Schools' responses to Covid-19

Job satisfaction and workload of teachers and senior leaders

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Contents

Acknowledgements	2
Executive summary	3
Introduction	6
What do we know about senior leaders' and teachers' working hours, workload and job satisfaction during lockdown?	9
What causes pressure on senior leaders and teachers, and where do they get support?	15
What influences job satisfaction?	20
What influences perceptions of workload?	22
Discussion and conclusion	25
References	26
Technical appendix	28

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Executive summary

Prior to the outbreak of the Covid-19 pandemic, England faced a considerable teacher recruitment and retention challenge. The last ten years have been characterised by insufficient numbers of new teachers joining the profession and an increasing proportion leaving the state sector, particularly in secondary schools (DfE, 2018). Time will tell what impact the pandemic will have on teacher recruitment and retention, although there are some signs that applications to teacher training are increasing, in line with patterns seen in previous recessions (Worth, 2020b). This research is designed to shed some light on the immediate effects of the pandemic on senior leaders' and teachers' working lives.

Based on the findings of a national survey of 1233 senior leaders and 1821 teachers in publicly-funded, mainstream primary and secondary schools in England, this report explores their levels of job satisfaction, their sense of control over teaching and learning practices, their weekly working hours, and the manageability of those hours. In doing so, it outlines the key pressures and challenges they are facing, together with the support mechanisms they are using to help them get through the current crisis. The report complements others in the same series which have looked at returning pupils to school, pupil engagement in remote learning, and support for vulnerable pupils and the children of keyworkers.

Key findings

The Covid-19 pandemic has had an impact on many aspects of senior leaders' and teachers' working lives, including their working hours, job satisfaction, and sources of pressure and support.

Working hours

Pon average, senior leaders and teachers who responded to our survey are working fewer hours during lockdown than they did in a typical week in February 2020. Overall, senior leaders reported working a mean average of 52.4 hours in a 'typical week' in February 2020, compared to 47.8 hours in the last full week that they worked since the lockdown on 20 March 2020. This represents an average reduction of 4.6 hours per working week. Compared to leaders, teachers experienced a larger drop in working hours, on average. They were working an average of 45.8 hours in a 'typical week' in February 2020, compared to 34.4 hours in the last full week that they worked since the lockdown on 20 March; an average reduction of

- 11.5 hours per working week. The reasons for this are unclear, but could be due to some senior leaders and teachers having to reduce their working hours to attend to other responsibilities such as caring for family members. In our first report in this series, senior leaders told us that they only had 75 per cent of their usual teaching capacity available.
- There is a wide distribution of working hours, particularly among senior leaders. The majority (71 per cent) of senior leaders are still working more than 40 hours per week, and 41 per cent are working more than 50 hours per week. Amongst teachers, 11 per are working more than 50 hours a week. Although working hours have reduced overall, this masks a variety of different experiences across the school workforce.
- Most senior leaders and teachers are finding their working hours during lockdown at least somewhat manageable, although a notable minority are not. Forty-three per cent of senior leaders say the hours they were working (in May) were 'mostly/completely manageable', while 33 per cent say they were 'somewhat manageable'. In contrast, 24 per cent consider their workload 'mostly/completely unmanageable'.
- their working hours in May manageable, with 62 per cent saying they were 'mostly/completely manageable' and 24 per cent saying they were 'somewhat manageable'. Fourteen per cent say their working hours were 'mostly/completely unmanageable'. These findings compare favourably to previous estimates of the manageability of teachers' workloads: for example, in the latest *Teacher Workload Survey*, conducted in 2019 (Walker et al., 2019b), 69 per cent of primary teachers and 79 per cent of secondary teachers reported that they 'disagreed/strongly disagreed' that they had an acceptable workload.

Job satisfaction

 Most senior leaders and teachers are at least somewhat satisfied with their jobs, although a greater proportion of senior leaders are dissatisfied than teachers. The findings show that 36 per cent of senior leaders and 39 per cent of teachers were 'satisfied/completely satisfied' with their jobs in May 2020. By contrast, 31 per cent of senior leaders and 22 per cent of teachers said they were 'not satisfied/not at all satisfied' with their jobs. Our analysis confirms that there is a significant association between job satisfaction and feelings of being in control of different aspects of teaching and learning practice. Senior leaders and teachers who report they feel more in control of their work, despite the disruptive effects of Covid-19, are also more likely to have higher job satisfaction.

Sources of pressure

It is clear that the Covid-19 pandemic is placing some senior leaders and teachers under additional pressures. Many of these are work-related, but some are personal, such as parenting their own young children, and working from home.

- For senior leaders responding to the survey in May, the three main sources of pressure impacting on them 'to a large/very large extent' are: 'concerns about opening the school more fully in future' (86 per cent), the 'health and wellbeing of my staff' (76 per cent), and 'directives from government' (67 per cent). As these challenges are placing pressure on senior leaders, the findings reinforce the need for schools and government to continue to prioritise the health and well-being of both staff and pupils.
- The main pressures felt by teachers 'to a large/ very large extent' are: 'being responsible for estimating pupils' examination grades' (36 per cent of secondary teachers¹), 'parenting my own young children' (25 per cent of all teachers), and 'difficulties supporting pupils' remote learning' (23 per cent of all teachers).
- Sources of support

Senior leaders and teachers are drawing on a range of different sources of support to help them manage the current crisis and are finding some more helpful than others.

- Most senior leaders are accessing support from 'local authority services' (88 per cent), 'my professional association' (83 per cent), and 'senior leaders from other schools' (77 per cent). Most teachers are accessing support from 'my colleagues/ peers' (97 per cent); 'senior leaders from my school' (94 per cent), and 'my union' (57 per cent).
- Senior leaders are getting good support from their colleagues in other schools. Of those who have received support from multi-academy

- trust (MAT) senior leaders, most found this 'very/ extremely helpful' (61 per cent). Similarly, of those who have received support from senior leaders from other schools, 60 per cent found this 'very/ extremely helpful'. On the other hand, the least helpful source accessed by senior leaders is 'local authority (LA) services'. While 26 per cent of senior leaders found this support 'very/extremely helpful', a substantial minority (30 per cent) found it 'not very/not at all helpful'.
- The single most helpful type of support accessed by teachers is 'my colleagues/peers', with 73 per cent of those receiving it finding this 'very/extremely helpful'.
- Support from senior leaders is a significant driver of teachers' job satisfaction. Teachers are more likely to feel satisfied in their jobs if they feel supported by their senior leaders and local networks, and feel they have control over teaching and learning methods.

Despite overall reductions in working hours, 41 per cent of senior leaders are still working more than 50

hours per week

¹ This response option was exclusive to secondary teachers.

Conclusion

This research has revealed the emerging impacts of Covid-19 on senior leaders' and teachers' workloads, as they started to plan for opening their schools more fully during the summer term.

An earlier report in this series (Sharp *et al.*, 2020) found that the pandemic has imposed severe constraints on school staffing, with senior leaders reporting that just over half of their normal teaching capacity was available to work in schools and a further fifth were available to work at home in May. Even if teaching capacity increases as the immediate impact of the pandemic reduces, opening schools more fully will place significant additional pressures on the available workforce. It is likely to be unfeasible for all schools to provide high-quality learning in school, and remotely, whilst also providing on-going welfare support for vulnerable pupils who are not attending schools.

This report has found that, despite overall reductions in working hours, 41 per cent of senior leaders are still working more than 50 hours per week; a quarter are finding their workload unmanageable; and 31 per cent are not satisfied with their jobs. Governors,

MATs and LAs will need to keep closely in touch with headteachers, to support them and help avoid burnout. The education sector cannot afford to lose more senior leaders at this critical time. Similarly, headteachers need to continue to monitor the hours worked by their staff, as well as their stress levels, to provide support and avoid problems escalating.

Key recommendations include the need for government, LAs and Trusts to ensure that schools have access to sufficient teaching capacity. Senior leaders need to use teaching assistants (TAs) effectively, and address the home working needs of the 22 per cent of teachers who are only able to work from home (Sharp et al., 2020).

Further guidance for schools will inevitably emerge from central government over the coming weeks and months. In order to give leaders and teachers a greater sense of control, the Government needs to ensure that new directives are clear, kept to a minimum, reflect the concerns of the profession, and are sensitive to the pressures school leaders are facing.



Introduction

The Covid-19 pandemic has caused major disruption across society, not least to teachers and schools, but what effect is it having on leaders' and teachers' working lives? Prior to the outbreak of the pandemic, England was facing a considerable teacher recruitment and retention challenge. The last ten years have been characterised by insufficient numbers of new teachers joining the profession and an increasing proportion leaving the state sector, particularly in secondary schools (DfE, 2018). Pupil numbers mean that England's schools need more teachers each year, especially in secondary schools where they are forecast to rise. Research by NFER (Worth, 2020a) suggests that not enough new teachers are being recruited to meet this growing demand and the retention rate for newly qualified teachers (NQTs) has been falling. Time will tell what impact the pandemic will have on teacher recruitment and retention in the longer-term; although in the short-term there are some signs that applications to teacher training are increasing, in line with patterns seen in previous recessions (Worth, 2020b; Fullard, 2020).

This research is designed to shed some light on the immediate effects of the pandemic on senior leaders' and teachers' working lives. Have working hours increased because of the new challenges of maintaining education for pupils both remotely and on-site, or have they fallen during this period? Do leaders and teachers find their jobs less satisfying because of the pressures they face, or more satisfying due to the importance of their role supporting pupils during the crisis? This report seeks to answer these questions, and in doing so, it outlines the key pressures and challenges leaders and teachers are facing, together with the support mechanisms they are using to help them get through the current crisis.

One of the key reasons teachers give for leaving the state sector is an 'unmanageable workload' (Worth, 2020a). While this is not the same as the number of hours worked, teachers do work longer hours in a typical working week than other professionals. Working intensively over fewer weeks of the year can lead to a poorer work-life balance and higher stress levels among teachers. Research by Worth and Van den Brande (2019) found that two out of five teachers (41 per cent) are dissatisfied with their amount of leisure time, compared to 32 per cent of similar professionals. In addition, one in five teachers (20 per cent) feel tense

about their job most or all of the time, compared to 13 per cent of similar professionals.

