

Census of the UK Radiotherapy Radiographic Workforce 2017

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Executive Summary

In November 2017, the Society and College of Radiographers (SCoR) 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-five providers of radiotherapy responded to an online questionnaire. This document presents an analysis of the census results and compares them to similar censuses carried out annually from 2010 to 2016 (see [references 1-7](#)). The following bullet points highlight the main findings:

NHS findings

- The total NHS radiotherapy radiographic workforce is 3270.1 whole time equivalent (WTE) comprising 3172.8 WTE therapeutic radiographers and 97.3 WTE assistant practitioners and trainee assistant practitioners (APs/TAPs).
- The current vacancy rate for the NHS radiotherapy radiographic workforce in the UK is 6.2%. 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 15.2%.
- The current vacancy rate varies by UK country: England 7%, Northern Ireland 8%, Scotland 3% and Wales 5%.
- The three-month vacancy rate is 3.4%.
- 86% of the radiotherapy radiographic workforce are employed in Agenda for Change (AfC) bands 5 to 7.
- The percentage of the providers' establishment headcount on long-term leave is 6.2% (comprising 0.6% on a career break; 1.1% on long-term sickness absence and 4.5% on parental leave).
- As of the census date, there are 276 therapeutic radiographers working in dosimetry in the 60 NHS providers who responded to this question. These figures include those working both within and 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 radiotherapy radiographic workforce in the UK is 3392.2 WTE and has grown by 15% since 2012. 96% of the radiotherapy radiographic workforce are employed by the NHS.
- The current vacancy rate for the radiotherapy radiographic workforce in the UK is 6.2%.
- The main reasons respondents give for therapeutic radiographers leaving their posts are personal reasons and promotion in other centre.

1. Introduction

This report presents an analysis of an online census of the radiotherapy radiographic workforce in the UK run by the SCoR in November 2017. It is intended to update the UK radiotherapy workforce annual surveys from 2010 to 2016 (see [references 1-7](#)). 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.

2. Methodology

The 2017 workforce census captures data about the radiotherapy radiographic workforce in the UK at a census date of 1 November 2017. Data collection was performed between November 2017 and August 2018 by means of a SurveyMonkey® online questionnaire distributed to radiotherapy service managers. This census asked for the total numbers of therapeutic radiographers, assistant practitioners and trainee assistant practitioners (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 behalf of whom 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
- 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 associated assistant practitioners (APs) and trainee assistant practitioners (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.

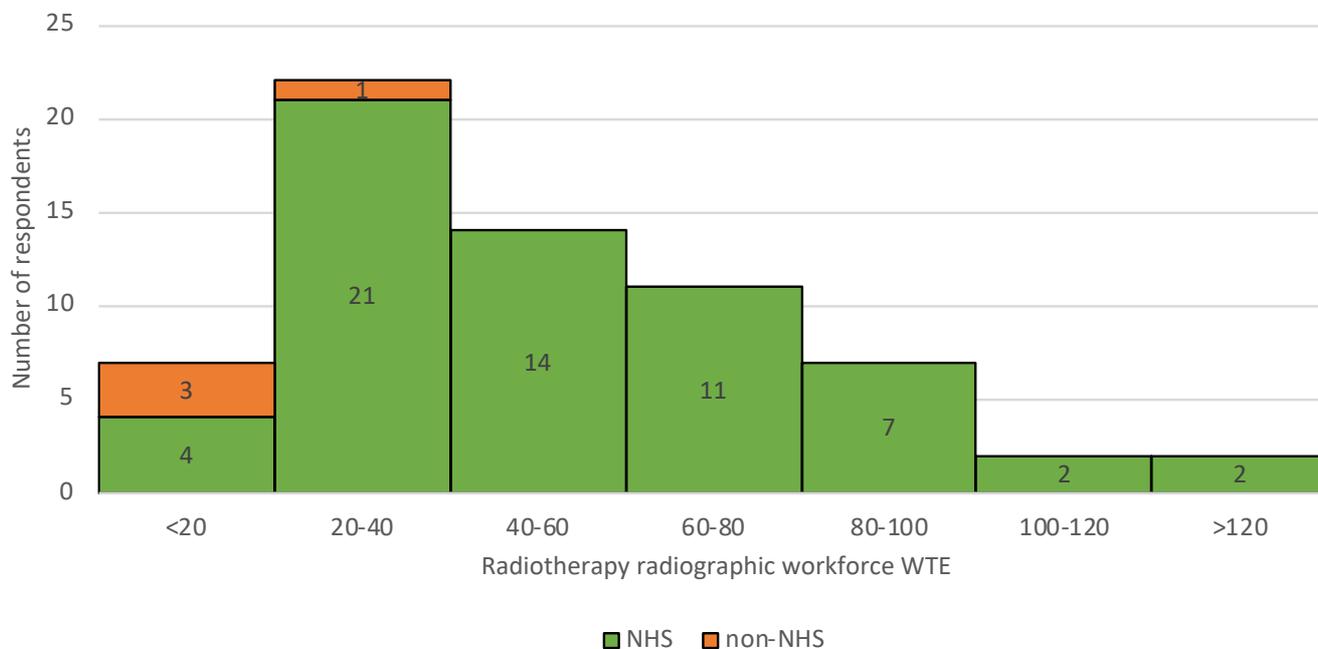
Links to the full set of questions for the 2017 census and a spreadsheet with a breakdown of the figures in this report by radiotherapy provider can be found in the Downloads section of this report.

