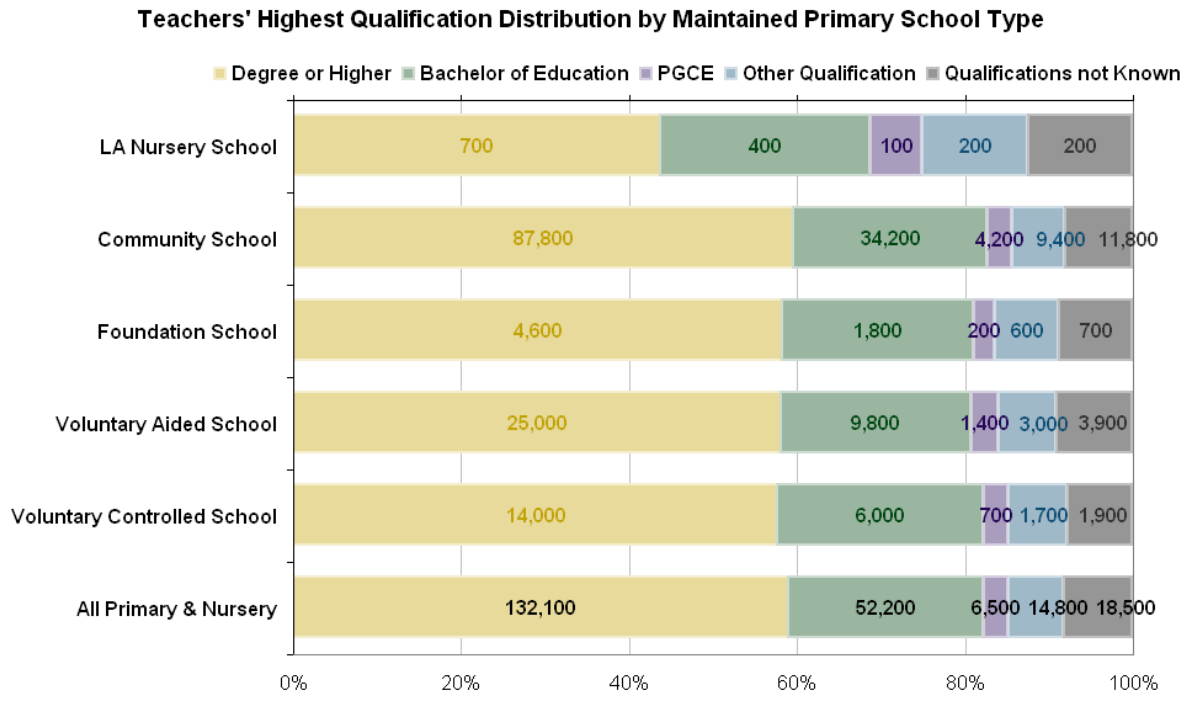
Fig. 2.1.1 Maintained School Sector & Teacher Qualifications



Additionally to BEds, 'other qualifications' were the highest recorded for relatively larger proportions of nursery, primary and special schools' teachers, reflecting the needs of younger children and those with special educational needs. Figure 2.1.2 confirms that LA nursery schools in particular have an especially large proportion of teachers with other qualifications.

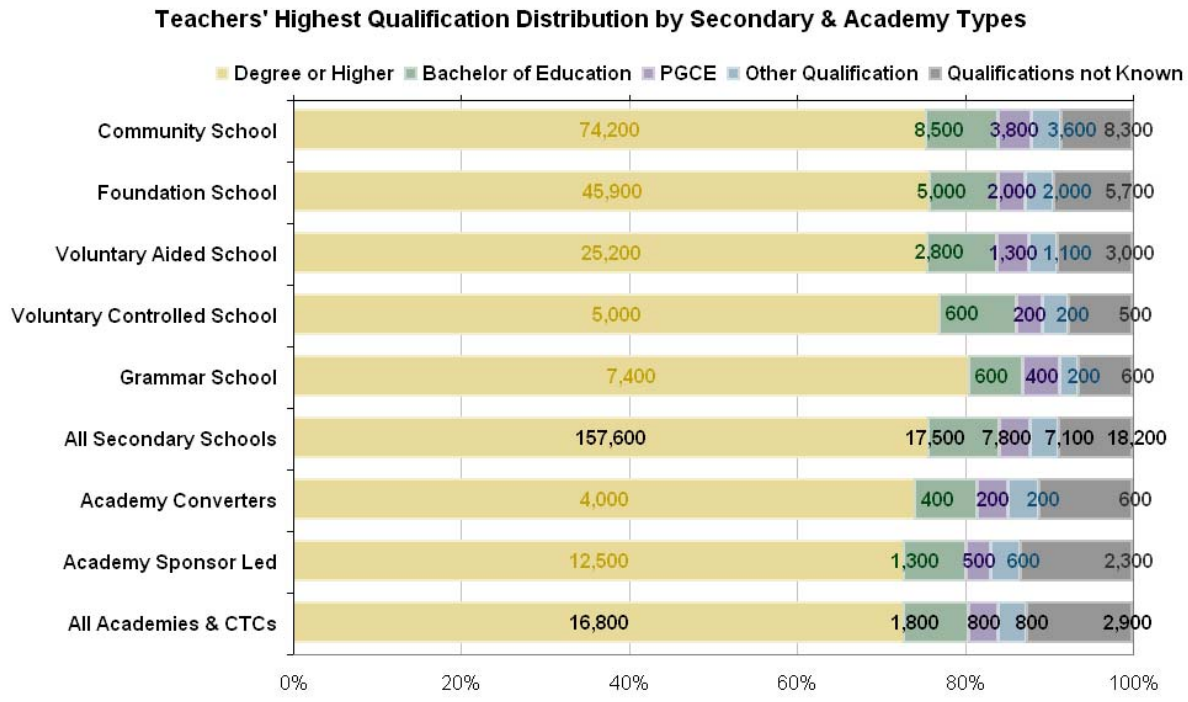
Academies had a slightly lower proportion of teachers with a degree or higher qualification than maintained secondary schools (73% compared with 76%), but correspondingly more teachers with unknown qualifications. Special schools also had an even larger proportion of teachers with unknown highest qualifications.

Fig. 2.1.2 Maintained Primary School Governance & Teacher Qualifications



Among the secondary governance types displayed in figure 2.1.3, grammar schools and voluntary controlled schools had slightly higher rates of degree or higher qualifications held by their teachers, and fewer teachers with unknown highest qualifications. Grammar schools had fewer teachers with BEds than other secondary schools. Sponsor-led academies emerge as having more teachers with unknown highest qualifications and fewer teachers with a degree or higher qualification than converter academies.

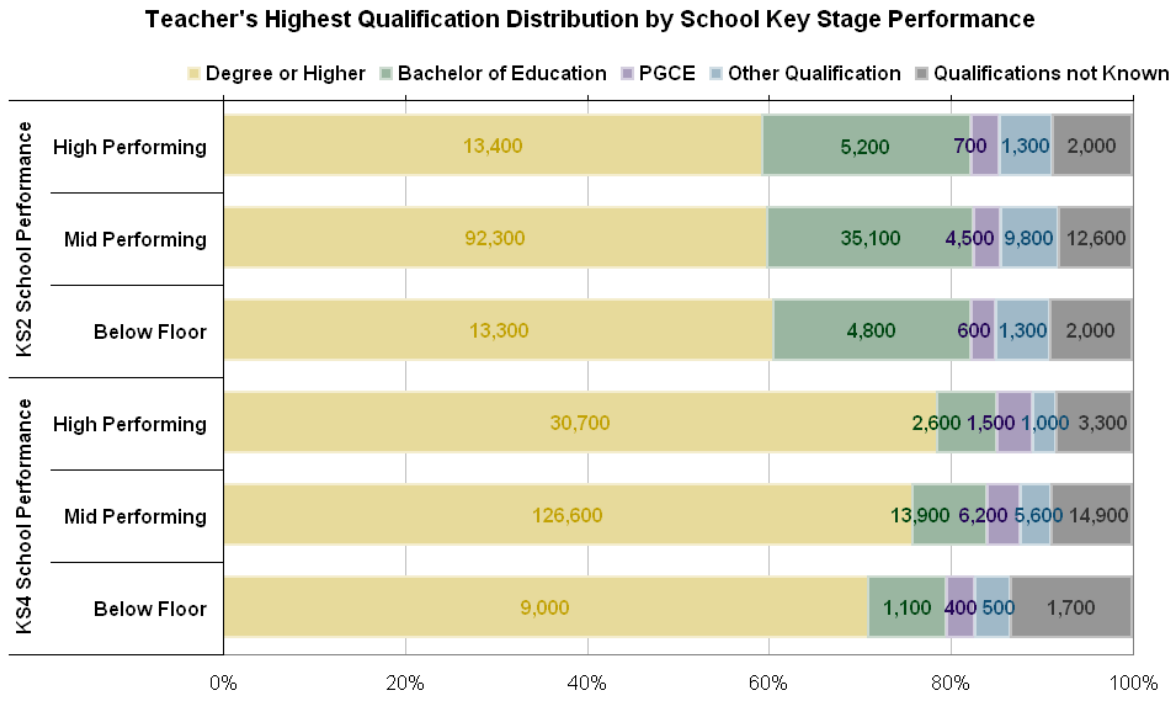
Fig. 2.1.3 State-Funded Secondary Governance & Teacher Qualifications



Schools performing below the 2010 KS4 floor standards had a slightly lower proportion of teachers with a degree or higher qualification (70% vs. 79% in schools with high GCSE performance and 76% in mid-performers), but correspondingly more teachers with unknown qualifications (see figure 2.1.4). High-performing GCSE schools had more teachers with degrees or higher qualifications, and fewer with BEds or 'other qualifications', than mid-performing or below-floor schools.

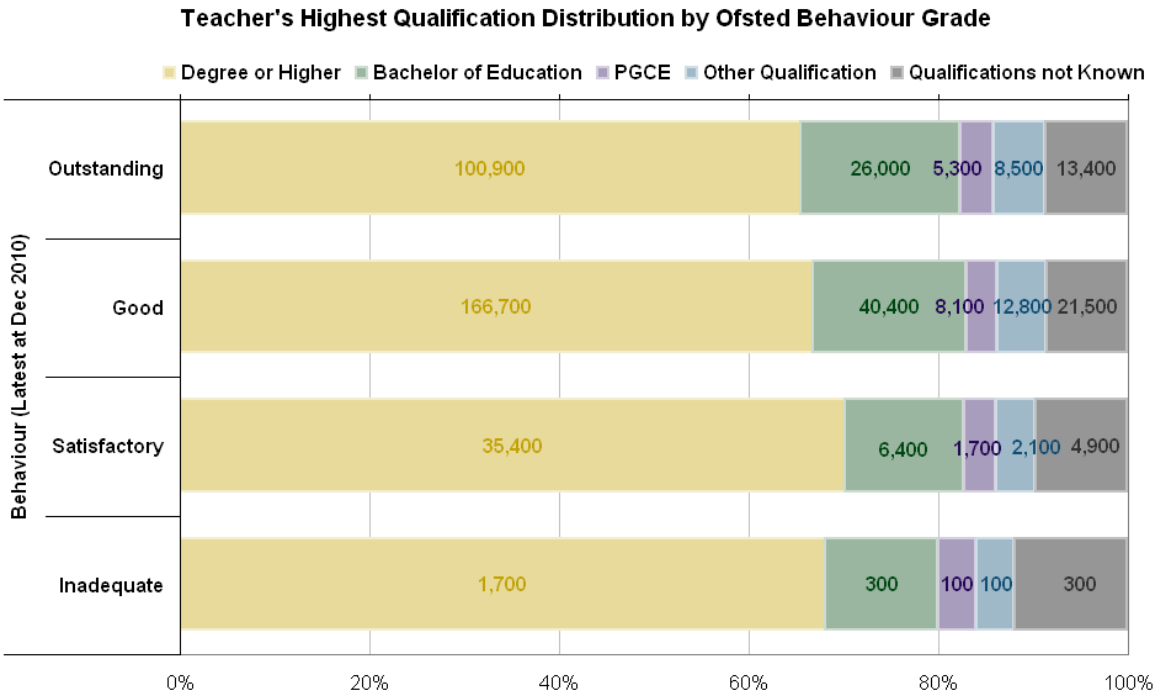
Key Stage 2 schools showed only minor variations in their distributions of highest qualifications held by teachers according to their National Curriculum test performance.

Fig. 2.1.4 Key Stage 2 and 4 Performance & Teacher Qualifications



Schools where behaviour was rated as 'satisfactory' or 'inadequate' by Ofsted had fewer teachers with Bachelor of Education qualifications (13% / 12%) than schools with 'outstanding' or 'good' behaviour judgements (17% / 16%), and more teachers whose qualifications were either degree or higher, or were unknown (see figure 2.1.5). This is likely to be related to the balance of primary vs. secondary schools with Ofsted behaviour judgements of each category; BEds are a particularly popular route into teaching for those wishing to teach in primary schools (see figure 2.1.1), and primary schools are less likely to receive a 'satisfactory' or 'inadequate' behaviour judgement (6% vs. 18% of secondary schools – see figure DN1).

Fig. 2.1.5 School Behaviour & Teacher Qualifications



2.2 Teacher Gender

Nursery and primary schools, followed by special schools, had the largest majorities of female teaching staff (see figure 2.2.1). The highest proportion of female teachers of the nursery and primary governance types was observed in LA nursery schools (see figure 2.2.2). In maintained secondary schools and academies, male teachers made up larger minorities.

Fig. 2.2.1 Maintained School Sector and Teacher Gender

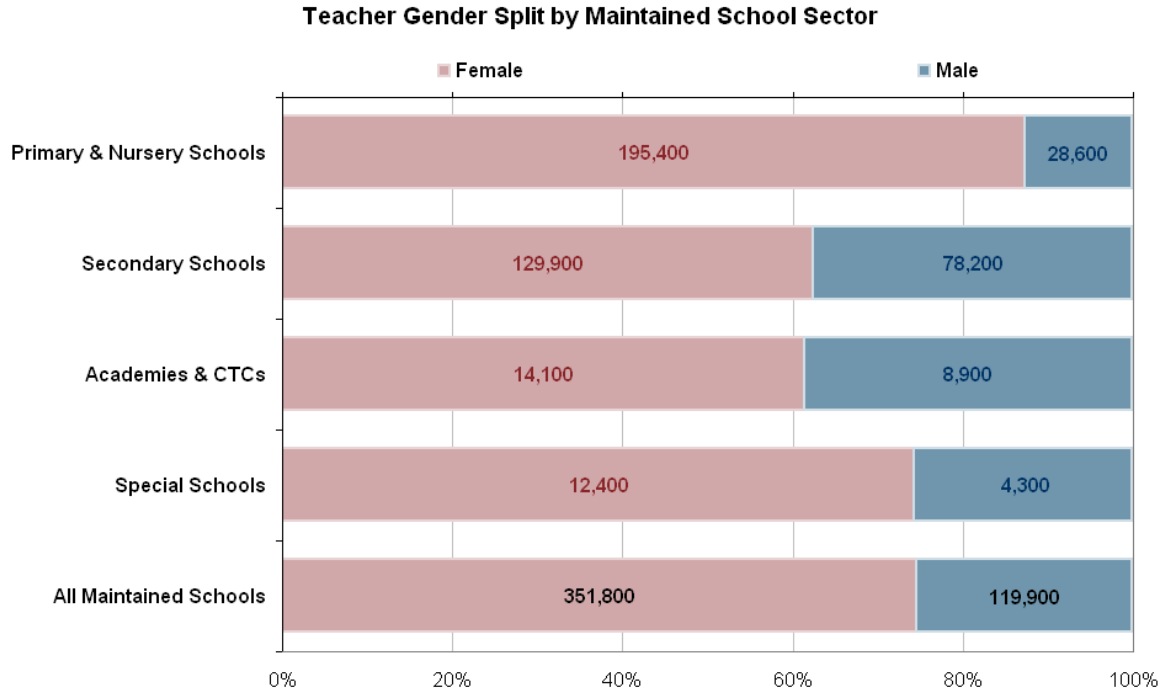


Fig. 2.2.2 Maintained Primary School Governance & Teacher Gender

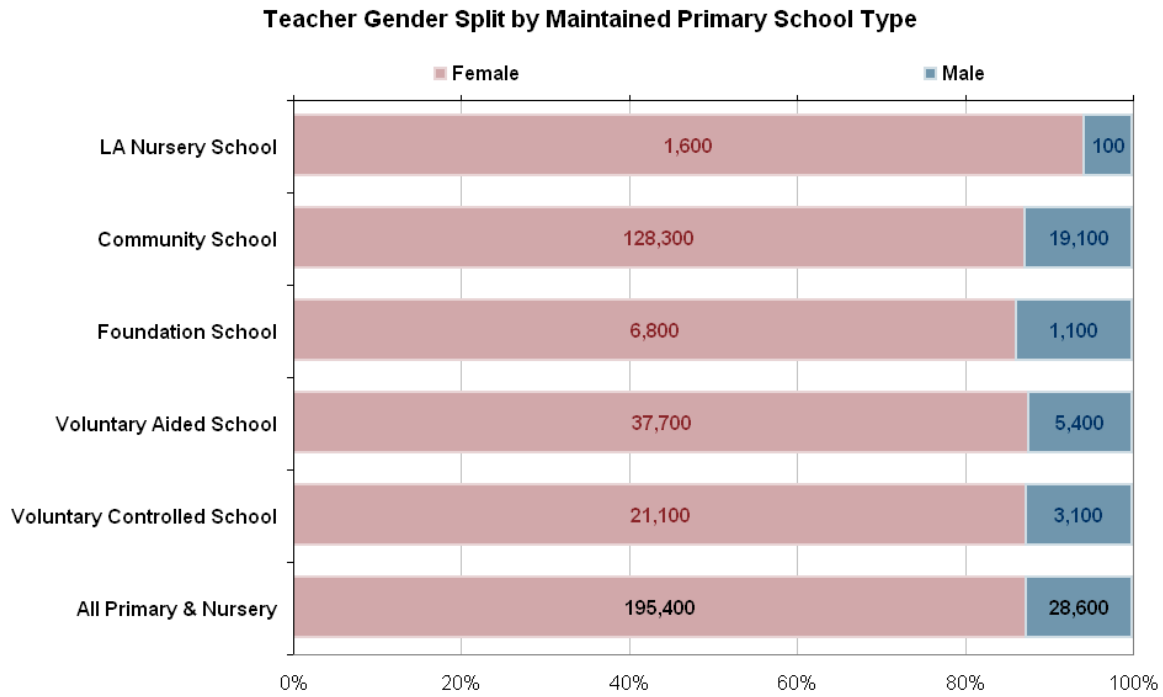
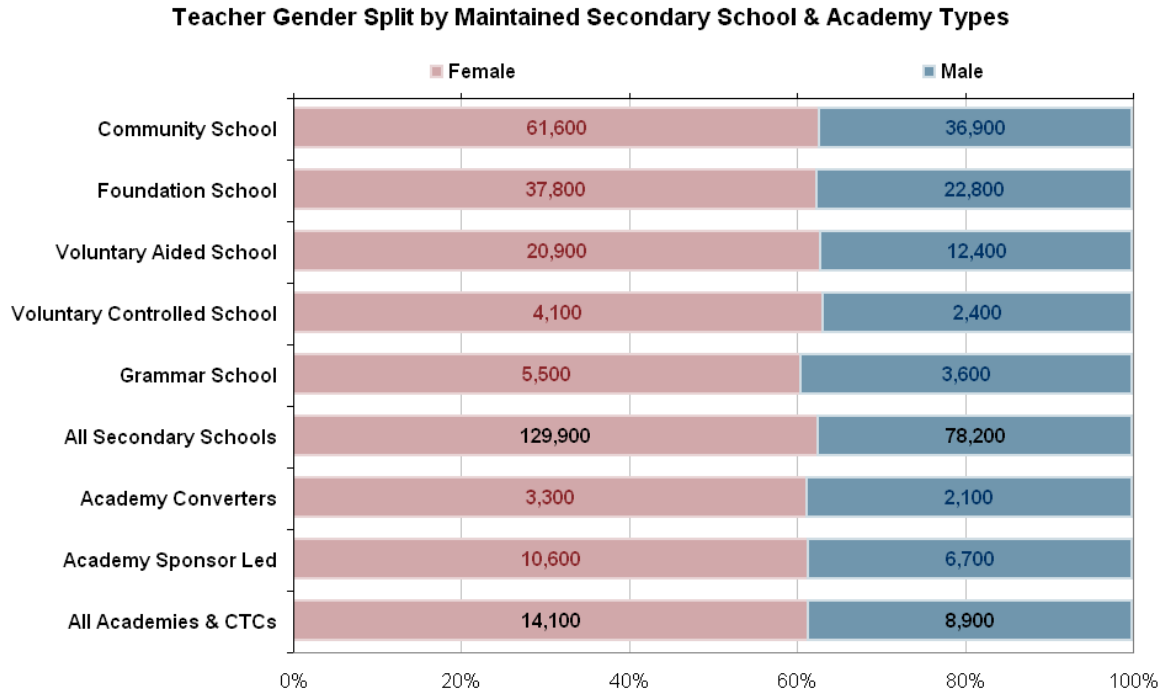


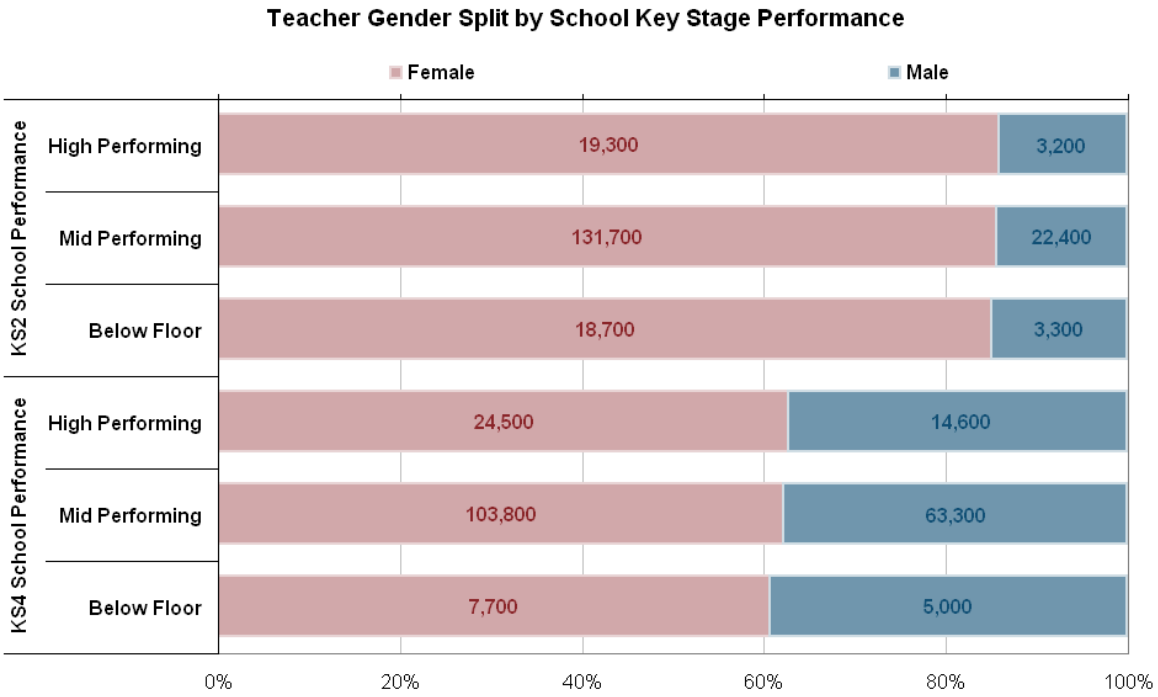
Figure 2.2.3 shows little variation in the teacher gender pattern between the secondary governance types. Grammar schools and academies had slightly more male teachers than the other groups of secondary schools, but the differences were marginal.

Fig. 2.2.3 State-Funded Secondary School Governance & Teacher Gender



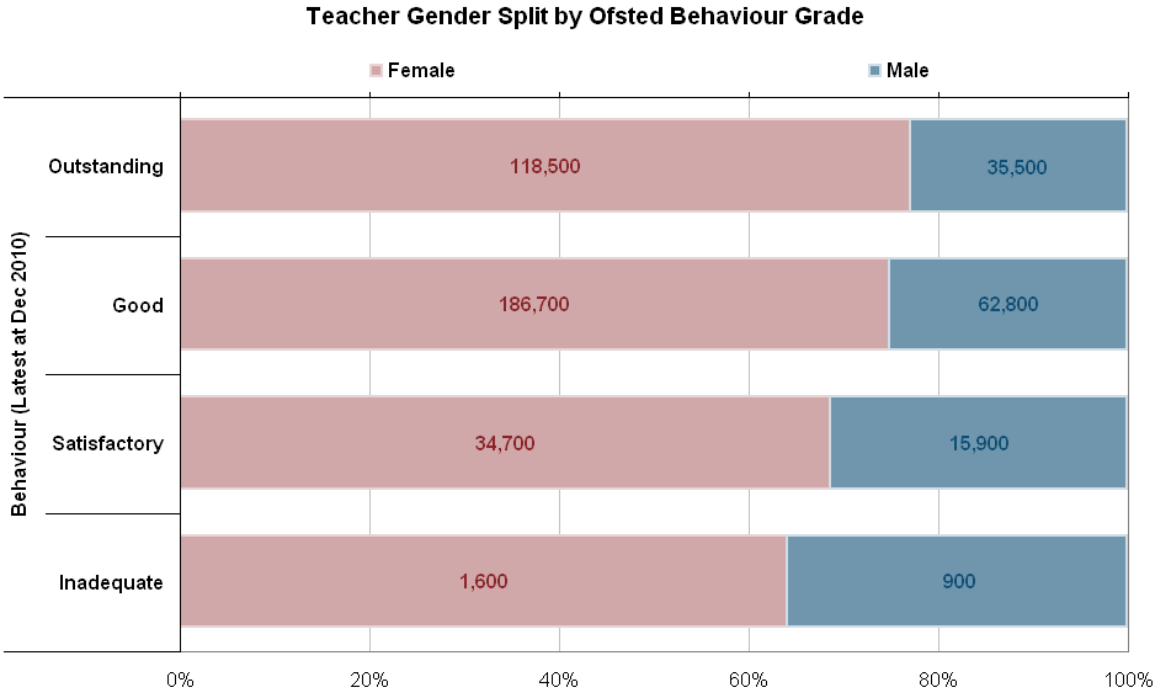
There was a very slight tendency to more female teachers in Key Stage 4 schools with mid or high GCSE performance levels compared with below-floor schools (see figure 2.2.4). This could simply reflect self-selection, or differing propensities to work in schools with different pupil intakes and contexts. No noteworthy differences in the teacher gender pattern were seen for Key Stage 2 schools of different performance levels.

Fig. 2.2.4 Key Stage 2 and 4 Performance & Teacher Gender



Higher proportions of teachers were male in schools with poorer Ofsted behaviour judgements (see figure 2.2.5). Again, this might reflect self-selection, or differing propensities to work in schools with different pupil intakes and contexts. Within maintained primary schools, 87% of teachers are female, compared with 62% of teachers in maintained secondary schools (see figure 2.2.1), and primary schools are less likely to receive a 'satisfactory' or 'inadequate' behaviour judgement (6% vs. 18% of secondary schools – see figure DN1).

Fig. 2.2.5 School Behaviour & Teacher Gender



2.3 Teacher Age

Figures 2.3.1 and 2.3.2 present the teacher age distributions for schools in each maintained sector, and in each maintained primary governance type respectively. LA nursery schools and special schools had distinctly older age distributions than maintained mainstream schools, with larger proportions of teachers aged 50 or older. By contrast, academies had a younger teacher age profile than maintained secondary schools, with the largest proportion of teachers aged under 30.

Fig. 2.3.1 Maintained School Sector & Teacher Age

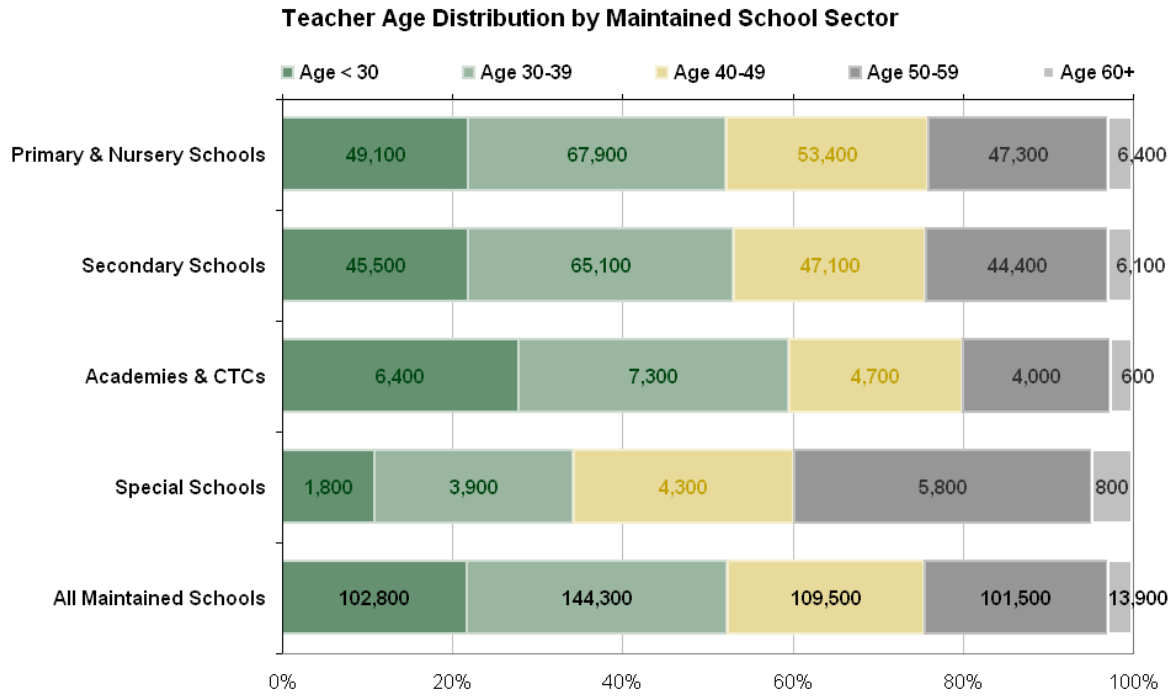
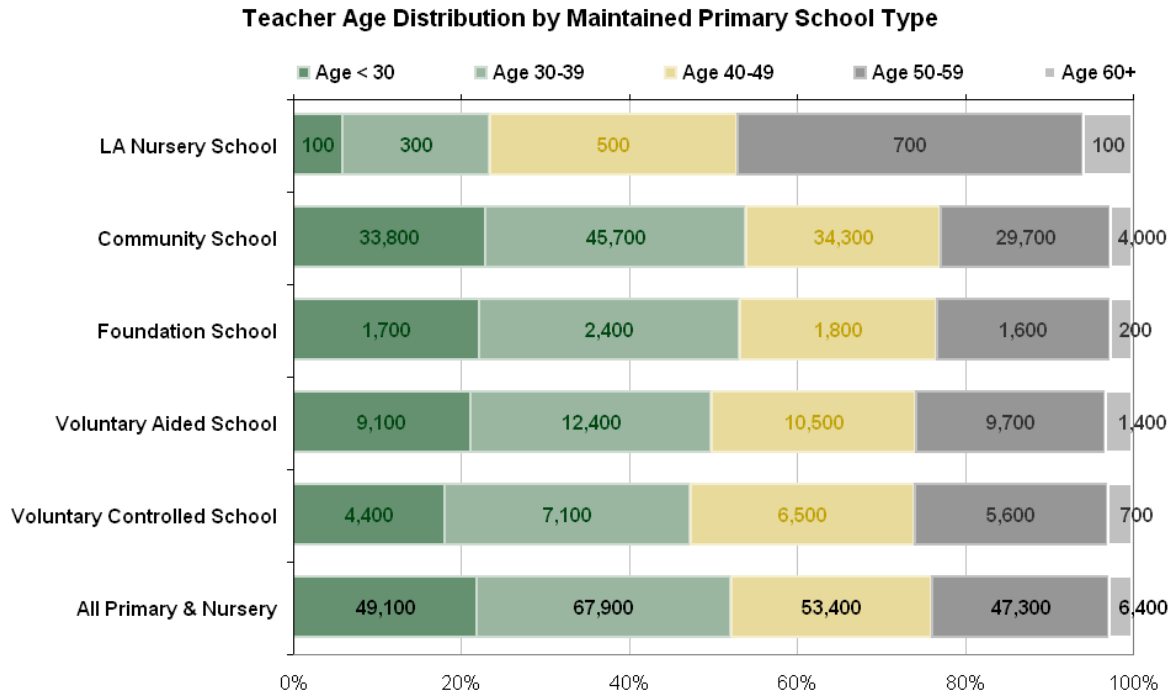
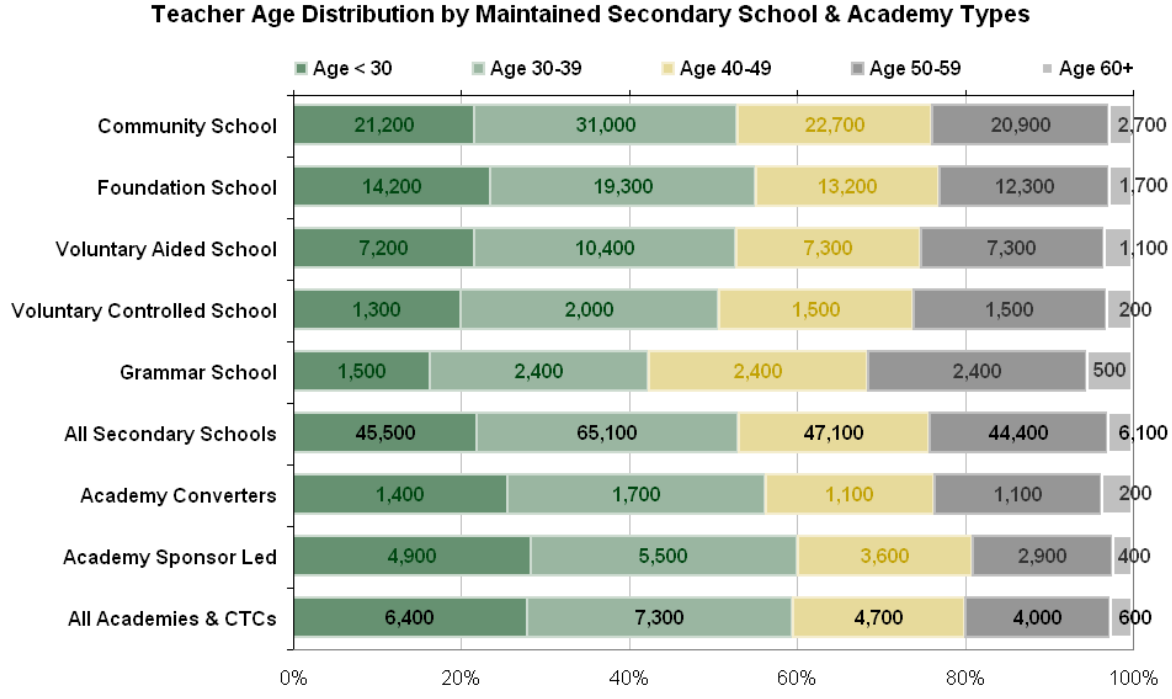


Fig. 2.3.2 Maintained Primary School Governance & Teacher Age



Among the secondary school governance types, grammar schools had more teachers aged 50 or older, and fewer teachers aged under 30, than any other group of secondary schools (see figure 2.3.3). Sponsor-led academies had the largest proportion of teachers aged under 40, and the fewest aged 50 or above.

