Department for Education

School leadership in England 2010 to 2020: characteristics and trends

April 2022

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Executive Summary

This report builds on the statistics presented in the annual School Workforce Census National Statistics (hereafter the NS)[1] by providing further analysis looking at the characteristics and trends of teachers in leadership roles.

A version of this report was first published in April 2018 based on the November 2016 and earlier School Workforce Censuses.[2] This updated version includes data from the subsequent 2017, 2018, 2019 and 2020 censuses. As the data collection and statistical methodologies have changed and improved over time, previously published figures have been revised and so we make new references to 2016 (and earlier) data here. There should be little need to refer to the previous publication.

As detailed underlying data have already been published alongside each annual NS publication; this report does not seek to provide an exhaustive or comprehensive set of fine-grained data. Instead, it aims to generate new insights and is intended to be an accessible resource to stimulate debate, improve the public understanding of our data, and generate ideas for further research, rather than to provide authoritative answers to research questions.

The report is structured in four distinct sections:

[1] Department for Education (2020) 'School workforce in England: November 2020'. Available at: https://www.gov.uk/government/collections/statistics-school-workforce.

[2] https://www.gov.uk/government/publications/school-leadership-2010-to-2016-characteristics-and-trends

Section 1 examines the number of teachers in each leadership role and how this has changed over time:

Table 1: No. (FTE) of teachers in state-schools in England by school phase and leadership, 2020/21[3]

2020/2021	Primary and Nursery	Secondary	Special and PRU	Centrally Employed	Total FTE
Classroom Teacher	144,900	106,000	16,100	2,000	269,000
Middle Leader	36,900	80,400	4,300	1,600	123,100
Senior Leader	23,900	19,700	3,200	90	46,800
Head	16,800	3,700	1,400	70	22,100
Total Teachers	222,500	209,800	25,000	3,700	461,100

Source: School Workforce Census Nov 2020

The proportion of teachers in senior leadership / headteacher roles increased between 2010 and 2018 before falling slightly in 2020

Teachers with a deputy, assistant or headteacher role form a small proportion of the overall teaching population at 11.2% in secondary schools and 18.3% in primary schools. This proportion has risen over the past decade in secondary schools (9.7% in 2010 rising to a peak of 11.3% in 2018 and falling slightly to 11.2% in 2020); in primaries it has remained fairly stable (18.1% in 2010, rising to 18.6% in 2018 and falling to 18.3% in 2020).

[3] Totals may not sum due to rounding

The number and proportion of assistant headteachers grew between 2010 and 2018, before stabilising

The largest growth proportionately since 2010 was in assistant heads. This steadily increased from 3.5% of teachers in primary schools in 2010 to 5.5% in 2018 and then remained at 5.5% up to 2020. The proportion of assistant heads also increased in secondary schools, from 5.6% in 2010 to 6.9% in 2018 and then remained at 6.9%.

The number and proportion of middle leaders[4] increased between 2010 and 2017, before falling over the following three years

In primary schools, the proportion of teachers in middle leader roles rose from 15.2% of teachers in 2010 to 17.8% in 2017, then dropped slightly to 16.6% in 2020. In secondary schools, the percentage of teachers who were middle leaders rose from 36.7% in 2010 to a peak of 40.3% in 2017 and to 38.3% in 2020.

Sections 2 and 3 compare the age and experience of teachers in leadership roles with classroom teachers, considers how these have changed over time and across regions, and explores progression to leadership and retention:

Headteachers were getting younger over the first half of the decade, but this has since stabilised

The median age of headteachers reduced from 51 in 2010 to 48 by 2016 before stabilising. The median age of senior leaders reduced from 44 in 2010 to 42 in 2014 and remained at this level.

The average number of years of experience of senior leaders reduced between 2010 and 2020

The median years of experience of headteachers reduced from 27 in 2010 to 23 in 2016 before slightly increasing to 24 by 2020. The median years of experience of senior leaders reduced from 18 in 2010 to 17 in 2014 where it remained until 2020.

[4] “Middle leaders” includes Leading Practitioner, Advisory Teachers, TLR (Teaching and Learning Responsibilities) additional Payment > £100 and Middle Leader Defined Role - see methodology section for definitions.

Teacher progression to first leadership roles[5] is faster in secondary schools than in primary schools

On average, teachers new to leadership roles[6] have 8 years of experience in secondary schools compared to 9 years of experience in primary schools (median figures).

However, teachers progressed to headship roles faster in primary schools than secondary schools

New primary school heads had 18 years of experience on average compared with 21 years for secondary school heads.

Part-time teachers are significantly less likely to be promoted to leadership than full-time teachers[7]

In 2020, part-time teachers were 45% less likely than full-time teachers to be promoted to headteacher, 43% less likely to be promoted to senior leader and 51% less likely to be promoted to middle leader.

The proportion of leaders who worked part-time rose between 2010 and 2020

In 2010, 7% of teachers in leadership worked part-time and this rose to 11% in 2020. Females in leadership roles were more likely to be part-time in 2020 (15%) than in 2010 (9%). The proportion of male leaders working part-time has remained relatively stable at 3%, increasing less than half a percent over the decade.

Retention of senior leaders (aged under 50) is higher in primary schools than in secondary schools. Retention rates generally declined for those new to leadership between 2011 and 2015, but have stabilised and in some cases improved in recent years

In primary schools, 75% of heads and 74% of deputy heads were still in post after 5 years, compared with 63% of heads and deputy heads in secondary schools. Also 71% of primary assistant heads were retained after 5 years compared with 61% of secondary assistant heads.

[5] First leadership role is assumed to be middle leadership level

[6] 'New to leadership/headship' includes teachers who were recorded in a "lower" role and teachers who were not found in the state school sector in the previous year, including returners. Due to methodology limitations, 4-5% of teachers moving into a middle leader role will have held a higher role in previous years.

[7] These figures are the result of regression analysis which controls for the effect of other factors, including age, experience and school phase.

Section 4 considers the gender and ethnicity of teachers and leaders, and explores links to promotion and retention:

Female teachers make up a high proportion of the workforce, but are less represented in leadership positions (though this is improving, especially in secondary schools)

In primary schools in 2020, female teachers made up 85% of the workforce compared with 74% of headteachers; in secondary schools, female teachers made up 63% of the workforce compared with 40% of headteachers. Overall, between 2010 and 2020, the proportion of leadership roles filled by female teachers has steadily increased from 67% to 70%.

In primary schools, male teachers progress faster to leadership roles than female teachers. In secondary schools, the time taken to progress into leadership is slightly faster for males at headship level

In 2020, male teachers had an average of 8 years of experience when first taking up their first middle leadership role in primary schools, compared with 10 years for female teachers (median figures). The gap widens for first headship roles where the average (median) was 16 years for males and 19 years for females.

In secondary schools, on average, teachers took up their first middle leadership position with 8 years of experience, both for males and females. While male secondary school teachers had on average 20 years of experience on taking up a headship, compared to 21 years for female secondary school teachers.

Female teachers are significantly less likely to be promoted to senior leadership or headship than male teachers[8]

Controlling for other factors, in 2019, female teachers were 14% less likely to be promoted to senior leadership and 20% less likely to be promoted to headship than male teachers.

Teachers from minority ethnic backgrounds are under-represented in leadership roles compared to the wider teaching population, but this is improving

Between 2010 and 2020, the proportion of leadership positions held by Ethnic minority (including White minorities) teachers steadily increased (from 5% to 7% for headteachers in primary schools, and from 7% to 9% for headteachers in secondary schools). The proportion of Ethnic minority (including White minorities) teachers in the overall workforce also increased. Those new to post were more ethnically diverse than existing of teachers

[8] This is the result of regression analysis which controls for other important variables.

already at the grade, and this was true for each level of leadership, across both primary and secondary schools.

The highest proportion of teachers from Ethnic minority groups in all leadership roles was in London, followed by the West Midlands. The highest proportions of teachers and pupils[9] from Ethnic minority backgrounds were also found in London and the West Midlands

37% of leaders in London were from Ethnic minority (including White minorities) backgrounds compared with 42% of teachers and 76% of pupils. While the West Midlands have 14% of leaders, 15% of teachers and 40% of pupils from Ethnic minority (including White minorities) backgrounds.

There were differences between Ethnic minority groups, for leaders

In primary schools, 22% of all White Irish ethnicity teachers were in senior leaders/headteacher roles, compared to 13% Black or Black British teachers, 11% Asian or Asian British teachers and 19% of White British primary school teachers.

In secondary schools, 14% of White Irish teachers were in senior leader/headship roles compared to Asian or Asian British (7%), Black or Black British (6%) and any other White background (6%); this compares with 12% of White British secondary school teachers.

Ethnic minority (excluding White minority) teachers were less likely than White British teachers to be promoted during the 2015-2019 period.[7]

During the 2015 to 2019 period, and controlling for other factors, teachers from Ethnic minority (excluding White minority) backgrounds were: 18% less likely to be promoted to middle leadership than White British teachers, 16% less likely to be promoted from middle to senior leadership, and 21% less likely to be promoted from senior leadership to headship.[10]

[9] Data source: Department of Education (2020/2021) Schools, pupils and their characteristics. https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics

[10] Significant disparities are also found in likelihood of promotion when comparing teachers from White minority backgrounds and White British teachers at middle and senior leadership levels. No significant difference was found for White Irish teachers compared with White British teachers

Introduction

This report provides a more detailed analysis of data available in the School Workforce Census (SWC)[11] to build our understanding of school leaders. It is intended to inform efforts to support teacher's progression and retention.

The scope of this report is limited to teachers in the state-funded school sector in England, as recorded in the School Workforce Census. Whilst this reflects the availability of comparable data, in practice there are other parts of the teaching labour market that are intrinsically linked. Teachers and leaders in the independent school, further and higher education sectors are not included here. In addition, the limitations of the data source mean that it was not possible to include either those in governance roles, non-teaching staff (such as school business managers) or centrally employed staff at multi-academy trusts (such as CEOs) despite these providing important functions of school leadership.

Background and the School Workforce Census

The annual School Workforce Census was introduced in November 2010, replacing a number of different workforce data collections. It collects information on school staff from all state-funded schools in England, including local-authority-maintained (LA-maintained) schools, academy schools (including free schools, studio schools and university technology colleges) and city technology colleges, special schools and pupil referral units (PRU)[12].

The "School Workforce in England" National Statistics (NS) provide the main annual dissemination of statistics based on the data collected, as well as details of the underlying methodology for those and the collection itself. The latest publication was released in June 2021, with results from the November 2020 census[13]. Alongside each NS, an underlying data is released, giving some of the workforce statistics at school, local authority and regional level. The information is used by the Department for Education for analysis and modelling.

The School Workforce Census NS data provides aggregate national statistics about teachers, including time series in a subset of variables at this level. The NS matches individual teacher records across years, enabling the Department to improve data quality,

[11] Department for Education 'School workforce censuses: Guide to submitting data, business and technical specification, COLLECT guides, information for local authorities' Available at: https://www.gov.uk/education/school-workforce-censuses

[12] It collects information from LAs on their centrally employed teachers but does not cover early years settings, non-maintained special schools, independent schools, sixth form colleges and other further education colleges. Local authority nurseries are included (388 nurseries in 2020)

[13] Department for Education 'School workforce in England: November 2020'. Available at: https://www.gov.uk/government/collections/statistics-school-workforce

better ensure consistency over time, and look at data as a time series. With eleven census collections completed, this report takes an opportunity to re-examine the data, providing new insights on trends in teachers in leadership roles over time and patterns in progression and retention, including across different parts of the country.

Some of the comparisons made have not been published before. The most recent data are from the latest School Workforce Census covering November 2020, so this report does not replace the NS as the authoritative source of the latest school workforce statistics. This publication is designed to look at some of the key questions around the school leadership workforce in order to improve our understanding of these areas.

Important notes:

The covid-19 pandemic began in March 2020, leading to national lockdowns. The latest data was collected in November 2020 and therefore will reflect the emerging impact of the pandemic, whilst the earlier timeseries is unaffected.

Accompanying this report is underlying data from the School Workforce Census in tidy data format.

Detailed methodology can be found in the annexes.

1. The size and structure of the teaching and leadership population

This section provides trends in the number of teachers in English state-funded schools between 2010 and 2020. The analysis focuses on teachers in leadership roles and changes in patterns across primary, secondary, special schools and Pupil Referral Units (PRUs).

The number of schools affects the size and structure of the overall teaching population. Maintained schools are legally required to have a headteacher, while academies have greater autonomy in determining their leadership structure[14]. The number of headteachers is roughly equal to the number of schools; and more deputy/assistant headteachers and middle leaders tend to be found in larger schools. On average, secondary schools tend to be larger than primary and special schools, and subsequently have more deputy/assistant headteachers and substantially more middle leaders.

The different categories of teacher used in the school workforce NS[15] are headteacher, deputy headteacher, assistant headteacher, and classroom teacher. This study uses the additional categories of middle leader and senior leader. The definitions are detailed in the methodology section but are repeated here in Table 2 for ease. The order shows the ranking for a change in role to be considered as a promotion. The term “middle leader” is used for teachers who have additional responsibilities which often come with additional pay (such as head of year or head of subject) but were still mostly teaching in the classroom and not in a more formal leadership position such as assistant or deputy headteacher.

[14] The Education Act 2002 requires all maintained schools to have a headteacher, or a person appointed to carry out the functions of a headteacher during an absence of the headteacher or pending the appointment of a headteacher. Academies have greater autonomy in determining their leadership structure in accordance with their funding agreement. Department for Education (2017) ‘Recruiting a headteacher’. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/668949/Recruiting-a-headteacher-v2.pdf

[15] Department for Education (2010 to 2020) ‘Statistics: school workforce’. Available at: https://www.gov.uk/government/collections/statistics-school-workforce

Table 2: Leadership Roles

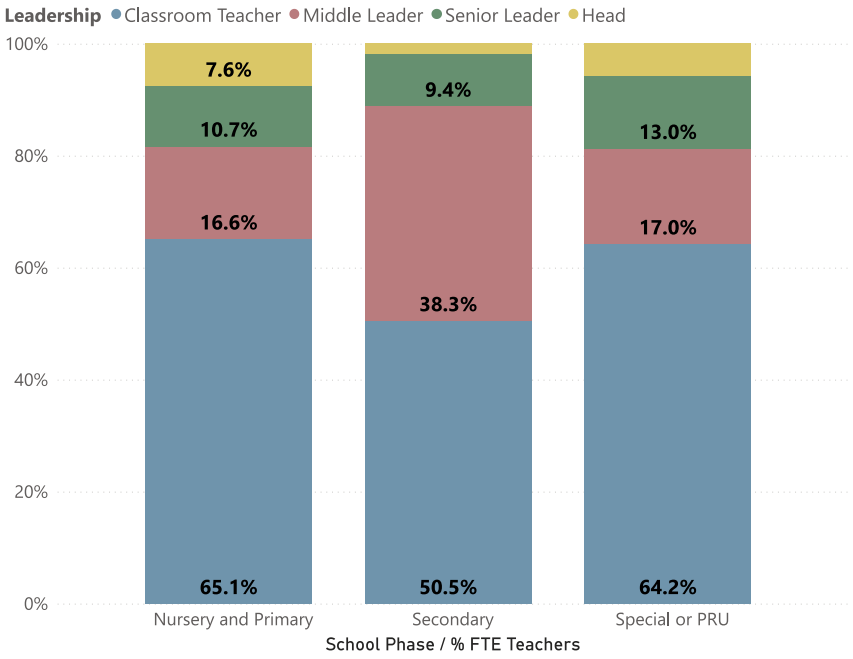
Leadership	Post
Classroom Teacher	Classroom Teacher
Middle Leader	Classroom Teacher
	Advisory Teacher
	Leading Practitioner
Senior Leader	Assistant Headteacher
	Deputy Headteacher
Headteacher	Headteacher Executive Headteacher

Source: School Workforce Census Guidance

Teachers in senior leadership roles form a small proportion of the overall teaching population

The distribution of staff between roles varies between primary, secondary and special school phases as shown in Figure 1.

Figure 1: Teacher population in 2020[16]



Source: School Workforce Census 2020

Headteachers and senior leaders represented 11.2% of teachers in secondary schools and 18.3% in primary schools in 2020 (up from 9.7% and 18.1% respectively in 2010).

The number and proportion of headteachers and deputy headteachers was higher in primary schools than in secondary schools, reflecting the far greater number of primary schools (17,200) than secondary schools (3,400)[17]. The number of assistant headteachers and middle leaders was greater in secondary schools reflecting the larger average school size compared with primary schools. Overall, the most common leadership role is a middle leader.

[16] Axis labels are displayed in the format 'X axis / Y axis'.
[17] Department for Education (2021) 'Schools, pupils and their characteristics: January 2021'. Available at: https://www.gov.uk/government/collections/statistics-school-and-pupil-numbers

Table 3 Senior Leadership population in 2020[18]

Post	Nursery and Primary	Secondary	Special or PRU	Centrally Employed	Total
Classroom Teacher	144,900	106,000	16,100	2,000	267,000
Middle Leader	36,900	80,400	4,300	1,600	121,600
Assistant Head	12,200	14,400	2,000	1,000	28,600
Deputy Head	11,600	5,300	1,300	50	18,200
Head	16,800	3,700	1,400	70	22,000
Total	222,500	209,800	25,000	3,700	461,100

Source: School Workforce Census 2020

The overall number of teachers in leadership roles rose between 2010 and 2020

As shown in Table 4 there were approximately 461,100[19] teachers in 2020 for a total of 8.2 million pupils[20] in all state-funded schools (21,990) in England. Since 2010, the total number of schools has remained relatively stable, while the total number of pupils increased by 11.5% and the total full-time equivalent (FTE) number of teachers by 4.5%[21]. This increase of 4.5% in the total number of teachers included a shift from classroom teachers to leadership roles. Between 2010 and 2020, the number of classroom teachers increased by only 1.9%, from 263,900 to 269,000; whilst the number of teachers in leadership roles increased by 8.2%, from 177,500 to 192,100.

The number of teachers in any form of leadership role in secondary schools rose from 101,700 in 2010 to 105,200 in 2015 before dropping slightly to 103,800 in 2020. This equates to a roughly one-to-one ratio of classroom teachers to leaders.

On average in primary schools, there is approximately a two-to-one ratio of classroom teachers to leaders. The number of teachers in any form of leadership role in primary schools rose from 65,500 in 2010 to 80,300 in 2017 and dropped slightly down to 77,600

[18] Assistant heads may also be classified as middle leaders – hence the 'total' row is not necessarily sum of the rows above.
[19] This includes 3,720 centrally employed teachers.
[20] Department for Education (2021) 'Schools, pupils and their characteristics: January 2021', https://www.gov.uk/government/collections/statistics-school-and-pupil-numbers. FTE pupil number.
[21] This includes centrally employed teachers.

in 2020. The overall increase in the number of teachers was driven by the large increase in the number of primary school teachers, 196,300 in 2010 to 222,400 in 2016, because of the increase in the number of primary school pupils up to 2018[22]. From 2018 we can see this increase in teacher numbers move into secondary schools, 203,800 in 2018 to 209,800 in 2020.

[22] Department for Education (2021) 'Schools, pupils and their characteristics: January 2021', https://www.gov.uk/government/collections/statistics-school-and-pupil-numbers.

Table 4: Number of pupils, schools and teachers, 2010 to 2020.

Census Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Sum FTE Teachers[23]	441,400	439,200	445,200	449,600	455,400	457,000	457,400	452,000	453,400	453,800	461,100
Sum FTE Pupils[24]	7,389,600	7,440,200	7,512,600	7,594,400	7,697,300	7,815,700	7,929,800	8,023,500	8,116,300	8,172,500	8,239,500
Sum Schools	22,020	21,880	21,840	21,870	21,890	21,910	21,920	21,940	21,920	21,970	21,990
Nursery and Primary schools[25]	17,310	17,240	17,200	17,200	17,180	17,180	17,190	17,170	17,160	17,170	17,180
Secondary schools	3,310	3,270	3,280	3,330	3,380	3,400	3,410	3,440	3,450	3,460	3,460
Special or PRU schools	1,400	1,370	1,360	1,340	1,330	1,330	1,320	1,340	1,310	1,340	1,350

Source: Data on teachers - School Workforce Census 2010-2020,

Data on pupils and schools - Schools, pupils and their characteristics publication, 2010-2020

[23] Headteacher numbers include executive headteachers.
[24] Includes primary, secondary & special schools. State-funded primary schools, state-funded secondary schools, special schools: state-funded special and non-maintained. Includes middle/all through schools. Includes all primary academies, including free schools. Includes city technology colleges and secondary academies, including free schools, university technical colleges and studio schools. Includes general hospital schools and special academies.
[25] Includes state-funded nursery schools

Table 5: Number of total teachers, 2010 to 2020

Census Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total Teachers[26]	441,400	439,200	445,200	449,600	455,400	457,000	457,400	452,000	453,400	453,800	461,100
Classroom Teacher	263,900	261,900	265,700	265,800	270,400	266,600	263,000	256,200	258,200	261,200	269,000
Middle Leader	116,700	116,800	117,900	120,300	119,200	123,000	126,300	127,600	126,200	123,700	123,100
Senior Leader	39,200	39,200	40,300	42,000	44,400	45,900	46,200	46,200	46,800	46,700	46,800
Head	21,600	21,300	21,300	21,500	21,500	21,500	21,900	22,000	22,100	22,200	22,100

Source: School Workforce Census 2010-2020

Table 6: Number of teachers in Nursery and Primary schools, 2010 to 2020

Census Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total[26]	196,300	199,300	204,600	209,400	215,700	220,000	222,400	221,100	222,100	221,200	222,500
Classroom Teacher	130,800	133,000	136,600	139,100	143,900	144,900	142,800	140,800	142,100	142,500	144,900
Middle Leader	29,800	30,300	31,400	32,700	32,900	34,800	38,500	39,300	38,800	37,600	36,900
Senior Leader	18,800	19,300	19,900	20,900	22,300	23,600	24,200	24,100	24,300	24,200	23,900
Head	16,900	16,700	16,700	16,600	16,600	16,600	16,900	16,900	16,900	16,900	16,800

Source: School Workforce Census 2010-2020

[26] Teacher numbers have been rounded to the nearest 100 for each leadership role (nearest 10 in the case of centrally employed teachers). There may therefore be discrepancies between the sum of constituent items and totals as shown.

Table 7: Number of teachers in Secondary schools, 2010 to 2020

Census Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total[26]	218,700	214,600	215,700	214,200	213,900	210,900	208,300	204,200	203,800	204,700	209,800
Classroom Teacher	117,100	114,000	114,100	111,100	110,800	105,700	103,900	99,300	99,300	101,300	106,000
Middle Leader	80,400	79,800	80,300	81,400	80,500	82,400	81,800	82,400	81,500	80,400	80,400
Senior Leader	17,900	17,500	17,900	18,200	19,100	19,200	18,900	18,900	19,200	19,300	19,700
Head	3,400	3,300	3,400	3,500	3,500	3,500	3,600	3,700	3,700	3,800	3,700

Source: School Workforce Census 2010-2020

Table 8: Number of teachers in Special and PRU schools, 2010 to 2020

Census Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total[26]	15,300	15,400	15,900	20,600	21,100	21,600	22,300	22,800	23,600	24,300	25,000
Classroom Teacher	9,300	9,300	9,800	12,400	12,900	13,400	13,700	14,000	14,600	15,400	16,100
Middle Leader	3,000	3,200	3,100	4,200	4,100	4,100	4,300	4,400	4,500	4,300	4,300
Senior Leader	2,100	2,000	2,100	2,700	2,800	2,900	2,900	3,000	3,100	3,200	3,200
Head	900	900	900	1,300	1,300	1,300	1,400	1,400	1,400	1,400	1,400

Source: School Workforce Census 2010-2020

Table 9: Number of Centrally Employed teachers, 2010 to 2020

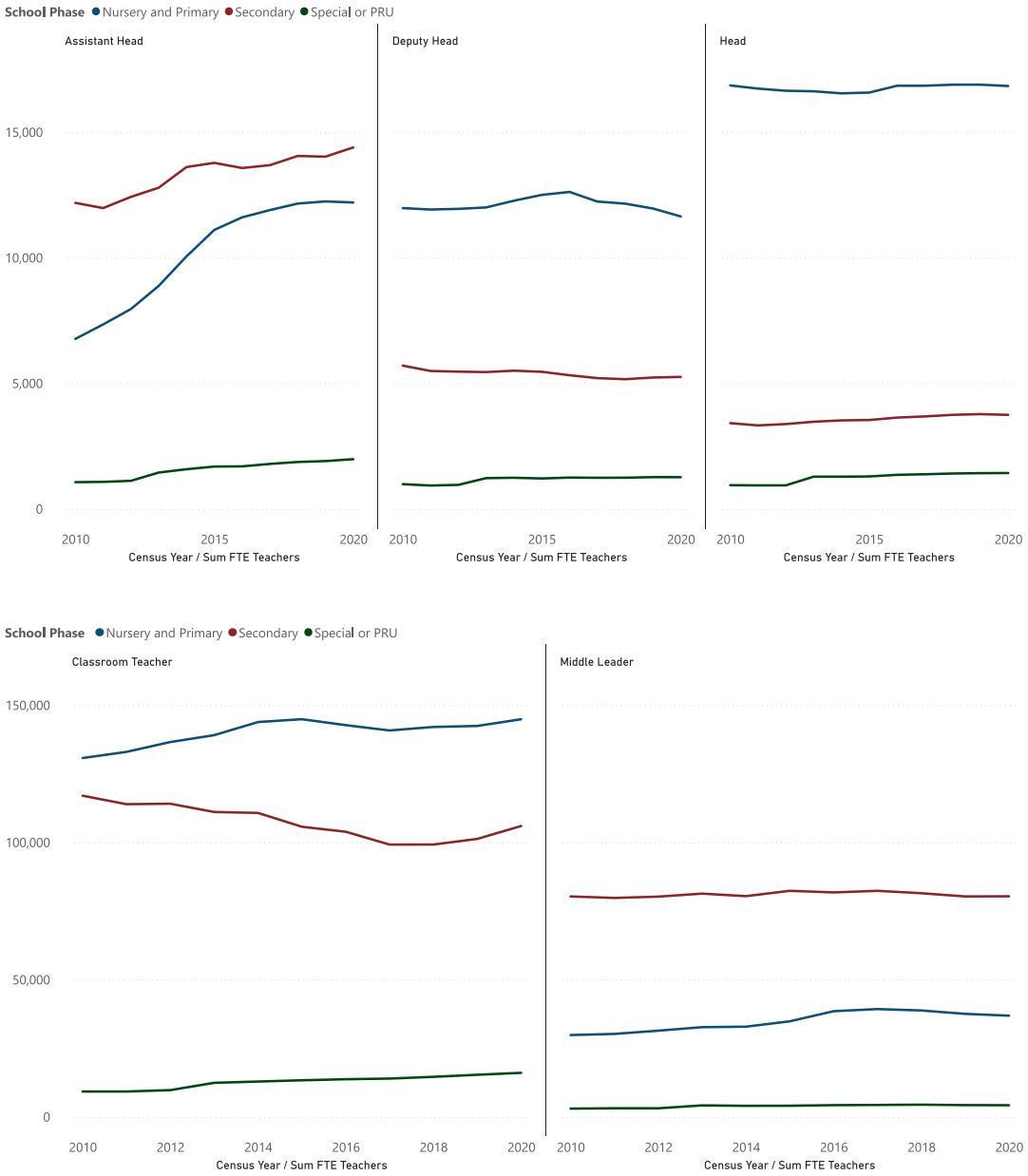
Census Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total[26]	11,050	9,960	8,940	5,410	4,740	4,400	4,330	3,790	3,860	3,670	3,720
Classroom Teacher	6,760	5,620	5,170	3,150	2,780	2,510	2,560	2,130	2,250	2,020	2,010
Middle Leader	3,480	3,580	3,070	2,000	1,750	1,690	1,600	1,500	1,430	1,500	1,560
Senior Leader	480	430	390	140	130	120	110	100	110	90	90
Head	340	330	320	110	90	80	70	60	80	50	70

Source: School Workforce Census 2010-2020

The largest increases have been in assistant headteachers, and middle leaders in primary schools

Figure 2 shows timeseries of the number of teachers in each role between 2010-2020. Over this period, the number of assistant head teachers increased significantly in both primary and secondary schools as did the number of middle leaders in primary schools. There was a 9% decrease in the number of classroom teachers in secondary schools, whereas in primary schools there was an increase of 11%. The number of deputy headteachers and headteachers has remained nearly constant (changed by 500 or fewer).

Figure 2: Teacher population by leadership post from 2010 to 2020

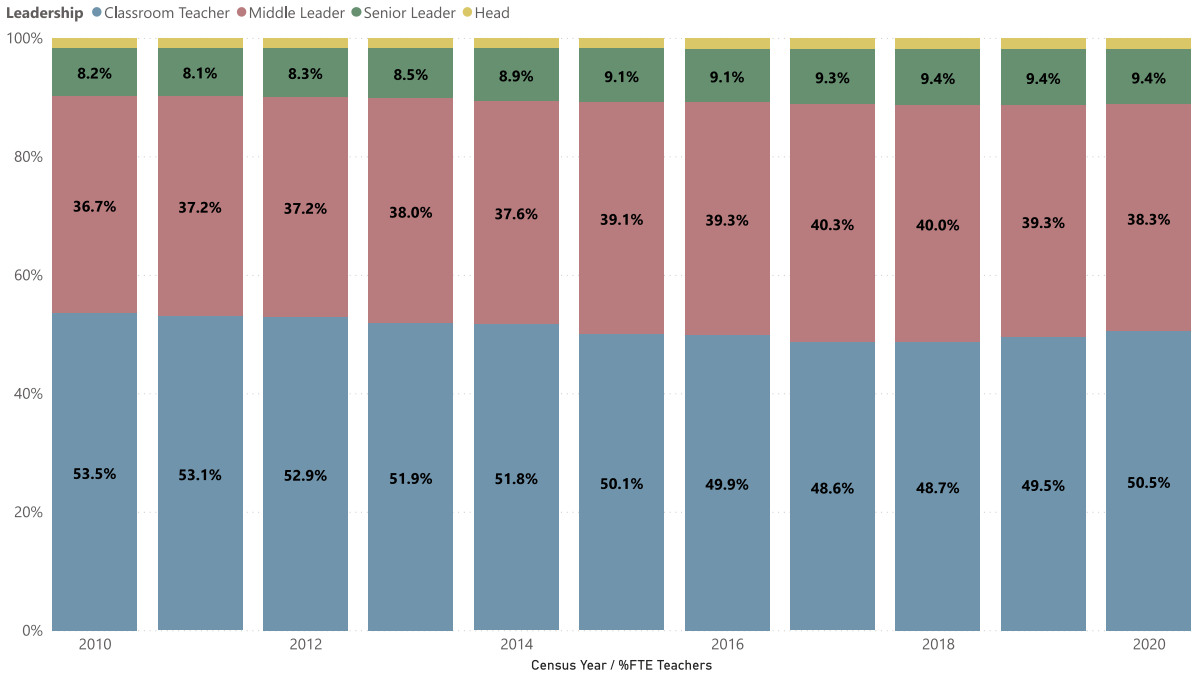


Source: School Workforce Census 2010-2020

The proportion of classroom teachers fell while the proportion of middle and senior leaders grew.

Figure 3 shows that in secondary schools, the proportion of classroom teachers fell from 53.5% in 2010 to 50.5% in 2020 while middle leaders increased from 36.7% in 2010 to a peak of 40.3% in 2017 and to 38.3% in 2020. The overall increase in numbers of middle leaders over the decade was only 0.1%, but there was a decrease in secondary teachers overall. The proportion of senior leaders increased from 8.2% to 9.4%.