61 of the 62 NHS providers of radiotherapy services in the UK submitted data to the SCoR census. In addition, 4 of the 8 private (non-NHS) providers of radiotherapy services responded, giving a 93% response rate overall. However, not all respondents answered every question. Where data is not available from a provider for a question, the figures from the previous census date of 1st November 2016 are used where

available. The number of respondents to each question is shown by the 'n' figure in each section of this report.

Figure 1 shows the distribution of the 65 respondents in terms of the size of their radiotherapy radiographic workforce WTE. All four of the non-NHS respondents have fewer than 40 radiotherapy radiographic workers WTE.

Figure 1. Distribution of respondent size (n=65)



3. NHS radiotherapy radiographic workforce data

3.1 NHS workforce by country

Table 1 shows the total NHS WTE of 3270.1 broken down by country. The number of posts (headcount), vacancies and vacancy rate are also displayed.

Table 1. NHS radiotherapy radiographic workforce WTE, posts and vacancy rate by UK country (n=61)

Country	Workforce	WTE	Posts	Vacant WTE	Vacancy Rate
England	Therapeutic radiographers	2630.9	2896	167.0	6.3%
	APs/TAPs	84.7	86	13.3	15.7%
England Total		2715.7	2982	179.3	6.6%
Northern Ireland	Therapeutic radiographers	120.8	124	9.2	7.6%
	APs/TAPs	4.3	4	0.5	11.6%
Northern Ireland Total		125.1	128	9.7	7.8%
Scotland	Therapeutic radiographers	265.0	288	6.0	2.3%
	APs/TAPs	7.3	8	1.0	13.7%
Scotland Total		272.3	296	7.0	2.6%
Wales	Therapeutic radiographers	156.1	176	8.0	5.1%
	APs/TAPs	1.0	1	0	0%
Wales Total		157.1	177	8.0	5.1%
UK NHS	Therapeutic radiographers	3172.8	3484	189.2	6.0%
	APs/TAPs	97.3	99	14.8	15.2%
UK NHS Total		3270.1	3583	204.0	6.2%

Note: AP/TAPs = Assistant practitioners / Trainee assistant practitioners (AfC Band 4 and Band 3).

Respondents to the census also reported the number of posts which had been vacant for at least three months. The results show a three-month vacancy rate of 3.4% for the radiotherapy radiographic workforce in the NHS.

