



Department of Commerce
Office of Professional Licensure Review

2026 Periodic Review

Radiologic Technology

Published October 2026

Executive Summary

Background

Radiologic Technologists (RTs), Radiology Practical Technicians (RPTs) and Radiology Assistants (RAs) are different types of radiology allied health professionals who conduct imaging procedures and related activities. RT is the principal role, while RPT is the introductory role and RA is a more advanced but less pervasive role. RTs perform X-ray imaging and may be trained to perform CT scans, Mammography, MRIs, and Ultrasounds, whereas RPTs perform only a limited scope of X-ray imaging. RAs are a specialized type of advanced practitioner trained for minimally invasive procedures and additional patient care and reporting tasks.

Like most (but not all) states, Utah requires all roles to be licensed. Entry requirements for RPTs vary by state; most require some training and successful completion of an exam. RTs require an Associate's degree and successful completion of an approved Radiologic Technology program. RAs require a Master's degree in Radiologic Sciences and have prior clinical experience.

Regulatory Model Recommendation: Continue licensure for all three professions

- A lower form of regulation than licensure could be considered, particularly for RPTs, due to lower potential for harm and high levels of supervision for these professions
- However the benefits from OPLR's proposed scope expansion for RPTs (see next section) may not be fully captured without continued licensure in the immediate term
- Higher severity and likelihood of harm from certain procedures performed by RTs and RAs, and some overlap in their roles, provides weight to continued licensure

Recommended Regulatory Adjustments:

1. *Remove RPT Anatomical Scope Restrictions with Proper Training and Supervision*
 - Current RPT scope is restricted to anatomy defined by RPT exam modules
 - The probability of harm from radiation due to repeated unnecessary X-Ray imaging is moderate, while severity is generally low, albeit not reversible
 - RPTs must be supervised; employers are already responsible for training
2. *Expand Scope of Practice for RAs and Allow for Remote Supervision*
 - Utah employers interpret the current law as prohibiting RAs from recording procedures or making initial image observations, yet RAs are trained to do both
 - Statute requires a radiologist to be on-site for RA procedures, even though most radiologists work remotely and other jurisdictions allow remote supervision

Additional Recommendations:

3. *Clarify RT Administration of Contrast Media*
 - Specifying RTs may administer other forms of contrast media, in addition to parenteral, ensures RTs practice to their full training and competency

Context

Consistent with its legislative mandate,¹ the Office of Professional Licensure Review (OPLR) reviewed Utah's laws for radiologic technology. The review evaluated how well current regulations:

1. Protect the public from present and consequential physical and financial harm
2. Balance public and practitioner access to the occupation
3. Limit the economic impact of regulation on consumers, practitioners and the state²

OPLR's research for this review included analysis of Utah's current laws and rules, licensing and complaint data from the Division of Professional Licensing (DOPL), academic literature, regulations in other states, and other secondary analyses. OPLR also conducted interviews with prominent stakeholders. See [Appendix 1](#) for more information.

Background

Profession Overview

Radiologic technology encompasses three separate licenses—Radiologic Technologists (RTs), Radiology Practical Technicians (RPTs), and Radiology Assistants (RAs). The RT is the principal role, while the RPT is the introductory role and the RA is a more advanced but less pervasive role. This report will address all three licenses.

An RT is an allied health professional who performs medical imaging procedures to help physicians and other providers diagnose and monitor a variety of health conditions.³ Depending on an RT's training and specialty and state regulations, an RT may use X-ray, computed tomography (CT),⁴ mammography, fluoroscopy equipment⁵, magnetic resonance imaging (MRI),⁶ and ultrasound,⁷ and perform radiation therapy.⁸ RTs work predominantly in a hospital, or in outpatient clinics affiliated with a hospital. Nationally, about 60% of RTs work in a hospital setting, while approximately 17% work in an office of a physician, 7% work in a medical and diagnostic laboratory, and 7% work in an outpatient care center.⁹

¹ Utah Code 13-1b-203(2)

² Utah Code 13-1b

³ Mayo Clinic College of Medicine and Science, "Radiologic Technologist."

⁴ A CT is a type of imaging that uses X-ray techniques to create detailed images of the body. It uses a computer to create cross-sectional images of bones, blood vessels, and soft tissues.

⁵ Fluoroscopy is a form of medical imaging that uses a series of X-rays to show internal organs and tissues working in real time.

⁶ An MRI is an imaging test that uses a magnetic field and computer-generated radio waves to create detailed images of organs and soft tissues (e.g., muscles, ligaments, nerves).

⁷ An ultrasound uses high-frequency sound waves to show structures inside the body.

⁸ American Society of Radiologic Technologists, "ASRT Radiation Therapy Practice Standards": Radiation therapy is the use of radiation to treat disease, primarily cancer. This may be an external laser or placing radioactive "seeds" internally near a tumor

⁹ U.S. Bureau of Labor Statistics, "Radiologic and MRI Technologists"

A radiology practical technician (RPT) is a person licensed to perform limited, routine X-ray procedures on specific parts of the human anatomy (i.e., chest, extremities, skull/sinuses, spine, and podiatric).¹⁰ RPTs generally work in outpatient clinics.¹¹

Radiologist assistants (RAs) are Master's degree-level radiologic technologists who have completed additional, specialized education and training beyond that of an RT. Unlike RTs, the role of an RA includes significantly more patient care tasks related to assessment and monitoring, higher-level radiologic procedures, and additional reporting tasks.¹² Similar to an RT, while RAs may obtain radiographic images necessary for diagnosis, neither role can diagnose. Like RTs, RAs typically work in hospitals and affiliated outpatient clinics.¹³

Profession in Utah

Radiologic technology is a licensed profession in Utah. In 2025, the state had 3,913 actively licensed RTs (See [Appendix 2.1](#)).¹⁴

In Utah, the scope of practice for an RT includes using radiation from a radioactive substance, radiology equipment (e.g., X-ray, CT, Mammography, fluoroscopy system), or any other source for diagnostic or therapeutic purposes, under general supervision¹⁵. This includes administering parenteral contrast media, radionuclides, or other medications incidental to radiology procedures provided the administrations are under the direct supervision of a qualified physician.¹⁶ Other non-radiation imaging that RTs perform, including MRI and Ultrasound, are not regulated by the state. Instead, Utah employers almost universally require certifications specific to each imaging procedure.¹⁷

To become licensed as an RT in Utah, applicants must successfully:

- Graduate from an accredited educational program in radiologic technology, a program certified by the ARRT, or any equivalent educational program either in conjunction with or after an Associate's Degree; and¹⁸

¹⁰ The full list of the ARRT limited radiographic positions and projections can be found in Attachment A.

¹¹ OPLR's analysis of the 2024 HWIC / DOPL Radiologic Technology Workforce Survey (total response rate=41%)

¹² American Society of Radiologic Technologists, "ASRT Practice Standards for Medical Imaging and Radiation Therapy": Specific RA tasks include: taking patient history, assessing, monitoring, and managing patient status under varying levels of sedation, verifying procedure appropriateness, performing or assisting with invasive or noninvasive procedures, providing patient follow-up, evaluating image quality and communicating initial image observations to a supervising radiologist.

¹³ OPLR's analysis of the 2024 Utah Radiologic Technology Workforce Survey (total response rate=41%). Due to a small workforce, only 6 RAs responded, but their results were validated by the OPLR stakeholder series.

¹⁴ OPLR's analysis of DOPL licensing data, accessed January 13, 2026

¹⁵ An RT must practice under the general supervision of a radiologist or radiology practitioner (e.g., physician and surgeon, podiatric physician, chiropractic physician, dentist, dental hygienist, physician's assistant, nurse practitioner). General supervision means the supervising radiologist or practitioner is available to provide immediate communication with the supervised person and is aware of the procedure before it is performed. (Utah Code 58-54-102(3))

¹⁶ Utah Code 58-54-102(5) and Utah Code 58-54-102(7)

¹⁷ OPLR assessment of MRI technologist job post. Of 7 found postings, 100% required either the ARRT (MR) or ARMRIT (MR) certificate.

¹⁸ To enroll in these programs, applicants must have at least an Associate's degree.