Reducing teachers' unnecessary workload has the potential to improve retention. In their analysis of the TALIS 2018 results, Jerrim and Sims (2019) noted that full-time lower secondary teachers in England worked more hours per week than the average for OECD countries: 49.3 hours compared to 41 hours. Full-time primary school teachers worked 52.1 hours per week, more than any other participating country in the TALIS 2018 survey, except Japan (56 hours). Over half (53 per cent) of primary teachers and 57 per cent of lower secondary teachers felt that their workload was unmanageable. Some progress had been made on workload in England, prior to the Covid-19 pandemic, which may lead to improved retention in the future. For example, research by Worth (2020a) suggests that teachers' working hours reduced by one hour per week in 2018/19, and there is evidence to suggest that teachers' perceptions of their workload may also be improving (Walker et al., 2019b). This may be emerging evidence that the substantial joint campaign launched by the Department for Education (DfE), Ofsted and teaching unions in March 2018, which aimed to reduce teacher workload, is having some success.

Teachers' sense of autonomy is strongly correlated with job satisfaction, perceptions of workload manageability, and intention to stay in the profession (Lynch *et al.*, 2016²). In this research we explore all three of these issues – how Covid-19 has affected workload, and how teachers and leaders view their current levels of job satisfaction and autonomy/sense of control.

We have some insights from research into the impact of the Covid-19 lockdown on the teaching workforce. A Teacher Tapp survey (2020a) explored teachers' anxiety levels between mid-March and 12 May. It found that anxiety levels increased on 17 March when it became clear that schools were about to close to most pupils, decreased in April and early May, but climbed again on 12 May after the Prime Minister's announcement on 10 May that schools should start planning to open to more pupils from 1 June.

A rapid review of international research evidence on school closures and international approaches to education during the Covid-19 pandemic (Müller and Goldenberg, 2020) reported that, although teachers were subject to the challenges faced by the

² Lynch et al. (2016) used data from the UK Household Longitudinal Survey (UKHLS) to explore teachers' and other professionals' work-related autonomy. 'Autonomy' was defined as the amount of influence one had over their work manner (how they do their job), task order, job tasks, work pace and work hours.

general population during lockdown (such as managing work and family/caring responsibilities simultaneously), they had additional pressures owing to their professional responsibility for supporting children and young people.

It is possible that Covid-19 will increase retention and reduce movement between schools, at least in the short term. Hannay *et al.* (2020) examined teacher recruitment in England. Job advertisements on secondary school websites fell in mid-March by between 50 per cent and 60 per cent compared to the same period in 2019. This was corroborated by survey results which indicated that many teachers who had previously been considering changing their job had since reconsidered.

However, there is also evidence that schools are suffering from additional shortages caused by the pandemic. Sharp *et al.* (2020) found that, in May, schools were operating with 75 per cent of their normal teaching capacity: 53 per cent were available to work in school and 22 per cent at home only. Senior leaders explained that they will need extra staff while the pandemic continues, to teach and supervise pupils in split classes while on site, provide distance learning for pupils at home and/or cover for absent staff. This is likely to create a temporary increase in the need for teachers.

This report considers several aspects of teachers' working lives during the Covid-19 lockdown. We asked teachers about their working hours and perceptions of workload, their job satisfaction, sense of autonomy, and sources of pressure and support. The research provides insights into where multi-academy trust (MAT) leaders, local authorities (LAs), governors, school leaders and the Government need to focus their attention to support the school workforce, as well as insights into the key issues that may affect retention in the short-to-medium term.

In this research we explore how Covid-19 has affected workload, and how teachers and leaders view their current levels of job satisfaction and autonomy.

Box 1. NFER survey of schools' responses to Covid-19

Sample

From 7 to 17 May 2020, NFER collected data via a survey sent to all 20,553 state-funded mainstream primary and secondary schools in England. We asked senior leaders (headteachers, principals and deputy headteachers) to complete the survey themselves and pass the survey on to up to two teachers of different key stages (primary schools), or up to four teachers of different subject areas (secondary schools). We received responses from 1233 senior leaders and 1821 teachers in 1462 primary schools (including middle deemed primary) and 691 secondary schools (including middle deemed secondary and all-through schools), representing nine per cent of the 17,170 primary schools and 20 per cent of the 3383 secondary schools in England. We weighted the data to ensure that our findings are representative of mainstream schools in England. Some schools provided more than the requested number of responses, which was also addressed by weighting the data.

Data collected

The survey focused on four main areas: schools' provision of remote learning during the Covid-19 pandemic and pupils' engagement; schools' provision for vulnerable children and children of keyworkers; staff workload and work satisfaction; and schools' preparedness for opening more fully after lockdown. The survey also asked respondents for some information about themselves, including their job role, time in teaching, gender and age.

Analysis

The NFER team used DfE administrative data to identify the characteristics of each school, including: phase, proportion of pupils eligible for free school meals (FSM), school type (local authority or academy), and region. Weighting used the distribution of the achieved sample relative to the national population of school phase and FSM quintile. Weightings were adjusted to account for the number of responses per school.

The analysis used three main approaches: descriptive statistics for all of the survey questions; tests of statistical significance to identify associations between selected questions and school characteristics; and regression models for pupil engagement with learning, engagement of disadvantaged pupils, work satisfaction, workload, and preparedness for opening schools more fully. Results were considered statistically significant if the probability of a result occurring by chance was less than five per cent (p = < 0.05).

Reports

This research is producing the following reports on Schools' Responses to Covid-19:

- 1. Returning pupils to school
- 2. Pupil engagement in remote learning
- 3. Support for vulnerable pupils and the children of keyworkers
- 4. Job satisfaction and workload of teachers and senior leaders
- 5. Summary of key findings
- 6. Technical report.

A second survey will take place in July 2020, with findings to be published later in the summer.

What do we know about senior leaders' and teachers' working hours, workload and job satisfaction during lockdown?

This section focuses on senior leaders'³ and teachers' working hours, perceptions of workload, job satisfaction, and their sense of control over different aspects of their work. The findings relate to mid-May 2020.

We have analysed the responses according to phase (primary/secondary), deprivation (proportion of pupils eligible for free school meals (FSM)), and region, but have only reported differences where these are statistically significant at the five per cent level (p < 0.05)⁴. All percentages are based on the number of people responding to the question, excluding non-responses (valid percentages), unless stated otherwise. Percentages may not sum to 100 due to rounding.

Working hours

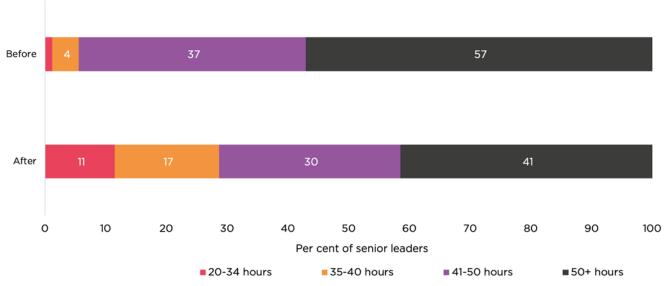
On average, senior leaders and teachers report working fewer hours during lockdown than before.

Senior leaders report working a mean average of 52.4 hours⁵ in a 'typical week' in February 2020⁶, compared to 47.8 hours⁷ in the last full week that they worked in May 2020 (since the lockdown on 20 March)⁸. This represents an average reduction of 4.6 hours over the working week. Figure 1 summarises these changes.

Although the average number of hours worked by senior leaders has decreased, this masks considerable variation, with some senior leaders reporting that their hours have increased.

On average, teachers experienced a significantly larger reduction in working hours than senior leaders. They report working a mean average of 45.8 hours⁹ in a 'typical week' in February 2020, compared to 34.4 hours¹⁰ in the last full week that they worked since the lockdown on 20 March. This represents an average reduction of 11.5¹¹ hours over the working week. Figure 2 summarises these changes.

Figure 1: Hours per week worked by senior leaders before lockdown (February 2020) and after lockdown (May 2020)



Source: NFER survey of 1233 senior leaders: 1060 leaders responded.

- 3 'We refer to 'senior leaders' rather than 'school leaders' in this report because we received responses from more than one senior leader per school (957 primary senior leaders from 892 schools and 276 secondary senior leaders from 245 schools).
- 4 We used a Bonferroni adjustment (Bonferroni, 1936) to adjust for multiple comparisons.
- 5 The confidence intervals indicate that the true value lies between 52.0 and 52.8 per cent (p <0.05).
- 6 We have reported these findings to one decimal place for consistency with previous analyses of teachers' working hours.
- The confidence intervals indicate that the true value lies between 47.2 and 48.5 per cent (p <0.05).
- 8 The figures presented include both full-time and part-time senior leaders/teachers.
- 9 The confidence intervals indicate that the true value lies between 45.3 and 46.4 per cent (p <0.05).
- 10 The confidence intervals indicate that the true value lies between 33.8 and 35.0 per cent (p <0.05).
- 11 This figure is rounded to 1 decimal place.

The mean number of hours worked in February 2020 are notably lower compared to to other estimates of senior leaders' and teachers' working hours. For example, the *Teacher Workload Survey* (Walker *et al.*, 2019b) found that, in the reference week in March 2019, senior leaders worked on average 55.1 hours, while teachers worked 49.5 hours¹².

While the data has been weighted to ensure that our findings are representative of mainstream schools in England, it is possible that the senior leaders and teachers who responded to our survey had more time available than others, which is why they were able to respond to the survey. This could mean that the findings are biased towards teachers who work fewer hours. However, Teacher Tapp (2020b) also found evidence that most teachers and middle leaders are working 'much shorter hours' and/or 'slightly shorter hours' during lockdown, while a notable minority of headteachers also report working fewer hours than they would in 'normal' circumstances.

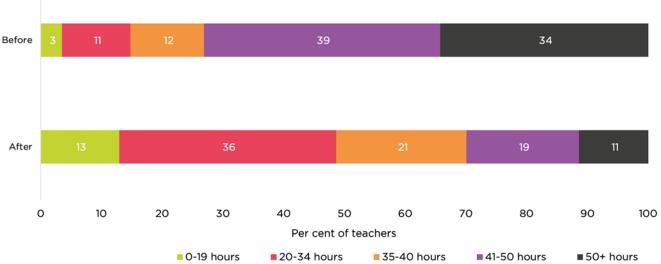
However, 71 per cent of senior leaders are still working more than 40 hours per week, and 41 per cent are working more than 50 hours per week. The proportion of teachers working more than 40 hours per week is 30 per cent, and a small group – 11 per cent – are working more than 50 hours a week. The fact that many senior leaders and some teachers continue to work long hours is perhaps not surprising, given the need to teach the vulnerable pupils and the children of keyworkers who continue to attend school, teach other pupils remotely, and prepare for opening schools more fully in June.