3.2 NHS workforce by Agenda for Change (AfC) band

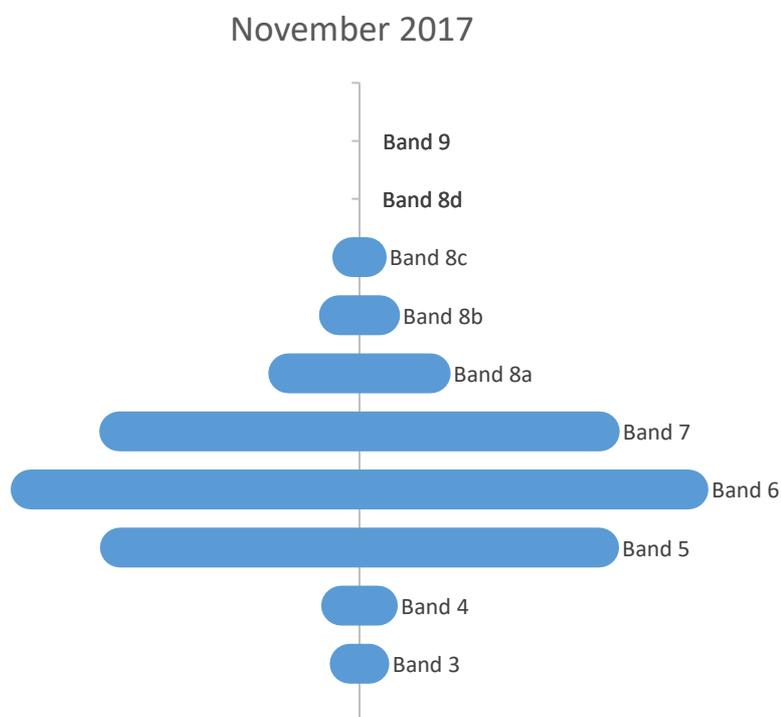
Table 2 illustrates that 86% of the NHS radiotherapy radiographic workforce are in AfC bands 5 to 7.

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

Workforce	WTE by AfC band										Total
	3	4	5	6	7	8a	8b	8c	8d	N/A	
NHS radiotherapy radiographic workforce	33.8	63.5	837.1	1149.5	839.6	248.5	71.4	24.7	1.0	1.0	3270.1

Figure 2 illustrates the shape of the radiotherapy radiographic workforce by AfC band.

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



3.3 NHS reasons for long-term absence

The census asked about reasons for long-term absence: 21 post holders are on career break (0.6%), 40 on long-term sick leave (1.1%) and 161 on parental leave (4.5%).

Table 3. NHS long-term absence by headcount and percentage of post holders (n=61)

Reason for absence	Posts (headcount)	Percentage of post holders
Career break	21	0.6%
Long-term sick leave	40	1.1%

Parental leave	161	4.5%
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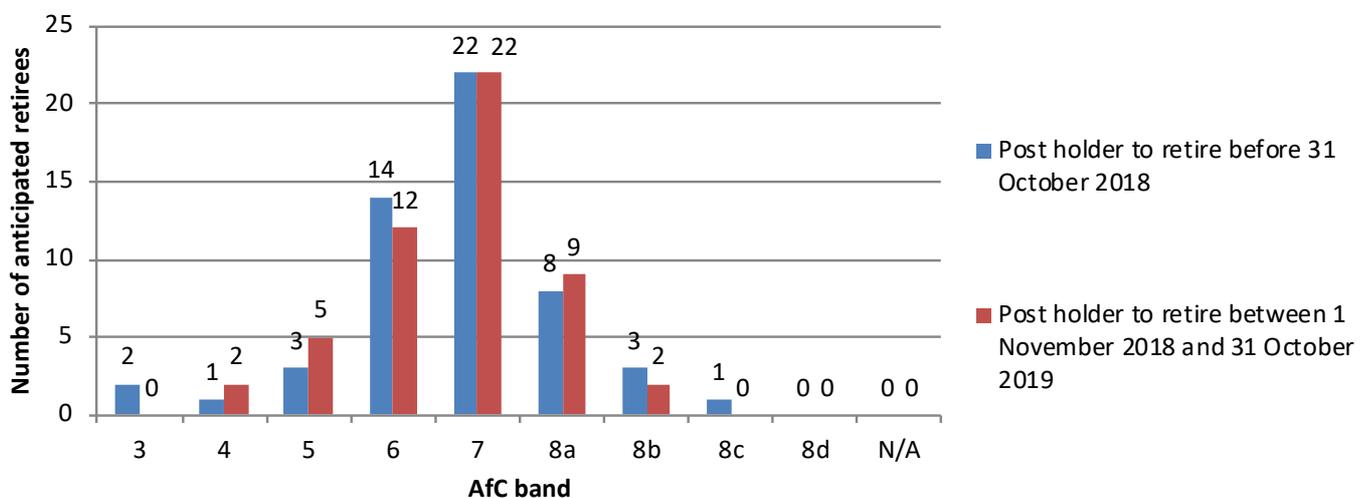
3.4 NHS future expectations – retirement

