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Data Resource Book

Academic Year 2023-2024

Department of Information Services / Applications and Data Analysis
Accreditation Council for Graduate Medical Education



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Introduction

Overview

The mission of the Accreditation Council for Graduate Medical Education (ACGME) is to improve health care and population health by assessing and enhancing the quality of resident and fellow physicians' education through advancements in accreditation and education. The collection and analysis of data is crucial to performing these functions. The ACGME's *Data Resource Book* contains the most recent data on ACGME-accredited Sponsoring Institutions and programs, and physicians in ACGME-accredited graduate medical education (GME) programs. The *Data Resource Book* is intended to be a concise reference for policymakers, designated institutional officials, GME program directors, and others to identify and clarify issues affecting the accreditation of GME programs and the institutions that sponsor them.

The ACGME continues to improve the *Data Resource Book* to describe the accreditation process in greater detail, and hopes it is a valuable resource for constituents. Feedback and suggestions are welcomed and valued. Send comments to databook@acgme.org.

Accreditation Data System

The ACGME's proprietary Accreditation Data System (ADS) is a web-based software system that contains critical accreditation data for all Sponsoring Institutions and programs. It is a tool to collect and organize information for accreditation purposes and serves as a means of communication between the ACGME and Sponsoring Institutions and programs. It is also used internally by the Department of Accreditation, Recognition, and Field Activities in conducting accreditation activities. ADS incorporates several applications and functions, including the Annual Update, Milestones reporting, Case Logs, Surveys, and the application for accreditation.

ADS was originally built by the Department of Applications and Data Analysis (now part of the Department of Information Services) in 2000 and went through a major redesign in 2012. During the redesign process, numerous disparate data systems were consolidated, and the underlying database structure was completely refactored. Resident records across programs were linked based on identifying information, and a single record was created at the database level for each individual. ADS, in this way, not only provides an annual look at every accredited Sponsoring Institution and program, but also serves as a system to track residents and fellows longitudinally throughout the course of their educational experience.

The ADS Annual Update is scheduled for Sponsoring Institutions and programs following the start of each academic year. At that time, programs must enter information on new residents/fellows, confirm the status of existing/graduating residents/fellows, and enter critical information regarding faculty members, scholarly activity, participating sites, and other major program changes. Sponsoring Institutions are also scheduled to participate and must respond to institutional review questions and update any personnel or participating site information. Capturing critical information at the start of the academic year allows the ACGME to facilitate the process of archiving Case Log procedures for graduating residents and fellows, schedule Milestones evaluations for all residents and fellows twice per academic year, and conduct the annual ACGME Resident/Fellow and Faculty Surveys. While the Annual Update occurs once a year, Sponsoring Institutions and programs are expected to keep their information up to date at all times. In this sense, ADS is currently the most comprehensive database of GME Sponsoring Institutions, programs, and physicians-in-training in the United States.

Academic Year Reporting

To create a comprehensive report on GME for the academic year, an annual snapshot of the database is taken at the end of each academic year, the results of which are summarized in this book. The trends shown here are based on the combination of these snapshots over time. This particularly affects the counts of withdrawn and newly accredited programs which may change following the publication of this report. The timing of the snapshot also affects the ACGME's ability to report on the graduating cohort, as this information is not fully available until after the fall Annual Update reporting is complete. It is for this reason that the graduates and residents/fellows leaving their programs are reported for the previous academic year (in this edition, the 2022-2023 academic year). Up-to-date information on individual Sponsoring Institutions and programs can be found on the ADS public website at <https://apps.acgme.org/ads/public/>. ¹

Definitions

The definitions listed below clarify use of terms in this Data Resource Book only. These reflect the 2023-2024 academic year, and not necessarily changes to ACGME definitions or data collection terms relative to revised requirements. Additional terms, and in some cases more comprehensive and current definitions of terms included here, are included in the ACGME Glossary of Terms, found on the ACGME website (<https://www.acgme.org/about/policies-and-related-materials/>).

Continuing GME Programs: Continuing GME programs are those available to physicians only after successful completion of a pipeline program.

Core Faculty: In specialty programs, core faculty are faculty members, who must have a significant role in the education and supervision of residents and must devote a significant portion of their entire effort to resident education and/or administration, and must, as a component of their activities, teach, evaluate, and provide formative feedback to residents.

Designated Institutional Official (DIO): The individual in a Sponsoring Institution who has the authority and responsibility for all of that institution's ACGME-accredited program.

Faculty Hours: Number of hours per week that a faculty member devotes to the program's activities in the following:

- Clinical supervision of residents – Time spent supervising/watching residents/fellows during patient care activities. Includes bedside rounds, outpatient precepting, and operative supervision.
- Administration of the program – Program oversight; curriculum development; faculty, resident, and program evaluation, career counseling.
- Research/scholarly activity with residents – Mentoring and/or working with residents, peer-reviewed funding; publication of original research or review articles in peer-reviewed journals or chapters in textbooks; publication or presentation of case reports or clinical series at local, regional, or national professional and scientific society meetings, participation in national committees or educational organizations.
- Didactics/teaching with residents – Lectures, simulation, case discussions, and preparation time for and participation in journal clubs, conferences, lectures, simulation, case discussions, and manuscript editing with residents.

International Medical Graduate (IMG): A graduate of a medical school outside the United States and Canada. IMGs may be citizens of the United States who chose to be educated elsewhere or non-citizens who are admitted to the United States by US Immigration authorities.

Osteopathic Recognition: A determination of substantial compliance with the published Osteopathic Recognition Requirements, following a process of evaluation and peer review.

Participating Site: An organization, institution, or facility providing educational experiences or educational assignments/rotations for residents as part of an accredited program.

Post-Graduate Year 1 (PGY-1): Any graduate medical education position available to physicians immediately after their completion of medical school. These positions are also referred to as entry-level positions.

Pipeline Specialties: Specialties that lead to primary board certification. The net output of physicians over time from the graduate medical education system into clinical practice is determined by the number of positions available in pipeline specialties. See Appendix A.

Program: A structured educational experience in graduate medical education designed to conform to the Program Requirements of a particular specialty/subspecialty, the satisfactory completion of which may result in eligibility for board certification.

Program Director: The individual designated with authority and accountability for the operation of a residency/fellowship program.

Program Year: Refers to the current year of education (of an individual resident or fellow) within a specific program; this designation may or may not correspond to a resident's or fellow's post-graduate year.

Review Committee: A group comprised of volunteers that sets accreditation standards (requirements), provides peer evaluation of Sponsoring Institutions or programs to assess the degree to which these comply with the applicable published accreditation requirements, and confers an accreditation status on each Sponsoring Institution or program in its purview with regard to substantial compliance with those requirements. There are three types of Review Committee: specialty Review Committee, Transitional Year Review Committee, and Institutional Review Committee.

Resident: For the purposes of this publication only, this term is used to refer to any physician in a graduate medical education program, including both residents and fellows.

Sponsoring Institution: The organization (or entity) with ultimate financial and academic responsibility for one or more accredited graduate medical education programs, and that has the primary purpose of providing educational programs and/or health care services. Examples include a university, a medical school, a hospital, a school of public health, a health department, a public health agency, an organized health care delivery system, a medical examiner's office, a consortium, and an educational foundation.

Specialty Group: For analytic purposes, the grouping of specialties and subspecialties into one of four categories based on patient care focus: surgical; medical; hospital-based; and sponsor institution-based fellowship. See Appendix B.

Specialty Program: 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.

Subspecialty Program: 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.

Withdrawal of Accreditation: The conclusion, whether voluntary or administrative, of accreditation status and services. See the *ACGME Manual of Policies and Procedures* for more details and specification. Decisions regarding withdrawal of accreditation may be made effective at any time during the academic year. Any program with a Withdrawal status effective prior to June 30, 2024 will be excluded from the count of accredited programs for Academic Year 2023-2024 in this edition of the *Data Resource Book*.

A Program Accreditation

This section summarizes the accreditation statuses of currently accredited programs, as well as trends in the total number of accredited programs since the 2014-2015 academic year. This section also shows the pattern of accreditation statuses by specialty for all programs, newly accredited programs, and programs with loss of accreditation. Finally, the section includes information on the lengths of programs varying by specialty, as well as on programs that have achieved Osteopathic Recognition.

Accredited Programs by Status

Of the 13,393 total accredited programs, 12,034 (5,250 specialty programs and 6,784 subspecialty programs) had a status of Continued Accreditation, accounting for 89.9% of programs. Only 144 programs (1.1%) had a status of Continued Accreditation with Warning, and an even smaller number, 27 (0.2%), had a status of Probationary Accreditation. Remaining programs had a status of either Initial Accreditation (8.5%) or Withdrawal of Accreditation (0.4%). Among specialty programs, the specialties with the highest percentage of programs with a Continued Accreditation with Warning status are:

- Surgery (6.9%)
- Urology (6.0%)
- Colon and rectal surgery (5.6%)
- Neurological surgery (5.1%)

Anesthesiology, internal medicine, plastic surgery, plastic surgery - integrated, psychiatry and surgery had two programs issued Probationary Accreditation. Specialties with one program on probation include dermatology, emergency medicine, neurological surgery, neurology, obstetrics and gynecology, orthopaedic surgery, otolaryngology - head and neck surgery, pathology - anatomic and clinical, physical medicine and rehabilitation, radiology - diagnostic, thoracic surgery - independent, thoracic surgery - integrated, and vascular surgery - integrated.

Trends in Accredited Programs

Since the 2019-2020 academic year, there has been a 10.2% increase in the total number of ACGME-accredited programs. This is primarily due to the transition to a single graduate medical education (GME) accreditation system. The following specialties had the highest five-year change in total number of programs:

- Interventional radiology - independent (89)
- Internal medicine (82)
- Family medicine (77)

- Psychiatry (65)
- Surgery (34)
- Neurology (28)

Newly Accredited Programs

A total of 386 programs were newly accredited during the 2023-2024 academic year. Of the newly accredited programs, 275 (71.2%) are in medical specialties and subspecialties, 52 (13.5%) are in hospital-based specialties and subspecialties, 56 (14.5%) are in surgical specialties and subspecialties, and three (0.8%) are in sponsor institution-based fellowship. The specialties with the highest number of newly accredited programs are:

- Psychiatry (30)
- Internal medicine (28)
- Family medicine (27)
- Neurology (8)

Interventional pulmonology, neurocritical care (multidisciplinary), gastroenterology, addiction medicine (multidisciplinary), and cardiovascular disease had the highest number of new programs among all subspecialties, with 17, 17, 10, 10, and 9 programs, respectively, accounting for 16.3% of all newly accredited programs added this year. There are seven subspecialties newly accredited by the AC-GME in the past five years. New programs in these seven subspecialties account for 22.1% of all new subspecialty programs.

Withdrawn Programs

Withdrawn programs are reported in three categories: those withdrawn prior to the end of the 2023-2024 academic year (which are not included in the population of accredited programs); those withdrawn at the end of the 2023-2024 academic year; and those with a future-effective withdrawal date. At the time of this report, transitional year had five withdrawn programs; followed by family medicine, internal medicine, medical genetics and genomics, and nuclear medicine – each with two withdrawn programs during the academic year. The subspecialties of female pelvic medicine and reconstructive surgery, neuromuscular medicine, pulmonary disease, and sports medicine, each had two withdrawn programs during the academic year.

Length of Accredited Education and Training

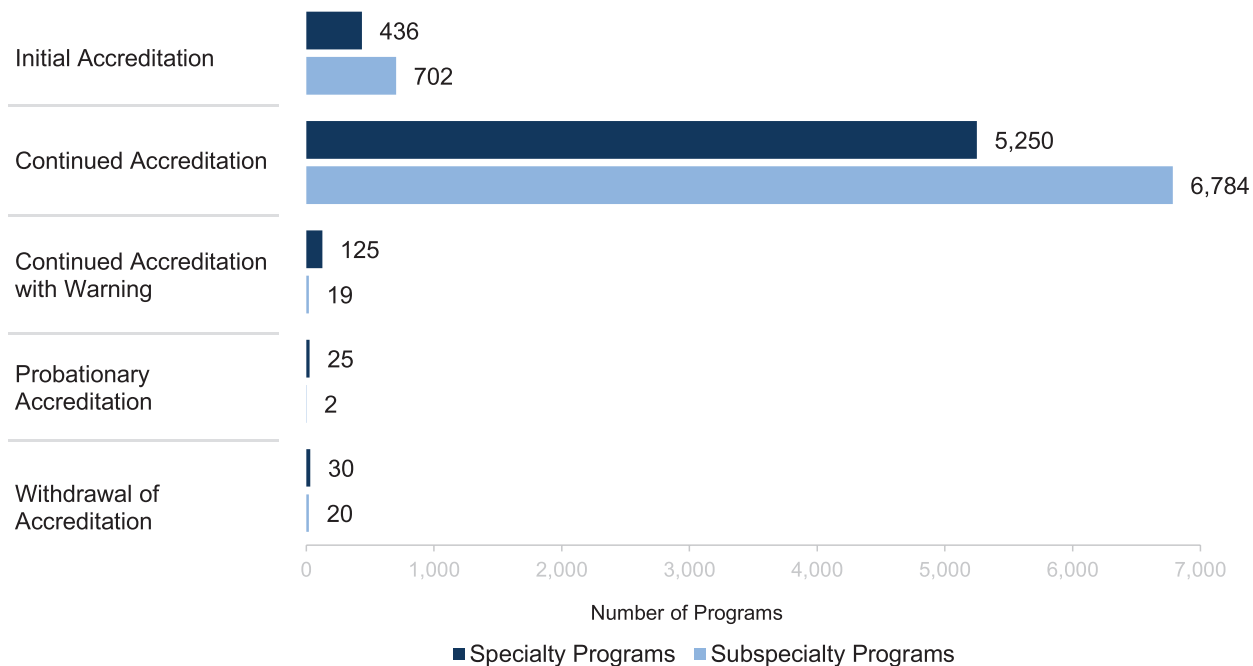
The majority of specialty programs take three or four years to complete. Neurological surgery has the longest

educational program length among specialty programs at seven years. Among subspecialty programs, 54.5% are one year in length, with the remaining programs requiring two or more years to complete. The internal medicine subspecialties of advanced heart failure and transplant cardiology, clinical cardiac electrophysiology, interventional cardiology, and transplant hepatology all require the completion of another subspecialty program prior to entry. These four subspecialties, along with the subspecialties of endovascular surgical neuroradiology, pediatric transplant hepatology, craniofacial surgery, and congenital cardiac surgery,

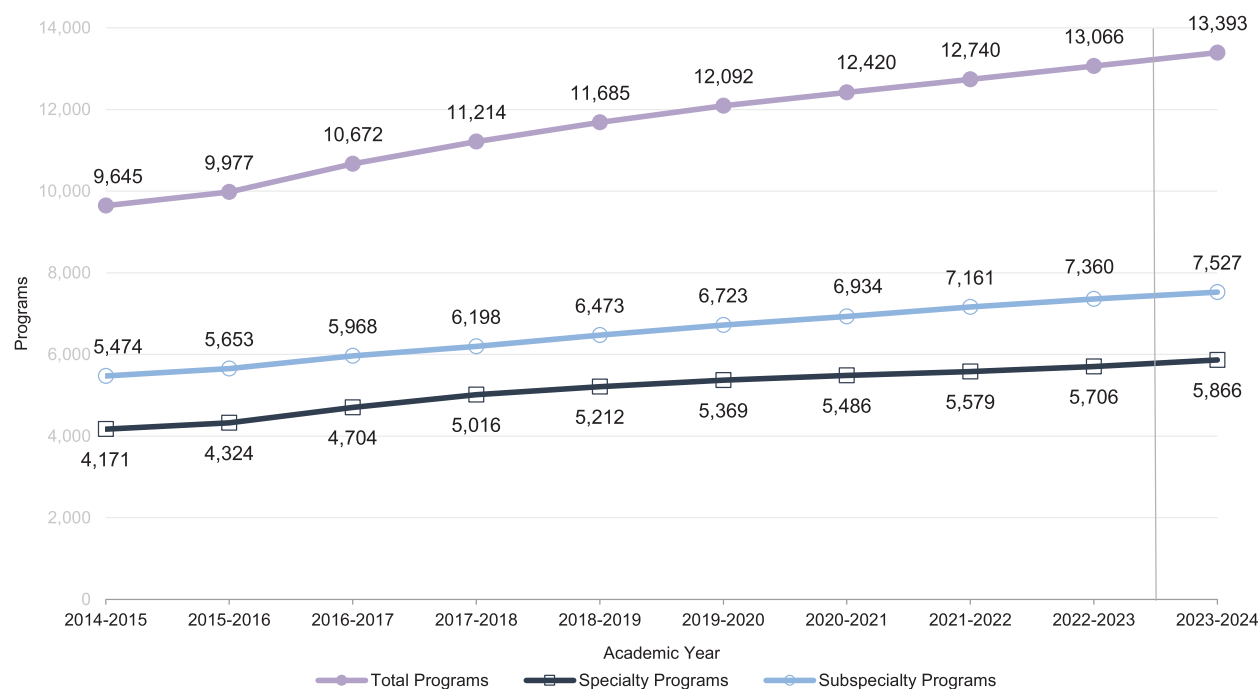
require six to seven total years of prior education and training before entry.

Osteopathic Recognition

The 2023-2024 academic year is the eighth year that the ACGME has recognized education and training in Osteopathic Principles and Practice in ACGME-accredited programs. Of the 262 programs with Osteopathic Recognition, 179 (68.3%) are family medicine programs and 27 (10.3%) are internal medicine programs. ↗

FIGURE A.1**Accreditation Statuses of Currently Accredited Programs**

Notes: Total number of accredited programs = 13,393. Excluding programs withdrawn prior to the end of the academic year (n=14).

FIGURE A.2**Number of Accredited Programs by Academic Year, 2014-2015 to 2023-2024**

Note: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

TABLE A.3

Accreditation Statuses of Currently Accredited Programs by Specialty and Subspecialty

Specialty	Total Programs	Accreditation Status									
		Initial Accreditation		Continued Accreditation		Continued Accreditation with Warning		Probationary Accreditation		Withdrawal of Accreditation	
		#	%	#	%	#	%	#	%	#	%
OVERALL	13,393	1,138	8.5%	12,034	89.9%	144	1.1%	27	0.2%	50	0.4%
TOTAL PIPELINE	5,474	391	7.1%	4,923	89.9%	111	2.0%	24	0.4%	25	0.5%
Allergy and immunology	90	8	8.9%	81	90.0%	1	1.1%	0	0.0%	0	0.0%
Anesthesiology	167	8	4.8%	153	91.6%	3	1.8%	2	1.2%	1	0.6%
- Adult cardiothoracic anesthesiology	75	2	2.7%	72	96.0%	0	0.0%	0	0.0%	1	1.3%
- Critical care medicine	67	5	7.5%	62	92.5%	0	0.0%	0	0.0%	0	0.0%
- Obstetric anesthesiology	41	0	0.0%	41	100.0%	0	0.0%	0	0.0%	0	0.0%
- Pain medicine (multidisciplinary)	118	8	6.8%	110	93.2%	0	0.0%	0	0.0%	0	0.0%
- Pediatric anesthesiology	61	2	3.3%	59	96.7%	0	0.0%	0	0.0%	0	0.0%
- Pediatric cardiac anesthesiology	15	15	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Regional anesthesiology and acute pain medicine	44	7	15.9%	37	84.1%	0	0.0%	0	0.0%	0	0.0%
Colon and rectal surgery	71	7	9.9%	60	84.5%	4	5.6%	0	0.0%	0	0.0%
Dermatology	143	2	1.4%	136	95.1%	4	2.8%	1	0.7%	0	0.0%
- Dermatopathology (multidisciplinary)	57	1	1.8%	56	98.2%	0	0.0%	0	0.0%	0	0.0%
- Micrographic surgery and dermatologic oncology	85	10	11.8%	75	88.2%	0	0.0%	0	0.0%	0	0.0%
- Pediatric dermatology	34	29	85.3%	5	14.7%	0	0.0%	0	0.0%	0	0.0%
Emergency medicine	289	23	8.0%	254	87.9%	10	3.5%	1	0.3%	1	0.3%
- Emergency medical services	83	11	13.3%	70	84.3%	2	2.4%	0	0.0%	0	0.0%
- Medical toxicology	32	4	12.5%	27	84.4%	1	3.1%	0	0.0%	0	0.0%
- Pediatric emergency medicine	29	1	3.4%	28	96.6%	0	0.0%	0	0.0%	0	0.0%
- Sports medicine	8	0	0.0%	8	100.0%	0	0.0%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	8	0	0.0%	8	100.0%	0	0.0%	0	0.0%	0	0.0%
Family medicine	778	67	8.6%	694	89.2%	10	1.3%	0	0.0%	7	0.9%
- Clinical informatics	8	0	0.0%	8	100.0%	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	44	4	9.1%	40	90.9%	0	0.0%	0	0.0%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	190	21	11.1%	168	88.4%	0	0.0%	0	0.0%	1	0.5%
- Sports medicine	174	16	9.2%	156	89.7%	0	0.0%	0	0.0%	2	1.1%
Internal medicine	651	69	10.6%	571	87.7%	7	1.1%	2	0.3%	2	0.3%
- Adult congenital heart disease	30	7	23.3%	23	76.7%	0	0.0%	0	0.0%	0	0.0%
- Advanced heart failure and transplant cardiology	85	5	5.9%	79	92.9%	0	0.0%	0	0.0%	1	1.2%
- Cardiovascular disease	281	24	8.5%	255	90.7%	2	0.7%	0	0.0%	0	0.0%
- Clinical cardiac electrophysiology	118	6	5.1%	112	94.9%	0	0.0%	0	0.0%	0	0.0%
- Clinical informatics	32	7	21.9%	25	78.1%	0	0.0%	0	0.0%	0	0.0%
- Critical care medicine	67	13	19.4%	54	80.6%	0	0.0%	0	0.0%	0	0.0%
- Endocrinology, diabetes, and metabolism	161	8	5.0%	153	95.0%	0	0.0%	0	0.0%	0	0.0%
- Gastroenterology	238	26	10.9%	212	89.1%	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	120	9	7.5%	110	91.7%	0	0.0%	0	0.0%	1	0.8%
- Hematology and medical oncology	187	15	8.0%	171	91.4%	0	0.0%	1	0.5%	0	0.0%
- Infectious disease	168	11	6.5%	157	93.5%	0	0.0%	0	0.0%	0	0.0%
- Interventional cardiology	183	13	7.1%	170	92.9%	0	0.0%	0	0.0%	0	0.0%
- Interventional pulmonology	17	17	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Medical oncology	2	0	0.0%	1	50.0%	0	0.0%	0	0.0%	1	50.0%
- Nephrology	151	4	2.6%	147	97.4%	0	0.0%	0	0.0%	0	0.0%
- Pulmonary disease	19	3	15.8%	14	73.7%	0	0.0%	0	0.0%	2	10.5%
- Pulmonary disease and critical care medicine	204	14	6.9%	188	92.2%	2	1.0%	0	0.0%	0	0.0%
- Rheumatology	133	7	5.3%	126	94.7%	0	0.0%	0	0.0%	0	0.0%
- Sleep medicine (multidisciplinary)	98	8	8.2%	90	91.8%	0	0.0%	0	0.0%	0	0.0%
- Transplant hepatology	68	10	14.7%	58	85.3%	0	0.0%	0	0.0%	0	0.0%
Medical genetics and genomics	47	2	4.3%	43	91.5%	0	0.0%	0	0.0%	2	4.3%
- Medical biochemical genetics	22	3	13.6%	19	86.4%	0	0.0%	0	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	43	2	4.7%	41	95.3%	0	0.0%	0	0.0%	0	0.0%
Clinical biochemical genetics	15	5	33.3%	10	66.7%	0	0.0%	0	0.0%	0	0.0%
Laboratory genetics and genomics	38	6	15.8%	32	84.2%	0	0.0%	0	0.0%	0	0.0%
Neurological surgery	118	2	1.7%	109	92.4%	6	5.1%	1	0.8%	0	0.0%
- Neuroendovascular intervention	3	0	0.0%	3	100.0%	0	0.0%	0	0.0%	0	0.0%

TABLE A.3 *Continued*

Accreditation Statuses of Currently Accredited Programs by Specialty and Subspecialty

Specialty	Total Programs	Accreditation Status									
		Initial Accreditation		Continued Accreditation		Continued Accreditation with Warning		Probationary Accreditation		Withdrawal of Accreditation	
		#	%	#	%	#	%	#	%	#	%
Neurology	188	20	10.6%	164	87.2%	3	1.6%	1	0.5%	0	0.0%
- Clinical neurophysiology	97	5	5.2%	92	94.8%	0	0.0%	0	0.0%	0	0.0%
- Epilepsy	99	15	15.2%	84	84.8%	0	0.0%	0	0.0%	0	0.0%
- Neurocritical care (multidisciplinary)	52	52	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Neuroendovascular intervention	2	0	0.0%	2	100.0%	0	0.0%	0	0.0%	0	0.0%
- Neurodevelopmental disabilities	10	2	20.0%	8	80.0%	0	0.0%	0	0.0%	0	0.0%
- Neuromuscular medicine	57	3	5.3%	52	91.2%	0	0.0%	0	0.0%	2	3.5%
- Vascular neurology	114	7	6.1%	107	93.9%	0	0.0%	0	0.0%	0	0.0%
Child neurology	81	5	6.2%	76	93.8%	0	0.0%	0	0.0%	0	0.0%
Nuclear medicine	36	0	0.0%	34	94.4%	0	0.0%	0	0.0%	2	5.6%
Obstetrics and gynecology	295	12	4.1%	273	92.5%	9	3.1%	1	0.3%	0	0.0%
- Female pelvic medicine and reconstructive surgery	58	4	6.9%	52	89.7%	0	0.0%	0	0.0%	2	3.4%
- Gynecologic oncology	74	9	12.2%	65	87.8%	0	0.0%	0	0.0%	0	0.0%
- Maternal-fetal medicine	109	10	9.2%	98	89.9%	1	0.9%	0	0.0%	0	0.0%
- Reproductive endocrinology and infertility	52	5	9.6%	45	86.5%	1	1.9%	0	0.0%	1	1.9%
- Complex family planning	35	8	22.9%	27	77.1%	0	0.0%	0	0.0%	0	0.0%
Ophthalmology	126	6	4.8%	117	92.9%	3	2.4%	0	0.0%	0	0.0%
- Ophthalmic plastic and reconstructive surgery	4	0	0.0%	4	100.0%	0	0.0%	0	0.0%	0	0.0%
Orthopaedic surgery	209	10	4.8%	193	92.3%	3	1.4%	1	0.5%	2	1.0%
- Adult reconstructive orthopaedics	26	3	11.5%	23	88.5%	0	0.0%	0	0.0%	0	0.0%
- Foot and ankle orthopaedics	9	2	22.2%	7	77.8%	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	73	1	1.4%	72	98.6%	0	0.0%	0	0.0%	0	0.0%
- Musculoskeletal oncology	12	0	0.0%	12	100.0%	0	0.0%	0	0.0%	0	0.0%
- Orthopaedic sports medicine	93	4	4.3%	88	94.6%	1	1.1%	0	0.0%	0	0.0%
- Orthopaedic surgery of the spine	16	1	6.3%	15	93.8%	0	0.0%	0	0.0%	0	0.0%
- Orthopaedic trauma	12	0	0.0%	12	100.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric orthopaedics	24	1	4.2%	23	95.8%	0	0.0%	0	0.0%	0	0.0%
Osteopathic neuromusculoskeletal medicine	26	6	23.1%	18	69.2%	1	3.8%	0	0.0%	1	3.8%
Otolaryngology - head and neck Surgery	131	6	4.6%	124	94.7%	0	0.0%	1	0.8%	0	0.0%
- Neurotology	29	3	10.3%	26	89.7%	0	0.0%	0	0.0%	0	0.0%
- Pediatric otolaryngology	34	4	11.8%	30	88.2%	0	0.0%	0	0.0%	0	0.0%
Pathology-anatomic and clinical	142	5	3.5%	133	93.7%	2	1.4%	1	0.7%	1	0.7%
- Blood banking/transfusion medicine	56	5	8.9%	50	89.3%	0	0.0%	0	0.0%	1	1.8%
- Clinical informatics	10	0	0.0%	10	100.0%	0	0.0%	0	0.0%	0	0.0%
- Chemical pathology	4	1	25.0%	3	75.0%	0	0.0%	0	0.0%	0	0.0%
- Cytopathology	92	1	1.1%	91	98.9%	0	0.0%	0	0.0%	0	0.0%
- Forensic pathology	50	7	14.0%	43	86.0%	0	0.0%	0	0.0%	0	0.0%
- Hematopathology	86	1	1.2%	85	98.8%	0	0.0%	0	0.0%	0	0.0%
- Medical microbiology	16	1	6.3%	14	87.5%	0	0.0%	0	0.0%	1	6.3%
- Neuropathology	40	2	5.0%	38	95.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric pathology	27	0	0.0%	27	100.0%	0	0.0%	0	0.0%	0	0.0%
- Selective pathology	131	22	16.8%	109	83.2%	0	0.0%	0	0.0%	0	0.0%
Pediatrics	218	6	2.8%	210	96.3%	2	0.9%	0	0.0%	0	0.0%
- Adolescent medicine	33	2	6.1%	30	90.9%	1	3.0%	0	0.0%	0	0.0%
- Child abuse pediatrics	33	2	6.1%	30	90.9%	1	3.0%	0	0.0%	0	0.0%
- Clinical informatics	10	1	10.0%	9	90.0%	0	0.0%	0	0.0%	0	0.0%
- Developmental-behavioral pediatrics	45	1	2.2%	44	97.8%	0	0.0%	0	0.0%	0	0.0%
- Neonatal-perinatal medicine	110	2	1.8%	108	98.2%	0	0.0%	0	0.0%	0	0.0%
- Pediatric cardiology	64	1	1.6%	62	96.9%	0	0.0%	1	1.6%	0	0.0%
- Pediatric critical care medicine	76	2	2.6%	74	97.4%	0	0.0%	0	0.0%	0	0.0%
- Pediatric emergency medicine	59	3	5.1%	56	94.9%	0	0.0%	0	0.0%	0	0.0%
- Pediatric endocrinology	72	3	4.2%	69	95.8%	0	0.0%	0	0.0%	0	0.0%
- Pediatric gastroenterology	67	0	0.0%	67	100.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric hematology/oncology	79	3	3.8%	76	96.2%	0	0.0%	0	0.0%	0	0.0%
- Pediatric infectious diseases	64	1	1.6%	63	98.4%	0	0.0%	0	0.0%	0	0.0%

TABLE A.3 *Continued*

Accreditation Statuses of Currently Accredited Programs by Specialty and Subspecialty

Specialty	Total Programs	Accreditation Status									
		Initial Accreditation		Continued Accreditation		Continued Accreditation with Warning		Probationary Accreditation		Withdrawal of Accreditation	
		#	%	#	%	#	%	#	%	#	%
- Pediatric nephrology	48	1	2.1%	47	97.9%	0	0.0%	0	0.0%	0	0.0%
- Pediatric pulmonology	57	1	1.8%	56	98.2%	0	0.0%	0	0.0%	0	0.0%
- Pediatric rheumatology	38	2	5.3%	36	94.7%	0	0.0%	0	0.0%	0	0.0%
- Sports medicine	17	0	0.0%	17	100.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric transplant hepatology	17	1	5.9%	16	94.1%	0	0.0%	0	0.0%	0	0.0%
- Pediatric hospital medicine	73	14	19.2%	59	80.8%	0	0.0%	0	0.0%	0	0.0%
Physical medicine and rehabilitation	108	9	8.3%	95	88.0%	3	2.8%	1	0.9%	0	0.0%
- Brain injury medicine	28	3	10.7%	25	89.3%	0	0.0%	0	0.0%	0	0.0%
- Neuromuscular medicine	1	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
- Spinal cord injury medicine	26	2	7.7%	24	92.3%	0	0.0%	0	0.0%	0	0.0%
- Pediatric rehabilitation medicine	23	2	8.7%	21	91.3%	0	0.0%	0	0.0%	0	0.0%
- Sports medicine	24	2	8.3%	22	91.7%	0	0.0%	0	0.0%	0	0.0%
Plastic surgery	47	3	6.4%	41	87.2%	1	2.1%	2	4.3%	0	0.0%
Plastic Surgery - integrated	89	5	5.6%	79	88.8%	3	3.4%	2	2.2%	0	0.0%
- Craniofacial surgery	9	1	11.1%	8	88.9%	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	19	2	10.5%	16	84.2%	1	5.3%	0	0.0%	0	0.0%
Public health and general preventive medicine	42	1	2.4%	39	92.9%	1	2.4%	0	0.0%	1	2.4%
- Undersea and hyperbaric medicine	1	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
Aerospace medicine	5	0	0.0%	5	100.0%	0	0.0%	0	0.0%	0	0.0%
Occupational and environmental medicine	23	0	0.0%	22	95.7%	0	0.0%	0	0.0%	1	4.3%
Psychiatry	334	50	15.0%	280	83.8%	1	0.3%	2	0.6%	1	0.3%
- Addiction medicine (multidisciplinary)	105	24	22.9%	80	76.2%	0	0.0%	0	0.0%	1	1.0%
- Addiction psychiatry	55	4	7.3%	51	92.7%	0	0.0%	0	0.0%	0	0.0%
- Child and adolescent psychiatry	155	11	7.1%	144	92.9%	0	0.0%	0	0.0%	0	0.0%
- Forensic psychiatry	53	9	17.0%	44	83.0%	0	0.0%	0	0.0%	0	0.0%
- Geriatric psychiatry	61	2	3.3%	58	95.1%	0	0.0%	0	0.0%	1	1.6%
- Consultation-liaison psychiatry	69	6	8.7%	63	91.3%	0	0.0%	0	0.0%	0	0.0%
Radiation oncology	89	0	0.0%	86	96.6%	2	2.2%	0	0.0%	1	1.1%
Radiology-diagnostic	197	3	1.5%	193	98.0%	0	0.0%	1	0.5%	0	0.0%
- Abdominal radiology	13	0	0.0%	13	100.0%	0	0.0%	0	0.0%	0	0.0%
- Musculoskeletal radiology	21	3	14.3%	18	85.7%	0	0.0%	0	0.0%	0	0.0%
- Neuroendovascular intervention	5	2	40.0%	3	60.0%	0	0.0%	0	0.0%	0	0.0%
- Neuroradiology	91	1	1.1%	90	98.9%	0	0.0%	0	0.0%	0	0.0%
- Nuclear radiology	20	4	20.0%	16	80.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric radiology	48	2	4.2%	45	93.8%	0	0.0%	0	0.0%	1	2.1%
Interventional radiology - independent	91	10	11.0%	81	89.0%	0	0.0%	0	0.0%	0	0.0%
Interventional radiology - integrated	99	10	10.1%	88	88.9%	0	0.0%	0	0.0%	1	1.0%
Surgery	364	31	8.5%	306	84.1%	25	6.9%	2	0.5%	0	0.0%
- Complex general surgical oncology	34	3	8.8%	31	91.2%	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	2	0	0.0%	2	100.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric surgery	52	1	1.9%	48	92.3%	3	5.8%	0	0.0%	0	0.0%
- Surgical critical care	165	21	12.7%	143	86.7%	1	0.6%	0	0.0%	0	0.0%
- Vascular surgery - independent	123	10	8.1%	110	89.4%	2	1.6%	0	0.0%	1	0.8%
Vascular surgery - integrated	78	13	16.7%	63	80.8%	1	1.3%	1	1.3%	0	0.0%
Thoracic surgery - independent	79	5	6.3%	71	89.9%	2	2.5%	1	1.3%	0	0.0%
- Congenital cardiac surgery	17	2	11.8%	15	88.2%	0	0.0%	0	0.0%	0	0.0%
Thoracic surgery - integrated	36	3	8.3%	31	86.1%	1	2.8%	1	2.8%	0	0.0%
Urology	150	4	2.7%	136	90.7%	9	6.0%	0	0.0%	1	0.7%
- Female pelvic medicine and reconstructive surgery	16	2	12.5%	14	87.5%	0	0.0%	0	0.0%	0	0.0%
- Pediatric urology	27	1	3.7%	26	96.3%	0	0.0%	0	0.0%	0	0.0%
Transitional year	190	24	12.6%	154	81.1%	7	3.7%	0	0.0%	5	2.6%
Internal medicine/Pediatrics	77	0	0.0%	76	98.7%	1	1.3%	0	0.0%	0	0.0%
Health care administration, leadership, and management	5	5	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

Notes: Pipeline specialties are highlighted. Program counts exclude programs withdrawn prior to the end of the academic year (n=14).

TABLE A.4

Number of Programs by Specialty and Subspecialty and Academic Year, 2019-2020 to 2023-2024

Specialty	Academic Year					5-Year Change	
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024		
	#	#	#	#	#	#	%
OVERALL	12,092	12,420	12,740	13,066	13,393	1,238	10.2%
TOTAL PIPELINE	4,985	5,187	5,270	5,382	5,474	461	25.2%
Allergy and immunology	81	82	84	87	90	9	11.1%
Anesthesiology	160	161	166	165	167	7	4.4%
- Adult cardiothoracic anesthesiology	71	73	74	75	75	4	5.6%
- Clinical informatics	1	1	1			N/A	N/A
- Critical care medicine	63	64	64	65	67	4	6.3%
- Obstetric anesthesiology	41	41	41	41	41	0	0.0%
- Pain medicine (multidisciplinary)	108	111	114	115	118	10	9.3%
- Pediatric anesthesiology	60	60	61	62	61	1	1.7%
- Pediatric cardiac anesthesiology*				15	15	0	0.0%
- Regional anesthesiology and acute pain medicine	35	38	40	42	44	9	25.7%
Colon and rectal surgery	65	66	67	68	71	6	9.2%
Dermatology	144	144	143	144	143	-1	-0.7%
- Dermatopathology (multidisciplinary)	56	58	57	57	57	1	1.8%
- Micrographic surgery and dermatologic oncology	78	78	77	81	85	7	9.0%
- Pediatric dermatology*			17	29	34	17	100.0%
Emergency medicine	265	276	279	287	289	24	9.1%
- Clinical informatics	5	5	5			N/A	N/A
- Emergency medical services	71	75	79	83	83	12	16.9%
- Medical toxicology	26	27	28	30	32	6	23.1%
- Pediatric emergency medicine	26	27	29	29	29	3	11.5%
- Sports medicine	8	9	10	9	8	0	0.0%
- Undersea and hyperbaric medicine	8	8	8	8	8	0	0.0%
Family medicine	701	710	722	756	778	77	11.0%
- Clinical informatics	6	6	7	8	8	2	33.3%
- Geriatric medicine	50	49	46	46	44	-6	-12.0%
- Hospice and palliative medicine (multidisciplinary)	167	180	187	191	190	23	13.8%
- Sports medicine	151	156	161	171	174	23	15.2%
Internal medicine	569	586	601	627	651	82	14.4%
- Adult congenital heart disease	24	24	26	27	30	6	25.0%
- Advanced heart failure and transplant cardiology	80	82	86	84	85	5	6.3%
- Cardiovascular disease	250	255	268	273	281	31	12.4%
- Clinical cardiac electrophysiology	110	112	115	116	118	8	7.3%
- Clinical informatics	17	19	23	32	32	15	88.2%
- Critical care medicine	45	55	62	66	67	22	48.9%
- Endocrinology, diabetes, and metabolism	151	153	157	159	161	10	6.6%
- Gastroenterology	207	211	222	229	238	31	15.0%
- Geriatric medicine	111	114	117	119	120	9	8.1%
- Hematology	2	2	2			N/A	N/A
- Hematology and medical oncology	167	172	180	184	187	20	12.0%
- Infectious disease	154	158	163	167	168	14	9.1%
- Interventional cardiology	166	170	177	180	183	17	10.2%
- Interventional pulmonology*					17	N/A	N/A
- Medical oncology	7	6	5	3	2	-5	-71.4%
- Nephrology	151	152	151	152	151	0	0.0%
- Pulmonary disease	22	20	22	22	19	-3	-13.6%
- Pulmonary disease and critical care medicine	181	188	196	202	204	23	12.7%
- Rheumatology	125	125	128	129	133	8	6.4%
- Sleep medicine (multidisciplinary)	88	89	92	96	98	10	11.4%
- Transplant hepatology	57	59	62	66	68	11	19.3%
Medical genetics and genomics	47	46	45	47	47	0	0.0%
- Medical biochemical genetics	19	20	20	22	22	3	15.8%
- Molecular genetic pathology (multidisciplinary)	42	42	42	42	43	1	2.4%
Clinical biochemical genetics*					15	N/A	N/A
Laboratory genetics and genomics*					38	N/A	N/A
Neurological surgery	118	116	118	117	118	0	0.0%
- Neuroendovascular intervention	2	2	3	3	3	1	50.0%

TABLE A.4 *Continued*

Number of Programs by Specialty and Subspecialty and Academic Year, 2019-2020 to 2023-2024

Specialty	Academic Year					5-Year Change	
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024		
	#	#	#	#	#	#	%
Neurology	160	170	175	180	188	28	17.5%
- Brain injury medicine	1	1	1			N/A	N/A
- Clinical neurophysiology	92	93	94	95	97	5	5.4%
- Epilepsy	81	85	93	95	99	18	22.2%
- Neurocritical care (multidisciplinary)*			7	35	52	45	642.9%
- Neuroendovascular intervention	2	2	2	2	2	0	0.0%
- Neurodevelopmental disabilities	8	8	8	8	10	2	25.0%
- Neuromuscular medicine	52	53	55	55	57	5	9.6%
- Vascular neurology	106	109	112	112	114	8	7.5%
Child neurology	76	77	79	80	81	5	6.6%
Nuclear medicine	38	37	37	36	36	-2	-5.3%
Obstetrics and gynecology	285	294	299	302	295	10	3.5%
- Female pelvic medicine and reconstructive surgery	54	54	55	57	58	4	7.4%
- Gynecologic oncology	63	63	67	71	74	11	17.5%
- Maternal-fetal medicine	97	100	101	104	109	12	12.4%
- Reproductive endocrinology and infertility	51	49	49	49	52	1	2.0%
- Complex family planning*		26	29	32	35	9	34.6%
Ophthalmology	124	125	125	125	126	2	1.6%
- Ophthalmic plastic and reconstructive surgery	4	4	4	4	4	0	0.0%
Orthopaedic surgery	197	201	203	208	209	12	6.1%
- Adult reconstructive orthopaedics	24	25	24	25	26	2	8.3%
- Foot and ankle orthopaedics	7	7	8	8	9	2	28.6%
- Hand surgery	74	73	73	74	73	-1	-1.4%
- Musculoskeletal oncology	12	12	12	12	12	0	0.0%
- Orthopaedic sports medicine	90	93	93	93	93	3	3.3%
- Orthopaedic surgery of the spine	18	16	15	15	16	-2	-11.1%
- Orthopaedic trauma	11	12	12	12	12	1	9.1%
- Pediatric orthopaedics	25	25	24	25	24	-1	-4.0%
Osteopathic neuromusculoskeletal medicine	27	28	28	26	26	-1	-3.7%
Otolaryngology - head and neck Surgery	124	125	129	131	131	7	5.6%
- Neurotology	24	26	28	29	29	5	20.8%
- Pediatric otolaryngology	30	31	34	34	34	4	13.3%
Pathology-anatomic and clinical	142	144	145	146	142	0	0.0%
- Blood banking/transfusion medicine	51	52	53	54	56	5	9.8%
- Clinical informatics	10	11	10	10	10	0	0.0%
- Chemical pathology	4	4	4	4	4	0	0.0%
- Cytopathology	93	93	92	93	92	-1	-1.1%
- Forensic pathology	45	45	45	49	50	5	11.1%
- Hematopathology	86	86	86	87	86	0	0.0%
- Medical microbiology	15	15	16	16	16	1	6.7%
- Neuropathology	37	38	39	40	40	3	8.1%
- Pediatric pathology	28	28	27	27	27	-1	-3.6%
- Selective pathology	101	109	116	124	131	30	29.7%
Pediatrics	211	210	212	213	218	7	3.3%
- Adolescent medicine	32	32	32	34	33	1	3.1%
- Child abuse pediatrics	31	31	31	32	33	2	6.5%
- Clinical informatics	7	8	9	9	10	3	42.9%
- Developmental-behavioral pediatrics	43	44	44	44	45	2	4.7%
- Neonatal-perinatal medicine	103	107	110	110	110	7	6.8%
- Pediatric cardiology	63	64	64	64	64	1	1.6%
- Pediatric critical care medicine	72	75	77	76	76	4	5.6%
- Pediatric emergency medicine	53	55	56	58	59	6	11.3%
- Pediatric endocrinology	72	72	72	73	72	0	0.0%
- Pediatric gastroenterology	65	67	67	67	67	2	3.1%
- Pediatric hematology/oncology	75	76	77	78	79	4	5.3%
- Pediatric infectious diseases	64	64	64	64	64	0	0.0%

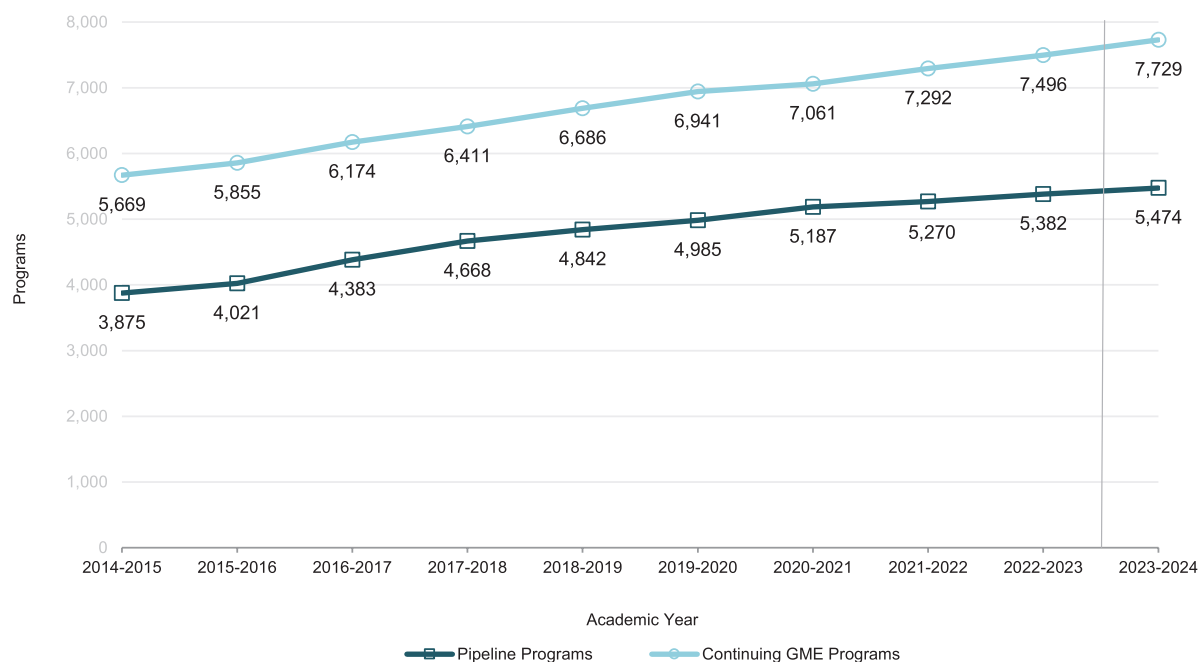
TABLE A.4 *Continued*

Number of Programs by Specialty and Subspecialty and Academic Year, 2019-2020 to 2023-2024

Specialty	Academic Year					5-Year Change	
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024		
	#	#	#	#	#	#	%
- Pediatric nephrology	47	47	47	48	48	1	2.1%
- Pediatric pulmonology	56	56	57	57	57	1	1.8%
- Pediatric rheumatology	36	37	38	37	38	2	5.6%
- Sports medicine	17	17	17	17	17	0	0.0%
- Pediatric transplant hepatology	16	17	17	17	17	1	6.3%
- Pediatric hospital medicine*	33	54	65	68	73	40	121.2%
Physical medicine and rehabilitation	94	98	100	101	108	14	14.9%
- Brain injury medicine	23	25	25	27	28	5	21.7%
- Neuromuscular medicine	1	1	1	1	1	0	0.0%
- Spinal cord injury medicine	24	24	24	26	26	2	8.3%
- Pediatric rehabilitation medicine	22	22	22	22	23	1	4.5%
- Sports medicine	20	21	22	22	24	4	20.0%
Plastic surgery	53	52	50	49	47	-6	-11.3%
Plastic Surgery - integrated	82	86	88	89	89	7	8.5%
- Craniofacial surgery	8	8	8	9	9	1	12.5%
- Hand surgery	17	17	18	19	19	2	11.8%
Public health and general preventive medicine	72	72	72	43	42	-30	-41.7%
- Undersea and hyperbaric medicine	1	1	1	1	1	0	0.0%
- Medical toxicology	1	1	1			N/A	N/A
Aerospace medicine*				5	5	0	0.0%
Occupational and environmental medicine*				23	23	0	0.0%
Psychiatry	269	287	294	304	334	65	24.2%
- Addiction medicine (multidisciplinary)	78	85	91	96	105	27	34.6%
- Addiction psychiatry	53	53	55	55	55	2	3.8%
- Child and adolescent psychiatry	141	146	152	153	155	14	9.9%
- Forensic psychiatry	48	49	49	49	53	5	10.4%
- Geriatric psychiatry	62	64	64	63	61	-1	-1.6%
- Consultation-liaison psychiatry	63	64	66	67	69	6	9.5%
Radiation oncology	91	91	90	90	89	-2	-2.2%
Radiology-diagnostic	197	196	197	199	197	0	0.0%
- Abdominal radiology	14	13	13	13	13	-1	-7.1%
- Musculoskeletal radiology	20	20	20	21	21	1	5.0%
- Neuroendovascular intervention	3	3	3	3	5	2	66.7%
- Neuroradiology	87	89	91	91	91	4	4.6%
- Nuclear radiology	17	18	18	19	20	3	17.6%
- Pediatric radiology	47	48	47	46	48	1	2.1%
- Vascular and interventional radiology	92					N/A	N/A
Interventional radiology - independent*	2	95	95	94	91	89	4450.0%
Interventional radiology - integrated	89	92	92	95	99	10	11.2%
Surgery	330	344	353	363	364	34	10.3%
- Complex general surgical oncology	29	31	33	34	34	5	17.2%
- Hand surgery	1	2	2	2	2	1	100.0%
- Pediatric surgery	49	51	51	51	52	3	6.1%
- Surgical critical care	139	145	156	162	165	26	18.7%
- Vascular surgery - independent	116	115	118	119	123	7	6.0%
Vascular surgery - integrated	64	67	73	76	78	14	21.9%
Thoracic surgery - independent	74	74	75	75	79	5	6.8%
- Congenital cardiac surgery	14	15	16	17	17	3	21.4%
Thoracic surgery - integrated	30	33	34	34	36	6	20.0%
Urology	145	145	148	150	150	5	3.4%
- Female pelvic medicine and reconstructive surgery	15	15	16	17	16	1	6.7%
- Pediatric urology	26	26	26	26	27	1	3.8%
Transitional year	166	172	178	188	190	24	14.5%
Internal medicine/Pediatrics	79	79	78	77	77	-2	-2.5%
Health care administration, leadership, and management*				2	5	3	150.0%

Notes: Pipeline specialties are highlighted. Asterisks (*) indicate specialties and subspecialties added within the last five years. For these specialties and subspecialties, the number and percent change are calculated from the first year of having accredited programs.

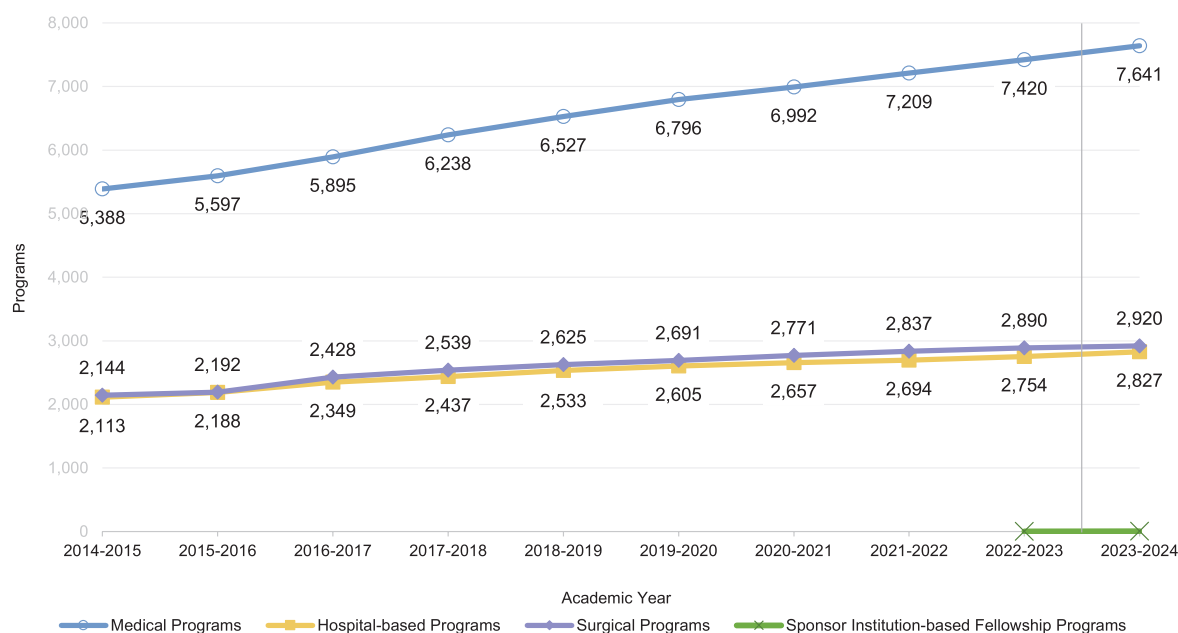
Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

FIGURE A.5**Number of Pipeline and Continuing GME Programs by Academic Year, 2014-2015 to 2023-2024**

Note¹: Excluding transitional year programs.

Note²: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

Abbreviation: GME, graduate medical education.

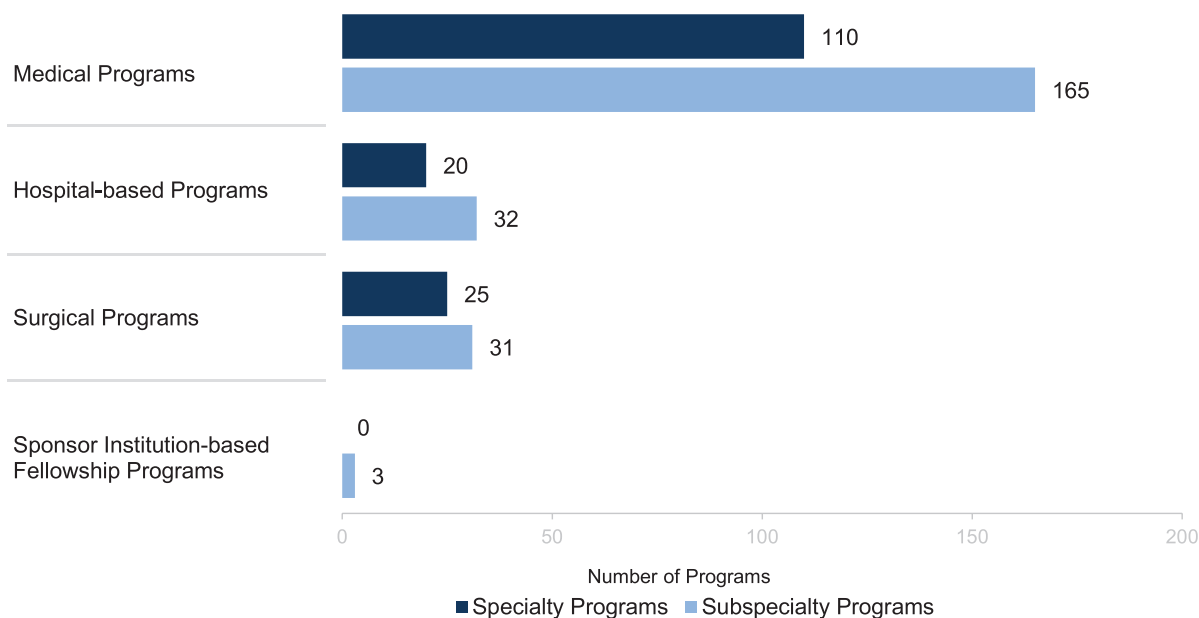
FIGURE A.6**Number of Programs by Specialty Group and Academic Year, 2014-2015 to 2023-2024**

Note¹: Introduced new Specialty Group that identifies fellowship programs classified as Sponsor Institution-based Fellowships Programs (N=5).

Note²: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

FIGURE A.7

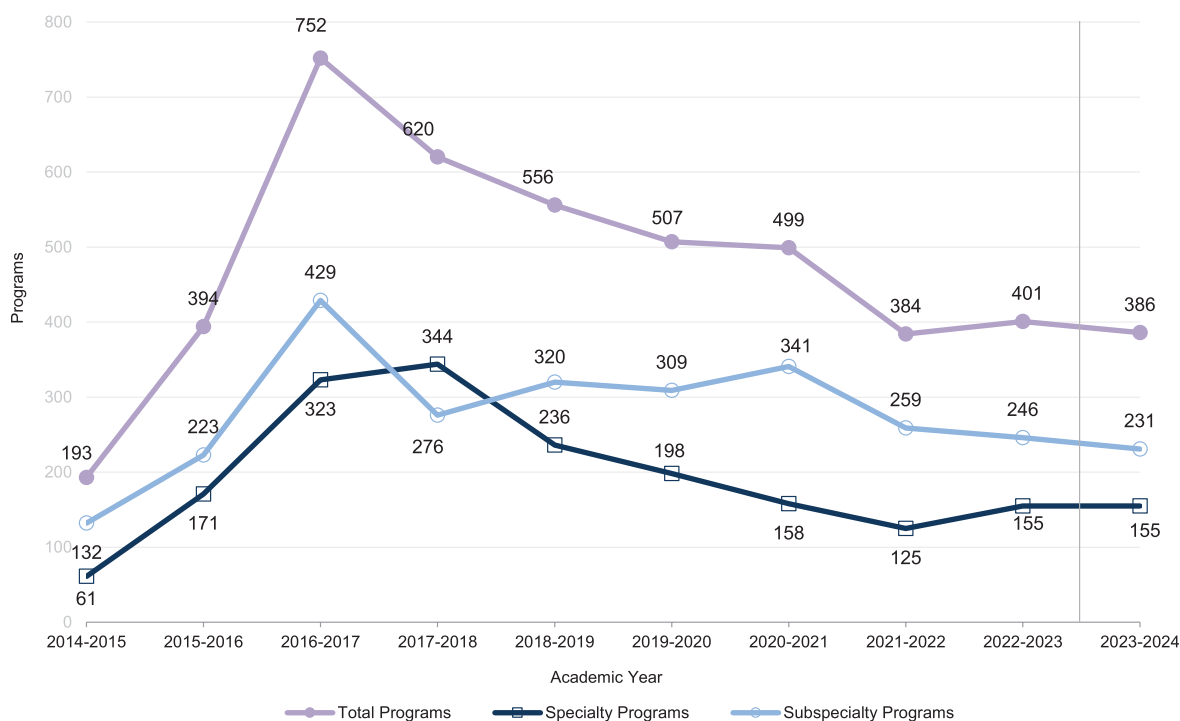
Number of Newly Accredited Programs by Specialty Group



Notes: Introduced new Specialty Group that identifies fellowship programs classified as Sponsor Institution-based Fellowships Programs (N=3).

FIGURE A.8

Number of Newly Accredited Programs by Academic Year, 2014-2015 to 2023-2024



Note: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

TABLE A.9

Number of Newly Accredited Programs during the Academic Year by Specialty and Subspecialty				
Specialty	Total Programs	Newly Accredited Programs	Percentage of Specialty	Percent of All Newly Accredited Programs
OVERALL	13,393	386	2.9%	100.0%
TOTAL PIPELINE	5,474	138	2.5%	35.8%
Allergy and immunology	90	3	3.3%	0.8%
Anesthesiology	167	4	2.4%	1.0%
- Adult cardiothoracic anesthesiology	75	0	0.0%	0.0%
- Critical care medicine	67	2	3.0%	0.5%
- Obstetric anesthesiology	41	0	0.0%	0.0%
- Pain medicine (multidisciplinary)	118	3	2.5%	0.8%
- Pediatric anesthesiology	61	0	0.0%	0.0%
- Pediatric cardiac anesthesiology*	15	0	0.0%	0.0%
- Regional anesthesiology and acute pain medicine	44	2	4.5%	0.5%
Colon and rectal surgery	71	3	4.2%	0.8%
Dermatology	143	0	0.0%	0.0%
- Dermatopathology (multidisciplinary)	57	1	1.8%	0.3%
- Micrographic surgery and dermatologic oncology	85	5	5.9%	1.3%
- Pediatric dermatology*	34	5	14.7%	1.3%
Emergency medicine	289	3	1.0%	0.8%
- Emergency medical services	83	2	2.4%	0.5%
- Medical toxicology	32	2	6.3%	0.5%
- Pediatric emergency medicine	29	0	0.0%	0.0%
- Sports medicine	8	0	0.0%	0.0%
- Undersea and hyperbaric medicine	8	0	0.0%	0.0%
Family medicine	778	27	3.5%	7.0%
- Clinical informatics	8	0	0.0%	0.0%
- Geriatric medicine	44	2	4.5%	0.5%
- Hospice and palliative medicine (multidisciplinary)	190	7	3.7%	1.8%
- Sports medicine	174	4	2.3%	1.0%
Internal medicine	651	28	4.3%	7.3%
- Adult congenital heart disease	30	3	10.0%	0.8%
- Advanced heart failure and transplant cardiology	85	1	1.2%	0.3%
- Cardiovascular disease	281	9	3.2%	2.3%
- Clinical cardiac electrophysiology	118	3	2.5%	0.8%
- Clinical informatics	32	0	0.0%	0.0%
- Critical care medicine	67	4	6.0%	1.0%
- Endocrinology, diabetes, and metabolism	161	3	1.9%	0.8%
- Gastroenterology	238	10	4.2%	2.6%
- Geriatric medicine	120	0	0.0%	0.0%
- Hematology and medical oncology	187	4	2.1%	1.0%
- Infectious disease	168	1	0.6%	0.3%
- Interventional cardiology	183	3	1.6%	0.8%
- Interventional pulmonology*	17	17	100.0%	4.4%
- Medical oncology	2	0	0.0%	0.0%
- Nephrology	151	2	1.3%	0.5%
- Pulmonary disease	19	1	5.3%	0.3%
- Pulmonary disease and critical care medicine	204	3	1.5%	0.8%
- Rheumatology	133	4	3.0%	1.0%
- Sleep medicine (multidisciplinary)	98	3	3.1%	0.8%
- Transplant hepatology	68	2	2.9%	0.5%
Medical genetics and genomics	47	0	0.0%	0.0%
- Medical biochemical genetics	22	1	4.5%	0.3%
- Molecular genetic pathology (multidisciplinary)	43	2	4.7%	0.5%
Clinical biochemical genetics	15	0	0.0%	0.0%
Laboratory genetics and genomics	38	0	0.0%	0.0%
Neurological surgery	118	1	0.8%	0.3%
- Neuroendovascular intervention	3	0	0.0%	0.0%

TABLE A.9 *Continued***Number of Newly Accredited Programs during the Academic Year by Specialty and Subspecialty**

Specialty	Total Programs	Newly Accredited Programs	Percentage of Specialty	Percent of All Newly Accredited Programs
Neurology	188	8	4.3%	2.1%
- Clinical neurophysiology	97	2	2.1%	0.5%
- Epilepsy	99	4	4.0%	1.0%
- Neurocritical care (multidisciplinary)*	52	17	32.7%	4.4%
- Neuroendovascular intervention	2	0	0.0%	0.0%
- Neurodevelopmental disabilities	10	2	20.0%	0.5%
- Neuromuscular medicine	57	2	3.5%	0.5%
- Vascular neurology	114	2	1.8%	0.5%
Child neurology	81	2	2.5%	0.5%
Nuclear medicine	36	0	0.0%	0.0%
Obstetrics and gynecology	295	1	0.3%	0.3%
- Female pelvic medicine and reconstructive surgery	58	1	1.7%	0.3%
- Gynecologic oncology	74	4	5.4%	1.0%
- Maternal-fetal medicine	109	5	4.6%	1.3%
- Reproductive endocrinology and infertility	52	3	5.8%	0.8%
- Complex family planning*	35	3	8.6%	0.8%
Ophthalmology	126	2	1.6%	0.5%
- Ophthalmic plastic and reconstructive surgery	4	0	0.0%	0.0%
Orthopaedic surgery	209	2	1.0%	0.5%
- Adult reconstructive orthopaedics	26	2	7.7%	0.5%
- Foot and ankle orthopaedics	9	1	11.1%	0.3%
- Hand surgery	73	0	0.0%	0.0%
- Musculoskeletal oncology	12	0	0.0%	0.0%
- Orthopaedic sports medicine	93	0	0.0%	0.0%
- Orthopaedic surgery of the spine	16	1	6.3%	0.3%
- Orthopaedic trauma	12	0	0.0%	0.0%
- Pediatric orthopaedics	24	0	0.0%	0.0%
Osteopathic neuromusculoskeletal medicine	26	0	0.0%	0.0%
Otolaryngology - head and neck Surgery	131	0	0.0%	0.0%
- Neurotology	29	0	0.0%	0.0%
- Pediatric otolaryngology	34	1	2.9%	0.3%
Pathology-anatomic and clinical	142	1	0.7%	0.3%
- Blood banking/transfusion medicine	56	3	5.4%	0.8%
- Clinical informatics	10	0	0.0%	0.0%
- Chemical pathology	4	0	0.0%	0.0%
- Cytopathology	92	0	0.0%	0.0%
- Forensic pathology	50	2	4.0%	0.5%
- Hematopathology	86	0	0.0%	0.0%
- Medical microbiology	16	0	0.0%	0.0%
- Neuropathology	40	0	0.0%	0.0%
- Pediatric pathology	27	0	0.0%	0.0%
- Selective pathology	131	7	5.3%	1.8%
Pediatrics	218	5	2.3%	1.3%
- Adolescent medicine	33	0	0.0%	0.0%
- Child abuse pediatrics	33	1	3.0%	0.3%
- Clinical informatics	10	1	10.0%	0.3%
- Developmental-behavioral pediatrics	45	1	2.2%	0.3%
- Neonatal-perinatal medicine	110	0	0.0%	0.0%
- Pediatric cardiology	64	1	1.6%	0.3%
- Pediatric critical care medicine	76	0	0.0%	0.0%
- Pediatric emergency medicine	59	1	1.7%	0.3%
- Pediatric endocrinology	72	2	2.8%	0.5%
- Pediatric gastroenterology	67	0	0.0%	0.0%
- Pediatric hematology/oncology	79	1	1.3%	0.3%
- Pediatric infectious diseases	64	0	0.0%	0.0%

TABLE A.9 *Continued***Number of Newly Accredited Programs during the Academic Year by Specialty and Subspecialty**

Specialty	Total Programs	Newly Accredited Programs	Percentage of Specialty	Percent of All Newly Accredited Programs
- Pediatric nephrology	48	0	0.0%	0.0%
- Pediatric pulmonology	57	0	0.0%	0.0%
- Pediatric rheumatology	38	1	2.6%	0.3%
- Sports medicine	17	0	0.0%	0.0%
- Pediatric transplant hepatology	17	0	0.0%	0.0%
- Pediatric hospital medicine*	73	6	8.2%	1.6%
Physical medicine and rehabilitation	108	7	6.5%	1.8%
- Brain injury medicine	28	1	3.6%	0.3%
- Neuromuscular medicine	1	0	0.0%	0.0%
- Spinal cord injury medicine	26	0	0.0%	0.0%
- Pediatric rehabilitation medicine	23	1	4.3%	0.3%
- Sports medicine	24	1	4.2%	0.3%
Plastic surgery	47	0	0.0%	0.0%
Plastic Surgery - integrated	89	0	0.0%	0.0%
- Craniofacial surgery	9	0	0.0%	0.0%
- Hand surgery	19	0	0.0%	0.0%
Public health and general preventive medicine	42	1	2.4%	0.3%
- Undersea and hyperbaric medicine	1	0	0.0%	0.0%
Aerospace medicine*	5	0	0.0%	0.0%
Occupational and environmental medicine*	23	0	0.0%	0.0%
Psychiatry	334	30	9.0%	7.8%
- Addiction medicine (multidisciplinary)	105	10	9.5%	2.6%
- Addiction psychiatry	55	1	1.8%	0.3%
- Child and adolescent psychiatry	155	2	1.3%	0.5%
- Forensic psychiatry	53	4	7.5%	1.0%
- Geriatric psychiatry	61	1	1.6%	0.3%
- Consultation-liaison psychiatry	69	3	4.3%	0.8%
Radiation oncology	89	0	0.0%	0.0%
Radiology-diagnostic	197	0	0.0%	0.0%
- Abdominal radiology	13	0	0.0%	0.0%
- Musculoskeletal radiology	21	1	4.8%	0.3%
- Neuroendovascular intervention	5	2	40.0%	0.5%
- Neuroradiology	91	0	0.0%	0.0%
- Nuclear radiology	20	1	5.0%	0.3%
- Pediatric radiology	48	2	4.2%	0.5%
Interventional radiology - independent*	91	0	0.0%	0.0%
Interventional radiology - integrated	99	4	4.0%	1.0%
Surgery	364	7	1.9%	1.8%
- Complex general surgical oncology	34	0	0.0%	0.0%
- Hand surgery	2	0	0.0%	0.0%
- Pediatric surgery	52	1	1.9%	0.3%
- Surgical critical care	165	3	1.8%	0.8%
- Vascular surgery - independent	123	5	4.1%	1.3%
Vascular surgery - integrated	78	2	2.6%	0.5%
Thoracic surgery - independent	79	4	5.1%	1.0%
- Congenital cardiac surgery	17	0	0.0%	0.0%
Thoracic surgery - integrated	36	2	5.6%	0.5%
Urology	150	1	0.7%	0.3%
- Female pelvic medicine and reconstructive surgery	16	0	0.0%	0.0%
- Pediatric urology	27	1	3.7%	0.3%
Transitional year	190	7	3.7%	1.8%
Internal medicine/Pediatrics	77	0	0.0%	0.0%
Health care administration, leadership, and management*	5	3	60.0%	0.8%

Notes: Pipeline specialties are highlighted. Asterisks (*) indicate specialties and subspecialties added within the last five years.