Fig. 2.3.3 State-Funded Secondary School Governance & Teacher Age



High-performing schools at KS4 and those with 'good' or 'outstanding' behaviour both had slightly older than typical teacher age profiles. Figure 2.3.4 shows that high-performing Key Stage 4 schools had a larger proportion of teachers aged 40 or above; mid-performing and below-floor schools had similar teacher age distributions. There were no noteworthy differences in the teacher age profile according to Key Stage 2 performance.

Fig. 2.3.4 Key Stage 2 and 4 Performance and Teacher Age

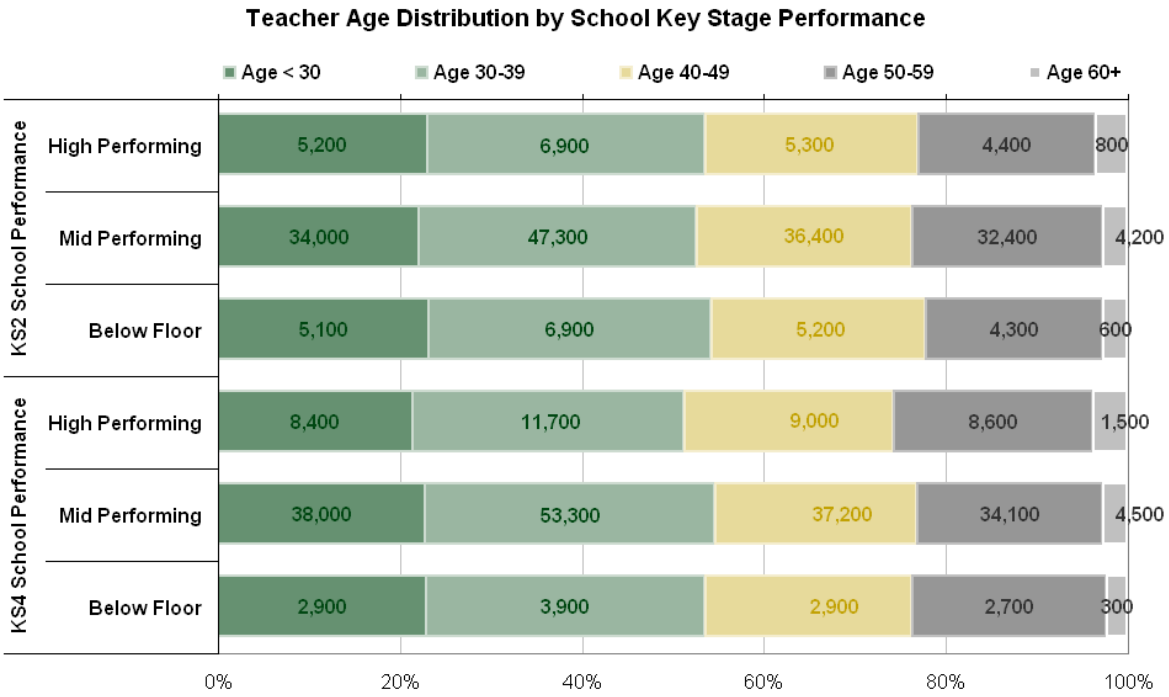
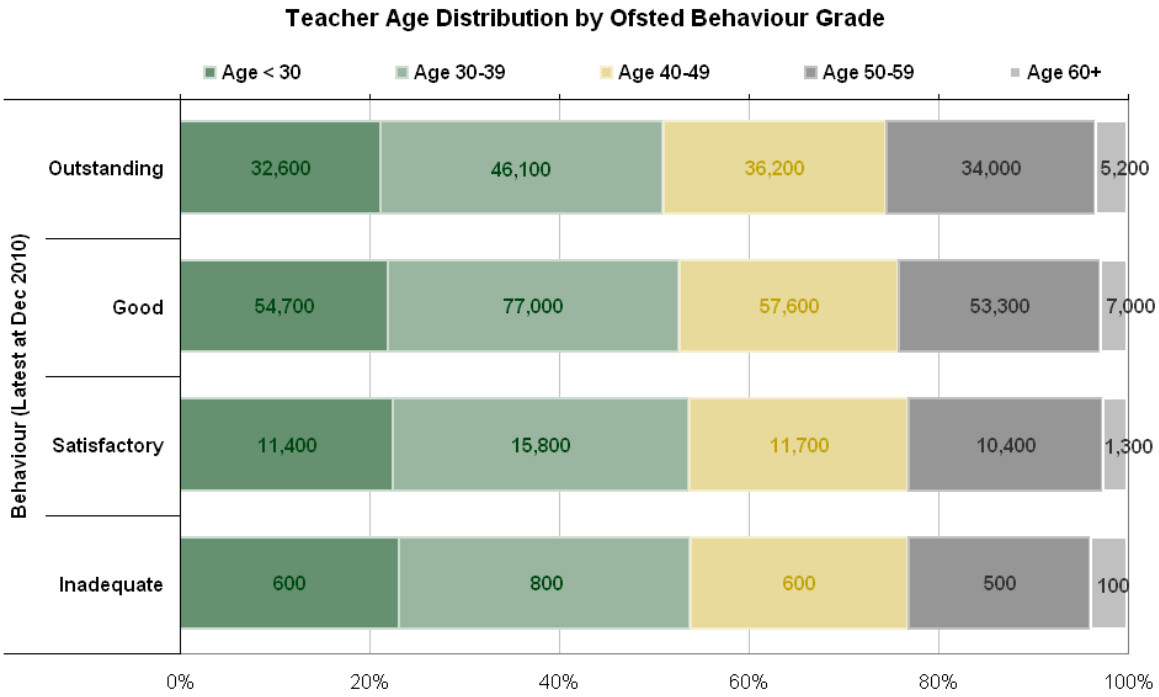


Figure 2.3.5 displays a slight tendency towards older teachers in schools with 'outstanding' or 'good' behaviour, and younger teachers in schools with 'satisfactory' or 'inadequate' behaviour at their last Ofsted inspection.

Fig. 2.3.5 School Behaviour & Teacher Age



2.4 Teacher Ethnicity

The prevalence and spread of teachers of black or minority ethnic (BME) heritage cannot be viewed as simple questions of self-selection, or of discrimination, or of some combination of the two. Geographical and local socio-economic variations underpin the relationships examined below; for these reasons, any interpretation of the findings with a causal component should be treated with extreme caution; the proportions presented should rather be viewed as neutral statements of fact. It is worth recalling here the Chapter 1 finding - that the key issue surrounding BME teachers was one of under-representation compared with the pupils they taught, irrespective of school sector or teacher grade.

Figures 2.4.1 and 2.4.2 show that the largest proportion of BME teachers were found in academies, followed by maintained secondary schools; the smallest proportion of BME teachers was in special schools.

Fig. 2.4.1 Maintained School Sector & Teacher Ethnicity I

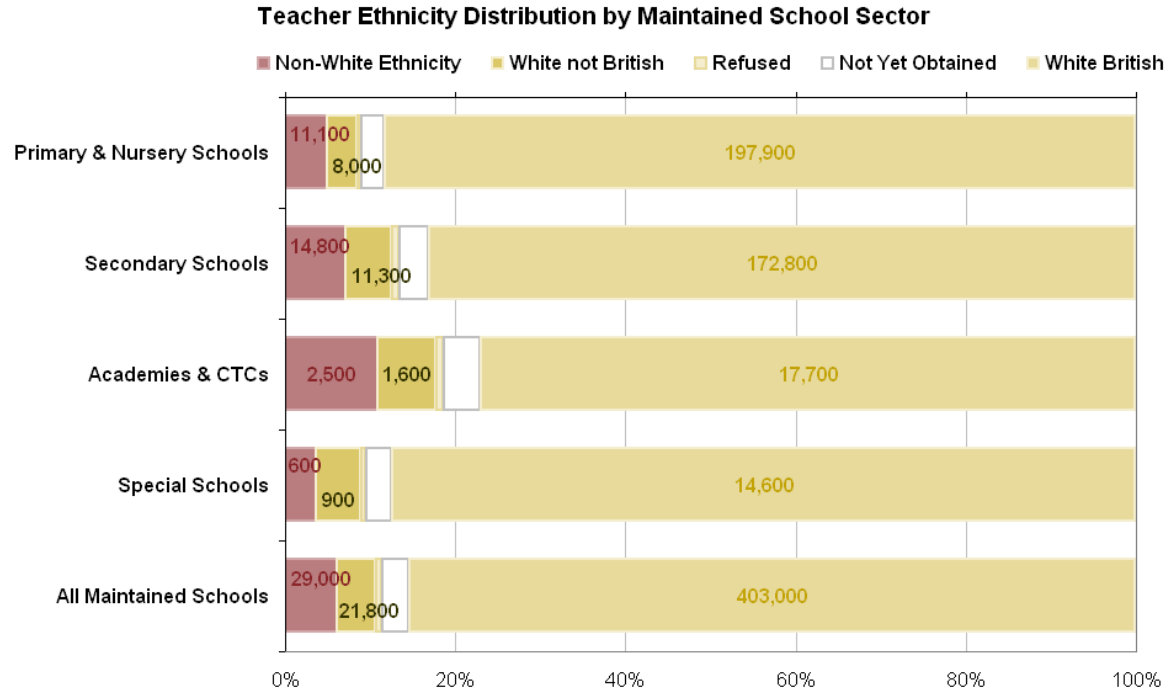
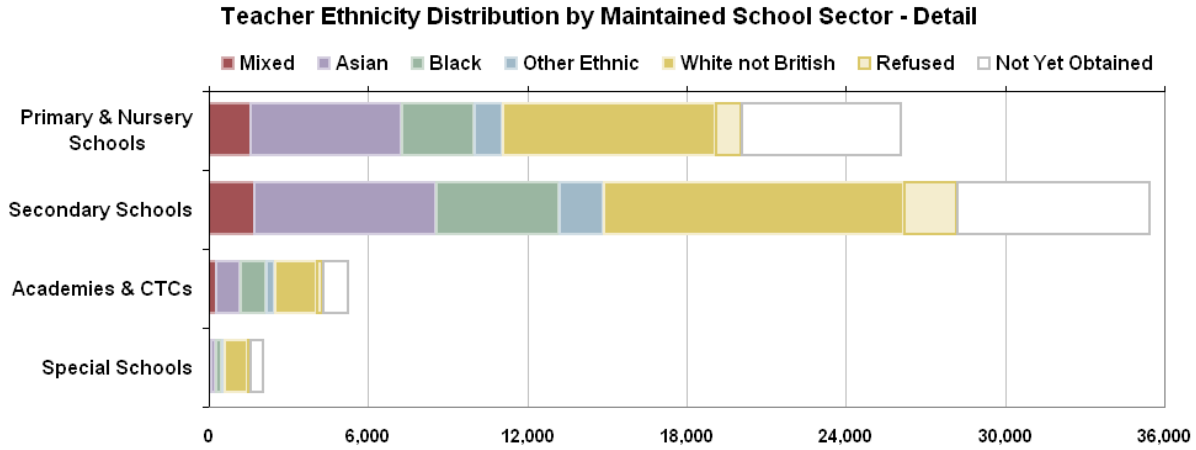


Fig. 2.4.2 Maintained School Sector & Teacher Ethnicity II



	Special Schools	Academies & CTCs	Secondary Schools	Primary & Nursery Schools
Not Yet Obtained	500	1,000	7,300	6,000
Refused	100	200	2,000	1,000
White not British	900	1,600	11,300	8,000
Other Ethnic	100	300	1,700	1,100
Black	200	1,000	4,600	2,700
Asian	200	900	6,900	5,700
Mixed	100	300	1,700	1,600

Figures 2.4.3 and 2.4.4 present simplified ethnicity distributions for maintained primary schools, and publicly funded secondary schools respectively, by school governance type. Voluntary controlled schools had the fewest BME teachers, while sponsor-led and converter academies, and voluntary aided secondary schools had the most BME teachers.

Fig. 2.4.3 Maintained Primary School Governance & Teacher Ethnicity

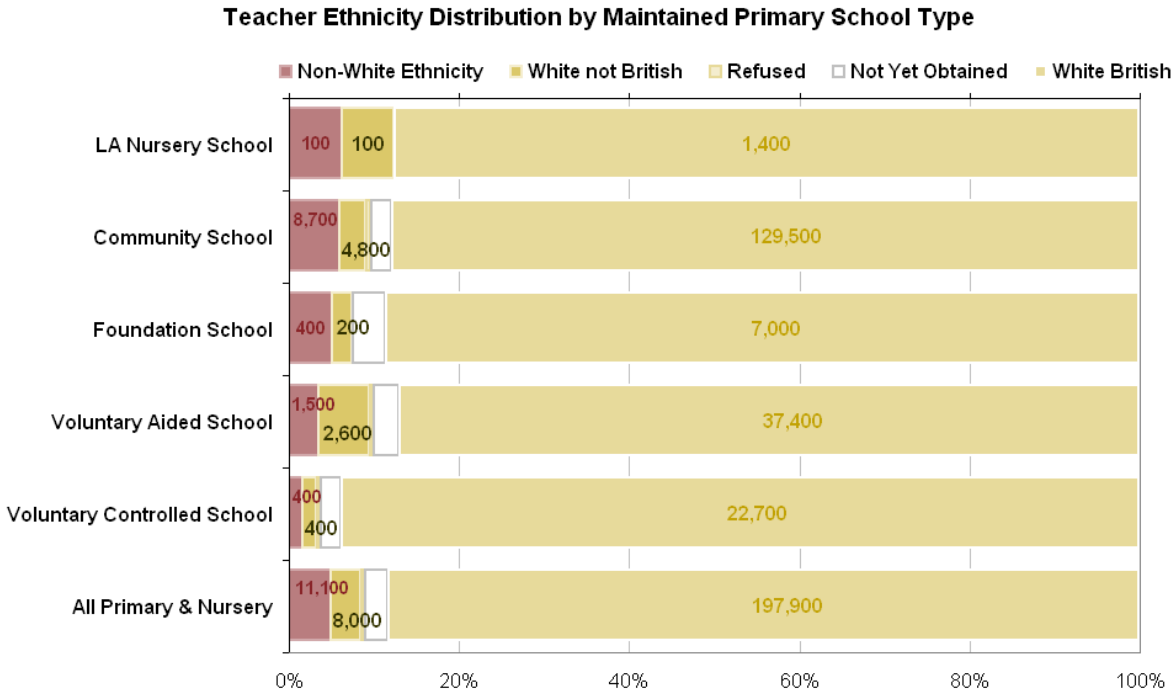
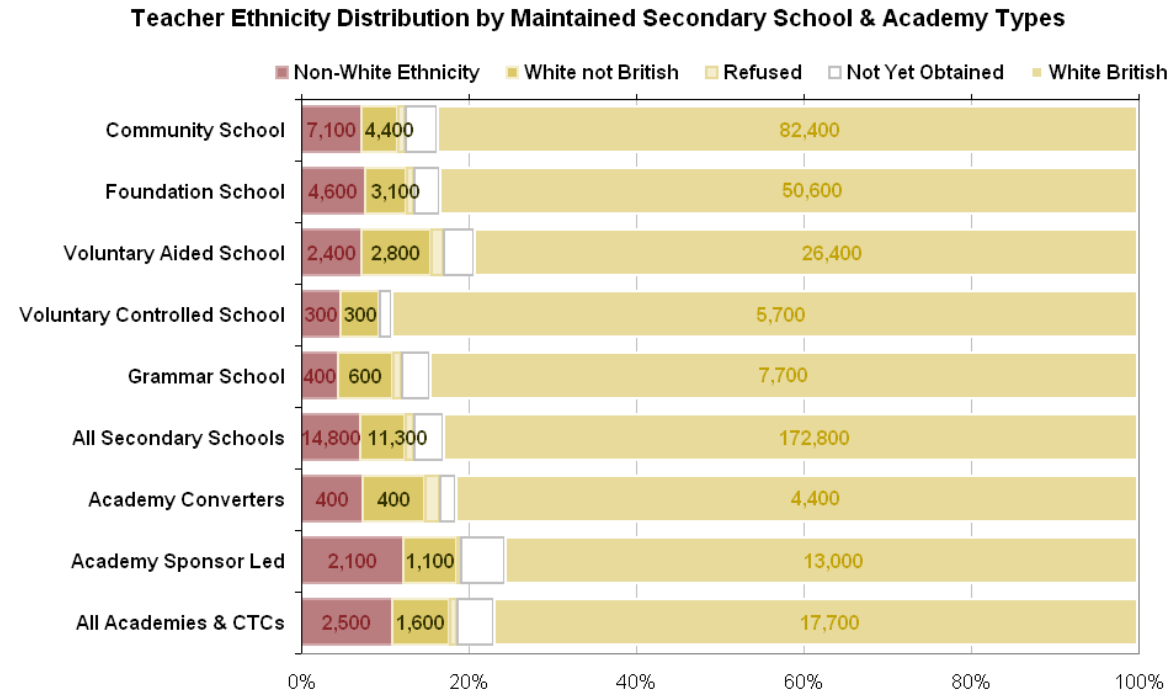


Fig. 2.4.4 State-Funded Secondary School Governance & Teacher Ethnicity



Figures 2.4.5 and 2.4.6 display simplified teacher ethnicity distributions for Key Stage 2 and 4 schools by performance categories, and for mainstream schools by their most recent Ofsted behaviour judgement. High-performing schools employed fewer teachers with non-white ethnic backgrounds, more teachers with white ethnicities other than British, more teachers with unknown ethnicity and fewer white British teachers than mid-performing or below-floor schools. Similar patterns were seen when substituting better Ofsted behaviour judgements for higher Key Stage performance.

Caution against over-interpreting these findings is advised: they are likely to reflect geographical localities and their deprivation levels, associated with differing pupil prior attainment and other characteristics known to be endogenously linked to performance and behaviour.

Fig. 2.4.5 Key Stage 2 and 4 Performance and Teacher Ethnicity

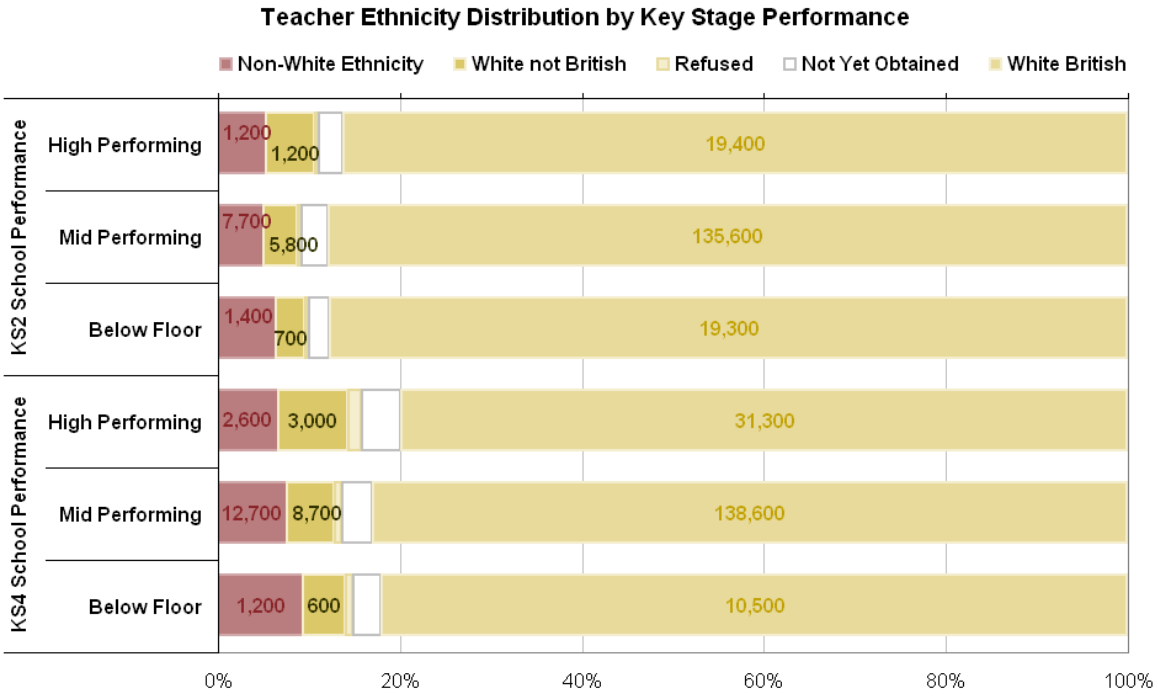
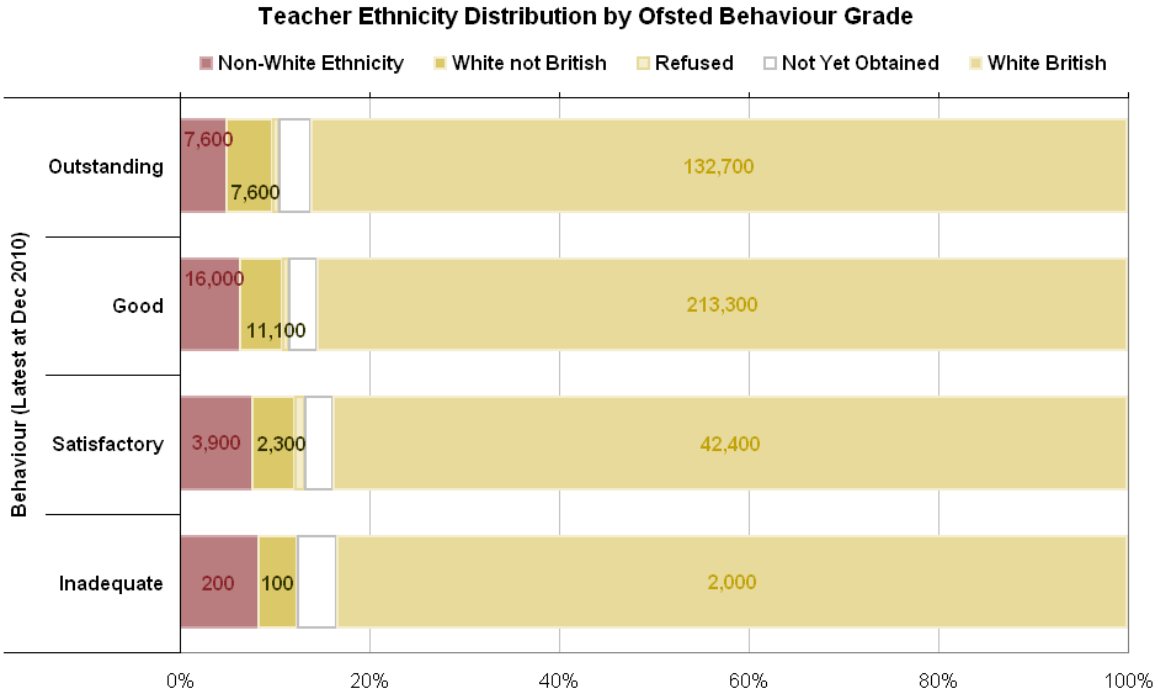


Fig. 2.4.6 School Behaviour & Teacher Ethnicity



2.5 Part-time Teachers

The following analyses focus on the working patterns of teachers, specifically the proportion of teachers who work part-time. In considering the analyses of school performance and school behaviour in particular, it is worth thinking about what uncontrolled factors part-time working may proxy for. For example, relationships between part-time teachers and school performance may be reflecting differences in the socio-economic status of either teachers or the communities, schools and pupils they work with. When considering school behaviour, the possibilities stretch further as part-time working could also be proxying the differences between working with primary and secondary aged children, and/or the different gender and qualification mixes of teachers working in the two sectors.

Figures 2.5.1 and 2.5.2 present the proportions teachers working part-time in schools of each maintained sector and in nursery and primary schools of each governance type. Academies (including remaining CTCs) had the lowest proportion of part-time teachers, while nursery and primary schools had the highest proportions. Within this group, voluntary controlled primaries and LA nursery schools had the highest subgroup rates of part-time teaching.

Fig. 2.5.1 Maintained School Sector & Working Patterns

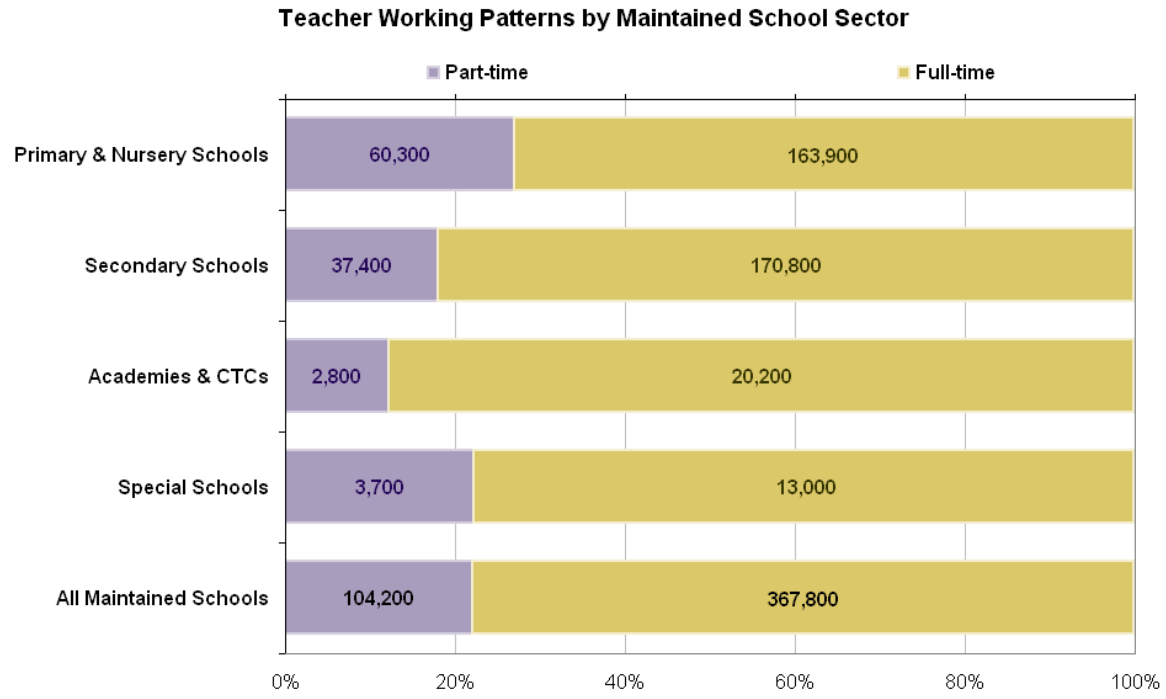
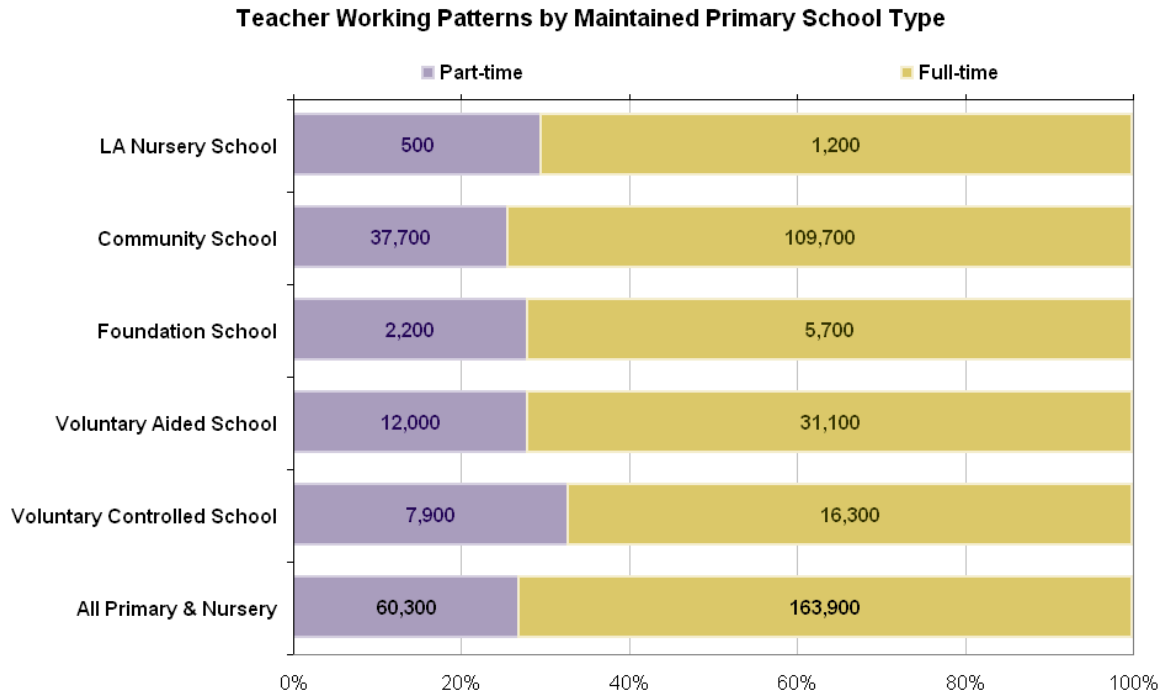
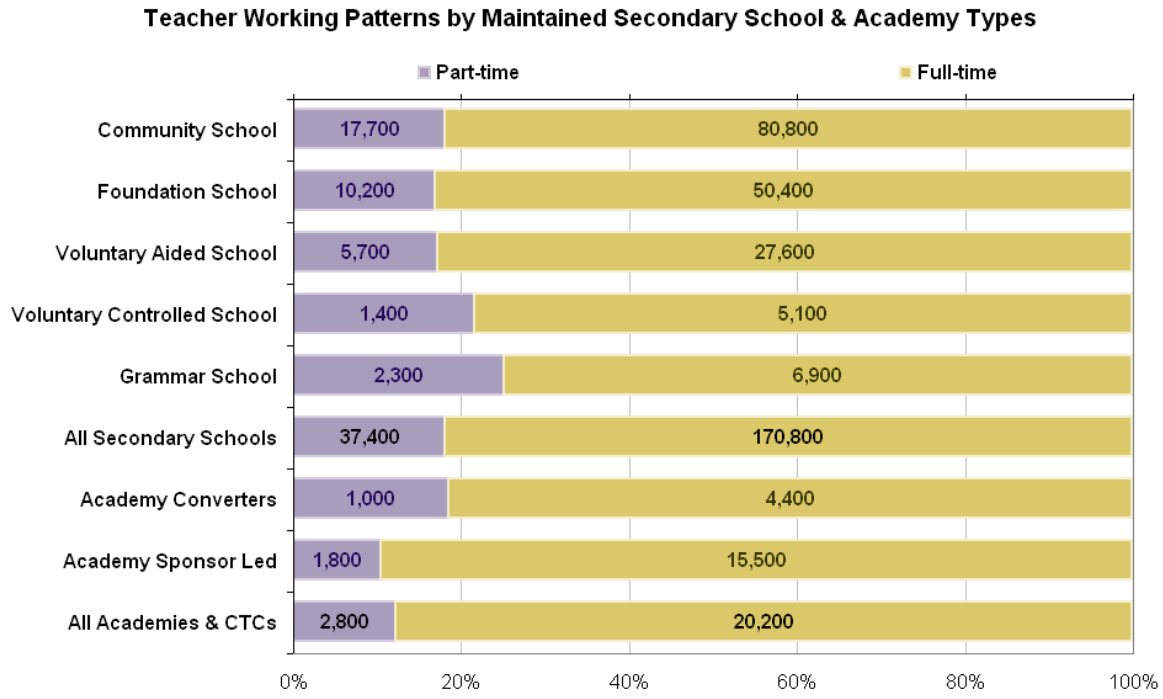


Fig. 2.5.2 Maintained Primary School Governance & Working Patterns



Grammar schools, followed by voluntary controlled secondary schools, had the highest rates of part-time teaching within the secondary sector (see figure 2.5.3). Sponsor-led academies had the lowest part-time rate, whereas converter academies were similar to community, foundation and voluntary aided secondary schools in their working pattern profile.

