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**Research Report**

## Patterns of less-than-full-time working by NHS consultants

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Institute for Fiscal Studies

**IFS Report R258**

Elaine Kelly  
George Stoye  
Max Warner

# Patterns of less-than-full- time working by NHS consultants



Economic  
and Social  
Research Council

**NIHR**

Policy Research Unit  
in Health and Social  
Care Workforce

# Patterns of less-than-full-time working by NHS consultants

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Copy-edited by Judith Payne

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# Executive summary

The 2020 NHS People Plan committed to providing flexible working opportunities to all NHS staff. An important component of flexible working is less-than-full-time (LTFT) working, enabling staff to balance paid work with other commitments. However, there is currently only limited empirical evidence on the extent to which different staff groups work LTFT across the NHS.

This report uses the Electronic Staff Record (ESR), the monthly payroll of all staff directly employed by NHS hospitals in England, to examine the patterns of LTFT working by consultants in NHS acute trusts. We first consider how the prevalence of LTFT working among consultants has changed over time, how it varies by age and gender, and the extent to which changes to the demographic composition of the consultant workforce explain changes over time to LTFT working rates. We then examine how patterns of LTFT working vary across NHS trusts, regions and clinical specialties.

One particular area of interest for policymakers is how LTFT work interacts with, precedes and potentially delays consultants leaving the NHS. This is especially true for older, more experienced consultants, who may reduce their working hours prior to full retirement. We therefore also document how LTFT working interacts with leaving the NHS acute sector by examining how working patterns change in the four years leading up to consultants leaving the NHS acute sector, and how these patterns differ between older and younger consultants.

## Key findings

- 1. Less-than-full-time working has become more common for NHS consultants over the last decade.** The share of consultants working less than full-time in the NHS acute sector rose from 15.6% in April 2012 to 21.6% in August 2021. Over the same period, nurses and midwives were much more likely to work less than full-time than consultants, but this increased at a much slower rate, from 40.7% to 41.7%.
- 2. Female consultants are much more likely to work less than full-time than male consultants, but these differences narrow at older ages.** Around one in three female consultants under 60 work less than full-time, compared with fewer than one in ten male consultants. After age 60, rates of less-than-full-time working increase for

### 3 Patterns of less-than-full-time working by NHS consultants

both men and women: among those aged 60–64, 34% of male consultants and 45% of female consultants work less than full-time.

3. **About half of the increase in less-than-full-time working by consultants between 2012 and 2021 can be explained by changes to the demographic composition of the consultant workforce.** In addition to these demographic changes, rates of less-than-full-time working increased at all ages and among men and women between April 2012 and August 2021. The largest percentage increase was for male consultants aged under 50, with the share in this group working less than full-time rising by 75%, from 4.7% to 8.2%.
4. **The share of consultants working less than full-time varies by clinical specialty, even after adjusting for differences in the age and gender of consultants and the trusts in which they work.** Consultants working in obstetrics and gynaecology are 9.6 percentage points less likely to work less than full-time than a consultant of the same age and gender working in the same trust but in a different specialty. Consultants working in ophthalmology are 5.4 percentage points more likely to work less than full-time.
5. **There is considerable variation in the share of consultants working less than full-time across different NHS acute trusts in England, even when comparing consultants of the same age and gender working in the same specialty.** For consultants of the same age and gender working in the same specialty, less-than-full-time working rates ranged from 20.1 percentage points above the national average to 8.8 percentage points below across different trusts. The majority of variation is within region rather than across regions.
6. **Consultants, and particularly older ones, often shift towards less-than-full-time working before they exit the NHS acute sector.** Four years before leaving the sector in their 60s, 24% of all consultants work less than full-time. This increases to 39% two years before leaving and 51% one year before leaving. For consultants who leave the NHS acute sector at younger ages, the movement away from full-time working prior to leaving the sector is much less pronounced, with 73% still working full-time one year before leaving.

# 1. Introduction

Flexible working is a key part of the NHS workforce strategy. The availability of flexible working was one of the seven promises made by the NHS People Plan (NHS England, 2020), and from September 2021 all NHS staff were given the right to request flexible working from their first day of employment (NHS Employers, 2021).

While flexible working can take many forms, one key aspect is the ability to work less than full-time (LTFT). LTFT working presents the NHS with both opportunities and challenges. The ability to train and work LTFT can enable greater work–life balance and allow certain groups, such as older workers and parents, greater access to the labour force: if older staff and those with young children choose to work LTFT instead of leaving the NHS, then LTFT working allows hospitals to continue to benefit from the skills and experience of these staff. In addition, the availability of LTFT working may also make working in the NHS more attractive for new generations of staff.

On the other hand, higher rates of LTFT working may require the NHS to train, recruit, manage and retain a greater number of employees in order to provide a given amount of care, unless it substantially increases the retention of existing employees. For example, if LTFT rates among doctors were to increase, this could mean that the number of university places for medical students and training places for junior doctors would need to be increased to maintain the same effective workforce (Royal College of Paediatrics and Child Health, 2022). Understanding how rates of LTFT work have changed, and how these rates vary across staff with different characteristics and those working in different hospitals and in different specialties, is therefore important for workforce planning.

In this report, we focus on the working patterns of consultants working in the NHS acute sector in England. Consultants are the most senior group of doctors working in NHS hospitals, with full-time consultants working 10 or more four-hour sessions a week. Throughout the report, we define a consultant as working LTFT in any given month if they average fewer than 10 weekly sessions that month.

There is currently only limited evidence on the LTFT working patterns of this important staffing group in England. Previous work has documented changes in the prevalence of LTFT for individual specialties (Gravelle and Hole, 2007; Randive et al., 2015) or used surveys to document changes in LTFT across doctors of different seniority and in different settings (Lachish et al., 2016). We build on this evidence base by documenting patterns of LTFT

## 5 Patterns of less-than-full-time working by NHS consultants

working by consultants across all NHS acute trusts over an extended period using the administrative payroll for directly employed staff in the NHS.

Specifically, we document how LTFT working by consultants has changed over time, how this compares with other NHS staff groups, and the extent to which any changes over time can be explained by changes in the demographic composition of the workforce. We then examine how LTFT working rates vary across different clinical specialties and acute trusts after taking into account the demographic composition of consultants. Finally, we consider how LTFT working changes as consultants approach leaving the NHS acute sector, documenting how this varies across male and female consultants of different ages who are more or less likely to be retiring rather than leaving the NHS for alternative employment.

The rest of this report is organised as follows. In Section 2, we describe our data. In Section 3, we document patterns of LTFT working among consultants, and how this varies over time and across age, gender, clinical specialty, trust and region. In Section 4, we examine how the pattern of LTFT working changes in the four years prior to a consultant leaving the NHS acute sector. In Section 5, we discuss our findings and suggest avenues for future research.

## 2. Data

Our analysis uses the Electronic Staff Record (ESR), the monthly payroll for all staff directly employed by the NHS in England. The ESR includes all staff directly contracted to NHS organisations. This excludes staff in primary care – such as GPs – and in contracted-out services. We use data for the period between April 2012 and August 2021. Our sample period includes the first 18 months of the COVID-19 pandemic, but we do not focus on the specific impacts of the pandemic on LTFT working.

Each month, the ESR records the hours and pay of each individual staff member. It provides information on hours, grade and pay band, and a detailed breakdown of basic pay and additional payments from other sources (e.g. bank work, geographic allowances and performance-related pay). The data also record age and gender, job role and the trust in which the staff member is employed.

We focus on consultants working in acute NHS trusts. We identify consultants using pay codes, and define LTFT status in each month using the number of paid Programmed Activities (PAs), commonly referred to as ‘sessions’. Each session is equivalent to four hours’ work, and could be for direct clinical care, supporting professional activities such as training or clinical governance, additional responsibilities or external duties. A full-time consultant will work 10 (or more) sessions per week, while an LTFT consultant will work fewer than 10 sessions per week.<sup>1</sup> We therefore define a consultant as working LTFT in a given month if they are paid for working fewer than 10 sessions per week on average over the month.<sup>2</sup> A small number of consultants work in multiple trusts or have multiple roles within the same trust. For these consultants, we use the total sessions worked by each consultant in a given month across all of their assignments. When a consultant works for multiple trusts, we assign them to the trust where they worked the highest number of sessions that month for our analysis in Section 3.

The sample sizes are sometimes quite small when studying specific consultant groups in Section 4 (e.g. consultants in their 60s who leave the NHS acute sector in a given period). For data

<sup>1</sup> For more details, see <https://www.bma.org.uk/pay-and-contracts/job-planning/job-planning-process/an-overview-of-job-planning> and <https://www.bma.org.uk/pay-and-contracts/contracts/consultant-contract/consultant-part-time-and-flexible-working>.

<sup>2</sup> If a consultant leaves or joins the NHS in the middle of a given month then we will define these consultants as working LTFT in the last or first month that they are recorded in the data. As a result, our estimates will slightly overestimate LTFT rates among consultants. For our analysis in Section 4, which studies movements towards LTFT working prior to leaving the NHS, we exclude the final month in which staff are observed working in the NHS to avoid overestimating LTFT working.