TABLE A.10

Number of Programs with a Withdrawn Accreditation Status during the Academic Year by Specialty and Subspecialty

Specialty	Total Programs	Accreditation Withdrawn Prior to Academic Year End		Accreditation Withdrawn at Academic Year End		Future Withdrawal of Accreditation	
		#	%	#	%	#	%
OVERALL	13,393	14	0.1%	41	0.3%	9	0.1%
TOTAL PIPELINE	5,474	1	0.0%	17	0.3%	8	0.1%
Allergy and immunology	90	0	0.0%	0	0.0%	0	0.0%
Anesthesiology	167	0	0.0%	1	0.6%	0	0.0%
- Adult cardiothoracic anesthesiology	75	0	0.0%	0	0.0%	1	1.3%
- Critical care medicine	67	0	0.0%	0	0.0%	0	0.0%
- Obstetric anesthesiology	41	0	0.0%	0	0.0%	0	0.0%
- Pain medicine (multidisciplinary)	118	0	0.0%	0	0.0%	0	0.0%
- Pediatric anesthesiology	61	0	0.0%	0	0.0%	0	0.0%
- Pediatric cardiac anesthesiology	15	0	0.0%	0	0.0%	0	0.0%
- Regional anesthesiology and acute pain medicine	44	0	0.0%	0	0.0%	0	0.0%
Colon and rectal surgery	71	0	0.0%	0	0.0%	0	0.0%
Dermatology	143	0	0.0%	0	0.0%	0	0.0%
- Dermatopathology (multidisciplinary)	57	0	0.0%	0	0.0%	0	0.0%
- Micrographic surgery and dermatologic oncology	85	0	0.0%	0	0.0%	0	0.0%
- Pediatric dermatology	34	0	0.0%	0	0.0%	0	0.0%
Emergency medicine	289	0	0.0%	0	0.0%	1	0.3%
- Emergency medical services	83	0	0.0%	0	0.0%	0	0.0%
- Medical toxicology	32	0	0.0%	0	0.0%	0	0.0%
- Pediatric emergency medicine	29	0	0.0%	0	0.0%	0	0.0%
- Sports medicine	8	0	0.0%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	8	0	0.0%	0	0.0%	0	0.0%
Family medicine	778	0	0.0%	2	0.3%	5	0.6%
- Clinical informatics	8	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	44	1	2.3%	0	0.0%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	190	2	1.1%	1	0.5%	0	0.0%
- Sports medicine	174	0	0.0%	2	1.1%	0	0.0%
Internal medicine	651	0	0.0%	2	0.3%	0	0.0%
- Adult congenital heart disease	30	0	0.0%	0	0.0%	0	0.0%
- Advanced heart failure and transplant cardiology	85	0	0.0%	1	1.2%	0	0.0%
- Cardiovascular disease	281	0	0.0%	0	0.0%	0	0.0%
- Clinical cardiac electrophysiology	118	0	0.0%	0	0.0%	0	0.0%
- Clinical informatics	32	0	0.0%	0	0.0%	0	0.0%
- Critical care medicine	67	2	3.0%	0	0.0%	0	0.0%
- Endocrinology, diabetes, and metabolism	161	0	0.0%	0	0.0%	0	0.0%
- Gastroenterology	238	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	120	0	0.0%	1	0.8%	0	0.0%
- Hematology and medical oncology	187	1	0.5%	0	0.0%	0	0.0%
- Infectious disease	168	0	0.0%	0	0.0%	0	0.0%
- Interventional cardiology	183	0	0.0%	0	0.0%	0	0.0%
- Interventional pulmonology	17	0	0.0%	0	0.0%	0	0.0%
- Medical oncology	2	0	0.0%	1	50.0%	0	0.0%
- Nephrology	151	0	0.0%	0	0.0%	0	0.0%
- Pulmonary disease	19	1	5.3%	2	10.5%	0	0.0%
- Pulmonary disease and critical care medicine	204	1	0.5%	0	0.0%	0	0.0%
- Rheumatology	133	0	0.0%	0	0.0%	0	0.0%
- Sleep medicine (multidisciplinary)	98	0	0.0%	0	0.0%	0	0.0%
- Transplant hepatology	68	0	0.0%	0	0.0%	0	0.0%
Medical genetics and genomics	47	0	0.0%	2	4.3%	0	0.0%
- Medical biochemical genetics	22	0	0.0%	0	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	43	0	0.0%	0	0.0%	0	0.0%
Clinical biochemical genetics	15	1	6.7%	0	0.0%	0	0.0%
Laboratory genetics and genomics	38	0	0.0%	0	0.0%	0	0.0%
Neurological surgery	118	0	0.0%	0	0.0%	0	0.0%
- Neuroendovascular intervention	3	0	0.0%	0	0.0%	0	0.0%

TABLE A.10 *Continued*

Number of Programs with a Withdrawn Accreditation Status during the Academic Year by Specialty and Subspecialty							
Specialty	Total Programs	Accreditation Withdrawn Prior to Academic Year End		Accreditation Withdrawn at Academic Year End		Future Withdrawal of Accreditation	
		#	%	#	%	#	%
Neurology	188	0	0.0%	0	0.0%	0	0.0%
- Clinical neurophysiology	97	0	0.0%	0	0.0%	0	0.0%
- Epilepsy	99	0	0.0%	0	0.0%	0	0.0%
- Neurocritical care (multidisciplinary)	52	0	0.0%	0	0.0%	0	0.0%
- Neuroendovascular intervention	2	0	0.0%	0	0.0%	0	0.0%
- Neurodevelopmental disabilities	10	0	0.0%	0	0.0%	0	0.0%
- Neuromuscular medicine	57	0	0.0%	2	3.5%	0	0.0%
- Vascular neurology	114	0	0.0%	0	0.0%	0	0.0%
Child neurology	81	0	0.0%	0	0.0%	0	0.0%
Nuclear medicine	36	0	0.0%	2	5.6%	0	0.0%
Obstetrics and gynecology	295	0	0.0%	0	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	58	0	0.0%	2	3.4%	0	0.0%
- Gynecologic oncology	74	0	0.0%	0	0.0%	0	0.0%
- Maternal-fetal medicine	109	0	0.0%	0	0.0%	0	0.0%
- Reproductive endocrinology and infertility	52	0	0.0%	1	1.9%	0	0.0%
- Complex family planning	35	0	0.0%	0	0.0%	0	0.0%
Ophthalmology	126	0	0.0%	0	0.0%	0	0.0%
- Ophthalmic plastic and reconstructive surgery	4	0	0.0%	0	0.0%	0	0.0%
Orthopaedic surgery	209	0	0.0%	1	0.5%	1	0.5%
- Adult reconstructive orthopaedics	26	1	3.8%	0	0.0%	0	0.0%
- Foot and ankle orthopaedics	9	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	73	0	0.0%	0	0.0%	0	0.0%
- Musculoskeletal oncology	12	0	0.0%	0	0.0%	0	0.0%
- Orthopaedic sports medicine	93	0	0.0%	0	0.0%	0	0.0%
- Orthopaedic surgery of the spine	16	0	0.0%	0	0.0%	0	0.0%
- Orthopaedic trauma	12	0	0.0%	0	0.0%	0	0.0%
- Pediatric orthopaedics	24	1	4.2%	0	0.0%	0	0.0%
Osteopathic neuromusculoskeletal medicine	26	0	0.0%	1	3.8%	0	0.0%
Otolaryngology - head and neck Surgery	131	0	0.0%	0	0.0%	0	0.0%
- Neurotology	29	0	0.0%	0	0.0%	0	0.0%
- Pediatric otolaryngology	34	0	0.0%	0	0.0%	0	0.0%
Pathology-anatomic and clinical	142	0	0.0%	1	0.7%	0	0.0%
- Blood banking/transfusion medicine	56	0	0.0%	1	1.8%	0	0.0%
- Clinical informatics	10	0	0.0%	0	0.0%	0	0.0%
- Chemical pathology	4	0	0.0%	0	0.0%	0	0.0%
- Cytopathology	92	0	0.0%	0	0.0%	0	0.0%
- Forensic pathology	50	0	0.0%	0	0.0%	0	0.0%
- Hematopathology	86	0	0.0%	0	0.0%	0	0.0%
- Medical microbiology	16	0	0.0%	1	6.3%	0	0.0%
- Neuropathology	40	0	0.0%	0	0.0%	0	0.0%
- Pediatric pathology	27	0	0.0%	0	0.0%	0	0.0%
- Selective pathology	131	0	0.0%	0	0.0%	0	0.0%
Pediatrics	218	0	0.0%	0	0.0%	0	0.0%
- Adolescent medicine	33	0	0.0%	0	0.0%	0	0.0%
- Child abuse pediatrics	33	0	0.0%	0	0.0%	0	0.0%
- Clinical informatics	10	0	0.0%	0	0.0%	0	0.0%
- Developmental-behavioral pediatrics	45	0	0.0%	0	0.0%	0	0.0%
- Neonatal-perinatal medicine	110	0	0.0%	0	0.0%	0	0.0%
- Pediatric cardiology	64	0	0.0%	0	0.0%	0	0.0%
- Pediatric critical care medicine	76	0	0.0%	0	0.0%	0	0.0%
- Pediatric emergency medicine	59	0	0.0%	0	0.0%	0	0.0%
- Pediatric endocrinology	72	0	0.0%	0	0.0%	0	0.0%
- Pediatric gastroenterology	67	0	0.0%	0	0.0%	0	0.0%
- Pediatric hematology/oncology	79	0	0.0%	0	0.0%	0	0.0%
- Pediatric infectious diseases	64	0	0.0%	0	0.0%	0	0.0%

TABLE A.10 *Continued***Number of Programs with a Withdrawn Accreditation Status during the Academic Year by Specialty and Subspecialty**

Specialty	Total Programs	Accreditation Withdrawn Prior to Academic Year End		Accreditation Withdrawn at Academic Year End		Future Withdrawal of Accreditation	
		#	%	#	%	#	%
- Pediatric nephrology	48	0	0.0%	0	0.0%	0	0.0%
- Pediatric pulmonology	57	0	0.0%	0	0.0%	0	0.0%
- Pediatric rheumatology	38	0	0.0%	0	0.0%	0	0.0%
- Sports medicine	17	0	0.0%	0	0.0%	0	0.0%
- Pediatric transplant hepatology	17	0	0.0%	0	0.0%	0	0.0%
- Pediatric hospital medicine	73	0	0.0%	0	0.0%	0	0.0%
Physical medicine and rehabilitation	108	0	0.0%	0	0.0%	0	0.0%
- Brain injury medicine	28	0	0.0%	0	0.0%	0	0.0%
- Neuromuscular medicine	1	0	0.0%	0	0.0%	0	0.0%
- Spinal cord injury medicine	26	0	0.0%	0	0.0%	0	0.0%
- Pediatric rehabilitation medicine	23	0	0.0%	0	0.0%	0	0.0%
- Sports medicine	24	0	0.0%	0	0.0%	0	0.0%
Plastic surgery	47	0	0.0%	0	0.0%	0	0.0%
Plastic Surgery - integrated	89	0	0.0%	0	0.0%	0	0.0%
- Craniofacial surgery	9	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	19	0	0.0%	0	0.0%	0	0.0%
Public health and general preventive medicine	42	0	0.0%	1	2.4%	0	0.0%
- Undersea and hyperbaric medicine	1	0	0.0%	0	0.0%	0	0.0%
Aerospace medicine	5	0	0.0%	0	0.0%	0	0.0%
Occupational and environmental medicine	23	0	0.0%	0	0.0%	1	4.3%
Psychiatry	334	0	0.0%	1	0.3%	0	0.0%
- Addiction medicine (multidisciplinary)	105	1	1.0%	1	1.0%	0	0.0%
- Addiction psychiatry	55	0	0.0%	0	0.0%	0	0.0%
- Child and adolescent psychiatry	155	0	0.0%	0	0.0%	0	0.0%
- Forensic psychiatry	53	0	0.0%	0	0.0%	0	0.0%
- Geriatric psychiatry	61	0	0.0%	1	1.6%	0	0.0%
- Consultation-liaison psychiatry	69	0	0.0%	0	0.0%	0	0.0%
Radiation oncology	89	0	0.0%	1	1.1%	0	0.0%
Radiology-diagnostic	197	0	0.0%	0	0.0%	0	0.0%
- Abdominal radiology	13	0	0.0%	0	0.0%	0	0.0%
- Musculoskeletal radiology	21	0	0.0%	0	0.0%	0	0.0%
- Neuroendovascular intervention	5	0	0.0%	0	0.0%	0	0.0%
- Neuroradiology	91	0	0.0%	0	0.0%	0	0.0%
- Nuclear radiology	20	0	0.0%	0	0.0%	0	0.0%
- Pediatric radiology	48	0	0.0%	1	2.1%	0	0.0%
Interventional radiology - independent	91	0	0.0%	0	0.0%	0	0.0%
Interventional radiology - integrated	99	0	0.0%	1	1.0%	0	0.0%
Surgery	364	1	0.3%	0	0.0%	0	0.0%
- Complex general surgical oncology	34	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	2	0	0.0%	0	0.0%	0	0.0%
- Pediatric surgery	52	0	0.0%	0	0.0%	0	0.0%
- Surgical critical care	165	0	0.0%	0	0.0%	0	0.0%
- Vascular surgery - independent	123	1	0.8%	1	0.8%	0	0.0%
Vascular surgery - integrated	78	0	0.0%	0	0.0%	0	0.0%
Thoracic surgery - independent	79	0	0.0%	0	0.0%	0	0.0%
- Congenital cardiac surgery	17	0	0.0%	0	0.0%	0	0.0%
Thoracic surgery - integrated	36	0	0.0%	0	0.0%	0	0.0%
Urology	150	0	0.0%	1	0.7%	0	0.0%
- Female pelvic medicine and reconstructive surgery	16	0	0.0%	0	0.0%	0	0.0%
- Pediatric urology	27	0	0.0%	0	0.0%	0	0.0%
Transitional year	190	0	0.0%	5	2.6%	0	0.0%
Internal medicine/Pediatrics	77	0	0.0%	0	0.0%	0	0.0%
Health care administration, leadership, and management	5	0	0.0%	0	0.0%	0	0.0%

Notes: Pipeline specialties are highlighted. Total program counts exclude programs withdrawn prior to the end of the academic year (n=14).

TABLE A.11

Total Number of Programs, Years of Accredited Prior Training Required, and Length of Accredited Education and Training by Specialty and Subspecialty

Specialty	MIN No. of Prior Years	Total Programs	Length of Accredited Education and Training						
			1	2	3	4	5	6	7
			#	#	#	#	#	#	#
Allergy and immunology	3	90		90					
Anesthesiology	1/0	167			17	150			
- Adult cardiothoracic anesthesiology	4	75	75						
- Critical care medicine	4	67	67						
- Obstetric anesthesiology	3/4	41	41						
- Pain medicine (multidisciplinary)	3/4	118	118						
- Pediatric anesthesiology	4	61	61						
- Pediatric cardiac anesthesiology	4	15	15						
- Regional anesthesiology and acute pain medicine	4	44	44						
Colon and rectal surgery	5	71	71						
Dermatology	1/0	143			141	2			
- Dermatopathology (multidisciplinary)	4	57	57						
- Micrographic surgery and dermatologic oncology	4	85	85						
- Pediatric dermatology	4	34	34						
Emergency medicine	0	289			233	56			
- Emergency medical services	3	83	83						
- Medical toxicology	3	32		32					
- Pediatric emergency medicine	3	29			29				
- Sports medicine	3	8	8						
- Undersea and hyperbaric medicine	3	8	8						
Family medicine	0	778			768	10			
- Clinical informatics	3	8		8					
- Geriatric medicine	3	44	44						
- Hospice and palliative medicine (multidisciplinary)	3	190	190						
- Sports medicine	3	174	174						
Internal medicine	0	651			651				
- Adult congenital heart disease	3	30		30					
- Advanced heart failure and transplant cardiology	6	85	85						
- Cardiovascular disease	3	281			281				
- Clinical cardiac electrophysiology	6	118		118					
- Clinical informatics	3	32		32					
- Critical care medicine	3	67		67					
- Endocrinology, diabetes, and metabolism	3	161		161					
- Gastroenterology	3	238			238				
- Geriatric medicine	3	120	120						
- Hematology and medical oncology	3	187			187				
- Infectious disease	3	168		168					
- Interventional cardiology	6	183	183						
- Interventional pulmonology	2/3	17	17						
- Medical oncology	3	2		2					
- Nephrology	3	151		151					
- Pulmonary disease	3	19		19					
- Pulmonary disease and critical care medicine	3	204			204				
- Rheumatology	3	133		133					
- Sleep medicine (multidisciplinary)	3/4/5	98	98						
- Transplant hepatology	6	68	68						
Medical genetics and genomics	2/0	47		47					
- Medical biochemical genetics	4	22	22						
- Molecular genetic pathology (multidisciplinary)	4	43	43						
Clinical biochemical genetics	0	15		15					
Laboratory genetics and genomics	0	38		38					
Neurological surgery	0	118							118
- Neuroendovascular intervention	6	3		3					

TABLE A.11 *Continued***Total Number of Programs, Years of Accredited Prior Training Required, and Length of Accredited Education and Training by Specialty and Subspecialty**

Specialty	MIN No. of Prior Years	Total Programs	Length of Accredited Education and Training						
			1	2	3	4	5	6	7
			#	#	#	#	#	#	#
Neurology	1/0	188			49	139			
- Clinical neurophysiology	4	97	97						
- Epilepsy	3	99	99						
- Neurocritical care (multidisciplinary)	3/4	52		52					
- Neuroendovascular intervention	5	2		2					
- Neurodevelopmental disabilities	2	10				10			
- Neuromuscular medicine	4	57	57						
- Vascular neurology	4	114	114						
Child neurology	2	81			81				
Nuclear medicine	1	36			36				
Obstetrics and gynecology	0	295				295			
- Female pelvic medicine and reconstructive surgery	4	58			58				
- Gynecologic oncology	4	74			74				
- Maternal-fetal medicine	4	109			109				
- Reproductive endocrinology and infertility	4	52			52				
- Complex family planning	4	35		35					
Ophthalmology	1	126			75	51			
- Ophthalmic plastic and reconstructive surgery	4	4		4					
Orthopaedic surgery	0	209					209		
- Adult reconstructive orthopaedics	5	26	26						
- Foot and ankle orthopaedics	5	9	9						
- Hand surgery	5	73	73						
- Musculoskeletal oncology	5	12	12						
- Orthopaedic sports medicine	5	93	93						
- Orthopaedic surgery of the spine	5	16	16						
- Orthopaedic trauma	5	12	12						
- Pediatric orthopaedics	5	24	24						
Osteopathic neuromusculoskeletal medicine	0	26			26				
Otolaryngology - head and neck Surgery	0	131					131		
- Neurotology	5	29		29					
- Pediatric otolaryngology	5	34	34						
Pathology-anatomic and clinical	0	142			1	141			
- Blood banking/transfusion medicine	2	56	56						
- Clinical informatics	2	10		10					
- Chemical pathology	2	4	4						
- Cytopathology	2	92	92						
- Forensic pathology	2	50	50						
- Hematopathology	2	86	86						
- Medical microbiology	4	16	16						
- Neuropathology	2	40		40					
- Pediatric pathology	2	27	27						
- Selective pathology	2	131	131						
Pediatrics	0	218			218				
- Adolescent medicine	3	33			33				
- Child abuse pediatrics	3	33			33				
- Clinical informatics	3	10		10					
- Developmental-behavioral pediatrics	3	45			45				
- Neonatal-perinatal medicine	3	110			110				
- Pediatric cardiology	3	64			64				
- Pediatric critical care medicine	3	76			76				
- Pediatric emergency medicine	3	59			59				
- Pediatric endocrinology	3	72			72				
- Pediatric gastroenterology	3	67			67				
- Pediatric hematology/oncology	3	79			79				
- Pediatric infectious diseases	3	64			64				

TABLE A.11 *Continued***Total Number of Programs, Years of Accredited Prior Training Required, and Length of Accredited Education and Training by Specialty and Subspecialty**

Specialty	MIN No. of Prior Years	Total Programs	Length of Accredited Education and Training						
			1	2	3	4	5	6	7
			#	#	#	#	#	#	#
- Pediatric nephrology	3	48			48				
- Pediatric pulmonology	3	57			57				
- Pediatric rheumatology	3	38			38				
- Sports medicine	3	17	17						
- Pediatric transplant hepatology	6	17	17						
- Pediatric hospital medicine	3	73		73					
Physical medicine and rehabilitation	1/0	108			56	52			
- Brain injury medicine	3/4	28	28						
- Neuromuscular medicine	3/4	1	1						
- Spinal cord injury medicine	3/4	26	26						
- Pediatric rehabilitation medicine	4	23		23					
- Sports medicine	3/4	24	24						
Plastic surgery	3	47			47				
Plastic Surgery - integrated	0	89						89	
- Craniofacial surgery	6	9	9						
- Hand surgery	5	19	19						
Public health and general preventive medicine	1/0	42		40	2				
- Undersea and hyperbaric medicine	3	1	1						
Aerospace medicine	1/0	5		5					
Occupational and environmental medicine	1/0	23		23					
Psychiatry	0	334	1			333			
- Addiction medicine (multidisciplinary)	1/2/3/4	105	105						
- Addiction psychiatry	4	55	54	1					
- Child and adolescent psychiatry	3	155		155					
- Forensic psychiatry	4	53	53						
- Geriatric psychiatry	4	61	60	1					
- Consultation-liaison psychiatry	4	69	69						
Radiation oncology	1	89				89			
Radiology-diagnostic	1	197				189	8		
- Abdominal radiology	5	13	13						
- Musculoskeletal radiology	5	21	21						
- Neuroendovascular intervention	5	5		5					
- Neuroradiology	5	91	91						
- Nuclear radiology	5	20	20						
- Pediatric radiology	5	48	48						
Interventional radiology - independent	4	91		91					
Interventional radiology - integrated	1	99					94	5	
Surgery	0	364					364		
- Complex general surgical oncology	5	34		34					
- Hand surgery	5	2	2						
- Pediatric surgery	5	52		52					
- Surgical critical care	3	165	165						
- Vascular surgery - independent	5	123		123					
Vascular surgery - integrated	0	78					78		
Thoracic surgery - independent	5	79		56	23				
- Congenital cardiac surgery	7	17		17					
Thoracic surgery - integrated	0	36						36	
Urology	0/1	150					150		
- Female pelvic medicine and reconstructive surgery	3/4	16			16				
- Pediatric urology	5	27		27					
Transitional year	0	190	190						
Internal medicine/Pediatrics	0	77				77			
Health care administration, leadership, and management	1	5	1	4					

Notes: Pipeline specialties are highlighted. Under special circumstances, some programs have been granted exceptions to the typical length of accredited training.

TABLE A.12

Number of Programs with Osteopathic Recognition by Specialty and Subspecialty

Specialty	Total Programs	Programs with Osteopathic Recognition	Percent of Specialty	Percent of All Programs with Osteopathic Recognition
OVERALL	13,393	262	2.0%	100.0%
TOTAL PIPELINE	5,474	245	4.5%	93.5%
Allergy and immunology	90	1	1.1%	0.4%
Anesthesiology	167	3	1.8%	1.1%
Dermatology	143	3	2.1%	1.1%
Emergency medicine	289	5	1.7%	1.9%
Family medicine	778	179	23.0%	68.3%
- Hospice and palliative medicine (multidisciplinary)	190	2	1.1%	0.8%
- Sports medicine	174	4	2.3%	1.5%
Internal medicine	651	27	4.1%	10.3%
- Cardiovascular disease	281	2	0.7%	0.8%
- Geriatric medicine	120	1	0.8%	0.4%
- Pulmonary disease and critical care medicine	204	1	0.5%	0.4%
Neurological surgery	118	1	0.8%	0.4%
Neurology	188	1	0.5%	0.4%
Obstetrics and gynecology	295	4	1.4%	1.5%
Orthopaedic surgery	209	5	2.4%	1.9%
Otolaryngology - head and neck Surgery	131	3	2.3%	1.1%
Pediatrics	218	3	1.4%	1.1%
- Sports medicine	17	1	5.9%	0.4%
Physical medicine and rehabilitation	108	1	0.9%	0.4%
Plastic surgery	47	1	2.1%	0.4%
Psychiatry	334	2	0.6%	0.8%
Surgery	364	5	1.4%	1.9%
Urology	150	1	0.7%	0.4%
Transitional year	190	5	2.6%	1.9%
Internal medicine/Pediatrics	77	1	1.3%	0.4%

Note: Pipeline specialties are highlighted.

Program Characteristics

This section summarizes the geographic distribution of programs overall and by specialty, the distribution of programs and residents by specialty group, and the average number of residents per program overall and by specialty.

Geographic Distribution

There are currently ACGME-accredited programs in all 50 states, the District of Columbia (DC), and Puerto Rico. Based on the most recent US Census estimate for 2023, there are approximately 3.96 total programs (1.73 specialty, 2.23 subspecialty) per 100,000 population, including Puerto Rico. The following states have the highest total number of programs:

- New York (1,445)
- California (1,225)
- Texas (891)
- Pennsylvania (848)

States with the lowest number of programs include Montana (7), Alaska (4), and Wyoming (4). These patterns are consistent when looking at total programs, specialty programs, and pipeline programs by state. Family medicine is currently the only specialty represented across all 50 states, DC, and Puerto Rico.

Distributions by Specialty and Program Size

In looking at the distribution of specialty programs and their active residents, the specialties with the highest percentage of total programs include:

- Family medicine (13.3%)
- Internal medicine (11.1%)
- Surgery (6.2%)
- Psychiatry (5.7%)

In contrast, the specialties with the highest percentage of total residents include:

- Internal medicine (24.6%)
- Family medicine (11.5%)
- Surgery (7.3%)
- Emergency medicine (7.2%)

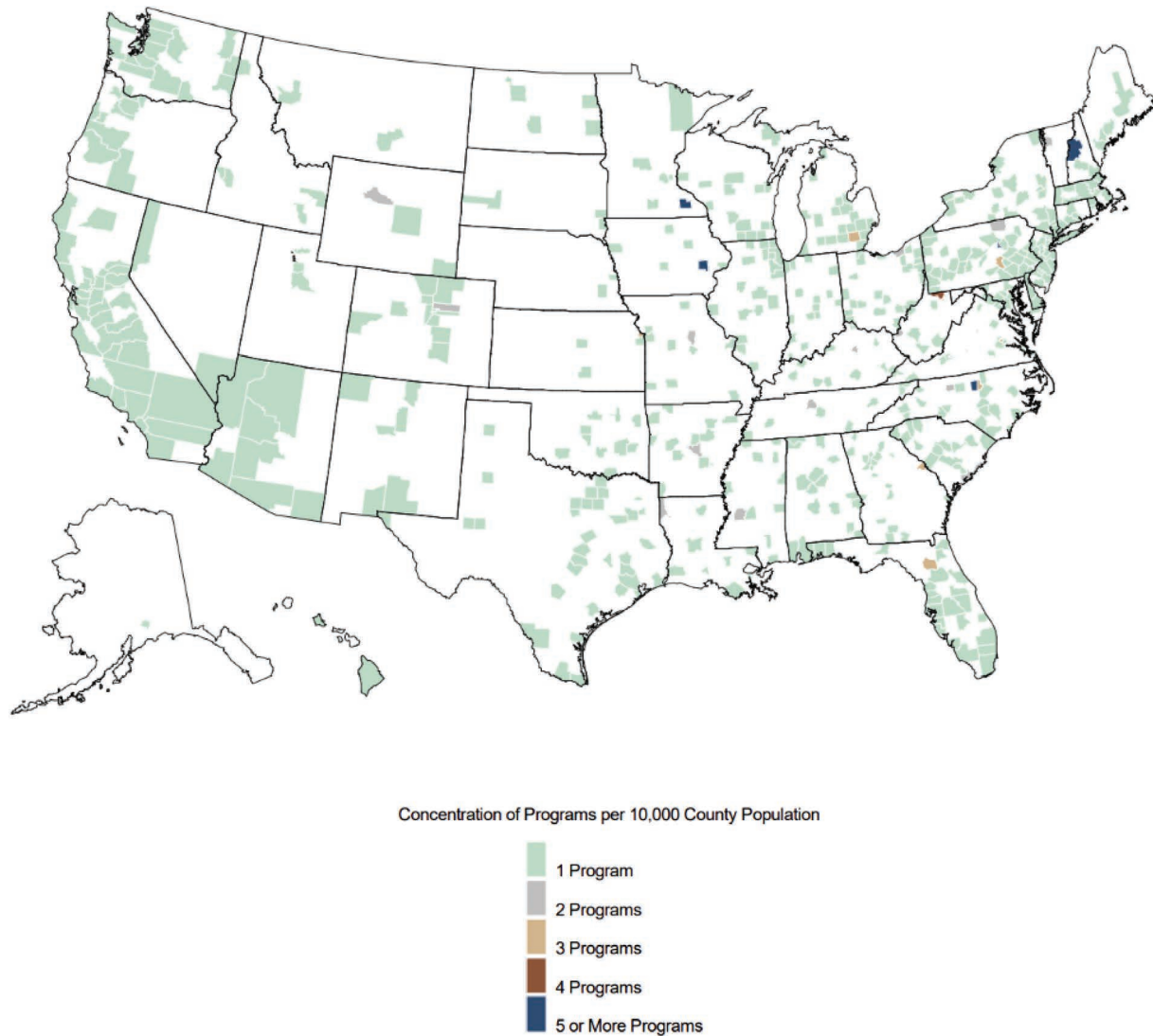
These distributions are driven by total number of programs and average program size (average number of residents per program). Internal medicine programs, for example, have an average of approximately 51 residents per program, with at least one program having 223 active residents during the 2023-2024 academic year. Anesthesiology has the second highest average number of residents per program with approximately 45 residents per program. Overall, the trends in mean number of residents per program show that for specialty programs, the average number of residents per program peaked at 24 in the 2014-2015 academic year but has fallen to 22.8 in the 2023-2024 academic year. The average size of subspecialty programs has remained fairly constant over the last 10 years. In the 2023-2024 academic year, there were approximately 3.8 residents per subspecialty program.

Distributions by Specialty Group

The distribution of programs by specialty group differs in specialty versus subspecialty programs. Of the total number of specialty programs, 45.9% of programs are in medical specialties, 30.6% are in surgical specialties, and 23.5% are in hospital-based specialties. Among subspecialty programs, 65.7% of programs are in medical subspecialties, 15.0% are in surgical subspecialties, 19.2% are in hospital-based subspecialties, and 0.1% are sponsor institution-based fellowship subspecialties. The relative patterns in the distributions of residents across specialty groups can be attributed to both the number of programs and average number of residents per program in the medical, surgical, and hospital-based disciplines. ↗

FIGURE B.1

Geographic Distribution of Programs



Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/counties/totals/co-est2023-alldata.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE B.2

Number of Programs and Program Concentration per 100,000 Population by State

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Programs	Percent of All Programs	Programs per 100,000 Pop
OVERALL	-	338,120,586	13,393	100.0%	3.96
Alabama	AL	5,108,468	158	1.2%	3.09
Alaska	AK	733,406	4	0.0%	0.55
Arizona	AZ	7,431,344	230	1.7%	3.09
Arkansas	AR	3,067,732	98	0.7%	3.19
California	CA	38,965,193	1,225	9.1%	3.14
Colorado	CO	5,877,610	153	1.1%	2.60
Connecticut	CT	3,617,176	223	1.7%	6.17
Delaware	DE	1,031,890	48	0.4%	4.65
District of Columbia	DC	678,972	147	1.1%	21.65
Florida	FL	22,610,726	759	5.7%	3.36
Georgia	GA	11,029,227	262	2.0%	2.38
Hawaii	HI	1,435,138	33	0.2%	2.30
Idaho	ID	1,964,726	18	0.1%	0.92
Illinois	IL	12,549,689	568	4.2%	4.53
Indiana	IN	6,862,199	151	1.1%	2.20
Iowa	IA	3,207,004	110	0.8%	3.43
Kansas	KS	2,940,546	86	0.6%	2.92
Kentucky	KY	4,526,154	158	1.2%	3.49
Louisiana	LA	4,573,749	199	1.5%	4.35
Maine	ME	1,395,722	41	0.3%	2.94
Maryland	MD	6,180,253	283	2.1%	4.58
Massachusetts	MA	7,001,399	498	3.7%	7.11
Michigan	MI	10,037,261	604	4.5%	6.02
Minnesota	MN	5,737,915	245	1.8%	4.27
Mississippi	MS	2,939,690	90	0.7%	3.06
Missouri	MO	6,196,156	304	2.3%	4.91
Montana	MT	1,132,812	7	0.1%	0.62
Nebraska	NE	1,978,379	97	0.7%	4.90
Nevada	NV	3,194,176	64	0.5%	2.00
New Hampshire	NH	1,402,054	58	0.4%	4.14
New Jersey	NJ	9,290,841	348	2.6%	3.75
New Mexico	NM	2,114,371	79	0.6%	3.74
New York	NY	19,571,216	1,445	10.8%	7.38
North Carolina	NC	10,835,491	391	2.9%	3.61
North Dakota	ND	783,926	17	0.1%	2.17
Ohio	OH	11,785,935	670	5.0%	5.68
Oklahoma	OK	4,053,824	102	0.8%	2.52
Oregon	OR	4,233,358	116	0.9%	2.74
Pennsylvania	PA	12,961,683	848	6.3%	6.54
Puerto Rico	PR	3,205,691	77	0.6%	2.40
Rhode Island	RI	1,095,962	75	0.6%	6.84
South Carolina	SC	5,373,555	171	1.3%	3.18
South Dakota	SD	919,318	16	0.1%	1.74
Tennessee	TN	7,126,489	256	1.9%	3.59
Texas	TX	30,503,301	891	6.7%	2.92
Utah	UT	3,417,734	106	0.8%	3.10
Vermont	VT	647,464	41	0.3%	6.33
Virginia	VA	8,715,698	289	2.2%	3.32
Washington	WA	7,812,880	197	1.5%	2.52
West Virginia	WV	1,770,071	100	0.7%	5.65
Wisconsin	WI	5,910,955	233	1.7%	3.94
Wyoming	WY	584,057	4	0.0%	0.68

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE B.3

Number of Specialty Programs and Specialty Program Concentration per 100,000 Population by State

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Specialty Programs	Percent of All Specialty Programs	Specialty Programs per 100,000 Pop
OVERALL	-	338,120,586	5,866	100.0%	1.73
Alabama	AL	5,108,468	74	1.3%	1.45
Alaska	AK	733,406	2	0.0%	0.27
Arizona	AZ	7,431,344	98	1.7%	1.32
Arkansas	AR	3,067,732	55	0.9%	1.79
California	CA	38,965,193	521	8.9%	1.34
Colorado	CO	5,877,610	63	1.1%	1.07
Connecticut	CT	3,617,176	85	1.4%	2.35
Delaware	DE	1,031,890	20	0.3%	1.94
District of Columbia	DC	678,972	54	0.9%	7.95
Florida	FL	22,610,726	364	6.2%	1.61
Georgia	GA	11,029,227	124	2.1%	1.12
Hawaii	HI	1,435,138	22	0.4%	1.53
Idaho	ID	1,964,726	14	0.2%	0.71
Illinois	IL	12,549,689	246	4.2%	1.96
Indiana	IN	6,862,199	65	1.1%	0.95
Iowa	IA	3,207,004	47	0.8%	1.47
Kansas	KS	2,940,546	40	0.7%	1.36
Kentucky	KY	4,526,154	65	1.1%	1.44
Louisiana	LA	4,573,749	101	1.7%	2.21
Maine	ME	1,395,722	22	0.4%	1.58
Maryland	MD	6,180,253	114	1.9%	1.84
Massachusetts	MA	7,001,399	171	2.9%	2.44
Michigan	MI	10,037,261	320	5.5%	3.19
Minnesota	MN	5,737,915	77	1.3%	1.34
Mississippi	MS	2,939,690	47	0.8%	1.60
Missouri	MO	6,196,156	115	2.0%	1.86
Montana	MT	1,132,812	5	0.1%	0.44
Nebraska	NE	1,978,379	39	0.7%	1.97
Nevada	NV	3,194,176	39	0.7%	1.22
New Hampshire	NH	1,402,054	27	0.5%	1.93
New Jersey	NJ	9,290,841	187	3.2%	2.01
New Mexico	NM	2,114,371	29	0.5%	1.37
New York	NY	19,571,216	602	10.3%	3.08
North Carolina	NC	10,835,491	158	2.7%	1.46
North Dakota	ND	783,926	13	0.2%	1.66
Ohio	OH	11,785,935	292	5.0%	2.48
Oklahoma	OK	4,053,824	59	1.0%	1.46
Oregon	OR	4,233,358	48	0.8%	1.13
Pennsylvania	PA	12,961,683	374	6.4%	2.89
Puerto Rico	PR	3,205,691	46	0.8%	1.43
Rhode Island	RI	1,095,962	25	0.4%	2.28
South Carolina	SC	5,373,555	84	1.4%	1.56
South Dakota	SD	919,318	10	0.2%	1.09
Tennessee	TN	7,126,489	106	1.8%	1.49
Texas	TX	30,503,301	376	6.4%	1.23
Utah	UT	3,417,734	35	0.6%	1.02
Vermont	VT	647,464	16	0.3%	2.47
Virginia	VA	8,715,698	132	2.3%	1.51
Washington	WA	7,812,880	90	1.5%	1.15
West Virginia	WV	1,770,071	52	0.9%	2.94
Wisconsin	WI	5,910,955	93	1.6%	1.57
Wyoming	WY	584,057	3	0.1%	0.51

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE B.4

Number of Subspecialty Programs and Subspecialty Program Concentration per 100,000 Population by State

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Subspecialty Programs	Percent of All Subspecialty Programs	Subspecialty Programs per 100,000 Pop
OVERALL	-	338,120,586	7,527	100.0%	2.23
Alabama	AL	5,108,468	84	1.1%	1.64
Alaska	AK	733,406	2	0.0%	0.27
Arizona	AZ	7,431,344	132	1.8%	1.78
Arkansas	AR	3,067,732	43	0.6%	1.40
California	CA	38,965,193	704	9.4%	1.81
Colorado	CO	5,877,610	90	1.2%	1.53
Connecticut	CT	3,617,176	138	1.8%	3.82
Delaware	DE	1,031,890	28	0.4%	2.71
District of Columbia	DC	678,972	93	1.2%	13.70
Florida	FL	22,610,726	395	5.2%	1.75
Georgia	GA	11,029,227	138	1.8%	1.25
Hawaii	HI	1,435,138	11	0.1%	0.77
Idaho	ID	1,964,726	4	0.1%	0.20
Illinois	IL	12,549,689	322	4.3%	2.57
Indiana	IN	6,862,199	86	1.1%	1.25
Iowa	IA	3,207,004	63	0.8%	1.96
Kansas	KS	2,940,546	46	0.6%	1.56
Kentucky	KY	4,526,154	93	1.2%	2.05
Louisiana	LA	4,573,749	98	1.3%	2.14
Maine	ME	1,395,722	19	0.3%	1.36
Maryland	MD	6,180,253	169	2.2%	2.73
Massachusetts	MA	7,001,399	327	4.3%	4.67
Michigan	MI	10,037,261	284	3.8%	2.83
Minnesota	MN	5,737,915	168	2.2%	2.93
Mississippi	MS	2,939,690	43	0.6%	1.46
Missouri	MO	6,196,156	189	2.5%	3.05
Montana	MT	1,132,812	2	0.0%	0.18
Nebraska	NE	1,978,379	58	0.8%	2.93
Nevada	NV	3,194,176	25	0.3%	0.78
New Hampshire	NH	1,402,054	31	0.4%	2.21
New Jersey	NJ	9,290,841	161	2.1%	1.73
New Mexico	NM	2,114,371	50	0.7%	2.36
New York	NY	19,571,216	843	11.2%	4.31
North Carolina	NC	10,835,491	233	3.1%	2.15
North Dakota	ND	783,926	4	0.1%	0.51
Ohio	OH	11,785,935	378	5.0%	3.21
Oklahoma	OK	4,053,824	43	0.6%	1.06
Oregon	OR	4,233,358	68	0.9%	1.61
Pennsylvania	PA	12,961,683	474	6.3%	3.66
Puerto Rico	PR	3,205,691	31	0.4%	0.97
Rhode Island	RI	1,095,962	50	0.7%	4.56
South Carolina	SC	5,373,555	87	1.2%	1.62
South Dakota	SD	919,318	6	0.1%	0.65
Tennessee	TN	7,126,489	150	2.0%	2.10
Texas	TX	30,503,301	515	6.8%	1.69
Utah	UT	3,417,734	71	0.9%	2.08
Vermont	VT	647,464	25	0.3%	3.86
Virginia	VA	8,715,698	157	2.1%	1.80
Washington	WA	7,812,880	107	1.4%	1.37
West Virginia	WV	1,770,071	48	0.6%	2.71
Wisconsin	WI	5,910,955	140	1.9%	2.37
Wyoming	WY	584,057	1	0.0%	0.17

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE B.5

Number of Pipeline Programs and Pipeline Program Concentration per 100,000 Population by State

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Pipeline Programs	Percent of All Pipeline Programs	Pipeline Programs per 100,000 Pop
OVERALL	-	338,120,586	5,474	100.0%	1.62
Alabama	AL	5,108,468	68	1.2%	1.33
Alaska	AK	733,406	2	0.0%	0.27
Arizona	AZ	7,431,344	92	1.7%	1.24
Arkansas	AR	3,067,732	51	0.9%	1.66
California	CA	38,965,193	491	9.0%	1.26
Colorado	CO	5,877,610	56	1.0%	0.95
Connecticut	CT	3,617,176	80	1.5%	2.21
Delaware	DE	1,031,890	19	0.3%	1.84
District of Columbia	DC	678,972	54	1.0%	7.95
Florida	FL	22,610,726	334	6.1%	1.48
Georgia	GA	11,029,227	112	2.0%	1.02
Hawaii	HI	1,435,138	21	0.4%	1.46
Idaho	ID	1,964,726	14	0.3%	0.71
Illinois	IL	12,549,689	233	4.3%	1.86
Indiana	IN	6,862,199	58	1.1%	0.85
Iowa	IA	3,207,004	43	0.8%	1.34
Kansas	KS	2,940,546	39	0.7%	1.33
Kentucky	KY	4,526,154	62	1.1%	1.37
Louisiana	LA	4,573,749	95	1.7%	2.08
Maine	ME	1,395,722	22	0.4%	1.58
Maryland	MD	6,180,253	104	1.9%	1.68
Massachusetts	MA	7,001,399	156	2.8%	2.23
Michigan	MI	10,037,261	297	5.4%	2.96
Minnesota	MN	5,737,915	70	1.3%	1.22
Mississippi	MS	2,939,690	44	0.8%	1.50
Missouri	MO	6,196,156	110	2.0%	1.78
Montana	MT	1,132,812	5	0.1%	0.44
Nebraska	NE	1,978,379	37	0.7%	1.87
Nevada	NV	3,194,176	36	0.7%	1.13
New Hampshire	NH	1,402,054	27	0.5%	1.93
New Jersey	NJ	9,290,841	176	3.2%	1.89
New Mexico	NM	2,114,371	29	0.5%	1.37
New York	NY	19,571,216	566	10.3%	2.89
North Carolina	NC	10,835,491	145	2.6%	1.34
North Dakota	ND	783,926	12	0.2%	1.53
Ohio	OH	11,785,935	269	4.9%	2.28
Oklahoma	OK	4,053,824	59	1.1%	1.46
Oregon	OR	4,233,358	44	0.8%	1.04
Pennsylvania	PA	12,961,683	347	6.3%	2.68
Puerto Rico	PR	3,205,691	41	0.7%	1.28
Rhode Island	RI	1,095,962	24	0.4%	2.19
South Carolina	SC	5,373,555	78	1.4%	1.45
South Dakota	SD	919,318	9	0.2%	0.98
Tennessee	TN	7,126,489	99	1.8%	1.39
Texas	TX	30,503,301	355	6.5%	1.16
Utah	UT	3,417,734	31	0.6%	0.91
Vermont	VT	647,464	17	0.3%	2.63
Virginia	VA	8,715,698	121	2.2%	1.39
Washington	WA	7,812,880	83	1.5%	1.06
West Virginia	WV	1,770,071	49	0.9%	2.77
Wisconsin	WI	5,910,955	85	1.6%	1.44
Wyoming	WY	584,057	3	0.1%	0.51

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE B.6

Hospital-Based Specialty Programs by Specialty and State

State Name	State Abbreviation	AN	EM	MG	CBG	LGG	NM	PTH	GPM	AER	OEM	RO	DR	IRI	TY	Total
OVERALL	-	167	289	47	15	38	36	142	42	5	23	89	197	99	190	1,379
Alabama	AL	1	2	1	1	1	1	2	0	1	1	1	3	1	2	18
Alaska	AK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	AZ	2	6	1	0	0	0	1	0	0	0	2	3	4	4	23
Arkansas	AR	1	2	0	0	0	1	1	0	0	0	1	1	1	4	12
California	CA	17	26	6	2	3	6	10	5	0	3	11	19	9	12	129
Colorado	CO	2	1	1	1	1	0	2	1	0	1	1	1	1	1	14
Connecticut	CT	2	2	1	0	1	0	3	1	0	1	1	6	1	1	20
Delaware	DE	0	2	0	0	0	0	0	0	0	0	0	1	1	1	5
District of Columbia	DC	2	2	1	0	0	0	3	0	0	0	1	2	2	0	13
Florida	FL	11	22	1	0	0	1	9	1	1	1	4	11	4	22	88
Georgia	GA	2	5	1	0	0	1	2	3	0	0	1	3	2	8	28
Hawaii	HI	0	0	0	0	0	0	1	0	0	0	0	1	0	1	3
Idaho	ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illinois	IL	8	12	1	0	1	1	6	1	0	1	4	10	4	6	55
Indiana	IN	1	1	1	0	1	1	1	0	0	0	1	1	1	4	13
Iowa	IA	1	2	1	0	1	1	1	0	0	0	1	1	1	2	12
Kansas	KS	2	1	0	0	0	0	1	0	0	0	1	2	1	0	8
Kentucky	KY	2	2	0	0	0	0	2	1	0	0	2	2	1	1	13
Louisiana	LA	4	4	0	0	0	0	3	1	0	0	0	4	3	0	19
Maine	ME	1	1	0	0	0	0	0	1	0	0	0	1	1	0	5
Maryland	MD	3	2	2	2	2	2	4	3	0	2	2	3	2	2	31
Massachusetts	MA	9	5	1	1	1	1	6	2	0	1	2	10	5	6	50
Michigan	MI	8	26	2	0	2	1	5	2	0	0	4	10	4	13	77
Minnesota	MN	2	3	1	1	2	0	2	1	1	1	2	2	2	1	21
Mississippi	MS	1	3	0	0	0	0	1	1	0	0	1	1	1	2	11
Missouri	MO	4	5	1	0	2	3	4	0	0	0	1	4	3	1	28
Montana	MT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nebraska	NE	1	1	1	0	0	0	2	0	0	0	1	2	1	0	9
Nevada	NV	1	3	0	0	0	0	0	0	0	0	0	1	0	3	8
New Hampshire	NH	1	1	0	0	0	0	1	1	0	0	1	1	1	0	7
New Jersey	NJ	6	12	0	0	0	0	4	1	0	1	1	6	1	8	40
New Mexico	NM	1	1	0	0	0	0	1	1	0	0	0	1	0	1	6
New York	NY	18	32	4	0	3	5	17	6	0	1	12	25	10	17	150
North Carolina	NC	3	7	2	1	2	1	4	1	0	1	3	3	3	5	36
North Dakota	ND	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Ohio	OH	9	18	3	1	3	0	7	1	1	1	4	8	4	9	69
Oklahoma	OK	2	5	1	0	0	1	1	0	0	0	1	3	0	1	15
Oregon	OR	1	1	1	0	1	1	1	1	0	0	1	1	1	1	11
Pennsylvania	PA	10	23	2	2	2	1	8	0	0	1	5	11	9	14	88
Puerto Rico	PR	1	2	0	0	0	1	1	0	0	0	0	1	0	4	10
Rhode Island	RI	1	2	0	0	0	0	1	0	0	0	0	1	1	0	6
South Carolina	SC	2	5	1	0	1	1	1	1	0	0	1	1	1	5	20
South Dakota	SD	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2
Tennessee	TN	3	5	1	0	1	1	4	1	0	1	2	4	1	2	26
Texas	TX	11	19	3	1	2	2	10	2	1	2	6	12	4	11	86
Utah	UT	1	1	1	1	1	0	1	0	0	1	1	1	1	1	11
Vermont	VT	1	1	0	0	0	0	1	0	0	0	0	1	0	0	4
Virginia	VA	3	7	1	0	2	0	2	0	0	0	2	4	2	5	28
Washington	WA	2	2	1	0	1	1	1	1	0	1	1	4	1	3	19
West Virginia	WV	1	2	0	0	0	0	1	0	0	1	1	1	0	1	8
Wisconsin	WI	2	2	2	1	1	1	2	1	0	0	2	3	3	3	23
Wyoming	WY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Abbreviations: AN, Anesthesiology; EM, Emergency medicine; MG, Medical genetics and genomics; CBG, Clinical biochemical genetics; LGG, Laboratory genetics and genomics; NM, Nuclear medicine; PTH, Pathology-anatomic and clinical; GPM, Preventive medicine; AER, Aerospace medicine; OEM, Occupational and environmental medicine; RO, Radiation oncology; DR, Radiology-diagnostic; IRI, Interventional radiology - integrated; TY, Transitional year.

TABLE B.7

Medical Specialty Programs by Specialty and State

State Name	State Abbreviation	AI	D	FM	IM	N	CHN	ONM	PD	PM	P	IP	Total
OVERALL	-	90	143	778	651	188	81	26	218	108	334	77	2,694
Alabama	AL	1	1	11	11	2	1	0	2	1	6	2	38
Alaska	AK	0	0	1	1	0	0	0	0	0	0	0	2
Arizona	AZ	2	4	13	12	4	1	1	3	1	5	1	47
Arkansas	AR	1	1	14	11	1	1	0	1	1	3	1	35
California	CA	10	12	79	58	17	8	0	18	6	32	4	244
Colorado	CO	3	1	15	4	2	1	1	1	1	2	1	32
Connecticut	CT	1	2	5	14	2	1	1	2	2	6	1	37
Delaware	DE	1	0	4	2	0	1	0	1	0	2	1	12
District of Columbia	DC	0	3	1	4	3	1	0	2	1	4	1	20
Florida	FL	6	11	37	51	17	4	2	14	9	26	2	179
Georgia	GA	2	3	19	20	3	2	0	5	1	8	0	63
Hawaii	HI	0	0	3	4	0	0	0	2	0	2	0	11
Idaho	ID	0	0	9	2	0	0	0	1	0	2	0	14
Illinois	IL	3	7	36	25	8	2	0	10	4	12	5	112
Indiana	IN	1	1	16	6	1	1	0	2	2	4	1	35
Iowa	IA	1	1	8	4	1	1	0	2	0	3	0	21
Kansas	KS	1	1	6	4	1	0	0	1	1	2	1	18
Kentucky	KY	0	1	10	5	2	2	0	2	2	2	2	28
Louisiana	LA	3	2	12	11	4	1	0	5	1	5	3	47
Maine	ME	0	0	4	1	1	0	2	1	0	3	1	13
Maryland	MD	3	3	6	13	3	2	0	4	3	6	2	45
Massachusetts	MA	4	4	6	16	5	3	1	5	2	12	4	62
Michigan	MI	3	6	41	36	9	3	2	10	6	12	6	134
Minnesota	MN	1	3	12	4	2	2	0	2	2	3	1	32
Mississippi	MS	1	1	9	9	1	1	0	1	0	2	1	26
Missouri	MO	3	4	12	11	4	3	1	4	2	5	2	51
Montana	MT	0	0	2	2	0	0	0	0	0	1	0	5
Nebraska	NE	1	1	5	2	2	0	0	1	1	2	1	16
Nevada	NV	0	0	7	6	2	0	0	2	1	4	0	22
New Hampshire	NH	1	1	3	2	1	0	0	1	0	2	0	11
New Jersey	NJ	1	3	22	29	4	2	2	9	3	12	1	88
New Mexico	NM	0	1	6	2	1	1	1	1	1	1	0	15
New York	NY	9	12	41	65	19	10	2	32	17	44	5	256
North Carolina	NC	3	4	21	14	5	3	1	5	3	10	3	72
North Dakota	ND	0	0	6	1	1	0	0	1	0	1	0	10
Ohio	OH	5	7	38	32	8	4	2	9	6	11	4	126
Oklahoma	OK	0	1	12	5	1	0	1	4	0	4	1	29
Oregon	OR	1	2	9	6	1	1	0	1	0	3	0	24
Pennsylvania	PA	4	8	56	37	13	4	1	8	9	18	4	162
Puerto Rico	PR	1	2	4	8	1	1	0	4	2	2	1	26
Rhode Island	RI	1	1	1	4	1	0	0	1	0	1	1	11
South Carolina	SC	0	1	17	7	3	1	0	3	0	5	2	39
South Dakota	SD	0	0	3	1	1	0	0	1	0	1	0	7
Tennessee	TN	2	2	12	10	5	2	0	4	1	5	2	45
Texas	TX	4	13	43	45	14	4	2	13	8	20	3	169
Utah	UT	0	1	4	1	1	1	0	1	1	1	1	12
Vermont	VT	0	1	1	1	1	0	0	1	0	1	0	6
Virginia	VA	2	5	17	14	3	2	2	6	3	6	1	61
Washington	WA	1	1	26	9	2	1	0	3	2	2	0	47
West Virginia	WV	1	1	8	4	3	0	1	3	0	4	2	27
Wisconsin	WI	2	3	22	5	2	2	0	3	2	4	2	47
Wyoming	WY	0	0	3	0	0	0	0	0	0	0	0	3

Abbreviations: AI, Allergy and immunology; D, Dermatology; FM, Family medicine; IM, Internal medicine; N, Neurology; CHN, Child neurology; ONM, Osteopathic neuromusculoskeletal medicine; PD, Pediatrics; PM, Physical medicine and rehabilitation; P, Psychiatry; IP, Internal medicine/Pediatrics.

TABLE B.8

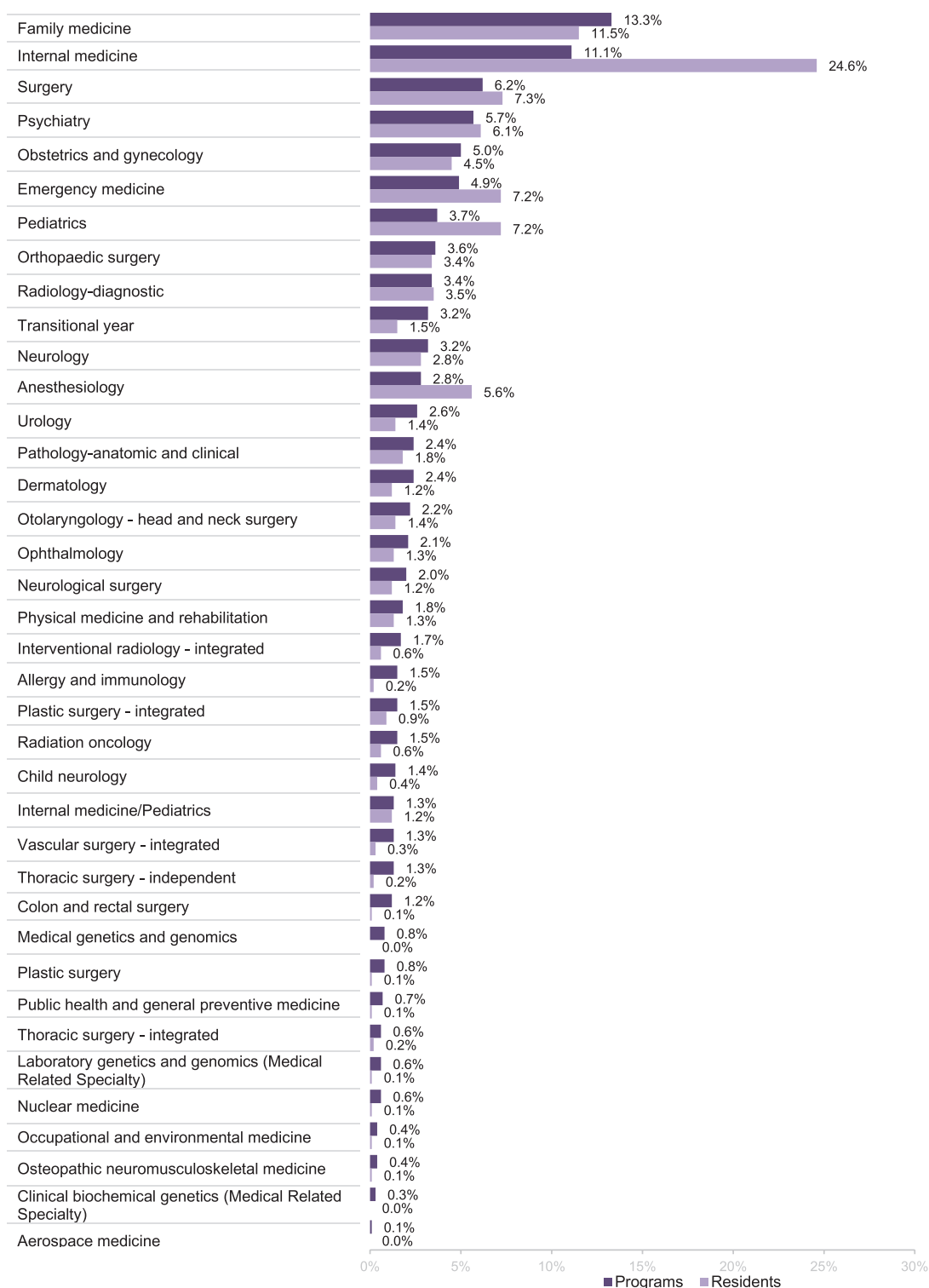
Surgical Specialty Programs by Specialty and State

State Name	State Abbreviation	CRS	NS	OBG	OPH	ORS	OTO	PS	PSI	GS	VSI	TS	TSI	U	Total
Overall	-	71	118	295	126	209	131	47	89	364	78	79	36	150	1,793
Alabama	AL	1	1	2	1	3	1	1	1	3	1	1	0	2	18
Alaska	AK	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	AZ	1	4	3	2	3	2	0	1	8	1	1	0	2	28
Arkansas	AR	0	1	1	1	1	1	0	0	1	1	0	0	1	8
California	CA	3	10	23	10	17	11	4	8	27	9	8	6	12	148
Colorado	CO	1	1	2	1	1	1	1	1	5	1	1	0	1	17
Connecticut	CT	1	2	6	1	2	2	0	1	6	2	2	1	2	28
Delaware	DE	0	0	1	0	0	0	0	0	2	0	0	0	0	3
District of Columbia	DC	1	2	3	3	3	2	0	1	3	1	0	0	2	21
Florida	FL	6	4	16	7	11	4	4	5	28	2	2	1	7	97
Georgia	GA	2	2	6	2	4	2	1	1	8	1	1	1	2	33
Hawaii	HI	0	0	2	0	2	1	0	0	2	0	0	0	1	8
Idaho	ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Illinois	IL	3	7	13	6	7	6	1	6	13	4	4	1	8	79
Indiana	IN	1	1	3	1	1	1	1	1	3	1	1	1	1	17
Iowa	IA	0	1	1	1	1	1	1	1	3	1	1	1	1	14
Kansas	KS	0	1	3	1	2	1	0	1	3	0	1	0	1	14
Kentucky	KY	2	2	3	2	2	2	1	2	3	0	2	1	2	24
Louisiana	LA	3	3	5	3	4	3	1	1	6	1	1	0	4	35
Maine	ME	0	0	1	0	0	0	0	0	1	1	0	0	1	4
Maryland	MD	1	4	5	4	5	3	1	1	8	0	2	1	3	38
Massachusetts	MA	4	5	6	4	4	5	3	4	10	3	4	1	6	59
Michigan	MI	5	5	24	6	17	8	2	2	24	3	3	1	9	109
Minnesota	MN	2	2	2	2	2	2	1	2	3	2	2	0	2	24
Mississippi	MS	0	1	1	1	1	1	0	1	2	0	1	0	1	10
Missouri	MO	1	3	5	4	5	4	0	3	5	2	1	0	3	36
Montana	MT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nebraska	NE	1	1	2	1	1	1	1	1	2	0	1	0	2	14
Nevada	NV	0	0	2	0	2	1	0	1	3	0	0	0	0	9
New Hampshire	NH	0	1	1	1	1	1	0	1	1	1	0	0	1	9
New Jersey	NJ	1	2	15	1	10	2	1	2	15	3	2	0	5	59
New Mexico	NM	0	1	1	1	1	1	0	1	1	0	0	0	1	8
New York	NY	8	12	36	17	19	12	4	8	40	10	8	6	16	196
North Carolina	NC	0	4	9	3	5	3	1	3	9	3	4	2	4	50
North Dakota	ND	0	0	0	0	1	0	0	0	1	0	0	0	0	2
Ohio	OH	4	4	15	5	16	8	3	4	20	5	4	3	6	97
Oklahoma	OK	0	1	4	1	2	2	1	0	3	0	0	0	1	15
Oregon	OR	1	1	1	1	2	1	0	1	2	1	1	0	1	13
Pennsylvania	PA	6	7	17	8	16	11	5	5	25	7	6	2	9	124
Puerto Rico	PR	0	0	3	1	1	1	0	0	2	0	0	0	2	10
Rhode Island	RI	1	1	1	1	1	0	0	1	1	0	0	0	1	8
South Carolina	SC	1	1	5	2	3	1	1	2	6	1	0	1	1	25
South Dakota	SD	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Tennessee	TN	2	2	8	2	4	2	2	1	7	0	1	0	4	35
Texas	TX	3	8	20	9	14	9	4	5	25	5	6	3	10	121
Utah	UT	1	1	1	1	1	1	1	1	1	0	1	1	1	12
Vermont	VT	0	1	1	0	1	1	0	0	1	0	0	0	1	6
Virginia	VA	1	4	7	3	4	4	0	4	8	2	2	1	3	43
Washington	WA	2	1	3	2	2	2	0	1	5	1	1	1	3	24
West Virginia	WV	0	1	3	1	2	1	0	1	4	1	1	0	2	17
Wisconsin	WI	1	2	3	2	2	2	0	2	4	1	2	0	2	23
Wyoming	WY	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Abbreviations: CRS, Colon and rectal surgery; NS, Neurological surgery; OBG, Obstetrics and gynecology; OPH, Ophthalmology; ORS, Orthopaedic surgery; OTO, Otolaryngology - head and neck surgery; PS, Plastic surgery; PSI, Plastic surgery - integrated; GS, Surgery; VSI, Vascular surgery - integrated; TS, Thoracic surgery; TSI, Thoracic surgery - integrated; U, Urology.

