

MR. This decreased reimbursement was due largely to reduction of the work relative value unit component.

This poses a significant reduction in reimbursement when considering that breast biopsy will be required in hundreds of thousands of women in 2014 alone, with the estimated projection of more than 290,000 breast cancers diagnosed this year [1]. To obtain a more accurate projection of services, data were collected from CMS claims information from 2011 to determine the number of biopsies performed on Medicare patients. Specific data regarding breast biopsy were selected using the Current Procedural Terminology codes 19102, 19203, and 19295 from the CMS Physician Supplier Procedure Summary Master File, which contains aggregate data from 100% of Medicare Part B beneficiaries. A total of 111,142 breast biopsy claims were identified from physician offices, and 222,436 claims were identified from outpatient hospital offices for 2011. Using the CMS 5% Limited Data Set claims files, which contain all Part B claims for a 5% sample of Medicare beneficiaries, it is possible to examine the distribution of physicians performing biopsies, rather than procedures performed as above, by place of service. A total of 1,641 unique physicians performing breast biopsies were identified from physician offices and 3,475 physicians from outpatient hospital offices.

A cursory glance at these numbers demonstrates that a substantial Medicare population received breast care in 2011, let alone a significant number of radiologists providing care to these patients. Consider that these numbers will likely be similar or increased for 2014 and also do not represent the hundreds of thousands of non-Medicare patients requiring breast care, as well as the radiologists who serve these patients. Diminishing reimbursements for breast biopsy signal a decrease in the importance placed on the role radiologists play in necessary breast care.

Payment policy for breast care needs to be properly aligned with and

adequately reflect the value of breast care, from screening mammography, to diagnostic mammography, to breast biopsy and finally wire localization. It is essential to reimburse imaging and image-guided procedures at a level that ensures quality breast care.

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<http://dx.doi.org/10.1016/j.jacr.2014.09.023> ■
S1546-1440(14)00671-1

Diversity Matters: Historical Lessons

We read the work by Lightfoote et al [1,2] on improving diversity inclusion and representation in diagnostic radiology (DR) and radiation oncology (RO) with great interest. With a focus on the inequity of women in the field, we undertook a survey of the Association of American Medical Colleges FACTS database to describe the trends of women entering different

specialties over the past 2 decades [3] (when the number of women matriculating at US medical schools rose from 29% of all matriculants in 1980 to 48% in 2012 [4]). The percentage of women in each field coupled with the fold change shows a disturbing trend within DR and RO as not following the national pattern of an increase in the percentage of women matriculating in medical school (Table 1).

Using the time-series data, we produced an autoregressive integrating moving average model to forecast the potential continued trend for each specialty in the next 5 years without intervention (Fig. 1). The model predictions for DR and RO demonstrate a flat enrollment of women in the next 5 years. This trend stands in stark contrast to surgical fields that traditionally have had trouble attracting female residents, such as urology, ear, nose, and throat, and orthopedic surgery. We hypothesized that the work-hour restrictions recommended by the Institute of Medicine and implemented by the ACGME in 2004 had the greatest effect on changing the mix of women in specialties that are more procedurally based, and historically male-dominated, but ophthalmology, urology, and obstetrics and gynecology were already trending toward more women before the change in work hours.

Table 1. Percentage of female residents per specialty, with fold change from 1989 to 2011

Specialty	1989	2011	Fold Change
Radiation oncology	25.2	32.3	1.28
Diagnostic radiology	24.7	26.8	1.08
Family medicine	31.7	54.3	1.71
Internal medicine	27.4	44.5	1.62
Pediatrics	50.3	70.3	1.40
Obstetrics and gynecology	44.2	82.0	1.86
Ophthalmology	22.6	43.1	1.91
Dermatology	46.4	63.5	1.37
Plastic surgery	13.4	28.7	2.14
Otolaryngology	13.6	34.1	2.51
General surgery	13.0	37.1	2.85
Orthopedic surgery	5.0	13.6	2.72
Urology	5.3	23.9	4.51