## 7 Patterns of less-than-full-time working by NHS consultants

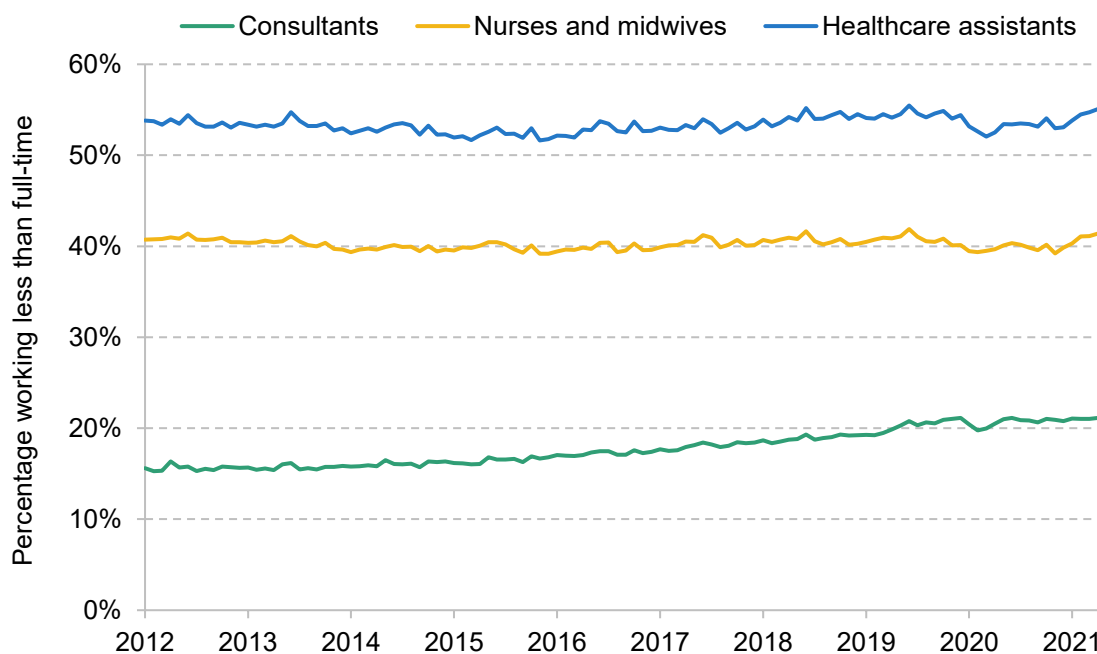
sensitivity reasons, we therefore round both the numerator and denominator of fractions to the nearest 5 before reporting the fraction. We also suppress any fractions where the numerator has fewer than 10 consultants.

### 3. Patterns of less-than-full-time working among consultants

#### How has LTFT working changed over time?

We first consider how prevalent LTFT working is among consultants working in the NHS acute sector, and how this has changed over time. For wider context, we also compare these working patterns with those of other NHS staff groups.

Figure 1. Less-than-full-time rates by staff group



Note: Consultants are classified as working LTFT if they average fewer than 10 paid sessions a week in a given month. The work schedules of nurses, midwives and healthcare assistants are not organised in sessions, and so we cannot define working LTFT in the same way as we do for consultants. We instead define whether these staff work less than full-time by whether their worked full-time equivalent (FTE) in a month is less than 1.

Figure 1 shows how monthly LTFT working rates changed for consultants between April 2012 and August 2021. The green line shows there has been a clear and steady rise in the share of consultants working LTFT over this period. In April 2012, 15.6% of consultants worked LTFT. This grew to 21.6% by August 2021, an increase of 6.0 percentage points or 38.7%. At the

beginning of the COVID-19 pandemic, the share of consultants working LTFT fell, before rebounding.

For comparison with wider patterns of LTFT working within the NHS, the yellow and blue lines show the shares of nurses and midwives and of healthcare assistants (HCAs) working LTFT in each month, respectively. For both groups, the share working LTFT is much higher than for consultants: averaged over the whole period, 18.0% of consultants worked LTFT, compared with 40.3% of nurses and midwives and 53.4% of HCAs. However, the gap in LTFT working between consultants and these two other NHS staff groups has been falling over time. The shares of nurses and midwives and HCAs working LTFT both increased over this period, but they were relatively small increases compared with the changes seen for consultants: 1.0 percentage points (2.5%) for nurses and midwives and 1.9 percentage points (3.5%) for HCAs. As a result, while LTFT working still remains much less prevalent among consultants than among nurses, midwives and HCAs, the difference between these groups in LTFT working rates has fallen over time.

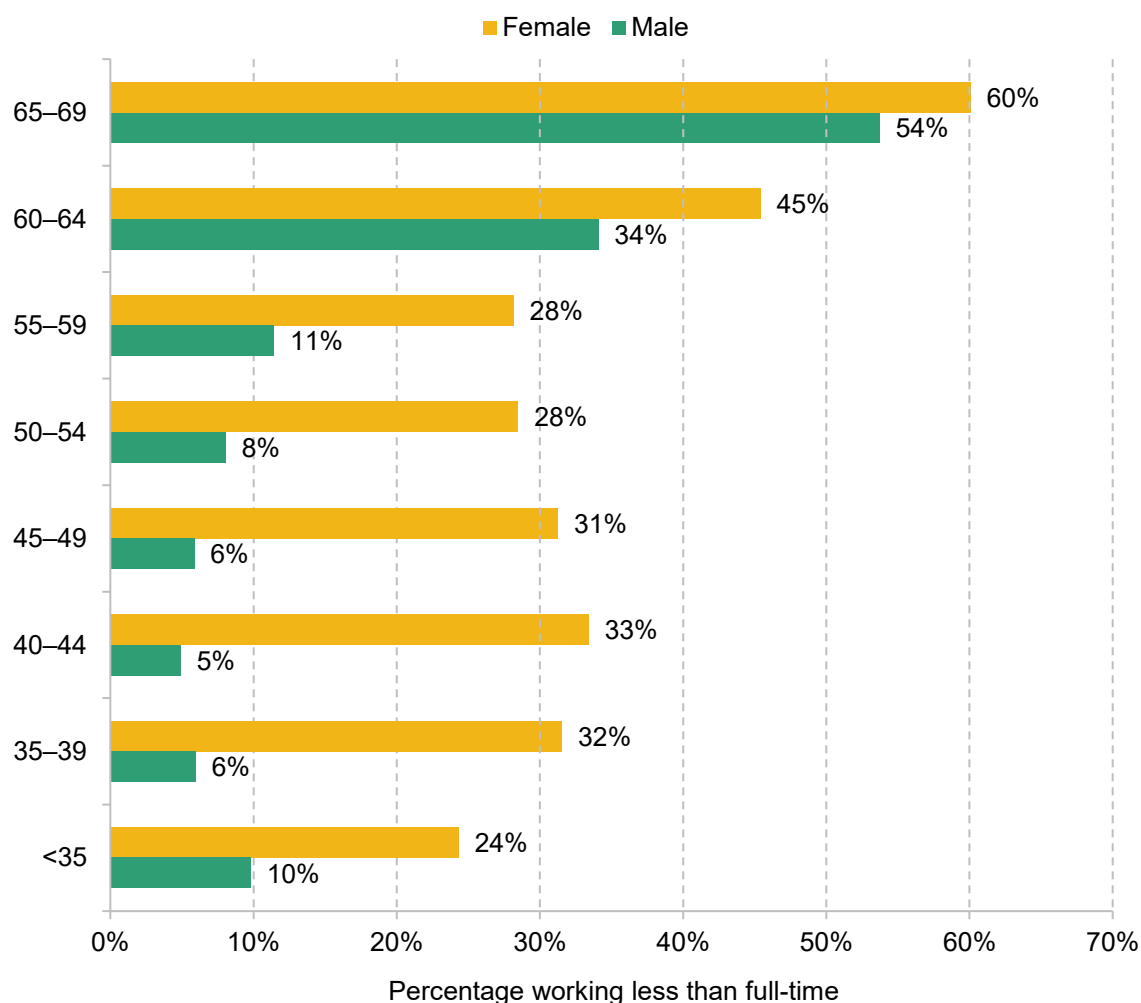
## How does LTFT working vary by age and gender?

We next consider how LTFT rates vary by age for both male and female consultants. Figure 2 documents how LTFT working rates varied for men and women in five-year age bands between April 2012 and August 2021. This shows that in all age bands, female consultants are more likely to work LTFT than male consultants. Around three in ten women in all age bands under 60 work LTFT. In contrast, only around one in ten male consultants under the age of 60 work LTFT. The gender gap in LTFT working is highest for consultants in their early 40s, with 5% of male consultants working LTFT compared with 33% of female consultants. This is consistent with the patterns of female consultant labour supply documented by Kelly and Stockton (2022), with a large proportion of women shifting to LTFT work after maternity leave and often not returning to full-time work until their youngest child reaches age 6 or older.

Figure 2 also shows that, for both men and women, the share of staff working LTFT rises rapidly among consultants in their 60s. Of those still working aged 65–69, 54% of male consultants and 60% of female consultants work LTFT.<sup>3</sup>

<sup>3</sup> LTFT working rates are even higher among consultants who are still working in their 70s. However, due to small sample sizes, we do not split this group by gender or analyse their working patterns in detail.

