Diagnostic Radiography UK Workforce Report 2017

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Foreword

Each year the Society and College of Radiographers undertakes a UK-wide diagnostic radiography workforce census to gain intelligence about the clinical imaging radiography workforce. The census is circulated to all UK Clinical Imaging Managers and asks for information about both the registered diagnostic radiographers and the support workforce. This report contains data on the census date of 1 November 2017.

The Society and College 2017 census continues to show high vacancy rates across the UK. The average current radiography vacancy rate varies by UK country: England 10%, Northern Ireland 5%, Scotland 7% and Wales 9%.

These vacancy figures are reported at a time when there is an increasing demand for imaging services. Clinical imaging is integral to almost all pathways of care; as both part of informing the diagnosis and in monitoring outcomes to treatment. Timely imaging and reporting is, therefore, essential in delivering efficient patient pathways, and supporting the goal of improving outcomes for patients. Sufficient workforce is required to support this goal.

The projections from recent 'Cancer Research' indicate increases to approximately 422,000 new cases per annum, which equates to a total increase of 18% in the annual number of new diagnoses over 8 years. In addition, government initiatives to achieve earlier diagnosis will place further demands on already overstretched services.

More diagnostic radiographers will be required to image patients and at advanced practitioner level contribute to the interpretation / reporting of imaging studies that are part of the diagnostic pathway of care. Nearly three quarters of departments indicate that they have used agency staff to fill the gaps. Positively reductions in the 3 month vacancy rate and long term absence rate are seen.

We urge service leaders to work with key stakeholders to develop clear plans to support the growth of the workforce to meet the population's needs at the local level; this should include optimising skills mix with both implementation of assistant practitioner support workforce and investment in advanced and consultant practice to support service innovation in order to maximise capacity and capability.

We would like to thank our service managers for submitting figures for the 2017 diagnostic workforce census. We will share this report widely with key stakeholders across the UK.

President, Mrs Sue Webb.

Executive Summary

In November 2017, the Society and College of Radiographers (SCoR) carried out a census of the diagnostic radiography workforce in the UK. The objectives were to establish the size, structure, nature and vacancy rate of the workforce in order to inform workforce planning. Seventy-four providers of diagnostic imaging responded to an online questionnaire. This document presents an analysis of the census results and compares them to similar censuses carried out in September 2014[1] and May 2016[2]. The following bullet points highlight the main findings:

- The average number of diagnostic radiography establishment staff by whole time equivalent (WTE) per respondent is 91.
- The average current vacancy rate across all respondents is 9.1% at the census date of 1 November 2017. This compares to an average vacancy rate of 7.8% in the September 2014 census and an average vacancy rate of 13.1% in the May 2016 census. These differences in vacancy rate may be due in part to the different times of year at which the censuses were carried out.
- The average current vacancy rate varies by UK country: England 10%, Northern Ireland 5%, Scotland 7% and Wales 9%.
- The average three-month vacancy rate across all respondents is 6.1%.
- The average percentage of the respondents' establishment headcount on long term absence is 3.4% (comprising 0.4% on a career break; 1.3% on long term sickness absence and 1.7% on parental leave).
- 4.3% of respondents' diagnostic radiographic workers are due to retire in the next two years.
- On average, each respondent has 5.2 members of staff (WTE) in postgraduate training in MRI, CT, ultrasound, breast or reporting.
- 73% of respondents use either diagnostic radiography or sonography agency staff (or both).
- There is an average of 1.6 clinical staff band 5 (or equivalent) and above (headcount) per respondent not registered with the Health and Care Professions Council (HCPC).
- 97% of radiographers (by headcount) at the responding providers are from the UK.
- On average, each respondent has 13.9 radiographers, sonographers and/or nuclear technologists (headcount) carrying out advanced practice and 0.7 carrying out consultant-level practice as of the census date 1 November 2017.
- The main reasons respondents give for radiographers leaving their posts are personal reasons, retirement and promotion in other centre.

[1] College of Radiographers. (2014). Diagnostic Radiography UK Workforce Report 2014.

[2] College of Radiographers. (2016). Diagnostic Radiography UK Workforce Report 2016.

1. Introduction

This report presents an analysis of an online census of the diagnostic radiography workforce in the UK run by the SCoR in November 2017. It follows on from similar censuses in September 2014 and May 2016. The census was targeted at employers of diagnostic radiographers in England, the Channel Islands, the Isle of Man, Northern Ireland, Scotland and Wales, in the NHS and other healthcare sectors. Respondents were asked about the type and scale of diagnostic radiography services they provide and size and nature of their diagnostic radiography workforce. The results of this census will inform the work of professional bodies, workforce planners and commissioners/providers of radiography education.

2. Methodology

The 2017 workforce census captures data about the diagnostic radiography workforce in the UK at a census date of 1 November 2017. Radiology services managers (or equivalents) were asked to answer the census on behalf of all diagnostic radiography services in their hospital/workplace. They were asked to include all diagnostic radiographers, sonographers, nuclear medicine technologists, PET-CT technologists, assistant practitioners and trainee assistant practitioners, but not to include radiographic assistants (helpers / healthcare support workers), clerical workers, clinical scientists, radiotherapy staff or third party managed services where the staff are employed by the third party.

Respondents were asked:

- Their contact details and details of the workplaces on behalf of which they were responding
- Establishment figures by Agenda for Change (AfC) band - whole time equivalent (WTE) and headcount
- Vacancy figures by AfC band - current and three-month
- Long term absence figures by AfC band - career break, long term sickness and parental leave
- Numbers expected to retire in the coming year and in the subsequent year
- Time spent on non-clinical duties
- Numbers in postgraduate training
- Use of agency staff
- Numbers of staff not registered with the Health and Care Professions Council (HCPC)
- Geographical origin of radiographers (UK, EU or non-EU)
- Numbers in advanced and consultant practice
- Reasons for radiographers leaving their posts

Both NHS and non-NHS providers were asked to supply their workforce data by AfC band. To assist non-NHS providers, who may not use the AfC system, the questions included the salary range for each AfC band. Therefore, all data could be collected and analysed by AfC band.

We contacted over 200 diagnostic imaging providers and received 74 responses. The number of respondents to each question varies and is represented by the ‘n’ figure given for each question in the analysis below.

The census follows on from similar censuses in September 2014 and May 2016. In future, we intend to repeat the census in November of each year to provide better year-on-year comparison of figures.

