

... operate X-ray and other medical imaging equipment to produce images for diagnostic, monitoring and treatment purposes under the direction of Radiologists and other Medical Practitioners.

### Indicative Skill Level

Most occupations in this unit group have a level of skill commensurate with a Bachelor degree or higher qualification (ANZSCO Skill Level 1).

### Skilled Occupation Criteria

#### **Long-lead time**

Medical Imaging Professionals meet the criteria for long lead time, as entry to this occupation requires a substantial training commitment.

- ▶ Employment as a Medical Imaging Professional generally requires the completion of a university qualification of at least four years study (full-time equivalent), such as a Bachelor of Science (Medical Imaging Science).

#### **High use**

Medical Imaging Professionals meet the criteria for high use, showing that the skills which people have acquired through education and training are being deployed for the uses intended.

- ▶ Based on advice from Universities Australia, university courses in medical imaging have a strong degree of match with eventual employment as a Medical Imaging Professional.
- ▶ Of new graduates employed as Medical Imaging Professionals, 86% had studied in a related field, such as radiography or medical studies (*Australian Graduate Survey, 2009*).
- ▶ As professionals, Medical Imaging Professionals are expected to have a level of skill commensurate with a bachelor degree or higher qualification. Of those employed as Medical Imaging Professionals, 70% were found to possess this level of skill (*ABS Survey of Education and Work, 2010*).<sup>1</sup>

#### **High risk**

Medical Imaging Professionals also meet the criteria for high risk/high disruption. This indicates that the occupation is important for the effective operation of an enterprise and/or the broader economy.

- ▶ Medical Imaging Professionals are required to be registered or licensed with a Board or local authority in the state or territory in which they intend to practise.
- ▶ Medical Imaging Professionals are important to meet government policy priorities at both the Commonwealth and state level. These include meeting the recommendations of the National Health and Hospitals Reform Commission, Clinical Training Funding Initiative, and the Clinical Supervision Support Program.

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<sup>1</sup> Analysis for the Skilled Occupations List (SOL) was conducted using the latest available data, including the 2010 ABS Survey of Education and Work (SEW). Percentages may therefore differ from those cited in the 'Occupation Trends' analysis (over the page), which uses alternative sources in some instances (e.g. the 2008 ABS Survey of Education and Work). Small sample sizes for some occupations may also result in fluctuations in the SEW data between 2008 and 2010. The specific data sources used for the Occupation Trends analysis can be found on the Skills Australia website: <http://www.skillsaustralia.gov.au/SOLsummarysheets.shtml>.

## Occupation trends

### ANZSCO: 2512

### Medical Imaging Professionals

<b>Employment level</b>	15,700 A high proportion of workers (81.0%) are employed full-time.
<b>6 digit employment (2006 Census)</b>	251211 Medical Diagnostic Radiographer 5980 251212 Medical Radiation Therapist 1310 251213 Nuclear Medicine Technologist 500 251214 Sonographer 2130
<b>Employment growth</b>	Over the five years to August 2010, employment increased by 35.1% (compared with growth of 12.1% for all occupations). Employment is expected to rise by 15.4% over the next five years (compared with projected growth of 9.5% for all occupations).
<b>Unemployment rate</b>	Low (around 0.7%) compared with all occupations.
<b>Educational profile</b>	Around 74.4% have a Bachelor degree or higher qualification.
<b>Vacancies</b>	The Internet Vacancy Index (IVI) fell by 20.0% over the 12 months to September 2010 to 107.8 (March 2006=100). Vacancies for all occupations increased by 19.4%.
<b>Gender</b>	Around 64.9% of workers in this occupation are female (compared with 45.4% for all occupations).
<b>Labour turnover</b>	Around 6.4% of workers leave this occupation in a year compared with 13.1% for all occupations.
<b>Age profile</b>	The median age is 36 years and 29.0% are aged 45 years and over (compared with 38.5% for all occupations).
<b>Earnings</b>	Median full-time weekly earnings (before tax) are above average (\$1250).
<b>Graduate outcomes</b>	Graduate Careers Australia data are provided at the aggregated level for 'health', but they show that 97% of Bachelor degree graduates across the health field of study seeking full-time work were working four months after graduation, 46% of whom were employed as Health Professionals, 15% as Personal and Community Service Workers and 9% as Science Professionals.
<b>Skill shortages</b>	Shortages of Medical Diagnostic Radiographers and Sonographers have persisted over the past decade. Shortages of Radiation Therapists and Nuclear Medicine Technologists evident over the early 2000s had eased in the mid to late 2000s, but shortages of Medical Radiation Therapists have re-emerged in 2010.