Figure 2. Average percentage working less than full-time, 2012–21, by age and gender

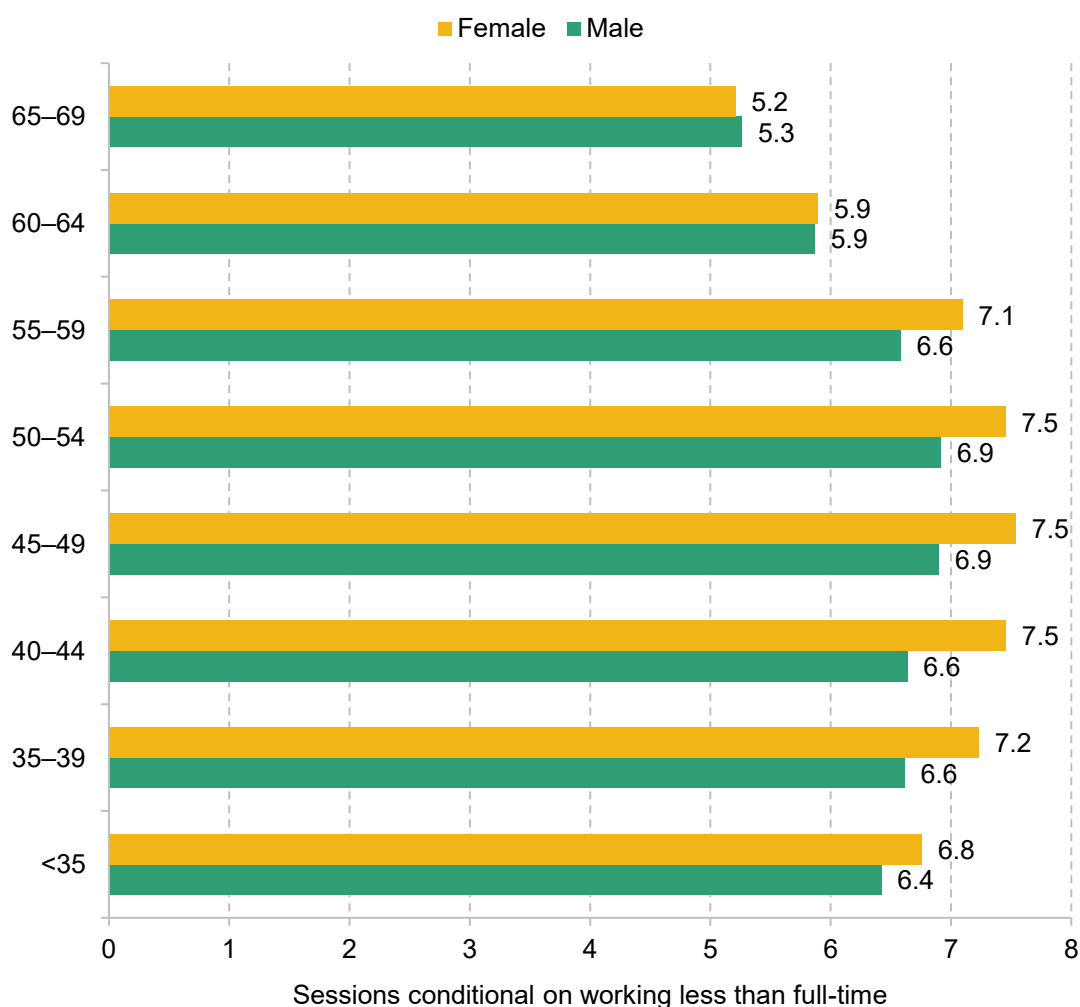


Note: We do not study consultants working at age 70 and above, due to small sample sizes.

This pattern indicates that consultant labour supply falls significantly at older ages. However, simply studying changes in the proportion of consultants working LTFT may hide broader changes in the number of hours worked among staff as they age. Figure 3 therefore documents, for men and women in each age group, the average number of sessions worked per week by consultants who work LTFT. This shows that, among consultants working LTFT, the average number of sessions falls sharply after the age of 60: for example, female LTFT consultants aged 65–69 work on average 5.2 sessions, compared with an average of 7.1 sessions among consultants aged 55–59 working LTFT. This suggests that the differences in LTFT rates shown by Figure 2 actually understate the differences in average labour supply between consultants under and over 60.

## 11 Patterns of less-than-full-time working by NHS consultants

Figure 3. Average weekly sessions worked by LTFT consultants, 2012–21, by age and gender



Note: We do not study consultants working at age 70 and above, due to small sample sizes.

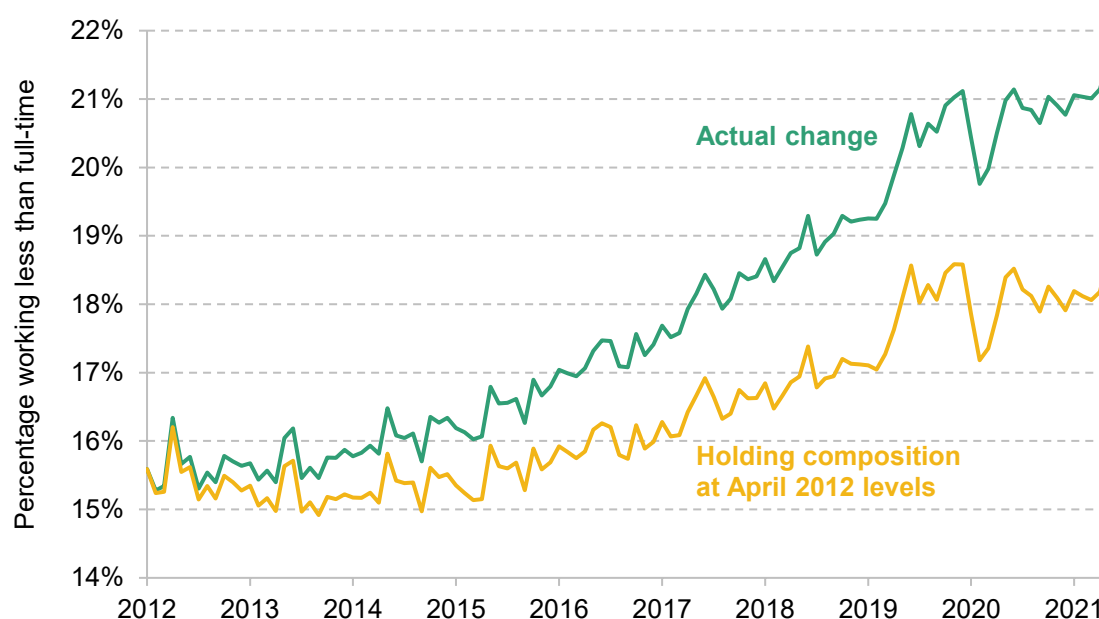
Figure 3 also highlights differences across men and women in the average number of sessions worked by LTFT consultants, and these change with age. At older ages, conditional on working LTFT, men and women work very similar amounts. This is in contrast to consultants under the age of 60, where men who work LTFT work fewer sessions on average than women who work LTFT. Taken together with Figure 2, this indicates that while male consultants are much less likely to work LTFT than female consultants at younger ages, when they do they typically work fewer hours in the NHS. However, these differences disappear at older ages when LTFT working is more common for both men and women.

## Do changing consultant characteristics explain the recent increase in LTFT working?

The share of female consultants has grown sharply in recent years, rising from 30.0% in April 2012 to 37.4% in August 2021. Over the same period, the share of consultants aged 60 and over increased from 7.7% to 10.6%. Given the patterns shown in Figure 2 – with female and older consultants more likely to work LTFT – we might expect overall rates of LTFT working among consultants to follow these shifts in workforce composition.

Figure 4 explores the importance of these demographic changes in explaining the increasing trend in LTFT working among consultants. The green line shows the actual change, which is identical to the green line in Figure 1. The yellow line shows how the share working LTFT changes over time if we hold the age and gender mix of the workforce fixed at its April 2012 level, but allow LTFT rates for each age–gender group to change as observed in the data. This allows us to compare the overall change in LTFT with a scenario where the demographic composition of the consultant workforce did not change after April 2012.