Fig. 2.5.3 State-Funded Secondary School Governance & Working Patterns



There was a clear pattern of fewer teachers working part-time in below-floor standard schools, and more part-time teachers in high-performing schools at KS2 (22% vs. 27%) and KS4 (12% vs. 22%). It is not known whether this pattern reflects some advantage of exposure to part-time teachers – one could imagine an effect based on a good work-life balance, or the experience of being a parent as well as a teacher, for example – or whether part-time working is proxying for some aspect of the socio-economic status of the teacher or, by extension, the pupils they teach.

Fig. 2.5.4 Key Stage 2 and 4 Performance & Working Patterns

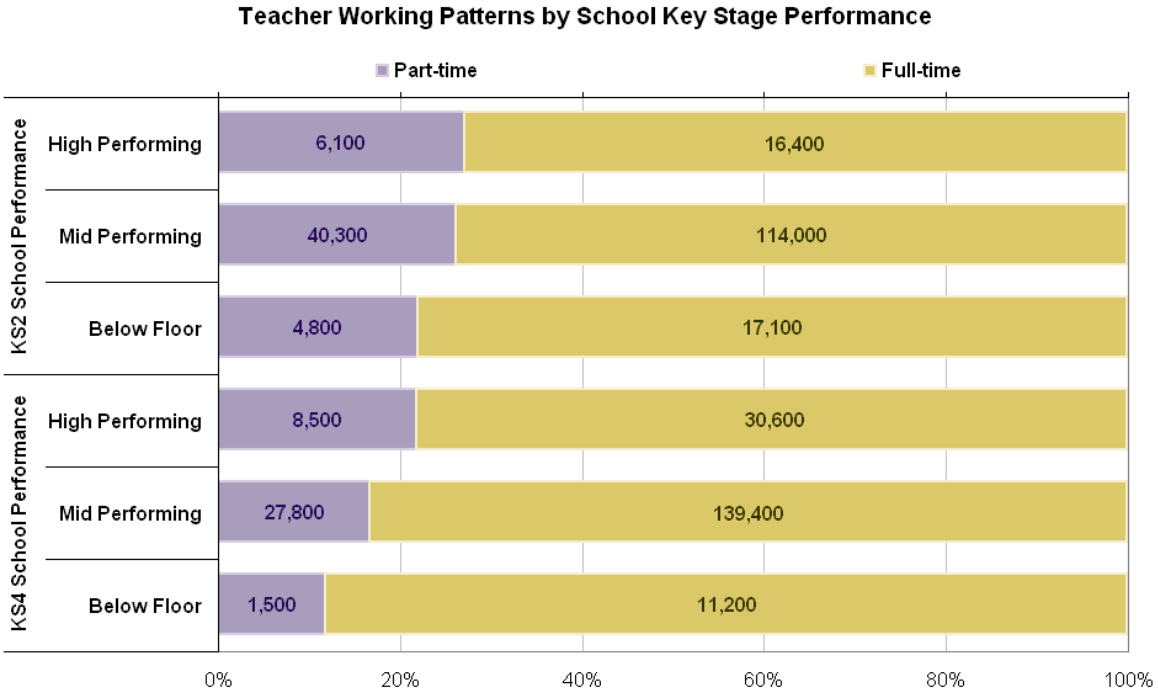
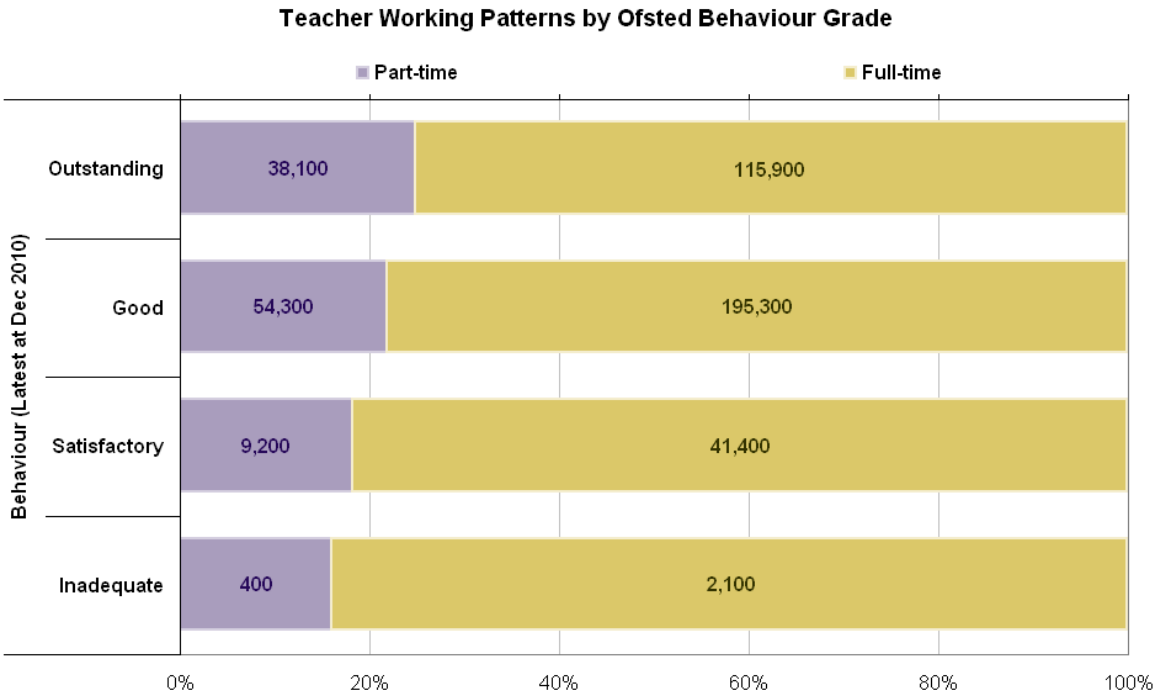


Figure 2.5.5 also reveals a pattern of better behaviour in schools with higher proportions of part-time teachers. In addition to the factors suggested above, it is possible that part-time teaching is reflecting differences in the age of the children taught in primary vs. secondary schools, and therefore in the underlying distribution of behaviour in the schools analysed (see figure DN1). Alternatively, it is possible to hypothesise reasons why part-time teachers might have a genuine and direct effect on school behaviour, possibly because they are more likely to be parents as well as teachers, or have a different age and teaching experience profile from full-time teachers.

Fig. 2.5.5 School Behaviour & Working Patterns



2.6 Teacher Pay & School Types

This section is the first of four sections covering teacher pay and school variations, and focuses on school sectors and governance types by geographic pay area.

Data notes for sections 2.6 - 2.9 inclusive: *Pay figures are rounded to the nearest £100 and percentages are rounded to 1 decimal place and categories where fewer than 100 cases are present are suppressed.*

Pay analysis excludes those for whom the pay area is unknown and those whose pay is recorded as being either below the bottom of the pay scale for the relevant grade or implausibly high as these cases are considered erroneous. The exception is the spine point distribution figures where all of these categories are included.

The bottom of the relevant pay scale for: qualified classroom teachers is £21,588 (main pay scale – Rest of England); and for leadership teachers is £37,461 (Rest of England).

Advanced Skills Teachers and Excellent Teachers are excluded from the full-time qualified classroom teacher category for the purpose of pay analyses.

Pay analysis includes only full-time workers as the recorded part-time pay data is unreliable. However, this restriction is not applied to spine point distributions; these are calculated from the total FTE of both full and part-time workers.

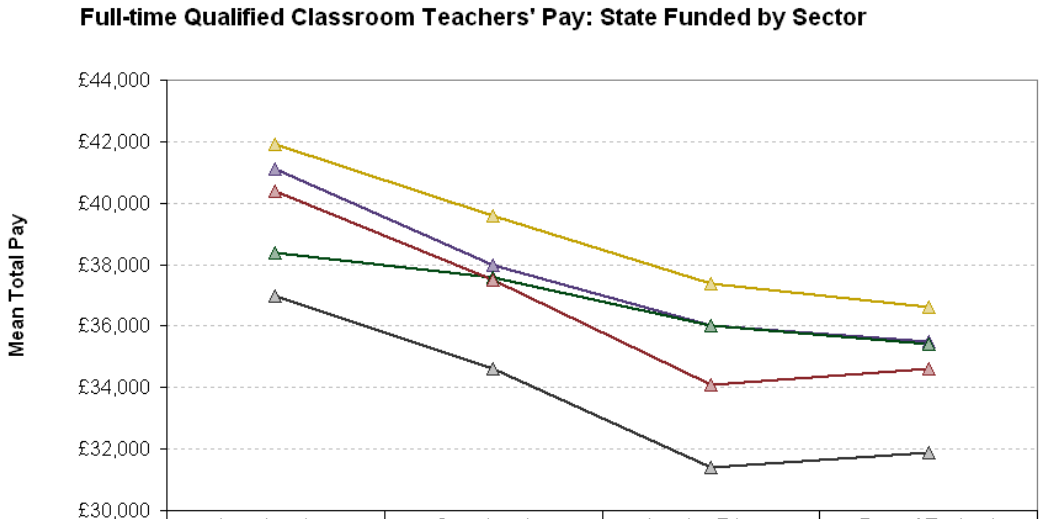
Average salaries include allowances, a minority of which are one-off payments. 'Total pay' figures are estimated from the area pay spine and spine point (where present) with the addition of allowances. If the area pay spine or spine point are missing, the Total Pay data field (if populated) is used to estimate 'Total pay' figures.

The size of the school is not controlled for, although the pay of leadership teachers is related to the school size.

The overall level of pay (the height of the lines in figures 2.6.1) varies between schools sectors, with classroom teachers in special schools paid the highest salaries, followed by those teaching in secondary schools, then those in primary schools. The mean total pay figures include special educational needs allowances, recruitment and retention incentives and benefits, and teaching and learning responsibility payments.

Sponsor-led academies pay less[1] on average to classroom teachers than all secondary schools across the pay areas; converter academies also have lower mean classroom teacher salaries than all secondary schools[2] in Inner and Outer London, but similar pay outside of London. This, along with many pay patterns discussed in sections 2.6 - 2.9, reflects the distribution of teaching experience (and by extension, broadly reflects teacher age) in different categories of school.

Fig. 2.6.1 State-Funded Sector & Classroom Teacher Pay



	Inner London	Outer London	London Fringe	Rest of England
Special Schools	£41,900	£39,600	£37,400	£36,600
All Secondary	£41,100	£38,000	£36,000	£35,500
Academy Converters	£38,400	£37,600	£36,000	£35,400
Academy Sponsor Led	£40,400	£37,500	£34,100	£34,600
All Primary	£37,000	£34,600	£31,400	£31,900

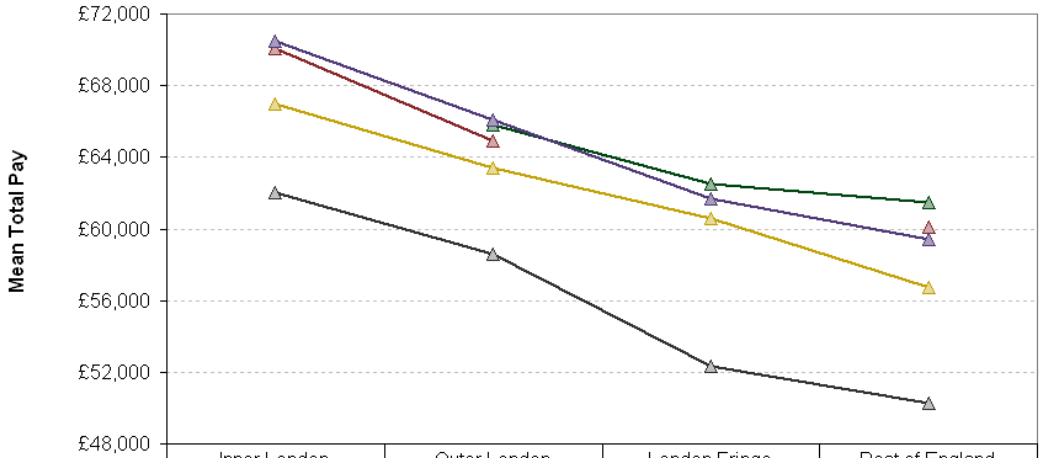
[1] Generally, salaries diverging by more than £300 have been considered to be 'more'/'less', whereas those within £300 of one another have been deemed 'similar'.

[2] The 'All Secondary Schools' category includes teachers in Academies for whom a spine point from the School Teachers Pay and Conditions Document (STPCD) was reported via the School Workforce Census; this covers around 75% of teachers in Academies, but Academies are not bound by the conditions of the STPCD (unlike maintained schools), hence the missing 25%.

Figure 2.6.2 shows that while converter academies paid higher leadership salaries than the 'all secondary schools' group[3] outside of London, leadership pay was similar for the two groups in the Outer London pay area, and there were insufficient data points to include a mean salary for converter academies in Inner London. Sponsor-led academies paid less than all secondary schools did to leadership teachers in Inner and Outer London, but more in the Rest of England pay area; there were insufficient data points for London Fringe sponsor-led academies.

Fig. 2.6.2 State-Funded Sector & Leadership Teacher Pay

Full-time Qualified Leadership Teacher Pay: State Funded by Sector



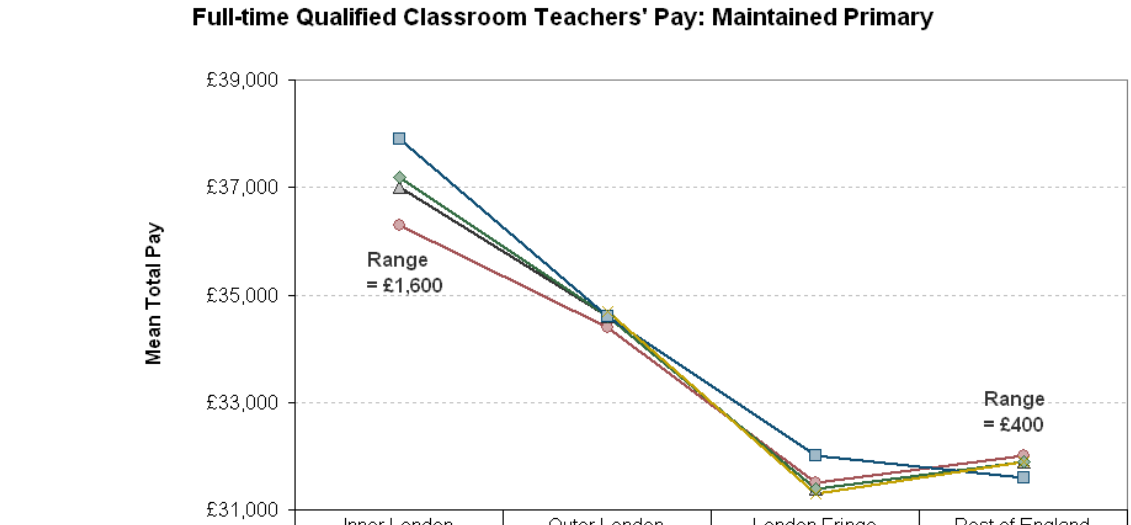
	Inner London	Outer London	London Fringe	Rest of England
Academy Converters		£65,800	£62,500	£61,500
Academy Sponsor Led	£70,100	£64,900		£60,100
All Secondary	£70,500	£66,100	£61,700	£59,400
Special Schools	£67,000	£63,400	£60,600	£56,700
All Primary	£62,000	£58,600	£52,300	£50,300

[3] This group contains academies, but is dominated by local authority maintained secondary schools.

Figures 2.6.3a and 2.6.3b present classroom teacher pay by primary governance type, first as mean pay in each area, then as the spine point distribution across all areas. Classroom teacher pay in primary schools varied most by governance type in Inner London, where teachers in foundation schools received typically higher salaries than those in community schools; those teaching in voluntary aided primary schools typically received lower salaries than those in community schools. This pattern is consistent with the age profiles presented previously in section 2.3.

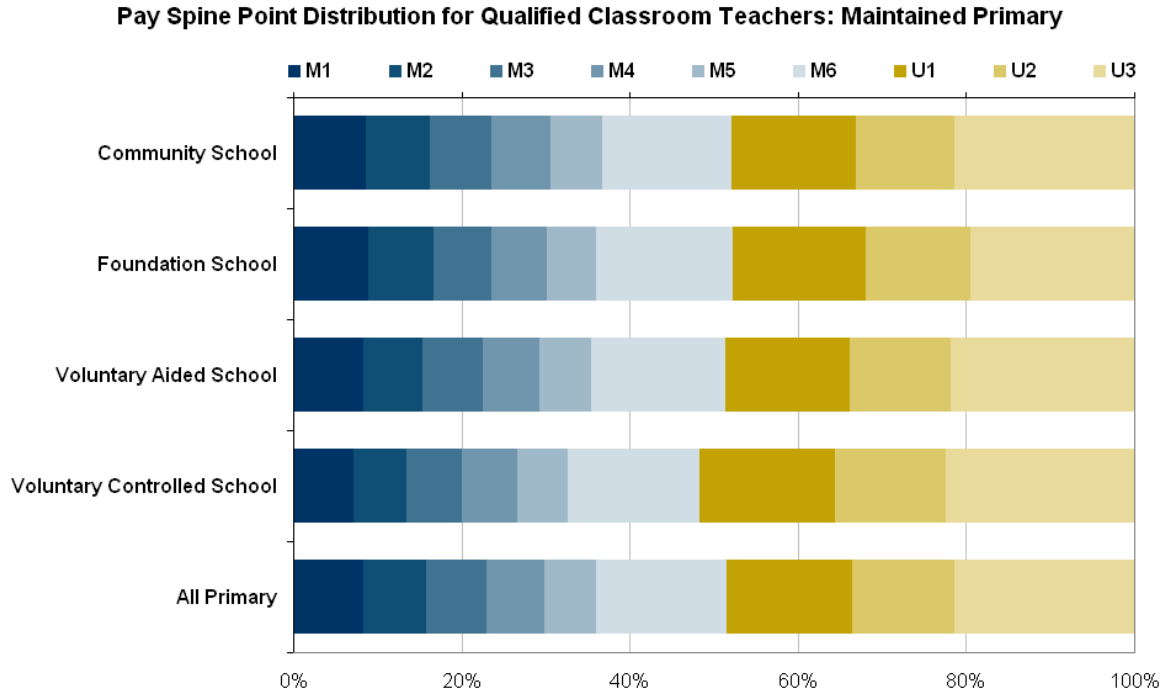
The small range of mean salaries in the Rest of England pay area (range = £400) is reflected in figure 2.6.3b where there is little variation in the pay spine point distribution between school governance types nationally.

Fig. 2.6.3a Maintained Primary School Governance & Classroom Teacher Pay



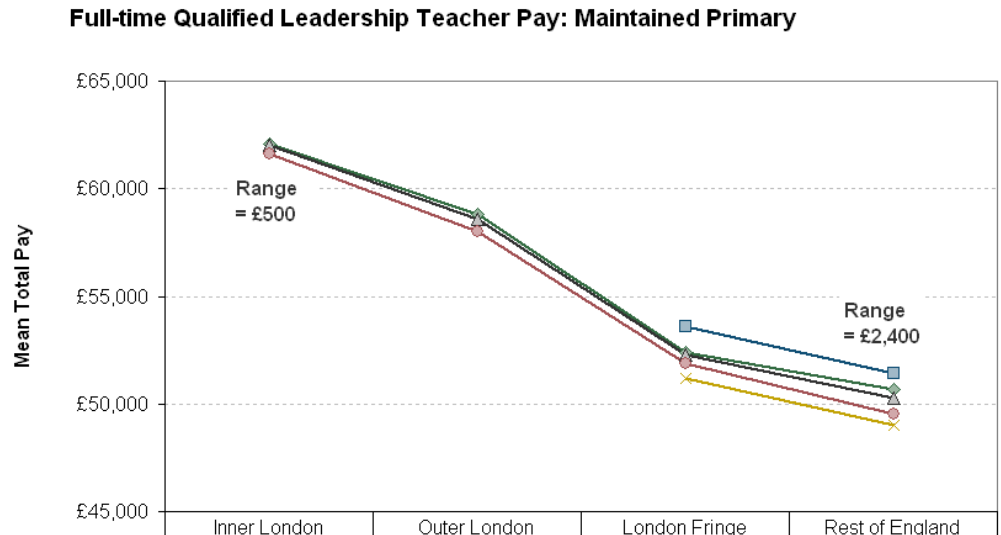
	Inner London	Outer London	London Fringe	Rest of England
Voluntary Aided School	£36,300	£34,400	£31,500	£32,000
All Primary	£37,000	£34,600	£31,400	£31,900
Community School	£37,200	£34,600	£31,400	£31,900
Foundation School	£37,900	£34,600	£32,000	£31,600
Voluntary Controlled School		£34,700	£31,300	£31,900

Fig. 2.6.3b Maintained Primary School Governance & Classroom Teacher Pay



For leadership teachers, salaries varied most according to primary school governance types in the London Fringe and Rest of England pay areas (see figure 2.6.4); this contrasted with the pattern (seen in figure 2.6.3a) for classroom teachers, where the salary variation was greatest in Inner London. For all primary schools, the relative pay levels for the London Fringe area compared with the Rest of England also differed between leadership and classroom teachers. Leadership teachers were paid an average of £2,000 more in the London Fringe area than in the Rest of England, whereas classroom teachers were paid an average of £500 less in the London Fringe area.

Fig. 2.6.4 Maintained Primary School Governance & Leadership Teacher Pay



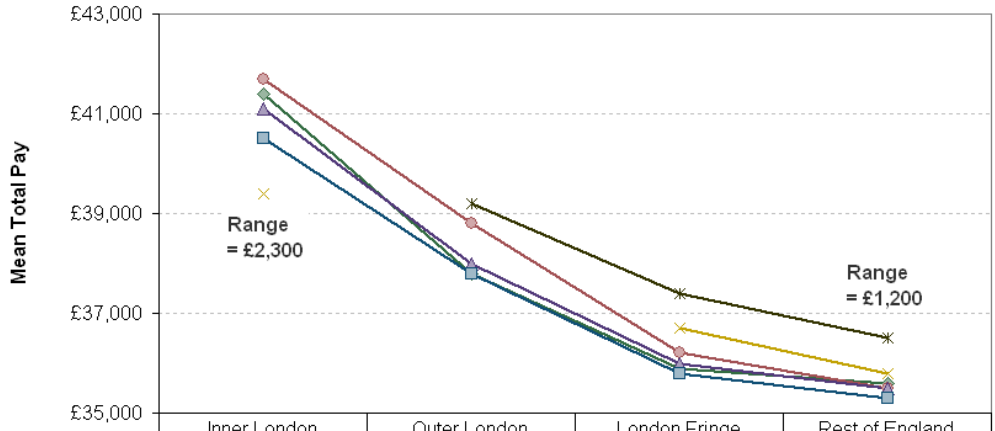
	Inner London	Outer London	London Fringe	Rest of England
Foundation School			£53,600	£51,400
Community School	£62,100	£58,800	£52,400	£50,700
All Primary	£62,000	£58,600	£52,300	£50,300
Voluntary Aided School	£61,600	£58,000	£51,900	£49,500
Voluntary Controlled School			£51,200	£49,000

Figures 2.6.5a and 2.6.5b present classroom teacher pay by secondary governance type, first as mean pay in each area, then as the spine point distribution across all areas. Grammar schools paid the highest average salaries to classroom teachers of the secondary school governance types; this was followed by voluntary controlled (VC) schools in the London Fringe and Rest of England pay areas (but not in Inner London, where VC classroom pay was lower than typical).

These patterns were linked to the pay spine point mix in each school governance type, and in particular to the percentage of teachers on the upper pay scale, as well as to the age profile of each school type.

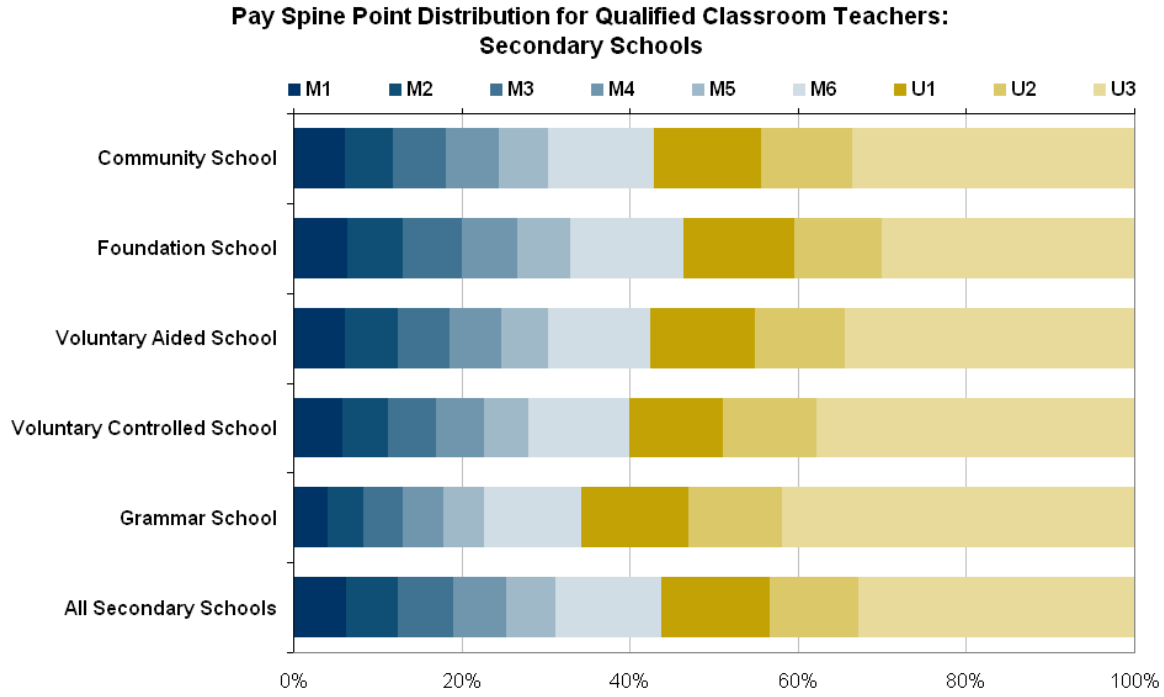
Fig. 2.6.5a Secondary School Governance & Classroom Teacher Pay

Full-time Qualified Classroom Teachers' Pay: Secondary Schools



	Inner London	Outer London	London Fringe	Rest of England
Grammar Schools		£39,200	£37,400	£36,500
Voluntary Controlled School	£39,400		£36,700	£35,800
Community School	£41,400	£37,800	£35,900	£35,600
Voluntary Aided School	£41,700	£38,800	£36,200	£35,500
All Secondary	£41,100	£38,000	£36,000	£35,500
Foundation School	£40,500	£37,800	£35,800	£35,300

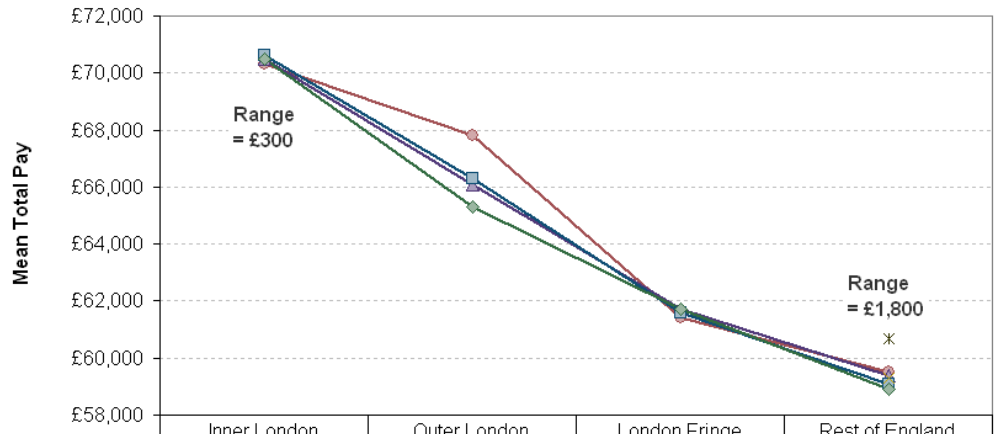
Fig. 2.6.5b Secondary School Governance & Classroom Teacher Pay



Variation in leadership teacher mean salaries by secondary school governance was limited in the Inner London and London Fringe pay areas (range = £300, see figure 2.6.6). In Outer London, leadership teachers were paid more on average in voluntary aided schools than other types, and in the Rest of England, grammar school leadership teachers were paid more on average than those in other secondary schools.

Fig. 2.6.6 Secondary School Governance & Leadership Teacher Pay

Full-time Qualified Leadership Teacher Pay: Maintained Secondary



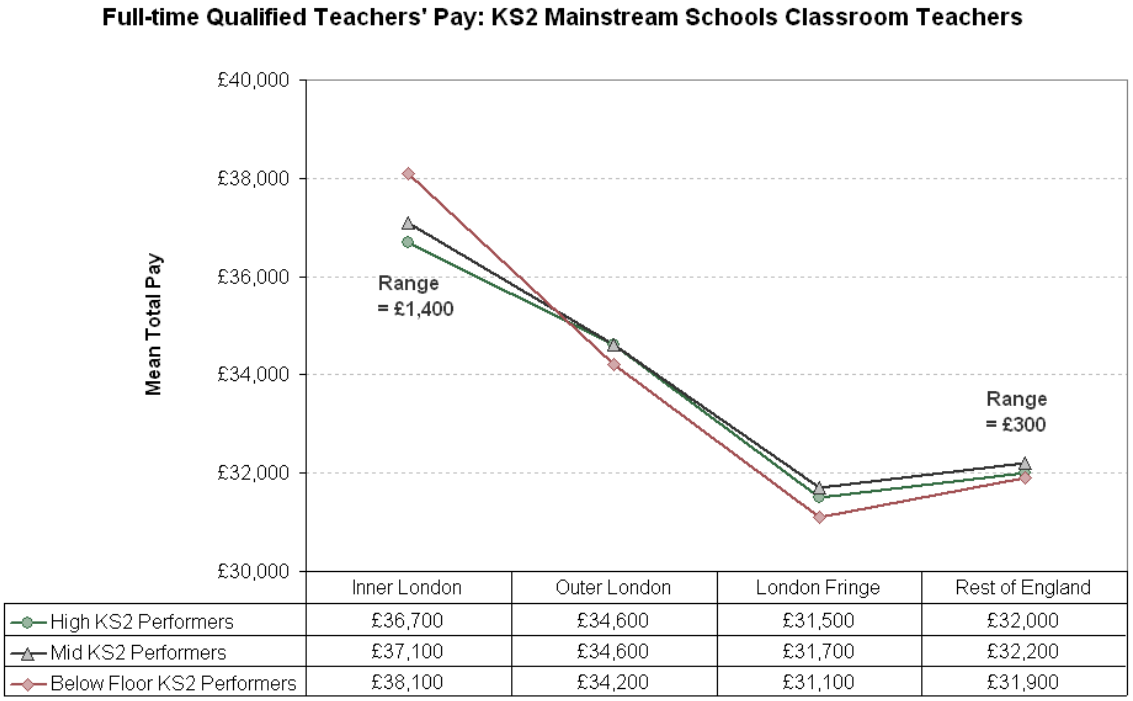
	Inner London	Outer London	London Fringe	Rest of England
Grammar Schools				£60,700
Voluntary Aided School	£70,300	£67,800	£61,400	£59,500
All Secondary	£70,500	£66,100	£61,700	£59,400
Foundation School	£70,600	£66,300	£61,600	£59,100
Voluntary Controlled School				£59,300
Community School	£70,500	£65,300	£61,700	£58,900

2.7 Teacher Pay & School Performance

This section is the second of four sections covering teacher pay and school variations, and focuses on teacher pay according to Key Stage 2 and 4 school performance for each geographic pay area. For methodological information, please refer to the data notes on school performance categories at the start of the chapter, and on pay analysis at the start of section 2.6.

