



AAMC

Tomorrow's Doctors, Tomorrow's Cures®

Report on Residents

Executive Summary

December 2019

Association of
American Medical Colleges

Background

The AAMC *Report on Residents* is an online collection of data tables that includes current and historical data related to graduate medical education (GME). These tables provide information about characteristics of residency applicants and residents, as well as information about postresidency professional activities. This report will help residency applicants, residency program directors, and researchers understand the changing body of residents and fellows at a critical time in their medical training. The AAMC wishes to acknowledge the National Board of Medical Examiners (NBME), the Educational Commission for Foreign Medical Graduates (ECFMG), and the American Medical Association (AMA) for helping make these analyses possible.

Methodology

This publication complements existing data reports that address different aspects of GME. It incorporates multiple sources of information where possible, using the wide range of data available to the AAMC and described in Table 1.

In each data table, the year or years of data included represent the most recent data available. The specific years of data, as well as the data sources used, are identified for each table either as part of the table or in the footnotes.

The report's data sources have different participation rates, which vary across years. Approximate participation rates for each data source are provided in Table 1. Because many of the report tables combine data from different data sources, the number of individuals in a given report is limited to those who have data for all relevant variables. Counts of individuals are included in all the report's tables.

The *Report on Residents* is organized in chronological order of progression through GME: preresidency, residency, and postresidency. Some tables display data by specialties and subspecialties accredited by the Accreditation Council for Graduate Medical Education (ACGME). According to ACGME, a specialty program is “a structured educational experience in a field of medical practice following completion of medical school and, in some cases, prerequisite basic clinical education designed to conform to the Program Requirements of a particular specialty.”¹ The prerequisite specialties include programs that serve as preliminary training for residents who intend to subspecialize. A subspecialty program is “a structured educational experience following completion of a prerequisite specialty program in graduate medical education designed to conform to the Program Requirements of a particular subspecialty area.”¹ The specialty identified as “Transitional Year” includes programs that provide training in multiple disciplines to help residents prepare for selecting and entering a specific specialty.

Tables displaying data on first-year residents may include residents who later enter another specialty or subspecialty. This mostly affects specialties such as general surgery, internal medicine, and pediatrics, in which a one-year experience may be required before the resident trains in another specialty. Also, a large percentage of those completing residencies in these three specialties go on to complete subspecialties within those specialties. For data displays that include people who have completed their residencies (“completed residents”) or practicing physicians by specialty, the most recently completed GME specialty or subspecialty is shown. Residents who completed training in a specialty but are active in another GME program are excluded from the counts of completed residents or practicing physicians, unless otherwise noted.

Table 1. Data Sources Available to the AAMC

Data Source	Description
Physician Masterfile (AMA Masterfile; AMA)	Established by the American Medical Association (AMA) in 1906, the Physician Masterfile includes education, training, and professional certification information. It contains current and historical data for more than 1.4 million physicians, residents, and medical students in the United States. Data for physicians not represented in the AMA Physician Masterfile may be missing from the report. For example, about 5% of completed residents in GME Track [®] are not represented as active physicians in the AMA Physician Masterfile. As a result, practicing physicians may be underrepresented. AMA physician status information is reported as of Dec. 31 of the corresponding year. For the 2019 <i>Report on Residents</i> , AMA Physician Masterfile data represent physician statuses as of Dec. 31, 2018.
Faculty Roster (AAMC)	The AAMC initiated the Faculty Roster in 1966 to support national policy studies by collecting comprehensive information about the characteristics of paid faculty members at U.S. medical schools accredited by the Liaison Committee on Medical Education (LCME). The Faculty Roster typically receives a response rate of almost 100% (e.g., 99.3% in fiscal year 2018).
GME Track [®] Resident Survey (GME Track; AAMC and AMA)	GME Track is a resident database and tracking system introduced in March 2000 to help GME administrators and program directors collect and manage GME data. The GME Track Resident Survey typically receives a response rate of about 94% (e.g., 94.4% in 2018). GME Track resident status information is collected as of Dec. 31 of the corresponding year. For example, the 2018 GME year represents residents who were active in training as of Dec. 31, 2018.
Matriculating Student Questionnaire (MSQ; AAMC)	The AAMC Matriculating Student Questionnaire (MSQ) is a national questionnaire administered annually, beginning in 1987, to all first-year medical students at LCME-accredited U.S. medical schools. The MSQ typically receives a response rate between 65% and 72% (e.g., 71.4% in 2018).
Medical School Graduation Questionnaire (GQ; AAMC)	The AAMC Medical School Graduation Questionnaire (GQ) is a national questionnaire administered annually, beginning in 1978, to all students graduating from LCME-accredited U.S. medical schools. The GQ typically receives a response rate of about 84% (e.g., 83.6% in 2019).
Student Records System (SRS; AAMC)	The AAMC Student Records System (SRS) houses secure, centralized enrollment information on the national medical student population and tracks student progress from matriculation through graduation. All LCME-accredited U.S. medical schools verify 100% of medical students in SRS.
United States Medical Licensing Examination (USMLE; NBME)	The United States Medical Licensing Examination (USMLE) is a three-step exam for medical licensure in the United States and is sponsored by the Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners (NBME).

