



AAMC

Tomorrow's Doctors, Tomorrow's Cures®

# Report on Residents

Executive Summary

December 2018

Association of  
American Medical Colleges

## Background

The AAMC *Report on Residents* is an online collection of data tables that include 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 on post-residency professional activities. 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 is intended to complement existing data reports that address different aspects of GME. Specifically, the *Report on Residents* incorporates multiple sources of information where possible, using the range of data sources to which the AAMC has access. These data sources are 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 and the data sources used are identified for each table, either as part of the table or in the footnotes.

The data sources used in this report have different participation rates, which vary across years. Approximate participation rates for each data source are provided in Table 1. Further, because many of the reports 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 tables.

The *Report on Residents* is organized in chronological order of progression through GME: pre-residency, residency, and post-residency. Some tables display data by specialties and subspecialties accredited by the Accreditation Council for Graduate Medical Education (ACGME). According to the 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.”<sup>1</sup> 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.”<sup>1</sup> The specialty identified as “Transitional Year” includes programs designed to 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. Additionally, 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.

<sup>1</sup>Accreditation Council for Graduate Medical Education. *ACGME Data Resource Book Academic Year 2017–2018*. Chicago: ACGME. [https://www.acgme.org/Portals/0/PFAssets/PublicationsBooks/2017-2018\\_ACGME\\_DATABOOK\\_DOCUMENT.pdf](https://www.acgme.org/Portals/0/PFAssets/PublicationsBooks/2017-2018_ACGME_DATABOOK_DOCUMENT.pdf).

**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, approximately 5% of completed residents in GME Track® are not represented as active physicians in the AMA Physician Masterfile. As a result, the number of practicing physicians indicated may be underrepresented. AMA physician status information is reported as of Dec. 31 of the corresponding year. For the 2018 <i>Report on Residents</i> , AMA Physician Masterfile data represent physician statuses as of Dec. 31, 2017.
Faculty Roster (AAMC)	The AAMC initiated the Faculty Roster in 1966 to support national policy studies by collecting comprehensive information on the characteristics of paid faculty members at LCME-accredited U.S. medical schools. 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 that was introduced in March 2000 to help GME administrators and program directors collect and manage GME data. The Resident Survey in GME Track typically receives a response rate of about 95% (e.g., 94.8% in 2017). GME Track resident status information is collected as of Dec. 31 of the corresponding year. For example, the 2017 GME year represents residents who were active in training as of Dec. 31, 2017.
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 of about 65% (e.g., 64.9% in 2017).
Medical College Admission Test® (MCAT®; AAMC)	The MCAT exam is a standardized test that has been a part of the medical school admissions process for almost 90 years. Typically, applicants to U.S. and Canadian medical schools take the MCAT exam.
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 83% (e.g., 83.0% in 2018).
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 the 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).
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## 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 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.

### Pre-residency

- Over the course of medical school, most medical students change their preferred residency specialty. Specifically, just over a quarter (25.7%) of 2018 respondents to the GQ indicated the same specialty preference as they had indicated on the MSQ (Table A1).
- Orthopaedic Surgery has the highest rate of specialty preference continuity from medical school matriculation to medical school graduation, at 50.2% in 2018 (Table A1).
- On average, first-year residents in Neurological Surgery, Plastic Surgery: Integrated, and Otolaryngology reported participating in the highest number of research experiences, reporting an average of 4.2 to 4.5 research experiences (Table B1).

### Residency

- The distributions of MCAT and USMLE scores vary across specialties for entering residents (Tables B1 and B2).
- In 2017, 3.4% of all active residents who were graduates of U.S. MD-granting medical schools were MD-PhD graduates (Table B4).
- Of general specialties, Child Neurology has the highest percentage of active U.S. MD-PhD graduates, at 18.9% (Table B4).

### Post-residency

- Overall, 23.1% of the individuals who completed residency from 2008 through 2017 are practicing in Medically Underserved Areas (Table C2).
- More than half of the individuals who completed residency training from 2008 through 2017 and who are practicing in Alabama, Mississippi, or Puerto Rico are practicing in Medically Underserved Areas (Table C3).

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- More than half (54.2%) of the individuals who completed residency training from 2008 through 2017 are practicing in the state where they did their residency training (Table C4).
- More women (58.0%) who completed residency from 2008 through 2017 are practicing in the state of their residency training, compared with 50.9% of men (Table C5).
- Of those individuals who completed residency training from 2008 through 2017, 18.3% currently hold a full-time faculty appointment at a U.S. MD-granting medical school (Table C7).
- Of those individuals who completed residency training from 2008 through 2017 and who currently hold a full-time faculty appointment at a U.S. MD-granting medical school, 77.1% (14.1% of the entire cohort) hold an appointment at the assistant professor level (Table C8).

### Providing Report Feedback

Comments on how to improve this report are welcome. Please share your thoughts by emailing [residentreport@aamc.org](mailto:residentreport@aamc.org).