

First-Year Graduate Medical Education in the United States: 2002-2013

To analyze trends in first-year graduate medical education (GME) training positions in the United States, the NRMP compiled NRMP Main Residency Match® outcome data with publicly-available information from the Association of American Medical Colleges (AAMC), the American Association of Colleges of Osteopathic Medicine (AACOM®), and the American Osteopathic Association (AOA®). Note that these data do not address the projected shortfall of an adequate number of residency training positions or physician workforce needs. For context, the AAMC estimates a shortage of 45,000 primary care physicians and 46,000 specialists by 2020 as a result of population growth, the aging (and longer lifespan) of baby boomers, and retiring physicians.¹

The numbers of post-graduate year one (PGY-1) residency positions in the NRMP Main Residency Match (“the Match”) between 2002 and 2013 were compared to the numbers of graduating seniors from United States allopathic medical schools during the same time period (Chart 1). For a broader perspective, international medical school students and graduates (IMGs) and osteopathic medical school students and graduates who obtained PGY-1 positions in the Match, as well as osteopathic medical school students and graduates who obtained positions in the AOA Match, also were evaluated (Chart 2). In addition, the numbers of allopathic and osteopathic students and graduates were combined to generate the total numbers of medical school graduates in the United States (Chart 2).

Chart 1 shows that 20,602 PGY-1 positions were placed in the 2002 Main Residency Match. That same year, 15,676 senior students graduated from US allopathic medical schools. By 2013, the number of positions in the Match had grown by 28 percent to 26,392 and the number of graduating seniors had increased by 16 percent to 18,156. With the exception of the 2002 Match, there have been at least 5,000 more PGY-1 residency positions in the Match than there were graduating US allopathic seniors. In 2013, the gap was more than 8,200, due primarily to implementation by NRMP of the All In Policy and the resulting larger-than-normal increase in the number of positions placed in the Match. Between 91 and 95 percent of US allopathic medical school seniors participate in the Match every year, and 93 to 95 percent match to PGY-1 positions (not shown in the charts).

US osteopathic seniors and graduates and IMGs are other major groups seeking positions in the Main Residency Match. Chart 2 shows that in 2002 the numbers of osteopathic students/graduates and IMGs who obtained PGY-1 positions in the Main Residency Match equaled approximately one-third the number of matched US allopathic seniors. By 2013, that proportion had grown to almost one-half. The Match Week Supplemental Offer and Acceptance Program® (SOAP®), launched by the NRMP in 2012, enhanced NRMP’s ability to track the number of applicants obtaining residency positions.

The AOA Match provides matching services for osteopathic seniors and graduates seeking positions in osteopathic training programs. Position fill rates in the AOA Match have varied between 50 percent and 70 percent over the reporting period, and many unfilled AOA Match positions in dually-accredited programs are placed in the NRMP. In 2002, 1,326 osteopathic students and graduates obtained PGY-1 positions through the AOA Match. That number has increased every year, reaching 1,891 in 2013. Combining data from the NRMP and AOA Matches, more than 27,000 applicants obtained first-year

¹ Physician shortages to worsen without increases in residency training. Association of American Medical Colleges, June 2010. Web accessed 4 Sept. 2013. <https://www.aamc.org/download/286592/data/>

GME training positions in the United States in 2013, and more than 21,000 of those applicants were senior students and prior-year graduates of US allopathic and osteopathic medical schools. In all years between 2002 and 2013, the combined number of graduating students from US allopathic and osteopathic medical schools was lower than the total number of available PGY-1 positions in the NRMP and AOA Matches.

Data Sources:

NRMP Match data from NRMP Data Warehouse and Results and Data Reports

- National Resident Matching Program, Results and Data: 2013 Main Residency Match. National Resident Matching Program, Washington, DC. 2013. <http://www.nrmp.org/match-data/main-residency-match-data/>
- National Resident Matching Program, Results and Data: Main Residency Match. National Resident Matching Program, Washington, DC. 2002-2012. <http://www.nrmp.org/match-data/nrmp-historical-reports/>

Allopathic graduation data from AAMC

- Graduation: Total Graduates by US Medical School, Sex, and Year, 2003-2012. <https://www.aamc.org/data/facts/enrollmentgraduate/148670/total-grads-by-school-gender.html>.