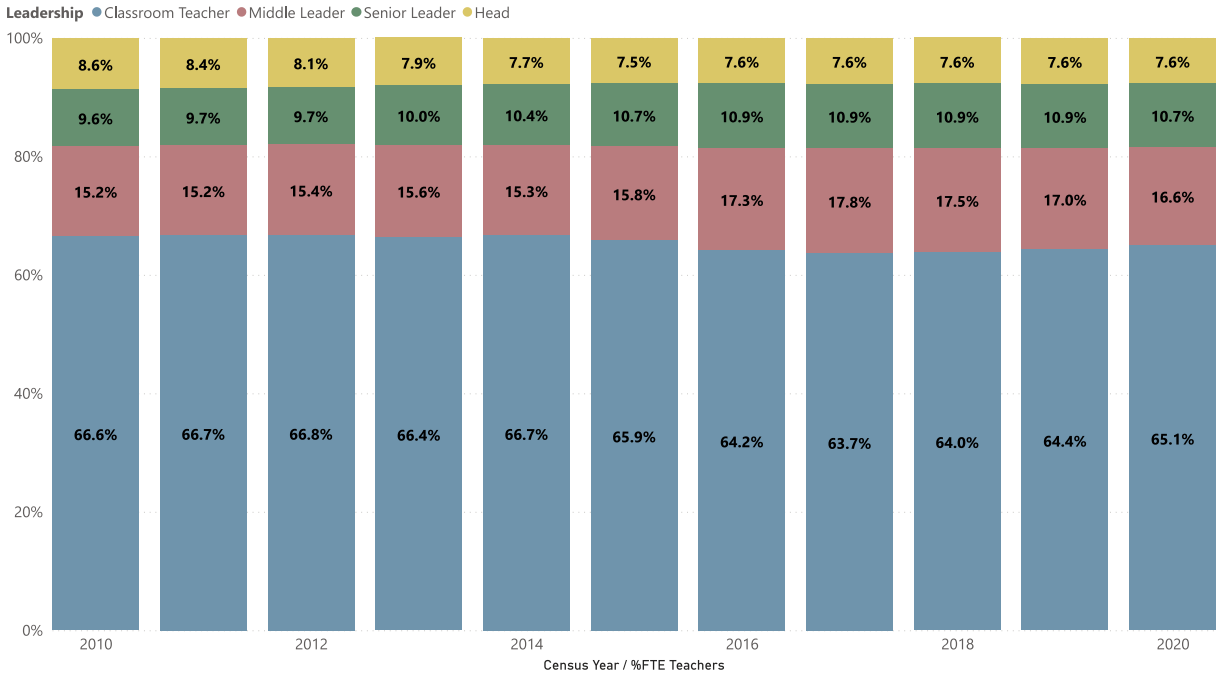
Figure 3: Proportion of teachers by leadership level in secondary schools



Source: School Workforce Census 2010-2020

Figure 4 shows a similar pattern in primary schools. The proportion of classroom teachers fell from 66.6% in 2010 to 65.1% in 2020 while the proportion of middle leaders increased from 15.2% of teachers in 2010 to 17.8% in 2017, then dropped slightly to 16.6% in 2020, representing an overall increase of 23.6% in the number of middle leaders (29,800 to 36,900) over the last decade. The proportion of senior leaders increased from 9.6% to 10.7%.

Figure 4: Proportion of teachers by leadership level in primary schools



Source: School Workforce Census 2010-2020

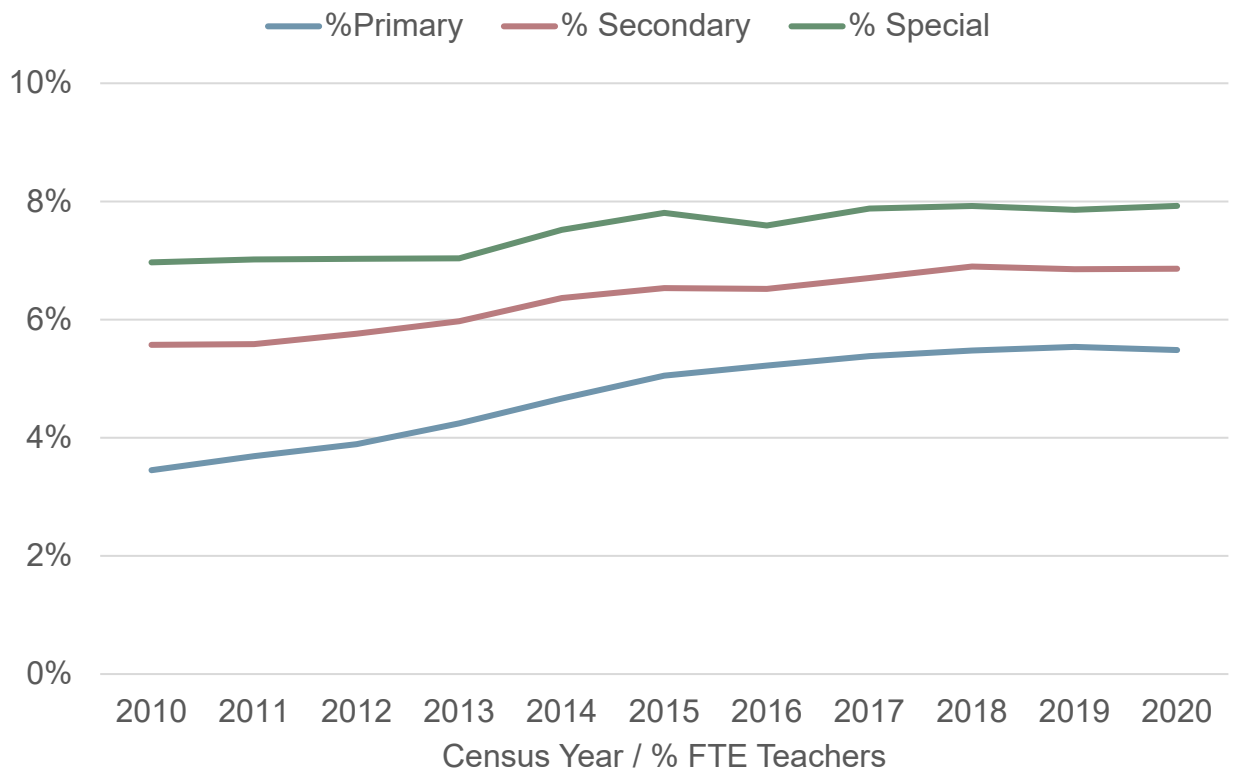
In special schools, the number of middle leaders increased from 3,000 in 2010 to 4,300 in 2020, but due to overall number of teachers increasing, the proportion of teachers who were middle leaders dropped from 19.8% to 17.0%.

The largest proportional increase has been in assistant headteachers

Assistant heads had the largest growth, proportionately, of all leadership roles from 2010 to 2020. The proportion of teachers who were assistant heads steadily increased from 3.5% (6,800) of teachers in primary schools in 2010 to 2018 and is stable at 5.5% (12,200) in 2020. This represents an increase in the number of assistant headteachers of 80.2% in primary schools. The proportion who were assistant heads also increased in secondary schools, from 5.6% (12,200) in 2010 to 2018 and is now stable at 6.9% (14,400) in 2020. Overall, this represents an increase of 18.1% in the number of assistant heads in secondary schools. The number of assistant heads in special schools almost doubled (from 1,100 in 2010 to 2,000 in 2020)[27].

[27] The sum of the number of teachers in primary, secondary and special schools does not equal the total presented in Table 3 due to the presence of some teachers who are centrally employed and for whom phase is unknown.

Figure 5: Percentage of teachers who were assistant heads by phase from 2011 to 2020



Source: School Workforce Census 2010-2020

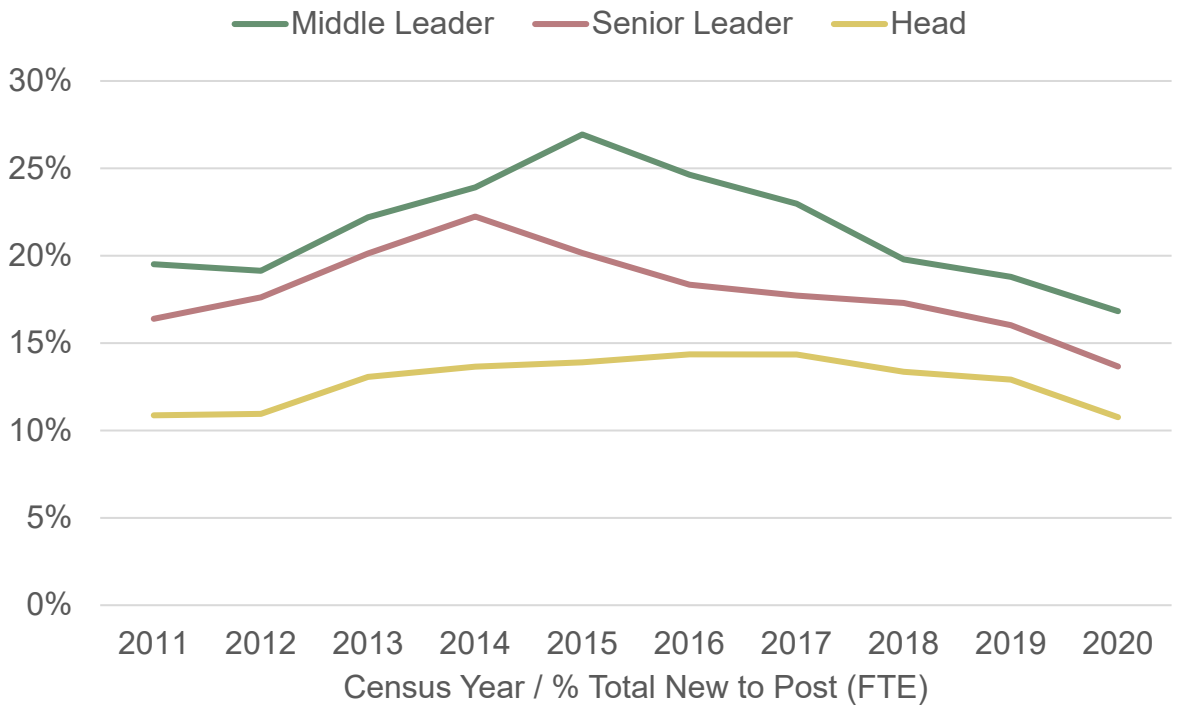
The number of teachers new to leadership posts[28] peaked in 2015 and then declined

The number of leaders who were new to post each year increased from 31,500 in 2011 to 45,400 in 2015, then decreased down to 29,500 in 2020. This represented 17.8% of those in leadership positions in 2011, 23.8% in 2015 and 15.4% in 2020. This is in part due to the retirement, and subsequent replacement, of a bulk of teachers at the older end of the age distribution in the first part of the decade (discussed in Section 2), and also due to an increase in the overall number of teachers from 2010 to 2016, followed by fluctuations to 2020, as discussed above.

[28] New to post to a first middle leadership or headship role includes teachers who were recorded in a "lower" role and teachers who were not found in the state school sector in the previous year, including returners. Due to methodology limitations, 4-5% of teachers moving into a middle leader role will have held a higher role in the previous year.

The number of middle leaders that were new to post increased to a peak in 2015 and then decreased; while the number of senior leaders new to post peaked in 2014, and the number of heads new to post peaked in 2017 (both then decreased until 2020). The same pattern is repeated in the proportions of teachers who are new to post by grade (see).

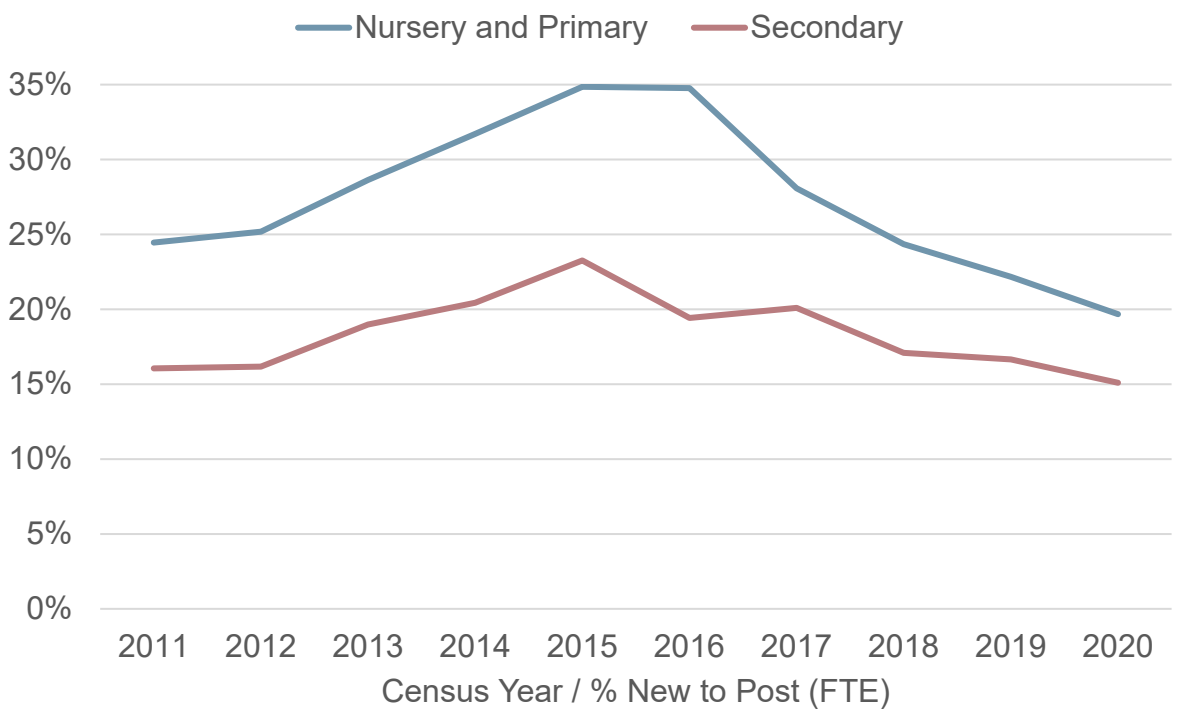
Figure 6: New to post teachers by leadership grade in each year from 2011 to 2020



Source: School Workforce Census 2011 to 2020

In 2020, 15.1% (12,100) of middle leaders in secondary schools were new to post, compared with 16.1% (12,800) in 2011. The equivalent figures for primary schools were 19.7% (7,300) new to post in 2020 compared with 24.5% (7,400) in 2011.

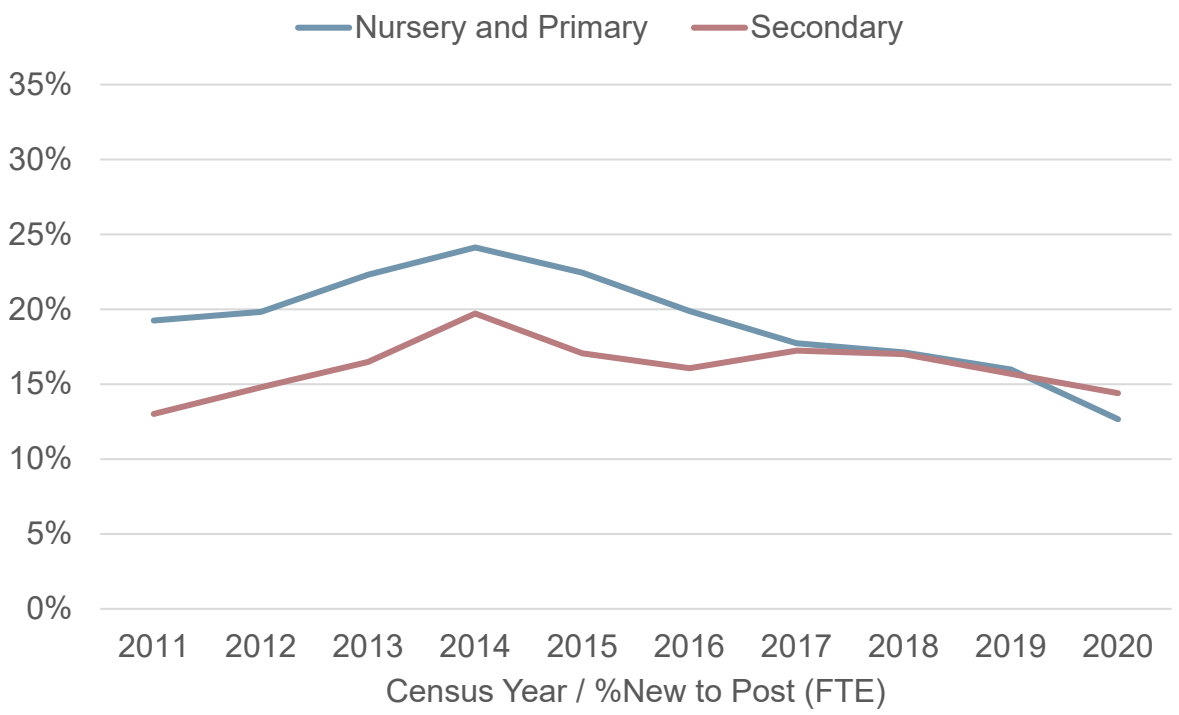
Figure 7: New to post middle leaders in each year from 2011 to 2020



Source: School Workforce Census 2011 to 2020

In 2020, 14.4% (2,800) of senior leaders in secondary schools were new to post, compared with 13.0% (2,300) in 2011. The equivalent figures for primary schools were 12.7% (3,000) new to post in 2020 compared with 19.3% (3,700) in 2011.

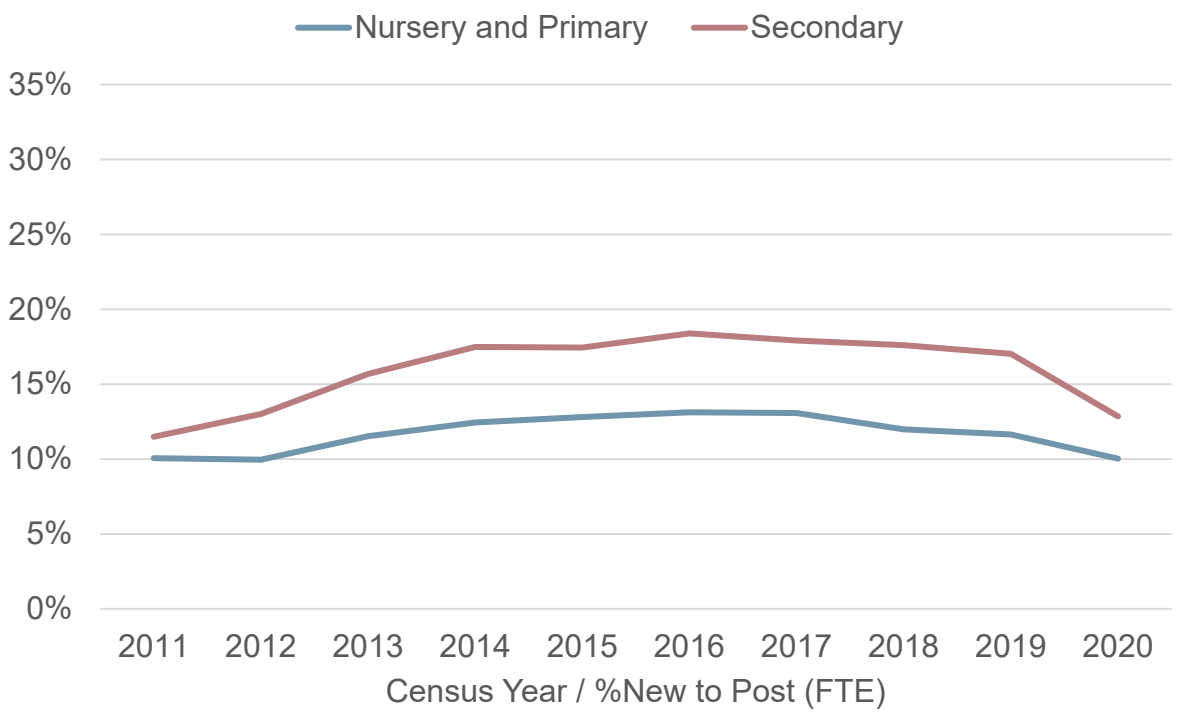
Figure 8: New to post senior leaders in each year from 2011 to 2020



Source: School Workforce Census 2011 to 2020

In 2020, 12.8% (480) of headteachers in secondary schools were new to post, compared with 11.5% (380) in 2011. In primary schools there were 10.0% (1,700) headteachers new to post in 2020 and 10.0% (1,700) in 2011.

Figure 9: New to post headteachers in each year from 2011 to 2020



Source: School Workforce Census 2011 to 2020

The proportion of teachers in a leadership role is higher in LA maintained schools than academies.

State-funded schools are divided between local-authority-maintained schools, and academies, which themselves are sub-divided between those in a multi-academy trust[29] (MAT) who share governance with other schools in the same trust, and those that are "standalone."

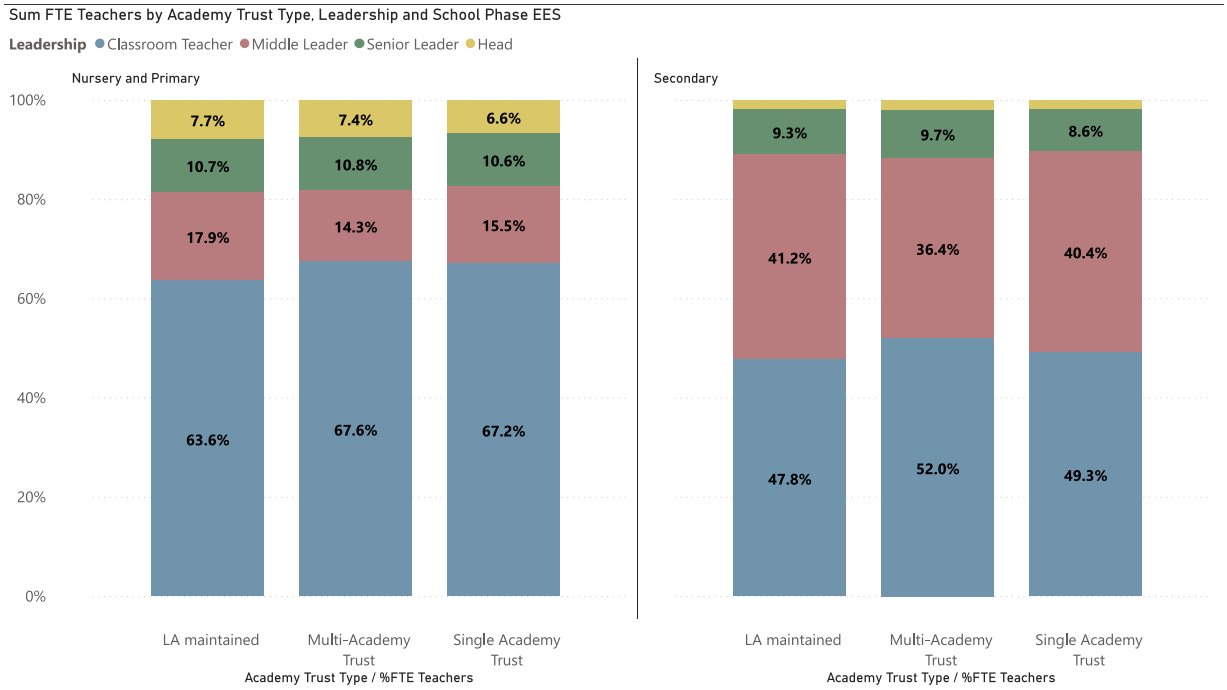
In both primary and secondary schools in 2020, there were differences between the structure of the workforce between LA maintained schools and academies as shown in Figure 10. In primary schools, there were a higher proportion of teachers in leadership roles in LA maintained schools (36.4%) than standalone academies (32.8%) and MATs

[29] In some multi-academy trusts, there may be leadership roles and teachers who are not collected in the SWC because they are centrally employed. Therefore, the percentage may be under reported.

(32.4%). A similar pattern is seen in secondary schools; within LA maintained schools 52.2% of teachers are in a leadership role compared to 50.7% in standalone academies and 48.0% in MATS.

The differences are predominantly driven by differences in middle leadership. This may be due to local authority-maintained schools making more use of the TLR system (thus creating more middle leaders) while academies payments to teachers may not use the TLR system and thus not count towards middle leadership.

Figure 10: Proportion of teachers in each role in 2020 by sector for primary and secondary schools



Source: School Workforce Census 2020

Table 10: Number of schools in each academy trust type in 2020[30]

Number of Schools	Academy Trust Type			
School Phase	**LA maintained**	**Multi-Academy Trust**	**Single Academy Trust**	**Grand Total**
Nursery and Primary	11,080	5,580	500	17,160
Secondary	760	1,980	670	3,410
Special or PRU	780	480	60	1,320
Grand Total	12,610	8,040	1,230	21,890

Source: School Workforce Census 2020

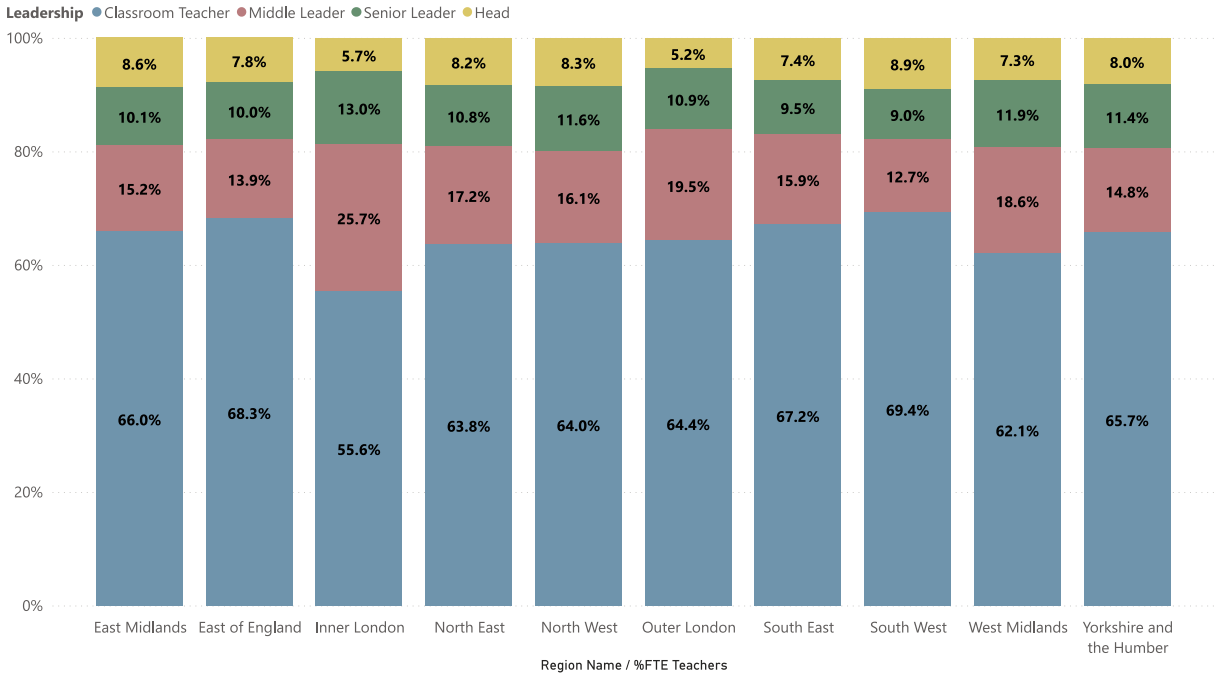
There was variation in the structure of the teaching and leadership workforce by region

England is divided into nine regions[31] which are the highest tier of sub-national division in England.

Figure 11 and Figure 12 show the structure of the primary and secondary school teaching and leadership workforce in 2020 for each region of the country. This shows some variation by region: the region with the largest proportion of the workforce in a leadership role for primary schools was Inner London (44.4%) and for secondary schools was Outer London (52.7%). (Note Inner and Outer London schools have the largest average number of pupils across the regions). There was greater variation between primary schools than between secondary schools.

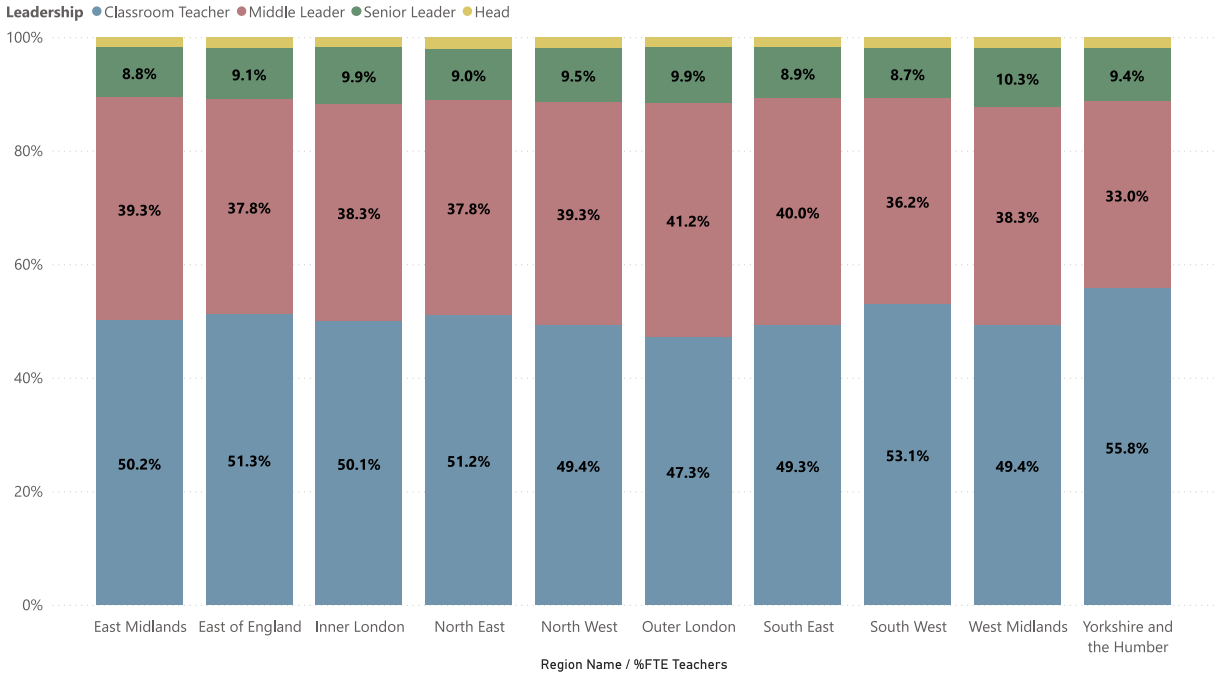
[30] School counts in this table are derived from the School Workforce Census and therefore do not match the totals given in Table 4. This is likely due to a small number of schools not returning the School Workforce Census in any given year.
[31] Formerly known as Government Office Regions.

Figure 11: Proportion of primary school teachers in each role in 2020 by region



Source: School Workforce Census 2020

Figure 12: Proportion of secondary school teachers in each role in 2020 by region



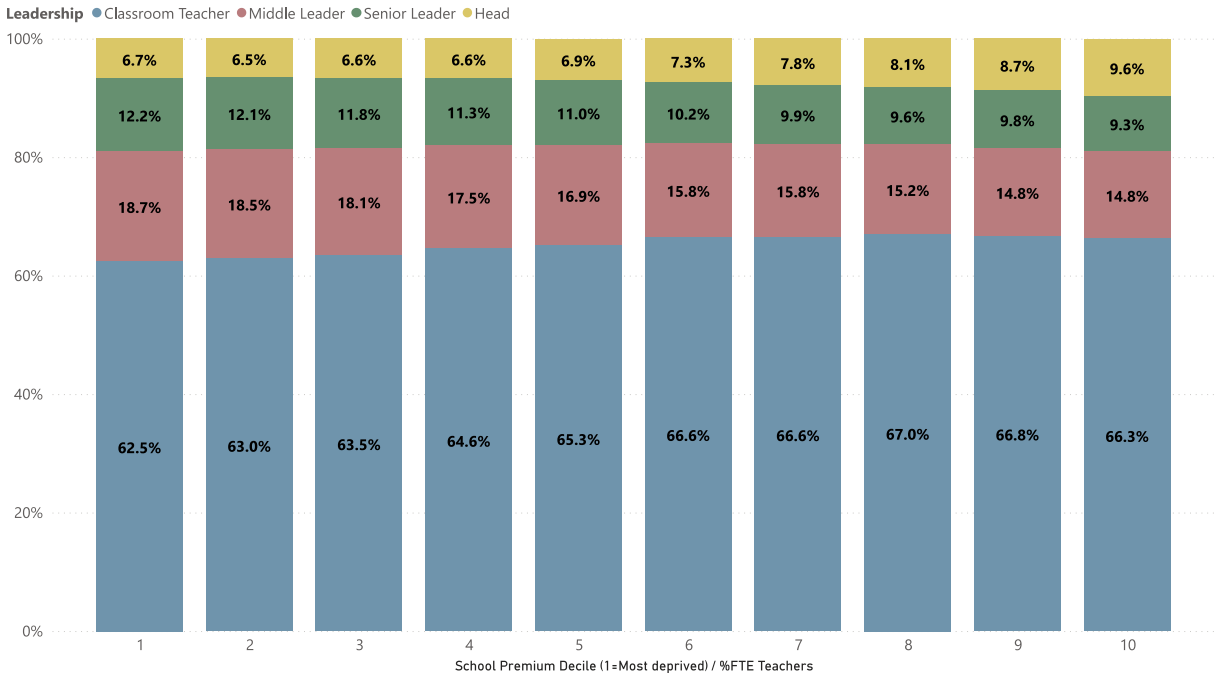
Source: School Workforce Census 2020

Higher leadership proportions were seen in primaries with higher deprivation and in secondaries with lower deprivation

Figure 13 and Figure 14 show the structure of the teaching and leadership workforce in 2020 in each of the pupil premium deciles[32] by primary and secondary - decile 1 being the most deprived and decile 10 being the least deprived. Interestingly, at primary school level, the most deprived deciles have the higher proportion of teachers in leadership roles, while the least deprived have a lower proportion of teachers at leadership level. This is mainly due to the proportion of middle leaders and assistant heads decreasing.