- Pass the applicable ARRT Examination in Radiologic Technology.^{19,20}

Radiology Practical Technicians (RPTs) are also licensed professionals in Utah. In 2025, the state had 562 actively licensed RPTs (See [Appendix 2.1](#)).²¹

In Utah, the scope of practice for an RPT includes engaging in the practice of radiologic technology to perform limited diagnostic radiology procedures, which are restricted to X-rays and exclude advanced imaging modalities. RPTs must work under the supervision of a radiologist or radiology practitioner, although the form of supervision is not specified.²² Utah administrative rule further defines the practice of an RPT as using radiological equipment limited to specific radiographic procedures on specific parts of the body (chest, extremities, skull/sinuses, spine, podiatric) as defined in the ARRT Limited Scope of Practice in Radiography Examination.^{23, 24}

To become licensed as an RPT in Utah, applicants must successfully pass:

- The ARRT Limited Scope of Practice in Radiography Examination with a minimum of 75% in the core exam and one or more of the following: chest, extremities, skull/sinuses, spine, podiatric; or
- The ARRT Bone Densitometry Equipment Operators Examination (BDEO) with a minimum score of 75%.²⁵

Radiology Assistant (RA) is a licensed profession in Utah. There are 11 RAs licensed in Utah. (See [Appendix 2.1](#))

In Utah, the scope of practice for an RA adds to the responsibilities of an RT by allowing RAs to perform additional patient care tasks, minimally invasive radiologic procedures, and reporting tasks. With regard to patient care, an RA in Utah may determine whether a patient has been appropriately prepared for the radiologic procedure, assess and evaluate the physiologic responsiveness of a patient undergoing a radiologic procedure, and obtain informed consent. The level of supervision for these tasks is determined by the supervising physician. With regard to radiological procedures, an RA may, under indirect supervision, perform minimally invasive procedures that an RT cannot (e.g., feeding tube placement, spinal injections, swallowing studies). RAs practicing in critical access hospitals are allowed to perform radiologic procedures under general supervision, meaning the supervising radiologist is available to provide immediate communication and is aware of the procedure before it is performed. With regard to reporting tasks, an RA may, under general supervision, evaluate image quality and communicate initial image observations only to the supervising radiologist.²⁶ RAs may not interpret images, provide

¹⁹ These include: Radiography, Nuclear Medicine Technology, and Radiation Therapy Technology or the Nuclear Medicine Technology Certification Board Examination

²⁰ Utah Code 58-54-302(2)

²¹ OPLR's analysis of DOPL licensing data, accessed January 13, 2026.

²² Utah Code 58-54-102(11).

²³ Utah Rule R156-54-102(3)

²⁴ American Registry of Radiologic Technologists, "ARRT Limited Scope of Practice in Radiography Examination"

²⁵ Utah Rule R156-54-302b

²⁶ Utah Code 58-54-304

diagnoses, or prescribe medications or therapies.

To obtain licensure as an RA in Utah, applicants must:

- Graduate from an accredited educational program in radiologic technology, a program certified by the ARRT, or any equivalent educational program;
- Have a Bachelor of Science degree; and
- Be certified as either a radiologist assistant by the ARRT or a radiology practitioner assistant by the Certification Board of Radiology Practitioner Assistants (CBRPA).²⁷

Approaches in Other Jurisdictions

The majority of states regulate RTs, RPTs, and RAs, mostly through licensure.²⁸ The states that do not regulate the professions rely on facility regulations, including staff training requirements. Two of these states, North Carolina and Pennsylvania, passed or are considering legislation to license these professions.^{29,30}

Forty-two states regulate RTs directly through licensure or state certification. Of the states that regulate, 31 regulate through licensure, while 11 use mandatory certification. With regard to supervision and education requirements, most states are similar to Utah; however, states vary in the allowed scope of practice. Several states require a separate credential to perform fluoroscopy, contrast, and mammography.³¹ Fourteen states require a separate credential for CT scans. Many states require a separate credential for nuclear medicine or radiation therapy; however, Utah relies on employers to ensure RTs are properly trained for these. MRIs and Ultrasounds require a different certificate or are regulated by employers instead of the state.

Thirty-eight states regulate RPTs (also referred to as limited scope radiologic technologists or limited scope X-ray operators), mostly through licensure. Most states, like Utah, use the ARRT Limited Scope of Practice in Radiography Examination to define RPT scope of practice and limit practice to only the exam modules an RPT has passed.³² A few states, like Colorado, allow RPTs to perform any related x-ray imaging within the skull, chest, hip/pelvis, extremities, abdomen, or spine/sacrum, not just the imaging listed by the ARRT. However, Colorado also has education and clinical training requirements for RPTs.³³ Roughly 70% of states that license RPTs mandate specific training, education, and/or clinical experience requirements for RPTs, which Utah does not. In addition to training, education, and/or clinical experience, all but three states require passing an exam, typically the ARRT exam.³⁴

²⁷ Utah Code 58-54-302(4)

²⁸ OPLR Policy Scan

²⁹ Radiology Business, "Pennsylvania May Soon Require Medical Imaging Professionals to Obtain State Licensure."

³⁰ North Carolina Legislation Tracker, "House Bill 590"

³¹ Four states require a separate credential for fluoroscopy; four for contrast; six for MRI; eight for mammography

³² Three states, Texas, Kentucky, and Maryland, require more expansive testing before licensure. These states have a scope of practice that corresponds with the expanded testing requirements.

³³ Code of CO Regulations 6 CCR 1007-1 Part 02

³⁴ OPLR policy exam. Michigan, Mississippi, and Washington do not require an exam, but do require training. Ohio and Kentucky have a state-specific exam.

Twenty-nine states regulate the practice of RAs, although the regulatory method varies. Nineteen of these states regulate RAs via licensure, while seven use certification, two use accreditation, and one uses a permit. Five additional states recognize RAs in statute or in rule as qualified in radiation safety if they meet the ARRT qualifications, but do not regulate the role otherwise.³⁵

States differ significantly in the scope of practice for RAs. For patient care tasks, a plurality of states (14) does not address these in statute. Eight states, including Utah, allow RAs to assess and evaluate patient preparedness, responsiveness, and contraindications, and manage consent forms.³⁶ While Utah already permits RAs to perform more patient care tasks than other states, tasks that other states permit, but Utah does not include: updating patient records, patient intake, and performing patient follow-ups. For radiologic procedures, 24 states, including UT, allow RAs to perform the full range of procedures and administer contrast media and other medications.³⁷ For reporting and observation tasks, nine states, including Utah, allow RAs to evaluate image quality and communicate initial image observations only to the supervising radiologist.³⁸ However, Washington, Oregon, and Virginia allow RAs to perform additional documentation and reporting tasks, including making initial observations, recording procedures, and writing patient discharge forms to the radiologist.

The level of supervision for RAs varies greatly across states. Fourteen states have more relaxed supervision requirements than Utah. Generally, these states allow for remote supervision by radiologists, or they allow RAs to perform select procedures under general supervision. Additionally, Federal requirements allow RAs to be supervised under a direct level of supervision, which may include a virtual presence through audio/video real-time communications technology.³⁹ While the direct level of supervision appears more restrictive, in practice the ability for supervising physicians to provide this level of supervision through audio/video real-time technology allows for significant flexibility.

Regulatory Model Assessment and Recommendations

Framework

In an effort to standardize how appropriate regulatory models are determined for each profession (e.g. license, registry, no regulation, etc.), OPLR developed a framework which incorporates its statutory review criteria. Appropriate models are determined principally by an evaluation of the potential for harm and related factors that may aggravate or mitigate the potential for harm. These factors include the availability of consumer choice, vulnerability of patients, and independence of practice. See [Appendix 3.1](#) for potential regulatory models and

³⁵ Colorado, Minnesota, Oregon, and Rhode Island. Pennsylvania is in flux, as they have regulation legislation pending.

³⁶ Six states allow RAs to perform fewer patient care tasks, while six states specify more patient care tasks.

³⁷ Nine states do not specify the range of radiologic procedures or allow the practitioner or facility to determine what is appropriate.

³⁸ One state, West Virginia, does not allow RAs to evaluate image quality and communicate initial image observations only to the supervising radiologist.

³⁹ 42 CFR 410.32(b)(4) & 42 CFR 410.32(b)(3)(ii)

the factors in OPLR's framework.

Potential for Harm

OPLR's analysis of a profession's potential for harm considers the severity, probability, and permanence of harm to the health, safety and financial welfare of the public.⁴⁰ OPLR characterized the potential for harm by a radiological professional as generally low to moderate, with the lowest potential for harm from RPTs and higher potential for harm from RAs.

There are three primary mechanisms for patient harm to occur. First, is excessive radiation exposure of the patient. This can occur when an RT, RPT, or RA is not following the proper safety procedure or performing unnecessary, repeated imaging due to poor image quality or improper patient positioning. The probability of excessive radiation due to repeated imaging is moderate, while the severity of harm is generally low, albeit not reversible, ranging from no harm to a low increase in risk of cancer, which is a downstream risk.^{41,42,43} The risk of excessive radiation is lowest for X-Rays, slightly higher for mammograms, and highest for CT scans.⁴⁴ As RPTs can only perform X-Rays, the increased risk of other procedures is one reason why potential for harm is higher for RTs and RAs.