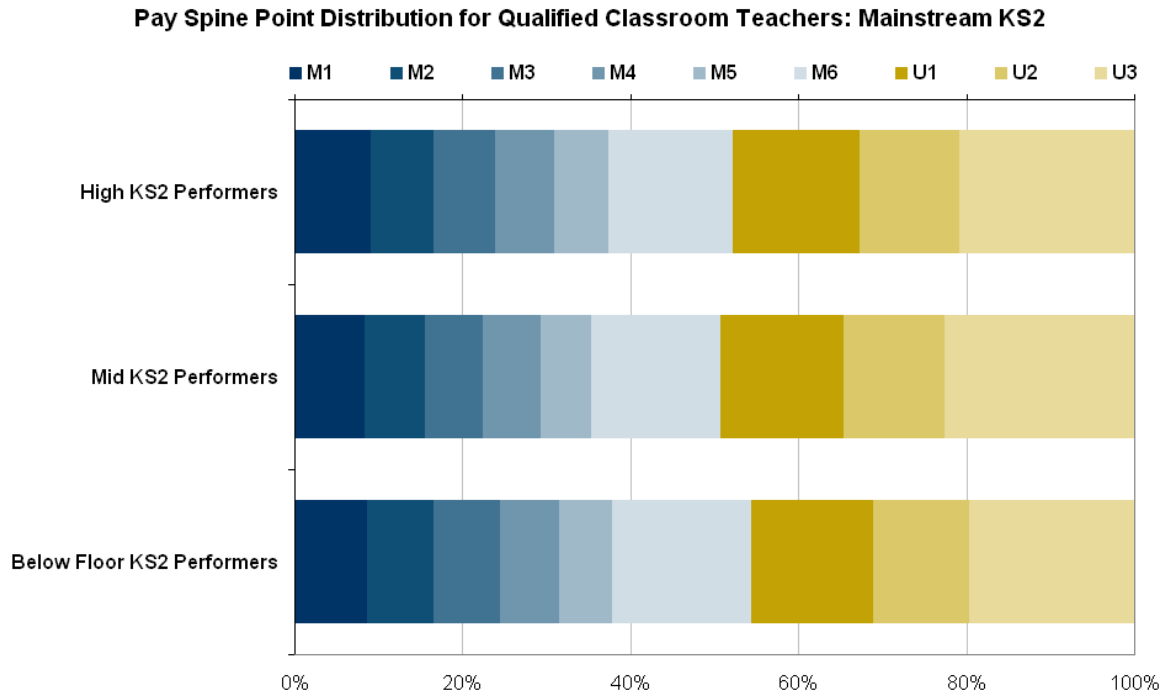
Figures 2.7.1a and 2.7.1b present mean classroom teacher pay in KS2 schools by pay area and KS2 performance, and the pay spine point distribution across all pay areas by KS2 performance, respectively. There is no clear pattern in the spine point distribution nationally, but the mean salaries by area reveal that classroom teachers were typically paid more in below-floor schools *in Inner London* than in mid-performing or high-performing schools in the same area. However, classroom teachers in below-floor schools *outside of Inner London* were paid less on average than those in other KS2 schools.

Fig. 2.7.1a Key Stage 2 Performance & Classroom Teacher Pay



	Inner London	Outer London	London Fringe	Rest of England
High KS2 Performers	£36,700	£34,600	£31,500	£32,000
Mid KS2 Performers	£37,100	£34,600	£31,700	£32,200
Below Floor KS2 Performers	£38,100	£34,200	£31,100	£31,900

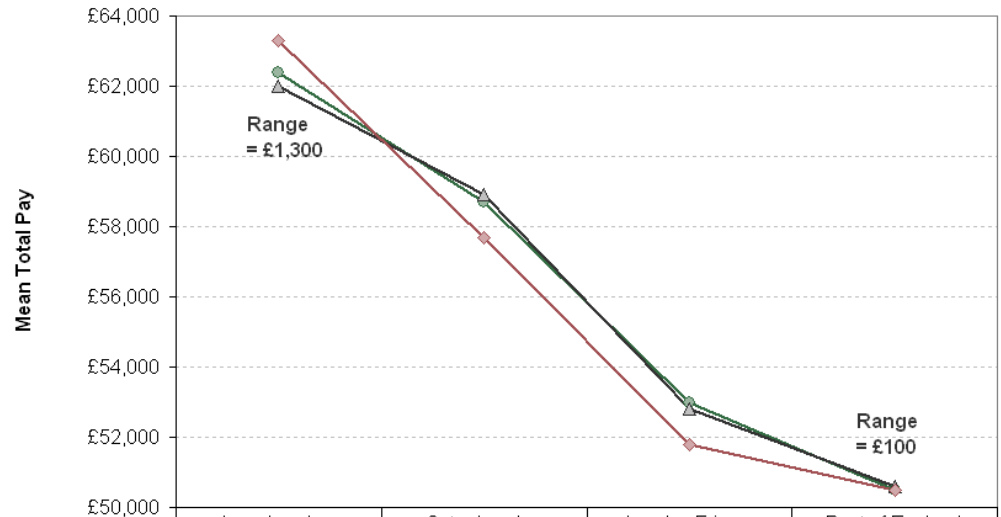
Fig. 2.7.1b Key Stage 2 Performance & Classroom Teacher Pay



As was the case for classroom teachers, leadership teachers in KS2 schools were paid more on average in below-floor schools *in Inner London* than their counterparts in mid- or high-performing schools (see figure 2.7.2). Leadership teachers in below-floor schools were also paid less than those in other KS2 schools *in Outer London and the London Fringe*, but leaders in all school performance categories had similar mean pay in the Rest of England pay area.

Fig. 2.7.2 Key Stage 2 Performance & Leadership Teacher Pay

Full-time Qualified Teachers' Pay: KS2 Mainstream Schools Leadership Teachers



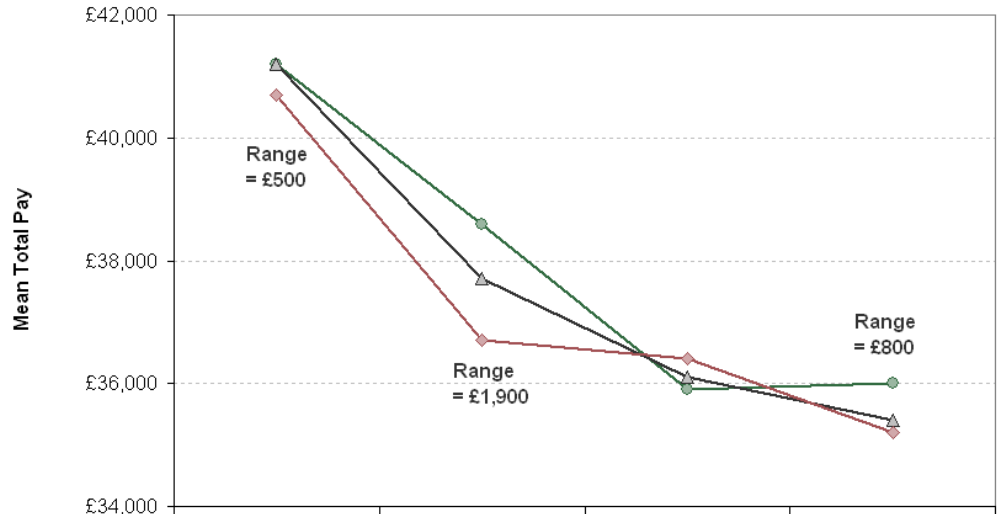
	Inner London	Outer London	London Fringe	Rest of England
High KS2 Performers	£62,400	£58,700	£53,000	£50,500
Mid KS2 Performers	£62,000	£58,900	£52,800	£50,600
Below Floor KS2 Performers	£63,300	£57,700	£51,800	£50,500

Figures 2.7.3a and 2.7.3b present mean classroom teacher pay in KS4 schools by pay area and KS4 performance, and the pay spine point distribution across all pay areas by KS4 performance, respectively. Classroom teachers in below-floor schools were paid less on average than those in other schools in Inner and Outer London, but similarly to those in mid-performing schools in the London Fringe and Rest of England pay areas; those in high-performing schools were paid more than those in mid-performing schools in Outer London and the Rest of England.

The spine point distributions for KS4 classroom teachers show a clear pattern of more upper pay scale classroom teachers in high-performing schools, and fewer in below-floor schools, than in schools with mid-level performance at GCSE.

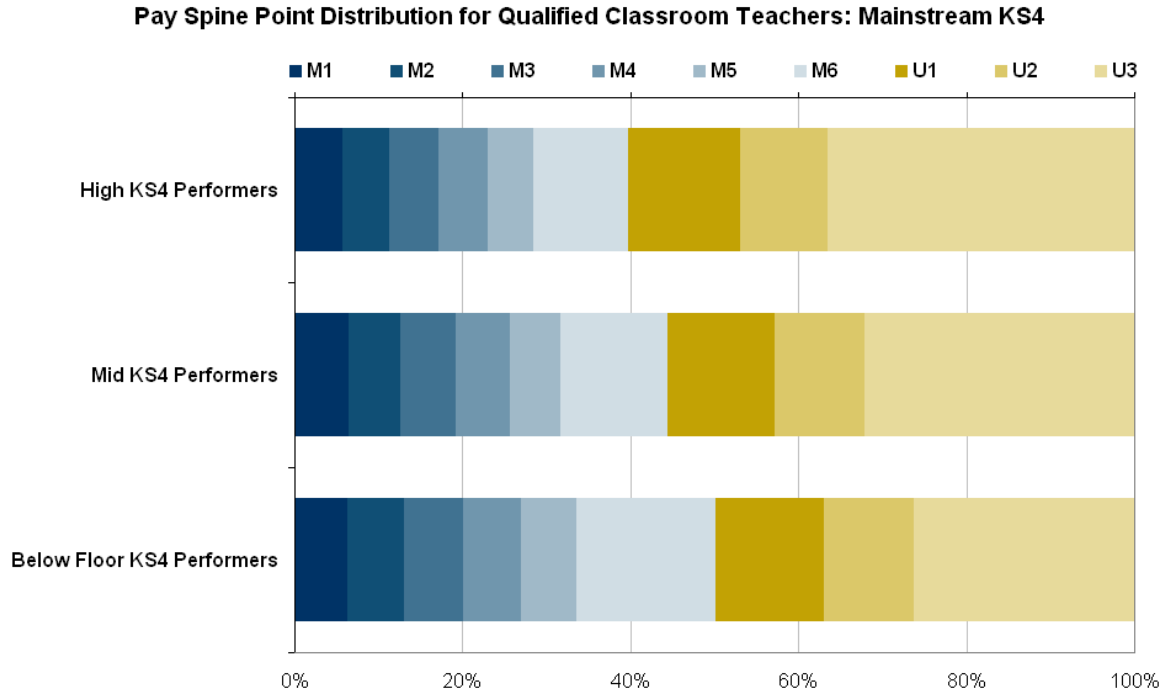
Fig. 2.7.3a Key Stage 4 Performance & Classroom Teacher Pay

Full-time Qualified Teachers' Pay: KS4 Mainstream Schools Classroom Teachers



	Inner London	Outer London	London Fringe	Rest of England
High KS4 Performers	£41,200	£38,600	£35,900	£36,000
Mid KS4 Performers	£41,200	£37,700	£36,100	£35,400
Below Floor KS4 Performers	£40,700	£36,700	£36,400	£35,200

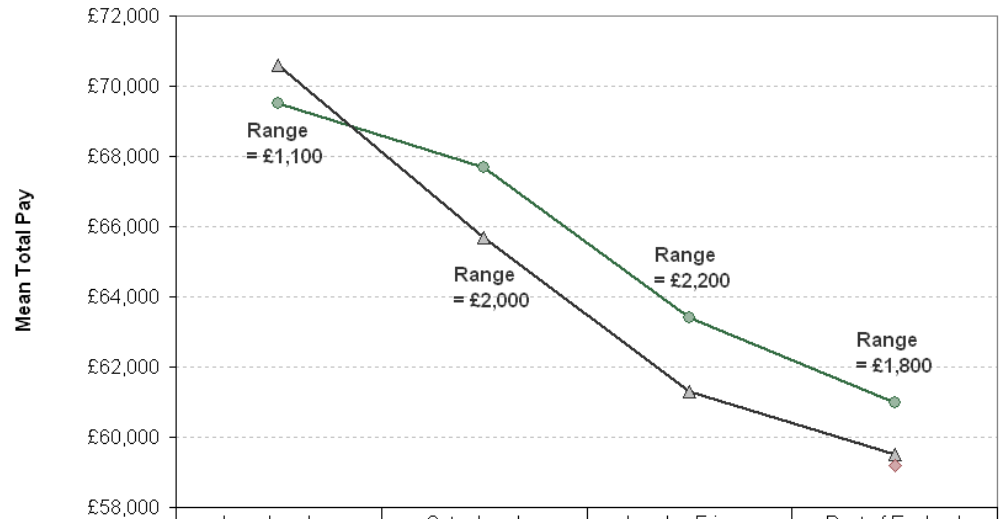
Fig. 2.7.3b Key Stage 4 Performance & Classroom Teacher Pay



Except in Inner London, leadership teachers in high-performing KS4 schools typically were paid more than those in mid-performing schools (see figure 2.7.4). There were insufficient leadership pay data points for below-floor schools in Inner and Outer London and the London Fringe to make a comparison, but leadership pay was similar in below-floor schools to that in mid-performing schools (but lower than in high-performing schools) in the Rest of England pay area.

Fig. 2.7.4 Key Stage 4 Performance & Leadership Teacher Pay

Full-time Qualified Teachers' Pay: KS4 Mainstream Schools Leadership Teachers



	Inner London	Outer London	London Fringe	Rest of England
High KS4 Performers	£69,500	£67,700	£63,400	£61,000
Mid KS4 Performers	£70,600	£65,700	£61,300	£59,500
Below Floor KS4 Performers				£59,200

2.8 Teacher Pay and Pupil Behaviour

This section is the third of four sections covering teacher pay and school variations, and focuses on teacher pay according to school behaviour. Figure 2.8.1 presents the mean differences from the average pay, for each grade in each sector in each pay area, according to the most recent Ofsted behaviour judgement for the school in which the teacher works as at December 2010. For more details on the inspection judgement data, see the data note at the start of chapter 2; further information on the pay data can be found at the start of section 2.6.

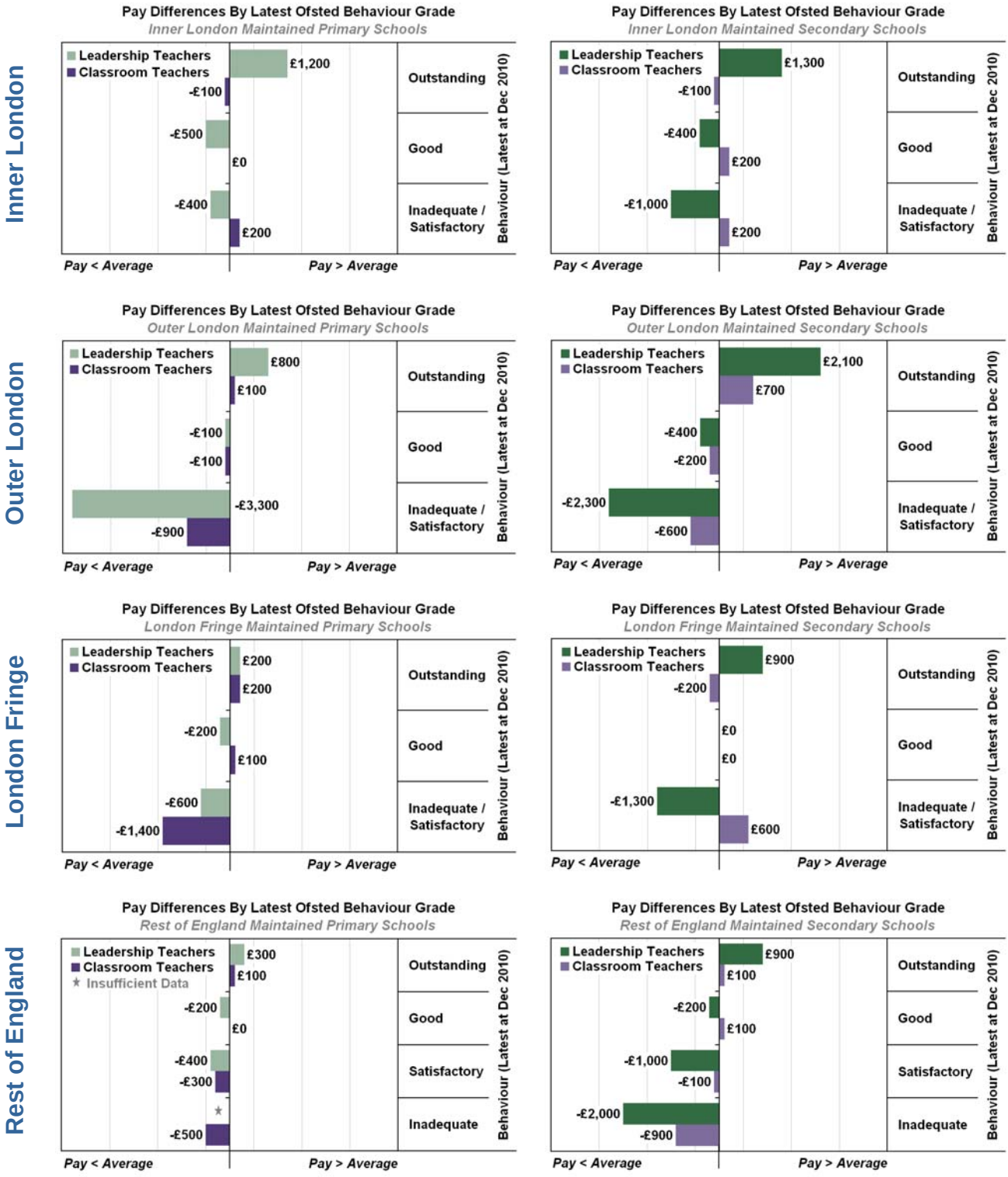
In the charts that follow, where the difference bar appears to the left of the vertical axis, that teacher grade group was paid a lower average salary than the mean pay for the sector and area across schools with all behaviour grades. Where the difference bar appears on the right of the vertical axis, that teacher grade group was paid a higher average salary than the mean pay for the sector and area across schools with any behaviour grade. For example, in the top left panel of figure 2.8.1, Inner London primary leadership teachers in schools with outstanding behaviour typically were paid £1,200 more than the mean salary for leaders in all primary schools in Inner London.

Summarising across the panels in figure 2.8.1, on average, leadership teachers in schools with outstanding behaviour were paid more than average, for both primary and secondary schools and across all pay areas. Leadership teachers in schools with satisfactory or inadequate behaviour standards were paid less than average except in academies.

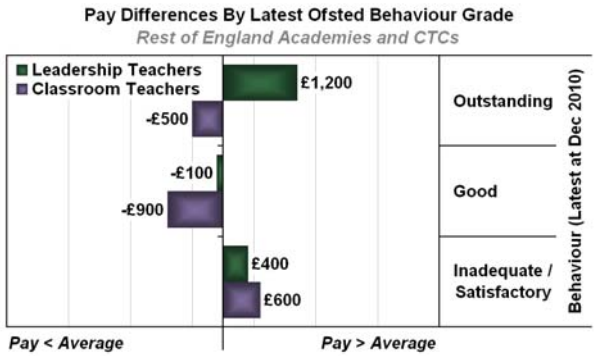
Classroom teachers followed the same pattern of pay differences by school behaviour in Outer London primary and secondary schools, London Fringe primary schools, and Rest of England primary and secondary schools, but with generally smaller pay differences than those seen for leadership teachers. However, in all maintained mainstream Inner London schools, and in London Fringe secondary schools, classroom teacher pay was *inversely* related to better Ofsted behaviour judgements; in academies in the Rest of England, the relationship was approximately inverse.

Academies analysis is only presented for the Rest of England pay area due to insufficient complete pay and inspection data in the London areas. Newer schools such as recently opened academies may have yet to be inspected for the first time and have no available behaviour judgement as a result.

Fig. 2.8.1 Pay Differences by Ofsted Behaviour Grade in Each Pay Area



Rest of England



Simplifying the complex picture which emerges in figures 2.8.1a-d, figures 2.8.2 and 2.8.3 reveal a clear pattern of more upper pay scale teachers in schools with 'outstanding' behaviour (primary 50% / secondary 59%), and fewer in schools with 'satisfactory' or 'inadequate' behaviour (primary 44% / secondary 54%).

Fig. 2.8.2 Maintained Primary School Behaviour & Teacher Pay

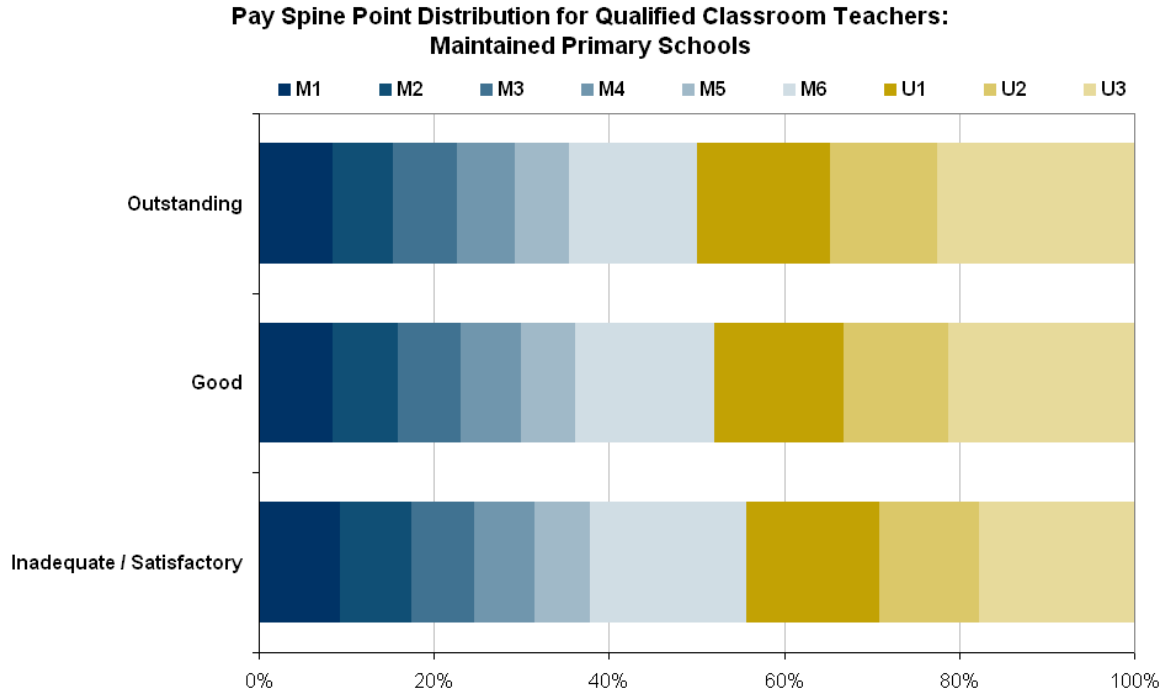
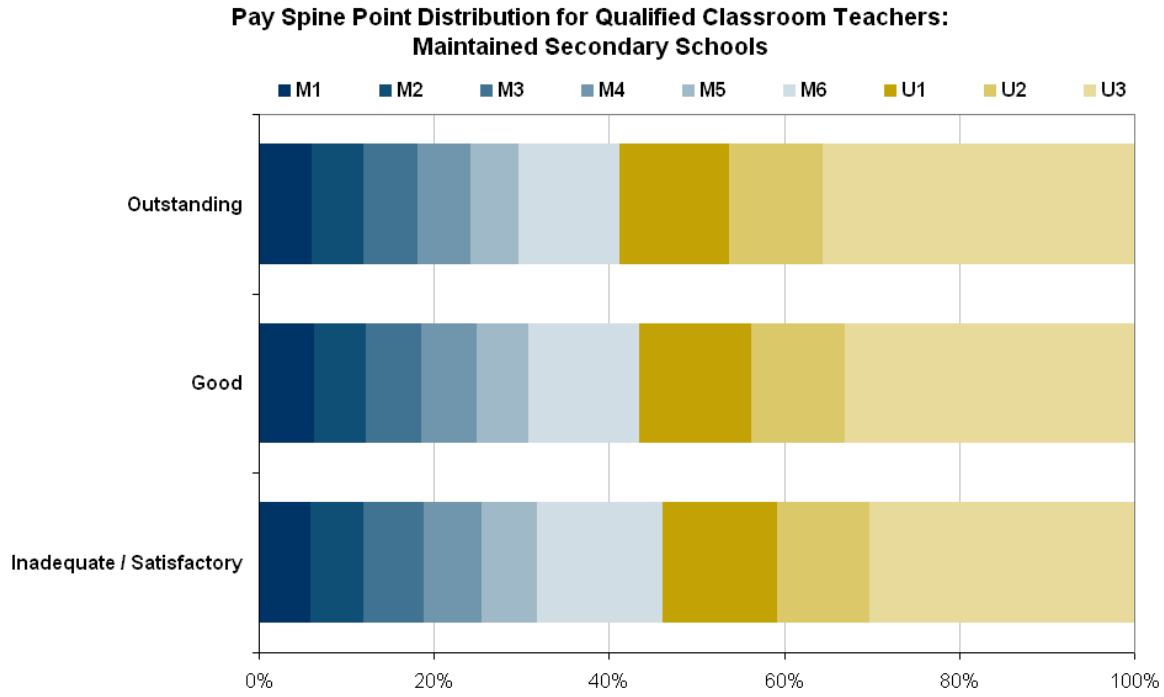


Fig. 2.8.3 Maintained Secondary School Behaviour & Teacher Pay

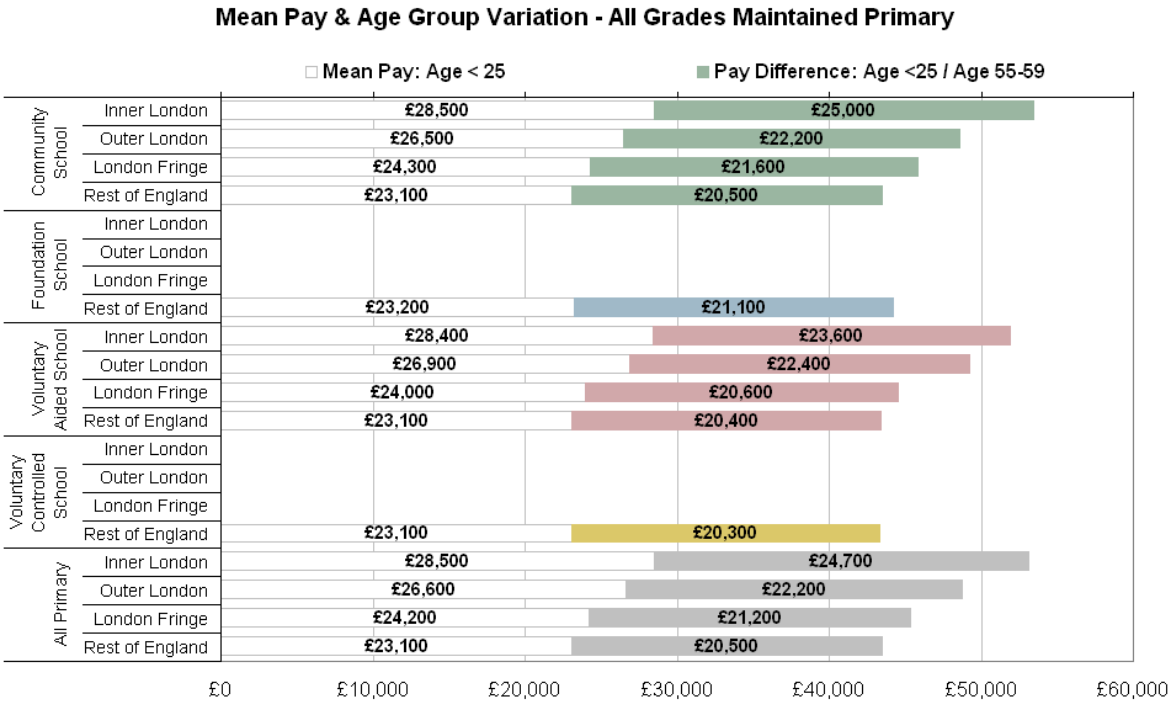


2.9 Age Group Variations in Teacher Pay

This section is the last of four sections covering teacher pay and school variations, and focuses on age variations in teacher pay. Age variation, linked to the typically longer teaching experience of older teachers, underpins many of the patterns seen in the pay analyses presented in sections 2.6-2.8. This section takes a closer look at the typical extent of pay growth for older teachers of all grades in each pay area, school sector and governance type. The analysis is based on snapshot data from 2010; all salaries and salary progression cited are taken at this point, and take no account of the longitudinal time, policy and inflation differences which would affect a specific individual teacher or cohort of teachers over the course of their career.

Figures 2.9.1 and 2.9.2 show the average pay differences between teachers aged under 25 and those aged 55-59, including differences related to the different grade distributions in those age categories, for maintained primary and publicly funded secondary schools respectively.

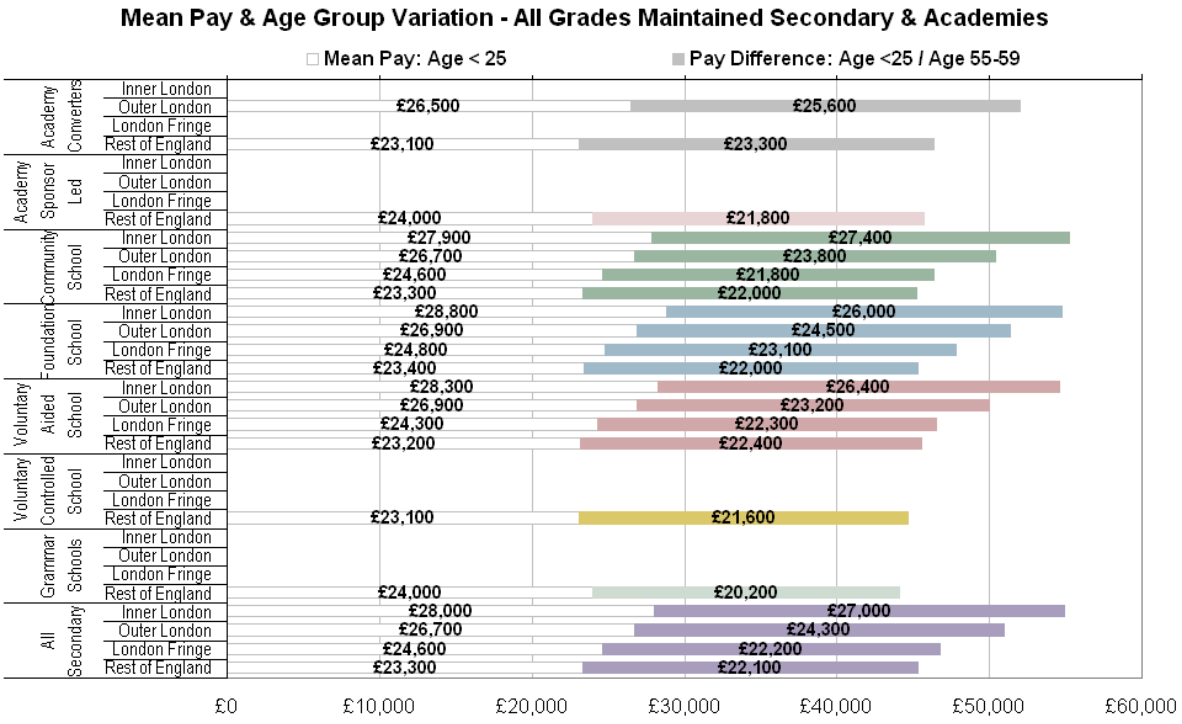
Fig. 2.9.1 Maintained Primary School Governance & Age Group Pay Variation



For example, not accounting for time and inflation it can be seen that a community secondary school teacher aged under 25 in the Rest of England pay area earns an average £23,300; an equivalent teacher aged 55-59 earns an additional £22,000 based on their progress through the pay scales and likelihood of having become a leadership teacher; this is a 94% increase based on age and related extra teaching experience.

