

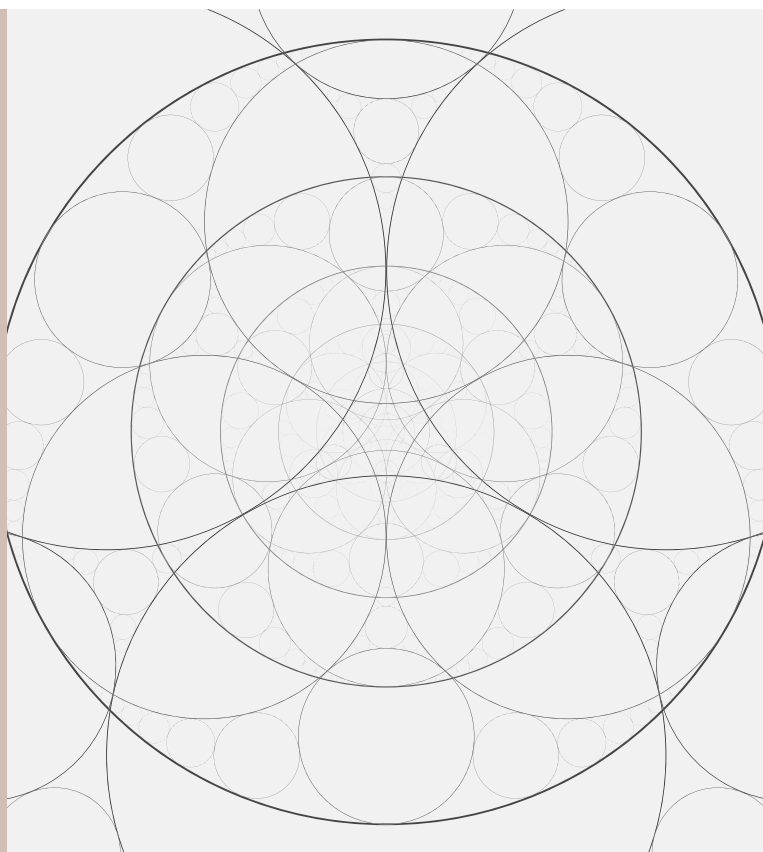
The impact of changes to teachers' pay on equality in schools in England

Report on employment and earnings trends for teachers with protected characteristics between 2010 and 2014

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Executive Summary

This report presents information on employment and earnings trend for teachers, focusing upon the comparative experience of teachers with protected characteristics. The report is based on the analysis of data from the annual DfE School Workforce Censuses for 2010 to 2014. Individual-level data has been aggregated to produce new information, not contained in published reports on the Census.

The highlights of the analysis are:

- The number of teachers in England grew by 4.7 per cent between 2010 and 2014.
- The number of teachers aged under 50 was expanding faster than average, while the number of teachers in their fifties fell by about a fifth during this period.
- There was a major shift in employment from local (education) authority-controlled schools to academies.
- Women dominate employment, being most strongly represented in the primary phase. Men are more common in secondary schools and were more likely than women to work in academies. White teachers gained employment to a greater extent than BME teachers from the growth of academies.
- Employment grew strongly for younger teachers and teachers from minority ethnic groups between 2010 and 2014. Employment grew fastest for South Asian ethnic groups. However, BME groups formed a small percentage of teachers throughout this period.
- Men were more likely than women to be in senior posts. However, there was a relatively rapid increase in employment in senior posts for people from minority ethnic groups.
- For all teachers in work, male wages were higher than female and people from most minority ethnic groups earned less than white people.
- The median earnings of all teachers declined from £34,181 to £33,254 between 2010 and 2014.
- Female wages declined relative to those of men over this period.
- Statistical models revealed a strong tendency for women to earn less than men, having taken other factors into account.
- They also reveal that younger teachers (aged 21 to 29) had significantly lower wages than men and teachers aged 41 to 49. There was a statistically significant tendency for the earnings of 51 to 59 year olds to be higher.
- The models reveal no significant tendency for disabled teachers to earn less or more than average.
- There was a statistically significant tendency for teachers from the White-Irish, Indian and Black-Caribbean ethnic groups to earn more than White British teachers while there was a statistically significant tendency for Chinese teachers to earn less.
- Secondary school teachers tended to earn more, while working in an academy has a statistically significant negative effect on earnings.
- Those teachers who stayed in employment throughout the period 2010 to 2014 saw their earnings increase by around 10 per cent between 2010 and 2014. Gender and disability differentials increased among these teachers, but ethnic group and age differentials narrowed.

1 Introduction

This report provides an update to the report on Work Package 2 which presented an analysis of official statistics on employment and earnings over the period from 1998 to 2013 and an analysis of the School Workforce Census for the years 2010 to 2013.

This report extends the latter analysis using data from the Department for Education's (DfE) annual School Workforce Census (SWC) for 2010 to 2014. The analysis is based on the individual-level data from the SWC linked across all five years using the individual identifier for each teacher. The report provides new information not available from other published reports on the SWC. Most of the analysis is based on all teachers in the SWC in the year concerned, but trends in earnings for those teachers traced in all five Censuses are also presented.

The report demonstrates how employment by protected characteristics has changed over this period and contrasts earnings over this period by protected characteristic – age, gender, disability and ethnicity. In addition to considering all teachers employed in each year, the chapter presents median earnings for teachers who have remained in employment throughout this period.

2 The Demographic breakdown of teachers by protected characteristics, 2010-2014

This section of the report sets the context for the analysis of pay differentials by presenting the changing breakdown of the teacher workforce in England by protected characteristics (age, gender, ethnicity and disability) for the period 2010 to 2014.

Table 1: Demographic characteristics of teachers, 2010-2014

	2010	2011	2012	2013	2014	Change 2010-14
Female	332515	329953	339304	341752	348142	15627
Male	113098	110372	112504	112449	113604	506
Disabled	2393	2324	2396	2322	2305	-88
Aged 21-29	101751	100288	105310	108118	113205	11454
Aged 30-39	142540	144347	150158	152970	156618	14078
Aged 40-49	107238	109309	114669	118188	121927	14689
Aged 50-59	99110	91987	87656	83292	80032	-19078
Aged 60-69	13043	13162	13635	13656	13518	475
All ages	463682	459093	471428	476224	485300	21618
White ethnic groups	429609	422630	432087	432534	437900	8291
White British	407516	400821	409641	408607	412983	5467
White Irish	6688	6972	7449	7771	8087	1399
Any Other White Background	15405	14837	14997	16156	16830	1425
Black and Minority Ethnic groups	29264	29097	30764	32389	34281	5017
<i>Mixed parentage</i>	3729	3972	4333	4784	5146	1417
White and Black Caribbean	844	925	1049	1145	1283	439
White and Black African	424	456	483	505	515	91
White and Asian	1037	1117	1193	1294	1385	348
Any Other Mixed Background	1424	1474	1608	1840	1963	539
<i>South Asian ethnic groups</i>	13740	13827	14829	15606	16612	2872
Indian	6773	6877	7310	7560	7957	1184
Pakistani	3564	3546	3819	3968	4267	703
Bangladeshi	1394	1424	1547	1755	1898	504
Any Other Asian Background	2009	1980	2153	2323	2490	481
<i>Black ethnic groups</i>	8647	8308	8572	8905	9282	635
Black African	3182	3013	3073	3196	3394	212
Black Caribbean	4421	4308	4465	4493	4639	218
Any Other Black Background	1044	987	1034	1216	1249	205
<i>Chinese and other ethnic groups</i>	3148	2990	3030	3094	3241	93
Chinese	684	685	701	699	724	40
Arab	0	0	0	0	0	0
Any Other Ethnic Group	2464	2305	2329	2395	2517	53

Table 2: Profile of teachers, 2010-2014

	Percentage					% change 2010-14
	2010	2011	2012	2013	2014	
Female	71.7	71.9	72.0	71.8	71.7	4.7
Male	24.4	24.0	23.9	23.6	23.4	0.4
Disabled	0.5	0.5	0.5	0.5	0.5	-3.7
Aged 21-29	21.9	21.8	22.3	22.7	23.3	11.3
Aged 30-39	30.7	31.4	31.9	32.1	32.3	9.9
Aged 40-49	23.1	23.8	24.3	24.8	25.1	13.7
Aged 50-59	21.4	20.0	18.6	17.5	16.5	-19.2
Aged 60-69	2.8	2.9	2.9	2.9	2.8	3.6
All ages	100.0	100.0	100.0	100.0	100.0	4.7
White ethnic groups	92.7	92.1	91.7	90.8	90.2	1.9
White British	87.9	87.3	86.9	85.8	85.1	1.3
White Irish	1.4	1.5	1.6	1.6	1.7	20.9
Any Other White Background	3.3	3.2	3.2	3.4	3.5	9.3
Black and minority ethnic groups	6.3	6.3	6.5	6.8	7.1	17.1
<i>Mixed parentage</i>	<i>0.8</i>	<i>0.9</i>	<i>0.9</i>	<i>1.0</i>	<i>1.1</i>	<i>38.0</i>
White and Black Caribbean	0.2	0.2	0.2	0.2	0.3	52.0
White and Black African	0.1	0.1	0.1	0.1	0.1	21.5
White and Asian	0.2	0.2	0.3	0.3	0.3	33.6
Any Other Mixed Background	0.3	0.3	0.3	0.4	0.4	37.9
<i>South Asian ethnic groups</i>	<i>3.0</i>	<i>3.0</i>	<i>3.1</i>	<i>3.3</i>	<i>3.4</i>	<i>20.9</i>
Indian	1.5	1.5	1.6	1.6	1.6	17.5
Pakistani	0.8	0.8	0.8	0.8	0.9	19.7
Bangladeshi	0.3	0.3	0.3	0.4	0.4	36.2
Any Other Asian Background	0.4	0.4	0.5	0.5	0.5	23.9
<i>Black ethnic groups</i>	<i>1.9</i>	<i>1.8</i>	<i>1.8</i>	<i>1.9</i>	<i>1.9</i>	<i>7.3</i>
Black African	0.7	0.7	0.7	0.7	0.7	6.7
Black Caribbean	1.0	0.9	0.9	0.9	1.0	4.9
Any Other Black Background	0.2	0.2	0.2	0.3	0.3	19.6
<i>Chinese and other ethnic groups</i>	<i>0.7</i>	<i>0.7</i>	<i>0.6</i>	<i>0.6</i>	<i>0.7</i>	<i>3.0</i>
Chinese	0.1	0.1	0.1	0.1	0.1	5.8
Arab	0.0	0.0	0.0	0.0	0.0	-
Any Other Ethnic Group	0.5	0.5	0.5	0.5	0.5	2.2

The total number of teachers (aged 21 to 69) of all types in England increased from 463.7 to 485.3 thousand between 2010 and 2014 (Table 1), an increase of 4.7 per cent. Within this overall total, there were marked differences by protected characteristic.

Gender: Women dominate the profession, accounting for 71.7 per cent of all teachers in 2014¹. The number of female teachers only grew very slightly over the period 2010 to 2014, but the number of male teachers increased by 15.6 thousand (4.7 per cent).

Disability: Between 2.3 and 2.4 thousand teachers were recorded as being disabled during this period, representing 0.5 per cent of all teachers. The number disabled declined by 3.7 per cent between 2010 and 2014.

Age: The number of teachers in each ten-year age group up to the age of 50 increased between 2010 and 2014, but the number of 50 to 59 year olds fell by 19.1 thousand (19.2 per cent) over this period and the number aged 60 to 69 increased slightly. The fastest rate of increase was for 40 to 49 year olds (13.7 per cent).

Ethnicity: There were 34.2 thousand teachers from Black and Minority Ethnic (BME) groups in 2014 (7.1 percent of the total). The number of BME teachers increased by 5 thousand or 17.1 per cent between 2010 and 2014 (Table 2). South Asians formed 3.4 per cent of the total and Black teachers 1.9 per cent in 2014. The number of South Asian teachers grew by 20.9 per cent between 2010 and 2014. The largest individual BME groups in 2014 were Indian, followed by Black-Caribbean and Pakistani. The fastest growing BME groups between 2010 and 2014 were teachers of mixed parentage (38 per cent) and the Bangladeshi ethnic group (36.2 per cent). White Irish teachers formed 1.7 per cent of the total (growing by 20.9 per cent between 2010 and 2014), while Other White (including white European) teachers formed 3.5 per cent of all teachers in 2014 (having grown by 9.3 per cent since 2010).

The number of teachers from individual BME groups is relatively small (Table 1), with the largest individual minority ethnic group (Indian) having only 8 thousand teachers in 2014. Therefore in the remainder of this report, the broad groupings (White, Mixed parentage, South Asian, Black and Chinese and Other) are used in many of the tables presented in the remainder of this report.

¹Gender was not recorded or refused for 23.6 thousand (4.9 per cent) teachers in 2014. Ethnicity was not recorded or refused for 13.1 thousand teachers (2.1 per cent).

3 Type of employment

3.1 Phase and sector of education (Tables 3 to 17)

The number of teachers in primary education increased by 21.2 thousand (9.7 per cent) between 2010 and 2014, while the number of secondary teachers fell by 1.9 thousand (0.8 per cent). The most notable feature is the shift of teachers from schools in local education authority control to academies. The number of teachers in the community sector contracted by 136.5 thousand (31 per cent) while the number of teachers in academies and free schools grew by 158.1 thousand (697.8 per cent).

Turning to gender, female teachers dominate employment in all phases and sectors (Table 3), but form seven-eighths of primary school teachers compared with around two-thirds of secondary teachers (Table 4). They form more than three-quarters of teachers in the local authority/community sector, but two-thirds of teachers in academies, free schools, etc. The number of female teachers increased faster than male teachers in academies between 2010 and 2014 and fell more slowly than males in the local authority/community sector. Therefore, the share of female teachers in the local authority/community sector increased between 2010 and 2014, as male employment contracted. On the other hand, female employment growth in academies outstripped male employment growth, resulting in their share of academy employment also increasing.