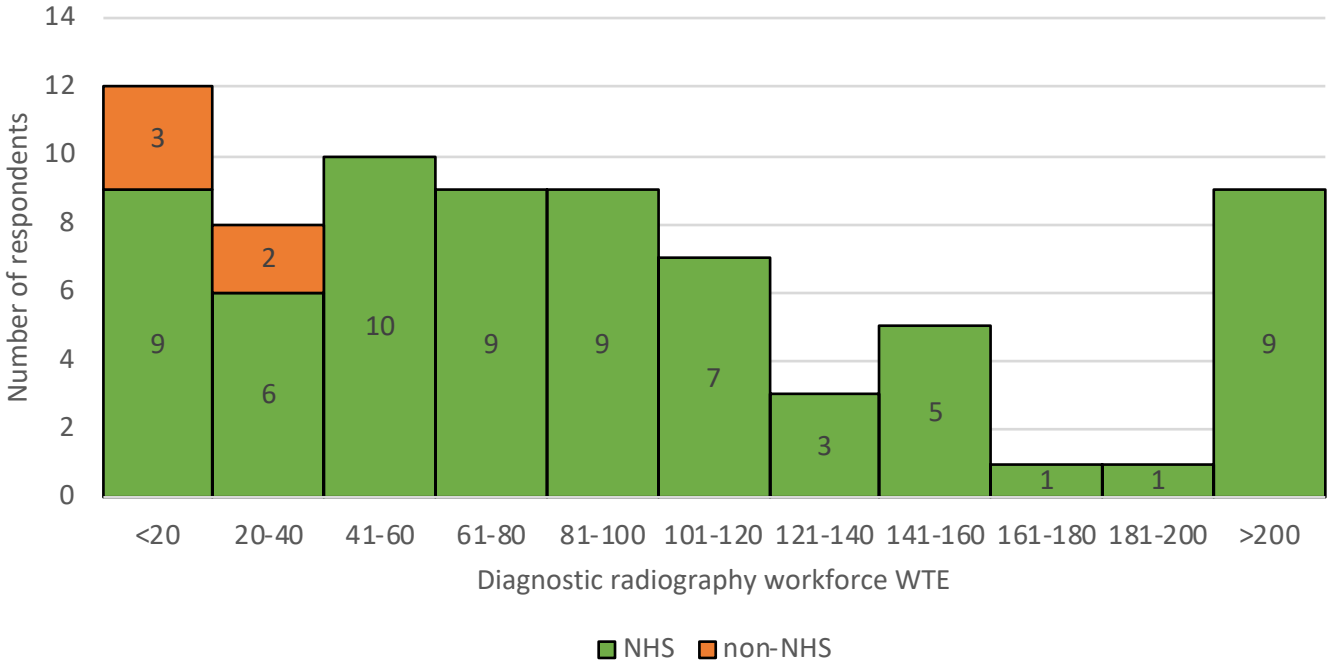
The full set of questions for the 2017 census and a spreadsheet of the background data are provided in Appendix I.

3. Profile of respondents

3.1 Size distribution

The majority of respondents have a diagnostic radiography workforce of less than 100 WTE. The five non-NHS respondents to this question all have diagnostic radiography workforces of less than 40 WTE.

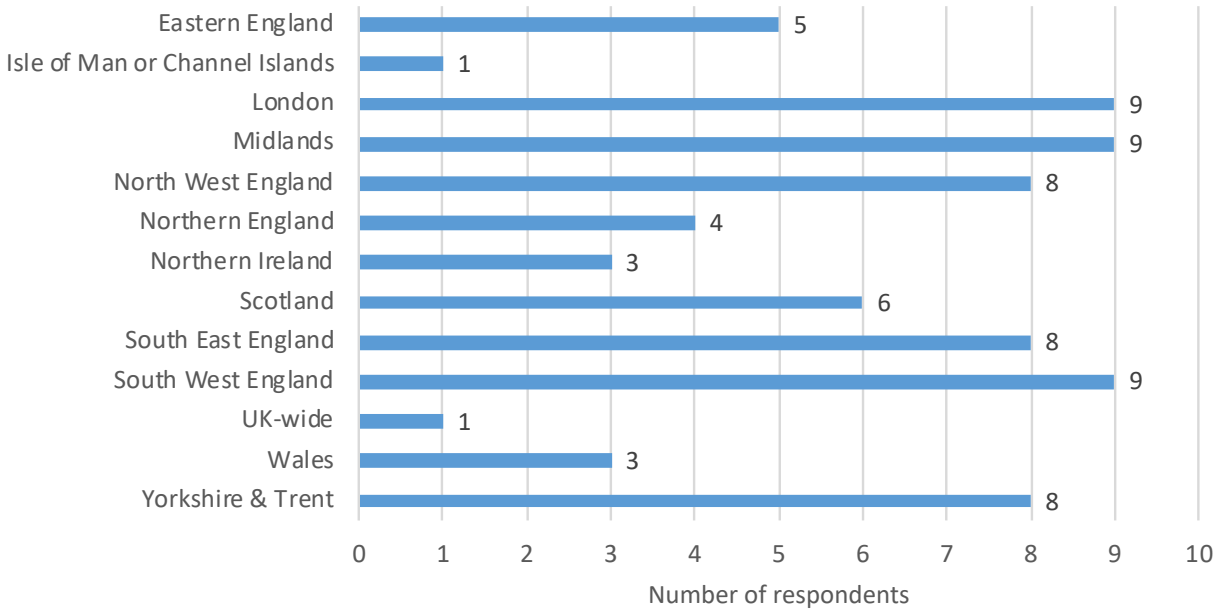
Figure 1. Distribution of respondent size (n=74)



3.2 Responses by geographical area

Diagnostic radiography providers from all the UK countries responded to the census.

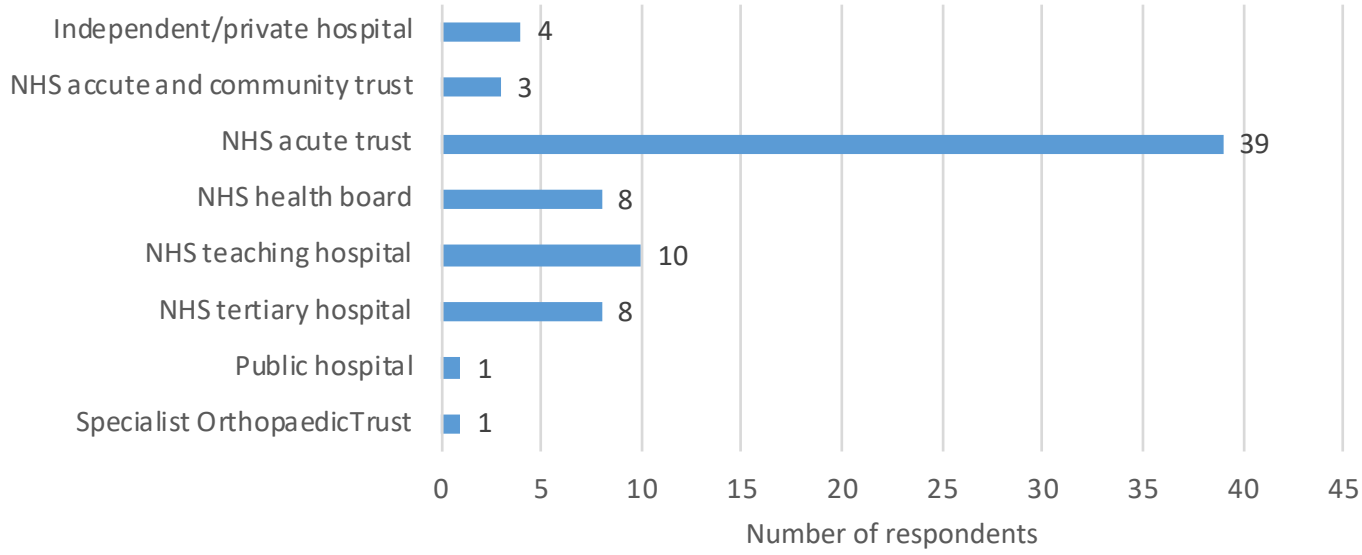
Figure 2. Number of responses by geographical area (n=74)



3.3 Responses by type of employer

The majority of responses were received from NHS healthcare providers.