Radiotherapy providers were asked approximately how many radiography staff they anticipated would be retiring between 1 November 2017 and 31 October 2018. Radiotherapy providers were also asked approximately how many radiography staff they anticipated would be retiring between 1 November 2018 and 31 October 2019. The table and graph below present the results from the NHS respondents.

Table 4. NHS estimated retirements in the next two years by AfC band (n=60)

Country	AfC band	Post holder to retire before 31 October 2018 (headcount)		Post holder to retire between 1 November 2018 and 31 October 2019 (headcount)	
		Headcount	Percentage	Headcount	Percentage
UK NHS	3	2	4%	0	0%
	4	1	2%	2	4%
	5	3	6%	5	10%
	6	14	26%	12	23%
	7	22	41%	22	42%
	8a	8	15%	9	17%
	8b	3	6%	2	4%
	8c	1	2%	0	0%
	8d	0	0%	0	0%
	N/A	0	0%	0	0%
	UK NHS Total		54		52

Figure 3. NHS estimated retirements in the next two years by AfC band (n=60)



3.5 NHS therapeutic radiographers employed in dosimetry

As of the census date, there are 276 therapeutic radiographers working in dosimetry in the 60 NHS providers who responded to this question. This is an average of 4.6 therapeutic radiographers working in dosimetry in each NHS radiotherapy provider. These figures include those working both within and outside the budgetary control of the radiotherapy service manager.

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

92 therapeutic radiographers were reported by the 60 NHS providers responding to this question to work in cancer services in the UK outside the budgetary control of the radiotherapy service manager. This is an average of 1.5 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.

4. Radiotherapy radiographic workforce in non-NHS radiotherapy providers

There are currently eight non-NHS providers of radiotherapy in the UK, of whom 4 submitted data to the SCoR census. Where data is not available from a provider, the figures from the previous census date of 1st November 2016 are used as appropriate.

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

Table 5. Combined NHS & non-NHS workforce WTE and vacancy rate (n=65)

Workforce	WTE	Posts	Vacant WTE	Vacancy rate
Non-NHS total	122.1	129	7.0	5.7%
Combined NHS & non-NHS total	3392.2	3712	211.0	6.2%

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

5. Trends

Figure 4 shows that the radiotherapy radiographic workforce in the UK grew by 15% between 2012 and 2017.

Figure 4. Size of the radiotherapy radiographic workforce WTE in the UK 2012 to 2017