The share of disabled teachers in employment is highest for special schools, in which their employment increased between 2010 and 2014 (Table 5). They also experienced a relative shift from the local authority/community sector to academies and free schools.

The largest age group among teachers is those aged 30 to 39 in all sectors except special schools (Tables 9 and 10). The number of teachers increased between 2010 and 2014 in age groups below 50, most rapidly for 40 to 49 year olds (Table 11). There was a small increase in the number of teachers aged 60 to 69. However, the number of 50-59 year olds fell by nearly a fifth, most rapidly in the local authority/community sector. The decline in 50-59 year olds was faster in the secondary than the primary sector and employment in the academy/free school sector grew most slowly for this age group. The share of 21-29 year olds and 50-59 year olds in the academy/free school sector declined over this period as growth in the employment of 40-49 year olds exceeded that of any other age group.

All broad ethnic groups gained employment between 2010 and 2014, with the largest increase among BME groups being for South Asians (Table 14). All ethnic groups lost employment between 2010 and 2014 in the local authority/community sector, while the number of teachers from white and Chinese and Other ethnic groups declined in the secondary phase (Tables 14 and 17). The share of white teachers in employment declined in all phases of education, but increased in the academy/free school sector (Tables 15 and 16). The rate of increase in employment in academies and free schools was also highest for white teachers. The South Asian share of employment increased in all phases of education and in local authority/community schools between 2010 and 2014, but fell in academies and free schools. The rate of employment increase was fastest for teachers of mixed parentage, for whom the rate of increase was faster in special schools and primary and nursery schools than in secondary schools. The rate of increase in employment in academies and free schools was slowest for Black teachers, whose share of employment also declined in this sector (Tables 15 and 16).

Table 3: Gender breakdown of teachers by phase and sector of education in 2010 and 2014 (numbers)

Phase / sector	Female			Male		
	2010	2014	Change	2010	2014	Change
<i>Phase</i>						
Primary and nursery	190723	206818	16095	27984	33074	5090
Secondary	142185	144305	2120	86091	82035	-4056
Special	12253	13965	1712	4212	4816	604
<i>Sector</i>						
Local Authority/Community	331287	242087	-89200	109532	62308	-47224
Academy/free etc.	13874	123001	109127	8755	57617	48862
Total	345161	365088	19927	118287	119925	1638

Table 4: Gender breakdown of teachers by phase and sector of education in 2010 and 2014 (percentage shares of employment)

Phase / sector	Female			Male		
	2010	2014	% Change in female teachers employed	2010	2014	% Change in male teachers employed
<i>Phase</i>						
Primary and nursery	87.2	86.2	8.4	12.8	13.8	18.2
Secondary	62.2	63.7	1.5	37.7	36.2	-4.7
Special	74.4	74.3	14.0	25.6	25.6	14.3
<i>Sector</i>						
Local Authority/Community	75.1	79.5	-26.9	24.8	20.5	-43.1
Academy/free etc.	61.2	68.0	786.6	38.6	31.9	558.1
Total	74.4	75.2	5.8	25.5	24.7	1.4

Note: Some teachers did not declare their gender

Table 5: Disabled teachers by phase and sector of education in 2010 and 2014

Phase / sector	Number			Percentage share		
	2010	2014	Change	2010	2014	% Change in disabled teachers employed
<i>Phase</i>						
Primary and nursery	984	934	-50	0.4	0.4	-5.1
Secondary	1035	1051	16	0.5	0.5	1.5
Special	118	156	38	0.7	0.8	32.2
<i>Sector</i>						
Local Authority/Community	2020	1417	-603	0.5	0.5	-29.9
Academy/free etc.	117	724	607	0.5	0.4	518.8
Total	2137	2141	4	0.5	0.4	0.2

Table 6: Age of teachers by phase and sector of education in 2010 (numbers)

Age group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
Aged 21-29	48728	51220	1803	95439	6312	101751
Aged 30-39	66987	71665	3888	135337	7203	142540
Aged 40-49	51785	51226	4227	102557	4681	107238
Aged 50-59	45447	47908	5755	95191	3919	99110
Aged 60-69	5853	6391	799	12495	548	13043
All ages	218800	228410	16472	441019	22663	463682

Table 7: Age of teachers by phase and sector of education in 2014 (numbers)

Age group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
Aged 21-29	60513	49913	2779	69631	43574	113205
Aged 30-39	74560	77019	5039	96480	60138	156618
Aged 40-49	61114	55680	5133	78590	43337	121927
Aged 50-59	37440	37769	4823	51279	28753	80032
Aged 60-69	6344	6164	1010	8517	5001	13518
All ages	239971	226545	18784	304497	180803	485300

Table 8: Age of teachers by phase and sector of education: change 2010-2014

Age group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
Aged 21-29	11785	-1307	976	-25808	37262	11454
Aged 30-39	7573	5354	1151	-38857	52935	14078
Aged 40-49	9329	4454	906	-23967	38656	14689
Aged 50-59	-8007	-10139	-932	-43912	24834	-19078
Aged 60-69	491	-227	211	-3978	4453	475
All ages	21171	-1865	2312	-136522	158140	21618

Table 9: Age of teachers by phase and sector of education in 2010 (percentages)

Age group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
Aged 21-29	22.3	22.4	10.9	21.6	27.9	21.9
Aged 30-39	30.6	31.4	23.6	30.7	31.8	30.7
Aged 40-49	23.7	22.4	25.7	23.3	20.7	23.1
Aged 50-59	20.8	21.0	34.9	21.6	17.3	21.4
Aged 60-69	2.7	2.8	4.9	2.8	2.4	2.8
All ages	100.0	100.0	100.0	100.0	100.0	100.0

Table 10: Age of teachers by phase and sector of education in 2014 (percentages)

Age group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
Aged 21-29	25.2	22.0	14.8	22.9	24.1	23.3
Aged 30-39	31.1	34.0	26.8	31.7	33.3	32.3
Aged 40-49	25.5	24.6	27.3	25.8	24.0	25.1
Aged 50-59	15.6	16.7	25.7	16.8	15.9	16.5
Aged 60-69	2.6	2.7	5.4	2.8	2.8	2.8
All ages	100.0	100.0	100.0	100.0	100.0	100.0

Table 11: Age of teachers by phase and sector of education: percentage change 2010-2014

Age group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
Aged 21-29	24.2	-2.6	54.1	-27.0	590.3	11.3
Aged 30-39	11.3	7.5	29.6	-28.7	734.9	9.9
Aged 40-49	18.0	8.7	21.4	-23.4	825.8	13.7
Aged 50-59	-17.6	-21.2	-16.2	-46.1	633.7	-19.2
Aged 60-69	8.4	-3.6	26.4	-31.8	812.6	3.6
All ages	9.7	-0.8	14.0	-31.0	697.8	4.7

Table 12: Ethnic group of teachers by phase and sector of education in 2010 (numbers)

Ethnic group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
White	201096	200959	15291	398335	19011	417346
Mixed	1583	1929	107	3341	278	3619
South Asian	5514	7719	185	12504	914	13418
Black	2685	5516	209	7424	986	8410
Other	1042	1930	68	2760	280	3040

Table 13: Ethnic group of teachers by phase and sector of education in 2014 (numbers)

Ethnic group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
White	216641	194784	17003	271399	157029	428428
Mixed	2322	2536	177	3106	1929	5035
South Asian	6993	9089	280	10170	6192	16362
Black	3145	5528	364	5240	3797	9037
Other	1124	1921	100	1722	1423	3145

Table 14: Ethnic group of teachers by phase and sector of education: change 2010-2014

Ethnic group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
White	15545	-6175	1712	-126936	138018	11082
Mixed	739	607	70	-235	1651	1416
South Asian	1479	1370	95	-2334	5278	2944
Black	460	12	155	-2184	2811	627
Other	82	-9	32	-1038	1143	105

Table 15: Ethnic group of teachers by phase and sector of education in 2010 (percentages)

Ethnic group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
White	91.9	88.0	92.8	90.3	83.9	90.0
Mixed	0.7	0.8	0.6	0.8	1.2	0.8
South Asian	2.5	3.4	1.1	2.8	4.0	2.9
Black	1.2	2.4	1.3	1.7	4.4	1.8
Other	0.5	0.8	0.4	0.6	1.2	0.7

Table 16: Ethnic group of teachers by phase and sector of education in 2014 (percentages)

Ethnic group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
White	90.3	86.0	90.5	89.1	86.9	88.3
Mixed	1.0	1.1	0.9	1.0	1.1	1.0
South Asian	2.9	4.0	1.5	3.3	3.4	3.4
Black	1.3	2.4	1.9	1.7	2.1	1.9
Other	0.5	0.8	0.5	0.6	0.8	0.6

Table 17: Change in ethnic group breakdown of teachers by phase and sector of education between 2010 and 2014 (percentage changes)

Ethnic group	Phase			Sector		All
	Primary and nursery	Secondary	Special	Local Authority/Community	Academy /free etc.	
White	7.7	-3.1	11.2	-31.9	726.0	2.7
Mixed	46.7	31.5	65.4	-7.0	593.9	39.1
South Asian	26.8	17.7	51.4	-18.7	577.5	21.9
Black	17.1	0.2	74.2	-29.4	285.1	7.5
Other	7.9	-0.5	47.1	-37.6	408.2	3.5

3.2 Employment by job grade, 2010-2014

A common feature of employment by job grade across all sections of the teacher workforce is the contraction of employment in the Advanced Teacher/Excellent Teacher/Lead Practitioner category between 2010 and 2014. This category fell by 1.9 thousand, mostly for females, which declined by 33.7 per cent (Table 18), compared to 27.6 per cent for males (Table 19). Employment grew fastest for deputy and assistant heads, with the rate of increase much faster for females than males. The number of head teachers declined, for both males and females. The number of female classroom teachers increased by 4.8 per cent, compared with 0.5 per cent for males. However, the percentage of staff in senior roles was higher for men than women in both 2010 and 2014, though the male share of senior employment fell slightly over this period.

For disabled teachers, the number of head teachers increased by 8.7 per cent, while the number of classroom teachers fell by 3.5 per cent. The number of assistant and deputy heads fell by 0.6 per cent, and the share of the disabled among deputy and assistant heads fell slightly between 2010 and 2014.

Turning to age group, the number of classroom teachers in employment increased most quickly for 21-29 year olds, while the number of classroom teachers aged 50-59 declined by a fifth between 2010 and 2014 (Table 24). The rate of increase in the number of heads and deputy heads was fastest for 21-29 year olds and 40-49 year olds, while the number of heads and deputy heads aged 50-59 declined. The percentage share of this age group among senior staff fell markedly between 2010 and 2014 (Tables 25 and 26). However, the percentage of the age group in senior jobs was higher than for any age group, and increased from 21.7 to 22.6 per cent (Tables 27 and 28), indicating that job loss in this age group was mainly experienced by staff in more junior positions.

White teachers were the only ethnic group to lose employment in head teacher posts between 2010 and 2014 (Table 31). The number of new heads was greatest for South Asians, and the rate of increase was fastest for the Chinese and Other and South Asian ethnic groups (Table 32). There was rapid increase in the number of deputy and assistant heads in all BME groups, with the 2014 total being two-thirds higher than the 2010 total for the Mixed parentage group and around 50 per cent higher for both the South Asian and Chinese and Other groups. The increase in classroom teachers was most rapid for the Mixed parentage and South Asian ethnic groups. White teachers accounted for the great majority of employment in each grade of employment (Tables 33 and 34) and the share of senior posts in total employment was highest for the white ethnic group in both 2010 (Table 35) and 2014 (Table 36).

Table 18: Female employment by job grade, 2010-14

	2010	% of females	% job level	2014	% of females	% job level	Change	% change
Head, exec head	14026	3.9	65.2	14183	3.8	65.9	157	1.1
Deputy, Assistant head	25826	7.2	65.7	30672	8.2	68.2	4846	18.8
AST, ET, Lead Practitioner	4549	1.3	74.4	3014	0.8	72.5	-1535	-33.7
Classroom Teacher	312468	87.6	75.8	326089	87.2	76.5	13621	4.4
Females	356869	100.0	74.5	373958	100.0	75.2	17089	4.8

Table 19: Male employment by job grade, 2010-14

	2010	% of males	% job level	2014	% of males	% job level	Change	% change
Head, exec head	7492	6.1	34.8	7306	6.0	34.0	-186	-2.5
Deputy, Assistant head	13455	11.0	34.2	14311	11.7	31.8	-432	6.4
AST, ET, Lead Practitioner	1567	1.3	25.6	1135	0.9	27.3	450	-27.6
Classroom Teacher	99508	81.5	24.1	99958	81.5	23.4	450	0.5
Males	122022	100.0	25.5	122710	100.0	24.7	688	0.6

Table 20: Disabled employment by job grade, 2010-14

	2010	% of disabled	% job level	2014	% of disabled	% job level	Change	% change
Head, exec head	104	4.3	0.5	113	4.9	0.5	9	8.7
Deputy, Assistant head	154	6.4	0.4	153	6.6	0.3	-1	-0.6
AST, ET, Lead Practitioner	62	2.6	1.0	39	1.7	0.9	-23	-37.1
Classroom Teacher	2073	86.6	0.5	2000	86.8	0.5	-73	-3.5
Disabled	2393	100.0	0.5	2305	100.0	0.5	-88	-3.7

Table 21: Employment by age group and job grade, 2010

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
21-29	19	972	378	101251	102620
30-39	2423	12595	1954	128235	145207
40-49	7230	12497	1601	90173	111501
50-59	10683	12177	1871	80630	105361
60-69	1166	1051	313	11908	14438
Total	21521	39292	6117	412197	479127