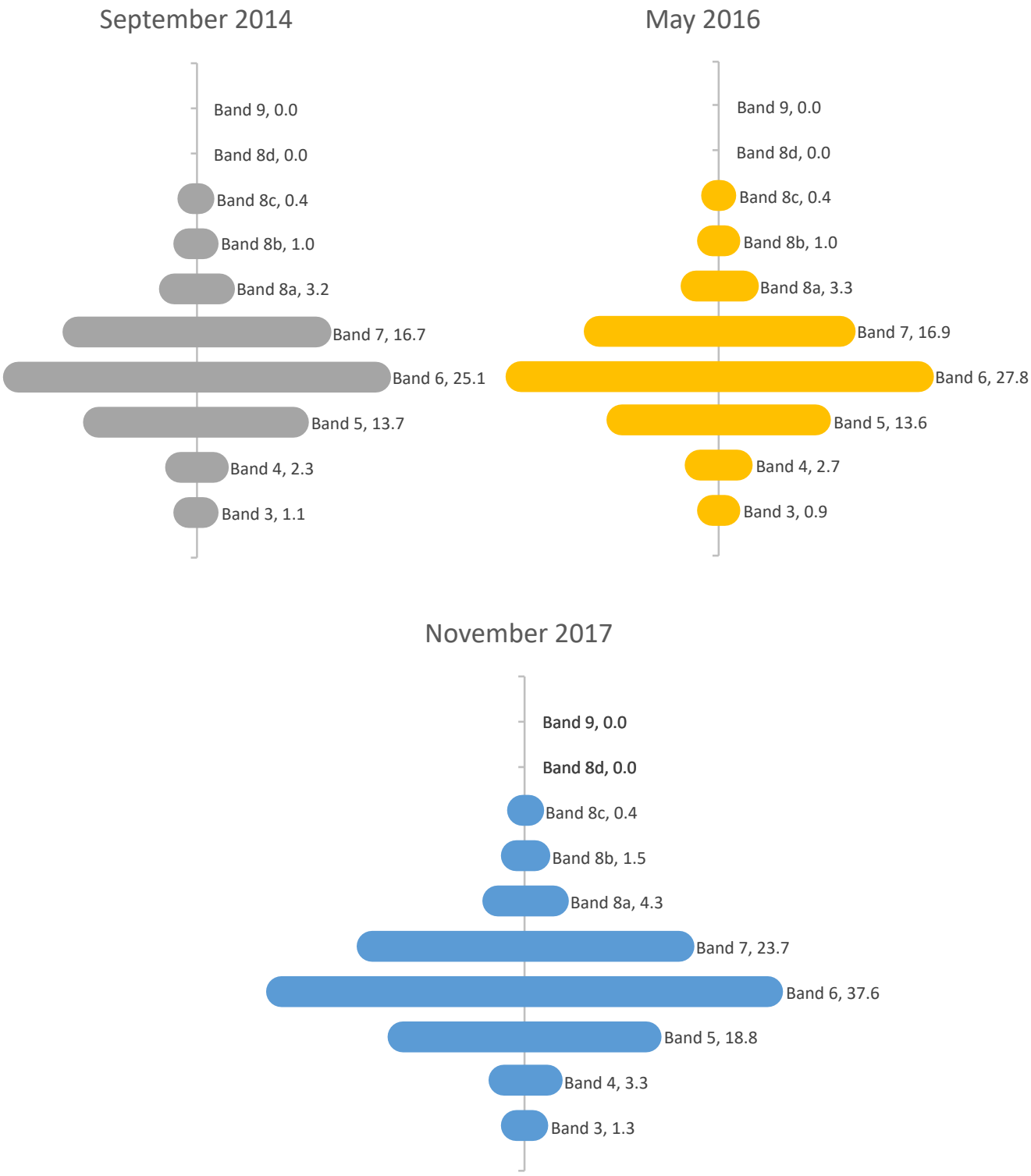
Figure 3. Number of responses by type of employer (n=74)



4. Shape of workforce by agenda for change band

The average number of diagnostic radiography establishment staff by WTE per respondent is 91 at the census date of 1 November 2017. The 'Christmas tree' diagrams in figure 4 illustrate the average number of WTE staff by AfC band. The diagrams from the September 2014 and May 2016 censuses are shown for comparison. The overall diagram shapes are similar. The higher numbers in most bands in the November 2017 diagram illustrate that the average overall size of respondents is larger than in previous years.

Figure 4. Average number of WTE establishment staff by AfC band (n=74)



5. Vacancy rate

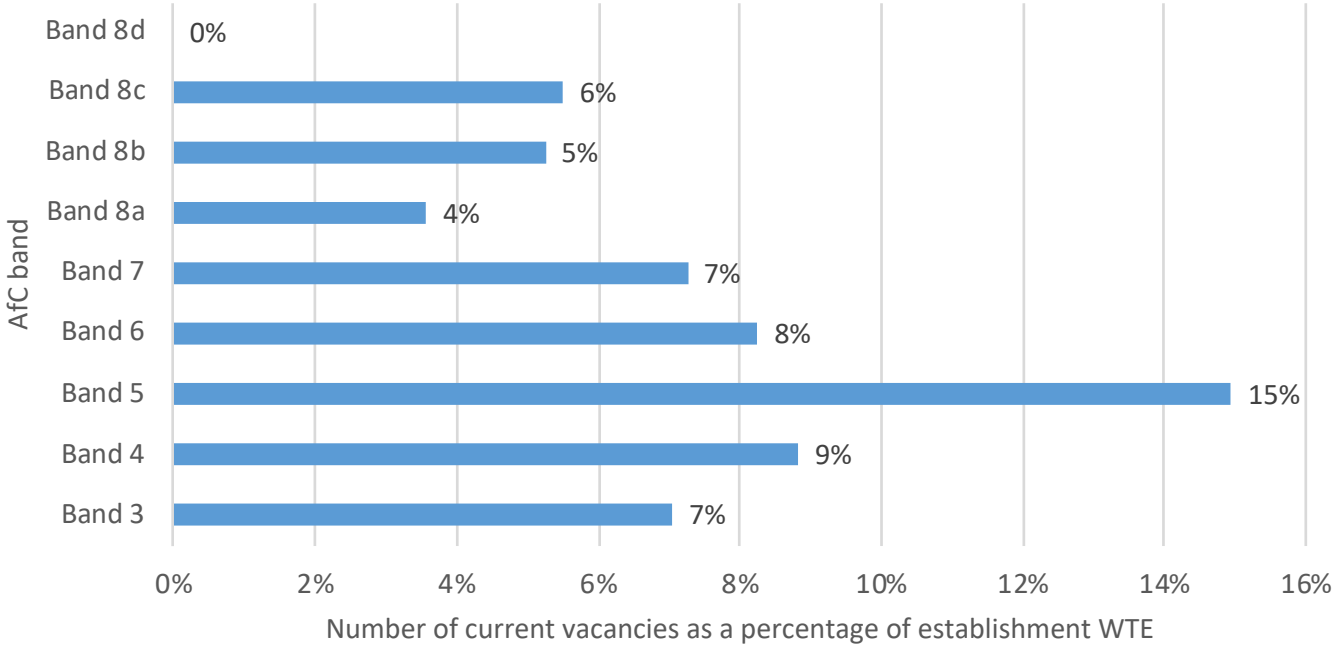
5.1 Current vacancy rate

67 of the 74 respondents to this question (91%) - report vacant radiographic workforce posts.

The average current vacancy rate across all respondents is 9.1% at the census date of 1 November 2017. (The current vacancy rate is defined as the total number of WTE vacancies as a percentage of the WTE establishment number of staff.) This compares to an average vacancy rate of 7.8% in the September 2014 census and an average vacancy rate of 13.1% in the May 2016 census. These differences in vacancy rate may be due in part to the different times of year at which the censuses were carried out. For example, the May 2016 census was before the largest intake of recently-qualified radiographers in the year, which is around June/July each year.

Figure 5 illustrates that the highest vacancy rate is at AfC band 5.