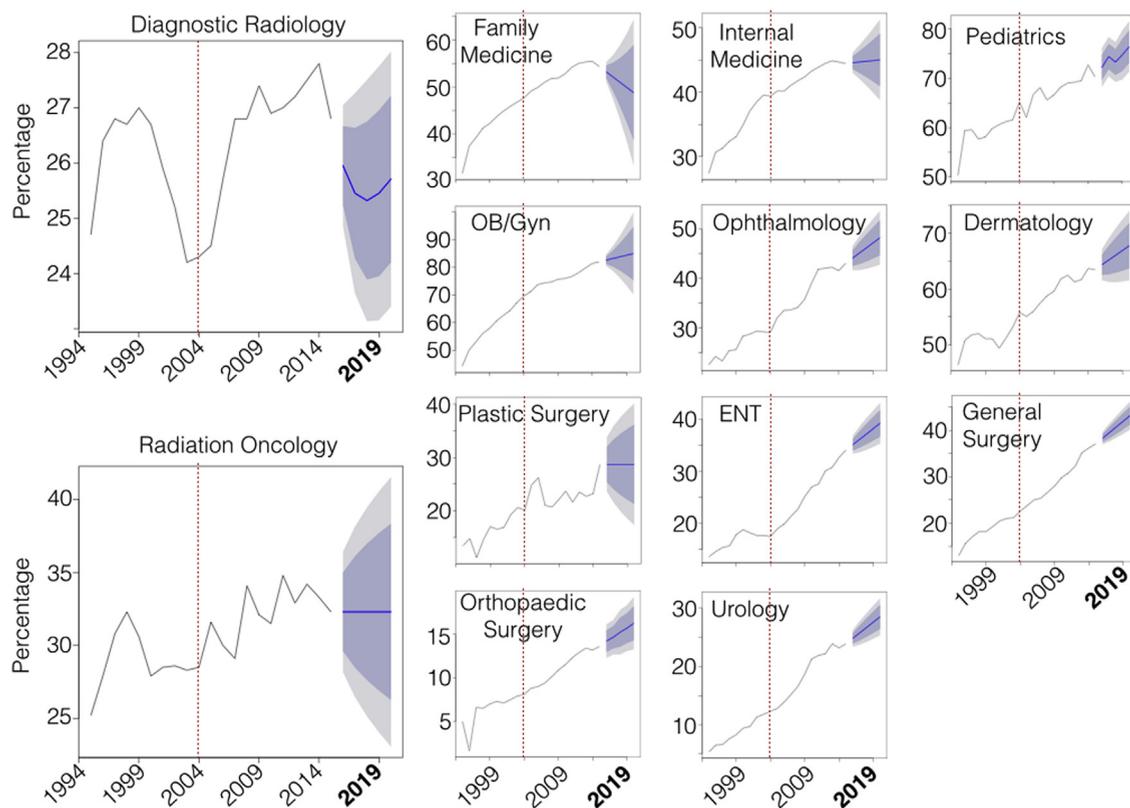


Fig 1. Autoregressive integrating moving average forecasts of percentage of women in each field projected to 2019. The hashed red line represents the institution of work-hour changes by the ACGME. The blue line represents the prediction, with dark shading representing the 80% prediction interval and light shading the 95% prediction interval.

We applaud the recommendations made by Lightfoote et al [1,2] for the leaders in the house of radiology to “get the house in order.” Focusing on the 3 areas of advocacy and awareness, professional development support and institutional performance improvement will likely break these trends in our fields for the better. Although a “top-down” approach can start the efforts to improve the “specialty gap,” the true change can come from within the field: we can each play a part in mentorship and recruiting efforts. We additionally recommend investigating the specific reasons why women and underrepresented minorities do not choose to go into radiology and RO, which the authors admit are unclear,

so that targeted interventions can be undertaken. The historical trends in other fields can inform all of these efforts as we can learn from our colleagues in other specialties that have had success in recruitment of women and underrepresented minorities.

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<http://dx.doi.org/10.1016/j.jacr.2014.09.023> ■
S1546-1440(14)00583-3