Table 22: Employment by age group and job grade, 2014

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
21-29	26	1331	360	112067	113784
30-39	2444	15602	1172	139551	158769
40-49	8744	16696	1232	98707	125379
50-59	8854	10178	1133	64142	84307
60-69	1441	1197	258	11824	14720
Total	21509	45004	4155	426291	496959

Table 23: Change in employment by age group and job grade, 2010-2014

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
21-29	7	359	-18	10816	11164
30-39	21	3007	-782	11316	13562
40-49	1514	4199	-369	8534	13878
50-59	-1829	-1999	-738	-16488	-21054
60-69	275	146	-55	-84	282
Total	-12	5712	-1962	14094	17832

Table 24: Percentage change in employment by age group and job grade, 2010-2014

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
21-29	36.8	36.9	-4.8	10.7	10.9
30-39	0.9	23.9	-40.0	8.8	9.3
40-49	20.9	33.6	-23.0	9.5	12.4
50-59	-17.1	-16.4	-39.4	-20.4	-20.0
60-69	23.6	13.9	-17.6	-0.7	2.0
Total	-0.1	14.5	-32.1	3.4	3.7

Table 25: Percentage of age group in each job grade, 2010

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
21-29	0.1	2.5	6.2	24.6	21.4
30-39	11.3	32.1	31.9	31.1	30.3
40-49	33.6	31.8	26.2	21.9	23.3
50-59	49.6	31.0	30.6	19.6	22.0
60-69	5.4	2.7	5.1	2.9	3.0
Total	100.0	100.0	100.0	100.0	100.0

Table 26: Percentage of age group in each job grade, 2014

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
21-29	0.1	3.0	8.7	26.3	22.9
30-39	11.4	34.7	28.2	32.7	31.9
40-49	40.7	37.1	29.7	23.2	25.2
50-59	41.2	22.6	27.3	15.0	17.0
60-69	6.7	2.7	6.2	2.8	3.0
Total	100.0	100.0	100.0	100.0	100.0

Table 27: Percentage of job grade in each age group, 2010

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
21-29	0.0	0.9	0.4	98.7	100.0
30-39	1.7	8.7	1.3	88.3	100.0
40-49	6.5	11.2	1.4	80.9	100.0
50-59	10.1	11.6	1.8	76.5	100.0
60-69	8.1	7.3	2.2	82.5	100.0
Total	4.5	8.2	1.3	86.0	100.0

Table 28: Percentage of job grade in each age group, 2014

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
21-29	0.0	1.2	0.3	98.5	100.0
30-39	1.5	9.8	0.7	87.9	100.0
40-49	7.0	13.3	1.0	78.7	100.0
50-59	10.5	12.1	1.3	76.1	100.0
60-69	9.8	8.1	1.8	80.3	100.0
Total	4.3	9.1	0.8	85.8	100.0

Table 29: Employment by ethnic group and job grade, 2010

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
White	20435	36549	5338	367287	429609
Mixed	103	200	47	3379	3729
South Asian	197	657	188	12698	13740
Black	168	498	109	7872	8647
Other	30	132	49	2937	3148
Total	20933	38036	5731	394173	458873

Table 30: Employment by ethnic group and job grade, 2014

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
White	20259	41266	3553	372822	437900
Mixed	120	335	46	4645	5146
South Asian	256	989	139	15228	16612
Black	190	673	88	8331	9282
Other	49	197	42	2953	3241
Total	20874	43460	3868	403979	472181

Table 31: Change in employment by ethnic group and job grade, 2010-2014

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
White	-176	4717	-1785	5535	8291
Mixed	17	135	-1	1266	1417
South Asian	59	332	-49	2530	2872
Black	22	175	-21	459	635
Other	19	65	-7	16	93
Total	-59	5424	-1863	9806	13308

Table 32: Percentage change in employment by ethnic group and job grade, 2010-2014

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
White	-0.9	12.9	-33.4	1.5	1.9
Mixed	16.5	67.5	-2.1	37.5	38.0
South Asian	29.9	50.5	-26.1	19.9	20.9
Black	13.1	35.1	-19.3	5.8	7.3
Other	63.3	49.2	-14.3	0.5	3.0
Total	-0.3	14.3	-32.5	2.5	2.9

Table 33: Percentage of ethnic group in each job grade, 2010

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
White	97.6	96.1	93.1	93.2	93.6
Mixed	0.5	0.5	0.8	0.9	0.8
South Asian	0.9	1.7	3.3	3.2	3.0
Black	0.8	1.3	1.9	2.0	1.9
Other	0.1	0.3	0.9	0.7	0.7
Total	100.0	100.0	100.0	100.0	100.0

Table 34: Percentage of ethnic group in each job grade, 2014

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
White	97.1	95.0	91.9	92.3	92.7
Mixed	0.6	0.8	1.2	1.1	1.1
South Asian	1.2	2.3	3.6	3.8	3.5
Black	0.9	1.5	2.3	2.1	2.0
Other	0.2	0.5	1.1	0.7	0.7
Total	100.0	100.0	100.0	100.0	100.0

Table 35: Percentage of job grade in each ethnic group, 2010

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
White	4.8	8.5	1.2	85.5	100.0
Mixed	2.8	5.4	1.3	90.6	100.0
South Asian	1.4	4.8	1.4	92.4	100.0
Black	1.9	5.8	1.3	91.0	100.0
Other	1.0	4.2	1.6	93.3	100.0
Total	4.6	8.3	1.2	85.9	100.0

Table 36: Percentage of job grade in each ethnic group, 2014

	Head, exec head	Deputy, Assistant head	AST, ET, Lead Practitioner	Classroom Teacher	Total
White	4.6	9.4	0.8	85.1	100.0
Mixed	2.3	6.5	0.9	90.3	100.0
South Asian	1.5	6.0	0.8	91.7	100.0
Black	2.0	7.3	0.9	89.8	100.0
Other	1.5	6.1	1.3	91.1	100.0
Total	4.4	9.2	0.8	85.6	100.0

3.3 Employment by pay range, 2010-2014

The most notable feature of employment change by pay range between 2010 and 2014 is the fall of 1.9 thousand (38.8 per cent) in the number employed in AST, Excellent Teacher and Lead Practitioners (Table 43). The number of teachers on the Unqualified Teacher pay range increased by 15.5 per cent, while the number on the Main pay range increased by 13.6 per cent between 2010 and 2014. The number on the Upper pay range declined by 2.5 per cent.

Turning first to gender, the number on the Unqualified Teacher, Main and Leadership pay ranges increased and the number on the Upper pay range decreased for both women and men. The fastest rate of increase for women was for Unqualified Teachers (Table 37), while the fastest rate of increase for men (Table 38) occurred for the Main pay range. The rate of increase in numbers on the Leadership pay range was much greater for women than for men. Men were more likely than women to be on both the Unqualified and Leadership pay ranges in both 2010 and 2014.

Disabled teachers were most likely to be on the Upper pay range in both 2010 and 2014 (Table 39), but the number on this pay range declined by 10.3 per cent. On the other hand, the percentage on the Unqualified pay range increased by nearly a third over this period.

Turning to the pattern by age group, the increase in numbers on the Unqualified Teacher and Leadership pay ranges was fastest for 21 to 29 year olds (though the number on the Upper pay scale fell in this age group). The number on the Leadership pay range increased for all age groups under 50 and over 60, but the number aged 51-59 declined by over a quarter. The percentage of teachers on the Upper and Leadership pay ranges increased in each age group up to the age of 60 in both 2010 and 2014 (Tables 44 and 45). However, the percentage of teachers on the Leadership scale aged 40-49 exceeded the percentage for 50-59 year olds in 2014.

Turning to ethnic group, the number of teachers on the Upper pay range fell for the White and Chinese and Other ethnic groups, in which the number on the Unqualified Teacher pay range also fell, but numbers in all other pay ranges except the AST, Expert Teacher and Lead Practitioner pay scale increased (Table 50). The rate of increase in the Upper pay scale was fastest for South Asians and people of Mixed parentage (Table 51). The Mixed parentage ethnic group experienced the fastest rate of increase in all other pay ranges between 2010 and 2014. The share of BME ethnic groups in the total for each pay range was highest for the Unqualified Teacher (South Asian) and Main pay ranges in both 2010 and 2014 (Tables 52 and 53). The percentage of all teachers from an ethnic group in the Upper and Leadership pay ranges was highest for the white ethnic group in both 2010 and 2014 (Tables 54 and 55). People from BME ethnic groups were more likely to be on the Main pay range.

Table 37: Female employment by pay range, 2010-2014

	2010	% of females	% pay range	2014	% of females	% pay range	Change	% change
Unqualified Teacher	12630	3.6	67.1	14894	4.0	68.5	2264	17.9
Main	133871	38.1	77.5	151976	40.7	77.4	18105	13.5
Upper	159019	45.2	75.7	156897	42.1	76.6	-2122	-1.3
AST, ET, Lead Practitioner	3616	1.0	71.8	2138	0.6	69.3	-1478	-40.9
Leadership	42392	12.1	65.5	47108	12.6	67.6	4716	11.1
Total	351528	100.0	74.6	373013	100.0	75.3	21485	6.1

Table 38: Male employment by pay range, 2010-2014

	2010	% of males	% pay range	2014	% of males	% pay range	Change	% change
Unqualified Teacher	6163	5.1	32.8	6799	5.6	31.3	636	10.3
Main	38726	32.4	22.4	44109	36.1	22.5	5383	13.9
Upper	51082	42.7	24.3	47953	39.2	23.4	-3129	-6.1
AST, ET, Lead Practitioner	1422	1.2	28.2	943	0.8	30.6	-479	-33.7
Leadership	22302	18.6	34.5	22516	18.4	32.3	214	1.0
Total	119695	100.0	25.4	122320	100.0	24.7	2625	2.2

Table 39: Disabled employment by pay range, 2010-2014

	2010	% of disabled	% pay range	2014	% of disabled	% pay range	Change	% change
Unqualified Teacher	108	4.6	0.6	142	6.2	0.7	34	31.5
Main	691	29.5	0.4	760	33.0	0.4	69	10.0
Upper	1221	52.1	0.6	1095	47.6	0.5	-126	-10.3
AST, ET, Lead Practitioner	34	1.5	0.7	19	0.8	0.6	-15	-44.1
Leadership	289	12.3	0.4	285	12.4	0.4	-4	-1.4
Total	2343	100.0	0.5	2301	100.0	0.5	-42	-1.8

Table 40: Employment by age group and pay range, 2010

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
21-29	6225	86416	6549	414	1374	100978
30-39	4272	48070	72644	1931	16262	143179
40-49	4731	25232	57991	1275	20736	109965
50-59	2965	11128	64277	1266	23987	103623
60-69	624	1892	8672	153	2350	13691
Total	18817	172738	210133	5039	64709	471436

Table 41: Employment by age group and pay range, 2014

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
21-29	8288	97334	5792	265	1831	113510
30-39	4749	56549	76991	1042	19168	158499
40-49	4607	27621	65653	900	26298	125079
50-59	3366	12579	47670	742	19645	84002
60-69	721	2159	8793	136	2723	14532
Total	21731	196242	204899	3085	69665	495622

Table 42: Change in employment by age group and pay range, 2010-2014

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
21-29	2063	10918	-757	-149	457	12532
30-39	477	8479	4347	-889	2906	15320
40-49	-124	2389	7662	-375	5562	15114
50-59	401	1451	-16607	-524	-4342	-19621
60-69	97	267	121	-17	373	841
Total	2914	23504	-5234	-1954	4956	24186

Table 43: Percentage change in employment by age group and pay range, 2010-2014

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
21-29	33.1	12.6	-11.6	-36.0	33.3	12.4
30-39	11.2	17.6	6.0	-46.0	17.9	10.7
40-49	-2.6	9.5	13.2	-29.4	26.8	13.7
50-59	13.5	13.0	-25.8	-41.4	-18.1	-18.9
60-69	15.5	14.1	1.4	-11.1	15.9	6.1
Total	15.5	13.6	-2.5	-38.8	7.7	5.1

Table 44: Percentage of each age group in each pay range, 2010

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
21-29	33.1	50.0	3.1	8.2	2.1	21.4
30-39	22.7	27.8	34.6	38.3	25.1	30.4
40-49	25.1	14.6	27.6	25.3	32.0	23.3
50-59	15.8	6.4	30.6	25.1	37.1	22.0
60-69	3.3	1.1	4.1	3.0	3.6	2.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 45: Percentage of each age group in each pay range, 2014

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
21-29	38.1	49.6	2.8	8.6	2.6	22.9
30-39	21.9	28.8	37.6	33.8	27.5	32.0
40-49	21.2	14.1	32.0	29.2	37.7	25.2
50-59	15.5	6.4	23.3	24.1	28.2	16.9
60-69	3.3	1.1	4.3	4.4	3.9	2.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 46: Percentage of pay range in each age group, 2010

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
21-29	6.2	85.6	6.5	0.4	1.4	100.0
30-39	3.0	33.6	50.7	1.3	11.4	100.0
40-49	4.3	22.9	52.7	1.2	18.9	100.0
50-59	2.9	10.7	62.0	1.2	23.1	100.0
60-69	4.6	13.8	63.3	1.1	17.2	100.0
Total	4.0	36.6	44.6	1.1	13.7	100.0

Table 47: Percentage of pay range in each age group, 2014

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
21-29	7.3	85.7	5.1	0.2	1.6	100.0
30-39	3.0	35.7	48.6	0.7	12.1	100.0
40-49	3.7	22.1	52.5	0.7	21.0	100.0
50-59	4.0	15.0	56.7	0.9	23.4	100.0
60-69	5.0	14.9	60.5	0.9	18.7	100.0
Total	4.4	39.6	41.3	0.6	14.1	100.0

Table 48: Employment by ethnic group and pay range, 2010

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
White	15362	151887	192309	4536	60429	424523
Mixed	225	1894	1168	41	334	3662
South Asian	754	7113	4501	147	946	13461
Black	625	3673	3306	89	758	8451
Other	356	1395	1115	33	193	3092
Total	17322	165962	202399	4846	62660	453189