A second area of potential harm is physical injuries from positioning, the imaging procedure itself, or even transportation. This has a moderate likelihood, similar to unnecessary imaging, with a range of potential severity, although data indicates low occurrence of actual injury.⁴⁵ Possible physical injuries include patient falls and unhygienic practices, which is relevant for many other healthcare providers. Potential for harm is higher for RTs and RAs, who perform more advanced procedures, such as using contrast media and administering MRIs. Contrast media can cause allergic reactions in patients; however, the probability of a patient developing a life-threatening reaction from contrast media is very low (about 0.02%).⁴⁶ Often, patients are identified as high-risk for potential reactions before any contrast media is administered. MRIs have additional risks. Poor patient preparation can lead to patient injury or failed imaging due to metals interacting with the strong magnets. Out of millions of MRIs performed in the United States annually, the FDA only reports approximately 300 cases of adverse MRI effects. These include dizziness, claustrophobia, contrast media allergic reactions, and metal projectile

⁴⁰ Utah Code 13-1b-302(2)

⁴¹ Jones et al., "Ongoing Quality Control in Digital Radiography," 6660 found that repeated imaging rates hovered around 10% in screen film departments. In digital departments, rates ranged from about 4-8%. (Jones et al, 2015).

⁴² Hofmann et al., "Image rejects in general direct digital radiography" found that one hospital system had an X-ray deletion rate of 11%, with 51% of these deletions being caused by positioning errors. Positioning patients is the primary role of a radiographer.

⁴³ Godman, "Is it safe to get repeated image testing?" found radiation exposure may, although somewhat rarely, lead to mutations that lead to cancer. The long-term risk from standard X-rays is considered very low.

⁴⁴ Sodickson et al, "Recurrent CT, cumulative radiation exposure", estimated CT produces 0.7% of expected baseline cancer incidence, and 1% of total mortality.

⁴⁵ Wallin et al, "Reported patient safety incidents in radiology – understanding the relationship between risk areas and their underlying factors", analyzed 923 patient events found physical injuries, including falls, magnet projectiles, unhygienic practices, and allergic reactions accounted for 9%, slightly higher than repeated imaging at 7%

⁴⁶ Baerlocher MO et al., "Allergic-type reactions to radiographic contrast media"

injuries.⁴⁷ The most common harm from MRI is thermal burns, although these are still rare.⁴⁸ Additionally, these procedures require a licensed physician on site to intervene if necessary.

A third mechanism resulting in potential for harm is low quality radiographic images resulting in misdiagnosis by a physician.⁴⁹ While the scope of an RT and RA includes evaluating image quality, a radiologist or other physician is the practitioner who determines whether an image needs to be repeated. Therefore, the potential for harm from low image quality and missed diagnosis is largely a physician-level responsibility.

RAs have additional mechanisms for harm. They may be responsible for patient intake, monitoring patient contraindications, and more invasive procedures like feeding tube placements. NET, one of the RA-performed feeding tube placements, has moderate incidences of malpositioned tubes, sometimes resulting in cardiac or respiratory complications, or even death.⁵⁰

Ultimately, radiologic technology professionals are not responsible for the most likely and severe avenues of patient harm: diagnosing, prescribing, or treating patients.

Additional considerations only marginally increase the potential for harm. For example, there is high information asymmetry as patients would likely not have the expertise to fully understand the complexities of radiographic imaging procedures, positioning, and radiation dosing. Patient vulnerability varies as radiologic professionals work with a range of patients, from pediatric to elderly, with differing levels of acuity. Physical manipulation and touch may be involved in positioning a patient, depending on the exam and anatomical region being imaged.

The Occupational Information Network (O*NET), developed under the sponsorship of the U.S. Department of Labor, estimates an occupation's consequence of error based on how serious the result would be if a mistake was made.⁵¹ Based on the methodology, the O*NET does not allow for fine comparisons across occupations, but may be directionally helpful in assessing higher versus lower risk. Radiological technologists and technicians⁵² have an O*NET score of 75, which O*NET classifies as "Serious".

⁴⁷ U.S. Food and Drug Administration, "Benefits and Risks, MRI"

⁴⁸ Abu-Shanab et al, "A rare case of MRI-induced thermal burn" found thermal burns, although rare, represent 59% of reported MRI harm events.

⁴⁹ Mabotuwana et al., 2018, "Detecting Technical Image Quality in Radiology Reports", examining over one million radiographic images in Washington state, found radiologists noted image quality concerns in 2.4% of final imaging reports.

⁵⁰ Blumenstein et al. 2014, "Gastroenteric tube feeding" found in the US, up to 3.2% NGT/NET were accidentally inserted into the airway, resulting in pneumothorax and death. This rate would be lower for radiology-assisted placements. The study found 4-14% of radiology placed NETs had adverse effects, ranging from irritation to death.

⁵¹ O*NET Consequence of Error

⁵² A sample of reported job titles in this category includes: CT Tech (Computed Tomography Technologist), Mammographer, Multimodality Technologist, Radiographer, Radiologic Technician (RAD Tech), Radiology Technician (Radiology Tech), Registered Radiologic Technologist (RT (R)), RT (Radiologic Technologist), X-Ray Tech (X-Ray Technician), X-Ray Tech (X-Ray Technologist)

Related Factors

OPLR's analysis considers the way other factors, such as an occupation's work setting, consumer behavior, and existing alternative forms of oversight may influence the potential for harm from that occupation.

There are high levels of employer, state, and federal oversight of radiographic professionals in Utah, which mitigates some of the potential for harm for all three roles.

Supervising physicians work closely with radiologic professionals. A recent Health Workforce Information Center (HWIC) / DOPL Radiologic Technology Workforce survey indicates RTs work primarily in hospitals (62%) or outpatient clinics affiliated with a hospital (17%).⁵³ RPTs in Utah generally work in outpatient clinics (70%),⁵⁴ while some indicated working in a hospital (12%).⁵⁵ However, RPTs are highly limited in the procedures they can perform. RAs in Utah work in hospitals (25%), outpatient clinics affiliated with a hospital (50%), and universities (25%), all of which confer a high degree of clinical oversight.⁵⁶ Further, the performance of non-invasive and minimally invasive radiologic procedures by an RA must be delegated to them and performed under the indirect supervision of a radiologist.

Federally, the U.S. Centers for Medicare & Medicaid Services (CMS) regulates the conditions for Medicare participation for hospitals.⁵⁷ To participate, hospitals must have qualified radiologists supervising the ionizing radiology services, and they must interpret radiologic tests.⁵⁸ CMS also specifies that only personnel designated as qualified may use the radiologic equipment and administer procedures.⁵⁹ Unaffiliated clinics and imaging centers are subject to supervision requirements for reimbursement (e.g., contrast administrations) and must be accredited to perform advanced imaging (e.g., CT, MRI).⁶⁰

At the state level, Utah Department of Environmental Quality (DEQ) requires hospitals and affiliated clinics to register ionizing radiation machines and to ensure that operators of diagnostic X-ray equipment be trained in the proper technique and safe and effective operation of the equipment.⁶¹ Similarly, the Utah Department of Health and Human Services (DHHS) requires hospitals to establish and maintain qualified medical and professional staff.⁶²

⁵³ OPLR's analysis of the 2024 HWIC / DOPL Radiologic Technology Workforce Survey (54% total response rate, 34% UT response rate)

⁵⁴ This includes both outpatient clinics affiliated with a hospital (35%) and not affiliated with a hospital. Outpatient clinics not affiliated with a hospital include solo practice facilities and single and multi-specialty groups.

⁵⁵ OPLR's analysis of the 2024 HWIC / DOPL Radiologic Technology Workforce Survey (54% total response rate, 34% UT response rate)

⁵⁶ The sample size for RAs was very small. Only four RAs with a Utah address responded to the survey, while a total of two additional RAs responded with an address outside of Utah; OPLR's analysis of the 2024 HWIC / DOPL Radiologic Technology Workforce Survey

⁵⁷ 42 CFR Part 482

⁵⁸ 42 CFR 482.26(c)(1)

⁵⁹ 42 CFR 482.26(c)

⁶⁰ Section 135(a) MIPPA

⁶¹ R313-16-230 & R313-28-350

⁶² R432-100-7

For more details on OPLR's analysis of RTs, RPTs, and RAs according to the framework, see [Appendix 3.2](#), [3.3](#), and [3.4](#).

Recommendations

On balance, OPLR recommends continued licensure of the RT, RPT and RA roles, although a less burdensome form of regulation should be evaluated in future reviews.