Conversely, the pattern is reversed at secondary school level; The most deprived deciles have lower proportions of teachers at leadership level, which increase as deprivation decreases.

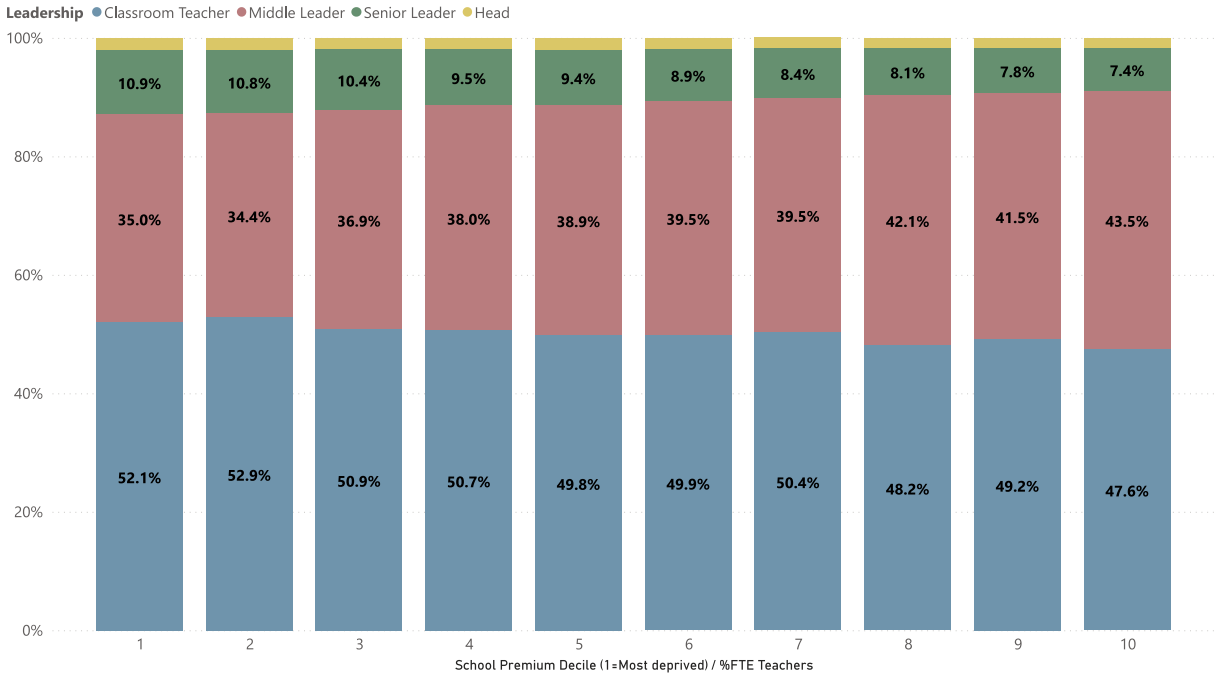
Figure 13: Proportion of primary school teachers in each role in 2020 by decile



Source: School Workforce Census 2020

[32] The pupil premium is additional funding given to schools with disadvantaged pupils in England. The pupil premium for a school depends on the number of eligible pupils who attend. Criteria for pupil premium eligibility can be found at https://www.gov.uk/government/publications/pupil-premium/pupil-premium. A school's pupil premium decile describes how the number of eligible pupils compares to other schools in England: schools in the 1st pupil premium decile are in the top 10% of schools in terms of pupil premium eligibility (i.e., they have the most deprived intakes). Schools in the 10th pupil premium decile are in the bottom 10% in terms of pupil premium eligibility (i.e., they have the least deprived intakes). Due to the small number of schools missing from the School Workforce Census there may be slight differences in the number of schools in each decile.

Figure 14: Proportion of secondary school teachers in each role in 2020 by decile



Source: School Workforce Census 2020

Proportion of teachers with permanent contracts is higher amongst secondary leadership teachers.

Teachers in leadership roles are more likely to have permanent contracts compared to classroom teachers (96.7% vs 87.4%). In primary schools 95.7% of leaders had permanent contracts compared with 86.4% of classroom teachers. In secondary schools, teachers were overall more likely to have a permanent contact, 97.5% of leaders had a permanent contract compared to 88.7% of classroom teachers.

Table 11: Proportion of teachers with permanent contracts by school and phase in 2020

	Nursery and Primary	Secondary	Total
Classroom Teacher	86.4%	88.7%	86.4%
Middle Leader	97.7%	98.3%	98.2%
Senior Leader	93.4%	94.6%	93.9%
Head	94.4%	95.3%	94.6%
Total	89.6%	93.0%	91.3%

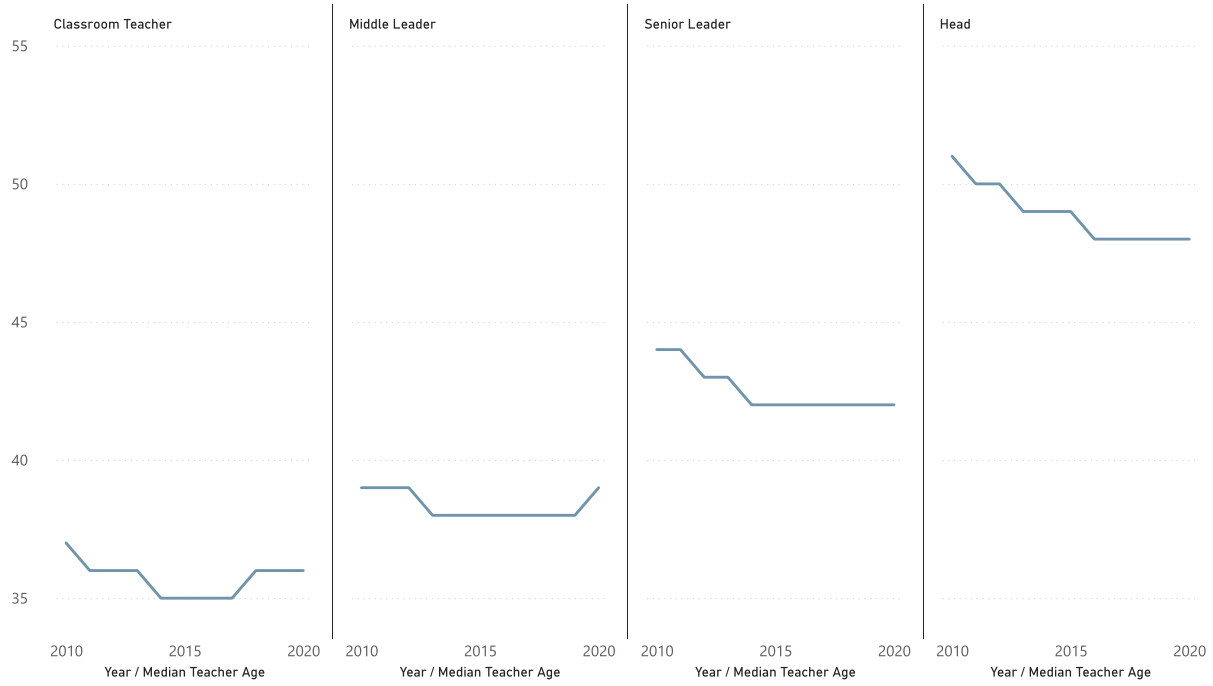
Source: School Workforce Census 2020

2. The age and experience of the teaching and leadership workforce

This section looks at the characteristics of teachers in leadership roles by age, years since qualification, and qualification level.

In general, the population of teachers in leadership roles were getting younger over the first half of the decade, but this has since stabilised. Figure 15 shows that the largest reduction was seen for headteachers: in 2010, half of headteachers were aged 51 or less, which reduced to 48 by 2016 and then stabilised until 2020. Senior leader median age also reduced from 44 in 2010 to 42 in 2014 and then stabilised until 2020. Middle leader median age remained fairly stable.

Figure 15: Median age of teachers in each role from 2010 to 2020



Source: School Workforce Census 2020

Table 12 below shows the median, lower and upper quartile[33] ages for teachers in different roles. The largest change in the age structure of the teaching workforce was in the upper quartile, which reduced between 2010 and 2016 for all leadership grades. This is illustrated in more detail in Figure 16-Figure 19 which show the distribution of teachers in service, by role, in 2010, 2016 and 2020 by age. The overall shape of the graphs show

[33] The median represents the middle value of a variable, such that 50% of cases lie above this and 50% lie below it. One quarter of the cases can be found below the lower quartile, and one quarter of cases above the upper quartile, with 50% found between these two statistics.

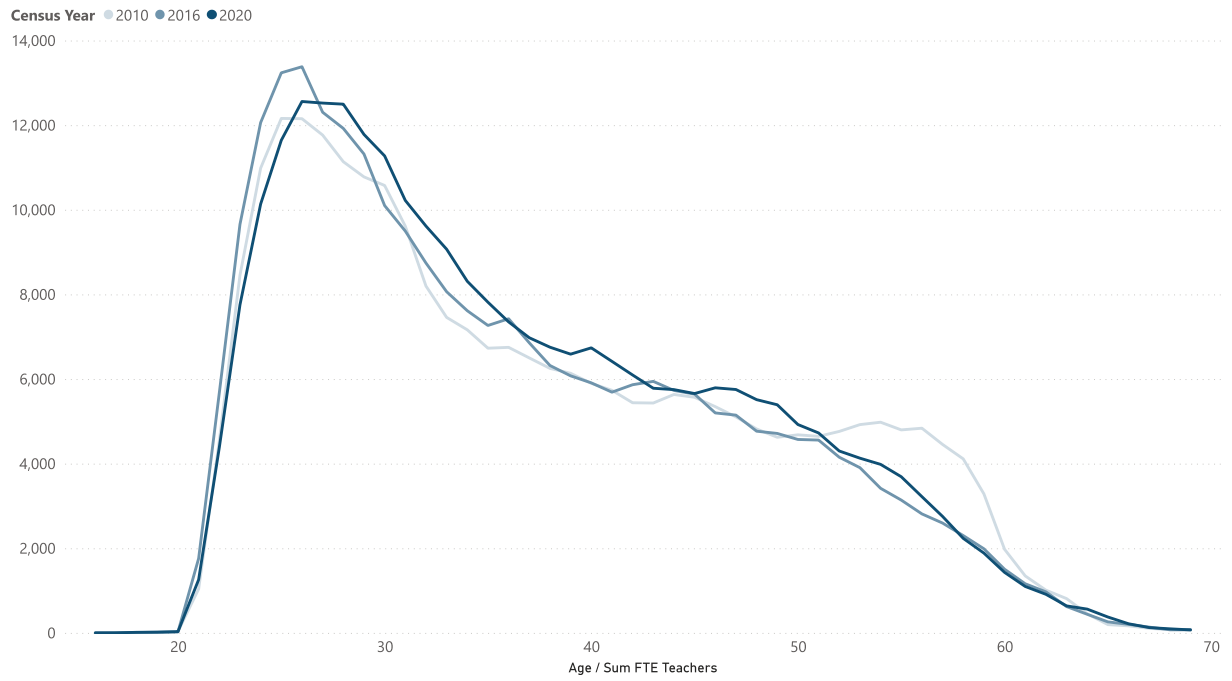
a higher proportion of younger teachers, and fewer older teachers, between 2010 and 2016, and then 2020 shows a shift reversing this movement slightly.

Table 12: Teachers' age quartiles in 2010, 2016 and 2020 by role

	Classroom Teacher			Middle Leader			Senior Leader			Head Teacher		
Years since qualification	**2010**	**2016**	**2020**	**2010**	**2016**	**2020**	**2010**	**2016**	**2020**	**2010**	**2016**	**2020**
Lower quartile	28	27	28	32	31	32	37	36	37	44	43	43
Median	37	35	36	39	38	39	44	42	42	51	48	48
Upper Quartile	47	44	45	50	46	47	52	48	48	55	54	53

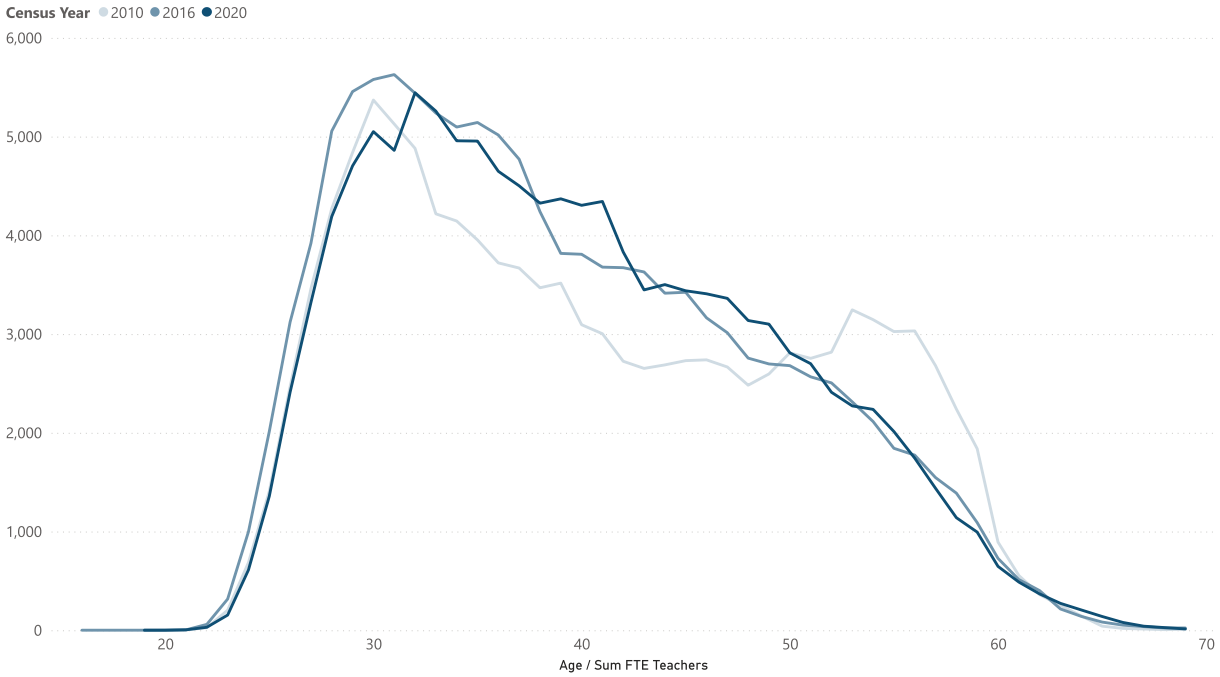
Source: School Workforce Census in 2010, 2016 and 2020

Figure 16: Classroom teachers (all schools) by age in 2010, 2016 and 2020



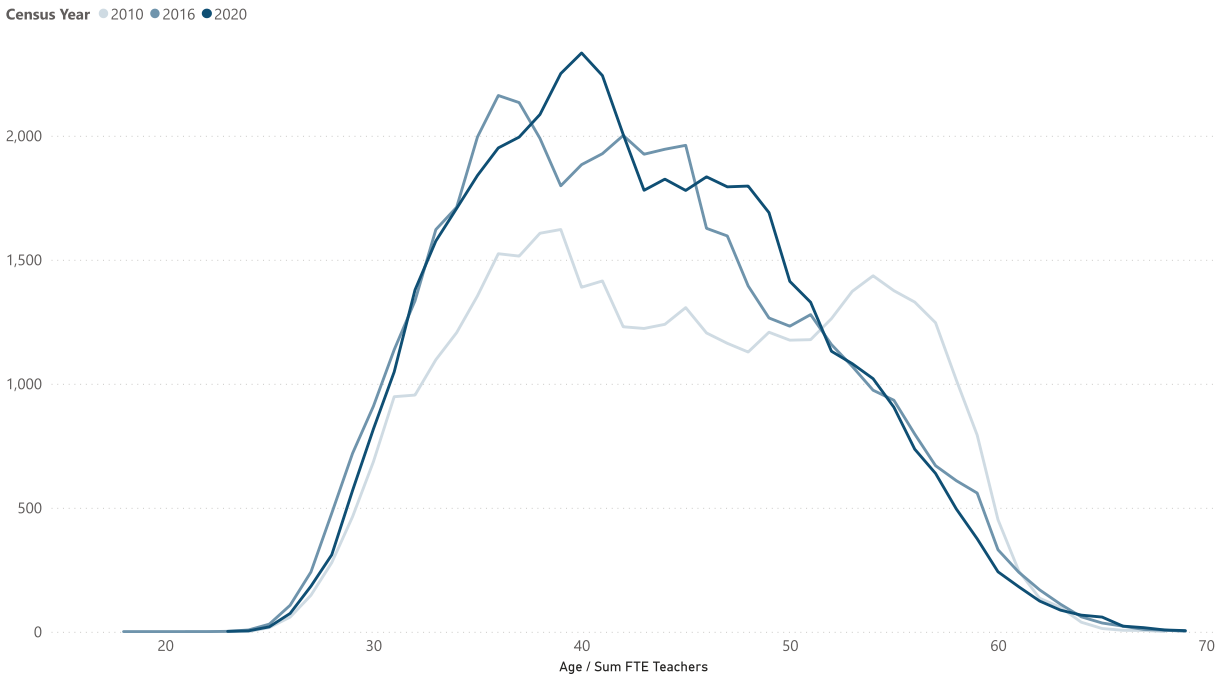
Source: School Workforce Census in 2010, 2016 and 2020

Figure 17: Middle leaders (all schools) by age in 2010, 2016 and 2020



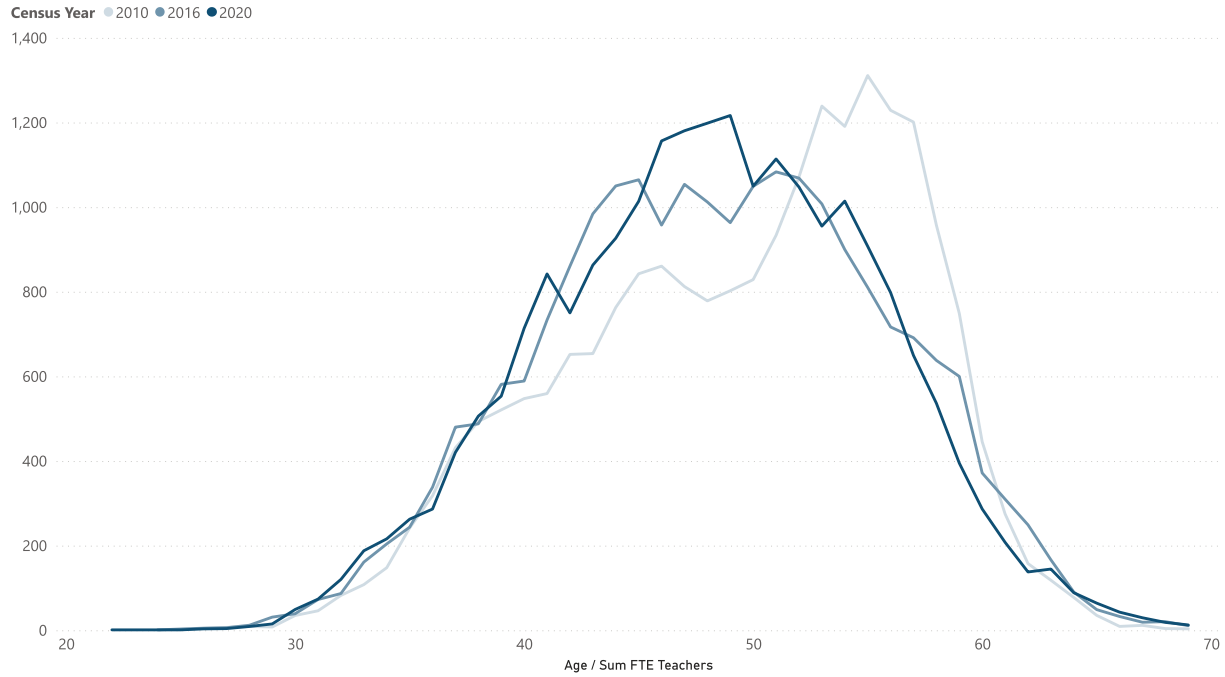
Source: School Workforce Census in 2010, 2016 and 2020

Figure 18: Senior leaders (all schools) by age in 2010, 2016 and 2020



Source: School Workforce Census in 2010, 2016 and 2020

Figure 19: Headteachers (all schools) by age in 2010, 2016 and 2020



Source: School Workforce Census in 2010, 2016 and 2020

Teacher retirements were higher in the 2010 and 2011 collections of the School Workforce Census data, compared with later years[34]. This matches the bulge at the older end of the age distribution for 2010 in Figure 16 - Figure 19. The retirement, and subsequent replacement, of these teachers contributed to the rise in the number of teachers newly promoted to leadership positions up to 2014/2015 which then dropped back to 2011 levels or lower by 2020, as illustrated in Section 1.

The charts suggest that around 2016 it is the teachers in their thirties and forties who have replaced those in leadership roles who retired between 2010 and 2015. The 2020 line on the graphs show these same teachers four years older. These cohorts are both larger than that of their older peers in their fifties.

Figure 19 compares the number of headteachers in service in 2010 with 2016 and 2020 by age. Up until about age 38, the plots have an identical shape in all years, suggesting similar patterns of promotion to leadership by age up to this point; beyond this, there were a higher number of younger headteachers in 2016 and 2020 than in 2010. Of particular note is the shift in the age of headteachers, from a bulge of those aged 52 to 59 in 2010, to a longer, lower bulge of those aged 41 to 52 in 2016.

[34] Department for Education 'School workforce in England: Reporting year 2020', Teacher Retirements. Available at: School workforce in England, Reporting Year 2020 – Explore education statistics – GOV.UK (explore-education-statistics.service.gov.uk)

Years since qualification for teachers in leadership roles declined from 2010-2016, but has since stabilised

Number of years since qualification (when Qualified Teacher Status (QTS) was awarded) is used as a proxy for calculating time in the teaching profession[35].

Table 13 shows the median, lower and upper quartile[36] number of years since qualification for teachers in different roles from 2010 to 2020. In 2010, headteachers had a median of 27 years since qualification, this reduced to 23 in 2016 and then rose slightly to 24 in 2020. The median years of experience of senior leaders reduced from 18 in 2010 to 17 in 2014 where it remained until 2020. The reduction between the upper quartiles for years since qualification was greatest for senior leaders, 24 years since qualification in 2020 compared with 30 years in 2010. There was virtually no change in the lower quartile between 2010 and 2020, for example, this was 13 years since qualification for senior leaders in both 2010 and 2020. This is illustrated in more detail in Figure 20 and Figure 21 which show the distribution of teachers in service, by role, in 2010, 2016 and 2020 by years since qualification.

Table 13: Teachers' years since qualification in 2010, 2016 and 2020 by leadership roles (FTE)

	Classroom Teacher			Middle Leader			Senior Leader			Head Teacher		
Years since qualification	**2010**	**2016**	**2020**	**2010**	**2016**	**2020**	**2010**	**2016**	**2020**	**2010**	**2016**	**2020**
Lower quartile	3	3	4	7	7	8	13	12	13	19	19	19
Median	7	7	8	12	12	13	18	17	17	27	23	24
Upper Quartile	17	15	16	22	19	19	30	23	24	34	30	29

Source: School Workforce Census 2010, 2016, 2020 and Database of Qualified Teachers

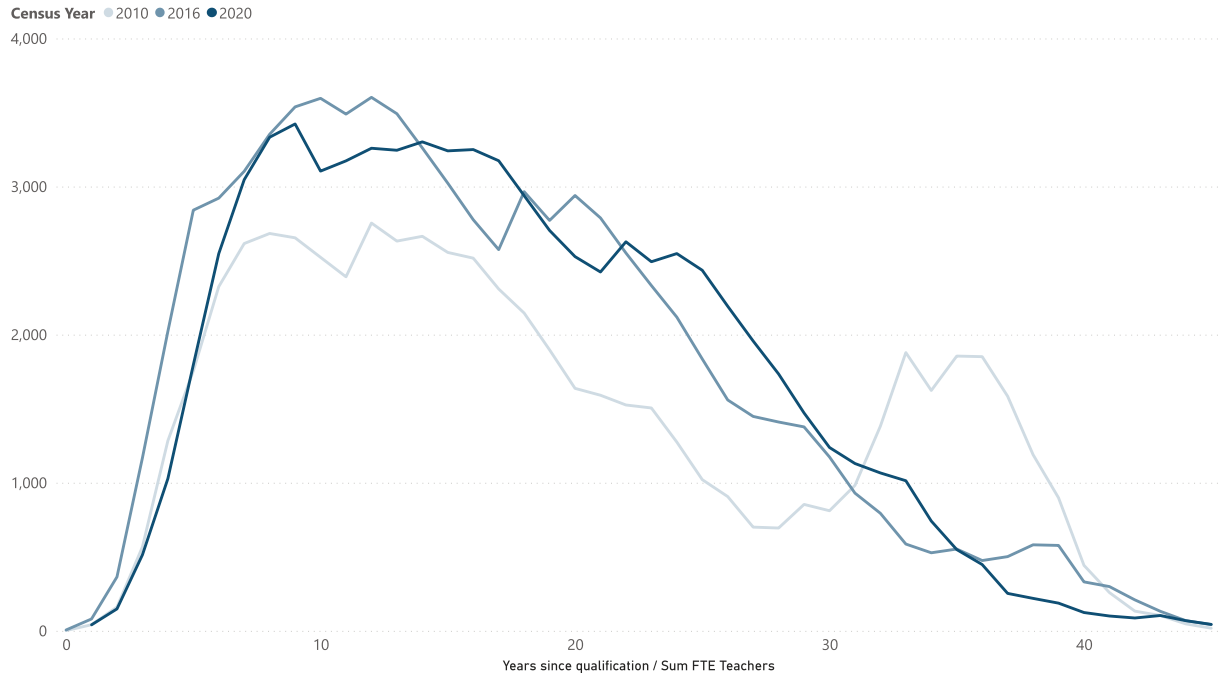
As shown in Table 13, the combined effect of promotion of more inexperienced teachers and the greater experience of those leaving, meant leaders on a whole were less experienced in 2016 than in 2010, but were somewhat more experienced in 2020 than in 2016. Within both primary and secondary schools, the proportion of teachers in

[35] The main limitation of using this is that it includes no information about whether service has been continuous, full-time or part-time, or whether it has been interrupted by periods of non-service such as career breaks. Also, teachers who began their career unqualified but later gained QTS, may have been teaching for longer than their calculated experience.

[36] The median represents the middle value where 50% of teachers lie above this and 50% lie below it. One quarter of teachers can be found below the lower quartile, and one quarter above the upper quartile, with 50% found between these two statistics.

leadership roles was higher for those with a greater number of years since qualification. Figure 20 shows the demographics for primary teachers in leadership roles by years since qualification. It shows the shift to a leadership population with fewer years since qualification in total from 2010 to 2016 and then a shift to a leadership population with more years since qualification from 2016 to 2020. Figure 21 shows a different pattern for secondary school teachers. Ignoring the bulge of teachers who retired by 2016, there is a shift to a leadership population with more years since qualification from 2010 to 2016, and again from 2016 to 2020. This pattern is mainly due to middle leadership teachers.

Figure 20: Leadership population (FTE) by years since qualification in primary schools



Source: School Workforce Census 2010, 2016, 2020 and Database of Qualified Teachers

Figure 21: Leadership population (FTE) by years since qualification in secondary schools

Source: School Workforce Census 2010, 2016, 2020 and Database of Qualified Teachers

Age and years since qualification are highly correlated in general, but less so for teachers in leadership roles

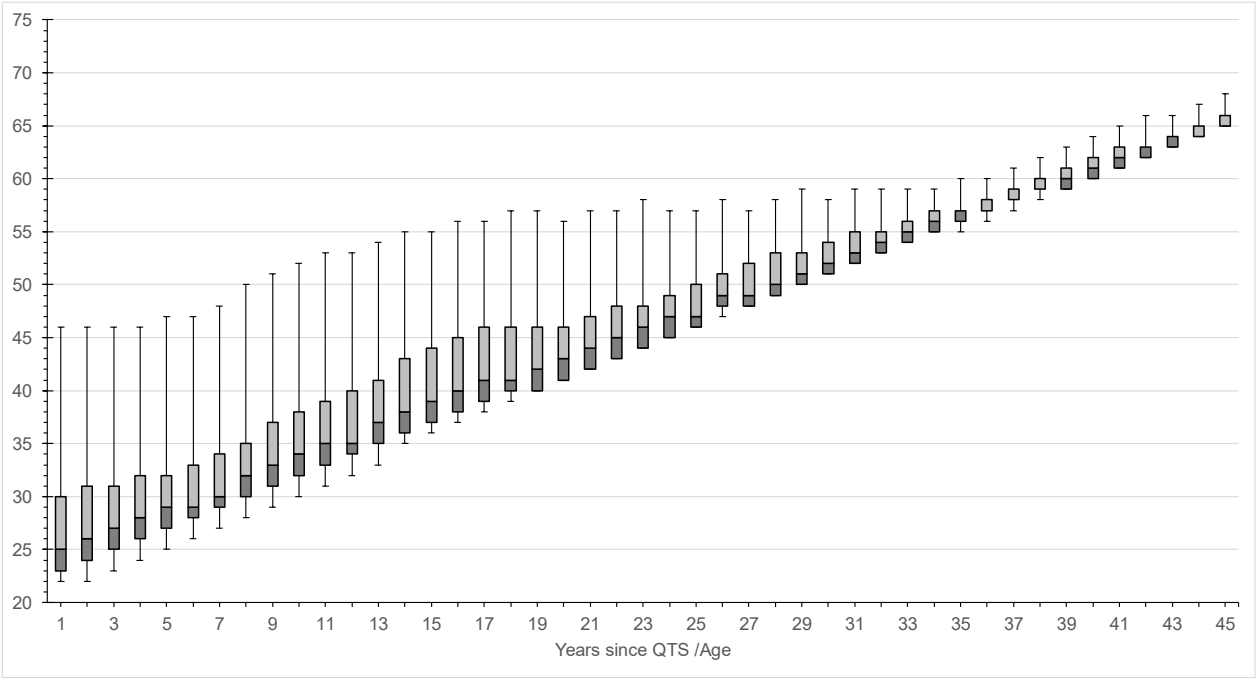
Age of teachers and years since qualification (years since achieving Qualified Teacher Status (QTS)) are highly correlated since for each individual teacher, one increases in line with the other. Figure 22 below shows this clear correlation for all teachers in 2020. For each number of years since qualification, a boxplot has been plotted to show the distribution of ages of teachers with this number of years since qualification. The top and bottom of the box show the upper and lower quartiles respectively with the median shown by the solid black line within the box. The values outside of this middle 50% of values are shown by the vertical lines leading from the box in both directions[37].