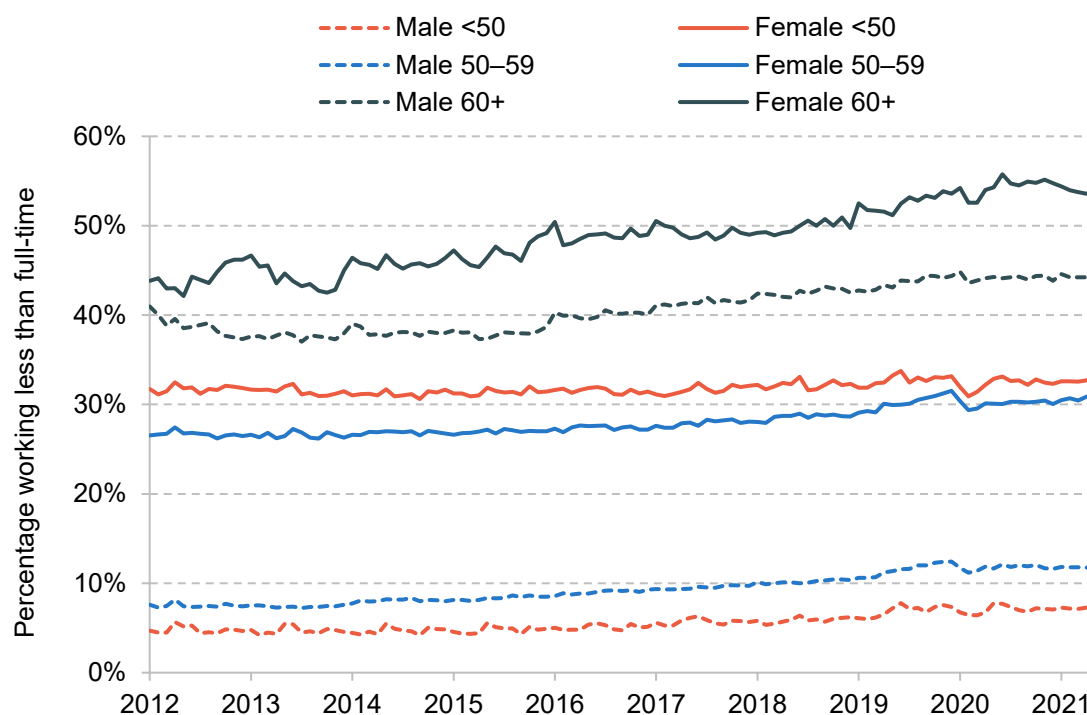
**Figure 4. Percentage working less than full-time, over time**



Note: We hold composition at April 2012 levels by re-weighting the workforce in each month to match the age and gender distribution of the workforce in April 2012. In particular, for each month of data, we calculate the share of consultants working LTFT in each year of age by gender group. We then calculate the counterfactual average share working LTFT in each month by multiplying the average value in each age–gender group by the share that group was of the workforce in April 2012 (rather than its actual share, which would give the actual average). This assumes that the change in composition would not change the average share working LTFT in each age–gender group over time.

Holding the age and gender composition constant, the percentage working LTFT would be projected to increase from 15.6% in April 2012 to 18.8% in August 2021. This increase of 3.2 percentage points compares with actual growth of 6.0 percentage points over this period. This suggests that the changing age and gender composition of the consultant workforce explains almost half (47%) of the increase in LTFT working between 2012 and 2021, with the remaining growth in LTFT working over this period taking place *within* age and gender groups.

**Figure 5. Percentage working less than full-time, over time, by age and gender**



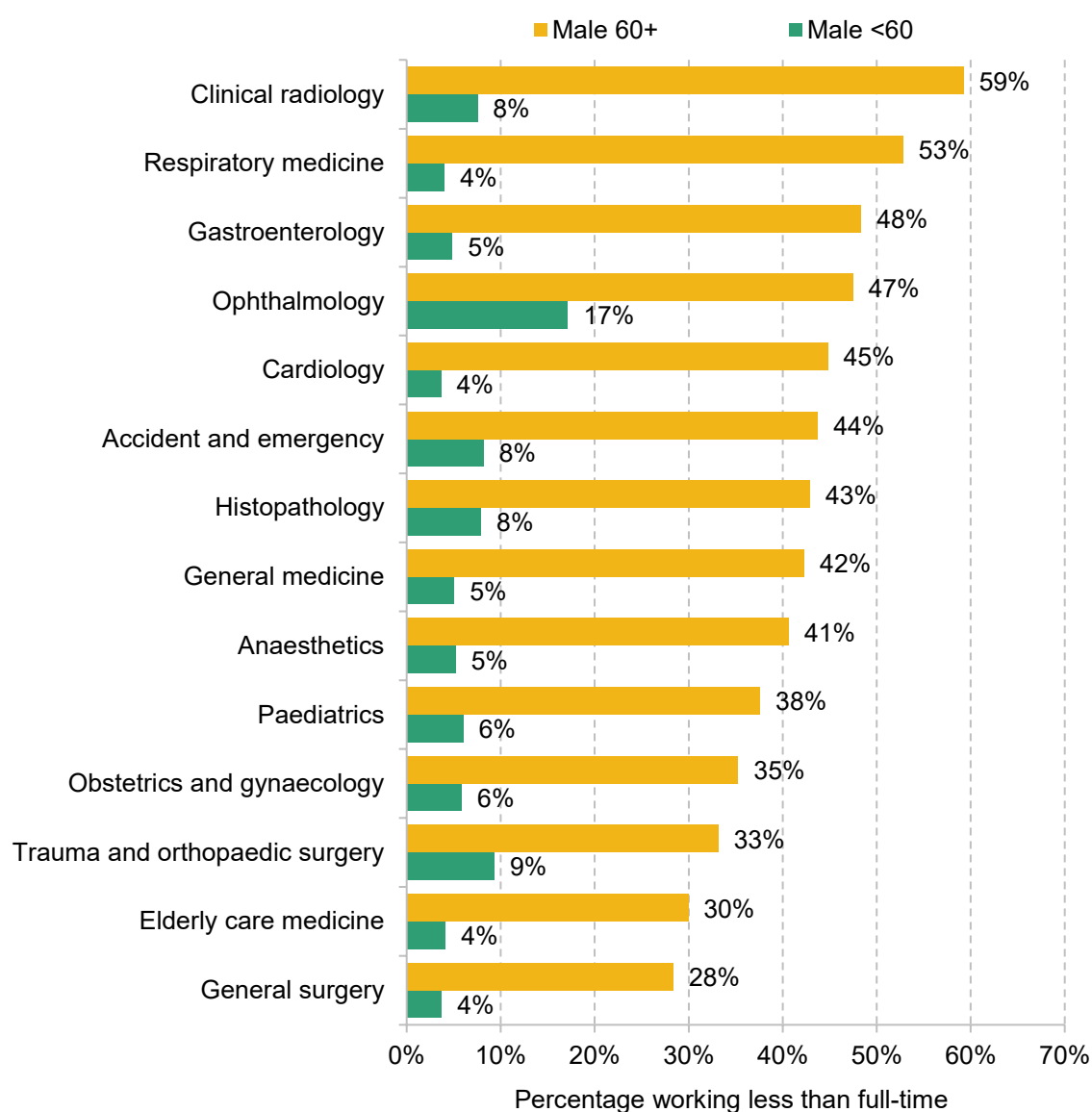
To examine this growth further, Figure 5 presents the share of consultants working LTFT in different age groups (60 and over, 50–59, and under 50 years) for both men and women. This shows that the share of consultants working LTFT has grown across all groups since 2012. However, while female consultants are still more likely to work LTFT than their male counterparts at all ages – and in fact the largest absolute growth in LTFT working has been among female consultants in their 60s, potentially reflecting changes to the female state pension age over this period and associated changes in retirement ages that lengthened women’s working lives – there has been stronger relative growth in LTFT working among men of all ages, albeit from a much lower base level. The share of LTFT working among male consultants under 50 rose from 4.7% in April 2012 to 8.2% in August 2021, an increase of 3.5 percentage points or 74.6%. Similarly, the share of male consultants in their 50s working LTFT has increased by 56.9%. In comparison, the smallest absolute and relative increase was for female consultants under 50, whose LTFT rate rose from 31.7% in April 2012 to 33.2%, an increase of 1.5 percentage points or 4.6%. This suggests that while LTFT working has become more common in

general among NHS consultants over the past decade, this has taken place at varying speeds for consultants in different age and gender groups.

## How does LTFT working vary across clinical specialties?

We next examine how LTFT working rates vary by clinical specialty. We begin by examining how the percentage of consultants working LTFT varies for the 14 largest clinical specialties by number of consultants. Given the different patterns of LTFT working across men and women of different ages shown above, we consider the share of consultants working LTFT in each clinical specialty separately for male and female consultants over and under 60.

**Figure 6. Percentage of male consultants working LTFT, 2012–21, by age and clinical specialty**





## 15 Patterns of less-than-full-time working by NHS consultants

Figure 6 presents the percentages of male consultants aged under 60 and 60+ working LTFT between April 2012 and August 2021. This shows that, in general, for male consultants under the age of 60, there is little variation across specialties in the share working LTFT.

Ophthalmology is a clear outlier in this group: 17% of male consultants under 60 work LTFT in this specialty, more than double the 7% LTFT rate of all male consultants in this age group.

There is considerably more variation across specialties in the share of male consultants aged 60 and over working LTFT. For example, 59% of male consultants in this age group working in clinical radiology worked part-time, compared with just 28% in general surgery. However, specialties with high LTFT shares among the 60-and-over group are not necessarily those with the highest rates of LTFT work at younger ages. For example, trauma and orthopaedic surgery has one of the highest LTFT rates among the under-60s (9.3%) but is the specialty with the third-lowest share of LTFT working among the 60-and-over group (33.1%). By contrast, respiratory medicine has the third-lowest share of LTFT working among the under-60s (4.0%) and the second-highest share of LTFT working among the 60-and-over group (52.8%). This suggests that while LTFT working becomes more commonplace for male consultants in all specialties at older ages, the extent varies significantly across clinical specialty.

Figure 7 repeats this analysis for female consultants. In contrast to their male colleagues, there is noticeable variation in the LTFT share of female consultants under 60. LTFT shares among this group range from 14% (obstetrics and gynaecology) to 37% (clinical radiology). In addition, there is again large variation in the share of consultants aged 60 and over working LTFT, ranging from 65% in clinical radiology to 26% in trauma and orthopaedic surgery.