OPLR considered whether a less burdensome form of regulation, such as mandatory or voluntary certification, would be appropriate, particularly for RTs and RPTs. For example, mandatory certification preserves entry requirements for a certain scope but involves a lower form of oversight from DOPL. This can be appropriate for occupations where potential for harm to consumers or patients is lower and other forms of strong oversight exist (in this case, employers, CMS, DEQ, DHHS). Under mandatory certification, DOPL could still investigate complaints about unauthorized practice, whereas for voluntary certification, DOPL could investigate complaints about unauthorized use of title. Mandatory certification is used by some states currently for regulating RPTs and/or RTs.

A lower form of regulation, such as registration, could be appropriate for RPTs given the lower harm and required supervision of their work. However, the benefit of expanded access from OPLR's recommendation below to increase RPT scope of practice may be eroded if achieved at the same time as delicensing. If licensing were removed, employers may not understand, or might be more hesitant to adopt, OPLR's proposed RPT scope expansion. Continuing with licensure also allows DOPL to maintain oversight during a period of scope expansion. While future reviews may determine licensure unnecessary, the immediate benefit to the Utah public comes from expanded scope of RPTs, which is best implemented by maintaining licensure.

Continued licensure can be justified for RTs and RAs particularly because they perform more complex procedures (e.g., radiation therapy, fluoroscopy, administering contrast media), and use imaging equipment with higher doses of radiation and patient risk (e.g., CT, MRI).

For all three professions, RTs, RPTs, and RAs, maintaining licensure also helps distinguish between the scopes of practice and required supervision levels of these overlapping professions. Eliminating licensure could erode these distinctions, resulting in licensees practicing in areas where they lack competence which could cause patient harm.

Regulatory Model Adjustments and Recommendations

After determining an appropriate regulatory model, OPLR's framework also evaluates whether adjustments should be made within a recommended model to address any material and existing safety and access issues affecting the Utah public and practitioners. Regulatory model adjustments may include changing entry qualifications, the scope of practice, unprofessional or unlawful conduct, and/or supervision and independence provisions (see [Appendix 4.1](#)).

Safety

OPLR observed relatively low levels of reported harm from RTs in the available data, recognizing that hospital systems may handle issues internally which are not reported in external data sets.⁶³ Between 2017 and 2022, there were only 13 substantiated complaints to DOPL, for a rate of 0.3 substantiated complaints per 100 RTs. Of the 13 substantiated complaints, six (46%) were related to “unprofessional conduct”, while four (31%) were related to “substance use related issues”. An additional two complaints were categorized as “unlicensed/aiding unlicensed” (15%) practice, while one substantiated complaint was related to “ethical standards” (8%).

OPLR’s analysis indicates these complaints did not result in patient harm. The unprofessional conduct complaints were related to driving under the influence and criminal mischief, which occurred outside of the workplace. One of the substance abuse complaints took place in the workplace, while the others did not. The two unlicensed/aiding unlicensed complaints were due to a misunderstanding and a briefly expired license. Both resulted in letters of concern from DOPL. The ethical standards complaint involved a practitioner with poor customer service and resulted in no patient harm.

In addition to the DOPL complaint data, OPLR analyzed the publicly available disciplinary sanction data from the ARRT. Over the last 30 years, the ARRT has revoked the certification of 18 RT practitioners in Utah.⁶⁴ Between 2017 and 2022, only one ARRT certification holder in Utah was sanctioned by the ARRT. The ARRT data corroborates Utah’s DOPL data, indicating that RTs have low levels of reported harm and practice safely.

For RPTs, OPLR also observed very low levels of reported harm from available data. There are very few substantiated DOPL complaints regarding RPTs.⁶⁵ Between 2017 and 2022, there were a total of two substantiated complaints, resulting in a rate of 0.16 substantiated complaints per 100 RPTs. This rate of complaints is low compared to similar health care professions that typically work under supervision such as occupational therapy assistants (rate of 0.5) physical therapy assistants and pharmacy technicians (rate of 0.6). Both of the substantiated complaints were categorized as “unlicensed/aiding unlicensed”.

There were no substantiated complaints for RAs from the available DOPL complaint data.

Please see [Appendix 4.2](#) for OPLR’s analysis of DOPL complaints.

Access

There appears to be a generally sufficient number of RTs nationally and in Utah; however, workforce participation may be a challenge for employers.

⁶³ OPLR’s analysis of DOPL complaint data

⁶⁴ OPLR’s analysis of the ARRT, “Disciplinary Sanction List”. Nevada, a state with a similar population to UT, had 20 licenses revoked in the same time period.

⁶⁵ OPLR’s analysis of DOPL complaint data

According to the 2024 U.S. Health Resources and Services Administration (HRSA) workforce projections, the national supply and demand of radiologic technologists and technicians⁶⁶ is nearly in balance (99% adequacy).⁶⁷ The national supply is projected to continue meeting the demand by 2038 with HRSA projecting a national adequacy of 97%.

Utah's experience shows a gap between the number of licensed RTs and estimated working RTs, suggesting that participation may be the main issue for the RT workforce. DOPL's licensing data indicates that the number of licensed RTs in Utah is much greater than the HRSA projected Utah demand. Of nearly 3,900 licensed RTs, 3,050 use a Utah address in DOPL's records,⁶⁸ which far exceeds HRSA's projected demand for Utah of 2,150 RTs. Yet HRSA's 2024 estimate of RTs shows a shortage of radiologic technologists and technicians in Utah (76% adequacy). Data from the U.S. Bureau of Labor Statistics (BLS) and the Utah Department of Workforce Services (DWS), also indicate a lower number of working RTs, albeit based on headcount.⁶⁹ OPLR therefore concludes low workforce engagement of RTs contributes to an RT workforce shortage despite a surplus of licensees. This is consistent with anecdotes from stakeholders describing staffing challenges for radiologic technicians.⁷⁰

Determining the adequacy of RPT and RA supply is more challenging, as there is no projection for the demand from HRSA or other sources. Over 95% of RPTs licensed in Utah show an address in Utah, meaning they likely work in Utah. According to the 2024 HWIC / DOPL Radiologic Technology Workforce Survey, just under 90% of RPT respondents in Utah indicated that they are actively working in radiology.⁷¹ OPLR did not hear reports of shortages of RPTs based on stakeholder and expert interviews. However, since RPTs can only perform imaging in the anatomical region of the exams they have passed, stakeholders did comment that this lack of flexibility restricted employers' use of RPTs.

The RA role is rarely used in Utah or in other states. There are eleven licensed RAs in Utah. According to the ARRT, Florida has the most credentialed RAs (54), while several states have no credentialed RAs.⁷² The limited use of RAs can be attributed primarily to federal regulations that limit RA reimbursement.⁷³ In addition to these reimbursement limitations, Utah healthcare facilities informed OPLR that Utah's supervision requirements for RAs and specific scope limitations are restrictive. Finally, there are only six ARRT accredited education programs in the

⁶⁶ HRSA defines radiologic technologists and technicians as those who "take X-rays and CAT scans or administer nonradioactive materials into a patient's bloodstream for diagnostic or research purposes."

⁶⁷ Health Resources and Services Administration, "Workforce Projections"

⁶⁸ OPLR analysis of DOPL licensing data

⁶⁹ HRSA estimates supply based on full-time equivalent (FTE). The U.S. Bureau of Labor Statistics (BLS) uses employment surveys to estimate headcount and estimates the supply of RTs in Utah as 1,580, or an adequacy of 70% based on HRSA's estimated demand for RT services. The Utah Department of Workforce Services (DWS) uses the BLS employment survey data and estimates the supply of RTs in Utah as 1,724, or an adequacy of 77% based on HRSA's estimated demand.

⁷⁰ Stakeholder interviews with Utah healthcare institutions

⁷¹ OPLR's analysis of the 2024 Utah Radiologic Technology Workforce Survey (total response rate=41%)

⁷² OPLR's analysis of the ARRT Credential Statistics

⁷³ CMS categorizes RAs as "auxiliary personnel", rather than "non-physician practitioners" (e.g., APRNs, PAs). This allows RAs to only receive "incident to" reimbursement.

United States that educate and train RAs, one of which is in Utah (Weber State).

Recommendation 1: Remove RPT Anatomical Scope Restrictions with Proper Training and Supervision

OPLR's analysis supports removing restrictions on the RPT X-ray scope of practice, subject to the proper training and supervision. Currently, an RPT's scope is defined by the ARRT's Limited Scope of Practice in Radiography content specifications, which restrict RPTs to performing specific X-ray exams in the ARRT-defined anatomical regions of the exam modules the RPT has passed. For example, the ARRT Limited Scope of Practice in Radiography Examination contents specify that RPTs may only perform five specific radiographic positions and projections⁷⁴ within the skull anatomical region after they have passed the skull exam. If a practitioner wants to perform the exams in other anatomical regions, they would have to go back and take those additional ARRT exam modules.