Whilst the median follows a diagonal line upwards, representing those who chose teaching as their first career, there is a wide variation for the upper quartile representing those who pursued other careers before entering teaching. The range of the box plots narrows as both age and years since qualification increase. Teachers with more than 25

[37] The range shown by each boxplot has been reduced to 5% to 95% of the data to remove extreme outliers.

years since qualification are likely to have spent their whole, or a substantial part, of their working life in teaching and they are a more homogenous group in terms of age than those with fewer years since qualification.

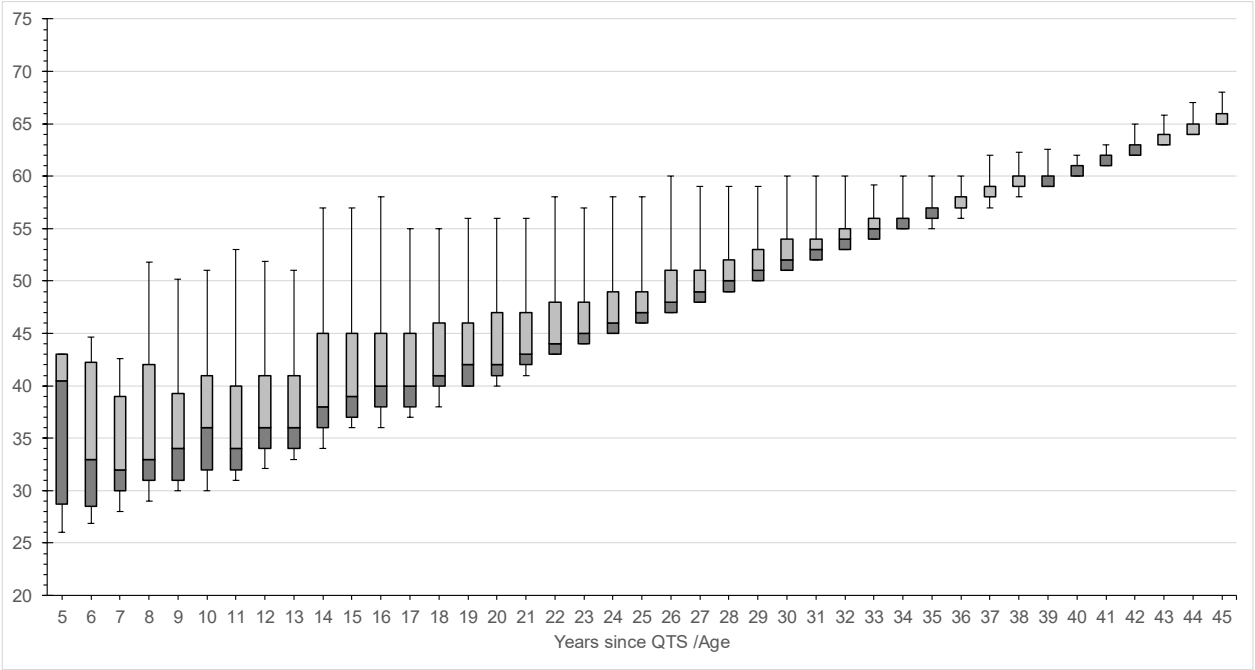
Figure 22: Box plots showing the relationship between age and years since qualification for all teachers in 2020 (headcount)



Source: School Workforce Census 2020 and Database of Qualified Teachers

Figure 23 shows that the correlation between age and years since QTS is weaker for headteachers than that shown in the previous chart. Headteachers with fewer years since qualification show a wider range of ages.

Figure 23: Box plots showing the relationship between age and years since qualification for headteachers in 2020 (headcount)



Source: School Workforce Census and Database of Qualified Teachers

Further boxplots for other leadership roles can be found in Annex 3.

Since the relationship between age and years since qualification is less clear for teachers in leadership roles, the analysis shown earlier, looking at the distribution of teachers by age is repeated below for years since qualification.

Secondary school leaders are more likely to hold a post-graduate qualification than primary school leaders

In 2019[38], 98.7%[39] of leaders in primary schools and 97.7% of leaders in secondary schools held a Level 6[40] or 7 qualification. Secondary school teachers and leaders are substantially more likely to have a Level 7 than primary school leaders.

Table 14 and Table 15 show that in primary schools, middle leaders (49.1%) are slightly more likely to have a Level 7 than senior leaders (45.2%) or headteachers (41.6%). In secondary schools, heads (76.8%) are slightly more likely to have a Level 7 qualification than middle (74.7%) or senior leaders (75.2%).

[38] Qualification data was not collected in 2020 due to covid pandemic so 2019 is used instead.
[39] The qualifications of 0.7% of leaders in both primary and secondary schools were unknown.
[40] Further details can be found in Annex 4; NQF levels published at: https://www.gov.uk/what-different-qualification-levels-mean/list-of-qualification-levels

Table 14: Proportion of teachers by NQF level in primary and nursery schools in 2019

NQF level	Classroom Teacher	Middle Leader	Senior Leader	Head	Total
Level 4	0.0%	0.0%	0.0%	0.0%	0.0%
Level 5	0.2%	0.2%	0.2%	0.5%	0.2%
Level 6	47.7%	49.6%	53.9%	56.7%	49.4%
Level 7	48.4%	49.1%	45.2%	41.6%	47.7%
Level 8	0.1%	0.1%	0.1%	0.2%	0.1%
Non-UK qual	0.4%	0.2%	0.1%	0.1%	0.4%
Missing data	3.2%	0.8%	0.4%	1.0%	2.3%
Total	100%	100%	100%	100%	100%

Source: School Workforce Census 2019

Table 15: Proportion of teachers by NQF level in secondary schools in 2019

NQF level	Classroom Teacher	Middle Leader	Senior Leader	Head	Total
Level 4	0.1%	0.0%	0.0%	0.0%	0.0%
Level 5	0.2%	0.1%	0.1%	0.1%	0.2%
Level 6	24.7%	22.8%	23.2%	20.9%	23.7%
Level 7	67.6%	74.7%	75.2%	76.8%	71.3%
Level 8	0.6%	0.7%	0.6%	1.1%	0.6%
Non-UK qual	0.5%	0.2%	0.1%	0.1%	0.4%
Missing data	6.3%	1.5%	0.8%	1.0%	3.8%
Total	100%	100%	100%	100%	100%

Source: School Workforce Census 2019

3. Progression to and retention in leadership roles

This section looks at the time taken to progress from qualifying as a teacher to a first middle leadership role, and how this varies by phase, gender and ethnicity. It makes similar comparisons for progression from a senior leader role to headteacher[41].

This is then followed by examining the retention of teachers in leadership roles.

As mentioned in section 2, number of years since qualification (when Qualified Teacher Status (QTS) was awarded) is used as a proxy for calculating time in the teaching profession. The main limitation of using this is that it includes no information about whether service has been continuous, full-time or part-time, or whether it has been interrupted by periods of non-service such as career breaks.

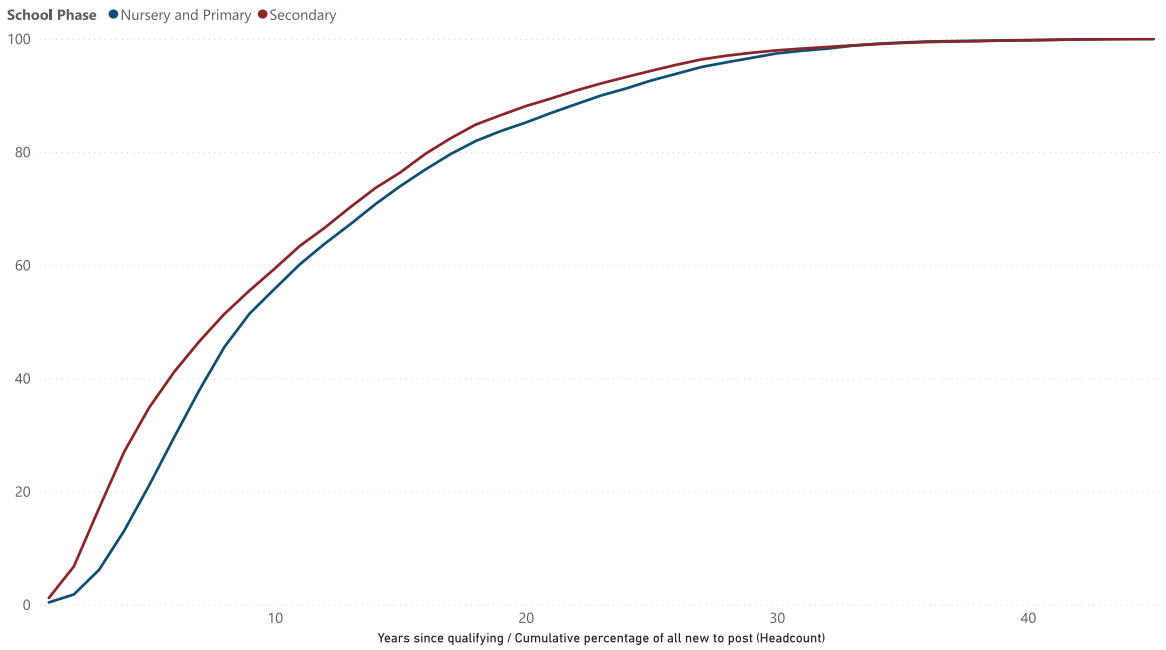
Teachers progressed faster to their first middle leadership role in secondary schools but progressed faster to a headteacher role in primary schools

Figure 24 shows that time to reach a middle leadership role was shorter in secondary schools. In 2020, the median number of years since qualification for teachers new to middle leadership positions in primary schools was 9 years, compared with 8 years for teachers new to middle leadership positions in secondary schools. This is consistent with the greater proportion of middle leader roles in secondary schools.

Figure 25 shows that the time taken to reach a headteacher role was shorter in primary schools. In 2020, the median number of years since qualification for new secondary headteachers was 21, compared with 18 years for primary headteachers.

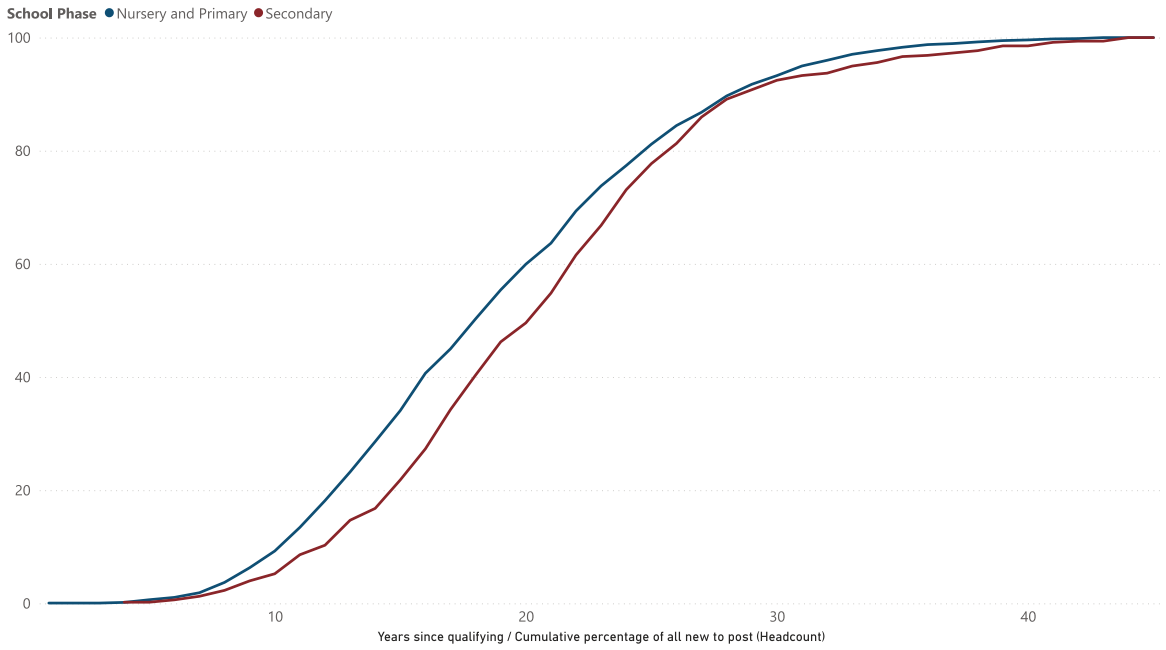
[41] New to post to a first middle leadership or headship role includes teachers who were recorded in a "lower" role and teachers who were not found in the state school sector in the previous year, including returners. Due to methodology limitations, 4-5% of teachers moving into a middle leader role will have held a higher role in the previous year. A small number of teachers with more than 45 years since QTS or who were recorded as gaining QTS after taking up a leadership post were excluded from this analysis.

Figure 24: Time since qualification to reach middle leadership in primary and secondary schools



Source: School Workforce Census and Database of Qualified Teachers

Figure 25: Time since qualification to reach headship in primary and secondary schools



Source: School Workforce Census and Database of Qualified Teachers

As shown in Figure 26 and Figure 27, teachers who qualified longer ago were generally more likely to be in a leadership role than those who qualified more recently, but those more than 40 or more years after qualification were slightly less likely to be in leadership roles than those 30 years after qualification. In particular, the proportion of teachers in senior and middle leadership roles is significantly lower amongst teachers who qualified more than 40 years ago, possibly a result of such teachers taking up classroom teacher roles.

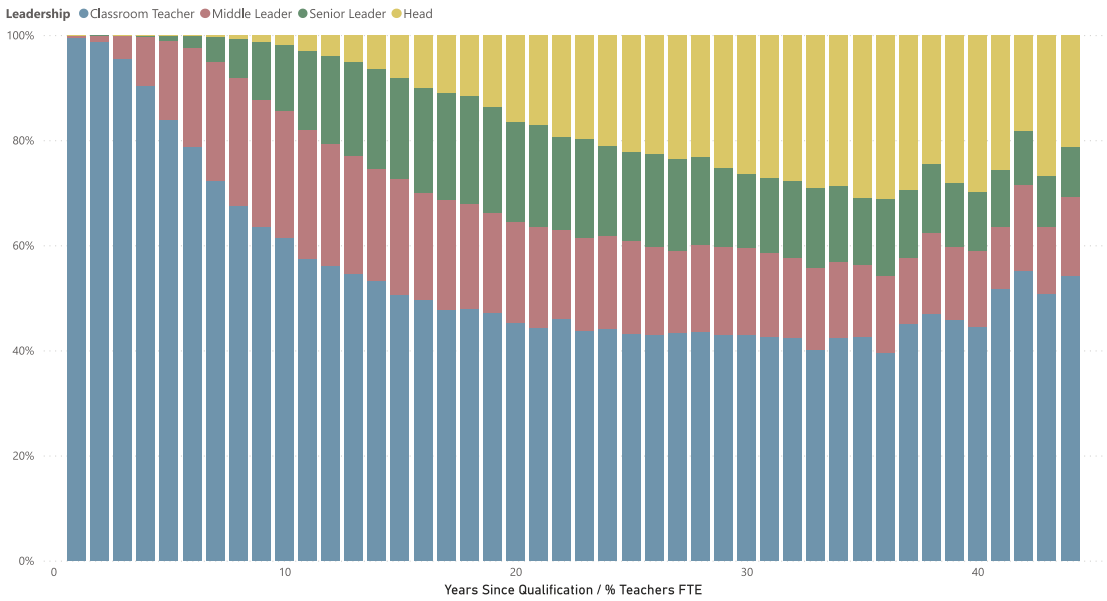
The experience group with the highest proportion of middle leaders were those who qualified 11 years ago in primary schools (25%) and 9 years ago in secondary schools (52%) (see Figure 26 and Figure 27). For senior leaders, the equivalent figures were those who qualified 18 years ago for primary schools (21%) and 25 years ago in secondary schools (20%). The experience group with the most heads was those teachers who qualified 36 years ago in primary schools (31%) and 44 years ago for secondary schools (11%).

The leadership grade distribution within experience groups has shifted since 2010. In primary schools, the proportion of teachers with 10-30 years' experience who are middle or senior leaders has increased, while the proportion of heads in that band has decreased – in 2010, 16% of teachers with 20 years' experience were middle leaders, 15% senior leaders and 18% heads. In 2020, 19% were middle leaders, 19% senior leaders and 16% heads.

By contrast, the proportion of primary teachers with 30-45 years' experience who are heads has increased. The number of heads in primary schools has remained roughly constant since 2010 (Figure 2), but the number of teachers with 30-45 years' experience has significantly reduced (Figure 20) – hence the concentration of heads in this experience group has substantially increased. In primary schools in 2010, 23% of teachers with 35 years' experience were heads, versus 31% in 2020.

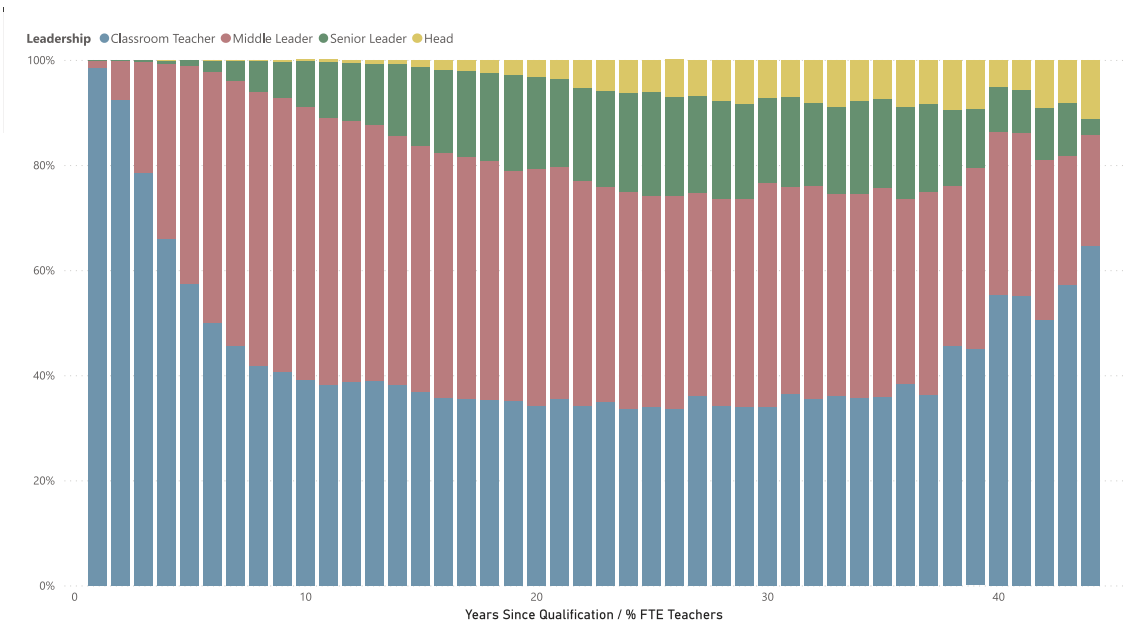
Changes in secondary schools are less pronounced. Teachers with 30-40 years' experience are less likely to be a middle leader, and more likely to be a head. In 2010, 43% of teachers with 33 years' experience were middle leaders and 6% were heads. In 2020, 38% were middle leaders and 9% were heads.

Figure 26: Proportion of teachers at each leadership grade across years since qualification in primary schools in 2020



Source: School Workforce Census 2020

Figure 27: Proportion of teachers at each leadership grade across years since qualification in secondary schools in 2020



Source: School Workforce Census 2020

Retention of teachers in senior leadership and headteacher roles is higher in primary schools than in secondary schools

Retention rates generally declined for those new to leadership between 2011 and 2015, but have stabilised and in some cases improved in recent years

For the purposes of this analysis, “retention” is defined as the proportion of teachers who were employed in subsequent years in a role of the same or higher level[42] and in the same phase, as recorded by the School Workforce Census[43].

“New to post” *in this retention section* is defined as being recorded in the SWC at a higher level than in the previous year[44], or who were not recorded in the SWC in the previous year[45]. The number of teachers is measured using headcount, which considers the number of teachers recorded and does not account for full time equivalents.

Retention of leaders with permanent contracts is not directly comparable with those with temporary or fixed contracts that are deliberately shorter term and for this reason, the analysis presented below is restricted to only those with permanent contracts

In addition, the analysis is restricted to only those aged under 50 to minimise the influence of retirement on the figures presented. For completeness, equivalent statistics for those aged 50 or over are included in the annex.

The one-year retention rate for all primary and secondary teachers (given the caveats above) was 91% in 2011/12, after which it declined, reaching a low of 88% in 2014/15. Overall retention has increased thereafter, returning to 91% in 2019/20. Increased retention in 2019/20 may reflect the impact of the COVID-19 pandemic, which is likely to have discouraged potential leavers from doing so. It is possible that some of these teachers will choose to leave in the coming years, resulting in lower retention rates. However, the consistent increase in overall retention rates since 2016 suggests broader trends are driving up retention in the long term.

[42] For example, retention at assistant headteacher includes any teachers promoted to deputy headteacher or headteacher.
[43] Note that leaders who are not retained under this definition may still be retained within the teaching profession for example, at a “lower” role, within a multi academy trust where their role falls outside the scope of the School Workforce Census, or may have moved outside the state school sector, to the independent, FE or HE sector
[44] Demotions are excluded from ‘new to post’ in this retention section.
[45] Such teachers may have been taking a career break or working outside the state-funded school sector.

Headteachers

Table 16 and Table 17 show that retention of headteachers in primary schools is higher than in secondary schools and this gap increases with the retention period. Retention of heads in both primary and secondary schools has declined since 2011 – for example, 94% of primary heads were retained one year after promotion in 2011, versus 90% in 2019.

For the cohort new to post in 2015, 81% of primary headteachers were retained after 3 years and 75% after 5 years. In secondary schools, 75% were retained after 3 years and 63% were retained after 5 years. Headteacher retention declined from 2011 to 2016 but 1-year rates have since increased in 2018 and 2019, lagging the improvements in retention seen amongst classroom teachers and other leaders in the same period. Improvements in 2019 may be attributable to the impact of COVID, as discussed above, and their persistence is yet unclear.

The increasing prevalence of MATs may also have reduced the apparent retention of heads, as teachers moving to executive headteacher or CEO roles in a trust are no longer in scope for the School Workforce Census and are thus classified as 'not retained.'

Table 16: Retention rates of new headteachers aged under 50 in primary schools

		Percentage of headteachers retained after:				
Year/ Cohort	**New to post (headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	970	94%	91%	86%	83%	79%
2012	1,080	92%	89%	86%	81%	77%
2013	1,180	91%	86%	82%	80%	77%
2014	1,300	91%	85%	81%	77%	74%
2015	1,310	90%	85%	81%	78%	75%
2016	1,350	90%	83%	80%	78%	
2017	1,410	88%	84%	79%		
2018	1,260	89%	84%			
2019	1,220	90%				

Source: School Workforce Census

Table 17: Retention rates of new headteachers aged under 50 in secondary schools

		Percentage of headteachers retained after:				
Year/ Cohort	New to post (headcount rounded)	1 year	2 years	3 years	4 years	5 years
2011	240	92%	85%	80%	70%	66%
2012	290	91%	90%	77%	71%	66%
2013	330	87%	80%	73%	67%	63%
2014	380	86%	79%	75%	67%	61%
2015	380	87%	79%	75%	68%	63%
2016	430	85%	76%	72%	66%	
2017	430	85%	81%	74%		
2018	430	86%	81%			
2019	420	88%				

Source: School Workforce Census

Deputy Headteachers

Table 18 and Table 19 show that retention of deputy headteachers in primary schools is better than in secondary schools. Overall retention for deputy heads has remained relatively consistent from 2011-2019. Primary schools, in particular, have seen very little change in retention. In secondary schools, retention declined from 88% in 2011 to 85% in 2015, increasing to 90% in 2019.

For the 2015 ‘new to post’ cohort of deputy headteachers, 82% were retained after 3 years in primary schools and 74% after 5 years. For secondary schools 70% were retained after 3 years and 63% after 5 years. Retention has remained stable in primary schools though in secondary schools there was a slight dip for the 2014 and 2015 cohort. Retention for deputy headteachers is slightly better than assistant heads, for primary and secondary, in recent years.

Table 18: Retention rates of new deputy headteachers aged under 50 in primary schools

		Percentage of deputy headteachers retained after:				
Year/ Cohort	**New to post (Headcount - rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	1,560	90%	85%	81%	79%	75%
2012	1,770	88%	84%	80%	78%	75%
2013	1,820	89%	84%	80%	76%	73%
2014	2,110	89%	85%	80%	77%	74%
2015	2,090	90%	86%	82%	78%	74%
2016	2,040	89%	84%	81%	77%	
2017	1,700	90%	85%	80%		
2018	1,770	89%	85%			
2019	1,550	91%				

Source: School Workforce Census

Table 19: Retention rates of new deputy headteachers aged under 50 in secondary schools

		Percentage of deputy headteachers retained after:				
Year/ Cohort	New to post (Headcount rounded)	1 year	2 years	3 years	4 years	5 years
2011	570	88%	81%	79%	73%	68%
2012	730	87%	83%	76%	71%	69%
2013	750	87%	83%	75%	71%	66%
2014	930	86%	75%	71%	66%	64%
2015	860	85%	77%	70%	65%	63%
2016	890	85%	80%	74%	70%	
2017	820	87%	78%	73%		
2018	830	88%	79%			
2019	870	90%				

Source: School Workforce Census

Assistant Headteachers

Table 20 and Table 21 show that retention of assistant headteachers in primary schools was better than in secondary schools. There was a slight reduction in the retention rate over time in primary schools but there are indications that it has improved for the 2017 cohort onwards. The retention rate also declined in secondary schools for the cohorts 2011 to 2015. However, the rate has steadily improved for the 2016 cohort and onwards. For the 2015 cohort, 78% of assistant heads were retained after 3 years and 71% after 5 years in primary schools. In comparison, secondary school retention was 70% after 3 years and 61% after 5 years.

Table 20: Retention rates of new assistant headteachers aged under 50 in primary schools

		Percentage of assistant headteachers retained after:				
Year/ Cohort	**New to post (Headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	1,240	91%	86%	81%	78%	74%
2012	1,480	89%	85%	79%	76%	73%
2013	1,920	91%	84%	79%	76%	71%
2014	2,540	91%	84%	80%	76%	72%
2015	2,500	90%	83%	78%	74%	71%
2016	2,350	89%	82%	77%	73%	
2017	2,190	91%	82%	78%		
2018	2,040	89%	84%			
2019	1,910	91%				

Source: School Workforce Census

Table 21: Retention rates of new assistant headteachers aged under 50 in secondary schools

		Percentage of assistant headteachers retained after:				
Year/ Cohort	**New to post (Headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	1,340	90%	81%	76%	70%	64%
2012	1,820	87%	80%	74%	67%	62%
2013	2,030	88%	80%	71%	67%	63%
2014	2,560	85%	76%	70%	66%	63%
2015	2,230	84%	75%	70%	64%	61%
2016	2,130	85%	76%	70%	67%	
2017	2,290	87%	78%	72%		
2018	2,220	87%	79%			
2019	2,060	88%				

Source: School Workforce Census

Middle Leaders

Table 22 and Table 23 show that middle leaders displayed lower rates of retention than their more senior counterparts did, in both primary and secondary schools. This is to be expected as some middle leaders are classroom teachers who have taken on extra duties for a fixed period, moving them into middle leadership for the duration, after which they return to classroom teaching and would therefore appear as not retained.
Retention in primary schools is lower than that in secondary schools. Both primaries and secondaries saw significant declines in retention from 2011-2014, dropping to 76% in primaries in 2014. Retention has since improved, with 1 year retention in primary schools up to 80% in 2019 and secondary schools as high as it was in 2011, at 84%.

Table 22: Retention rates of new middle leaders aged under 50 in primary schools

		Percentage of middle leaders retained after:				
Year/ Cohort	**New to post (Headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	6,440	83%	72%	64%	59%	57%
2012	7,050	80%	68%	61%	59%	57%
2013	8,430	79%	68%	64%	62%	58%
2014	9,400	76%	66%	61%	56%	53%
2015	10,940	78%	68%	61%	57%	54%
2016	12,140	78%	68%	62%	58%	
2017	10,070	78%	66%	60%		
2018	8,580	77%	66%			
2019	7,700	80%				

Source: School Workforce Census

Table 23: Retention rates of new middle leaders aged under 50 in secondary schools

		Percentage of middle leaders retained after:				
Year/ Cohort	New to post (Headcount rounded)	1 year	2 years	3 years	4 years	5 years
2011	11,420	84%	73%	67%	61%	57%
2012	12,360	82%	71%	64%	60%	58%
2013	13,830	81%	69%	63%	60%	57%
2014	14,650	79%	68%	63%	58%	55%
2015	16,900	80%	69%	64%	60%	56%
2016	14,290	81%	70%	64%	60%	
2017	14,980	82%	72%	66%		
2018	12,480	82%	72%			
2019	12,160	84%				

Source: School Workforce Census

Leadership flows are more complex than the 'pipeline' model suggests, including demotion and multi-grade promotions

There are four main net flows concerning the teaching population in state-funded schools:

- retention (teachers staying in role),
- wastage (teachers leaving the state-funded school sector),
- inflow (teachers joining the state-funded school sector),
- Role change (teachers who change role, most commonly on promotion.)

Looking at the net flows of teachers between roles allows an overview of the different career pathways and their relative prominence, as well as the main flows into and out of the profession.

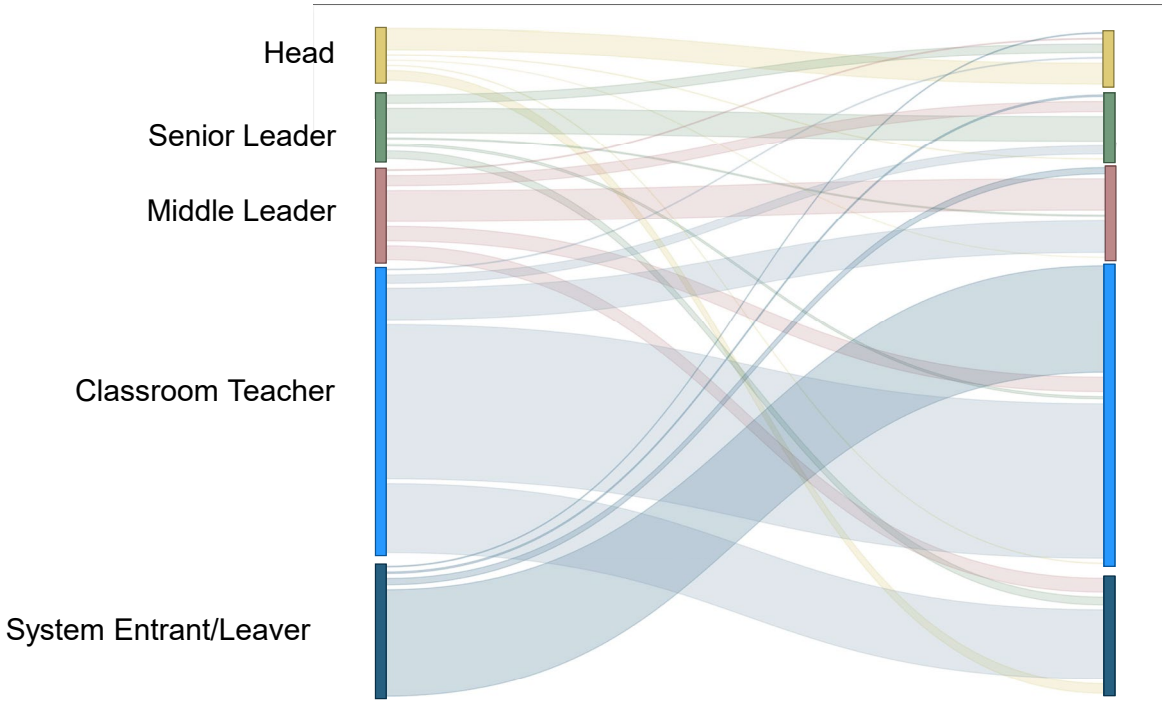
The Sankey diagrams below (Figure 28 and Figure 29) illustrate the movement of teachers between roles for primary and secondary schools, respectively. The thickness of the

lines shows the proportion of teachers who moved from their original role in 2016 (on the left) to their role in 2020 (on the right). Most teachers stayed in the same role year on year, with the percentage remaining in role increasing with seniority.
In both phases, classroom teachers contained the largest flows into and out of the sector, and the largest flows within the sector were between classroom teacher and middle leader. The proportion of middle leaders who moved back to classroom teacher roles was higher than for those who left the state school funded system, for both primary and secondary school teachers. Tabular data, and labelled stock and flow diagrams are included in Annex 6 & 7.