The range of age-related pay differences between the under 25 group and the age 55-59 group is from 84% - 101% of the mean salary for teachers aged under 25, depending on the sector, school governance and pay area. The largest differences were for teachers in converter academies (97% growth in Outer London and 101% growth in the Rest of England). There was less variation in primary school pay areas and school governance types with all cases between 83% and 91% of the mean salary for teachers aged under 25.

Fig. 2.9.2 Publicly Funded Secondary Governance & Age Group Pay Variation



Chapter 3: Teacher Wastage from the Maintained Sector

Key Findings

- The main source of entrants was newly qualified teachers who accounted for 52% of entrants. The two other sources of entrants were 'returners to the publicly funded sector' and teachers who were 'new to the publicly funded sector'; accounting for 20% and 29% of entrants respectively.
- Leavers from teaching can be grouped into retirements (25%) and movements out of the publicly funded sector (75%). Some of the latter group will have remained in teaching, in the independent sector, further education or teaching outside of England.
- Inflows to and outflows from the publicly funded schools sector have been broadly in balance at 9-11% each over the last decade, causing teacher numbers to rise slowly but steadily as the inflow marginally exceeded the outflow in each year.
- An average cohort of 100 teacher trainees will consist of 75 postgraduates (PGs) and 25 undergraduates (UGs). Typically 63 PGs and 17 UGs complete Initial Teacher Training (a total of 80/100). Five years after completing ITT, on average, 56 of the 100 trainees will be teaching in the maintained sector (43/75 PG trainees and 13/25 UG trainees), with a further 6 in the non-maintained sector (5 PGs and 1 UG).
- Factors statistically associated with non-retirement teacher wastage (potentially cases of 'burn-out') included part-time working patterns, having less than 5 years of teaching experience, overseas or Teach First training, and being aged over 40 for male teachers or over 50 for female teachers.
- Protective factors that made leaving less likely were work-based or undergraduate training routes, more than 10 years of experience and being a head or deputy/assistant head teacher.
- Teachers known to have moved from publicly funded schools to independent schools were disproportionately likely to be male, aged under 40, and of classroom teacher grade.
- Retention within the maintained sector declined more quickly following promotion to a leadership grade for teachers who were aged 35 or over when they were promoted, whereas retention was stronger for teachers aged under 35 when promoted.
- The length of classroom experience before promotion made much more difference to retention for newly promoted leadership teachers aged under 35 than it did for those aged 35 or over. Retention was considerably lower for under 35s if they had less than 5 years of classroom experience.
- Within the group of teachers aged 35 or over at promotion to a leadership grade, there were similar retention rates whether the new leadership teachers had at least 5 years of classroom experience or not.

Chapter 3 presents analyses of teacher flows, focusing mainly on 'teacher wastage' from the publicly funded sector; these analyses use multiple years' data to track teachers through the system, hence they are not yet possible using the new enhanced data which could eventually enable school-level investigation and open up further avenues of analysis of teacher flows.

Section 3.1 sets teacher wastage in its broader context within the totality of teacher flows into and out of the publicly funded sector. This is followed in section 3.2 by a graphical presentation of how wastage from the teaching profession unfolds within a cohort of trainee teachers, through to 5 years post-qualification.

Section 3.3 then investigates some observable factors which influence the likelihood of an individual teacher leaving the profession, focusing in on cases where 'teacher burn-out' may be at play rather than age-retirements and other 'natural causes' of wastage.

In section 3.4, the characteristics of teachers known to have moved from publicly funded schools to independent schools are described. Finally, section 3.5 unpicks the influences of age and teaching experience on wastage from among newly promoted leadership teachers.

Data Note: *The analyses in this chapter use combined data from sources existing before the introduction of the School Workforce Census. This is because teacher flows and wastage rates require data linked across multiple years, which are not yet available through the new data source. The data sources used for these analyses are the Database of Teacher Records, the Pensioner Statistical System and the General Teaching Council for England database.*

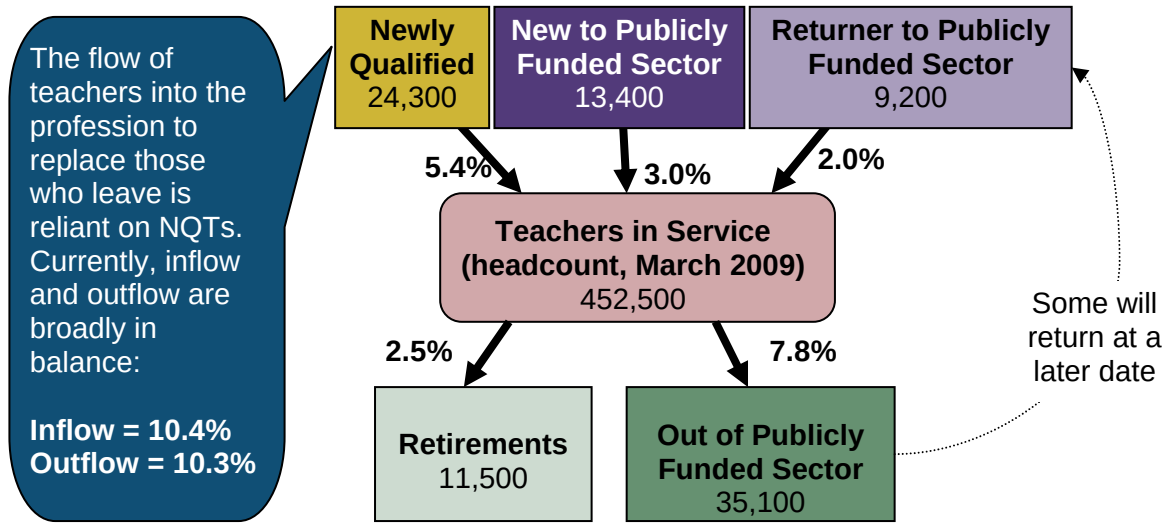
Future developments which would be required to move teacher flows analysis across to the richer School Workforce Census data involve both the collection of additional years of data and, to gain full advantage of the potential of the new data source, for successive census returns to be matched from year-to-year to provide system, school, and individual-level tracking of teacher movements and flows. Completely new analyses such as school turnover rates would then be possible, in addition to ongoing provision of system-level flows analysis.

3.1 Overall Teacher Flows: Situating Wastage in its Broader Context

Figure 3.1.1 shows the different routes in and out of teaching in publicly funded schools in England during 2008-09. The main source of entrants was newly qualified teachers who accounted for 52% of entrants. The two other sources of entrants were 'returners to the publicly funded sector' - teachers who have previously taught in the publicly funded sector - and teachers who were 'new to the publicly funded sector' but who qualified before 2008. These made up 20% and 29% of entrants respectively. Combining the three sources of entrants and expressing this total as a percentage of teachers in service resulted in an inflow to teaching of 10.4%.

Fig. 3.1.1 Latest Teacher Flows

Yellow & purple boxes represent entrants to teaching, while green boxes show leavers.



Source: Database of Teacher Records
Coverage: All publicly funded schools (LA maintained plus Academies), 2008-09
Wastage and entrant rates are based on the starting headcount of 452,200 in March 2008

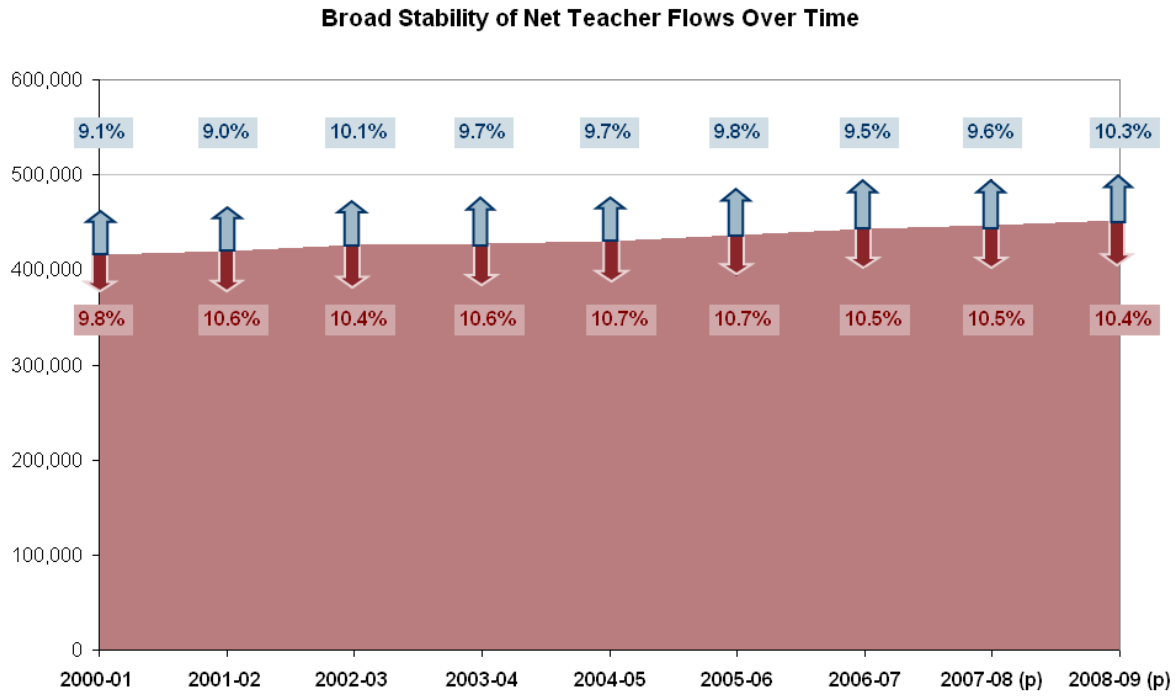
Leavers from teaching can be grouped into retirements and movements out of the publicly funded sector. Around 75% of leavers moved out of the publicly funded sector (some will have remained in teaching, in the independent sector or in Wales or Scotland for example; whilst others may have left to raise a family or to pursue a different career). The remaining 25% of leavers retired; separate sources show that the majority of teachers retiring in 2008-2009 were for 'age' or 'actuarially reduced benefits' (ARB). Age accounted for over half of the retirements, and ARB accounted for a further one third of them.

The total inflow to teaching (10.4%) was very slightly higher than the total outflow (10.3%), causing the number of teachers in service in the publicly funded sector to increase to 452,500[4].

[4] March headcount figure from the Database of Teacher Records produced to coincide with

Inflows to and outflows from the publicly funded schools sector have been broadly in balance at 9-11% each over the last decade, causing teacher numbers to rise slowly but steadily as the inflow marginally exceeded the outflow in each year (see figure 3.1.2).

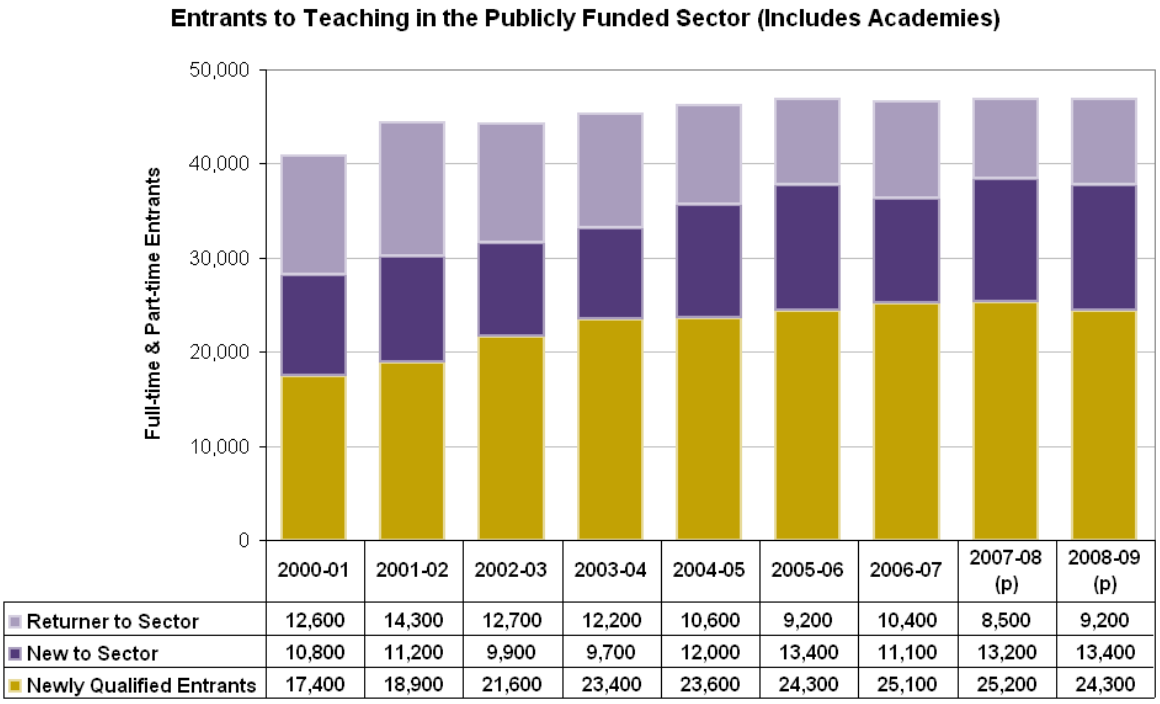
Fig. 3.1.2 Publicly Funded Sector Net Teacher Flows From 2000-01 to 2008-09



the timing of the teacher flows data – not consistent with published teacher numbers which are taken in January of each year.

Beneath these net flows, there has been a substantial increase in newly qualified teacher (NQT) entrants, who represent around half of all entrants (see figure 3.1.3). The overall growth in teacher inflows has been dampened by a slowing in the number of teachers returning to the sector; there has been no clear trend in the number of new-to-sector teachers transferring in. Overall, the net result has been net growth in inflows from 40,800 in 2000-01 to 46,900 in 2008-09.

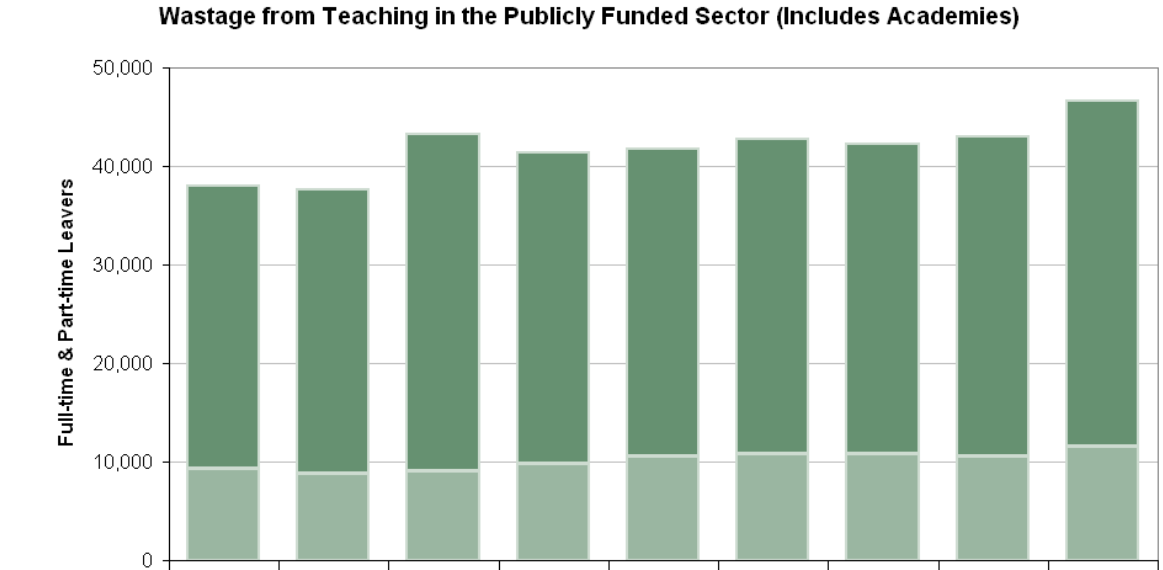
Fig. 3.1.3 Publicly Funded Sector Teacher Entrants from 2000-01 to 2008-09



	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08 (p)	2008-09 (p)
Returner to Sector	12,600	14,300	12,700	12,200	10,600	9,200	10,400	8,500	9,200
New to Sector	10,800	11,200	9,900	9,700	12,000	13,400	11,100	13,200	13,400
Newly Qualified Entrants	17,400	18,900	21,600	23,400	23,600	24,300	25,100	25,200	24,300

The total growth in teacher inflows to the sector has been partially offset by slight increases in both retirements and out-of-service leavers (see figure 3.1.4). Outflow totalled 38,200 in 2000-01, rising to 46,600 in 2008-09. Most of this increase occurred in two bursts, between 2001-02 and 2002-03, and between 2007-8 and 2008-09. This was driven mainly by out-of-service leavers, raising questions about changes in the prevalence of 'teacher burn-out' and/or the comparative benefits of alternative careers open to those with teaching experience.

Fig. 3.1.4 Publicly Funded Sector Teacher Wastage from 2000-01 to 2008-09



	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08 (p)	2008-09 (p)
Out of Service	28,700	28,800	34,300	31,700	31,300	32,000	31,500	32,500	35,100
Retired	9,300	8,800	9,000	9,700	10,500	10,700	10,700	10,500	11,500

3.2 Cohort Wastage from Initial Teacher Training Through to 5 Years Service

Figure 3.2.1 summarises the end-state for a cohort of 100 teacher trainees setting out on a college-based (rather than work-based) initial teacher training (ITT) course. The bullet points beneath the pictogram describe what has happened to the trainees and how many followed each path during training and in the five subsequent years.

Each green stick man represents 1% of the initial cohort that undertook postgraduate ITT, and has remained in service in the maintained sector to date; each blue stick man represents 1% of the initial cohort that followed undergraduate ITT, and remains in service in the sector. Grey stick men represent 1% of the cohort each who are teaching, but outside the maintained sector, for example in an academy or an independent school. Each black stick man represents 1% of the cohort that has now left teaching altogether, or no longer teaches in England.

Fig. 3.2.1 Five-Year Retention for 100 College-Based Teacher Trainees

An average cohort of 100 trainees will consist of

- 75 postgraduates (PGs) and
- 25 undergraduates (UGs)

Typically 63 postgraduates and 17 undergraduates will complete ITT

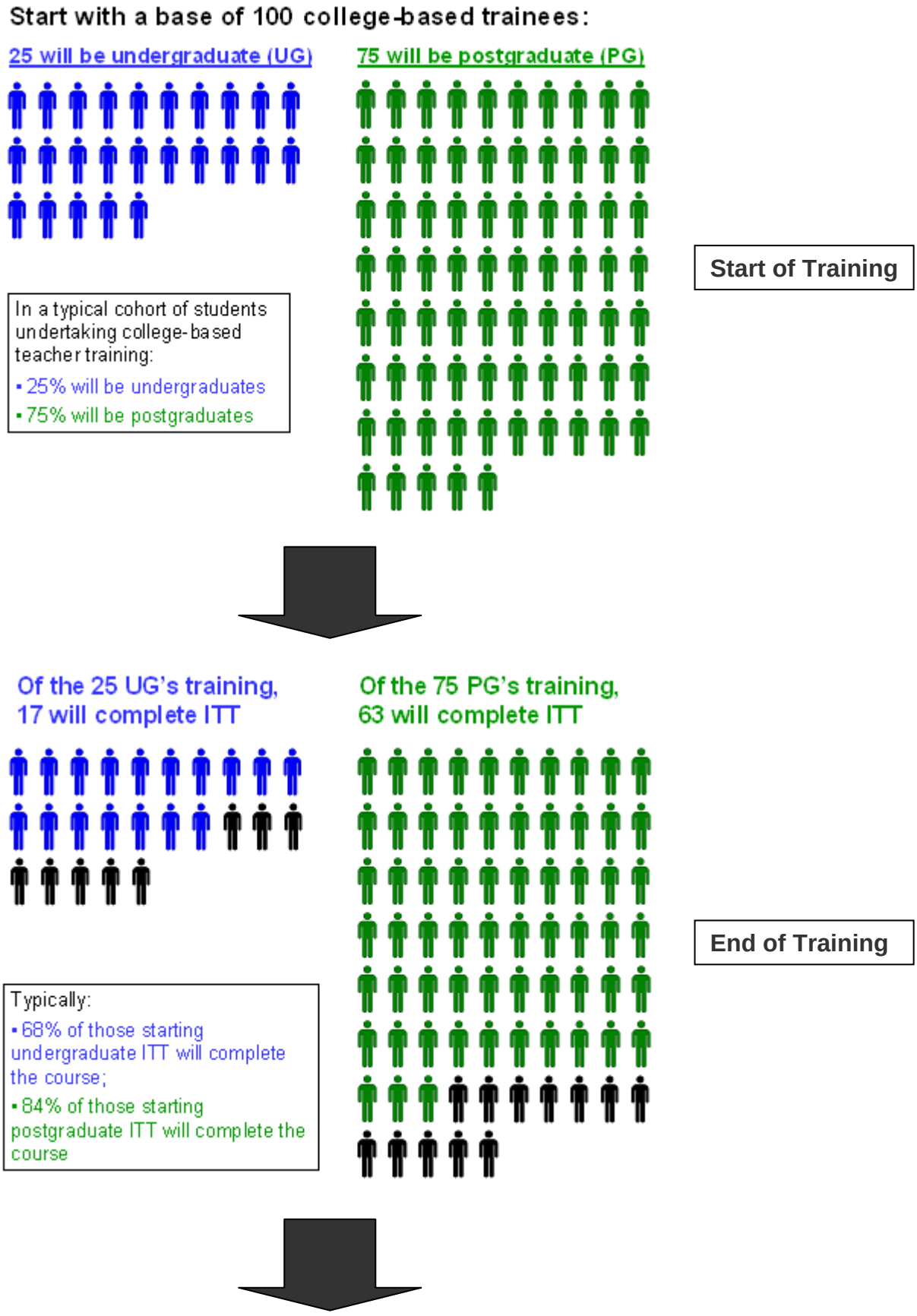
- a total of 80 completers from 100 trainees

Five years after completing ITT, on average,

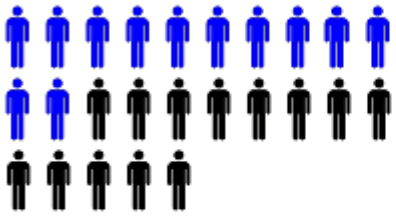
- 56 of the 100 trainees will be teaching in the maintained sector:
- 43 from the original 75 PG trainees and
- 13 from the original 25 UG trainees with
- a further 6 in the non-maintained sector (5 PGs and 1 UG)

Figure 3.2.2 now breaks down the outcomes seen in figure 3.2.1 into year-by-year stages, showing how the cohort in service shrinks over time as the retained pool of teachers gets smaller with each year that passes.

Fig. 3.2.2 How the Five-Year Retention Unfolds Over Time



Of the 17 UG's completing ITT, 12 will be teaching (maintained sector) in the year following qualification



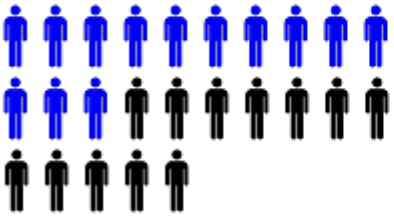
Of the 63 PG's completing ITT, 47 will be teaching (maintained sector) in the year following qualification

- 73% of undergraduates completing ITT will be teaching in the maintained sector in the March following qualification;
- The corresponding percentage for postgraduates is 74%

- A further 2% of UGs and 5% of PGs will be teaching in the non-maintained sector (figures in grey)

Year after Qualification

13 UGs will be teaching (MS) two years after qualification



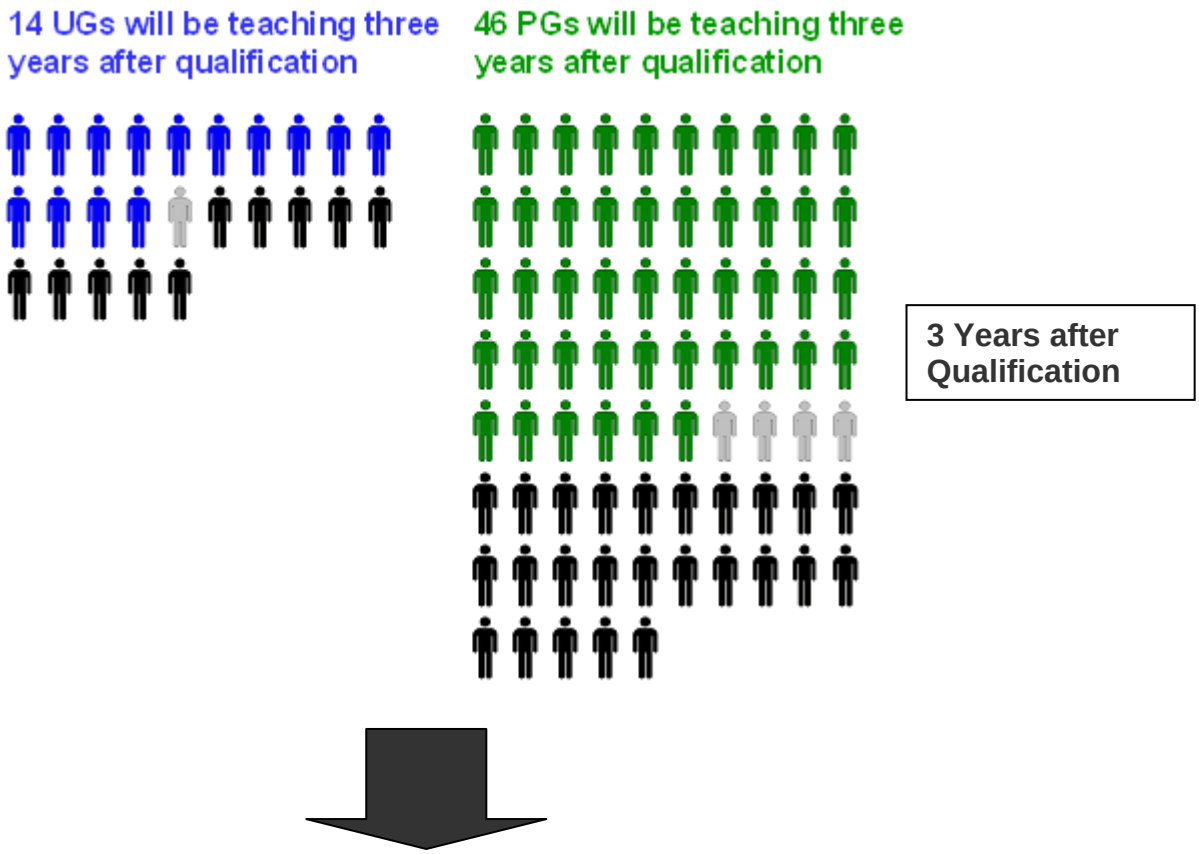
47 PGs will be teaching (MS) two years after qualification

In the second year after qualification

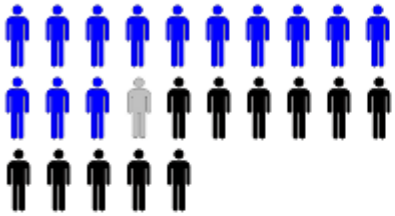
- 79% of UG ITT completers will be teaching in the maintained sector (+3% in the non MS)
- 74% of PG ITT completers will be teaching in the maintained sector (+6% in the non MS)

These numbers are higher than in the year immediately following qualification – there may be a time-lag between qualification and entering teaching

2 Years after Qualification


14 UGs will be teaching three years after qualification
46 PGs will be teaching three years after qualification
3 Years after Qualification
14 UGs will be teaching four years after qualification
44 PGs will be teaching four years after qualification
4 Years after Qualification

13 UGs will be teaching five years after qualification



- 13 of the 25 people (52%) who commenced undergraduate teacher training will be teaching in the MS 5 years after qualification;
- 43 of the 75 people (57%) who commenced postgraduate teacher training will be teaching in the MS 5 years after qualification.

- A further 1 of the 25 UGs and 5 of the 75 PGs will be teaching in the non-maintained sector (grey stickmen)

43 PGs will be teaching five years after qualification

5 Years after Qualification

Figures 3.2.3 to 3.2.5 list some of the factors that have been found by credible research studies to influence teachers' decisions to withdraw from ITT, not to enter teaching after ITT, or to leave the profession after having been in-service teachers. References for the studies cited appear in the footnote below[5].

Fig. 3.2.3 Research Findings on Reasons for Withdrawal from ITT

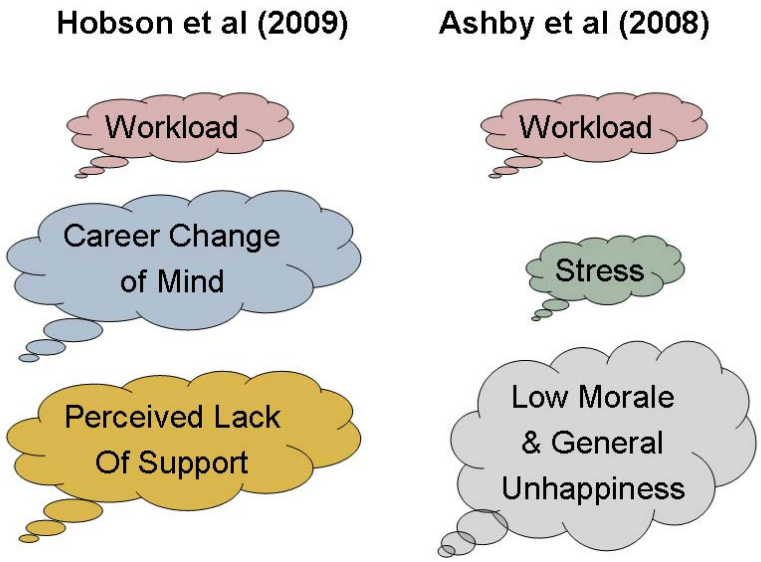
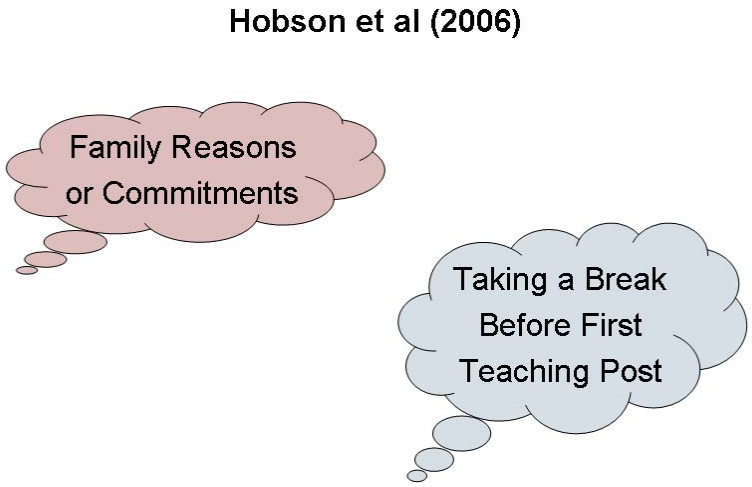
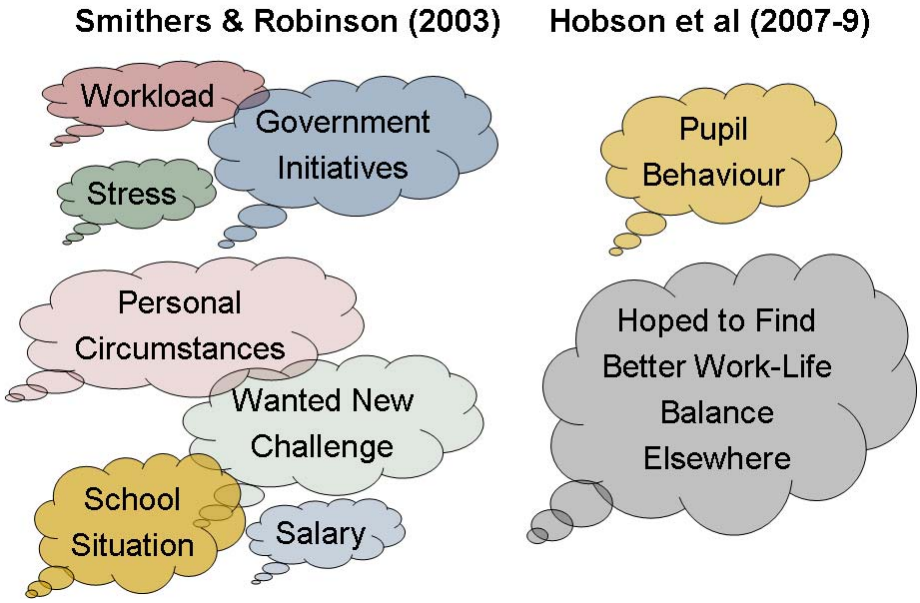


Fig. 3.2.4 … Reasons Not to Enter Teaching Post-Qualification



[5] Hobson et al (2009)
https://www.education.gov.uk/publications/RSG/SchoolsSO/Page18/DCSF-RR115
Ashby et al (2008)
https://www.education.gov.uk/publications/RSG/Teachersandschoolworkforce/Page3/DCSF-RW076
Hobson et al (2006)
https://www.education.gov.uk/publications/RSG/publicationDetail/Page1/RR744
Smithers & Robinson (2003)
https://www.education.gov.uk/publications/RSG/publicationDetail/Page1/RR430

Fig. 3.2.5 Research Findings on Reasons to Leave Teaching



3.3 Factors Associated with Leaving the Profession and 'Teacher Burn-out'

This section presents the findings from statistical modelling to identify the types of teachers with the highest propensity to leave teaching. For the purpose of these analyses, leaving the profession included those categories of leavers which might be thought to include 'teacher burn-outs', i.e. out-of-service leavers who stopped teaching in the maintained sector, premature retirements and ill-health retirements.

