INSERT YOUR TRUST LOGO

**Radiography Degree Apprenticeships**

**An Option for Addressing National Workforce Shortages**

**EXECUTIVE SUMMARY**

The modern apprenticeship scheme, affecting all major UK employers, now includes an opportunity for undergraduate radiography apprenticeships for both diagnostic and therapeutic radiography.

Apprenticeship training alone will not solve the national radiography shortage but will contribute to the numbers of self-funding trainees as well as enabling the development of the unqualified workforce into assistant radiography practitioners and qualified radiographers.

This paper identifies the various options, costs and benefits of apprenticeship degree training for radiographers in order to secure funding approval from individual NHS Trusts. This is required to support a collaborative regional procurement initiative as currently no HEIs provide radiography apprenticeships and all indicators are that these will only be developed by HEIs if sufficient demand can be identified. The staff support costs will prohibit individual Trusts from creating sufficient demand in isolation.

This paper is a collaborative effort by the Radiography Apprenticeship Alliance, a consortium of Imaging Department Managers (Radiography Leads) and their HR / Apprenticeship leads from NHS Trusts across the Wessex Region including but not restricted to:

Brighton and Sussex University Hospitals NHS Foundation Trust

Dorset County Hospital NHS Foundation Trust

Frimley Health NHS Foundation Trust

Hampshire Hospitals NHS Foundation Trust

Isle of Wight NHS Trust

Oxford University Hospitals NHS Foundation Trust

Poole Hospital NHS Foundation Trust

Portsmouth Hospital NHS Foundation Trust

Royal United Hospitals Bath NHS Foundation Trust

Salisbury NHS Foundation Trust

Southern Health NHS Foundation Trust

Taunton and Somerset NHS Foundation Trust

The Royal Bournemouth and Christchurch NHS Foundation Trust

University Hospital Bristol NHS Foundation Trust

University Hospital Southampton NHS Foundation Trust

Western Sussex NHS Foundation Trust

The Wessex Region Apprenticeship Alliance also has representation / advisors from HEE including Workforce Transformation and Educations Procurement expertise.

**Summary Recommendation:**

To provide salary support for radiography apprenticeship trainee posts.

**Radiography Degree Apprenticeships**

**An Option for Addressing National Workforce Shortages**

1. **Introduction**
   1. This paper looks at the options for utilising the Modern Apprenticeship Scheme to train additional Radiographers, in order to address chronic workforce vacancies by recruiting from the local population and developing current employees.
   2. There has been a national shortage of diagnostic and therapeutic radiographers for some years, primarily due to the restricted numbers of HEE funded undergraduate training places which were not increased to meet either the workforce expansion requirements or demographic trough and forecast retirements.
   3. Apprentices have to be employed (salaried) by the Trust, there is no accommodation for this within current staffing budgets; there are no funded training posts to accommodate apprentices and the use of vacancy funding will impact on the operational workforce available. This paper seeks to identify the relevant cost pressures and seeks Trust approvals to fund either training posts or backfill funding to offset any operational impact of employing apprentices.
2. **Background** (Adaptable to any other AHP group)
   1. The Society of Radiographers workforce census 2017 identified a UK national vacancy rate of 9.1%, with rates in England at 10% average. The South of England has larger vacancies; primarily due to the cost of living, {INSERT YOUR TRUST} vacancy rates peaked at XX% in 20XX and is currently at YY%.
   2. The forecast is not positive; the number of UK graduate trainees falls far short of the numbers required to bridge the current vacancy gap and will not meet future demands. The change over from HEE (restricted) funded to self-funding undergraduate training came into effect in Sep 2017; This has not increased the number of graduate student - the number of diagnostic students appointed at University of Portsmouth (or insert your local HEI) has actually fallen from 56 commissioned students to 50 fee paying students per annum; a 12 % drop per annum. The Radiotherapy course has been terminated due to low number of applicants).
   3. Nationally most Trusts have relied on overseas recruitment, primarily from Europe. Over the last XX years {INSERT YOUR TRUST} has recruited XX radiographers from overseas. There is a recognised concern that employees from the European reunion will resign and return home requiring further overseas recruitment. All overseas recruitment incurs additional recruitment costs including additional agency fees and/or visa cost amounting to several thousands.
   4. Whilst the entry route into radiography is mainly via self-funded graduate training; there have historically been opportunities to develop existing staff via an assistant practitioner route, taking untrained Band 2/3 staff with academic potential through Trust sponsored foundation degrees into year 2 of a University degree programme. {INSERT YOUR TRUST} has developed XX assistant practitioners via this rout over the last YY years. ( OR NOT) Whilst HEW backfill finding has been available this is no longer supported. Without backfill and as staff on this pathway have to self-fund their course fees, this staff development pathway is no longer considered viable. The apprenticeship scheme provides an opportunity to replace this pathway as it will provide the funding for course fee, however individual Trusts will need to fund the salary costs.
   5. The salary costs are significant and if supported will see only low numbers of apprentices in any individual Trust.
   6. In summary the degree apprenticeship scheme will not solve the vacancy crisis but will offset and reduce the numbers of overseas recruits as well as offering all the other benefits of developing the existing workforce and/or local population recruits. Sign up and commitment from individual Trusts is essential to ensure HEIs can and will provide this training.
3. **Current Entry Routes into Radiography** ( requires BSc (Hons) plus HCPC registration )
   1. The entry route into Radiography is solely via an undergraduate programme to attain a HCPC validated BSc (Hons) in Diagnostic or Therapeutic Radiography and subsequent registration with the Health and Care Professions Council (HCPC). Standard Vocational Degree education is full time with an average of 50% practical clinical training on placement and 50% Academic education.
   2. From 1st August 2017, all new nursing, midwifery and allied health professional students are now self-funding with financial support through the standard student tuition and maintenance loan system rather than through the current NHS bursary scheme. HEE no longer commission places or fund course fees.
   3. Anyone wishing to undertake a degree in radiography must have the necessary academic qualifications (UCAS points) – typically 2 A levels, 5 GCSEs or equivalent vocational qualifications.
   4. **Staff Development**: Most employees would need to resign and self-fund through a full time degree course. Some Trusts have taken advantage of HEE backfill funding to support the development of radiographic assistant practitioners through undergraduate training. This process requires Trust support for the member of staff to achieve a foundation degree in Medical Imaging in order to work as an assistant practitioner (Band 4). The member of staff can then enter at Yr 2 of a 3 year degree. The member of staff is effectively a full time student for two years, with HEW funded backfill.
   5. Table 1 below summarises the current entry routes into Radiography. (Band 5 on qualification)

