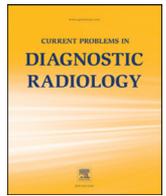




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A Comparison of Neuroradiology and Pediatric Radiology Job Boards

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ABSTRACT

Purpose: ACR workforce surveys have suggested progressive recovery in the number of available jobs for radiologists over the past several years. The purpose of this study was to ascertain the status of jobs available in diagnostic radiology as well as to analyze the content of the job boards of general radiology and subspecialty societies with the intent of uncovering differences in posting preferences to better steer job seekers.

Methods: The content of the online job boards hosted by the SPR, ASNR, ACR, and RSNA was evaluated on 365 consecutive days between July 1, 2016 and June 30, 2016.

Results: Job growth was demonstrated on the ACR Career Center, which peaked in the number of postings in early March. A total of 72% of the jobs posted on the SPR Career Center were academically affiliated compared to 55% on the ASNR job listings. On average, only 3% of the jobs on the ACR Career Center were for pediatric radiologists whereas 13% were designated for neuroradiologists. Fellowship postings peaked in mid-autumn for the SPR Career Center and mid-spring for the ASNR job listings. Attending-level positions remained online for 3.01 months on the SPR Career Center and 1.80 months for the ASNR job listings. Approximately half of the advertisements on the RSNA Career Connect website reflect fellowship openings.

Conclusion: The online ACR Career Center showed growth in the number of radiology job openings through the 2016–2017 academic year. Subspecialty job boards in pediatric radiology and neuroradiology were more likely to advertise academically affiliated positions than the ACR Career Center.

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Introduction

The 2016–2017 academic year was seen by many as a time in which the diagnostic radiology job market recovered. Although hiring projections had trended downward in 2013, the 2017 ACR Commission on Human Resources Workforce Survey suggested an increase in projected openings for the fourth consecutive year in 2017.¹ This increased number of positions is enlightening for new radiologists, and it is likely to signal increased competition between practices for applicants. Although the use of physician recruiting firms, printed advertisements, and word-of-mouth are valuable tools in procuring new radiology talent,² the ease and inexpensive use of the Internet makes web-based job postings a convenient venue for both applicants and practices.

The American College of Radiology (ACR) maintains a large depository of job listings that encompasses all subspecialties of radiology,³ as do many other radiology societies including the Radiological Society of North America.⁴ Previous authors assessed data from the ACR Career Center over the 2010–2013⁵ and 2014–2015⁶ academic cycles. Peaks in job seekers registering for the ACR Career Center were most likely to be observed in October from 2010 through 2012, and these peaks in registered job seekers corresponded to increased competition for jobs, as the job totals did not increase in number at the same rate.⁵ Advertisements were comprised of approximately 75.7% private practice jobs and 16.3% academic positions with the greatest demand for breast, neuroradiology, and musculoskeletal radiology skills from 2014–2015.⁶

Jobs in pediatric radiology and neuroradiology commonly require fellowships accredited by the Accreditation Council for Graduate Medical Education (ACGME) and eligibility for subspecialty certification by the American Board of Radiology (ABR). As such, positions in neuroradiology and pediatric radiology are unique in that accredited fellowship training is often perfunctory. The Society of Pediatric Radiology (SPR)⁷ and the American Society of Neuroradiology (ASNR)⁸ both maintain job boards similar to the ACR.

This study looks more closely at the SPR and ASNR job boards in an effort to advise future practices and job seekers interested in these subspecialties regarding the potential for their searches while also further elaborating on employment data regarding increasing trends in job availability for diagnostic radiology. Neuroradiology was targeted because it was cited as the most desirable subspecialty projected for 2017 while pediatric radiology was predicted as the least desirable among subspecialties with associated society job boards that make up 5% or more of the workforce.¹

Methods

Job board postings for the websites of the SPR and ASNR were accessed daily from July 1, 2016 through June 30, 2017. Each job posting was recorded and classified on the basis of academic or nonacademic. Positions listed as an academic rank were deemed to be academic. A job was designated as academic if the posting agency was a university or not-for-profit hospital affiliated with a postgraduate radiology training program. Locations were recorded. A listing was not considered unique if it appeared earlier in the studied time period. If a position was relisted after it had disappeared, the separate

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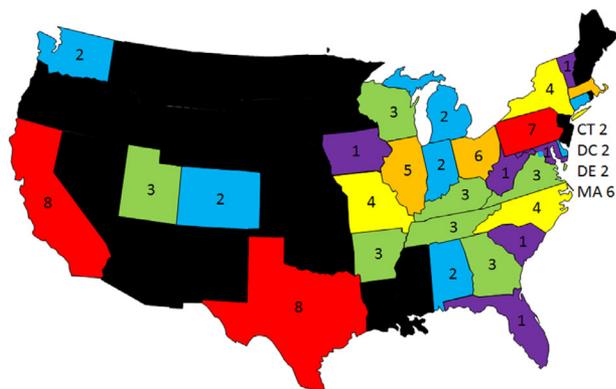


FIG 1. Total number of unique jobs posted on the SPR Career Center during the 2016-2017 academic year by state. (Color version of the figure available online.)

posting periods were added together. Fellowships were assessed separately from attending-level jobs. The amount of time spent on the job board was also calculated for each listing.