Teachers leaving the maintained sector in England to teach in Academies or in Wales were considered to be still in service for these analyses. Teachers who retired due to age, took actuarially reduced benefits (ARB), efficiency or redundancy payments, or who died during the academic year 2007-2008 were removed from the analyses, as they were neither still in service nor had they left the profession for a reason that could be attributed to burn-out.

Methodological Note on Logistic Regressions: *Logistic regression is used for the prediction of the probability of occurrence of an event. It makes use of several predictor variables that may be either numerical or categorical. For example, the probability that a person leaves the teaching profession may be predicted from knowledge of the person's age, sex etc. The odds ratio is a measure of effect size, describing the strength of association between a variable and, in this case, the chance of leaving the profession.*

When interpreting the charts in this section, if a factor had an odds effect of greater than one, teachers with this characteristic were more likely to leave the profession than those in the reference group, all other characteristics being equal. Where a factor had an odds effect of less than one, teachers with this characteristic were less likely to leave teaching. In each case, the odds effect multiplies the background odds of leaving the profession for the reference group (identified in gold text below the bars for each set of factors), assuming that all the other characteristics are equal.

Figure 3.3.1 shows the effects of various teacher and school factors on the odds of leaving the teaching profession (as defined above) for a primary school teacher.

The strongest odds effect was for having the registered teacher programme (a non-graduate work-based route) as the route taken into teaching; teachers with this training route had odds of leaving the profession that were only one third as large as the odds of leaving for a teacher with post-graduate class-based training, all other factors being equal.

Conversely, teachers with overseas training had odds of leaving the profession that were 40% higher than those with post-graduate training; the odds of leaving for teachers with graduate work-based training or undergraduate class-based training were around 20% lower than the odds for those post-graduate training holders.

Working patterns also had statistically significant (p=0.05) odds effects on leaving the profession. Part-time teachers had odds of leaving that were 2.4 times as high as the odds for full-time teachers.

Females aged 30-39 were the most common age / gender group, and were used as

the reference category for interacted age and gender effects. The odds of leaving increased gradually with age, for both genders.

At ages under 30, both males and females had odds that were 10% lower than the reference group. Males aged 40-49 had odds of leaving that were 30% higher than the reference group, similarly to those for females aged 50-59; the odds for females aged 40-49 were not significantly different from females aged 30-39. At ages 50-59, the odds of leaving were 30% higher for females, and 80% higher for males, compared with the reference group. The odds effect for males aged 60+ was insignificant (n = 55), whereas for females aged 60+ the odds were twice as high as for females aged 30-39 (OR = 2.1).

Teacher grade also affected the odds of leaving the profession, with leadership teachers found to have odds of leaving that were 40% lower than those of classroom teachers. Leadership grades include head teachers, deputy heads and assistant heads; classroom teachers include those with 'advanced skills', 'post-threshold' teachers and 'excellent' teachers.

In contrast to teacher age, the odds of leaving teaching decreased as the number of years of teaching experience increased. Compared with the reference group of teachers with 5-9 years experience, those with under 5 years experience had odds of leaving that were almost 50% higher; those with more experience had decreased odds of leaving the profession: around 10% lower than the reference group with 10-14 years experience, and around 20% lower with 15 years of teaching or more.

A small school effect was found for teachers working in schools with significantly above average contextual value added (CVA) scores. These teachers had odds of leaving that were around 10% lower than the odds for teachers who worked in schools with CVA scores not statistically significantly different from the national average. Below average CVA scores were also included as a factor in the model, but had no statistically significant effect on the odds of leaving. CVA scores were the indicator of choice for assessing school effectiveness under the previous government, with schools scoring above average considered to have been successful in achieving greater pupil progress than would be predicted (by statistical modelling) given their particular intake of pupils.

Fig. 3.3.1 Effects of Primary Teacher and School Characteristics on Leaving

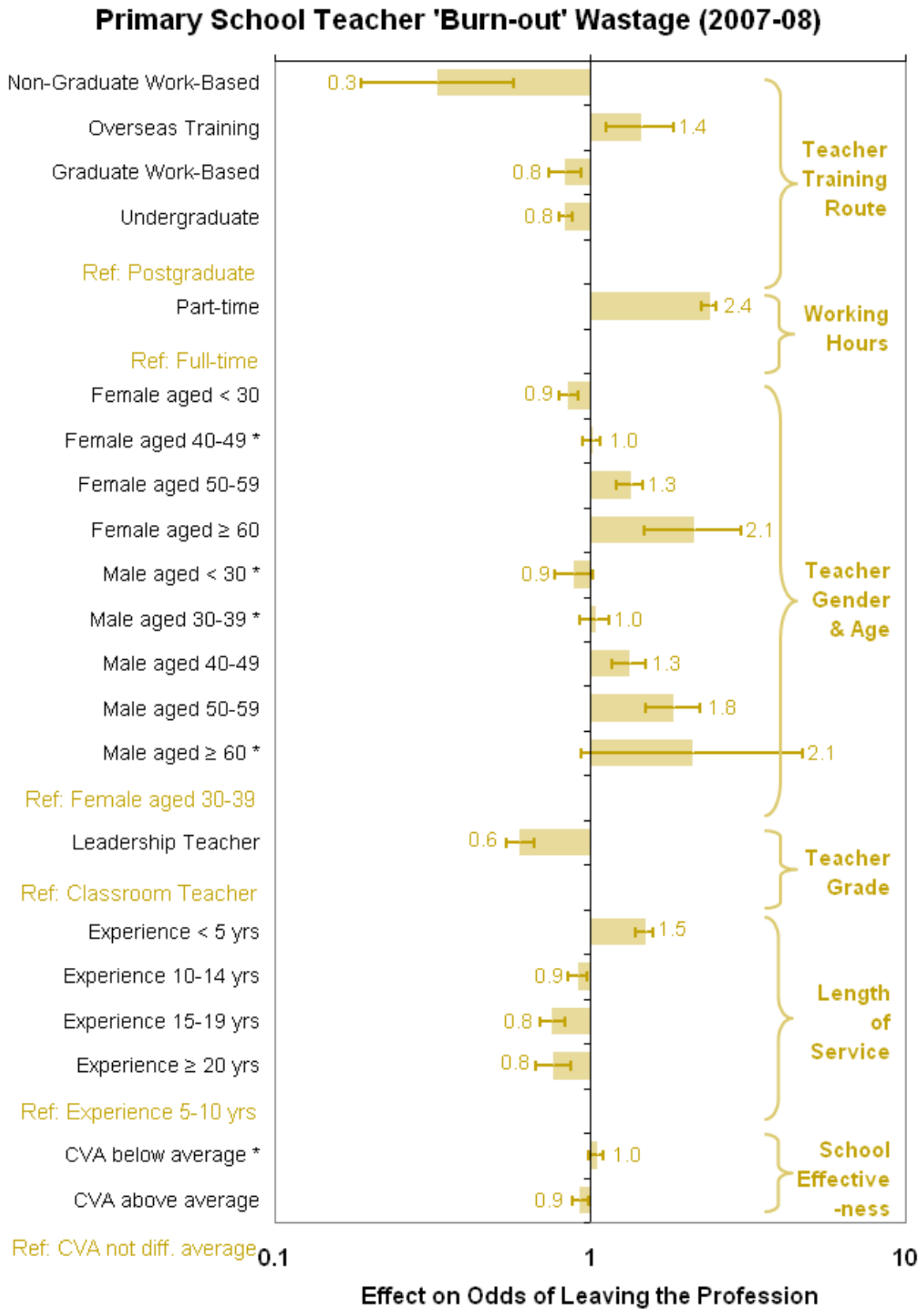


Figure 3.3.2 shows the effects of various teacher and school factors on the odds of leaving the teaching profession for a secondary school teacher. The secondary teachers' model was fitted slightly differently from the primary teachers' model to include the additional Teach First training route and GCSE performance factors. Additionally, it was found that teacher grade and the number of years of teaching experience held interacted for secondary teachers, so the factors reported reflect a combined model specification for these variables.

Similarly to the primary teachers' model, the teacher training route for secondary teachers played an important role in influencing the odds of leaving the profession. In particular, teachers with Teach First training had odds of leaving which were five times higher than the odds for those with post-graduate training (n = 170). This is not unexpected given the objectives of the Teach First programme to bring very able graduates into teaching for two years prior to entering another profession or occupation (although it is hoped that around one half will remain in teaching beyond two years). Teach First teachers have a high propensity to join academies, where the tracking data were less reliable; hence this odds effect could be an overestimate.

Teachers with overseas teacher training also had higher odds of leaving than the reference group; their odds were 60% greater than teachers with post-graduate training; also similarly to the primary model, teachers with non-graduate work-based training (registered teacher programme) had odds of leaving that were 60% lower than the reference group. Teachers with graduate work-based or undergraduate training had odds of leaving that were 20% and 10% lower than those with post-graduate training respectively.

Part-time working had a slightly stronger effect on the odds of leaving teaching than for primary teachers, at 2.8 times the odds for full-time teachers. This may reflect the fact that part-time working patterns are less common in secondary schools than in primary schools, so those teachers choosing to go part-time will have fewer colleagues in a similar position.

Combined (interacted) gender and age categories were again statistically significant in the model for secondary teachers, with significantly different odds effects for male vs. female teachers aged 50-59. The results were very similar to those for primary teachers, with the odds of leaving generally increasing with age; at ages under 30, both males and females had odds that were 10% lower than females aged 30-39 (the reference group).

Males aged 40-49 had odds of leaving that were 20% higher than those for the reference group; for females aged 40-49 the odds were 10% higher. At ages 50-59, the odds of leaving for male teachers were 80% higher than for females aged 30-39, compared with 50% higher for female teachers aged 50-59. At ages over 60, these odds effects decreased to 60% higher than the reference group for males, but increased to the same level (60% higher) for females.

As with primary teachers, the odds of leaving the profession decreased as teaching experience increased. However, and interaction with teacher grade was found where this pattern did not hold for leadership teachers, whereby those with 5-9 years of experience had lower odds of leaving (50% of the odds for the reference group)

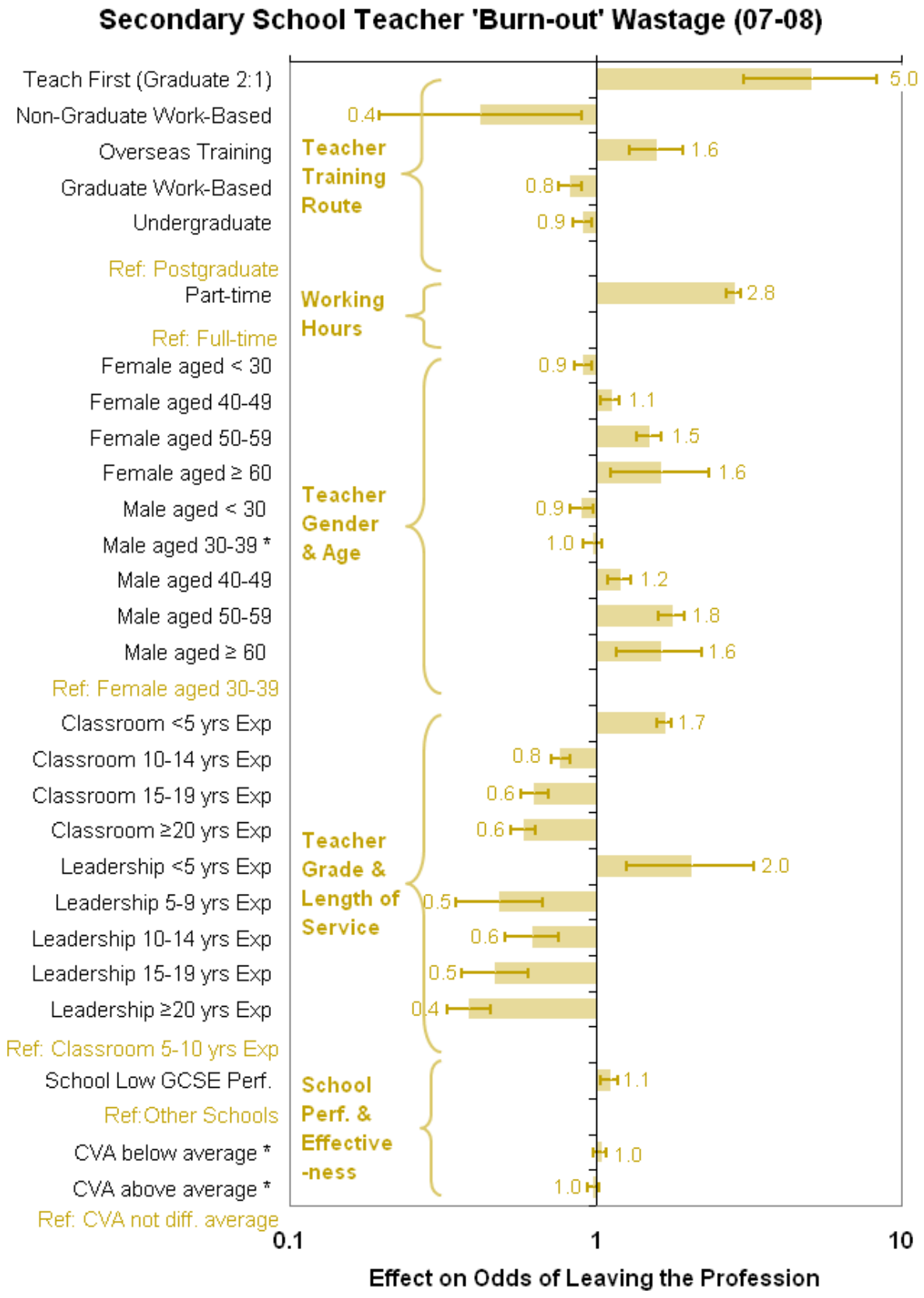
than those with 10-14 years in teaching (60% of the odds for the reference group). The reference group were classroom teachers with 5-9 years of experience. This supports the observation that progressing quickly to a leadership role can increase the probability of leaving; it is hypothesised that this reflects a greater risk of teacher burn-out for this group.

For teachers with under 5 years of experience, those in leadership roles were more likely to leave than those in classroom roles; however, both had higher odds of leaving than classroom teachers with 5-9 years of experience (70% higher for classroom teacher compared with 100% higher for leadership teachers).

In the more experienced categories, this pattern was reversed, with leadership grade teachers having lower odds of leaving than classroom teachers. For those with 10-14 years of experience, the odds of leaving were 20% lower for classroom teachers and 40% lower for leadership teachers than the reference group. At 15-19 years of experience, the odds of leaving reduce further to 40% (classroom) and 50% (leadership) lower than the odds for classroom teachers with 5-9 years of teaching. At 20 years of experience or more, the odds shrink even further for leadership teachers to 60% lower than those for the reference group.

A small school performance effect was also found for secondary teachers, although reflecting a different aspect of performance from that found for primary teachers. The CVA 'effectiveness' score of the school where a teacher worked was found to be insignificant in the model after the addition of a raw GCSE performance indicator in the form of a flag for low performance. This low performing school category was associated with a 10% increase in the odds of leaving compared with those for teachers in other schools with mid or high performance at GCSE.

Fig. 3.3.2 Effects of Secondary Teacher and School Characteristics on Leaving



To summarise the results from the primary and secondary teacher models of the odds of leaving the teaching profession, the factors found to be statistically associated with non-retirement teacher wastage (potentially cases of 'burn-out') included part-time working patterns, having less than 5 years of teaching experience, overseas or Teach First training, and being aged over 40 for male teachers or over 50 for female teachers. Protective factors that made leaving less likely were work-based or undergraduate training routes, more than 10 years of experience and being a head or deputy/assistant head teacher.

It is possible to convert the odds effects described above into probabilities of leaving for teachers with particular combinations of characteristics in the models. The individual odds effects are multiplied together to find an overall effect which is then converted to a probability[6].

For example, an **overseas trained** primary **classroom teacher** who is **female** and **aged 62**, with **3 years of experience**, and teaching in a school with **average CVA** has odds of leaving of (1.4 * 2.4 * 2.1 * 1.5 * 1.0) = 10.6 times those for the reference teacher, who is a post-graduate trained primary classroom teacher who is female and aged 30-39, has 5-9 years of experience and also teaches in school with average CVA.

The model gives odds of leaving for the reference teacher of 0.1, or **9%**. The example teacher has 10.6 times those odds of leaving (10.6 * 0.1) = 1.1, or **52%**. The out-of-service rate for the whole sample of primary school teachers was **7%**, but there were reasonably common factors in the model which reduced this probability (such as work-based or undergraduate training, being more experienced or being a leadership grade teacher), hence the finding that both the example teacher and the reference teacher had higher than average probabilities of leaving the profession.

Taking a second example from the secondary teacher model, a teacher with **non-graduate work-based training** who works **full-time**, is **male** and **aged 29**, has **five years of experience**, and is in a **deputy head** role in a school with **average** or above GCSE performance has odds of leaving teaching that are (0.4 * 1.0 * 0.9 * 0.5 * 1.0) = 0.2 times or one fifth of the odds for the reference teacher (also 0.1 for the secondary model). The example teacher's probability of leaving is (0.2 * 0.1) = 0.02, or **2%**, compared with the reference teacher's **9%** probability, and the secondary teachers' overall average probability of **7%**.

[6] Probability = odds / (1 + odds)

3.4 Factors Associated with Moving from Maintained to Independent Schools

Data Note: *Unlike the other analyses in Chapter 3 which use older data sources (see note at the start of the chapter), this section (3.4) uses November 2010 School Workforce Census data.*

The 2010 Independent Schools Census identified 1,540 teachers who had moved from the state-maintained sector to the independent sector in 2009[7]. It is not possible to identify all of these cases as leavers to the independent sector in the data on publicly funded teachers, but a subset can be identified for analysis. The School Workforce Census recorded a total of 99,100 teachers who ended their contract and left the school where they were working in the previous academic year (2009/10). As the figure 3.4.1 shows, many leavers (40%) did not have a known recorded destination. However, 610 leavers from the 1,540 leavers to the independent sector reported by the ISC were identified within the SWC data.

Fig. 3.4.1 Teacher Destinations for Contracts Ending in 2009/10

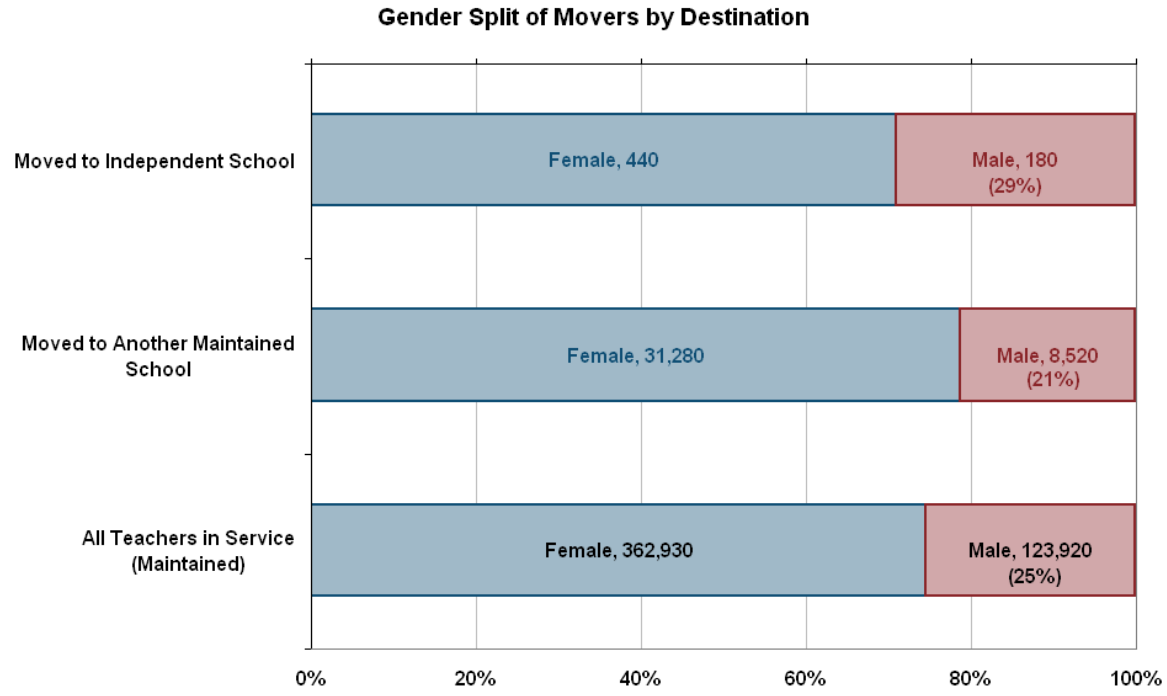
		Frequency	Percent
Total Teachers with Ended Contracts in the Academic Year 2009/10		**116,470**	***100%***
Of which:			
a)	Stayed in same school but changed contract	17,360	*15%*
b)	Destination unknown	46,840	*40%*
c)	Remained in maintained mainstream sector teaching		
	- in the same Local Authority	30,520	*26%*
	- in another Local Authority	9,280	*8%*
d)	Remained in teaching outside of maintained mainstream sector		
	- moved to a sixth form college	140	*0%*
	- moved to an education post outside of the UK	1,350	*1%*
	- moved to teach at an independent school	**610**	***1%***
	- moved to teach at a university or further/higher education college in the UK	240	*0%*
e)	Left the teaching profession	330	*0%*
f)	Left for maternity / paternity / break for family reasons	1,350	*1%*
g)	Retired	8,240	*7%*
h)	Deceased	210	*0%*

[7] Accessed at: http://www.isc.co.uk/publication_8_0_0_11_781.htm

Figures 3.4.2 – 3.4.4 present descriptive data on the characteristics of the 610 traced publicly funded school teachers who left for jobs in the independent sector. This group are compared with teachers who moved to different schools within the publicly funded sector, and with all publicly funded sector teachers in service, according to gender, age and grade mix.

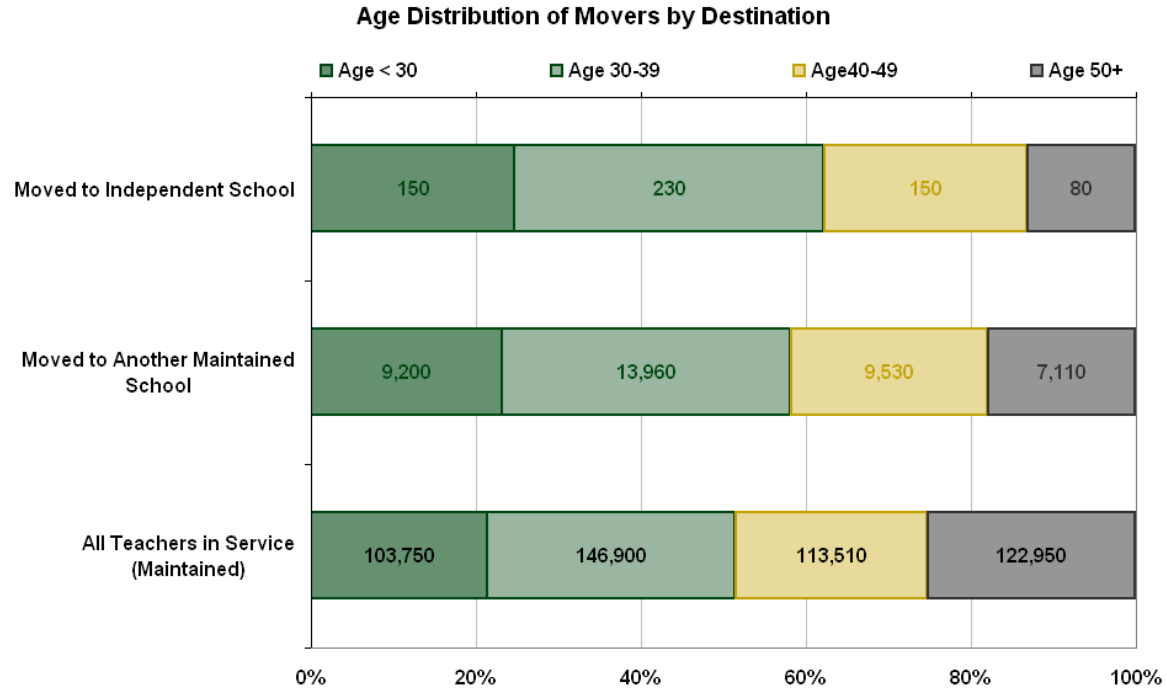
Of the 610 teachers identified as having ended their contract in a publicly funded school to move to the independent sector, 29% were male (see figure 3.4.2). Males were overrepresented in this group of leavers compared with the group leaving to other publicly funded schools (21%), and teachers in service for the whole publicly funded sector (25%).

Fig. 3.4.2 Teachers Identified As Moving School in 2009/10 by Gender



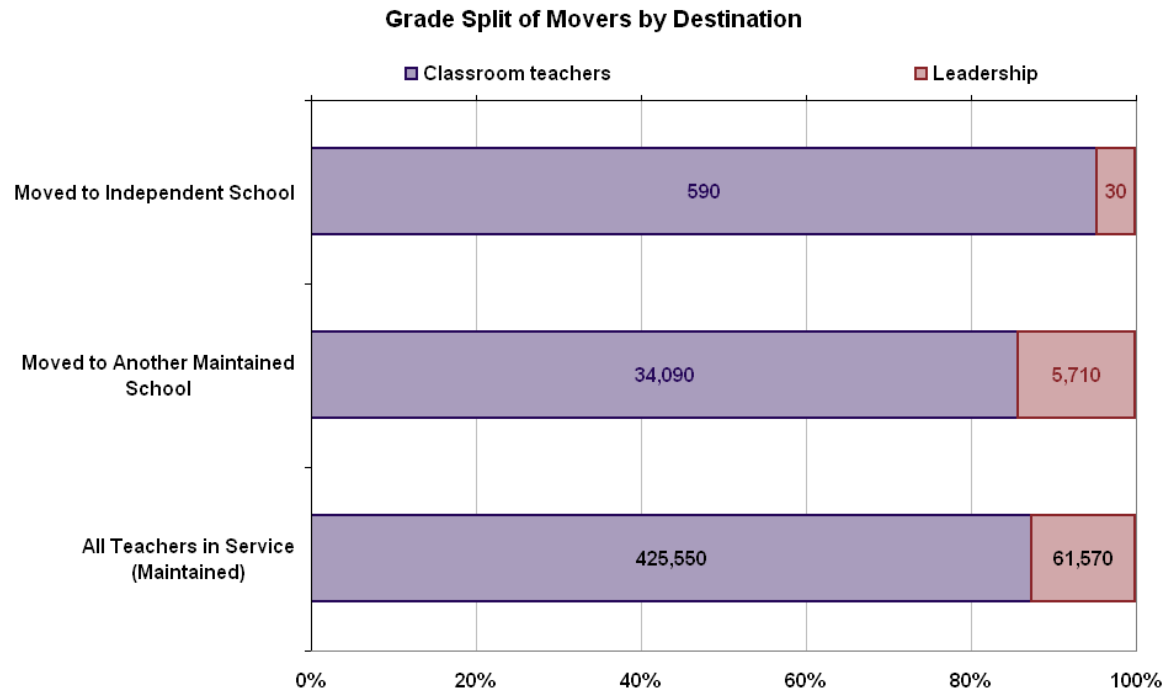
The leavers to independent schools had a younger age profile than those moving to another publicly funded school (see figure 3.4.3); the average age of teachers switching to the independent sector is just under 1 ½ years lower than the average age of teachers moving to another publicly funded school. Overall, the age profile of all teachers moving schools is noticeably younger than that for all teachers in service in publicly funded schools; this is particularly noticeable in the 50 and over age group.

Fig. 3.4.3 Teachers Identified As Moving School in 2009/10 by Age Group



The proportion of teachers switching to the independent sector who held leadership positions (5%) was lower than the proportion of leadership teachers in service in publicly funded schools (14%), indicating that leadership teachers are less likely to switch to the independent sector (see figure 3.4.4). In contrast, the split between leadership and classroom teachers who moved to other publicly funded schools in the last academic year (13% leadership) is very similar to that in all publicly funded schools.

Fig. 3.4.4 Teachers Identified As Moving School in 2009/10 by Grade

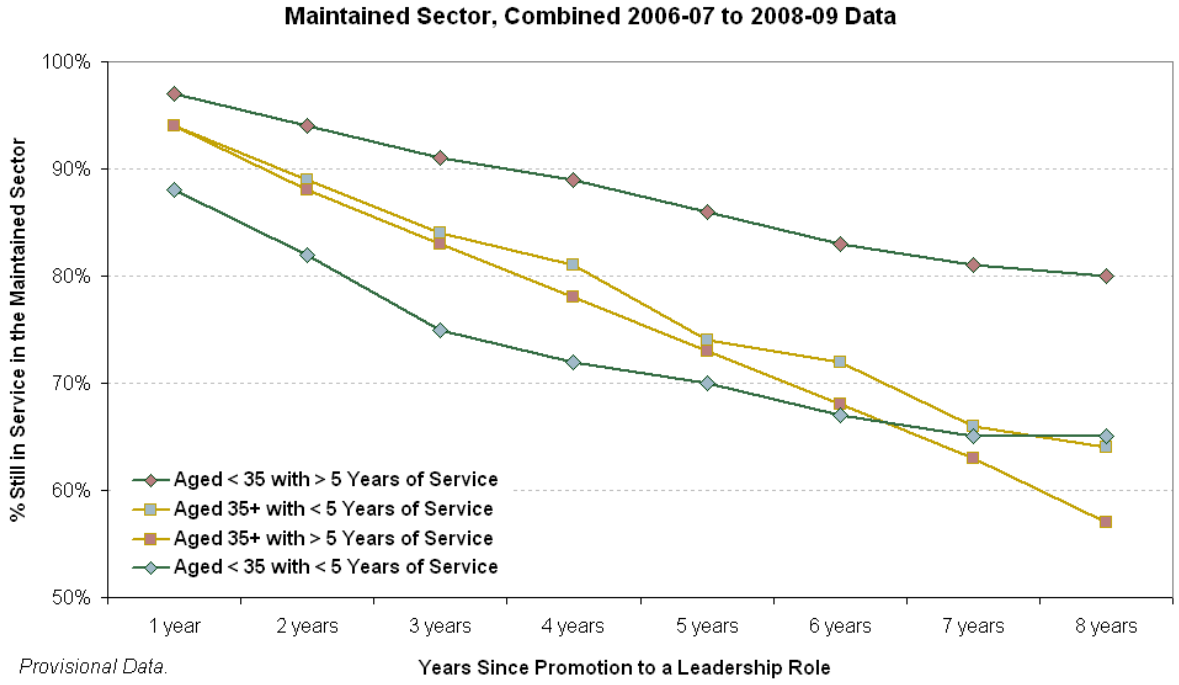


3.5 Wastage of Teachers Newly Promoted to Leadership Posts

This section examines whether classroom teachers who were rapidly promoted to a leadership position (head-teacher, deputy head or assistant head within 5 years of starting to teach) were more likely to leave the teaching profession sooner than those with more experience at classroom level. The analysis was split by age at the time of promotion, into those aged under 35, and those aged 35 and over.