The 'pipeline' model describes a process by which teachers enter the teaching system as classroom teachers, gradually and sequentially rising through leadership grades throughout their careers until they leave the system through wastage or retirement. While this model describes the overall pattern of movement amongst teachers, more complex teacher flows also occur in a substantial minority of cases. Note that in the school sector there are career pathways to headteacher which do not include all possible intermediary steps. Leadership development programmes, such as the National Professional Qualifications for school leadership support both aspirant and in-role participants.[46]

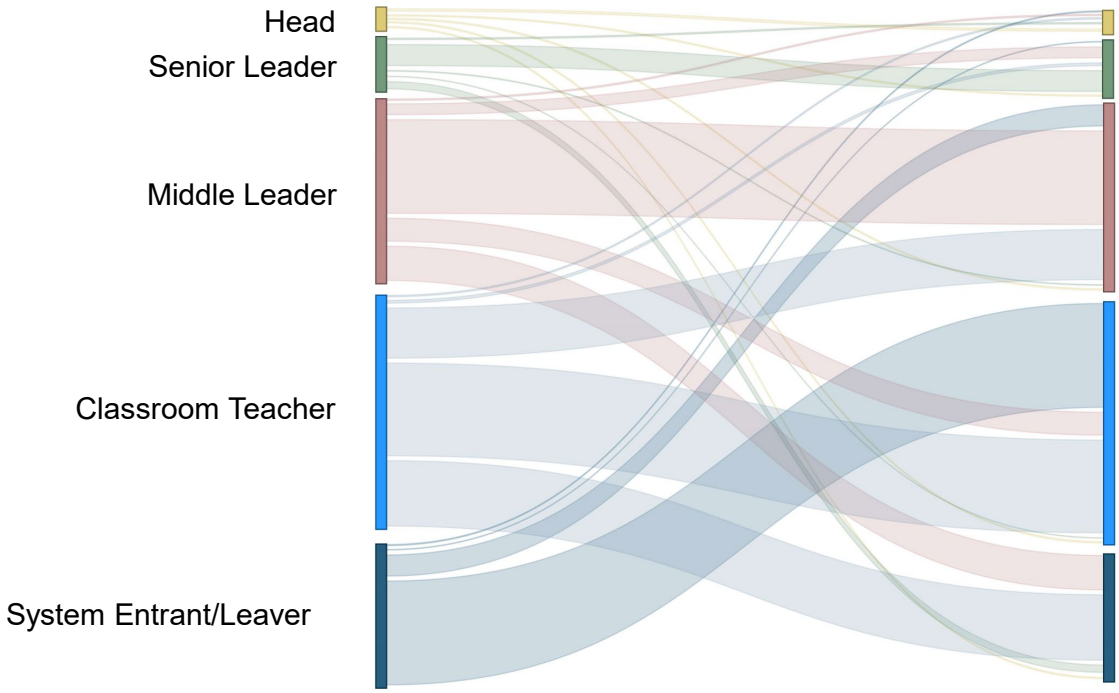
[46] For more information about these programmes, see the collection of publications concerning professional development for school leaders at: https://www.gov.uk/government/collections/professional-development-for-school-leaders.

Figure 28: Flows between grades for Primary schools for the years 2016 and 2020



Source: School Workforce Census 2016 and 2020

Figure 29: Flows between grades for Secondary schools for the years 2016 and 2020

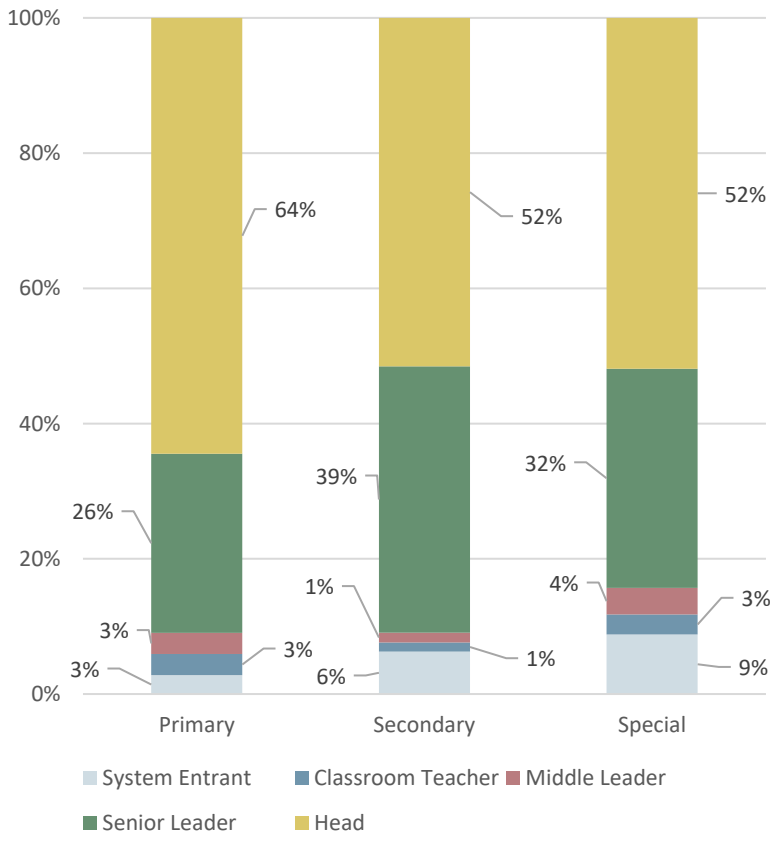


Source: School Workforce Census 2016 and 2020

Teachers may enter a leadership grade more than one step above their current grade or may enter a leadership grade after being outside the system. These non-sequential promotions make up a significant minority of promotions. In primaries schools, for example, for every 100 senior leaders in 2016 who were heads in 2020, 12 classroom teachers, 12 middle leaders and 11 system entrants also became heads. In secondary schools, for every 100 senior leaders from 2016 who were heads in 2020, 3 classroom teachers, 5 middle leaders and 5 system entrants also became heads. Non-sequential promotions appear to be more common in primary schools, where leadership roles are more limited and 'linear' progression may be more difficult.

Figure 30 shows the distribution of 2020 heads by their 2016 leadership grade, indicating that a substantial proportion were neither headteachers nor senior leaders in 2016.

Figure 30: Grade occupied by 2020 heads in 2016, split by school phase in 2020, in terms of FTE



Source: School Workforce Census, 2016 and 2020

A second important feature of leadership flows is their bidirectionality. A substantial number of teachers moved from a higher leadership grade in 2016 to a lower one in 2020. For instance, for every 100 primary heads who left the system between 2016 and 2020, 5 heads became senior leaders, 2 became middle leaders and 5 became

classroom teachers. For every 100 secondary heads who left the system in the same period, 10 became senior leaders, 3 became middle leaders and 5 became classroom teachers. Moves from higher to lower leadership grades are slightly more common in secondary schools.

4. Gender and ethnicity in leadership roles

This section presents information on the gender and ethnic background of teachers entering or currently in leadership. It also compares the time taken for male and female teachers to reach leadership and the ethnicity of teachers in leadership by region.

It also presents the results of logistic regression analyses which compare the likelihood of teachers to be promoted, while controlling for other important factors such as age, experience, school phase, school location and working pattern. Further information about these methods can be found in Annex 8.

Analyses in this section use the 16 self-identifiable ethnicity groupings used in the NS. These 16 ethnicity classifications are grouped into five major ethnicity categories – any Other ethnic background, any other Mixed ethnic background, Asian or Asian British, Black or Black British and White. Some analyses compare the experience of teachers from all Ethnic minority backgrounds. Unless specified otherwise, **these analyses classify teachers from White minority backgrounds as belonging to an Ethnic minority**.

The School Workforce Census collects data on gender, providing the response options 'male,' 'female,' 'not known' and 'not specified.' To stay consistent with this terminology, the terms 'male' and 'female' are used in this section of the report.

The results of these analyses differ from those published in the Leadership Report, 2018, which found no significant difference in likelihood of promotion when comparing teachers by ethnicity. This is likely because the two analyses in the previous report compared promotion rates to first leadership role or headship for NQTs and senior leaders (respectively) who had taught continuously for five years. The analyses presented in this report includes all teachers and treats teachers who left the School Workforce Census as '**not promoted**.'

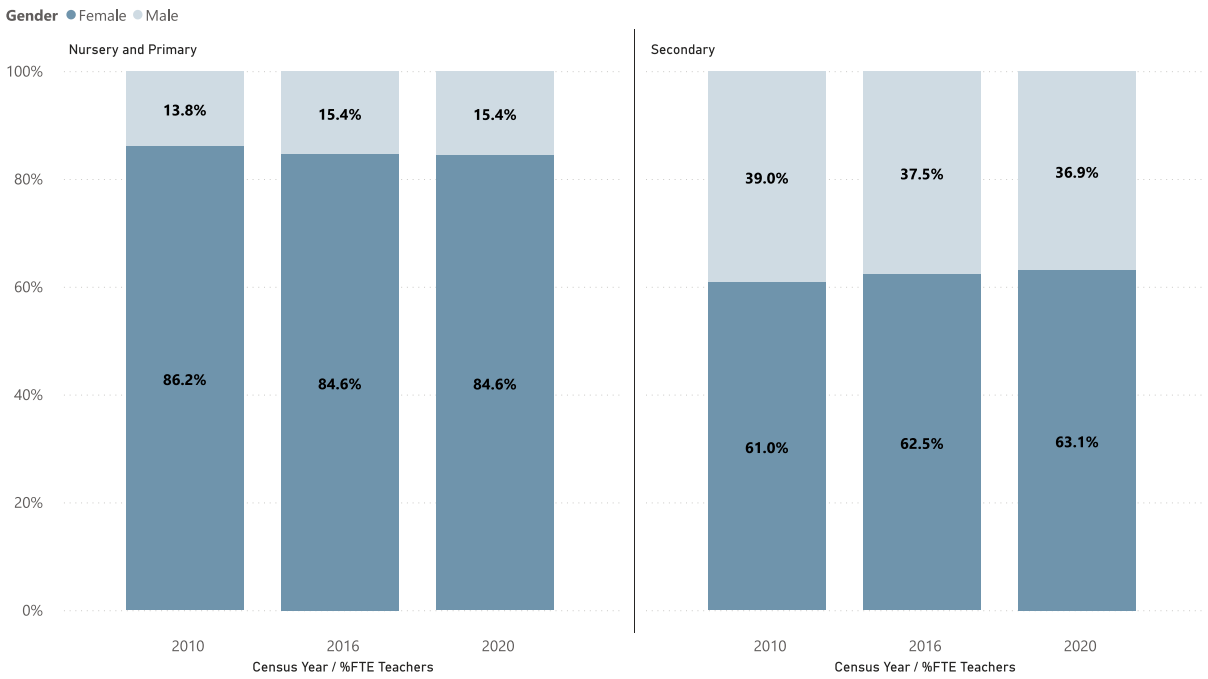
Further evidence on teachers' pay and progression is available in Annex F of the Government's evidence submission to the School Teacher's Review Board.[47]

[47] Found here: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1060707/Government_evidence_to_the_STRB_2022.pdf

Women make up a high proportion of the teaching workforce, but are under-represented at leadership positions - although this is improving, especially in secondary schools

The teaching workforce is predominantly female, particularly in primary schools – see Figure 31 . The proportion of women was highest amongst classroom teachers and middle leaders, and lowest for senior leaders and headteachers.

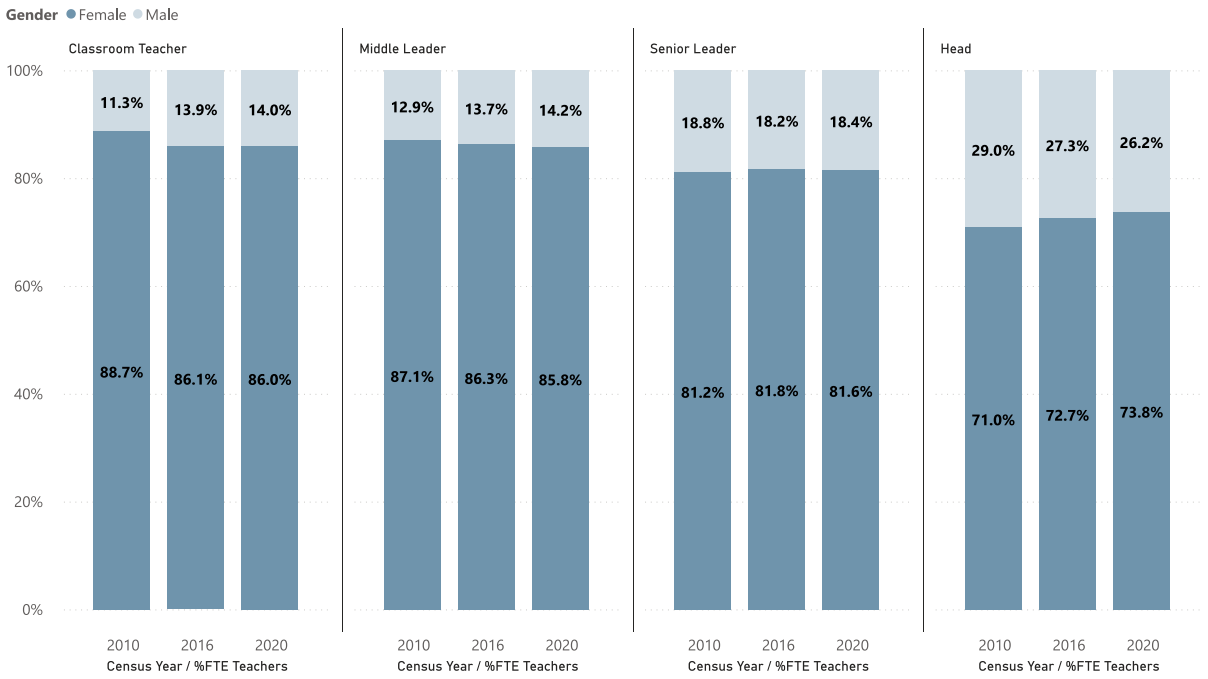
Figure 31: Proportion of female teachers in schools by phase



Source: School Workforce Census 2010, 2016 and 2020

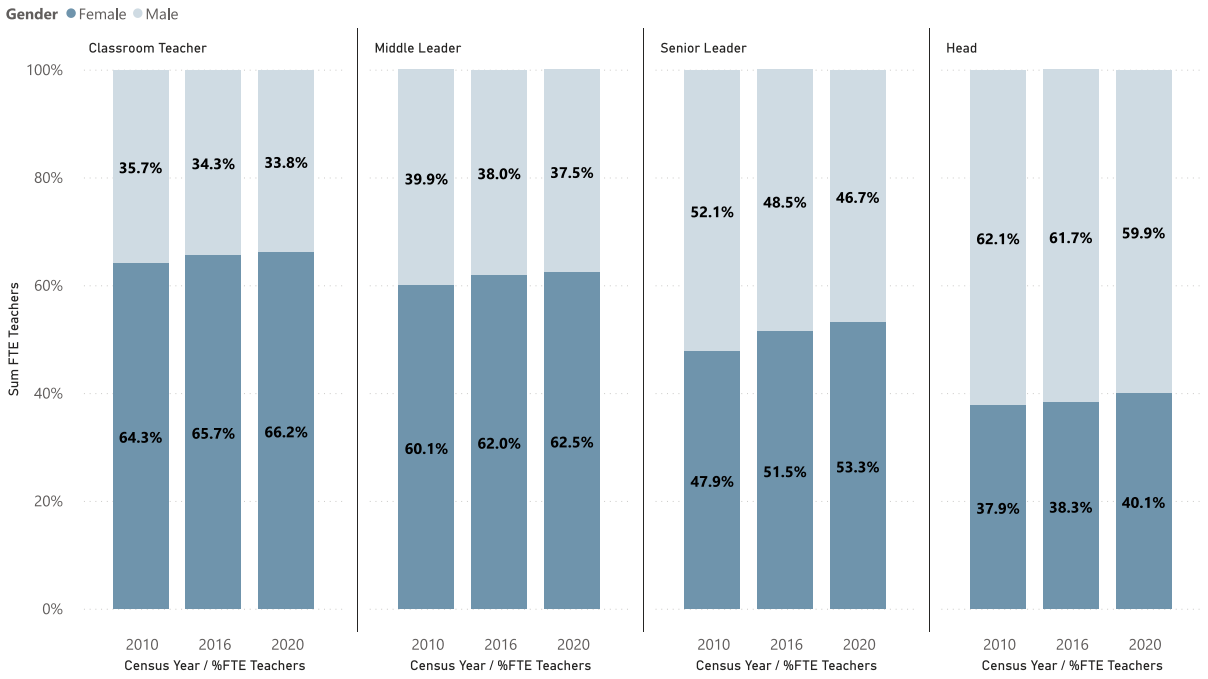
Figure 32 and Figure 33 show that there was a smaller difference between roles in primary schools, where women made up 85% of the workforce in 2020 compared with 74% of headteachers, than in secondary schools, where women made up 63% of the workforce compared with 40% of headteachers. In all schools, between 2010 and 2020, the proportion of leadership roles filled by females has steadily increased from 67% to 70%. This increase has been more pronounced in secondary schools, where the disparity between the proportion of female teachers and the proportion of female leaders is larger.

Figure 32: Proportion of female teachers in primary schools



Source: School Workforce Census 2010, 2016 and 2020

Figure 33: Proportion of female teachers in secondary schools



Source: School Workforce Census 2010, 2016 and 2020

There is a time lag between any changes being seen amongst classroom teachers and similar changes being seen amongst leadership roles because of the time required to gather the necessary experience for a leadership position and replace those currently in the 'stock'[48].

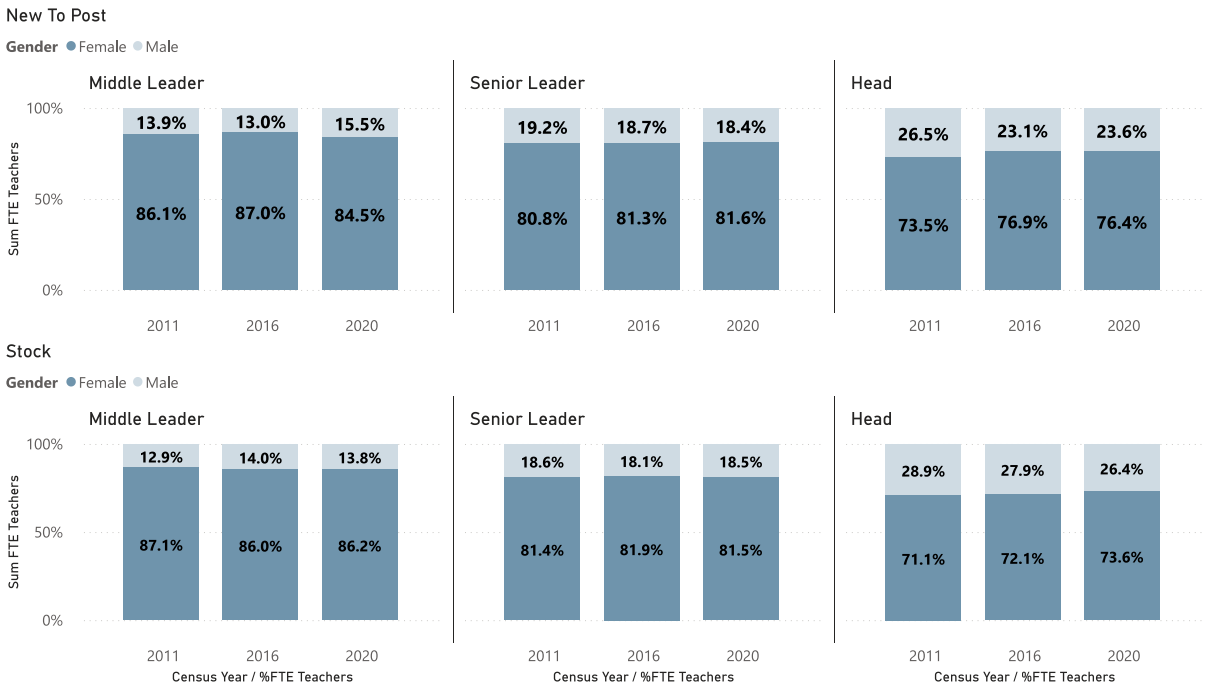
To address the relatively low proportion of females in leadership roles (as compared to classroom teachers) we would hope to see females account for a higher proportion of the 'new to post'[49] teachers moving into leadership positions compared to the current stock[50]. Figure 34 shows, in 2020 within the primary sector, 76% of newly promoted headteachers were female compared with 74% of existing headteachers, this is an increase from 74% and 71% in 2011, respectively. However, in 2020, the new to post proportion was only slightly higher than stock for senior leaders.

The trend of new to post middle leaders at primary schools shows an increase in the proportion of male teachers (from 14% in 2011 to 16% in 2020). This trend matches (but lags behind) the trend of an overall increase in the proportion of male teachers in primary schools visible in Figure 34.

Figure 35 shows the pattern in secondary schools: for 2011, 2016 and 2020 and all leadership levels, the proportion of new to post teachers who were females was greater than the stock. The largest increase was for headteachers where 46% of new to post headteachers were female compared to 39% of existing headteachers, a change from 38% and 38% in 2011, respectively. The increases for senior leaders and headteachers in 2020 were greater than those in 2016, which in turn were greater than those in 2011.

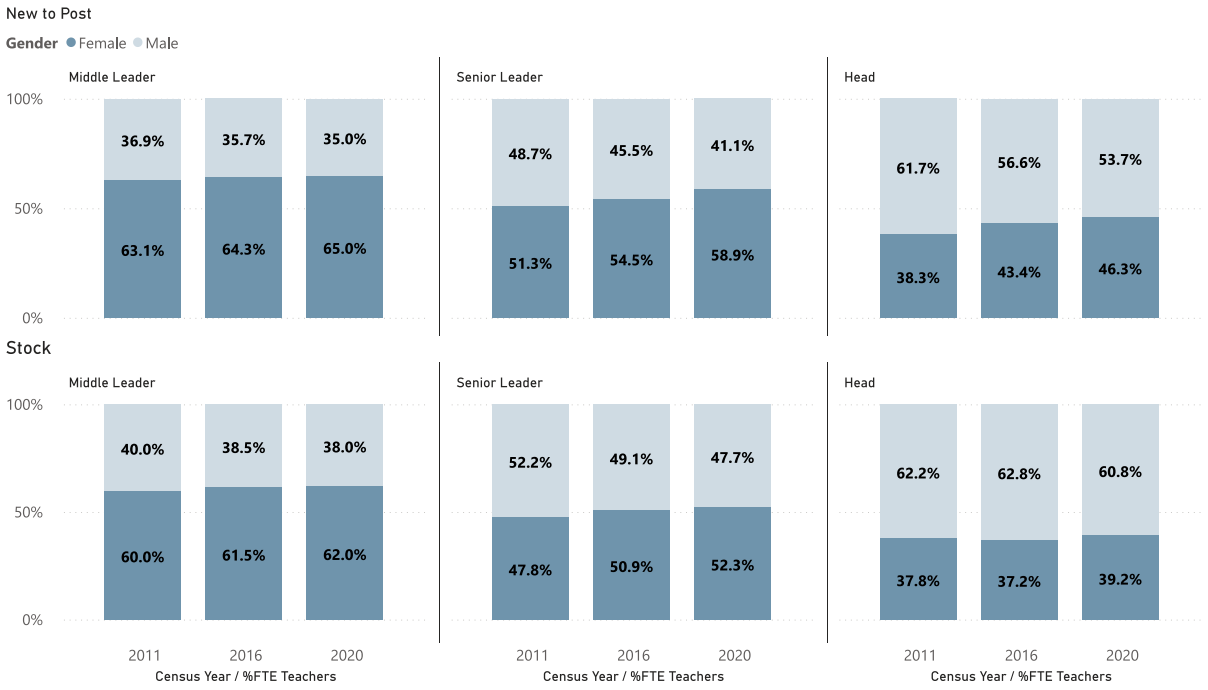
[48] The stock refers to those who are at the same role as in the previous year.
[49] Those new to post includes those who were recorded in a role at a lower grade in the previous year and those who were not found in the state school sector in the previous year. Due to limitations in the methodology, it also includes teachers who were in a higher role in the previous year (approx. 4/5%).
[50] Note that the figures in the graph below do not match exactly those in the previous graph because each role has been split into those new to post and those who were already present in the stock.

Figure 34: Proportion of female teachers new to post in primary schools



Source: School Workforce Census 2011, 2016 and 2020

Figure 35: Proportion of female teachers new to post in secondary schools

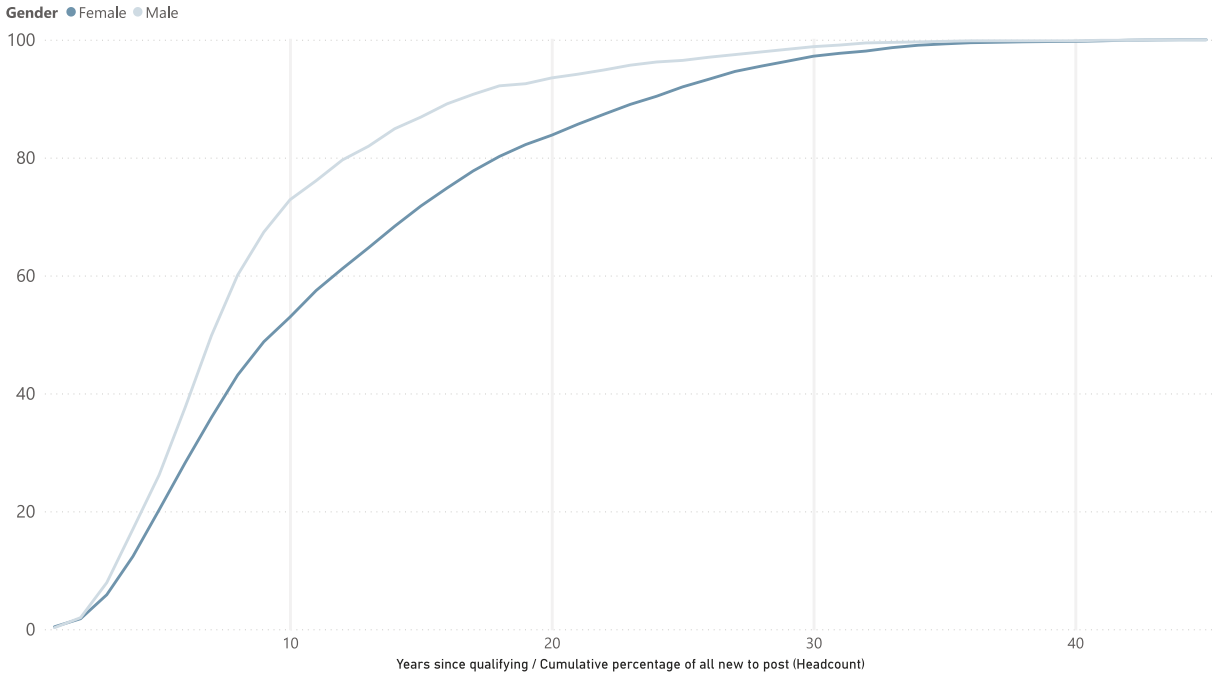


Source: School Workforce Census 2011, 2016 and 2020

Men progressed faster than women to middle leadership and headteacher roles in primary schools

Figure 36 shows, in primary schools, men progressed faster on average to the first middle leadership role[51]; in 2020, the median male teacher new to a leadership position in primary schools had been qualified for 8 years or less, compared with 10 years or less for the median female teacher. This contrasts with the situation in secondary schools where there was little difference between the genders for time to progress; in 2020, the median male and female teacher new to a leadership position in secondary schools had been qualified for 8 years or less.

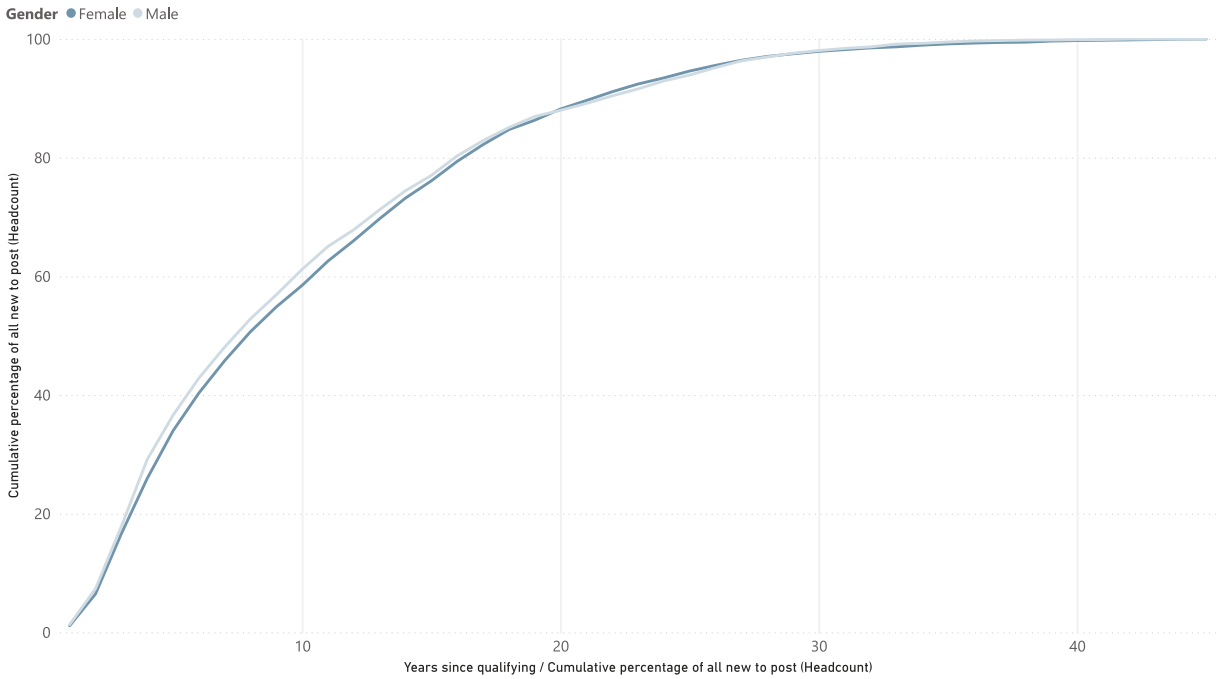
Figure 36: Time since qualification to reach middle leadership in primary schools for male and female teachers



Source: School Workforce Census and Database of Qualified Teachers

[51] 'First leadership role' in this case is measured by being 'new to post.' Those new to post include those who were recorded in a role at a lower grade in the previous year and those who were not found in the state school sector in the previous year. Due to limitations in the methodology, it also includes teachers who were in a higher role in the previous year (approx. 4/5%).