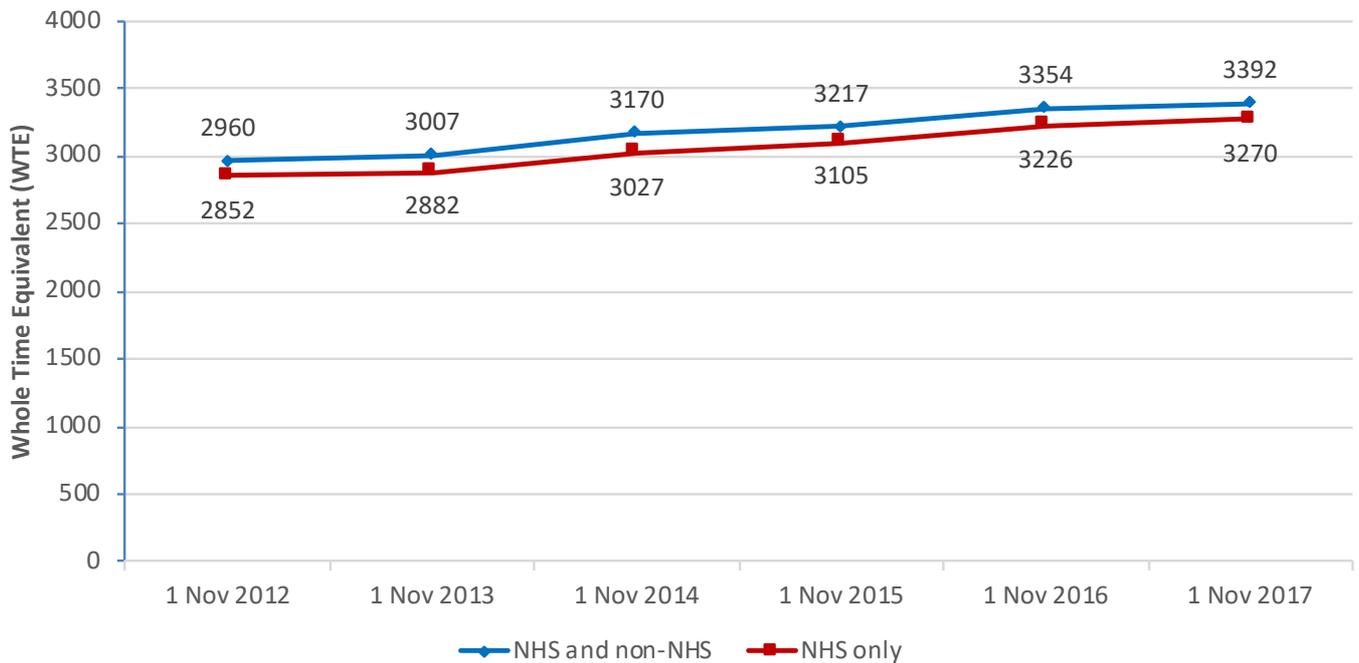
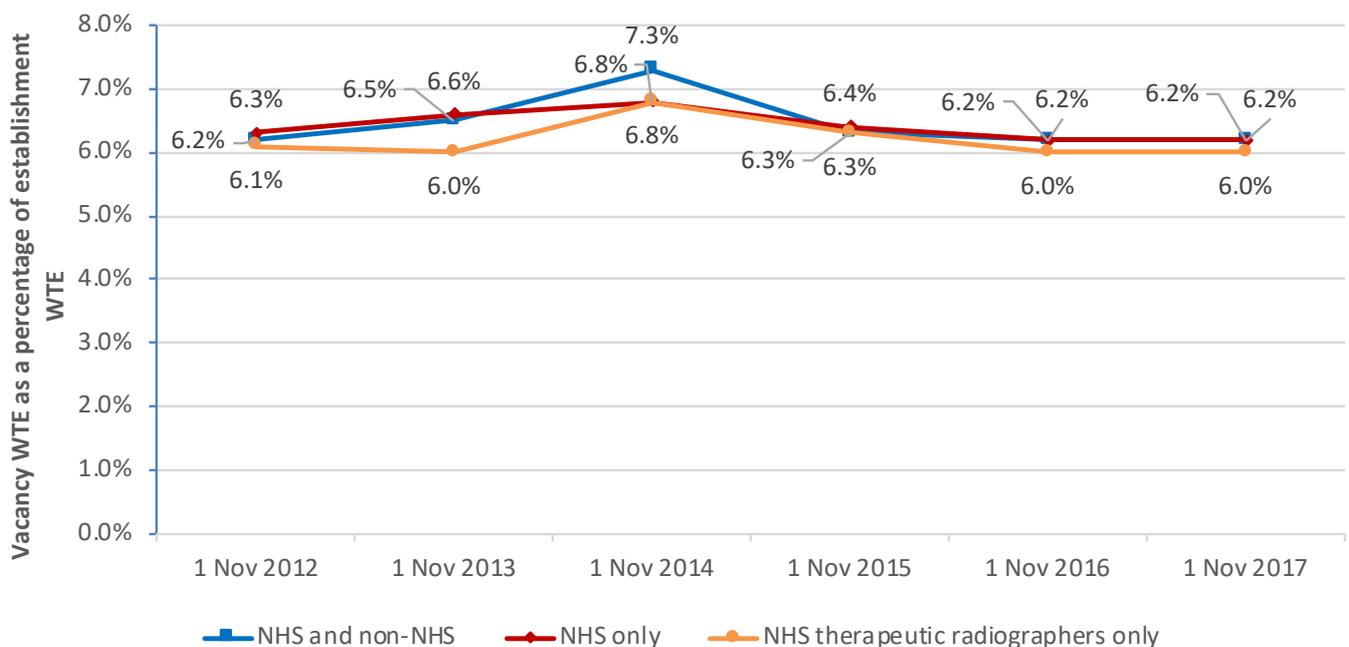