### Labour market

251211 Medical Diagnostic Radiographer: Shortages have been persistent for more than a decade. Although 2010 research shows there was a rise in the proportion of vacancies filled over the year to mid 2010 (from 44% to 63%) the average number of suitable applicants per vacancy remained relatively stable and low (1.3) and shortages were evident in most states and territories.

251212 Medical Radiation Therapist: Research undertaken in mid 2010 suggests that shortages have re-emerged in this profession. Less than half the surveyed vacancies were filled and there was less than one suitable applicant per vacancy, compared with 1.7 on average in 2009. Employer and industry contacts suggested that greater provision of oncology services is driving higher demand for radiation therapists.

Employers in regional locations had particular difficulty recruiting medical radiation therapists.

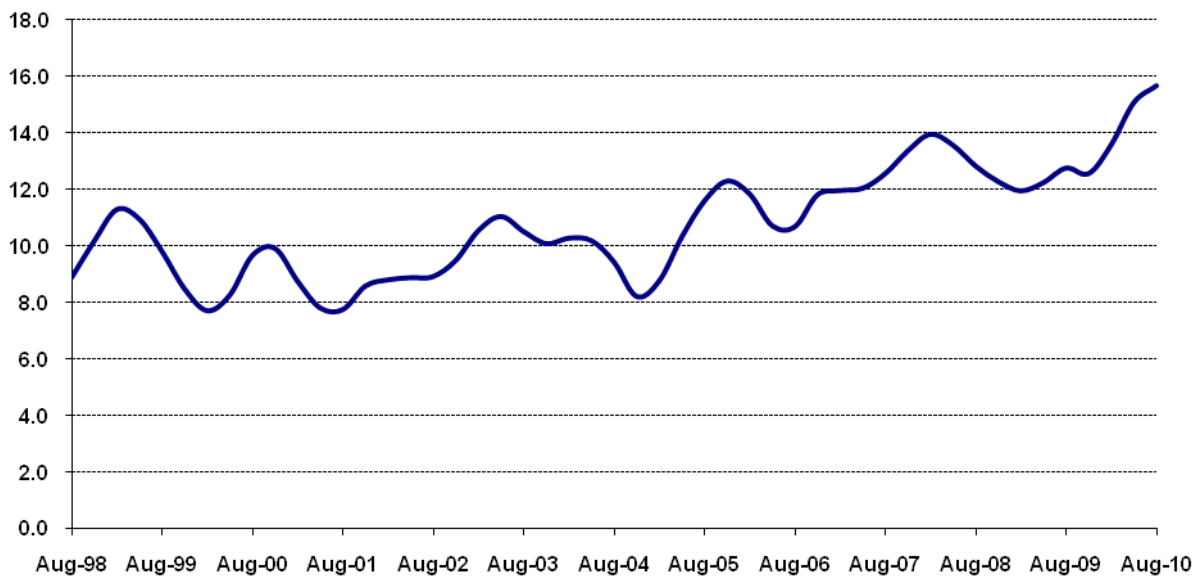
251213 Nuclear Medicine Technologist: Shortages apparent over the early 2000s but in 2006 and 2007 shortages were not evident. However, this labour market has not been assessed recently.

251214 Sonographer: Shortages have been persistent for more than a decade. In 2010 less than one-third of surveyed vacancies were filled and there was less than one suitable applicant per vacancy. Around a quarter of employers did not receive any applications in response to their advertising. Recruitment was more difficult for employers in regional locations than for those in metropolitan areas, despite some offering incentives for applicants to relocate. Some employers were seeking experienced sonographers and these employers regarded new graduates as unsuitable for their vacancies.

**Summary**

Employment growth has been strong over the past five years and, although expected to moderate over the next five years, it is projected to rise at a stronger rate than the all occupations rate. Unemployment is low and shortages are evident for many of these occupations. The occupational group has a relatively young age profile and turnover is low, so future demand is likely to be mainly to meet the needs of new jobs.

Medical Imaging Professionals  
Employed Persons ('000s) Aug 1998 to Aug 2010



Internet Vacancy Index (IVI) - 3 Monthly Average - Nov 2006 - Sept 2010  
Medical Imaging Professionals (March 2006 = 100)