The first report in our series (Sharp et al., 2020) indicated that, on average, senior leaders only had 75 per cent of their normal teaching capacity available in May 2020: 53 per cent were available to work in school but 22 per cent could only work from home. This may indicate that teachers are having to reduce their working hours (for example by moving from working fullto part-time), perhaps to care for children or relatives at home, or because they or their family are shielding or self-isolating. NFER analysis of a small sample of teachers from the monthly Understanding Society survey (Worth, 2020c) suggests that at least 30 per cent of teachers are moderately or highly vulnerable to the effects of Covid-19 themselves, or living with someone who is. Other constraints on teachers' ability to work from home (including illness and limited access to IT resources) may also be contributing to the reduction in working hours.

Differences in working hours by phase of education

Prior to lockdown, primary senior leaders reported working an average of 52.2 hours per week, while secondary senior leaders reported working an average of 53.1 hours per week. Since entering lockdown, primary leaders report working an average of 48.2 hours per week, while secondary leaders report working 46.2 hours per week. Secondary senior leaders have experienced a significantly larger reduction in their weekly working hours (-6.9) during the lockdown period, compared to primary leaders (-4.0), despite secondary leaders working broadly similar hours to their primary

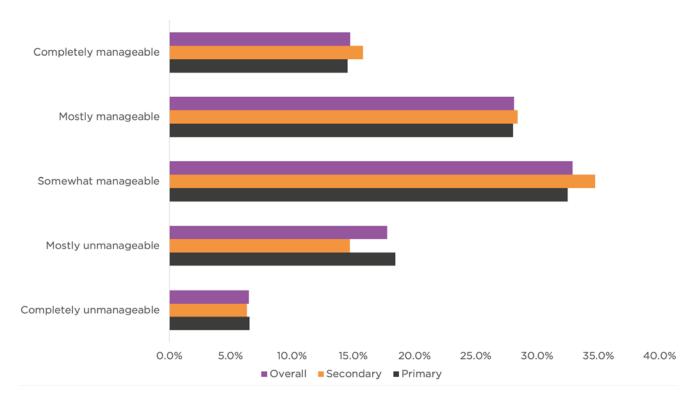
Figure 2: Hours per week worked by teachers before lockdown (February 2020) and after lockdown (May 2020)



Source: NFER survey of 1821 teachers: 1646 teachers responded.

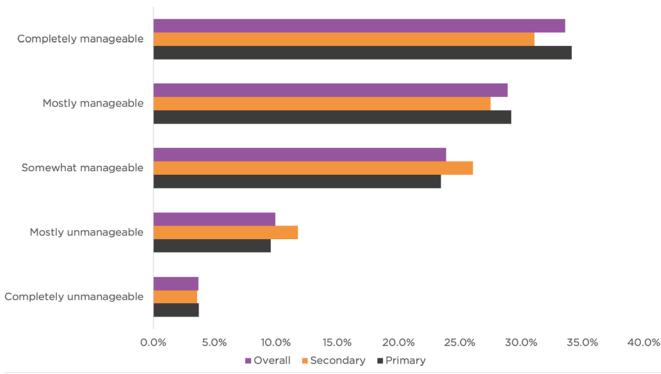
¹² This could be because the highest number of hours that a senior leader could record in the NFER survey was '60 plus hours'.

Figure 3: Senior leaders' perceptions of workload



Source: NFER survey of 1233 senior leaders: 1063 senior leaders responded.

Figure 4: Teachers' perceptions of workload



Source: NFER survey of 1821 teachers: 1658 teachers responded.

counterparts in February. This may be related to the Government's expectation for schools to open to more pupils in the summer term, which placed greater demands on primary senior leaders (see Sharp *et al.*, 2020).

Primary and secondary teachers both experienced a similar reduction in their working hours between February and May¹³. Before the lockdown, primary teachers reported working an average of 45.7 hours per week, while secondary teachers reported working 46.5 hours. Since entering lockdown, primary teachers report working an average of 34.4 hours per week, while secondary teachers report working 34.3 hours. This represents an average reduction of 11.3 and 12.2 hours per week respectively.

For most teachers, working arrangements will have changed significantly during the lockdown. Some of the activities that they would normally undertake in schools, such as operating lunchtime or revision classes, offering pastoral support, planning, preparation and marking will have reduced as a result of the vast majority of pupils moving to remote learning. On the other hand, identifying ways to support pupils at home and distributing and developing appropriate materials for home learning from scratch, as well as keeping in touch with parents and pupils, will have created new pressures.

The impacts of these factors on the perceived manageability of leaders' and teachers' working hours, and on their overall sense of job satisfaction, are explored in the sections below.

Manageability of working hours

Most senior leaders and teachers report that their working hours during lockdown are at least somewhat manageable, although a significant proportion find them unmanageable.

About four out of ten senior leaders (43 per cent) feel that the hours they were working in May were 'mostly manageable' or 'completely manageable', while a third (33 per cent) report they were 'somewhat manageable'. By contrast, about one in four (24 per cent) report they were 'mostly/completely unmanageable'.

Most teachers were finding their working hours manageable in May, with around six out of ten (62 per cent) reporting that their hours were 'mostly/completely manageable', and about a quarter (24 per cent) finding them 'somewhat manageable'. By contrast, about

one in seven (14 per cent) found their working hours 'mostly/completely unmanageable'.

Compared to research conducted before the lockdown, these findings suggest that, for some teachers at least, their workloads have become more manageable during this period. For example, in the latest *Teacher Workload Survey*, conducted in 2019 (Walker *et al.*, 2019b), 69 per cent of primary teachers and 79 per cent of secondary teachers reported that they 'disagreed' strongly disagreed' that they had an acceptable workload.

There are no significant differences in perceptions of workload by phase, despite secondary senior leaders reporting that, since the lockdown, their hours had reduced on average by 2.9 hours per week *more* than their primary counterparts.

Job satisfaction

Most senior leaders and teachers are at least somewhat satisfied with their jobs, although a greater proportion of senior leaders are dissatisfied than teachers.

As shown in Figure 5, over a third (36 per cent of senior leaders and 39 per cent of teachers) were 'satisfied/ completely satisfied' with their jobs in May. By contrast, 31 per cent of senior leaders and 22 per cent of teachers were 'not/not at all satisfied'. The remaining 34 per cent of senior leaders and 39 per cent of teachers were 'somewhat satisfied' with their jobs.

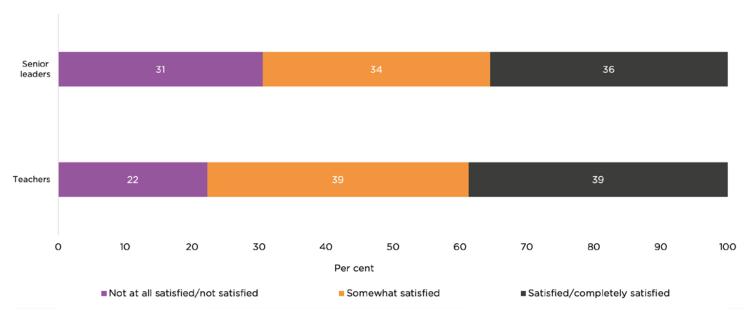
A sense of control

Because of the link between autonomy and job satisfaction found in previous research (Lynch *et al.*, 2016; Worth and Van Den Brande, 2020), we asked a series of questions about the extent to which senior leaders and teachers felt in control of their work during lockdown.

Although views are mixed about the level of control leaders and teachers have over key aspects of their work, senior leaders and teachers who feel more in control are more likely to report that they are satisfied with their job.

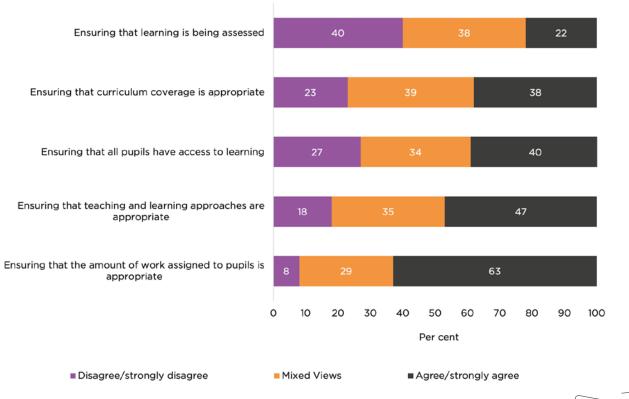
Senior leaders and teachers have mixed views on the extent to which they feel they have control over different aspects of their job. For example, while about six out of ten senior leaders (63 per cent) 'agree/strongly agree' that they have control over 'ensuring that the amount of work assigned to pupils is appropriate', a notable

Figure 5: Job satisfaction amongst senior leaders and teachers

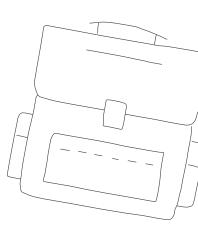


Source: NFER survey of 1233 senior leaders and 1821 teachers: 1046 senior leaders and 1637 teachers responded.

Figure 6: Sense of control amongst senior leaders



Source: NFER survey of 1233 senior leaders: 1045 senior leaders gave at least one response.



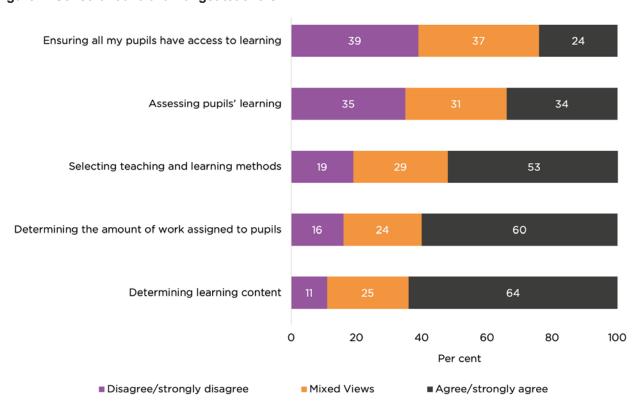
minority (40 per cent), 'disagree/strongly disagree' that they have control over 'ensuring that learning is being assessed'.

Teachers feel they have more control over aspects of their jobs than senior leaders, with more than half of teachers saying they 'agree' or 'strongly agree' that they have control over 'determining learning content' (64 per cent), 'determining the amount of work assigned to pupils' (60 per cent), and 'selecting teaching and learning methods' (53 per cent). However, notable proportions of teachers 'disagree/strongly disagree' that they have control over 'ensuring all my pupils have access to learning' (39 per cent), and 'assessing pupils'

learning' (35 per cent). It is possible that this reflects the concerns raised by teachers regarding the quality of their own access to IT from home (Lucas *et al.*, 2020).