Table 49: Employment by ethnic group and pay range, 2014

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
White	17447	167940	184515	2681	64368	436951
Mixed	392	2703	1504	37	489	5125
South Asian	910	8362	5818	114	1326	16530
Black	809	3987	3441	61	913	9211
Other	342	1491	1095	28	262	3218
Total	19900	184483	196373	2921	67358	471035

Table 50: Change in employment by ethnic group and pay range, 2010-2014

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
White	2085	16053	-7794	-1855	3939	12428
Mixed	167	809	336	-4	155	1463
South Asian	156	1249	1317	-33	380	3069
Black	184	314	135	-28	155	760
Other	-14	96	-20	-5	69	126
Total	2578	18521	-6026	-1925	4698	17846

Table 51: Percentage change in employment by ethnic group and pay range, 2010-2014

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
White	13.6	10.6	-4.1	-40.9	6.5	2.9
Mixed	74.2	42.7	28.8	-9.8	46.4	40.0
South Asian	20.7	17.6	29.3	-22.4	40.2	22.8
Black	29.4	8.5	4.1	-31.5	20.4	9.0
Other	-3.9	6.9	-1.8	-15.2	35.8	4.1
Total	14.9	11.2	-3.0	-39.7	7.5	3.9

Table 52: Percentage of ethnic group in each pay range, 2010

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
White	88.7	91.5	95.0	93.6	96.4	93.7
Mixed	1.3	1.1	0.6	0.8	0.5	0.8
South Asian	4.4	4.3	2.2	3.0	1.5	3.0
Black	3.6	2.2	1.6	1.8	1.2	1.9
Other	2.1	0.8	0.6	0.7	0.3	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 53: Percentage of ethnic group in each pay range, 2014

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
White	87.7	91.0	94.0	91.8	95.6	92.8
Mixed	2.0	1.5	0.8	1.3	0.7	1.1
South Asian	4.6	4.5	3.0	3.9	2.0	3.5
Black	4.1	2.2	1.8	2.1	1.4	2.0
Other	1.7	0.8	0.6	1.0	0.4	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 54: Percentage of pay range in each ethnic group, 2010

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
White	3.6	35.8	45.3	1.1	14.2	100.0
Mixed	6.1	51.7	31.9	1.1	9.1	100.0
South Asian	5.6	52.8	33.4	1.1	7.0	100.0
Black	7.4	43.5	39.1	1.1	9.0	100.0
Other	11.5	45.1	36.1	1.1	6.2	100.0
Total	3.8	36.6	44.7	1.1	13.8	100.0
2014						

Table 55: Percentage of pay range in each ethnic group, 2014

	Unqualified Teacher	Main	Upper	AST, ET, Lead Practitioner	Leadership	Total
White	4.0	38.4	42.2	0.6	14.7	100.0
Mixed	7.6	52.7	29.3	0.7	9.5	100.0
South Asian	5.5	50.6	35.2	0.7	8.0	100.0
Black	8.8	43.3	37.4	0.7	9.9	100.0
Other	10.6	46.3	34.0	0.9	8.1	100.0
Total	4.2	39.2	41.7	0.6	14.3	100.0

4 Earnings trends, 2010-2014

This section presents analysis of changes in average earnings for teachers with protected characteristics compared with all teachers. The analysis presents averages for all teachers present in the SWC in a given year.

Tables 56 to 58 present median earnings by gender, age group and ethnic group for each year from 2010 to 2014. Female earnings were highest in 2010, and male earnings were only higher than 2010 in 2013 and 2014. Earnings for disabled people were more variable, but were higher in 2014 than 2010 (Table 56).

Median earnings were lower in 2014 than 2010 for 21-29 year olds, 50-59 year olds and those aged 60 or more (Table 57). They were higher in 2014 than 2010 for 30-39 and 40-49 year olds. The reason for this pattern is that the number of teachers aged under 30 were growing and wage progression for older teachers in this age group was masked by the entry of new teachers on the lowest salaries. In the older age groups, employment was falling (possibly involving some of the highest paid teachers), while working hours for others was being cut. Earnings for White British teachers were lower in 2014 than 2010, again influenced by the influx of younger and lower paid teachers and the loss of older, more highly paid teachers. Earnings growth was strongest in younger ethnic groups such as people of mixed parentage, Pakistanis and Bangladeshis. The earnings of White Irish, White Other, Indian and Black Caribbean teachers also stagnated over this period.

Percentage changes for the entire period and individual years within it are presented in Tables 59 to 61. This shows that earnings declined in each year for women, 21-29 year olds and White Irish people, but that there was more volatility for other groups. For example, median earnings for those aged 60 or more were stable in each year from 2010 to 2013, but then declined sharply, and the earnings growth of men is largely accounted for by an increase between 2012 and 2013.

Differentials within this rather volatile pattern can be presented more clearly by expressing median earnings for each sub-group relative to the median for all teachers (Tables 62 to 64). The differential for females widened between 2010 and 2012, but narrowed in 2013 and 2014. However, the male differential became wider throughout this period. Disabled people earned more than average and this differential was wider in 2014 than in 2010. Median earnings for White British teachers declined over this period, but were higher relative to the overall average in 2014 than in 2010, while the relative earnings of White Irish teachers declined. The relative earnings of South Asians increased over the period, but while Indian earnings were above average by 2014, those of Pakistanis and Bangladeshis were below average. Black African and Black Caribbean teacher earnings became increasingly above average over this period, but median earnings of Chinese teachers remained about 90 per cent of overall median earnings.

Table 65 focuses on earnings differentials for women relative to men. Overall, women earned about seven-eighths of what men earned and this negative differential widened slightly between 2010 and 2014. However, the differential was much closer for young women, with 21-29 year olds earning more than men in each year from 2011 to 2014. The differential widened with increasing age, but was much smaller for teachers aged 60 or more. The gender differential was narrower for White Irish than White British women. In the Black African and Black Caribbean ethnic groups, there was little difference by gender. The largest gender differentials were in the Indian, Pakistani and Bangladeshi ethnic groups.

Table 56: Median earnings, 2010-2014 by gender and disability

	Median earnings (£)				
	2010	2011	2012	2013	2014
Female	33281	34181	34571	35802	36224
Male	37982	38922	38991	39766	40782
Disabled	35218	35778	36182	37006	37298
Persons	34181	35447	35776	37058	37496

Table 57: Median earnings, 2010-2014 by age group

Age group	Median earnings (£)				
	2010	2011	2012	2013	2014
21-29	23295	25168	27527	30244	32187
30-39	31775	34181	34181	35802	36524
40-49	36756	36756	36756	37915	38549
50-59	39291	39291	39291	39659	39630
60-69	39291	39291	37976	37124	36192
Persons	34181	35447	35776	37058	37496

Table 58: Median earnings, 2010-2014 by ethnic group

Ethnic group	Median earnings (£)				
	2010	2011	2012	2013	2014
White British	34181	35447	35477	36903	37456
White Irish	36716	37599	37726	39111	40083
Any Other White Background	35149	36387	36687	37124	38130
White and Black Caribbean	33556	35116	36087	37124	38355
White and Black African	33924	34181	35447	36751	37496
White and Asian	31552	33865	34181	35802	37119
Any Other Mixed Background	33464	35081	36047	36751	38014
Indian	34181	35447	36387	37124	37496
Pakistani	31552	32640	34181	35571	36592
Bangladeshi	31552	33865	35203	36751	37614
Any Other Asian Background	34181	35447	36387	37124	38355
Black African	36387	36756	37498	39018	40095
Black Caribbean	37651	38991	39305	40743	41779
Any Other Black Background	36387	36756	37599	39237	41247
Chinese	34181	34351	35226	36751	37124
Any Other Ethnic Group	35174	36387	36663	37598	38425
Persons	34181	35447	35776	37058	37496

Table 59: Percentage change in median earnings for 2010-14 and individual years by gender and disability

	Percentage change between Censuses				
	2010-14	2010-11	2011-12	2012-13	2013-14
Female	-2.0	0.7	-0.4	-0.8	-1.5
Male	1.0	0.0	0.0	1.0	0.0
Disabled	0.1	0.3	-0.3	1.0	-0.9
Persons	-2.7	0.0	-0.3	-0.8	-1.6

Table 60: Percentage change in median earnings for 2010-14 and individual years by age group

	Percentage change between Censuses				
	2010-14	2010-11	2011-12	2012-13	2013-14
21-29	-3.9	-0.1	-1.8	-0.8	-1.3
30-39	1.9	0.0	-0.1	1.0	1.0
40-49	2.0	0.0	0.0	1.0	1.0
50-59	-2.7	-0.3	-2.2	0.4	-0.6
60-69	-1.8	0.0	0.0	1.0	-2.8
Persons	-2.7	0.0	-0.3	-0.8	-1.6

Table 61: Percentage change in median earnings for 2010-14 and individual years by ethnic group

	Percentage change between Censuses				
	2010-14	2010-11	2011-12	2012-13	2013-14
White British	-2.3	0.0	-0.2	-0.6	-1.5
White Irish	-6.2	-2.9	-1.4	-1.7	-0.2
Any Other White Background	0.5	3.4	-1.5	0.7	-2.0
White and Black Caribbean	-5.9	-2.6	0.0	-1.6	-1.8
White and Black African	-3.8	-2.9	-0.7	-0.6	0.4
White and Asian	0.0	0.2	0.0	0.9	-1.1
Any Other Mixed Background	-1.4	0.1	-0.5	-1.8	0.8
Indian	-1.2	0.7	-0.7	-0.1	-1.1
Pakistani	1.0	2.4	0.0	1.0	-2.4
Bangladeshi	0.3	1.5	-0.2	0.6	-1.6
Any Other Asian Background	-1.3	2.0	-0.6	-2.9	0.2
Black African	2.0	2.4	-1.3	0.9	0.1
Black Caribbean	1.4	0.0	0.0	1.0	0.4
Any Other Black Background	3.5	2.3	-1.4	0.1	2.5
Chinese	-2.9	-2.2	1.5	0.4	-2.6
Any Other Ethnic Group	1.0	0.0	0.0	0.6	0.3
Refused	-0.5	1.4	-2.9	1.0	0.1
Persons	-2.7	0.0	-0.3	-0.8	-1.6

Table 62: Relative median earnings, 2010-2014 by gender and disability (all teachers=100)

	Median earnings relative to those for all teachers (=100)				
	2010	2011	2012	2013	2014
Female	94.4	94.6	92.6	94.3	96.8
Male	107.5	107.5	107.8	109.8	111.6
Disabled	100.0	100.3	100.3	102.1	102.9

Table 63: Relative median earnings, 2010-2014 by age group (all teachers=100)

Age group	Median earnings relative to those for all teachers (=100)				
	2010	2011	2012	2013	2014
21-29	78.1	78.0	76.9	76.9	77.2
30-39	100.1	100.1	100.3	102.1	104.9
40-49	107.5	107.5	107.8	109.8	112.7
50-59	114.1	113.7	111.5	112.9	114.0
60-69	100.0	100.0	100.3	102.1	100.9

Table 64: Relative median earnings, 2010-2014 by ethnic group (all teachers=100)

Ethnic group	Median earnings relative to those for all teachers (=100)				
	2010	2011	2012	2013	2014
White British	100.0	100.0	100.1	100.4	100.5
White Irish	103.0	100.0	98.8	98.0	99.4
Any Other White Background	95.9	99.1	97.8	99.4	99.0
White and Black Caribbean	94.8	92.3	92.6	91.9	91.7
White and Black African	98.9	96.0	95.6	95.8	97.8
White and Asian	92.0	92.2	92.4	94.0	94.6
Any Other Mixed Background	95.5	95.6	95.4	94.5	96.8
Indian	99.1	99.7	99.3	100.1	100.6
Pakistani	90.1	92.3	92.6	94.3	93.6
Bangladeshi	90.9	92.3	92.4	93.8	93.8
Any Other Asian Background	98.0	100.0	99.7	97.6	99.5
Black African	102.7	105.2	104.1	105.9	107.7
Black Caribbean	107.5	107.5	107.8	109.8	112.1
Any Other Black Background	103.7	106.1	105.0	105.9	110.3
Chinese	91.5	89.6	91.2	92.4	91.4
Any Other Ethnic Group	100.0	100.0	100.3	101.8	103.8

Table 65: Relative earnings differentials for female teachers by age group, disability and ethnic group

	Female median earnings relative to male earnings (=100)				
	2010	2011	2012	2013	2014
<i>Age group</i>					
21-29	98.9	101.2	102.4	102.0	100.0
30-39	90.9	91.1	92.7	91.9	91.3
40-49	86.1	86.5	86.4	87.1	86.6
50-59	87.0	88.8	89.7	89.8	90.9
60-69	99.3	96.4	96.7	94.9	96.7
Disabled	91.4	93.0	92.3	92.0	90.2
<i>Ethnic group</i>					
White British	86.9	87.1	85.8	85.8	85.9
White Irish	92.9	90.6	87.4	88.9	89.9
Any Other White Background	86.8	87.4	87.6	87.6	89.0
White and Black Caribbean	93.6	92.0	96.0	95.8	94.9
White and Black African	92.7	89.7	90.5	94.3	96.3
White and Asian	87.4	88.0	87.6	87.7	85.3
Any Other Mixed Background	89.8	92.8	89.7	91.4	91.1
Indian	87.5	88.7	88.3	86.6	86.9
Pakistani	86.2	88.0	87.4	84.9	85.0
Bangladeshi	88.2	88.6	82.2	85.1	83.7
Any Other Asian Background	92.7	95.5	94.7	89.9	89.9
Black African	102.8	102.7	101.0	100.0	98.8
Black Caribbean	101.0	100.1	100.0	100.0	100.8
Any Other Black Background	100.7	98.9	99.2	97.1	97.4
Chinese	95.0	91.5	88.2	86.1	85.0
Any Other Ethnic Group	89.5	89.7	89.4	87.2	86.7
All females	87.8	87.9	85.8	85.8	86.7

Figure 1 and 2 depict median earnings for women and men by age group over the period 2010 to 2014. These diagrams demonstrate the narrowing in earnings differentials by age for both genders as earnings of younger teachers decreased while those of older teachers declined. Figure 3 clearly shows that the narrowing of the wage gap during this period was a feature of older age groups, while the gap between male and female earnings widened among younger teachers.