**Table A:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Entry Route** | **Entry**  **Qualifications** | **Duration in years** | **AfC Band /**  **salary costs** | **Course Fees** |
| **Under Graduate**  (Self-funded) | 2 A levels  5 GCSE  Or equivalent | 3 years BSc(Hons) | n/a. – self funded  (Not a Trust employee). | Average cost of £9,250 per annum.  Paid by student either self-funding or with available tuition fee student loan |
| **Staff Development** Band 4 Assistant Practitioners | Foundation  Degree (FD) | 2 years (FD)  +  2 Years BSc(Hons) | Band 2-4  Backfill salary payment via HEW. |

1. **Apprenticeship routes into radiography**
   1. The modern apprenticeship scheme now enables[[1]](#footnote-1) apprenticeship training, this will still require attainment of a validate BSc (Hons) degree in Diagnostic or Therapeutic Radiography and will be similar to current route for staff development with 2 key changes:

* **The salary costs** will be borne by the Trust, there will be no (HEW) backfill funding available. 40% of the time the employee will be available to work in their primary role (Department Assistant Band 2/3 or Assistant Practitioner Band 4). 60% of the time the employee will be undertaking condensed academic education or practical clinical training and as such the Trust will have to find this salary. All subsequent financial calculations are based on this 40% : 60% split. This model is currently used to support the funding of Nursing Apprentices at UHS and elsewhere.
* **The course fees** are now payable via the apprenticeship levy; this will benefit the staff member and Trust alike.
  1. There are a number of possible apprenticeship pathways for staff development depending on the of entry level qualifications held and current employment, following discussion at the Radiography Apprenticeship Alliance it was agreed there were effectively two core options models:
* Staff development via a foundation degree**.** For existing staff with academic potential but without the necessary Entry Level Qualifications (ELQ) for a degree. 4 year training path, this can be staggered with a potential break between the foundation degree
* Direct entry into a degree course. For existing staff or directly recruited apprentices with the necessary ELQ for a degree
  1. Appendix A details the AfC banding and primary employment for staff in both of these paths (Model 1 and Model 2 respectively) over the duration of the apprenticeship.
  2. As there is the possibility of developing existing staff (*with the necessary Entry Level Qualifications*) who are already on higher pay bands, Appendix A also details this pathway (**model 3)** for the purposes of calculating the salary support costs. The top of Band 4 was used as an indicator of the highest potential salary cost.
  3. As Annex 21 to Agenda for Change terms of pay can be applied to any training, a fourth model has been costed to show the cost of paying apprenticeships using Annex 21 (**Model 4).**

1. **Strategy to grow the radiographer workforce**
   1. {INSERT YOUR TRUST} will continue to recruit from all available sources (detailed below) with the aim to reach full and sustainable recruitment, low turnover and minimal agency spend for short term and essential cover only
   2. Sources of qualified radiographers:

* **New graduates** will make up the majority of potential recruits but numbers of UK graduates will not meet demand for some years (if ever).
* **Qualified radiographers** relocating from other Trusts are likely to remains small whilst the number of new graduates is less than demand and career progression due to staff shortages is good in their current Trusts.
* **Overseas Recruitment** is the only current viable option to avoid or reduce the continued use of Agency radiographers. There are additional recruitment costs and potential retention issues.
* **Agency radiographers** remain the only alternative option to filling vacancies. Despite the agency payment cap, this is still high cost and should be avoided by the long term strategy.
* **Apprenticeships** will enable a slow and steady trickle of radiographers to be developed from the existing workforce and / or the local population. Staff qualifying via local apprenticeships are more likely to remain with the Trust and the long term benefit of this is well recognised.