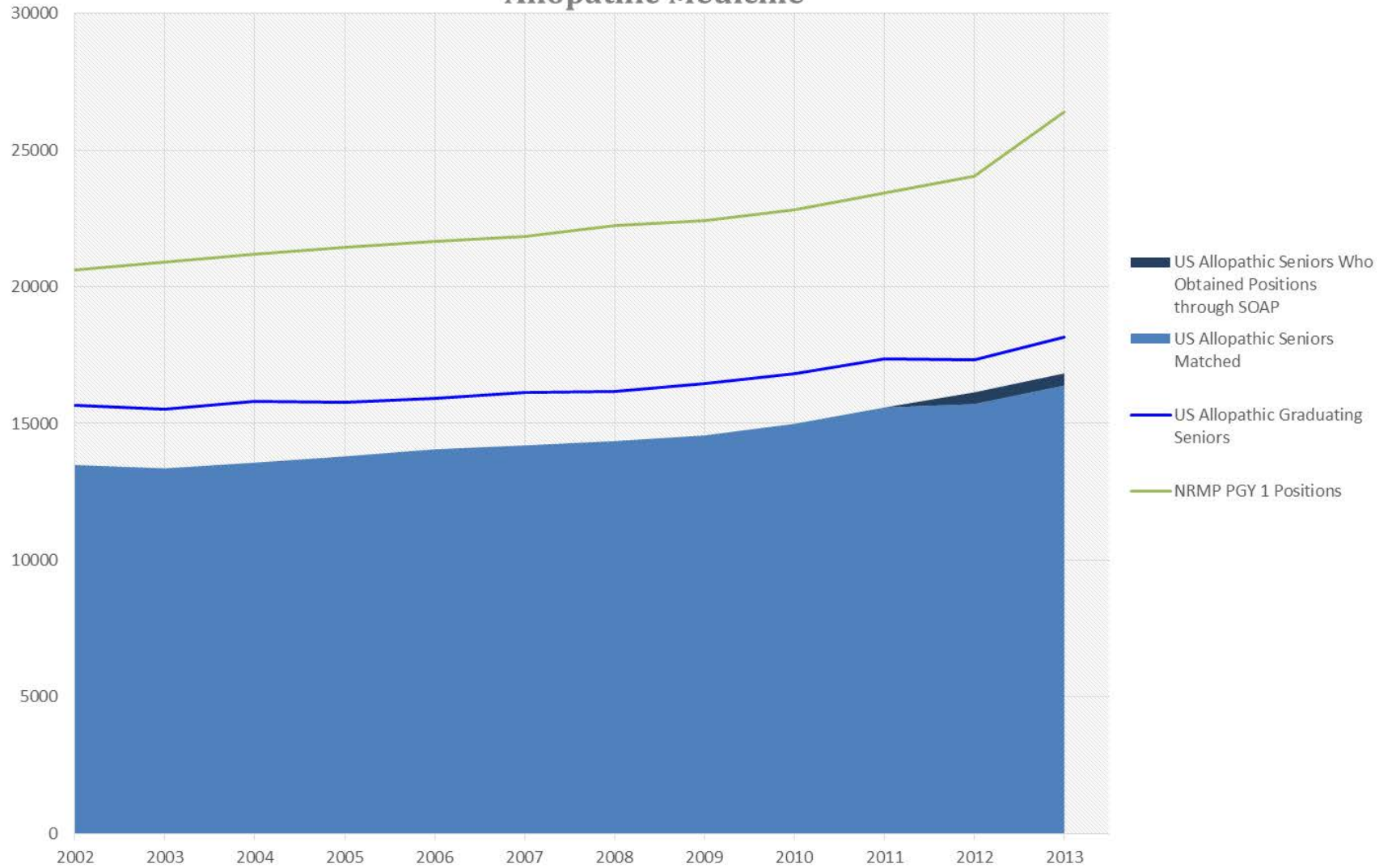
Osteopathic graduation data from AACOM:

- Graduation: Graduates by Gender 1969-2012. <http://www.aacom.org/data/graduates/Pages/default.aspx>.