Our analysis confirms previous research indicating a significant association between job satisfaction and autonomy (Lynch *et al.*, 2016; Worth and Van Den Brande, 2020). Senior leaders and teachers who report they feel more in control of their work, despite the disruptive effects of Covid-19, are also significantly more likely to have higher job satisfaction. This is explored in more detail later in this report.

Figure 7: Sense of control amongst teachers



Source: NFER survey of 1821 teachers: 1637 teachers gave at least one response.

What causes pressure on senior leaders and teachers, and where do they get support?

Covid-19 has brought a new set of pressures on senior leaders, as they grapple with supporting their pupils in school and remotely while trying to juggle the competing demands of their personal and professional lives. In our survey, we listed possible sources of professional and personal pressure that might be impacting on senior leaders and teachers and asked them to indicate the amount of pressure they felt from each. Professional issues ranged from working from home, interactions with parents, directives from government, concerns for pupils, additional responsibilities (such as providing welfare support for vulnerable pupils), and concerns about opening their school more fully. Personal concerns included 'parenting my own young children' and other personal concerns (such as illness, bereavement, and caring for a partner or relatives). It is likely that the sources of pressure that leaders and teachers experience will change over time, as schools open to more pupils, and as their individual circumstances change.

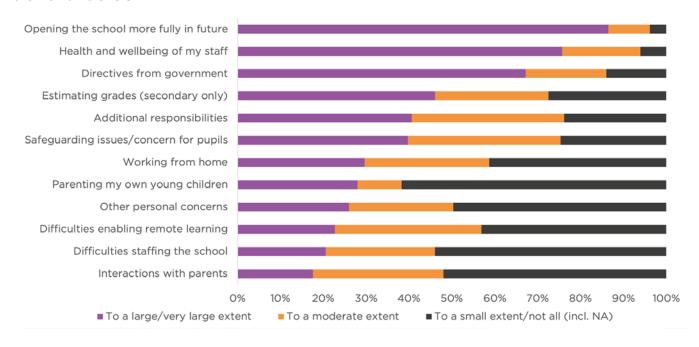
Sources of pressure

A range of factors are placing pressure on senior leaders and teachers, with senior leaders most concerned about opening their schools more fully. Teachers are most concerned about parenting their

own children, difficulties supporting pupils' remote learning and, in the case of secondary teachers, estimating pupils' examination grades.

For senior leaders responding to the survey in May, the three main sources of pressure are concerns about 'opening the school more fully in future', the 'health and well-being of my staff', and 'directives from government', with 86 per cent, 76 per cent and 67 per cent respectively reporting they feel these pressures 'to a large extent' or 'to a very large extent'. We already know from our first report in this series (Sharp et al., 2020) that opening to more pupils was a source of concern for senior leaders in May, with most feeling unprepared for resuming a range of activities when more pupils returned to school. This report also found that senior leaders wanted both clear directives from government and the autonomy to act differently, depending on their circumstances (for example, some primary leaders said they wanted to adopt a rota allowing children to attend on different days). By contrast, most senior leaders felt less pressure from 'parenting my own young children', 'difficulties staffing the school', 'interactions with parents', and 'other personal concerns' such as illness, bereavement and caring for relatives. Between 50 to 62 per cent reported that they were experiencing these pressures 'to a small extent/not at all'.

Figure 8: Senior leaders' views on the extent to which different factors are placing pressure on them during the Covid-19 crisis



Source: NFER survey of 1233 senior leaders: 1061 senior leaders gave at least one response.

Almost half of secondary senior leaders (46 per cent) feel pressure from estimating pupils' examination grades¹⁴. This is a new pressure that they are facing, having been asked by government to use their professional experience to make a 'fair and objective judgement' of the grade they believe a student would have achieved had they sat their examinations this year. Schools have been asked to take into account the 'full range of available evidence' when they grade students, and to provide a rank order of students within each grade in a subject (Ofqual, 2020)¹⁵.

Around a quarter of all teachers feel pressure 'to a large/very large extent' from parenting their own young children (25 per cent) and from 'supporting pupils' remote learning' (23 per cent).

Given the challenges pupils are facing in engaging with remote learning (see Lucas *et al.*, 2020), it is surprising this was not rated more highly by leaders and teachers. This may change now that schools are facing the prospect of supporting pupils in-school as well as supporting remote learning over an extended period of time.

Sources of support

We asked senior leaders and teachers where they were getting support and how useful they had found the support they received.

Senior leaders and teachers are drawing on a range of different sources of support in helping to manage the current crisis, most frequently their LA, colleagues and professional associations. Senior leaders and teachers have found their colleagues to be the most helpful source of support.

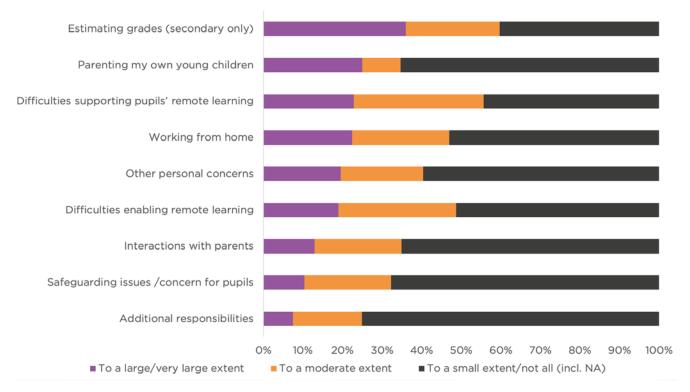
Support for senior leaders

Senior leaders' positive experiences of the support they have received from MAT senior leaders and LA services are associated with greater job satisfaction.

The three most common sources of support accessed by senior leaders are: local authority services, professional associations and senior leaders from other schools.

There is considerable variation in the perceived helpfulness of these different types of support. For example, 810 senior leaders (77 per cent) have received support from leaders from other schools.

Figure 9: Teachers' views on the extent to which different factors are placing pressure on them during the Covid-19 crisis



Source: NFER survey of 1821 teachers: 1638 teachers gave at least one response.

¹⁴ This question was asked of secondary teachers and leaders only.

¹⁵ The deadline for submitting this information was Friday 12 June 2020, with schools able to submit information from Monday 1 June 2020.

Of these 810 senior leaders, 61 per cent report that the support they received from other senor leaders was 'very/extremely helpful'. Fewer senior leaders (37 per cent) received support from MAT senior leaders, but of those who had, 60 per cent said this was 'very/ extremely helpful'. Most of the senior leaders who report they have accessed support from a MAT, are themselves based in an academy (81 per cent), although the remaining 19 per cent are from an LA-maintained school.

As might be expected, most of the senior leaders who have accessed support from their LA are themselves based in LA-maintained schools (65 per cent), although over a third (35 per cent) are based in academies. Of those senior leaders who have received support from LA services, 26 per cent found it 'very/extremely helpful', but a substantial minority (30 per cent) found it 'not very/not at all helpful'.

Where senior leaders are receiving support that they think is valuable, this is making a meaningful difference to their job satisfaction (see the statistical analysis findings reported below and in the Technical Appendix).

In response to an open question about strategies for maintaining their own health, resilience and well-being, senior leaders mentioned their experiences of support, both positive and negative. A sample of their comments is included in the box opposite.

'Local Headteachers group has kept me sane.'

'[We have been] sharing links, documents and advice with other senior leaders within the MAT and within our LA.'

'Support of other heads locally and my maintained status – LA have been fantastic with daily updates and personal support when I was ill with Covid-like symptoms at an early stage of outbreak and had to be away from school.'

'Support from MAT CEO and central services providing guidance throughout and very specific advice including HR, legal and health and safety advice. Also providing links and guidance around supporting staff welfare.'

'NAHT clear advice shared with all staff.'

'There has been no support of any worth that I can think from outside the school community.'

'Maintaining my own health, resilience and wellbeing has not been effective. I feel very lonely in my role and feel a lot more could have been done to support schools.'

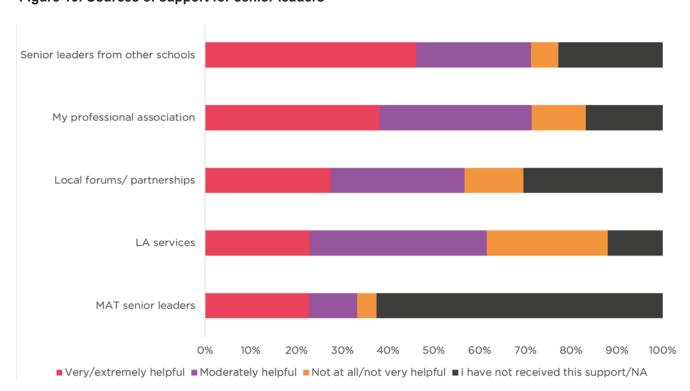


Figure 10: Sources of support for senior leaders

Source: NFER survey of 1233 senior leaders: 1050 senior leaders gave at least one response.

Support for teachers

The three most common sources of support accessed by teachers are: colleagues/peers, senior leaders from the teachers' school and teacher unions. The single most helpful type of support accessed by teachers is from 'my colleagues/peers', with 73 per cent of those accessing this support reporting this has been 'very/ extremely helpful'. Similarly to the views of their senior leader colleagues, the least helpful source of support accessed by teachers is 'LA services', which 40 per cent of those who have used it consider to be 'not very/ not at all helpful' - although fewer than 30 per cent of teachers accessed this support. Again, most of the teachers who report accessing support from their LA are themselves based in LA-maintained schools.

The fact that so many senior leaders and teachers choose to draw on the support of their colleagues - and find this support helpful – confirms previous research (Walker et al., 2019a), which shows that teachers value the views and judgements of other teachers, above other sources, when making decisions about teaching and learning or whole-school change. It is not clear why 'LA services' should be found the least helpful by senior leaders and teachers.

How leaders are supporting their staff

Senior leaders say the most useful form of support for maintaining health, resilience and well-being is regular keep in touch (KIT) meetings with staff.

In response to an open question, 42 per cent of responding senior leaders say that the single most useful form of support for maintaining their health, resilience and well-being, and that of their staff, is regular keep in touch (KIT) meetings with individuals or groups of staff. In addition, three in ten senior leaders (30 per cent), say that online video meetings using platforms such as Zoom and Microsoft Teams, are useful in facilitating both informal and formal discussions between staff. Some of their comments are included on the next page.



Senior leaders say the most useful form of support for maintaining health, resilience and wellbeing is regular keep in touch meetings with staff.