Instead of restricting RPT practice to the anatomical exam modules passed, OPLR recommends allowing RPTs to perform any X-ray procedure within the anatomical regions of the chest, extremities, skull/sinuses, spine, and podiatric if they 1) pass the core and at least one other section of the ARRT limited scope of practice exam and 2) receive proper training and supervision from employers.

As RPTs demonstrate and achieve competence in core modules of patient care, safety, and image production, the cognitive burden of learning new positions and projections eases. Currently, as RPT licensure in Utah only requires passing the relevant exam and does not specify minimum education or experience, employers already rely on on-the-job training. As a result, RPT competency in radiologic imaging is already enforced by employers. Because of this, OPLR does not believe the additional exam modules are a necessary condition for improving patient safety.

As noted above, there are already safeguards within the practice of an RPT that result in low potential for harm, including that RPTs are limited to X-ray procedures, must be supervised, and are not responsible for ordering, interpreting, diagnosing or creating patient treatment plans.

The removal of these restrictions aims to alleviate some of the workforce participation and staffing challenges observed in the RT and RPT professions.

Recommendation 2: Expand Scope of Practice for RAs and Broaden Supervision

OPLR recommends expanding the scope of practice for an RA to include: performing patient intake, discharge, and follow-ups; making initial image observations; and writing preliminary procedure notes for signature and approval by a radiologist. OPLR also recommends allowing RAs to be supervised by a radiologist who is readily available remotely, as long as a licensed physician is on-site and readily available.

⁷⁴ i.e., AP axial (Towne), lateral, PA axial (Caldwell), PA, submentovertex (full basal)

These recommendations align with RA education and other state and Federal practice.

As described earlier, RAs are seldom used by Utah employers for a variety of factors, but mainly due to restrictive federal reimbursement policy, which is outside of the scope of state licensure. However, as also mentioned earlier, OPLR's discussions with stakeholders suggest that Utah statute may limit the use of RAs. Currently, Utah statute allows RAs to perform the "evaluation of image quality and communication of initial image observations only to the supervising radiologist."⁷⁵ This has been interpreted by some employers to exclude the ability of an RA to make initial observations and to write preliminary procedure notes, which limits the RA role's effectiveness in the workplace.⁷⁶ However, the ARRT includes all these tasks as part of the RA required curriculum, and graduating RAs are expected to be able to perform them competently.⁷⁷ In addition, several states already permit these activities.⁷⁸

OPLR's policy scan indicates that Utah also has a more stringent supervision requirement compared to the federal requirement and the requirement in other states. Currently, Utah requires RAs to perform radiologic procedures under the indirect supervision of a radiologist.⁷⁹ In contrast, federal requirements allow RAs to be supervised under a direct level of supervision, which may include a virtual presence through audio/video real-time communications technology.⁸⁰ Similarly, Vermont allows RAs to practice without a radiologist on-site, if the radiologist is readily available remotely and a licensed physician is on-site.⁸¹ Alternatively, other states, like Arkansas, only require on-site supervision for invasive procedures.⁸² Allowing for radiologists to supervise RAs remotely matches Utah statute to Federal guidelines and the realities of remote work.

Additional Recommendations

Clarify RT Administration of Contrast Media

Currently, Utah Code states RTs may "engage in the practice of radiologic technology... including the administration of parenteral contrast media, radionuclides, and other medications incidental to radiology procedures".⁸³ This has been interpreted by some employers as potentially not allowing other forms of contrast media. To clarify scope of practice and ensure

⁷⁵ Utah Code 58-54-304(e)

⁷⁶ OPLR Stakeholder Series with Utah healthcare institutions

⁷⁷ American Registry of Radiologic Technologists, with input from representatives of the American College of Radiography (ACR), American Society of Radiation Technologists (ASRT), and Society of Radiology Physician Extenders (SRPE), "Registered Radiologist Assistant Entry-level Clinical Activities"

⁷⁸ OPLR policy scan

⁷⁹ Utah Code 58-54-102(4)

⁸⁰ 42 CFR 410.32(b)(4) & 42 CFR 410.32(b)(3)(ii)

⁸¹ Vermont Code 26 V.S.A. § 2851 & 26 V.S.A. § 2857

⁸² Arkansas Rule 17 CAR § 140-2305

⁸³ Utah Code 58-54-102(7)

RTs may perform all contrast media injections according to their training and competence, OPLR recommends modifying statute to clarify RTs may engage in all forms of contrast media.

Other Considerations

Establish Concurrent Enrollment Pathway for RT Credential

OPLR considered a recommendation related to the establishment of a concurrent enrollment pathway. Currently, the ARRT requires applicants to have earned an Associate's degree or higher to receive the RT credential. This is required because the general education courses completed during an Associate's program provide a foundation in quantitative skills, communication skills, and human behavior. Several of Utah's radiologic sciences programs offer combined Associate's and radiologic sciences programs,⁸⁴ while other programs require students to have completed the Associate's degree prior to enrolling.⁸⁵

A concurrent enrollment pathway could reduce the required time to become an RT, by allowing eligible high school students to enroll and take college courses that count toward both high school graduation and a postsecondary degree.⁸⁶ This pathway would align with the national accrediting bodies, the ARRT and the Joint Review Committee on Education in Radiologic Technology (JRCERT), as these organizations just need verification that applicants have received an Associate's degree.

OPLR encourages the Utah System of Higher Education (USHE) to create a concurrent enrollment pathway that would allow students to accelerate their entry into a radiologic sciences program.

Establish a Competency-Based Pathway From RPT to RT

OPLR considered recommending a competency-based pathway to RT licensure for those with experience as an RPT. The considered pathway would allow RPT experience to substitute for clinical experience during the radiologic sciences program.

During a radiologic sciences program, students must complete clinical competency requirements defined by the ARRT.⁸⁷ These requirements specify that a student must demonstrate clinical competence of 35 mandatory and 17 elective imaging procedures during the course of their formal education. Ultimately, a program director must observe that the student has performed these imaging procedures independently, consistently, and effectively. The number of clinical hours among radiologic sciences programs vary, ranging from about 900 hours to 1,700 hours.⁸⁸

⁸⁴ These include Weber State University, Salt Lake Community College, and Utah Tech University.

⁸⁵ These include Mountainland Technical College, University of Utah Health, and Charter College.

⁸⁶ Utah Rule R765-165-3

⁸⁷ American Registry of Radiologic Technicians, "ARRT Didactic and Clinical Competency Requirements"

⁸⁸ Based on OPLR's analysis of program materials and OPLR Stakeholder Series.

Given the overlap between the radiographic positions and projection within the scope of practice of an RPT and an RT, OPLR considered creating an alternative licensure pathway based on RPT experience and competence. This pathway would allow students enrolled in a radiologic sciences program to substitute portions of the 900 to 1,700 hours of clinical experience with experience gained from working as an RPT. A program director would still be required to sign off on a student's competency, as required by the ARRT. However, a student could shorten the time it takes to complete a radiologic science program with confirmation of their competence from prior experience.

There is a clear benefit to students, practitioners, and systems when prior experience and training is recognized through stackable credentials. However, OPLR ultimately does not recommend this pathway at this time. First, the JRCERT currently prohibits students from being paid for clinical hours, so experience gained from being employed as an RPT could not count. Second, the ARRT and JRCERT are already working on pathways to address RT shortages (e.g., creating "earn and learn" and ARRT national limited imaging credentials), so there are national changes that could make this pathway more feasible in the future. Finally, program directors are already empowered to establish alternative systems for student competency and experience, but may choose not to. For example, they may risk a program's accreditation if the competency sign-off is not conducted to the standards of the accreditor.

Define Education and Supervision for RPTs More Specifically

OPLR considered whether to specify the form of education and supervision for RPTs, especially given OPLR's recommendation to expand RPTs' anatomical scope of practice within X-ray procedures. Currently, state and rule do not specify either education or supervision requirements for RPTs.

OPLR ultimately decided not to specify these requirements, leaving responsibility for these decisions with employers, or the licensed practitioner supervising an RPT. OPLR believes this is appropriate: 1) given the lower potential for harm from the RPT role and presence of other forms of oversight of radiologic services in Utah and federally; 2) it preserves flexibility for employers in running their healthcare practices; and 3) OPLR has recommended a potentially lower form of regulation for RPTs in future, and so is reluctant to recommend requirements that may present future barriers to deregulation.

Create an Apprenticeship License for RT Students

OPLR considered whether an apprenticeship license for RT students would be appropriate, similar to existing apprenticeship licenses in nursing and respiratory care, which allow students to work with a limited scope in employment settings under supervision. This license would allow RT students who have completed a certain proportion of their program to perform a broader range of imaging than the current RPT scope, as long as those students have demonstrated competency in their programs.