Figure 4 shows that there was a narrowing in earnings differentials relative to the White British group for teachers from minority ethnic groups between 2010 and 2014.

Figures 5 to 8 provide more detail on earnings for the protected characteristics considered in this report by presenting the number of teachers in each £2500 salary range from £0 to £79,999 by gender (Figure 5), disability (Figure 6), age group (Figure 7) and broad ethnic group (Figure 8) in 2014. Two marked peaks appear, at £20-22.5 thousand and £35-37.5 thousand pounds (with a smaller peak at £27.5-29.99 thousand pounds). Female teachers dominate in lower pay ranges, but the largest share of male teachers is found for the larger peak and nearby pay bands. Men are more prominent in the mid to high pay bands. The distribution of pay for disabled teachers is similar to the average. Younger teachers are better represented in lower pay levels (with a strong peak in the £20-22.49 thousand pay band). A clear relationship demonstrated between increasing pay and increasing age. The most notable feature of the distribution of earnings by ethnic group is the greater representation of Black ethnic groups in the middle and upper levels of the pay distribution.

Figures 9 to 20 present change in the distribution of earnings between 2010 and 2014 by gender (Figure 9), disability (Figure 10), age group (Figures 11 to 15) and ethnic group (Figures 16 to 20). The patterns are quite complex, but increasing representation of younger groups at the lower end of the distribution is apparent. Earnings progression at the upper end of the distribution is apparent for 40 to 49 year olds, while the older age groups experience a reduction in number of teachers in the middle part of the earnings distribution, but increases in both the upper and lower ends.