Figure 5 shows that the current vacancy rate within the NHS radiotherapy radiographic workforce in the UK during 2017 remains at 6.2%.

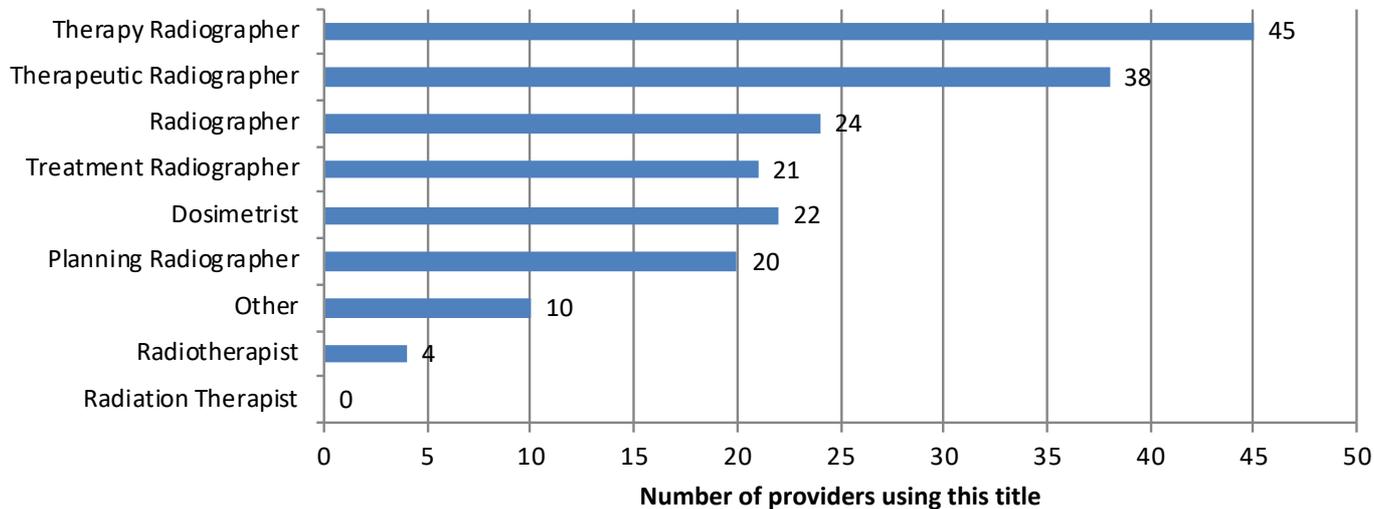
Figure 5. Current vacancy rate of radiotherapy radiographic workforce in the UK 2012 to 2017



6. 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 (n=64)