Apprenticeship licenses have workforce benefits by allowing employers to deploy the didactic and clinical experience of students nearing graduation. However, OPLR determined an RT apprenticeship license would not have a distinct enough scope of practice from the proposed expanded scope for RPTs to merit an additional license. If the Utah Legislature opts not to expand the scope of practice for RPTs, then an RT apprenticeship license should be considered.

Rule Review

In accordance with Utah Code 13-1b-203(5), OPLR conducted an in-depth review of DOPL's radiologic technology rules, found in R156-54. R156-54 was updated recently in July 2026.

The rule review covered potential rule changes needed to:

1. Address specific rules that may be overly burdensome (e.g., for individuals seeking to practice a profession or given the potential risk to public safety from a profession, etc) or insufficient (e.g., to ensure safe practice);
2. Address rules misaligned with statutory language, clarify language, and correct references to statute or other rules; or
3. Support OPLR's recommendations

OPLR's review of R156-54 found:

1. Rules are not overly burdensome
2. There are two incorrect references to rule listed in Appendix 5.1 and several uses of outdated language, listed in Appendix 5.2
3. Additional rules may need to be written for the recommended RPT scope expansion

Appendix

Contents

1. Context

[1.1 General Research Methodology](#)

2. **Background**

[2.1 DOPL Licensee Data](#)

[2.2 OPLR Policy Scan](#)

3. **Regulatory Model Assessment & Recommendation**

[3.1 Menu of Regulatory Models and Factors Considered in Framework](#)

[3.2 Assessment of Radiologic Technologists](#)

[3.3 Assessment of Radiology Practical Technicians](#)

[3.4 Assessment of Radiologist Assistants](#)

4. **Regulatory Model Adjustments & Recommendation**

[4.1 Possible Adjustments](#)

[4.2 DOPL Complaint Analysis](#)

5. **Rule Review**

[5.1 Incorrect References](#)

[5.2 Outdated Language](#)

6. **OPLR Stakeholder Series**

[6.1 OPLR Stakeholder Series](#)

7. **References**

1. Context

1.1 General Research Methodology

OPLR's methodology combines qualitative and quantitative methods with robust stakeholder engagement. Methods include:

- Conducting quantitative analysis of DOPL licensee and complaint data and publicly available data from other state and federal government entities and private entities
- Reviewing academic literature and reports on a profession's practice, efficacy, and safety
- Scanning education and credentialing requirements, programs and content
- Reviewing state occupational regulation policies across the U.S.
- Engaging with a wide range of stakeholders, including: Utah governments and agencies, industry organizations, researchers, practitioners, and business owners and employers within a variety of settings.

2. Background

2.1 DOPL Licensee Data

OPLR used DOPL licensee data queried on January 13, 2026 to conduct analyses on the number of licensees per year and the inflow and outflow of licensees. The dataset included individuals first licensed after 1970 to those actively licensed as of January 2026. Each row in this dataset was a unique combination of individual and license type and contained information regarding when the license was issued, the status of the license, the date the status was last updated, and the sex and year of birth of the individual. OPLR estimated the number of licensees in each year by summing the number of unique individuals whose licenses were active during any point in each year. Additionally, OPLR excluded any individual with a null or incorrect value for their license issue date and license expiration date, as OPLR could not determine how long or for what years they were actively licensed. License counts may slightly underestimate the true number of licensees due to this, but the effect is fairly negligible given OPLR's use of the data to determine trends over time rather than estimate with precision for specific dates.

2.2 OPLR Policy Scan

To better understand the regulatory environment for RT, RAs, and RPTs, OPLR conducted a review of state occupational regulation in the United States.

OPLR used Westlaw Advantage's AI Jurisdictional Survey tool and Vulcan AI's legal and regulatory AI software, Justinian, to help determine how jurisdictions regulate RTs, RPTs, and RAs and define the scopes of practice. OPLR analysts then manually validated every state's results by reviewing the linked statutes and administrative rules, and details not included by the AI tool were added during verification. The validated sources were then used to map the

national policy landscape, find patterns in regulation, make cross-state comparisons, and discover outliers. OPLR also used the data to help inform recommendations.

This review does contain limitations related to normal human error. It is possible that there is slight misreporting of some data due to limited accessible state information, errors in data entry, or mistakes made by Westlaw's AI tool that were not caught by OPLR's manual verification. Potential bias or measurement error introduced by these limitations likely did not substantially alter any information, as OPLR engaged in rigorous validation.

3. Regulatory Model Assessment & Recommendation

3.1 Menu of Regulatory Models and Factors Considered in Framework

Please see [this working document](#), OPLR's Occupational Regulation Framework, for a more detailed explanation of OPLR's approach to assessing occupational regulation and evaluating different regulatory models.⁸⁹

3.2 Assessment of Radiologic Technologists

The following table summarizes OPLR's analysis of radiologic technologists according to factors that OPLR determined should influence the appropriate regulatory model for an occupation. Factors that OPLR considered as particularly determinative in its assessment of radiologic technologists are highlighted in bold.

Model Assessment of Radiologic Technologist (RT)	
Harm Factors	
Mechanism of Harm	RTs perform many radiologic procedures with varying degrees of radiation exposure and patient contact. The primary mechanisms of harm relate to radiation exposure and physical injury during a procedure (e.g., allergic reaction, muscle discomfort, falls). Another potential for harm is misdiagnosis from poor image quality, although this is a physician-level responsibility
Severity, Permanence, and Likelihood of Harm	The probability of harm from imaging is low to moderate and the severity of harm is generally low. Mild physical injury due to patient positioning is unlikely but also possible, although this harm is generally mild and reversible.
Consequence of Error	75 out of 100*
Downstream Impact	Misdiagnosis due to poor image quality or delayed treatment could result in irreversible downstream impacts, although RTs are not responsible for diagnosis. The likelihood, severity, and reversibility

⁸⁹ The document is also available on OPLR's website in the "About OPLR" section, accessible here: <https://oplr.utah.gov/about-oplr/>

	of these downstream impacts depends on the procedure. For example, a radiologist catching a poor image which has to be repeated increases patient radiation exposure.
Consumer & Setting Factors	
Patient Vulnerability	RTs work with patients of all levels of acuity. Patients may be unconscious or experiencing physical trauma.
Frequency of Physical Touch	There is a low to high level of physical touch depending on the procedure, and physical touch is sometimes in the lower abdomen.
Frequency of Private Setting	There is moderate to high frequency of working with patients in a private setting (e.g., imaging room).
Information Asymmetry	RTs perform radiological assessments, procedures, and imaging that a typical patient likely does not have independent knowledge about.
Related factors	
Independence	RTs work with a low degree of independence due to Utah's supervision requirements. Additionally, they do not order or interpret images, diagnose patients or prescribe medications
Patient Choice	None. Appointments are scheduled by facilities and physicians.
Information Availability	Low. Information and reviews of RTs are not easily available.
Level of Oversight	Government: Federal guidelines are fairly robust and require facilities to employ qualified personnel, adopt facility credentialing, and workplace safety (e.g., radiation exposure) to be eligible for Medicare reimbursement. There is state oversight of radiologic equipment and practices outside of DOPL through DEQ and DHHS. Employers: As most RTs work in hospital or outpatient settings, employer oversight is high. <i>Private:</i> There is moderate private oversight. States require ARRT certification for licensure, although certification for renewal is not always mandated.

*[O*NET Consequence of Error Ranking](#)

3.3 Assessment of Radiology Practical Technicians (RPTs)

The assessment for harm for RPTs is similar to the harm assessment of RTs. The significant differences are RPT restriction to lower-risk X-ray procedures only and their level of oversight. RPTs may have more direct workplace supervision but less oversight via credentialing. Although most employers and states rely on the ARRT for examinations, there are no widely adopted private credentials for RPTs.

3.4 Assessment of Radiologist Assistants (RAs)

The assessment for harm for RAs is similar to RTs, with some key differences. RAs have more mechanisms for harm. They perform more invasive radiologic procedures with varying degrees of radiation exposure and patient contact. These procedures also have a higher likelihood of harm. However, RAs can only perform radiologic procedures under the direct supervision of a radiologist. An example of this is feeding tube placement, which has a fairly high incidence of side effects, including gagging, bleeding, respiratory issues, cardiac issues, and, in extreme cases, death.⁹⁰ Similar to RNs, RAs can be responsible for patient intake, screening, monitoring, and follow-ups.