**Degree Radiography Apprenticeships**

* 1. Degree apprenticeship training will be restrained by the salary costs and as such, the number of potential apprenticeships will be very small and will not solve the national shortage of radiographers. It is considered essential that apprenticeship pathways are made available and funded to create additional training capacity to supplement current training numbers and:
* Enable the development of existing staff
* Offer pathways for individuals without the required ELQ’s
* Encourage recruitment from and provide training opportunities for the local population
  1. The benefits of staff development and recruitment from the local population in terms of retention are well recognised. It is considered essential to make use of apprenticeship training as at the moment this Trust cannot meet its staffing requirements from the local HEI or national student numbers and is relying on overseas recruitment. (needs local editing for your Trust)

* 1. The apprenticeship levy was introduced on 6th April 2017. The levy is a tax taken monthly by HMRC via the PAYE scheme. This has a financial impact on the Trust, creating a cost pressure. It is set at 0.5% of the Trust’s total NI-able pay bill. At {INSERT YOUR TRUST} the levy for 2017/18 was £XX 1.62m based on a forecast NI-able pay of £YY 325m. The Trust will also receive a 10% employer top up from the Government which would result in around £XX 1.79m being available in our digital account.
  2. Degree apprenticeships course fees are funded via the apprenticeship digital account, meaning the individual would not need to take out a tuition fee loan.
  3. Radiography degree apprenticeship standards were approved in January 2019 but to date no HEIs have viable plans to deliver; only one HEI is considering delivering and indicators from Portsmouth University and others are that HEIs will not invest in degree apprenticeships unless this is a viable and sustainable demand. It is essential that individual Trusts commit to supporting apprenticeships for radiography so the collectively the Wessex Region can generate that demand.

**Direct Entry (self-funding) student radiographers**

* 1. We would continue to work in partnership with the local universities who have existing radiographer programmes to maximise the current number of students starting radiography training and undertaking clinical placements within UHS; working proactively with our current provider University of Portsmouth to encourage increased student numbers and helping to enable this by increasing clinical placements
  2. UHS will maintain its strategy for ensuring a positive and supportive environment for both existing staff and students, to ensure we remain highly recommended as a recommended as a place to work and first choice for students on qualification.

**Overseas Radiographers**

* 1. {INSERT YOUR TRUST} since 20XX 15 has relied on overseas recruitment from with YY 32 WTE recruited from overseas, mainly from Europe via targeted

|  |  |  |
| --- | --- | --- |
| Country | Banding | WTE |
| Portugal/Spain/Italy | 5 | 25 |
| Nigeria | 5 & 6 | 4 |
| Jamaica | 5 | 1 |
| S/Arabia | 6 | 1 |

* 1. There are additional costs to overseas recruitment but overall this is more cost effective than long term reliance on Agency Radiographers.

1. **Salary funding and budget restraint**
   1. The current radiographer workforce budget does not include any training places; the funded WTE is required for operational posts, the release of permanent staff for training impacts on operational capacity or requires backfill funding to employ agency / bank / fixed term cover. HEW backfill funding for staff development training has now been withdrawn. As such any staff development via the modern apprenticeship scheme will require salary support and either incur a direct cost or indirect cost to backfill.
   2. It is difficult to attribute exact costs to radiography apprenticeships as these will vary with the length of training, the entry level AfC Band, the banding progression pathway and potential use of Annex 2, as well as other variable factors. A full analysis of the various costing models is attached at Appendices B, C, D and E with a comparison summary at Appendix F. In summary:
      1. Lowest cost: Band 5 vacancy funding is used AND no backfill agency staff are required. This is the base level assumption of the modern apprenticeship scheme but has practical difficulties for radiography as the apprentice can at best only act as a supervised assistant. (See appendix A) and will be absent from the productive workforce for up to 60% of the time.
      2. Medium Cost: Band 5 vacancy funding is used BUT backfill agency staff are required when the apprentice is absent from the productive workforce. This is the most likely scenario as current vacancy funding at {INSERT YOUR TRUST} is used is used to offset the cost of locum/agency staff in order to maintain the minimum number of staff required to provide the service.
      3. Higher Cost: (New) Training Posts are funded to provide salary support for apprentice training. This model would incur larger investment but would ensure any current vacancy funding is used to employ qualified agency radiographers to maintain operational services. The benefit here is that 40% of the apprentice employment time would add to the workforce capability.
   3. For the purpose of this case, the cost of each apprentice is calculated as on the basis that 60% of any apprentice employment will be dedicated to training and education and not directly contribute to service delivery, 40% of any apprentice employment will contribute to some level of service delivery but in an assistant practitioner role Band 2-3.
   4. The true cost of employing apprentices will either be:
2. Funding Training posts

= £ The salary cost for the apprentice

1. Using Band 5 Vacancy and backfilling

£ The salary cost for the apprentice

Plus £ The cost of agency / backfill

Minus £ The available (vacancy) budget

= £ Total Cost

1. **Options Appraisal for Radiography Apprenticeship.** The options to be considered are as follows:
   1. **Option A:** Do nothing.

