

The College of Radiographers

*Radiotherapy Radiographic
Workforce UK Census 2018*



CoR

THE COLLEGE OF
RADIOGRAPHERS

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1 Executive summary

In November 2018, the College of Radiographers (CoR) carried out a census of the radiotherapy radiographic 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. Sixty-three providers of radiotherapy responded to an online questionnaire. This document presents an analysis of the census results and compares them to similar surveys carried out annually from 2010 to 2017 (see [references](#)). The following bullet points highlight the main findings:

NHS findings:

- The total NHS radiotherapy radiographic workforce is 3329.9 whole time equivalent (WTE) comprising 3258.4 WTE therapeutic radiographers and 71.6 WTE assistant practitioners and trainee assistant practitioners (APs/TAPs).
- The current vacancy rate for the UK NHS radiotherapy radiographic workforce is 6.1%. This has remained steady since 2015.
- The current vacancy rate for therapeutic radiographers is 6.0% and the current vacancy rate for associated APs/TAPs is 13.5%.
- The current vacancy rate varies by UK country: England 6%, Northern Ireland 12%, Scotland 4% and Wales 6%.
- The three-month vacancy rate for the UK NHS radiotherapy radiographic workforce is 2.7%.
- 87% of the radiotherapy radiographic workforce is employed in Agenda for Change (AfC) bands 5 to 7.
- The percentage of the providers' establishment headcount on long-term leave is 6.0% (comprising 0.9% on a career break; 1.8% on long-term sickness absence and 3.3% on parental leave).
- As of the census date, there are 262 therapeutic radiographers working in dosimetry in the 59 NHS providers who responded to this question. These figures include both those working within and those working outside the budgetary control of the radiotherapy service manager. In addition, 92 therapeutic radiographers were reported to work in cancer services (such as research) outside the budgetary control of the radiotherapy service manager. Therapeutic radiographers working outside the budgetary control of the radiotherapy service manager are unlikely to be included in figures given elsewhere in this report.

Findings including both NHS and non-NHS radiotherapy providers:

- The total UK radiotherapy radiographic workforce is 3452.4 WTE and has grown by 17% since 2012. 96% of the radiotherapy radiographic workforce is employed by the NHS.
- The current vacancy rate for the UK radiotherapy radiographic workforce is 6.1%.
- The main reasons respondents give for therapeutic radiographers leaving their posts are promotion in other radiotherapy centres and personal reasons.

2 Introduction

This report presents an analysis of an online census of the radiotherapy radiographic workforce in the UK run by the CoR in November 2018. It is intended to update the UK radiotherapy workforce annual surveys from 2010 to 2017 (see [references](#)). The census was targeted at radiotherapy providers in England, Northern Ireland, Scotland and Wales in the NHS and other healthcare sectors. Respondents were asked about the size and nature of their radiotherapy radiographic workforce. The results are deemed to be of interest to the NHS England Radiotherapy Clinical Reference Group and similar groups in the other UK countries, the Radiotherapy Board, NHS Digital, Health Education England, Local Education and Training Boards, the Migration Advisory Committee and commissioners and providers of radiotherapy.

3 Methodology

The 2018 workforce census captures data about the radiotherapy radiographic workforce in the UK at a census date of 1 November 2018. Data collection was performed in November and December 2018 by means of a SurveyGizmo® online questionnaire distributed to radiotherapy service managers. This census asked for the total numbers of therapeutic radiographers, APs and TAPs (together referred to as the 'radiotherapy radiographic workforce' in this report) within the budgetary control of the radiotherapy service manager. Radiotherapy helpers and administration staff are not included in the figures.

Respondents were asked:

- The name of the radiotherapy provider on whose behalf they were responding
- Establishment figures by AfC band – WTE and headcount
- Vacancy figures by AfC band – current and three-month
- Long-term absence figures by AfC band – career break, long-term sickness absence and parental leave
- Numbers expected to retire in the coming year and in the subsequent year
- Job titles in use
- Reasons for radiographers leaving their posts
- Use of agency staff
- Therapeutic radiographers employed in dosimetry and other cancer services not within the budgetary control of the radiotherapy service manager

This report assumes that numbers reported in AfC band 5 and above refer to therapeutic radiographers, and numbers reported in AfC band 4 and below refer to APs and TAPs.

This report excludes the physics and engineering radiotherapy workforce and clinical oncologists. Enquiries about the physics and engineering workforce in radiotherapy should be directed to the Institute of Physics and Engineering in Medicine. Enquiries about the clinical oncology workforce should be directed to the Royal College of Radiologists.

Links to the full set of questions for the 2018 census and a spreadsheet with a breakdown of the figures in this report by radiotherapy provider can be found in the Downloads section of this report.