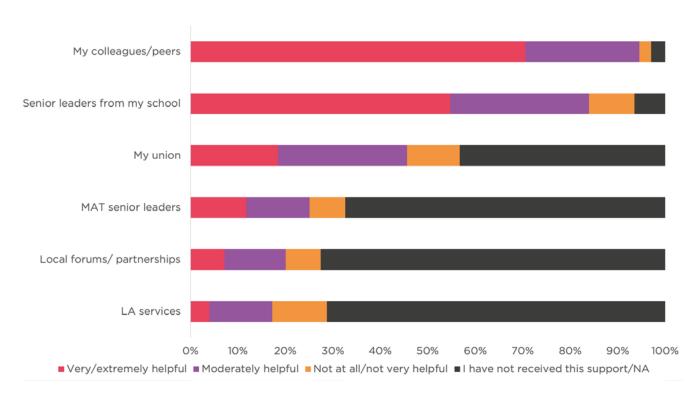


Figure 11: Sources of support for teachers

Source: NFER survey of 1821 teachers: 1641 teachers gave at least one response.

'Personal telephone calls to individuals to demonstrate concern and support personal issues.'

'Daily morning briefings where I can share amazing things that staff have done and praise them for their dedication and passion. Online staff 'catch-ups' that happen weekly and include a short fun quiz at the end.'

'A weekly briefing with all staff via Zoom calls. As well as discussing how we are doing in school and home and discussing next steps, we have a bit of social time to catch up and support each other. I let all staff know that my main priority is their health and well-being and that staff who are having to isolate or shield must not feel guilty for not being able to work in school.

About a quarter of senior leaders (26 per cent) explain that they are adopting a caring and inclusive approach to supporting their staff during the current crisis, for example by listening to staff concerns and being receptive to their needs; establishing realistic expectations for workload (24 per cent); and creating a rota to reduce timetables and minimise the time teachers spend in school (24 per cent). Other strategies mentioned by fewer senior leaders include: using social media to contact staff (20 per cent) and providing regular, or timetabled updates/communication for all staff (18 per cent).

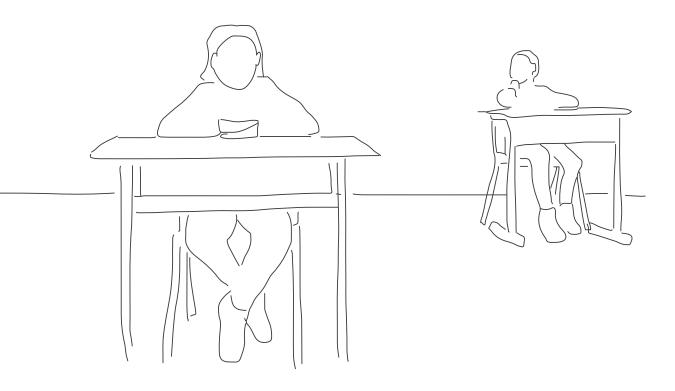
'Ensuring I'm aware of personal issues and can provide support.'

'Remaining realistic in our expectations of ourselves and our pupils and their families; prioritising staying mentally, emotionally and physically well.'

'[I am sending a] daily round-up email to all staff, outlining how many children are in school, what they are doing, what new information has come out from government and a brief summary of that and a funny cartoon to end. This also includes well-being links and mindful phrases/captions, is appreciated by staff and has now acquired 100% engagement of staff!'

'Communication. Being honest, open and forthright with staff regarding what is happening and how we, as leaders, are mitigating against any problems; forming solutions and keeping their and children's safety at the heart of all decisions made. Planning as far in advance as possible to allow for personal childcare to be sorted.'

'Enabling all those staff able to come in to spend time in school on a rota basis to carry out work that cannot be done at home e.g. phone calls to children in their class – very time consuming in terms of leadership time, with each staff member needing a meaningful amount of time to offload and talk about work/life issues, but crucial to maintaining trusting relationships.'



What influences job satisfaction?

In this section we use statistical modelling to explore how different factors explain variations in senior leaders' and teachers' job satisfaction. This allows us to examine the association between different variables and job satisfaction more effectively than looking at variables on their own, as in the previous sections of this report. By controlling for school factors such as phase, type, the proportion of pupils eligible for free school meals (FSM), region, Ofsted rating, attainment, and rural/urban locations, together with individual characteristics, we can draw out differences between respondents over and above the effects of other factors. Further information about the models can be found in the Technical Appendix.

Factors associated with higher job satisfaction amongst senior leaders and teachers

A number of factors are associated with **higher or lower job satisfaction** amongst senior leaders and teachers, as detailed below.

Senior leaders' job satisfaction

Senior leaders' perceptions of the quality of the support they have accessed and the degree of control they feel they have over teaching and learning approaches, together with the pressures they have experienced, all play a substantial role in explaining differences in their self-reported levels of job satisfaction.

Autonomy, support and pressures appear to have the strongest relationship with leaders' job satisfaction, whereas school characteristics generally appear less important. Senior leaders' individual characteristics, such as gender and age, do not seem important, as they are not significantly related to job satisfaction in the model (see Technical Appendix).

Senior leaders who feel they have a higher level of control over ensuring that curriculum coverage and teaching and learning approaches are appropriate, and that all pupils have access to learning, are more likely to report that they are satisfied with their jobs. It is likely that a range of factors contribute to senior leaders' feelings of being in control, but having good monitoring and feedback systems, together with access to effective digital platforms that maximise learning and enable effective communications between staff and pupils are

likely to contribute to overall feelings of being in control and greater job satisfaction.

Senior leaders who feel under pressure because of government directives, concerns about the health and well-being of their staff, and because of other personal concerns, are more likely to report that they are less satisfied with their jobs.

One surprising finding is that senior leaders from schools in the lowest Key Stage 2 and Key Stage 4 attainment bands are more likely to report that they are satisfied with their jobs. Further research would be needed to understand this finding in more detail.

Teachers' job satisfaction

Teachers' experiences of receiving support and providing remote learning for pupils while working from home are most strongly related to their levels of job satisfaction.

Teachers are more likely to feel satisfied in their jobs if they feel supported by their senior leaders and local networks, and feel they have control over teaching and learning methods.

Teachers who feel they are not able to adequately support their pupils remotely tend to be less satisfied in their job. This could be a product of the limitations in the systems adopted by schools to support remote learning, or it could reflect the challenges teachers are experiencing in engaging their pupils and adapting their teaching to meet this new way of working. In addition, teachers who report that working from home is a significant pressure, or that they have other personal concerns, are also less likely to be satisfied in their job. Clearly everyone's home arrangements are different, as are people's reactions to the unfolding pandemic, but these appear to be impacting on teachers' (and senior leaders') overall sense of job satisfaction. This suggests that teachers who have suffered personally from the pandemic would benefit from additional support. Senior leaders appear to already be responding to this, as one in four (26 per cent) highlight the importance of adopting a caring and inclusive approach to managing their staff during the current crisis.

These findings emphasise the importance of support from senior leaders as a significant driver of teacher satisfaction. In the same way that new teachers commonly experience 'practice shock' when beginning to teach (Walker *et al.*, 2018), it seems plausible that the pandemic has caused similar shockwaves, for teachers old and new. Now, more than ever, teachers

need support from their senior leaders and their colleagues to help them acclimatise to the new reality of their working practices.

The tables below summarise the main factors associated with higher and lower job satisfaction amongst senior leaders and teachers.

Table 1: Factors associated with higher job satisfaction amongst senior leaders and teachers

Teachers

Senior leaders

- Senior leaders who have received support from MAT senior leaders and found it moderately to extremely helpful (largest effect)
- Senior leaders who agree/strongly agree that they have control over ensuring that teaching and learning approaches are appropriate
- Senior leaders who agree/strongly agree that they have control over ensuring that curriculum coverage is appropriate
- Senior leaders from schools in the lowest KS2/ KS4 attainment band
- Senior leaders who agree/strongly agree that they have control over ensuring that all pupils have access to learning
- Senior leaders who have received support from LA services and found it moderately to extremely helpful (smallest effect)

 Teachers who find senior leaders from school are helpful (largest effect)

- · Teachers who find colleagues/peers are helpful
- Teachers who feel they have control over ensuring pupils have access to learning
- Teachers who have control over a selection of teaching and learning methods
- Teachers reporting local forums/ partnerships are helpful (smallest effect)

Table 2: Factors associated with lower job satisfaction amongst senior leaders and teachers

Senior leaders Teachers

- Senior leaders who are pressured by working from home to a large extent (largest effect)
- Senior leaders who filled out the survey after the 10 May announcement on schools opening more fully
- Senior leaders who are pressured by other personal concerns (e.g. illness, bereavement, caring for own relatives) to a large extent
- Senior leaders who are pressured by directives from the Government to a large/very large extent
- Senior leaders who are pressured by the health and well-being of their staff to a large extent (smallest effect)

- Teachers facing pressures relating to safeguarding (largest effect).
- Teachers facing significant pressures from working at home
- Teachers facing pressures from other personal concerns
- Teachers having difficulties supporting pupils' remote learning
- Teachers surveyed on or after 10 May (smallest effect)

What influences perceptions of workload?

In this section we use a similar statistical modelling approach to explore how different factors explain variation in the self-reported manageability of senior leaders' and teachers' working hours.

Improving teachers' perceptions of their workload involves more than just reducing the number of hours they work (Walker *et al.*, 2019b) – the most cited reason for teachers leaving the state sector is unmanageable workload rather than the number of hours worked. In this initial analysis we have excluded working hours. However, a number of the significant factors we have identified may be affecting both working hours and manageability of workload. The relationship between workload manageability and other factors¹⁶ is a complex issue which we intend to explore further in future research.

Our model revealed more evidence of negative influences on perceptions of workload than positive ones. A number of factors are associated with a less manageable workload amongst senior leaders and teachers.

The pressures experienced by senior leaders, together with their perceptions of the quality of the support they have accessed, play a substantial role in explaining differences in the extent to which they feel their workload is manageable. Their own characteristics generally appear less important, while school characteristics do not seem important.

Some senior leaders are more likely to report that their workload is unmanageable. These include those who feel under pressure due to difficulties in staffing their schools, those with concerns about opening their schools more fully, and those with concerns about providing welfare support for vulnerable pupils not in school.

Senior leaders who received support from their LA and found it helpful, are more likely to report that their workload is manageable. Local authorities provide an important service to schools by providing updated local information and support on how to tackle the 'new normal'. The challenge is that not all senior leaders have experienced such benefits, with 30 per cent reporting that the support offered by their LA has been 'not at all helpful' or 'not very helpful' (see 'Sources of support' section).

One surprising finding is that senior leaders who receive support from senior leaders from other schools, and find this support helpful, are more likely to report that their workload is unmanageable. It is possible that those senior leaders who seek out support from other leaders are the ones who are finding their workload most challenging. Alternatively, it could be that the very action of seeking out support from other leaders is itself adding to senior leaders' workloads. Further investigation would be required to explore this.