Figure 1: Female median earnings by age group, 2010-2014

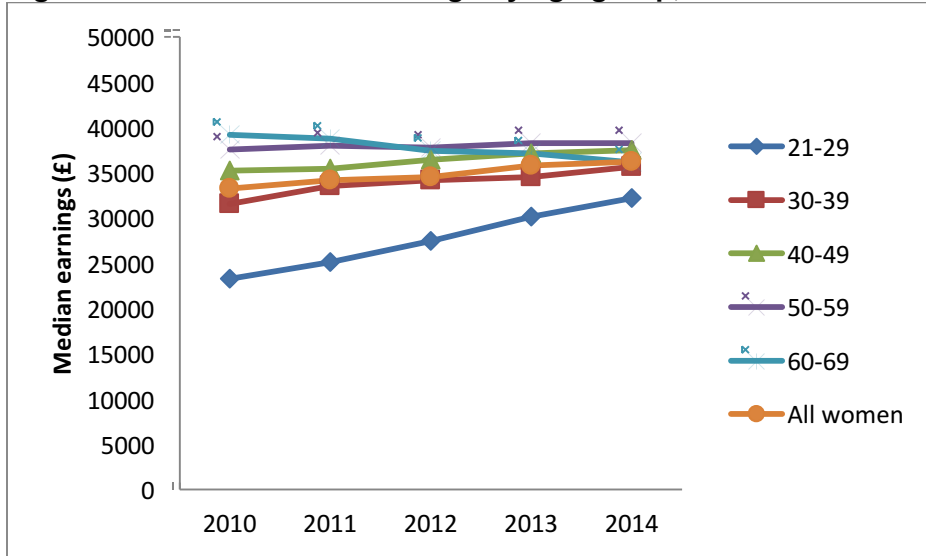


Figure 2: Male median earnings by age group, 2010-2014

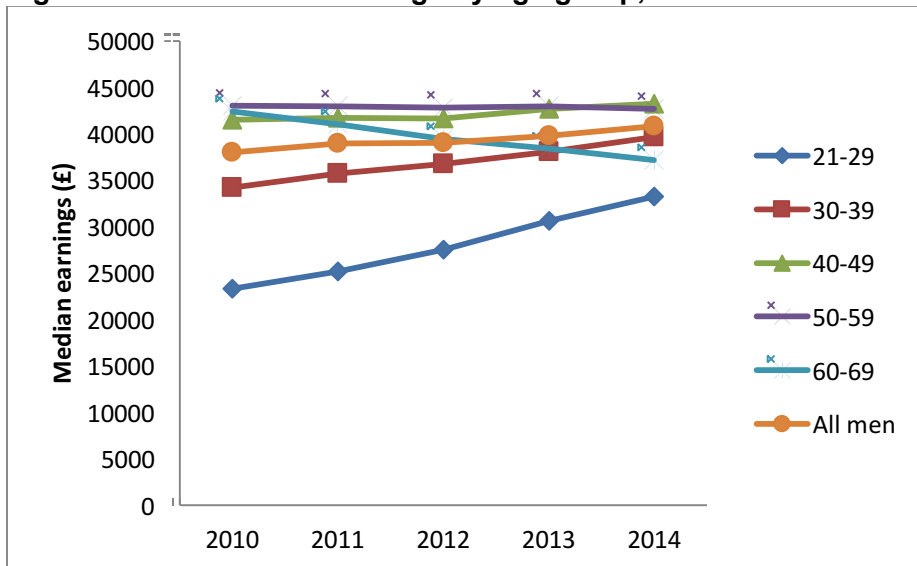


Figure 3: Female earnings relative to male by age group, 2010-2014

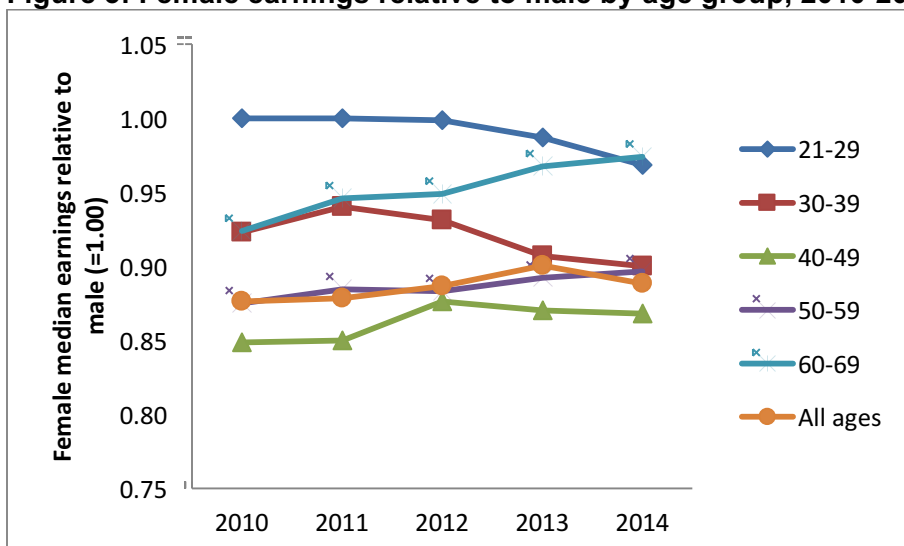


Figure 4: Earnings by ethnic group relative to White British teachers, 2010-2014

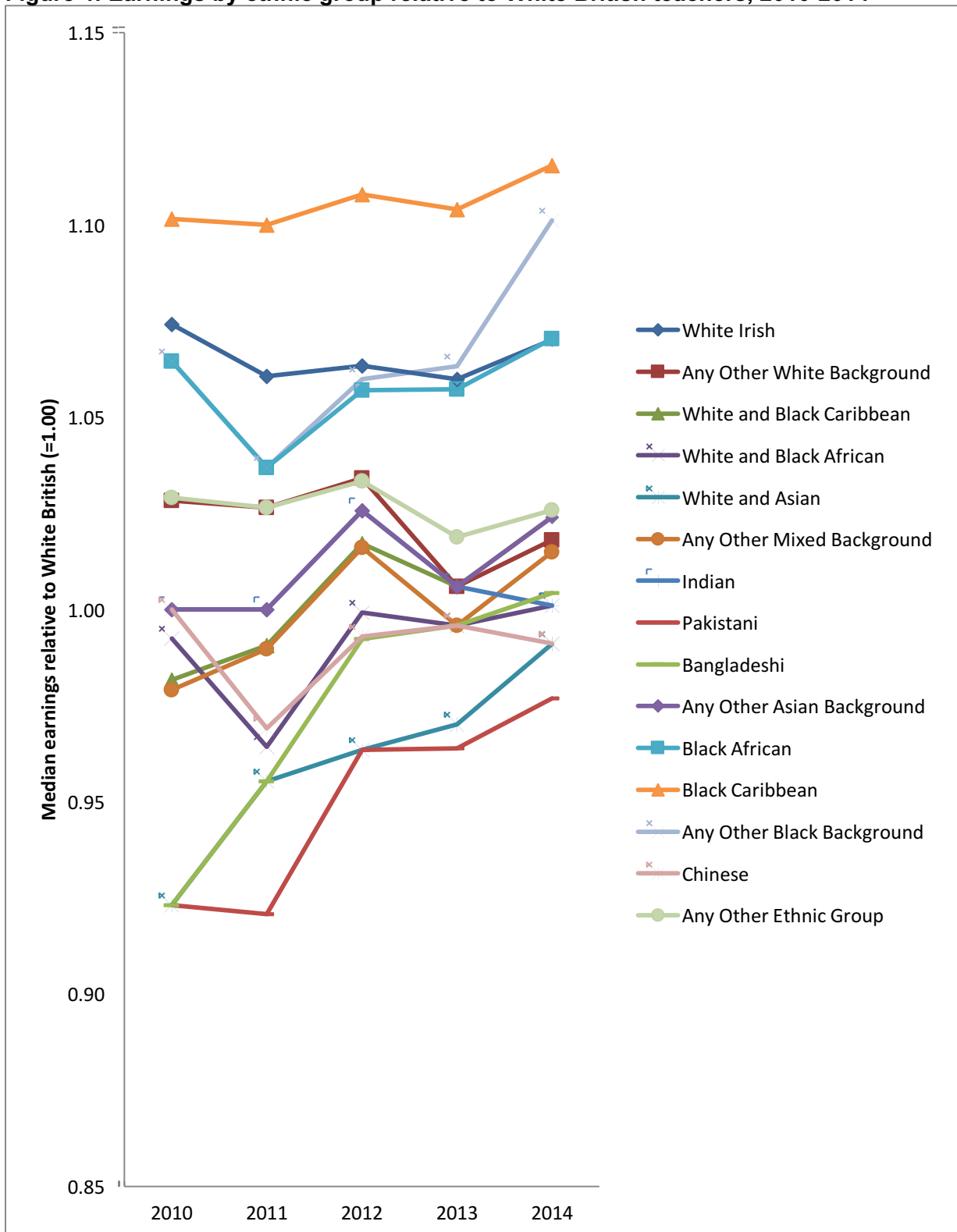


Figure 5: Earnings distribution by gender, 2014

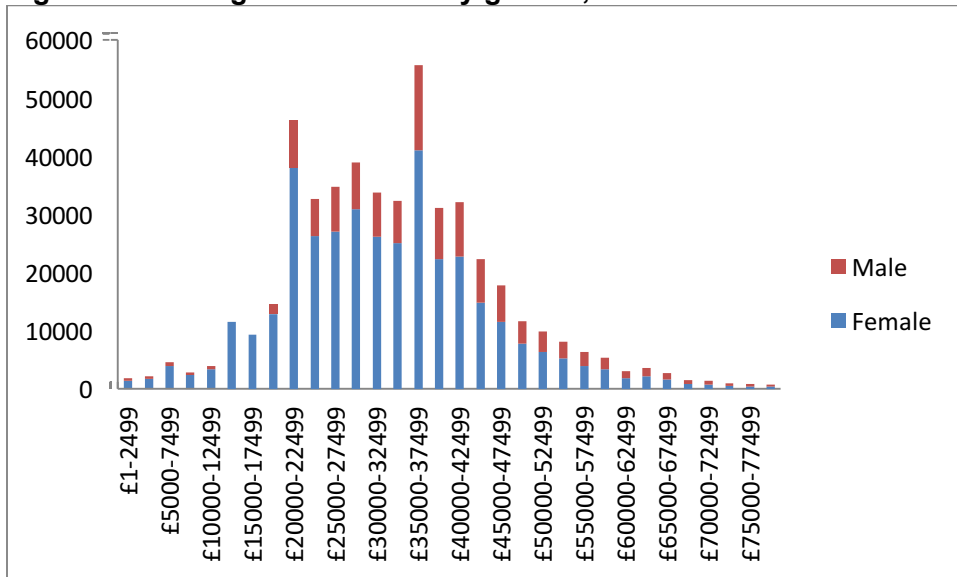


Figure 6: Earnings distribution of disabled teachers, 2014

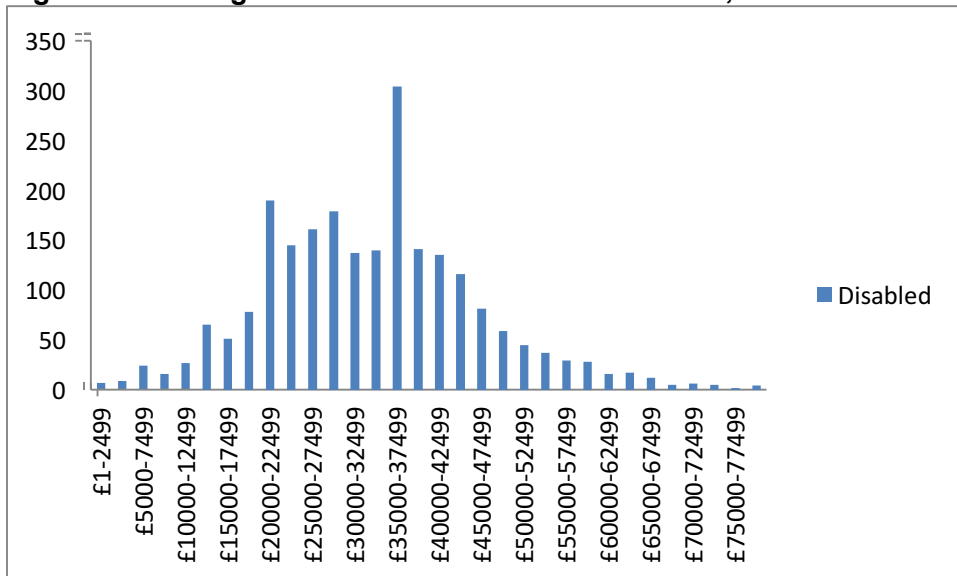


Figure 7: Earnings distribution by age group, 2014

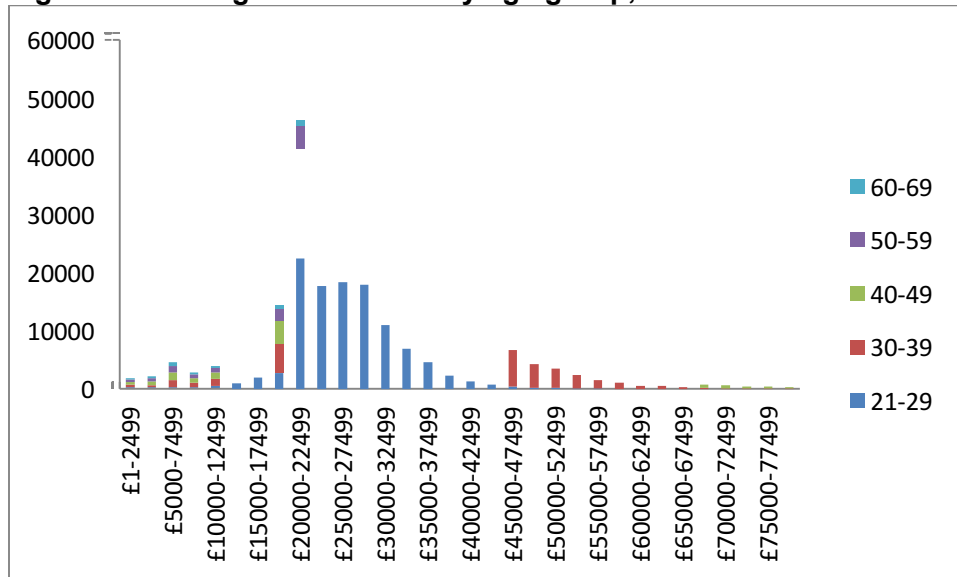


Figure 8: Earnings distribution by ethnic group, 2014

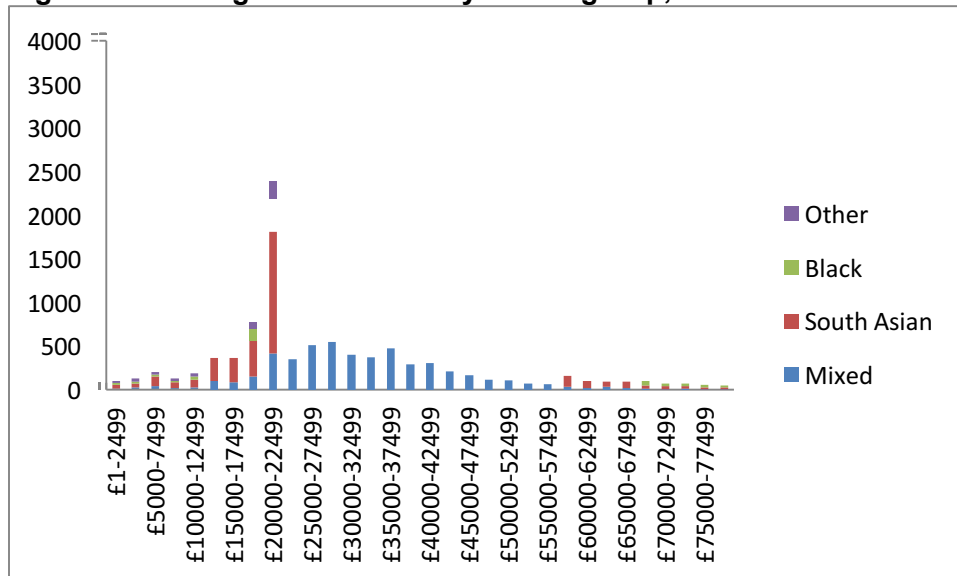


Figure 9: Change in distribution of earnings by gender, 2010-2014

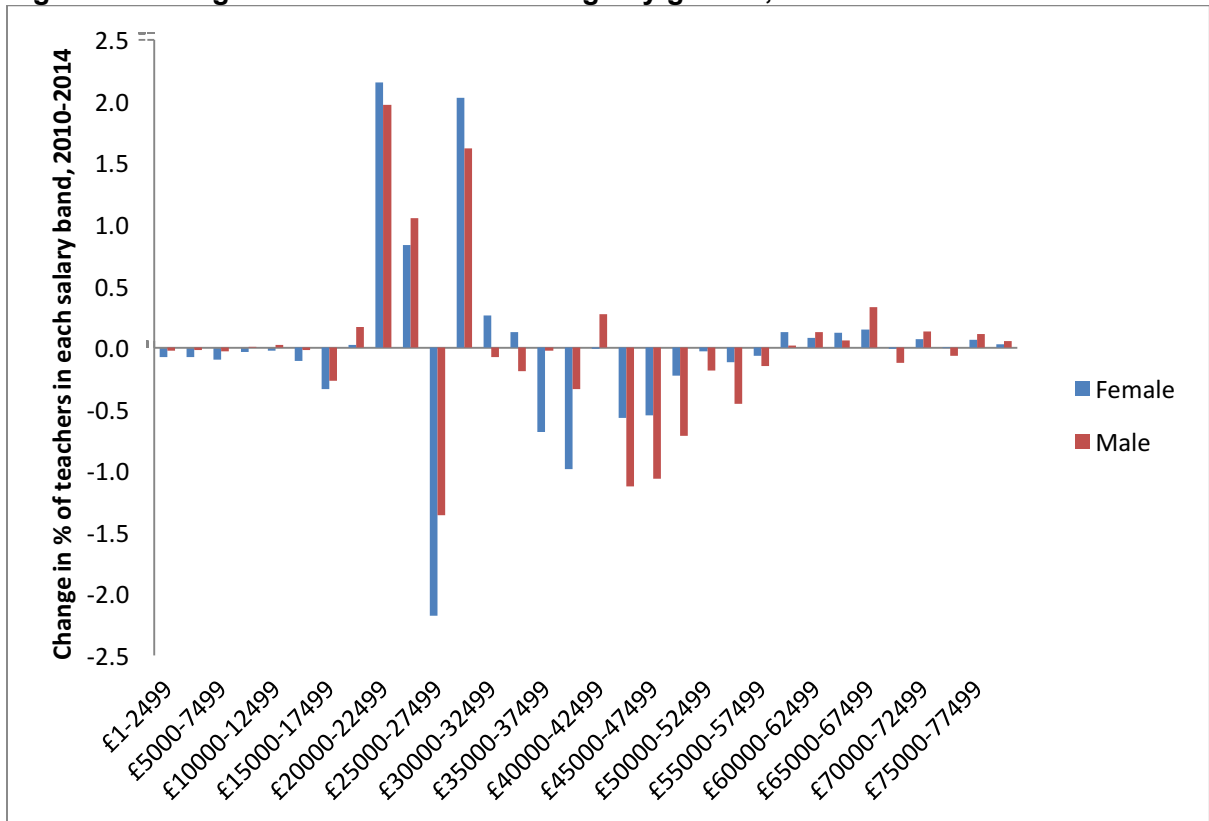


Figure 10: Change in distribution of disabled teacher earnings, 2010-2014

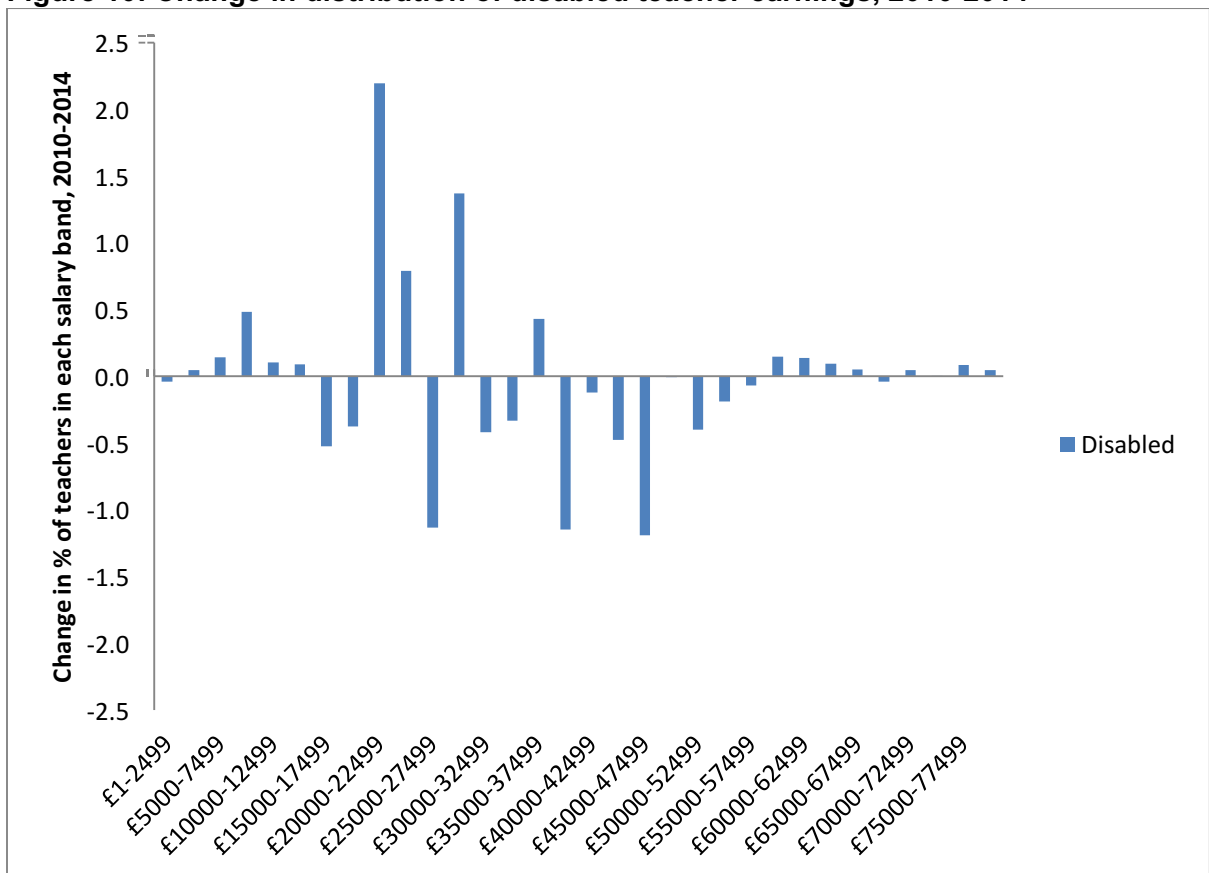


Figure 11: Change in distribution of age group 21-29 earnings, 2010-2014

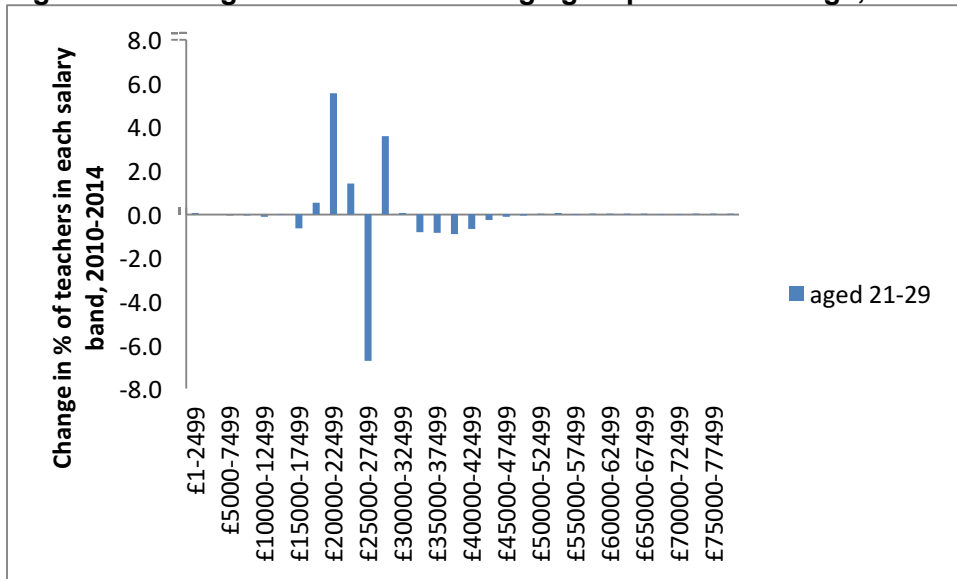


Figure 12: Change in distribution of age group 30-39 earnings, 2010-2014

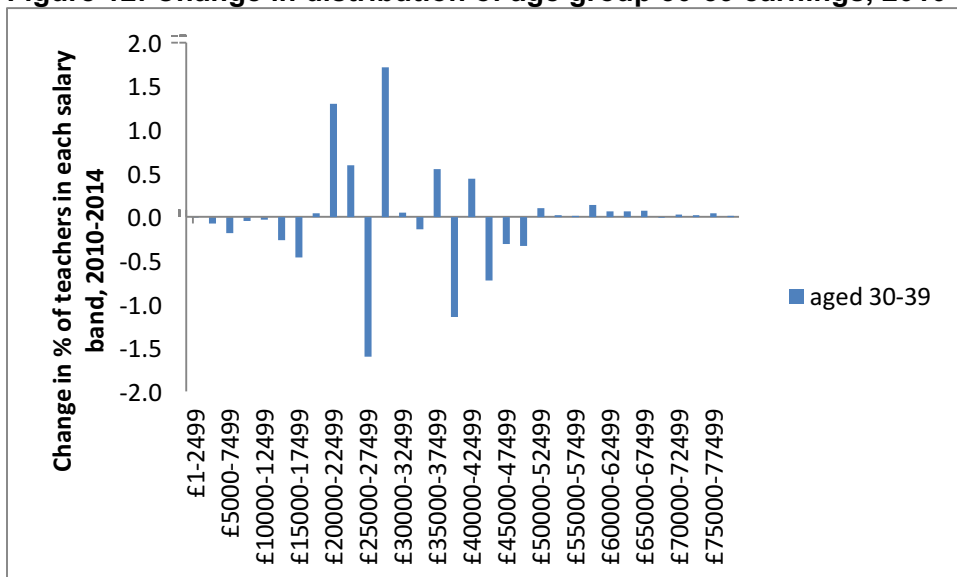


Figure 13: Change in distribution of age group 40-49 earnings, 2010-2014

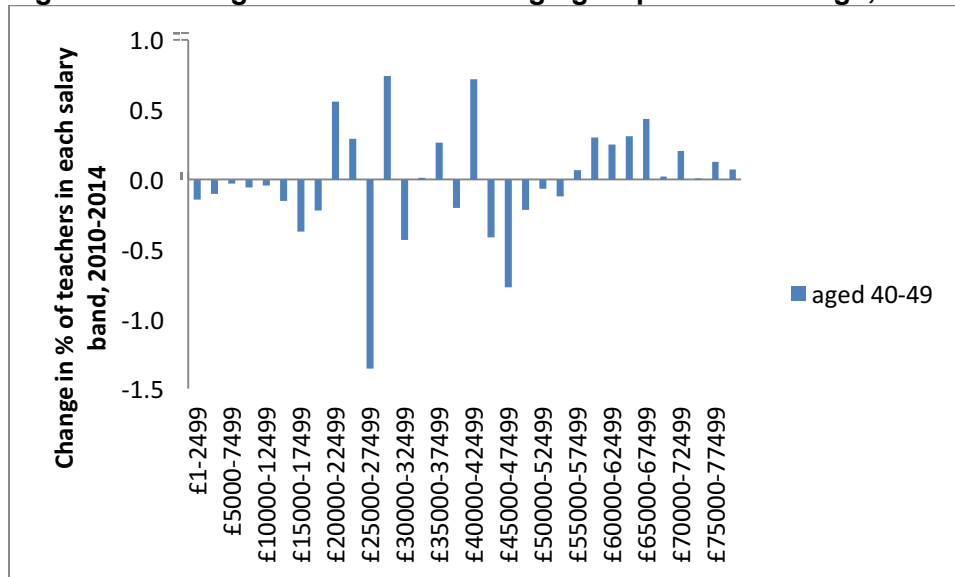


Figure 14: Change in distribution of age group 50-59 earnings, 2010-2014

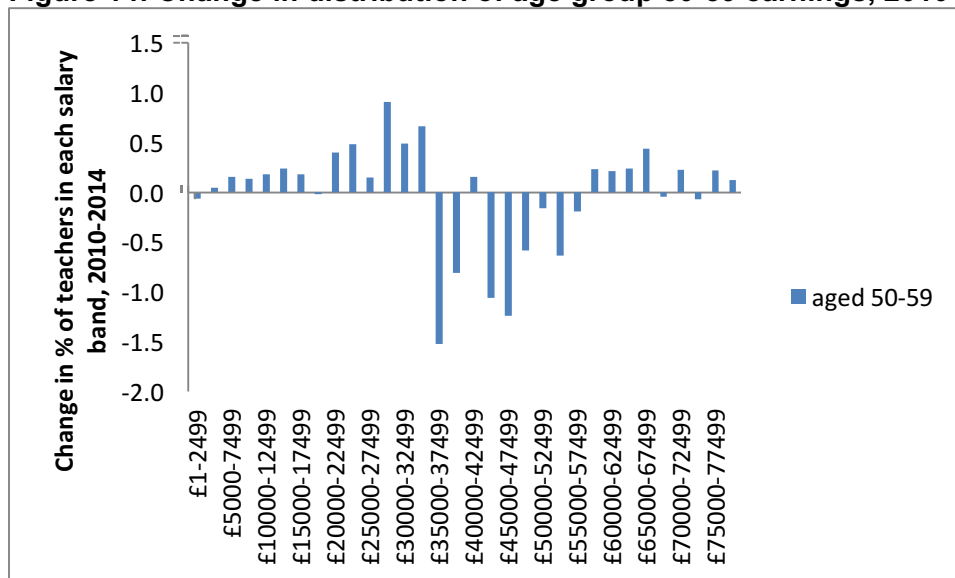


Figure 15: Change in distribution of age group 60-69 earnings, 2010-2014

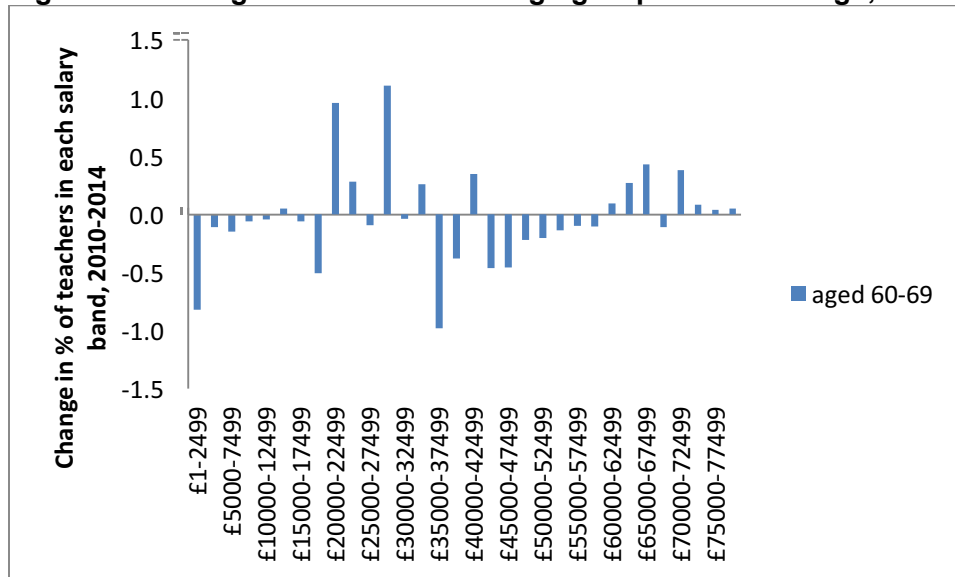


Figure 16: Change in distribution of White earnings, 2010-2014

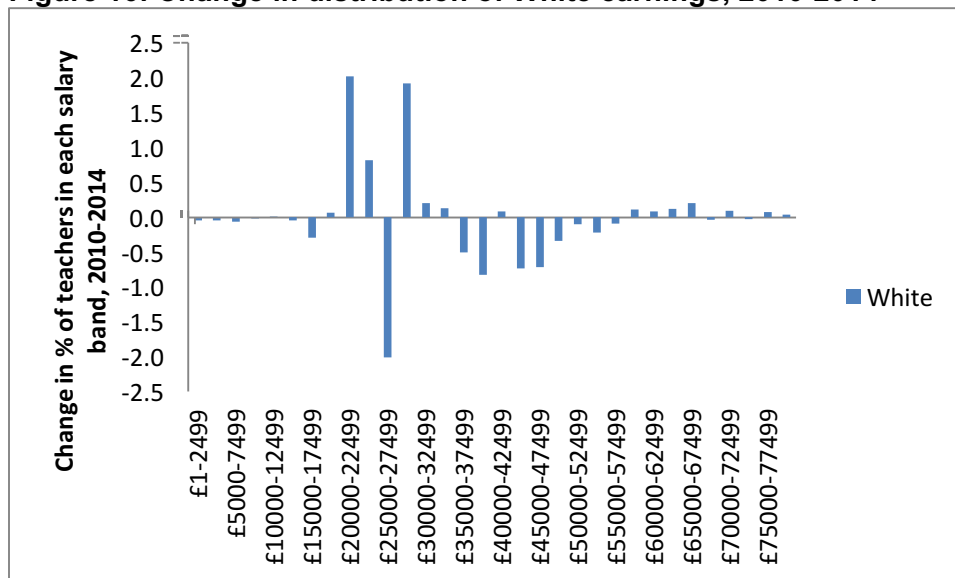


Figure 17: Change in distribution of mixed parentage earnings, 2010-2014

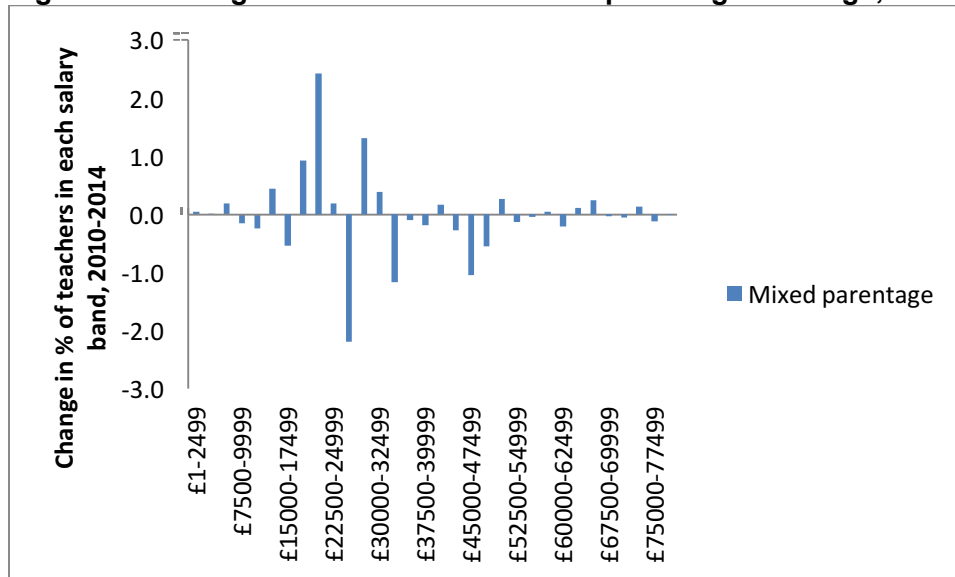


Figure 18: Change in distribution of South Asian earnings, 2010-2014

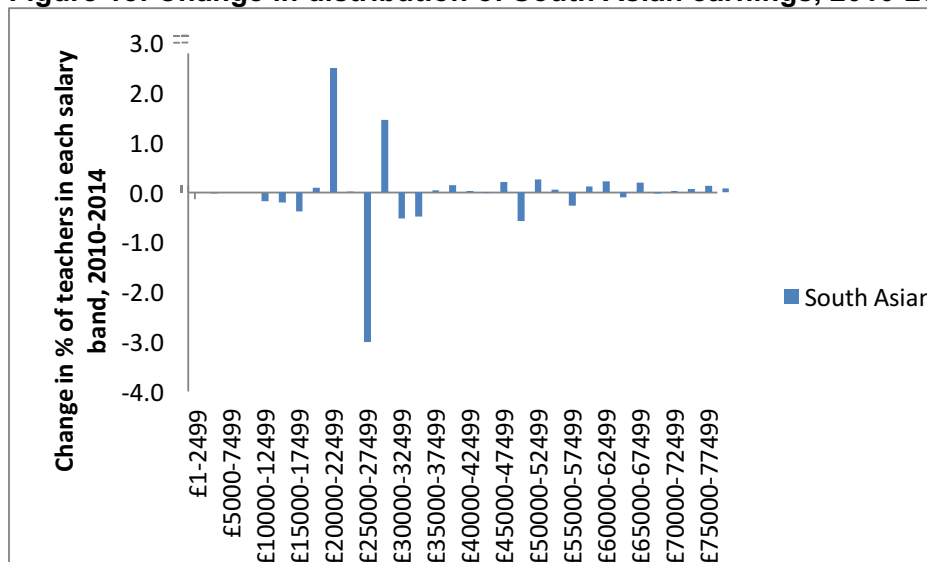


Figure 19: Change in distribution of Black earnings, 2010-2014

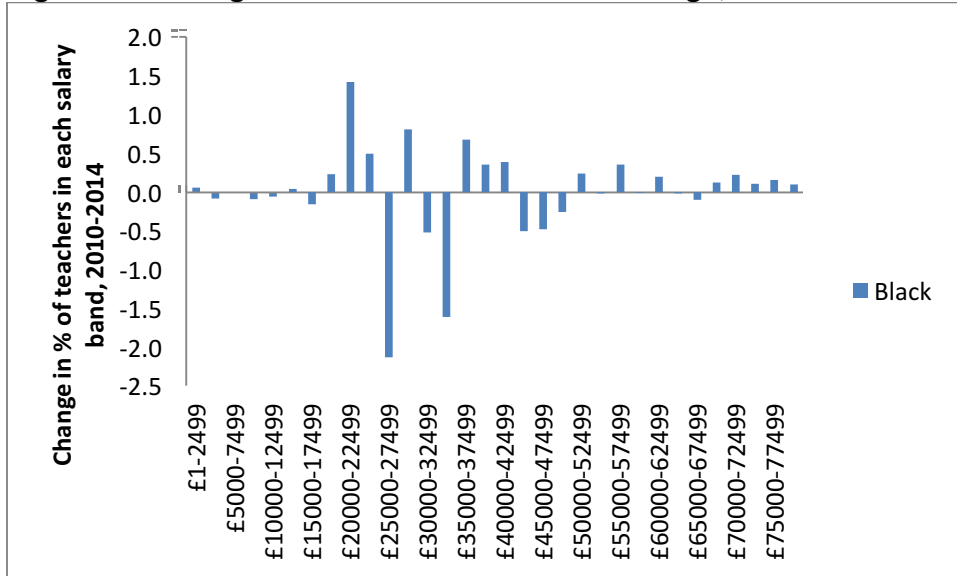
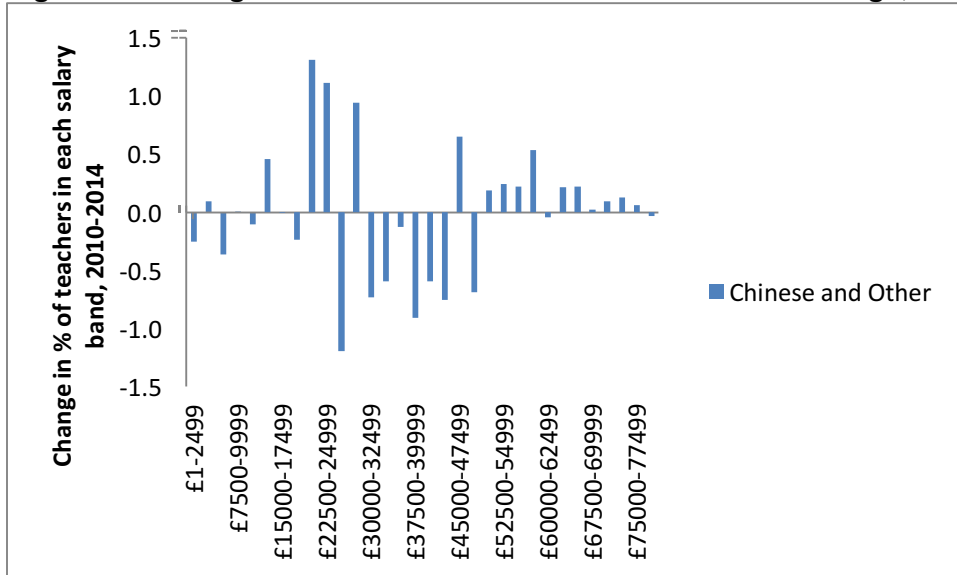


Figure 20: Change in distribution of Chinese and Other earnings, 2010-2014



4.1 Earnings trends for teachers who were in work throughout the period 2010-2014

An alternative perspective on earnings change is provided by examining the earnings of the subset of teachers who appear in each of the School Workforce Censuses from 2010 onwards. This is possible because DfE statisticians have produced a dataset which links teachers across years of the Census using a unique teacher identifier.

The mean earnings of these teachers was 9.5 per cent higher in 2014 than in 2010. The earnings of men grew more quickly than those of women, which meant that the earnings differential of men relative to women increased slightly (Table 66). The increase in earnings for disabled teachers was slower than average, which meant that their differential relative to all teachers increased.

Table 66: Earnings trends by gender and disability for teachers in each Census, 2010-2014

	Mean earnings (£)		Change 2010-2014	Percentage change	Relative to all teachers	
	2010	2014			2010	2014
Female	33046	36058	3012	9.1	95.6	95.3
Male	39172	43325	4153	10.6	113.4	114.4
Female as a percentage of male earnings	84.3	83.2				
Disabled	34855	37188	2333	6.7	100.9	98.2
Persons	34557	37855	3298	9.5	100.0	100.0

The rate of change in earnings was fastest for the youngest age group, but was slower in each successively older age group (Table 67). The earnings of teachers aged over 60 was 11.1 per cent lower in 2014 than in 2010. This may have been because older teachers remaining in employment were accepting shorter hours of work. This effect might also be felt by teachers in the next younger age group (aged 51 to 59), whose relative earnings deteriorated over this period. Differentials in earnings narrowed over this period as the teachers who remained in the Census aged. Those aged over 60 in 2014 would have been in the highest earning age group in 2010, which accounts for their high pay relative to all teachers in 2010.

Table 67: Earnings trends by age group for teachers in each Census, 2010-2014

Age group in 2014	Mean earnings (£)		Change 2010-2014	Percentage change	Relative to all teachers	
	2010	2014			2010	2014
21-29	24201	32455	8254	34.1	70.0	85.7
30-39	32207	35823	3616	11.2	93.2	94.6
40-49	35987	39610	3623	10.1	104.1	104.6
50-59	39863	41330	1467	3.7	115.4	109.2
60-69	40232	35777	-4455	-11.1	116.4	94.5
All ages	34557	37855	3298	9.5	100.0	100.0