Of the 62 NHS providers of radiotherapy services in the UK, 59 submitted data to the CoR census. In addition, four of the nine private (non-NHS) providers of radiotherapy services responded, giving an 89% response rate overall.

Radiotherapy services provided at Colchester Hospital and Ipswich Hospital are counted as two separate services in this edition of the census. Although the two trusts have recently merged to form East Suffolk and North Essex NHS Foundation Trusts, separate responses were received from Colchester and Ipswich and so are reported as two separate radiotherapy services for the purposes of this census. Similarly, HCA International provided two responses for different branches of their radiotherapy provision. These too are counted as two respondents.

Where data is not available from a provider for a question, the figures from the previous census date of 1 November 2017 are used where available. The number of respondents to each question is shown by the 'n' figure below tables and graphs.

Figure 1 shows the distribution of the 63 respondents in terms of the size of their radiotherapy radiographic workforce WTE. All four of the non-NHS respondents have fewer than 20 radiotherapy radiographic workers WTE.

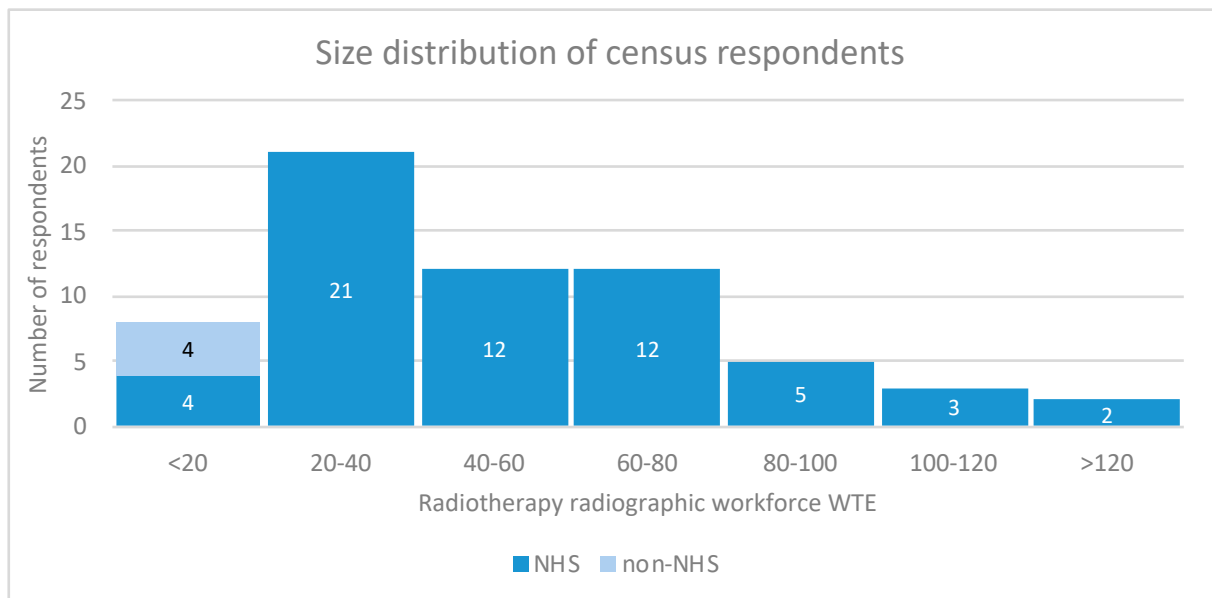


Figure 1 Radiotherapy radiographic workforce WTE size distribution of census respondents (n=63)

4 NHS radiotherapy radiographic workforce data

4.1 NHS workforce by country

Table 1 shows the total NHS WTE of 3329.9 broken down by country. The number of posts (headcount), vacancies and vacancy rate are also displayed.

Country	Workforce	WTE	Posts	Vacant WTE	Vacancy rate
England	Therapeutic radiographers	2717.4	2964	161.0	5.9%
	APs/TAPs	65.0	70	8.3	12.8%
England Total		2782.3	3034	169.3	6.1%
Northern Ireland	Therapeutic radiographers	127.0	120*	15.0	11.8%
	APs/TAPs	4.0	3*	1.0	25.0%
Northern Ireland Total		131.0	123*	16.0	12.2%
Scotland	Therapeutic radiographers	266.2	296	9.4	3.5%
	APs/TAPs	1.6	2	0.4	25.0%
Scotland Total		267.8	298	9.8	3.7%
Wales	Therapeutic radiographers	147.8	168	9.0	6.1%
	APs/TAPs	1.0	1	0	0%
Wales Total		148.8	169	9.0	6.0%
UK NHS	Therapeutic radiographers	3258.4	3548	194.4	6.0%
	APs/TAPs	71.6	76	9.7	13.5%
UK NHS Total		3329.9	3624	204.1	6.1%

Table 1 NHS radiotherapy radiographic workforce WTE, posts and vacancy rate by UK country (n=62)

Note: APs/TAPs = assistant practitioners / trainee assistant practitioners (AfC band 4 and band 3).