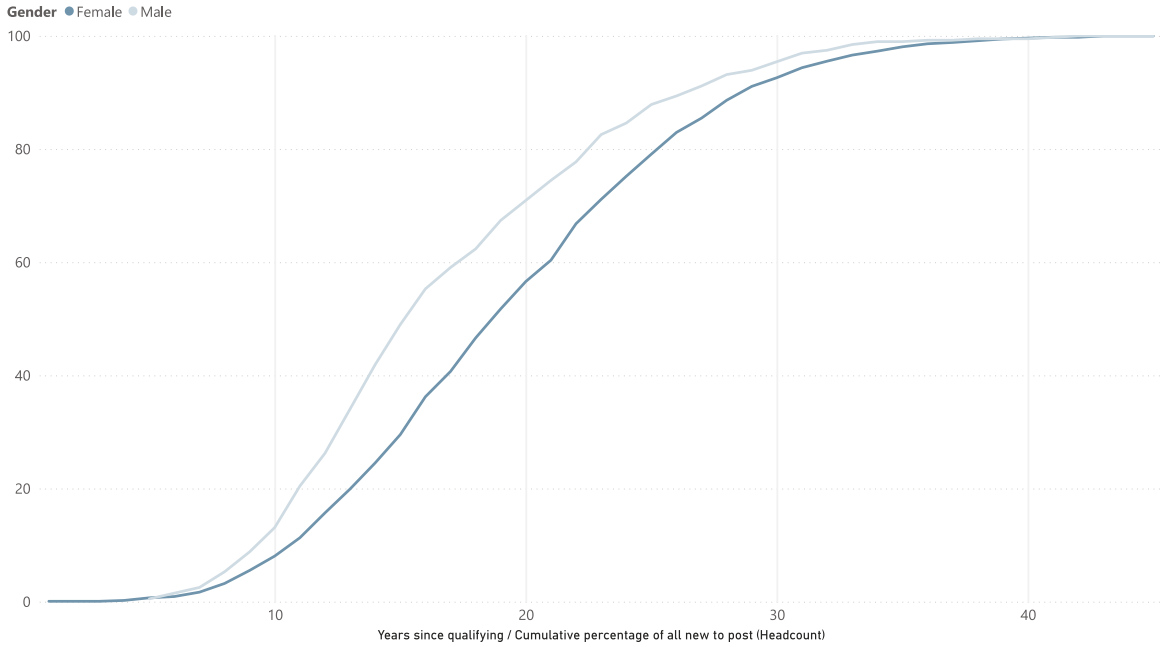
Figure 37: Time since qualification to reach middle leadership in secondary schools for male and female teachers



Source: School Workforce Census and Database of Qualified Teachers

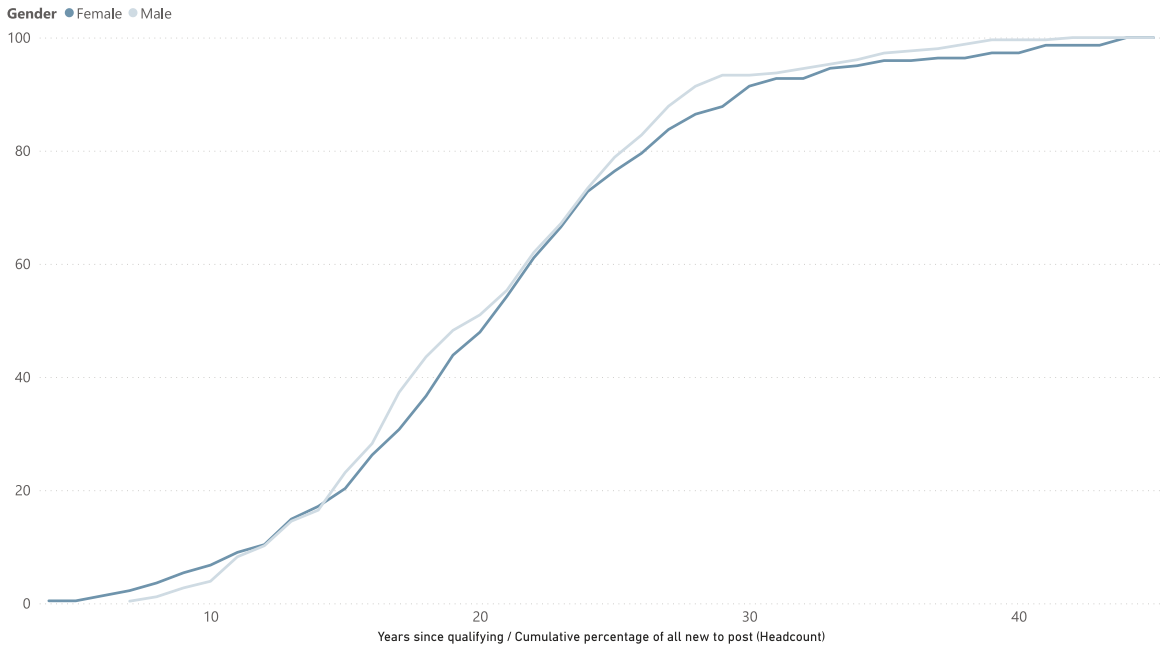
Figure 38 shows that on average men reached headteacher roles faster than women, in primary schools. This pattern is less obvious in secondary schools. In 2020, the median new female primary headteacher had been qualified for 19 years or less, compared with 16 years or less for the median male primary headteacher. In secondary schools, the median female headteacher had been qualified for 21 years or less and the median male headteacher had been qualified for 20 years or less.

Figure 38: Time since qualification to reach headship in primary schools for male and female teachers



Source: School Workforce Census and Database of Qualified Teachers

Figure 39: Time since qualification to reach headship in secondary schools for male and female teachers



Source: School Workforce Census and Database of Qualified Teachers

The proportion of leaders who worked part-time rose between 2010 and 2020

In 2010, 7% of teachers in leadership worked part-time and this rose to 11% in 2020. Female teachers in leadership roles were more likely to be part-time in 2020 (15%) than in 2010 (9%). The proportion of male leaders working part-time has remained relatively stable at 3%, increasing less than half a percent over the decade.

Female teachers and part-time teachers were significantly less likely to be promoted to senior leadership and headship

Regression analysis (Analysis 1) examined promotion likelihood for female teachers and part time teachers, while controlling for ethnicity, age, experience, school phase and school location in 2019/2020.[52]

Significant disparities were found between female and male teachers for promotion to senior and headship levels. In 2019/2020, female teachers were 14% less likely to be promoted to senior leadership – implying that around 17 female middle leaders would be promoted for every 20 male middle leaders. Female teachers were 20% less likely to be promoted to headship, implying that around 16 female senior leaders would be promoted for every 20 male senior leaders. No significant difference in promotion to middle leadership was found for male and female classroom teachers.

Significant disparities between part-time and full-time teachers were found at all levels. In 2019/20, part-time teachers were 45% less likely than full-time teachers to be promoted to headteacher, 43% less likely to be promoted to senior leader and 51% less likely to be promoted to middle leader. At each level, we expect around one part-time teacher to be promoted for every two full-time teachers.

This may reflect barriers to promotion for part-time workers, especially in higher leadership positions, but may also be the result of self-selection amongst those teachers with different priorities in terms of work-life balance, who might be therefore less interested in pursuing promotion.

[52] Further methodological details are provided in Annex 8.

Table 24: Summary of effects in Analysis 1

Leadership level[53]	Model term	Effect (95% Confidence Interval)	Likelihood of promotion vs male/full-time teachers	Statistically significant	Ratio[54]
Middle leader	Female	1.03 (0.99 – 1.08)	+3%	No	21:20
Senior leader	Female	0.86 (0.79 – 0.94)	-14%	Yes	17:20
Head	Female	0.80 (0.71 – 0.9)	-20%	Yes	16:20
Middle leader	Part-time	0.49 (0.46 – 0.51)	-51%	Yes	10:20
Senior leader	Part-time	0.57 (0.51 – 0.64)	-43%	Yes	11:20
Head	Part-time	0.55 (0.46 – 0.66)	-45%	Yes	11:20

The teaching workforce, especially at leadership levels and in primary schools, is less ethnically diverse than the general population, but has become more diverse over time

The proportion of the population of England who identified as belonging to an Ethnic minority[55] increased from 12.5% in 2001 to 22.4% in 2019[56]. In 2010, 9.6% of classroom teachers who identified as belonging to identified as belonging to an Ethnic minority[55], rising to 12.6% in 2020.

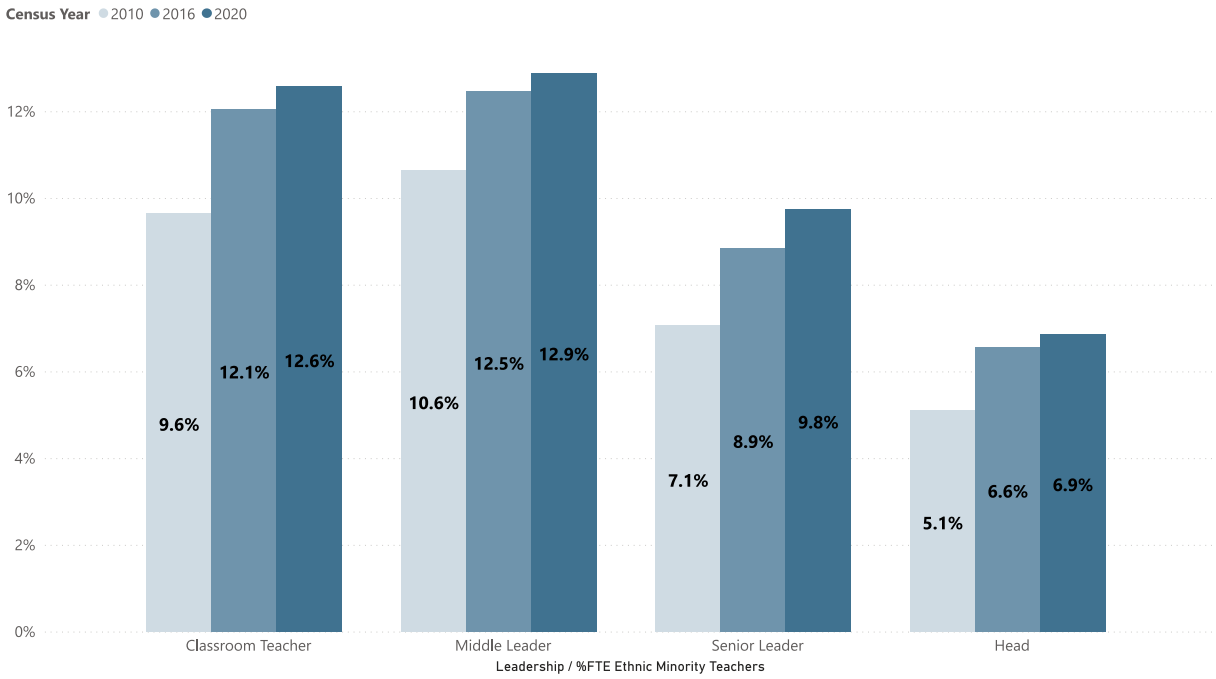
[53] I.e., the model analysing disparities in promotion to this level.
[54] For every 20 male teachers would be promoted, the model predicts that *x* teachers with the characteristic in question would be promoted. E.g., for every 20 male middle leaders promoted to senior leadership, the model predicts 17 female teachers would be promoted.
[55] Ethnic minority including White minorities.
[56] Derived from the ONS publication 'Population estimates by ethnic group, England and Wales', 2019.

Leadership positions are rarely entry points into the teaching profession, and thus the diversity of leaders will lag behind a population whose diversity is changing. This is the case even if there is no disparity in progression to leadership positions.

There has been a rise in the proportion of Ethnic minority[55] teachers in leadership positions, reflecting progression of the more diverse cohorts at lower rungs of the leadership ladder, which in turn reflects the rise in the Ethnic minority[55] proportion of the population.

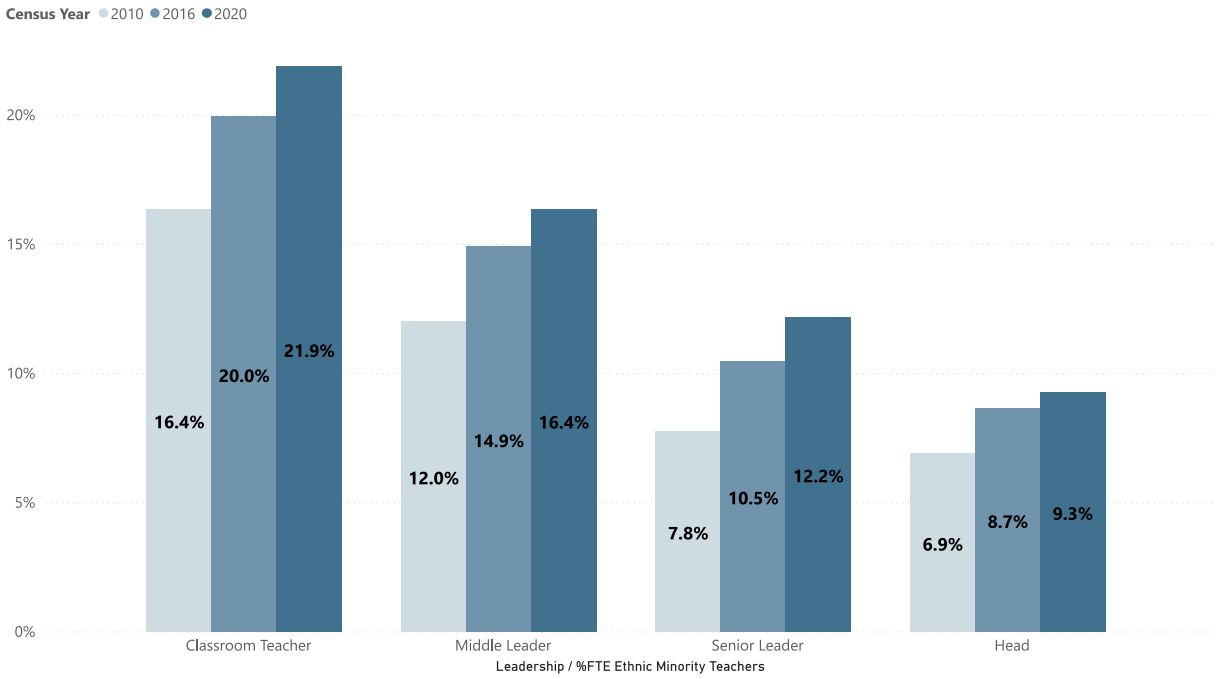
Between 2010 and 2020, the proportion of leadership positions held by Ethnic minority[55] teachers has steadily increased (from 5% to 7% for headteachers in primary schools, and from 7% to 9% for headteachers in secondary schools. The proportion of Ethnic minority[55] teachers in the overall workforce has also increased (from 9% to 12% in primary schools and from 14% to 19% in secondary schools).

Figure 40: Proportion of primary school teachers from an Ethnic minority background



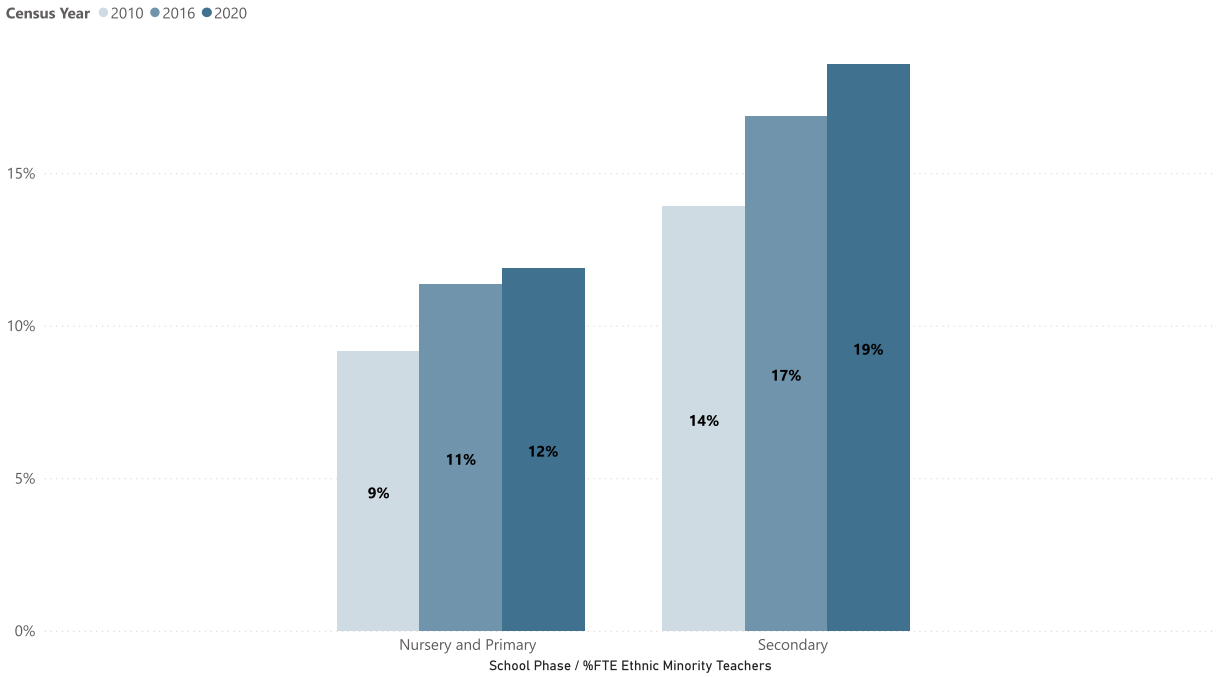
Source: School Workforce Census 2010, 2016 and 2020

Figure 41: Proportion of secondary school teachers from an Ethnic minority background



Source: School Workforce Census 2010, 2016 and 2020

Figure 42: Proportion of teachers from an Ethnic minority background by phase



Source: School Workforce Census 2020

New to post[57] leaders are more ethnically diverse than current stock

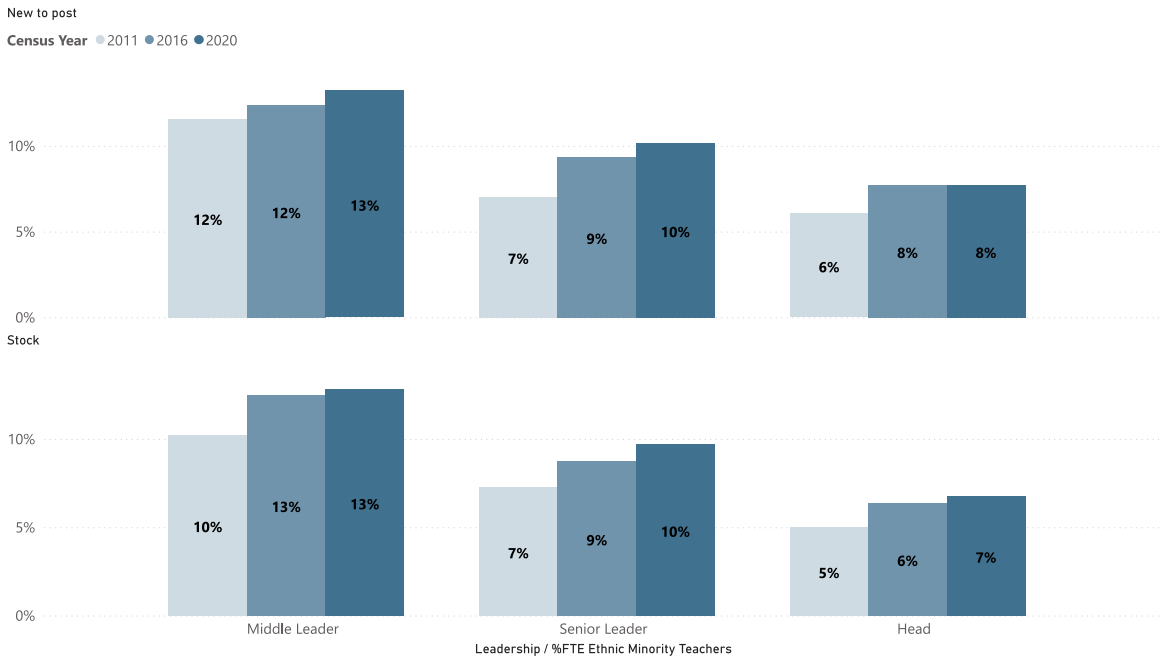
The ethnic diversity of the current leadership stock is naturally lower than that of the classroom teacher population, likely because the ethnic diversity of the wider population is increasing. The ethnic diversity of 'new to post' leaders is a key indicator which reveals how the diversity of leadership stock is likely to change as teachers flow through the system. As equality in progression can, and should be achieved before equality of the population, we would hope to see the ethnic diversity of those "new to post" higher than that of the stock at each grade.

In 2020, those new to post were more ethnically diverse than those they joined already at the grade (the stock), for each level of leadership, both in primary and secondary schools. Figure 43 and Figure 44 show that the gap between new to post and stock is bigger in secondary schools than primary.

In primary schools in 2020, 8% of new to post headteachers were from Ethnic minorities[55] compared to 7% of the stock of headteachers. In secondary schools, 10% of new to post headteachers were from Ethnic minorities[55] compared to 9% of the stock.

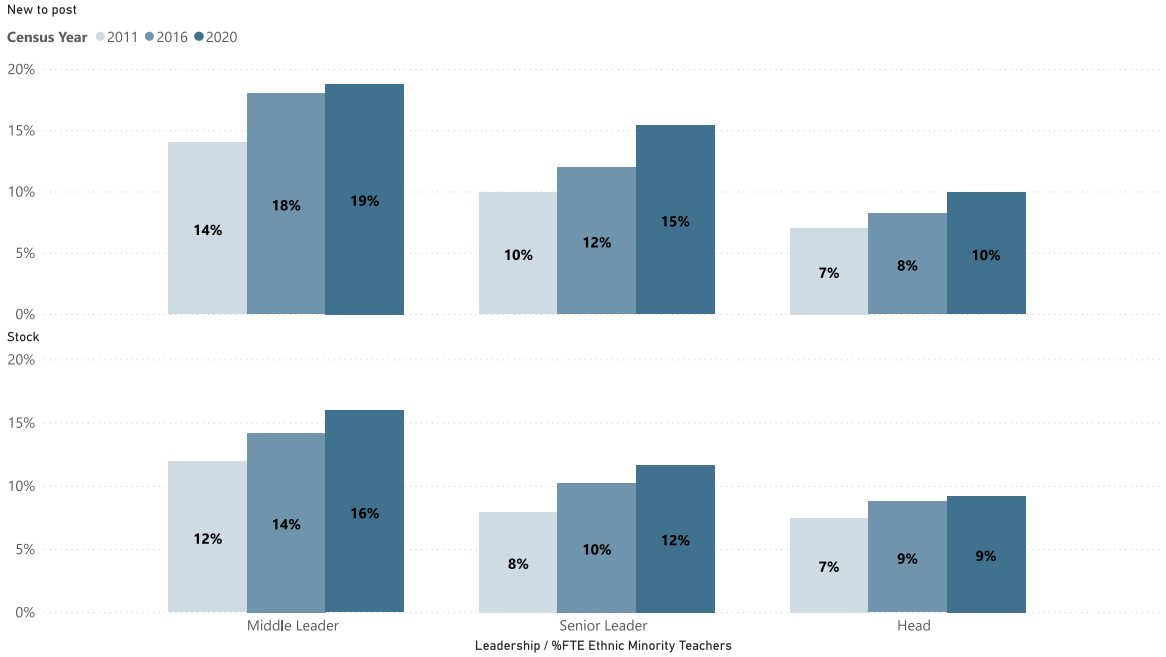
[57] Those new to post include those who were recorded in a role at a lower grade in the previous year and those who were not found in the state school sector in the previous year. Due to limitations in the methodology, it also includes teachers who were in a higher role in the previous year (approx. 4/5%).

Figure 43: Proportion of primary school teachers new to post from an Ethnic minority background



Source: School Workforce Census 2011, 2016 and 2020

Figure 44: Proportion of secondary school teachers new to post from an Ethnic minority background



Source: School Workforce Census 2011, 2016 and 2020

Ethnic minority[55] teachers are densely clustered in London schools

The different ethnic groups are not equally distributed within the teaching population across the country, in common with the general population. In primary schools, 52% of all Ethnic minority[55] teachers were in London compared with 12% of their White British counterparts; for secondary schools, the figures were 43% and 11% respectively. These proportions are slightly larger than the comparative proportions of each Ethnic minority groups that lives in London – e.g., 52% of all Black or Black British people in England, and 73% of all Black or Black British primary school teachers are in London.

Table 25: Proportion of teachers in each ethnic group who teach in London, versus the equivalent figures for the general population

	Proportion of teachers from ethnic group who teach in London			Proportion of ethnic group who live in London
Ethnic Group	**Nursery and Primary**	**Secondary**	**Special or PRU**	**General population**
Any Other ethnic group	64%[58]	50%	57%	50%
Any other Mixed background	45%	38%	39%	33%
Any other White background	51%	35%	52%	38%
Asian or Asian British	45%	40%	41%	36%
Black or Black British	73%	61%	65%	52%
Ethnic minorities[55]	52%	43%	51%	41%
White British	12%	11%	11%	9%

Source: ONS publication 'Population estimates by ethnic group, England and Wales'[59], 2019, School Workforce Census 2020

[58] E.g., 64% of all nursery & primary teachers who identify as belong to the 'Other' ethnic group teach in London. This suggests they are more clustered than people in the Other ethnic group in general, for whom 50% live in London.

[59] Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/ethnicity/datasets/populationestimatesbyethnicgroupenglandandwales

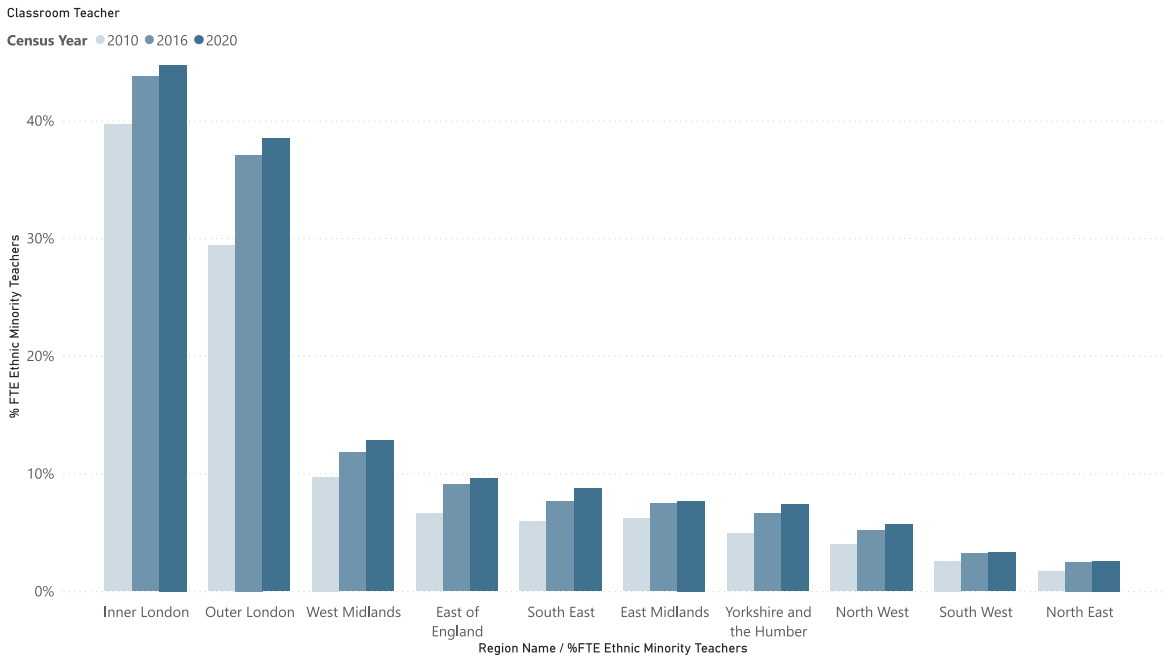
Figure 45 to Figure 52 show the distribution of Ethnic minority[55] teachers by role and region for primary and secondary phases respectively. The figures show that in primary and secondary schools between 2010 and 2020, teachers have become more ethnically diverse in every region for middle leadership. At senior leadership level teachers have become more ethnically diverse in every region except for South West primary schools where there is a slight dip. Head teacher's diversity is more mixed: there was a slight decrease in East Midlands in primary schools, slight decreases in North East in both primary and secondary and a larger decrease in ethnic diversity in Inner London in secondary schools where the proportion of heads from Ethnic minorities fell from 34% in 2010 to 30% in 2016 and 25% in 2020,

The highest proportion of teachers from Ethnic minority[55] groups in all leadership roles was in Inner and Outer London, followed by the West Midlands. These regions also had the highest proportions of teachers and pupils[60] from Ethnic minority[55] groups. 37% of leaders in London were from Ethnic minority[55] backgrounds compared with 42% of teachers and 75% of pupils. While the West Midlands have 14% of leaders, 15% of teachers and 39% of pupils from Ethnic minority[55] backgrounds.

There was a greater geographic spread of Ethnic minorities in the secondary school phase. The pattern where headteachers are less diverse than senior leaders, who in turn are less diverse than middle leaders, is consistent across all regions.