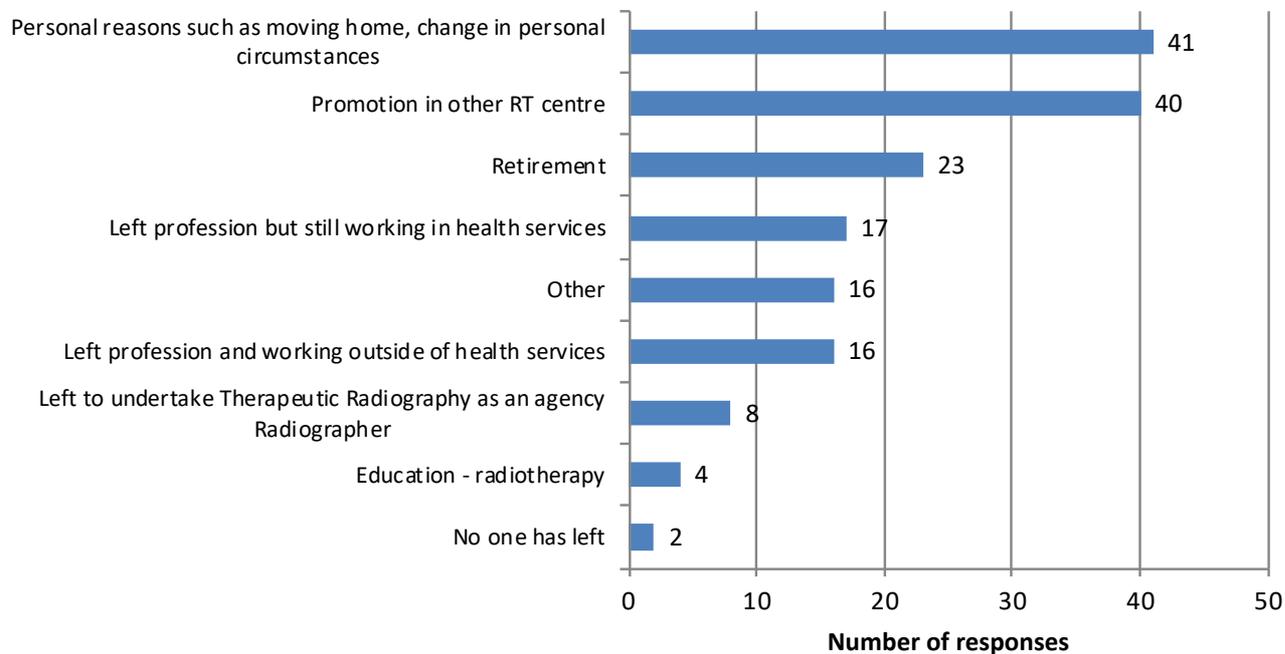


There are other titles in use which include: Advanced Practitioner, Pre-treatment Radiographer, Consultant Practitioner, Review Radiographer, Macmillan site specialist, Pre-treatment, Review and Support Radiographer, Radiographer and Assistant Practitioner.

7. Reasons for leaving post

Figure 7 illustrates the most common reasons given by NHS and non-NHS respondents for staff members leaving a radiotherapy post.

Figure 7. Reasons for leaving post (n=64)



Other reasons mentioned by two or more respondents in the free text were: travel; education (not radiotherapy); move to private sector; and left to work at the same grade elsewhere.

8. Use of agency therapeutic radiographers

This section covers the use of agency therapeutic radiographers in radiotherapy services in the UK.

Table 6. Number of respondents using agency therapeutic radiographers (n=64)

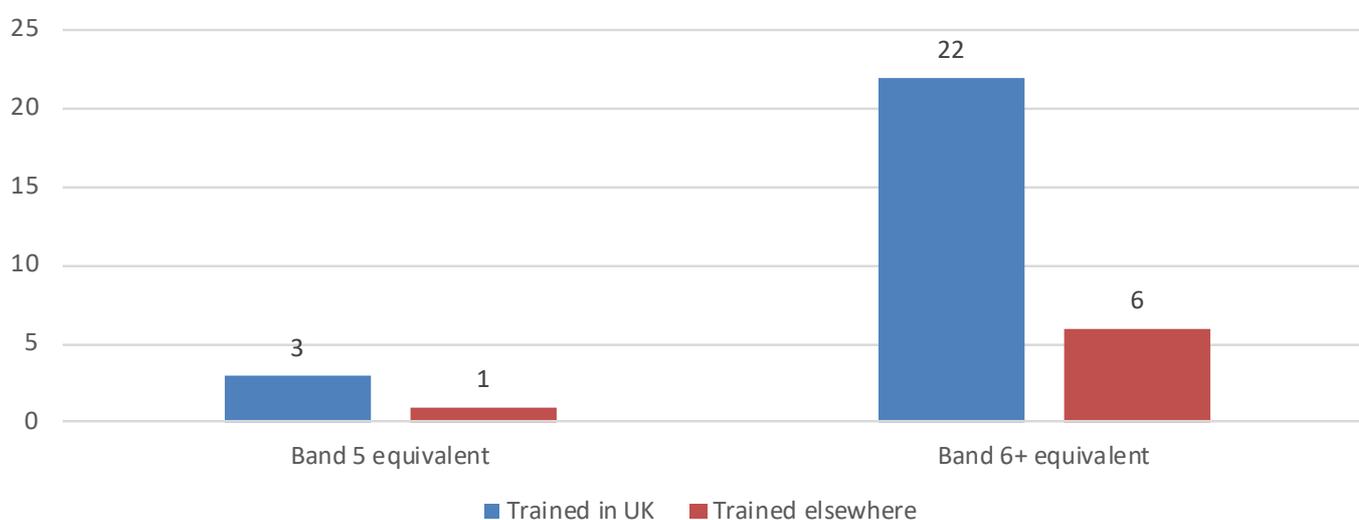
Use of agency therapeutic radiographers	Number of respondents
Yes	15
No	49