The retention rates of full-time and part-time teachers from the year they took a leadership post were analysed, tracking each cohort of new leadership teachers from 1999 to 2008[8]. For this analysis, full-time and part-time teachers who stopped teaching, left the maintained sector, or went to teach in an academy or in Wales, were defined as maintained sector 'wastage' and are excluded from the retention rates in figure 3.5.1.

Fig. 3.5.1 Retention of New-to-Leadership Teachers



Retention within the maintained sector declined more quickly following promotion to a leadership grade for teachers who were aged 35 or over (gold lines) when they were promoted, whereas retention was stronger for teachers aged under 35 when promoted (green lines).

The length of classroom experience before promotion made much more difference to retention for teachers aged under 35, than it did to retention of teachers aged 35 or over. Retention was considerably lower for under 35s with less than 5 years of

[8] Analysis is based on the Database of Teacher Records and will not include teachers whose service did not qualify them for a pension or who left and transferred their pension rights elsewhere. Figures from the DTR for the most recent two years are provisional; they are subject to revision when further teachers records are received. Teachers in part-time service in the DTR are under-reported by between 10 and 20%.

classroom experience than for those with 5 or more years of classroom teaching. Within the group of teachers aged 35 or over at promotion, there were similar retention rates whether the new leadership teachers had at least 5 years of classroom experience or not.

For under 35s, after 1 year, the wastage rate was 12% for the less experienced teachers compared with 3% for the more experienced group; after 8 years the equivalent figures were 35% and 20%; these differences based on experience were consistently statistically significant.

For teachers aged 35 and over, after 1 year, the wastage rate was 6% for both the less experienced teachers and the more experienced group; after 8 years the equivalent figures were 36% and 43% respectively; the experience gap which appears to emerge after 6 years (possibly a retirement effect) was not statistically significant, although it did almost reach significance (p= 0.07) after 6 years.

Chapter 4: Secondary Teacher Qualifications, Deployment & Pay by Subject

Key Findings

- Core subjects[9] account for just over half of the total hours taught to years 7-13 in publicly funded schools, but this varies between Key Stages, with the *non-core* subject share of hours taught shifting from a minority (46%) at Key Stage 4 to a majority (58%) at Key Stage 5.
- Increasingly for later Key Stages (4 and 5), this masks variations between schools and pupils in how the curriculum is experienced, but provides a picture of how the total publicly funded schools investment in each Key Stage is divided between subjects.
- Modelling of the relationship between the number of GCSE entrants per subject and the numbers of hours taught estimated that 1,000 extra GCSE entrants in a given subject equated to approximately 300 extra taught hours per week, or 50 extra teachers in that subject.
- The subjects most frequently taught by teachers without post-A level qualifications in a relevant subject were modern foreign languages (other than French), physics and chemistry, with one fifth or more of timetabled hours taught by such teachers. The least frequent were general science, biology and history, with one in ten or fewer timetabled hours taught by teachers without post-A level qualifications in a relevant subject.
- Teachers of modern foreign languages or maths were the least likely to spend more than one fifth of their timetable teaching other subjects (less than one fifth did so), while teachers of separate (triple science) biology, chemistry or physics were most likely (more than four fifths did so).
- Most separate (triple) science teachers also taught general science (perhaps to younger year groups or entrants of different KS4 qualifications); combinations of subjects within modern foreign languages were also common with more than half of Spanish teachers also teaching French, and more than half of German teachers also teaching French.

Chapter 4 examines the qualifications held by teachers within the subjects they teach, the deployment of teachers to particular subjects and Key Stages, and the relationship between teacher pay and subjects taught.

Section 4.1 begins by charting the numbers of teachers and of hours taught in years 7-13 in core subjects. Section 4.2 then splits this distribution according to Key Stages for KS3-KS5. The prevalence of teachers with post-A level qualifications in a subject relevant to that taught is examined in section 4.3. Deployment of teachers in more than one subject, and common combinations of subjects taught are presented in section 4.4. Finally, the influence of subjects taught on teacher pay is touched upon in section 4.5.

Data note: *The headcount analyses in sections 4.1 – 4.4 allow teachers to count once against each subject they taught regardless of the amount of time spent*

[9] Core Subjects: Maths, English, science, history, geography and modern foreign languages.

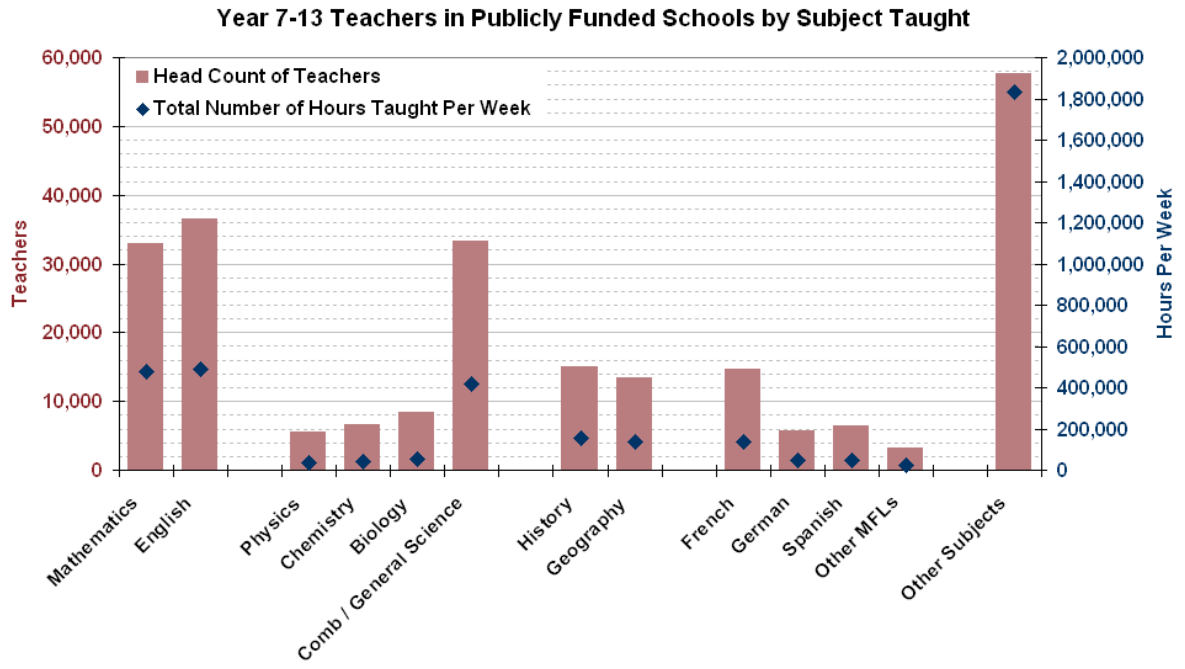
teaching that subject, giving a total headcount across subjects of 240,000 on an unweighted base of 158,000 teachers to years 7-13. This means that the figures are not suitable for summing across subjects to give total teacher numbers as there would be resulting double-counting. Hours taught figures are provided additionally to headcounts in some cases to adjust for the curriculum effects of different working patterns and deployment to multiple subjects.

4.1 Number of Teachers & Taught Hours by Subject

For National Curriculum years 7-13, a total of 478 thousand hours of maths were taught to pupils in the publicly funded sector by 33,000 teachers (see figure 4.1.1). For English, 489 thousand hours were taught by 37,000 teachers. The largest total number of hours taught was for combined or general science, biology, chemistry and physics, at 551 thousand hours taught by 33,000 combined science teachers, 8,000 biology teachers, 7,000 chemistry teachers and 6,000 physics teachers[10].

A further 292 thousand hours were shared between history and geography, taught by 15,000 and 14,000 teachers respectively. Another 259 thousand hours were shared between modern foreign languages, taught by 15,000 French teachers, 6,000 German teachers, 6,000 Spanish teachers and 3,000 teachers of other languages[10]. Non-core subjects accounted for another 1.8 million taught hours.

Fig. 4.1.1 Teachers and Hours Taught Per Week for Core Subjects



Figures 4.1.2 and 4.1.3 show the share of teacher headcount and hours taught (respectively) for each subject in years 7-13. As teachers vary in the amount of time spent teaching, and sometimes how it is allocated between combinations of subjects, the latter hours taught analysis gives a more accurate impression of the overall secondary curriculum. Even this masks variations between schools and pupils in how the curriculum is experienced, but provides a picture of how the total publicly funded schools investment in year 7-13 teaching is divided between subjects.

Core subjects[11] account for three quarters of the sum of teacher headcounts for each subject for years 7-13, but just over half of the total hours taught to these year groups.

[10] Teacher headcounts overlap significantly between different science subjects and between different languages (see section 4.4), and should not be summed to provide totals for these subject areas.
[11] Core Subjects: Maths, English, science, history, geography and modern foreign languages.

Fig. 4.1.2 Subject Share of Secondary Schools Teacher Headcount

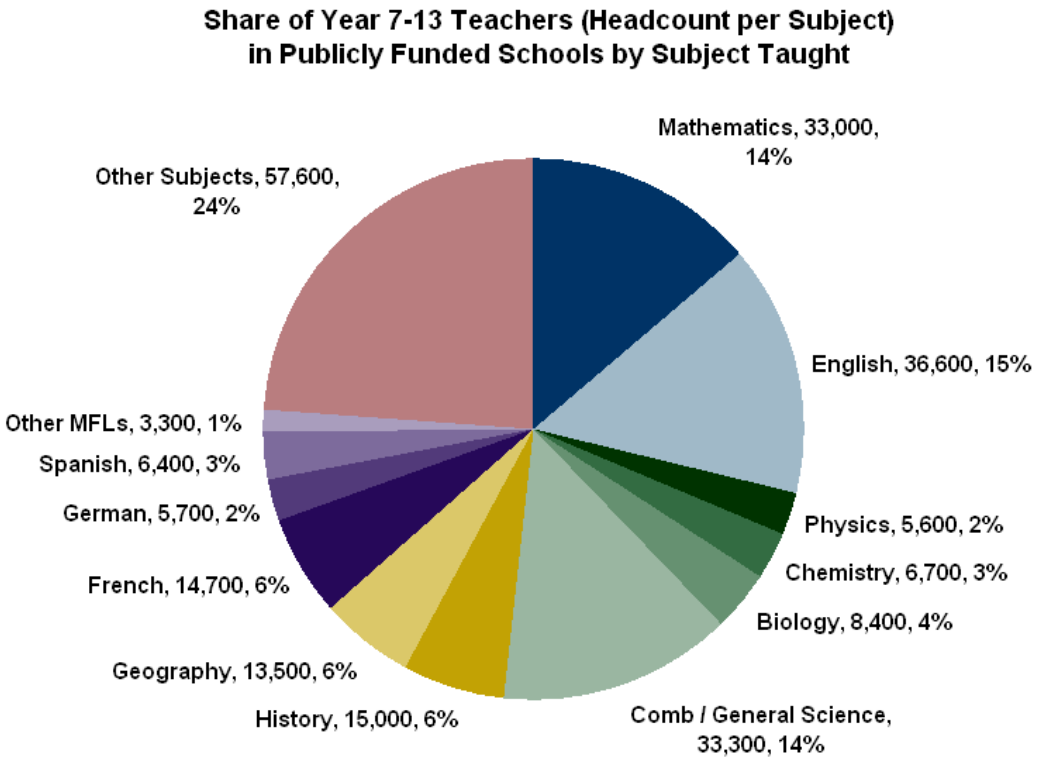
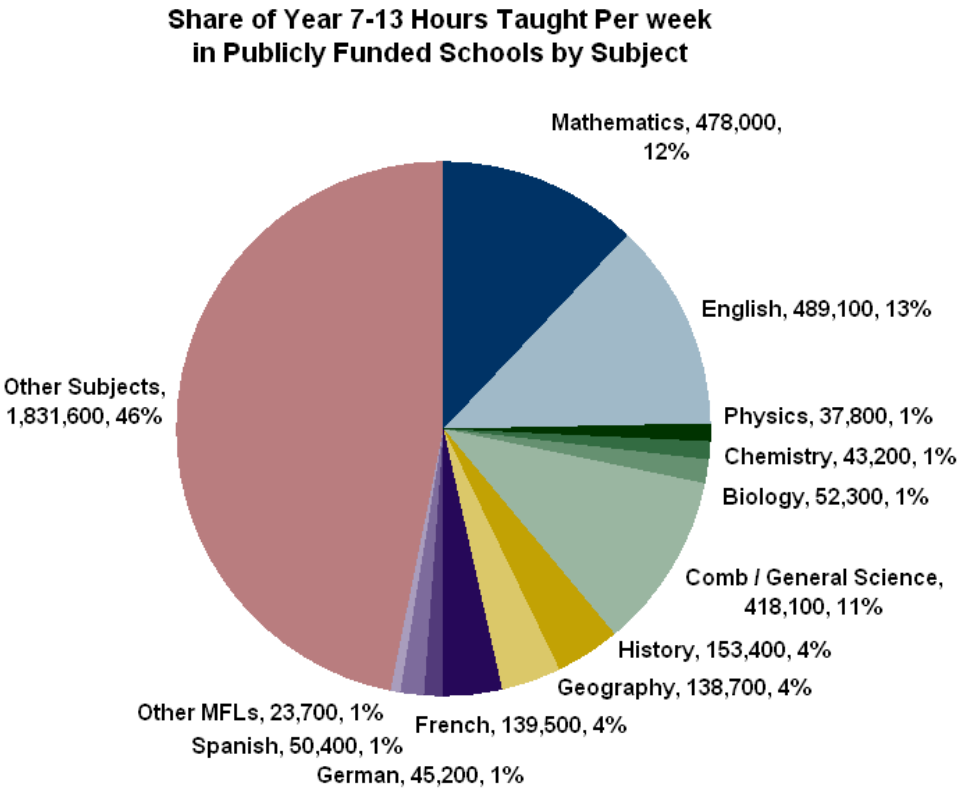


Fig. 4.1.3 Subject Share of Hours Taught to Years 7-13



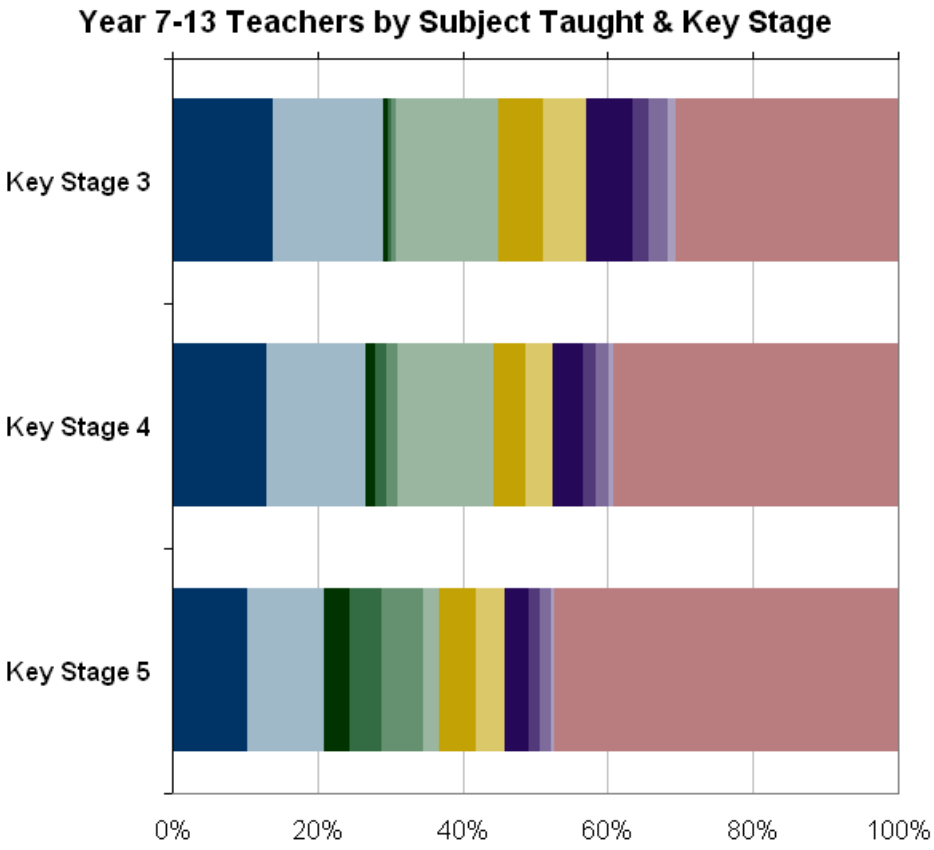
4.2 Distribution of Teachers & Hours Taught By Subject in Each Key Stage

Data note: *Key Stage 5 data only cover publicly funded schools with sixth forms; equivalent data are not available for sixth form colleges, FE colleges or other Key Stage 5 institutions.*

Figures 4.2.1 and 4.2.2 show the share of teacher headcount and hours taught (respectively) for each subject in each secondary Key Stage. As teachers vary in the amount of time spent teaching, and sometimes how it is allocated between combinations of Key Stages and subjects, the latter hours taught analysis gives a more accurate impression of the overall curriculum in each Key Stage. Increasingly with each subsequent Key Stage and particularly at Key Stage 5, this masks variations between schools and pupils in how the curriculum is experienced, but provides a picture of how the total publicly funded schools investment in each Key Stage is divided between subjects.

The percentage of teachers (the sum of teacher headcounts for each subject) who teach non-core subjects[11] rises steadily from one third at Key Stage 3 to 60% at Key Stage 4 and almost one half at Key Stage 5. In terms of hours taught, the shift in the balance between core and non-core subjects is very slight between Key Stages 3 and 4, but the non-core subjects' share of hours taught shifts from a minority (46%) at Key Stage 4 to a majority (58%) at Key Stage 5.

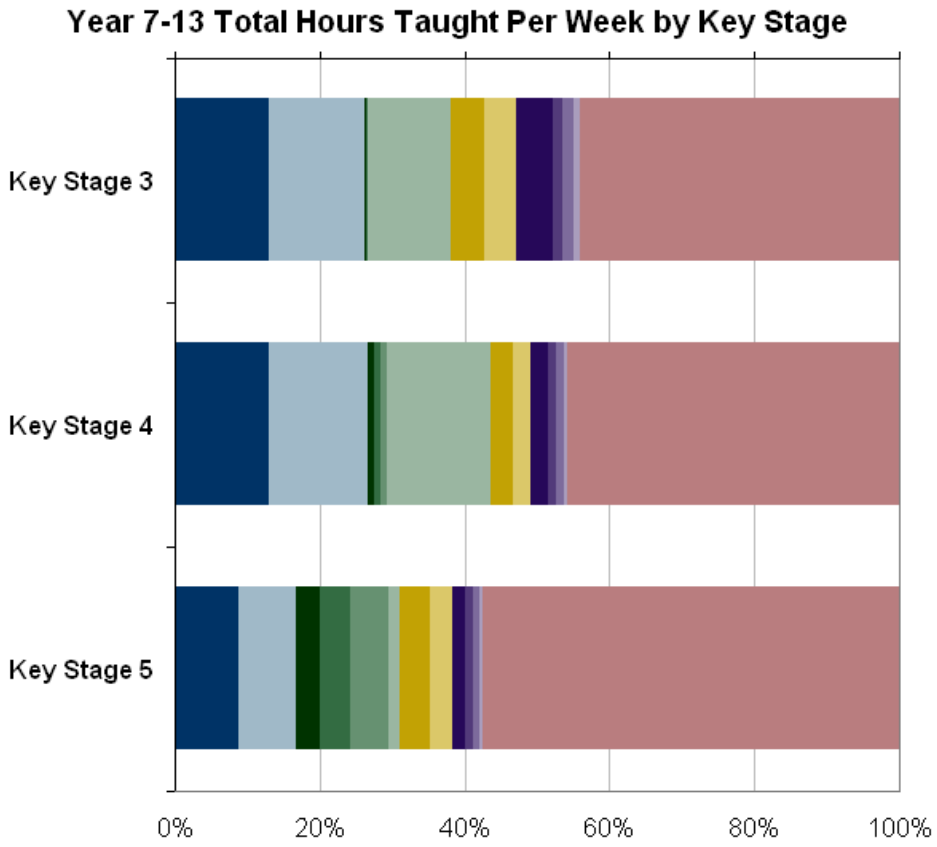
Fig. 4.2.1 Subject Share of Teacher Headcount at Each Key Stage[12]



	Key Stage 5	Key Stage 4	Key Stage 3
Other Subjects	56,700	83,200	65,000
Other MFLs	600	1,300	2,500
Spanish	1,800	3,900	5,400
German	1,900	3,600	4,900
French	3,800	8,700	13,500
Geography	4,900	8,200	12,500
History	5,900	9,400	13,500
General Science	2,600	27,600	29,900
Biology	6,900	3,500	1,200
Chemistry	5,300	3,200	1,100
Physics	4,200	2,900	1,100
English	12,700	29,000	32,600
Mathematics	12,400	27,400	29,400

[12] Teachers are counted once against each subject they teach regardless of how much time is spent teaching that subject.

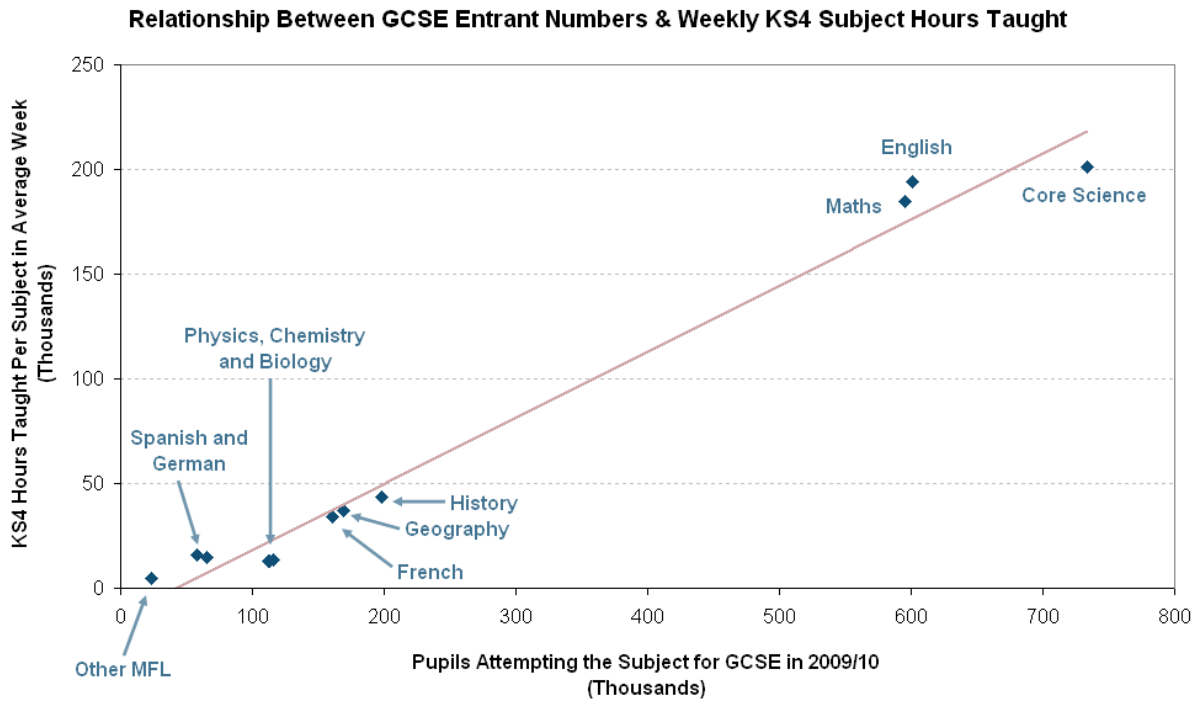
Fig. 4.2.2 Subject Share of Hours Taught Per Week at Each Key Stage



	Key Stage 5	Key Stage 4	Key Stage 3
Other Subjects	378,400	653,000	801,200
Other MFLs	2,400	4,600	16,700
Spanish	6,600	15,700	28,100
German	6,300	14,600	24,300
French	12,400	34,400	92,700
Geography	20,300	37,100	81,300
History	27,800	43,800	81,700
General Science	8,900	201,100	208,100
Biology	35,500	13,500	3,300
Chemistry	27,400	12,800	3,000
Physics	21,900	12,700	3,200
English	52,500	194,400	242,200
Mathematics	57,600	184,900	235,500

Figure 4.2.3 depicts data points used to construct the relationship between pupil numbers entering a given GCSE subject and the subject demand at Key Stage 4. Subject hours taught are shown in the chart, but the equivalent data for teacher numbers were then used to convert from demand for hours taught into demand for teachers. Resulting estimates indicated that 1,000 extra GCSE entrants in a given subject equated to approximately 300 extra taught hours per week, or 50 extra teachers in that subject.

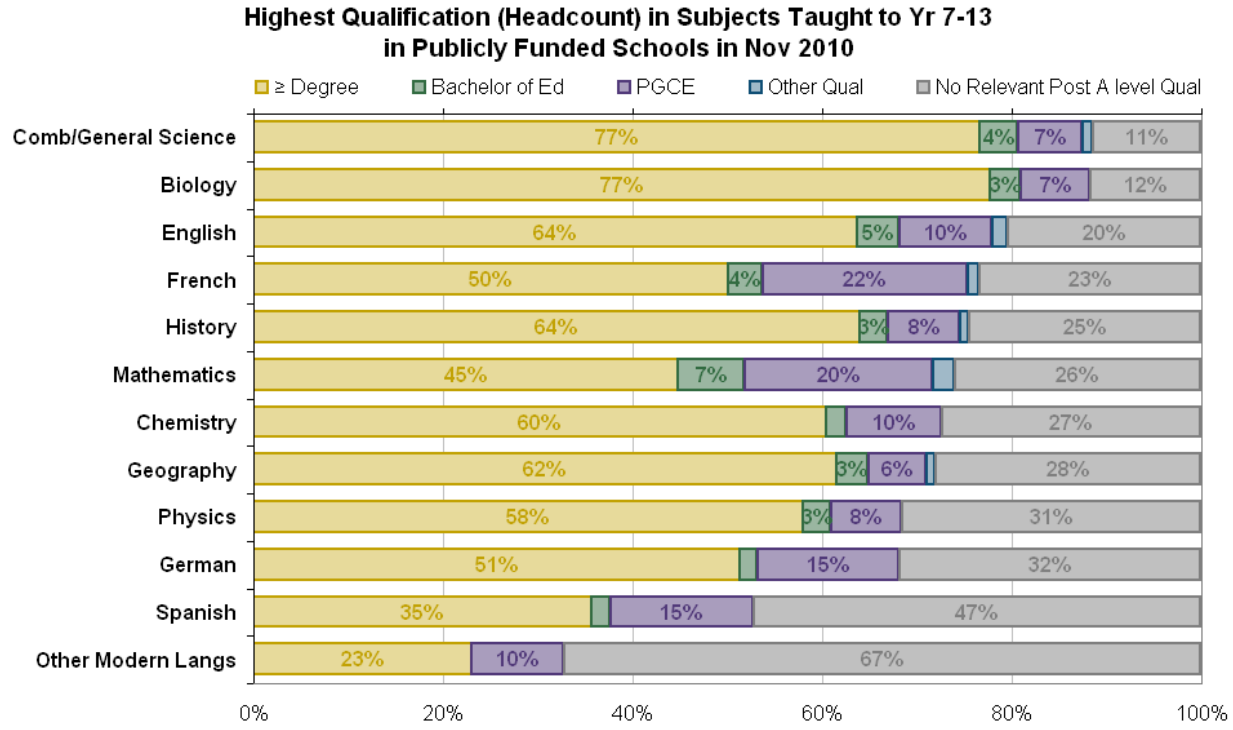
Fig. 4.2.3 GCSE Entry Numbers and Demand for KS4 Subject Teachers



4.3 Qualifications of Teachers within Taught Subjects

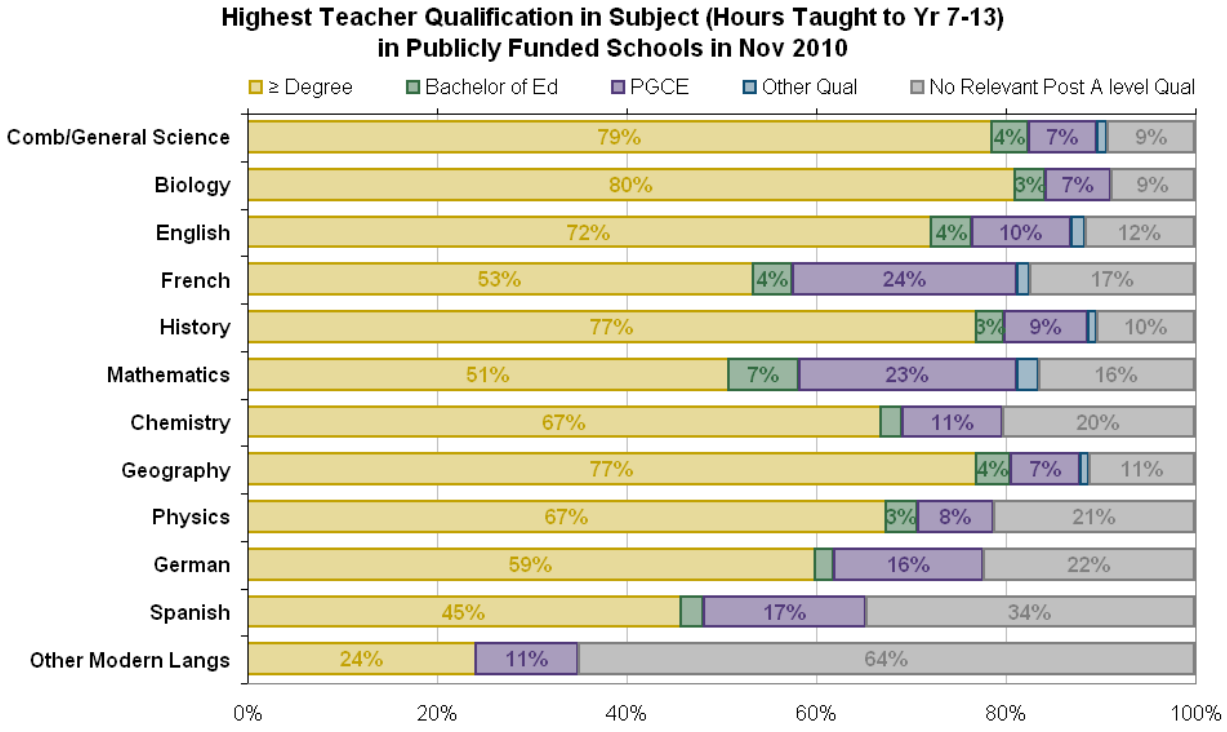
Figures 4.3.1 and 4.3.2 present the subject variation in the supply of 'within-subject qualified' teachers in the publicly funded secondary schools sector, according to teacher headcounts (4.3.1) and hours taught (4.3.2). The highest qualifications held are arranged in order of the quantity of subject knowledge required by that qualification, starting with degree or higher qualifications which involve the most study of subject knowledge.

Fig. 4.3.1 Subject Variation in Within-Subject Qualifications Held By Teachers



The subjects most frequently taught by teachers without post-A level qualifications relevant to the subject were modern foreign languages (other than French), physics and chemistry, with one fifth or more of timetabled hours taught by such teachers (see figure 4.3.2). The least frequent were general science, biology and history, with one in ten or fewer timetabled hours taught by teachers without post-A level qualifications relevant to the subject.

Fig. 4.3.2 Hours Taught By Teachers with Post-A level Qual's Within-Subject



4.4 Subject Deployment of Teachers across the School Timetable

Teachers of modern foreign languages or maths were the least likely to spend more than one fifth of their timetable teaching other subjects (less than one fifth did so), while teachers of separate (triple science) biology, chemistry or physics were most likely (more than four fifths did so). Between these extremes, teaching outside of subject increased in frequency from general (combined) science to geography, to history to ancient languages. See figure 4.4.1.