*The post figures for Northern Ireland are smaller than the WTE figures. The figures as reported have been included in table 1. However, readers should note the discrepancy.

Respondents to the census also reported the number of posts which had been vacant for three months. The results show a three-month vacancy rate of 2.7% for the radiotherapy radiographic workforce in the NHS.

4.2 NHS workforce by Agenda for Change (AfC) band

Table 2 and figure 2 illustrate that 87% of the NHS radiotherapy radiographic workforce is in AfC bands 5 to 7.

Workforce	WTE by AfC band										Total
	3	4	5	6	7	8a	8b	8c	8d	9	
NHS radiotherapy radiographic workforce	19.5	52.1	865.0	1173.0	853.9	267.5	72.0	27.0	0	0	3329.9

Table 2 NHS radiotherapy radiographic workforce WTE by AfC band (n=62)

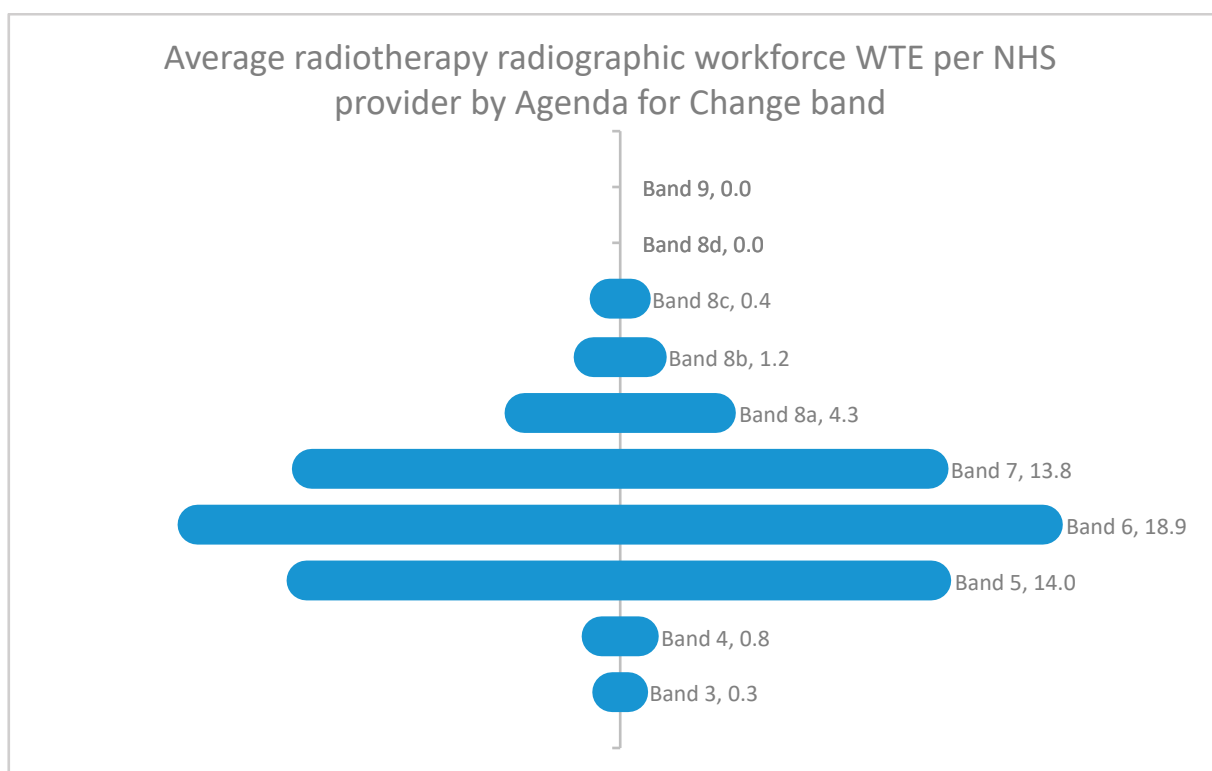


Figure 2 Average radiotherapy radiographic workforce WTE per NHS provider by AfC band (n=62)

4.3 NHS reasons for long-term absence

The census asked about reasons for long-term absence: 30 post holders are on a career break (0.9%), 62 are on long-term sickness absence (1.8%) and 115 are on parental leave (3.3%).