FIGURE B.9

Percentage of Programs and Residents in Each Specialty



Notes: The percentages represent the number of programs/on duty residents in each specialty divided by all programs/on duty residents in specialty programs. Total number of specialty programs = 5,866. Total number of residents in specialties = 133,776

FIGURE B.10

Mean Number of Residents per Program by Specialty

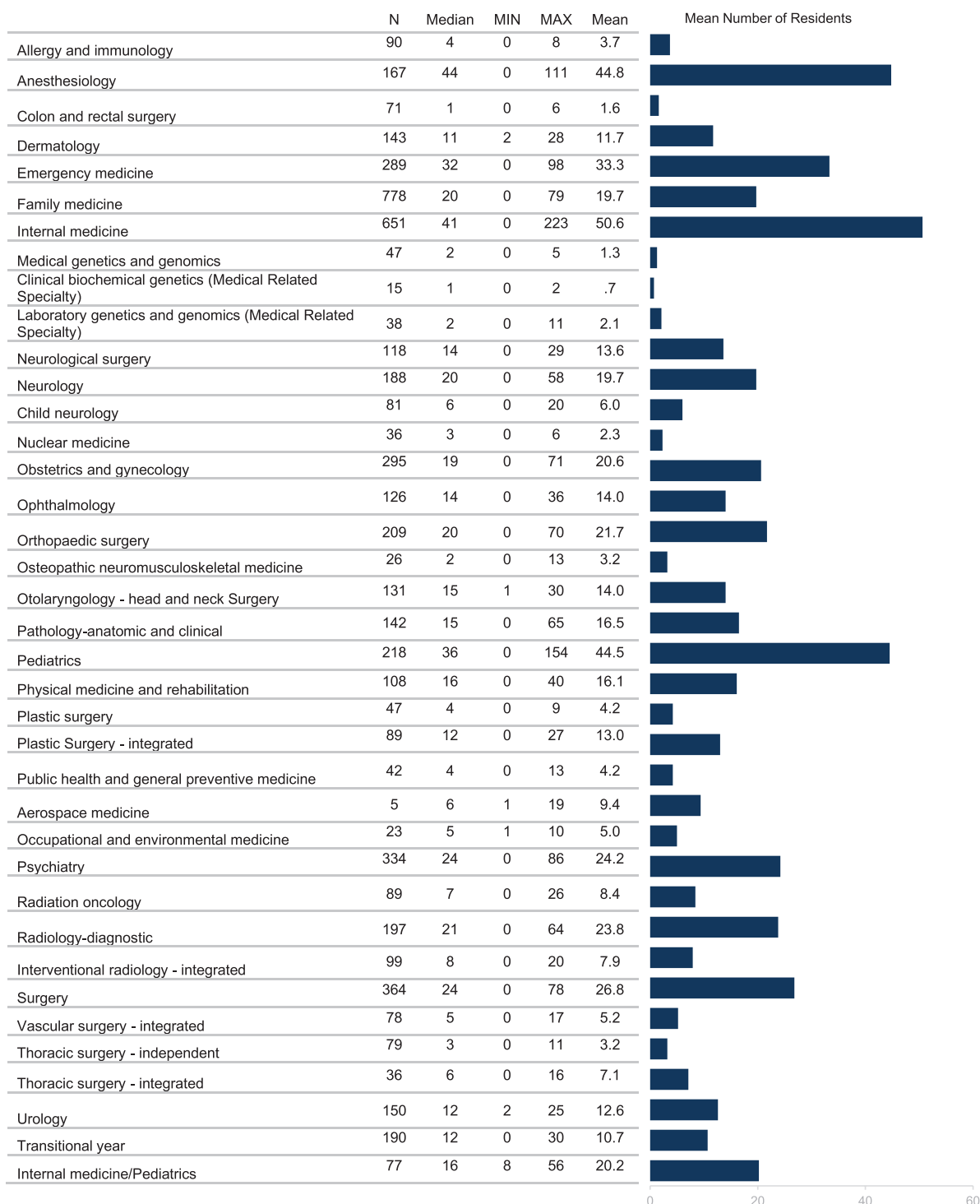
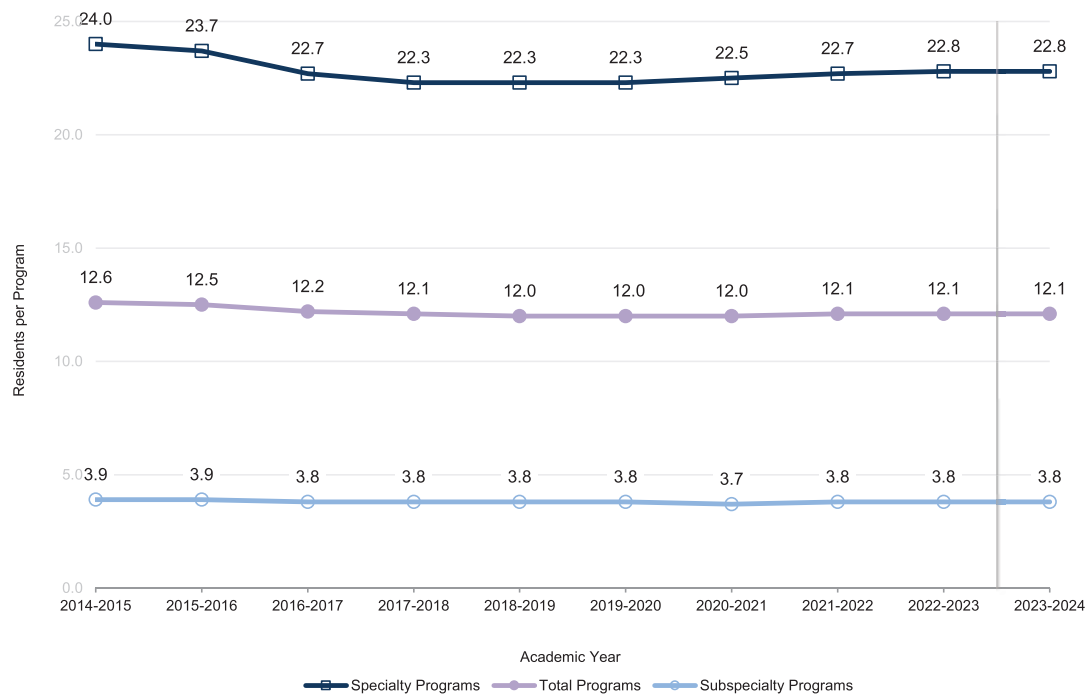
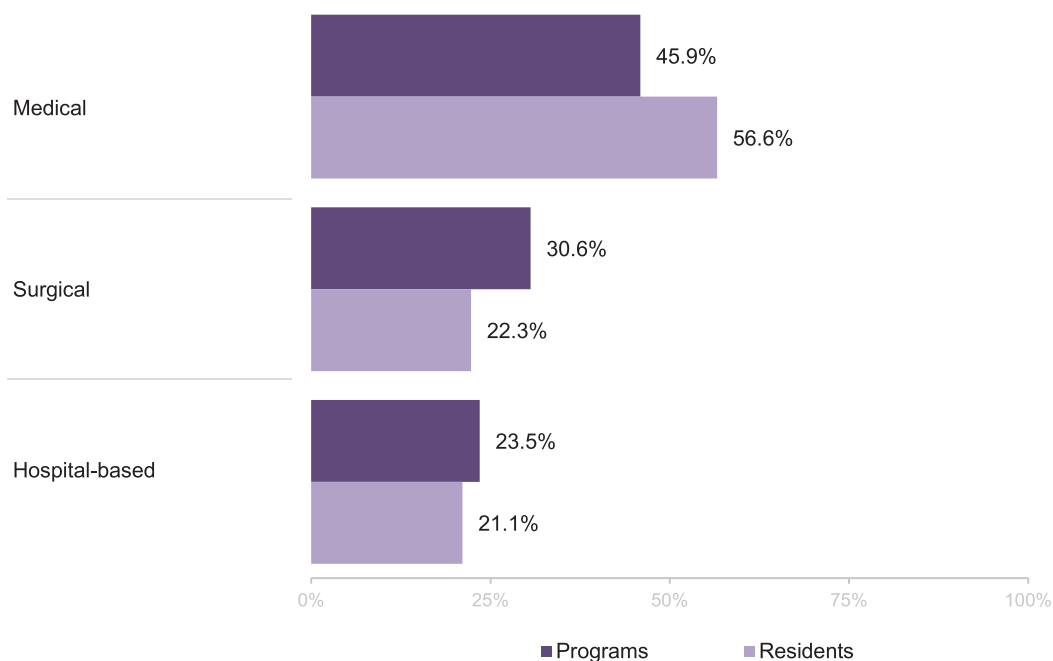
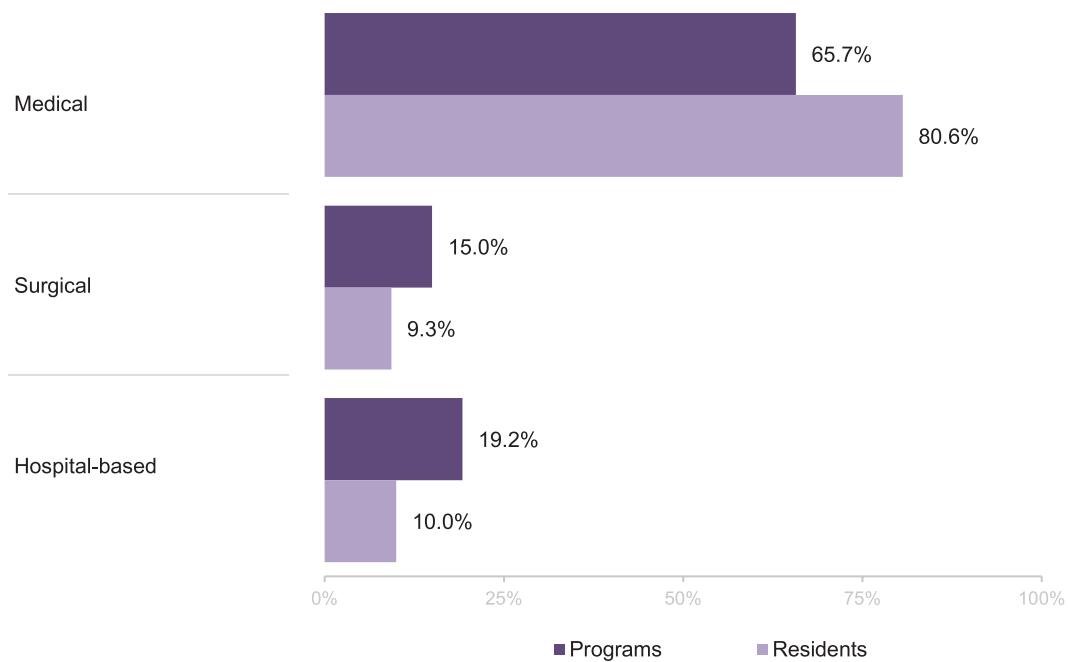


FIGURE B.11**Mean Number of Residents per Program by Academic Year, 2014-2015 to 2023-2024**

Note: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

FIGURE B.12**Percent of Programs and Residents in Specialties by Specialty Group**

Notes: Total number of specialty programs = 5,866. Total number of residents in specialties = 133,776.

FIGURE B.13**Percent of Programs and Residents in Subspecialties by Specialty Group**

Notes: Total number of subspecialty programs = 7,527. Total number of residents in subspecialties = 28,868. Not shown are those subspecialty programs classified as Sponsor Institution-based Fellowships (N = 5).



Resident Characteristics

This section summarizes the characteristics of all active residents, and shows aggregate statistics on their distribution by specialty, medical school type, gender, and race/ethnicity since the 2014-2015 academic year. In addition, this section includes information on residents entering pipeline and continuing graduate medical education (GME) programs.

Active Residents

Of the total number of active residents (162,644), 133,776 (82.3%) are in specialty programs and 28,868 (17.7%) are in subspecialty programs. Only 0.1% (165) of the total number of active residents are part-time. In terms of trends, there has been a 33.8% increase in total active residents since 2014-2015, with growth in the number of specialty residents at 33.6%, and growth in the number of subspecialty residents at 34.3% over the last 10 years. Among residents in specialty programs, 56.6% (75,669) are in medical specialties, 21.1% (28,277) are in hospital-based specialties, and 22.3% (29,830) are in surgical specialties. The specialties with the highest percentage of total active residents are:

- Internal medicine (20.3%)
- Family medicine (9.4%)
- Surgery (6.0%)
- Pediatrics (6.0%)

Geographic Distribution

Based on the most recent US Census estimate for 2023, there are approximately 48.10 active residents (39.56 specialty, 8.54 subspecialty) per 100,000 population, including Puerto Rico. In line with the states that have the highest number of programs, the following states have the highest number of total active residents:

- New York (19,963)
- California (15,270)
- Texas (11,251)
- Pennsylvania (10,320)

Active Residents by Medical School Type

Of the 133,776 total active residents in specialty programs, 59.0% (78,959) are US allopathic medical school graduates, 21.7% (29,058) are international medical school graduates (IMGs), and 19.2% (25,623) are osteopathic medical school graduates. There are also 51 Canadian medical school graduates, and 85 residents for whom medical school type was unknown. The distribution by medical

school type is slightly different in subspecialty programs (28,868 active residents), with 55.1% of active residents being graduates of US allopathic medical schools, 31.2% being graduates of international medical schools, 13.4% being graduates of osteopathic medical schools, and less than 1% being graduates of Canadian medical schools. Over the last 10 years, there has been a 19.9% increase in US allopathic medical school graduates, a 168.0% increase in osteopathic medical school graduates, and a 21.7% increase in IMGs. The specialties with the highest percentage of IMGs include:

- Nuclear medicine (74.1%)
- Medical genetics and genomics (50.0%)
- Pathology – anatomic and clinical (46.9%)
- Internal medicine (40.0%)

While internal medicine has the fourth-highest percentage of IMGs, this specialty accounts for the highest number of IMGs (13,175) among all specialty programs.

Active Residents by Gender and Race/Ethnicity

Gender and race/ethnicity reported for the 2023-2024 academic year are based upon self-reported data provided by the Association of American Medical Colleges (AAMC). Note that beginning with the 2021-2022 *Data Resource Book*, the ACGME has adopted a race/ethnicity reporting standard in line with that of the Integrated Postsecondary Education Data System as follows:

- If an individual self-identifies as Hispanic only, or Hispanic and any race category, report as Hispanic
- If an individual self-identifies as not Hispanic; more than one race category, report as two or more races ("Multiple Race/Ethnicity")

Of the 162,644 active residents, 50.9% are male, 48.6% are female, and 0.5% are not reported. The specialties with the highest percentage of female residents include:

- Obstetrics and gynecology (87.8%)
- Pediatrics (74.2%)
- Medical genetics and genomics (70.0%)
- Child neurology (68.5%)

The specialties with the lowest percentage of female residents include:

- Health care administration, leadership, and management (0.0%)
- Laboratory genetics and genomics (12.3%)
- Interventional radiology - independent (16.0%)
- Clinical biochemical genetics (20.0%)

Overall, 46.2% of all active residents are White; 27.3% are Asian; 10.0% are Hispanic, Latino, or of Spanish origin; 6.6% are Black or African American; 0.1% are American Indian or Alaskan Native; and 0.05% are Native Hawaiian or Pacific Islander. Of all active residents, 4.5% were reported as Multiple Race/Ethnicity. Of active residents, 3.4% were reported as “Other,” and 1.9% were reported as “Unknown.”

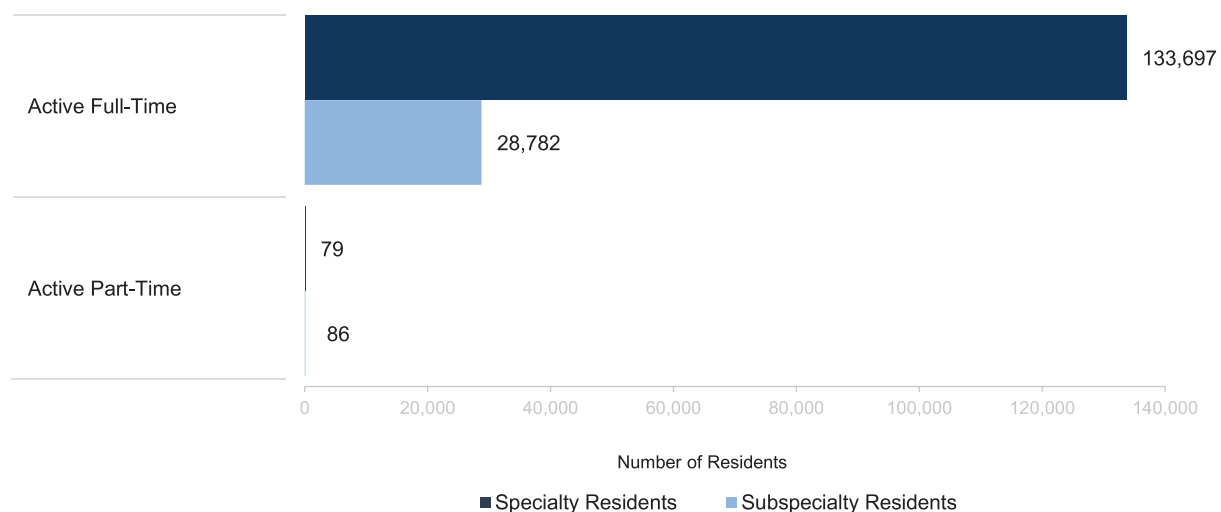
Residents Entering the Pipeline

The total number of residents entering the pipeline reached 37,757 for the 2023-2024 academic year. Since

2014-2015, there has been a 37.1% increase in residents entering the pipeline, with varying patterns in growth by medical school type (16.5% increase among US Liaison Committee for Medical Education (LCME)-accredited medical school graduates, 35.7% increase among IMGs, and 165.1% increase among osteopathic medical school graduates). Among the 2023-2024 residents entering the pipeline, 54.8% (20,693) are US LCME-accredited medical school graduates, 24.6% (9,276) are IMGs, 20.6% (7,768) are osteopathic medical school graduates, and less than one percent (17) are Canadian medical school graduates. ⁸

FIGURE C.1

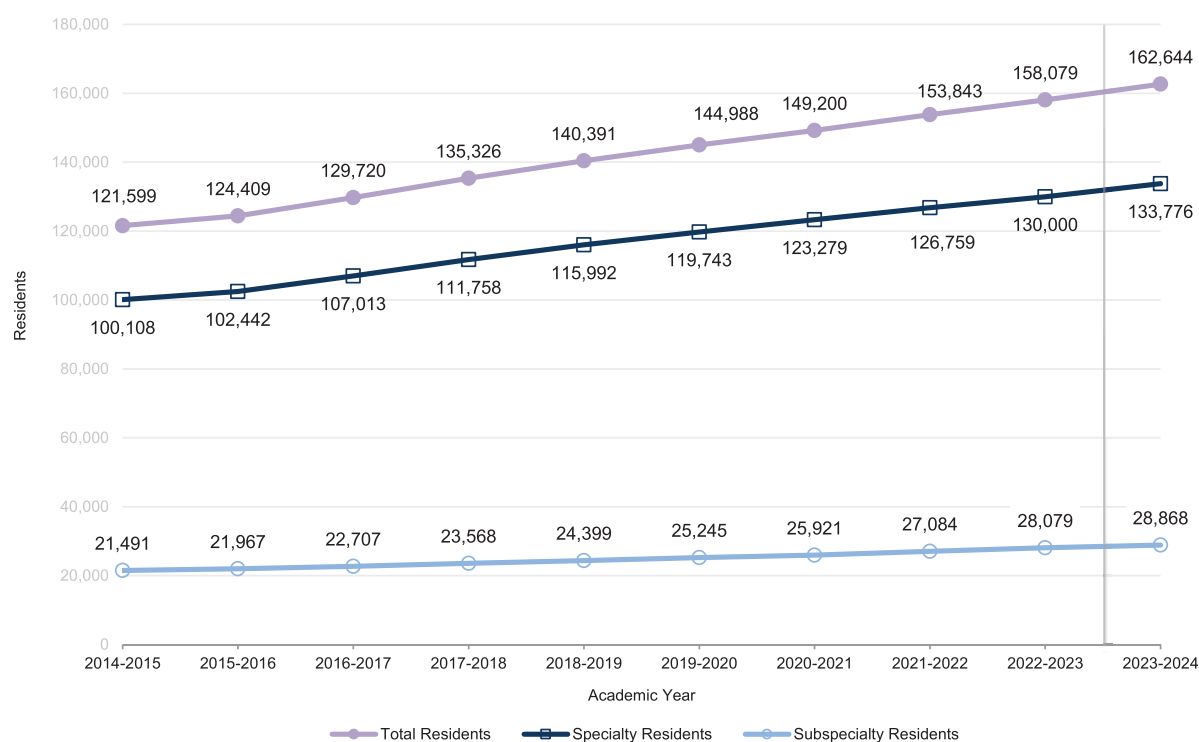
Number of Active Residents by Status



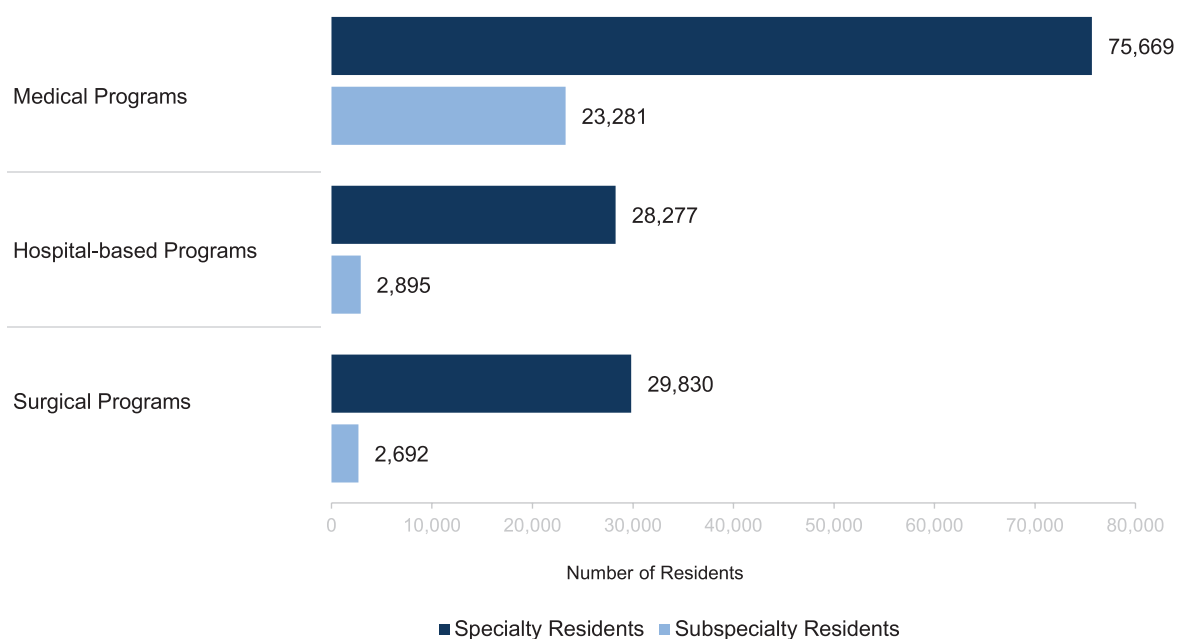
Note: Total number of active residents = 162,644.

FIGURE C.2

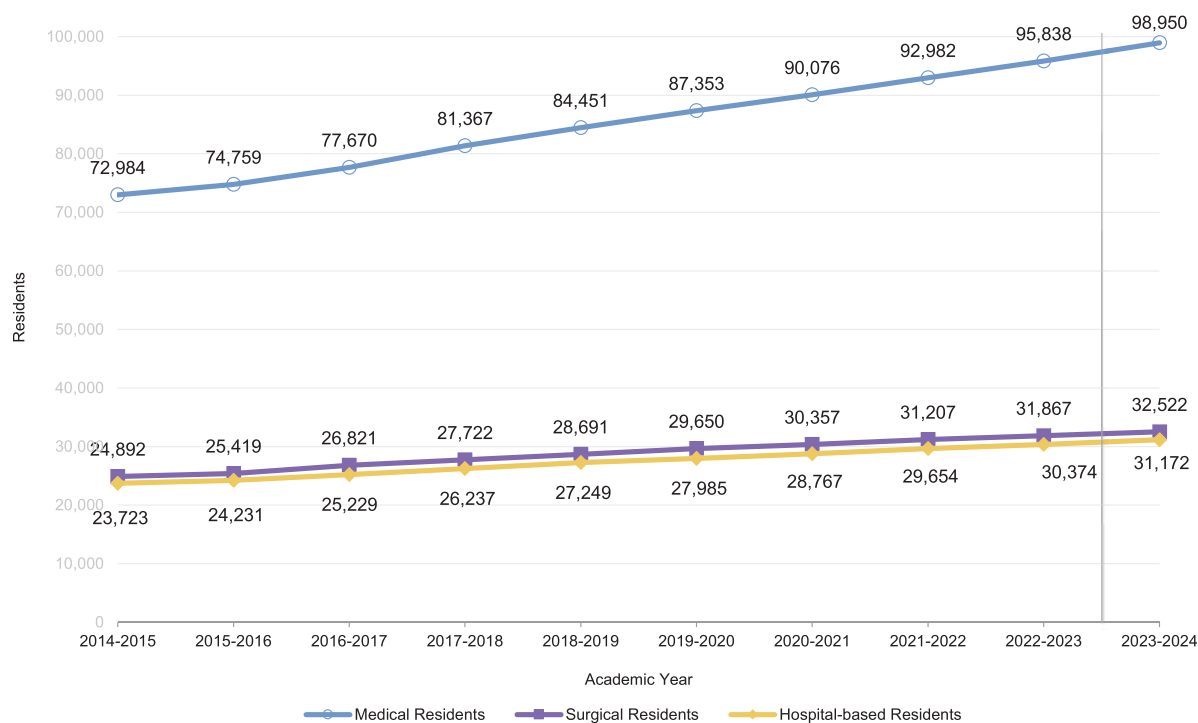
Number of Active Residents by Academic Year, 2014-2015 to 2023-2024



Note: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

FIGURE C.3**Number of Active Residents by Specialty Group**

Notes: Total number of active residents in specialty programs = 133,776. Total number of active residents in subspecialty programs = 28,868.

FIGURE C.4**Number of Active Residents by Specialty Group and Academic Year, 2014-2015 to 2023-2024**

Note: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

TABLE C.5

Number of Active Residents by Specialty and Subspecialty, Position Type, and Resident Year

Specialty	Total Residents	Resident Year									
		1		2		3		4	5	6	7
		Cat	Prel	Cat	Prel	Cat	Prel	Cat	Cat	Cat	Cat
		#	#	#	#	#	#	#	#	#	#
OVERALL	162,644	55,673	3,334	45,688	284	40,582	2	12,632	3,799	434	216
TOTAL PIPELINE	131,111	37,757	3,334	37,074	284	35,588	2	12,623	3,799	434	216
Allergy and immunology	330	166		164							
Anesthesiology	7,488	1,796		2,011		1,954		1,727			
- Adult cardiothoracic anesthesiology	257	257									
- Critical care medicine	199	199									
- Obstetric anesthesiology	49	49									
- Pain medicine (multidisciplinary)	414	414									
- Pediatric anesthesiology	150	150									
- Pediatric cardiac anesthesiology	13	13									
- Regional anesthesiology and acute pain medicine	84	84									
Colon and rectal surgery	112	112									
Dermatology	1,671	561		555		545		10			
- Dermatopathology (multidisciplinary)	68	68									
- Micrographic surgery and dermatologic oncology	93	93									
- Pediatric dermatology	24	24									
Emergency medicine	9,614	3,082		2,971		2,922		639			
- Emergency medical services	108	108									
- Medical toxicology	104	54		50							
- Pediatric emergency medicine	151	60		49		42					
- Sports medicine	16	16									
- Undersea and hyperbaric medicine	13	13									
Family medicine	15,341	5,277		5,091		4,936		37			
- Clinical informatics	23	12		11							
- Geriatric medicine	45	45									
- Hospice and palliative medicine (multidisciplinary)	484	484									
- Sports medicine	301	301									
Internal medicine	32,958	10,720	1,963	10,362	5	9,907	1				
- Adult congenital heart disease	28	18		10							
- Advanced heart failure and transplant cardiology	86	86									
- Cardiovascular disease	3,605	1,263		1,214		1,128					
- Clinical cardiac electrophysiology	340	181		159							
- Clinical informatics	73	46		27							
- Critical care medicine	374	206		168							
- Endocrinology, diabetes, and metabolism	746	384		362							
- Gastroenterology	2,067	727		684		656					
- Geriatric medicine	254	254									
- Hematology and medical oncology	2,186	773		722		691					
- Infectious disease	830	419		411							
- Interventional cardiology	376	376									
- Interventional pulmonology	15	15									
- Medical oncology	5	2		3							
- Nephrology	887	460		427							
- Pulmonary disease	52	28		24							
- Pulmonary disease and critical care medicine	2,359	831		797		731					
- Rheumatology	580	290		290							
- Sleep medicine (multidisciplinary)	226	226									
- Transplant hepatology	49	49									
Medical genetics and genomics	60	33		27							
- Medical biochemical genetics	14	14									
- Molecular genetic pathology (multidisciplinary)	59	59									
Clinical biochemical genetics	10	6		4							
Laboratory genetics and genomics	81	35		46							
Neurological surgery	1,607	240		249		238		220	227	217	216
- Neuroendovascular intervention	3	3									

TABLE C.5 *Continued***Number of Active Residents by Specialty and Subspecialty, Position Type, and Resident Year**

Specialty	Total Residents	Resident Year									
		1		2		3		4	5	6	7
		Cat	Prel	Cat	Prel	Cat	Prel	Cat	Cat	Cat	Cat
		#	#	#	#	#	#	#	#	#	#
Neurology	3,711	1,070		1,036		980		625			
- Clinical neurophysiology	141	141									
- Epilepsy	151	151									
- Neurocritical care (multidisciplinary)	167	80		87							
- Neuroendovascular intervention	5	3		2							
- Neurodevelopmental disabilities	33	10		7		7		9			
- Neuromuscular medicine	93	93									
- Vascular neurology	202	202									
Child neurology	489	152		169		168					
Nuclear medicine	81	45		15		21					
Obstetrics and gynecology	6,076	1,548	20	1,541		1,483		1,484			
- Female pelvic medicine and reconstructive surgery	167	60		56		51					
- Gynecologic oncology	249	90		81		78					
- Maternal-fetal medicine	435	150		146		139					
- Reproductive endocrinology and infertility	176	59		56		61					
- Complex family planning	58	29		29							
Ophthalmology	1,764	522		521		531		190			
- Ophthalmic plastic and reconstructive surgery	5	3		2							
Orthopaedic surgery	4,538	944		924		897		898	875		
- Adult reconstructive orthopaedics	53	53									
- Foot and ankle orthopaedics	17	17									
- Hand surgery	162	162									
- Musculoskeletal oncology	16	16									
- Orthopaedic sports medicine	216	216									
- Orthopaedic surgery of the spine	26	26									
- Orthopaedic trauma	19	19									
- Pediatric orthopaedics	34	34									
Osteopathic neuromusculoskeletal medicine	83	16		24		43					
Otolaryngology - head and neck Surgery	1,836	384		377		358		367	350		
- Neurotology	39	23		16							
- Pediatric otolaryngology	44	44									
Pathology-anatomic and clinical	2,349	626		643		587		493			
- Blood banking/transfusion medicine	45	45									
- Clinical informatics	22	13		9							
- Chemical pathology	2	2									
- Cytopathology	106	106									
- Forensic pathology	61	61									
- Hematopathology	127	127									
- Medical microbiology	9	9									
- Neuropathology	59	30		29							
- Pediatric pathology	15	15									
- Selective pathology	185	185									
Pediatrics	9,695	3,244	117	3,190	82	3,061	1				
- Adolescent medicine	97	39		37		21					
- Child abuse pediatrics	58	18		24		16					
- Clinical informatics	30	15		15							
- Developmental-behavioral pediatrics	110	39		35		36					
- Neonatal-perinatal medicine	851	292		282		277					
- Pediatric cardiology	496	178		162		156					
- Pediatric critical care medicine	623	233		202		188					
- Pediatric emergency medicine	468	165		164		139					
- Pediatric endocrinology	232	84		78		70					
- Pediatric gastroenterology	344	122		115		107					
- Pediatric hematology/oncology	480	169		157		154					
- Pediatric infectious diseases	179	57		64		58					

TABLE C.5 *Continued***Number of Active Residents by Specialty and Subspecialty, Position Type, and Resident Year**

Specialty	Total Residents	Resident Year									
		1		2		3		4	5	6	7
		Cat	Prel	Cat	Prel	Cat	Prel	Cat	Cat	Cat	Cat
		#	#	#	#	#	#	#	#	#	#
- Pediatric nephrology	147	50		41		56					
- Pediatric pulmonology	197	65		74		58					
- Pediatric rheumatology	101	30		36		35					
- Sports medicine	27	27									
- Pediatric transplant hepatology	12	12									
- Pediatric hospital medicine	210	116		94							
Physical medicine and rehabilitation	1,738	483		530		502		223			
- Brain injury medicine	22	22									
- Neuromuscular medicine	1	1									
- Spinal cord injury medicine	26	26									
- Pediatric rehabilitation medicine	38	13		25							
- Sports medicine	42	42									
Plastic surgery	199	64		68		67					
Plastic Surgery - integrated	1,160	203		201		203		194	180	179	
- Craniofacial surgery	6	6									
- Hand surgery	29	29									
Public health and general preventive medicine	175	84		84		7					
- Undersea and hyperbaric medicine	2	2									
Aerospace medicine	47	20		27							
Occupational and environmental medicine	115	54		61							
Psychiatry	8,097	2,280		2,210		2,072		1,535			
- Addiction medicine (multidisciplinary)	196	196									
- Addiction psychiatry	91	90		1							
- Child and adolescent psychiatry	1,004	524		480							
- Forensic psychiatry	87	87									
- Geriatric psychiatry	52	52									
- Consultation-liaison psychiatry	92	92									
Radiation oncology	746	175		189		185		197			
Radiology-diagnostic	4,698	1,193		1,166		1,157		1,157	25		
- Abdominal radiology	54	54									
- Musculoskeletal radiology	41	41									
- Neuroendovascular intervention	8	5		3							
- Neuroradiology	314	314									
- Nuclear radiology	11	11									
- Pediatric radiology	53	53									
Interventional radiology - independent	150	119		31							
Interventional radiology - integrated	782	175		163		151		150	137	6	
Surgery	9,743	1,708	1,234	1,722	197	1,721		1,611	1,550		
- Complex general surgical oncology	133	67		66							
- Hand surgery	9	9									
- Pediatric surgery	87	45		42							
- Surgical critical care	349	349									
- Vascular surgery - independent	279	144		135							
Vascular surgery - integrated	407	95		86		84		82	60		
Thoracic surgery - independent	251	108		110		33					
- Congenital cardiac surgery	8	8									
Thoracic surgery - integrated	254	49		49		45		44	35	32	
Urology	1,883	402		397		369		355	360		
- Female pelvic medicine and reconstructive surgery	38	16		16		6					
- Pediatric urology	35	21		14							
Transitional year	2,031	2,031									
Internal medicine/Pediatrics	1,556	393		384		394		385			
Health care administration, leadership, and management	0										

Note: Pipeline specialties are highlighted.

Abbreviations: Cat, categorical resident positions; Prel, preliminary resident positions.

TABLE C.6

Number of Active Residents by Specialty and Subspecialty and Academic Year, 2019-2020 to 2023-2024

Specialty	Academic Year					5-Year Change	
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024		
	#	#	#	#	#	#	%
OVERALL	144,988	149,200	153,843	158,079	162,644	17,656	12.2%
TOTAL PIPELINE	117,496	121,110	124,521	127,604	131,111	13,615	11.6%
Allergy and immunology	308	312	320	323	330	22	7.1%
Anesthesiology	6,698	6,895	7,086	7,241	7,488	790	11.8%
- Adult cardiothoracic anesthesiology	220	235	238	254	257	37	16.8%
- Critical care medicine	191	194	202	210	199	8	4.2%
- Clinical informatics	1	1	2	0	0	N/A	N/A
- Obstetric anesthesiology	38	48	53	48	49	11	28.9%
- Pain medicine (multidisciplinary)	386	400	409	411	414	28	7.3%
- Pediatric anesthesiology	192	185	193	183	150	-42	-21.9%
- Pediatric cardiac anesthesiology *				15	13	-2	-13.3%
- Regional anesthesiology and acute pain medicine	72	77	88	92	84	12	16.7%
Colon and rectal surgery	106	105	107	110	112	6	5.7%
Dermatology	1,594	1,612	1,609	1,633	1,671	77	4.8%
- Dermatopathology (multidisciplinary)	69	69	71	77	68	-1	-1.4%
- Micrographic surgery and dermatologic oncology	88	86	88	91	93	5	5.7%
- Pediatric dermatology *			3	19	24	21	700.0%
Emergency medicine	8,293	8,642	9,037	9,346	9,614	1,321	15.9%
- Clinical informatics	10	10	11	0	0	N/A	N/A
- Emergency medical services	87	86	104	95	108	21	24.1%
- Medical toxicology	72	79	81	93	104	32	44.4%
- Pediatric emergency medicine	134	134	140	143	151	17	12.7%
- Sports medicine	17	16	17	18	16	-1	-5.9%
- Undersea and hyperbaric medicine	10	11	12	11	13	3	30.0%
Family medicine	13,725	14,225	14,657	15,010	15,341	1,616	11.8%
- Clinical informatics	10	10	18	23	23	13	130.0%
- Geriatric medicine	38	39	45	43	45	7	18.4%
- Hospice and palliative medicine (multidisciplinary)	374	401	445	481	484	110	29.4%
- Sports medicine	261	278	282	294	301	40	15.3%
Internal medicine	29,243	30,087	30,936	31,794	32,958	3,715	12.7%
- Adult congenital heart disease	25	28	34	30	28	3	12.0%
- Advanced heart failure and transplant cardiology	109	101	101	97	86	-23	-21.1%
- Cardiovascular disease	3,105	3,240	3,320	3,456	3,605	500	16.1%
- Clinical cardiac electrophysiology	255	276	310	329	340	85	33.3%
- Clinical informatics	36	36	50	65	73	37	102.8%
- Critical care medicine	264	280	320	358	374	110	41.7%
- Endocrinology, diabetes, and metabolism	675	689	700	721	746	71	10.5%
- Gastroenterology	1,792	1,844	1,911	1,975	2,067	275	15.3%
- Geriatric medicine	261	272	289	270	254	-7	-2.7%
- Hematology	17	18	17	0	0	N/A	N/A
- Hematology and medical oncology	1,843	1,895	1,970	2,098	2,186	343	18.6%
- Infectious disease	762	763	798	817	830	68	8.9%
- Interventional cardiology	350	355	359	373	376	26	7.4%
- Interventional pulmonology*					15	N/A	N/A
- Medical oncology	35	34	34	10	5	-30	-85.7%
- Nephrology	828	829	850	872	887	59	7.1%
- Pulmonary disease	73	70	67	65	52	-21	-28.8%
- Pulmonary disease and critical care medicine	1,999	2,085	2,175	2,268	2,359	360	18.0%
- Rheumatology	515	520	531	551	580	65	12.6%
- Sleep medicine (multidisciplinary)	182	190	202	214	226	44	24.2%
- Transplant hepatology	52	47	48	48	49	-3	-5.8%
Medical genetics and genomics	60	68	72	64	60	0	0.0%
- Medical biochemical genetics	16	14	17	15	14	-2	-12.5%
- Molecular genetic pathology (multidisciplinary)	56	57	58	59	59	3	5.4%
Clinical biochemical genetics*					10	N/A	N/A
Laboratory genetics and genomics*					81	N/A	N/A
Neurological surgery	1,515	1,561	1,579	1,593	1,607	92	6.1%
- Neuroendovascular intervention	1	1	3	3	3	2	200.0%

TABLE C.6 Continued

Number of Active Residents by Specialty and Subspecialty and Academic Year, 2019-2020 to 2023-2024

Specialty	Academic Year					5-Year Change	
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024		
	#	#	#	#	#	#	%
Neurology	3,062	3,221	3,369	3,530	3,711	649	21.2%
- Brain injury medicine	1	1	1	0	0	N/A	N/A
- Clinical neurophysiology	163	143	149	153	141	-22	-13.5%
- Epilepsy	126	134	154	158	151	25	19.8%
- Neurocritical care (multidisciplinary) *			12	120	167	155	1291.7%
- Neuroendovascular intervention	2	3	2	1	5	3	150.0%
- Neurodevelopmental disabilities	24	26	27	31	33	9	37.5%
- Neuromuscular medicine	73	74	73	77	93	20	27.4%
- Vascular neurology	128	162	151	189	202	74	57.8%
Child neurology	401	419	455	479	489	88	21.9%
Nuclear medicine	78	69	76	77	81	3	3.8%
Obstetrics and gynecology	5,677	5,769	5,861	5,962	6,076	399	7.0%
- Female pelvic medicine and reconstructive surgery	149	146	151	155	167	18	12.1%
- Gynecologic oncology	210	221	229	240	249	39	18.6%
- Maternal-fetal medicine	368	391	404	416	435	67	18.2%
- Reproductive endocrinology and infertility	167	166	171	173	176	9	5.4%
- Complex family planning *		32	50	55	58	26	81.3%
Ophthalmology	1,512	1,531	1,693	1,738	1,764	252	16.7%
- Ophthalmic plastic and reconstructive surgery	3	3	5	3	5	2	66.7%
Orthopaedic surgery	4,342	4,415	4,463	4,481	4,538	196	4.5%
- Adult reconstructive orthopaedics	46	50	53	52	53	7	15.2%
- Foot and ankle orthopaedics	16	17	16	16	17	1	6.3%
- Hand surgery	154	155	154	159	162	8	5.2%
- Musculoskeletal oncology	17	16	16	14	16	-1	-5.9%
- Orthopaedic sports medicine	215	211	216	223	216	1	0.5%
- Orthopaedic surgery of the spine	34	25	25	24	26	-8	-23.5%
- Orthopaedic trauma	20	20	20	20	19	-1	-5.0%
- Pediatric orthopaedics	37	34	35	39	34	-3	-8.1%
Osteopathic neuromusculoskeletal medicine	53	68	84	83	83	30	56.6%
Otolaryngology - head and neck Surgery	1,689	1,723	1,763	1,795	1,836	147	8.7%
- Neurotology	35	36	37	37	39	4	11.4%
- Pediatric otolaryngology	36	34	42	40	44	8	22.2%
Pathology-anatomic and clinical	2,324	2,346	2,340	2,342	2,349	25	1.1%
- Blood banking/transfusion medicine	50	52	44	44	45	-5	-10.0%
- Clinical informatics	16	19	20	23	22	6	37.5%
- Chemical pathology	2			1	2	0	0.0%
- Cytopathology	125	127	123	116	106	-19	-15.2%
- Forensic pathology	54	49	58	60	61	7	13.0%
- Hematopathology	135	117	126	139	127	-8	-5.9%
- Medical microbiology	9	16	12	14	9	0	0.0%
- Neuropathology	59	53	53	56	59	0	0.0%
- Pediatric pathology	23	21	22	21	15	-8	-34.8%
- Selective pathology	167	176	183	176	185	18	10.8%
Pediatrics	9,323	9,419	9,476	9,539	9,695	372	4.0%
- Adolescent medicine	94	97	93	91	97	3	3.2%
- Child abuse pediatrics	47	44	46	58	58	11	23.4%
- Clinical informatics	15	19	28	28	30	15	100.0%
- Developmental-behavioral pediatrics	119	114	113	103	110	-9	-7.6%
- Neonatal-perinatal medicine	772	783	795	830	851	79	10.2%
- Pediatric cardiology	457	468	482	480	496	39	8.5%
- Pediatric critical care medicine	557	575	594	618	623	66	11.8%
- Pediatric emergency medicine	424	434	446	454	468	44	10.4%
- Pediatric endocrinology	227	230	228	249	232	5	2.2%
- Pediatric gastroenterology	322	329	330	340	344	22	6.8%
- Pediatric hematology/oncology	485	475	482	463	480	-5	-1.0%
- Pediatric infectious diseases	169	175	180	193	179	10	5.9%

TABLE C.6 *Continued***Number of Active Residents by Specialty and Subspecialty and Academic Year, 2019-2020 to 2023-2024**

Specialty	Academic Year					5-Year Change	
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024		
	#	#	#	#	#	#	%
- Pediatric nephrology	110	120	132	144	147	37	33.6%
- Pediatric pulmonology	168	176	184	194	197	29	17.3%
- Pediatric rheumatology	90	88	102	109	101	11	12.2%
- Sports medicine	26	26	28	27	27	1	3.8%
- Pediatric transplant hepatology	10	11	15	12	12	2	20.0%
- Pediatric hospital medicine *	71	115	164	191	210	139	195.8%
Physical medicine and rehabilitation	1,453	1,510	1,578	1,640	1,738	285	19.6%
- Brain injury medicine	18	17	26	22	22	4	22.2%
- Neuromuscular medicine	1	1	1		1	0	0.0%
- Spinal cord injury medicine	21	19	22	24	26	5	23.8%
- Pediatric rehabilitation medicine	38	30	31	42	38	0	0.0%
- Sports medicine	32	33	40	41	42	10	31.3%
Plastic surgery	226	214	202	202	199	-27	-11.9%
Plastic Surgery - integrated	961	1,009	1,060	1,107	1,160	199	20.7%
- Craniofacial surgery	5	7	5	5	6	1	20.0%
- Hand surgery	23	23	24	27	29	6	26.1%
Public health and general preventive medicine	347	350	346	195	175	-172	-49.6%
- Undersea and hyperbaric medicine	1	1	1	2	2	1	100.0%
- Medical toxicology	4	3	3	0	0	N/A	N/A
Aerospace medicine *				52	47	-5	-9.6%
Occupational and environmental medicine *				118	115	-3	-2.5%
Psychiatry	6,618	6,976	7,353	7,739	8,097	1,479	22.3%
- Addiction medicine (multidisciplinary)	79	129	169	159	196	117	148.1%
- Addiction psychiatry	78	86	89	92	91	13	16.7%
- Child and adolescent psychiatry	889	919	953	966	1,004	115	12.9%
- Forensic psychiatry	80	80	89	75	87	7	8.7%
- Geriatric psychiatry	42	44	58	58	52	10	23.8%
- Consultation-liaison psychiatry	86	82	89	92	92	6	7.0%
Radiation oncology	771	773	763	758	746	-25	-3.2%
Radiology-diagnostic	4,551	4,557	4,567	4,614	4,698	147	3.2%
- Abdominal radiology	49	46	49	50	54	5	10.2%
- Musculoskeletal radiology	35	40	38	38	41	6	17.1%
- Neuroendovascular intervention	5	2	3	5	8	3	60.0%
- Neuroradiology	280	272	292	300	314	34	12.1%
- Nuclear radiology	12	7	14	10	11	-1	-8.3%
- Pediatric radiology	58	51	51	54	53	-5	-8.6%
- Vascular and interventional radiology	256	0	0	0	0	N/A	N/A
Interventional radiology - independent *		184	205	177	150	-34	-18.5%
Interventional radiology - integrated	424	591	678	750	782	358	84.4%
Surgery	8,809	9,063	9,299	9,554	9,743	934	10.6%
- Complex general surgical oncology	115	120	123	127	133	18	15.7%
- Hand surgery	8	7	7	8	9	1	12.5%
- Pediatric surgery	85	86	86	88	87	2	2.4%
- Surgical critical care	290	299	332	341	349	59	20.3%
- Vascular surgery - independent	244	255	264	270	279	35	14.3%
Vascular surgery - integrated	309	332	361	381	407	98	31.7%
Thoracic surgery - independent	236	243	249	256	251	15	6.4%
- Congenital cardiac surgery	8	11	12	8	8	0	0.0%
Thoracic surgery - integrated	193	203	230	237	254	61	31.6%
Urology	1,734	1,768	1,794	1,834	1,883	149	8.6%
- Female pelvic medicine and reconstructive surgery	35	37	38	42	38	3	8.6%
- Pediatric urology	20	18	28	32	35	15	75.0%
Transitional year	1,597	1,693	1,767	1,884	2,031	434	27.2%
Internal medicine/Pediatrics	1,511	1,510	1,529	1,539	1,556	45	3.0%
Health care administration, leadership, and management *						N/A	N/A

Notes: Pipeline specialties are highlighted. Asterisks (*) indicate specialties and subspecialties added within the last five years. For these specialties and subspecialties, the number and percent change are calculated from the first year of having active residents.

Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

TABLE C.7

Number of Active Part-Time Residents by Specialty and Subspecialty

Specialty	Total Residents	Number of Part-Time Residents	Percent of All Residents in Specialty	Percent of All Part-Time Residents
OVERALL	162,644	165	0.1%	100.0%
TOTAL PIPELINE	131,111	78	0.1%	47.3%
Allergy and immunology	330	0	0.0%	0.0%
Anesthesiology	7,488	3	0.0%	1.8%
- Adult cardiothoracic anesthesiology	257	0	0.0%	0.0%
- Critical care medicine	199	1	0.5%	0.6%
- Obstetric anesthesiology	49	0	0.0%	0.0%
- Pain medicine (multidisciplinary)	414	0	0.0%	0.0%
- Pediatric anesthesiology	150	1	0.7%	0.6%
- Pediatric cardiac anesthesiology	13	0	0.0%	0.0%
- Regional anesthesiology and acute pain medicine	84	0	0.0%	0.0%
Colon and rectal surgery	112	0	0.0%	0.0%
Dermatology	1,671	1	0.1%	0.6%
- Dermatopathology (multidisciplinary)	68	0	0.0%	0.0%
- Micrographic surgery and dermatologic oncology	93	0	0.0%	0.0%
- Pediatric dermatology	24	0	0.0%	0.0%
Emergency medicine	9,614	6	0.1%	3.6%
- Emergency medical services	108	1	0.9%	0.6%
- Medical toxicology	104	1	1.0%	0.6%
- Pediatric emergency medicine	151	0	0.0%	0.0%
- Sports medicine	16	0	0.0%	0.0%
- Undersea and hyperbaric medicine	13	0	0.0%	0.0%
Family medicine	15,341	5	0.0%	3.0%
- Clinical informatics	23	0	0.0%	0.0%
- Geriatric medicine	45	2	4.4%	1.2%
- Hospice and palliative medicine (multidisciplinary)	484	15	3.1%	9.1%
- Sports medicine	301	2	0.7%	1.2%
Internal medicine	32,958	17	0.1%	10.3%
- Adult congenital heart disease	28	0	0.0%	0.0%
- Advanced heart failure and transplant cardiology	86	0	0.0%	0.0%
- Cardiovascular disease	3,605	4	0.1%	2.4%
- Clinical cardiac electrophysiology	340	3	0.9%	1.8%
- Clinical informatics	73	0	0.0%	0.0%
- Critical care medicine	374	1	0.3%	0.6%
- Endocrinology, diabetes, and metabolism	746	0	0.0%	0.0%
- Gastroenterology	2,067	2	0.1%	1.2%
- Geriatric medicine	254	0	0.0%	0.0%
- Hematology and medical oncology	2,186	3	0.1%	1.8%
- Infectious disease	830	2	0.2%	1.2%
- Interventional cardiology	376	0	0.0%	0.0%
- Interventional pulmonology	15	0	0.0%	0.0%
- Medical oncology	5	0	0.0%	0.0%
- Nephrology	887	1	0.1%	0.6%
- Pulmonary disease	52	0	0.0%	0.0%
- Pulmonary disease and critical care medicine	2,359	0	0.0%	0.0%
- Rheumatology	580	1	0.2%	0.6%
- Sleep medicine (multidisciplinary)	226	19	8.4%	11.5%
- Transplant hepatology	49	0	0.0%	0.0%
Medical genetics and genomics	60	1	1.7%	0.6%
- Medical biochemical genetics	14	3	21.4%	1.8%
- Molecular genetic pathology (multidisciplinary)	59	0	0.0%	0.0%
- Clinical biochemical genetics	10	0	0.0%	0.0%
Laboratory genetics and genomics	81	0	0.0%	0.0%
Neurological surgery	1,607	0	0.0%	0.0%
- Neuroendovascular intervention	3	0	0.0%	0.0%

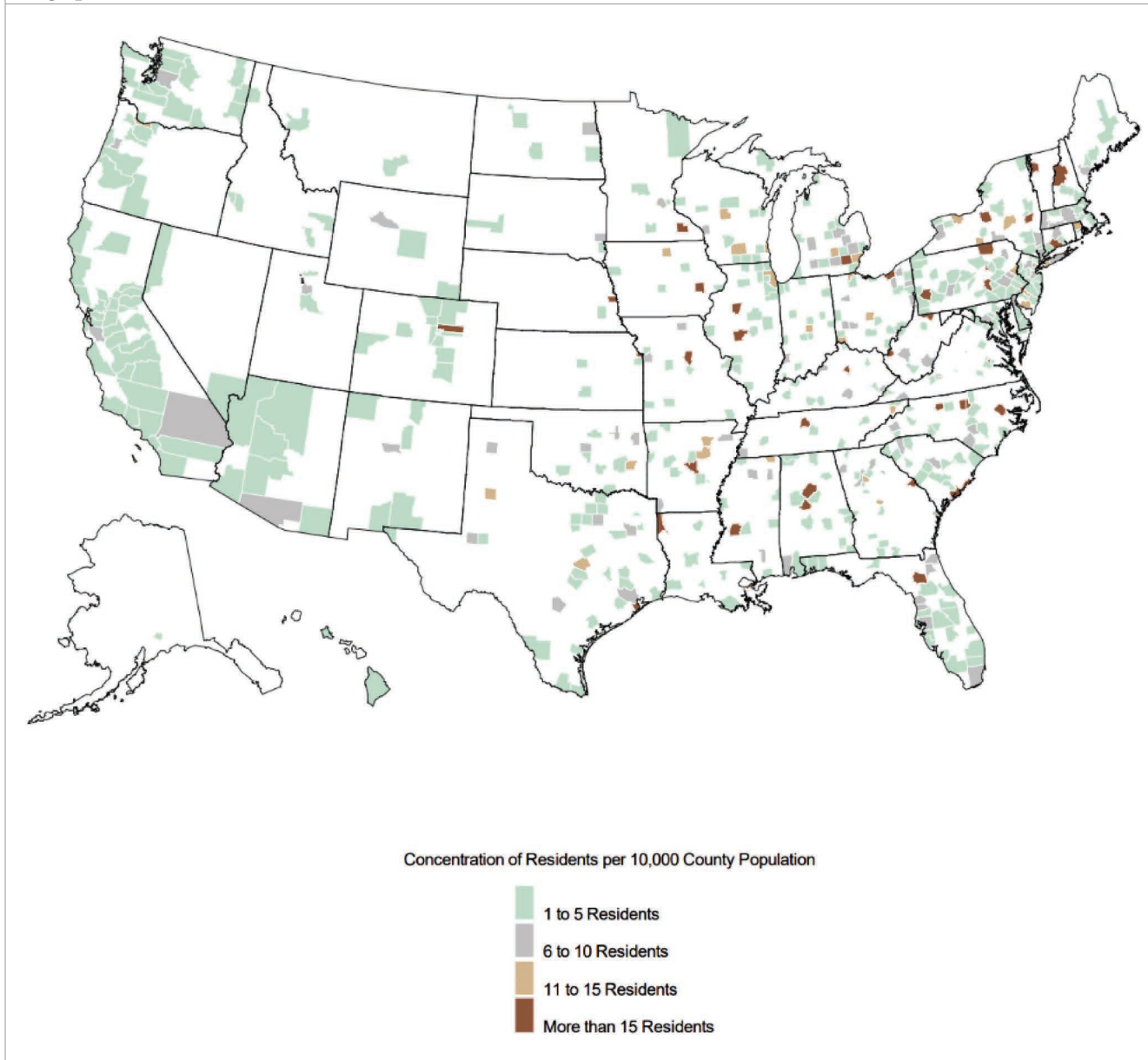
TABLE C.7 *Continued***Number of Active Part-Time Residents by Specialty and Subspecialty**

Specialty	Total Residents	Number of Part-Time Residents	Percent of All Residents in Specialty	Percent of All Part-Time Residents
Neurology	3,711	2	0.1%	1.2%
- Clinical neurophysiology	141	0	0.0%	0.0%
- Epilepsy	151	1	0.7%	0.6%
- Neurocritical care (multidisciplinary)	167	2	1.2%	1.2%
- Neuroendovascular intervention	5	0	0.0%	0.0%
- Neurodevelopmental disabilities	33	0	0.0%	0.0%
- Neuromuscular medicine	93	0	0.0%	0.0%
- Vascular neurology	202	1	0.5%	0.6%
Child neurology	489	0	0.0%	0.0%
Nuclear medicine	81	0	0.0%	0.0%
Obstetrics and gynecology	6,076	4	0.1%	2.4%
- Female pelvic medicine and reconstructive surgery	167	0	0.0%	0.0%
- Gynecologic oncology	249	0	0.0%	0.0%
- Maternal-fetal medicine	435	1	0.2%	0.6%
- Reproductive endocrinology and infertility	176	0	0.0%	0.0%
- Complex family planning	58	0	0.0%	0.0%
Ophthalmology	1,764	2	0.1%	1.2%
- Ophthalmic plastic and reconstructive surgery	5	0	0.0%	0.0%
Orthopaedic surgery	4,538	3	0.1%	1.8%
- Adult reconstructive orthopaedics	53	0	0.0%	0.0%
- Foot and ankle orthopaedics	17	0	0.0%	0.0%
- Hand surgery	162	0	0.0%	0.0%
- Musculoskeletal oncology	16	0	0.0%	0.0%
- Orthopaedic sports medicine	216	0	0.0%	0.0%
- Orthopaedic surgery of the spine	26	0	0.0%	0.0%
- Orthopaedic trauma	19	0	0.0%	0.0%
- Pediatric orthopaedics	34	0	0.0%	0.0%
Osteopathic neuromusculoskeletal medicine	83	1	1.2%	0.6%
Otolaryngology - head and neck Surgery	1,836	2	0.1%	1.2%
- Neurotology	39	0	0.0%	0.0%
- Pediatric otolaryngology	44	0	0.0%	0.0%
Pathology-anatomic and clinical	2,349	1	0.0%	0.6%
- Blood banking/transfusion medicine	45	0	0.0%	0.0%
- Clinical informatics	22	1	4.5%	0.6%
- Chemical pathology	2	0	0.0%	0.0%
- Cytopathology	106	0	0.0%	0.0%
- Forensic pathology	61	0	0.0%	0.0%
- Hematopathology	127	0	0.0%	0.0%
- Medical microbiology	9	0	0.0%	0.0%
- Neuropathology	59	0	0.0%	0.0%
- Pediatric pathology	15	0	0.0%	0.0%
- Selective pathology	185	0	0.0%	0.0%
Pediatrics	9,695	6	0.1%	3.6%
- Adolescent medicine	97	0	0.0%	0.0%
- Child abuse pediatrics	58	1	1.7%	0.6%
- Clinical informatics	30	0	0.0%	0.0%
- Developmental-behavioral pediatrics	110	0	0.0%	0.0%
- Neonatal-perinatal medicine	851	1	0.1%	0.6%
- Pediatric cardiology	496	0	0.0%	0.0%
- Pediatric critical care medicine	623	2	0.3%	1.2%
- Pediatric emergency medicine	468	3	0.6%	1.8%
- Pediatric endocrinology	232	0	0.0%	0.0%
- Pediatric gastroenterology	344	0	0.0%	0.0%
- Pediatric hematology/oncology	480	0	0.0%	0.0%
- Pediatric infectious diseases	179	1	0.6%	0.6%

TABLE C.7 *Continued***Number of Active Part-Time Residents by Specialty and Subspecialty**

Specialty	Total Residents	Number of Part-Time Residents	Percent of All Residents in Specialty	Percent of All Part-Time Residents
- Pediatric nephrology	147	0	0.0%	0.0%
- Pediatric pulmonology	197	0	0.0%	0.0%
- Pediatric rheumatology	101	0	0.0%	0.0%
- Sports medicine	27	0	0.0%	0.0%
- Pediatric transplant hepatology	12	0	0.0%	0.0%
- Pediatric hospital medicine	210	0	0.0%	0.0%
Physical medicine and rehabilitation	1,738	0	0.0%	0.0%
- Brain injury medicine	22	0	0.0%	0.0%
- Neuromuscular medicine	1	0	0.0%	0.0%
- Spinal cord injury medicine	26	0	0.0%	0.0%
- Pediatric rehabilitation medicine	38	0	0.0%	0.0%
- Sports medicine	42	0	0.0%	0.0%
Plastic surgery	199	0	0.0%	0.0%
Plastic Surgery - integrated	1,160	0	0.0%	0.0%
- Craniofacial surgery	6	0	0.0%	0.0%
- Hand surgery	29	0	0.0%	0.0%
Public health and general preventive medicine	175	0	0.0%	0.0%
- Undersea and hyperbaric medicine	2	0	0.0%	0.0%
Aerospace medicine	47	0	0.0%	0.0%
Occupational and environmental medicine	115	0	0.0%	0.0%
Psychiatry	8,097	7	0.1%	4.2%
- Addiction medicine (multidisciplinary)	196	2	1.0%	1.2%
- Addiction psychiatry	91	0	0.0%	0.0%
- Child and adolescent psychiatry	1,004	4	0.4%	2.4%
- Forensic psychiatry	87	1	1.1%	0.6%
- Geriatric psychiatry	52	1	1.9%	0.6%
- Consultation-liaison psychiatry	92	1	1.1%	0.6%
Radiation oncology	746	1	0.1%	0.6%
Radiology-diagnostic	4,698	4	0.1%	2.4%
- Abdominal radiology	54	0	0.0%	0.0%
- Musculoskeletal radiology	41	0	0.0%	0.0%
- Neuroendovascular intervention	8	0	0.0%	0.0%
- Neuroradiology	314	0	0.0%	0.0%
- Nuclear radiology	11	0	0.0%	0.0%
- Pediatric radiology	53	0	0.0%	0.0%
Interventional radiology - independent	150	0	0.0%	0.0%
Interventional radiology - integrated	782	0	0.0%	0.0%
Surgery	9,743	10	0.1%	6.1%
- Complex general surgical oncology	133	0	0.0%	0.0%
- Hand surgery	9	0	0.0%	0.0%
- Pediatric surgery	87	0	0.0%	0.0%
- Surgical critical care	349	0	0.0%	0.0%
- Vascular surgery - independent	279	1	0.4%	0.6%
Vascular surgery - integrated	407	0	0.0%	0.0%
Thoracic surgery - independent	251	0	0.0%	0.0%
- Congenital cardiac surgery	8	0	0.0%	0.0%
Thoracic surgery - integrated	254	0	0.0%	0.0%
Urology	1,883	0	0.0%	0.0%
- Female pelvic medicine and reconstructive surgery	38	0	0.0%	0.0%
- Pediatric urology	35	0	0.0%	0.0%
Transitional year	2,031	1	0.0%	0.6%
Internal medicine/Pediatrics	1,556	2	0.1%	1.2%
Health care administration, leadership, and management	0	0	0.0%	0.0%

Note: Pipeline specialties are highlighted.