The format in which jobs were posted on the SPR website changed to the Association Career Network platform on November 28, 2016. This change added additional “jobs from the web” links to the board, though these posts were not included in this analysis.

The numbers of total posted jobs on the ACR, RSNA, SPR, and ASNR boards were assessed on a daily basis from July 1, 2016 through June 30, 2017. Positions designated as neuroradiology and pediatric radiology on the ACR website were counted separately. The RSNA Career Connect website did not have a subspecialty specific search feature throughout the period of data collection.

Results

SPR Career Center

There were 97 unique positions for attending-level physicians in the United States and 19 unique domestic fellowship positions posted on the SPR website during the year. Totally, 72% of the attending-level domestic positions on the SPR website were academic. Attending-level domestic positions were posted/reposted an average of 2.86 times for an average of 3.01 months (2.68 times/3.08 months academic and 3.27 times/2.78 months nonacademic). The geographic distribution of total attending-level positions is shown in [Figure 1](#). Fellowship positions peaked at 14 from late October through early November. Fellowships were posted on the SPR website for an average of 3.56 months.

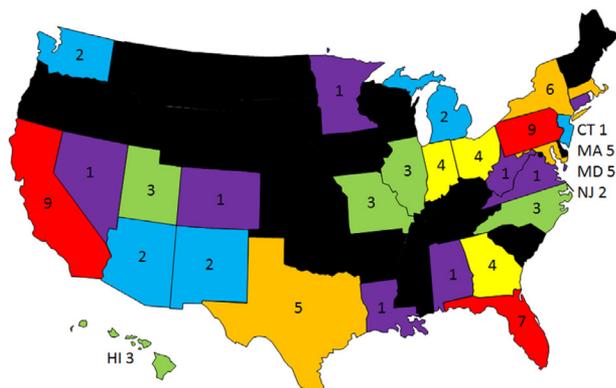


FIG 2. Total number of unique jobs posted on the ASNR Job listings during the 2016-2017 academic year by state. (Color version of the figure available online.)

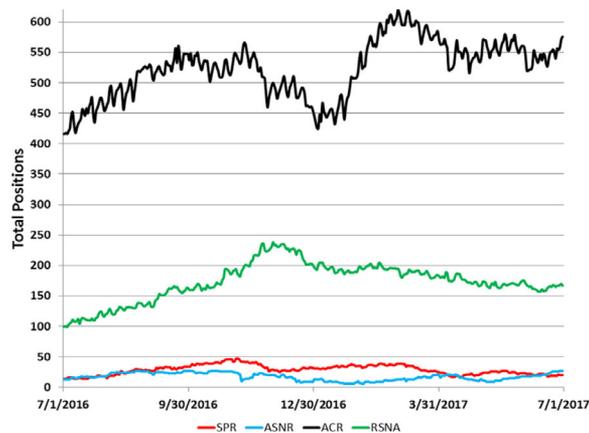


FIG 3. Job count listed by the SPR, ASNR, ACR, and RSNA on each day of the 2016-2017 academic year. (Color version of the figure available online.)

ASNR Jobs Listing

There were 93 unique positions for attending-level physicians in the United States and 31 unique domestic fellowship openings posted on the ASNR website during the year. A total of 55% of the attending-level domestic positions on the ASNR website were academic. Attending-level domestic positions were posted or reposted an average of 1.28 times for an average of 1.80 months (1.29 times/1.77 months academic and 1.27 times/1.92 months nonacademic). The geographic distribution of total attending-level positions is shown in [Figure 2](#). The number of open fellowships listed on the ASNR website climbed from only 1 in mid-March to the peak of 12 in mid-April. Fellowships were posted for an average of 1.58 months. The precipitous drop on November 9, 2016 coincides with a change in the display format on the website, presumably in concert with either a software change or alteration in ASNR policy.

ACR Career Center

The daily job total for each of the boards studied is shown in [Figure 3](#). The ACR Career Center showed increases in the number advertised positions from 416 at the beginning of the study period to 576 at the end with a peak of 619 on March 2, 2017 (study day 245). On average, only 16.4—jobs (3%) listed on the ACR Career Center were designated for pediatric radiologists on a given day while the corresponding number for neuroradiology was 66.9 jobs (13%).