Reason for absence	Posts (headcount)	Percentage of post holders
Career break	30	0.9%
Long-term sickness absence	62	1.8%
Parental leave	115	3.3%

Table 3 NHS long-term absence by headcount and percentage of post holders (n=59)

4.4 NHS future expectations – retirement

Radiotherapy providers were asked approximately how many radiography staff they anticipated retiring between 1 November 2018 and 31 October 2019. They were also asked approximately how many radiography staff they anticipated retiring between 1 November 2019 and 31 October 2020. Table 4 and figure 3 present the results from NHS respondents.

AfC band	Post holder to retire before 31 October 2019 (headcount)		Post holder to retire between 1 November 2019 and 31 October 2020 (headcount)	
	Headcount	Percentage	Headcount	Percentage
3	0	0%	0	0%
4	3	8%	0	0%
5	1	3%	1	3%
6	10	25%	8	21%
7	15	38%	12	31%
8a	7	18%	14	36%
8b	3	8%	2	5%
8c	1	3%	2	5%
8d	0	0%	0	0%
N/A	0	0%	0	0%
NHS Total	40		39	

Table 4 NHS predicted retirements in the next two years by AfC band (n=59)

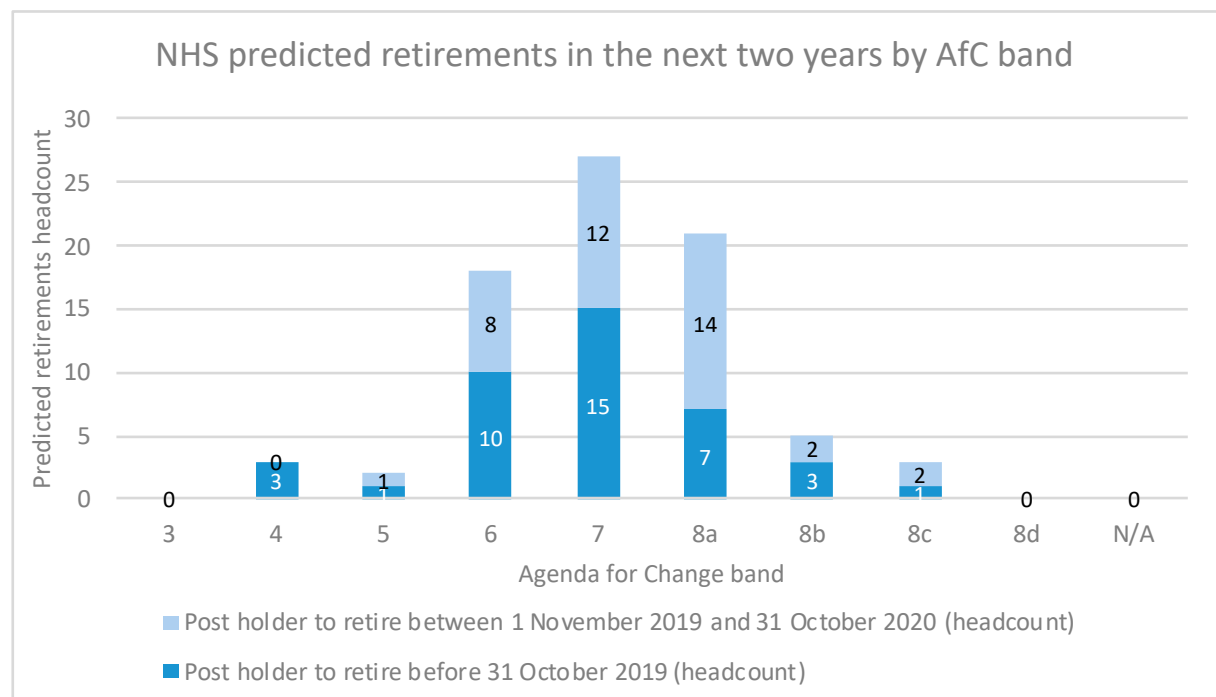


Figure 3 NHS predicted retirements in the next two years by AfC band (n=59)

4.5 NHS therapeutic radiographers employed in dosimetry

As of the census date, there are 262 therapeutic radiographers (headcount) working in dosimetry in the 59 NHS providers who responded to this question. This is an average of 4.4 therapeutic radiographers working in dosimetry in each NHS radiotherapy provider. These figures include both those working within and those working outside the budgetary control of the radiotherapy service manager. They may not, therefore, be included in the figures given elsewhere in this report.

4.6 NHS therapeutic radiographers outside budgetary control of the radiotherapy service manager

The 59 NHS providers responding to this question reported that 92 therapeutic radiographers (headcount) work in cancer services in the UK outside the budgetary control of the radiotherapy service manager. This is an average of 1.6 therapeutic radiographers per NHS radiotherapy provider.