FIGURE C.8**Geographic Distribution of Active Residents**

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/counties/totals/co-est2023-alldata.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE C.9

Number of Active Residents and Active Resident Concentration per 100,000 Population by State

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Residents	Percent of All Residents	Residents per 100,000 Pop
OVERALL	-	338,120,586	162,644	100.0%	48.10
Alabama	AL	5,108,468	1,940	1.2%	37.98
Alaska	AK	733,406	35	0.0%	4.77
Arizona	AZ	7,431,344	2,361	1.5%	31.77
Arkansas	AR	3,067,732	1,237	0.8%	40.32
California	CA	38,965,193	15,270	9.4%	39.19
Colorado	CO	5,877,610	1,797	1.1%	30.57
Connecticut	CT	3,617,176	2,687	1.7%	74.28
Delaware	DE	1,031,890	461	0.3%	44.68
District of Columbia	DC	678,972	1,810	1.1%	266.58
Florida	FL	22,610,726	8,922	5.5%	39.46
Georgia	GA	11,029,227	3,445	2.1%	31.24
Hawaii	HI	1,435,138	473	0.3%	32.96
Idaho	ID	1,964,726	223	0.1%	11.35
Illinois	IL	12,549,689	7,303	4.5%	58.19
Indiana	IN	6,862,199	1,749	1.1%	25.49
Iowa	IA	3,207,004	1,087	0.7%	33.89
Kansas	KS	2,940,546	978	0.6%	33.26
Kentucky	KY	4,526,154	1,650	1.0%	36.45
Louisiana	LA	4,573,749	2,465	1.5%	53.89
Maine	ME	1,395,722	394	0.2%	28.23
Maryland	MD	6,180,253	3,537	2.2%	57.23
Massachusetts	MA	7,001,399	6,246	3.8%	89.21
Michigan	MI	10,037,261	7,702	4.7%	76.73
Minnesota	MN	5,737,915	2,495	1.5%	43.48
Mississippi	MS	2,939,690	1,048	0.6%	35.65
Missouri	MO	6,196,156	3,374	2.1%	54.45
Montana	MT	1,132,812	83	0.1%	7.33
Nebraska	NE	1,978,379	958	0.6%	48.42
Nevada	NV	3,194,176	1,009	0.6%	31.59
New Hampshire	NH	1,402,054	537	0.3%	38.30
New Jersey	NJ	9,290,841	4,624	2.8%	49.77
New Mexico	NM	2,114,371	794	0.5%	37.55
New York	NY	19,571,216	19,963	12.3%	102.00
North Carolina	NC	10,835,491	4,396	2.7%	40.57
North Dakota	ND	783,926	192	0.1%	24.49
Ohio	OH	11,785,935	7,947	4.9%	67.43
Oklahoma	OK	4,053,824	1,332	0.8%	32.86
Oregon	OR	4,233,358	1,211	0.7%	28.61
Pennsylvania	PA	12,961,683	10,320	6.3%	79.62
Puerto Rico	PR	3,205,691	1,003	0.6%	31.29
Rhode Island	RI	1,095,962	948	0.6%	86.50
South Carolina	SC	5,373,555	2,072	1.3%	38.56
South Dakota	SD	919,318	168	0.1%	18.27
Tennessee	TN	7,126,489	2,885	1.8%	40.48
Texas	TX	30,503,301	11,251	6.9%	36.88
Utah	UT	3,417,734	965	0.6%	28.24
Vermont	VT	647,464	344	0.2%	53.13
Virginia	VA	8,715,698	3,202	2.0%	36.74
Washington	WA	7,812,880	2,405	1.5%	30.78
West Virginia	WV	1,770,071	1,086	0.7%	61.35
Wisconsin	WI	5,910,955	2,218	1.4%	37.52
Wyoming	WY	584,057	42	0.0%	7.19

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE C.10

Number of Active Specialty Residents and Active Specialty Resident Concentration per 100,000 Population by State

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Specialty Residents	Percent of All Specialty Residents	Specialty Residents per 100,000 Pop
OVERALL	-	338,120,586	133,776	100.0%	39.56
Alabama	AL	5,108,468	1,632	1.2%	31.95
Alaska	AK	733,406	34	0.0%	4.64
Arizona	AZ	7,431,344	1,965	1.5%	26.44
Arkansas	AR	3,067,732	1,097	0.8%	35.76
California	CA	38,965,193	12,354	9.2%	31.71
Colorado	CO	5,877,610	1,405	1.1%	23.90
Connecticut	CT	3,617,176	2,178	1.6%	60.21
Delaware	DE	1,031,890	407	0.3%	39.44
District of Columbia	DC	678,972	1,430	1.1%	210.61
Florida	FL	22,610,726	7,547	5.6%	33.38
Georgia	GA	11,029,227	2,904	2.2%	26.33
Hawaii	HI	1,435,138	436	0.3%	30.38
Idaho	ID	1,964,726	221	0.2%	11.25
Illinois	IL	12,549,689	6,103	4.6%	48.63
Indiana	IN	6,862,199	1,483	1.1%	21.61
Iowa	IA	3,207,004	892	0.7%	27.81
Kansas	KS	2,940,546	844	0.6%	28.70
Kentucky	KY	4,526,154	1,363	1.0%	30.11
Louisiana	LA	4,573,749	2,110	1.6%	46.13
Maine	ME	1,395,722	348	0.3%	24.93
Maryland	MD	6,180,253	2,737	2.0%	44.29
Massachusetts	MA	7,001,399	4,716	3.5%	67.36
Michigan	MI	10,037,261	6,597	4.9%	65.73
Minnesota	MN	5,737,915	1,914	1.4%	33.36
Mississippi	MS	2,939,690	932	0.7%	31.70
Missouri	MO	6,196,156	2,664	2.0%	42.99
Montana	MT	1,132,812	83	0.1%	7.33
Nebraska	NE	1,978,379	766	0.6%	38.72
Nevada	NV	3,194,176	920	0.7%	28.80
New Hampshire	NH	1,402,054	442	0.3%	31.53
New Jersey	NJ	9,290,841	4,032	3.0%	43.40
New Mexico	NM	2,114,371	652	0.5%	30.84
New York	NY	19,571,216	16,349	12.2%	83.54
North Carolina	NC	10,835,491	3,509	2.6%	32.38
North Dakota	ND	783,926	184	0.1%	23.47
Ohio	OH	11,785,935	6,446	4.8%	54.69
Oklahoma	OK	4,053,824	1,187	0.9%	29.28
Oregon	OR	4,233,358	1,001	0.7%	23.65
Pennsylvania	PA	12,961,683	8,362	6.3%	64.51
Puerto Rico	PR	3,205,691	865	0.6%	26.98
Rhode Island	RI	1,095,962	766	0.6%	69.89
South Carolina	SC	5,373,555	1,793	1.3%	33.37
South Dakota	SD	919,318	155	0.1%	16.86
Tennessee	TN	7,126,489	2,298	1.7%	32.25
Texas	TX	30,503,301	9,133	6.8%	29.94
Utah	UT	3,417,734	750	0.6%	21.94
Vermont	VT	647,464	276	0.2%	42.63
Virginia	VA	8,715,698	2,729	2.0%	31.31
Washington	WA	7,812,880	2,000	1.5%	25.60
West Virginia	WV	1,770,071	922	0.7%	52.09
Wisconsin	WI	5,910,955	1,802	1.3%	30.49
Wyoming	WY	584,057	41	0.0%	7.02

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE C.11

Number of Active Subspecialty Residents and Active Subspecialty Resident Concentration per 100,000 Population by State

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Subspecialty Residents	Percent of All Subspecialty Residents	Subspecialty Residents per 100,000 Pop
OVERALL	-	338,120,586	28,868	100.0%	8.54
Alabama	AL	5,108,468	308	1.1%	6.03
Alaska	AK	733,406	1	0.0%	0.14
Arizona	AZ	7,431,344	396	1.4%	5.33
Arkansas	AR	3,067,732	140	0.5%	4.56
California	CA	38,965,193	2,916	10.1%	7.48
Colorado	CO	5,877,610	392	1.4%	6.67
Connecticut	CT	3,617,176	509	1.8%	14.07
Delaware	DE	1,031,890	54	0.2%	5.23
District of Columbia	DC	678,972	380	1.3%	55.97
Florida	FL	22,610,726	1,375	4.8%	6.08
Georgia	GA	11,029,227	541	1.9%	4.91
Hawaii	HI	1,435,138	37	0.1%	2.58
Idaho	ID	1,964,726	2	0.0%	0.10
Illinois	IL	12,549,689	1,200	4.2%	9.56
Indiana	IN	6,862,199	266	0.9%	3.88
Iowa	IA	3,207,004	195	0.7%	6.08
Kansas	KS	2,940,546	134	0.5%	4.56
Kentucky	KY	4,526,154	287	1.0%	6.34
Louisiana	LA	4,573,749	355	1.2%	7.76
Maine	ME	1,395,722	46	0.2%	3.30
Maryland	MD	6,180,253	800	2.8%	12.94
Massachusetts	MA	7,001,399	1,530	5.3%	21.85
Michigan	MI	10,037,261	1,105	3.8%	11.01
Minnesota	MN	5,737,915	581	2.0%	10.13
Mississippi	MS	2,939,690	116	0.4%	3.95
Missouri	MO	6,196,156	710	2.5%	11.46
Montana	MT	1,132,812	0	0.0%	0.00
Nebraska	NE	1,978,379	192	0.7%	9.70
Nevada	NV	3,194,176	89	0.3%	2.79
New Hampshire	NH	1,402,054	95	0.3%	6.78
New Jersey	NJ	9,290,841	592	2.1%	6.37
New Mexico	NM	2,114,371	142	0.5%	6.72
New York	NY	19,571,216	3,614	12.5%	18.47
North Carolina	NC	10,835,491	887	3.1%	8.19
North Dakota	ND	783,926	8	0.0%	1.02
Ohio	OH	11,785,935	1,501	5.2%	12.74
Oklahoma	OK	4,053,824	145	0.5%	3.58
Oregon	OR	4,233,358	210	0.7%	4.96
Pennsylvania	PA	12,961,683	1,958	6.8%	15.11
Puerto Rico	PR	3,205,691	138	0.5%	4.30
Rhode Island	RI	1,095,962	182	0.6%	16.61
South Carolina	SC	5,373,555	279	1.0%	5.19
South Dakota	SD	919,318	13	0.0%	1.41
Tennessee	TN	7,126,489	587	2.0%	8.24
Texas	TX	30,503,301	2,118	7.3%	6.94
Utah	UT	3,417,734	215	0.7%	6.29
Vermont	VT	647,464	68	0.2%	10.50
Virginia	VA	8,715,698	473	1.6%	5.43
Washington	WA	7,812,880	405	1.4%	5.18
West Virginia	WV	1,770,071	164	0.6%	9.27
Wisconsin	WI	5,910,955	416	1.4%	7.04
Wyoming	WY	584,057	1	0.0%	0.17

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE C.12

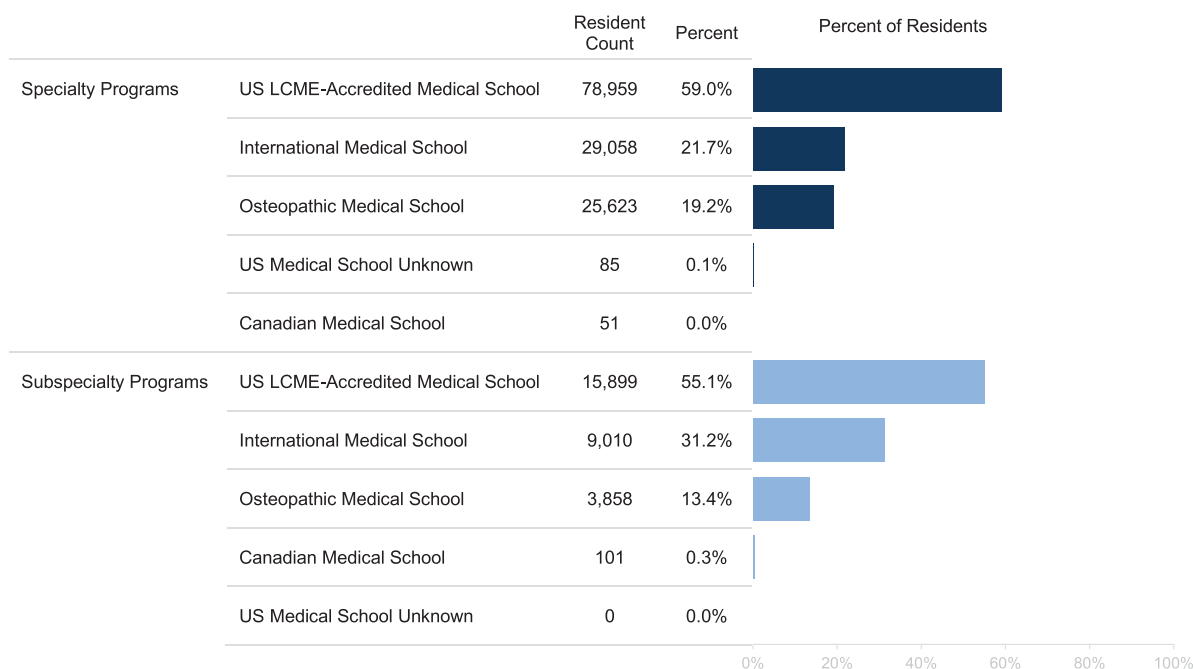
Number of Active Pipeline Residents and Active Pipeline Resident Concentration per 100,000 Population by State

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Pipeline Residents	Percent of All Pipeline Residents	Pipeline Residents per 100,000 Pop
OVERALL	-	338,120,586	131,111	100.0%	38.78
Alabama	AL	5,108,468	1,594	1.2%	31.20
Alaska	AK	733,406	34	0.0%	4.64
Arizona	AZ	7,431,344	1,916	1.5%	25.78
Arkansas	AR	3,067,732	1,063	0.8%	34.65
California	CA	38,965,193	12,154	9.3%	31.19
Colorado	CO	5,877,610	1,378	1.1%	23.44
Connecticut	CT	3,617,176	2,163	1.6%	59.80
Delaware	DE	1,031,890	400	0.3%	38.76
District of Columbia	DC	678,972	1,430	1.1%	210.61
Florida	FL	22,610,726	7,295	5.6%	32.26
Georgia	GA	11,029,227	2,784	2.1%	25.24
Hawaii	HI	1,435,138	422	0.3%	29.40
Idaho	ID	1,964,726	221	0.2%	11.25
Illinois	IL	12,549,689	6,015	4.6%	47.93
Indiana	IN	6,862,199	1,421	1.1%	20.71
Iowa	IA	3,207,004	881	0.7%	27.47
Kansas	KS	2,940,546	838	0.6%	28.50
Kentucky	KY	4,526,154	1,351	1.0%	29.85
Louisiana	LA	4,573,749	2,094	1.6%	45.78
Maine	ME	1,395,722	348	0.3%	24.93
Maryland	MD	6,180,253	2,658	2.0%	43.01
Massachusetts	MA	7,001,399	4,629	3.5%	66.12
Michigan	MI	10,037,261	6,445	4.9%	64.21
Minnesota	MN	5,737,915	1,870	1.4%	32.59
Mississippi	MS	2,939,690	902	0.7%	30.68
Missouri	MO	6,196,156	2,636	2.0%	42.54
Montana	MT	1,132,812	83	0.1%	7.33
Nebraska	NE	1,978,379	760	0.6%	38.42
Nevada	NV	3,194,176	882	0.7%	27.61
New Hampshire	NH	1,402,054	442	0.3%	31.53
New Jersey	NJ	9,290,841	3,936	3.0%	42.36
New Mexico	NM	2,114,371	643	0.5%	30.41
New York	NY	19,571,216	16,101	12.3%	82.27
North Carolina	NC	10,835,491	3,429	2.6%	31.65
North Dakota	ND	783,926	179	0.1%	22.83
Ohio	OH	11,785,935	6,339	4.8%	53.78
Oklahoma	OK	4,053,824	1,181	0.9%	29.13
Oregon	OR	4,233,358	994	0.8%	23.48
Pennsylvania	PA	12,961,683	8,204	6.3%	63.29
Puerto Rico	PR	3,205,691	824	0.6%	25.70
Rhode Island	RI	1,095,962	764	0.6%	69.71
South Carolina	SC	5,373,555	1,740	1.3%	32.38
South Dakota	SD	919,318	149	0.1%	16.21
Tennessee	TN	7,126,489	2,262	1.7%	31.74
Texas	TX	30,503,301	8,944	6.8%	29.32
Utah	UT	3,417,734	732	0.6%	21.42
Vermont	VT	647,464	276	0.2%	42.63
Virginia	VA	8,715,698	2,664	2.0%	30.57
Washington	WA	7,812,880	1,944	1.5%	24.88
West Virginia	WV	1,770,071	906	0.7%	51.18
Wisconsin	WI	5,910,955	1,750	1.3%	29.61
Wyoming	WY	584,057	41	0.0%	7.02

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

FIGURE C.13

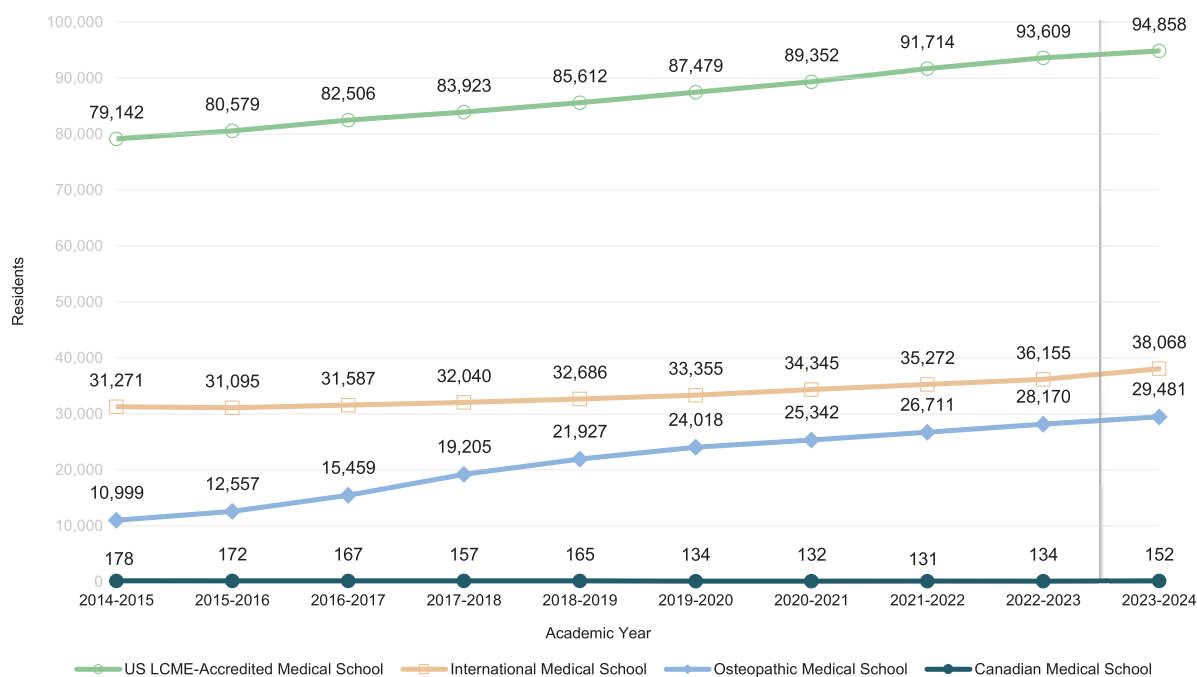
Number of Active Residents by Medical School Type



Notes: Total number of active residents in specialty programs = 133,776. Total number of active residents in subspecialty programs = 28,868.

FIGURE C.14

Number of Active Residents by Medical School Type and Academic Year, 2014-2015 to 2023-2024



Note¹: Not shown are those graduates for which the specific U.S. medical school is unknown.

Note²: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

Abbreviations: LCME, Liaison Committee on Medical Education.

TABLE C.15

Number of Active Residents by Specialty and Subspecialty and Medical School Type

Specialty	Total Residents	US LCME - Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
OVERALL	162,644	94,858	58.3%	38,068	23.4%	29,481	18.1%	152	0.1%	85	0.1%
TOTAL PIPELINE	131,111	77,249	58.9%	28,697	21.9%	25,110	19.2%	49	0.0%	6	0.0%
Allergy and immunology	330	227	68.8%	43	13.0%	60	18.2%	0	0.0%	0	0.0%
Anesthesiology	7,488	5,431	72.5%	676	9.0%	1,378	18.4%	3	0.0%	0	0.0%
- Adult cardiothoracic anesthesiology	257	168	65.4%	38	14.8%	50	19.5%	1	0.4%	0	0.0%
- Critical care medicine	199	135	67.8%	35	17.6%	27	13.6%	2	1.0%	0	0.0%
- Obstetric anesthesiology	49	34	69.4%	12	24.5%	2	4.1%	1	2.0%	0	0.0%
- Pain medicine (multidisciplinary)	414	234	56.5%	65	15.7%	115	27.8%	0	0.0%	0	0.0%
- Pediatric anesthesiology	150	113	75.3%	18	12.0%	18	12.0%	1	0.7%	0	0.0%
- Pediatric cardiac anesthesiology	13	5	38.5%	5	38.5%	3	23.1%	0	0.0%	0	0.0%
- Regional anesthesiology and acute pain medicine	84	58	69.0%	18	21.4%	8	9.5%	0	0.0%	0	0.0%
Colon and rectal surgery	112	82	73.2%	15	13.4%	13	11.6%	2	1.8%	0	0.0%
Dermatology	1,671	1,444	86.4%	52	3.1%	174	10.4%	1	0.1%	0	0.0%
- Dermatopathology (multidisciplinary)	68	48	70.6%	16	23.5%	4	5.9%	0	0.0%	0	0.0%
- Micrographic surgery and dermatologic oncology	93	79	84.9%	3	3.2%	9	9.7%	2	2.2%	0	0.0%
- Pediatric dermatology	24	17	70.8%	6	25.0%	0	0.0%	1	4.2%	0	0.0%
Emergency medicine	9,614	5,799	60.3%	962	10.0%	2,849	29.6%	1	0.0%	3	0.0%
- Emergency medical services	108	72	66.7%	14	13.0%	22	20.4%	0	0.0%	0	0.0%
- Medical toxicology	104	80	76.9%	9	8.7%	14	13.5%	1	1.0%	0	0.0%
- Pediatric emergency medicine	151	83	55.0%	35	23.2%	33	21.9%	0	0.0%	0	0.0%
- Sports medicine	16	10	62.5%	0	0.0%	6	37.5%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	13	10	76.9%	1	7.7%	1	7.7%	1	7.7%	0	0.0%
Family medicine	15,341	5,718	37.3%	4,362	28.4%	5,257	34.3%	3	0.0%	1	0.0%
- Clinical informatics	23	18	78.3%	2	8.7%	3	13.0%	0	0.0%	0	0.0%
- Geriatric medicine	45	20	44.4%	17	37.8%	8	17.8%	0	0.0%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	484	284	58.7%	119	24.6%	81	16.7%	0	0.0%	0	0.0%
- Sports medicine	301	116	38.5%	46	15.3%	139	46.2%	0	0.0%	0	0.0%
Internal medicine	32,958	13,959	42.4%	13,175	40.0%	5,810	17.6%	12	0.0%	2	0.0%
- Adult congenital heart disease	28	22	78.6%	5	17.9%	0	0.0%	1	3.6%	0	0.0%
- Advanced heart failure and transplant cardiology	86	44	51.2%	32	37.2%	8	9.3%	2	2.3%	0	0.0%
- Cardiovascular disease	3,605	1,789	49.6%	1,373	38.1%	441	12.2%	2	0.1%	0	0.0%
- Clinical cardiac electrophysiology	340	177	52.1%	128	37.6%	31	9.1%	4	1.2%	0	0.0%
- Clinical informatics	73	44	60.3%	21	28.8%	8	11.0%	0	0.0%	0	0.0%
- Critical care medicine	374	135	36.1%	155	41.4%	84	22.5%	0	0.0%	0	0.0%
- Endocrinology, diabetes, and metabolism	746	236	31.6%	417	55.9%	93	12.5%	0	0.0%	0	0.0%
- Gastroenterology	2,067	1,199	58.0%	597	28.9%	271	13.1%	0	0.0%	0	0.0%
- Geriatric medicine	254	89	35.0%	134	52.8%	31	12.2%	0	0.0%	0	0.0%
- Hematology and medical oncology	2,186	1,180	54.0%	815	37.3%	189	8.6%	2	0.1%	0	0.0%
- Infectious disease	830	360	43.4%	344	41.4%	125	15.1%	1	0.1%	0	0.0%
- Interventional cardiology	376	135	35.9%	199	52.9%	40	10.6%	2	0.5%	0	0.0%
- Interventional pulmonology	15	7	46.7%	7	46.7%	1	6.7%	0	0.0%	0	0.0%
- Medical oncology	5	1	20.0%	4	80.0%	0	0.0%	0	0.0%	0	0.0%
- Nephrology	887	222	25.0%	537	60.5%	128	14.4%	0	0.0%	0	0.0%
- Pulmonary disease	52	4	7.7%	39	75.0%	9	17.3%	0	0.0%	0	0.0%
- Pulmonary disease and critical care medicine	2,359	1,098	46.5%	879	37.3%	380	16.1%	2	0.1%	0	0.0%
- Rheumatology	580	258	44.5%	243	41.9%	79	13.6%	0	0.0%	0	0.0%
- Sleep medicine (multidisciplinary)	226	93	41.2%	90	39.8%	41	18.1%	2	0.9%	0	0.0%
- Transplant hepatology	49	32	65.3%	11	22.4%	4	8.2%	2	4.1%	0	0.0%
Medical genetics and genomics	60	23	38.3%	30	50.0%	7	11.7%	0	0.0%	0	0.0%
- Medical biochemical genetics	14	10	71.4%	3	21.4%	1	7.1%	0	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	59	28	47.5%	28	47.5%	2	3.4%	1	1.7%	0	0.0%
Clinical biochemical genetics	10	3	30.0%	1	10.0%	0	0.0%	0	0.0%	6	60.0%
Laboratory genetics and genomics	81	3	3.7%	5	6.2%	0	0.0%	0	0.0%	73	90.1%
Neurological surgery	1,607	1,437	89.4%	125	7.8%	45	2.8%	0	0.0%	0	0.0%
- Neuroendovascular intervention	3	2	66.7%	1	33.3%	0	0.0%	0	0.0%	0	0.0%

TABLE C.15 *Continued*

Number of Active Residents by Specialty and Subspecialty and Medical School Type

Specialty	Total Residents	US LCME - Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
Neurology	3,711	2,002	53.9%	1,131	30.5%	576	15.5%	2	0.1%	0	0.0%
- Clinical neurophysiology	141	76	53.9%	47	33.3%	16	11.3%	2	1.4%	0	0.0%
- Epilepsy	151	93	61.6%	38	25.2%	18	11.9%	2	1.3%	0	0.0%
- Neurocritical care (multidisciplinary)	167	81	48.5%	60	35.9%	26	15.6%	0	0.0%	0	0.0%
- Neuroendovascular intervention	5	1	20.0%	3	60.0%	1	20.0%	0	0.0%	0	0.0%
- Neurodevelopmental disabilities	33	21	63.6%	8	24.2%	4	12.1%	0	0.0%	0	0.0%
- Neuromuscular medicine	93	50	53.8%	26	28.0%	10	10.8%	7	7.5%	0	0.0%
- Vascular neurology	202	111	55.0%	72	35.6%	17	8.4%	2	1.0%	0	0.0%
Child neurology	489	333	68.1%	101	20.7%	54	11.0%	1	0.2%	0	0.0%
Nuclear medicine	81	13	16.0%	60	74.1%	8	9.9%	0	0.0%	0	0.0%
Obstetrics and gynecology	6,076	4,663	76.7%	400	6.6%	1,012	16.7%	1	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	167	146	87.4%	7	4.2%	14	8.4%	0	0.0%	0	0.0%
- Gynecologic oncology	249	233	93.6%	9	3.6%	7	2.8%	0	0.0%	0	0.0%
- Maternal-fetal medicine	435	358	82.3%	42	9.7%	33	7.6%	2	0.5%	0	0.0%
- Reproductive endocrinology and infertility	176	151	85.8%	17	9.7%	7	4.0%	1	0.6%	0	0.0%
- Complex family planning	58	55	94.8%	1	1.7%	2	3.4%	0	0.0%	0	0.0%
Ophthalmology	1,764	1,609	91.2%	63	3.6%	91	5.2%	1	0.1%	0	0.0%
- Ophthalmic plastic and reconstructive surgery	5	5	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Orthopaedic surgery	4,538	3,854	84.9%	66	1.5%	616	13.6%	2	0.0%	0	0.0%
- Adult reconstructive orthopaedics	53	42	79.2%	3	5.7%	8	15.1%	0	0.0%	0	0.0%
- Foot and ankle orthopaedics	17	10	58.8%	7	41.2%	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	162	149	92.0%	4	2.5%	6	3.7%	3	1.9%	0	0.0%
- Musculoskeletal oncology	16	15	93.8%	0	0.0%	0	0.0%	1	6.3%	0	0.0%
- Orthopaedic sports medicine	216	171	79.2%	17	7.9%	27	12.5%	1	0.5%	0	0.0%
- Orthopaedic surgery of the spine	26	21	80.8%	1	3.8%	4	15.4%	0	0.0%	0	0.0%
- Orthopaedic trauma	19	17	89.5%	1	5.3%	0	0.0%	1	5.3%	0	0.0%
- Pediatric orthopaedics	34	17	50.0%	15	44.1%	2	5.9%	0	0.0%	0	0.0%
Osteopathic neuromusculoskeletal medicine	83	3	3.6%	3	3.6%	77	92.8%	0	0.0%	0	0.0%
Otolaryngology - head and neck Surgery	1,836	1,694	92.3%	31	1.7%	111	6.0%	0	0.0%	0	0.0%
- Neurotology	39	35	89.7%	2	5.1%	1	2.6%	1	2.6%	0	0.0%
- Pediatric otolaryngology	44	34	77.3%	6	13.6%	3	6.8%	1	2.3%	0	0.0%
Pathology-anatomic and clinical	2,349	947	40.3%	1,101	46.9%	301	12.8%	0	0.0%	0	0.0%
- Blood banking/transfusion medicine	45	18	40.0%	21	46.7%	4	8.9%	2	4.4%	0	0.0%
- Clinical informatics	22	11	50.0%	10	45.5%	1	4.5%	0	0.0%	0	0.0%
- Chemical pathology	2	2	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Cytopathology	106	38	35.8%	59	55.7%	9	8.5%	0	0.0%	0	0.0%
- Forensic pathology	61	28	45.9%	12	19.7%	20	32.8%	1	1.6%	0	0.0%
- Hematopathology	127	45	35.4%	65	51.2%	14	11.0%	3	2.4%	0	0.0%
- Medical microbiology	9	6	66.7%	3	33.3%	0	0.0%	0	0.0%	0	0.0%
- Neuropathology	59	30	50.8%	24	40.7%	5	8.5%	0	0.0%	0	0.0%
- Pediatric pathology	15	9	60.0%	5	33.3%	0	0.0%	1	6.7%	0	0.0%
- Selective pathology	185	47	25.4%	122	65.9%	9	4.9%	7	3.8%	0	0.0%
Pediatrics	9,695	5,688	58.7%	2,123	21.9%	1,879	19.4%	5	0.1%	0	0.0%
- Adolescent medicine	97	75	77.3%	11	11.3%	11	11.3%	0	0.0%	0	0.0%
- Child abuse pediatrics	58	41	70.7%	8	13.8%	9	15.5%	0	0.0%	0	0.0%
- Clinical informatics	30	25	83.3%	3	10.0%	2	6.7%	0	0.0%	0	0.0%
- Developmental-behavioral pediatrics	110	55	50.0%	36	32.7%	19	17.3%	0	0.0%	0	0.0%
- Neonatal-perinatal medicine	851	493	57.9%	231	27.1%	127	14.9%	0	0.0%	0	0.0%
- Pediatric cardiology	496	322	64.9%	120	24.2%	54	10.9%	0	0.0%	0	0.0%
- Pediatric critical care medicine	623	439	70.5%	112	18.0%	72	11.6%	0	0.0%	0	0.0%
- Pediatric emergency medicine	468	332	70.9%	65	13.9%	70	15.0%	1	0.2%	0	0.0%
- Pediatric endocrinology	232	113	48.7%	89	38.4%	29	12.5%	1	0.4%	0	0.0%
- Pediatric gastroenterology	344	205	59.6%	92	26.7%	47	13.7%	0	0.0%	0	0.0%
- Pediatric hematology/oncology	480	291	60.6%	121	25.2%	67	14.0%	1	0.2%	0	0.0%
- Pediatric infectious diseases	179	104	58.1%	61	34.1%	14	7.8%	0	0.0%	0	0.0%

TABLE C.15 *Continued*

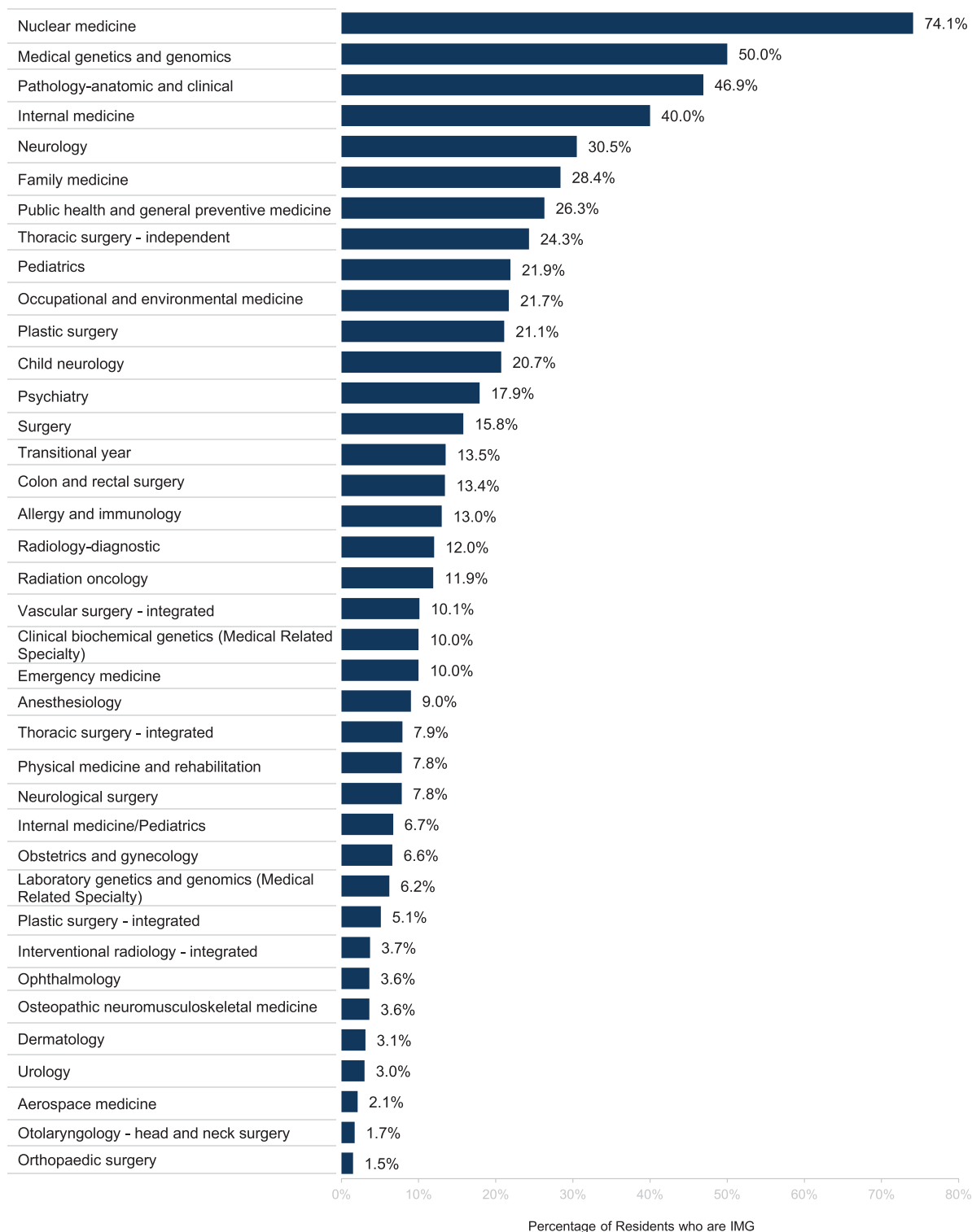
Number of Active Residents by Specialty and Subspecialty and Medical School Type

Specialty	Total Residents	US LCME - Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
- Pediatric nephrology	147	91	61.9%	39	26.5%	17	11.6%	0	0.0%	0	0.0%
- Pediatric pulmonology	197	106	53.8%	67	34.0%	24	12.2%	0	0.0%	0	0.0%
- Pediatric rheumatology	101	71	70.3%	27	26.7%	3	3.0%	0	0.0%	0	0.0%
- Sports medicine	27	11	40.7%	4	14.8%	12	44.4%	0	0.0%	0	0.0%
- Pediatric transplant hepatology	12	7	58.3%	4	33.3%	0	0.0%	1	8.3%	0	0.0%
- Pediatric hospital medicine	210	158	75.2%	14	6.7%	38	18.1%	0	0.0%	0	0.0%
Physical medicine and rehabilitation	1,738	954	54.9%	135	7.8%	648	37.3%	1	0.1%	0	0.0%
- Brain injury medicine	22	12	54.5%	3	13.6%	7	31.8%	0	0.0%	0	0.0%
- Neuromuscular medicine	1	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%
- Spinal cord injury medicine	26	18	69.2%	1	3.8%	6	23.1%	1	3.8%	0	0.0%
- Pediatric rehabilitation medicine	38	28	73.7%	3	7.9%	7	18.4%	0	0.0%	0	0.0%
- Sports medicine	42	25	59.5%	4	9.5%	12	28.6%	1	2.4%	0	0.0%
Plastic surgery	199	140	70.4%	42	21.1%	17	8.5%	0	0.0%	0	0.0%
Plastic Surgery - integrated	1,160	1,091	94.1%	59	5.1%	10	0.9%	0	0.0%	0	0.0%
- Craniofacial surgery	6	4	66.7%	2	33.3%	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	29	26	89.7%	1	3.4%	0	0.0%	2	6.9%	0	0.0%
Public health and general preventive medicine	175	108	61.7%	46	26.3%	19	10.9%	2	1.1%	0	0.0%
- Undersea and hyperbaric medicine	2	1	50.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%
Aerospace medicine	47	33	70.2%	1	2.1%	11	23.4%	2	4.3%	0	0.0%
Occupational and environmental medicine	115	61	53.0%	25	21.7%	28	24.3%	1	0.9%	0	0.0%
Psychiatry	8,097	5,122	63.3%	1,448	17.9%	1,526	18.8%	1	0.0%	0	0.0%
- Addiction medicine (multidisciplinary)	196	99	50.5%	59	30.1%	36	18.4%	2	1.0%	0	0.0%
- Addiction psychiatry	91	49	53.8%	31	34.1%	11	12.1%	0	0.0%	0	0.0%
- Child and adolescent psychiatry	1,004	613	61.1%	226	22.5%	165	16.4%	0	0.0%	0	0.0%
- Forensic psychiatry	87	55	63.2%	14	16.1%	18	20.7%	0	0.0%	0	0.0%
- Geriatric psychiatry	52	27	51.9%	15	28.8%	10	19.2%	0	0.0%	0	0.0%
- Consultation-liaison psychiatry	92	57	62.0%	24	26.1%	9	9.8%	2	2.2%	0	0.0%
Radiation oncology	746	617	82.7%	89	11.9%	40	5.4%	0	0.0%	0	0.0%
Radiology-diagnostic	4,698	3,390	72.2%	566	12.0%	741	15.8%	1	0.0%	0	0.0%
- Abdominal radiology	54	30	55.6%	20	37.0%	0	0.0%	4	7.4%	0	0.0%
- Musculoskeletal radiology	41	25	61.0%	10	24.4%	6	14.6%	0	0.0%	0	0.0%
- Neuroendovascular intervention	8	4	50.0%	4	50.0%	0	0.0%	0	0.0%	0	0.0%
- Neuroradiology	314	208	66.2%	63	20.1%	42	13.4%	1	0.3%	0	0.0%
- Nuclear radiology	11	5	45.5%	6	54.5%	0	0.0%	0	0.0%	0	0.0%
- Pediatric radiology	53	21	39.6%	24	45.3%	6	11.3%	2	3.8%	0	0.0%
Interventional radiology - independent	150	91	60.7%	38	25.3%	20	13.3%	1	0.7%	0	0.0%
Interventional radiology - integrated	782	680	87.0%	29	3.7%	73	9.3%	0	0.0%	0	0.0%
Surgery	9,743	6,782	69.6%	1,537	15.8%	1,416	14.5%	8	0.1%	0	0.0%
- Complex general surgical oncology	133	99	74.4%	27	20.3%	2	1.5%	5	3.8%	0	0.0%
- Hand surgery	9	6	66.7%	0	0.0%	3	33.3%	0	0.0%	0	0.0%
- Pediatric surgery	87	82	94.3%	4	4.6%	1	1.1%	0	0.0%	0	0.0%
- Surgical critical care	349	237	67.9%	52	14.9%	57	16.3%	3	0.9%	0	0.0%
- Vascular surgery - independent	279	197	70.6%	42	15.1%	40	14.3%	0	0.0%	0	0.0%
Vascular surgery - integrated	407	346	85.0%	41	10.1%	20	4.9%	0	0.0%	0	0.0%
Thoracic surgery - independent	251	177	70.5%	61	24.3%	13	5.2%	0	0.0%	0	0.0%
- Congenital cardiac surgery	8	7	87.5%	0	0.0%	0	0.0%	1	12.5%	0	0.0%
Thoracic surgery - integrated	254	230	90.6%	20	7.9%	4	1.6%	0	0.0%	0	0.0%
Urology	1,883	1,697	90.1%	56	3.0%	130	6.9%	0	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	38	31	81.6%	2	5.3%	3	7.9%	2	5.3%	0	0.0%
- Pediatric urology	35	28	80.0%	3	8.6%	3	8.6%	1	2.9%	0	0.0%
Transitional year	2,031	1,309	64.5%	274	13.5%	447	22.0%	1	0.0%	0	0.0%
Internal medicine/Pediatrics	1,556	1,290	82.9%	104	6.7%	162	10.4%	0	0.0%	0	0.0%
Health care administration, leadership, and management	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

Note: Pipeline specialties are highlighted. Abbreviations: LCME, Liaison Committee on Medical Education.

FIGURE C.16

Specialties Organized by Largest Percentages of Active Residents who are International Medical Graduates



Abbreviations: IMG, international medical school graduates.

TABLE C.17

Number of Active Residents by Medical School Type and State

State Name	State Abbreviation	Total Residents	Medical School Type				
			US LCME-Accredited Medical School	International Medical School	Osteopathic Medical School	Canadian Medical School	US Medical School Unknown
OVERALL	-	162,644	94,858	38,068	29,481	152	85
Alabama	AL	1,940	1,174	464	301	0	1
Alaska	AK	35	19	0	16	0	0
Arizona	AZ	2,361	1,311	411	638	1	0
Arkansas	AR	1,237	544	438	255	0	0
California	CA	15,270	11,020	2,128	2,088	29	5
Colorado	CO	1,797	1,363	113	318	0	3
Connecticut	CT	2,687	1,470	925	284	4	4
Delaware	DE	461	205	86	169	1	0
District of Columbia	DC	1,810	1,219	450	141	0	0
Florida	FL	8,922	3,858	2,965	2,095	4	0
Georgia	GA	3,445	2,022	887	531	3	2
Hawaii	HI	473	292	69	112	0	0
Idaho	ID	223	102	29	92	0	0
Illinois	IL	7,303	4,301	1,744	1,253	4	1
Indiana	IN	1,749	1,054	295	399	0	1
Iowa	IA	1,087	639	203	244	0	1
Kansas	KS	978	585	177	215	0	1
Kentucky	KY	1,650	973	287	390	0	0
Louisiana	LA	2,465	1,472	726	267	0	0
Maine	ME	394	225	56	113	0	0
Maryland	MD	3,537	2,371	788	366	6	6
Massachusetts	MA	6,246	4,617	1,239	360	28	2
Michigan	MI	7,702	3,328	2,229	2,137	6	2
Minnesota	MN	2,495	1,746	496	240	8	5
Mississippi	MS	1,048	490	297	261	0	0
Missouri	MO	3,374	2,094	685	592	2	1
Montana	MT	83	33	13	37	0	0
Nebraska	NE	958	560	210	188	0	0
Nevada	NV	1,009	359	207	443	0	0
New Hampshire	NH	537	358	92	87	0	0
New Jersey	NJ	4,624	1,480	1,943	1,199	2	0
New Mexico	NM	794	455	165	174	0	0
New York	NY	19,963	10,253	7,313	2,371	19	7
North Carolina	NC	4,396	3,151	503	734	3	5
North Dakota	ND	192	89	87	16	0	0
Ohio	OH	7,947	4,269	1,645	2,018	8	7
Oklahoma	OK	1,332	514	181	637	0	0
Oregon	OR	1,211	837	112	260	1	1
Pennsylvania	PA	10,320	5,546	2,369	2,391	6	8
Puerto Rico	PR	1,003	625	377	0	0	1
Rhode Island	RI	948	685	166	96	1	0
South Carolina	SC	2,072	1,267	261	542	0	2
South Dakota	SD	168	79	51	38	0	0
Tennessee	TN	2,885	2,100	411	372	1	1
Texas	TX	11,251	6,948	2,262	2,032	3	6
Utah	UT	965	792	81	85	2	5
Vermont	VT	344	267	33	44	0	0
Virginia	VA	3,202	1,955	471	773	1	2
Washington	WA	2,405	1,801	182	416	5	1
West Virginia	WV	1,086	473	349	264	0	0
Wisconsin	WI	2,218	1,459	384	367	4	4
Wyoming	WY	42	9	13	20	0	0

Abbreviations: LCME, Liaison Committee on Medical Education.

TABLE C.18

Mean Age of Year 1 Residents by Specialty and Subspecialty and Medical School Type

Specialty	OVERALL Age (Avg)	Medical School Type				
		US LCME - Accredited Medical School	International Medical School	Osteopathic Medical School	Canadian Medical School	US Medical School Unknown
OVERALL	30.9	30.2	32.8	30.4	32.7	39.5
TOTAL PIPELINE	29.9	29.2	31.7	29.8	32.7	40.0
Allergy and immunology	32.0	31.6	34.0	31.9		
Anesthesiology	29.3	28.9	31.8	29.9		
- Adult cardiothoracic anesthesiology	33.1	32.6	35.1	33.2	34.0	
- Critical care medicine	34.0	33.6	35.6	33.4	35.5	
- Obstetric anesthesiology	34.1	33.0	37.8	32.0	32.0	
- Pain medicine (multidisciplinary)	34.0	33.4	37.1	33.6		
- Pediatric anesthesiology	33.4	33.0	36.3	33.2	34.0	
- Pediatric cardiac anesthesiology	36.3	35.4	37.2	36.3		
- Regional anesthesiology and acute pain medicine	33.5	33.0	35.2	33.3		
Colon and rectal surgery	34.2	34.3	33.5	34.3	32.5	
Dermatology	30.1	30.0	33.0	30.5		
- Dermatopathology (multidisciplinary)	34.1	32.8	38.4	33.0		
- Micrographic surgery and dermatologic oncology	33.2	33.0	37.7	33.3	33.0	
- Pediatric dermatology	33.3	33.1	34.2		32.0	
Emergency medicine	30.2	29.6	32.2	30.1		61.0
- Emergency medical services	33.2	32.7	35.3	33.7		
- Medical toxicology	32.1	32.0	33.2	32.0	30.0	
- Pediatric emergency medicine	32.2	32.1	32.9	31.8		
- Sports medicine	31.6	31.2		32.3		
- Undersea and hyperbaric medicine	34.2	33.7	42.0	31.0	34.0	
Family medicine	30.9	29.5	33.4	30.0	42.0	31.0
- Clinical informatics	38.9	37.6	39.0	52.0		
- Geriatric medicine	36.4	34.7	39.8	33.3		
- Hospice and palliative medicine (multidisciplinary)	35.5	35.4	36.5	34.3		
- Sports medicine	32.9	32.8	33.7	32.8		
Internal medicine	29.8	28.9	30.9	29.5	36.3	28.0
- Adult congenital heart disease	36.7	35.7	39.4		36.0	
- Advanced heart failure and transplant cardiology	35.1	34.4	36.4	34.3	31.5	
- Cardiovascular disease	32.2	31.8	32.9	32.0	32.0	
- Clinical cardiac electrophysiology	35.1	34.5	35.7	35.6		
- Clinical informatics	35.0	34.4	36.8	32.7		
- Critical care medicine	33.8	32.7	34.3	34.1		
- Endocrinology, diabetes, and metabolism	33.4	32.0	34.4	32.3		
- Gastroenterology	32.1	31.5	33.5	31.9		
- Geriatric medicine	34.7	33.6	35.8	33.5		
- Hematology and medical oncology	32.9	32.3	33.9	32.3	27.0	
- Infectious disease	33.5	32.7	34.6	32.7	28.0	
- Interventional cardiology	35.6	34.6	36.4	35.0	35.0	
- Interventional pulmonology	34.0	34.0	34.0	34.0		
- Medical oncology	38.5		38.5			
- Nephrology	33.8	32.2	34.8	32.2		
- Pulmonary disease	34.6	33.0	35.2	33.1		
- Pulmonary disease and critical care medicine	32.6	32.1	33.0	32.7	31.0	
- Rheumatology	32.5	31.7	33.5	32.3		
- Sleep medicine (multidisciplinary)	35.1	35.3	35.9	32.7	38.0	
- Transplant hepatology	34.7	34.5	36.0	34.8	31.5	
Medical genetics and genomics	35.9	34.2	37.6	34.5		
- Medical biochemical genetics	35.4	35.0	36.3	37.0		
- Molecular genetic pathology (multidisciplinary)	37.6	36.3	39.4	33.5	32.0	
Clinical biochemical genetics	36.3	35.0	38.0			
Laboratory genetics and genomics	37.3	40.5	34.5			38.0
Neurological surgery	29.4	29.3	31.4	29.3		
- Neuroendovascular intervention	35.0	35.5	34.0			

TABLE C.18 *Continued***Mean Age of Year 1 Residents by Specialty and Subspecialty and Medical School Type**

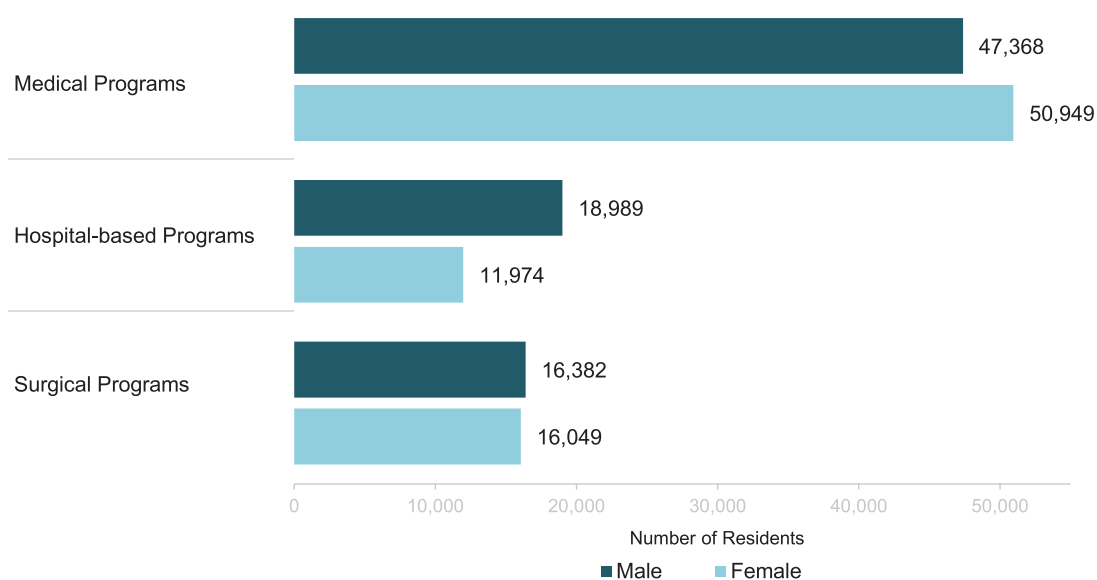
Specialty	OVERALL Age (Avg)	Medical School Type				
		US LCME - Accredited Medical School	International Medical School	Osteopathic Medical School	Canadian Medical School	US Medical School Unknown
Neurology	29.8	29.2	31.1	29.9	26.0	
- Clinical neurophysiology	34.0	32.9	35.7	34.3	34.0	
- Epilepsy	33.5	33.2	34.1	34.1	30.0	
- Neurocritical care (multidisciplinary)	35.2	34.8	36.3	33.8		
- Neuroendovascular intervention	38.7		36.5	43.0		
- Neurodevelopmental disabilities	32.6	32.6	33.3	31.5		
- Neuromuscular medicine	33.5	32.9	35.2	32.8	33.1	
- Vascular neurology	33.7	33.3	34.5	32.9	30.0	
Child neurology	31.0	30.6	32.8	29.8		
Nuclear medicine	34.5	30.5	36.1	33.4		
Obstetrics and gynecology	28.8	28.5	31.1	28.9		
- Female pelvic medicine and reconstructive surgery	32.4	32.2	32.5	33.6		
- Gynecologic oncology	33.0	32.9	35.0	33.0		
- Maternal-fetal medicine	32.5	32.3	34.0	32.8	33.0	
- Reproductive endocrinology and infertility	32.6	32.3	36.0	32.0		
- Complex family planning	32.3	32.3	33.0			
Ophthalmology	29.2	29.1	34.5	29.1		
- Ophthalmic plastic and reconstructive surgery	33.3	33.3				
Orthopaedic surgery	28.9	28.8	31.8	29.3	29.5	
- Adult reconstructive orthopaedics	34.1	33.8	38.3	34.1		
- Foot and ankle orthopaedics	34.4	32.8	36.7			
- Hand surgery	33.7	33.7	35.8	33.0	33.0	
- Musculoskeletal oncology	32.9	33.1			30.0	
- Orthopaedic sports medicine	34.2	33.7	39.1	34.8	32.0	
- Orthopaedic surgery of the spine	34.0	33.7	44.0	33.0		
- Orthopaedic trauma	33.3	33.1	37.0		34.0	
- Pediatric orthopaedics	35.6	34.0	37.4	35.0		
Osteopathic neuromusculoskeletal medicine	36.1	29.0	28.0	37.1		
Otolaryngology - head and neck Surgery	28.7	28.5	33.8	29.7		
- Neurotology	34.2	34.1	41.0	30.0		
- Pediatric otolaryngology	33.5	33.1	35.0	36.3	30.0	
Pathology-anatomic and clinical	32.0	30.3	34.5	30.4		
- Blood banking/transfusion medicine	36.1	36.4	35.7	37.8	34.5	
- Clinical informatics	35.8	33.8	39.0			
- Chemical pathology	46.5	46.5				
- Cytopathology	36.9	35.3	38.5	33.8		
- Forensic pathology	35.1	35.6	36.3	34.1	31.0	
- Hematopathology	36.3	35.4	37.1	35.6	34.7	
- Medical microbiology	39.8	38.2	43.0			
- Neuropathology	36.2	35.1	37.3	33.0		
- Pediatric pathology	38.7	39.0	38.0		39.0	
- Selective pathology	37.3	34.6	38.8	33.6	33.9	
Pediatrics	29.2	28.5	31.2	28.9	29.5	
- Adolescent medicine	31.8	31.8	32.8	31.0		
- Child abuse pediatrics	33.6	31.8	39.5	35.2		
- Clinical informatics	32.7	32.6		34.0		
- Developmental-behavioral pediatrics	34.4	35.0	34.3	32.9		
- Neonatal-perinatal medicine	32.5	32.1	32.8	33.0		
- Pediatric cardiology	32.3	31.6	34.1	31.7		
- Pediatric critical care medicine	32.3	32.3	32.2	32.9		
- Pediatric emergency medicine	32.1	31.7	34.1	32.0		
- Pediatric endocrinology	32.9	31.7	35.0	32.0	27.0	
- Pediatric gastroenterology	32.1	31.6	32.7	32.4		
- Pediatric hematology/oncology	32.3	31.7	34.1	32.2		
- Pediatric infectious diseases	33.5	33.0	35.4	31.5		

TABLE C.18 *Continued*

Mean Age of Year 1 Residents by Specialty and Subspecialty and Medical School Type

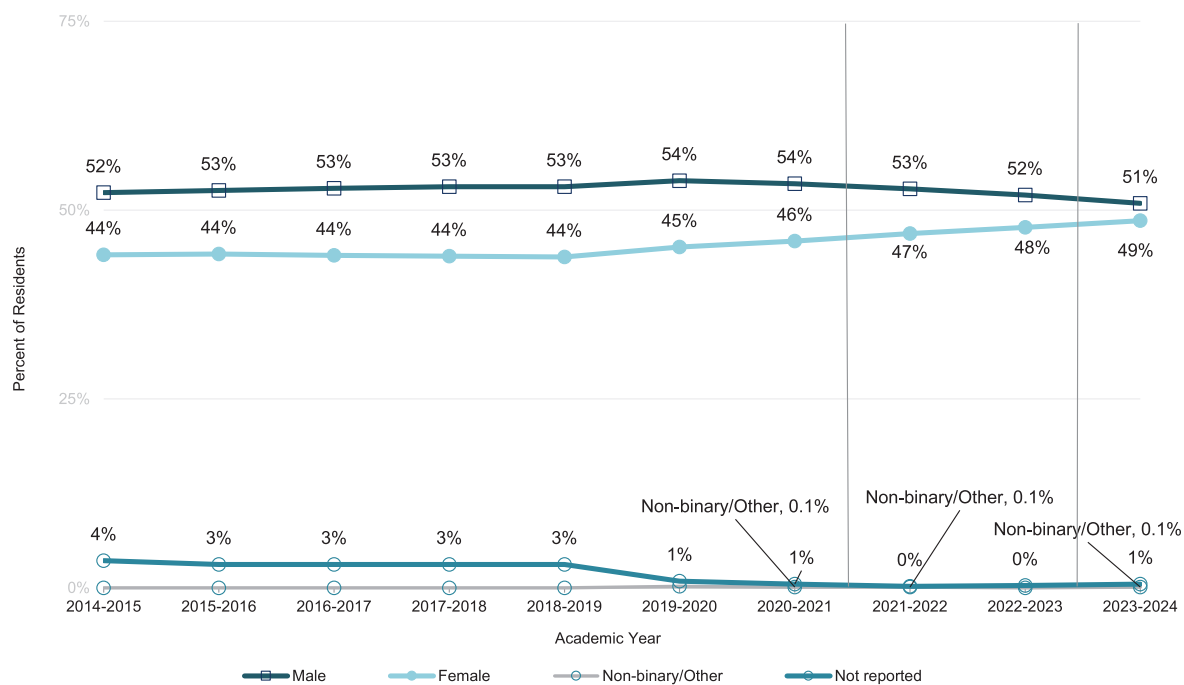
Specialty	OVERALL Age (Avg)	Medical School Type				
		US LCME - Accredited Medical School	International Medical School	Osteopathic Medical School	Canadian Medical School	US Medical School Unknown
- Pediatric nephrology	33.4	31.9	37.5	31.3		
- Pediatric pulmonology	32.5	31.3	34.1	33.4		
- Pediatric rheumatology	33.1	33.0	34.3	29.0		
- Sports medicine	32.8	33.4	34.3	31.8		
- Pediatric transplant hepatology	34.7	33.9	37.0		31.0	
- Pediatric hospital medicine	31.6	31.5	33.8	31.1		
Physical medicine and rehabilitation	30.0	29.6	33.4	30.1		
- Brain injury medicine	34.2	32.8	40.3	33.9		
- Neuromuscular medicine	33.0			33.0		
- Spinal cord injury medicine	33.7	33.9	41.0	32.3	31.0	
- Pediatric rehabilitation medicine	32.8	31.8		35.3		
- Sports medicine	33.3	32.6	37.8	33.3	32.0	
Plastic surgery	34.2	34.3	33.6	34.5		
Plastic Surgery - integrated	28.8	28.8	30.3	33.0		
- Craniofacial surgery	37.8	35.3	43.0			
- Hand surgery	34.1	34.1	38.0		32.0	
Public health and general preventive medicine	35.9	35.0	38.6	33.3	34.0	
- Undersea and hyperbaric medicine	40.5	37.0		44.0		
Aerospace medicine	39.1	39.4	43.0	32.5	43.0	
Occupational and environmental medicine	37.6	36.8	40.8	36.9	30.0	
Psychiatry	30.2	29.5	33.1	29.5	33.0	
- Addiction medicine (multidisciplinary)	36.2	35.7	38.5	33.8	34.0	
- Addiction psychiatry	36.2	35.2	38.7	33.1		
- Child and adolescent psychiatry	33.0	32.2	35.3	32.8		
- Forensic psychiatry	33.9	34.0	33.5	34.1		
- Geriatric psychiatry	35.3	34.6	38.0	32.9		
- Consultation-liaison psychiatry	33.7	32.9	36.4	31.4	31.5	
Radiation oncology	31.5	30.5	36.0	33.0		
Radiology-diagnostic	30.2	29.8	32.3	30.7		
- Abdominal radiology	33.6	33.0	34.9		30.8	
- Musculoskeletal radiology	36.3	35.1	38.7	37.5		
- Neuroendovascular intervention	34.4	34.0	35.0			
- Neuroradiology	34.5	33.7	36.9	34.7	33.0	
- Nuclear radiology	36.4	35.8	36.8			
- Pediatric radiology	35.5	34.5	37.0	35.2	30.0	
Interventional radiology - independent	35.1	34.5	36.3	35.7	30.0	
Interventional radiology - integrated	30.0	29.9	32.3	30.3		
Surgery	29.5	29.0	31.1	29.8	26.7	
- Complex general surgical oncology	35.1	35.3	35.1	36.0	32.5	
- Hand surgery	35.7	35.0		37.0		
- Pediatric surgery	35.8	35.9	34.7	35.0		
- Surgical critical care	35.2	34.8	36.6	35.5	34.3	
- Vascular surgery - independent	34.3	34.5	33.8	33.9		
Vascular surgery - integrated	29.6	29.3	32.3	30.4		
Thoracic surgery - independent	35.2	35.1	35.8	32.8		
- Congenital cardiac surgery	36.1	36.3			35.0	
Thoracic surgery - integrated	29.7	29.2	32.6	37.0		
Urology	29.1	28.8	33.9	29.8		
- Female pelvic medicine and reconstructive surgery	33.3	33.2	39.0	32.0	31.0	
- Pediatric urology	34.4	34.4	35.5	33.5	34.0	
Transitional year	29.6	29.0	32.5	29.7	33.0	
Internal medicine/Pediatrics	28.8	28.6	30.5	29.0		
Health care administration, leadership, and management						

Note: Pipeline specialties are highlighted. Abbreviations: LCME, Liaison Committee on Medical Education.

FIGURE C.19**Number of Active Residents by Specialty Group and Gender**

Note: Not shown are those residents for which gender is not reported (n = 819) and non-binary/other (n = 114).

Source: The gender and race/ethnicity reported since 2020-2021 academic year and forward are based upon self-reported data provided by the Association of American Medical Colleges ("AAMC").

FIGURE C.20**Percent of Active Residents by Gender and Academic Year, 2014-2015 to 2023-2024**

Source: The gender and race/ethnicity reported since 2020-2021 academic year and forward are based upon self-reported data provided by the Association of American Medical Colleges ("AAMC").