* Advantages: Cost avoidance. No salary support required.
* Disadvantages:
  + This option would also deny {INSERT YOUR TRUST} the opportunity to develop its own workforce and/or recruit potential radiographers from the local community.
  + The lack of career development may impact on recruitment / retention for Band 2-4 radiography support staff.
  + Any retention benefits from recruiting and developing local workforce would be lost. {ADD to this argument if your Trust has significant geographical issues}
  + Loss of opportunity to fully utilise the apprenticeship levy.
  + Ongoing and significant cost impact from reliance on overseas recruitment.
  + Ongoing and significant cost impact from reliance on Agency cover.
  + (*If most Trusts in the collective do nothing)* It is unlikely that apprenticeship training will be delivered / deliverable by any HEI without a commitment by every Trust to generate a collective and sustainable demand. The impact would be continued reliance on self-funded graduates with the associated risk that this supply will not meet demand and subsequent reliance on overseas recruitment with the associated cost and risks.
  1. **Option B:** Commit to salary support for one new apprentice **per annum**. Over time this will result in cumulatively three apprentices in financial year. The financial impact of this will depend on the funding source as detailed in para 6.2.1 to 6.2.2:
* Advantages:
  + Would support regional case and improve chances of HEIs providing Apprenticeship training.
  + Contribute to increase number of trainees – decrease long term vacancies and need to use agency.
  + Contribute to locally developed workforce numbers – improved retention / reduced turnover.
  + IF NO BACKFILL required: No additional cost to budget, potential CIP saving from differential costs. For {INSERT YOUR TRUST} this does not apply as staff costs include essential agency use.
* Disadvantages:
  + Cost: Requires uplift in budget to provide salary support .
  + IF NO BACKFILL required – potential loss of any current CIP from vacancy savings. For {INSERT YOUR TRUST} this does not apply / is negligible as staff costs include agency use and there is no / little CIP
  1. **Option C:** Commit to salary support for **one** new apprentice per course. Only one apprentice employed at any one time – sustained over complete course to graduation. The financial impact of this will be less than Option C but will also depend on the funding source as detailed in para 6.2.1 to 6.2.2
* Advantages:
  + Would supplement the regional case and contribute to the chances of HEIs providing Apprenticeship training.
  + Contribute to a smaller increase in the number of trainees – decrease long term vacancies and need to use agency over a longer time.
  + Contribute to locally developed workforce numbers – improved retention / reduced turnover.
  + IF NO BACKFILL required: No additional cost to budget, potential CIP saving from differential costs.
* Disadvantages: As per Option B but with reduced annual financial impact.

1. **INDICATIVE COSTS - Calculations**
   1. The costs of each model outlined in Appendix A are detailed in Appendices B, C and D; summarised for comparison in Appendix E. Theseare full on costs for AfC staff calculated from 19/20 pay scales with forecast incremental and annual rises. This is the indicative cost of creating and funding training posts to employ apprentices without affect ting current AWL / using vacancy funding.
   2. For calculation of potential cost savings if employing the apprentice in a Band 5 vacancy, the lowest (entry) point of Band 5 on costs are used. If using mid-point banding costs for budgeting the cost savings would be greater.
   3. For calculation of the backfill costs there are two options:

* Option 1: Backfill any period of apprentice absence with a fixed term employee at the same Band (2, 3 or 4) as the apprentice. This is highly unlikely to be practicable as there are no suitably experienced but assistant practitioners seeking employment. The costs are solely indicative.
* Option 2: Backfill any period of apprentice absence with a Band 5 radiographer. This would incur use of Agency; the costs for this are calculated at the Top of Band 5 which is the current payment cap for Agency employment within the NHS. This is the most likely option and is already happening full time to backfill any vacancies.
  1. For calculation of backfill costs following assumptions are used:
* A Band 2/3 undertaking a foundation degree would require release for academic and student training 2 days per week – the cost of backfill is 40% of the Band 2/3 on costs.
* A Band 2/3/4 undertaking a BSc(Hons) degree would require release for academic and student training 3 days per week – the cost of backfill is 60% of the Band 2/3/4

1. **INDICATIVE COST CONCLUSIONS** (See Appendix F for comparison costs across all models)
   1. The option to fund training posts is approximately twice the cost of using Band 5 vacancy funding and backfilling the 60% education time with agency. An average of £15,000 per year per apprentice. However whilst the apprentice will contribute to the overall workforce during the other 40% they will not be able to undertake any Band 5 duties until Year 3 – and then under supervision as assistant practitioners. There would be potential additional agency costs to bridge this gap to provide qualified operational cover that. This would not occur with a funded training post and the apprentice would contribute to the funded workforce for the 40% not in education.

**Conclusion**: Funded training is more effective but more expensive. Using vacancy funding with backfill is more cost effective but problematic, difficult to manage, would impact on operational capacity and probably still incur additional backfill costs.

* 1. Model 1 is proven to be the most cost effective per individual apprentice on an average annual cost basis, as the training extends over 4 years. In the event of concurrent training using this model the full annual cost would be the comparable to the other models as there would be 4 concurrent apprentices versus 3 concurrent for all other models. As this model is unlikely to be required once any suitable existing staff are trained.

**Conclusion**: This is cost effective if required but of limited use for a small number of existing staff or future Band 2 workforce; all financial planning should be based on the 3 year Models.

* 1. Model 2 is proven to be the most cost effective of the three year models, assuming all apprentices are employed on the bottom of Bands 2, 3 and 4 respectively. There is however not a significant cost difference between this and using Annex 21 (Model 4). This model would require contractual changes on an annual basis and provide issues for budgetary and HR management.
  2. Model 3 is for indicative purposes only, as expected employing someone at the top of Band 4 is more expensive than Model 1 and Model 4; the cost is not prohibitive but this model is not likely to be required.
  3. Model 4 is more expensive than Model 1 but would be easier to manage from a HR and Budgetary point of view and would allow consistency across all apprenticeship models for radiography and other AHP’s.

**Conclusion**: Funded training posts using Annex 21 would be the most effective way of employing apprentices and easiest to manage. Backfill models, employing at Band 2, 3 than 4 is the ,most cost effective.