These figures include therapeutic radiographers working in research, for example, at a radiotherapy provider, but exclude those working in dosimetry (which was covered in the previous section of this report). As they are outside the budgetary control of the radiotherapy service manager, they are unlikely to be included in the figures given elsewhere in this report.

5 Radiotherapy radiographic workforce in non-NHS radiotherapy providers

There are currently nine non-NHS providers of radiotherapy in the UK, of whom four submitted data to the CoR census. Note that three of the non-NHS providers of radiotherapy come under the HCA International umbrella. They are counted separately for the purposes of this census as individual responses were received to the 2018 census from two of their three branches.

Where data is not available from a provider, the figures from the previous census date of 1 November 2017 are used where available.

Table 5 illustrates that 96% of the radiotherapy radiographic workforce in the UK is employed by the NHS.

Workforce	WTE	Posts	Vacant WTE	Vacancy rate
Non-NHS total	122.5	131	6.0	4.9%
Combined NHS & non-NHS total	3452.4	3755	210.1	6.1%

Table 5 Combined NHS and non-NHS workforce WTE and vacancy rate (n=71)

Note the figures for non-NHS providers are not reported by AfC band as providers do not necessarily use an equivalent system.

6 Trends

Figure 4 shows that the radiotherapy radiographic workforce in the UK grew by 17% between 2012 and 2018.

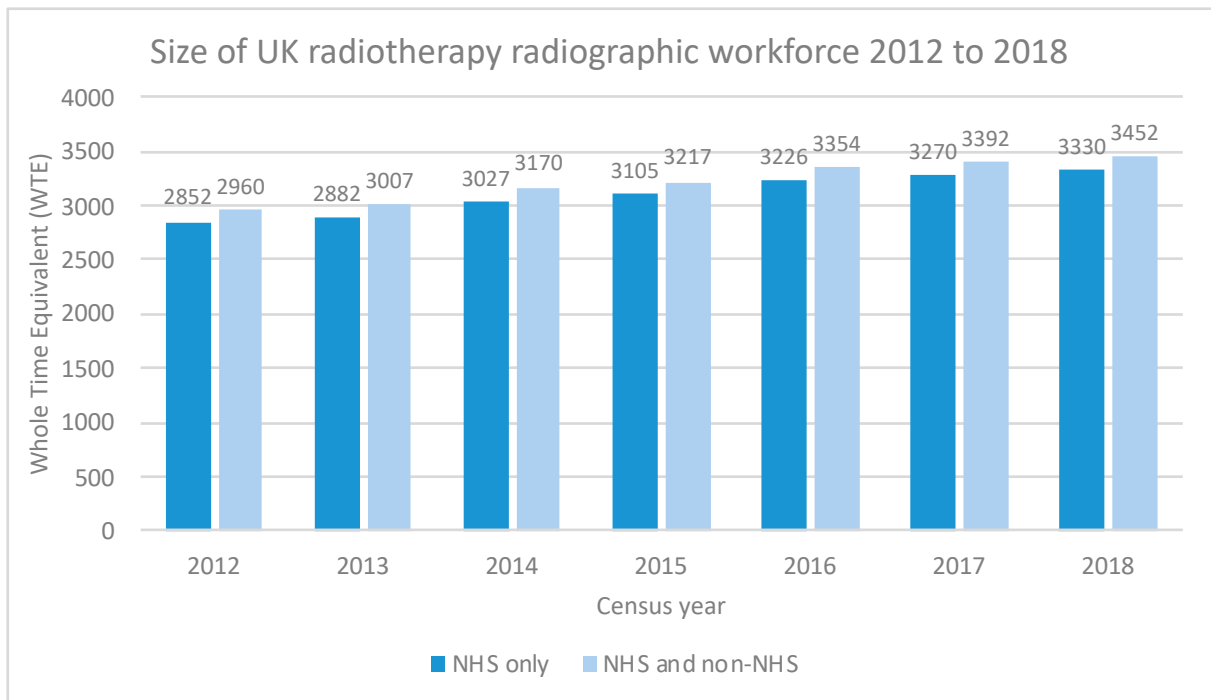


Figure 4 Size of the UK radiotherapy radiographic workforce WTE 2012 to 2018

Figure 5 shows that the current vacancy rate within the UK radiotherapy radiographic workforce remains steady at around 6.1%.