[Figures 4 and 5](#) compare the ACR Career Center to the SPR and ASNR websites, respectively. The peak number of advertisements on the SPR website was 47 (33 attending-level positions) on November 4-6, 2017 (study days 127-129). ASNR job listings peaked at 27 (26 attending-level positions) on multiple days in September and October 2016.

RSNA Career Connect

In all, 47% of the jobs posted on the RSNA Career Connect website were fellowship openings. The number of fellowships posted on the RSNA website increased over the course of the year and peaked at 104 in mid-April. Most of the job growth on RSNA Career Connect was attributable to increases in fellowship postings, as the percentage of RSNA jobs listed as fellowships started at 33% at the beginning of the study period and ended at 54%, peaking at 59% on June 12, 2017.

Just as described in prior analysis of the ACR Career Center, salary information was rarely provided on any of the job boards studied.

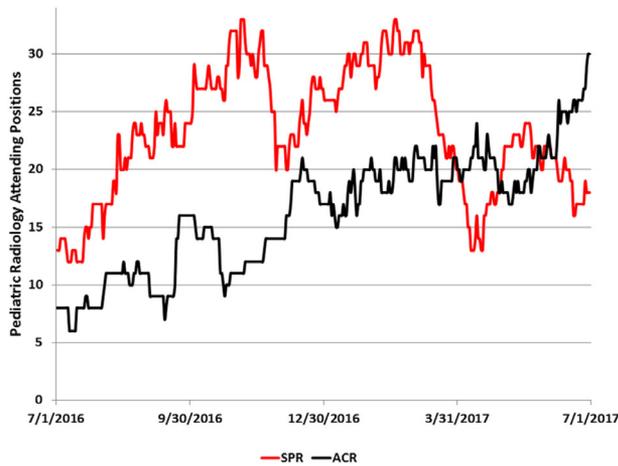


FIG 4. Comparison of daily job totals listed by the SPR and ACR on each day of the 2016–2017 academic year. (Color version of the figure available online.)

Discussion

Previous analysis of the ACR Career Center showed growth in the number of job postings as of June 2015,⁶ and the 2017 ACR Workforce Survey reflected an increase in the actual number of jobs offered in 2016 for the third year in a row.¹ This study demonstrates continued growth in the number of diagnostic radiology jobs described in prior job board analyses and workforce surveys. Review of the ACR Career Center on March 15, 2018 showed an ACR Career Center job total of 672 jobs, an increase from 576 observed at the end of the period studied here.

The ACR, ASNR, and SPR job boards peak in number of positions in the late autumn and late winter or early spring. Similar peaks were noted in prior ACR job board analyses.^{5,6} The first peak occurs shortly after the onset of the fiscal year for many institutions. These peaks also serve as bookends for the prime job-seeking season for training fellows. The number of posted jobs declines in April consistent with the procurement of positions by fellows in training. Those fellows still in search of a job by April should adjust their expectations accordingly.

The ACR began to advertise more pediatric radiology jobs than the SPR at the end of the study. The ACR and SPR websites were reviewed again in January 2018, and the trend continued with the ACR more than doubling the SPR in the number of attending-level pediatric radiology jobs. Most of this effect is attributable to the more private-practice-oriented posting on the ACR Career Center in which approximately half of the pediatric radiology positions are nonacademic.

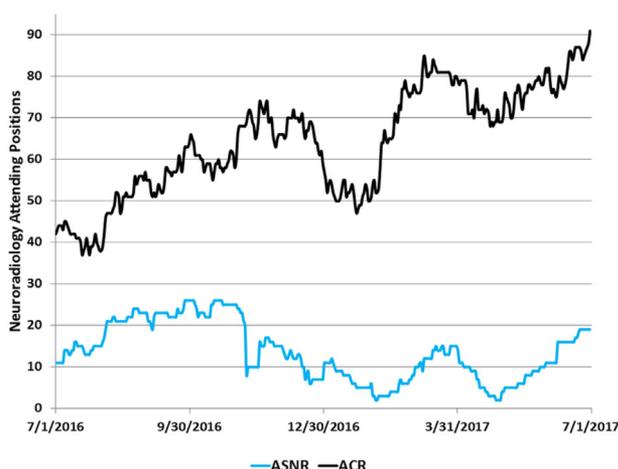


FIG 5. Comparison of daily job totals listed by the ASNR and ACR on each day of the 2016–2017 academic year. (Color version of the figure available online.)