The highest rates of earnings increase by ethnic group were experienced by those of “any other Black background”, mixed parentage and those from the Pakistani and Bangladeshi ethnic groups (Table 68). A strong influence on this will be their relative youth. Those from the White British and “Refused” categories were the only teachers experienced a slower than average increase in median earnings and hence a deterioration in their relative earnings over this period. With a higher representation of older teachers in white ethnic

groups, the lower earnings growth of older teachers would be a powerful influence, since White Irish and White Other teachers experienced a higher than average rate of earnings growth.

Table 68: Earnings trends by ethnic group for teachers in each Census, 2010-2014

Ethnic group	Mean earnings (£)		Change 2010-2014	Percentage change	Relative to all teachers	
	2010	2014			2010	2014
White British	34420	37585	3165	9.2	99.6	99.3
White Irish	38257	42391	4134	10.8	110.7	112.0
Any Other White Background	35033	38511	3478	9.9	101.4	101.7
Mixed parentage	34029	38717	4688	13.8	98.5	102.3
Indian	34904	38745	3841	11.0	101.0	102.4
Pakistani	32444	36683	4239	13.1	93.9	96.9
Bangladeshi	33710	38095	4385	13.0	97.5	100.6
Any Other Asian Background	35267	39018	3751	10.6	102.1	103.1
Black African	37236	41570	4334	11.6	107.8	109.8
Black Caribbean	39081	43525	4444	11.4	113.1	115.0
Any Other Black Background	37420	43764	6344	17.0	108.3	115.6
Chinese	33299	36672	3373	10.1	96.4	96.9
Any Other Ethnic Group	35431	39367	3936	11.1	102.5	104.0
All teachers	34557	37855	3298	9.5	100.0	100.0

5 Explaining earnings differentials

This far, tables of means and medians for the protected characteristics being considered have been presented. However, individual teachers have a range of characteristics (i.e., they may be younger, male and from a BME ethnic group) which can combine to influence their pay differentials. Furthermore, there are other factors (such as the phase of school and organisation which might affect their pay).

In order to investigate the influence of all protected characteristics and type of school upon pay for an individual, multiple regression models were fitted to the data for all teachers for each year from 2010 to 2014. The model estimates the independent influence upon wages of a set of explanatory variables, and tests the statistical significance of the effect for each variable. The logarithm of earnings was used as the 'dependent' variable, because transforming wages using logarithms made the distribution of earnings much closer to the 'normal' distribution assumed by the regression technique. Table X presents the "beta coefficient" (the percentage change in wages for a 1 per cent change in the independent variable, holding the effect of all other variables constant) and the T-statistic (the larger the value of the statistic the more significant the effect, with T-values greater than 2 or -2 indicating there is a 95 per cent or greater chance that this is a real effect – i.e. has not occurred due to chance) associated with each explanatory variable. The larger the beta coefficient is, the stronger its influence upon wage levels.

Not all the values of the protected characteristics explored in the report are represented in the table of results. This is because the model is comparing the effect of particular aspects of each characteristic against a 'baseline' characteristic. Thus, in the case of gender, the explanatory variable is being female. For age, younger and older age groups are compared against the 40-49 year old age group. For ethnicity, minority White and BME groups are compared against White British people. Disabled people are compared with non-disabled people.

Most of the explanatory variables in the model have statistically significant influences on the wage level (Table 69). Those which do not are highlighted in italics. The "adjusted R square" value indicates how well the model represents the data. It shows that the model explains around 6 to 7 per cent of the variation in the data. This shows that there are other variables not taken account of which influence earnings levels. However, adjusted R-square values tend to be relatively low for "cross-sectional" data of the type being modelled (i.e. data for a set of individuals for a single time period) and tend to be low for large data sets, because of the amount of random 'noise' in the data.

The models reveal that:

- The most important influence on wage level is being young. The size of the beta coefficient is largest for people aged 21 to 29 in each year. It is negative, indicating that this age group has lower wages, after controlling for the effect of other characteristics.
- Being female is a powerful influence depressing wage level in each year. It has the second largest beta coefficient for each year, indicating it is the most important influence on wage levels.