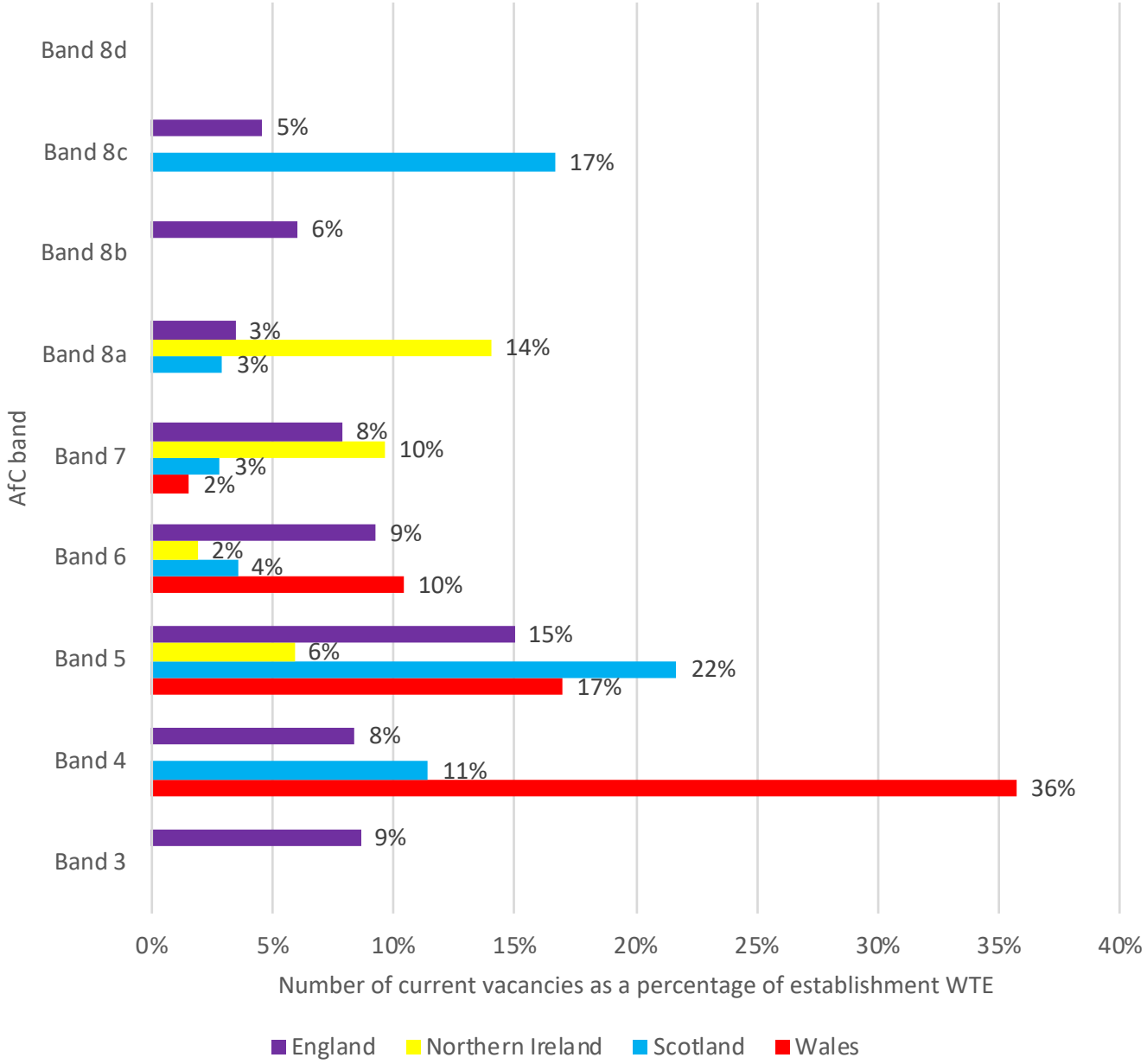
Figure 5. Current vacancy rate by AfC band (n=74)



5.2 Current vacancy rate by country

The average current vacancy rate varies by UK country: England 10%, Northern Ireland 5%, Scotland 7% and Wales 9%. Figure 6 breaks down these figures by AfC band.

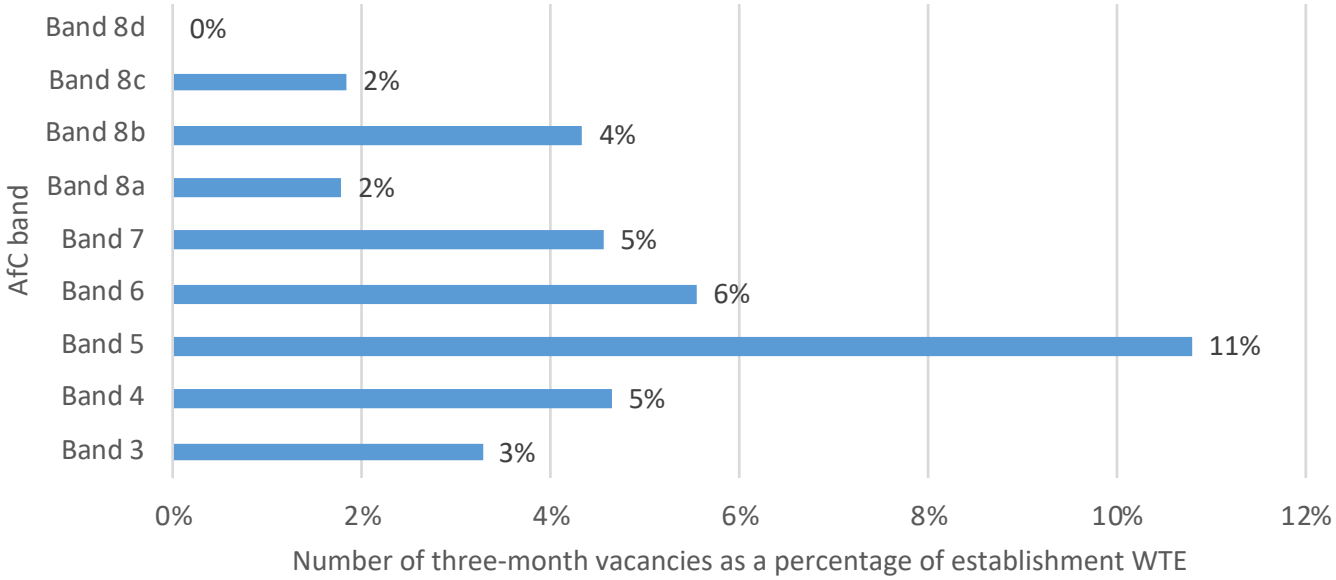
Figure 6. Current vacancy rate by AfC band and UK country (n=74)



5.3 Three-month vacancy rate

57 of the 74 respondents to this question (77%) report vacancies which have existed for three months or longer. The average three-month vacancy rate across all respondents is 6.1% at the census date of 1 November 2017. The highest three-month vacancy rate by AfC band is 11% at band 5.