4. Regulatory Model Adjustments & Recommendation

4.1 Possible Adjustments

Please see [this working document](#), OPLR's Occupational Regulation Framework, for a more detailed explanation of how OPLR approaches whether adjustments should be made within a recommended regulatory model.⁹¹

4.2 DOPL Complaint Data

The Division of Professional Licensing (DOPL) receives complaints from individuals, other state agencies, co-workers, professional associations, and licensing boards. DOPL is required to “investigate unlicensed practice in regulated professions, acts or practices inconsistent with recognized standards of conduct, allegations of gross negligence or incompetence, and patterns of gross negligence or incompetence”.⁹² Violations that meet the criteria for investigation are then prioritized and assigned to an investigator. DOPL may resolve investigations in a variety of ways, including: closing an investigation due to a lack of evidence; referring the case to another agency or to law enforcement if appropriate; carrying out informal or formal administrative

⁹⁰ One study found in the US, up to 3.2% NGT/NET were accidentally inserted into the airway, resulting in pneumothorax and death. This rate would be lower for radiology-assisted placements. The study found 4-14% of radiology placed NETs had adverse effects, ranging from irritation to death. (Blumenstein et al. 2014)

⁹¹ The document is also available on OPLR's website in the “About OPLR” section, accessible here: <https://commerce.utah.gov/wp-content/uploads/2025/12/OPLR-Occupational-Regulation-Framework-Dec-2025-vPOS TED.pdf>

⁹² DOPL, [An Explanation of the Complaint Handling Process for the Division of Occupational and Professional Licensing](#)

sanctions or stipulated agreements; issuing a citation; or denying, suspending, or revoking an individual's license.

To analyze complaints sent to DOPL, OPLR used My License Office (MLO) to access closed complaints investigated by DOPL between 2017-2022 for all licenses/professions. This data contains information on the license name, the complaint type, and the disposition of the complaint, among many other data fields not relevant to OPLR's analysis. DOPL personnel helped code the complaint dispositions as either substantiated, unsubstantiated, or no jurisdiction. Substantiated complaints are those where a disposition includes some type of disciplinary action, whether formal or informal (e.g., letter of concern, verbal warning, surrender of license). Unsubstantiated complaints have dispositions without a disciplinary action (e.g., dismissed, lack of evidence, unfounded). 'No jurisdiction' complaints are complaints that may or may not have basis, but DOPL was not able to take action on the case.

OPLR filtered complaints to exclude any likely duplicates and then used substantiated complaints to calculate the number of complaints per license type or profession. OPLR estimated the complaint rate for each license type by dividing the number of substantiated complaints by the number of unique individuals who held that license type over the same period.

Complaint Case Notes Analysis

A more detailed analysis of complaints closed between 2017-2022 was conducted. OPLR analysts read through case notes from substantiated complaints and for each complaint summarized the issue, noted whether or not client harm occurred or potentially occurred, and if harm was present, the type and severity.

Limitations

There are significant limitations to this analysis, and the information collected should not be interpreted as a precise estimate of harm caused by radiological professions. DOPL data likely underestimates true harm, as many instances of harm may be handled in other ways (e.g., directly by employers), reported to other entities, or may never be reported. Additionally, some unsubstantiated complaints may have resulted in harm but the necessary evidence was not produced.

There could also be latent factors correlated with both the likelihood of complaint and the profession, systematically biasing the comparisons across professions. This is especially true in healthcare, as certain professions, by their nature, include a greater potential for harm and may generate more complaints. For example, surgeons have a higher likelihood of causing severe harm to a patient than RTs because surgery is inherently far riskier, not because surgeons are "less safe" or less competent than dental hygienists.

For these reasons, OPLR uses DOPL complaint data as directionally informative, but avoids direct comparisons across professions wherever possible. Fine comparisons across professions are unwarranted and unsupported by these data.

5. Rule Review

5.1 Incorrect References

OPLR identified the following incorrect references in the R156-54 Radiologic Technologist, Radiologist Assistant, and Radiology Practical Technician Licensing Act Rule:

Rule	Incorrect Reference	Correct Reference
R156-54-102(3)	Subsection 58-1-203(5)	58-1-203(1)(e)
R156-54-104	R156-1-107	R156-1-101(3)

5.2 Outdated Language

There are two references to outdated standards published by the American Registry of Radiologic Technologists (ARRT):

- R156-54-502(4) uses the ARRT “Standard of Ethics” published August 1, 2010 as a reference for what is unprofessional conduct. There is a March 2026 version. The rule could be updated to generically refer to the most recent ARRT “Standard of Ethics” instead of referencing a particular year.
- R156-54-102(3) uses the January 2009 ARRT “Content Specifications” to define the scope of practice for a radiology practical technician. This has been updated several times since. The rule could be updated to generically refer to the most recent ARRT content specifications instead of referencing a particular year.

R156-54-502(1) refers to the “Utah State Department of Health”. This should be updated to the “Utah Department of Health and Human Services”.

The heading of Rule 54 says "R156. Commerce, Occupational and Professional Licensing." Other DOPL rules carry the heading "Commerce, Professional Licensing."

R156-54-304(5) uses "his" where the rest of Title R156 does not. "Each licensee shall be responsible for keeping documentation of his professional education hours." Other DOPL rules use "the licensee's".

58-54-302(4)(b) has an expired grandfather provision for Radiologist Assistants with a Bachelor’s degree. It permitted a Radiologist Assistant without a Bachelor of Science degree to

be licensed "until May 31, 2013, at which time, the individual must have completed the Bachelor of Science degree in order to retain the license." OPLR recommends this be struck.

6. Stakeholder Engagement

6.1 OPLR Stakeholder Series

OPLR relied heavily on stakeholder engagement and qualitative interview data, combined with OPLR's other analysis, to conduct this review and develop recommendations. OPLR engaged with RT, RAs, RPTs, employers of these professions, educators, industry associations, Utah legislators, and Utah and other state regulators. OPLR prioritized diversity of perspective and relevance to the industry in selecting stakeholders. Variety in practice setting was also prioritized.

Interviews were conducted via video conferencing using semi-structured interview methods; they were conducted one-on-one and with multiple members. Extensive notes were taken for all interviews.

OPLR conducted initial interviews to understand the radiologic technology industry, determine the largest issues related to safety and access, and identify potential areas for change. OPLR will engage with stakeholders later in its review to test initial findings from analysis and preliminary recommendations. OPLR will reflect on and synthesize feedback across multiple discussion sessions to develop clear and achievable evidence-based recommendations.

Limitations

This interview sample was not randomly selected and, therefore, is not completely representative. OPLR spoke to individuals most likely to represent the broad aims and concerns of their groups. Additionally, OPLR did not contact "consumers" of any radiological professionals (i.e. patients), so their perspectives were not incorporated into this review. Thus, the stakeholder engagement and findings from these interviews should not be understood to be fully representative of the views of all Utahns, radiologic professionals, educators, employers, or any other person, group, or population.

Note that stakeholders' views are not always reflected in OPLR's recommendations. OPLR is directed by Utah Code 13-1b-302 to apply specific review criteria. These can and do lead to recommendations that diverge from stakeholder preferences. A stakeholder's appearance here is not an endorsement of OPLR's recommendations as such.

OPLR Stakeholder Series Summary - Radiologic Technology	
Government Stakeholders	
Utah Department of Commerce	Deborah Blackburn , Assistant Division Director, Division of Professional Licensing Larry Marx , Licensing Administrator, Division of Professional Licensing Allison Pulsipher , Board Administrator, Division of Professional Licensing Mark Steinagel , Director, Division of Professional Licensing
Division of Professional Licensing (DOPL) Board	MaryEllyn Gilfeather , Chairperson, Radiology Technologist Licensing Board Meeting Ambree Penrod , Board Member, Radiology Technologist Licensing Board Meeting Anna-Bri Smith , Board Member, Radiology Technologist Licensing Board Meeting
Industry Stakeholders	
Industry Associations	Brayden Crismon , Advocacy Representative, Utah Society of Radiologic Technologists MaryEllyn Gilfeather , President, Utah Radiological Society
Higher Education	Lynly Bateman , Program Coordinator, Mountainland Technical College Otto Casal , Manager of Radiologic Technology Education Programs, University of Utah Hospitals and Clinics Laurie Coburn , Department Chair & Associate Professor of Radiological Sciences, Weber State University Matt Harris , Associate Dean, Health Professions, Salt Lake Community College Tanya Nolan , Professor of Radiological Sciences, Weber State University Ambree Penrod , Assistant Professor of Radiological Sciences, Weber State University Casey Slater , Program Manager, Utah Healthcare Education Collaboration Anna-Bri Smith , Program Coordinator & Assistant Professor, Salt Lake Community College Alissa Williams , Assistant Professor & Clinical Coordinator, Utah Tech University
Employers	Jayson Argyle , Former Vice President of Imaging Services, Intermountain Health Cindy Binks , Internal Process Control Coordinator- Diagnostic Imaging, Intermountain Health Lisa Eastman , Internal Process Control Director- Imaging Services, Intermountain Health Katie Fox , Human Resource Director, Intermountain Health Brittany Garcia , Radiology Supervisor, Tanner Clinic Kenzi Garn , Intermountain Health Ginger Golz , Human Resources Strategic Workforce Planner,