Senior leaders in their fifties, compared to those in their forties, are more likely to report that their workload is manageable.

Teacher characteristics, together with the personal views and experiences of teachers, play a substantial role in explaining differences in the extent to which teachers feel their workload is manageable.

Several teacher characteristics are related to perceptions of workload, whereas school characteristics generally seem less important. Most of the school characteristics included in the model were not significantly related to manageability of workload (see the Technical Appendix).

Teachers aged 20-29 years are more likely to report that their workload is more manageable than those in their forties. This probably reflects the increased likelihood that older teachers have school-aged children themselves, and therefore face the additional challenges of managing home-schooling. This is supported by the finding that female teachers, who may also have greater caring responsibilities, are more likely to report that their workload is unmanageable. As with job satisfaction, teachers who report having helpful colleagues are more likely to report that their workload is manageable.

Where teachers find their workload is less manageable, their personal views and experiences appear to play a substantial role. For example, teachers facing extra pressures associated with working from home, parenting their own children, and other personal concerns, are all less likely to report their workload is manageable. Similarly, teachers who report facing pressures from supporting pupils' remote learning and having additional responsibilities (such as providing

¹⁶ Factors which relate to teachers' and senior leaders' sense of control over the amount and type of work set are also not included in our model. Previous research has found a significant association between control and workload (Worth and Van den Brande, 2020), and we intend to investigate this further in future research.

additional welfare support for vulnerable children) are less likely to report that their workload is manageable.

In addition, teachers who report that interactions with parents are placing pressure on them are less likely to report their workload is manageable. The types of tools used by schools do not generally help explain differences in teachers' workloads, although we do find that teachers calling pupils by phone or video call – which is positively associated with pupils' level

of engagement with home learning (see Lucas *et al.*, 2020) - are more likely to report their workload is unmanageable. Teachers using emails and texts to communicate with pupils are less likely to report that workload is unmanageable, perhaps because this is less time consuming.

Table 3 summarises the main factors associated with a less manageable workload amongst senior leaders and teachers.

Table 3: Factors associated with a less manageable workload amongst senior leaders and teachers

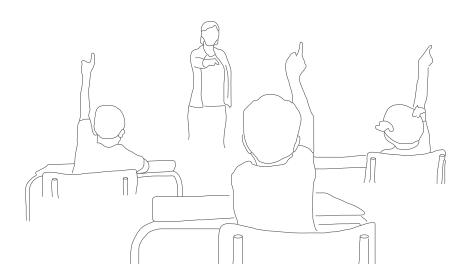
Senior leaders

Senior leaders who are pressured by parenting their own young children to a large extent (largest effect)

- Senior leaders who are pressured by additional responsibilities (e.g. providing welfare support for vulnerable pupils not in school)
- Senior leaders who are pressured by working from home to a large extent
- Senior leaders who received support from senior leaders from other schools and found it moderately to extremely helpful
- Senior leaders who filled out the survey after the 10 May government announcement on schools opening more fully
- Senior leaders who are pressured by concerns about opening the school more fully in future
- Senior leaders who are pressured by difficulties staffing the school to a large extent
- Senior leaders who are pressured by other personal concerns (e.g. illness, bereavement, caring for own relatives) to a large extent (smallest effect)

Teachers

- Teachers facing pressures associated with working from home (largest effect)
- Teachers facing pressures looking after own young children
- Teachers facing pressures from additional responsibilities
- Teachers facing pressures relating to interactions with parents
- · Female teachers
- Teachers with other personal concerns
- Teachers in schools using telephone or video calls to communicate with pupils (smallest effect)



Our analysis identified a small number of factors associated with a more manageable workload amongst senior leaders and teachers. These are summarised in Table 4.

Senior leaders who are older and those who have received support from LA services and found it helpful, are more likely to find their workload manageable. Teachers who find their colleagues to be helpful, younger teachers and those from the most deprived schools are more likely to find their workload manageable.

Table 4: Factors associated with a more manageable workload amongst senior leaders and teachers

Senior leaders

Senior leaders between the ages of 50-59 compared to the reference group of 40-49 (largest effect)

 Senior leaders who have received support from LA services and found it moderately to extremely helpful (smallest effect)

Teachers

- Teachers reporting colleagues/peers are helpful (largest effect)
- · Teachers aged 20-29 years
- Teachers in schools in the highest FSM quintile (smallest effect)

Teachers who report that interactions with parents are placing pressure on them are less likely to report their workload is manageable.

Discussion and conclusion

Tackling teacher workload is a high priority for the DfE and the education sector as a whole. There is some evidence that, prior to Covid-19, senior leaders' and teachers' working hours had fallen, albeit modestly (Walker *et al.*, 2019b), but there were concerns that when schools were ordered to close to all but vulnerable children and the children of keyworkers in March 2020, that closures would increase working hours.

However, since schools closed their gates to the majority of their pupils, this research indicates that there has been a reduction in average working hours of between 4.0 per week for primary senior leaders and 11.3 hours per week for primary teachers. Secondary staff have experienced a larger reduction of 6.9 hours per week, on average, for senior leaders, and 12.2 hours per week for teachers. This may reflect the need for staff to reduce their working hours to manage caring responsibilities at home, or constraints on their ability to carry out their role from home as a result of illness or limited access to the resources required to work effectively.

Although working hours have reduced overall, this masks a variety of different experiences across the school workforce, with significant burdens on a substantial minority of senior leaders. In particular, 41 per cent of senior leaders are still working more than 50 hours per week, a quarter are finding their workload unmanageable, and 31 per cent are not satisfied with their jobs. Governors, MATs and LAs will need to keep closely in touch with headteachers, to support them and help avoid burnout. The education sector cannot afford to lose more senior leaders at this critical time.

While senior leaders and teachers report drawing on a range of different sources of support in helping to manage the current crisis, there is considerable variation in the perceived helpfulness of these different types of support. In particular, most senior leaders are drawing on support from their LA, but 30 per cent of them report that this has been 'not at all/not very helpful'. Local authorities can potentially provide an important service to schools by providing local information and support. Further analysis, perhaps led by the Local Government Association, should explore what effective support involves and how this can be provided consistently across local authorities.

The findings also emphasise the importance of support from senior leaders as a significant driver of teacher satisfaction. For example, teachers are more likely to feel satisfied in their jobs if they feel supported by their senior leaders and local networks, and feel they have control over teaching and learning methods. In the same way that new teachers commonly experience 'practice shock' when beginning to teach (Walker et al., 2018), it seems plausible that the pandemic has caused similar shockwaves, for teachers new and old. Now, more than ever, teachers need support from senior leaders and colleagues to help them acclimatise to the new reality of their working practices. It will also be important to provide greater training and support for teachers (and TAs) who continue working at home, as they have the potential to continue to support home learning (see Lucas et al., 2020).

There are considerable concerns about the longerterm sustainability of the strategies adopted by schools in helping to manage the current crisis. This includes their responses to remote learning and the impacts of schools opening more fully on senior leaders' and teachers' workloads. Primary schools are likely to find it very difficult to accommodate teaching up to four year groups (Nursery, Reception, Year 1 and Year 6 pupils) in split classes, while also accommodating vulnerable and keyworker children and simultaneously attempting to provide remote learning for children in Years 2-5. Our first report in this series (Sharp et al., 2020) indicated that schools only have 75 per cent of their normal teaching capacity available, and almost a third of these teachers can only work from home. Schools will need more resources – especially teaching capacity – to enable them to provide effective in-school and remote learning.

Further guidance for schools will inevitably emerge from central government over the coming weeks and months. In order to give leaders and teachers a greater sense of control, the Government needs to ensure that new directives are clear, kept to a minimum, reflect the concerns of the profession, and are sensitive to the pressures school leaders are facing. While the Government must focus first and foremost on protecting the health of pupils and school staff, it must also give senior leaders the autonomy to implement teaching and learning approaches that they feel work for their settings, staff and communities.

This research has revealed the emerging impacts of Covid-19 on senior leaders' and teachers' workloads, as they open their schools more fully during the summer term. Other reports in this series focus on different aspects of schools' responses to Covid-19 during lockdown and as more pupils return to school.

References

Bonferroni, C. E. (1936). 'Teoria statistica delle classi e calcolo delle probabilità', *Pubblicazioni del R Istituto Superiore di Scienze Economiche e Commerciali di Firenze*, 8, 3–62.

Department for Education (2018). *School Workforce in England: November 2017* [online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/719772/SWFC_MainText.pdf [3 June, 2020].

Fullard, J. (2020). *Teacher Supply and Covid-19* [online]. Available: https://epi.org.uk/publications-and-research/teacher-supply-and-covid-19/ [22 June, 2020]

Hannay, T., McInerney, L. and Allen, B. (2020). *Vacancies and Viruses: Teacher Recruitment in the Time of a Pandemic* [online]. Available: https://www.gatsby.org.uk/uploads/education/reports/pdf/teacher-recruitment-in-the-time-of-a-pandemic-gatsby-education.pdf [27 May, 2020].

Jerrim, J. and Sims, S. (2019). *The Teaching and Learning International Survey (TALIS) 2018* [online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/809738/TALIS_2018_research_brief.pdf [27 May, 2020].

Lucas, M., Nelson, J. and Sims, D. (2020). Schools' Responses to Covid-19: Pupil Engagement in Remote Learning [online]. Available: https://www.nfer.ac.uk/media/4073/schools_responses_to_covid_19_pupil_engagement_in_remote_learning.pdf [19 June, 2020].

Lynch, S., Worth, J., Bamford, S. and Wespieser, K. (2016). *Engaging Teachers: NFER Analysis of Teacher Retention* [online]. Available: https://www.nfer.ac.uk/publications/lfsb01/lfsb01.pdf [3 June, 2020].

Müller, L.M. and Goldenberg, G. (2020). Education in Times of Crisis: the Potential Implications of School Closures for Teachers and Students [online]. Available: https://my.chartered.college/wp-content/uploads/2020/05/CCTReport070520_FINAL.pdf [27 May, 2020].

The Office of Qualifications and Examinations
Regulation (2020). Summer 2020 Grades for GCSE,
AS and A level, Extended Project Qualification and
Advanced Extension Award in Maths: Guidance for
Teachers, Students, Parents and Carers [online].
Available: https://assets.publishing.service.gov.uk/
government/uploads/system/uploads/attachment_data/
file/890811/Summer_2020_grades_for_GCSE_
AS_A_level_guidance_for_teachers_students_
parents_09062020.pdf [3 June, 2020].