Across all specialties, the share of LTFT working among women increases for the older age group. However, the magnitude of these increases is again very different across specialties. For example, in accident and emergency, the LTFT share increases only from 28.8% among the under-60s to 30.7% among the 60-and-over group. This contrasts to anaesthetics, where the LTFT share more than doubles when moving from the younger to the older age group. These differences by age could reflect a change in the tasks that consultants undertake with experience in each specialty or changing opportunities for LTFT contracts.

Figure 7. Percentage of female consultants working LTFT, 2012–21, by age and clinical specialty

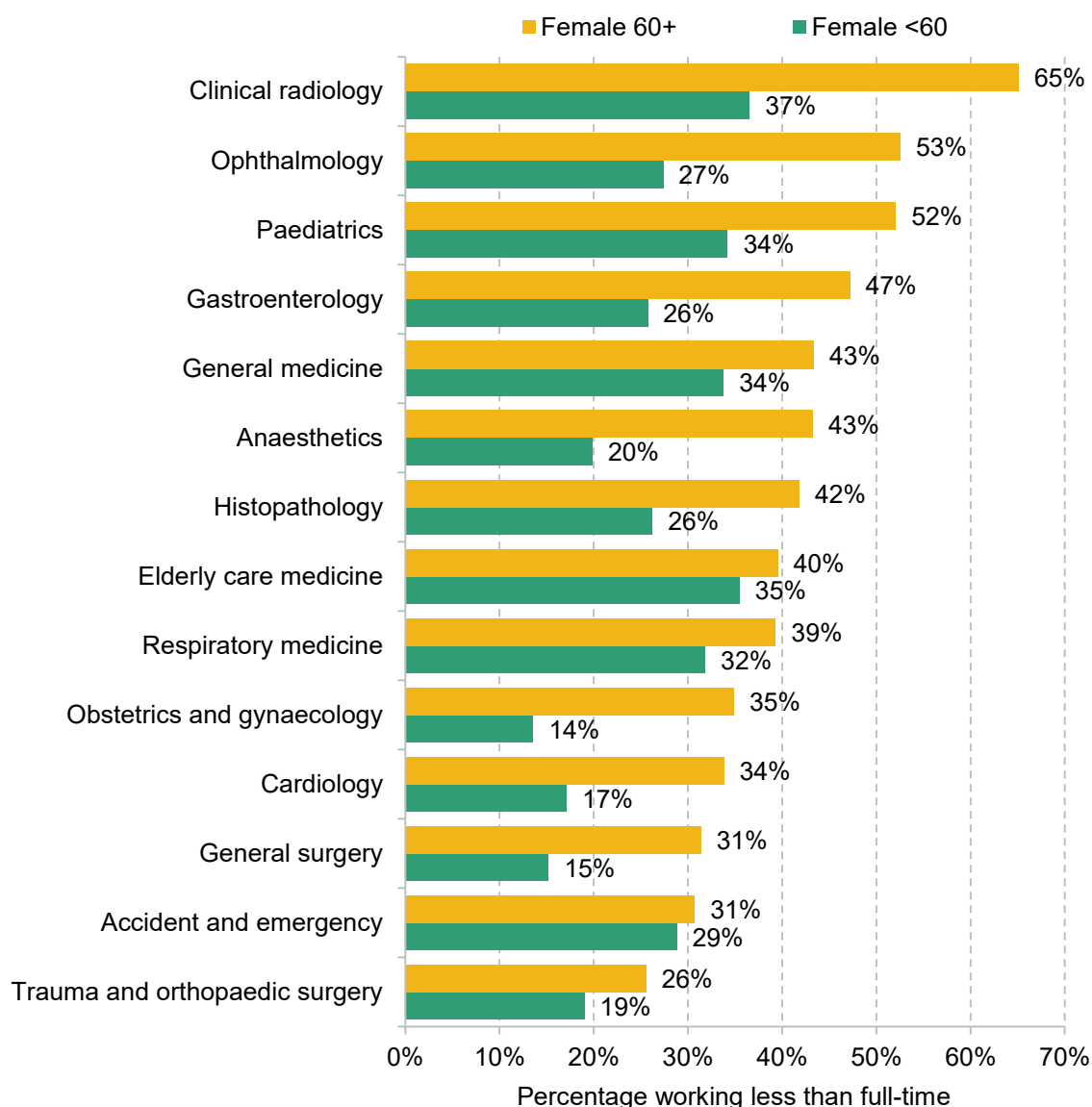
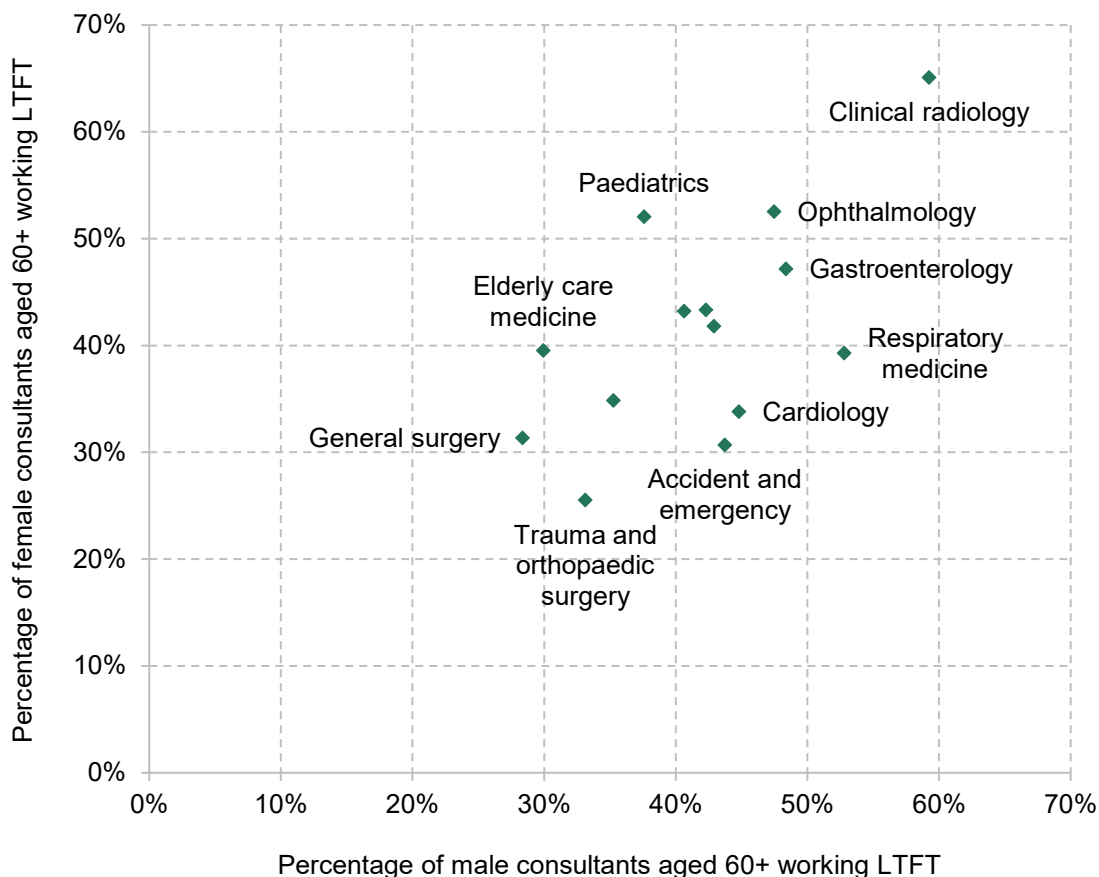


Figure 8 compares the specialty LTFT shares for each gender among consultants aged 60 and over. There is a clear positive correlation: specialties with a higher share of male consultants working LTFT also have a higher share of female consultants working LTFT in this age group. This indicates that there are likely to be features of the specialty – perhaps the nature of the tasks that consultants in these specialties undertake or variation in the working practices of these individuals – that make it more likely for consultants to work LTFT regardless of their age and gender.

