

"The Liquid Radiology Workforce": Navigating Shortages, Specialization, and Flexibility in Modern Radiology Practice



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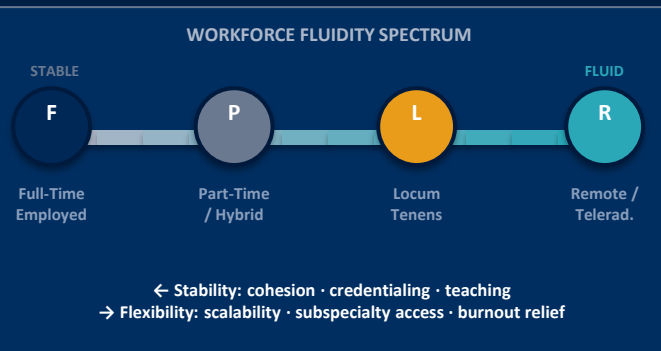
BACKGROUND

- ▶ Radiology practices face persistent shortages amid surging imaging demand driven by an aging U.S. population.
- ▶ ~50% of radiology job searches unfilled in 2023 (AAPPR); ~1,788 open ACR board positions listed in May 2023.
- ▶ Fellowship-trained subspecialists command premium salaries; post-COVID attrition rose ~50% above baseline.
- ▶ These pressures drive adoption of flexible staffing: part-time, locum tenens, remote/teleradiology, and hybrid.

METHODS / MATERIALS

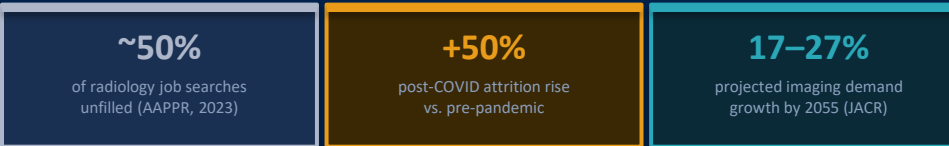
Descriptive evaluation of contemporary radiology workforce models based on peer-reviewed literature, ACR/RBMA Workforce Surveys (2021–2023), and Neiman Health Policy Institute projections.

Workforce arrangements: full-time, part-time, locum tenens, contract teleradiology, and hybrid remote/on-site. Domains: scheduling, credentialing, QA, team cohesion, and sustainability.



RESULTS

- ▶ Widespread radiologist shortages (37,482 active in 2023; ~50% of positions unfilled) accelerated adoption of flexible coverage models.
- ▶ Competitive salary pressures most acute for subspecialists; locum radiologists command \$330–\$500+/hr vs. employed counterparts.
- ▶ Liquid arrangements provide scalability and gap coverage but may challenge quality standardization, onboarding consistency, and accountability.
- ▶ Post-COVID attrition rose ~50% above baseline; 36.7% of radiologists considered early retirement, amplifying non-traditional staffing reliance.
- ▶ Pediatric radiology declined from 6.4% to 4.6% of the workforce (2016–2023), illustrating acute subspecialty vulnerability.
- ▶ Practice consolidation accelerating: radiology-only practices shrank ~31% (2014–2023), driving subspecialization and staffing complexity.
- ▶ Practices balancing liquidity with deliberate credentialing, monitoring, and cultural inclusion demonstrate better quality and retention.
- ▶ Imaging demand projected to grow 17–27% by 2055; radiologist supply grows only ~26% — the gap will not self-resolve without intervention.



CONCLUSION

- ▶ The 'liquid workforce' reflects both necessity and strategic adaptation — traditional models alone cannot meet modern radiology demands.
- ▶ Persistent shortages and subspecialty demand require flexible staffing, but flexibility without structure risks quality and continuity.
- ▶ Deliberate operational design — credentialing rigor, performance monitoring, cultural integration — is essential in a fluid workforce.
- ▶ Workforce sustainability requires growing the trainee pipeline, leveraging teleradiology, and evidence-based retention strategies.

WORKFORCE MODELS AT A GLANCE

| Model | Coverage | Quality Risk | Cost |
|---------------|------------|--------------|------------|
| Full-Time | Consistent | Low | High fixed |
| Part-Time | Moderate | Low–Mod | Moderate |
| Locum Tenens | Flexible | Moderate | High |
| Teleradiology | Scalable | Mod–High | Variable |

KEY OPERATIONAL CHALLENGES

- ▶ Credentialing & privileging delays for locum/remote staff across multiple institutions
- ▶ Variable onboarding creates inconsistency in protocols, PACS workflows, and communication standards
- ▶ Teaching & mentorship continuity threatened when non-permanent staff fill core roles
- ▶ Cultural cohesion and accountability gaps with high-turnover staffing arrangements
- ▶ QA metrics harder to track across distributed or contract workforce models

STRATEGIC RECOMMENDATIONS

- ▶ Standardized credentialing pathways and expedited privileging for all flexible staff
- ▶ Structured onboarding protocols adaptable to short-tenure arrangements
- ▶ Protect teaching & QA roles via core permanent staff — supplement, don't replace
- ▶ Performance dashboards to monitor quality metrics across all workforce types
- ▶ Tiered compensation and flexible scheduling to compete with locum market rates

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