Sharp, C., Sims, D. and Rutt, S. (2020). School's Responses to Covid-19: Returning Pupils to School [online]. Available: https://www.nfer.ac.uk/media/4060/schools_responses_to_covid_19_early_report_final.pdf [3 June, 2020].

Teacher Tapp (2020a). *Anxiety and the Return to School* [online]. Available: https://teachertapp.co.uk/anxiexty-and-the-return-to-school/ [27 May, 2020].

Teacher Tapp (2020b). How Are Teachers Coping With Lockdown? [online]. Available: https://teachertapp.co.uk/how-are-teachers-coping-with-lockdown/ [09 June, 2020].

Walker, M., Straw, S., Worth, J. and Grayson, H. (2018). *Early Career CPD: Exploratory Research* [online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/752572/Early_career_CPD-exploratory_research.pdf [3 June, 2020].

Walker, M., Nelson, J., Bradshaw, S. and Brown, C. (2019a). *Teachers' Engagement with Research: What Do We Know?* [online]. Available: https://educationendowmentfoundation.org.uk/public/files/Evaluation/Teachers_engagement_with_research_Research_Brief_JK.pdf [30 May, 2020].

Walker, M., Worth, J. and Van den Brande, J. (2019b). *Teacher Workload Survey* 2019 [online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/855933/teacher_workload_survey_2019_main_report_amended.pdf [27 May, 2020].



Worth, J. (2020a). *Teacher Labour Market in England: Annual Report 2020* [online]. Available: https://www.nfer.ac.uk/media/4063/tlm_annual_report_2020.pdf [11 June, 2020].

Worth, J. (2020b). 'What effect has the lockdown had on teacher supply?', *NFER Blog*, 1 May [online]. Available: https://www.nfer.ac.uk/news-events/nfer-blogs/what-effect-has-the-lockdown-had-on-teacher-supply/ [11 June, 2020].

Worth, J. (2020c). 'How many teachers are not able to work in school because they, or a family member, are at higher risk from Covid-19?', *NFER Blog*, 15 June [online]. Available: https://www.nfer.ac.uk/news-events/nfer-blogs/how-many-teachers-are-not-able-to-work-in-school-because-they-or-a-family-member-are-at-higher-risk-from-covid-19/ [15 June, 2020].

Worth, J. and Van den Brande, J. (2019). *Teacher Labour Market in England: Annual Report 2019* [online]. Available: https://www.nfer.ac.uk/media/3344/teacher_labour_market_in_england_2019.pdf [27 May, 2020].

Worth, J. and Van den Brande, J. (2020). *Teacher Autonomy: How Does it Relate to Job Satisfaction and Retention?* [online]. Available: https://www.nfer.ac.uk/media/3874/teacher_autonomy_how_does_it_relate_to_job_satisfaction_and_retention.pdf [27 May, 2020].

Technical appendix

This appendix contains information on sample weighting and a full list of all the variables included in the statistical model.

A note on sample weighting

To ensure the sample of respondents was representative of the population of all schools, we created a variable that identifies whether a school is a primary or secondary school and its level of free school meal (FSM) eligibility. FSM information was downloaded from the Department for Education's website in April and the figure identifying the proportion of pupils eligible for FSM was used to separately create eligibility quintiles for both primary and secondary schools. This created a 13-category variable of sector and quintile, including two missing categories and a single category to indicate all-through schools. The distribution of the responding schools was compared to the population distribution and a chi square test for independence was used to determine if weighting was required.

Models of senior leaders' and teachers' job satisfaction

We estimated statistical models, using a weighted Ordered Logit regression, to examine the association between different variables and senior leaders' and teachers' job satisfaction. Senior leaders' and teachers' job satisfaction was measured based on a five-measure Likert Scale question: 'Overall, how satisfied or dissatisfied are you with your job at the moment?' Tables 5 and 6 show all the variables that were included in the final model. Answers to other questions in the survey that were not significant in the model were removed one at a time, until all remaining survey variables were related to the outcome. We also tested a control for whether the school is in a rural or urban location, but this was also excluded as it was unrelated to the outcome variable.

Table 5 Model of factors related to senior leaders' job satisfaction

Variable	• • • • • • • • • • • • • • • • • • • •	Coefficient (logs odds)	Standard error	Significance
Ofsted Rating 2019	Inadequate/Requires improvement	-0.105	0.185	0.570
	Outstanding	-0.181	0.179	0.312
Attainment Quintiles	Lowest 20%	0.435	0.200	0.029*
	2nd Lowest 20%	0.247	0.196	0.206
	2nd Highest 20%	0.084	0.186	0.653
	Highest 20%	0.090	0.207	0.662
Region	East Midlands	-0.459	0.267	0.086
	East of England	-0.084	0.249	0.737
	North East	-0.186	0.352	0.596
	North West	-0.017	0.232	0.942
	South East	-0.099	0.234	0.671
	South West	-0.308	0.266	0.247
	West Midlands	-0.212	0.258	0.412
• • • • • • • • • • • • • • • • • • • •	Yorkshire and the Humber	0.297	0.270	0.273

Variable	• • • • • • • • • • • • • • • • • • • •	Coefficient (logs odds)	Standard error	Significance
Phase	Secondary Schools	0.341	0.213	0.110
Free School Meal Quintiles	Lowest 20%	-0.270	0.199	0.175
	2nd Lowest 20%	-0.147	0.194	0.448
	2nd Highest 20%	-0.141	0.191	0.458
	Highest 20%	-0.319	0.198	0.108
School Type	Academy	0.088	0.171	0.605
Survey completed before or after PM's announcement, 10 May, 8pm	After	-0.499	0.126	0.000*
To what extent are the	Directives from government	-0.400	0.141	0.005*
following factors currently placing pressure on you as a senior leader? (To a large/Very large extent)	Being held responsible for estimating pupils' examination grades	0.272	0.279	0.330
	Health and well-being of my staff	-0.369	0.147	0.012*
	Working from home	-0.722	0.132	0.000*
To what extent are the following factors currently placing pressure on you as a senior leader? (To a large/Very large extent)	Other personal concerns (e.g. illness, bereavement, caring for own relatives)	-0.479	0.138	0.001*
Which of the following	MAT senior leaders	1.162	0.315	0.000*
have you received support from and how helpful has this been in helping you to manage this crisis?	LA services	0.318	0.141	0.024*
How strongly do you agree	o o o o o o o o o o o o o o o o o o o		• • • • • • • • • • • • •	• • • • • • • • • • • • • • •
or disagree that you have control over the following areas? (Agree/ Strongly	Ensuring that curriculum coverage is appropriate	0.487	0.153	0.001*
agree)	Ensuring that teaching and learning approaches are appropriate	0.508	0.152	0.001*
• • • • • • • • • • • • • • • • • • • •	Ensuring that all pupils have access to learning	0.375	0.126	0.003*

Variable	• • • • • • • • • • • • • • • • • • • •	Coefficient (logs odds)	Standard error	Significance
Age	20 – 29 years	-1.140	1.086	0.294
	30 – 39 years	0.079	0.182	0.666
	50 – 59 years	0.045	0.133	0.733
	60 + years	-0.188	0.286	0.511
Gender	Female	-0.102	0.137	0.455

^{*}Statistically significant at the five per cent level (p < 0.05).

- 1. Based on NFER survey of 1322 senior leaders: 1046 are included in the model.
- 2. Reference groups are senior leaders in the following types of schools: Ofsted = Good, Attainment = Middle Quintile, FSM = Middle Quintile, Region = London, Phase = Primary, School Type = Maintained Schools, Age = 40-49, Gender = Male.
- 3. Questions with responses of 'To a large/Very large extent' are compared to responses 'To a moderate/Small extent/Not at all/NA'.
- 4. Questions with responses of 'Moderately/Very/Extremely helpful' are compared to responses 'Not at all/Not very helpful'.
- 5. Questions with responses of 'Agree/Strongly agree' are compared to responses 'Strongly disagree/Disagree/Mixed views'.
- 6. Where appropriate, missing data was taken into consideration through the use of dummies. Only significant values have been retained for reference.

Table 6 Model of factors related to teachers' job satisfaction

Variable		Coefficient (logs odds)	Standard error	Significance
Ofsted Rating 2019	Outstanding	0.011	0.176	0.951
	Requires improvement or inadequate	-0.098	0.159	0.538
Phase	Secondary school	0.132	0.120	0.269
Attainment Quintiles	Lowest 20%	-0.275	0.187	0.141
	2nd Lowest 20%	0.102	0.186	0.583
	2nd Highest 20%	-0.033	0.186	0.858
	Highest 20%	0.237	0.202	0.240
Free School Meal Quintiles	Lowest 20%	-0.081	0.205	0.692
	2nd Lowest 20%	0.013	0.190	0.947
	2nd Highest 20%	-0.022	0.189	0.908
	Highest 20%	0.175	0.199	0.380

Variable	• • • • • • • • • • • • • • • • • • • •	Coefficient (logs odds)	Standard error	Significance
Region	East Midlands	0.020	0.237	0.934
3	East of England	0.627	0.223	0.005
	North East	0.187	0.274	0.494
	North West	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
	• • • • • • • • • • • • • • • • • • •	0.144	0.236	0.541
	South East	0.357	0.224	0.112
	South West	0.103	0.242	0.671
	West Midlands	0.501	0.265	0.059
• • • • • • • • • • • • • • • • • • • •	Yorkshire and the Humber	0.466	0.260	0.073
School type	Academy	0.050	0.126	0.691
To what extent are the following factors currently	Safeguarding issues/ concern for pupils	-0.575	0.207	0.005*
placing pressure on you? Large /Very large extent)	Difficulties supporting pupils' remote learning	-0.383	0.167	0.022*
	Difficulties enabling remote learning	-0.344	0.187	0.067
	Working from home	-0.472	0.155	0.002*
	Parenting my own young children	-0.240	0.145	0.099
	Other personal concerns	-0.387	0.144	0.007*
Which of the following	Senior leaders from school	1.153	0.203	0.000*
have you received support from and how helpful has	Local forums/partnerships	0.561	0.244	0.021*
this been in helping you to manage this crisis? Helpful/ Very helpful)	My colleagues/peers	0.778	0.393	0.048*
How strongly do you agree or disagree that you have	Determining learning content	0.252	0.147	0.086
control over the following areas? Agree/ Strongly agree)	Selecting teaching and learning methods	0.570	0.138	0.000*
	Ensuring all my pupils have access to learning	0.738	0.139	0.000*
	Determining the amount of work assigned to pupils	0.171	0.126	0.176
Age group	20 - 29 years	0.167	0.188	0.374
	30 - 39 years	-0.020	0.142	0.888
	50 - 59 years	-0.199	0.158	0.208
	60 + years	0.072	0.288	0.803
•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •

Variable		Coefficient (logs odds)	Standard error	Significance
Gender	Female	-0.224	0.143	0.116
Survey completed before or after Prime Minister's announcement, 10 May, 8pm	After	-0.258	0.112	0.021*

^{*}Statistically significant at the five per cent level (p < 0.05).