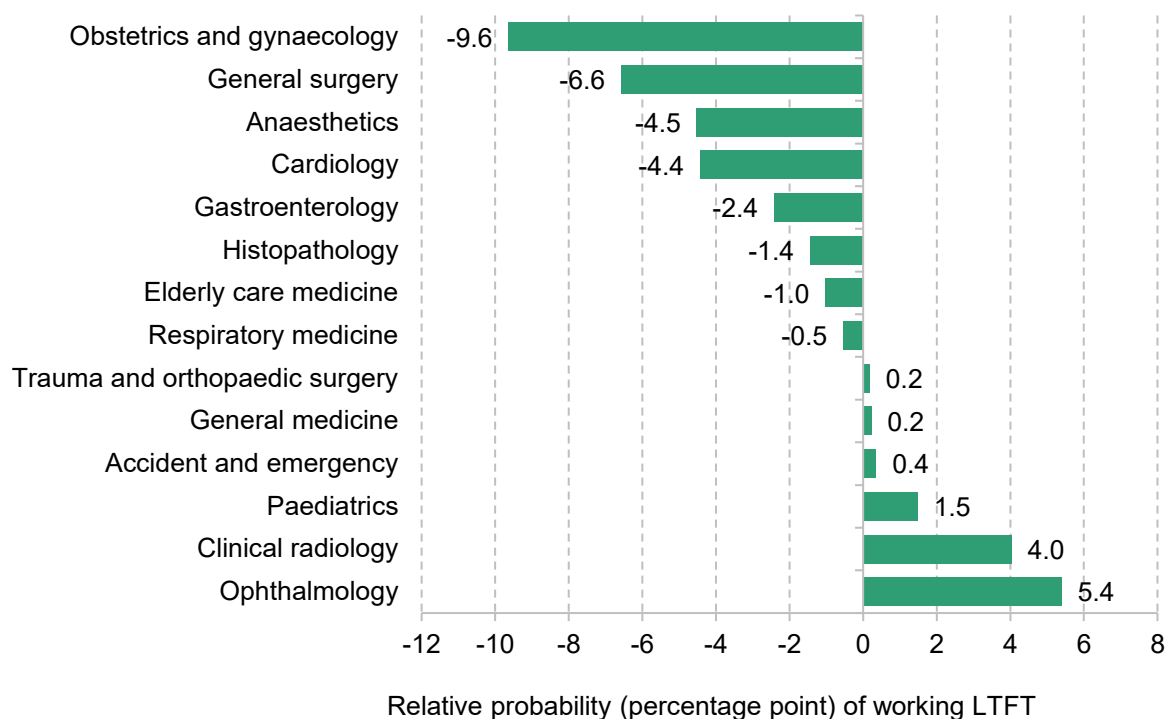
Figure 8. Percentage of male and female consultants aged 60+ working LTFT, 2012–21, by clinical specialty



To further examine these persistent differences in LTFT working rates across specialties, we use multivariate regression to adjust for differences in the age and gender composition of consultants working in each specialty, in addition to persistent differences in LTFT working rates across the trusts in which consultants work (we study this variation across trusts in more detail in the next subsection). Intuitively, this compares the LTFT working rates of two consultants of the same age and gender, who work in the same trust but work in different specialties, in order to estimate the differences in LTFT working rates across different specialties. More details are included in the technical appendix.

Figure 9 shows the results of this exercise, displaying the differences in LTFT working rates across clinical specialties between April 2012 and August 2021 after adjusting for differences in the age, gender and main trust of employment for each consultant. These clinical specialty ‘fixed effects’ can be interpreted as the increased probability (in percentage points) that a consultant works LTFT compared with an average consultant of the same age and gender working in the same trust.

**Figure 9. Percentage of consultants working LTFT, 2012–21, by clinical specialty, adjusted for age, gender and trust composition**



The figure shows that there is large variation in the share of consultants working LTFT in different clinical specialties. Ophthalmology has the highest share of consultants working LTFT after adjusting for the demographics of consultants and the trusts in which they work: consultants working in this specialty were 5.4 percentage points more likely to work LTFT than an average consultant of the same age and gender working in the same trust. The specialty with the next-highest probability of working LTFT is clinical radiology (with a 4.0 percentage point higher chance of working LTFT than a consultant of the same age and gender working in the same trust). In contrast, consultants working in obstetrics and gynaecology are 9.6 percentage points less likely to work LTFT given their other characteristics.

These differences in rates of LTFT working across specialties may be caused by a number of factors. For example, they may reflect variation in consultant preferences, the tasks required or characteristics of the job (e.g. the extent of shift work, or stress levels), or the culture and attitudes towards LTFT working. Identifying the mechanisms behind this variation is beyond the scope of this report but is a priority for future research in this area.

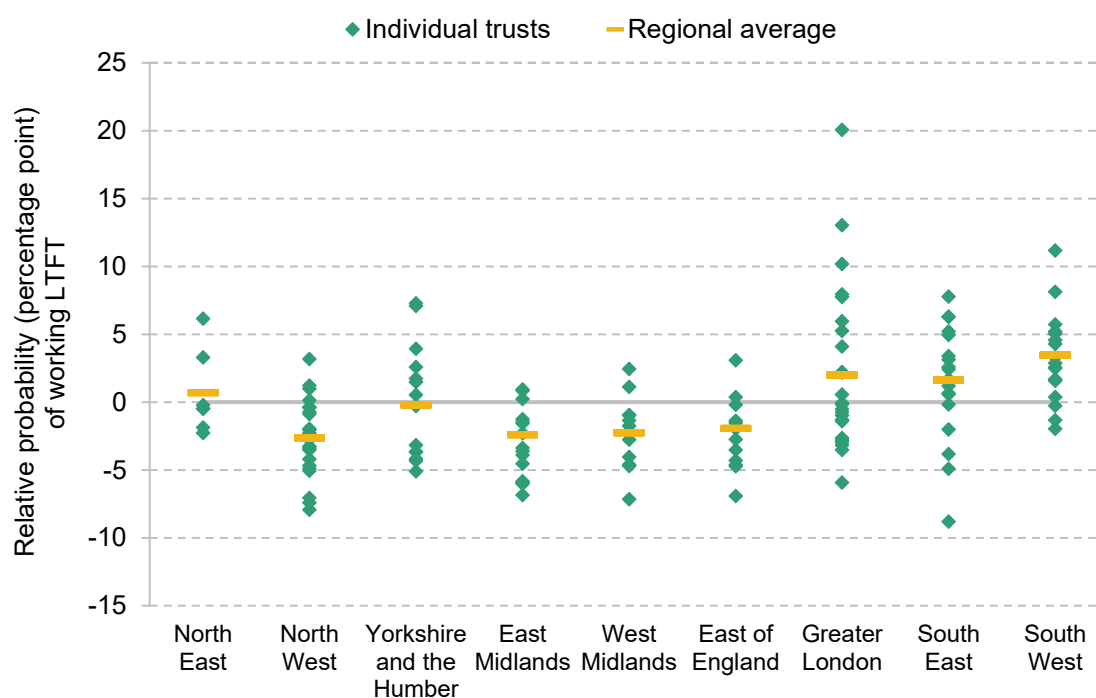
## How does LTFT working vary across different trusts and regions?

The final dimension of variation in LTFT working patterns that we study is how LTFT working rates vary across different NHS trusts. Differences in LTFT working rates between trusts may

again reflect a number of factors, including differences in the demographic composition of their consultant workforce and the mix of specialties in which they work. For example, if a trust employs a higher share of female consultants then we would expect the trust average LTFT share to be higher than that of a trust that employs a relatively greater share of men. Similarly, trusts that employ relatively more consultants working in particular specialties with higher-than-average LTFT rates would also expect to have higher LTFT rates overall.

As we did for clinical specialty, we can adjust for these differences in age, gender and clinical specialty mix by comparing how the probability of LTFT working varies across trusts for a consultant of a given age and gender, who works in a particular specialty.<sup>4</sup> Figure 10 shows the difference in LTFT working rates associated with working in each NHS acute trust after adjusting for differences in the age, gender and clinical specialty of each consultant. We show these results separately for each region in England, with the green points showing the estimate for each trust and the yellow lines showing the average estimate for all trusts in the region.

**Figure 10. Percentage working LTFT, 2012–21, by trust, adjusted for age, gender and clinical specialty composition**



Note: We exclude trusts with fewer than 1,000 consultant-month observations in the given age group over this period.

<sup>4</sup> The results discussed below are from the same multivariate regression that produced the results reported in Figure 9. Figure 10 shows the fixed effects associated with each trust, whereas Figure 9 shows the fixed effects associated with each clinical specialty. In each case, we also control for the age and gender of the consultant.

The figure reveals three main points. First, there is considerable variation in the rates of LTFT working among consultants across different trusts after adjusting for the age, gender and specialty of their consultants. In the trust with the highest persistent share of LTFT working, consultants are 20.1 percentage points more likely to work LTFT than an average consultant of the same age and gender working in the same specialty in the NHS acute sector. In the trust with the lowest adjusted LTFT share, consultants are 8.8 percentage points less likely to work LTFT than an average consultant of the same age and gender working in the same specialty in the NHS acute sector.

Second, there is substantial variation in LTFT working rates even among trusts within the same region. The greatest range is in Greater London, where the ‘fixed effects’ vary from 20.1 percentage points to –5.9 percentage points (i.e. a consultant working in this trust is 5.9 percentage points less likely to work LTFT than an average consultant of the same age and gender working in the same specialty in the NHS acute sector). The smallest range is in the East Midlands, where these persistent differences range from 0.9 percentage points to –6.9 percentage points.

Finally, the regional variation in LTFT working is relatively small relative to the variation within each region. This suggests that regional policies or economic conditions are unlikely to be the main driver of differences in LTFT working. The adjusted LTFT working rate is highest in the South West (the average trust has an LTFT working rate 3.5 percentage points above the national average for consultants of the same age and gender working in the same specialty), followed by Greater London (2.0 percentage points) and the South East (1.6 percentage points above). It is lowest in the North West (where consultants have an LTFT working rate 2.6 percentage points below the national average after adjusting for the other characteristics of the workforce), East Midlands (2.4 percentage points below) and West Midlands (2.3 percentage points below). There is also substantial overlap in the regional distributions of LTFT working across all regions.