1. **INDICATIVE COST SUMMARIES** (Using 3 year Models 2 and 4)
   1. Option A: No change to current staffing costs.
   2. Option B. One apprentice per year; after three years the annual costs will be:

* Training Post £ £75,956 p.a. (Model 2) to £81,975 p.a. (Model 4)
* Vacancy with

Agency Backfill £ £31,349 p.a. (Model 2) to £37,368 p.a. (Model 4)

(Net costs Opt 2)

* 1. Option C. One apprentice per course; the average annual costs will be:
* Training Post £ £18,403 p.a. (Model 2) to £19,930 p.a. (Model 4)
* Vacancy with

Agency Backfill £ £11,771 p.a. (Model 2) to £13,298 p.a. (Model 4)

(Net costs Opt 2)

1. **ADDITIONAL COSTS**
   1. **Travel and Subsistence:** It is anticipated that apprenticeship courses will be mainly distance learninghowever some attendance at the HEI will be required; cost for T&S will be dictated by individual Trust policy; with the option for self-funding included. Allowance should be made when considering this business case for these additional costs.
   2. **Clinical Education Staff**: It is anticipated that the staff who currently support self-funding undergraduates on clinical placement will do so for apprentices; there is a risk that apprenticeship training may require additional in-house support / clinical education to be provided by Trust qualified staff. Allowance should be made when considering this business case for these potential costs.
2. **RECOMMENDATION**

To accrue all of the benefits of workforce development and use of apprenticeships the Trust should invest in Training post funding, using Annex 21 for one radiographer per annum. Option B.

**Appendix A – Radiographer Apprenticeship Pathway Options**

**Table B:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Model 1 – Assistant Practitioner Staff Development (employee with no ELQ)** | | | |
| **Year** | **Apprenticeship** | **Band** | **Primary Employment** |
| Year 1 | Foundation Degree Y1 | B2 | Radiography Department Assistant |
| Year 2 | Foundation Degree Y2 | B3 | Senior Radiography Department Assistant |
| Potential split career – working full time as Band 4 AP before starting level 6 degree apprenticeship | | | |
| Year 3 | Degree (Year 2 of degree) | B4 | Assistant Practitioner - Radiography |
| Year 4 | Degree (Year 3 of degree) | B4 | Assistant Practitioner - Radiography |
| Existing employee – Radiography Department Assistant or equivalent Band 2 HCA. Assistant practitioner via a Foundation degree - the costing model includes the foundation degree element (2 yrs) and reduced degree pathway (2 Years). Entry level salary at mid-point of Band 2 | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Model 2 – Direct entry (new employee with ELQ for degree )** | | | |
| **Year** | **Apprenticeship** | **Band** | **Primary Employment** |
| Year 1 | Degree | B2 | Radiography Department Assistant (RDA) |
| Year 2 | Degree | B3 | Junior Assistant Practitioner - Radiography |
| Year 3 | Degree | B4 | Assistant Practitioner - Radiography |
| New employee (recruited as apprentice) with required academic entry level qualifications (ELQ) for the degree. Entry level salary at bottom of band 2 (HCA- Department Assistant), progression to Band 3 after 1 year and Band 4 after 2 years (Assistant Practitioner) | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Model 3 – Staff Development (Higher Band - but appropriate ELQ for degree )** | | | |
| **Year** | **Apprenticeship** | **Band** | **Primary Employment** |
| Year 1 | Degree | B4 | Radiography Department Assistant (RDA) |
| Year 2 | Degree | B4 | Junior Assistant Practitioner - Radiography |
| Year 3 | Degree | B4 | Assistant Practitioner - Radiography |
| Existing employee with required academic entry level qualifications for the degree but already paid above Band 2. The pathway is the same as a new employee (Model 2) but with higher salary costs. The costs have been estimated at top of band 4 (worst case scenario). This path could be available to higher band employees but exception cases and costings would need to be agreed/ discussed. The actual costs will be person (Pay Band) specific and vary between the lower costs of Model 2 and highest cost of Model 3 | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model 4 –Costing using Annex 21 for Salary Payment (Models 2 or 3)** | | | | |
| **Year** | **Apprenticeship** | **Band** | **A21** | **Primary Employment** |
| Year 1 | Degree | B5 | 60% | Radiography Department Assistant (RDA) |
| Year 2 | Degree | B5 | 70% | Junior Assistant Practitioner - Radiography |
| Year 3 | Degree | B5 | 75% | Assistant Practitioner - Radiography |
| Cost of employing apprentices (all models) using Annex 21, Staff are employed in the Band appropriate to the final qualification ( Band 5) and paid a % of the top of that Band Salary | | | | |