AOA Match data from AOA

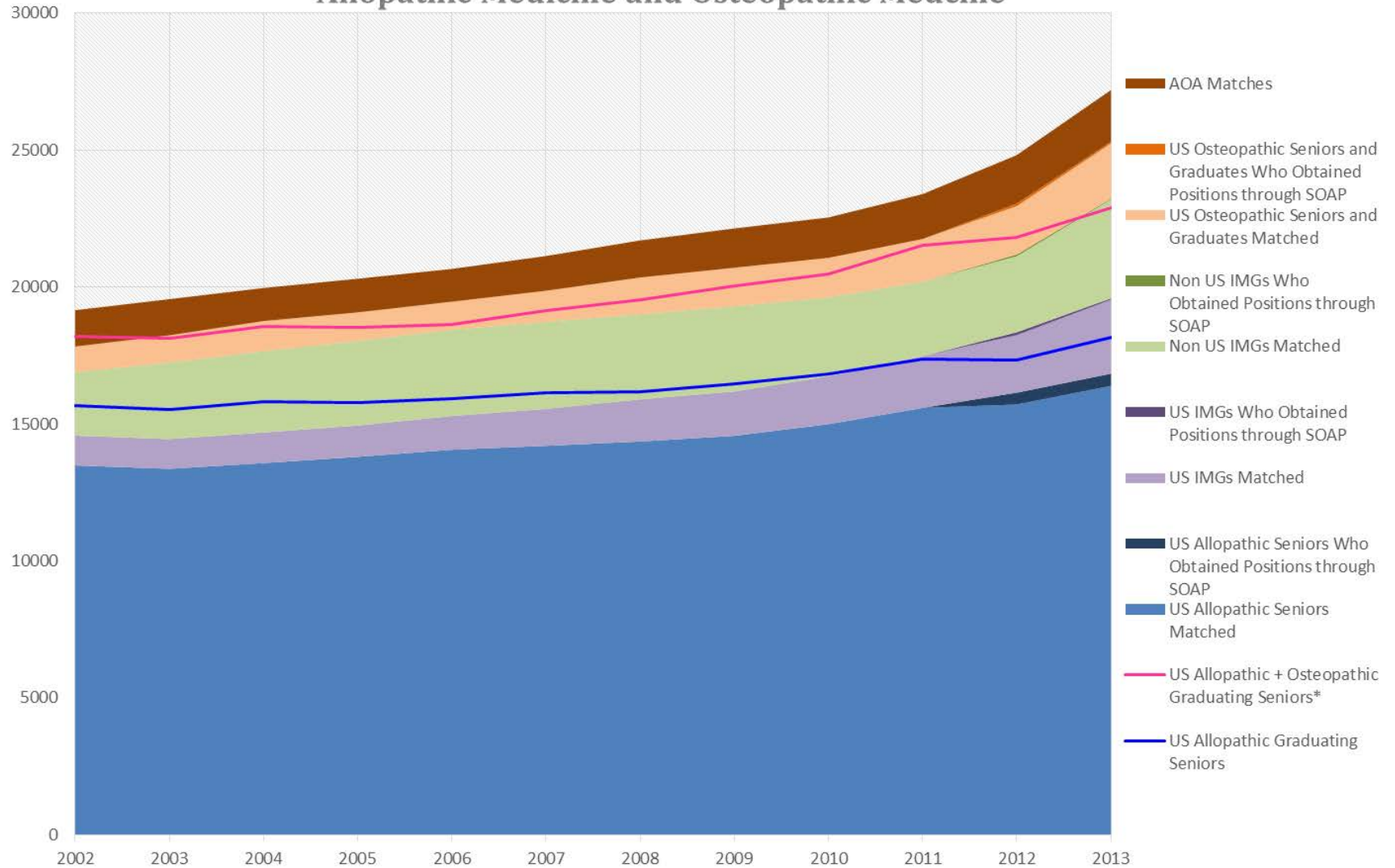
- Match Statistics, AOA Intern/Resident Registration Program. Statistics for Previous Years' Matches 2009-2013. <https://www.natmatch.com/aoairp/aboutstats.html>.
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- Burkhart DN, Lischka TA. Osteopathic graduate medical education. J Am Osteopath Assoc. 2008 Mar;108(3):127-37.
- Freeman E, Lischka TA. Osteopathic graduate medical education. J Am Osteopath Assoc. 2009 Mar;109(3):135-45,196-8.

**Chart 1. First-Year Graduate Medical Education in the United States
Allopathic Medicine**



Data sources: NRMP, AAMC

**Chart 2. First-Year Graduate Medical Education in the United States
Allopathic Medicine and Osteopathic Medicine**



Data sources: NRMP, AAMC, AACOM, AOA

* Preliminary 2013 osteopathic graduation number provided by AACOM.