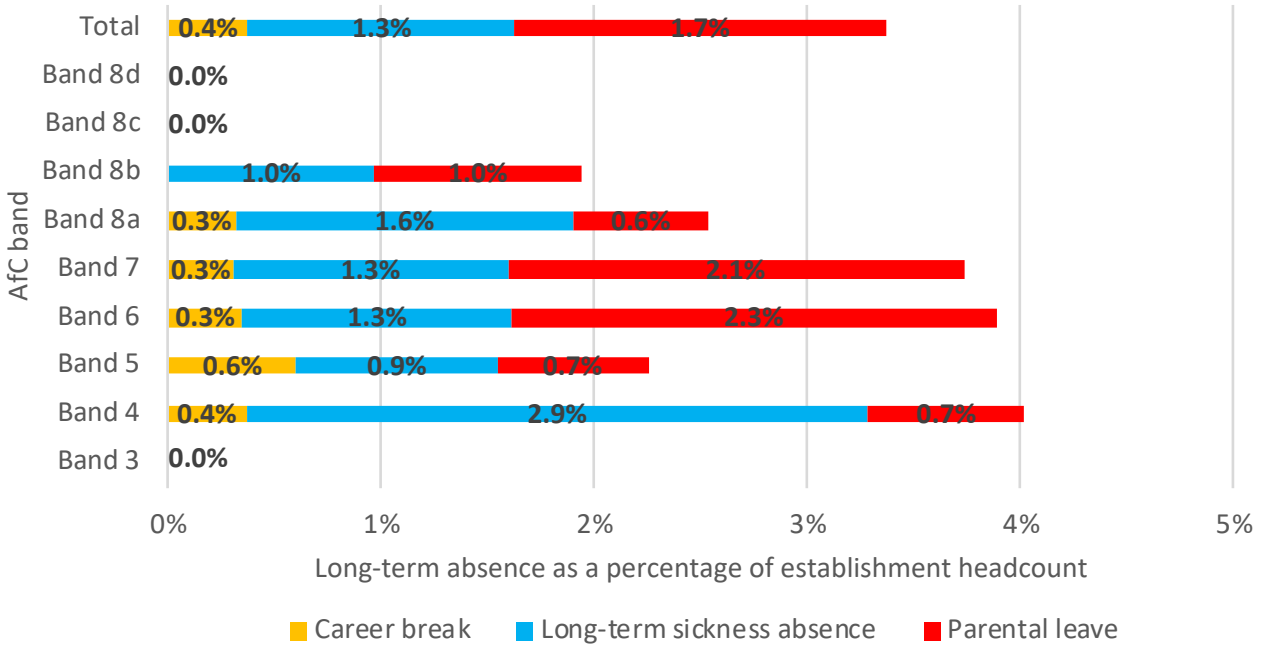
Figure 7. Three-month vacancy rate by AfC band (n=74)



6. Long-term absence rate

The average percentage of the respondents' diagnostic radiographic establishment headcount on long-term absence is 3.4% as of the census date 1 November 2017 (comprising 0.4% on a career break, 1.3% on long-term sickness absence and 1.7% on parental leave). This compares to an average percentage on long-term absence of 3.8% in the September 2014 census and 4.5% in the May 2016 census.

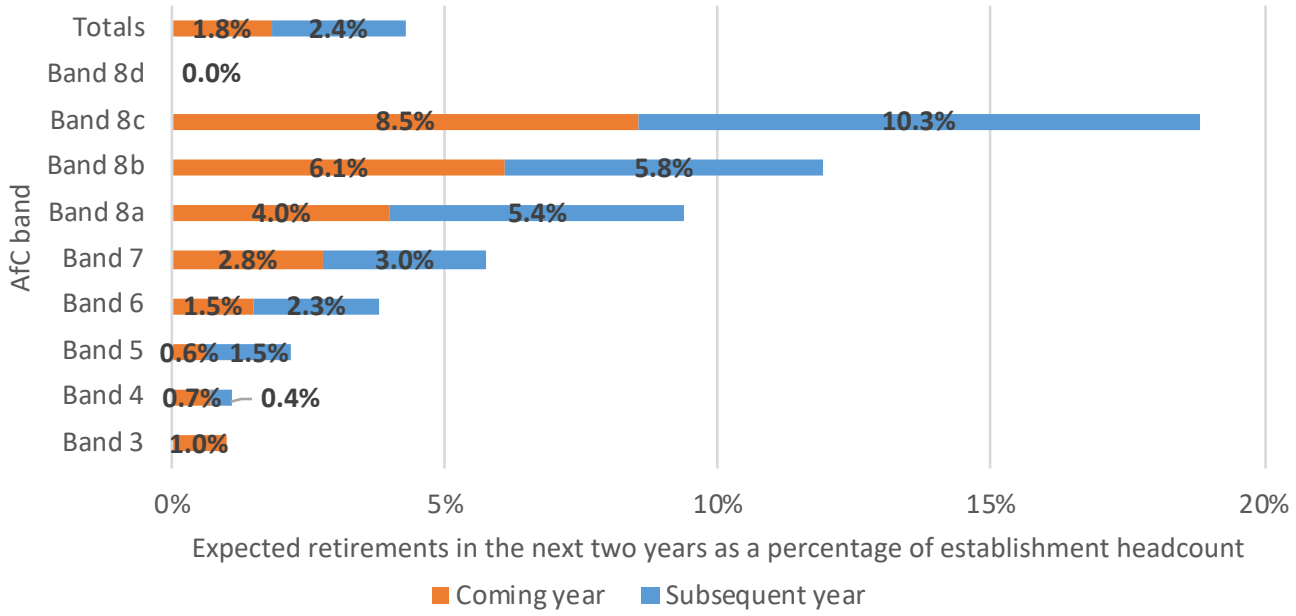
Figure 8. Long-term absence rate by AfC band (n=74)



7. Upcoming retirements

Respondents were asked to give the number of radiographic workforce posts with the post holder due to retire in the coming year (between 1 November 2017 and 31 October 2018) and the subsequent year (between 1 November 2018 and 31 October 2019). In total, 4.3% of respondents' radiographic workers are due to retire in the next two years.

Figure 9. Estimated retirements in the next two years (n=74)



8. Non-clinical duties

Respondents were asked to estimate the percentage of time staff on AfC band 7 (or equivalent) and above spend on non-clinical duties and give the nature of these duties.

Figure 10. Estimated percentage of time spent on non-clinical duties (n=74)