Note: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

TABLE C.21

Number of Active Residents by Specialty and Subspecialty and Gender

Specialty	Total Programs	Total Residents	Gender							
			Female		Male		Non-binary/Other		Not Reported	
			#	%	#	%	#	%	#	%
OVERALL	13,393	162,644	78,972	48.6%	82,739	50.9%	114	0.1%	819	0.5%
TOTAL PIPELINE	5,474	131,111	64,342	49.1%	66,068	50.4%	111	0.1%	590	0.5%
Allergy and immunology	90	330	199	60.3%	131	39.7%	0	0.0%	0	0.0%
Anesthesiology	167	7,488	2,761	36.9%	4,706	62.8%	1	0.0%	20	0.3%
- Adult cardiothoracic anesthesiology	75	257	80	31.1%	177	68.9%	0	0.0%	0	0.0%
- Critical care medicine	67	199	64	32.2%	133	66.8%	0	0.0%	2	1.0%
- Obstetric anesthesiology	41	49	27	55.1%	22	44.9%	0	0.0%	0	0.0%
- Pain medicine (multidisciplinary)	118	414	88	21.3%	326	78.7%	0	0.0%	0	0.0%
- Pediatric anesthesiology	61	150	72	48.0%	77	51.3%	0	0.0%	1	0.7%
- Pediatric cardiac anesthesiology	15	13	4	30.8%	8	61.5%	0	0.0%	1	7.7%
- Regional anesthesiology and acute pain medicine	44	84	33	39.3%	51	60.7%	0	0.0%	0	0.0%
Colon and rectal surgery	71	112	60	53.6%	52	46.4%	0	0.0%	0	0.0%
Dermatology	143	1,671	1,059	63.4%	612	36.6%	0	0.0%	0	0.0%
- Dermatopathology (multidisciplinary)	57	68	37	54.4%	31	45.6%	0	0.0%	0	0.0%
- Micrographic surgery and dermatologic oncology	85	93	43	46.2%	50	53.8%	0	0.0%	0	0.0%
- Pediatric dermatology	34	24	18	75.0%	5	20.8%	0	0.0%	1	4.2%
Emergency medicine	289	9,614	4,108	42.7%	5,475	56.9%	14	0.1%	17	0.2%
- Emergency medical services	83	108	38	35.2%	70	64.8%	0	0.0%	0	0.0%
- Medical toxicology	32	104	37	35.6%	66	63.5%	0	0.0%	1	1.0%
- Pediatric emergency medicine	29	151	100	66.2%	51	33.8%	0	0.0%	0	0.0%
- Sports medicine	8	16	7	43.8%	9	56.3%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	8	13	6	46.2%	7	53.8%	0	0.0%	0	0.0%
Family medicine	778	15,341	8,474	55.2%	6,725	43.8%	28	0.2%	114	0.7%
- Clinical informatics	8	23	8	34.8%	15	65.2%	0	0.0%	0	0.0%
- Geriatric medicine	44	45	28	62.2%	16	35.6%	0	0.0%	1	2.2%
- Hospice and palliative medicine (multidisciplinary)	190	484	306	63.2%	176	36.4%	0	0.0%	2	0.4%
- Sports medicine	174	301	84	27.9%	217	72.1%	0	0.0%	0	0.0%
Internal medicine	651	32,958	14,917	45.3%	17,791	54.0%	6	0.0%	244	0.7%
- Adult congenital heart disease	30	28	13	46.4%	14	50.0%	0	0.0%	1	3.6%
- Advanced heart failure and transplant cardiology	85	86	37	43.0%	46	53.5%	0	0.0%	3	3.5%
- Cardiovascular disease	281	3,605	1,054	29.2%	2,547	70.7%	0	0.0%	4	0.1%
- Clinical cardiac electrophysiology	118	340	53	15.6%	285	83.8%	0	0.0%	2	0.6%
- Clinical informatics	32	73	21	28.8%	52	71.2%	0	0.0%	0	0.0%
- Critical care medicine	67	374	123	32.9%	251	67.1%	0	0.0%	0	0.0%
- Endocrinology, diabetes, and metabolism	161	746	513	68.8%	229	30.7%	0	0.0%	4	0.5%
- Gastroenterology	238	2,067	815	39.4%	1,251	60.5%	0	0.0%	1	0.0%
- Geriatric medicine	120	254	155	61.0%	93	36.6%	0	0.0%	6	2.4%
- Hematology and medical oncology	187	2,186	1,012	46.3%	1,170	53.5%	0	0.0%	4	0.2%
- Infectious disease	168	830	415	50.0%	403	48.6%	0	0.0%	12	1.4%
- Interventional cardiology	183	376	46	12.2%	327	87.0%	0	0.0%	3	0.8%
- Interventional pulmonology	17	15	3	20.0%	12	80.0%	0	0.0%	0	0.0%
- Medical oncology	2	5	3	60.0%	2	40.0%	0	0.0%	0	0.0%
- Nephrology	151	887	349	39.3%	522	58.9%	0	0.0%	16	1.8%
- Pulmonary disease	19	52	17	32.7%	35	67.3%	0	0.0%	0	0.0%
- Pulmonary disease and critical care medicine	204	2,359	935	39.6%	1,420	60.2%	0	0.0%	4	0.2%
- Rheumatology	133	580	346	59.7%	233	40.2%	0	0.0%	1	0.2%
- Sleep medicine (multidisciplinary)	98	226	100	44.2%	126	55.8%	0	0.0%	0	0.0%
- Transplant hepatology	68	49	28	57.1%	19	38.8%	0	0.0%	2	4.1%
Medical genetics and genomics	47	60	42	70.0%	17	28.3%	0	0.0%	1	1.7%
- Medical biochemical genetics	22	14	9	64.3%	5	35.7%	0	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	43	59	26	44.1%	33	55.9%	0	0.0%	0	0.0%
Clinical biochemical genetics	15	10	2	20.0%	4	40.0%	0	0.0%	4	40.0%
Laboratory genetics and genomics	38	81	10	12.3%	8	9.9%	0	0.0%	63	77.8%
Neurological surgery	118	1,607	411	25.6%	1,195	74.4%	0	0.0%	1	0.1%
- Neuroendovascular intervention	3	3	1	33.3%	2	66.7%	0	0.0%	0	0.0%

TABLE C.21 *Continued*

Number of Active Residents by Specialty and Subspecialty and Gender

Specialty	Total Programs	Total Residents	Gender							
			Female		Male		Non-binary/Other		Not Reported	
			#	%	#	%	#	%	#	%
Neurology	188	3,711	1,842	49.6%	1,844	49.7%	2	0.1%	23	0.6%
- Clinical neurophysiology	97	141	67	47.5%	73	51.8%	0	0.0%	1	0.7%
- Epilepsy	99	151	74	49.0%	74	49.0%	1	0.7%	2	1.3%
- Neurocritical care (multidisciplinary)	52	167	72	43.1%	95	56.9%	0	0.0%	0	0.0%
- Neuroendovascular intervention	2	5	3	60.0%	2	40.0%	0	0.0%	0	0.0%
- Neurodevelopmental disabilities	10	33	22	66.7%	11	33.3%	0	0.0%	0	0.0%
- Neuromuscular medicine	57	93	46	49.5%	46	49.5%	0	0.0%	1	1.1%
- Vascular neurology	114	202	91	45.0%	111	55.0%	0	0.0%	0	0.0%
Child neurology	81	489	335	68.5%	153	31.3%	0	0.0%	1	0.2%
Nuclear medicine	36	81	32	39.5%	45	55.6%	0	0.0%	4	4.9%
Obstetrics and gynecology	295	6,076	5,335	87.8%	717	11.8%	10	0.2%	14	0.2%
- Female pelvic medicine and reconstructive surgery	58	167	135	80.8%	30	18.0%	0	0.0%	2	1.2%
- Gynecologic oncology	74	249	201	80.7%	47	18.9%	0	0.0%	1	0.4%
- Maternal-fetal medicine	109	435	345	79.3%	90	20.7%	0	0.0%	0	0.0%
- Reproductive endocrinology and infertility	52	176	142	80.7%	34	19.3%	0	0.0%	0	0.0%
- Complex family planning	35	58	58	100.0%	0	0.0%	0	0.0%	0	0.0%
Ophthalmology	126	1,764	715	40.5%	1,045	59.2%	0	0.0%	4	0.2%
- Ophthalmic plastic and reconstructive surgery	4	5	4	80.0%	1	20.0%	0	0.0%	0	0.0%
Orthopaedic surgery	209	4,538	1,016	22.4%	3,519	77.5%	1	0.0%	2	0.0%
- Adult reconstructive orthopaedics	26	53	2	3.8%	50	94.3%	0	0.0%	1	1.9%
- Foot and ankle orthopaedics	9	17	3	17.6%	14	82.4%	0	0.0%	0	0.0%
- Hand surgery	73	162	47	29.0%	115	71.0%	0	0.0%	0	0.0%
- Musculoskeletal oncology	12	16	2	12.5%	14	87.5%	0	0.0%	0	0.0%
- Orthopaedic sports medicine	93	216	21	9.7%	193	89.4%	0	0.0%	2	0.9%
- Orthopaedic surgery of the spine	16	26	1	3.8%	24	92.3%	0	0.0%	1	3.8%
- Orthopaedic trauma	12	19	6	31.6%	13	68.4%	0	0.0%	0	0.0%
- Pediatric orthopaedics	24	34	6	17.6%	25	73.5%	0	0.0%	3	8.8%
Osteopathic neuromusculoskeletal medicine	26	83	41	49.4%	42	50.6%	0	0.0%	0	0.0%
Otolaryngology - head and neck Surgery	131	1,836	813	44.3%	1,022	55.7%	1	0.1%	0	0.0%
- Neurotology	29	39	16	41.0%	23	59.0%	0	0.0%	0	0.0%
- Pediatric otolaryngology	34	44	21	47.7%	23	52.3%	0	0.0%	0	0.0%
Pathology-anatomic and clinical	142	2,349	1,270	54.1%	1,050	44.7%	5	0.2%	24	1.0%
- Blood banking/transfusion medicine	56	45	20	44.4%	25	55.6%	0	0.0%	0	0.0%
- Clinical informatics	10	22	8	36.4%	13	59.1%	0	0.0%	1	4.5%
- Chemical pathology	4	2	1	50.0%	1	50.0%	0	0.0%	0	0.0%
- Cytopathology	92	106	56	52.8%	49	46.2%	0	0.0%	1	0.9%
- Forensic pathology	50	61	35	57.4%	26	42.6%	0	0.0%	0	0.0%
- Hematopathology	86	127	61	48.0%	66	52.0%	0	0.0%	0	0.0%
- Medical microbiology	16	9	0	0.0%	9	100.0%	0	0.0%	0	0.0%
- Neuropathology	40	59	31	52.5%	28	47.5%	0	0.0%	0	0.0%
- Pediatric pathology	27	15	8	53.3%	6	40.0%	0	0.0%	1	6.7%
- Selective pathology	131	185	98	53.0%	86	46.5%	0	0.0%	1	0.5%
Pediatrics	218	9,695	7,192	74.2%	2,456	25.3%	11	0.1%	36	0.4%
- Adolescent medicine	33	97	82	84.5%	15	15.5%	0	0.0%	0	0.0%
- Child abuse pediatrics	33	58	43	74.1%	15	25.9%	0	0.0%	0	0.0%
- Clinical informatics	10	30	10	33.3%	20	66.7%	0	0.0%	0	0.0%
- Developmental-behavioral pediatrics	45	110	95	86.4%	15	13.6%	0	0.0%	0	0.0%
- Neonatal-perinatal medicine	110	851	624	73.3%	225	26.4%	0	0.0%	2	0.2%
- Pediatric cardiology	64	496	248	50.0%	248	50.0%	0	0.0%	0	0.0%
- Pediatric critical care medicine	76	623	433	69.5%	189	30.3%	0	0.0%	1	0.2%
- Pediatric emergency medicine	59	468	332	70.9%	135	28.8%	0	0.0%	1	0.2%
- Pediatric endocrinology	72	232	182	78.4%	44	19.0%	0	0.0%	6	2.6%
- Pediatric gastroenterology	67	344	237	68.9%	107	31.1%	0	0.0%	0	0.0%
- Pediatric hematology/oncology	79	480	333	69.4%	145	30.2%	0	0.0%	2	0.4%
- Pediatric infectious diseases	64	179	110	61.5%	64	35.8%	0	0.0%	5	2.8%

TABLE C.21 *Continued*

Number of Active Residents by Specialty and Subspecialty and Gender

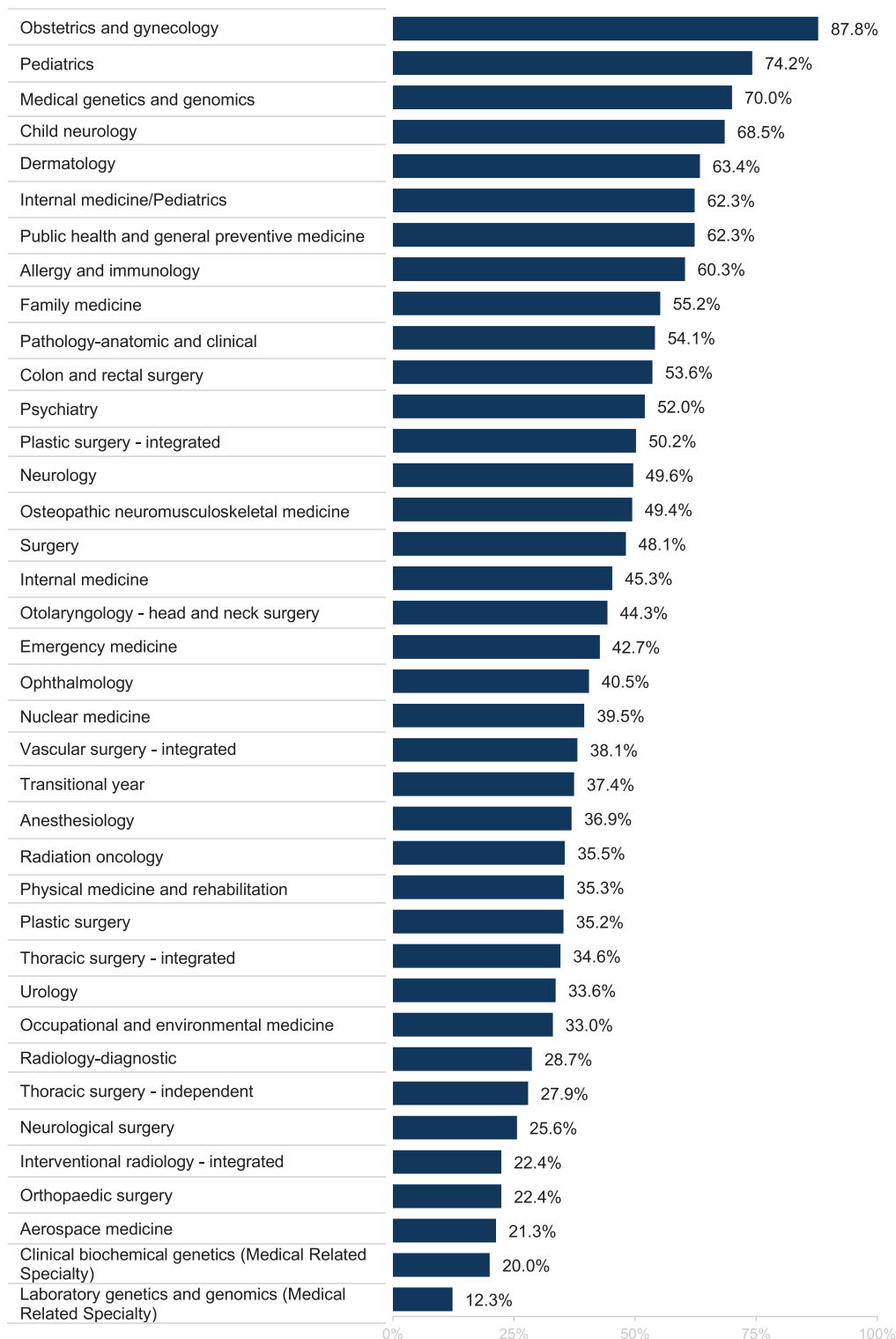
Specialty	Total Programs	Total Residents	Gender							
			Female		Male		Non-binary/Other		Not Reported	
			#	%	#	%	#	%	#	%
- Pediatric nephrology	48	147	101	68.7%	45	30.6%	0	0.0%	1	0.7%
- Pediatric pulmonology	57	197	132	67.0%	60	30.5%	0	0.0%	5	2.5%
- Pediatric rheumatology	38	101	78	77.2%	23	22.8%	0	0.0%	0	0.0%
- Sports medicine	17	27	7	25.9%	20	74.1%	0	0.0%	0	0.0%
- Pediatric transplant hepatology	17	12	9	75.0%	3	25.0%	0	0.0%	0	0.0%
- Pediatric hospital medicine	73	210	163	77.6%	46	21.9%	0	0.0%	1	0.5%
Physical medicine and rehabilitation	108	1,738	614	35.3%	1,123	64.6%	1	0.1%	0	0.0%
- Brain injury medicine	28	22	12	54.5%	9	40.9%	0	0.0%	1	4.5%
- Neuromuscular medicine	1	1	0	0.0%	1	100.0%	0	0.0%	0	0.0%
- Spinal cord injury medicine	26	26	12	46.2%	13	50.0%	0	0.0%	1	3.8%
- Pediatric rehabilitation medicine	23	38	27	71.1%	11	28.9%	0	0.0%	0	0.0%
- Sports medicine	24	42	19	45.2%	23	54.8%	0	0.0%	0	0.0%
Plastic surgery	47	199	70	35.2%	129	64.8%	0	0.0%	0	0.0%
Plastic Surgery - integrated	89	1,160	582	50.2%	577	49.7%	0	0.0%	1	0.1%
- Craniofacial surgery	9	6	2	33.3%	4	66.7%	0	0.0%	0	0.0%
- Hand surgery	19	29	9	31.0%	20	69.0%	0	0.0%	0	0.0%
Public health and general preventive medicine	42	175	109	62.3%	66	37.7%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	1	2	1	50.0%	1	50.0%	0	0.0%	0	0.0%
Aerospace medicine	5	47	10	21.3%	37	78.7%	0	0.0%	0	0.0%
Occupational and environmental medicine	23	115	38	33.0%	77	67.0%	0	0.0%	0	0.0%
Psychiatry	334	8,097	4,209	52.0%	3,830	47.3%	19	0.2%	39	0.5%
- Addiction medicine (multidisciplinary)	105	196	104	53.1%	90	45.9%	0	0.0%	2	1.0%
- Addiction psychiatry	55	91	33	36.3%	57	62.6%	0	0.0%	1	1.1%
- Child and adolescent psychiatry	155	1,004	602	60.0%	400	39.8%	1	0.1%	1	0.1%
- Forensic psychiatry	53	87	55	63.2%	32	36.8%	0	0.0%	0	0.0%
- Geriatric psychiatry	61	52	27	51.9%	25	48.1%	0	0.0%	0	0.0%
- Consultation-liaison psychiatry	69	92	50	54.3%	42	45.7%	0	0.0%	0	0.0%
Radiation oncology	89	746	265	35.5%	477	63.9%	0	0.0%	4	0.5%
Radiology-diagnostic	197	4,698	1,349	28.7%	3,343	71.2%	0	0.0%	6	0.1%
- Abdominal radiology	13	54	17	31.5%	34	63.0%	0	0.0%	3	5.6%
- Musculoskeletal radiology	21	41	10	24.4%	29	70.7%	0	0.0%	2	4.9%
- Neuroendovascular intervention	5	8	3	37.5%	5	62.5%	0	0.0%	0	0.0%
- Neuroradiology	91	314	54	17.2%	248	79.0%	0	0.0%	12	3.8%
- Nuclear radiology	20	11	3	27.3%	8	72.7%	0	0.0%	0	0.0%
- Pediatric radiology	48	53	22	41.5%	25	47.2%	0	0.0%	6	11.3%
Interventional radiology - independent	91	150	24	16.0%	125	83.3%	0	0.0%	1	0.7%
Interventional radiology - integrated	99	782	175	22.4%	607	77.6%	0	0.0%	0	0.0%
Surgery	364	9,743	4,688	48.1%	5,020	51.5%	9	0.1%	26	0.3%
- Complex general surgical oncology	34	133	58	43.6%	75	56.4%	0	0.0%	0	0.0%
- Hand surgery	2	9	1	11.1%	8	88.9%	0	0.0%	0	0.0%
- Pediatric surgery	52	87	38	43.7%	49	56.3%	0	0.0%	0	0.0%
- Surgical critical care	165	349	148	42.4%	198	56.7%	0	0.0%	3	0.9%
- Vascular surgery - independent	123	279	95	34.1%	183	65.6%	0	0.0%	1	0.4%
Vascular surgery - integrated	78	407	155	38.1%	251	61.7%	0	0.0%	1	0.2%
Thoracic surgery - independent	79	251	70	27.9%	181	72.1%	0	0.0%	0	0.0%
- Congenital cardiac surgery	17	8	5	62.5%	3	37.5%	0	0.0%	0	0.0%
Thoracic surgery - integrated	36	254	88	34.6%	166	65.4%	0	0.0%	0	0.0%
Urology	150	1,883	633	33.6%	1,246	66.2%	2	0.1%	2	0.1%
- Female pelvic medicine and reconstructive surgery	16	38	28	73.7%	9	23.7%	0	0.0%	1	2.6%
- Pediatric urology	27	35	18	51.4%	15	42.9%	0	0.0%	2	5.7%
Transitional year	190	2,031	760	37.4%	1,258	61.9%	1	0.0%	12	0.6%
Internal medicine/Pediatrics	77	1,556	970	62.3%	580	37.3%	1	0.1%	5	0.3%
Health care administration, leadership, and management	5	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%

Note: Pipeline specialties are highlighted.

Source: The gender and race/ethnicity reported since 2020-2021 academic year and forward are based upon self-reported data provided by the Association of American Medical Colleges ("AAMC").

FIGURE C.22

Specialties Organized by Largest Percentages of Active Female Residents



Source: The gender and race/ethnicity reported since 2020-2021 academic year and forward are based upon self-reported data provided by the Association of American Medical Colleges ("AAMC").

TABLE C.23

Number of Active Residents by Specialty and Subspecialty and Race/Ethnicity

Specialty	Race/Ethnicity								
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/ Ethnicity	Other	Unknown
OVERALL	75,182	44,362	16,218	10,716	171	76	7,366	5,526	3,027
TOTAL PIPELINE	61,068	34,648	13,348	9,010	146	63	6,240	4,357	2,231
Allergy and immunology	146	117	28	13	0	0	12	12	2
Anesthesiology	3,701	1,936	639	534	10	2	377	204	85
- Adult cardiothoracic anesthesiology	137	68	24	8	0	0	10	9	1
- Critical care medicine	109	46	17	5	0	0	9	6	7
- Obstetric anesthesiology	31	8	1	2	0	0	3	2	2
- Pain medicine (multidisciplinary)	191	126	29	28	0	1	12	16	11
- Pediatric anesthesiology	82	31	13	14	0	0	3	5	2
- Pediatric cardiac anesthesiology	7	2	1	1	0	0	0	2	0
- Regional anesthesiology and acute pain medicine	42	22	8	5	0	0	3	1	3
Colon and rectal surgery	62	22	15	3	0	0	6	2	2
Dermatology	829	404	146	115	3	0	91	68	15
- Dermatopathology (multidisciplinary)	43	15	3	1	0	0	2	2	2
- Micrographic surgery and dermatologic oncology	55	21	6	3	0	0	4	3	1
- Pediatric dermatology	12	6	0	0	1	0	2	1	2
Emergency medicine	5,735	1,473	1,036	557	11	3	485	261	53
- Emergency medical services	80	8	9	4	0	0	5	1	1
- Medical toxicology	63	18	10	4	0	1	5	3	0
- Pediatric emergency medicine	69	41	21	9	1	0	5	3	2
- Sports medicine	9	4	1	2	0	0	0	0	0
- Undersea and hyperbaric medicine	7	3	3	0	0	0	0	0	0
Family medicine	6,945	3,770	1,726	1,317	45	15	808	418	297
- Clinical informatics	13	7	1	1	0	0	0	1	0
- Geriatric medicine	12	15	7	4	0	0	2	3	2
- Hospice and palliative medicine (multidisciplinary)	242	140	45	13	2	0	19	17	6
- Sports medicine	167	61	25	17	1	1	15	13	1
Internal medicine	11,207	12,371	3,299	2,238	18	14	1,369	1,438	1,004
- Adult congenital heart disease	14	7	1	4	0	0	0	0	2
- Advanced heart failure and transplant cardiology	37	33	7	2	0	0	3	2	2
- Cardiovascular disease	1,340	1,336	280	244	2	1	128	182	92
- Clinical cardiac electrophysiology	140	123	27	17	0	0	12	11	10
- Clinical informatics	26	35	3	3	0	1	2	3	0
- Critical care medicine	158	129	31	27	1	0	18	10	0
- Endocrinology, diabetes, and metabolism	218	326	99	33	0	0	20	32	18
- Gastroenterology	744	814	203	108	1	2	60	105	30
- Geriatric medicine	78	86	29	26	0	1	7	9	18
- Hematology and medical oncology	823	908	142	109	1	0	75	77	51
- Infectious disease	360	238	107	36	0	0	30	35	24
- Interventional cardiology	128	158	24	24	0	0	11	20	11
- Interventional pulmonology	6	7	0	1	0	0	0	1	0
- Medical oncology	1	3	1	0	0	0	0	0	0
- Nephrology	220	396	96	56	2	1	26	40	50
- Pulmonary disease	9	30	5	4	0	0	3	0	1
- Pulmonary disease and critical care medicine	1,085	759	202	92	1	0	80	94	46
- Rheumatology	231	230	43	30	0	0	12	17	17
- Sleep medicine (multidisciplinary)	97	87	17	6	0	0	6	10	3
- Transplant hepatology	16	23	0	2	0	0	0	4	4
Medical genetics and genomics	28	17	9	0	1	0	2	1	2
- Medical biochemical genetics	10	2	2	0	0	0	0	0	0
- Molecular genetic pathology (multidisciplinary)	30	15	5	5	0	0	1	1	2
Clinical biochemical genetics	1	0	1	2	0	0	1	0	5
Laboratory genetics and genomics	8	4	1	0	0	0	0	0	68
Neurological surgery	818	371	156	96	1	0	83	71	11
- Neuroendovascular intervention	1	1	0	1	0	0	0	0	0

Specialty	Race/Ethnicity								
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/ Ethnicity	Other	Unknown
Neurology	1,494	1,190	406	171	3	4	174	180	89
- Clinical neurophysiology	56	50	15	6	0	1	4	3	6
- Epilepsy	63	53	16	4	0	0	5	6	4
- Neurocritical care (multidisciplinary)	68	58	18	8	0	0	7	5	3
- Neuroendovascular intervention	2	2	0	0	0	0	1	0	0
- Neurodevelopmental disabilities	16	6	3	1	0	0	6	1	0
- Neuromuscular medicine	41	25	11	1	0	0	2	6	7
- Vascular neurology	82	76	15	10	0	0	8	9	2
Child neurology	250	117	57	15	0	1	25	16	8
Nuclear medicine	29	23	10	2	0	0	2	4	11
Obstetrics and gynecology	3,374	899	695	615	8	2	297	137	49
- Female pelvic medicine and reconstructive surgery	98	32	14	14	0	0	5	2	2
- Gynecologic oncology	152	47	23	9	0	0	14	2	2
- Maternal-fetal medicine	259	69	43	35	0	0	12	14	3
- Reproductive endocrinology and infertility	103	35	13	12	0	0	5	8	0
- Complex family planning	36	10	5	5	0	0	1	1	0
Ophthalmology	817	580	129	87	0	0	76	55	20
- Ophthalmic plastic and reconstructive surgery	1	4	0	0	0	0	0	0	0
Orthopaedic surgery	2,999	619	349	264	3	3	184	91	26
- Adult reconstructive orthopaedics	34	7	3	1	0	0	3	2	3
- Foot and ankle orthopaedics	9	2	0	0	0	0	0	2	4
- Hand surgery	103	31	11	4	0	0	6	5	2
- Musculoskeletal oncology	10	1	1	1	0	0	2	0	1
- Orthopaedic sports medicine	152	22	17	11	1	0	5	4	4
- Orthopaedic surgery of the spine	18	5	0	3	0	0	0	0	0
- Orthopaedic trauma	12	4	1	1	0	0	1	0	0
- Pediatric orthopaedics	15	4	4	0	0	0	2	5	4
Osteopathic neuromusculoskeletal medicine	50	16	3	2	0	0	9	2	1
Otolaryngology - head and neck Surgery	1,027	441	129	85	2	0	91	52	9
- Neurotology	21	10	4	1	0	0	2	1	0
- Pediatric otolaryngology	26	5	2	2	0	0	2	5	2
Pathology-anatomic and clinical	1,016	653	234	159	2	1	108	93	83
- Blood banking/transfusion medicine	23	15	1	3	0	0	2	0	1
- Clinical informatics	10	6	2	1	0	0	1	2	0
- Chemical pathology	2	0	0	0	0	0	0	0	0
- Cytopathology	45	30	10	6	0	0	3	9	3
- Forensic pathology	40	5	8	3	0	0	3	1	1
- Hematopathology	55	45	4	7	0	0	2	4	10
- Medical microbiology	7	0	1	1	0	0	0	0	0
- Neuropathology	34	12	7	0	0	0	4	2	0
- Pediatric pathology	9	0	1	2	0	0	0	0	3
- Selective pathology	75	64	12	5	0	0	5	16	8
Pediatrics	4,780	2,253	1,173	666	9	2	406	279	127
- Adolescent medicine	54	17	6	14	0	0	5	0	1
- Child abuse pediatrics	27	17	7	3	1	0	0	3	0
- Clinical informatics	16	11	2	0	0	0	0	1	0
- Developmental-behavioral pediatrics	61	29	13	4	0	0	0	2	1
- Neonatal-perinatal medicine	415	203	102	63	0	0	33	19	16
- Pediatric cardiology	279	124	39	20	0	0	9	19	6
- Pediatric critical care medicine	391	113	51	24	0	0	27	13	4
- Pediatric emergency medicine	270	85	46	32	1	0	23	10	1
- Pediatric endocrinology	115	53	26	6	0	0	2	12	18
- Pediatric gastroenterology	137	99	52	23	0	0	18	9	6
- Pediatric hematology/oncology	271	106	37	24	0	0	20	16	6
- Pediatric infectious diseases	89	39	23	4	1	0	7	3	13

TABLE C.23 *Continued*

Number of Active Residents by Specialty and Subspecialty and Race/Ethnicity

Specialty	Race/Ethnicity								Unknown
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/Ethnicity	Other	
- Pediatric nephrology	68	35	20	9	0	0	4	6	5
- Pediatric pulmonology	86	56	24	9	0	1	5	11	5
- Pediatric rheumatology	51	18	15	3	0	0	6	5	3
- Sports medicine	22	3	0	1	0	0	1	0	0
- Pediatric transplant hepatology	7	4	0	0	0	0	0	0	1
- Pediatric hospital medicine	119	47	18	13	0	0	6	5	2
Physical medicine and rehabilitation	847	487	165	118	1	0	79	35	6
- Brain injury medicine	9	7	1	0	0	0	2	3	0
- Neuromuscular medicine	0	1	0	0	0	0	0	0	0
- Spinal cord injury medicine	14	7	2	1	0	0	1	0	1
- Pediatric rehabilitation medicine	20	8	6	0	0	0	2	2	0
- Sports medicine	26	6	3	4	0	0	2	0	1
Plastic surgery	106	39	22	10	0	0	16	5	1
Plastic Surgery - integrated	632	254	112	48	1	0	67	36	10
- Craniofacial surgery	4	1	1	0	0	0	0	0	0
- Hand surgery	20	6	2	0	0	0	1	0	0
Public health and general preventive medicine	69	42	13	23	0	1	17	6	4
- Undersea and hyperbaric medicine	2	0	0	0	0	0	0	0	0
Aerospace medicine	38	1	3	1	0	0	3	0	1
Occupational and environmental medicine	57	31	8	8	0	0	8	3	0
Psychiatry	3,521	2,189	884	684	8	2	463	262	84
- Addiction medicine (multidisciplinary)	97	48	17	18	0	0	6	7	3
- Addiction psychiatry	34	32	12	6	0	0	3	3	1
- Child and adolescent psychiatry	425	295	116	73	3	1	47	32	12
- Forensic psychiatry	53	15	10	7	0	0	2	0	0
- Geriatric psychiatry	26	10	6	2	0	0	3	2	3
- Consultation-liaison psychiatry	47	23	10	5	0	0	2	2	3
Radiation oncology	354	221	46	58	0	1	31	28	7
Radiology-diagnostic	2,407	1,289	359	208	5	3	213	161	53
- Abdominal radiology	23	14	4	0	0	0	3	2	8
- Musculoskeletal radiology	25	6	3	2	0	0	1	2	2
- Neuroendovascular intervention	4	1	2	0	0	0	1	0	0
- Neuroradiology	151	93	19	7	0	0	13	8	23
- Nuclear radiology	3	2	2	0	0	0	0	1	3
- Pediatric radiology	29	11	1	0	0	0	0	1	11
Interventional radiology - independent	71	38	13	8	0	0	9	6	5
Interventional radiology - integrated	412	215	52	34	2	0	36	28	3
Surgery	5,206	1,833	1,109	596	7	7	523	320	142
- Complex general surgical oncology	75	28	11	7	0	1	4	4	3
- Hand surgery	5	1	0	0	0	0	0	1	2
- Pediatric surgery	66	7	7	3	0	0	2	2	0
- Surgical critical care	208	63	30	22	1	0	13	8	4
- Vascular surgery - independent	163	57	22	13	1	0	9	12	2
Vascular surgery - integrated	198	110	39	24	0	0	18	13	5
Thoracic surgery - independent	132	53	22	16	0	0	12	13	3
- Congenital cardiac surgery	7	0	0	0	0	0	0	0	1
Thoracic surgery - integrated	131	69	17	11	0	0	14	7	5
Urology	1,054	396	175	107	4	1	90	48	8
- Female pelvic medicine and reconstructive surgery	24	9	0	4	0	0	0	0	1
- Pediatric urology	22	9	1	1	0	0	1	1	0
Transitional year	885	576	221	137	3	0	105	59	45
Internal medicine/Pediatrics	866	301	135	149	2	1	66	29	7
Health care administration, leadership, and management	0	0	0	0	0	0	0	0	0

Notes: Pipeline specialties are highlighted. Unknown ethnicity includes both unknown and blank, while 'Other' indicates a known ethnicity other than the ones available for selection.

Source: The gender and race/ethnicity reported since 2020-2021 academic year and forward are based upon self-reported data provided by the Association of American Medical Colleges ("AAMC").

Specialty	Race/Ethnicity								
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/ Ethnicity	Other	Unknown
OVERALL	34,474	23,054	7,957	6,224	88	29	3,620	2,369	1,157
TOTAL PIPELINE	28,179	18,233	6,640	5,315	75	24	3,105	1,908	863
Allergy and immunology	72	89	16	10	0	0	7	4	1
Anesthesiology	1,144	840	240	275	4	0	150	78	30
- Adult cardiothoracic anesthesiology	36	27	9	1	0	0	4	3	0
- Critical care medicine	33	21	3	2	0	0	2	1	2
- Obstetric anesthesiology	16	4	1	2	0	0	1	1	2
- Pain medicine (multidisciplinary)	31	34	2	12	0	0	3	5	1
- Pediatric anesthesiology	34	22	6	8	0	0	0	1	1
- Pediatric cardiac anesthesiology	2	1	0	0	0	0	0	1	0
- Regional anesthesiology and acute pain medicine	18	9	1	3	0	0	0	0	2
Colon and rectal surgery	31	13	7	2	0	0	5	1	1
Dermatology	518	241	89	95	3	0	62	44	7
- Dermatopathology (multidisciplinary)	25	8	1	0	0	0	1	0	2
- Micrographic surgery and dermatologic oncology	18	11	5	3	0	0	3	2	1
- Pediatric dermatology	9	5	0	0	0	0	1	1	2
Emergency medicine	2,357	652	452	291	5	1	213	112	25
- Emergency medical services	26	1	2	4	0	0	5	0	0
- Medical toxicology	24	6	3	4	0	0	0	0	0
- Pediatric emergency medicine	44	25	14	9	1	0	4	2	1
- Sports medicine	5	1	0	1	0	0	0	0	0
- Undersea and hyperbaric medicine	4	1	1	0	0	0	0	0	0
Family medicine	3,603	2,232	961	884	21	7	432	213	121
- Clinical informatics	5	2	0	1	0	0	0	0	0
- Geriatric medicine	10	11	3	2	0	0	0	1	1
- Hospice and palliative medicine (multidisciplinary)	158	92	25	8	1	0	14	7	1
- Sports medicine	47	16	5	6	1	1	4	3	1
Internal medicine	4,639	6,202	1,453	1,113	8	4	586	552	360
- Adult congenital heart disease	5	5	0	2	0	0	0	0	1
- Advanced heart failure and transplant cardiology	15	20	1	0	0	0	1	0	0
- Cardiovascular disease	351	439	86	76	0	0	35	38	29
- Clinical cardiac electrophysiology	21	25	3	0	0	0	1	1	2
- Clinical informatics	4	15	1	0	0	0	1	0	0
- Critical care medicine	48	49	9	9	1	0	3	4	0
- Endocrinology, diabetes, and metabolism	144	243	62	24	0	0	11	18	11
- Gastroenterology	267	345	85	46	1	1	19	37	14
- Geriatric medicine	45	53	18	20	0	0	5	5	9
- Hematology and medical oncology	327	477	57	61	0	0	28	41	21
- Infectious disease	168	131	48	24	0	0	15	22	7
- Interventional cardiology	14	17	4	7	0	0	2	0	2
- Interventional pulmonology	1	2	0	0	0	0	0	0	0
- Medical oncology	0	2	1	0	0	0	0	0	0
- Nephrology	78	171	36	25	2	1	7	12	17
- Pulmonary disease	2	10	2	3	0	0	0	0	0
- Pulmonary disease and critical care medicine	384	357	81	35	1	0	32	30	15
- Rheumatology	120	155	27	20	0	0	4	10	10
- Sleep medicine (multidisciplinary)	41	39	8	3	0	0	2	5	2
- Transplant hepatology	9	13	0	2	0	0	0	3	1
Medical genetics and genomics	22	11	5	0	1	0	1	1	1
- Medical biochemical genetics	7	2	0	0	0	0	0	0	0
- Molecular genetic pathology (multidisciplinary)	11	8	3	2	0	0	1	1	0
Clinical biochemical genetics	1	0	1	0	0	0	0	0	0
Laboratory genetics and genomics	4	2	1	0	0	0	0	0	3
Neurological surgery	215	92	30	24	0	0	31	16	3
- Neuroendovascular intervention	0	1	0	0	0	0	0	0	0

TABLE C.24 *Continued*

Number of Active Female Residents by Specialty and Subspecialty and Race/Ethnicity

Specialty	Race/Ethnicity								
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/ Ethnicity	Other	Unknown
Neurology	679	672	197	93	2	2	79	80	38
- Clinical neurophysiology	24	21	12	4	0	0	1	1	4
- Epilepsy	32	21	11	4	0	0	3	2	1
- Neurocritical care (multidisciplinary)	27	26	7	4	0	0	4	3	1
- Neuroendovascular intervention	1	1	0	0	0	0	1	0	0
- Neurodevelopmental disabilities	10	6	2	1	0	0	2	1	0
- Neuromuscular medicine	16	16	6	1	0	0	2	1	4
- Vascular neurology	40	29	7	6	0	0	3	5	1
Child neurology	165	87	40	12	0	1	17	10	3
Nuclear medicine	9	11	3	0	0	0	2	2	5
Obstetrics and gynecology	2,934	816	584	578	7	1	272	108	35
- Female pelvic medicine and reconstructive surgery	82	25	10	13	0	0	4	1	0
- Gynecologic oncology	121	38	21	7	0	0	12	1	1
- Maternal-fetal medicine	213	53	28	29	0	0	9	10	3
- Reproductive endocrinology and infertility	80	31	12	10	0	0	4	5	0
- Complex family planning	36	10	5	5	0	0	1	1	0
Ophthalmology	259	303	51	35	0	0	30	31	6
- Ophthalmic plastic and reconstructive surgery	1	3	0	0	0	0	0	0	0
Orthopaedic surgery	636	147	75	82	1	0	52	19	4
- Adult reconstructive orthopaedics	0	1	0	0	0	0	0	0	1
- Foot and ankle orthopaedics	2	0	0	0	0	0	0	0	1
- Hand surgery	26	13	4	0	0	0	3	0	1
- Musculoskeletal oncology	2	0	0	0	0	0	0	0	0
- Orthopaedic sports medicine	15	4	1	1	0	0	0	0	0
- Orthopaedic surgery of the spine	0	1	0	0	0	0	0	0	0
- Orthopaedic trauma	4	1	0	0	0	0	1	0	0
- Pediatric orthopaedics	5	0	1	0	0	0	0	0	0
Osteopathic neuromusculoskeletal medicine	21	11	0	2	0	0	6	0	1
Otolaryngology - head and neck Surgery	428	207	59	42	1	0	47	22	7
- Neurotology	6	5	4	0	0	0	0	1	0
- Pediatric otolaryngology	13	3	0	1	0	0	1	2	1
Pathology-anatomic and clinical	523	386	127	90	2	0	57	46	39
- Blood banking/transfusion medicine	11	7	0	1	0	0	0	0	1
- Clinical informatics	4	2	0	1	0	0	1	0	0
- Chemical pathology	1	0	0	0	0	0	0	0	0
- Cytopathology	22	21	5	2	0	0	1	2	3
- Forensic pathology	21	4	6	2	0	0	1	1	0
- Hematopathology	24	26	3	4	0	0	0	1	3
- Medical microbiology	0	0	0	0	0	0	0	0	0
- Neuropathology	16	9	4	0	0	0	1	1	0
- Pediatric pathology	5	0	1	1	0	0	0	0	1
- Selective pathology	42	37	7	1	0	0	4	5	2
Pediatrics	3,460	1,756	878	536	7	2	292	195	66
- Adolescent medicine	43	16	4	13	0	0	5	0	1
- Child abuse pediatrics	22	10	4	3	1	0	0	3	0
- Clinical informatics	5	5	0	0	0	0	0	0	0
- Developmental-behavioral pediatrics	51	26	12	4	0	0	0	2	0
- Neonatal-perinatal medicine	305	151	69	51	0	0	24	12	12
- Pediatric cardiology	136	75	13	10	0	0	7	6	1
- Pediatric critical care medicine	267	83	32	17	0	0	22	8	4
- Pediatric emergency medicine	194	58	27	25	0	0	18	9	1
- Pediatric endocrinology	85	49	19	5	0	0	2	9	13
- Pediatric gastroenterology	82	74	35	19	0	0	15	8	4
- Pediatric hematology/oncology	189	76	23	18	0	0	13	11	3
- Pediatric infectious diseases	49	28	14	4	0	0	7	1	7

TABLE C.24 *Continued***Number of Active Female Residents by Specialty and Subspecialty and Race/Ethnicity**

	Race/Ethnicity								
Specialty	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/ Ethnicity	Other	Unknown
- Pediatric nephrology	46	26	15	4	0	0	2	4	4
- Pediatric pulmonology	55	40	19	5	0	1	4	6	2
- Pediatric rheumatology	39	15	10	3	0	0	4	4	3
- Sports medicine	6	1	0	0	0	0	0	0	0
- Pediatric transplant hepatology	5	3	0	0	0	0	0	0	1
- Pediatric hospital medicine	94	34	13	11	0	0	5	5	1
Physical medicine and rehabilitation	293	164	57	50	0	0	32	16	2
- Brain injury medicine	7	3	0	0	0	0	1	1	0
- Neuromuscular medicine	0	0	0	0	0	0	0	0	0
- Spinal cord injury medicine	8	2	1	1	0	0	0	0	0
- Pediatric rehabilitation medicine	15	6	4	0	0	0	1	1	0
- Sports medicine	12	3	1	2	0	0	0	0	1
Plastic surgery	33	19	5	4	0	0	6	3	0
Plastic Surgery - integrated	302	139	53	32	1	0	38	13	4
- Craniofacial surgery	1	0	1	0	0	0	0	0	0
- Hand surgery	6	2	1	0	0	0	0	0	0
Public health and general preventive medicine	33	32	10	21	0	1	7	3	2
- Undersea and hyperbaric medicine	1	0	0	0	0	0	0	0	0
Aerospace medicine	7	1	0	0	0	0	1	0	1
Occupational and environmental medicine	19	9	3	4	0	0	3	0	0
Psychiatry	1,668	1,227	488	426	7	0	237	124	32
- Addiction medicine (multidisciplinary)	48	27	9	12	0	0	4	3	1
- Addiction psychiatry	9	14	6	3	0	0	0	1	0
- Child and adolescent psychiatry	226	194	68	57	1	1	30	18	7
- Forensic psychiatry	32	10	7	4	0	0	2	0	0
- Geriatric psychiatry	16	6	2	0	0	0	1	0	2
- Consultation-liaison psychiatry	26	15	5	2	0	0	1	0	1
Radiation oncology	115	89	17	24	0	0	9	9	2
Radiology-diagnostic	595	428	103	83	1	0	70	52	17
- Abdominal radiology	4	4	2	0	0	0	1	1	5
- Musculoskeletal radiology	6	3	1	0	0	0	0	0	0
- Neuroendovascular intervention	2	0	1	0	0	0	0	0	0
- Neuroradiology	23	20	2	0	0	0	3	2	4
- Nuclear radiology	0	0	1	0	0	0	0	1	1
- Pediatric radiology	15	4	0	0	0	0	0	1	2
Interventional radiology - independent	12	4	4	2	0	0	2	0	0
Interventional radiology - integrated	83	61	7	6	0	0	10	7	1
Surgery	2,449	998	488	321	2	3	268	116	43
- Complex general surgical oncology	33	12	5	4	0	0	2	2	0
- Hand surgery	1	0	0	0	0	0	0	0	0
- Pediatric surgery	28	3	3	2	0	0	1	1	0
- Surgical critical care	86	27	11	12	1	0	8	2	1
- Vascular surgery - independent	55	19	5	5	0	0	5	6	0
Vascular surgery - integrated	67	44	19	10	0	0	8	6	1
Thoracic surgery - independent	34	16	6	4	0	0	4	5	1
- Congenital cardiac surgery	4	0	0	0	0	0	0	0	1
Thoracic surgery - integrated	43	23	6	6	0	0	5	4	1
Urology	331	143	53	56	1	1	35	11	2
- Female pelvic medicine and reconstructive surgery	19	6	0	3	0	0	0	0	0
- Pediatric urology	11	5	1	1	0	0	0	0	0
Transitional year	277	256	70	70	2	0	43	24	18
Internal medicine/Pediatrics	517	186	83	118	1	1	45	15	4
Health care administration, leadership, and management	0	0	0	0	0	0	0	0	0

Notes: Pipeline specialties are highlighted. Unknown ethnicity includes both unknown and blank, while 'Other' indicates a known ethnicity other than the ones available for selection.

Source: The gender and race/ethnicity reported since 2020-2021 academic year and forward are based upon self-reported data provided by the Association of American Medical Colleges ("AAMC").

TABLE C.25

Number of Active Male Residents by Specialty and Subspecialty and Race/Ethnicity

Specialty	Race/Ethnicity								
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/ Ethnicity	Other	Unknown
OVERALL	40,582	21,229	8,209	4,473	82	47	3,724	3,136	1,257
TOTAL PIPELINE	32,780	16,346	6,660	3,680	70	39	3,116	2,437	940
Allergy and immunology	74	28	12	3	0	0	5	8	1
Anesthesiology	2,555	1,094	396	258	6	2	227	124	44
- Adult cardiothoracic anesthesiology	101	41	15	7	0	0	6	6	1
- Critical care medicine	76	25	14	3	0	0	7	5	3
- Obstetric anesthesiology	15	4	0	0	0	0	2	1	0
- Pain medicine (multidisciplinary)	160	92	27	16	0	1	9	11	10
- Pediatric anesthesiology	48	9	7	6	0	0	3	4	0
- Pediatric cardiac anesthesiology	5	1	0	1	0	0	0	1	0
- Regional anesthesiology and acute pain medicine	24	13	7	2	0	0	3	1	1
Colon and rectal surgery	31	9	8	1	0	0	1	1	1
Dermatology	311	163	57	20	0	0	29	24	8
- Dermatopathology (multidisciplinary)	18	7	2	1	0	0	1	2	0
- Micrographic surgery and dermatologic oncology	37	10	1	0	0	0	1	1	0
- Pediatric dermatology	2	1	0	0	1	0	1	0	0
Emergency medicine	3,364	817	581	266	5	2	271	149	20
- Emergency medical services	54	7	7	0	0	0	0	1	1
- Medical toxicology	39	12	7	0	0	1	5	2	0
- Pediatric emergency medicine	25	16	7	0	0	0	1	1	1
- Sports medicine	4	3	1	1	0	0	0	0	0
- Undersea and hyperbaric medicine	3	2	2	0	0	0	0	0	0
Family medicine	3,316	1,520	758	427	24	8	368	205	99
- Clinical informatics	8	5	1	0	0	0	0	1	0
- Geriatric medicine	2	4	4	2	0	0	2	2	0
- Hospice and palliative medicine (multidisciplinary)	84	48	20	5	1	0	5	10	3
- Sports medicine	120	45	20	11	0	0	11	10	0
Internal medicine	6,557	6,152	1,829	1,125	10	10	781	885	442
- Adult congenital heart disease	9	2	1	2	0	0	0	0	0
- Advanced heart failure and transplant cardiology	22	12	6	2	0	0	2	2	0
- Cardiovascular disease	989	897	194	168	2	1	93	142	61
- Clinical cardiac electrophysiology	118	98	24	17	0	0	11	10	7
- Clinical informatics	22	20	2	3	0	1	1	3	0
- Critical care medicine	110	80	22	18	0	0	15	6	0
- Endocrinology, diabetes, and metabolism	74	83	37	9	0	0	9	14	3
- Gastroenterology	476	469	118	62	0	1	41	68	16
- Geriatric medicine	33	32	11	5	0	1	2	4	5
- Hematology and medical oncology	496	431	85	48	1	0	47	36	26
- Infectious disease	190	107	59	12	0	0	15	13	7
- Interventional cardiology	114	141	20	17	0	0	9	20	6
- Interventional pulmonology	5	5	0	1	0	0	0	1	0
- Medical oncology	1	1	0	0	0	0	0	0	0
- Nephrology	142	225	60	31	0	0	19	27	18
- Pulmonary disease	7	20	3	1	0	0	3	0	1
- Pulmonary disease and critical care medicine	701	402	121	56	0	0	48	64	28
- Rheumatology	111	75	16	10	0	0	8	7	6
- Sleep medicine (multidisciplinary)	56	48	9	3	0	0	4	5	1
- Transplant hepatology	6	10	0	0	0	0	0	1	2
Medical genetics and genomics	6	6	4	0	0	0	1	0	0
- Medical biochemical genetics	3	0	2	0	0	0	0	0	0
- Molecular genetic pathology (multidisciplinary)	19	7	2	3	0	0	0	0	2
Clinical biochemical genetics	0	0	0	2	0	0	1	0	1
Laboratory genetics and genomics	4	2	0	0	0	0	0	0	2
Neurological surgery	603	279	126	72	1	0	52	55	7
- Neuroendovascular intervention	1	0	0	1	0	0	0	0	0

TABLE C.25 Continued
Number of Active Male Residents by Specialty and Subspecialty and Race/Ethnicity

Specialty	Race/Ethnicity								
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/Ethnicity	Other	Unknown
Neurology	813	517	207	78	1	2	95	100	31
- Clinical neurophysiology	32	29	3	2	0	1	3	2	1
- Epilepsy	31	32	5	0	0	0	1	4	1
- Neurocritical care (multidisciplinary)	41	32	11	4	0	0	3	2	2
- Neuroendovascular intervention	1	1	0	0	0	0	0	0	0
- Neurodevelopmental disabilities	6	0	1	0	0	0	4	0	0
- Neuromuscular medicine	24	9	5	0	0	0	0	5	3
- Vascular neurology	42	47	8	4	0	0	5	4	1
Child neurology	85	30	17	3	0	0	8	6	4
Nuclear medicine	19	12	6	2	0	0	0	2	4
Obstetrics and gynecology	432	82	108	36	1	1	25	29	3
- Female pelvic medicine and reconstructive surgery	16	7	4	1	0	0	1	1	0
- Gynecologic oncology	31	9	2	2	0	0	2	1	0
- Maternal-fetal medicine	46	16	15	6	0	0	3	4	0
- Reproductive endocrinology and infertility	23	4	1	2	0	0	1	3	0
- Complex family planning	0	0	0	0	0	0	0	0	0
Ophthalmology	558	277	78	52	0	0	46	23	11
- Ophthalmic plastic and reconstructive surgery	0	1	0	0	0	0	0	0	0
Orthopaedic surgery	2,362	472	274	182	2	3	132	72	20
- Adult reconstructive orthopaedics	34	6	3	1	0	0	3	2	1
- Foot and ankle orthopaedics	7	2	0	0	0	0	0	2	3
- Hand surgery	77	18	7	4	0	0	3	5	1
- Musculoskeletal oncology	8	1	1	1	0	0	2	0	1
- Orthopaedic sports medicine	136	18	16	10	1	0	5	4	3
- Orthopaedic surgery of the spine	18	3	0	3	0	0	0	0	0
- Orthopaedic trauma	8	3	1	1	0	0	0	0	0
- Pediatric orthopaedics	10	4	3	0	0	0	2	4	2
Osteopathic neuromusculoskeletal medicine	29	5	3	0	0	0	3	2	0
Otolaryngology - head and neck Surgery	598	234	70	43	1	0	44	30	2
- Neurotology	15	5	0	1	0	0	2	0	0
- Pediatric otolaryngology	13	2	2	1	0	0	1	3	1
Pathology-anatomic and clinical	488	263	105	69	0	1	51	45	28
- Blood banking/transfusion medicine	12	8	1	2	0	0	2	0	0
- Clinical informatics	5	4	2	0	0	0	0	2	0
- Chemical pathology	1	0	0	0	0	0	0	0	0
- Cytopathology	23	8	5	4	0	0	2	7	0
- Forensic pathology	19	1	2	1	0	0	2	0	1
- Hematopathology	31	19	1	3	0	0	2	3	7
- Medical microbiology	7	0	1	1	0	0	0	0	0
- Neuropathology	18	3	3	0	0	0	3	1	0
- Pediatric pathology	4	0	0	1	0	0	0	0	1
- Selective pathology	33	27	5	4	0	0	1	11	5
Pediatrics	1,311	494	292	127	2	0	112	82	36
- Adolescent medicine	11	1	2	1	0	0	0	0	0
- Child abuse pediatrics	5	7	3	0	0	0	0	0	0
- Clinical informatics	11	6	2	0	0	0	0	1	0
- Developmental-behavioral pediatrics	10	3	1	0	0	0	0	0	1
- Neonatal-perinatal medicine	110	51	33	12	0	0	9	7	3
- Pediatric cardiology	143	49	26	10	0	0	2	13	5
- Pediatric critical care medicine	124	30	18	7	0	0	5	5	0
- Pediatric emergency medicine	76	27	18	7	1	0	5	1	0
- Pediatric endocrinology	28	4	7	0	0	0	0	3	2
- Pediatric gastroenterology	55	25	17	4	0	0	3	1	2
- Pediatric hematology/oncology	82	30	14	6	0	0	7	5	1
- Pediatric infectious diseases	40	11	9	0	1	0	0	2	1

TABLE C.25 *Continued*

Number of Active Male Residents by Specialty and Subspecialty and Race/Ethnicity

Specialty	Race/Ethnicity								
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/ Ethnicity	Other	Unknown
- Pediatric nephrology	21	9	5	5	0	0	2	2	1
- Pediatric pulmonology	31	14	5	4	0	0	1	3	2
- Pediatric rheumatology	12	3	5	0	0	0	2	1	0
- Sports medicine	16	2	0	1	0	0	1	0	0
- Pediatric transplant hepatology	2	1	0	0	0	0	0	0	0
- Pediatric hospital medicine	25	13	5	2	0	0	1	0	0
Physical medicine and rehabilitation	554	323	107	68	1	0	47	19	4
- Brain injury medicine	2	4	1	0	0	0	1	1	0
- Neuromuscular medicine	0	1	0	0	0	0	0	0	0
- Spinal cord injury medicine	6	5	1	0	0	0	1	0	0
- Pediatric rehabilitation medicine	5	2	2	0	0	0	1	1	0
- Sports medicine	14	3	2	2	0	0	2	0	0
Plastic surgery	73	20	17	6	0	0	10	2	1
Plastic Surgery - integrated	330	114	59	16	0	0	29	23	6
- Craniofacial surgery	3	1	0	0	0	0	0	0	0
- Hand surgery	14	4	1	0	0	0	1	0	0
Public health and general preventive medicine	36	10	3	2	0	0	10	3	2
- Undersea and hyperbaric medicine	1	0	0	0	0	0	0	0	0
Aerospace medicine	31	0	3	1	0	0	2	0	0
Occupational and environmental medicine	38	22	5	4	0	0	5	3	0
Psychiatry	1,837	949	393	256	1	2	221	138	33
- Addiction medicine (multidisciplinary)	49	21	8	6	0	0	2	4	0
- Addiction psychiatry	25	18	6	3	0	0	2	2	1
- Child and adolescent psychiatry	199	101	48	16	2	0	16	14	4
- Forensic psychiatry	21	5	3	3	0	0	0	0	0
- Geriatric psychiatry	10	4	4	2	0	0	2	2	1
- Consultation-liaison psychiatry	21	8	5	3	0	0	1	2	2
Radiation oncology	239	131	29	34	0	1	22	19	2
Radiology-diagnostic	1,812	861	256	125	4	3	143	109	30
- Abdominal radiology	19	9	2	0	0	0	2	1	1
- Musculoskeletal radiology	19	3	2	2	0	0	1	2	0
- Neuroendovascular intervention	2	1	1	0	0	0	1	0	0
- Neuroradiology	127	72	16	7	0	0	10	6	10
- Nuclear radiology	3	2	1	0	0	0	0	0	2
- Pediatric radiology	14	7	1	0	0	0	0	0	3
Interventional radiology - independent	59	34	8	6	0	0	7	6	5
Interventional radiology - integrated	329	154	45	28	2	0	26	21	2
Surgery	2,750	831	619	274	5	4	254	202	81
- Complex general surgical oncology	42	16	6	3	0	1	2	2	3
- Hand surgery	4	1	0	0	0	0	0	1	2
- Pediatric surgery	38	4	4	1	0	0	1	1	0
- Surgical critical care	120	36	19	10	0	0	5	6	2
- Vascular surgery - independent	108	38	17	7	1	0	4	6	2
Vascular surgery - integrated	130	66	20	14	0	0	10	7	4
Thoracic surgery - independent	98	37	16	12	0	0	8	8	2
- Congenital cardiac surgery	3	0	0	0	0	0	0	0	0
Thoracic surgery - integrated	88	46	11	5	0	0	9	3	4
Urology	721	253	122	51	3	0	55	36	5
- Female pelvic medicine and reconstructive surgery	5	3	0	1	0	0	0	0	0
- Pediatric urology	10	4	0	0	0	0	1	0	0
Transitional year	607	319	151	67	1	0	62	35	16
Internal medicine/Pediatrics	346	115	52	30	1	0	21	13	2
Health care administration, leadership, and management	0	0	0	0	0	0	0	0	0

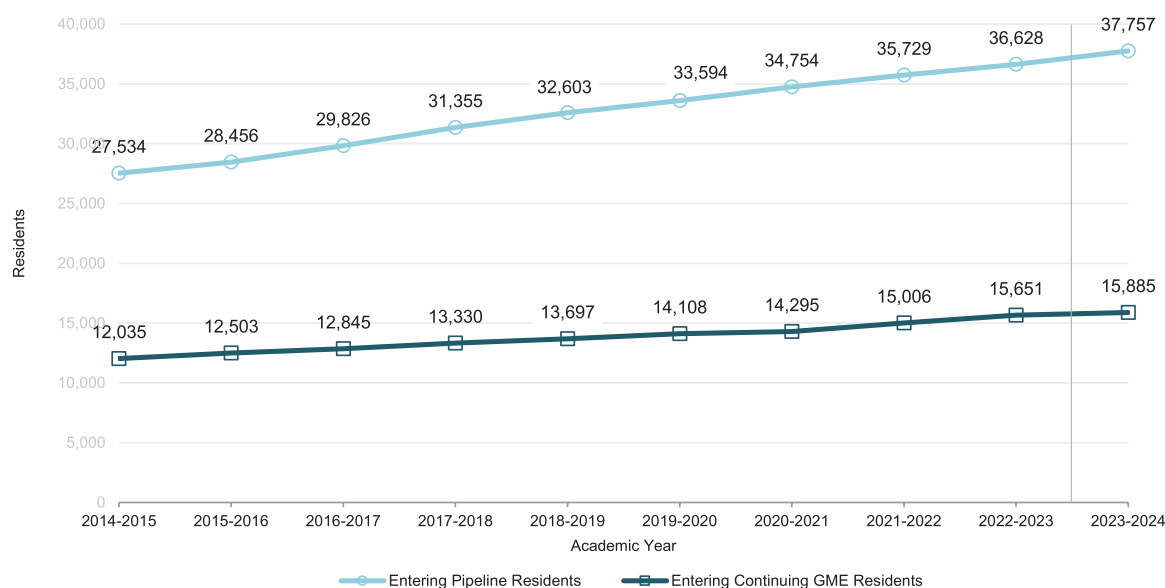
Notes: Pipeline specialties are highlighted. Unknown ethnicity includes both unknown and blank, while 'Other' indicates a known ethnicity other than the ones available for selection.

Source: The gender and race/ethnicity reported since 2020-2021 academic year and forward are based upon self-reported data provided by the Association of American Medical Colleges ("AAMC").

TABLE C.26		
Race/Ethnicity (Alone and In Combination) of Active Residents		
Active Residents Race/Ethnicity		2023-2024
American Indian or Alaskan Native	Alone	171
	In Combination	839
	Total (Alone or In Combination)	1,010
Asian	Alone	44,362
	In Combination	4,644
	Total (Alone or In Combination)	49,006
Black or African American	Alone	10,716
	In Combination	1,640
	Total (Alone or In Combination)	12,356
Hispanic, Latino, or of Spanish Origin	Alone	10,176
	In Combination	6,042
	Total (Alone or In Combination)	16,218
Native Hawaiian or Other Pacific Islander	Alone	76
	In Combination	313
	Total (Alone or In Combination)	389
White	Alone	75,182
	In Combination	11,075
	Total (Alone or In Combination)	86,257
Other	Alone	5,526
	In Combination	3,169
	Total (Alone or In Combination)	8,695
Unknown Race/Ethnicity		3,027
Unduplicated Total Residents		162,644
"Alone" indicates those who selected only one race/ethnicity response. "In Combination" indicates those who selected more than one race/ethnicity response. Source: The gender and race/ethnicity reported since 2021-2022 academic year and forward are based upon self-reported data provided by the Association of American Medical Colleges ("AAMC").		

FIGURE C.27

Number of Residents Entering Pipeline and Continuing GME Programs by Academic Year, 2014-2015 to 2023-2024



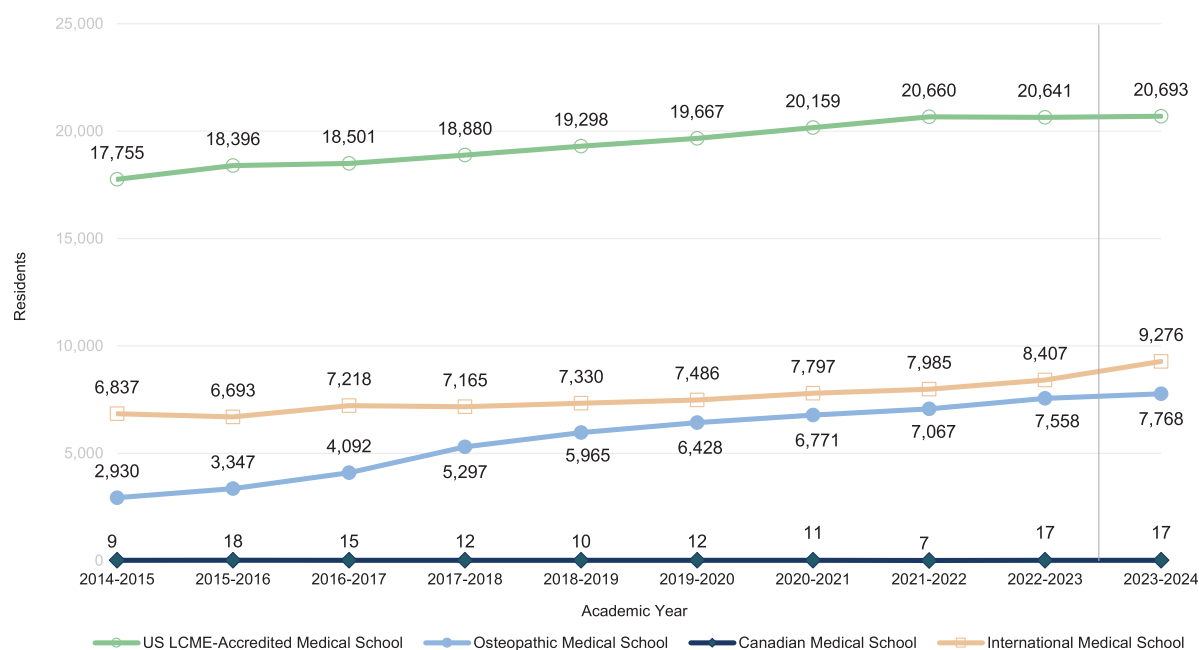
Note¹: Excluding residents doing prerequisite training for a pipeline specialty program (preliminary and transitional year residents).

Note²: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

Abbreviations: GME, graduate medical education.

FIGURE C.28

Number of Residents Entering the Pipeline by Medical School Type and Academic Year, 2014-2015 to 2023-2024



Note¹: Not shown are those graduates for which the specific U.S. medical school is unknown.

Note²: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2023-2024 academic year and beyond will reflect these changes.

Abbreviations: LCME, Liaison Committee on Medical Education.

TABLE C.29

Number of Residents Entering the GME Pipeline by Specialty and Medical School Type

Specialty	Total Residents	Medical School Type									
		US LCME-Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
OVERALL	37,757	20,693	54.8%	9,276	24.6%	7,768	20.6%	17	0.0%	3	0.0%
Anesthesiology	1,796	1,336	74.4%	147	8.2%	313	17.4%	0	0.0%	0	0.0%
Dermatology	561	488	87.0%	13	2.3%	60	10.7%	0	0.0%	0	0.0%
Emergency medicine	3,082	1,597	51.8%	500	16.2%	984	31.9%	0	0.0%	1	0.0%
Family medicine	5,277	1,845	35.0%	1,630	30.9%	1,800	34.1%	1	0.0%	1	0.0%
Internal medicine	10,720	4,226	39.4%	4,562	42.6%	1,926	18.0%	5	0.0%	1	0.0%
Medical genetics and genomics	33	13	39.4%	16	48.5%	4	12.1%	0	0.0%	0	0.0%
Neurological surgery	240	221	92.1%	15	6.3%	4	1.7%	0	0.0%	0	0.0%
Neurology	1,070	626	58.5%	272	25.4%	171	16.0%	1	0.1%	0	0.0%
Child neurology	152	99	65.1%	36	23.7%	17	11.2%	0	0.0%	0	0.0%
Nuclear medicine	45	10	22.2%	30	66.7%	5	11.1%	0	0.0%	0	0.0%
Obstetrics and gynecology	1,548	1,180	76.2%	94	6.1%	274	17.7%	0	0.0%	0	0.0%
Ophthalmology	522	485	92.9%	12	2.3%	25	4.8%	0	0.0%	0	0.0%
Orthopaedic surgery	944	799	84.6%	16	1.7%	127	13.5%	2	0.2%	0	0.0%
Osteopathic neuromusculoskeletal medicine	16	1	6.3%	1	6.3%	14	87.5%	0	0.0%	0	0.0%
Otolaryngology - head and neck Surgery	384	349	90.9%	8	2.1%	27	7.0%	0	0.0%	0	0.0%
Pathology-anatomic and clinical	626	275	43.9%	254	40.6%	97	15.5%	0	0.0%	0	0.0%
Pediatrics	3,244	1,828	56.4%	758	23.4%	656	20.2%	2	0.1%	0	0.0%
Physical medicine and rehabilitation	483	265	54.9%	26	5.4%	192	39.8%	0	0.0%	0	0.0%
Plastic surgery	64	49	76.6%	11	17.2%	4	6.3%	0	0.0%	0	0.0%
Plastic Surgery - integrated	203	195	96.1%	7	3.4%	1	0.5%	0	0.0%	0	0.0%
Public health and general preventive medicine	84	52	61.9%	25	29.8%	6	7.1%	1	1.2%	0	0.0%
Aerospace medicine	20	16	80.0%	1	5.0%	2	10.0%	1	5.0%	0	0.0%
Occupational and environmental medicine	54	28	51.9%	12	22.2%	13	24.1%	1	1.9%	0	0.0%
Psychiatry	2,280	1,433	62.9%	415	18.2%	431	18.9%	1	0.0%	0	0.0%
Radiation oncology	175	136	77.7%	27	15.4%	12	6.9%	0	0.0%	0	0.0%
Radiology-diagnostic	1,193	884	74.1%	115	9.6%	194	16.3%	0	0.0%	0	0.0%
Interventional radiology - independent	119	71	59.7%	31	26.1%	16	13.4%	1	0.8%	0	0.0%
Interventional radiology - integrated	175	146	83.4%	6	3.4%	23	13.1%	0	0.0%	0	0.0%
Surgery	1,708	1,247	73.0%	175	10.2%	285	16.7%	1	0.1%	0	0.0%
Vascular surgery - integrated	95	82	86.3%	8	8.4%	5	5.3%	0	0.0%	0	0.0%
Thoracic surgery - integrated	49	43	87.8%	5	10.2%	1	2.0%	0	0.0%	0	0.0%
Urology	402	354	88.1%	14	3.5%	34	8.5%	0	0.0%	0	0.0%
Internal medicine/Pediatrics	393	314	79.9%	34	8.7%	45	11.5%	0	0.0%	0	0.0%
Abbreviations: GME, graduate medical education; LCME, Liaison Committee on Medical Education.											

TABLE C.30

Hospital-Based Specialty Residents Entering the GME Pipeline by Specialty and State

State Name	State Abbreviation	AN	EM	MG	NM	PTH	GPM	AER	OEM	RO	DR	IRI	IRInd	Total
OVERALL	-	1,796	3,082	33	45	626	84	20	54	175	1,193	175	119	7,402
Alabama	AL	21	19	0	0	9	0	3	0	3	18	2	3	78
Alaska	AK	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	AZ	11	51	0	0	4	0	0	0	2	23	3	3	97
Arkansas	AR	13	16	0	0	4	0	0	0	1	8	1	0	43
California	CA	169	304	5	5	62	16	0	12	22	112	16	11	734
Colorado	CO	16	17	0	0	8	2	0	3	2	9	2	2	61
Connecticut	CT	27	37	2	0	14	1	0	2	3	31	3	2	122
Delaware	DE	0	17	0	0	0	0	0	0	0	4	1	1	23
District of Columbia	DC	18	21	1	0	7	0	0	0	1	8	3	1	60
Florida	FL	96	230	2	3	23	0	3	0	7	64	7	16	451
Georgia	GA	23	63	1	1	11	6	0	0	3	22	5	4	139
Hawaii	HI	0	0	0	0	3	0	0	0	0	4	0	0	7
Idaho	ID	0	0	0	0	0	0	0	0	0	0	0	0	0
Illinois	IL	92	142	0	1	28	1	0	2	8	57	10	6	347
Indiana	IN	28	21	1	0	7	0	0	0	1	11	2	2	73
Iowa	IA	15	10	0	0	6	0	0	0	3	4	1	1	40
Kansas	KS	15	9	0	0	4	0	0	0	2	10	2	0	42
Kentucky	KY	26	25	0	0	6	3	0	0	2	15	0	2	79
Louisiana	LA	31	41	0	0	10	0	0	0	0	19	3	0	104
Maine	ME	8	10	0	0	0	0	0	0	0	3	1	0	22
Maryland	MD	43	23	6	7	19	13	0	6	7	23	5	0	152
Massachusetts	MA	109	72	2	4	43	5	0	4	9	58	9	8	323
Michigan	MI	76	232	1	1	17	2	0	0	10	53	9	3	404
Minnesota	MN	27	32	1	0	11	2	1	2	4	23	3	2	108
Mississippi	MS	8	28	0	0	4	0	0	0	1	7	1	0	49
Missouri	MO	43	50	0	5	20	0	0	0	4	36	5	4	167
Montana	MT	0	0	0	0	0	0	0	0	0	0	0	0	0
Nebraska	NE	10	12	1	0	6	0	0	0	1	9	1	0	40
Nevada	NV	8	32	0	0	0	0	0	0	0	5	0	0	45
New Hampshire	NH	7	6	0	0	3	3	0	0	1	2	2	0	24
New Jersey	NJ	36	121	0	0	8	0	0	4	2	29	1	0	201
New Mexico	NM	6	12	0	0	4	3	0	0	0	8	0	0	33
New York	NY	248	388	1	5	72	12	0	2	23	136	20	6	913
North Carolina	NC	42	83	2	0	17	5	0	0	6	28	5	3	191
North Dakota	ND	0	0	0	0	0	0	0	0	0	0	0	0	0
Ohio	OH	77	168	1	0	25	1	7	3	7	50	4	7	350
Oklahoma	OK	15	33	0	1	6	0	0	0	2	13	0	0	70
Oregon	OR	14	11	0	1	4	0	0	0	2	5	2	3	42
Pennsylvania	PA	98	230	2	0	37	0	0	3	10	70	15	9	474
Puerto Rico	PR	3	17	0	2	5	0	0	0	0	4	0	0	31
Rhode Island	RI	20	22	0	0	4	0	0	0	0	6	2	1	55
South Carolina	SC	24	55	0	1	5	2	0	0	1	11	2	0	101
South Dakota	SD	0	0	0	0	2	0	0	0	0	0	0	0	2
Tennessee	TN	32	48	0	1	11	0	0	1	2	22	3	0	120
Texas	TX	123	214	2	2	55	4	6	4	12	90	12	11	535
Utah	UT	5	12	0	0	5	0	0	3	2	8	0	1	36
Vermont	VT	6	6	0	0	4	0	0	0	0	6	0	0	22
Virginia	VA	31	72	0	0	10	0	0	0	3	23	5	3	147
Washington	WA	34	29	1	4	8	1	0	2	2	19	3	2	105
West Virginia	WV	9	16	0	0	4	0	0	1	1	7	0	0	38
Wisconsin	WI	33	25	1	1	11	2	0	0	3	20	4	2	102
Wyoming	WY	0	0	0	0	0	0	0	0	0	0	0	0	0

Abbreviations: GME, graduate medical education; AN, Anesthesiology; EM, Emergency medicine; MG, Medical genetics and genomics; NM, Nuclear medicine; PTH, Pathology-anatomic and clinical; GPM, Preventive medicine; AER, Aerospace medicine; OEM, Occupational and environmental medicine; RO, Radiation oncology; DR, Radiology-diagnostic; IRI, Interventional radiology - integrated; IRInd for Interventional radiology - independent.