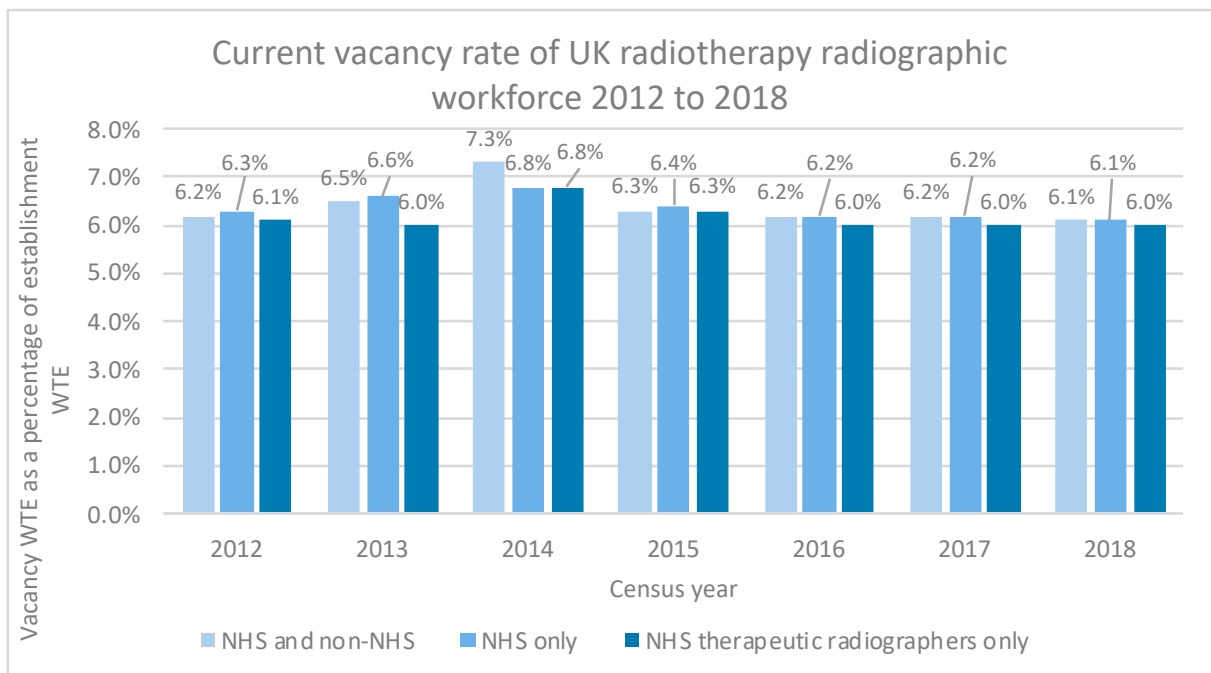


Figure 5 Current vacancy rate of UK radiotherapy radiographic workforce 2012 to 2018

7 Protected titles

The two protected titles within the radiotherapy radiographic workforce are “therapeutic radiographer” and “radiographer”. The following chart shows which titles are currently in use in both the NHS and non-NHS respondents.

