Applicants for Obstetrics and Gynecology Residency Positions by Medical School Background

A 25-Year Perspective

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OBJECTIVE: To examine numbers and match rates of applicants for obstetrics and gynecology (ob-gyn) residency positions, according to their medical school background.

STUDY DESIGN: This descriptive study examined National Residency Match Program data from 1992 until 2016. Applicants were grouped as U.S. medical graduates (USMGs), osteopathic medical graduates, or international medical graduates (IMGs). Match rates into Accredited Counsel of Graduate Medical Education–accredited ob-gyn residency programs for each group were examined for each year.

RESULTS: The number of applicants declined from 1,718 in 1993 to 1,366 in 2003 before increasing gradually to 1,606 by 2016. The highest proportion of matching was among USMG seniors (from 76% in 1993 to 91% in 2016). Applicants from osteopathy schools saw the greatest increase in match rates (from 26% to 76%). While remaining low, match rates were consistently higher for U.S-born rather than non-U.S. IMGs (e.g., 41% vs. 30% in 2016).

CONCLUSION: Increased numbers of applicants from all medical school backgrounds in recent years have erased concerns about insufficient matching. Competition may increase for these positions, especially as more USMG students graduate. (J Reprod Med 2018;63: 3–5)

Our findings from this 25-year perspective reflect that more students have been applying to ob-gyn residencies in the past decade, resulting in nearly all positions being filled.

Keywords: background, education, foreign medical graduates, graduate education, gynecology, international medical exchange, medical school, internship and residency, match, medical residencies, medical school graduates, obstetrics, residency positions.

Continued growth of the U.S. population, expanded health care coverage, and increasing life span of an aging population contribute to the need for

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an increased number of health care providers.[1] As a result of this projection, recent medical school enrollment has significantly increased. In 2016 the number of first-year students enrolled in U.S. medical schools is projected to be 21,343, a 30% increase from 2002.[1,2] Growth of osteopathic colleges began in the 1990s, and over the past 2 decades enrollment has more than doubled.[2] International medical graduates (IMGs) are also an important constituent of the U.S. residency pool.[2]

Despite the expansion of undergraduate medical education positions, Accredited Counsel of Graduate Medical Education (ACGME)–approved residency positions have not seen the same growth in specialties such as obstetrics and gynecology (ob-gyn). The number of positions has increased by only 0.8% compounded annually since 1997.[2] The objective of this study is to review both the background of students applying to ob-gyn residency positions and the proportion that actually match during the last 25 years.

Materials and Methods

The National Residency Match Program (NRMP) permitted sharing of all data for ACGME-accredited ob-gyn residency programs from 1992 (the first year in which complete data became available) to 2016 (the most recent year of reported data). The number and match rates were categorized according to the medical school background: U.S. medical school graduate (USMG), osteopathy school graduate, and either a U.S.-born or non–U.S.-born international medical school graduate (IMG). The match rate was defined as the number of applicants from a given medical school background who matched into an ob-gyn residency program divided by the number of applicants in that same group. A position fill rate was the proportion of available residency positions that were filled.

All statistics represented population levels. Any difference between groups were actual and therefore significant. All statistical and graphical analyses were performed using SAS 9.4 (SAS Institute, Cary, North Carolina, 2014) and Stata 14.1 (StataCorp, College Station, Texas) software. An exemption was granted from our institution's Human Research Review Committee (HRRC 13-329).

Results

Figure 1 displays the annual numbers of applicants according to medical school background in relation to the number of residency positions available. The number of applicants declined from a high in 1993 (1,718) to a low in 2003 (1,366) before increasing steadily thereafter. While the number of matched positions increased from 1,003 in 1992 to 1,265 in 2016, the number of applicants changed minimally between the beginning and ending years (1,524 in 1992 and 1,606 in 2016).

The number of USMG applicants became smaller than the total number of ob-gyn positions in 1999 and has consistently remained so. Applicants from osteopathic schools increased sharply, from 74 (6% total) in 2002 to 197 (11% total) in 2015. U.S.-born IMGs saw the greatest rise in the number of applicants, from 38 in 1992 to 219 in 2013. Non–U.S.-born IMGs followed a similar pattern, with the greatest increase between 2002 and 2007. Their number has remained relatively similar to U.S.-born IMG and osteopathy graduates.