- 1. Based on NFER survey of 1821 teachers: 1672 are included in the model.
- 2. Reference groups are teachers in the following types of schools: Ofsted = Good, Attainment = Middle Quintile, FSM = Middle Quintile, Region = London, Phase = Primary, School Type = Maintained Schools, Age = 40-49, Gender = Male.
- 3. Questions with responses of 'To a large/Very large extent' are compared to responses 'To a moderate/Small extent/Not at all/NA'.
- 4. Questions with responses of 'Moderately/Very/Extremely helpful' are compared to responses 'Not at all/Not very helpful'.
- 5. Questions with responses of 'Agree/Strongly agree' are compared to responses 'Strongly disagree/Disagree/Mixed views'.
- 6. Where appropriate, missing data was taken into consideration through the use of dummies. Only significant values have been retained for reference.

Models of senior leaders' and teachers' perceptions of workload

We estimated statistical models, using a weighted Ordered Logit regression, to examine the association between different variables and senior leaders' and teachers' workload. Senior leaders' and teachers' workload was measured based on a five-measure

Likert Scale question: 'How manageable do you find the hours you are currently working?' Tables 7 and 8 show all the variables that were included in the final model. Answers to other questions in the survey that were not significant in the model were removed one at a time, until all remaining survey variables were related to the outcome. We also tested a control for whether the school is in a rural or urban location but this was also excluded as it was unrelated to the outcome variable.

Table 7 Model of factors related to senior leaders' perceptions of workload

Variable		Coefficient (logs odds)	Standard error	Significance
Ofsted Rating 2019	Inadequate/Requires improvement	-0.005	0.184	0.978
	Outstanding	-0.145	0.176	0.408
Attainment Quintiles	Lowest 20%	0.072	0.197	0.713
	2nd Lowest 20%	0.186	0.192	0.333
	2nd Highest 20%	-0.139	0.185	0.453
	Highest 20%	-0.171	0.203	0.401

Variable	• • • • • • • • • • • • • • • • • • • •	Coefficient (logs odds)	Standard error	Significance
Region	East Midlands	0.110	0.265	0.678
	East of England	-0.110	0.246	0.654
	North East	0.375	0.355	0.291
	North West	0.277	0.229	0.226
	South East	0.350	0.231	0.131
	South West	0.030	0.261	0.908
	West Midlands	-0.008	0.253	0.976
	Yorkshire and the Humber	0.401	0.266	0.131
Phase	Secondary	0.170	0.169	0.315
Free School Meal Quintiles	Lowest 20%	-0.096	0.198	0.627
	2nd Lowest 20%	-0.064	0.191	0.735
	2nd Highest 20%	0.222	0.189	0.240
	Highest 20%	0.025	0.199	0.900
School Type	Academy	-0.165	0.168	0.328
Survey completed before or after PM's announcement, 10 May, 8pm	After	-0.502	0.126	0.000*
To what extent are the following factors currently placing pressure on you as a senior leader? - Interactions with parents	To a large/Very large extent	-0.294	0.158	0.062
To what extent are the following factors currently placing pressure on you as a senior leader? - Directives from government	To a large/Very large extent	-0.272	0.143	0.057
To what extent are the following factors currently placing pressure on you as a senior leader? - Additional responsibilities (e.g. providing welfare support for vulnerable pupils not in school)	To a large/Very large extent	-0.618	0.129	0.000*
To what extent are the following factors currently placing pressure on you as a senior leader? - Difficulties staffing the school	To a large/Very large extent	-0.395	0.153	0.010*

Variable	• • • • • • • • • • • • • • • • • • • •	Coefficient	Standard error	Significance
		(logs odds)		
To what extent are the following factors currently placing pressure on you as a senior leader? - Difficulties enabling remote learning	To a large/Very large extent	-0.242	0.149	0.105
To what extent are the following factors currently placing pressure on you as a senior leader? - Concerns about opening the school more fully in future	To a large/Very large extent	-0.451	0.185	0.014*
To what extent are the following factors currently placing pressure on you as a senior leader? - Working from home	To a large/Very large extent	-0.559	0.141	0.000*
To what extent are the following factors currently placing pressure on you as a senior leader? - Parenting my own young children	To a large/Very large extent	-0.763	0.151	0.000*
To what extent are the following factors currently placing pressure on you as a senior leader? - Other personal concerns (e.g. illness, bereavement, caring for own relatives)	To a large/Very large extent	-0.310	0.137	0.023*
Which of the following have you received support from and how helpful has this been in helping you to manage this crisis? - MAT senior leaders	Moderately/Very/Extremely helpful	0.553	0.314	0.079
Which of the following have you received support from and how helpful has this been in helping you to manage this crisis? - LA services	Moderately/Very/Extremely helpful	0.283	0.142	0.047*
Which of the following have you received support from and how helpful has this been in helping you to manage this crisis? - Senior leaders from other schools	Moderately/Very/Extremely helpful	-0.542	0.252	0.032*

Variable	• • • • • • • • • • • • • • • • • • • •	Coefficient (logs odds)	Standard error	Significance
Age	20 – 29 years	0.794	1.072	0.459
	30 – 39 years	-0.011	0.182	0.953
	50 – 59 years	0.375	0.138	0.006*
	60 + years	0.174	0.289	0.548
Gender	Female	-0.102	0.137	0.459

^{*}Statistically significant at the five per cent level (p < 0.05).

- 1. Based on NFER survey of 1322 senior leaders: 1024 are included in the model.
- 2. Reference groups are teachers in the following types of schools: Ofsted = Good, Attainment = Middle Quintile, FSM = Middle Quintile, Region = London, Phase = Primary, School type = Maintained Schools, Age = 40-49, Gender = Male.
- 3. Questions with responses of 'To a large/Very large extent' are compared to responses 'To a moderate/Small extent/Not at all/NA'.
- 4. Questions with responses of 'Moderately/Very/Extremely helpful' are compared to responses 'Not at all/Not very helpful'.
- 5. Questions with responses of 'Agree/Strongly agree' are compared to responses 'Strongly disagree/Disagree/Mixed views'.
- 6. Where appropriate, missing data was taken into consideration through the use of dummies. Only significant values have been retained for reference.

Table 8 Model of factors related to teachers' perceptions of workload

Variable		Coefficient (logs odds)	Standard error	Significance
Ofsted Rating 2019	Outstanding	0.003	0.168	0.987
	Requires improvement or inadequate	0.007	0.179	0.969
Phase	Secondary school	-0.180	0.556	0.747
Attainment Quintiles	Lowest 20%	-0.096	0.193	0.618
	2nd Lowest 20%	0.071	0.185	0.700
	2nd Highest 20%	0.086	0.183	0.637
	Highest 20%	-0.030	0.204	0.885
Free School Meal Quintiles	Lowest 20%	0.155	0.183	0.395
	2nd Lowest 20%	0.102	0.186	0.584
	2nd Highest 20%	0.270	0.175	0.124
• • • • • • • • • • • • • • • • • • • •	Highest 20%	0.490	0.185	0.008*

Variable	• • • • • • • • • • • • • • • • • • • •	Coefficient (logs odds)	Standard error	Significance
Region	East Midlands	-0.048	0.224	0.830
	East of England	0.040	0.212	0.851
	North East	0.453	0.278	0.103
	North West	0.213	0.224	0.342
	South East	0.080	0.205	0.695
	South West	0.070	0.213	0.744
	West Midlands	0.327	0.235	0.164
	Yorkshire and the Humber	0.376	0.243	0.122
School type	Academy	0.019	0.119	0.872
To what extent are the following factors currently placing pressure on you? Large/Very large extent	Interactions with parents	-0.421	0.171	0.014*
	Additional responsibilities	-0.701	0.206	0.001*
	Difficulties enabling remote learning	-0.196	0.137	0.151
	Working from home	-0.942	0.155	0.000*
	Parenting own young children	-0.855	0.143	0.000*
	Other personal concerns	-0.307	0.144	0.033*
Which of the following have you received support from and how helpful has this been in helping you to manage this crisis? Helpful/Very helpful	Senior leaders from school	0.298	0.192	0.120
	My colleagues/ peers	1.062	0.404	0.009*
	My union	-0.283	0.173	0.102
Which of the following tools is your school currently using to notify pupils and/or their parents about work you are providing/ recommending to them?	Emails/texts	0.245	0.132	0.062
	Telephone/video call home	-0.243	0.119	0.042*
Age group	20 - 29 years	0.860	0.216	0.000*
	30 - 39 years	-0.202	0.132	0.127
	50 - 59 years	0.086	0.155	0.577
	60 + years	0.106	0.273	0.698
Gender	Female	-0.352	0.138	0.011*

	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • • •
Variable		Coefficient (logs odds)	Standard error	Significance
Key stage	Key Stage 1 or Reception	0.042	0.135	0.753
	Key Stage 3 or Key Stage 4	-0.622	0.603	0.302
	Key Stage 5	-0.105	0.153	0.494
Subject	Science and ICT	0.694	0.522	0.184
	Creative arts and DT	0.481	0.527	0.361
	English	0.875	0.540	0.105
	Humanities	0.594	0.526	0.259
	Maths	0.602	0.532	0.258
	Other subjects	0.592	0.514	0.249
Survey completed before or after Prime Minister's announcement, 10 May, 8pm	After	-0.183	0.111	0.099

^{*}Statistically significant at the five per cent level (p < 0.05).

- 1. Based on NFER survey of 1821 teachers: 1672 are included in the model.
- 2. Reference groups are teachers in the following types of schools: Ofsted = Good, Attainment = Middle Quintile, FSM = Middle Quintile, Region = London, Phase = Primary, School Type = Maintained Schools, Age = 40-49, Gender = Male, Subject = Not Specified, Key stage = 2.
- 3. Questions with responses of 'To a large/Very large extent' are compared to responses 'To a moderate/Small extent/Not at all/NA'.
- 4. Questions with responses of 'Moderately/Very/Extremely helpful' are compared to responses 'Not at all/Not very helpful'.
- 5. Questions with responses of 'Agree/Strongly agree' are compared to responses 'Strongly disagree/Disagree/Mixed views'.
- 6. Where appropriate, missing data was taken into consideration through the use of dummies. Only significant values have been retained for reference.

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