- Being aged 31 to 39 or over 60 led to slightly lower wages relative to the comparison age group (41 to 49).
- Being aged 51 to 59 increased wages relative to the comparison age group.
- Teachers in secondary schools had higher earnings relative to other phases of education in each year.
- Being employed in an academy had a weak positive effect on earnings in 2010, but in subsequent years the effect is weakly negative.

- The effect of ethnicity on wages was generally weaker than phase or sector of education.
- Being White Irish slightly increased the wage level.
- Being from a White Other ethnic group (e.g. White Europeans) had a slightly negative effect on wages.
- The strongest positive coefficients were for the Black-Caribbean and Indian ethnic groups.
- There was a weak negative effect for Chinese teachers in each year.
- There is no statistically significant difference in wages for teachers from the Pakistani or “Other” ethnic group (with the exception of the weak negative effect for the latter in 2010).
- For all other BME groups, the beta coefficient was positive, but very small.
- Disability has no statistically significant influence on wages, independent of other variables in any of the years.

The conclusion of the regression analysis is that women and younger teachers have lower earnings, after the effect of other characteristics are controlled for. There is no discernable earnings penalty for disabled people. White Irish, Indian and Black-Caribbean teachers have slightly higher earnings and White Other and Chinese teachers slightly lower earnings, having controlled for other characteristics.

Table 69: Beta coefficients and T-statistics from regression models of log wages for each year

Explanatory variable	2010		2011		2012		2013		2014	
	Beta	T-statistic	Beta	T-statistic	Beta	T-statistic	Beta	T-statistic	Beta	T-statistic
Female	-0.118	-80.20	-0.116	-79.76	-0.109	-75.35	-0.109	-75.69	-0.114	-80.20
Disabled	0.000	-0.31	-0.001	-0.69	-0.002	-1.30	0.000	0.11	-0.002	-1.51
Secondary school	0.082	54.61	0.091	56.50	0.076	45.71	0.081	49.23	0.076	47.19
Academy	0.013	8.85	-0.011	-7.13	-0.019	-11.87	-0.022	-13.93	-0.005	-3.40
White Irish	0.024	16.75	0.022	16.01	0.022	15.65	0.020	14.49	0.022	15.68
White Other	-0.009	-6.14	-0.008	-5.40	-0.007	-5.04	-0.006	-4.10	-0.009	-6.45
Mixed parentage	0.006	4.57	0.005	3.23	0.005	3.74	0.003	2.41	0.005	3.72
Indian	0.011	7.55	0.011	7.66	0.012	8.26	0.010	7.01	0.012	8.77
Pakistani	-0.004	-2.59	-0.002	-1.08	-0.001	-0.37	0.000	0.27	-0.002	-1.72
Bangladeshi	0.004	2.82	0.006	4.06	0.006	4.22	0.004	2.81	0.007	5.29
Other Asian	0.005	3.47	0.006	4.05	0.006	4.18	0.004	3.16	0.005	3.40
Black African	0.007	4.92	0.009	6.25	0.010	7.02	0.009	6.16	0.010	7.06
Black Caribbean	0.025	17.57	0.025	17.69	0.025	17.68	0.023	16.49	0.024	17.50
Black Other	0.006	4.18	0.008	5.80	0.007	5.19	0.007	5.09	0.010	7.48
Chinese	-0.008	-5.70	-0.009	-6.22	-0.006	-4.01	-0.007	-4.68	-0.010	-7.50
Other ethnic group	-0.004	-2.65	-0.002	-1.50	-0.002	-1.35	-0.002	-1.79	0.000	-0.24
Aged 21-29	-0.154	-88.91	-0.173	-100.59	-0.176	-103.84	-0.173	-102.83	-0.200	-120.51
Aged 31-39	-0.027	-15.25	-0.040	-22.41	-0.043	-24.37	-0.039	-22.54	-0.050	-29.15
Aged 51-59	0.085	49.11	0.070	41.27	0.058	34.92	0.052	31.76	0.050	31.14
Aged 61-69	-0.070	-47.87	-0.090	-61.61	-0.085	-58.24	-0.060	-41.42	-0.060	-42.01
Adjusted R-square	.070		.074		.065		.061		.071	
Standard error	.217		.213		.226		.226		.210	

6 Conclusion

This report provides an update to the quantitative analysis presented in the report for Work Package 2. It updates the analysis of the School Workforce Census using linked data for 2010 to 2014. The analysis revealed that gender is the most significant element of disadvantage, with women still being less well represented than men in senior posts.

The other main factor underlying disadvantage is age. Younger teachers tend to be paid less than average and are less likely to be employed in senior posts. Older teachers are more likely to have higher pay and to be employed in senior posts. However, job loss has been greatest for older teachers. Employment growth has been fastest for younger teachers.

Differentials in earnings by age and ethnic group have narrowed over the period analysed. However, there has been deterioration in the relative circumstances of women. The disadvantage of disabled teachers is relatively small and there is little evidence of it worsening between 2010 and 2014. The growth of academies and free schools may have had an influence in maintaining gender differentials in type of job and pay, since men have been more likely than average to work in this sector, especially in the early years. However, there is some evidence that earnings are lower in academies and free schools than in other sectors.