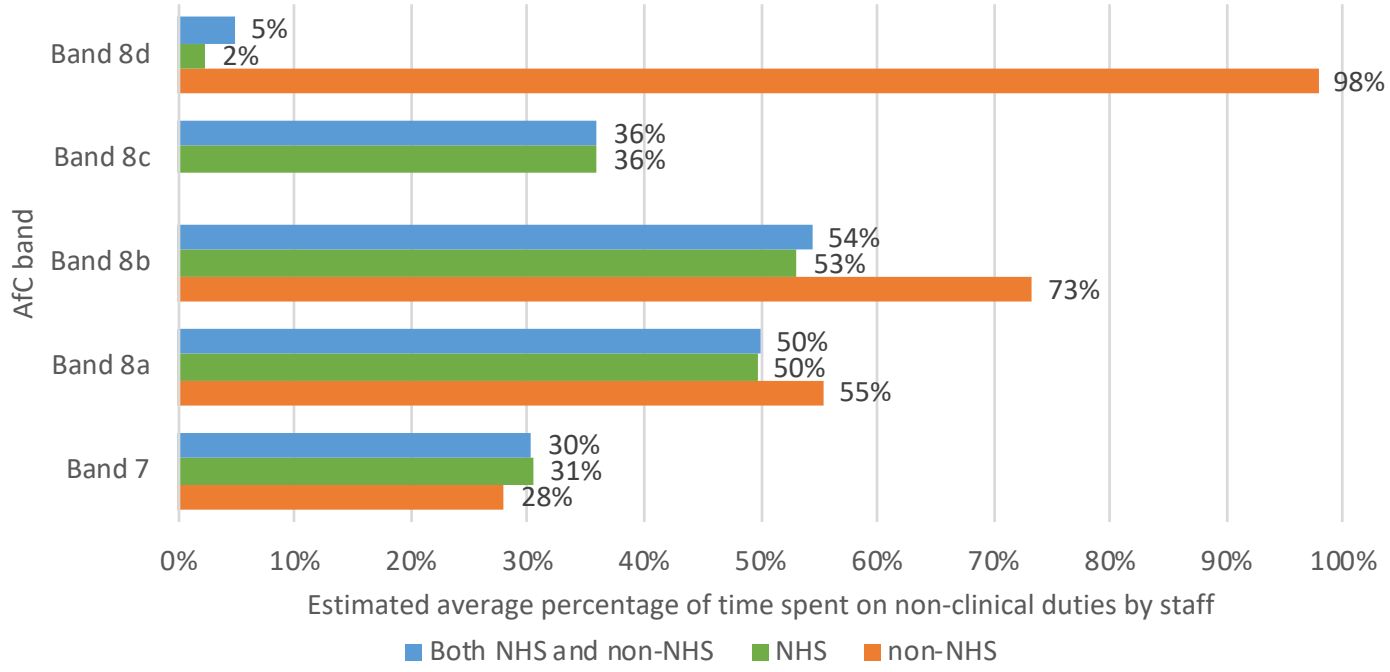
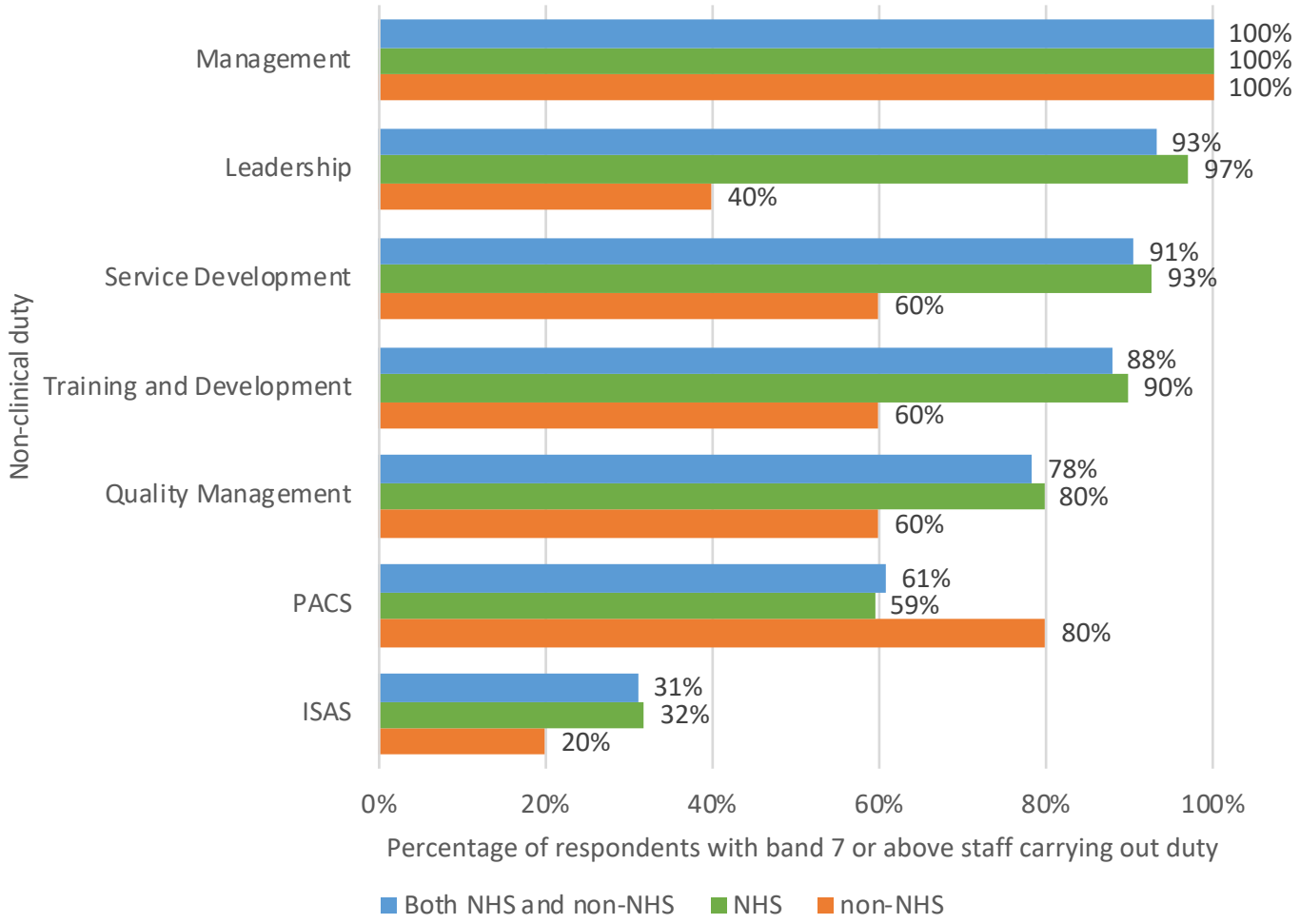


Figure 11. Nature of non-clinical duties carried out by band 7 and above staff (n=74)



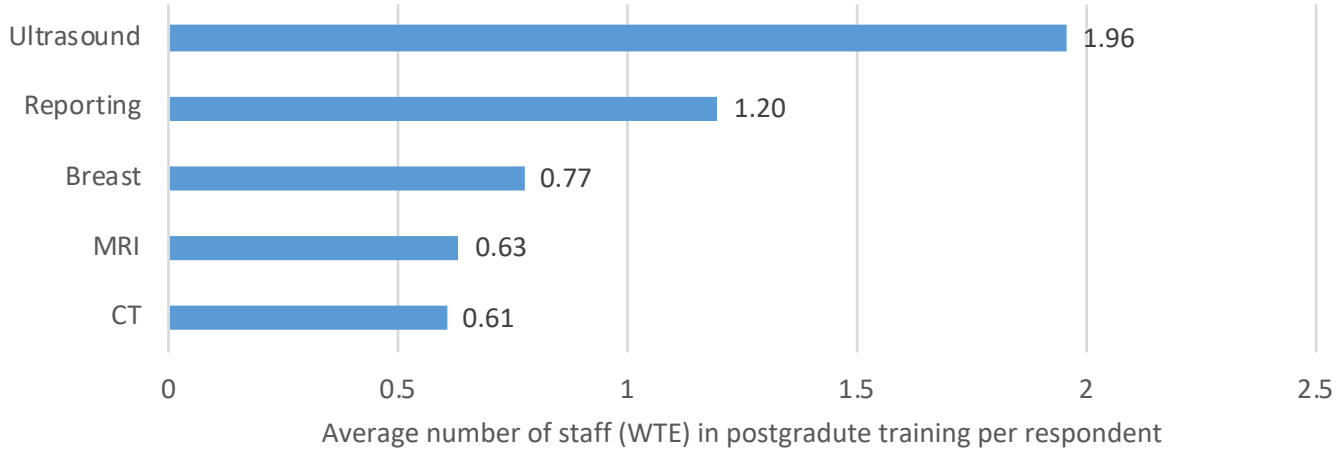
Other types of non-clinical duties detailed by respondents in free-text include:

- Audits (2 respondents)
- Clinical governance (2 respondents)
- Finance / charging and billing duties (2 respondents)
- Ordering (2 respondents)
- Updating policies / protocols (2 respondents)
- Admin (1 respondent)
- Data collection (1 respondent)
- Managing of health roster (1 respondent)
- Migration and move to new hospital (1 respondent)
- Radiation protection (1 respondent)
- Reception cover (1 respondent)
- Research (1 respondent)

9. Postgraduate training

Respondents were asked the number of staff (WTE) currently in postgraduate training in MRI, CT, ultrasound, breast or reporting. On average, each respondent has 5.2 members of staff in postgraduate training in these modalities.

Figure 12. Average number of staff (WTE) in postgraduate training per respondent (n=71)



Other types of postgraduate training given by respondents in free text include:

- Service development / management / leadership / audit (9 respondents)
- Nuclear medicine (6 respondents)
- GI / Barium swallows / HSG / CTC (4 respondents)
- MBA (2 respondents)
- PGCE / Teaching (2 respondents)
- Radiology / IR (2 respondents)
- Cardiac CT (1 respondent)
- CXR reporting (1 respondent)
- Dexa (1 respondent)
- Imaging / anatomical science (1 respondent)
- MSc (1 respondent)
- PhD (1 respondent)
- PICC line placement (1 respondent)
- Post mortem CT (1 respondent)

One respondent commented, “Limited opportunity due to staffing shortages / minimum establishment / increasing workload and specialist trust.”