Taking these points together, Figure 10 shows that there is large variation in LTFT working rates across trusts that are not explained by the demographic composition and specialty mix of the trust. This suggests that there are large differences in the availability and/or attractiveness of LTFT work for staff working at different trusts. The lack of substantial regional variation suggests that LTFT work is not concentrated in certain areas of the country, and is unlikely to be driven by regional policies or wider economic conditions.

The differences across trusts may be explained by differences in other staff characteristics that we do not control for, differences in sub-regional economic conditions or opportunities, or differences in the distances that staff travel to work at each trust. The pattern is also consistent with differences in the culture and management of trusts, and particularly the amenability of

## 21 Patterns of less-than-full-time working by NHS consultants

different trusts to offering LTFT contracts. While a detailed analysis of the mechanisms generating variation in LTFT working across providers is beyond the scope of this report, these patterns highlight an important area for future research.

## 4. How does less-than-full-time working change before leaving the NHS?

In the previous section, we used the data cross-sectionally to study a snapshot of consultants working in each period. In this section, we take a longitudinal approach, identifying a set of NHS consultants who leave the ESR and analysing their labour supply in the months and years before they exit. In this way, we can study how the labour supply patterns of consultants change in the lead-up to their exit from the NHS.<sup>5</sup>

For this analysis, we define a consultant as working in the NHS acute sector in a given month if they are paid for working any sessions that month. We then define a consultant as leaving the NHS acute sector if they have worked in it for at least three months and then leave for at least twelve months (i.e. have no paid sessions for a year). The consultant could have retired, moved to another sector of the economy (including private medical practice), or moved to a non-acute sector of the NHS, such as primary or community care.

We restrict our sample to consultants leaving the acute sector between 2016 and 2019. As we consider working patterns up to four years prior to leaving the NHS, we cannot consider leavers any earlier than 2016 because the required data are not available prior to 2012. We do not consider leavers any later than 2019 to minimise the impacts of the COVID-19 pandemic, when many doctors delayed retirement.<sup>6</sup> We also restrict the sample to remove the small number of consultants who leave the NHS for more than a year and then subsequently return during this period.

We first study how sessions changed in the run-up to exiting the NHS for consultants who are 60 or older when they leave the NHS acute sector. We focus on this age range as many of these consultants will be retiring as opposed to exiting the NHS labour force for other reasons. Figure 11 shows how the number of sessions worked per week changes over the four years before

<sup>5</sup> We do not include the final month before consultants leave the NHS. Many consultants will leave in the middle of this month and be recorded as working fewer than 10 sessions per week, and therefore be categorised by us as working LTFT, even if they were working full-time before they left.

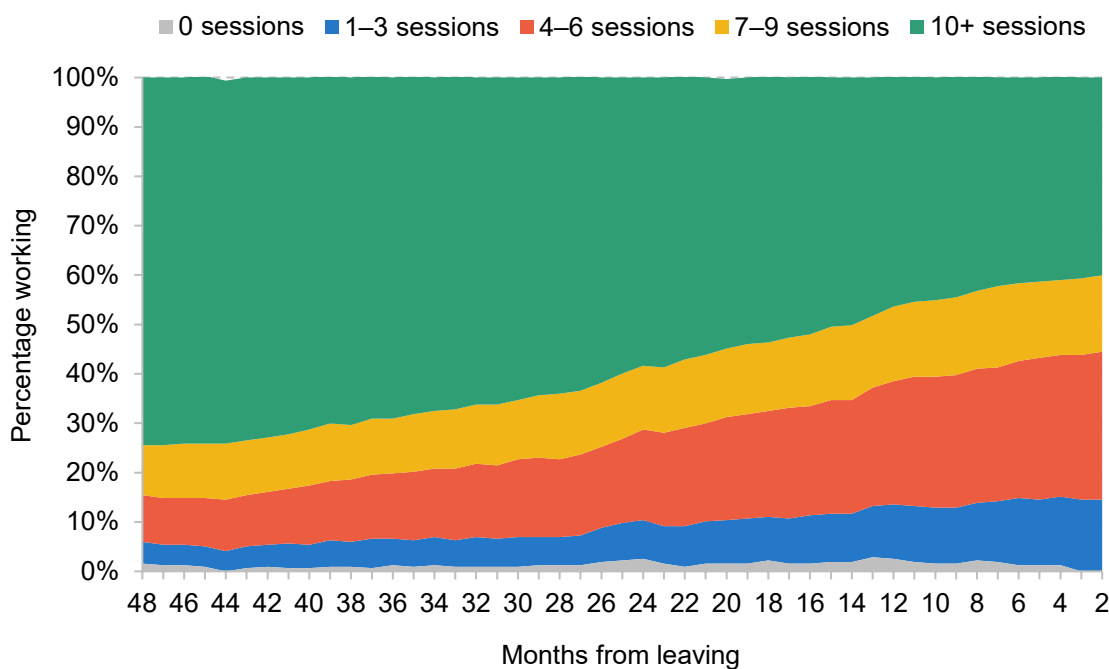
<sup>6</sup> A small number of recently exited doctors may have returned during the pandemic and would not be included in our sample.



## 23 Patterns of less-than-full-time working by NHS consultants

consultants in this age group leave the NHS acute sector. Four years prior to leaving the NHS acute sector, 74.4% of consultants are still working full-time and 24.0% are working LTFT.<sup>7</sup> The share working full-time then gradually declines as consultants get closer to leaving the NHS: 39.1% are working LTFT two years prior to leaving, 51.1% are working LTFT one year before leaving and 59.9% are working LTFT two months before leaving.

**Figure 11. Change in number of sessions before leaving for consultants aged 60+**



Note: As explained in Section 2, percentages are rounded. They are suppressed if there are fewer than 10 consultants in the group.

The growth in LTFT working during this period mostly comes from an increase in consultants working fewer than seven sessions (rather than seven, eight or nine sessions). The percentage working one, two or three sessions grows by 6.6 percentage points (150%), from 4.4% four years before retirement to 11.0% one year before, while the share working four, five or six sessions grows by 15.5 percentage points (163%), from 9.5% to 24.9%. This compares with growth in the percentage working seven, eight or nine sessions of 5.0 percentage points (50%), from 10.1% four years before retirement to 15.1% one year before.

<sup>7</sup> These figures do not sum to 100% due to rounding to suppress small samples, and because a small number of consultants will not work any paid sessions in a given month, for a number of reasons (e.g. sickness, annual leave or career breaks), as captured by the grey area in Figures 11 and 12. This means that a small share of our cohort is recorded with zero sessions in most months (e.g. 1.6% of consultants in the sample worked zero sessions in the month four years prior to leaving the NHS acute sector). The share of consultants working zero sessions in the three months prior to exiting the NHS acute sector is zero by definition (as they must be working in these months to be included in the sample).

These falls in the number of sessions worked are mainly driven by consultants moving from full-time working to LTFT working, as opposed to consultants who were already working LTFT at the beginning of the four-year period steadily reducing the number of sessions worked. This can be seen by separately examining the changes in sessions worked by consultants who were working full-time or less than full-time four years before exiting the NHS acute sector. Among the 74.4% of consultants who worked full-time at the beginning of the four-year period, 23.7% had switched to working LTFT two years before leaving. This LTFT share rose to 48.3% two months prior to exiting. Over this period, average weekly sessions worked by this group fell from 10.0 to 8.9 sessions two years before leaving, and to 7.9 sessions two months before leaving.

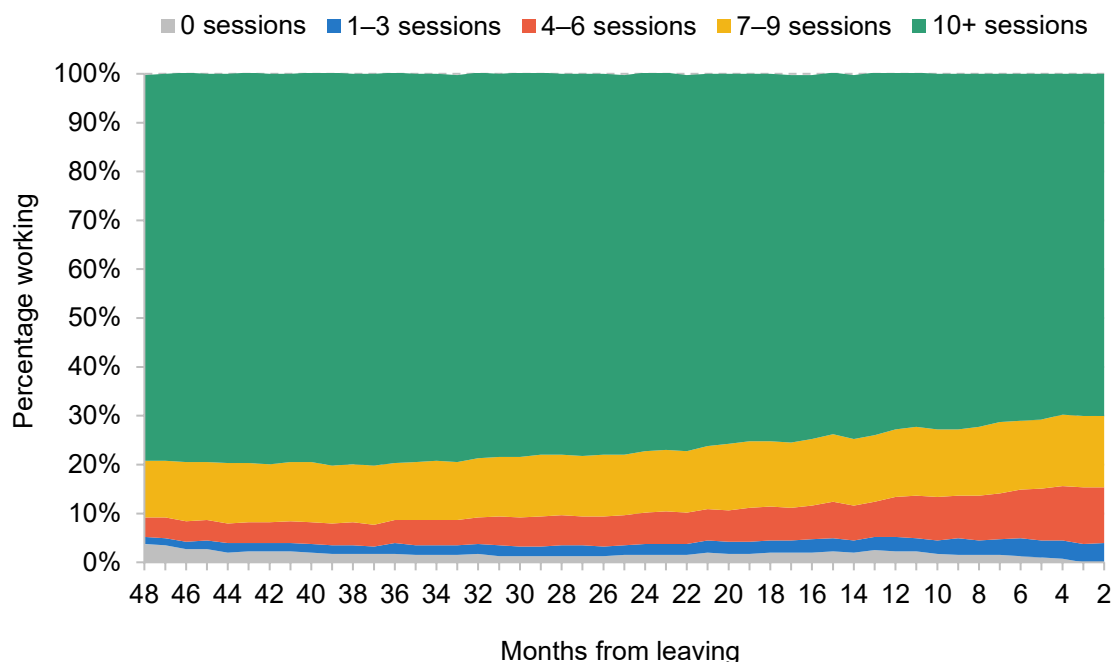
Among the 25.6% of consultants working LTFT or zero sessions four years prior to leaving, very few switched to working full-time prior to leaving: two months prior to exiting, 95.1% of this group still worked fewer than 10 sessions per week. Among this group, average weekly sessions worked remained constant at 5.6 sessions between four and two years prior to exit, falling slightly to 5.1 sessions two months prior to leaving.