Intermountain Health
Riley Hamilton, Director of Radiology Services, University of Utah
Whitney Johnson, Medallus Medical
Amber Olson, Director of Operations, Medallus Medical
Lisa Sanford, Imaging Operations Director, Intermountain Health
Aubrey Thornock, Regional Manager, Medallus Medical
Selena Young, Associate Executive Director of Radiology Services, University of Utah Health

7. References

- Abu-Shanab, Ahmad, Hanan Nasr, Amirah Mohd, Mohammad Shaweish, Ahmad Abdulraheem, and Dongfeng Du. 2025. "A Rare Case of MRI-Induced Thermal Burn: Clinical Implications and Safety Awareness." *Radiology Case Reports* 20 (5): 2243–47.
<https://pmc.ncbi.nlm.nih.gov/articles/PMC11930410/>.
- American Registry of Radiologic Technologists. 2021. Registered Radiologist Assistant: Entry-Level Clinical Activities. Board approved July 2021, implementation date January 1, 2023. St. Paul, MN: American Registry of Radiologic Technologists.
https://assets-us-01.kc-usercontent.com/406ac8c6-58e8-00b3-e3c1-0c312965deb2/7914efd9-41c7-4f2c-9c4c-e5e8c8a612f0/RRA_ELCA_2023.pdf.
- American Registry of Radiologic Technologists. 2023. Limited Scope of Practice in Radiography: Content Specifications. St. Paul, MN: American Registry of Radiologic Technologists.
https://assets-us-01.kc-usercontent.com/406ac8c6-58e8-00b3-e3c1-0c312965deb2/7deaf7d9-9770-427b-b9c6-3e6a555020cc/LIM_CSTI_2023.pdf.
- American Registry of Radiologic Technologists. n.d. "Credential Statistics and Census." Accessed [date]. <https://www.arrt.org/pages/credential-statistics-census>.
- American Registry of Radiologic Technologists. n.d. "Disciplinary Sanctions List."
<https://www.arrt.org/pages/sanctioned-list>.
- American Registry of Radiologic Technologists. n.d. Radiography Didactic and Clinical Competency Requirements, 2027. St. Paul, MN: American Registry of Radiologic Technologists.
https://assets-us-01.kc-usercontent.com/406ac8c6-58e8-00b3-e3c1-0c312965deb2/1ac05a44-5df5-4d1b-9387-bfd59d28f6dc/Radiography_Didactic_and_Clinical_Competency_Requirements_2027.pdf.
- American Society of Radiologic Technologists. n.d. "Practice Standards for Medical Imaging and Radiation Therapy."
<https://www.asrt.org/main/standards-and-regulations/professional-practice/practice-standards-online>.

- Baerlocher, Mark Otto, Murray Asch, and Andy Myers. 2010. "Allergic-Type Reactions to Radiographic Contrast Media." *CMAJ* 182 (12): 1328.
<https://pmc.ncbi.nlm.nih.gov/articles/PMC2934800/>.
- Blumenstein, Irina, Yogesh M. Shastri, and Jürgen Stein. 2014. "Gastroenteric Tube Feeding: Techniques, Problems and Solutions." *World Journal of Gastroenterology* 20 (26): 8505–24. <https://pubmed.ncbi.nlm.nih.gov/25024606/>.
- Colorado Department of Public Health and Environment. n.d. Radiation Control, 6 CCR 1007-1, Part 02. Denver: Colorado Secretary of State.
<https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=11415&fileName=6%20CCR%201007-1%20Part%2002>.
- Godman, Heidi. 2025. "Is It Safe to Get Repeated Imaging Tests?" *Harvard Health Letter*, September 1, 2025.
https://www.health.harvard.edu/newsletter_article/is-it-safe-to-get-repeated-imaging-tests.
- Hofmann, Bjørn, Trine B. Rosanowsky, Camilla Jensen, and Koon Him Wah. 2015. "Image Rejects in General Direct Digital Radiography." *Acta Radiologica Open* 4 (10): 1–6.
<https://pubmed.ncbi.nlm.nih.gov/26500784/>.
- Jones, A. Kyle, Philip Heintz, William Geiser, Lee Goldman, Khachig Jerjian, Melissa Martin, Donald Peck, Douglas Pfeiffer, Nicole Ranger, and John Yorkston. 2015. "Ongoing Quality Control in Digital Radiography: Report of AAPM Imaging Physics Committee Task Group 151." *Medical Physics* 42 (11): 6658–70.
<https://aapm.onlinelibrary.wiley.com/doi/10.1118/1.4932623>.
- Mabotuwana, Thusitha, Vijay S. Bhandarkar, Christopher S. Hall, and Martin L. Gunn. 2018. "Detecting Technical Image Quality in Radiology Reports." *AMIA Annual Symposium Proceedings* 2018: 780–88. <https://pmc.ncbi.nlm.nih.gov/articles/PMC6371374/>.
- Mayo Clinic College of Medicine and Science. n.d. "Radiologic Technologist." Accessed [date].
<https://college.mayo.edu/academics/explore-health-care-careers/careers-a-z/radiologic-technologist/>.
- Murphy, Hannah. 2026. "Pennsylvania May Soon Require Medical Imaging Professionals to Obtain State Licensure." *Radiology Business*, July 2, 2026.
<https://radiologybusiness.com/topics/healthcare-management/healthcare-policy/pennsylvania-may-soon-require-medical-imaging-professionals-obtain-state-licensure>.
- North Carolina General Assembly. 2025. Bill Summary, House Bill 590, 2025 Session. Raleigh: North Carolina General Assembly.
[https://dashboard.ncleg.gov/api/Services/BillSummary/2025/H590-SMBC-52\(CSBC-27\)-v-3](https://dashboard.ncleg.gov/api/Services/BillSummary/2025/H590-SMBC-52(CSBC-27)-v-3).

- Sodickson, Aaron, Pieter F. Baeyens, Katherine P. Andriole, Luciano M. Prevedello, Richard D. Nawfel, Richard Hanson, and Ramin Khorasani. 2009. "Recurrent CT, Cumulative Radiation Exposure, and Associated Radiation-Induced Cancer Risks from CT of Adults." *Radiology* 251 (1): 175–84. <https://pubmed.ncbi.nlm.nih.gov/19332852/>.
- U.S. Bureau of Labor Statistics. n.d. "Radiologic and MRI Technologists." *Occupational Outlook Handbook*. <https://www.bls.gov/ooh/healthcare/radiologic-technologists.htm#tab-3>.
- U.S. Department of Labor, Employment and Training Administration. n.d. "Consequence of Error." O*NET OnLine. <https://www.onetonline.org/find/descriptor/result/4.C.3.a.1>.
- U.S. Food and Drug Administration. n.d. "Benefits and Risks: MRI (Magnetic Resonance Imaging)." Accessed [date]. <https://www.fda.gov/radiation-emitting-products/mri-magnetic-resonance-imaging/benefits-and-risks>.
- U.S. Health Resources and Services Administration. n.d. "Health Workforce Projections." Accessed [date]. <https://data.hrsa.gov/topics/health-workforce/nchwa/workforce-projections>.
- Utah Department of Commerce, Office of Professional Licensure Review. 2025. OPLR Occupational Regulation Framework. Salt Lake City: Utah Department of Commerce. <https://commerce.utah.gov/wp-content/uploads/2025/12/OPLR-Occupational-Regulation-Framework-Dec-2025-vPOSTED.pdf>.
- Utah Department of Commerce, Office of Professional Licensure Review. n.d. "About OPLR." Accessed [date]. <https://oplr.utah.gov/about-oplr/>.
- Utah Division of Occupational and Professional Licensing. 2014. An Explanation of the Complaint Handling Process for the Division of Occupational and Professional Licensing. Salt Lake City: Utah Division of Occupational and Professional Licensing. <https://le.utah.gov/interim/2014/pdf/00004741.pdf>.
- Wallin, Anita, Maria Lundén, Mona Ringdal, Karin Ahlberg, and Maria Bazzi. 2025. "Reported Patient Safety Incidents in Radiology: Understanding the Relation between Risk Areas and Their Underlying Factors." *Radiography* 31 (6): 103149. <https://www.sciencedirect.com/science/article/pii/S1078817425002937>.