The reasons for using agency therapeutic radiographers were given as follows:

Table 7. Reasons for using agency therapeutic radiographers (n=15)

Reasons for use of agency therapeutic radiographers	Number of respondents
An increase in Therapeutic Radiographer establishment	4
Due to existing vacancies in Therapeutic Radiographer workforce establishment	12

Figure 8. Number of agency staff used (n=15)



9. 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. Twenty-six respondents made comments, and themes mentioned by two or more respondents are listed below with an illustrative comment:

- Service is over-established (12 respondents) *“Over recruited on Band 5’s, have 15 posts instead of 13 original establishment to reduce agency costs over the year.”*
- Macmillan-funded posts (3 respondents) *“Establishment 2017 includes Macmillan funded post at band 7 until 2019 at which point the post will be maintained but establishment reduced as funding is taken over by the trust.”*
- Figures include fixed-term contracts covering parental leave (2 respondents) *“I have included in headcount substantive and fixed term (covering parental leave).”*

10. References

1. National Cancer Services Analysis Team (2011). *UK Census of Radiotherapy Workforce 2010*

http://www.natcansat.nhs.uk/rt/pub_rtworkforce2010.aspx

2. Society and College of Radiographers (2012). *Report on the Census of the Radiotherapy Workforce in the UK 2011*

<http://www.sor.org/learning/document-library/report-census-radiotherapy-workforce-uk-2011>

3. Society and College of Radiographers (2013). *Report on the Census of the Radiotherapy Workforce in the UK 2012*

<http://www.sor.org/learning/document-library/report-census-radiotherapy-workforce-uk-2012>

4. Society and College of Radiographers (2014). *Census of the Radiotherapy Radiographic Workforce in the UK 2013*

<http://www.sor.org/learning/document-library/census-radiotherapy-radiographic-workforce-uk-2013>

5. Society and College of Radiographers (2015). *Census of the Radiotherapy Radiographic Workforce in the UK 2014*

<http://www.sor.org/learning/document-library/census-radiotherapy-radiographic-workforce-uk-2014>

6. Society and College of Radiographers (2016). *Census of the Radiotherapy Radiographic Workforce in the UK 2015*

<http://www.sor.org/learning/document-library/census-radiotherapy-radiographic-workforce-uk-2015>

7. Society and College of Radiographers (2017). *Census of the Radiotherapy Radiographic Workforce in the UK 2016*

<https://www.sor.org/learning/document-library/census-radiotherapy-radiographic-workforce-uk-2016>

8. Migration Advisory Committee (2015). *Partial review of the Shortage Occupation Lists for the UK and for Scotland*

<https://www.gov.uk/government/publications/partial-review-of-the-shortage-occupation-lists>

9. Department of Health (2012). *Radiotherapy Services in England 2012*

<https://www.gov.uk/government/publications/radiotherapy-services-in-england-2012>

(All links accessed 21/09/2018)

11. Downloads

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

SCoR census of the UK radiotherapy radiographic workforce spreadsheet (Excel)