Taken together, this suggests that there were three typical working patterns for consultants aged 60+ who left the NHS between 2016 and 2019. One type consistently worked full-time until they left the NHS acute sector. This group represents about 40% of all consultants who left during this period.<sup>8</sup> Another group consistently worked LTFT throughout this period, with only a small reduction in their hours occurring over the four-year period. This group represented about a quarter of all consultants who left during this period. A third group initially worked full-time, but gradually reduced their weekly sessions worked before retiring. This group represents just over a third of all consultants who left during this period.

Figure 12 repeats the same analysis for consultants leaving the NHS acute sector who were aged under 60. Among this younger age group – where fewer exiting consultants will be retiring as opposed to moving to other jobs – there was a somewhat different pattern in LTFT working prior to exit. While there is again some shift away from full-time working prior to leaving the NHS acute sector, both the share of consultants working LTFT prior to exiting, and the growth in this share, are considerably below those seen for the 60+ category. For example, 73.0% of leavers in this age group were working full-time one year before leaving (down from 79.0% four years prior to exit), compared with 46.7% of leavers aged at least 60. This suggests that the shift towards LTFT work before exiting the NHS acute sector is much less pronounced among younger consultants.

<sup>8</sup> This group comprises the 51.7% of consultants who worked at least 10 weekly sessions four years prior to exiting the NHS acute sector (74.4% of all leaving consultants in this age group) and who also worked an average of 10 weekly sessions two months before exiting the NHS acute sector.

Figure 12. Change in number of sessions before leaving for consultants aged under 60



Note: As explained in Section 2, percentages are rounded. They are suppressed if there are fewer than 10 consultants in the group.

Examining the transitions in working patterns separately for consultants who worked full-time or less than full-time four years prior to leaving the NHS acute sector also reveals a somewhat different pattern among exiting consultants under 60, relative to their older peers. Among the 79.0% of consultants working full-time four years prior to exit, 18.2% worked LTFT two months prior to exiting. Over this period, average weekly sessions worked among this group fell from 10.0 to 9.4. This increase in LTFT working is somewhat counterbalanced by a reduction in LTFT working among consultants who were initially working fewer than 10 weekly sessions: among the 21.0% of consultants who worked LTFT or zero sessions four years prior to exit, only 75.3% worked fewer than 10 sessions two months prior to exiting. This means that almost a quarter of this group had switched back to working full-time immediately prior to exiting the NHS acute sector, and suggests that the transitions between full-time and less-than-full-time working are more complex for younger leavers.

## 5. Conclusions

In this report, we have examined the patterns of less-than-full-time working by consultants working in the NHS acute sector. We have shown that the percentage of consultants working LTFT has increased substantially over the last decade. About half of this increase is explained by changes in the demographic composition of the workforce – including the higher share of female consultants – but the other half is explained by other factors.

Rates of LTFT working are heavily segmented by age and gender. Around three in ten female consultants under 60 work LTFT, compared with 7% of men. After the age of 60, rates of LTFT working increase rapidly, with 54% of male consultants and 60% of female consultants aged 65–69 working LTFT. However, among male and female consultants of all ages, LTFT working has become more prevalent since 2012. This suggests that LTFT working opportunities are becoming more widespread for consultants over time.

Despite these broad increases, LTFT working rates vary considerably across trusts and clinical specialties. Most of the variation across trusts is within-region, suggesting that differences in regional policy or economic conditions play a limited role in driving this variation. Variation across trusts may instead be attributable to differences in the characteristics and preferences of consultants, or by local differences in economic conditions or opportunities. Such differences are also consistent with variation in the policies and attitudes towards LTFT working across individual trusts that creates differences in the opportunities for flexible working. Differences across specialties vary somewhat for older and younger consultants, and for men and women. Such differences could again be driven by differences in the preferences and characteristics of staff, and may reflect differences in culture, stress or working practices across these specialties.

Our analysis also suggests that, in addition to changes in working patterns with age, consultants who leave the NHS often reduce their working hours prior to exiting. We showed that around a third of consultants leaving the acute sector in their 60s – who are likely to be moving into full retirement – shifted from full-time work to less-than-full-time work in the four years prior to leaving the sector.

This report sets out empirical patterns of consultant labour supply but does not attempt to answer *why* these patterns exist, or to examine the impact that LTFT working has on the amount or quality of care provided to patients. Better understanding of the drivers of these patterns, and their consequences for patients, is important in workforce planning and in shaping future LTFT policies.

## 27 Patterns of less-than-full-time working by NHS consultants

In particular, it remains unclear what drives the differences in LTFT working rates across trusts and clinical specialties. Understanding better whether these differences reflect variation in access to LTFT working, or differences in the preferences of staff and the nature of their jobs, is important in designing LTFT working guidance.

The overall impact of LTFT working on the aggregate labour supply of doctors also remains unknown. The ability to work LTFT could increase total labour supply if those who work LTFT would otherwise have left the NHS. On the other hand, it may reduce total labour supply if the same staff would otherwise work full-time. These effects likely differ by age, gender and whether consultants have children (Kelly and Stockton, 2022). Understanding this net labour supply impact is crucial for workforce planning and for evaluating changes in LTFT rates and policies.

# Technical appendix

In Section 3, we examine how rates of LTFT working vary by trust and clinical specialty, after adjusting for the age and gender of consultants, and for either their clinical specialty or their main trust of employment. In this technical appendix, we describe the methodology for this adjustment in more detail.

We adjust the rates of LTFT working using multivariate regression. Our sample is the full set of individual consultants working within the NHS acute sector each month between April 2012 and August 2021. Our outcome variable  $y_{ijst}$  is a dummy variable that equals 1 if consultant  $i$ , working in trust  $j$  and specialty  $s$ , in period  $t$  works LTFT and that equals 0 if the consultant works full-time. We then estimate the following regression model:

$$y_{ijst} = \alpha(\text{age}_{it} \times \text{gender}_{it}) + \beta_j + \gamma_s + u_{it}.$$

$\alpha$  is a vector of coefficients (fixed effects) that measures the effect of each year of age by gender combination (e.g. males aged 40) on the probability of working LTFT.  $\beta$  is a vector of coefficients (fixed effects) that measures the share of consultants in each trust working LTFT, while  $\gamma$  is a vector of coefficients (fixed effects) that measures the share of consultants in each clinical specialty working LTFT.

Multivariate regression estimates the effect of each variable holding all other variables constant. Therefore, the estimated share of consultants working LTFT in each trust can be interpreted as the share of consultants working LTFT in each trust if all trusts had the same age and gender distribution and the same mix of clinical specialties, while the estimated share of consultants working LTFT in each clinical specialty can be interpreted as the share of consultants working LTFT in each clinical specialty if all clinical specialties had the same age and gender distribution and the same mix of trusts.

## References

- Gravelle, H. and Hole, A. R., 2007. The work hours of GPs: survey of English GPs. *British Journal of General Practice*, 57(535), 96–100, <https://pubmed.ncbi.nlm.nih.gov/17263925/>.
- Kelly, E. and Stockton, I., 2022. Maternity and the labour supply of NHS doctors and nurses. Institute for Fiscal Studies, Report BN340, <https://ifs.org.uk/publications/maternity-and-labour-supply-nhs-doctors-and-nurses>.
- Lachish, S., Svirko, E., Goldacre, M. J. and Lambert, T., 2016. Factors associated with less-than-full-time working in medical practice: results of surveys of five cohorts of UK doctors, 10 years after graduation. *Human Resources for Health*, 14(62), <https://doi.org/10.1186/s12960-016-0162-3>.
- NHS Employers, 2021. Flexible working in the NHS, <https://www.nhsemployers.org/news/flexible-working-nhs>.
- NHS England, 2020. We are the NHS: People Plan for 2020/2021 – action for us all, <https://www.england.nhs.uk/wp-content/uploads/2020/07/We-Are-The-NHS-Action-For-All-Of-Us-FINAL-March-21.pdf>.
- Randive, S., Johnston, C. L., Fowler, A. M. and Evans, C. S., 2015. Influence of less than full-time or full-time on totality of training and subsequent consultant appointment in anaesthesia. *Anaesthesia*, 70(6), 686–90, <https://doi.org/10.1111/anae.13122>.
- Royal College of Paediatrics and Child Health, 2022. Written evidence submitted by the Royal College of Paediatrics and Child (RTR0087), <https://committees.parliament.uk/writtenevidence/42769/pdf/>.