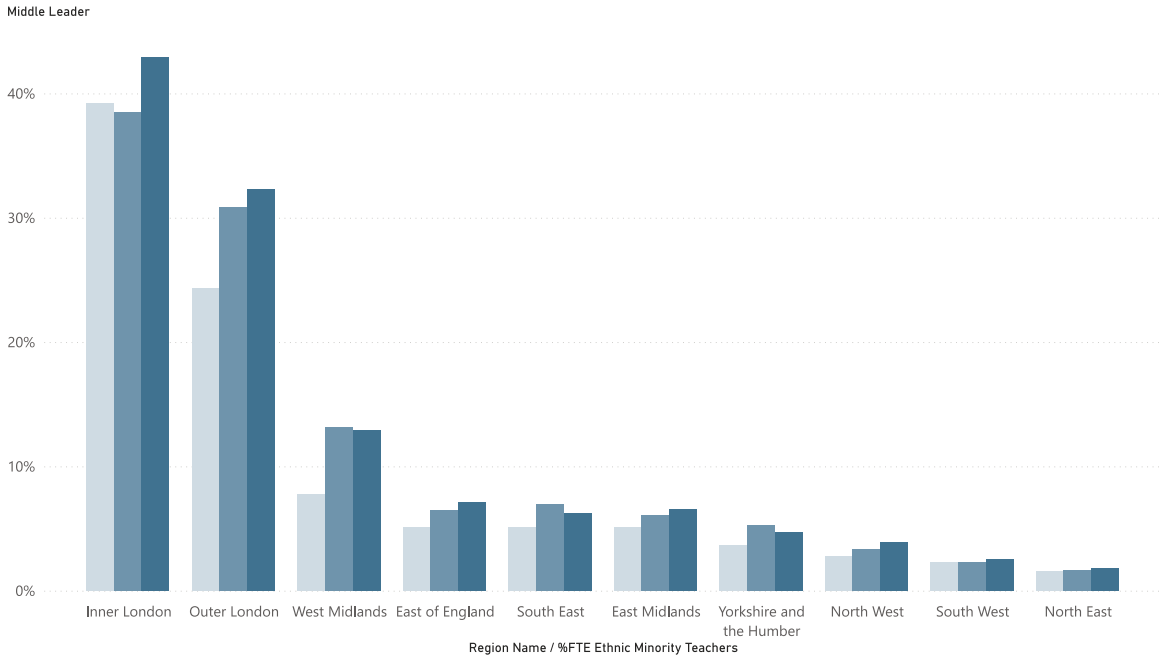
[60] Data source: Department of Education (2020/2021) Schools, pupils and their characteristics. https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics

Figure 45: Proportion of Ethnic minority[55] Classroom Teachers in primary schools by region in 2010, 2016 and 2020



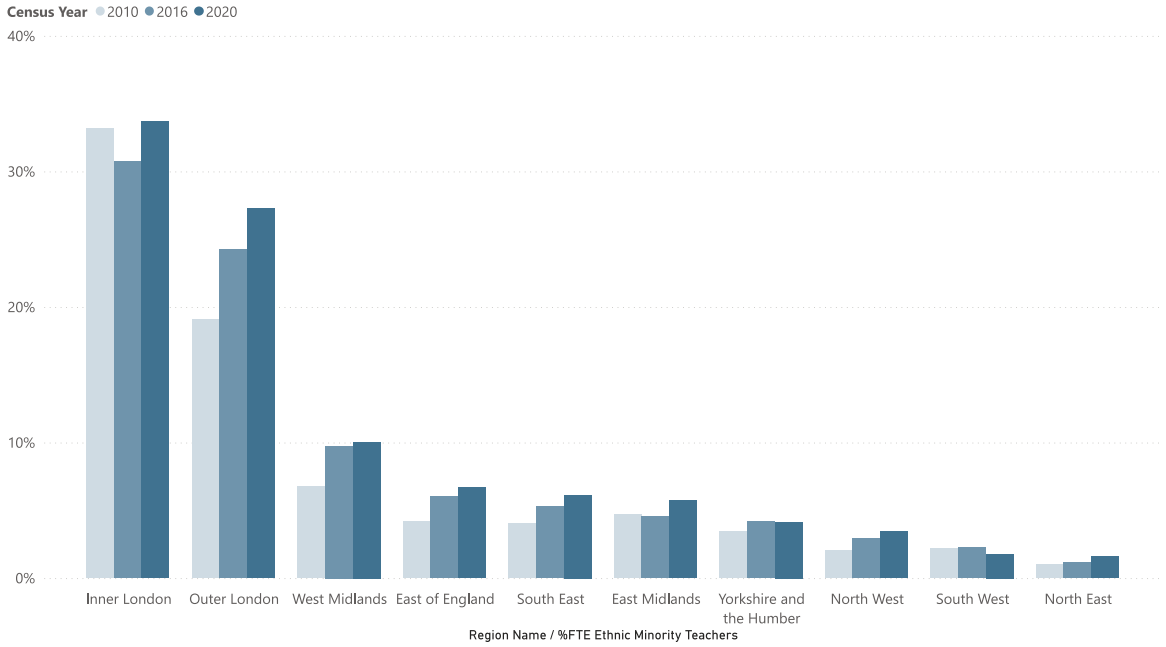
Source: School Workforce Census 2010, 2016 and 2020

Figure 46: Proportion of Ethnic minority Middle Leaders in primary schools by region in 2010, 2016 and 2020



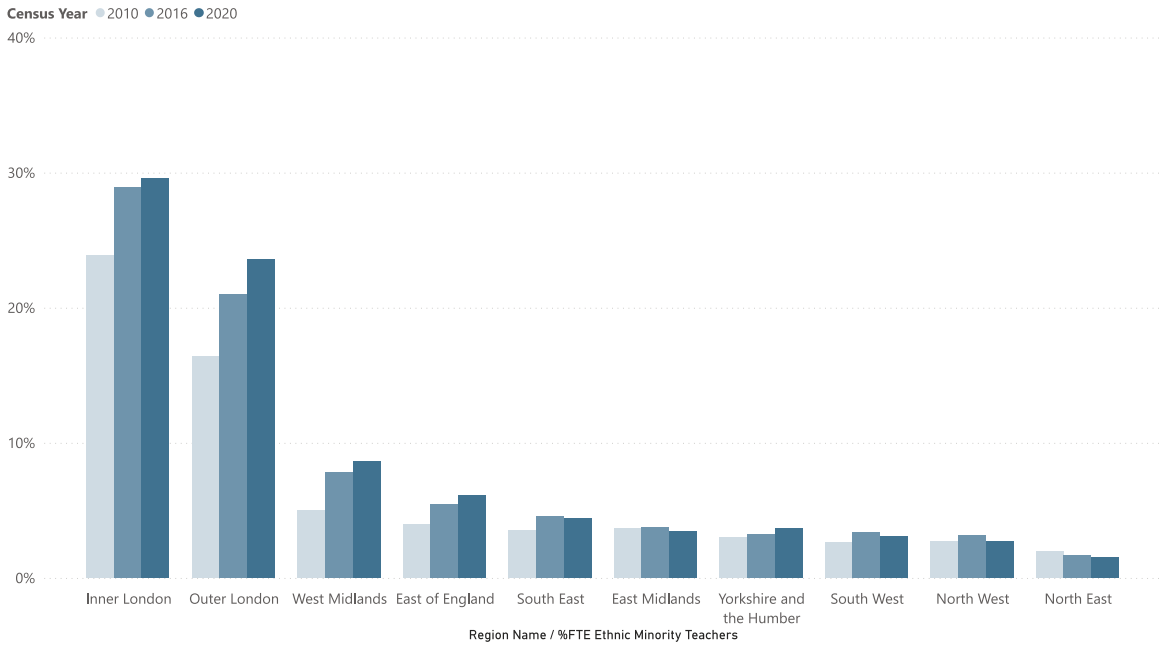
Source: School Workforce Census 2010, 2016 and 2020

Figure 47: Proportion of Ethnic minority Senior Leaders in primary schools by region in 2010, 2016 and 2020



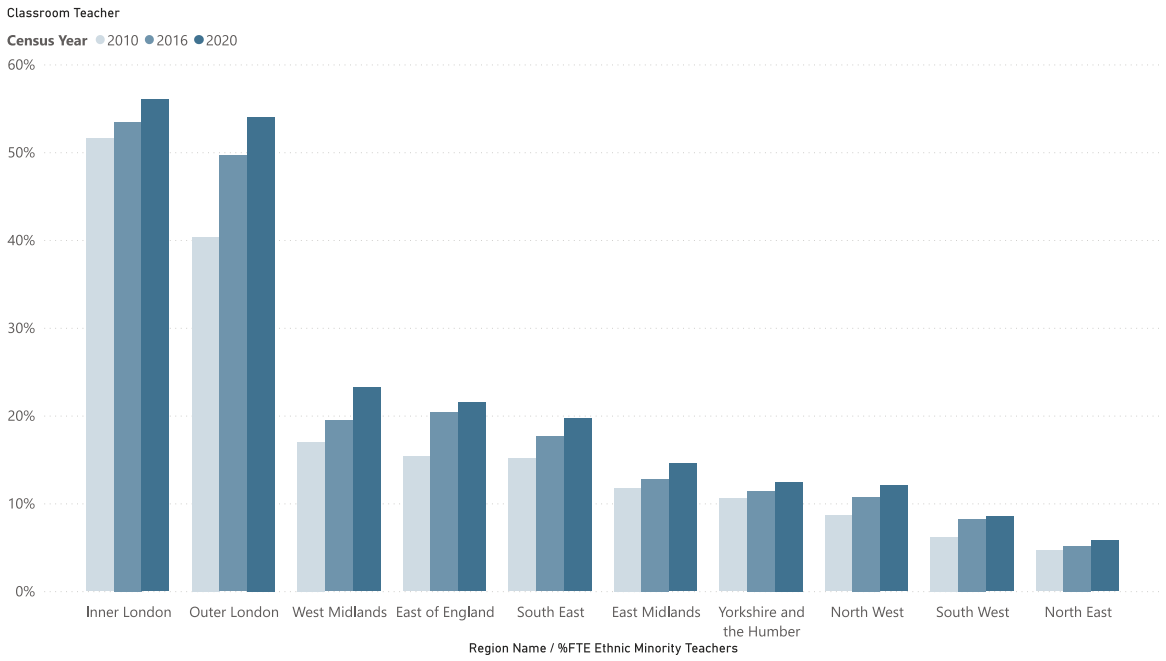
Source: School Workforce Census 2010, 2016 and 2020

Figure 48: Proportion of Ethnic minority Heads in primary schools by region in 2010, 2016 and 2020



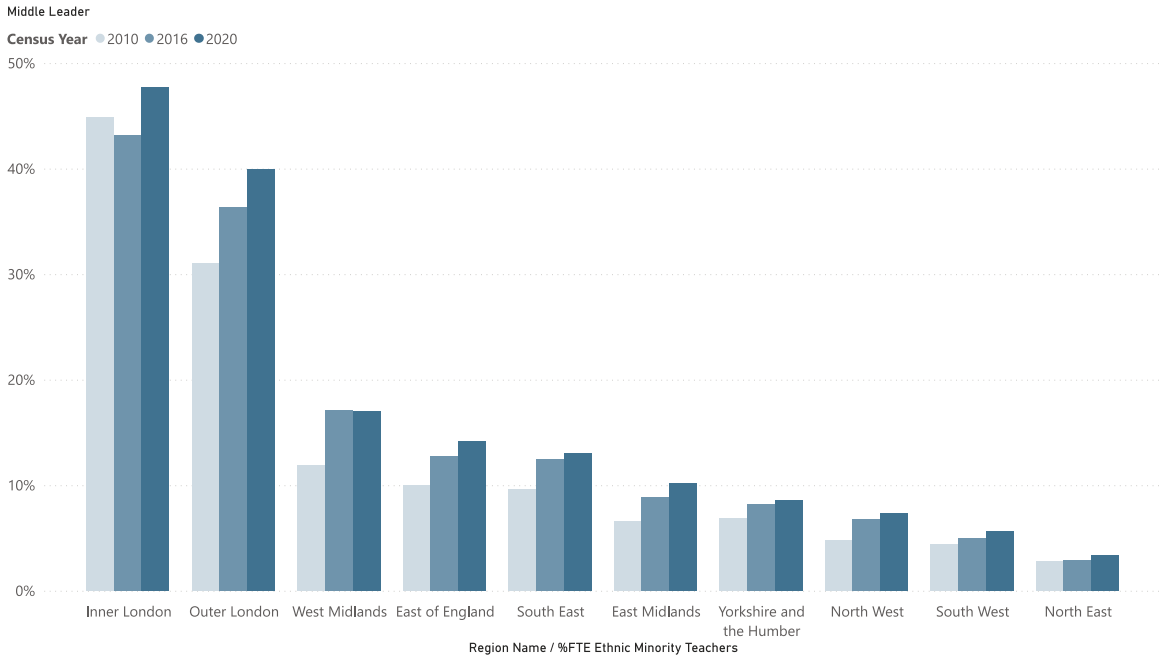
Source: School Workforce Census 2010, 2016 and 2020

Figure 49: Proportion of Ethnic minority Classroom Teachers in secondary schools by region in 2010, 2016 and 2020



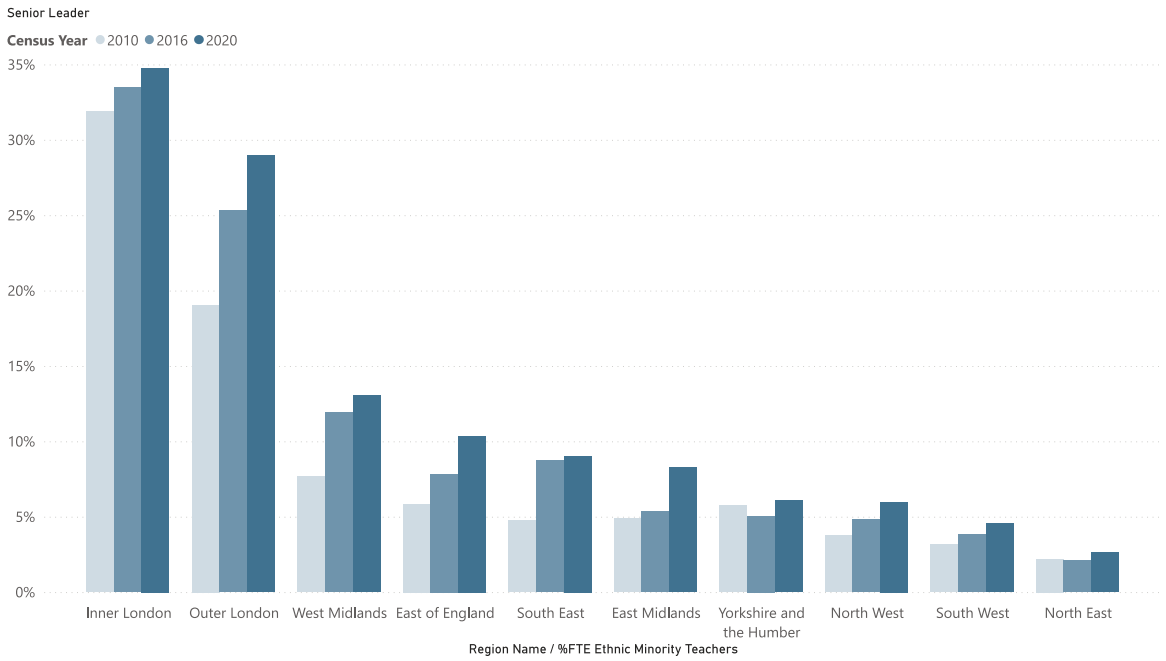
Source: School Workforce Census 2010, 2016 and 2020

Figure 50: Proportion of Ethnic minority Middle Leaders in secondary schools by region in 2010, 2016 and 2020



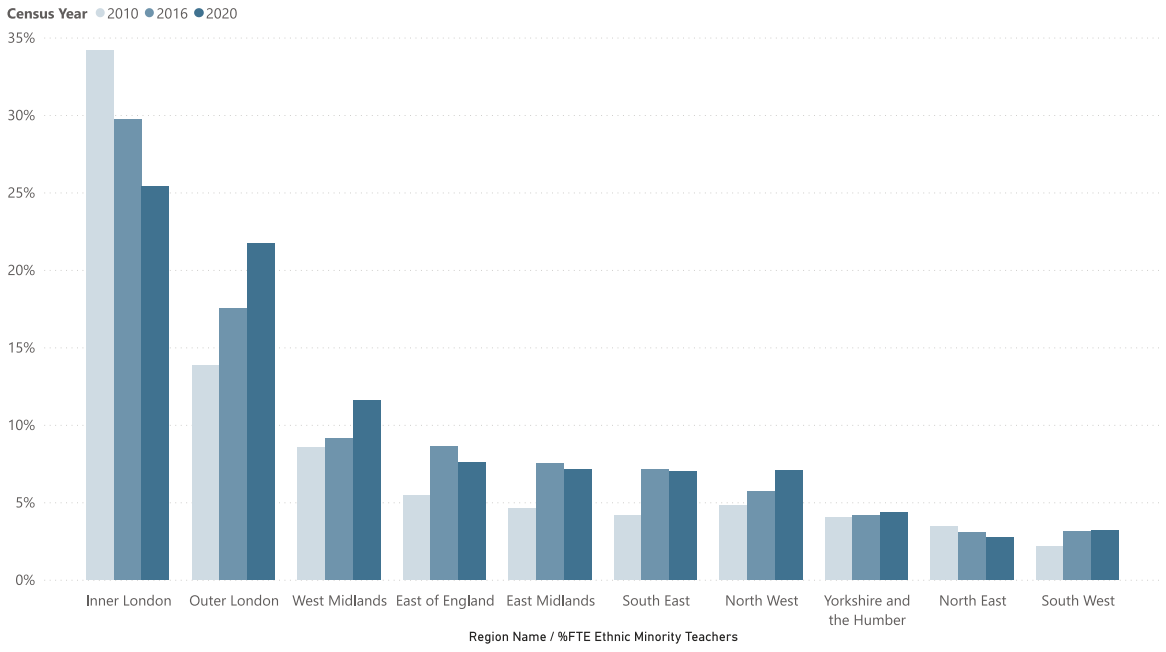
Source: School Workforce Census 2010, 2016 and 2020

Figure 51: Proportion of Ethnic minority Senior Leaders in secondary schools by region in 2010, 2016 and 2020



Source: School Workforce Census 2010, 2016 and 2020

Figure 52: Proportion of Ethnic minority Head in secondary schools by region in 2010, 2016 and 2020



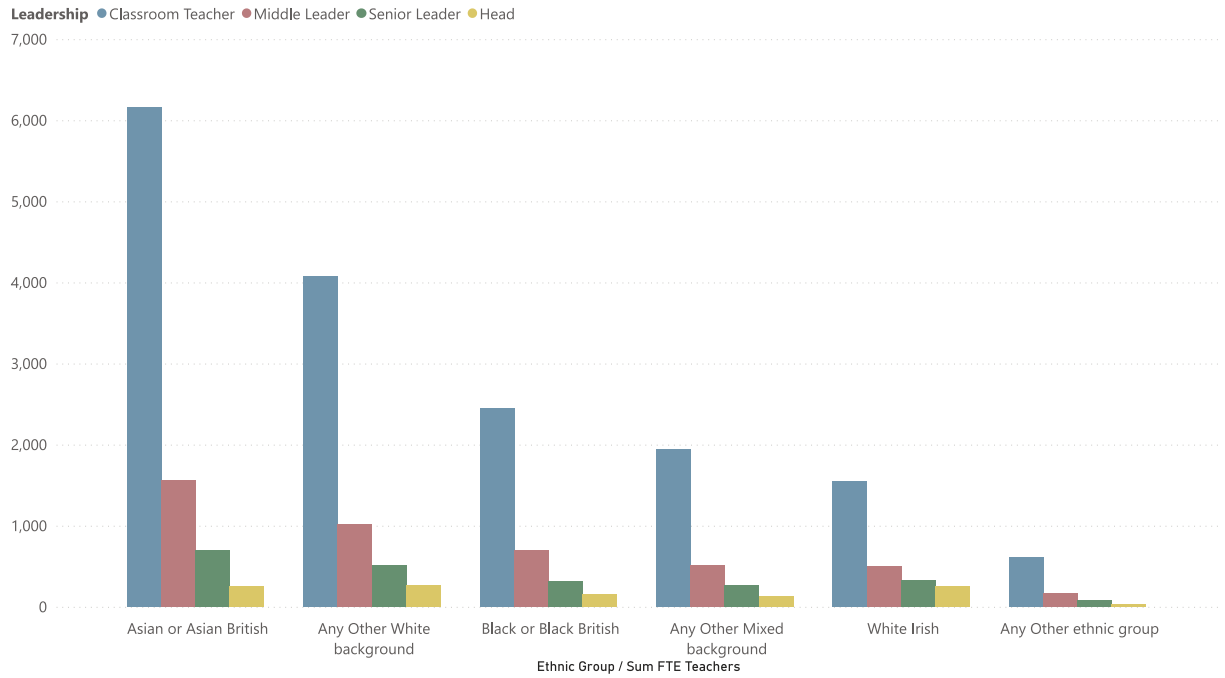
Source: School Workforce Census 2010, 2016 and 2020

Figure 53 and Figure 54 show the number of teachers from each minority ethnic group by role for primary and secondary schools respectively, in 2020. A full definition for each of the ethnic groups can be found in the Methodology Section.

In primary schools, 22% of White Irish ethnicity teachers were in senior leaders/headteacher roles, compared to 13% Black or Black British teachers, 11% Asian or Asian British teachers and 19% of White British primary school teachers.

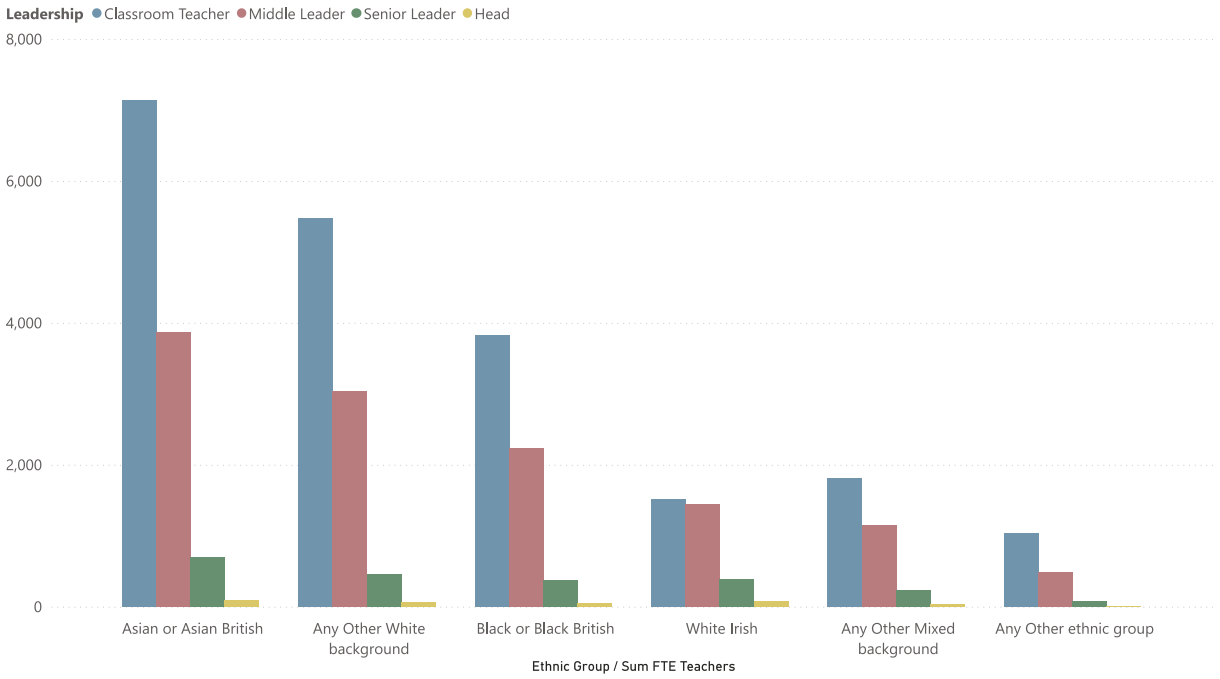
In secondary, schoolteachers of White Irish ethnicity were more likely to be senior leaders or headteachers compared with all other ethnicity groups, and less likely to be a classroom teacher. 14% of White Irish teachers in secondary schools were in senior leader/headship roles compared to Asian or Asian British (7%), Black or Black British (6%), and Any other White background (6%); this compares with 12% of White British secondary school teachers.

Figure 53: Number of teachers from minority ethnic groups in primary schools, by role



Source: School Workforce Census 2020

Figure 54: Number of teachers from minority ethnic groups in secondary schools, by role



Source: School Workforce Census 2020

Teachers from Ethnic minority backgrounds were significantly less likely to be promoted to leadership[61]

Teachers from Ethnic minority (including White minority) backgrounds were less likely to be promoted than White British teachers

Regression analysis (Analysis 2) found significant evidence of disparities in promotion to middle leadership. When controlling for age, experience, sex, school phase and school location, classroom teachers from Ethnic minority[55] backgrounds were on average 18% less likely to be promoted to middle leadership in a given year, compared to White British teachers. Middle leaders from Ethnic minority[55] backgrounds were 14% less likely. Senior leaders from Ethnic minority[55] backgrounds were 15% less likely to be promoted to be promoted to headship.

These findings imply that at each level, for every 20 White British teachers promoted, the model predicts that 16-17 teachers from an Ethnic minority[55] background would be

[61] Further methodological details are provided in Annex 8.

promoted. Models which compared promotion likelihood on a year-by-year basis found no evidence for a widening or narrowing of these gaps over time.

Table 26: Summary of effects in Analysis 2

Leadership level	Model term	Effect (95% Confidence Interval)	Likelihood of promotion vs White British teachers	Statistically significant	Example Ratio
Middle leader	Ethnic minority[55]	0.82 (0.80 – 0.84)	-18%	Yes	16:20
Senior leader	Ethnic minority[55]	0.86 (0.81 – 0.90)	-14%	Yes	17:20
Head	Ethnic minority[55]	0.85 (0.79 – 0.92)	-15%	Yes	17:20

Further analyses, comparing different Ethnic minority groups, support these findings. Regression analysis (Analysis 3) finds significant disparities in promotion likelihood between Ethnic minority (excluding White minorities) teachers and White British teachers at all levels, between 2015-2019. Significant disparities are also found in likelihood of promotion when comparing teachers from White minority (excluding White Irish) backgrounds and White British teachers at middle and senior leadership levels. No significant difference was found for White Irish teachers.

These findings suggest that for every 20 White British classroom teachers who were promoted to middle leader, the model would predict 16 Ethnic minority (excluding White minority) teachers, 20 White Irish teachers and 15 teachers from other White minority backgrounds would be promoted.

For every 20 White British teachers promoted to senior leader, the model predicts 17 Ethnic minority (excluding White minority) teachers, 20 White Irish teachers and 17 teachers from other White minority backgrounds would be promoted.

For every 20 White British teachers promoted to headship, the model predicts 16 Ethnic minority (excluding White minority) teachers, 20 White Irish teachers and 18 teachers from other White minority backgrounds would be promoted.

Table 27: Summary of effects in Analysis 3

Leadership level	Model term	Effect (95% Confidence Interval)	Likelihood of promotion vs White British teachers	Statistically significant	Ratio
Middle leader	Ethnic minority (ex. White minorities)	0.82 (0.80 – 0.85)	-18%	Yes	16:20
Middle leader	White Irish	1.01 (0.95 – 1.06)	+1%	No	20:20
Middle leader	Any other White background	0.73 (0.71 – 0.76)	-27%	Yes	15:20
Senior leader	Ethnic minority (ex. White minorities)	0.84 (0.79 – 0.89)	-16%	Yes	17:20
Senior leader	White Irish	0.99 (0.89 – 1.11)	-1%	No	20:20
Senior leader	Any other White background	0.83 (0.76 – 0.91)	-17%	Yes	17:20
Head	Ethnic minority (ex. White minorities)	0.79 (0.71 – 0.87)	-21%	Yes	16:20
Head	White Irish	1.02 (0.87 – 1.2)	+2%	No	20:20
Head	Any other White background	0.88 (0.76 – 1.02)	-12%	Borderline (p = 0.098)	18:20

Teachers from Asian or Asian British, Black or Black British, other Mixed and Other ethnic backgrounds were less likely to be promoted than teachers from other ethnic groups

Regression analysis (Analysis 4) finds significant disparities in promotion likelihood between teachers who identify as belonging to an Asian or Asian British, Black or Black British, any other Mixed background, any other White background and any Other ethnic background when compared to White British and White Irish teachers.

Significant differences are observed for teachers from an Asian or Asian British, Black or Black British, any other Mixed background, any Other and any other White ethnic background for promotions to middle leadership.

Significant differences are observed for Asian or Asian British, Black or Black British, and any other White background for promotions to senior leadership.

Significant differences are observed for Asian or Asian British teachers for promotion to headship, with borderline significant findings for Black or Black British and other White background teachers.

Table 28: Summary of effects in Analysis 4

Leadership level	Model term	Effect (95% Confidence Interval)	Likelihood of promotion vs White British teachers	Statistically significant	Ratio
Middle leader	Asian or Asian British	0.79 (0.76 – 0.82)	-21%	Yes	16:20
Middle leader	Black or Black British	0.86 (0.82 – 0.90)	-14%	Yes	17:20
Middle leader	Any other Mixed background	0.94 (0.89 – 0.99)	-6%	Yes	19:20
Middle leader	White Irish	1.01 (0.95 – 1.06)	+1%	No	20:20
Middle leader	Any other White background	0.73 (0.71 – 0.76)	-27%	Yes	15:20
Middle leader	Any Other ethnic background	0.73 (0.66 – 0.80)	-27%	Yes	15:20
Senior leader	Asian or Asian British	0.79 (0.73 – 0.86)	-21%	Yes	16:20
Senior leader	Black or Black British	0.85 (0.73 – 0.86)	-15%	Yes	17:20
Senior leader	Any other Mixed background	0.98 (0.86 – 1.11)	-2%	No	20:20
Senior leader	White Irish	0.99 (0.89 – 1.11)	-1%	No	20:20
Senior leader	Any other White background	0.83 (0.76 – 0.91)	-27%	Yes	15:20

Leadership level	Model term	Effect (95% Confidence Interval)	Likelihood of promotion vs White British teachers	Statistically significant	Ratio
Senior leader	Any Other ethnic background	0.83 (0.67 – 1.03)	-17%	Borderline (p = 0.086)	17:20
Head	Asian or Asian British	0.73 (0.64 – 0.84)	-27%	Yes	15:20
Head	Black or Black British	0.84 (0.69 – 1.02)	-16%	Borderline (p = 0.083)	17:20
Head	Any other Mixed background	0.88 (0.72 – 1.09)	-12%	No	18:20
Head	White Irish	1.03 (0.87 – 1.20)	+3%	No	21:20
Head	Any other White background	0.88 (0.76 – 1.02)	-12%	Borderline (p = 0.100)	19:20
Head	Any Other ethnic background	0.79 (0.52 – 1.15)	-21%	No	16:20

School leadership in England 2010 to 2020: characteristics and trends

Annex 1: Methodology

This study uses data from the School Workforce Census to analyse the characteristics of the school leadership workforce. The School Workforce Census is an annual collection of the composition of the school workforce in England employed in: local-authority-maintained nursery, primary, secondary and special schools; all primary, secondary, and special academy schools; and free schools. Data have been included from each of the censuses from 2010 to 2020. Where a teacher is indicated as in service in a particular year, this refers to the census day in November of that year which is used as a proxy for the rest of that academic year. So, for example, staff recorded as in service for November 2020 are used as an approximation of the workforce for the whole of the 2020/21 academic year.

For more information on how the School Workforce Census (SWC) data is collected and how the statistics are produced see the School Workforce in England.[62]

These data have been supplemented with information from the database of qualified teachers, a register of all qualified teachers in England and Wales, maintained by the Department for Education. This contains the date on which each teacher was awarded Qualified Teacher Status (QTS) and details of degree subjects[63].

This study looks at local-authority-maintained nursery, primary and secondary schools and all primary and secondary academy schools and free schools in England. Special schools have been included in the analysis where possible; the numbers of teachers in these schools are much smaller so comparisons are not included where the small sizes make this more unreliable.

This study includes some comparisons on a regional basis using the nine regions[64]: North East, North West, Yorkshire & Humber, East Midlands, West Midlands, East of England, South East, South West, and London. In some other analysis, London is divided into Inner and Outer London.

Unless otherwise stated, numbers of teachers are reported using the number of full time equivalent (FTE) teachers (where the number of teachers was weighted according to the number of hours worked); in other cases a total headcount of teachers (where all teachers were counted equally) has been used instead. The measure selected is the one

[62] https://www.gov.uk/government/collections/statistics-school-workforce
[63] More information about the database of qualified teachers is available here: https://data.gov.uk/dataset/29e1e2c4-4859-4c9d-ae9f-afb7d0b306b2/the-database-of-teacher-records
[64] Formerly known as government office regions

most appropriate to the particular variables being explored. For instance, for total numbers of teachers in each role FTE figures are used; however, for workforce flow measures, headcount figures may make more sense.

This study uses summary categories of teachers in leadership roles that are set out in Table 29, along with the corresponding posts, as defined in the School Workforce Census collection. Each category in the post column is as defined in the School Workforce Census data collection.

Table 29: Definition of leadership positions

Leadership	Post
Middle Leader	Classroom Teacher (subject to conditions – see below)
	Advisory Teacher
	Leading Practitioner[65]
Senior Leader	Assistant Headteacher
	Deputy Headteacher
Headteacher	Headteacher Executive Headteacher

Source: School Workforce Census

The category of middle leader has been derived from various fields collected in the School Workforce Census and is defined as a teacher who falls into one or more of the following categories:

- Leading Practitioner;
- Advisory Teacher
- In receipt of a Teaching and Learning Responsibility additional payment of £100 or more a year;
- Classroom teacher who has one of the following middle leader defined roles:
    - Head of Department
    - Head of House
    - Head of Year
    - Behaviour Manager/Specialist

[65] Leading Practitioner from 2013 onwards. Prior to this, the roles of Advanced Skills Teacher and Excellent Teacher (which ceased to exist when the role of Leading Practitioner was introduced) are considered to be a Middle Leader.

- Data Manager/Analyst
- Extended Schools Manager/Support
- Learning Manager
- SEN Co-ordinator

Table 30: Count of Middle Leaders[66]

Sum FTE Teachers	School Phase				
Middle leader type	**Nursery and Primary**	**Secondary**	**Special or PRU**	**Centrally Employed**	**Grand Total**
Leading Practitioner (or AST/ET)	550	2,770	100	20	3,440
Advisory Teacher	160	120	50	950	1,280
TLR Additional Payment > 100	27,590	54,800	3,450	540	86,380
Middle Leader Defined Role[67]	8,610	22,710	660	40	32,020
Total	36,900	80,400	4,260	1,560	123,130

Source: School Workforce Census 2020

Note that the classification of about 1,300 advisory teachers differs here from the School Workforce Census National Statistics (hereafter the NS). Here, they are classified as a middle leader whereas in the NS they are classified as an assistant head.

This paper uses ethnic group categories which are composed of one or more ethnicities as set out in Table 31.

[66] Totals may not sum due to rounding
[67] The majority of middle leaders who are in middle leader defined roles are Heads of Department or SEN coordinators.

Table 31: Ethnicities and ethnic groups

Ethnic group	Ethnicity
White British	White British
White Other	White Irish
White Other	Any other White background[68]
Black or Black British	Black Caribbean
Black or Black British	Black African
Black or Black British	Any other Black background
Asian or Asian British	Bangladeshi
Asian or Asian British	Chinese
Asian or Asian British	Indian
Asian or Asian British	Pakistani
Asian or Asian British	Any other Asian background
Mixed background	White and Asian
Mixed background	White and Black Caribbean
Mixed background	White and Black African
Mixed background	Any other Mixed background
Other ethnic group	Any other ethnic group

Source: School Workforce Census

In this report, changes over time and differences between areas are described in either terms of percentage point changes or a percentage change. Percentage point changes are the unit difference between two percentages as opposed to the ratio in which something has changed. For example, if a percentage has risen from 10% to 15% in one year, this is an increase of 50% over a year but is a change of 5 percentage points.

[68] Any other White background includes Travellers of Irish heritage and Gypsy/Roma.

Caveats

Wherever possible, the methodology used in this report mirrors the methodology used in the School Workforce Census NS.