Fig. 4.4.1 Timetabling of Teaching Within-Subject by Subject Taught

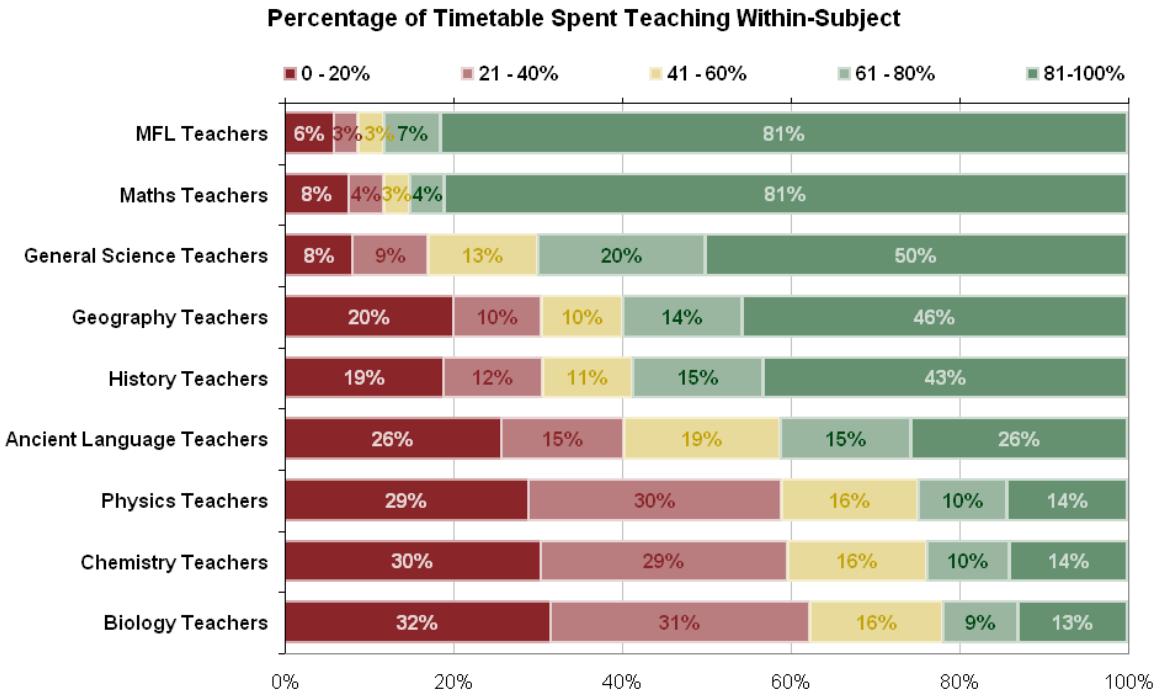
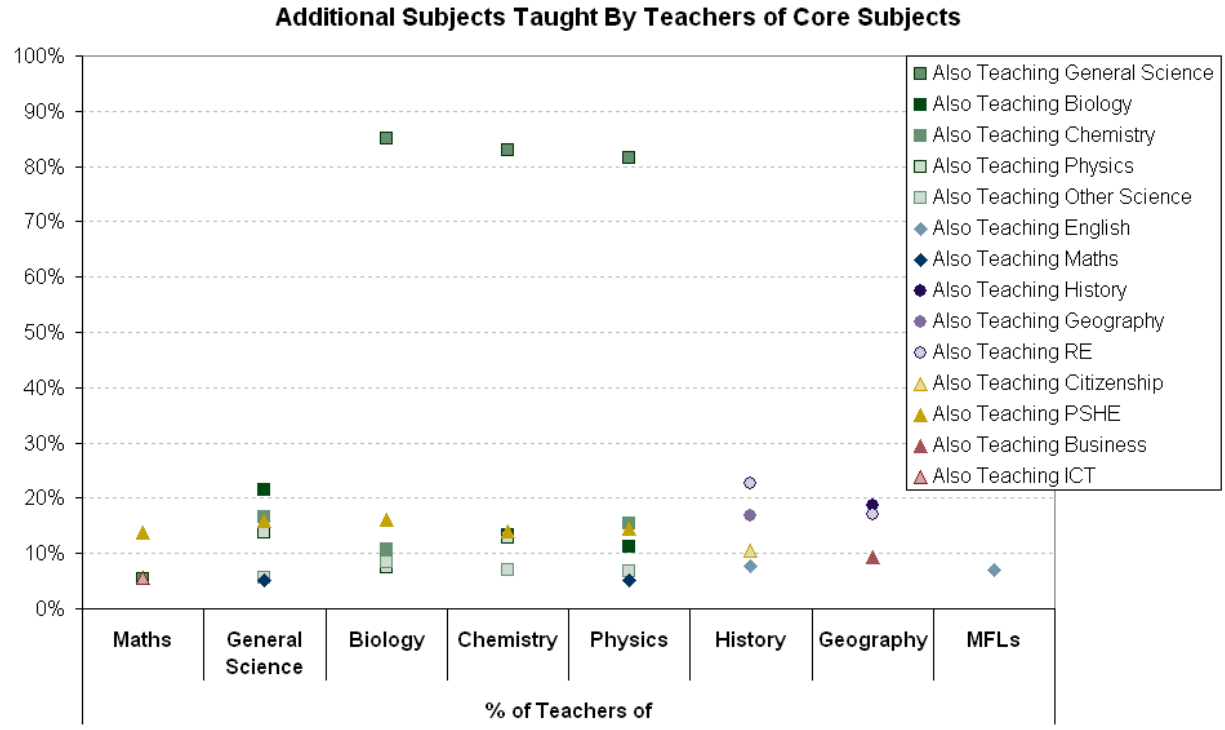


Figure 4.4.2 shows the most common combinations of subjects taught by individual teachers to years 7-13. Of history teachers, 23% also taught religious education (RE), and 17% taught geography as well as history. Similarly, 19% of geography teachers also taught history, and 17% taught RE as well as geography. Personal, social and health education (PSHE) was taught additionally by 14-16% of each of teachers of general science, biology, chemistry, physics and maths.

Fig. 4.4.2 Combinations of Subjects Taught By Individual Teachers



Most separate (triple) science teachers also taught general science (perhaps to younger year groups or entrants of different KS4 qualifications); see figure 4.4.3. Combinations of subjects within modern foreign languages were also common with more than half of Spanish teachers also teaching French, and more than half of German teachers also teaching French; see figure 4.4.4.

Fig. 4.4.3 Combinations of Language Subjects Taught By Individual Teachers

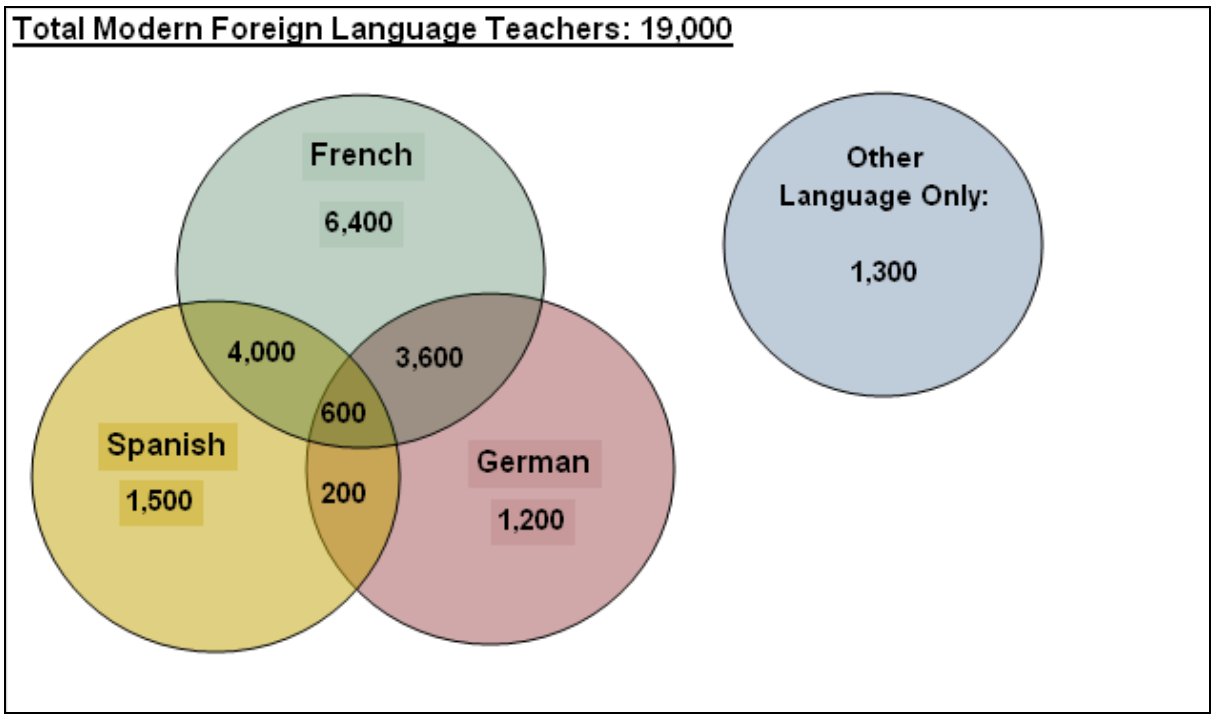
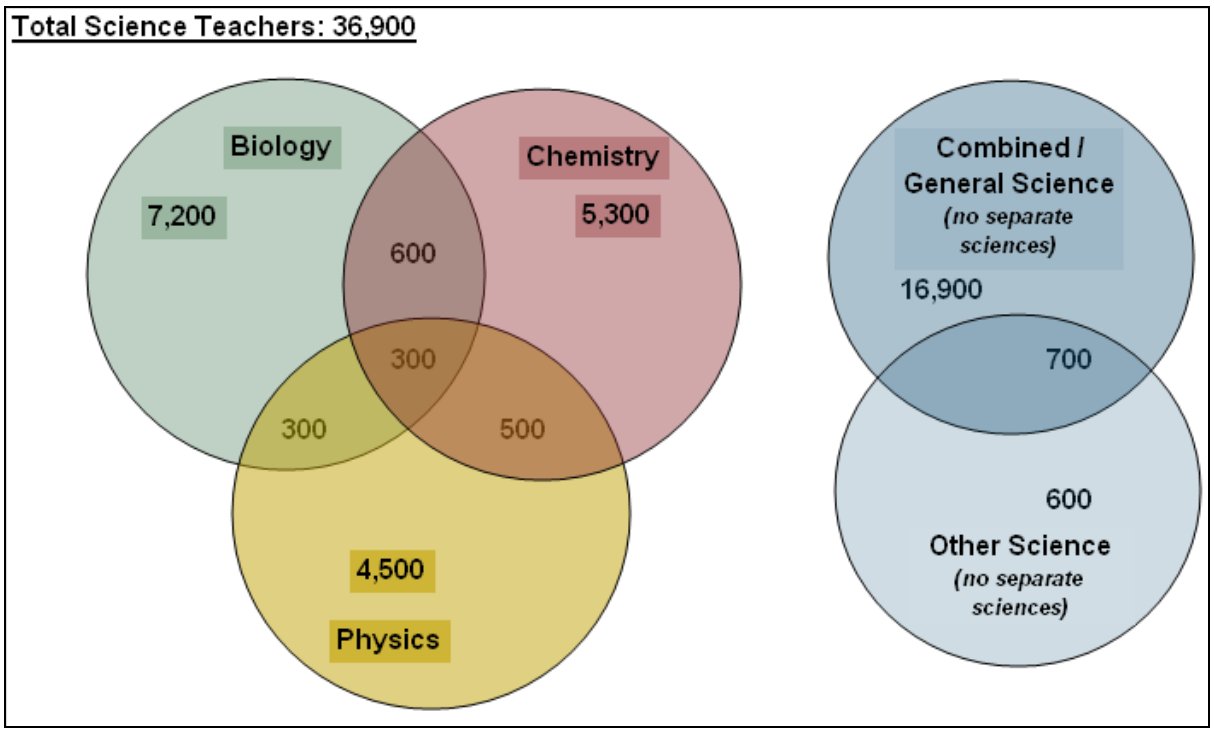


Fig. 4.4.4 Combinations of Science Subjects Taught By Individual Teachers



4.5 Teacher Pay by Subject Taught

Data Notes: *Pay figures are rounded to the nearest £100 and percentages are rounded to 1 decimal place and categories where fewer than 100 cases are present are suppressed.*

Schools in Inner London, Outer London and the London Fringe pay areas, and non-secondary schools were excluded from the analysis; only secondary schools in the Rest of England pay area are included, to increase comparability across subjects.

Data for teacher pay by subject taught categorises teachers according to their main subject, i.e. the one that they spend the majority of their time teaching. Teachers who taught two or more subjects for equal proportions of their timetable were excluded from the subject analysis but included in the 'All Teachers' category.

Curriculum data are only available for a subset of teachers. Those teachers for whom we do not have curriculum data are included only in the Subject Unknown and All Teachers categories.

Pay data that is less than the bottom of the relevant pay scale, or which seemed implausibly large, is assumed to be erroneous and discarded. Advanced Skills Teachers and Excellent Teachers are also excluded from the full-time qualified classroom teacher category for the purpose of pay analyses.

The analysis includes both maintained secondary schools and secondary academies and CTCs combined, where academies are defined as being Secondary based on the age range of their pupils.

Figures 4.5.1 and 4.5.2 show the pay variation for full-time qualified classroom teachers by subject taught around the mean salary of £35,400.

Fig. 4.5.1 Subject Variation in Mean Teacher Pay - Unadjusted Differences

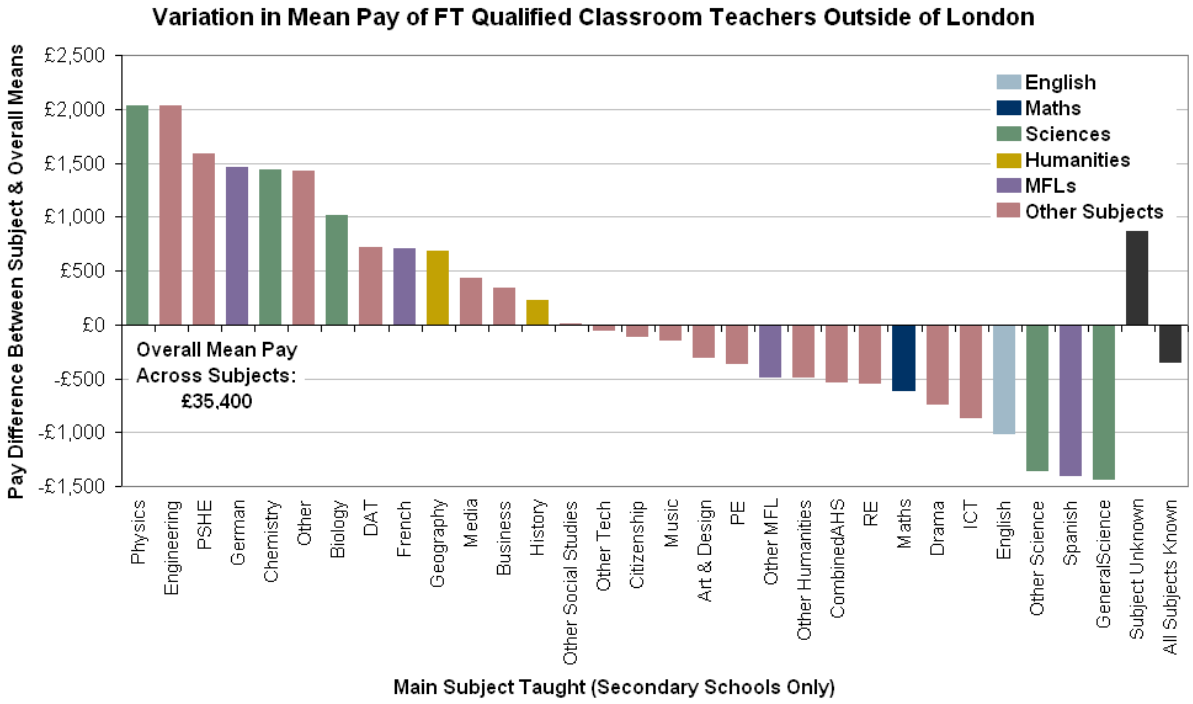
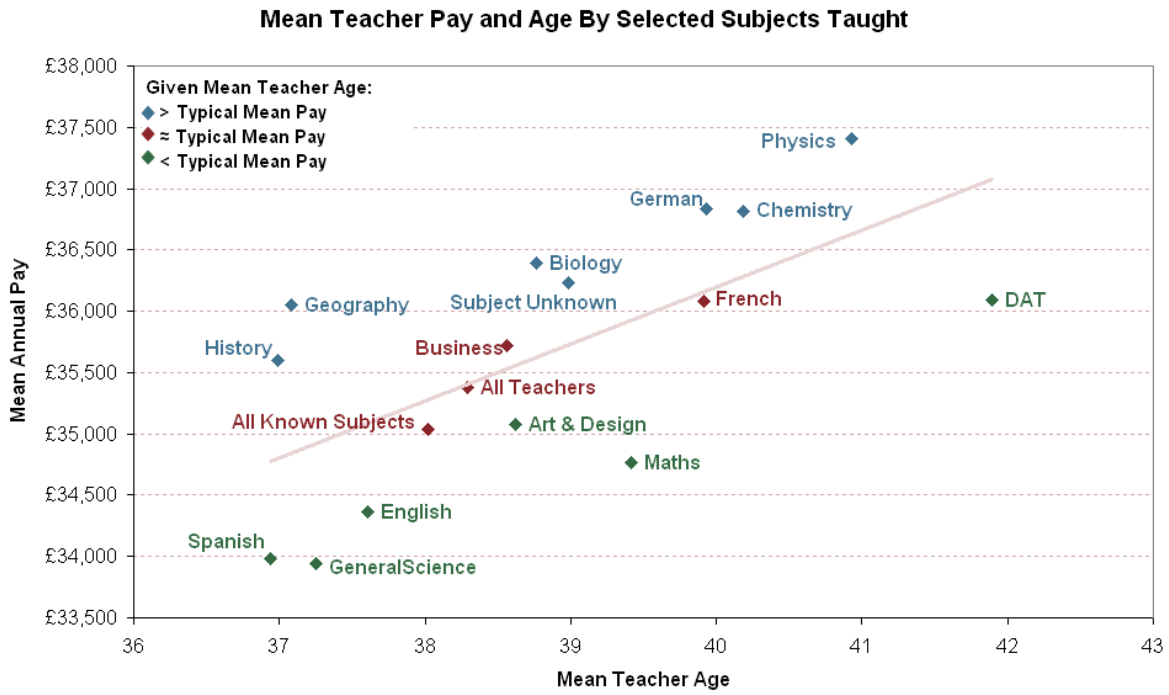


Figure 4.5.1 (above) shows the raw differences, while figure 4.5.2 charts the mean salaries against the mean age of teachers for that subject, which accounts for an important portion of the raw differences. Some subjects still had higher or lower mean salaries than would be expected given their mean teacher age, indicating that other unidentified factors are at play.

In particular, teachers of maths, general science or design and technology had lower than typical mean salaries, as did teachers of English, Spanish or art and design to a lesser degree. Higher than typical mean salaries were found for teachers of geography, and to a lesser extent, teachers of physics, biology, history and German.

Fig. 4.5.2 Subject Variation in Mean Teacher Pay – Relative to Mean Age



Annex A: Analyses of the Teacher Grade Distribution

Fig. 2.10.1 Maintained School Sectors & Teacher Grade

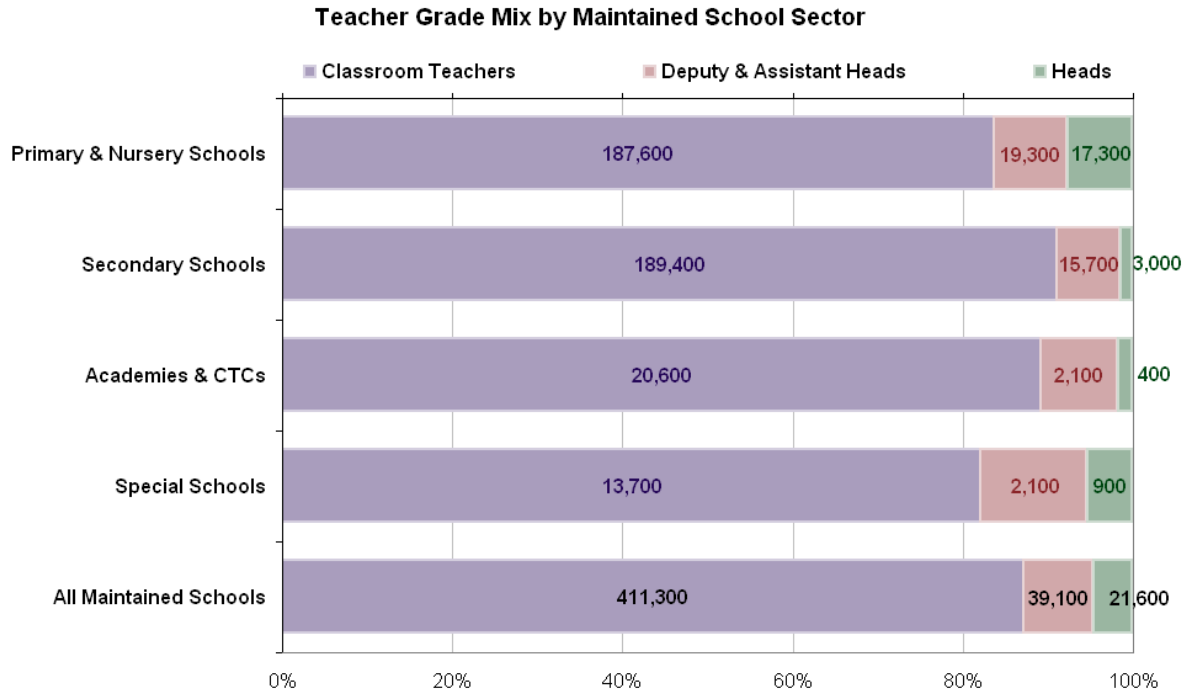


Fig. 2.10.2 Maintained Primary School Governance & Teacher Grade

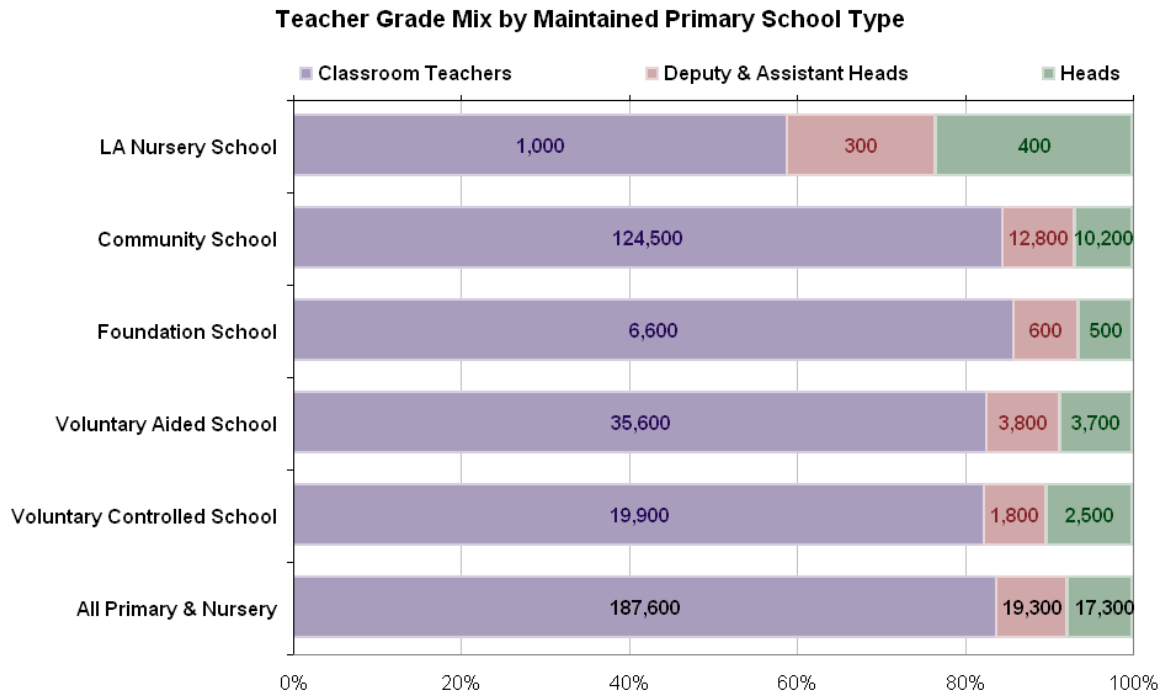


Fig. 2.10.3 State-Funded Secondary School Governance & Teacher Grade

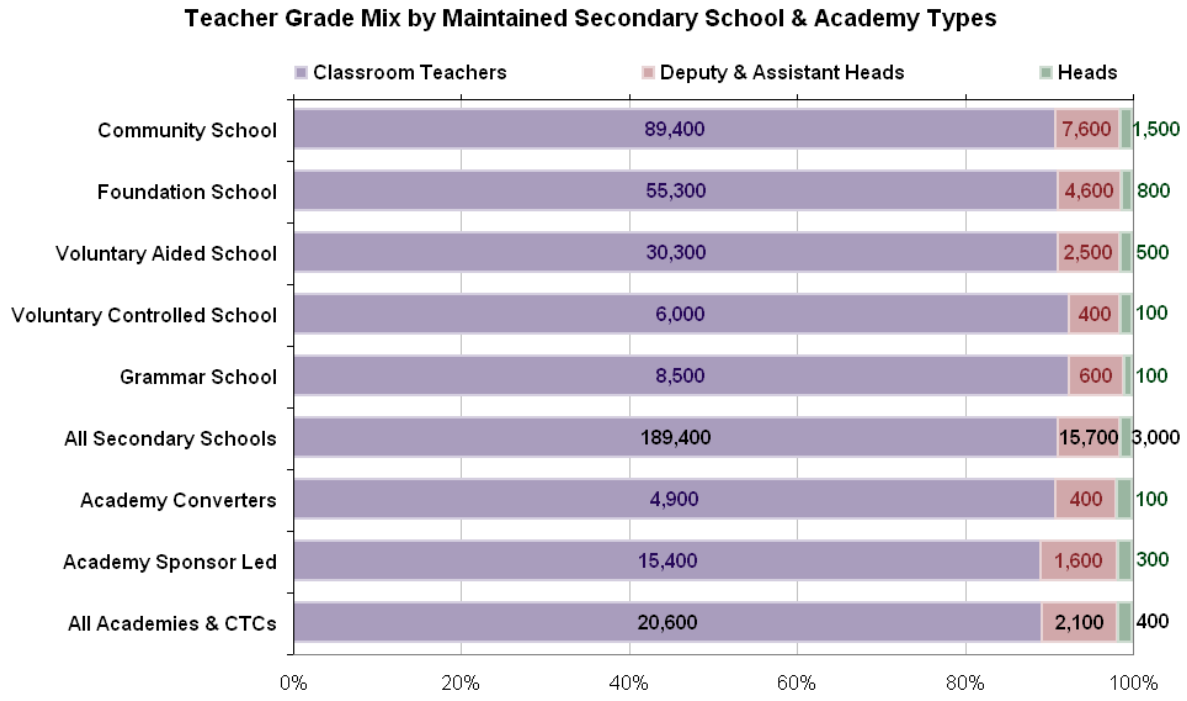


Fig. 2.10.4 Key Stage 2 and 4 Performance & Teacher Grade

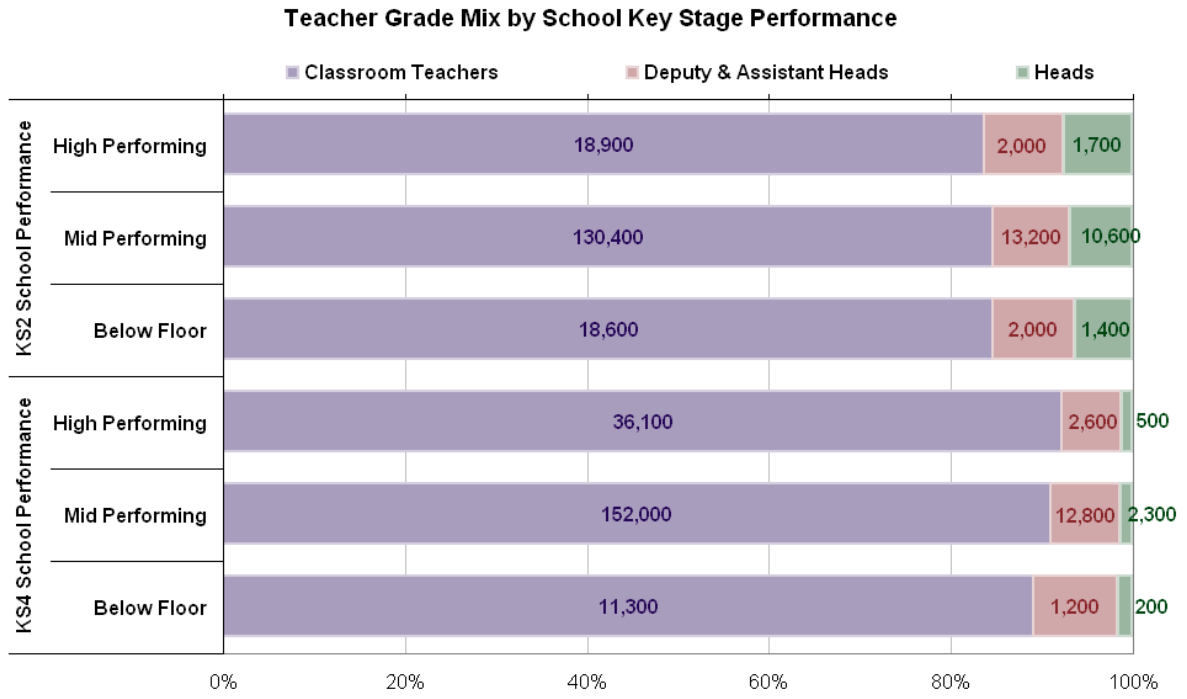
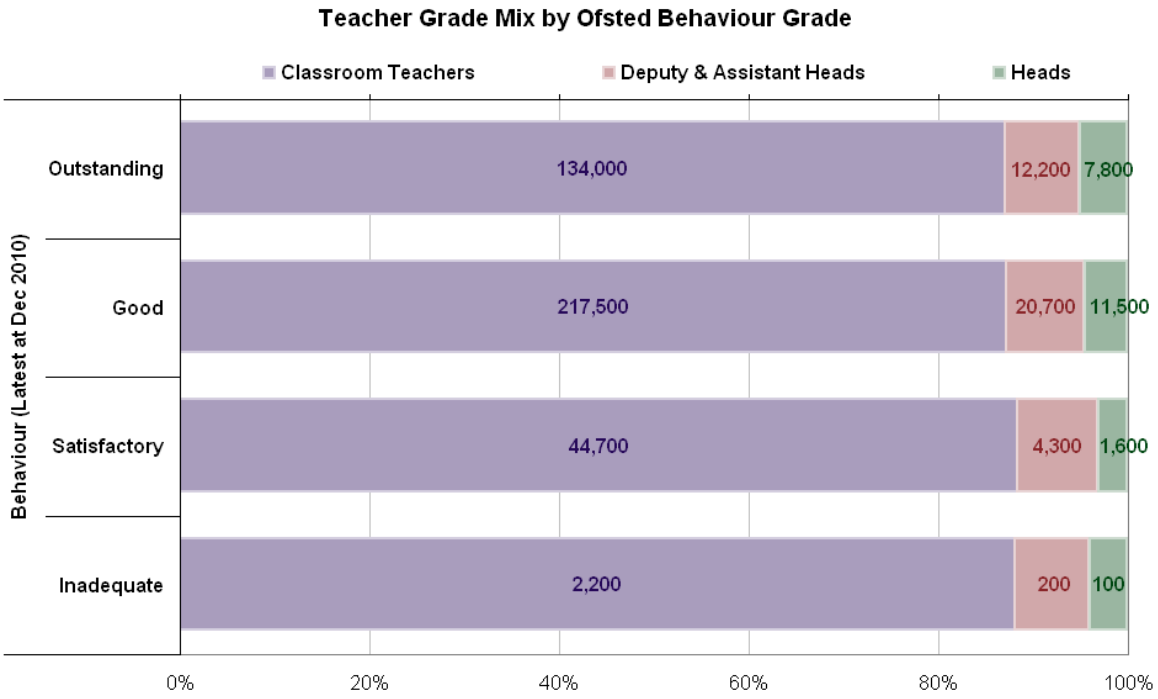


Fig. 2.10.5 School Behaviour & Teacher Grade



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