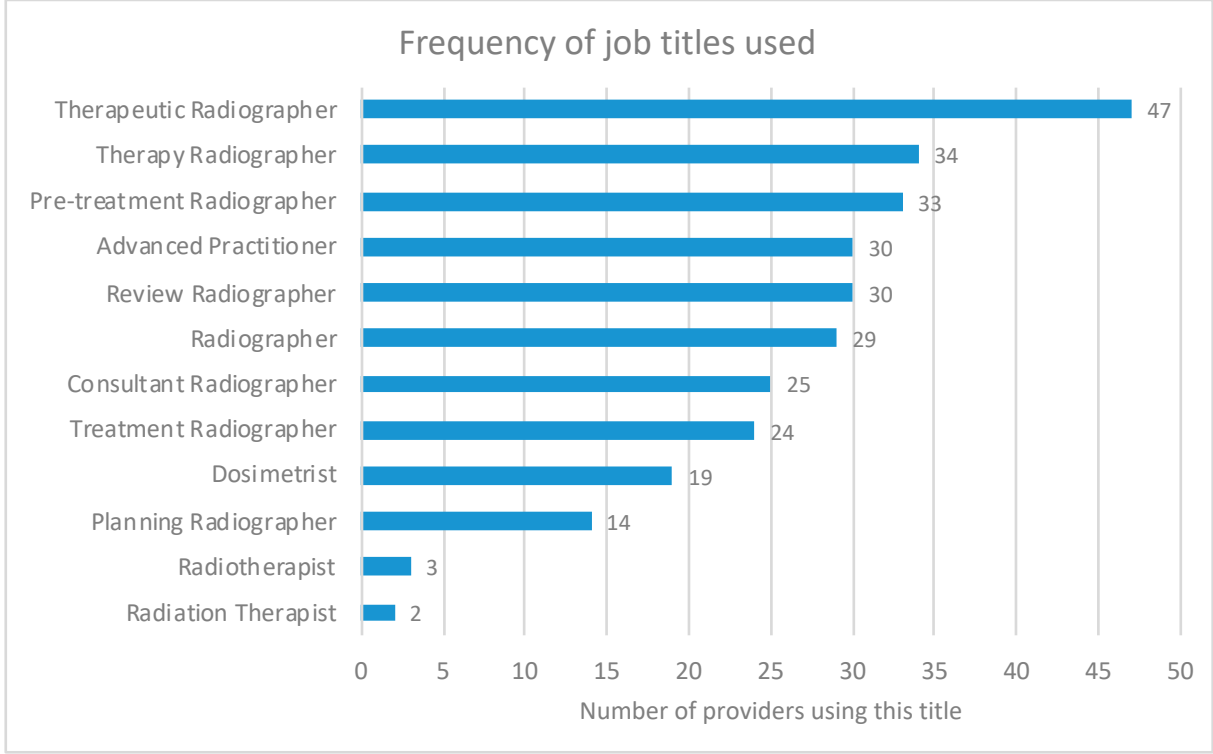


Figure 6 Frequency of job titles used in the UK radiotherapy radiographic workforce (n=63)

8 Reasons for leaving post

Of the 63 respondents to this question, 60 reported at least one therapeutic radiographer leaving their post in the year leading up to the census date. Figure 7 illustrates the most common reasons given by NHS and non-NHS radiotherapy providers for radiographers leaving a post.

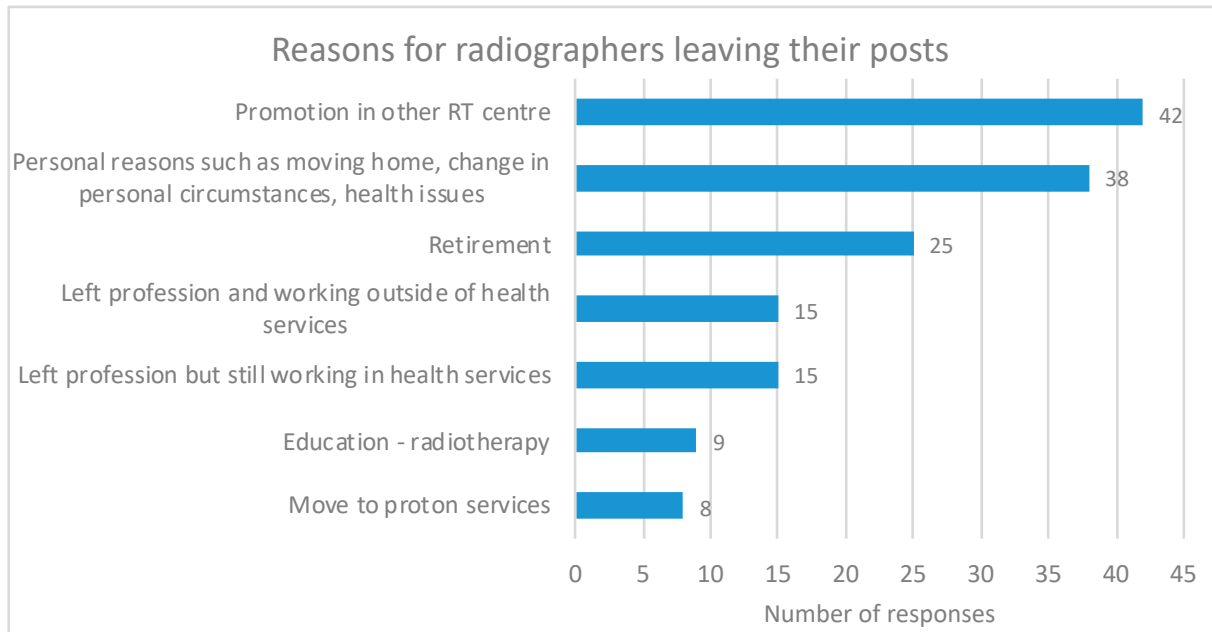


Figure 7 Reasons for radiographers leaving their posts (n=60)

9 Use of agency therapeutic radiographers

This section covers the use of agency therapeutic radiographers in UK radiotherapy services. In table 6, the 42 respondents who were not using agency therapeutic radiographers as of the census date include all four non-NHS respondents.