**Appendix B Indicative Salary Costs:**

**Model 1 – Assistant Practitioner Staff Development (employee with no ELQ)**

**4 Academic Years over 5 Financial Years**

**B1: Sequential Training:** Single Apprentice **–** Full Course Commencing Sep 2019.

(No other starters for duration of this course – no concurrent apprentices)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Academic Year | | Yr 1 | Yr 1 / Yr 2 | Yr 2 / Yr 3 | Yr 3 / Yr 4 | Yr 4 | Total over 5 FY | Average Annual |
| Financial Year | | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 | FY 22/24 |
| A | Salary Cost | £12,504 | £23,183 | £26,257 | £28,004 | £11,911 | £101,859 | £20,372 |
| B | Vacancy Budget  (Bottom Increment - B5) | £17,410 | £30,735 | £31,373 | £32,024 | £13,620 | £125,162 | £25,032 |
| C | Backfill Costs  (40/60 % of Band) | £5,002 | £9,273 | £13,703 | £16,802 | £7,147 | £51,927 | £10,385 |
| D | Backfill Costs  (40 / 60 % using Agency  (~ Top Bands 5) | £8,728 | £14,990 | £19,761 | £23,442 | £9,960 | £76881 | £15376 |
| Training Post Cost  (= A) | | £12,504 | £23,183 | £26,257 | £28,004 | £11,911 | £101,859 | £20,372 |
| Potential CIP  (= B - A) | | £4,906 | £7,552 | £5,116 | £4,020 | £1,709 | £23,303 | £ 4,661 |
| Net cost Option 1  internal Backfill at same Band  (= A + C - B) | | £96 | £1,721 | £8,587 | £12,782 | £5,438 | £28,624 | £5,725 |
| Net cost Option 2  Agency Radiographer Backfill  (= A + D - B) | | £3,822 | £7,438 | £14,645 | £19,422 | £8,251 | £53,578 | £10,716 |

**B2**: Concurrent salary costs, one apprentice starter per year (Commencing Sep 2019)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Financial Year | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 | FY 22/24 |
| B2 Costs | £12,504 | £21,888 | £22,349 | £22,822 | £23,300 |
| B 3 Costs |  | £14,063 | £24,614 | £25,130 | £25,656 |
| B 4 Costs |  |  | £16,002 | £44,439 | £57,175 |
| Total | £12,504 | £35,951 | £62,965 | £92,391 | £106,131 |
| Concurrent No's | 1 | 2 | 3 | 4 | 4 |

NB: Maximum annual costs achieved in 5th Financial Year (Highlighted) with 4 concurrent students

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Academic Year | | Yr 1 | Yr 1 / Yr 2 | Yr 2 / Yr 3 | Yr 3 / 4 | Yr 4 |
| Financial Year | | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 | FY 23/24 |
| A | Salary Cost | £12,504 | £35,951 | £62,965 | £92,391 | £106,131 |
| B | Vacancy Budget  (Bottom Increment - B5) | £17,410 | £48,663 | £81,047 | £114,754 | £130,755 |
| C | Backfill Costs  (40/60 % of Band) | £5,002 | £14,380 | £28,386 | £47878 | £53,887 |
| D | Backfill Costs  (40 / 60 % using Agency  (~ Top Bands 5) | £8,728 | £23,734 | £43,985 | £68,314 | £79,682 |
| Training Post Cost  (= A) | | £12,504 | £35,951 | £62,965 | £92,391 | £106,131 |
| Potential CIP  (= B - A) | | £4,906 | £12,712 | £18,082 | £22,363 | £24,624 |
| Net cost Option 1  internal Backfill at same Band  (= A + C - B) | | £96 | £1,668 | £10,304 | £25,515 | £29,263 |
| Net cost Option 2  Agency Radiographer Backfill  (= A + D - B) | | £3,822 | £11,022 | £25,903 | £45,951 | £55,058 |

**Appendix C Indicative Salary Costs:**

**Model 2 – Direct entry (new employee with ELQ for degree )**

**3 Academic Years over 4 Financial Years**

**C1: Sequential Training:** Single Apprentice **–** Full Course Commencing Sep 2019.

(No other starters for duration of this course – no concurrent apprentices)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Academic Year | | Yr 1 | Yr 1 / Yr 2 | Yr 2 / Yr 3 | Yr 3 | Total over 5 FY | Average Annual |
| Financial Year | | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 |
| A | Salary Cost | £12,504 | £23,183 | £26,257 | £11,668 | £73,612 | £18,403 |
| B | Vacancy Budget  (Bottom Increment - B5) | £ 17,410 | £ 30,735 | £ 31,373 | £ 13,343 | £ 92,861 | £ 23,215 |
| C | Backfill Costs  (40/60 % of Band) | 7,502 | 13,910 | 15,754 | 7,001 | £44,167 | £11,042 |
| D | Backfill Costs  (40 / 60 % using Agency  (~ Top Bands 5) | £11,222 | £22,481 | £22,910 | £9,720 | £66,333 | £16,583 |
| Training Post Cost  (= A) | | £12,504 | £23,183 | £26,257 | £11,668 | £73,612 | £18,403 |
| Potential CIP  (= B - A) | | £ 4,906 | £7,552 | £5,116 | £1,675 | £ 19,249 | £ 4,812 |
| Net cost Option 1  internal Backfill at same Band  (= A + C - B) | | £2,596 | £6,358 | £10,638 | £5,326 | £24,918 | £6,230 |
| Net cost Option 2  Agency Radiographer Backfill  (= A + D - B) | | £6,316 | £14,929 | £17,794 | £8,045 | £47,084 | £11,771 |

**C2**: Concurrent salary costs, one apprentice starter per year (Commencing Sep 2019)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Financial Year | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 |
| B2 Costs | £12,504 | £21,888 | £22,349 | £22,822 |
| B 3 Costs |  | £14,063 | £24,614 | £25,130 |
| B 4 Costs |  |  | £16,002 | £28,004 |
| Total | £12,504 | £35,951 | £62,965 | £75,956 |
| Concurrent No's | 1 | 2 | 3 | 3 |

NB: Maximum annual costs achieved in 4th Financial Year (Highlighted) with 3 concurrent students

