

Editorial on Market Analysis of Supply of General Surgeon

Nathan W Bronson

From 2008 to 2012, 134 residents completed a general surgery residency in Oregon or Wisconsin (58 Oregon, 76 Wisconsin). Of these graduating general surgery residents, 38 (66%) in Oregon and 52 (68%) in Wisconsin pursued fellowship training. The fellowships pursued are listed in Table 2. In order to assess practice emphasis and competing fellowship experience at each residency program, the types of fellowships coexistent with each residency program were compared. The fellowships offered in Wisconsin include cardiothoracic (1 fellowship), critical care (1), endocrine (2), hepatopancreaticobiliary (1), minimally invasive (2), pediatrics (1), transplant (1), and vascular (2). Most of these fellowships were offered at either University of Wisconsin (4 fellowships) or Medical College of Wisconsin (6 fellowships) while Marshfield has no fellowship programs and Gunderson has a minimally invasive surgery fellowship only. The fellowships offered in Oregon at Oregon Health and Science University include colorectal, critical care, cardiothoracic, hepatopancreaticobiliary, minimally invasive, pediatric, and vascular surgery. The decision to pursue a fellowship and the types of fellowships pursued by residency program graduates did not correlate with the existence of specialty fellowships or the types of fellowship programs at that site. Specific practice location was known for all Oregon graduates and 47 (62%) Wisconsin graduates. Among all Oregon graduates, 30 (52%) remained in Oregon. Of the 20 Oregon graduates who did not pursue fellowship, 11 (55%) remained in Oregon, 1 (5%) left Oregon but stayed in the Pacific Northwest, and 9 (40%) left the Pacific Northwest entirely. Out of the 47 Wisconsin graduates with known practice locations, 17 (36%) remained in Wisconsin after graduation. Of the 24 Wisconsin graduates with known practice locations who did not pursue fellowship, 11 (46%) went into practice in Wisconsin, 9 (38%) left Wisconsin but remained in the Midwest region, and 4 (17%) left the Midwest to practice general surgery elsewhere. **DISCUSSION** Findings from this study identify a disparity between the training that general surgery trainees pursue and the skills that general surgery employers seek. While almost 70% of trainees in both states sought fellowship training in general surgery subspecialties, a number consistent with other previously published national reports,^{8,10} fellowship was required for only 34% of the available positions. These data suggest that twice as many fellowship-trained surgeons are produced compared to what are needed. Although the majority of positions for general surgeons did not require fellowship, a large

proportion preferred a specialized skill set. The supply of general surgeons relative to subspecialists has been suggested to have important financial implications. As recently described by Ricketts et al,¹² a higher general surgeon to population ratio correlated with lower Medicare costs, while the opposite was true if the ratio favored subspecialists. Accordingly, the disparity between the supply of general surgeons and subspecialists likely contributes to greater costs to our healthcare system, which is already financially strained. In Oregon there were 0.70 postings per 100,000 people, and in Wisconsin there were 0.77 per 100,000. Given variations in the market, these two figures likely represent similar overall demand for general surgeons. However, it is clear that graduates in both states are not filling the demand of their respective geographic regions. In both states combined, fewer than 6 graduates per year were known to stay in their respective state to fill a general surgery job despite the availability of 17 positions in the two states over a similar time period. This study suggests geographic variation in the individual skills sought in the general surgery job market, despite a rather similar overall demand.

Nathan W Bronson
Oregon Health & Science University, US