10. Agency staff

Of the 74 respondents to the questionnaire section about agency staff, 54 (73%) use either diagnostic radiography or sonography agency staff (or both). 43 of the 74 respondents (58%) use diagnostic radiography agency staff and 34 (46%) use sonography agency staff.

Figure 13 illustrates that the main reason for using agency staff is existing vacancies.

Figure 13. Reasons for using agency staff (n=74)

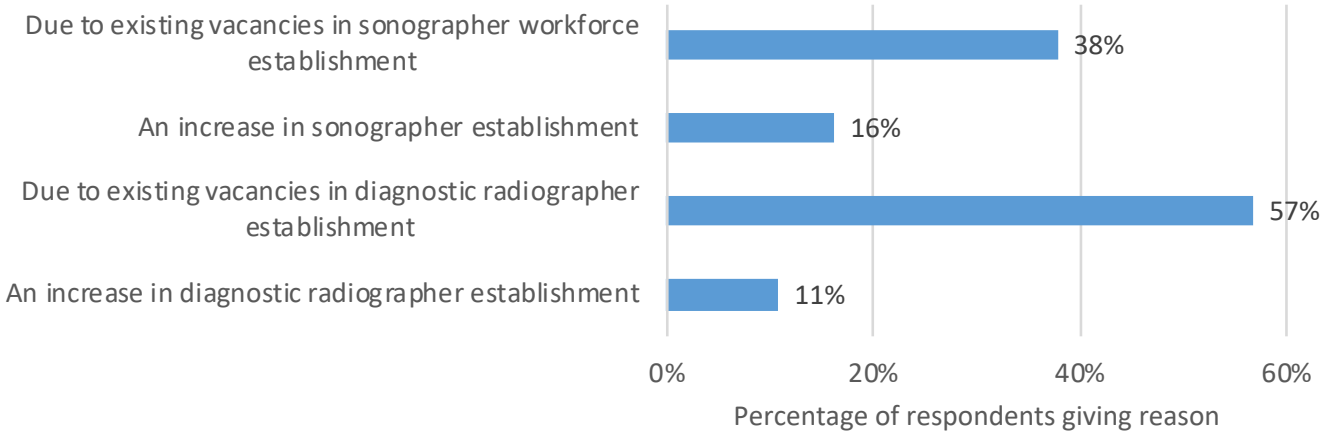
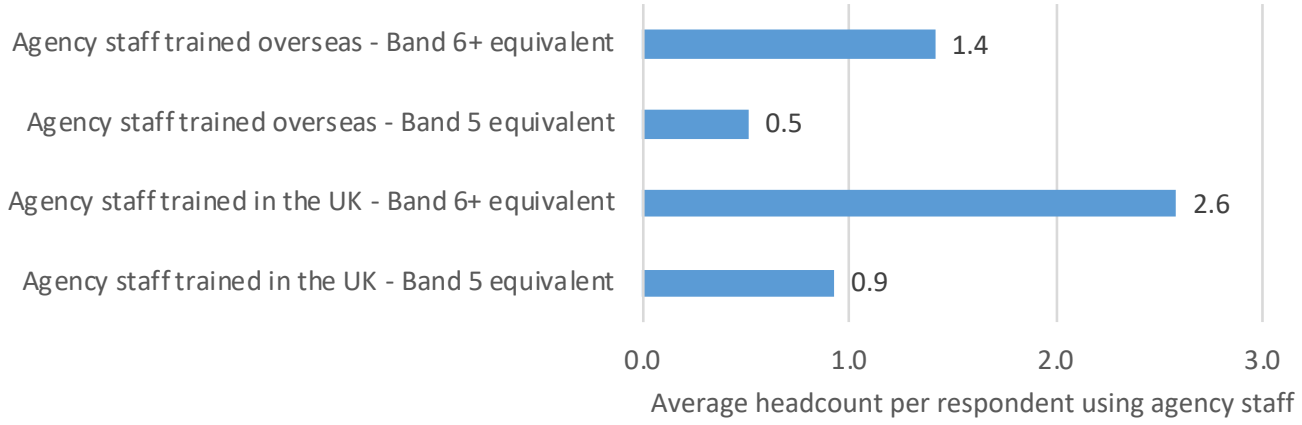


Figure 14 shows that there are just under twice as many agency staff trained in the UK as trained overseas.

Figure 14. Training location of agency staff (n=46)



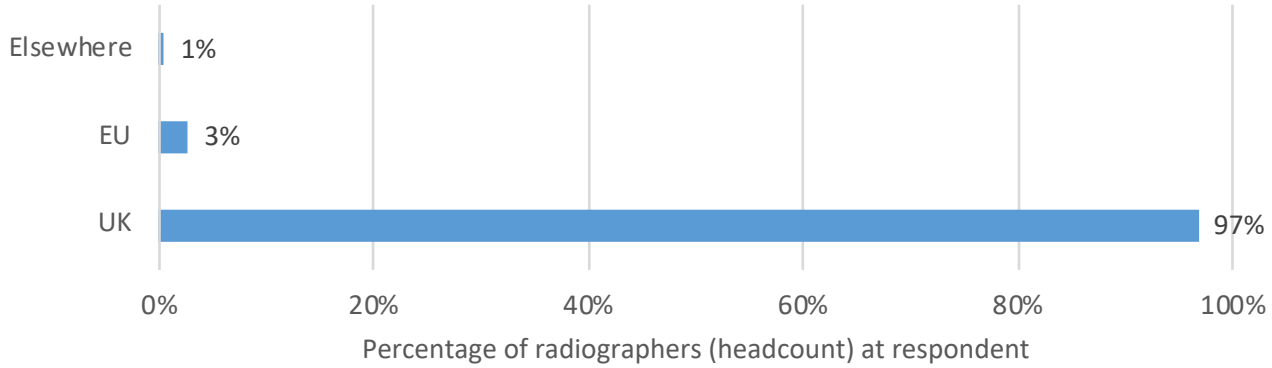
11. Registration status of clinical staff

16 of the 67 respondents (24%) to the question regarding registration status have clinical staff of band 5 (or equivalent) and above not registered with the HCPC. There is an average of 1.6 clinical staff band 5 (or equivalent) and above (headcount) per respondent not registered with the HCPC.

12. Geographical origin of radiographers

97% of radiographers (by headcount) at the responding providers are from the UK.

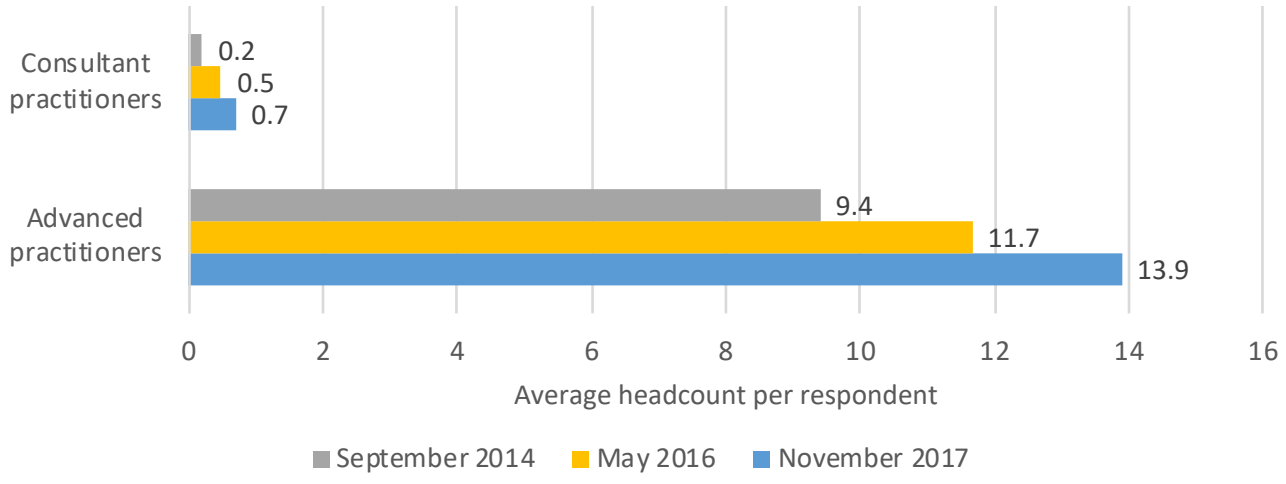
Figure 15. Geographical origin of radiographers (n=28)