TABLE C.31

Medical Specialty Residents Entering the GME Pipeline by Specialty and State

State Name	State Abbreviation	D	FM	IM	N	CHN	ONM	PD	PM	P	IP	Total
OVERALL	-	561	5,277	10,720	1,070	152	16	3,244	483	2,280	393	24,196
Alabama	AL	6	106	153	14	2	0	36	4	18	6	345
Alaska	AK	0	11	0	0	0	0	0	0	0	0	11
Arizona	AZ	7	83	171	21	2	0	55	4	25	6	374
Arkansas	AR	3	87	112	4	1	0	25	4	17	4	257
California	CA	49	600	916	93	16	0	319	30	213	20	2,256
Colorado	CO	6	81	85	15	4	0	33	6	23	4	257
Connecticut	CT	10	25	237	17	2	0	44	4	33	4	376
Delaware	DE	0	27	25	0	1	0	25	0	12	5	95
District of Columbia	DC	9	5	119	13	4	0	49	6	28	4	237
Florida	FL	41	241	762	66	4	0	174	37	155	11	1,491
Georgia	GA	12	141	299	18	4	0	59	6	50	0	589
Hawaii	HI	0	20	38	0	0	0	15	0	18	0	91
Idaho	ID	0	48	22	0	0	0	4	0	8	0	82
Illinois	IL	25	272	493	48	5	0	134	18	71	24	1,090
Indiana	IN	0	117	89	9	3	0	36	4	30	14	302
Iowa	IA	6	56	55	8	0	0	22	0	17	0	164
Kansas	KS	5	44	47	8	0	0	5	4	14	3	130
Kentucky	KY	2	54	72	12	4	0	36	9	16	11	216
Louisiana	LA	11	67	164	16	0	0	44	6	37	16	361
Maine	ME	0	32	14	3	0	0	8	0	7	4	68
Maryland	MD	15	29	259	21	3	0	60	17	42	8	454
Massachusetts	MA	21	53	408	52	10	0	77	11	94	20	746
Michigan	MI	27	253	477	48	5	6	126	27	77	29	1,075
Minnesota	MN	15	81	117	15	1	0	36	12	26	10	313
Mississippi	MS	5	41	88	4	2	0	16	0	14	5	175
Missouri	MO	17	79	155	26	11	2	87	6	40	10	433
Montana	MT	0	19	8	0	0	0	0	0	0	0	27
Nebraska	NE	3	42	54	9	0	0	15	4	13	4	144
Nevada	NV	0	48	111	5	0	0	14	6	28	0	212
New Hampshire	NH	3	16	32	5	0	0	7	0	14	0	77
New Jersey	NJ	7	135	444	23	2	0	90	17	77	5	800
New Mexico	NM	3	36	38	6	0	0	21	7	16	0	127
New York	NY	59	305	1,563	135	15	3	442	82	318	25	2,947
North Carolina	NC	18	157	229	20	4	0	75	14	70	18	605
North Dakota	ND	0	28	6	3	0	0	0	0	6	0	43
Ohio	OH	21	221	479	45	11	1	191	16	83	26	1,094
Oklahoma	OK	3	88	57	6	0	0	43	0	23	3	223
Oregon	OR	7	57	89	5	0	0	19	0	12	0	189
Pennsylvania	PA	33	364	643	78	9	0	163	42	120	19	1,471
Puerto Rico	PR	6	24	90	3	0	0	37	6	13	2	181
Rhode Island	RI	4	16	70	6	0	0	16	0	9	4	125
South Carolina	SC	5	126	85	20	1	0	42	0	45	9	333
South Dakota	SD	0	17	9	3	0	0	6	0	9	0	44
Tennessee	TN	8	80	138	18	6	0	68	4	33	18	373
Texas	TX	53	344	670	80	12	2	235	40	167	21	1,624
Utah	UT	4	29	32	8	3	0	27	6	14	3	126
Vermont	VT	2	6	16	5	0	0	7	0	6	0	42
Virginia	VA	12	131	186	17	1	0	86	11	48	4	496
Washington	WA	4	156	132	10	2	0	50	4	23	0	381
West Virginia	WV	3	47	66	15	0	2	21	0	23	6	183
Wisconsin	WI	11	118	96	14	2	0	44	9	25	8	327
Wyoming	WY	0	14	0	0	0	0	0	0	0	0	14

Abbreviations: GME, graduate medical education; D, Dermatology; FM, Family medicine; IM, Internal medicine; N, Neurology; CHN, Child neurology; ONM, Osteopathic neuromusculoskeletal medicine; PD, Pediatrics; PM, Physical medicine and rehabilitation; P, Psychiatry; IP, Internal medicine/Pediatrics.

TABLE C.32

Surgical Specialty Residents Entering the GME Pipeline by Specialty and State

State Name	State Abbreviation	NS	OBG	OPH	ORS	OTO	PS	PSI	GS	VSI	TSI	U	Total
OVERALL	-	240	1,548	522	944	384	64	203	1,708	95	49	402	6,159
Alabama	AL	3	11	5	12	4	1	2	19	1	0	4	62
Alaska	AK	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	AZ	6	22	4	11	4	0	1	41	1	0	7	97
Arkansas	AR	2	5	4	5	3	0	0	5	1	0	2	27
California	CA	22	130	46	80	38	3	16	132	10	9	33	519
Colorado	CO	3	14	6	7	3	1	2	24	1	0	3	64
Connecticut	CT	3	34	5	10	6	0	3	26	2	2	6	97
Delaware	DE	0	7	0	0	0	0	0	8	0	0	0	15
District of Columbia	DC	4	22	13	12	6	0	4	22	2	0	5	90
Florida	FL	9	72	24	45	12	4	10	102	2	1	16	297
Georgia	GA	5	31	8	16	7	2	2	39	2	1	7	120
Hawaii	HI	0	10	0	5	2	0	0	9	0	0	1	27
Idaho	ID	0	0	0	0	0	0	0	0	0	0	0	0
Illinois	IL	11	71	24	34	17	2	13	64	4	1	20	261
Indiana	IN	3	14	6	6	4	3	2	17	1	1	5	62
Iowa	IA	2	6	6	7	5	1	1	15	1	1	3	48
Kansas	KS	2	15	3	8	4	0	2	16	0	0	4	54
Kentucky	KY	4	14	8	10	7	2	4	19	0	1	6	75
Louisiana	LA	5	29	16	16	10	2	2	30	2	0	10	122
Maine	ME	0	4	0	0	0	0	0	6	1	0	2	13
Maryland	MD	8	30	16	22	9	1	4	33	0	1	7	131
Massachusetts	MA	10	39	19	27	15	5	7	63	5	2	15	207
Michigan	MI	8	98	27	62	19	3	7	104	3	2	21	354
Minnesota	MN	6	14	9	20	9	0	6	22	2	0	8	96
Mississippi	MS	2	6	4	4	3	0	2	10	0	0	2	33
Missouri	MO	4	33	17	26	10	0	8	22	2	0	7	129
Montana	MT	0	0	0	0	0	0	0	0	0	0	0	0
Nebraska	NE	2	8	3	5	3	1	0	10	0	0	4	36
Nevada	NV	0	10	0	6	2	0	1	13	0	0	0	32
New Hampshire	NH	1	4	2	4	1	0	1	4	1	0	2	20
New Jersey	NJ	4	64	5	36	5	2	5	62	4	0	10	197
New Mexico	NM	0	6	0	5	2	0	2	7	0	0	3	25
New York	NY	25	184	67	102	35	4	20	181	14	9	47	688
North Carolina	NC	8	49	14	27	11	0	8	47	2	2	12	180
North Dakota	ND	0	0	0	3	0	0	0	5	0	0	0	8
Ohio	OH	10	89	23	63	22	4	11	85	7	5	18	337
Oklahoma	OK	2	18	5	9	4	2	0	13	0	0	4	57
Oregon	OR	3	8	5	8	3	0	3	15	1	0	4	50
Pennsylvania	PA	17	86	29	71	29	7	10	104	9	4	27	393
Puerto Rico	PR	0	13	4	4	2	0	0	9	0	0	4	36
Rhode Island	RI	1	8	3	6	0	0	2	7	0	0	3	30
South Carolina	SC	2	21	7	13	4	1	2	27	2	2	3	84
South Dakota	SD	0	0	0	0	0	0	0	4	0	0	0	4
Tennessee	TN	6	35	10	19	10	4	2	39	0	0	11	136
Texas	TX	18	128	43	66	25	8	16	127	6	2	28	467
Utah	UT	2	7	4	6	4	1	3	6	0	1	3	37
Vermont	VT	1	2	0	3	1	0	0	4	0	0	1	12
Virginia	VA	7	35	10	13	8	0	7	29	2	1	7	119
Washington	WA	3	17	7	11	6	0	5	24	2	1	6	82
West Virginia	WV	1	10	4	8	3	0	1	16	1	0	4	48
Wisconsin	WI	5	15	7	11	7	0	6	22	1	0	7	81
Wyoming	WY	0	0	0	0	0	0	0	0	0	0	0	0

Abbreviations: GME, graduate medical education; NS, Neurological surgery; OBG, Obstetrics and gynecology; OPH, Ophthalmology; ORS, Orthopaedic surgery; OTO, Otolaryngology - head and neck surgery; PS, Plastic surgery; PSI, Plastic surgery - integrated; GS, Surgery; VSI, Vascular surgery - integrated; TSI, Thoracic surgery - integrated; U, Urology.

TABLE C.33

Number of Residents Entering GME and the GME Pipeline by Specialty

Specialty	PGY1 Residents	PGY1 Residents as % of Total	PGY1 Residents with No Prior Training	PGY1 Residents with No Prior Training as % of Total	Entering Pipeline Residents	Entering Pipeline Residents as % of Total
OVERALL	39,371	100.0%	37,788	100.0%	37,757	100.0%
Anesthesiology	1,616	4.1%	1,542	4.1%	1,796	4.8%
Dermatology	10	0.0%	0	0.0%	561	1.5%
Emergency medicine	3,082	7.8%	2,807	7.4%	3,082	8.2%
Family medicine	5,277	13.4%	5,064	13.4%	5,277	14.0%
Internal medicine	12,683	32.2%	12,338	32.7%	10,720	28.4%
Medical genetics and genomics	0	0.0%	0	0.0%	33	0.1%
Neurological surgery	240	0.6%	232	0.6%	240	0.6%
Neurology	742	1.9%	701	1.9%	1,070	2.8%
Child neurology	0	0.0%	0	0.0%	152	0.4%
Nuclear medicine	0	0.0%	0	0.0%	45	0.1%
Obstetrics and gynecology	1,568	4.0%	1,496	4.0%	1,548	4.1%
Ophthalmology	213	0.5%	209	0.6%	522	1.4%
Orthopaedic surgery	944	2.4%	895	2.4%	944	2.5%
Osteopathic neuromusculoskeletal medicine	16	0.0%	12	0.0%	16	0.0%
Otolaryngology - head and neck Surgery	384	1.0%	360	1.0%	384	1.0%
Pathology-anatomic and clinical	626	1.6%	593	1.6%	626	1.7%
Pediatrics	3,361	8.5%	3,305	8.7%	3,244	8.6%
Physical medicine and rehabilitation	206	0.5%	192	0.5%	483	1.3%
Plastic surgery	0	0.0%	0	0.0%	64	0.2%
Plastic Surgery - integrated	203	0.5%	196	0.5%	203	0.5%
Public health and general preventive medicine	7	0.0%	0	0.0%	84	0.2%
Aerospace medicine	0	0.0%	0	0.0%	20	0.1%
Occupational and environmental medicine	1	0.0%	0	0.0%	54	0.1%
Psychiatry	2,280	5.8%	2,206	5.8%	2,280	6.0%
Radiation oncology	0	0.0%	0	0.0%	175	0.5%
Radiology-diagnostic	0	0.0%	0	0.0%	1,193	3.2%
Interventional radiology - independent	0	0.0%	0	0.0%	119	0.3%
Interventional radiology - integrated	0	0.0%	0	0.0%	175	0.5%
Surgery	2,942	7.5%	2,761	7.3%	1,708	4.5%
Vascular surgery - integrated	95	0.2%	86	0.2%	95	0.3%
Thoracic surgery - integrated	49	0.1%	46	0.1%	49	0.1%
Urology	402	1.0%	370	1.0%	402	1.1%
Transitional year	2,031	5.2%	1,986	5.3%	0	0.0%
Internal medicine/Pediatrics	393	1.0%	391	1.0%	393	1.0%

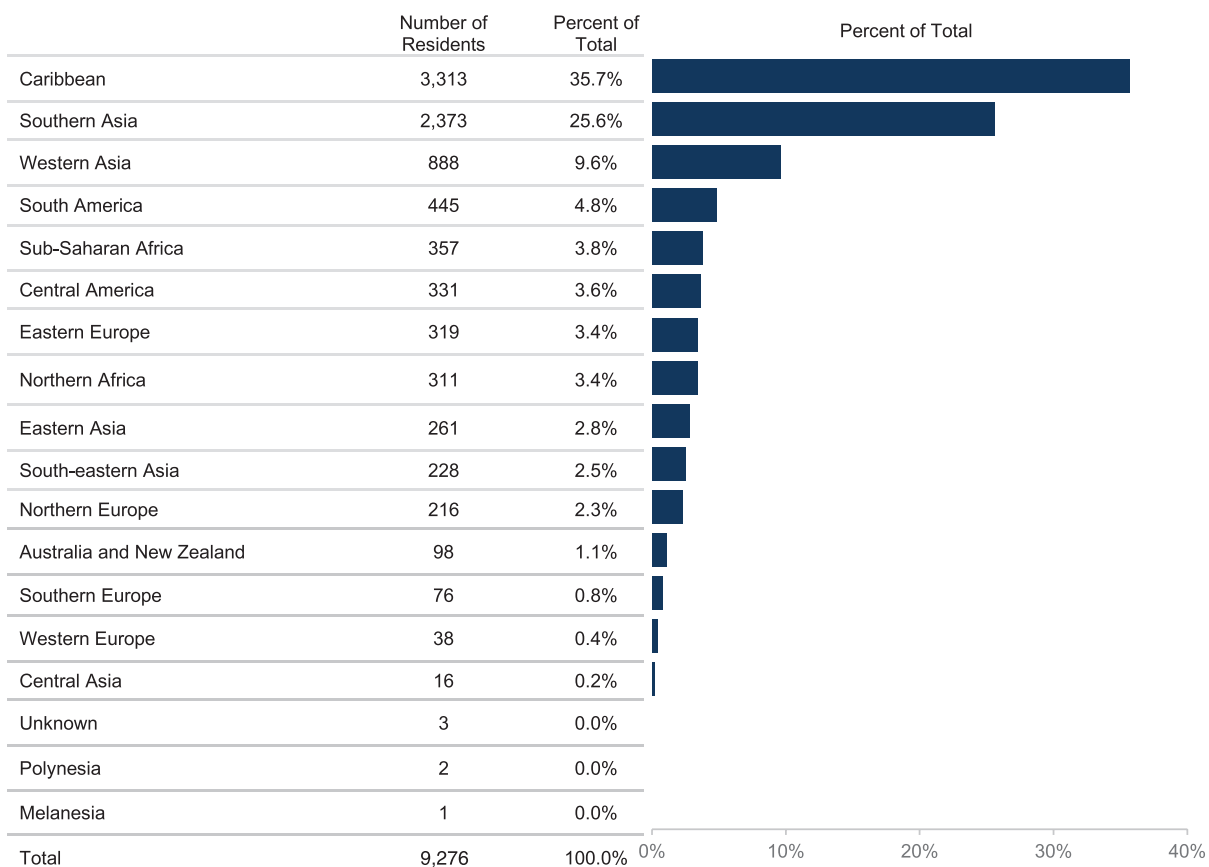
Abbreviations: GME, graduate medical education; PGY1, post graduate year 1.

TABLE C.34

Number of Residents Entering GME and the GME Pipeline by State

State Name	PGY1 Residents	PGY1 Residents as % of Total	PGY1 Residents with No Prior Training	PGY1 Residents with No Prior Training as % of Total	Entering Pipeline Residents	Entering Pipeline Residents as % of Total
OVERALL	39,371	100.0%	37,788	100.0%	37,757	100.0%
Alabama	509	1.3%	490	1.3%	485	1.3%
Alaska	11	0.0%	11	0.0%	11	0.0%
Arizona	631	1.6%	611	1.6%	568	1.5%
Arkansas	358	0.9%	341	0.9%	327	0.9%
California	3,616	9.2%	3,501	9.3%	3,509	9.3%
Colorado	383	1.0%	369	1.0%	382	1.0%
Connecticut	612	1.6%	598	1.6%	595	1.6%
Delaware	132	0.3%	131	0.3%	133	0.4%
District of Columbia	404	1.0%	392	1.0%	387	1.0%
Florida	2,400	6.1%	2,279	6.0%	2,239	5.9%
Georgia	921	2.3%	869	2.3%	848	2.2%
Hawaii	139	0.4%	134	0.4%	125	0.3%
Idaho	85	0.2%	84	0.2%	82	0.2%
Illinois	1,761	4.5%	1,701	4.5%	1,698	4.5%
Indiana	460	1.2%	444	1.2%	437	1.2%
Iowa	255	0.6%	250	0.7%	252	0.7%
Kansas	224	0.6%	217	0.6%	226	0.6%
Kentucky	390	1.0%	372	1.0%	370	1.0%
Louisiana	599	1.5%	571	1.5%	587	1.6%
Maine	102	0.3%	101	0.3%	103	0.3%
Maryland	759	1.9%	716	1.9%	737	2.0%
Massachusetts	1,284	3.3%	1,259	3.3%	1,276	3.4%
Michigan	1,869	4.7%	1,785	4.7%	1,833	4.9%
Minnesota	495	1.3%	489	1.3%	517	1.4%
Mississippi	293	0.7%	281	0.7%	257	0.7%
Missouri	703	1.8%	685	1.8%	729	1.9%
Montana	31	0.1%	30	0.1%	27	0.1%
Nebraska	216	0.5%	206	0.5%	220	0.6%
Nevada	342	0.9%	320	0.8%	289	0.8%
New Hampshire	118	0.3%	112	0.3%	121	0.3%
New Jersey	1,280	3.3%	1,214	3.2%	1,198	3.2%
New Mexico	194	0.5%	183	0.5%	185	0.5%
New York	4,844	12.3%	4,625	12.2%	4,548	12.0%
North Carolina	1,015	2.6%	976	2.6%	976	2.6%
North Dakota	59	0.1%	58	0.2%	51	0.1%
Ohio	1,836	4.7%	1,759	4.7%	1,781	4.7%
Oklahoma	346	0.9%	319	0.8%	350	0.9%
Oregon	289	0.7%	281	0.7%	281	0.7%
Pennsylvania	2,414	6.1%	2,307	6.1%	2,338	6.2%
Puerto Rico	306	0.8%	276	0.7%	248	0.7%
Rhode Island	197	0.5%	193	0.5%	210	0.6%
South Carolina	575	1.5%	540	1.4%	518	1.4%
South Dakota	58	0.1%	55	0.1%	50	0.1%
Tennessee	655	1.7%	633	1.7%	629	1.7%
Texas	2,695	6.8%	2,594	6.9%	2,626	7.0%
Utah	193	0.5%	191	0.5%	199	0.5%
Vermont	73	0.2%	71	0.2%	76	0.2%
Virginia	809	2.1%	782	2.1%	762	2.0%
Washington	599	1.5%	580	1.5%	568	1.5%
West Virginia	288	0.7%	274	0.7%	269	0.7%
Wisconsin	530	1.3%	514	1.4%	510	1.4%
Wyoming	14	0.0%	14	0.0%	14	0.0%

Abbreviations: GME, graduate medical education; PGY1, post graduate year 1.

FIGURE C.35**Number of Residents who are International Medical School Graduates Entering the GME Pipeline by Region, 2023-2024**

Note: Introduced new “Unknown” region for those international medical school graduates where an unknown international medical school was entered by the Program.
 Abbreviations: GME, graduate medical education.

D Graduating Residents and Residents Leaving Prior to Completion

This section summarizes the characteristics of both graduating residents who successfully completed all accredited education, and residents who left their program prior to successful completion. Resident completion status for the 2022-2023 academic year was reported during the fall of the 2023-2024 academic year, therefore, the following data includes only those residents who graduated or left their programs between September 1, 2022 and August 31, 2023.

Graduating Residents

Of the 51,130 residents graduating from ACGME-accredited programs in the 2022-2023 academic year, 62.8% graduated from a program in a medical specialty or subspecialty, 22.8% graduated from a program in a hospital-based specialty or subspecialty, and 14.4% graduated from a program in a surgical specialty or subspecialty. From the 2013-2014 academic year to the 2022-2023 academic year, there was a 29.8% increase in graduating residents (a 30.6% increase in specialty program graduates and a 27.8% increase in subspecialty program graduates). The specialties with the highest number of graduating residents in the 2022-2023 academic year include:

- Internal medicine (9,627)
- Family medicine (4,836)
- Pediatrics (3,094)
- Emergency medicine (2,782)

International medical school graduates account for 12,701 (24.8%) of all graduating residents.

Residents Completing Preliminary Education and Training and Transitional Year Graduates

There were 3,230 residents who completed preliminary education and training and 1,868 residents graduating from transitional year programs during the 2022-2023 academic year, for a total of 5,098 residents completing the necessary prerequisite education and training for specialty programs that require a clinical base year. Of the 3,230 preliminary education and training graduates, 1,942 (60.1%) were in internal medicine, 1,171 (36.3%) were in surgery, 109 (3.4%) were in pediatrics, and 8 (0.2%)

were in obstetrics and gynecology. Over the last 10 years, the total number of preliminary graduates has fluctuated, with a high of 3,579 in the 2017-2018 academic year, and a low of 3,211 in 2021-2022. Since 2013-2014, there has been a 64.9% increase in the number of residents completing transitional year programs.

Geographic Distribution of Graduates

There were approximately 15.1 graduating residents per 100,000 population, including Puerto Rico, during the 2022-2023 academic year (10.8 specialty graduates and 4.4 subspecialty graduates). The following states have the highest total number of graduating residents:

- New York (6,271)
- California (4,746)
- Texas (3,460)
- Pennsylvania (3,298)

The concentration of specialty graduates ranges from 1.5 per 100,000 population in Alaska to 54.1 per 100,000 population in the District of Columbia.

Residents Leaving Prior to Completion

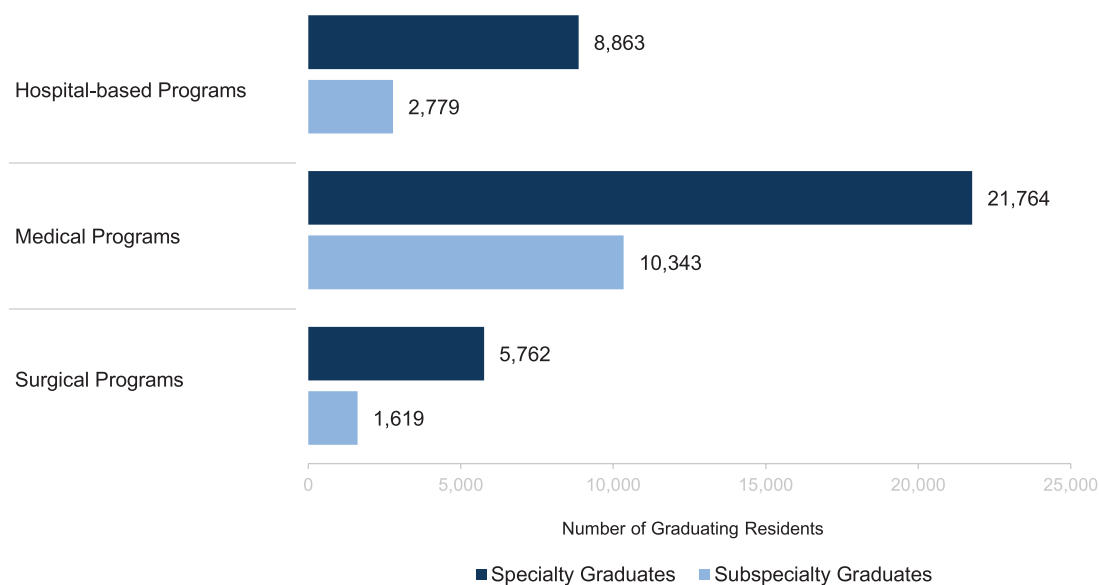
In the 2022-2023 academic year, 2,470 left their programs prior to successful completion with statuses of either transferred (51.0%), withdrawn (36.8%), dismissed (10.9%), deceased (1.1%), or unsuccessfully completed program (0.2%). The following specialties have the highest number of transferring residents:

- Psychiatry (437)
- Surgery (150)
- Internal medicine (135)
- Family medicine (107)

Overall, of the 1,193 transfers that occurred among residents in specialty programs during the 2022-2023 academic year, 429 (36.0%) occurred during the first year of the program, 249 (20.9%) occurred during the second year of the program, 470 (39.4%) occurred during the third year of the program, and 45 (3.8%) occurred in the fourth, or fifth year of the program. ↵

FIGURE D.1

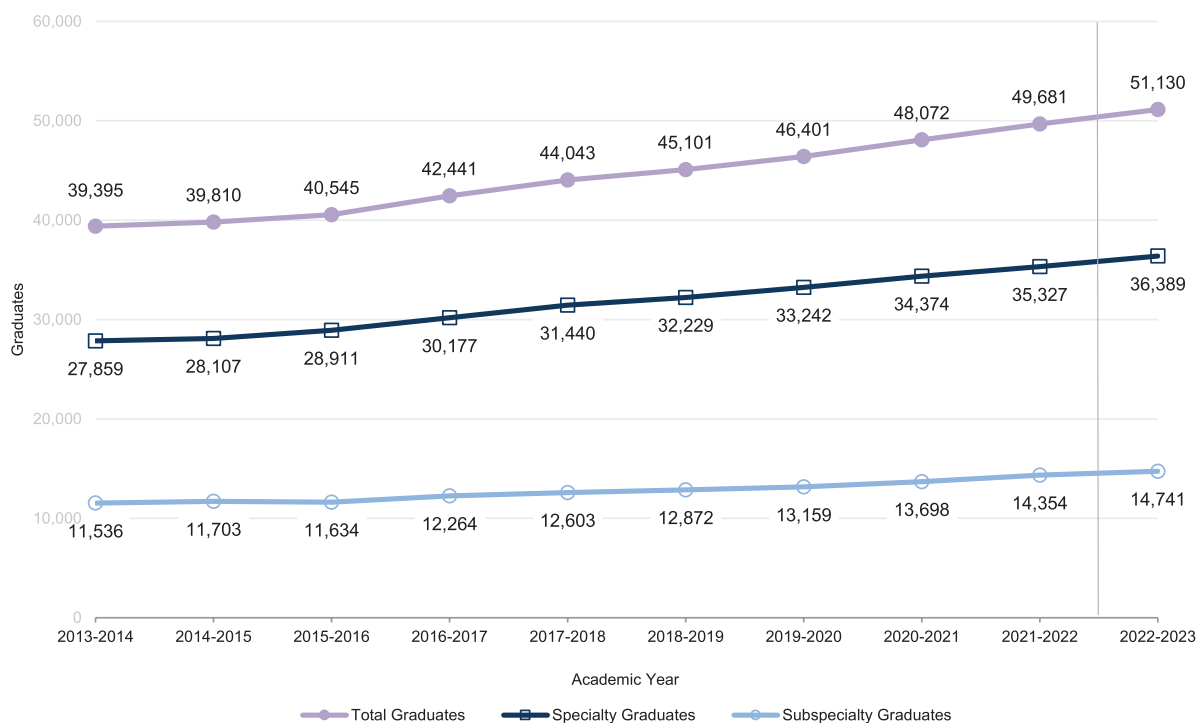
Number of Graduating Residents by Specialty Group, 2022-2023 AY



Note: Total number of graduating residents = 51,130.
Abbreviations: AY, academic year.

FIGURE D.2

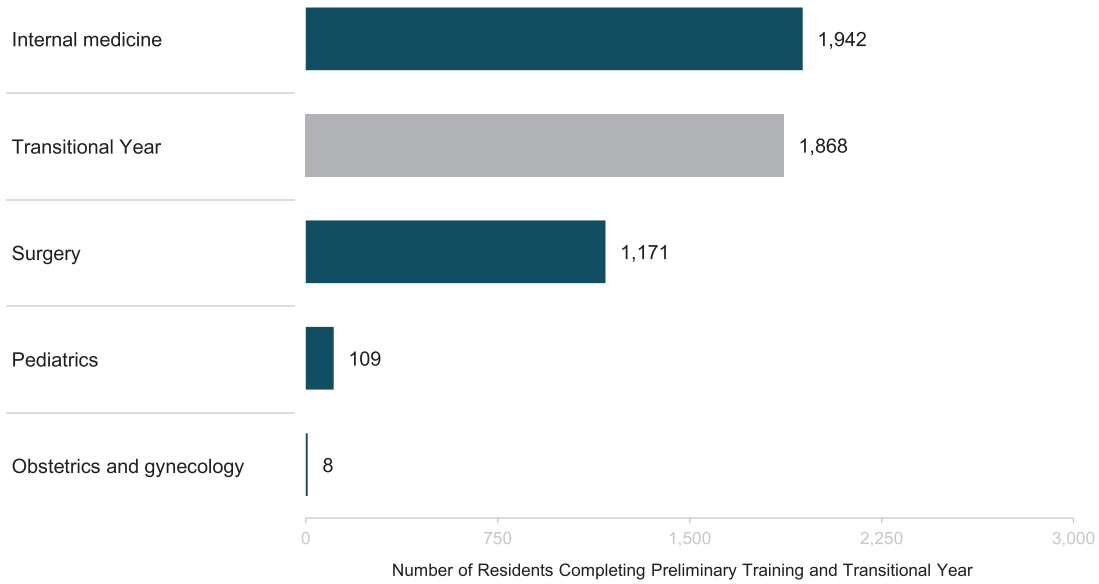
Number of Graduating Residents by Academic Year, 2013-2014 to 2022-2023



Note: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2022-2023 academic year and beyond will reflect these changes.

FIGURE D.3

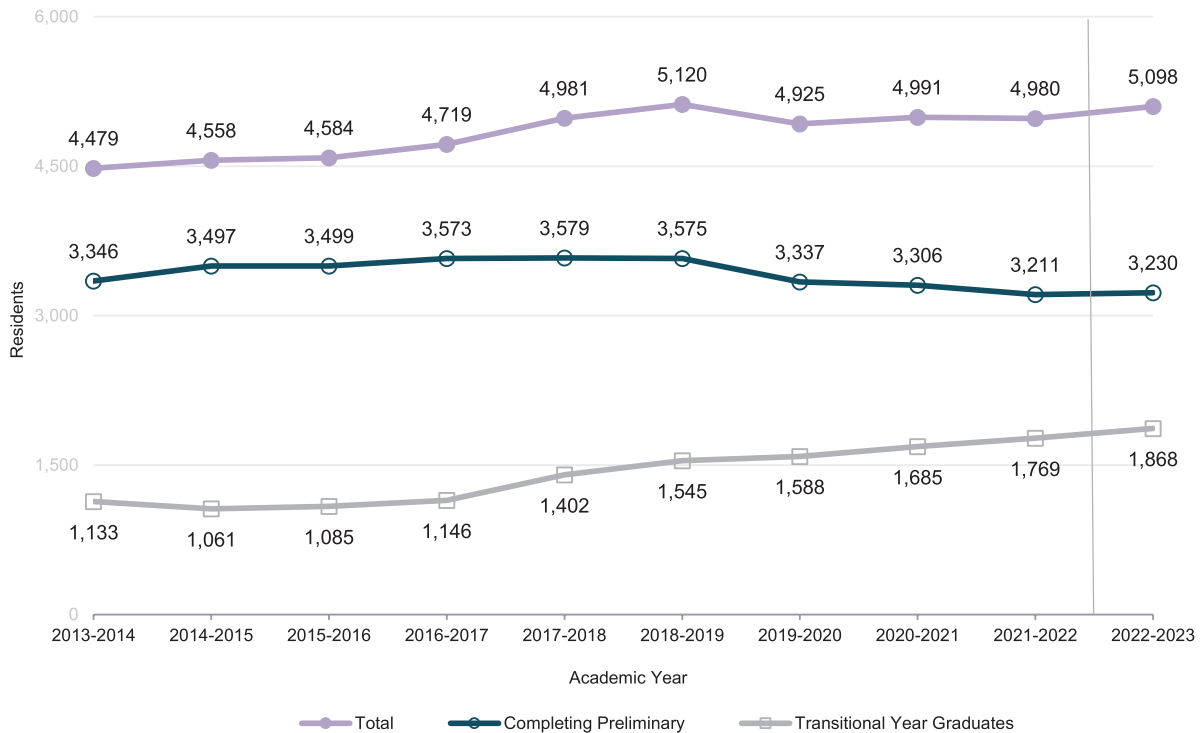
Number of Residents Completing Preliminary Training and Transitional Year by Specialty, 2022-2023 AY



Notes: Total number of residents completing preliminary training = 3,230. Total number of residents completing transitional year programs = 1,868.
Abbreviations: AY, academic year

FIGURE D.4

Number of Residents Completing Preliminary Training and Transitional Year by Academic Year, 2013-2014 to 2022-2023



Note: Effective for the 2023-2024 Data Resource book, accredited programs will include medically related specialties. The trends in the 2022-2023 academic year and beyond will reflect these changes.

TABLE D.5
Number of Graduating Residents and Residents Completing Preliminary Training by Specialty and Subspecialty, 2022-2023 AY

Specialty	Total Graduates	Percent of Total Graduates	Number of Residents Completing Preliminary Training	Percent of Total Residents Completing Preliminary Training
OVERALL	51,130	100.0%	3,230	100.0%
TOTAL PIPELINE	34,261	67.0%	3,230	100.0%
Allergy and immunology	159	0.3%	0	0.0%
Anesthesiology	1,865	3.6%	0	0.0%
- Adult cardiothoracic anesthesiology	263	0.5%	0	0.0%
- Critical care medicine	206	0.4%	0	0.0%
- Obstetric anesthesiology	50	0.1%	0	0.0%
- Pain medicine (multidisciplinary)	421	0.8%	0	0.0%
- Pediatric anesthesiology	202	0.4%	0	0.0%
- Pediatric cardiac anesthesiology	18	0.0%	0	0.0%
- Regional anesthesiology and acute pain medicine	98	0.2%	0	0.0%
Colon and rectal surgery	112	0.2%	0	0.0%
Dermatology	533	1.0%	0	0.0%
- Dermatopathology (multidisciplinary)	75	0.1%	0	0.0%
- Micrographic surgery and dermatologic oncology	87	0.2%	0	0.0%
- Pediatric dermatology	21	0.0%	0	0.0%
Emergency medicine	2,782	5.4%	0	0.0%
- Emergency medical services	94	0.2%	0	0.0%
- Medical toxicology	40	0.1%	0	0.0%
- Pediatric emergency medicine	49	0.1%	0	0.0%
- Sports medicine	17	0.0%	0	0.0%
- Undersea and hyperbaric medicine	12	0.0%	0	0.0%
Family medicine	4,836	9.5%	0	0.0%
- Clinical informatics	13	0.0%	0	0.0%
- Geriatric medicine	41	0.1%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	474	0.9%	0	0.0%
- Sports medicine	288	0.6%	0	0.0%
Internal medicine	9,627	18.8%	1,942	60.1%
- Adult congenital heart disease	16	0.0%	0	0.0%
- Advanced heart failure and transplant cardiology	99	0.2%	0	0.0%
- Cardiovascular disease	1,119	2.2%	0	0.0%
- Clinical cardiac electrophysiology	163	0.3%	0	0.0%
- Clinical informatics	35	0.1%	0	0.0%
- Critical care medicine	184	0.4%	0	0.0%
- Endocrinology, diabetes, and metabolism	365	0.7%	0	0.0%
- Gastroenterology	628	1.2%	0	0.0%
- Geriatric medicine	273	0.5%	0	0.0%
- Hematology and medical oncology	671	1.3%	0	0.0%
- Infectious disease	414	0.8%	0	0.0%
- Interventional cardiology	375	0.7%	0	0.0%
- Interventional pulmonology	4	0.0%	0	0.0%
- Medical oncology	4	0.0%	0	0.0%
- Nephrology	437	0.9%	0	0.0%
- Pulmonary disease	26	0.1%	0	0.0%
- Pulmonary disease and critical care medicine	750	1.5%	0	0.0%
- Rheumatology	259	0.5%	0	0.0%
- Sleep medicine (multidisciplinary)	209	0.4%	0	0.0%
- Transplant hepatology	49	0.1%	0	0.0%
Medical genetics and genomics	36	0.1%	0	0.0%
- Medical biochemical genetics	16	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	60	0.1%	0	0.0%
Clinical biochemical genetics	7	0.0%	0	0.0%
Laboratory genetics and genomics	28	0.1%	0	0.0%
Neurological surgery	225	0.4%	0	0.0%
- Neuroendovascular intervention	3	0.0%	0	0.0%

TABLE D.5 *Continued*
Number of Graduating Residents and Residents Completing Preliminary Training by Specialty and Subspecialty, 2022-2023 AY

Specialty	Total Graduates	Percent of Total Graduates	Number of Residents Completing Preliminary Training	Percent of Total Residents Completing Preliminary Training
Neurology	898	1.8%	0	0.0%
- Clinical neurophysiology	159	0.3%	0	0.0%
- Epilepsy	161	0.3%	0	0.0%
- Neurocritical care (multidisciplinary)	59	0.1%	0	0.0%
- Neuroendovascular intervention	1	0.0%	0	0.0%
- Neurodevelopmental disabilities	6	0.0%	0	0.0%
- Neuromuscular medicine	78	0.2%	0	0.0%
- Vascular neurology	190	0.4%	0	0.0%
Child neurology	149	0.3%	0	0.0%
Nuclear medicine	36	0.1%	0	0.0%
Obstetrics and gynecology	1,425	2.8%	8	0.2%
- Female pelvic medicine and reconstructive surgery	47	0.1%	0	0.0%
- Gynecologic oncology	78	0.2%	0	0.0%
- Maternal-fetal medicine	130	0.3%	0	0.0%
- Reproductive endocrinology and infertility	57	0.1%	0	0.0%
- Complex family planning	26	0.1%	0	0.0%
Ophthalmology	501	1.0%	0	0.0%
- Ophthalmic plastic and reconstructive surgery	1	0.0%	0	0.0%
Orthopaedic surgery	884	1.7%	0	0.0%
- Adult reconstructive orthopaedics	53	0.1%	0	0.0%
- Foot and ankle orthopaedics	16	0.0%	0	0.0%
- Hand surgery	161	0.3%	0	0.0%
- Musculoskeletal oncology	14	0.0%	0	0.0%
- Orthopaedic sports medicine	223	0.4%	0	0.0%
- Orthopaedic surgery of the spine	26	0.1%	0	0.0%
- Orthopaedic trauma	20	0.0%	0	0.0%
- Pediatric orthopaedics	37	0.1%	0	0.0%
Osteopathic neuromusculoskeletal medicine	47	0.1%	0	0.0%
Otolaryngology - head and neck Surgery	340	0.7%	0	0.0%
- Neurotology	19	0.0%	0	0.0%
- Pediatric otolaryngology	40	0.1%	0	0.0%
Pathology-anatomic and clinical	598	1.2%	0	0.0%
- Blood banking/transfusion medicine	44	0.1%	0	0.0%
- Clinical informatics	14	0.0%	0	0.0%
- Chemical pathology	1	0.0%	0	0.0%
- Cytopathology	115	0.2%	0	0.0%
- Forensic pathology	55	0.1%	0	0.0%
- Hematopathology	138	0.3%	0	0.0%
- Medical microbiology	14	0.0%	0	0.0%
- Neuropathology	28	0.1%	0	0.0%
- Pediatric pathology	21	0.0%	0	0.0%
- Selective pathology	179	0.4%	0	0.0%
Pediatrics	3,094	6.1%	109	3.4%
- Adolescent medicine	33	0.1%	0	0.0%
- Child abuse pediatrics	10	0.0%	0	0.0%
- Clinical informatics	11	0.0%	0	0.0%
- Developmental-behavioral pediatrics	39	0.1%	0	0.0%
- Neonatal-perinatal medicine	258	0.5%	0	0.0%
- Pediatric cardiology	157	0.3%	0	0.0%
- Pediatric critical care medicine	205	0.4%	0	0.0%
- Pediatric emergency medicine	144	0.3%	0	0.0%
- Pediatric endocrinology	83	0.2%	0	0.0%
- Pediatric gastroenterology	111	0.2%	0	0.0%
- Pediatric hematology/oncology	150	0.3%	0	0.0%
- Pediatric infectious diseases	70	0.1%	0	0.0%

TABLE D.5 *Continued*
Number of Graduating Residents and Residents Completing Preliminary Training by Specialty and Subspecialty, 2022-2023 AY

Specialty	Total Graduates	Percent of Total Graduates	Number of Residents Completing Preliminary Training	Percent of Total Residents Completing Preliminary Training
- Pediatric nephrology	43	0.1%	0	0.0%
- Pediatric pulmonology	57	0.1%	0	0.0%
- Pediatric rheumatology	35	0.1%	0	0.0%
- Sports medicine	27	0.1%	0	0.0%
- Pediatric transplant hepatology	13	0.0%	0	0.0%
- Pediatric hospital medicine	89	0.2%	0	0.0%
Physical medicine and rehabilitation	467	0.9%	0	0.0%
- Brain injury medicine	21	0.0%	0	0.0%
- Neuromuscular medicine	0	0.0%	0	0.0%
- Spinal cord injury medicine	24	0.0%	0	0.0%
- Pediatric rehabilitation medicine	17	0.0%	0	0.0%
- Sports medicine	42	0.1%	0	0.0%
Plastic surgery	62	0.1%	0	0.0%
Plastic Surgery - integrated	168	0.3%	0	0.0%
- Craniofacial surgery	5	0.0%	0	0.0%
- Hand surgery	27	0.1%	0	0.0%
Public health and general preventive medicine	104	0.2%	0	0.0%
- Undersea and hyperbaric medicine	3	0.0%	0	0.0%
Aerospace medicine	26	0.1%	0	0.0%
Occupational and environmental medicine	57	0.1%	0	0.0%
Psychiatry	1,581	3.1%	0	0.0%
- Addiction medicine (multidisciplinary)	174	0.3%	0	0.0%
- Addiction psychiatry	92	0.2%	0	0.0%
- Child and adolescent psychiatry	474	0.9%	0	0.0%
- Forensic psychiatry	76	0.1%	0	0.0%
- Geriatric psychiatry	62	0.1%	0	0.0%
- Consultation-liaison psychiatry	93	0.2%	0	0.0%
Radiation oncology	189	0.4%	0	0.0%
Radiology-diagnostic	1,128	2.2%	0	0.0%
- Abdominal radiology	50	0.1%	0	0.0%
- Musculoskeletal radiology	36	0.1%	0	0.0%
- Neuroendovascular intervention	4	0.0%	0	0.0%
- Neuroradiology	302	0.6%	0	0.0%
- Nuclear radiology	10	0.0%	0	0.0%
- Pediatric radiology	60	0.1%	0	0.0%
Interventional radiology - independent	159	0.3%	0	0.0%
Interventional radiology - integrated	139	0.3%	0	0.0%
Surgery	1,482	2.9%	1,171	36.3%
- Complex general surgical oncology	61	0.1%	0	0.0%
- Hand surgery	9	0.0%	0	0.0%
- Pediatric surgery	46	0.1%	0	0.0%
- Surgical critical care	346	0.7%	0	0.0%
- Vascular surgery - independent	134	0.3%	0	0.0%
Vascular surgery - integrated	63	0.1%	0	0.0%
Thoracic surgery - independent	113	0.2%	0	0.0%
- Congenital cardiac surgery	7	0.0%	0	0.0%
Thoracic surgery - integrated	35	0.1%	0	0.0%
Urology	352	0.7%	0	0.0%
- Female pelvic medicine and reconstructive surgery	16	0.0%	0	0.0%
- Pediatric urology	17	0.0%	0	0.0%
Transitional year	1,868	3.7%	0	0.0%
Internal medicine/Pediatrics	373	0.7%	0	0.0%
Health care administration, leadership, and management	0	0.0%	0	0.0%
Note: Pipeline specialties are highlighted.				
Abbreviations: AY, academic year.				

TABLE D.6

Number of Graduating Residents by Specialty and Subspecialty and Medical School Type, 2022-2023 AY

Specialty	Total Graduates	US LCME - Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
OVERALL	51,130	29,181	57.1%	12,701	24.8%	9,128	17.9%	88	0.2%	32	0.1%
TOTAL PIPELINE	34,261	19,655	57.4%	7,893	23.0%	6,703	19.6%	9	0.0%	1	0.0%
Allergy and immunology	159	118	74.2%	30	18.9%	11	6.9%	0	0.0%	0	0.0%
Anesthesiology	1,865	1,274	68.3%	217	11.6%	373	20.0%	1	0.1%	0	0.0%
- Adult cardiothoracic anesthesiology	263	174	66.2%	51	19.4%	35	13.3%	3	1.1%	0	0.0%
- Critical care medicine	206	136	66.0%	39	18.9%	31	15.0%	0	0.0%	0	0.0%
- Obstetric anesthesiology	50	33	66.0%	12	24.0%	4	8.0%	1	2.0%	0	0.0%
- Pain medicine (multidisciplinary)	421	258	61.3%	71	16.9%	92	21.9%	0	0.0%	0	0.0%
- Pediatric anesthesiology	202	138	68.3%	33	16.3%	31	15.3%	0	0.0%	0	0.0%
- Pediatric cardiac anesthesiology	18	12	66.7%	3	16.7%	3	16.7%	0	0.0%	0	0.0%
- Regional anesthesiology and acute pain medicine	98	57	58.2%	28	28.6%	13	13.3%	0	0.0%	0	0.0%
- Colon and rectal surgery	112	90	80.4%	12	10.7%	7	6.3%	3	2.7%	0	0.0%
Dermatology	533	456	85.6%	15	2.8%	62	11.6%	0	0.0%	0	0.0%
- Dermatopathology (multidisciplinary)	75	48	64.0%	19	25.3%	5	6.7%	3	4.0%	0	0.0%
- Micrographic surgery and dermatologic oncology	87	76	87.4%	3	3.4%	7	8.0%	1	1.1%	0	0.0%
- Pediatric dermatology	21	15	71.4%	4	19.0%	1	4.8%	1	4.8%	0	0.0%
Emergency medicine	2,782	1,808	65.0%	189	6.8%	785	28.2%	0	0.0%	0	0.0%
- Emergency medical services	94	64	68.1%	6	6.4%	24	25.5%	0	0.0%	0	0.0%
- Medical toxicology	40	29	72.5%	3	7.5%	8	20.0%	0	0.0%	0	0.0%
- Pediatric emergency medicine	49	29	59.2%	9	18.4%	11	22.4%	0	0.0%	0	0.0%
- Sports medicine	17	10	58.8%	2	11.8%	5	29.4%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	12	10	83.3%	2	16.7%	0	0.0%	0	0.0%	0	0.0%
Family medicine	4,836	1,889	39.1%	1,315	27.2%	1,631	33.7%	1	0.0%	0	0.0%
- Clinical informatics	13	10	76.9%	3	23.1%	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	41	15	36.6%	19	46.3%	7	17.1%	0	0.0%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	474	265	55.9%	116	24.5%	90	19.0%	3	0.6%	0	0.0%
- Sports medicine	288	126	43.8%	44	15.3%	118	41.0%	0	0.0%	0	0.0%
Internal medicine	9,627	4,066	42.2%	3,877	40.3%	1,681	17.5%	2	0.0%	1	0.0%
- Adult congenital heart disease	16	11	68.8%	4	25.0%	1	6.3%	0	0.0%	0	0.0%
- Advanced heart failure and transplant cardiology	99	44	44.4%	47	47.5%	6	6.1%	2	2.0%	0	0.0%
- Cardiovascular disease	1,119	565	50.5%	424	37.9%	130	11.6%	0	0.0%	0	0.0%
- Clinical cardiac electrophysiology	163	94	57.7%	58	35.6%	10	6.1%	1	0.6%	0	0.0%
- Clinical informatics	35	24	68.6%	10	28.6%	1	2.9%	0	0.0%	0	0.0%
- Critical care medicine	184	64	34.8%	80	43.5%	40	21.7%	0	0.0%	0	0.0%
- Endocrinology, diabetes, and metabolism	365	94	25.8%	231	63.3%	39	10.7%	1	0.3%	0	0.0%
- Gastroenterology	628	388	61.8%	169	26.9%	71	11.3%	0	0.0%	0	0.0%
- Geriatric medicine	273	97	35.5%	146	53.5%	30	11.0%	0	0.0%	0	0.0%
- Hematology and medical oncology	671	362	53.9%	253	37.7%	55	8.2%	1	0.1%	0	0.0%
- Infectious disease	414	196	47.3%	172	41.5%	45	10.9%	1	0.2%	0	0.0%
- Interventional cardiology	375	145	38.7%	198	52.8%	31	8.3%	1	0.3%	0	0.0%
- Interventional pulmonology	4	1	25.0%	3	75.0%	0	0.0%	0	0.0%	0	0.0%
- Medical oncology	4	0	0.0%	4	100.0%	0	0.0%	0	0.0%	0	0.0%
- Nephrology	437	89	20.4%	296	67.7%	51	11.7%	1	0.2%	0	0.0%
- Pulmonary disease	26	2	7.7%	23	88.5%	1	3.8%	0	0.0%	0	0.0%
- Pulmonary disease and critical care medicine	750	360	48.0%	293	39.1%	97	12.9%	0	0.0%	0	0.0%
- Rheumatology	259	110	42.5%	99	38.2%	50	19.3%	0	0.0%	0	0.0%
- Sleep medicine (multidisciplinary)	209	87	41.6%	92	44.0%	30	14.4%	0	0.0%	0	0.0%
- Transplant hepatology	49	32	65.3%	16	32.7%	1	2.0%	0	0.0%	0	0.0%
Medical genetics and genomics	36	22	61.1%	13	36.1%	1	2.8%	0	0.0%	0	0.0%
- Medical biochemical genetics	16	12	75.0%	4	25.0%	0	0.0%	0	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	60	24	40.0%	32	53.3%	4	6.7%	0	0.0%	0	0.0%
Clinical biochemical genetics	7	1	14.3%	2	28.6%	0	0.0%	0	0.0%	4	57.1%
Laboratory genetics and genomics	28	0	0.0%	1	3.6%	0	0.0%	1	3.6%	26	92.9%
Neurological surgery	225	193	85.8%	22	9.8%	10	4.4%	0	0.0%	0	0.0%
- Neuroendovascular intervention	3	3	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

TABLE D.6 *Continued*
Number of Graduating Residents by Specialty and Subspecialty and Medical School Type, 2022-2023 AY

Specialty	Total Graduates	US LCME - Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
Neurology	898	489	54.5%	289	32.2%	119	13.3%	1	0.1%	0	0.0%
- Clinical neurophysiology	159	76	47.8%	59	37.1%	23	14.5%	1	0.6%	0	0.0%
- Epilepsy	161	88	54.7%	51	31.7%	20	12.4%	2	1.2%	0	0.0%
- Neurocritical care (multidisciplinary)	59	22	37.3%	27	45.8%	9	15.3%	1	1.7%	0	0.0%
- Neuroendovascular intervention	1	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
- Neurodevelopmental disabilities	6	5	83.3%	0	0.0%	0	0.0%	1	16.7%	0	0.0%
- Neuromuscular medicine	78	49	62.8%	21	26.9%	5	6.4%	3	3.8%	0	0.0%
- Vascular neurology	190	97	51.1%	73	38.4%	20	10.5%	0	0.0%	0	0.0%
Child neurology	149	112	75.2%	24	16.1%	13	8.7%	0	0.0%	0	0.0%
Nuclear medicine	36	10	27.8%	25	69.4%	0	0.0%	1	2.8%	0	0.0%
Obstetrics and gynecology	1,425	1,087	76.3%	89	6.2%	249	17.5%	0	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	47	38	80.9%	4	8.5%	5	10.6%	0	0.0%	0	0.0%
- Gynecologic oncology	78	71	91.0%	3	3.8%	3	3.8%	1	1.3%	0	0.0%
- Maternal-fetal medicine	130	103	79.2%	17	13.1%	10	7.7%	0	0.0%	0	0.0%
- Reproductive endocrinology and infertility	57	51	89.5%	3	5.3%	2	3.5%	1	1.8%	0	0.0%
- Complex family planning	26	25	96.2%	0	0.0%	1	3.8%	0	0.0%	0	0.0%
Ophthalmology	501	457	91.2%	20	4.0%	24	4.8%	0	0.0%	0	0.0%
- Ophthalmic plastic and reconstructive surgery	1	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Orthopaedic surgery	884	752	85.1%	14	1.6%	118	13.3%	0	0.0%	0	0.0%
- Adult reconstructive orthopaedics	53	47	88.7%	3	5.7%	1	1.9%	2	3.8%	0	0.0%
- Foot and ankle orthopaedics	16	11	68.8%	2	12.5%	2	12.5%	1	6.3%	0	0.0%
- Hand surgery	161	142	88.2%	7	4.3%	7	4.3%	5	3.1%	0	0.0%
- Musculoskeletal oncology	14	12	85.7%	2	14.3%	0	0.0%	0	0.0%	0	0.0%
- Orthopaedic sports medicine	223	184	82.5%	11	4.9%	24	10.8%	4	1.8%	0	0.0%
- Orthopaedic surgery of the spine	26	23	88.5%	1	3.8%	2	7.7%	0	0.0%	0	0.0%
- Orthopaedic trauma	20	16	80.0%	2	10.0%	1	5.0%	1	5.0%	0	0.0%
- Pediatric orthopaedics	37	24	64.9%	6	16.2%	5	13.5%	2	5.4%	0	0.0%
Osteopathic neuromusculoskeletal medicine	47	2	4.3%	0	0.0%	45	95.7%	0	0.0%	0	0.0%
Otolaryngology - head and neck Surgery	340	300	88.2%	12	3.5%	28	8.2%	0	0.0%	0	0.0%
- Neurotology	19	16	84.2%	1	5.3%	0	0.0%	2	10.5%	0	0.0%
- Pediatric otolaryngology	40	27	67.5%	9	22.5%	1	2.5%	2	5.0%	1	2.5%
Pathology-anatomic and clinical	598	260	43.5%	280	46.8%	57	9.5%	1	0.2%	0	0.0%
- Blood banking/transfusion medicine	44	27	61.4%	17	38.6%	0	0.0%	0	0.0%	0	0.0%
- Clinical informatics	14	6	42.9%	7	50.0%	1	7.1%	0	0.0%	0	0.0%
- Chemical pathology	1	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%
- Cytopathology	115	41	35.7%	62	53.9%	11	9.6%	1	0.9%	0	0.0%
- Forensic pathology	55	32	58.2%	12	21.8%	10	18.2%	1	1.8%	0	0.0%
- Hematopathology	138	52	37.7%	71	51.4%	15	10.9%	0	0.0%	0	0.0%
- Medical microbiology	14	10	71.4%	2	14.3%	1	7.1%	1	7.1%	0	0.0%
- Neuropathology	28	14	50.0%	11	39.3%	3	10.7%	0	0.0%	0	0.0%
- Pediatric pathology	21	10	47.6%	4	19.0%	2	9.5%	5	23.8%	0	0.0%
- Selective pathology	179	36	20.1%	131	73.2%	8	4.5%	4	2.2%	0	0.0%
Pediatrics	3,094	1,904	61.5%	658	21.3%	532	17.2%	0	0.0%	0	0.0%
- Adolescent medicine	33	24	72.7%	4	12.1%	5	15.2%	0	0.0%	0	0.0%
- Child abuse pediatrics	10	5	50.0%	1	10.0%	4	40.0%	0	0.0%	0	0.0%
- Clinical informatics	11	7	63.6%	2	18.2%	1	9.1%	1	9.1%	0	0.0%
- Developmental-behavioral pediatrics	39	21	53.8%	12	30.8%	6	15.4%	0	0.0%	0	0.0%
- Neonatal-perinatal medicine	258	148	57.4%	78	30.2%	31	12.0%	1	0.4%	0	0.0%
- Pediatric cardiology	157	108	68.8%	34	21.7%	15	9.6%	0	0.0%	0	0.0%
- Pediatric critical care medicine	205	135	65.9%	44	21.5%	26	12.7%	0	0.0%	0	0.0%
- Pediatric emergency medicine	144	104	72.2%	20	13.9%	20	13.9%	0	0.0%	0	0.0%
- Pediatric endocrinology	83	45	54.2%	30	36.1%	8	9.6%	0	0.0%	0	0.0%
- Pediatric gastroenterology	111	71	64.0%	30	27.0%	10	9.0%	0	0.0%	0	0.0%
- Pediatric hematology/oncology	150	96	64.0%	34	22.7%	20	13.3%	0	0.0%	0	0.0%
- Pediatric infectious diseases	70	44	62.9%	20	28.6%	6	8.6%	0	0.0%	0	0.0%

TABLE D.6 *Continued*

Number of Graduating Residents by Specialty and Subspecialty and Medical School Type, 2022-2023 AY

Specialty	Total Graduates	US LCME - Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
- Pediatric nephrology	43	29	67.4%	11	25.6%	3	7.0%	0	0.0%	0	0.0%
- Pediatric pulmonology	57	32	56.1%	17	29.8%	8	14.0%	0	0.0%	0	0.0%
- Pediatric rheumatology	35	30	85.7%	1	2.9%	4	11.4%	0	0.0%	0	0.0%
- Sports medicine	27	18	66.7%	1	3.7%	8	29.6%	0	0.0%	0	0.0%
- Pediatric transplant hepatology	13	9	69.2%	3	23.1%	1	7.7%	0	0.0%	0	0.0%
- Pediatric hospital medicine	89	70	78.7%	9	10.1%	9	10.1%	1	1.1%	0	0.0%
Physical medicine and rehabilitation	467	241	51.6%	43	9.2%	183	39.2%	0	0.0%	0	0.0%
- Brain injury medicine	21	13	61.9%	2	9.5%	6	28.6%	0	0.0%	0	0.0%
- Neuromuscular medicine	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Spinal cord injury medicine	24	15	62.5%	1	4.2%	8	33.3%	0	0.0%	0	0.0%
- Pediatric rehabilitation medicine	17	10	58.8%	1	5.9%	6	35.3%	0	0.0%	0	0.0%
- Sports medicine	42	29	69.0%	7	16.7%	6	14.3%	0	0.0%	0	0.0%
Plastic surgery	62	47	75.8%	10	16.1%	5	8.1%	0	0.0%	0	0.0%
Plastic Surgery - integrated	168	162	96.4%	5	3.0%	1	0.6%	0	0.0%	0	0.0%
- Craniofacial surgery	5	3	60.0%	1	20.0%	1	20.0%	0	0.0%	0	0.0%
- Hand surgery	27	22	81.5%	1	3.7%	1	3.7%	3	11.1%	0	0.0%
Public health and general preventive medicine	104	60	57.7%	32	30.8%	12	11.5%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	3	2	66.7%	0	0.0%	0	0.0%	1	33.3%	0	0.0%
Aerospace medicine	26	15	57.7%	0	0.0%	11	42.3%	0	0.0%	0	0.0%
Occupational and environmental medicine	57	33	57.9%	12	21.1%	11	19.3%	1	1.8%	0	0.0%
Psychiatry	1,581	995	62.9%	273	17.3%	312	19.7%	1	0.1%	0	0.0%
- Addiction medicine (multidisciplinary)	174	96	55.2%	52	29.9%	26	14.9%	0	0.0%	0	0.0%
- Addiction psychiatry	92	52	56.5%	28	30.4%	12	13.0%	0	0.0%	0	0.0%
- Child and adolescent psychiatry	474	277	58.4%	110	23.2%	87	18.4%	0	0.0%	0	0.0%
- Forensic psychiatry	76	45	59.2%	20	26.3%	11	14.5%	0	0.0%	0	0.0%
- Geriatric psychiatry	62	34	54.8%	25	40.3%	3	4.8%	0	0.0%	0	0.0%
- Consultation-liaison psychiatry	93	55	59.1%	25	26.9%	13	14.0%	0	0.0%	0	0.0%
Radiation oncology	189	183	96.8%	3	1.6%	3	1.6%	0	0.0%	0	0.0%
Radiology-diagnostic	1,128	837	74.2%	127	11.3%	164	14.5%	0	0.0%	0	0.0%
- Abdominal radiology	50	22	44.0%	19	38.0%	7	14.0%	2	4.0%	0	0.0%
- Musculoskeletal radiology	36	25	69.4%	8	22.2%	2	5.6%	1	2.8%	0	0.0%
- Neuroendovascular intervention	4	0	0.0%	4	100.0%	0	0.0%	0	0.0%	0	0.0%
- Neuroradiology	302	198	65.6%	76	25.2%	28	9.3%	0	0.0%	0	0.0%
- Nuclear radiology	10	5	50.0%	5	50.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric radiology	60	27	45.0%	29	48.3%	4	6.7%	0	0.0%	0	0.0%
Interventional radiology - independent	159	112	70.4%	36	22.6%	11	6.9%	0	0.0%	0	0.0%
Interventional radiology - integrated	139	118	84.9%	9	6.5%	12	8.6%	0	0.0%	0	0.0%
Surgery	1,482	1,060	71.5%	226	15.2%	196	13.2%	0	0.0%	0	0.0%
- Complex general surgical oncology	61	52	85.2%	8	13.1%	1	1.6%	0	0.0%	0	0.0%
- Hand surgery	9	4	44.4%	2	22.2%	2	22.2%	1	11.1%	0	0.0%
- Pediatric surgery	46	43	93.5%	2	4.3%	1	2.2%	0	0.0%	0	0.0%
- Surgical critical care	346	257	74.3%	32	9.2%	57	16.5%	0	0.0%	0	0.0%
- Vascular surgery - independent	134	81	60.4%	29	21.6%	23	17.2%	1	0.7%	0	0.0%
Vascular surgery - integrated	63	54	85.7%	7	11.1%	2	3.2%	0	0.0%	0	0.0%
Thoracic surgery - independent	113	90	79.6%	15	13.3%	7	6.2%	1	0.9%	0	0.0%
- Congenital cardiac surgery	7	7	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Thoracic surgery - integrated	35	29	82.9%	4	11.4%	2	5.7%	0	0.0%	0	0.0%
Urology	352	315	89.5%	16	4.5%	21	6.0%	0	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	16	11	68.8%	3	18.8%	2	12.5%	0	0.0%	0	0.0%
- Pediatric urology	17	16	94.1%	0	0.0%	0	0.0%	1	5.9%	0	0.0%
Transitional year	1,868	1,165	62.4%	166	8.9%	537	28.7%	0	0.0%	0	0.0%
Internal medicine/Pediatrics	373	313	83.9%	31	8.3%	29	7.8%	0	0.0%	0	0.0%
Health care administration, leadership, and management	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

Note: Pipeline specialties are highlighted.

Abbreviations: AY, academic year; LCME, Liaison Committee on Medical Education.

TABLE D.7

Number of Graduating Residents and Graduate Concentration per 100,000 Population by State, 2022-2023 AY

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Graduates	Percent of All Graduates	Graduates per 100,000 Pop
OVERALL	-	338,120,586	51,130	100.0%	15.12
Alabama	AL	5,108,468	578	1.1%	11.31
Alaska	AK	733,406	12	0.0%	1.64
Arizona	AZ	7,431,344	709	1.4%	9.54
Arkansas	AR	3,067,732	370	0.7%	12.06
California	CA	38,965,193	4,746	9.3%	12.18
Colorado	CO	5,877,610	601	1.2%	10.23
Connecticut	CT	3,617,176	852	1.7%	23.55
Delaware	DE	1,031,890	125	0.2%	12.11
District of Columbia	DC	678,972	559	1.1%	82.33
Florida	FL	22,610,726	2,757	5.4%	12.19
Georgia	GA	11,029,227	1,155	2.3%	10.47
Hawaii	HI	1,435,138	151	0.3%	10.52
Idaho	ID	1,964,726	67	0.1%	3.41
Illinois	IL	12,549,689	2,281	4.5%	18.18
Indiana	IN	6,862,199	585	1.1%	8.52
Iowa	IA	3,207,004	326	0.6%	10.17
Kansas	KS	2,940,546	282	0.6%	9.59
Kentucky	KY	4,526,154	493	1.0%	10.89
Louisiana	LA	4,573,749	704	1.4%	15.39
Maine	ME	1,395,722	125	0.2%	8.96
Maryland	MD	6,180,253	1,186	2.3%	19.19
Massachusetts	MA	7,001,399	2,147	4.2%	30.67
Michigan	MI	10,037,261	2,458	4.8%	24.49
Minnesota	MN	5,737,915	854	1.7%	14.88
Mississippi	MS	2,939,690	287	0.6%	9.76
Missouri	MO	6,196,156	1,070	2.1%	17.27
Montana	MT	1,132,812	27	0.1%	2.38
Nebraska	NE	1,978,379	294	0.6%	14.86
Nevada	NV	3,194,176	302	0.6%	9.45
New Hampshire	NH	1,402,054	168	0.3%	11.98
New Jersey	NJ	9,290,841	1,366	2.7%	14.70
New Mexico	NM	2,114,371	263	0.5%	12.44
New York	NY	19,571,216	6,271	12.3%	32.04
North Carolina	NC	10,835,491	1,402	2.7%	12.94
North Dakota	ND	783,926	57	0.1%	7.27
Ohio	OH	11,785,935	2,581	5.0%	21.90
Oklahoma	OK	4,053,824	369	0.7%	9.10
Oregon	OR	4,233,358	372	0.7%	8.79
Pennsylvania	PA	12,961,683	3,298	6.5%	25.44
Puerto Rico	PR	3,205,691	319	0.6%	9.95
Rhode Island	RI	1,095,962	300	0.6%	27.37
South Carolina	SC	5,373,555	576	1.1%	10.72
South Dakota	SD	919,318	57	0.1%	6.20
Tennessee	TN	7,126,489	877	1.7%	12.31
Texas	TX	30,503,301	3,460	6.8%	11.34
Utah	UT	3,417,734	323	0.6%	9.45
Vermont	VT	647,464	105	0.2%	16.22
Virginia	VA	8,715,698	1,014	2.0%	11.63
Washington	WA	7,812,880	804	1.6%	10.29
West Virginia	WV	1,770,071	315	0.6%	17.80
Wisconsin	WI	5,910,955	716	1.4%	12.11
Wyoming	WY	584,057	14	0.0%	2.40

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

Abbreviations: AY, academic year.