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Academic Year | | Yr 1 | Yr 1 / Yr 2 | Yr 2 / Yr 3 | Yr 4 |
| Financial Year | | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 |
| A | Salary Cost | £12,504 | £35,951 | £62,965 | £75,956 |
| B | Vacancy Budget  (Bottom Increment - B5) | £17,410 | £48,663 | £81,047 | £114,754 |
| C | Backfill Costs  (40/60 % of Band) | £7,502 | £21,571 | £37,779 | £45,574 |
| D | Backfill Costs  (60 % using Agency  (~ Top Bands 5) | £11,222 | £33,273 | £57,924 | £70,147 |
| Training Post Cost  (= A) | | £12,504 | £35,951 | £62,965 | £75,956 |
| Potential CIP  (= B - A) | | £4,906 | £12,712 | £18,082 | £38,798 |
| Net cost Option 1  internal Backfill at same Band  (= A + C - B) | | £2,596 | £8,859 | £19,697 | £6,776 |
| Net cost Option 2  Agency Radiographer Backfill  (= A + D - B) | | £6,316 | £20,561 | £39,842 | £31,349 |

**Appendix D Indicative Salary Costs:**

**Model 3 – Existing Staff Development (Higher Band (4) - appropriate ELQ for degree )**

**3 Academic Years over 4 Financial Years**

**D1: Sequential Training:** Single Apprentice **–** Full Course Commencing Sep 2019.

(No other starters for duration of this course – no concurrent apprentices)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Academic Year | | Yr 1 | Yr 1 / Yr 2 | Yr 2 / Yr 3 | Yr 3 | Total over 5 FY | Average Annual |
| Financial Year | | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 |
| A | Salary Cost | £17,072 | £29,773 | £30,393 | £12,925 | £90,163 | £22,541 |
| B | Vacancy Budget  (Bottom Increment - B5) | £ 17,410 | £ 30,735 | £ 31,373 | £ 13,343 | £ 92,861 | £ 23,215 |
| C | Backfill Costs  (60 % of Same Band) | 9,044 | 16,122 | 16,459 | 7,001 | 48,626 | £12,157 |
| D | Backfill Costs  (60 % using Agency  (~ Top Bands 5) | £11,222 | £22,481 | £22,910 | £9,720 | £66,333 | £16,583 |
| Training Post Cost  (= A) | | £17,072 | £29,773 | £30,393 | £12,925 | £90,163 | £22,541 |
| Potential CIP  (= B - A) | | £ 338 | £ 962 | £980 | £418 | £ 2,698 | £ 675 |
| Net cost Option 1  internal Backfill at same Band  (= A + C - B) | | 8,706 | 15,160 | 15,479 | 6,583 | 45,928 | 11,482 |
| Net cost Option 2  Agency Radiographer Backfill  (= A + D - B) | | £10,884 | £21,519 | £21,930 | £9,302 | £63,635 | £15,909 |

**D2**: Concurrent salary costs, one apprentice starter per year (Commencing Sep 2019)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Financial Year | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 |
| B 4 Costs | £17,072 | £29,773 | £30,396 | £31,020 |
| B 4 Costs |  | £17,368 | £30,396 | £31,020 |
| B 4 Costs |  |  | £17,727 | £31,020 |
| Total | £17,072 | £47,141 | £78,519 | £93,060 |
| Concurrent No's | 1 | 2 | 3 | 3 |

NB: Maximum annual costs achieved in 4th Financial Year (Highlighted) with 3 concurrent students

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Academic Year | | Yr 1 | Yr 1 / Yr 2 | Yr 2 / Yr 3 | Yr 4 |
| Financial Year | | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 |
| A | Salary Cost | £17,072 | £47,141 | £78,519 | £93,060 |
| B | Vacancy Budget  (Bottom Increment - B5) | £17,410 | £48,663 | £94,933 | £114,754 |
| C | Backfill Costs  (60 % of Same Band) | £9,044 | £25,526 | £42,518 | £50,407 |
| D | Backfill Costs  (60 % using Agency  (~ Top Bands 5) | £11,222 | £33,273 | £57,924 | £70,147 |
| Training Post Cost  (= A) | | £17,072 | £47,141 | £78,519 | £93,060 |
| Potential CIP  (= B - A) | | £338 | £1,522 | £16,414 | £21,694 |
| Net cost Option 1  internal Backfill at same Band  (= A + C - B) | | £8,706 | £24,004 | £26,104 | £28,713 |
| Net cost Option 2  Agency Radiographer Backfill  (= A + D - B) | | £10,884 | £31,751 | £41,510 | £48,453 |

**Appendix E Indicative Salary Costs:**

**Model 4 - Costing using Annex 21 for Salary Payment (Models 2 or 3)**

**3 Academic Years over 4 Financial Years**

**E1: Sequential Training:** Single Apprentice **–** Full Course Commencing Sep 2019.

(No other starters for duration of this course – no concurrent apprentices)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Academic Year | | Yr 1 | Yr 1 / Yr 2 | Yr 2 / Yr 3 | Yr 3 | Total over 5 FY | Average Annual |
| Financial Year | | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 |
| A | Salary Cost | £14,183 | £25,451 | £27,886 | £12,199 | £79,719 | £19,930 |
| B | Vacancy Budget  (Bottom Increment - B5) | £ 17,410 | £ 30,735 | £ 31,373 | £ 13,343 | £ 92,861 | £ 23,215 |
| C | Backfill Costs  (60 % of Same Band) | £10,446 | £18,441 | £18,824 | £8,006 | £55,717 | £13,929 |
| D | Backfill Costs  (60 % using Agency  (~ Top Bands 5) | £11,222 | £22,481 | £22,910 | £9,720 | £66,333 | £16,583 |
| Training Post Cost  (= A) | | £14,183 | £25,451 | £27,886 | £12,199 | £79,719 | £19,930 |
| Potential CIP  (= B - A) | | £ 3,227 | £ 5,284 | £3,487 | £1,144 | £ 13,142 | £ 3,286 |
| Net cost Option 1  internal Backfill at same Band  (= A + C - B) | | £7,219 | £13,157 | £15,337 | £6,862 | £42,575 | £10,644 |
| Net cost Option 2  Agency Radiographer Backfill  (= A + D - B) | | £7,995 | £17,197 | £19,423 | £8,576 | £53,191 | £13,298 |