Selected Findings

The *Report on Residents* focuses on issues across states, specialties, and phases of the GME continuum because each area faces its own unique challenges. Additionally, different constituency groups may have different focuses with respect to GME. For example, current medical students looking to apply to residency programs may be interested in the test scores and experiences of first-year residents in various specialties. Alternatively, state policy analysts focusing on workforce or funding issues may be concerned with retaining physicians who completed residency training in a particular state. For these reasons, the tables and the selected findings outlined below are organized by progression through GME.

Preresidency

- Over the course of medical school, most medical students change their preferred residency specialty. For the past three years, between 25% and 26% (25.6% in 2019) of respondents to the GQ indicated the same specialty preference as they had on the MSQ (Table A1).
- Specialty preference continuity in Orthopaedic Surgery has decreased from 50.2% in the 2018 *Report on Residents* to 44.8% in 2019. However, Orthopaedic Surgery continues to have the highest rate of specialty preference continuity from medical school matriculation to medical school graduation (Table A1).
- On average, first-year residents in Neurological Surgery reported participating in the highest average number of abstracts, presentations, and publications (20.4) (Table B1).

Residency

- While the overall number of residents has increased in the 2019 *Report on Residents*, the percentage of residents who are International Medical School Graduates has decreased each year from 25.9% in the 2015 *Report on Residents* to 23.3% in the 2019 *Report on Residents* (Table B3).
- In 2017 and 2018, 3.4% of all active residents who are graduates of U.S. MD-granting schools were MD-PhD graduates (Table B4).
- Of general specialties, Medical Genetics has the highest percentage of active U.S. MD-PhD graduates, at 18.9%, in 2018 (Table B4).

Postresidency

- Overall, 23.3% of the individuals who completed residency from 2009 through 2018 are practicing in Medically Underserved Areas (Table C2).
- More than half of individuals who completed residency training from 2009 through 2018 and who are practicing in Alabama, Mississippi, or Puerto Rico are practicing in Medically Underserved Areas (Table C3).
- More than half (54.6%) of the individuals who completed residency training from 2009 through 2018 are practicing in the state where they did their residency training (Table C4). This retention rate is slightly higher than the rate for individuals who completed residency training from 2008 to 2017 (54.2%).
- A higher proportion of women who completed residency from 2009 through 2018 are practicing in the state of their residency training, 58.3%, compared with 51.4% of men (Table C5).

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- California has the highest physician retention rate, with 77.5% of individuals who completed residency training going on to practice in-state (Table C6).
- Of those individuals who completed residency training from 2009 through 2018 and who currently hold a full-time faculty appointment at a U.S. MD-granting school, 77.6% (14.7% of the entire cohort of people who completed residency training) hold appointments at the assistant professor level (Table C8). This percentage increased slightly compared with the 77.1% of people who completed residency training from 2008 to 2017.

Next Steps

Although the changes in this report from year to year are often marginal, the *Report on Residents* is one of many important resources for tracking changes within the largest specialties and subspecialties. Those interested in exploring data for a research project can request specific data by submitting a copy of the [AAMC Data Request Form](#). Additional information can also be found in the [ACGME Data Resource Book](#).

Providing Report Feedback

Comments on how to improve this report are welcome. Please share your thoughts by emailing residentreport@aamc.org.

Note

1. Accreditation Council for Graduate Medical Education. *ACGME Data Resource Book Academic Year 2018–2019*. Chicago, IL: ACGME. https://www.acgme.org/Portals/0/PFAssets/PublicationsBooks/2018-2019_ACGME_DATABOOK_DOCUMENT.pdf. Accessed Oct. 31, 2019.