TABLE D.8

Number of Specialty Graduates and Specialty Graduate Concentration per 100,000 Population by State, 2022-2023 AY

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Specialty Graduates	Percent of All Specialty Graduates	Specialty Graduates per 100,000 Pop
OVERALL	-	338,120,586	36,389	100.0%	10.76
Alabama	AL	5,108,468	424	1.2%	8.30
Alaska	AK	733,406	11	0.0%	1.50
Arizona	AZ	7,431,344	521	1.4%	7.01
Arkansas	AR	3,067,732	309	0.8%	10.07
California	CA	38,965,193	3,270	9.0%	8.39
Colorado	CO	5,877,610	400	1.1%	6.81
Connecticut	CT	3,617,176	578	1.6%	15.98
Delaware	DE	1,031,890	94	0.3%	9.11
District of Columbia	DC	678,972	367	1.0%	54.05
Florida	FL	22,610,726	2,090	5.7%	9.24
Georgia	GA	11,029,227	868	2.4%	7.87
Hawaii	HI	1,435,138	133	0.4%	9.27
Idaho	ID	1,964,726	63	0.2%	3.21
Illinois	IL	12,549,689	1,687	4.6%	13.44
Indiana	IN	6,862,199	438	1.2%	6.38
Iowa	IA	3,207,004	237	0.7%	7.39
Kansas	KS	2,940,546	215	0.6%	7.31
Kentucky	KY	4,526,154	355	1.0%	7.84
Louisiana	LA	4,573,749	532	1.5%	11.63
Maine	ME	1,395,722	97	0.3%	6.95
Maryland	MD	6,180,253	770	2.1%	12.46
Massachusetts	MA	7,001,399	1,291	3.5%	18.44
Michigan	MI	10,037,261	1,903	5.2%	18.96
Minnesota	MN	5,737,915	527	1.4%	9.18
Mississippi	MS	2,939,690	223	0.6%	7.59
Missouri	MO	6,196,156	712	2.0%	11.49
Montana	MT	1,132,812	27	0.1%	2.38
Nebraska	NE	1,978,379	204	0.6%	10.31
Nevada	NV	3,194,176	258	0.7%	8.08
New Hampshire	NH	1,402,054	115	0.3%	8.20
New Jersey	NJ	9,290,841	1,105	3.0%	11.89
New Mexico	NM	2,114,371	179	0.5%	8.47
New York	NY	19,571,216	4,431	12.2%	22.64
North Carolina	NC	10,835,491	929	2.6%	8.57
North Dakota	ND	783,926	53	0.1%	6.76
Ohio	OH	11,785,935	1,805	5.0%	15.31
Oklahoma	OK	4,053,824	303	0.8%	7.47
Oregon	OR	4,233,358	261	0.7%	6.17
Pennsylvania	PA	12,961,683	2,283	6.3%	17.61
Puerto Rico	PR	3,205,691	262	0.7%	8.17
Rhode Island	RI	1,095,962	212	0.6%	19.34
South Carolina	SC	5,373,555	443	1.2%	8.24
South Dakota	SD	919,318	52	0.1%	5.66
Tennessee	TN	7,126,489	592	1.6%	8.31
Texas	TX	30,503,301	2,389	6.6%	7.83
Utah	UT	3,417,734	201	0.6%	5.88
Vermont	VT	647,464	72	0.2%	11.12
Virginia	VA	8,715,698	772	2.1%	8.86
Washington	WA	7,812,880	553	1.5%	7.08
West Virginia	WV	1,770,071	244	0.7%	13.78
Wisconsin	WI	5,910,955	515	1.4%	8.71
Wyoming	WY	584,057	14	0.0%	2.40

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

Abbreviations: AY, academic year.

TABLE D.9
Number of Subspecialty Graduates and Subspecialty Graduate Concentration per 100,000 Population by State, 2022-2023 AY

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Subspecialty Graduates	Percent of All Subspecialty Graduates	Subspecialty Graduates per 100,000 Pop
OVERALL	-	338,120,586	14,741	100.0%	4.36
Alabama	AL	5,108,468	154	1.0%	3.01
Alaska	AK	733,406	1	0.0%	0.14
Arizona	AZ	7,431,344	188	1.3%	2.53
Arkansas	AR	3,067,732	61	0.4%	1.99
California	CA	38,965,193	1,476	10.0%	3.79
Colorado	CO	5,877,610	201	1.4%	3.42
Connecticut	CT	3,617,176	274	1.9%	7.57
Delaware	DE	1,031,890	31	0.2%	3.00
District of Columbia	DC	678,972	192	1.3%	28.28
Florida	FL	22,610,726	667	4.5%	2.95
Georgia	GA	11,029,227	287	1.9%	2.60
Hawaii	HI	1,435,138	18	0.1%	1.25
Idaho	ID	1,964,726	4	0.0%	0.20
Illinois	IL	12,549,689	594	4.0%	4.73
Indiana	IN	6,862,199	147	1.0%	2.14
Iowa	IA	3,207,004	89	0.6%	2.78
Kansas	KS	2,940,546	67	0.5%	2.28
Kentucky	KY	4,526,154	138	0.9%	3.05
Louisiana	LA	4,573,749	172	1.2%	3.76
Maine	ME	1,395,722	28	0.2%	2.01
Maryland	MD	6,180,253	416	2.8%	6.73
Massachusetts	MA	7,001,399	856	5.8%	12.23
Michigan	MI	10,037,261	555	3.8%	5.53
Minnesota	MN	5,737,915	327	2.2%	5.70
Mississippi	MS	2,939,690	64	0.4%	2.18
Missouri	MO	6,196,156	358	2.4%	5.78
Montana	MT	1,132,812	0	0.0%	0.00
Nebraska	NE	1,978,379	90	0.6%	4.55
Nevada	NV	3,194,176	44	0.3%	1.38
New Hampshire	NH	1,402,054	53	0.4%	3.78
New Jersey	NJ	9,290,841	261	1.8%	2.81
New Mexico	NM	2,114,371	84	0.6%	3.97
New York	NY	19,571,216	1,840	12.5%	9.40
North Carolina	NC	10,835,491	473	3.2%	4.37
North Dakota	ND	783,926	4	0.0%	0.51
Ohio	OH	11,785,935	776	5.3%	6.58
Oklahoma	OK	4,053,824	66	0.4%	1.63
Oregon	OR	4,233,358	111	0.8%	2.62
Pennsylvania	PA	12,961,683	1,015	6.9%	7.83
Puerto Rico	PR	3,205,691	57	0.4%	1.78
Rhode Island	RI	1,095,962	88	0.6%	8.03
South Carolina	SC	5,373,555	133	0.9%	2.48
South Dakota	SD	919,318	5	0.0%	0.54
Tennessee	TN	7,126,489	285	1.9%	4.00
Texas	TX	30,503,301	1,071	7.3%	3.51
Utah	UT	3,417,734	122	0.8%	3.57
Vermont	VT	647,464	33	0.2%	5.10
Virginia	VA	8,715,698	242	1.6%	2.78
Washington	WA	7,812,880	251	1.7%	3.21
West Virginia	WV	1,770,071	71	0.5%	4.01
Wisconsin	WI	5,910,955	201	1.4%	3.40
Wyoming	WY	584,057	0	0.0%	0.00

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

Abbreviations: AY, academic year.

TABLE D.10

Number of Pipeline Graduates and Pipeline Graduate Concentration per 100,000 Population by State, 2022-2023 AY

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Pipeline Graduates	Percent of All Pipeline Graduates	Pipeline Graduates per 100,000 Pop
OVERALL	-	338,120,586	34,261	100.0%	10.13
Alabama	AL	5,108,468	394	1.1%	7.71
Alaska	AK	733,406	11	0.0%	1.50
Arizona	AZ	7,431,344	483	1.4%	6.50
Arkansas	AR	3,067,732	278	0.8%	9.06
California	CA	38,965,193	3,098	9.0%	7.95
Colorado	CO	5,877,610	383	1.1%	6.52
Connecticut	CT	3,617,176	566	1.7%	15.65
Delaware	DE	1,031,890	90	0.3%	8.72
District of Columbia	DC	678,972	368	1.1%	54.20
Florida	FL	22,610,726	1,856	5.4%	8.21
Georgia	GA	11,029,227	768	2.2%	6.96
Hawaii	HI	1,435,138	116	0.3%	8.08
Idaho	ID	1,964,726	63	0.2%	3.21
Illinois	IL	12,549,689	1,616	4.7%	12.88
Indiana	IN	6,862,199	390	1.1%	5.68
Iowa	IA	3,207,004	229	0.7%	7.14
Kansas	KS	2,940,546	212	0.6%	7.21
Kentucky	KY	4,526,154	341	1.0%	7.53
Louisiana	LA	4,573,749	524	1.5%	11.46
Maine	ME	1,395,722	97	0.3%	6.95
Maryland	MD	6,180,253	714	2.1%	11.55
Massachusetts	MA	7,001,399	1,218	3.6%	17.40
Michigan	MI	10,037,261	1,761	5.1%	17.54
Minnesota	MN	5,737,915	495	1.4%	8.63
Mississippi	MS	2,939,690	204	0.6%	6.94
Missouri	MO	6,196,156	695	2.0%	11.22
Montana	MT	1,132,812	27	0.1%	2.38
Nebraska	NE	1,978,379	203	0.6%	10.26
Nevada	NV	3,194,176	232	0.7%	7.26
New Hampshire	NH	1,402,054	115	0.3%	8.20
New Jersey	NJ	9,290,841	1,018	3.0%	10.96
New Mexico	NM	2,114,371	171	0.5%	8.09
New York	NY	19,571,216	4,252	12.4%	21.73
North Carolina	NC	10,835,491	872	2.5%	8.05
North Dakota	ND	783,926	48	0.1%	6.12
Ohio	OH	11,785,935	1,716	5.0%	14.56
Oklahoma	OK	4,053,824	299	0.9%	7.38
Oregon	OR	4,233,358	256	0.7%	6.05
Pennsylvania	PA	12,961,683	2,168	6.3%	16.73
Puerto Rico	PR	3,205,691	225	0.7%	7.02
Rhode Island	RI	1,095,962	211	0.6%	19.25
South Carolina	SC	5,373,555	409	1.2%	7.61
South Dakota	SD	919,318	46	0.1%	5.00
Tennessee	TN	7,126,489	572	1.7%	8.03
Texas	TX	30,503,301	2,259	6.6%	7.41
Utah	UT	3,417,734	190	0.6%	5.56
Vermont	VT	647,464	73	0.2%	11.27
Virginia	VA	8,715,698	714	2.1%	8.19
Washington	WA	7,812,880	501	1.5%	6.41
West Virginia	WV	1,770,071	230	0.7%	12.99
Wisconsin	WI	5,910,955	470	1.4%	7.95
Wyoming	WY	584,057	14	0.0%	2.40

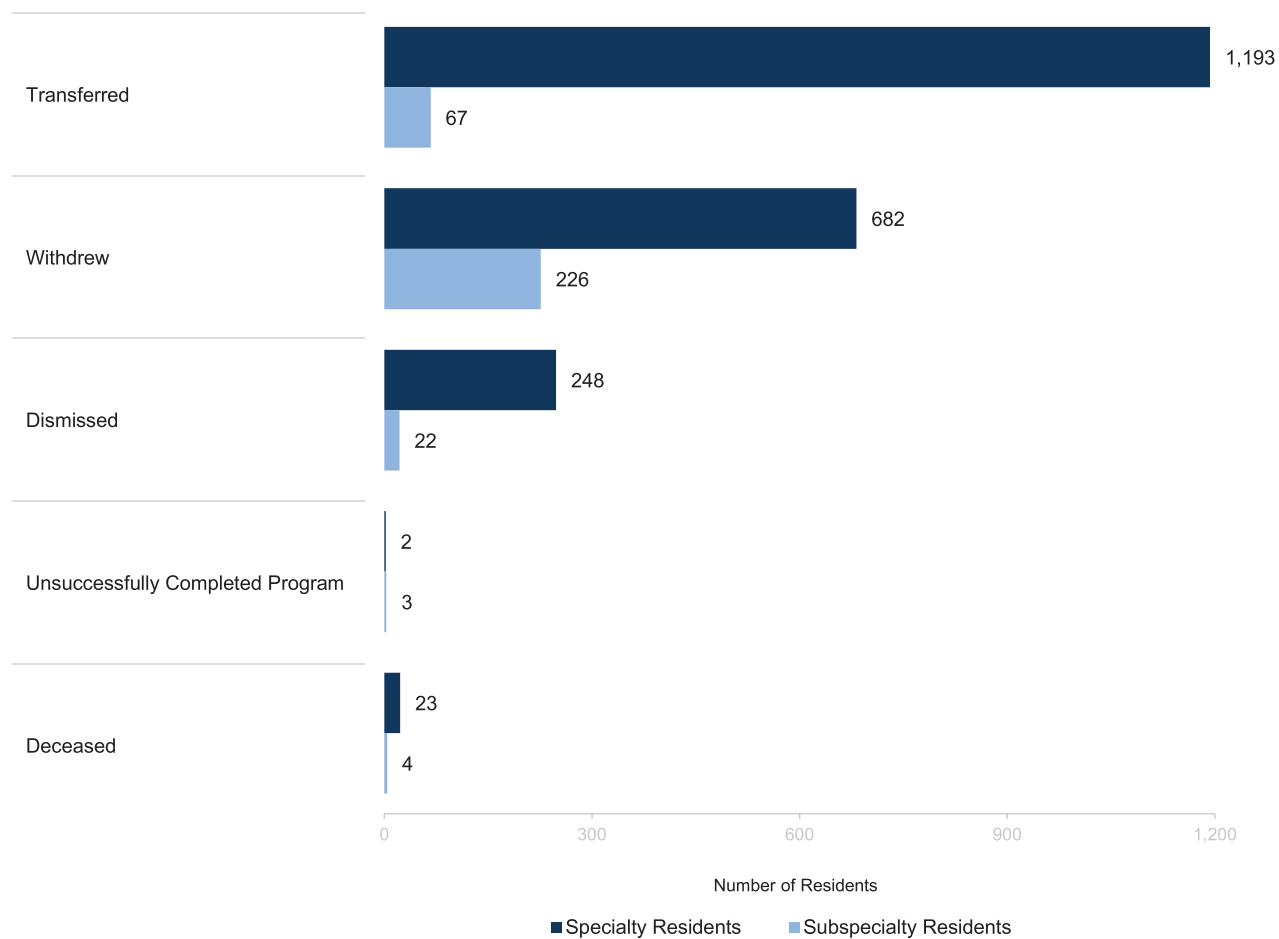
Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

Abbreviations: AY, academic year.

TABLE D.11							
Number of Graduating Residents by State and Medical School Type, 2022-2023 AY							
State Name	State Abbreviation	Total Graduates	Medical School Type				
			US LCME-Accredited Medical School	International Medical School	Osteopathic Medical School	Canadian Medical School	US Medical School Unknown
OVERALL	-	51,130	29,181	12,701	9,128	88	32
Alabama	AL	578	358	140	79	0	1
Alaska	AK	12	9	1	2	0	0
Arizona	AZ	709	401	137	171	0	0
Arkansas	AR	370	161	148	61	0	0
California	CA	4,746	3,482	645	605	13	1
Colorado	CO	601	458	20	120	2	1
Connecticut	CT	852	448	301	101	2	0
Delaware	DE	125	66	11	47	1	0
District of Columbia	DC	559	327	180	52	0	0
Florida	FL	2,757	1,193	922	640	1	1
Georgia	GA	1,155	698	283	171	2	1
Hawaii	HI	151	94	24	33	0	0
Idaho	ID	67	30	11	26	0	0
Illinois	IL	2,281	1,294	588	396	3	0
Indiana	IN	585	336	108	141	0	0
Iowa	IA	326	195	64	67	0	0
Kansas	KS	282	161	60	61	0	0
Kentucky	KY	493	262	123	106	2	0
Louisiana	LA	704	413	213	78	0	0
Maine	ME	125	65	21	39	0	0
Maryland	MD	1,186	781	277	120	3	5
Massachusetts	MA	2,147	1,489	498	140	20	0
Michigan	MI	2,458	1,013	747	695	2	1
Minnesota	MN	854	582	176	87	7	2
Mississippi	MS	287	149	66	72	0	0
Missouri	MO	1,070	666	224	176	2	2
Montana	MT	27	13	4	10	0	0
Nebraska	NE	294	166	76	52	0	0
Nevada	NV	302	111	61	130	0	0
New Hampshire	NH	168	101	40	27	0	0
New Jersey	NJ	1,366	406	567	393	0	0
New Mexico	NM	263	143	63	57	0	0
New York	NY	6,271	2,999	2,456	804	7	5
North Carolina	NC	1,402	990	194	215	2	1
North Dakota	ND	57	28	24	5	0	0
Ohio	OH	2,581	1,330	591	653	4	3
Oklahoma	OK	369	146	56	167	0	0
Oregon	OR	372	247	54	71	0	0
Pennsylvania	PA	3,298	1,710	832	749	6	1
Puerto Rico	PR	319	189	129	1	0	0
Rhode Island	RI	300	203	62	35	0	0
South Carolina	SC	576	377	63	136	0	0
South Dakota	SD	57	28	16	13	0	0
Tennessee	TN	877	621	146	109	1	0
Texas	TX	3,460	2,116	761	576	3	4
Utah	UT	323	260	32	31	0	0
Vermont	VT	105	82	15	8	0	0
Virginia	VA	1,014	570	162	281	1	0
Washington	WA	804	602	71	127	3	1
West Virginia	WV	315	140	103	72	0	0
Wisconsin	WI	716	470	128	115	1	2
Wyoming	WY	14	2	7	5	0	0
Abbreviations: AY, academic year; LCME, Liaison Committee on Medical Education.							

FIGURE D.12

Number of Residents Leaving Prior to Completion of a Program by Status, 2022-2023 AY



Abbreviations: AY, academic year.

TABLE D.13						
Number of Residents Leaving Prior to Completion of a Program by Specialty and Subspecialty and Status, 2022-2023 AY						
Specialty	Number of Residents Not Graduating	Resident Status				
		Transferred	Withdrew	Dismissed	Unsuccessfully Completed Program	Deceased
OVERALL	2,470	1,260	908	270	5	27
TOTAL PIPELINE	2,114	1,173	670	247	2	22
Allergy and immunology	1	0	1	0	0	0
Anesthesiology	84	33	35	12	0	4
- Adult cardiothoracic anesthesiology	0	0	0	0	0	0
- Critical care medicine	3	1	2	0	0	0
- Obstetric anesthesiology	0	0	0	0	0	0
- Pain medicine (multidisciplinary)	5	0	3	1	0	1
- Pediatric anesthesiology	0	0	0	0	0	0
- Pediatric cardiac anesthesiology	0	0	0	0	0	0
- Regional anesthesiology and acute pain medicine	0	0	0	0	0	0
Colon and rectal surgery	0	0	0	0	0	0
Dermatology	10	4	5	1	0	0
- Dermatopathology (multidisciplinary)	0	0	0	0	0	0
- Micrographic surgery and dermatologic oncology	1	0	1	0	0	0
- Pediatric dermatology	0	0	0	0	0	0
Emergency medicine	95	43	41	10	0	1
- Emergency medical services	0	0	0	0	0	0
- Medical toxicology	0	0	0	0	0	0
- Pediatric emergency medicine	0	0	0	0	0	0
- Sports medicine	0	0	0	0	0	0
- Undersea and hyperbaric medicine	0	0	0	0	0	0
Family medicine	315	107	129	74	2	3
- Clinical informatics	1	0	1	0	0	0
- Geriatric medicine	0	0	0	0	0	0
- Hospice and palliative medicine (multidisciplinary)	4	0	4	0	0	0
- Sports medicine	1	0	1	0	0	0
Internal medicine	284	135	91	52	0	6
- Adult congenital heart disease	0	0	0	0	0	0
- Advanced heart failure and transplant cardiology	1	0	1	0	0	0
- Cardiovascular disease	12	1	7	4	0	0
- Clinical cardiac electrophysiology	5	1	4	0	0	0
- Clinical informatics	2	0	2	0	0	0
- Critical care medicine	8	4	4	0	0	0
- Endocrinology, diabetes, and metabolism	5	1	4	0	0	0
- Gastroenterology	4	1	2	1	0	0
- Geriatric medicine	3	0	2	0	1	0
- Hematology and medical oncology	9	4	3	2	0	0
- Infectious disease	15	4	10	1	0	0
- Interventional cardiology	5	0	5	0	0	0
- Interventional pulmonology	0	0	0	0	0	0
- Medical oncology	2	2	0	0	0	0
- Nephrology	26	6	18	1	0	1
- Pulmonary disease	3	3	0	0	0	0
- Pulmonary disease and critical care medicine	9	1	7	1	0	0
- Rheumatology	7	4	3	0	0	0
- Sleep medicine (multidisciplinary)	3	0	3	0	0	0
- Transplant hepatology	1	0	1	0	0	0
Medical genetics and genomics	3	0	2	1	0	0
- Medical biochemical genetics	0	0	0	0	0	0
- Molecular genetic pathology (multidisciplinary)	1	0	0	0	0	1
Clinical biochemical genetics	0	0	0	0	0	0
Laboratory genetics and genomics	1	0	0	1	0	0
Neurological surgery	25	11	12	2	0	0
- Neuroendovascular intervention	0	0	0	0	0	0

TABLE D.13 *Continued*
Number of Residents Leaving Prior to Completion of a Program by Specialty and Subspecialty and Status, 2022-2023 AY

Specialty	Number of Residents Not Graduating	Resident Status				
		Transferred	Withdrew	Dismissed	Unsuccessfully Completed Program	Deceased
Neurology	44	24	14	5	0	1
- Clinical neurophysiology	2	0	1	1	0	0
- Epilepsy	3	0	2	1	0	0
- Neurocritical care (multidisciplinary)	10	6	4	0	0	0
- Neuroendovascular intervention	0	0	0	0	0	0
- Neurodevelopmental disabilities	1	0	0	1	0	0
- Neuromuscular medicine	0	0	0	0	0	0
- Vascular neurology	0	0	0	0	0	0
Child neurology	5	4	0	1	0	0
Nuclear medicine	8	6	2	0	0	0
Obstetrics and gynecology	70	30	33	7	0	0
- Female pelvic medicine and reconstructive surgery	3	1	2	0	0	0
- Gynecologic oncology	3	0	2	1	0	0
- Maternal-fetal medicine	2	0	2	0	0	0
- Reproductive endocrinology and infertility	2	2	0	0	0	0
- Complex family planning	0	0	0	0	0	0
Ophthalmology	7	3	3	1	0	0
- Ophthalmic plastic and reconstructive surgery	0	0	0	0	0	0
Orthopaedic surgery	38	11	24	3	0	0
- Adult reconstructive orthopaedics	0	0	0	0	0	0
- Foot and ankle orthopaedics	0	0	0	0	0	0
- Hand surgery	0	0	0	0	0	0
- Musculoskeletal oncology	1	1	0	0	0	0
- Orthopaedic sports medicine	2	0	1	1	0	0
- Orthopaedic surgery of the spine	0	0	0	0	0	0
- Orthopaedic trauma	0	0	0	0	0	0
- Pediatric orthopaedics	1	0	1	0	0	0
Osteopathic neuromusculoskeletal medicine	2	0	1	1	0	0
Otolaryngology - head and neck Surgery	7	2	5	0	0	0
- Neurotology	0	0	0	0	0	0
- Pediatric otolaryngology	0	0	0	0	0	0
Pathology-anatomic and clinical	41	14	17	9	0	1
- Blood banking/transfusion medicine	0	0	0	0	0	0
- Clinical informatics	0	0	0	0	0	0
- Chemical pathology	0	0	0	0	0	0
- Cytopathology	2	0	2	0	0	0
- Forensic pathology	2	1	0	1	0	0
- Hematopathology	2	0	1	0	1	0
- Medical microbiology	0	0	0	0	0	0
- Neuropathology	0	0	0	0	0	0
- Pediatric pathology	1	0	1	0	0	0
- Selective pathology	3	1	2	0	0	0
Pediatrics	111	54	42	15	0	0
- Adolescent medicine	5	3	2	0	0	0
- Child abuse pediatrics	4	1	3	0	0	0
- Clinical informatics	0	0	0	0	0	0
- Developmental-behavioral pediatrics	1	0	1	0	0	0
- Neonatal-perinatal medicine	13	1	10	1	0	1
- Pediatric cardiology	15	2	13	0	0	0
- Pediatric critical care medicine	11	3	8	0	0	0
- Pediatric emergency medicine	8	0	8	0	0	0
- Pediatric endocrinology	6	2	4	0	0	0
- Pediatric gastroenterology	5	0	5	0	0	0
- Pediatric hematology/oncology	10	1	9	0	0	0
- Pediatric infectious diseases	2	0	2	0	0	0

TABLE D.13 *Continued*
Number of Residents Leaving Prior to Completion of a Program by Specialty and Subspecialty and Status, 2022-2023 AY

Specialty	Number of Residents Not Graduating	Resident Status				
		Transferred	Withdrew	Dismissed	Unsuccessfully Completed Program	Deceased
- Pediatric nephrology	9	1	8	0	0	0
- Pediatric pulmonology	2	0	2	0	0	0
- Pediatric rheumatology	3	1	2	0	0	0
- Sports medicine	1	0	1	0	0	0
- Pediatric transplant hepatology	0	0	0	0	0	0
- Pediatric hospital medicine	0	0	0	0	0	0
Physical medicine and rehabilitation	10	4	2	3	0	1
- Brain injury medicine	1	0	1	0	0	0
- Neuromuscular medicine	0	0	0	0	0	0
- Spinal cord injury medicine	0	0	0	0	0	0
- Pediatric rehabilitation medicine	0	0	0	0	0	0
- Sports medicine	0	0	0	0	0	0
Plastic surgery	1	0	1	0	0	0
Plastic Surgery - integrated	11	2	8	1	0	0
- Craniofacial surgery	0	0	0	0	0	0
- Hand surgery	0	0	0	0	0	0
Public health and general preventive medicine	8	0	7	1	0	0
- Undersea and hyperbaric medicine	0	0	0	0	0	0
Aerospace medicine	1	0	0	1	0	0
Occupational and environmental medicine	1	0	0	1	0	0
Psychiatry	495	437	36	19	0	3
- Addiction medicine (multidisciplinary)	2	0	2	0	0	0
- Addiction psychiatry	0	0	0	0	0	0
- Child and adolescent psychiatry	23	4	18	1	0	0
- Forensic psychiatry	2	0	2	0	0	0
- Geriatric psychiatry	0	0	0	0	0	0
- Consultation-liaison psychiatry	0	0	0	0	0	0
Radiation oncology	7	4	1	2	0	0
Radiology-diagnostic	54	41	12	1	0	0
- Abdominal radiology	0	0	0	0	0	0
- Musculoskeletal radiology	0	0	0	0	0	0
- Neuroendovascular intervention	1	0	1	0	0	0
- Neuroradiology	3	0	2	1	0	0
- Nuclear radiology	0	0	0	0	0	0
- Pediatric radiology	2	0	2	0	0	0
Interventional radiology - independent	1	0	1	0	0	0
Interventional radiology - integrated	40	40	0	0	0	0
Surgery	300	150	128	21	0	1
- Complex general surgical oncology	0	0	0	0	0	0
- Hand surgery	1	0	1	0	0	0
- Pediatric surgery	0	0	0	0	0	0
- Surgical critical care	3	0	2	1	0	0
- Vascular surgery - independent	7	0	6	1	0	0
Vascular surgery - integrated	4	1	2	0	0	1
Thoracic surgery - independent	2	0	2	0	0	0
- Congenital cardiac surgery	2	0	1	0	1	0
Thoracic surgery - integrated	6	0	5	1	0	0
Urology	15	6	7	2	0	0
- Female pelvic medicine and reconstructive surgery	3	3	0	0	0	0
- Pediatric urology	0	0	0	0	0	0
Transitional year	31	20	10	0	0	1
Internal medicine/Pediatrics	11	7	4	0	0	0
Health care administration, leadership, and management	0	0	0	0	0	0
Note: Pipeline specialties are highlighted. Abbreviations: AY, academic year.						

TABLE D.14
Number of Transferring Residents by Specialty and Resident Year, 2022-2023 AY

Specialty	Number of Transferring Residents	Resident Year						
		1	2	3	4	5	6	7
OVERALL	1,193	429	249	470	43	2		
Allergy and immunology	0							
Anesthesiology	33	7	16	10				
Colon and rectal surgery	0							
Dermatology	4	3	1					
Emergency medicine	43	32	10	1				
Family medicine	107	77	28	2				
Internal medicine	135	101	33	1				
Medical genetics and genomics	0							
Clinical biochemical genetics (Medical Related Specialty)	0							
Laboratory genetics and genomics (Medical Related Specialty)	0							
Neurological surgery	11	1	4	1	4	1		
Neurology	24	17	4	3				
Child neurology	4	1	3					
Nuclear medicine	6	5	1					
Obstetrics and gynecology	30	19	10	1				
Ophthalmology	3	1	1	1				
Orthopaedic surgery	11	2	8	1				
Osteopathic neuromusculoskeletal medicine	0							
Otolaryngology - head and neck Surgery	2	1	1					
Pathology-anatomic and clinical	14	8	6					
Pediatrics	54	25	28	1				
Physical medicine and rehabilitation	4	4						
Plastic surgery	0							
Plastic Surgery - integrated	2	1		1				
Public health and general preventive medicine	0							
Aerospace medicine	0							
Occupational and environmental medicine	0							
Psychiatry	437	20	24	369	24			
Radiation oncology	4	3	1					
Radiology-diagnostic	41	12	10	19				
Interventional radiology - integrated	40	6	11	16	6	1		
Surgery	150	58	43	41	8			
Vascular surgery - integrated	1				1			
Thoracic surgery - independent	0							
Thoracic surgery - integrated	0							
Urology	6	1	4	1				
Transitional year	20	20						
Internal medicine/Pediatrics	7	4	2	1				

Abbreviations: AY, academic year.

TABLE D15					
Number of Transferring Residents by Specialty and New Specialty, 2022-2023 AY					
Specialty	Number of Transferring Residents	Transfer Specialty		Transfer Subspecialty	
		Same	Different	Same	Different
OVERALL	1,193	429	358	0	406
Anesthesiology	33	28	5	0	0
Dermatology	4	4	0	0	0
Emergency medicine	43	24	19	0	0
Family medicine	107	51	52	0	4
Internal medicine	135	82	49	0	4
Neurological surgery	11	3	8	0	0
Neurology	24	9	13	0	2
Child neurology	4	4	0	0	0
Nuclear medicine	6	0	6	0	0
Obstetrics and gynecology	30	17	13	0	0
Ophthalmology	3	1	2	0	0
Orthopaedic surgery	11	8	3	0	0
Otolaryngology - Head and Neck Surgery	2	0	2	0	0
Pathology-anatomic and clinical	14	9	5	0	0
Pediatrics	54	26	26	0	2
Physical medicine and rehabilitation	4	3	1	0	0
Plastic Surgery - Integrated	2	1	1	0	0
Psychiatry	437	42	8	0	387
Radiation oncology	4	3	1	0	0
Radiology-diagnostic	41	18	21	0	2
Interventional radiology - integrated	40	13	27	0	0
Surgery	150	76	69	0	5
Vascular surgery - integrated	1	0	1	0	0
Urology	6	3	3	0	0
Transitional year	20	0	20	0	0
Internal medicine/Pediatrics	7	4	3	0	0
Abbreviations: AY, academic year.					

TABLE D.16

Number of Pipeline Graduates who Subspecialize, 2022-2023 AY

Specialty	Total Pipeline Graduates	Subspecialized	
		#	%
Total Pipeline	34,261	10,855	31.7%
Anesthesiology	1,865	792	42.5%
Dermatology	533	121	22.7%
Emergency medicine	2,782	353	12.7%
Family medicine	4,836	461	9.5%
Internal medicine	9,627	4,052	42.1%
Medical genetics and genomics	36	8	22.2%
Neurological surgery	225	5	2.2%
Neurology	898	514	57.2%
Child neurology	149	70	47.0%
Nuclear medicine	36	1	2.8%
Obstetrics and gynecology	1,425	342	24.0%
Ophthalmology	501	3	0.6%
Orthopaedic surgery	884	440	49.8%
Osteopathic neuromusculoskeletal medicine	47	5	10.6%
Otolaryngology - head and neck Surgery	340	61	17.9%
Pathology-anatomic and clinical	598	423	70.7%
Pediatrics	3,094	1,250	40.4%
Physical medicine and rehabilitation	467	229	49.0%
Plastic surgery	62	8	12.9%
Plastic Surgery - integrated	168	50	29.8%
Public health and general preventive medicine	104	10	9.6%
Aerospace medicine	26	0	0.0%
Occupational and environmental medicine	57	3	5.3%
Psychiatry	1,581	418	26.4%
Radiation oncology	189	0	0.0%
Radiology-diagnostic	1,128	377	33.4%
Interventional radiology - independent	159	3	1.9%
Interventional radiology - integrated	139	1	0.7%
Surgery	1,482	692	46.7%
Vascular surgery - integrated	63	2	3.2%
Thoracic surgery - integrated	35	4	11.4%
Urology	352	27	7.7%
Internal medicine/Pediatrics	373	130	34.9%
Abbreviations: AY, academic year.			

E Sponsoring Institutions

This section describes characteristics of ACGME-accredited Sponsoring Institutions. It includes the distribution of accreditation status decisions, information on sponsor size, geographic location, institution type, and designated institutional official (DIO) changes that occurred throughout the 2023-2024 academic year.

Accredited Sponsors by Status

Of the 905 total ACGME-accredited Sponsoring Institutions, 135 (14.9%) are in the initial phase of accreditation, 739 (81.7%) have a status of Continued Accreditation, 23 (2.5%) have a status of Continued Accreditation with Warning, seven (0.8%) are on probation, and one (0.1%) have a status of Withdrawal of Accreditation. Overall, there has been a 22.8% increase in number of sponsors since the 2014-2015 academic year (at that time the total number of Sponsoring Institutions was 737). Effective July 1, 2013, new policies required Sponsoring Institutions to become accredited prior to applying for program accreditation. Prior to that, the accreditation of the program and its Sponsoring Institution occurred simultaneously. This change, combined with Sponsoring Institutions seeking accreditation through the transition to a single GME accreditation system, has led to the upward trend in total accredited Sponsoring Institutions.

Distribution by Sponsor Size

Sponsoring Institutions with one program and those with two to five programs account for the majority of all Sponsoring Institutions (26.0% and 27.4%, respectively). The remaining Sponsoring Institutions with accredited programs all have more than five programs: 22.0% have between six and 25 programs; 10.8% have between 26 and 75 programs; 2.3% have between 76 and 100 programs; and 3.2% have more than 100 programs. There are 76 (8.4%) Sponsoring Institutions that currently do not have any accredited programs.

Geographic Distribution

There are ACGME-accredited Sponsoring Institutions in all 50 states, the District of Columbia, and Puerto Rico. The following states have the highest total number of Sponsoring Institutions:

- California (114)
- New York (69)
- Florida (60)
- Texas (59)

The following states have the highest total number of multi-program Sponsoring Institutions:

- California (65)
- New York (53)
- Texas (38)
- Florida (35)

Finally, the following states have the highest total number of single-program Sponsoring Institutions:

- California (35)
- Florida (17)
- Texas (16)
- Pennsylvania (13)

Sponsors that do not yet have ACGME-accredited programs (76) are located in 31 states, with the highest number of these (14) located in California.

Distribution by Institution Type

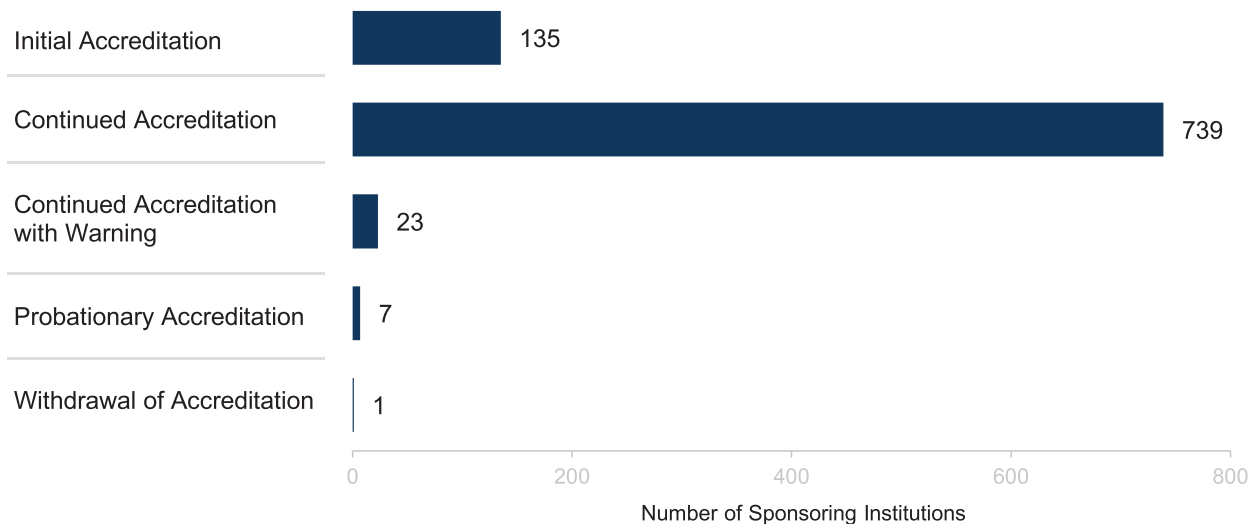
The type of institution is self-reported by Sponsoring Institutions. Approximately half of Sponsoring Institutions with ACGME-accredited programs are General/Teaching Hospitals (343, 41.4%); the next largest group is Academic Medical Centers/Medical Schools, with 135 (16.3%) in this category. Though a much smaller percentage of total Sponsoring Institutions, Academic Medical Centers/Medical Schools account for 53.2% more programs and 36.7% more residents than General/Teaching Hospitals.

DIO Changes

Each year between 10% and 16% of Sponsoring Institutions have a change in leadership in the DIO role (excluding Sponsoring Institutions with no accredited programs and any Sponsoring Institutions newly accredited in the academic year). In the 2023-2024 academic year, 125 (15.2%) Sponsoring Institutions had a single DIO change, and 9 (1.1%) had more than one DIO change. ⁸

FIGURE E.1

Accreditation Statuses of Currently Accredited Sponsoring Institutions



Note: Total number of ACGME-accredited Sponsoring Institutions = 905.

FIGURE E.2

Number of Sponsoring Institutions by Academic Year, 2014-2015 to 2023-2024

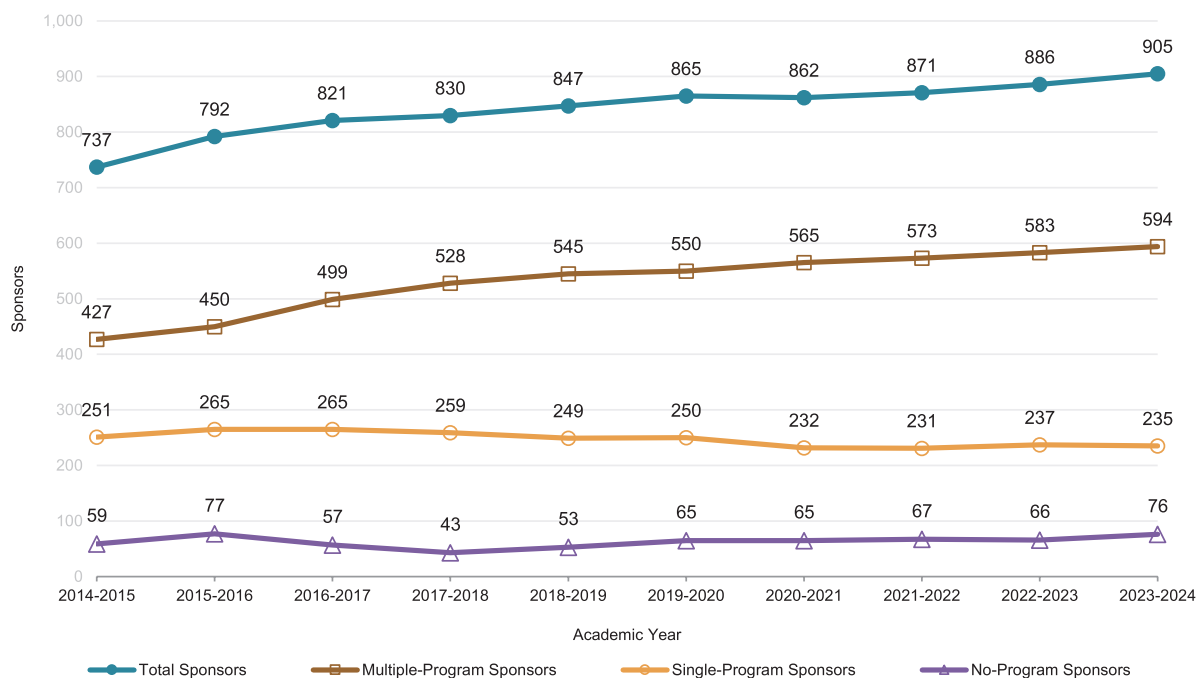
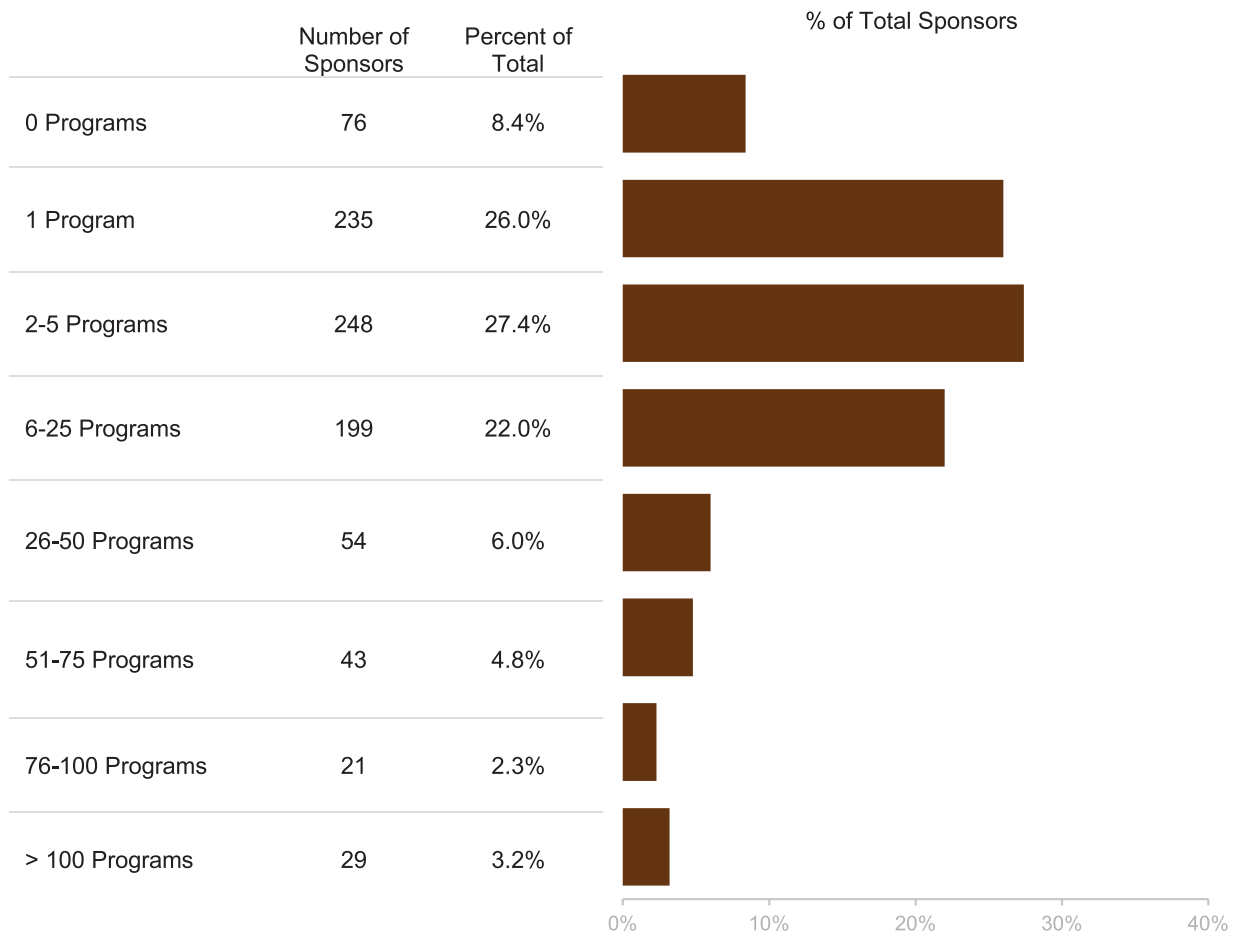


FIGURE E.3

Number of Sponsoring Institutions by Size of Sponsor



Notes: Total number of ACGME-accredited Sponsoring Institutions = 905. Percentages may not add to 100% due to rounding.

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Sponsors	Percent of All Sponsors	Sponsors per 100,000 Pop
OVERALL	-	338,120,586	905	100.0%	0.27
Alabama	AL	5,108,468	19	2.1%	0.37
Alaska	AK	733,406	1	0.1%	0.14
Arizona	AZ	7,431,344	14	1.5%	0.19
Arkansas	AR	3,067,732	8	0.9%	0.26
California	CA	38,965,193	114	12.6%	0.29
Colorado	CO	5,877,610	11	1.2%	0.19
Connecticut	CT	3,617,176	15	1.7%	0.41
Delaware	DE	1,031,890	5	0.6%	0.48
District of Columbia	DC	678,972	4	0.4%	0.59
Florida	FL	22,610,726	60	6.6%	0.27
Georgia	GA	11,029,227	32	3.5%	0.29
Hawaii	HI	1,435,138	5	0.6%	0.35
Idaho	ID	1,964,726	6	0.7%	0.31
Illinois	IL	12,549,689	31	3.4%	0.25
Indiana	IN	6,862,199	13	1.4%	0.19
Iowa	IA	3,207,004	7	0.8%	0.22
Kansas	KS	2,940,546	3	0.3%	0.10
Kentucky	KY	4,526,154	8	0.9%	0.18
Louisiana	LA	4,573,749	14	1.5%	0.31
Maine	ME	1,395,722	4	0.4%	0.29
Maryland	MD	6,180,253	17	1.9%	0.28
Massachusetts	MA	7,001,399	22	2.4%	0.31
Michigan	MI	10,037,261	38	4.2%	0.38
Minnesota	MN	5,737,915	8	0.9%	0.14
Mississippi	MS	2,939,690	12	1.3%	0.41
Missouri	MO	6,196,156	17	1.9%	0.27
Montana	MT	1,132,812	3	0.3%	0.26
Nebraska	NE	1,978,379	4	0.4%	0.20
Nevada	NV	3,194,176	6	0.7%	0.19
New Hampshire	NH	1,402,054	5	0.6%	0.36
New Jersey	NJ	9,290,841	19	2.1%	0.20
New Mexico	NM	2,114,371	8	0.9%	0.38
New York	NY	19,571,216	69	7.6%	0.35
North Carolina	NC	10,835,491	20	2.2%	0.18
North Dakota	ND	783,926	2	0.2%	0.26
Ohio	OH	11,785,935	43	4.8%	0.36
Oklahoma	OK	4,053,824	9	1.0%	0.22
Oregon	OR	4,233,358	5	0.6%	0.12
Pennsylvania	PA	12,961,683	46	5.1%	0.35
Puerto Rico	PR	3,205,691	15	1.7%	0.47
Rhode Island	RI	1,095,962	6	0.7%	0.55
South Carolina	SC	5,373,555	13	1.4%	0.24
South Dakota	SD	919,318	3	0.3%	0.33
Tennessee	TN	7,126,489	12	1.3%	0.17
Texas	TX	30,503,301	59	6.5%	0.19
Utah	UT	3,417,734	7	0.8%	0.20
Vermont	VT	647,464	2	0.2%	0.31
Virginia	VA	8,715,698	21	2.3%	0.24
Washington	WA	7,812,880	21	2.3%	0.27
West Virginia	WV	1,770,071	8	0.9%	0.45
Wisconsin	WI	5,910,955	10	1.1%	0.17
Wyoming	WY	584,057	1	0.1%	0.17

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE E.5

Number of Multiple-Program Sponsoring Institutions and Multiple-Program Sponsoring Institution Concentration per 100,000 Population by State

State Name	State Abbreviation	State Population - Census Estimate 2023	Total Multiple-Program Sponsors	Percent of All Multiple-Program Sponsors	Multiple-Program Sponsors per 100,000 Pop
OVERALL	-	338,120,586	594	100.0%	0.18
Alabama	AL	5,108,468	11	1.9%	0.22
Alaska	AK	733,406	1	0.2%	0.14
Arizona	AZ	7,431,344	12	2.0%	0.16
Arkansas	AR	3,067,732	6	1.0%	0.20
California	CA	38,965,193	65	10.9%	0.17
Colorado	CO	5,877,610	7	1.2%	0.12
Connecticut	CT	3,617,176	13	2.2%	0.36
Delaware	DE	1,031,890	2	0.3%	0.19
District of Columbia	DC	678,972	4	0.7%	0.59
Florida	FL	22,610,726	35	5.9%	0.15
Georgia	GA	11,029,227	17	2.9%	0.15
Hawaii	HI	1,435,138	2	0.3%	0.14
Idaho	ID	1,964,726	3	0.5%	0.15
Illinois	IL	12,549,689	20	3.4%	0.16
Indiana	IN	6,862,199	7	1.2%	0.10
Iowa	IA	3,207,004	5	0.8%	0.16
Kansas	KS	2,940,546	2	0.3%	0.07
Kentucky	KY	4,526,154	4	0.7%	0.09
Louisiana	LA	4,573,749	7	1.2%	0.15
Maine	ME	1,395,722	3	0.5%	0.21
Maryland	MD	6,180,253	14	2.4%	0.23
Massachusetts	MA	7,001,399	15	2.5%	0.21
Michigan	MI	10,037,261	30	5.1%	0.30
Minnesota	MN	5,737,915	5	0.8%	0.09
Mississippi	MS	2,939,690	5	0.8%	0.17
Missouri	MO	6,196,156	9	1.5%	0.15
Montana	MT	1,132,812	2	0.3%	0.18
Nebraska	NE	1,978,379	2	0.3%	0.10
Nevada	NV	3,194,176	4	0.7%	0.13
New Hampshire	NH	1,402,054	2	0.3%	0.14
New Jersey	NJ	9,290,841	16	2.7%	0.17
New Mexico	NM	2,114,371	2	0.3%	0.09
New York	NY	19,571,216	53	8.9%	0.27
North Carolina	NC	10,835,491	16	2.7%	0.15
North Dakota	ND	783,926	2	0.3%	0.26
Ohio	OH	11,785,935	35	5.9%	0.30
Oklahoma	OK	4,053,824	6	1.0%	0.15
Oregon	OR	4,233,358	4	0.7%	0.09
Pennsylvania	PA	12,961,683	31	5.2%	0.24
Puerto Rico	PR	3,205,691	8	1.3%	0.25
Rhode Island	RI	1,095,962	5	0.8%	0.46
South Carolina	SC	5,373,555	9	1.5%	0.17
South Dakota	SD	919,318	2	0.3%	0.22
Tennessee	TN	7,126,489	10	1.7%	0.14
Texas	TX	30,503,301	38	6.4%	0.12
Utah	UT	3,417,734	3	0.5%	0.09
Vermont	VT	647,464	1	0.2%	0.15
Virginia	VA	8,715,698	14	2.4%	0.16
Washington	WA	7,812,880	12	2.0%	0.15
West Virginia	WV	1,770,071	4	0.7%	0.23
Wisconsin	WI	5,910,955	8	1.3%	0.14
Wyoming	WY	584,057	1	0.2%	0.17

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE E.6					
Number of Single-Program Sponsoring Institutions and Single-Program Sponsoring Institution Concentration per 100,000 Population by State					
State Name	State Abbreviation	State Population - Census Estimate 2023	Total Single-Program Sponsors	Percent of All Sponsors	Single-Program Sponsors per 100,000 Pop
OVERALL	-	338,120,586	235	100.0%	0.07
Alabama	AL	5,108,468	6	2.6%	0.12
Alaska	AK	733,406	0	0.0%	0.00
Arizona	AZ	7,431,344	2	0.9%	0.03
Arkansas	AR	3,067,732	2	0.9%	0.07
California	CA	38,965,193	35	14.9%	0.09
Colorado	CO	5,877,610	4	1.7%	0.07
Connecticut	CT	3,617,176	2	0.9%	0.06
Delaware	DE	1,031,890	3	1.3%	0.29
District of Columbia	DC	678,972	0	0.0%	0.00
Florida	FL	22,610,726	17	7.2%	0.08
Georgia	GA	11,029,227	11	4.7%	0.10
Hawaii	HI	1,435,138	2	0.9%	0.14
Idaho	ID	1,964,726	2	0.9%	0.10
Illinois	IL	12,549,689	10	4.3%	0.08
Indiana	IN	6,862,199	6	2.6%	0.09
Iowa	IA	3,207,004	2	0.9%	0.06
Kansas	KS	2,940,546	0	0.0%	0.00
Kentucky	KY	4,526,154	3	1.3%	0.07
Louisiana	LA	4,573,749	7	3.0%	0.15
Maine	ME	1,395,722	1	0.4%	0.07
Maryland	MD	6,180,253	3	1.3%	0.05
Massachusetts	MA	7,001,399	6	2.6%	0.09
Michigan	MI	10,037,261	7	3.0%	0.07
Minnesota	MN	5,737,915	3	1.3%	0.05
Mississippi	MS	2,939,690	6	2.6%	0.20
Missouri	MO	6,196,156	5	2.1%	0.08
Montana	MT	1,132,812	1	0.4%	0.09
Nebraska	NE	1,978,379	2	0.9%	0.10
Nevada	NV	3,194,176	2	0.9%	0.06
New Hampshire	NH	1,402,054	2	0.9%	0.14
New Jersey	NJ	9,290,841	3	1.3%	0.03
New Mexico	NM	2,114,371	2	0.9%	0.09
New York	NY	19,571,216	12	5.1%	0.06
North Carolina	NC	10,835,491	2	0.9%	0.02
North Dakota	ND	783,926	0	0.0%	0.00
Ohio	OH	11,785,935	5	2.1%	0.04
Oklahoma	OK	4,053,824	2	0.9%	0.05
Oregon	OR	4,233,358	0	0.0%	0.00
Pennsylvania	PA	12,961,683	13	5.5%	0.10
Puerto Rico	PR	3,205,691	4	1.7%	0.12
Rhode Island	RI	1,095,962	0	0.0%	0.00
South Carolina	SC	5,373,555	2	0.9%	0.04
South Dakota	SD	919,318	1	0.4%	0.11
Tennessee	TN	7,126,489	1	0.4%	0.01
Texas	TX	30,503,301	16	6.8%	0.05
Utah	UT	3,417,734	2	0.9%	0.06
Vermont	VT	647,464	0	0.0%	0.00
Virginia	VA	8,715,698	6	2.6%	0.07
Washington	WA	7,812,880	7	3.0%	0.09
West Virginia	WV	1,770,071	4	1.7%	0.23
Wisconsin	WI	5,910,955	1	0.4%	0.02
Wyoming	WY	584,057	0	0.0%	0.00

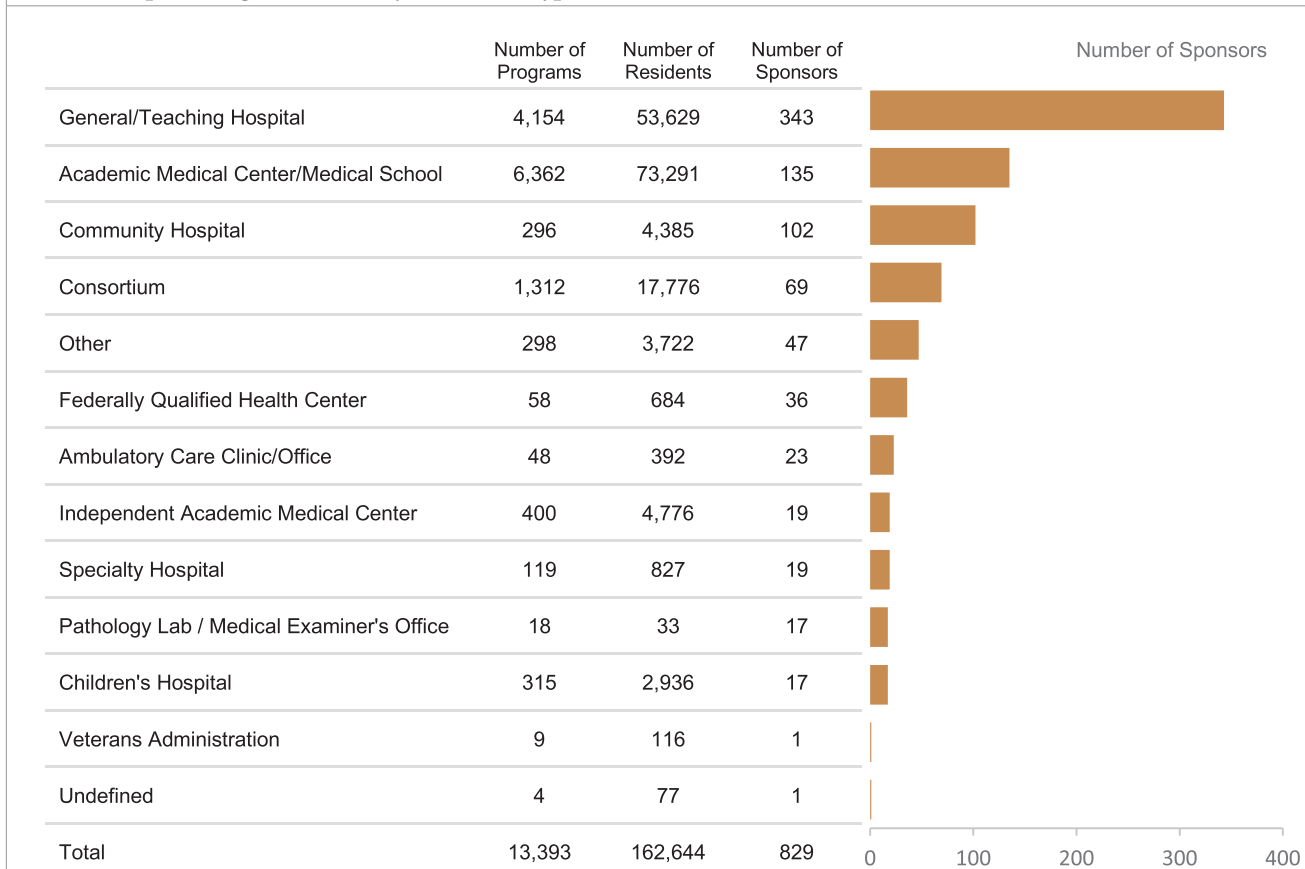
Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

TABLE E.7

Number of No-Program Sponsoring Institutions and No-Program Sponsoring Institution Concentration per 100,000 Population by State

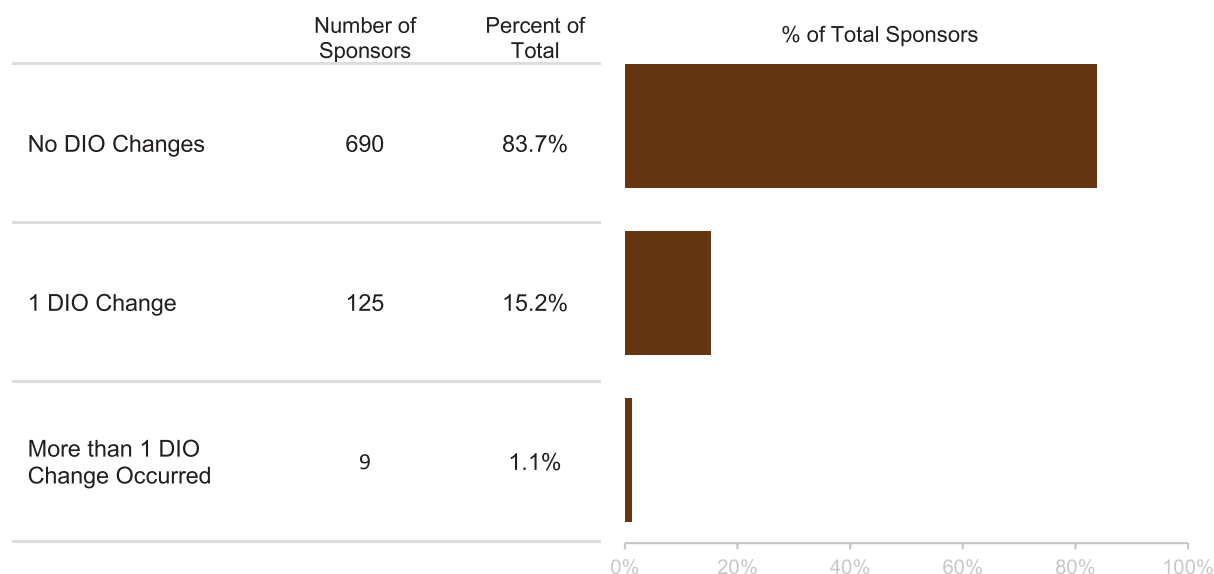
State Name	State Abbreviation	State Population - Census Estimate 2023	No-Program Sponsors	Percent of All No-Program Sponsors	No-Program Sponsors per 100,000 Pop
OVERALL	-	338,120,586	76	100.0%	0.02
Alabama	AL	5,108,468	2	2.6%	0.04
Alaska	AK	733,406	0	0.0%	0.00
Arizona	AZ	7,431,344	0	0.0%	0.00
Arkansas	AR	3,067,732	0	0.0%	0.00
California	CA	38,965,193	14	18.4%	0.04
Colorado	CO	5,877,610	0	0.0%	0.00
Connecticut	CT	3,617,176	0	0.0%	0.00
Delaware	DE	1,031,890	0	0.0%	0.00
District of Columbia	DC	678,972	0	0.0%	0.00
Florida	FL	22,610,726	8	10.5%	0.04
Georgia	GA	11,029,227	4	5.3%	0.04
Hawaii	HI	1,435,138	1	1.3%	0.07
Idaho	ID	1,964,726	1	1.3%	0.05
Illinois	IL	12,549,689	1	1.3%	0.01
Indiana	IN	6,862,199	0	0.0%	0.00
Iowa	IA	3,207,004	0	0.0%	0.00
Kansas	KS	2,940,546	1	1.3%	0.03
Kentucky	KY	4,526,154	1	1.3%	0.02
Louisiana	LA	4,573,749	0	0.0%	0.00
Maine	ME	1,395,722	0	0.0%	0.00
Maryland	MD	6,180,253	0	0.0%	0.00
Massachusetts	MA	7,001,399	1	1.3%	0.01
Michigan	MI	10,037,261	1	1.3%	0.01
Minnesota	MN	5,737,915	0	0.0%	0.00
Mississippi	MS	2,939,690	1	1.3%	0.03
Missouri	MO	6,196,156	3	3.9%	0.05
Montana	MT	1,132,812	0	0.0%	0.00
Nebraska	NE	1,978,379	0	0.0%	0.00
Nevada	NV	3,194,176	0	0.0%	0.00
New Hampshire	NH	1,402,054	1	1.3%	0.07
New Jersey	NJ	9,290,841	0	0.0%	0.00
New Mexico	NM	2,114,371	4	5.3%	0.19
New York	NY	19,571,216	4	5.3%	0.02
North Carolina	NC	10,835,491	2	2.6%	0.02
North Dakota	ND	783,926	0	0.0%	0.00
Ohio	OH	11,785,935	3	3.9%	0.03
Oklahoma	OK	4,053,824	1	1.3%	0.02
Oregon	OR	4,233,358	1	1.3%	0.02
Pennsylvania	PA	12,961,683	2	2.6%	0.02
Puerto Rico	PR	3,205,691	3	3.9%	0.09
Rhode Island	RI	1,095,962	1	1.3%	0.09
South Carolina	SC	5,373,555	2	2.6%	0.04
South Dakota	SD	919,318	0	0.0%	0.00
Tennessee	TN	7,126,489	1	1.3%	0.01
Texas	TX	30,503,301	5	6.6%	0.02
Utah	UT	3,417,734	2	2.6%	0.06
Vermont	VT	647,464	1	1.3%	0.15
Virginia	VA	8,715,698	1	1.3%	0.01
Washington	WA	7,812,880	2	2.6%	0.03
West Virginia	WV	1,770,071	0	0.0%	0.00
Wisconsin	WI	5,910,955	1	1.3%	0.02
Wyoming	WY	584,057	0	0.0%	0.00

Source: U.S. Census Bureau, Population Division. Annual Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for the United States, States, and Puerto Rico: April 1, 2022 to July 1, 2023. <https://www2.census.gov/programs-surveys/popest/datasets/2020-2023/state/totals/NST-EST2023-ALLDATA.csv>. Published March, 2024. Accessed April 11, 2024; SAS Enterprise Guide Software, Version 7.1.

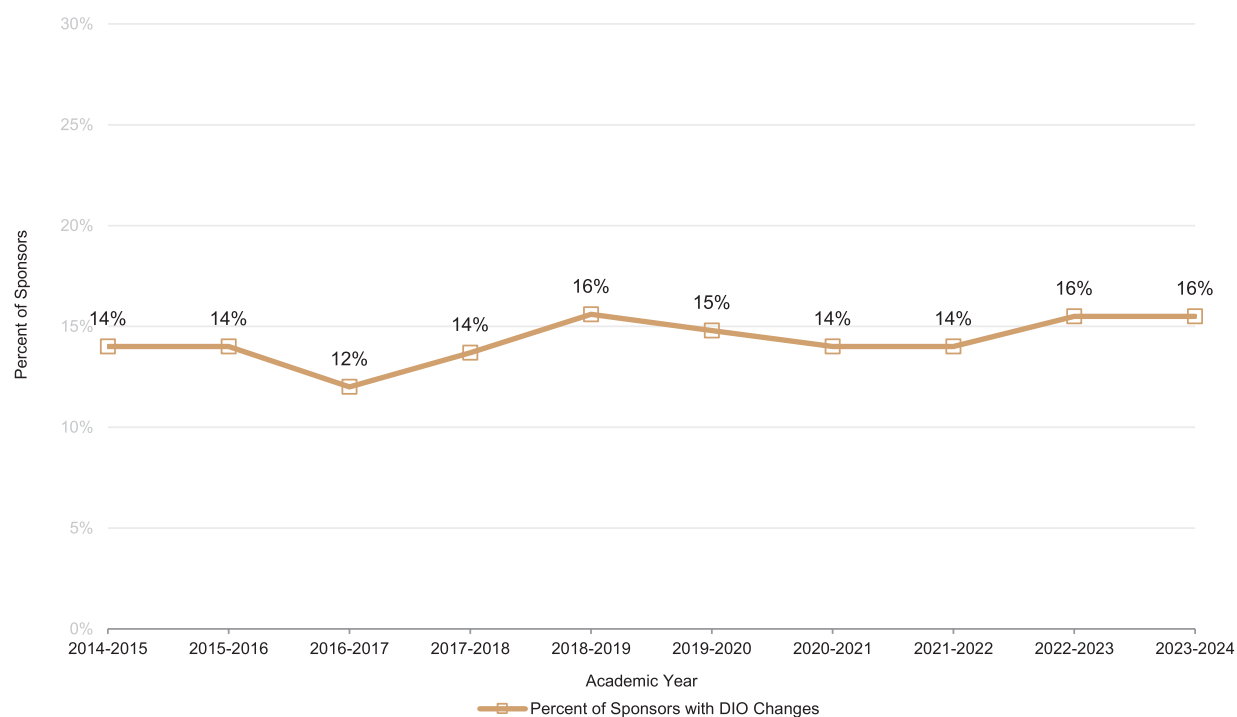
FIGURE E.8**Number of Sponsoring Institutions by Institution Type**

Note¹: Excluding sponsors with no ACGME-accredited programs.