Use of agency therapeutic radiographers	Number of respondents
Yes	21
No	42

Table 6 Number of respondents using agency therapeutic radiographers (n=63)

Reasons for use of agency therapeutic radiographers	Number of respondents
An increase in therapeutic radiographer establishment	4
Existing vacancies in therapeutic radiographer workforce establishment	15
Other	10

Table 7 Reasons for using agency therapeutic radiographers (n=21)

The reasons for using agency therapeutic radiographers are given in table 7. Under “Other”, the reasons reported include:

- to cover long-term absences (sickness and parental) and phased returns
- the lag in backfill
- to extend the working day
- to provide cover while newly qualified staff achieve their training/competencies
- cover for practice educator
- during linac replacement programme
- fire recovery programme

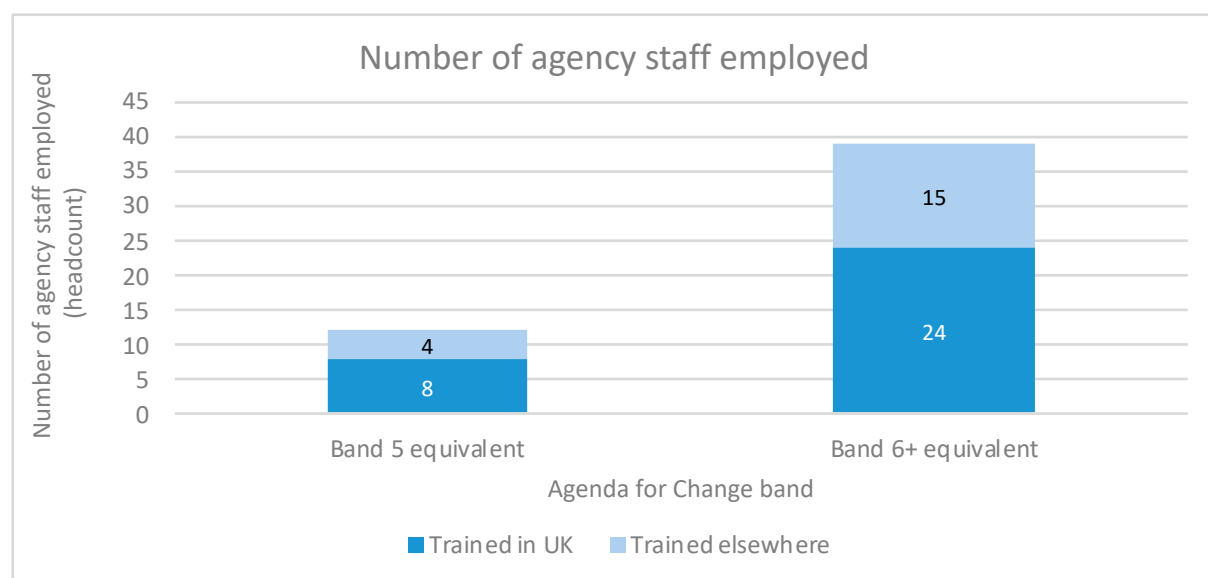


Figure 8 Number (headcount) of agency staff used trained in the UK and elsewhere (n=21)

10 General comments

At the end of the census questionnaire, respondents were asked for any general comments relating to their submission. They were also asked if they are “over-established” at any AfC bands. Thirty-seven respondents made comments, and themes mentioned by three or more respondents are listed below with an illustrative comment:

- **Service is over-established** (15 respondents) “Currently over-established at B6 (not shown in the census) due to increase in activity and the need to increase working hours.”
- **Time lag between vacancy and recruitment** (5 respondents) “Over-established at bands 6 & 7 – we have permission to do this as long as our pay costs remain within budget. We achieve this as a result of the savings from the time lag between vacancy becoming available and successful candidates starting employment.”
- **Consultant posts** (4 respondents) “I am currently writing a business case to increase my establishment to provide two consultant practice roles.”
- **Business case (BC) to increase establishment** (4 respondents) “We are over-established at bands 5, 6 and 7 owing to maternity leaves, a number of long-standing posts that were appointed over establishment at times of previous stresses but where the post has never been funded and as part of future-proofing us in advance of proton recruitment. We would like to establish these posts (22.4 WTE in total) and this is being proposed as part of a BC currently being written as a response to a bottom-up staffing review. This bottom-up review also aims to fund 13 additional radiography roles (B5 = 3; B6 = 7; B7 = 3) as well as 1 WTE nursing role and 20 clinical support/helper/receptionist/medical secretaries.”
- **Staff turnover** (3 respondents) “Average annual turnover 12% – mainly bands 5 and 6 leaving.”
- **Dosimetry provision is different** (3 respondents) “0 count for dosimetry as we do not directly employ any planning staff – service is SLA’d” [*Explanatory note by report author: SLA is likely to stand for Service Level Agreement and indicates that the planning service is outsourced.*]

11 References

National Cancer Services Team. (2011). *UK Census of Radiotherapy Workforce 2010*. Retrieved 27 January 2019, from http://www.natcansat.nhs.uk/rt/pub_rtworkforce2010.aspx

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12 Downloads

Accessible from <https://www.sor.org/learning/document-library?title=census>

- CoR radiotherapy radiographic workforce UK census questionnaire (PDF)
- CoR radiotherapy radiographic workforce UK census spreadsheet (Excel)



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