The School Workforce Census collects data on teachers who are allocated to a school. In some multi-academy trusts, there may be leadership roles and teachers who are not collected in the SWC because they are centrally employed – such teachers in local authorities are collected through the local authority part of the census, but there is currently no equivalent for multi-academy trusts. Therefore, no analysis depicting such "centrally employed" teachers has been shown because of the gaps in the data.

Similarly, the effects of centrally employed teachers[69] have not been taken into account in this analysis: it is possible that some areas may have higher numbers of centrally employed staff than other areas, which could affect the results of this study. This also affects comparisons between academies and maintained schools and therefore have not been included in this report.

Analysis looking at teachers newly promoted includes those who were recorded in a lower role in the previous year and those who were not found in the state school sector in the previous year. Roles in earlier years than this were not taken into account, however a small number of teachers would have held a higher post in earlier years.

Teachers who are 'new to post' include teachers who were recorded in a "lower" role and teachers who were not found in the state school sector in the previous year, including returners. Due to methodology limitations, 4 to 5% of teachers moving into a middle leader role will have held a higher role in the previous year.

Most values presented in the report are rounded as appropriate. Large counts of teachers may be rounded to the nearest 100 teachers, for example. Average values for England as a whole do not necessarily equal averages for regions, due to the differing number of teachers in each region.

[69] Centrally employed teachers include: peripatetic teachers - teachers who normally cover a number of schools each week on a regular timetable, usually because they possess some specialist knowledge e.g. music teachers; and teachers working in other non-school education - staff employed as teachers in institutions other than schools and PRUs, e.g. teachers in hospitals or centres run by social services, or those providing home tuition. This can also include advisory teachers - these are often qualified teachers that carry out a range of duties including training staff, helping develop and implement school policy and classroom support.

Annex 2: Timeseries of Teachers by age and leadership role

Values are given in terms of headcount.

Table 32: Number of headteachers by age group

Age	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change since 2010	% Change since 2010
29 and Less	20	20	20	30	30	30	60	50	60	60	30	10	76%
30-34	420	400	420	480	480	520	560	600	580	640	650	230	54%
35-39	2,010	1,950	1,870	1,860	1,950	2,040	2,130	2,180	2,260	2,170	2,030	20	1%
40-44	3,180	3,220	3,480	3,810	4,060	4,210	4,220	4,210	4,140	4,160	4,100	920	29%
45-49	4,100	4,360	4,470	4,620	4,680	4,760	5,050	5,410	5,630	5,730	5,770	1,670	41%
50-54	5,260	4,980	4,660	4,600	4,670	4,890	5,110	5,140	5,130	5,190	5,180	-80	-2%
55-59	5,450	5,210	5,050	4,700	4,190	3,670	3,460	3,170	3,180	3,160	3,290	-2,160	-40%
60-64	1,070	1,120	1,200	1,240	1,250	1,240	1,190	1,080	980	870	870	-210	-19%
65 and over	70	80	110	150	150	140	150	150	170	180	180	110	166%

Source: School Workforce Census

Table 33: Number of Senior Leaders by age group

Age	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change since 2010	% Change since 2010
24 and Less	10	10	10	10	20	10	10	10	10	0	10	0	20%
25-29	970	860	920	1,040	1,320	1,550	1,580	1,520	1,430	1,340	1,160	190	20%
30-34	4,970	5,060	5,460	6,010	6,590	6,880	6,860	7,050	7,150	7,050	6,710	1,750	35%
35-39	7,790	7,810	7,970	8,400	9,120	9,890	10,410	10,690	10,990	10,810	10,530	2,740	35%
40-44	6,610	7,240	8,150	8,860	9,590	10,100	9,920	9,700	9,790	10,120	10,520	3,920	59%
45-49	6,060	6,130	6,410	6,700	7,220	7,400	7,970	8,350	8,800	8,870	9,090	3,030	50%
50-54	6,480	6,180	5,840	5,770	5,870	5,960	5,790	5,740	5,760	5,900	6,100	-390	-6%
55-59	5,870	5,520	5,210	4,790	4,390	3,980	3,670	3,300	3,210	3,160	3,250	-2,620	-45%
60-64	1,040	1,040	1,030	1,110	1,120	1,070	1,000	970	880	800	780	-260	-25%
65 and over	30	40	60	80	90	90	100	100	120	130	150	110	354%

Source: School Workforce Census

Table 34: Number of middle leaders by age group

Age	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change since 2010	% Change since 2010
24 and Less	920	830	890	970	1,220	1,390	1,400	1,330	1,200	1,040	810	-110	-12%
25-29	16,570	15,850	16,100	16,970	18,070	19,680	19,740	19,620	18,450	17,660	16,140	-430	-3%
30-34	24,520	25,620	26,530	27,360	26,960	27,480	28,100	28,350	28,360	27,420	26,730	2,210	9%
35-39	19,270	19,790	20,450	21,370	21,740	23,280	24,630	25,480	25,280	24,520	24,570	5,300	28%
40-44	14,830	15,740	16,590	17,590	17,810	18,620	19,460	19,930	19,910	20,320	20,850	6,020	41%
45-49	13,670	13,880	14,110	14,340	14,140	14,780	15,850	16,440	16,940	17,000	17,480	3,810	28%
50-54	15,260	14,410	13,390	12,890	12,220	12,170	12,830	13,050	12,910	12,800	13,150	-2,120	-14%
55-59	13,400	12,500	11,800	10,900	9,400	8,600	8,230	7,730	7,640	7,590	7,910	-5,480	-41%
60-64	2,480	2,690	2,710	2,660	2,460	2,370	2,380	2,330	2,270	2,160	2,300	-170	-7%
65 and over	130	170	240	300	300	310	340	330	330	390	470	340	253%

Source: School Workforce Census

Annex 3: Relationship between age and years since qualification

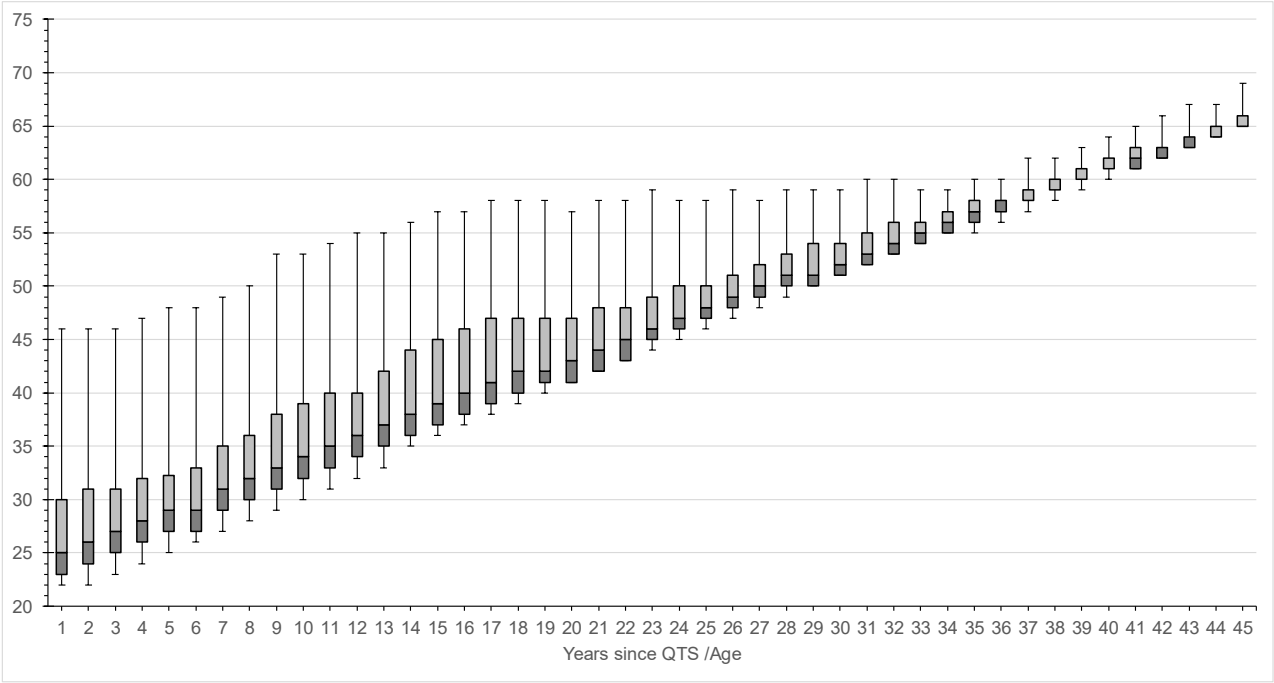
This annex supplements the charts included in Section 2 by showing the relationship between age and years since qualification (measured as years since achieving Qualified Teacher Status (QTS)) for different types of teachers. For each number of years since qualification, a series of box plots show the spread of ages with that number of years since qualification. The top and bottom of the box show the upper and lower quartiles respectively with the median shown by the solid black line. The values outside of this middle 50% of values are shown by the vertical lines leading from the box in both directions, which extend to the 5th and 95th percentiles to preserve the anonymity of teachers at the extremes of the full range.

As for the charts in Section 2, the median of the boxplots follows a diagonal line upwards, representing the majority of teachers for whom teaching was their first career. There is wide variation in the upper quartile representing those who pursued other careers before entering teaching.

The charts below look separately at the relationship in 2020 for classroom teachers (Figure 55), middle leaders (Figure 56) and senior leaders (Figure 57).

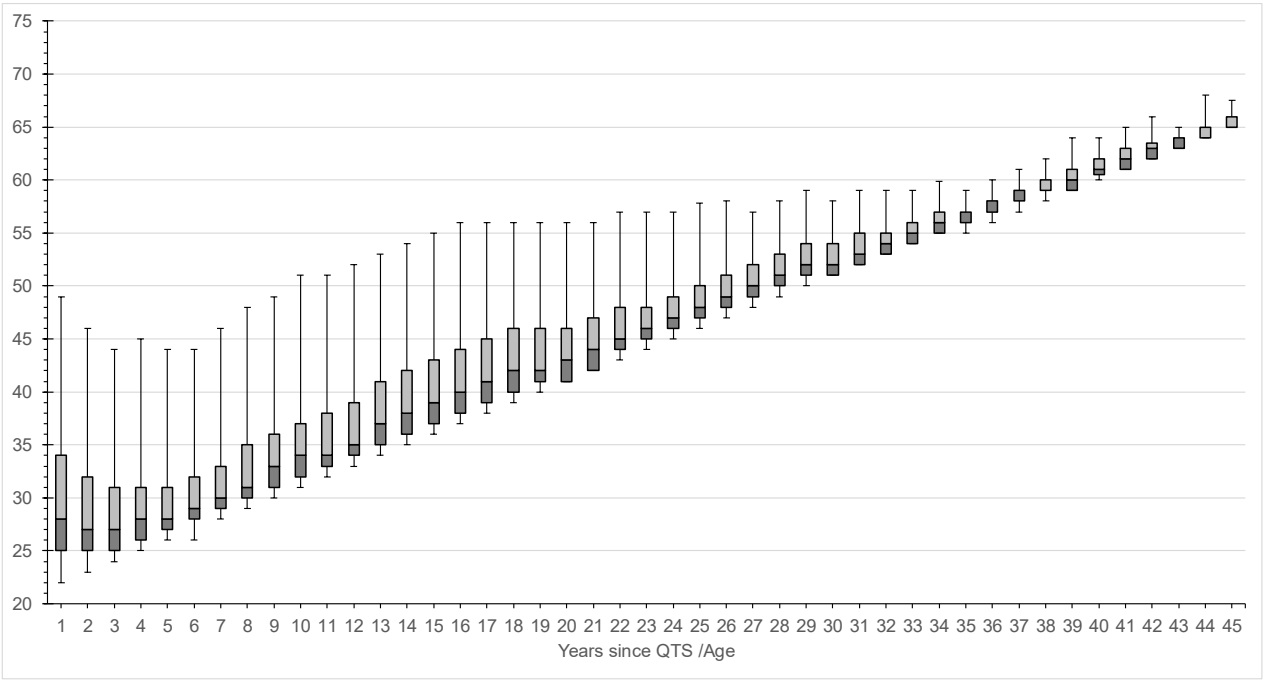
The relationship between age and years since qualification for classroom teachers and middle leaders was very similar to that for all teachers (Figure 22 in the main report) since these are the biggest subsets of teachers. The relationship for senior leaders and headteachers was weaker - leaders with fewer years since qualification had a wider range of ages, which as mentioned in Section 2, indicates faster career progression on average for teachers who pursued other careers before entering teaching.

Figure 55: Box plots showing the relationship between age and years since qualification for classroom teachers in 2020



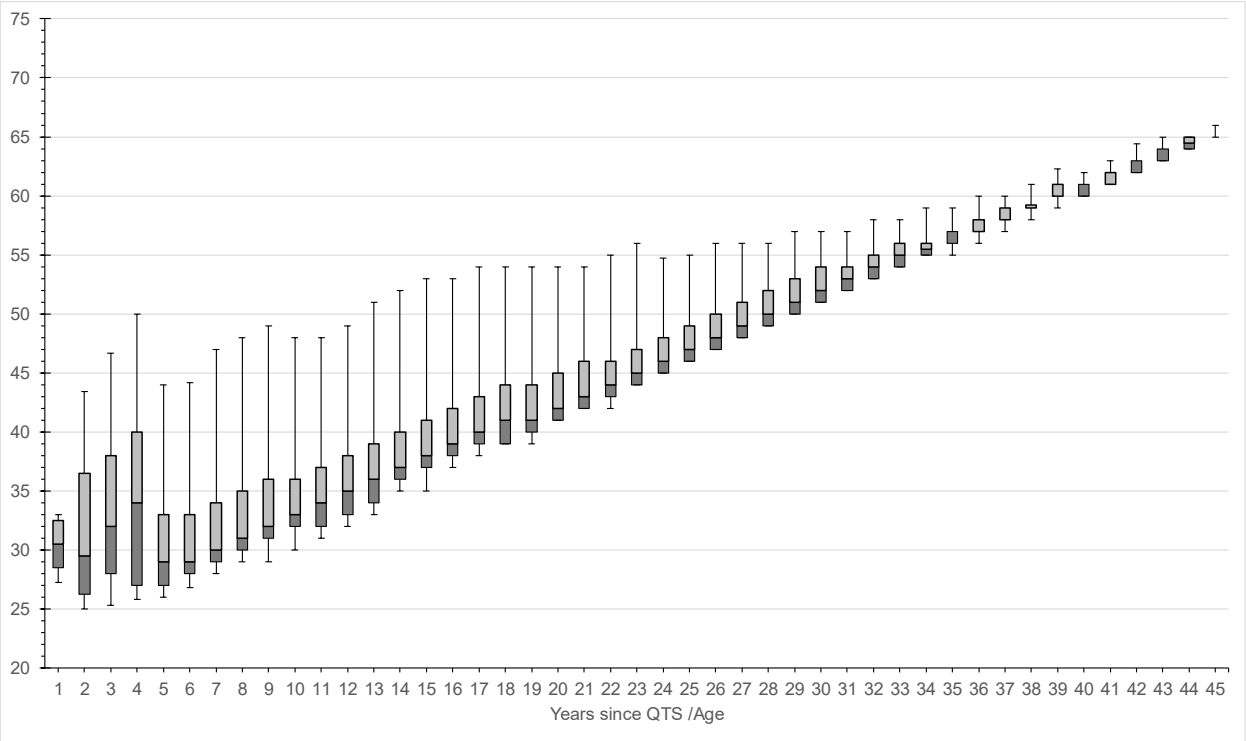
Source: School Workforce Census and Database of Qualified Teachers

Figure 56: Box plots showing the relationship between age and years since qualification for middle leaders in 2020



Source: School Workforce Census and Database of Qualified Teachers

Figure 57: Box plots showing the relationship between age and years since qualification for senior leaders in 2020



Source: School Workforce Census and Database of Qualified Teachers

Annex 4: National Qualifications Framework

The report includes analysis of teachers' qualifications by level. Table 35 gives further detail of the Qualification levels according to the National Qualifications Framework (NQF).

Table 35: Qualification level, according to the National Qualifications Framework

NQF Level	Qualification Type
Level 4	Certificate of higher education, higher apprenticeship, higher national certificate or other level 4 qualification
Level 5	Diploma of higher education, foundation degree, HND or other level 5 qualification
Level 6	Degree apprenticeship, degree with honours such as BA or BSc, ordinary degree without honours, BEd, graduate certificate or diploma or other level 6 qualification
Level 7	Master's degree, for example MSc, MEd, postgraduate certificate, PGCE, or postgraduate diploma, or other level 7 qualification
Level 8	Doctorate, for example PhD, or other level 8 qualification

Source: National Qualifications Framework

Annex 5: Retention of leaders aged 50 years and over

Table 36: Retention rates of new headteachers aged over 50 in primary schools

		Percentage of headteachers retained after:				
Year/ Cohort	**New to post (headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	300	85%	73%	62%	55%	47%
2012	340	87%	75%	63%	55%	45%
2013	290	89%	79%	69%	57%	48%
2014	330	77%	70%	61%	54%	44%
2015	360	86%	77%	67%	55%	47%
2016	360	81%	72%	60%	53%	
2017	330	82%	71%	63%		
2018	280	80%	69%			
2019	300	85%				
2020	270					

Source: School Workforce Census

Table 37: Retention rates of new headteachers aged over 50 in secondary schools

		Percentage of headteachers retained after:				
Year/ Cohort	**New to post (headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	120	78%	61%	57%	40%	29%
2012	160	78%	61%	47%	37%	28%
2013	160	80%	65%	55%	46%	39%
2014	140	74%	59%	46%	38%	29%
2015	140	77%	63%	49%	38%	31%
2016	130	77%	60%	44%	38%	
2017	130	78%	65%	52%		
2018	110	73%	66%			
2019	130	82%				
2020	90					

Source: School Workforce Census

Table 38: Retention rates of new deputy heads aged over 50 in primary schools

		Percentage of headteachers retained after:				
Year/ Cohort	**New to post (headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	270	78%	64%	53%	46%	38%
2012	290	77%	66%	56%	48%	38%
2013	290	82%	70%	63%	52%	42%
2014	330	80%	70%	57%	52%	41%
2015	330	82%	69%	60%	51%	43%
2016	280	82%	71%	61%	54%	
2017	270	82%	71%	62%		
2018	240	81%	72%			
2019	260	82%				
2020	180					

Source: School Workforce Census

Table 39: Retention rates of new deputy heads aged over 50 in secondary schools

		Percentage of headteachers retained after:				
Year/ Cohort	**New to post (headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	200	75%	59%	46%	34%	24%
2012	200	77%	62%	53%	42%	33%
2013	170	79%	65%	53%	40%	31%
2014	200	78%	59%	49%	41%	30%
2015	150	79%	57%	51%	45%	31%
2016	150	74%	64%	50%	37%	
2017	130	73%	60%	49%		
2018	120	81%	68%			
2019	150	91%				
2020	100					

Source: School Workforce Census

Table 40: Retention rates of new assistant heads aged over 50 in primary schools

		Percentage of headteachers retained after:				
Year/ Cohort	**New to post (headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	230	83%	69%	62%	52%	39%
2012	220	79%	68%	54%	46%	37%
2013	300	86%	73%	63%	54%	45%
2014	300	84%	73%	61%	53%	42%
2015	330	85%	73%	62%	51%	43%
2016	260	82%	68%	53%	44%	
2017	250	85%	74%	65%		
2018	220	87%	76%			
2019	210	86%				
2020	160					

Source: School Workforce Census

Table 41: Retention rates of new assistant heads aged over 50 in secondary schools

		Percentage of headteachers retained after:				
Year/ Cohort	**New to post (headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	340	79%	65%	50%	36%	26%
2012	350	78%	66%	50%	39%	29%
2013	270	73%	51%	41%	30%	23%
2014	370	72%	57%	44%	36%	29%
2015	260	70%	51%	40%	31%	26%
2016	200	70%	54%	48%	36%	
2017	210	82%	68%	58%		
2018	240	77%	63%			
2019	220	80%				
2020	220					

Source: School Workforce Census

Table 42: Retention rates of new middle leaders aged over 50 in primary schools

		Percentage of headteachers retained after:				
Year/ Cohort	**New to post (headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	1020	74%	59%	44%	32%	25%
2012	990	74%	58%	44%	37%	29%
2013	1040	72%	55%	44%	37%	31%
2014	1110	71%	53%	43%	36%	30%
2015	1330	73%	59%	48%	36%	31%
2016	1960	74%	58%	47%	40%	
2017	1240	69%	53%	45%		
2018	980	73%	58%			
2019	850	74%				
2020	810					

Source: School Workforce Census

Table 43: Retention rates of new middle leaders aged over 50 in secondary schools

		Percentage of headteachers retained after:				
Year/ Cohort	**New to post (headcount rounded)**	**1 year**	**2 years**	**3 years**	**4 years**	**5 years**
2011	1710	76%	58%	44%	32%	25%
2012	1530	74%	55%	43%	34%	26%
2013	1580	71%	55%	42%	33%	26%
2014	1610	68%	53%	43%	35%	27%
2015	2040	74%	57%	46%	37%	30%
2016	1620	71%	55%	45%	39%	
2017	1690	75%	57%	50%		
2018	1260	78%	65%			
2019	1300	80%				
2020	1200					

Source: School Workforce Census

Annex 6: Teacher flows between grades, 2019-2020

Figures are given in terms of FTE (full time equivalent) and are scaled to account for schools that failed to return the SWFC. For teachers present in both 2019 and 2020, scaling factors and working patterns are based on 2020 values.

Table 44: Primary teacher flows and stock numbers, 2019 to 2020

	Role in 2020				
Role in 2019	**Classroom Teacher**	**Middle Leader**	**Senior Leader**	**Head**	**System Leaver**
System Entrant	19,040	760	370	250	N/A
Classroom Teacher	121,130	6,150	1,030	90	13,020
Middle Leader	4,130	29,630	1,410	90	1,910
Senior Leader	520	330	20,820	1,270	1,110
Head	100	40	220	15,140	1,290

Source: School Workforce Census

Table 45: Secondary teacher flows and stock numbers, 2019 to 2020

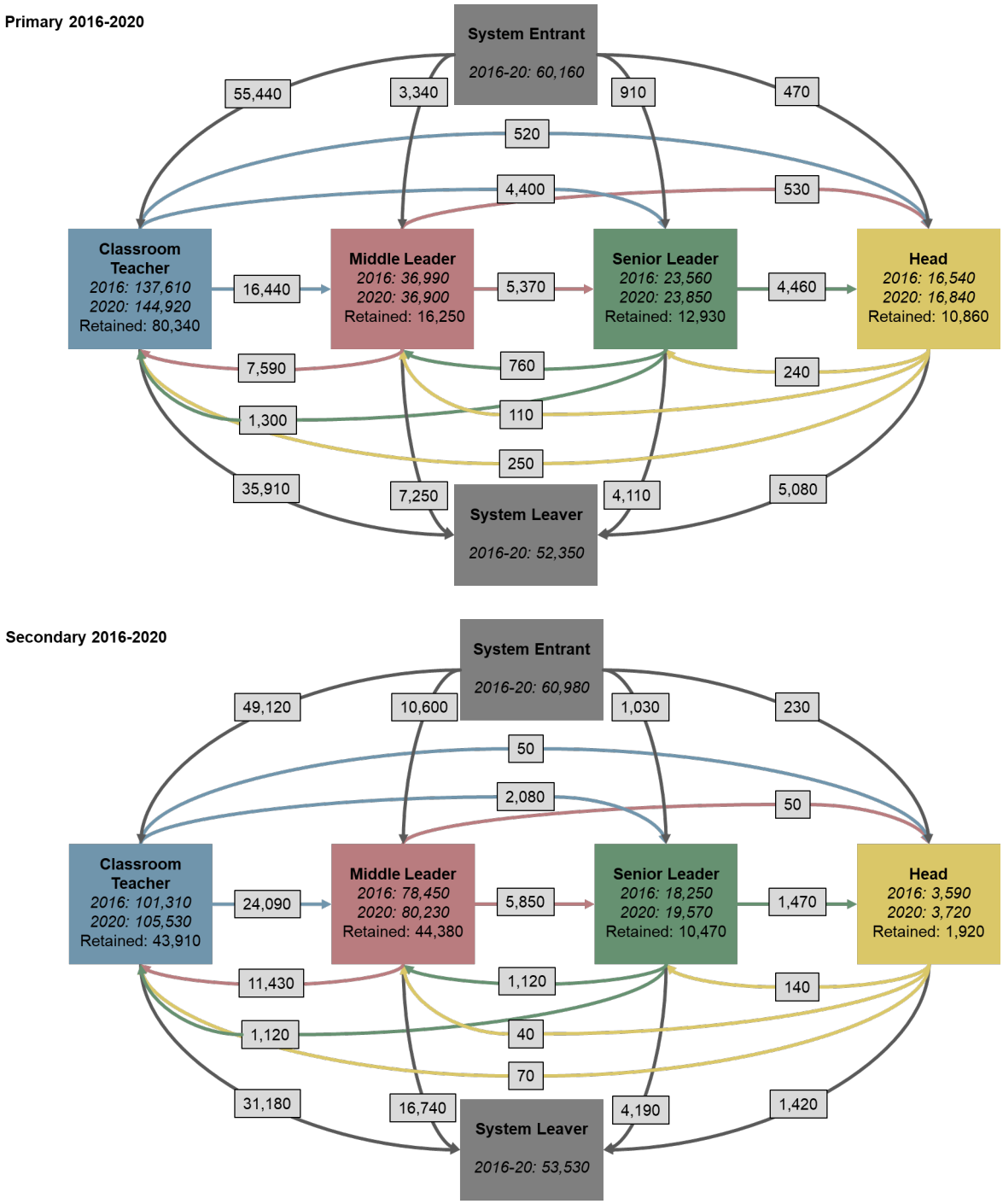
	Role in 2020				
Role in 2019	**Classroom Teacher**	**Middle Leader**	**Senior Leader**	**Head**	**System Leaver**
System Entrant	20,010	2,160	480	110	N/A
Classroom Teacher	79,250	9,500	550	10	11,370
Middle Leader	5,820	68,080	1,710	10	4,040
Senior Leader	420	490	16,750	360	1,110
Head	30	20	90	3,240	380

Source: School Workforce Census

Annex 7: Teacher flows between grades, 2016-2020.

Figures are given in terms of FTE (full time equivalent) and are scaled to account for schools that failed to return the SWFC. For teachers present in 2016 and 2020, scaling factors and working patterns are based on 2020 values.

Figure 58: Schematic showing flows between grades at primary and secondary schools, between 2016 and 2020



Source: School Workforce Census 2016-2020

Annex 8: Methodology for logistic regression analyses

Method selection was shaped by the object of this analysis, which was to identify associations between Ethnic minority status and promotion, rather than to develop a predictive model. As such, it does not aim to maximise R^2, or make use of training and test data. It also does not aim to identify causal relationships between Ethnic minority status and promotion.

A modelling technique, logistic regression, was used to estimate the effect of teachers' sex and ethnicity on their likelihood of being promoted by the following year. The analyses control (where relevant) for gender, ethnicity, age, experience, school phase, working pattern and whether the school was located in London or the rest of England.

Separate models were fitted for the period 2010-2019[70], which incorporates the latest available data from the School Workforce Census (SWFC).

Analyses

Four main analyses were conducted to compare career progression to leadership and headship. Analysis 1 was conducted on a year-by-year basis from 2010/11 to 2019/20. Analyses 2, 3 & 4 compared teachers across the period 2015/16-2019/20.

Analysis 1 compares promotion amongst female and male teachers, and between full-time and part-time teachers. Analysis 1 addresses clustering within schools using a random effect.

Analysis 2 compares promotion amongst White British teachers to teachers from Ethnic minority (including White minorities) backgrounds.

Analysis 3 compares promotion amongst Ethnic minority (excluding White minorities) teachers, White British teachers, White Irish teachers, and teachers from other White minority groups.

Analysis 4 compares promotion rates amongst teachers from Asian or Asian British, Black or Black British, any other Mixed background, any Other ethnic background, White British, White Irish, and any other White minority backgrounds

Analyses 2-4 addressed clustering within individual teachers across time and clustering within schools by cluster-adjusting standard errors.

[70] Promotion is assessed by comparison with School Workforce Census data from the following year – thus models for e.g., 2019 use data from the latest census collection in November 2020. Promotions which occurred during the 2020/21 academic year have not yet been captured by the School Workforce Census.

Promotion

Models compare the likelihood of promotion only to the next leadership grade, excluding those teachers more than one leadership grade below the position of interest. Analyses modelling promotion to headship, for example, include only senior leaders. Promotions which skip leadership grades are uncommon, and a sensitivity analysis which included these promotions showed no substantive difference in results.

See Table 46, comparing the rate of promotion between leadership levels in 2019:

Table 46: proportion of teachers promoted from 2019 to 2020, by initial and final grade

	Promoted to Middle Leadership	Promoted to Senior Leadership	Promoted to Headship
Classroom Teacher	6.05%	0.63%	0.04%
Middle Leader	-	2.64%	0.09%
Senior Leader	-	-	3.68%
Head	-	-	-

Source: School Workforce Census 2019 & 2020

Teachers who left teaching during the period in question were treated as 'not promoted.'

Confidence intervals and census data

Confidence intervals are reported for all models presented.

Confidence intervals are commonly used when data is the result of a population sample – it is reasonable to ask how to interpret confidence intervals when the underlying dataset is instead a census, which (theoretically) contains all teachers. In the case of the models in this report, we attempt to explore the association of a set of variables with promotion rate. While these variables capture some important differences between teachers, it cannot capture all differences between them which might be relevant or arising from random variation. These unmeasured differences give rise to error in the model.

If the comparative importance of a factor (e.g. ethnicity) is small compared to other factors in the model, we would expect our confidence intervals to be large. If they are small, by contrast, we can have higher confidence that a strong association exists

between the measured variable in question and the outcome variable. Thus, confidence intervals aid in the interpretation of the models presented herein.

In reporting results, a *p*-value of 0.05 was chosen to denote high confidence, and a value of $0.05 > p > 0.15$ to denote moderate confidence.

Assumptions of logistic regression

Logistic regression relaxes many of the key assumptions underlying other linear regression and general linear models – in particular, those of linearity, normality, homoscedasticity, and measurement level. An important assumption which is relevant, independence, will be discussed below.

Multicollinearity

While multivariate logistic regression can address some multicollinearity, we measured the Variance Inflation Factors for the models. None of these values were greater than 5, which is typically regarded as a moderate-to-high value, and thus no issues with multicollinearity were noted.

As might be expected, experience and age had a degree of collinearity, but not to a problematic extent. Thus, they were both included in the model.

Linearity of age and experience to Logit of the Outcome

It was important to test whether the age and experience variables included in the model were roughly linear with respect to the Logit-transformed outcome variable – the output of the model. If this was not the case, the coefficient might inaccurately describe the relationship between the age, experience and promotion, and it might be necessary to include higher-order (e.g. quadratic or cubic) terms to accurately capture the relationship.

However, our analysis has shown a linear relationships between these variables. Introducing non-linear terms for Age or Experience had little effect on the AIC of the model or the outcome of interest, while significantly increasing model complexity. As both age and experience were only present as covariates, we elected to use the simpler linear model.

Independence of observations

Statistical independence is a key assumption of logistic regression. Two events are independent if the likelihood of event A (e.g., teacher A being promoted) does not change the probability of event B (e.g., teacher B being promoted). The probabilities of each

teacher being promoted are not likely to be independent of each other – teachers, for example, are clustered within schools, for example, where there may only be a limited number of leadership roles available in a given year. Failing to account for this clustering can result in falsely narrow standard errors.

It is possible to account for clustering by school by including it as a random effect in the model. This gives rise to mixed models, which contain a number of fixed effects and a random effect (school). It was found that clustering by region or Local Authority, or alternately clustering by school *and* region or Local Authority, did not improve the predictive power of the model and often introduced convergence problems. Thus, school was selected alone as the main random effect for the full mixed model.

In models which used multiple years of data, it also was necessary to account for clustering within individuals – that is, for the fact that the same teachers reappear from one year to the next in the dataset. We thus included a random effect per teacher, to control for this clustering. Running a mixed effects model with random effects for both school and teacher, however, proved unfeasibly slow.

We therefore adopted a clustered standard errors approach. This approach adjusts standard errors to account for the clustering at both individual and school level, but do not provide an estimate of their effects.

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