13. Advanced and consultant practice

On average, each respondent has 13.9 diagnostic radiographers, sonographers and/or nuclear technologists (headcount) carrying out advanced practice and 0.7 carrying out consultant-level practice as of the census date 1 November 2017. Both numbers have increased since the previous census dates of September 2014 and May 2016, illustrated by figure 16. However, this may be partially explained by the larger average size of respondents to the November 2017 census than in previous years.

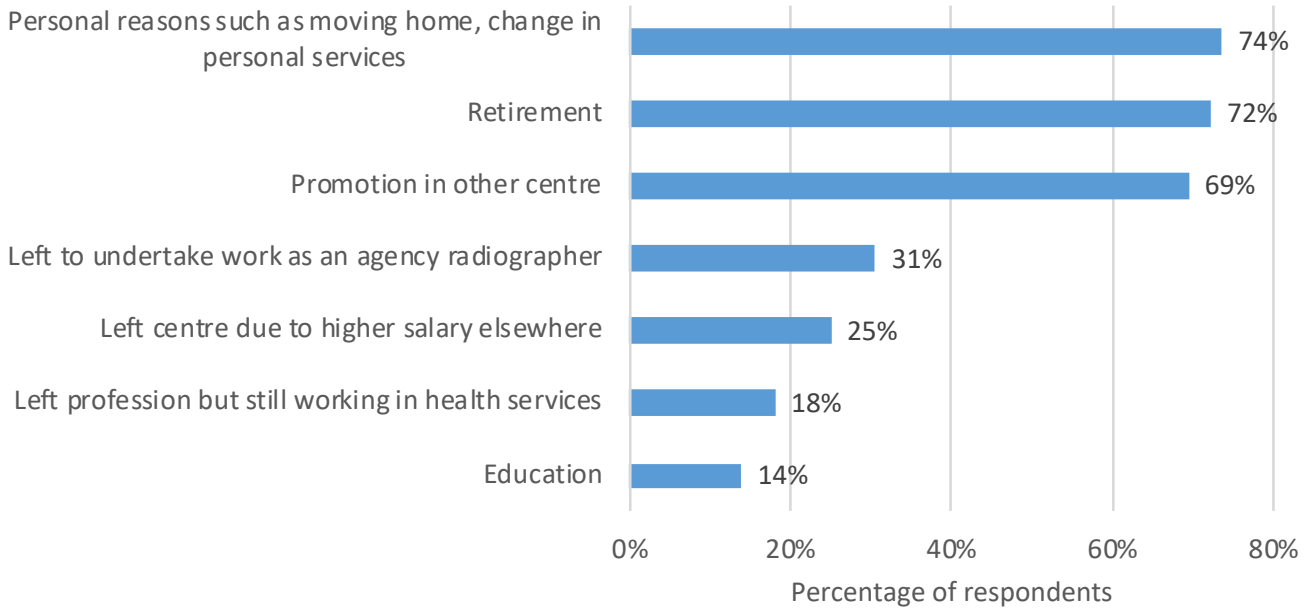
Figure 16. Average number of diagnostic radiographers, sonographers and nuclear medicine technologists in advanced and consultant-level practice per respondent (n=71)



14. Reasons for leaving

The main reasons respondents give for radiographers leaving their posts are personal reasons, retirement and promotion in other centre.

Figure 17. Reasons for radiographers leaving their posts (n=72)



Other reasons for leaving given in the free-text include:

- Internal promotion (2 respondents)
- The cost of living in South-East England (1 respondent)
- Moving out of London (1 respondent)
- Emigration (1 respondent)
- Pressures of on-call service (1 respondent)
- Left radiography entirely (1 respondent)
- We live in rural area and specialist hospital seen as career limiting (1 respondent)
- Working too many hours (1 respondent)
- Left for job in private sector (1 respondent)
- Did not want to move to new hospital that is relocated 10 miles away (1 respondent)

15. General respondent comments

At the end of the questionnaire, respondents were asked if they had any general comments relating to their submission. Themes mentioned by two or more respondents are given below with the number of respondents in brackets after the theme and an illustrative comment below.

Theme: Workforce data submitted does not include all the diagnostic radiography modalities available at the provider (5)

"This submission does not include Nuclear Medicine which is managed separately from Imaging. Breast Imaging has separated from Imaging since last year's submission - so, this has not been included."

Theme: Recruitment issues (3)

"Biggest issue is the inability to recruit to qualified B5 posts outside of the University qualification cycles. This means that forward planning is extremely difficult as while I can fill posts with students due to qualify within the coming 9 months or so, unexpected turnover within the team often negates the expected benefits to be gained through recruitment."

Theme: Workforce data submitted includes health professionals registered with agencies other than the HCPC (3)

"Most of the staff in my submission are Nuclear Medicine technologists and are registered with the RCT."

Theme: Workforce data submitted is not exact (3)

"Numbers are best guess due to continuing changes in work patterns etc"

Theme: Use of AfC Annex T to progress staff from band 5 to band 6 (2)

"Radiographers work to annex T progression from band 5 to band 6 to meet the service needs."

Theme: Training funding issues (2)

"Funding for training massively impacted by CPD Apply removal. All training has to be funded via my budget until apprenticeships for radiographic advanced practice are in place."

Theme: Apprenticeships (2)

"We have had a fair degree of success in converting RDAs into Radiographers (three ex RDA staff are Band 7,6 and 5 Radiographers respectively) but the route is circuitous, requires significant time commitment and the funding to facilitate conversion of HCA into Healthcare Professional in the West Midlands has been withdrawn this year as part of funding cuts. We have also only found one university willing to accept students without a-level qualification so we need the apprenticeship scheme sooner rather than later."

Theme: Use of bank staff (2)

"This doesn't take into account the high proportion of bank staff utilised that are on zero hour contracts."

Theme: Impact of increasing demand for radiography services (2)

"The radiographic workforce is being subjected to tremendous pressures due to increasing demand for imaging and scans, increasing number of retirements and other pressures such as those created by the technology (throughput / isolation and lack of peer support created by DR) Financial pressures within the NHS and pressure of waiting time targets are leading to increased ad hoc overtime demands - Radiography (other than medical staff) are the only trust team having to support both Inpatient and outpatient waiting list initiatives in addition to diagnostic waiting time targets - and there are nearly double the number of surgical and medical consultants in relation to radiographers."

Theme: Training needs changing (2)

"We are not training enough radiographers. Poaching staff from developing countries is ethically unsound. Radiography training needs to change (on-going assessment should be less onerous) - CT must be a core skill. Perhaps we need to bring back the diploma for (part of) a staff group that are not as professionally motivated."

Appendix I - Downloads

SCoR census of the UK Diagnostic radiographic workforce questionnaire (PDF)

SCoR census of the UK Diagnostic radiographic workforce spreadsheet (anonymised) (Excel)