The proportion of all applicants who matched annually ranged from 61% in 1993 to 77% in 2002 (most competitive to least competitive). Since 2007, the overall match rate (1.3 applicants per positon) has remained relatively constant, with nearly all positions being filled. Figure 2 displays the matched-to-applied rates each year, according to medical school background. Since 2002, the overall match rate has slowly decreased to 69% in 2015, most notably since 2004, which coincided with an increase in number of USMG applicants. Osteopathic applicants saw the greatest rise in match rates, from 1994 (26%) to 2001 (83%) before ranging between 60% and 80% thereafter. The match rate

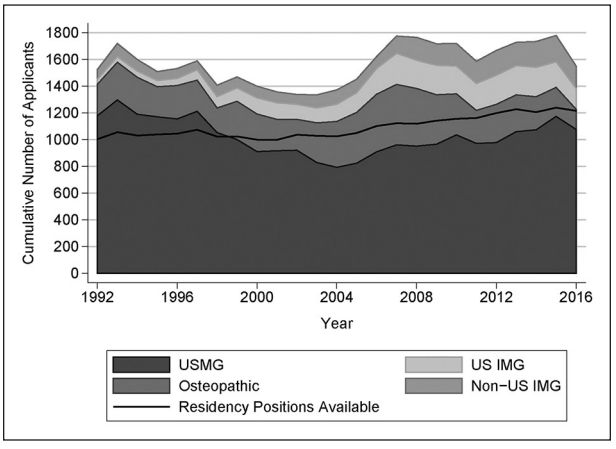

Figure 1 Cumulative number of applicants per year for ob-gyn residency positions by medical school background for academic years 1992–2016.

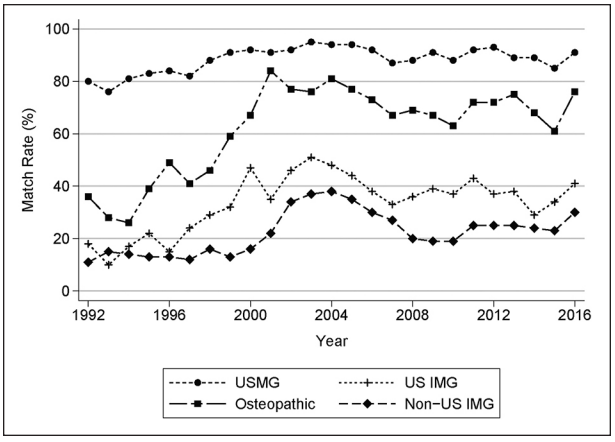

Figure 2 Matched rates of applicants for ob-gyn residency positions by medical school background for academic years 1992–2016.

for IMG students increased as the number of all applicants declined between 1994 and 2003. Match rates of non–U.S.-born IMGs went from as low as 11% in 1992 to 38% in 2004. U.S.-born IMG match rates peaked in 2003 at 51%. U.S.-born IMGs have had match rates consistently higher than those of non-U.S. IMGs every year except for 1993.

Discussion

Growth of all medical schools, in an effort to prevent a physician shortage, has been well documented in the last decade.[1,2] However, there is little prospect that the expansion will occur for ob-gyn residency positions.[3] Our findings from this 25-year perspective reflect that more students have been applying to ob-gyn residencies in the past decade, resulting in nearly all positions being filled. The primary driver of this trend is the increasing number of USMGs, which remains lower than the total number of available positions. The fairly constant number of osteopathic applicants to ACGME-accredited programs will have access to the small number of osteopathic residency programs that are becoming ACGME-approved. We found IMGs to have the lowest probability of matching into ob-gyn positions, especially if they are non–U.S.-born. This trend has also been demonstrated in other surgical specialties such as ophthalmology and general surgery.[4,5]

Certain limitations of our investigation warrant discussion. This study does not account for the negligible number of residents who were accepted "outside the match" or transferred from another specialty. A potential explanation for the upswing in number of applicants in 2004 was seen when the ACGME duty hour restriction was implemented. Residency programs that are typically considered more taxing may have gained a renewed interest with implementation of work hour restrictions. We were unable to report the percent of matched applicants who received their first choice. Lastly, we were unable to separate data between the applicants for predominantly first-year and few second-year positions.

In summary, this is the first known study to evaluate NRMP data about applicants and match rates for residency positions in a single specialty, based on medical school background. Determining competitiveness of a specialty in the match is not easy. The match rates for all applicant groups into ACGME-accredited ob-gyn residencies increased before becoming fairly constant after more USMGs applied. Assuming increases in the numbers of applicants from all school backgrounds and the percentage of students wishing to enter ob-gyn training, matching in ob-gyn residencies will likely be more competitive, especially for IMGs.

References

1. 2017 Update: The Complexities of Physician Supply and Demand: Projections from 2015 to 2030. Final Report. Washington, DC, IHS Inc, February 28, 2017
2. Salsberg ES: Is the physician shortage real? Implications from the recommendations of the Institute of Medicine Committee on the Governance and Financing of Graduate Medical Education. Acad Med 2015; 90:1210-1214
3. Rayburn WF: Obstetrician and Gynecologists Workforce in the United States 2017: Facts, Figures, and Implications. Washington, DC, ACOG Press, 2017
4. Driver TH, Loh AR, Joseph D, et al: Predictors of matching in opthalmology residency for international medical graduates. Opthalmology 2014;121:974-975
5. Levine WN, Spang RC: ACGME duty hour requirements: Perceptions and impact on resident training and patient care. J Am Acad Orthop Surg 2014;22:535-544