**E2**: Concurrent salary costs, one apprentice starter per year (Commencing Sep 2019)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Financial Year | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 |
| B 4 Costs | £14,183 | £24,358 | £24,859 | £25,373 |
| B 4 Costs |  | £15,302 | £26,771 | £27,325 |
| B 4 Costs |  |  | £16,732 | £29,277 |
| Total | £14,183 | £39,660 | £68,362 | £81,975 |
| Concurrent No's | 1 | 2 | 3 | 3 |

NB: Maximum annual costs achieved in 4th Financial Year (Highlighted) with 3 concurrent students

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Academic Year | | Yr 1 | Yr 1 / Yr 2 | Yr 2 / Yr 3 | Yr 4 |
| Financial Year | | FY 19/20 | FY 20/21 | FY 21/22 | FY 22/23 |
| A | Salary Cost | £14,183 | £39,660 | £68,362 | £81,975 |
| B | Vacancy Budget  (Bottom Increment - B5) | £17,410 | £48,663 | £94,933 | £114,754 |
| C | Backfill Costs  (60 % of Same Band) | £10,446 | £29,198 | £48,628 | £57,644 |
| D | Backfill Costs  (60 % using Agency  (~ Top Bands 5) | £11,222 | £33,273 | £57,924 | £70,147 |
| Training Post Cost  (= A) | | £14,183 | £39,660 | £68,362 | £81,975 |
| Potential CIP  (= B - A) | | £3,227 | £9,003 | £26,571 | £32,227 |
| Net cost Option 1  internal Backfill at same Band  (= A + C - B) | | £7,219 | £20,195 | £22,057 | £24,865 |
| Net cost Option 2  Agency Radiographer Backfill  (= A + D - B) | | £7,995 | £24,270 | £31,353 | £37,368 |

**Appendix F Cost Comparison:**

**Model 1 (**Average annual cost**) and Models 2,3 and 4. (**Yr 4 concurrent annual cost**)**

**F1: Sequential Training:** Single Apprentice **–** Full Course Commencing Sep 2019.

(No other starters for duration of this course – no concurrent apprentices)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | Average Annual Costs | | | |
| Model 1  Band 2,3,4,4  4 Years | Model 2  Band 2,3,4  3 Years | Model 3  Band 4,4,4  3 Years | Model 4  Annex 21  3 Years |
| A | Salary Cost | £20,372 | £18,403 | £22,541 | £19,930 |
| B | Vacancy Budget  (Bottom Increment - B5) | £25,032 | £ 23,215 | £ 23,215 | £ 23,215 |
| C | Backfill Costs  (60 % of Same Band) | £10,385 | £11,042 | £12,157 | £13,929 |
| D | Backfill Costs  (60 % using Agency  (~ Top Bands 5) | £15376 | £16,583 | £16,583 | £16,583 |
| Training Post Cost  (= A) | | £20,372 | £18,403 | £22,541 | £19,930 |
| Potential CIP  (= B - A) | | £ 4,661 | £ 4,812 | £ 675 | £ 3,286 |
| Net cost Option 1  internal Backfill at same Band  (= A + C - B) | | £5,725 | £6,230 | 11,482 | £10,644 |
| Net cost Option 2  Agency Radiographer Backfill  (= A + D - B) | | £10,716 | £11,771 | £15,909 | £13,298 |

**F2**: Concurrent salary costs, one apprentice starter per year (Commencing Sep 2019)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | Annual Costs | | | |
| Model 1  Band 2,3,4,4  4 Years | Model 2  Band 2,3,4  3 Years | Model 3  Band 4,4,4  3 Years | Model 4  Annex 21  3 Years |
| A | Salary Cost | £106,131 | £75,956 | £93,060 | £81,975 |
| B | Vacancy Budget  (Bottom Increment - B5) | £130,755 | £114,754 | £114,754 | £114,754 |
| C | Backfill Costs  (60 % of Same Band) | £53,887 | £45,574 | £50,407 | £57,644 |
| D | Backfill Costs  (60 % using Agency  (~ Top Bands 5) | £79,682 | £70,147 | £70,147 | £70,147 |
| Training Post Cost  (= A) | | £106,131 | £75,956 | £93,060 | £81,975 |
| Potential CIP  (= B - A) | | £24,624 | £38,798 | £21,694 | £32,227 |
| Net cost Option 1  internal Backfill at same Band  (= A + C - B) | | £29,263 | £6,776 | £28,713 | £24,865 |
| Net cost Option 2  Agency Radiographer Backfill  (= A + D - B) | | £55,058 | £31,349 | £48,453 | £37,368 |

1. There are no available degree apprenticeship courses currently being delivered – the provision of these will depend upon regional / national demand and formal procurement on a collective basis. [↑](#footnote-ref-1)