The percentage of pediatric radiologists working in academic practices has been estimated to be approximately 50%,⁹ which coincides with jobs advertised by the ACR. Academic positions are thus over-represented on the SPR job board. Pediatric radiologists interested in private practice are more likely to find a relevant match on the ACR Career Center. There were 65 accredited pediatric radiology fellows in training during the study.¹⁰ If the SPR website is indicative of the minimum number of jobs available that year, the academic year represented a ratio of at least 1.5 jobs per fellow (1.4 if calculated using ACR Career Center data). These statistics are promising for perspective pediatric radiologists. Given the drop in fill rate for total accredited pediatric radiology fellowship positions from 66% in 2015–2016 to 52% in 2016–2017 and 46% in 2017–2018,¹⁰ the pediatric radiology job market is poised to favor applicants in the upcoming years.

There were 265 neuroradiology fellows in accredited programs during the 2016–2017 academic year.¹¹ Using the number of unique ASNR job board attending-level job postings as the minimum of the number of jobs available, this would represent a minimum of 0.35 jobs per fellow, however, this increases to 1.13 if ACR Career Center data is used. Jobs were reposted much less frequently on the ASNR website compared to that of the SPR which suggests that neuroradiology jobs may fill more quickly. This is not surprising given the 4:1 ratio of accredited neuroradiology fellows to accredited pediatric radiology fellows. The geographic distribution of positions offered on the ASNR website is also far more diverse than jobs posted on the SPR Career Center.

Advertised pediatric radiology fellowships peak in the autumn. As pediatric radiology does not use a match system, this is likely reflective of positions that were not filled during the traditional time. Radiologists interested in neuroradiology fellowships saw increases on the ASNR job board toward the end of the academic year which may reflect new openings from vacated fellowship positions. In conjunction with the surge in fellowship openings observed later in the academic year on the RSNA Career Connect website, it is possible that the fellowship openings could indicate a new trend in which prospective fellows are abandoning the extra training in favor of employment after residency.

A few limitations to this study are relevant. This study does not take into account the cost of the advertisements which could explain differences in employers' posting choices. It could not be definitively concluded that pediatric radiology jobs remain open longer than neuroradiology jobs as a result of this possibility.

Even though very few listings specified an experience requirement, several of the jobs listed were designated as leadership positions which would not be open to new graduates. Nonetheless, the filling of these slots by currently practicing radiologists can potentially result in a domino effect in which a job eventually opens for a new graduate.

It must be emphasized that Internet advertisements are only an indication of the job market. A large number of jobs are given outside of this process, and postings may not indicate actual jobs that are available at the time of the listing. Nonetheless, the number of posted job advertisements should fluctuate in concert with the job market as a whole.

In conclusion, data from the ACR Career Center continued to show growth in the number of positions advertised during the academic year of 2016–2017. Job Boards hosted by the Society for Pediatric Radiology and American Society of Neuroradiology are more likely to advertise academically-oriented positions than the ACR Career Center. Peaks in advertised jobs occur in the late autumn and late winter or early spring. The RSNA Career Connect website is an excellent repository of fellowship openings.

References

1. Bluth EI, Bansal S, Bender CE. The 2017 ACR commission on human resources workforce survey. *J Am Coll Radiol* 2017;14:1613–9.

2. Harold J. Successful recruiting of radiologists. *J Am Coll Radiol* 2007;4:240–7.
3. ACR Career Center. Available at: (<https://jobs.acr.org>). Accessed March 15, 2018.
4. RSNA Career Connect. Available at: (<http://www.rsna.org/careers/>). Accessed June 30, 2017.
5. Prabhakar AM, Oklu R, Harvey HB, et al. The radiology job market: Analysis of the ACR Jobs Board. *J Am Coll Radiol* 2014;11:507–11.
6. Misono AS, Saini S, Prabhakar AM. Radiology jobs: Uncovering hidden and not-so-hidden opportunities from the ACR Jobs Board. *J Am Coll Radiol* 2016;13:471–6.
7. SPR Career Center. Available at: (<https://spr.associationcareernetwork.com>). Accessed June 30, 2017.
8. ASNR Jobs Listing. Available at: (<https://www.asnr.org/resources/jobs-listing/>). Accessed June 30, 2017.
9. Merewitz L, Sunshine JH. A portrait of pediatric radiologists in the United States. *AJR Am J Roentgenol* 2006;186:12–22.
10. Pfeifer CM. Declining interest in pediatric radiology prompts a call to action. *J Am Coll Radiol* 2018;15:490–2.
11. Accreditation Council for Graduate Medical Education. Data resource book. Available at: (<http://www.acgme.org/About-Us/Publications-and-Resources/Graduate-Medical-Education-Data-Resource-Book>). Accessed March 15, 2018.