Note²: Site Type taxonomy changed as of 7/1/2023; however, due to extensive missing data historical site type names are used for reporting. New site type taxonomy will be available with the next year's data book.

FIGURE E.9**Number of Sponsoring Institutions with DIO Changes**

Notes: Excluding sponsors with no ACGME-accredited programs and any sponsors newly accredited in the 2023-2024 academic year. Total number of sponsors included = 824.
 Percentages may not add to 100% due to rounding.
 Abbreviations: DIO, designated institutional official.

FIGURE E.10**Percent of Sponsoring Institutions with at Least One DIO Change by Academic Year, 2014-2015 to 2023-2024**

Note: Excluding sponsors with no ACGME-accredited programs and any sponsors newly accredited in the 2023-2024 academic year. Total number of sponsors included = 824. On average, among all past DIOs since July 1, 2014, past DIOs spend approximately 2.5 years in this role.
 Abbreviations: DIO, designated institutional official.

F

Participating Sites

This section includes information and trends on the number of unique participating sites to which residents rotate. The total and average number of sites used by programs in each specialty and subspecialty are also reported.

Distribution by Institution Type

There was a total of 9,908 unique participating sites to which residents rotated during the 2023-2024 academic year. The highest number of sites were in the following categories:

- Ambulatory Care Clinic/Office (3,468)
- General/Teaching Hospital (1,728)
- Other (1,235)

Since the 2014-2015 academic year, there has been a 104.0% increase in the total number of sites listed by programs as places of rotation. This increase is primarily driven by increases in the following institution type groupings during that time:

- Ambulatory Care Clinic/FQHC (172.2% increase)
- Other (93.1% increase)
- General Teaching/Community Hospital (45.4% increase)

The number of Academic Medical Centers listed as participating sites also increased by 31.3%. With only 197 unique sites in this category in the 2023-2024 academic year, however, this change had a relatively small impact on the overall increase in participating sites.

Number of Sites per Program

Overall, the average number of participating sites listed per program is 3.3. Among pipeline specialty programs,

the average number of participating sites per program is 4.3. The pipeline specialties with the highest average number of participating sites include:

- Aerospace medicine (7.8)
- Occupational and environmental medicine (6.9)
- Physical medicine and rehabilitation (5.8)
- Plastic surgery – integrated (5.8)
- Orthopaedic surgery (5.7)
- Public health and general preventive medicine (5.7)
- Psychiatry (5.6)

The pipeline specialties with the highest maximum number of participating sites per program include:

- Family medicine (26)
- Internal medicine (21)
- Transitional year (20)

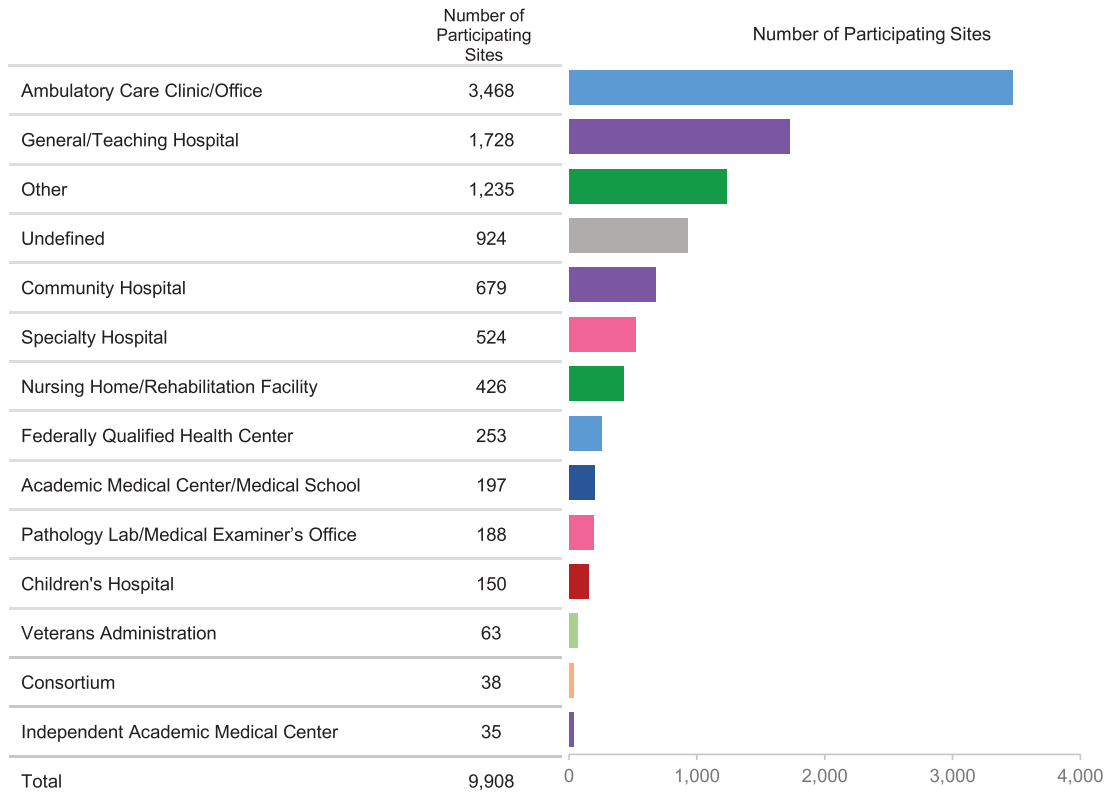
The subspecialty with the highest average number of participating sites per program is the surgical subspecialty of hand surgery at 7.0. The psychiatry subspecialty of child and adolescent psychiatry has the highest maximum number of participating sites per program at 17.

Number of Sites by Specialty and Subspecialty

The specialties with the highest number of unique participating sites to which residents rotate include:

- Family medicine (2,979)
- Internal medicine (1,942)
- Psychiatry (1,617)

Sponsoring Institutions account for 5.4% of all participating sites with 536 listed as participating sites to which residents rotate. ↗

FIGURE F.1**Number of Unique Participating Sites Where Residents Rotate by Institution Type**

Note¹: Bar color denotes institution type groupings. See Appendix C for complete list of institution type groups.

Note²: Site Type taxonomy changed as of 7/1/2023; however, due to extensive missing data historical site type names are used for reporting. New site type taxonomy will be available with the next year's data book (N=924).

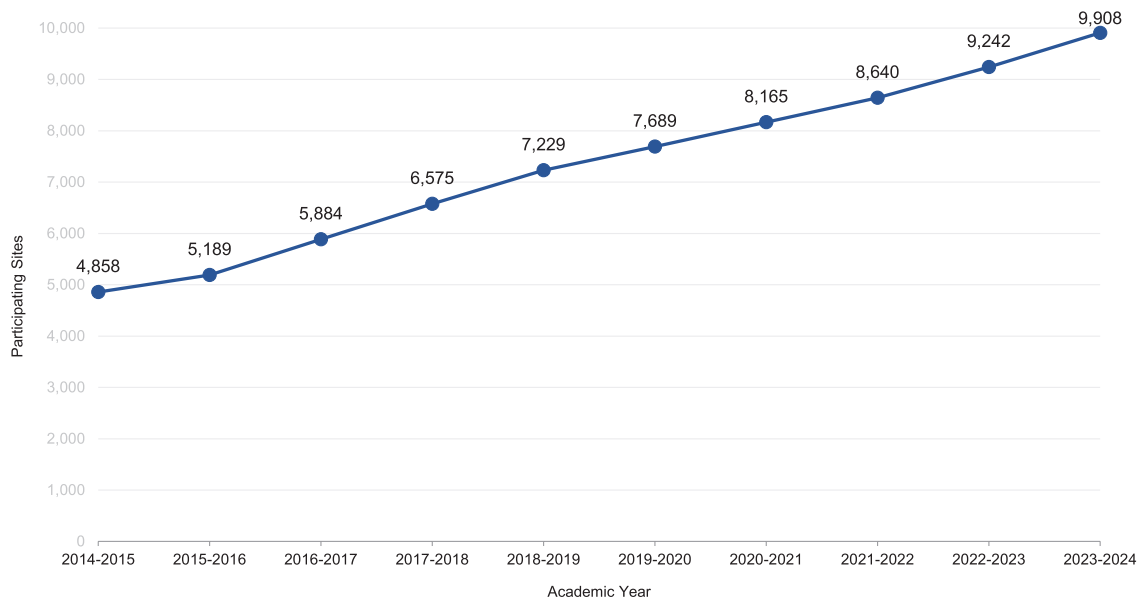
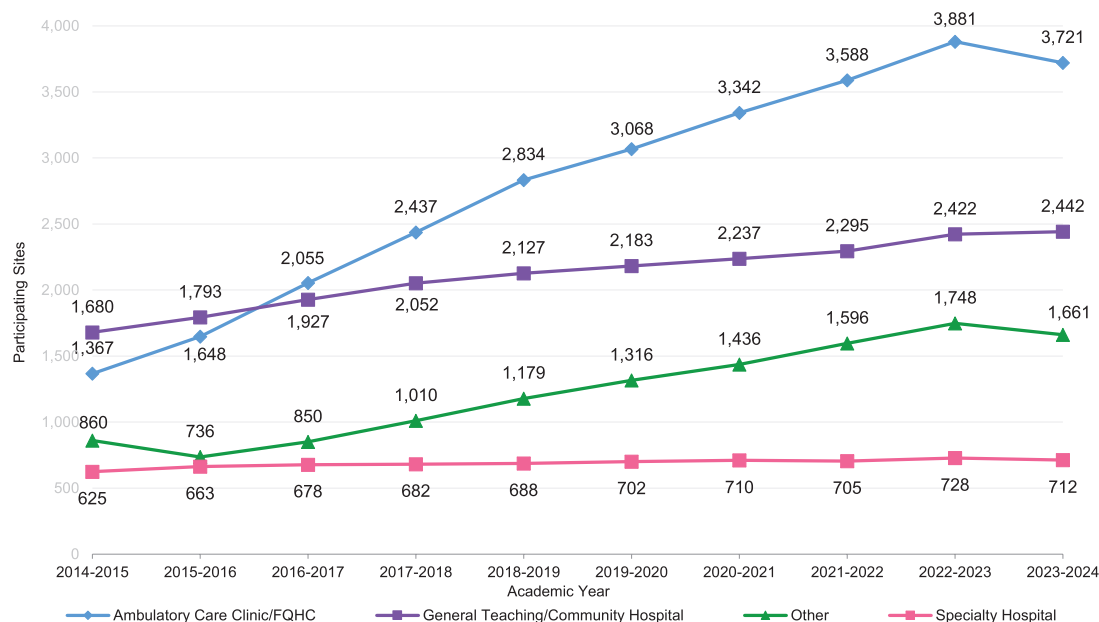
FIGURE F.2**Number of Unique Participating Sites Where Residents Rotate by Academic Year, 2014-2015 to 2023-2024**

FIGURE F.3

Number of Participating Sites where Residents Rotate by Institution Type Groups (Largest Groups Only) and Academic Year, 2014-2015 to 2023-2024



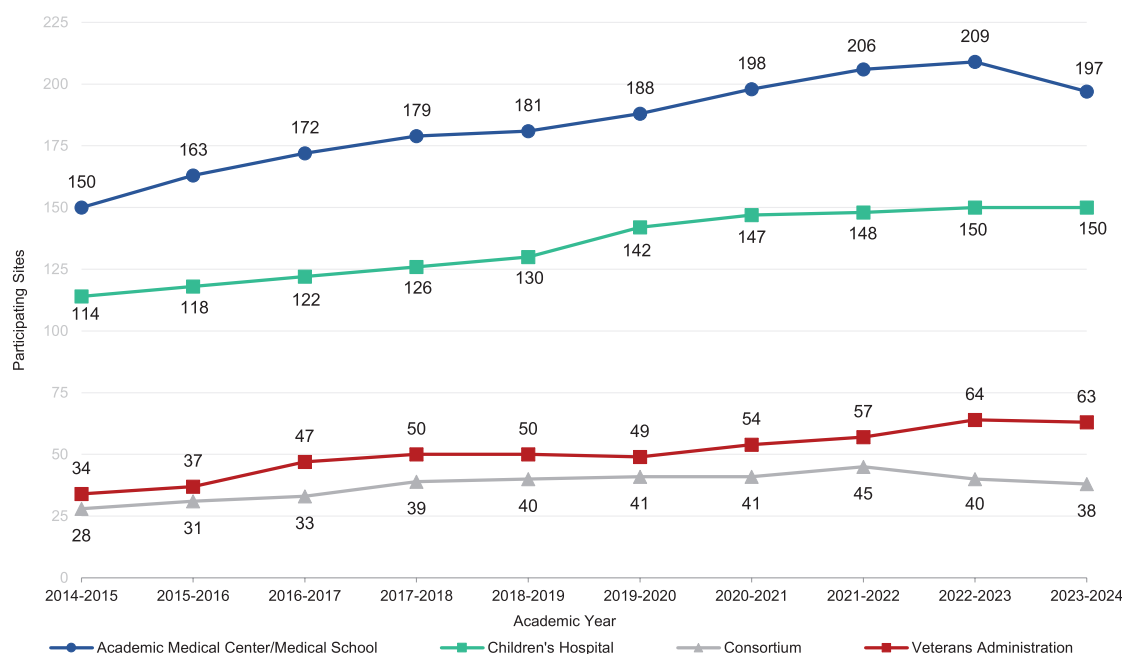
Note¹: See Appendix C for list of institution type groups.

Note²: Site Type taxonomy changed as of 7/1/2023; however, due to extensive missing data historical site type names are used for reporting. New site type taxonomy will be available with the next year's data book (N=924).

Abbreviation: FQHC, Federally Qualified Health Center.

FIGURE F.4

Number of Participating Sites where Residents Rotate by Institution Type Groups (Smallest Groups Only) and Academic Year, 2014-2015 to 2023-2024



Note¹: See Appendix C for list of institution type groups.

Note²: Site Type taxonomy changed as of 7/1/2023; however due to extensive missing data historical site type names are used for reporting. New site type taxonomy will be available with the next years data book (N=924).

TABLE F.5					
Mean Number of Participating Sites per Program where Residents Rotate by Specialty and Subspecialty					
Specialty	Total Programs	Number of Participating Sites per Program			
		AVG	STD	MIN	MAX
OVERALL	13,393	3.3	2.3	1	26
TOTAL PIPELINE	5,474	4.3	2.7	1	26
Allergy and immunology	90	2.7	1.3	1	6
Anesthesiology	167	4.2	2.0	1	11
- Adult cardiothoracic anesthesiology	75	1.7	0.9	1	5
- Critical care medicine	67	1.9	0.9	1	4
- Obstetric anesthesiology	41	1.4	0.5	1	2
- Pain medicine (multidisciplinary)	118	2.6	1.5	1	11
- Pediatric anesthesiology	61	1.5	0.8	1	4
- Pediatric cardiac anesthesiology	15	1.1	0.2	1	2
- Regional anesthesiology and acute pain medicine	44	2.3	1.4	1	6
Colon and rectal surgery	71	2.8	1.7	1	9
Dermatology	143	4.4	2.5	1	12
- Dermatopathology (multidisciplinary)	57	1.8	0.9	1	4
- Micrographic surgery and dermatologic oncology	85	2.3	1.4	1	9
- Pediatric dermatology	34	1.9	1.1	1	5
Emergency medicine	289	4.3	1.9	1	16
- Emergency medical services	83	3.4	2.3	1	10
- Medical toxicology	32	3.1	1.3	1	7
- Pediatric emergency medicine	29	2.6	1.2	1	5
- Sports medicine	8	5.1	3.6	1	11
- Undersea and hyperbaric medicine	8	1.8	0.7	1	3
Family medicine	778	4.8	3.6	1	26
- Clinical informatics	8	3.3	2.7	1	10
- Geriatric medicine	44	4.4	2.2	1	9
- Hospice and palliative medicine (multidisciplinary)	190	4.5	1.8	1	11
- Sports medicine	174	3.9	2.9	1	13
Internal medicine	651	3.5	2.8	1	21
- Adult congenital heart disease	30	1.9	0.8	1	3
- Advanced heart failure and transplant cardiology	85	1.4	0.5	1	3
- Cardiovascular disease	281	2.8	1.5	1	10
- Clinical cardiac electrophysiology	118	1.8	0.9	1	6
- Clinical informatics	32	2.4	1.6	1	7
- Critical care medicine	67	2.5	1.2	1	6
- Endocrinology, diabetes, and metabolism	161	2.7	1.5	1	9
- Gastroenterology	238	3.0	1.5	1	9
- Geriatric medicine	120	4.0	2.1	1	12
- Hematology and medical oncology	187	2.9	1.4	1	10
- Infectious disease	168	2.9	1.2	1	7
- Interventional cardiology	183	1.7	0.9	1	6
- Interventional pulmonology	17	1.2	0.5	1	3
- Medical oncology	2	2.5	0.5	2	3
- Nephrology	151	3.1	1.4	1	10
- Pulmonary disease	19	2.7	1.6	1	7
- Pulmonary disease and critical care medicine	204	3.2	1.4	1	7
- Rheumatology	133	2.7	1.3	1	8
- Sleep medicine (multidisciplinary)	98	2.6	1.2	1	5
- Transplant hepatology	68	1.3	0.6	1	3
Medical genetics and genomics	47	3.3	1.8	1	8
- Medical biochemical genetics	22	2.3	1.3	1	5
- Molecular genetic pathology (multidisciplinary)	43	1.8	1.0	1	5
Clinical biochemical genetics	15	2.4	1.5	1	7
Laboratory genetics and genomics	38	2.1	1.1	1	5
Neurological surgery	118	3.6	1.7	1	10
- Neuroendovascular intervention	3	1.7	0.9	1	3

TABLE F.5 *Continued***Mean Number of Participating Sites per Program where Residents Rotate by Specialty and Subspecialty**

Specialty	Total Programs	Number of Participating Sites per Program			
		AVG	STD	MIN	MAX
Neurology	188	3.6	2.1	1	13
- Clinical neurophysiology	97	2.1	1.2	1	6
- Epilepsy	99	2.2	1.0	1	5
- Neurocritical care (multidisciplinary)	52	1.6	0.7	1	3
- Neuroendovascular intervention	2	2.0	1.0	1	3
- Neurodevelopmental disabilities	10	3.4	1.4	1	5
- Neuromuscular medicine	57	2.2	1.1	1	6
- Vascular neurology	114	1.8	0.9	1	5
Child neurology	81	2.8	1.3	1	7
Nuclear medicine	36	2.6	1.4	1	7
Obstetrics and gynecology	295	4.4	2.4	1	17
- Female pelvic medicine and reconstructive surgery	58	2.8	1.4	1	7
- Gynecologic oncology	74	2.2	1.1	1	6
- Maternal-fetal medicine	109	2.0	1.0	1	5
- Reproductive endocrinology and infertility	52	2.7	1.7	1	7
- Complex family planning	35	2.7	1.0	1	6
Ophthalmology	126	4.3	2.4	1	15
- Ophthalmic plastic and reconstructive surgery	4	4.3	2.9	2	9
Orthopaedic surgery	209	5.7	2.6	1	14
- Adult reconstructive orthopaedics	26	2.3	1.2	1	5
- Foot and ankle orthopaedics	9	2.8	1.5	1	5
- Hand surgery	73	4.1	2.5	1	12
- Musculoskeletal oncology	12	2.1	1.0	1	4
- Orthopaedic sports medicine	93	3.4	2.7	1	16
- Orthopaedic surgery of the spine	16	2.2	1.2	1	5
- Orthopaedic trauma	12	1.8	1.3	1	5
- Pediatric orthopaedics	24	1.5	0.7	1	3
Osteopathic neuromusculoskeletal medicine	26	4.7	2.8	1	13
Otolaryngology - head and neck Surgery	131	4.6	2.4	1	13
- Neurotology	29	2.7	1.6	1	6
- Pediatric otolaryngology	34	1.4	0.5	1	3
Pathology-anatomic and clinical	142	4.1	2.0	1	12
- Blood banking/transfusion medicine	56	3.0	1.3	1	6
- Clinical informatics	10	1.7	1.0	1	4
- Chemical pathology	4	1.3	0.4	1	2
- Cytopathology	92	1.5	0.7	1	4
- Forensic pathology	50	1.5	0.9	1	4
- Hematopathology	86	1.7	0.9	1	5
- Medical microbiology	16	1.8	0.9	1	4
- Neuropathology	40	2.2	1.1	1	5
- Pediatric pathology	27	2.1	0.9	1	4
- Selective pathology	131	1.4	0.6	1	3
Pediatrics	218	2.9	1.6	1	10
- Adolescent medicine	33	2.5	2.0	1	9
- Child abuse pediatrics	33	2.7	1.6	1	9
- Clinical informatics	10	2.3	1.1	1	4
- Developmental-behavioral pediatrics	45	1.9	1.2	1	5
- Neonatal-perinatal medicine	110	2.2	1.0	1	6
- Pediatric cardiology	64	1.5	0.8	1	4
- Pediatric critical care medicine	76	1.5	0.7	1	4
- Pediatric emergency medicine	59	3.1	1.2	1	6
- Pediatric endocrinology	72	1.7	0.8	1	5
- Pediatric gastroenterology	67	1.7	0.9	1	5
- Pediatric hematology/oncology	79	1.8	0.9	1	4
- Pediatric infectious diseases	64	2.0	1.2	1	6

TABLE F.5 *Continued***Mean Number of Participating Sites per Program where Residents Rotate by Specialty and Subspecialty**

Specialty	Total Programs	Number of Participating Sites per Program			
		AVG	STD	MIN	MAX
- Pediatric nephrology	48	1.6	0.8	1	4
- Pediatric pulmonology	57	1.5	0.8	1	5
- Pediatric rheumatology	38	1.7	1.0	1	6
- Sports medicine	17	3.9	2.3	1	10
- Pediatric transplant hepatology	17	1.7	0.6	1	3
- Pediatric hospital medicine	73	2.8	0.8	2	5
Physical medicine and rehabilitation	108	5.8	3.0	2	19
- Brain injury medicine	28	2.8	0.8	2	4
- Neuromuscular medicine	1	3.0	0.0	3	3
- Spinal cord injury medicine	26	2.7	0.8	1	4
- Pediatric rehabilitation medicine	23	2.1	0.9	1	4
- Sports medicine	24	3.5	1.9	1	8
Plastic surgery	47	5.2	2.6	1	16
Plastic Surgery - integrated	89	5.8	2.3	1	14
- Craniofacial surgery	9	1.9	1.2	1	5
- Hand surgery	19	2.8	1.3	1	5
Public health and general preventive medicine	42	5.7	3.2	1	17
- Undersea and hyperbaric medicine	1	1.0	0.0	1	1
Aerospace medicine	5	7.8	1.7	5	10
Occupational and environmental medicine	23	6.9	4.3	2	17
Psychiatry	334	5.6	3.1	1	18
- Addiction medicine (multidisciplinary)	105	4.2	2.3	1	11
- Addiction psychiatry	55	3.7	2.0	1	13
- Child and adolescent psychiatry	155	4.7	2.9	1	17
- Forensic psychiatry	53	3.9	1.5	1	8
- Geriatric psychiatry	61	3.6	1.9	1	11
- Consultation-liaison psychiatry	69	2.1	1.0	1	5
Radiation oncology	89	2.8	1.5	1	8
Radiology-diagnostic	197	3.3	1.7	1	12
- Abdominal radiology	13	1.6	0.8	1	4
- Musculoskeletal radiology	21	1.7	0.9	1	4
- Neuroendovascular intervention	5	1.6	0.8	1	3
- Neuroradiology	91	2.1	1.1	1	6
- Nuclear radiology	20	1.9	1.5	1	7
- Pediatric radiology	48	1.4	0.7	1	4
Interventional radiology - independent	91	2.7	1.5	1	9
Interventional radiology - integrated	99	3.6	1.8	1	11
Surgery	364	5.2	2.0	1	15
- Complex general surgical oncology	34	2.6	1.4	1	7
- Hand surgery	2	7.0	2.0	5	9
- Pediatric surgery	52	1.6	0.7	1	3
- Surgical critical care	165	1.7	0.9	1	4
- Vascular surgery - independent	123	2.7	1.5	1	10
Vascular surgery - integrated	78	3.7	1.6	1	9
Thoracic surgery - independent	79	2.9	1.3	1	7
- Congenital cardiac surgery	17	1.4	0.5	1	2
Thoracic surgery - integrated	36	4.1	1.6	2	8
Urology	150	4.2	1.6	1	9
- Female pelvic medicine and reconstructive surgery	16	2.3	1.4	1	6
- Pediatric urology	27	1.4	0.6	1	3
Transitional year	190	2.4	2.0	1	20
Internal medicine/Pediatrics	77	3.6	1.7	1	9
Health care administration, leadership, and management	5	2.2	1.6	1	5

Note: Pipeline specialties are highlighted.

TABLE F.6

Total Number of Participating Sites and Number of Sponsoring Institutions where Residents Rotate by Specialty and Subspecialty

Specialty	Total Participating Sites	Sponsors	
		#	%
OVERALL	9,908	536	5.4%
TOTAL PIPELINE	7,453	484	6.5%
Allergy and immunology	219	37	16.9%
Anesthesiology	565	62	11.0%
- Adult cardiothoracic anesthesiology	123	34	27.6%
- Critical care medicine	123	26	21.1%
- Obstetric anesthesiology	54	17	31.5%
- Pain medicine (multidisciplinary)	289	51	17.6%
- Pediatric anesthesiology	85	18	21.2%
- Pediatric cardiac anesthesiology	16	6	37.5%
- Regional anesthesiology and acute pain medicine	95	19	20.0%
Colon and rectal surgery	197	29	14.7%
Dermatology	569	54	9.5%
- Dermatopathology (multidisciplinary)	101	25	24.8%
- Micrographic surgery and dermatologic oncology	195	37	19.0%
- Pediatric dermatology	64	11	17.2%
Emergency medicine	904	116	12.8%
- Emergency medical services	279	36	12.9%
- Medical toxicology	97	10	10.3%
- Pediatric emergency medicine	68	11	16.2%
- Sports medicine	41	1	2.4%
- Undersea and hyperbaric medicine	13	5	38.5%
Family medicine	2,979	295	9.9%
- Clinical informatics	26	3	11.5%
- Geriatric medicine	191	19	9.9%
- Hospice and palliative medicine (multidisciplinary)	721	78	10.8%
- Sports medicine	655	72	11.0%
Internal medicine	1,942	269	13.9%
- Adult congenital heart disease	56	10	17.9%
- Advanced heart failure and transplant cardiology	114	27	23.7%
- Cardiovascular disease	620	109	17.6%
- Clinical cardiac electrophysiology	206	44	21.4%
- Clinical informatics	77	12	15.6%
- Critical care medicine	153	29	19.0%
- Endocrinology, diabetes, and metabolism	403	65	16.1%
- Gastroenterology	599	96	16.0%
- Geriatric medicine	467	49	10.5%
- Hematology and medical oncology	442	85	19.2%
- Infectious disease	420	69	16.4%
- Interventional cardiology	308	72	23.4%
- Interventional pulmonology	21	11	52.4%
- Medical oncology	5	0	0.0%
- Nephrology	414	63	15.2%
- Pulmonary disease	50	11	22.0%
- Pulmonary disease and critical care medicine	535	83	15.5%
- Rheumatology	330	50	15.2%
- Sleep medicine (multidisciplinary)	241	40	16.6%
- Transplant hepatology	91	27	29.7%
Medical genetics and genomics	143	23	16.1%
- Medical biochemical genetics	47	10	21.3%
- Molecular genetic pathology (multidisciplinary)	72	18	25.0%
Clinical biochemical genetics	35	9	25.7%
Laboratory genetics and genomics	73	19	26.0%
Neurological surgery	353	45	12.7%
- Neuroendovascular intervention	5	1	20.0%

TABLE F.6 *Continued***Total Number of Participating Sites and Number of Sponsoring Institutions where Residents Rotate by Specialty and Subspecialty**

Specialty	Total Participating Sites	Sponsors	
		#	%
Neurology	573	73	12.7%
- Clinical neurophysiology	189	38	20.1%
- Epilepsy	172	36	20.9%
- Neurocritical care (multidisciplinary)	81	23	28.4%
- Neuroendovascular intervention	4	0	0.0%
- Neurodevelopmental disabilities	34	5	14.7%
- Neuromuscular medicine	119	29	24.4%
- Vascular neurology	201	47	23.4%
Child neurology	219	32	14.6%
Nuclear medicine	90	11	12.2%
Obstetrics and gynecology	1,124	131	11.7%
- Female pelvic medicine and reconstructive surgery	158	26	16.5%
- Gynecologic oncology	159	31	19.5%
- Maternal-fetal medicine	215	41	19.1%
- Reproductive endocrinology and infertility	136	22	16.2%
- Complex family planning	91	12	13.2%
Ophthalmology	488	47	9.6%
- Ophthalmic plastic and reconstructive surgery	17	1	5.9%
Orthopaedic surgery	956	81	8.5%
- Adult reconstructive orthopaedics	56	8	14.3%
- Foot and ankle orthopaedics	25	6	24.0%
- Hand surgery	283	30	10.6%
- Musculoskeletal oncology	25	5	20.0%
- Orthopaedic sports medicine	305	41	13.4%
- Orthopaedic surgery of the spine	34	9	26.5%
- Orthopaedic trauma	21	6	28.6%
- Pediatric orthopaedics	35	9	25.7%
Osteopathic neuromusculoskeletal medicine	118	10	8.5%
Otolaryngology - head and neck Surgery	515	51	9.9%
- Neurotology	78	12	15.4%
- Pediatric otolaryngology	46	12	26.1%
Pathology-anatomic and clinical	472	55	11.7%
- Blood banking/transfusion medicine	148	25	16.9%
- Clinical informatics	17	2	11.8%
- Chemical pathology	5	2	40.0%
- Cytopathology	128	39	30.5%
- Forensic pathology	72	19	26.4%
- Hematopathology	139	38	27.3%
- Medical microbiology	28	8	28.6%
- Neuropathology	79	17	21.5%
- Pediatric pathology	57	11	19.3%
- Selective pathology	83	21	25.3%
Pediatrics	520	99	19.0%
- Adolescent medicine	83	13	15.7%
- Child abuse pediatrics	86	13	15.1%
- Clinical informatics	23	7	30.4%
- Developmental-behavioral pediatrics	82	17	20.7%
- Neonatal-perinatal medicine	225	42	18.7%
- Pediatric cardiology	95	24	25.3%
- Pediatric critical care medicine	103	27	26.2%
- Pediatric emergency medicine	161	26	16.1%
- Pediatric endocrinology	114	28	24.6%
- Pediatric gastroenterology	106	27	25.5%
- Pediatric hematology/oncology	130	32	24.6%
- Pediatric infectious diseases	123	26	21.1%

TABLE F.6 *Continued***Total Number of Participating Sites and Number of Sponsoring Institutions where Residents Rotate by Specialty and Subspecialty**

Specialty	Total Participating Sites	Sponsors	
		#	%
- Pediatric nephrology	76	19	25.0%
- Pediatric pulmonology	85	21	24.7%
- Pediatric rheumatology	63	14	22.2%
- Sports medicine	67	11	16.4%
- Pediatric transplant hepatology	29	5	17.2%
- Pediatric hospital medicine	202	26	12.9%
Physical medicine and rehabilitation	567	42	7.4%
- Brain injury medicine	77	6	7.8%
- Neuromuscular medicine	3	0	0.0%
- Spinal cord injury medicine	67	5	7.5%
- Pediatric rehabilitation medicine	48	6	12.5%
- Sports medicine	81	4	4.9%
Plastic surgery	230	17	7.4%
Plastic Surgery - integrated	475	35	7.4%
- Craniofacial surgery	17	3	17.6%
- Hand surgery	53	6	11.3%
Public health and general preventive medicine	219	22	10.0%
- Undersea and hyperbaric medicine	1	1	100.0%
Aerospace medicine	34	2	5.9%
Occupational and environmental medicine	151	10	6.6%
Psychiatry	1,617	141	8.7%
- Addiction medicine (multidisciplinary)	423	47	11.1%
- Addiction psychiatry	197	18	9.1%
- Child and adolescent psychiatry	684	56	8.2%
- Forensic psychiatry	196	20	10.2%
- Geriatric psychiatry	217	21	9.7%
- Consultation-liaison psychiatry	146	30	20.5%
Radiation oncology	223	38	17.0%
Radiology-diagnostic	519	81	15.6%
- Abdominal radiology	21	5	23.8%
- Musculoskeletal radiology	36	9	25.0%
- Neuroendovascular intervention	8	2	25.0%
- Neuroradiology	177	36	20.3%
- Nuclear radiology	38	10	26.3%
- Pediatric radiology	63	18	28.6%
Interventional radiology - independent	236	36	15.3%
Interventional radiology - integrated	316	36	11.4%
Surgery	1,265	145	11.5%
- Complex general surgical oncology	86	12	14.0%
- Hand surgery	14	1	7.1%
- Pediatric surgery	79	16	20.3%
- Surgical critical care	250	62	24.8%
- Vascular surgery - independent	328	51	15.5%
Vascular surgery - integrated	281	33	11.7%
Thoracic surgery - independent	210	35	16.7%
- Congenital cardiac surgery	23	6	26.1%
Thoracic surgery - integrated	148	16	10.8%
Urology	566	63	11.1%
- Female pelvic medicine and reconstructive surgery	37	7	18.9%
- Pediatric urology	37	9	24.3%
Transitional year	442	73	16.5%
Internal medicine/Pediatrics	269	26	9.7%
Health care administration, leadership, and management	11	4	36.4%

Notes: The same institution can be counted by programs across specialties. Pipeline specialties are highlighted.

Program Directors and Faculty

This section includes information and trends regarding program director turnover, tenure, and hours spent in key areas related to the program. Statistics on the total number of faculty members, faculty members per program, and the hours faculty members spend in key areas are also included.

Program Director Changes

A total of 858 specialty programs (14.6%) and 915 subspecialty programs (12.1%) had at least one program director change during the academic year. Of these, a small number (32 specialty programs and 46 subspecialty programs) had more than one program director change during the academic year. Overall, 1,855 distinct program director changes occurred in 1,773 programs during the academic year. The specialties with the highest percentage of program director turnover include:

- Occupational and environmental medicine (26.1%)
- Interventional radiology – independent (20.9%)
- Radiation oncology (19.1%)
- Pathology-anatomic and clinical (17.6%)

The specialties with the highest total number of program director changes include:

- Family medicine (141)
- Internal medicine (112)
- Surgery (62)
- Psychiatry (53)

The specialties with the lowest percentage of program director turnover include:

- Aerospace medicine (0.0%)
- Nuclear medicine (8.3%)
- Plastic surgery (8.5%)
- Vascular surgery - integrated (9.0%)

Historically, between 12% and 14% of programs have a change in the program director role each year.

Program Director Tenure

On average, program directors of ACGME-accredited specialty programs spend approximately seven years in this role. Among all past program directors in specialty programs since July 1, 2014, allergy and immunology program directors have had the highest average tenure at 10.2 years, while clinical biochemical genetics (medical related specialty) program directors have had the lowest tenure at 1.7 years.

Program Director Years Teaching in Specialty

In general, new program directors have spent less time teaching in their specialty than program directors who are not new to their role (continuing program directors). The mean length in years that new program directors have taught in their specialty is 12.3 years among medical specialty programs, 10.6 years among hospital-based specialty programs, and 11.5 years among surgical specialty programs. In each group, the mean length in years that subspecialty program directors have taught in their subspecialty is 10.1 years, 10.4 years, and 10.8 years in medical, hospital-based, and surgical subspecialty programs, respectively. The mean length in years that continuing program directors have taught in their specialty is 17.0 years among medical specialty programs, 14.8 years among hospital-based specialty programs, and 16.8 years among surgical specialty programs.

Physician Faculty Members

A total of 206,882 physician faculty members were listed as active at the time of the Academic Year 2023-2024 snapshot. Note that these are not necessarily distinct people, as an individual may be listed as a faculty member for multiple programs. The average number of physician faculty members listed per program was 15.4 overall. The specialties with the highest average number of faculty members per program include:

- Anesthesiology (53.4)
- Pediatrics (36.5)
- Radiology - diagnostic (33.7)
- Neurology (32.1)

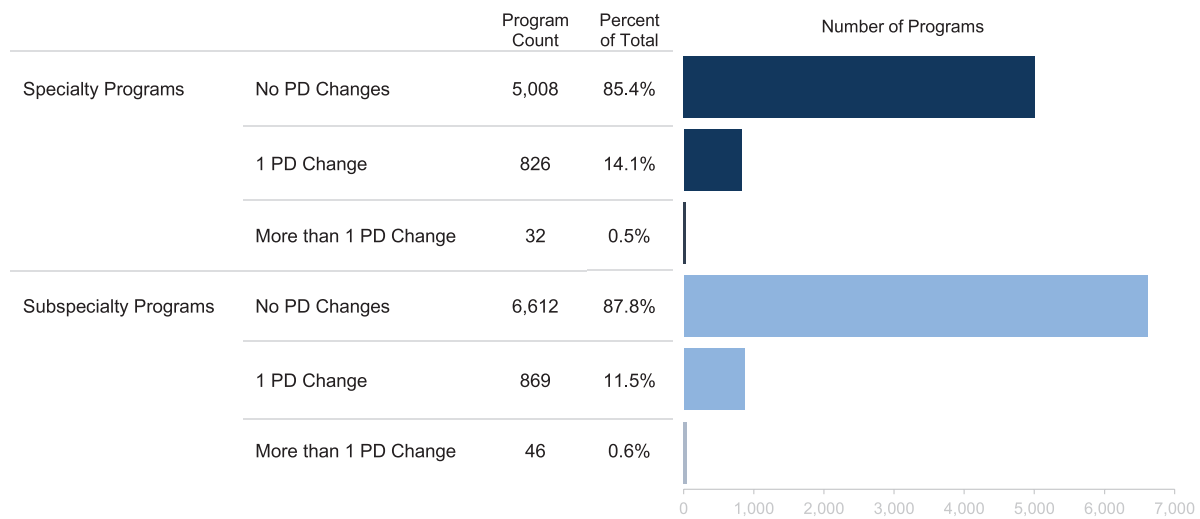
The subspecialties with the highest average number of faculty members per program include:

- Pediatric emergency medicine (19.1)
- Pediatric cardiology (17.8)
- Complex general surgical oncology (17.2)
- Pediatric critical care medicine (16.5)

Core Faculty

A total of 73,416 core faculty members were listed as active in specialty programs at the time of the Academic Year 2023-2024 snapshot. The specialties with the highest average number of core faculty members per program include:

- Anesthesiology (24.3)
- Pediatrics (22.7)
- Radiology – diagnostic (19.8)
- Interventional radiology – integrated (19.2)

FIGURE G.1**Number of Programs with Program Director Changes during the Academic Year**

Notes: Total number of programs = 13,393. Total number of distinct program director changes = 1,855.
Abbreviations: PD, program director.

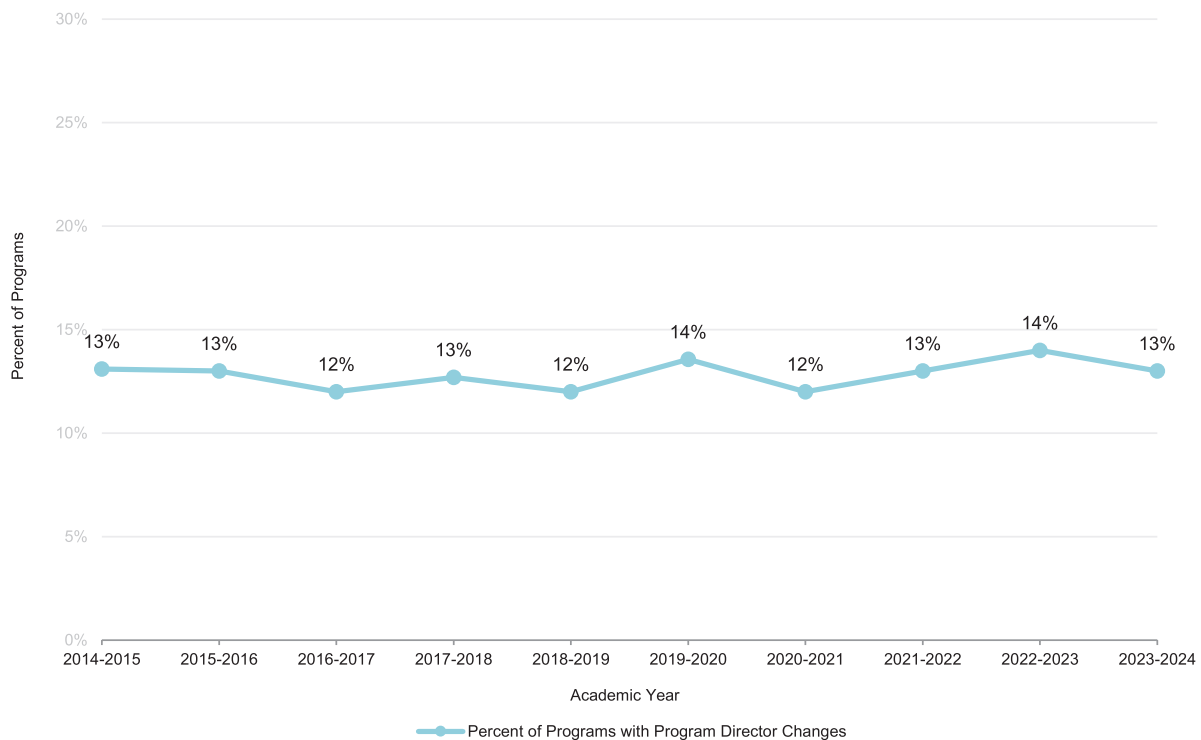
FIGURE G.2**Percent of Programs with at Least One Program Director Change by Academic Year, 2014-2015 to 2023-2024**

TABLE G.3

Number of Programs with New Program Directors and Number of Distinct Program Director Changes during the Academic Year by Specialty and Subspecialty

Specialty	Total Programs	Programs with New PDs		Number of Distinct PD Changes
		#	%	
OVERALL	13,393	1,773	13.2%	1,855
TOTAL PIPELINE	5,474	816	14.9%	851
Allergy and immunology	90	11	12.2%	12
Anesthesiology	167	19	11.4%	20
- Adult cardiothoracic anesthesiology	75	11	14.7%	11
- Critical care medicine	67	12	17.9%	13
- Obstetric anesthesiology	41	6	14.6%	6
- Pain medicine (multidisciplinary)	118	13	11.0%	13
- Pediatric anesthesiology	61	15	24.6%	15
- Pediatric cardiac anesthesiology	15	1	6.7%	1
- Regional anesthesiology and acute pain medicine	44	7	15.9%	7
Colon and rectal surgery	71	8	11.3%	8
Dermatology	143	15	10.5%	16
- Dermatopathology (multidisciplinary)	57	7	12.3%	9
- Micrographic surgery and dermatologic oncology	85	1	1.2%	1
- Pediatric dermatology	34	4	11.8%	4
Emergency medicine	289	44	15.2%	46
- Emergency medical services	83	8	9.6%	8
- Medical toxicology	32	2	6.3%	2
- Pediatric emergency medicine	29	2	6.9%	2
- Sports medicine	8	1	12.5%	1
- Undersea and hyperbaric medicine	8	0	0.0%	0
Family medicine	778	133	17.1%	141
- Clinical informatics	8	1	12.5%	1
- Geriatric medicine	44	5	11.4%	6
- Hospice and palliative medicine (multidisciplinary)	190	37	19.5%	38
- Sports medicine	174	13	7.5%	16
Internal medicine	651	107	16.4%	112
- Adult congenital heart disease	30	5	16.7%	5
- Advanced heart failure and transplant cardiology	85	6	7.1%	6
- Cardiovascular disease	281	32	11.4%	36
- Clinical cardiac electrophysiology	118	15	12.7%	16
- Clinical informatics	32	2	6.3%	2
- Critical care medicine	67	7	10.4%	7
- Endocrinology, diabetes, and metabolism	161	18	11.2%	18
- Gastroenterology	238	33	13.9%	34
- Geriatric medicine	120	16	13.3%	16
- Hematology and medical oncology	187	19	10.2%	19
- Infectious disease	168	21	12.5%	21
- Interventional cardiology	183	16	8.7%	17
- Interventional pulmonology	17	0	0.0%	0
- Medical oncology	2	1	50.0%	2
- Nephrology	151	19	12.6%	20
- Pulmonary disease	19	5	26.3%	5
- Pulmonary disease and critical care medicine	204	23	11.3%	23
- Rheumatology	133	18	13.5%	18
- Sleep medicine (multidisciplinary)	98	9	9.2%	9
- Transplant hepatology	68	7	10.3%	7
Medical genetics and genomics	47	6	12.8%	6
- Medical biochemical genetics	22	4	18.2%	5
- Molecular genetic pathology (multidisciplinary)	43	7	16.3%	7
Clinical biochemical genetics	15	1	6.7%	1
Laboratory genetics and genomics	38	3	7.9%	3
Neurological surgery	118	12	10.2%	12
- Neuroendovascular intervention	3	1	33.3%	1

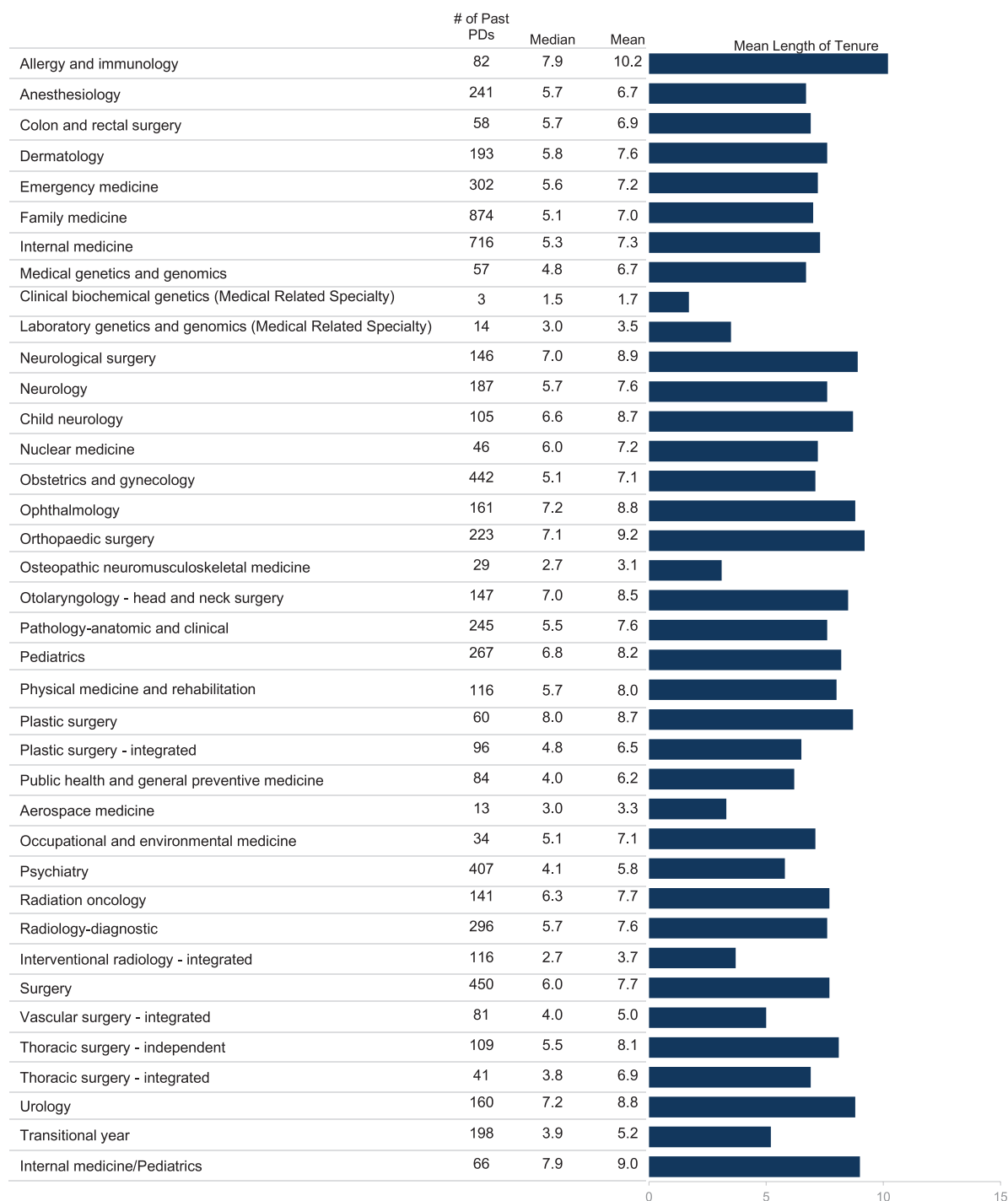
TABLE G.3 *Continued***Number of Programs with New Program Directors and Number of Distinct Program Director Changes during the Academic Year by Specialty and Subspecialty**

Specialty	Total Programs	Programs with New PDs		Number of Distinct PD Changes
		#	%	
Neurology	188	24	12.8%	24
- Clinical neurophysiology	97	7	7.2%	7
- Epilepsy	99	14	14.1%	16
- Neurocritical care (multidisciplinary)	52	13	25.0%	13
- Neuroendovascular intervention	2	0	0.0%	0
- Neurodevelopmental disabilities	10	1	10.0%	1
- Neuromuscular medicine	57	9	15.8%	9
- Vascular neurology	114	20	17.5%	21
Child neurology	81	12	14.8%	12
Nuclear medicine	36	3	8.3%	3
Obstetrics and gynecology	295	40	13.6%	44
- Female pelvic medicine and reconstructive surgery	58	8	13.8%	8
- Gynecologic oncology	74	15	20.3%	15
- Maternal-fetal medicine	109	13	11.9%	13
- Reproductive endocrinology and infertility	52	4	7.7%	4
- Complex family planning	35	7	20.0%	7
Ophthalmology	126	16	12.7%	16
- Ophthalmic plastic and reconstructive surgery	4	0	0.0%	0
Orthopaedic surgery	209	29	13.9%	29
- Adult reconstructive orthopaedics	26	1	3.8%	1
- Foot and ankle orthopaedics	9	1	11.1%	1
- Hand surgery	73	8	11.0%	9
- Musculoskeletal oncology	12	3	25.0%	3
- Orthopaedic sports medicine	93	7	7.5%	7
- Orthopaedic surgery of the spine	16	1	6.3%	1
- Orthopaedic trauma	12	1	8.3%	1
- Pediatric orthopaedics	24	6	25.0%	6
Osteopathic neuromusculoskeletal medicine	26	4	15.4%	4
Otolaryngology - head and neck Surgery	131	17	13.0%	17
- Neurotology	29	2	6.9%	2
- Pediatric otolaryngology	34	1	2.9%	1
Pathology-anatomic and clinical	142	25	17.6%	26
- Blood banking/transfusion medicine	56	8	14.3%	9
- Clinical informatics	10	2	20.0%	2
- Chemical pathology	4	0	0.0%	0
- Cytopathology	92	11	12.0%	11
- Forensic pathology	50	5	10.0%	7
- Hematopathology	86	20	23.3%	21
- Medical microbiology	16	1	6.3%	1
- Neuropathology	40	5	12.5%	5
- Pediatric pathology	27	7	25.9%	8
- Selective pathology	131	10	7.6%	12
Pediatrics	218	25	11.5%	25
- Adolescent medicine	33	8	24.2%	8
- Child abuse pediatrics	33	6	18.2%	6
- Clinical informatics	10	1	10.0%	1
- Developmental-behavioral pediatrics	45	5	11.1%	5
- Neonatal-perinatal medicine	110	14	12.7%	16
- Pediatric cardiology	64	13	20.3%	16
- Pediatric critical care medicine	76	14	18.4%	14
- Pediatric emergency medicine	59	7	11.9%	8
- Pediatric endocrinology	72	6	8.3%	6
- Pediatric gastroenterology	67	8	11.9%	8
- Pediatric hematology/oncology	79	8	10.1%	8
- Pediatric infectious diseases	64	3	4.7%	3

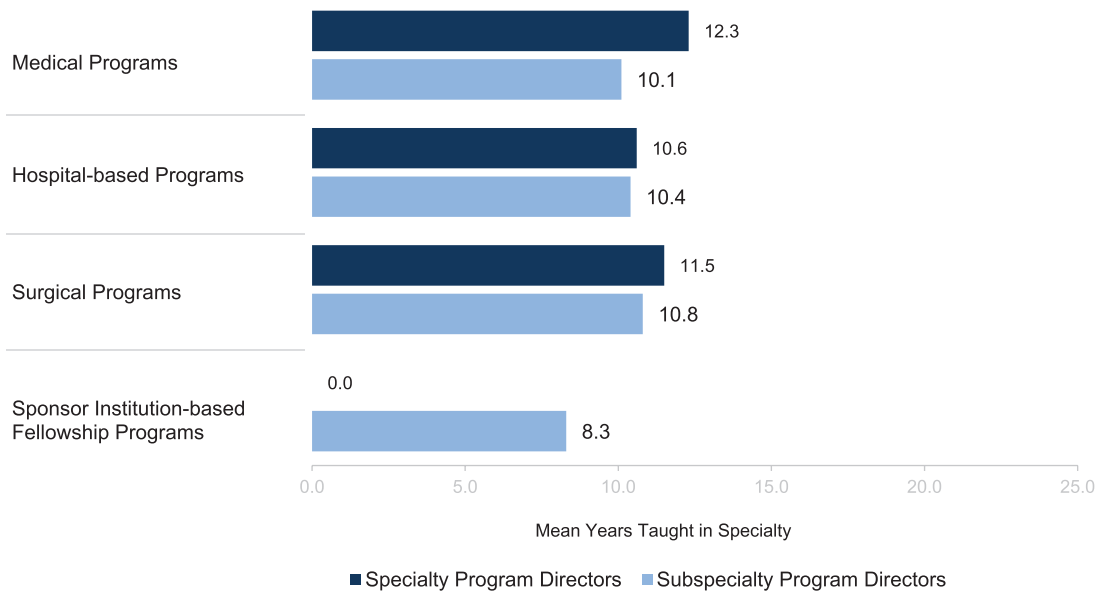
TABLE G.3 *Continued***Number of Programs with New Program Directors and Number of Distinct Program Director Changes during the Academic Year by Specialty and Subspecialty**

Specialty	Total Programs	Programs with New PDs		Number of Distinct PD Changes
		#	%	
- Pediatric nephrology	48	7	14.6%	7
- Pediatric pulmonology	57	10	17.5%	10
- Pediatric rheumatology	38	2	5.3%	2
- Sports medicine	17	2	11.8%	2
- Pediatric transplant hepatology	17	1	5.9%	1
- Pediatric hospital medicine	73	2	2.7%	2
Physical medicine and rehabilitation	108	15	13.9%	16
- Brain injury medicine	28	1	3.6%	1
- Neuromuscular medicine	1	0	0.0%	0
- Spinal cord injury medicine	26	1	3.8%	1
- Pediatric rehabilitation medicine	23	2	8.7%	2
- Sports medicine	24	2	8.3%	3
Plastic surgery	47	4	8.5%	4
Plastic Surgery - integrated	89	13	14.6%	13
- Craniofacial surgery	9	0	0.0%	0
- Hand surgery	19	3	15.8%	4
Public health and general preventive medicine	42	6	14.3%	6
- Undersea and hyperbaric medicine	1	0	0.0%	0
Aerospace medicine	5	0	0.0%	0
Occupational and environmental medicine	23	6	26.1%	6
Psychiatry	334	50	15.0%	53
- Addiction medicine (multidisciplinary)	105	10	9.5%	12
- Addiction psychiatry	55	5	9.1%	5
- Child and adolescent psychiatry	155	17	11.0%	18
- Forensic psychiatry	53	5	9.4%	6
- Geriatric psychiatry	61	4	6.6%	4
- Consultation-liaison psychiatry	69	5	7.2%	5
Radiation oncology	89	17	19.1%	17
Radiology-diagnostic	197	34	17.3%	37
- Abdominal radiology	13	1	7.7%	1
- Musculoskeletal radiology	21	2	9.5%	2
- Neuroendovascular intervention	5	2	40.0%	2
- Neuroradiology	91	16	17.6%	16
- Nuclear radiology	20	4	20.0%	4
- Pediatric radiology	48	8	16.7%	8
Interventional radiology - independent	91	19	20.9%	21
Interventional radiology - integrated	99	17	17.2%	19
Surgery	364	61	16.8%	62
- Complex general surgical oncology	34	6	17.6%	6
- Hand surgery	2	0	0.0%	0
- Pediatric surgery	52	9	17.3%	9
- Surgical critical care	165	19	11.5%	23
- Vascular surgery - independent	123	12	9.8%	12
Vascular surgery - integrated	78	7	9.0%	8
Thoracic surgery - independent	79	12	15.2%	12
- Congenital cardiac surgery	17	2	11.8%	3
Thoracic surgery - integrated	36	5	13.9%	5
Urology	150	22	14.7%	22
- Female pelvic medicine and reconstructive surgery	16	0	0.0%	0
- Pediatric urology	27	2	7.4%	2
Transitional year	190	26	13.7%	26
Internal medicine/Pediatrics	77	9	11.7%	9
Health care administration, leadership, and management	5	0	0.0%	0

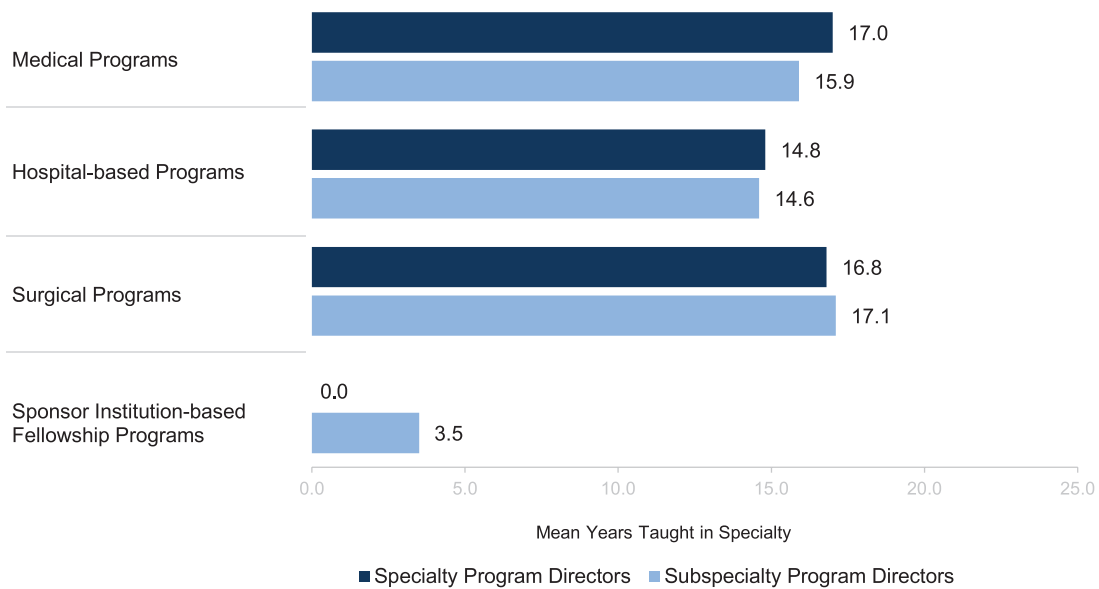
Notes: Total number of distinct program director changes = 1,855 (913 in specialty programs and 942 in subspecialty programs). Pipeline specialties are highlighted.
Abbreviations: PD, program director.

FIGURE G.4**Mean Length in Years of Past Program Director Tenure by Specialty**

Notes: Data are based on program director changes since 7/1/2014 (n = 7,006). Overall mean length in tenure = 7.0 years.
Abbreviations: PD, program director.

FIGURE G.5**Mean Length in Years New Program Directors Have Taught in Their Specialty by Specialty Group**

Notes: Total number of new program directors in specialty programs = 1,029. Total number of new program directors in subspecialty programs = 1,133.

FIGURE G.6**Mean Length in Years Continuing Program Directors Have Taught in Their Specialty by Specialty Group**

Notes: Total number of continuing program directors in specialty programs = 4,837. Total number of continuing program directors in subspecialty programs = 6,394.

FIGURE G.7

Mean Number of Hours per Week Spent by Program Directors in Key Areas by Specialty



Notes: Sum of individual means may not add to overall mean due to rounding.

TABLE G.8

Number of Physician Faculty Members and Mean Number of Physician Faculty Members per Program by Specialty and Subspecialty

Specialty	Total Programs	Total Number of Physician Faculty	Mean	MIN	MAX
OVERALL	13,393	206,882	15.4	0	184
TOTAL PIPELINE	5,474	133,362	24.4	0	184
Allergy and immunology	90	868	9.6	1	30
Anesthesiology	167	8,920	53.4	9	184
- Adult cardiothoracic anesthesiology	75	1,146	15.3	4	36
- Critical care medicine	67	912	13.6	4	38
- Obstetric anesthesiology	41	415	10.1	3	19
- Pain medicine (multidisciplinary)	118	1,048	8.9	3	26
- Pediatric anesthesiology	61	978	16.0	3	57
- Pediatric cardiac anesthesiology	15	169	11.3	4	19
- Regional anesthesiology and acute pain medicine	44	510	11.6	4	25
Colon and rectal surgery	71	521	7.3	2	22
Dermatology	143	2,253	15.8	3	46
- Dermatopathology (multidisciplinary)	57	321	5.6	2	16
- Micrographic surgery and dermatologic oncology	85	369	4.3	1	13
- Pediatric dermatology	34	124	3.6	2	8
Emergency medicine	289	6,128	21.2	5	74
- Emergency medical services	83	396	4.8	2	10
- Medical toxicology	32	190	5.9	1	12
- Pediatric emergency medicine	29	337	11.6	3	24
- Sports medicine	8	48	6.0	4	8
- Undersea and hyperbaric medicine	8	31	3.9	2	8
Family medicine	778	17,335	22.3	2	85
- Clinical informatics	8	58	7.3	1	15
- Geriatric medicine	44	255	5.8	1	19
- Hospice and palliative medicine (multidisciplinary)	190	1,633	8.6	2	22
- Sports medicine	174	1,176	6.8	1	23
Internal medicine	651	13,982	21.5	4	120
- Adult congenital heart disease	30	169	5.6	1	11
- Advanced heart failure and transplant cardiology	85	523	6.2	2	20
- Cardiovascular disease	281	4,071	14.5	3	70
- Clinical cardiac electrophysiology	118	628	5.3	1	15
- Clinical informatics	32	252	7.9	1	14
- Critical care medicine	67	675	10.1	3	24
- Endocrinology, diabetes, and metabolism	161	1,292	8.0	2	33
- Gastroenterology	238	2,820	11.8	2	54
- Geriatric medicine	120	872	7.3	1	17
- Hematology and medical oncology	187	2,717	14.5	3	54
- Infectious disease	168	1,730	10.3	1	41
- Interventional cardiology	183	958	5.2	1	14
- Interventional pulmonology	17	49	2.9	1	4
- Medical oncology	2	11	5.5	4	7
- Nephrology	151	1,565	10.4	2	40
- Pulmonary disease	19	113	5.9	2	10
- Pulmonary disease and critical care medicine	204	2,915	14.3	4	49
- Rheumatology	133	1,023	7.7	1	25
- Sleep medicine (multidisciplinary)	98	620	6.3	2	20
- Transplant hepatology	68	402	5.9	1	13
Medical genetics and genomics	47	509	10.8	0	48
- Medical biochemical genetics	22	141	6.4	3	14
- Molecular genetic pathology (multidisciplinary)	43	256	6.0	1	19
Clinical biochemical genetics	15	71	4.7	0	13
Laboratory genetics and genomics	38	197	5.2	1	15
Neurological surgery	118	2,174	18.4	4	35
- Neuroendovascular intervention	3	15	5.0	3	8

TABLE G.8 *Continued***Number of Physician Faculty Members and Mean Number of Physician Faculty Members per Program by Specialty and Subspecialty**

Specialty	Total Programs	Total Number of Physician Faculty	Mean	MIN	MAX
Neurology	188	6,038	32.1	7	105
- Clinical neurophysiology	97	936	9.6	3	20
- Epilepsy	99	877	8.9	4	28
- Neurocritical care (multidisciplinary)	52	463	8.9	3	23
- Neuroendovascular intervention	2	7	3.5	2	5
- Neurodevelopmental disabilities	10	140	14.0	3	29
- Neuromuscular medicine	57	422	7.4	0	15
- Vascular neurology	114	864	7.6	2	21
Child neurology	81	1,397	17.2	3	48
Nuclear medicine	36	213	5.9	2	17
Obstetrics and gynecology	295	8,407	28.5	7	95
- Female pelvic medicine and reconstructive surgery	58	383	6.6	2	12
- Gynecologic oncology	74	616	8.3	3	18
- Maternal-fetal medicine	109	1,287	11.8	2	26
- Reproductive endocrinology and infertility	52	442	8.5	1	26
- Complex family planning	35	169	4.8	2	10
Ophthalmology	126	3,240	25.7	5	68
- Ophthalmic plastic and reconstructive surgery	4	13	3.3	1	6
Orthopaedic surgery	209	6,211	29.7	12	83
- Adult reconstructive orthopaedics	26	150	5.8	2	19
- Foot and ankle orthopaedics	9	38	4.2	2	11
- Hand surgery	73	549	7.5	1	18
- Musculoskeletal oncology	12	45	3.8	1	8
- Orthopaedic sports medicine	93	632	6.8	1	16
- Orthopaedic surgery of the spine	16	95	5.9	2	16
- Orthopaedic trauma	12	64	5.3	2	16
- Pediatric orthopaedics	24	226	9.4	3	21
Osteopathic neuromusculoskeletal medicine	26	360	13.8	7	28
Otolaryngology - head and neck Surgery	131	2,917	22.3	7	53
- Neurotology	29	146	5.0	1	11
- Pediatric otolaryngology	34	319	9.4	3	20
Pathology-anatomic and clinical	142	3,894	27.4	6	65
- Blood banking/transfusion medicine	56	321	5.7	2	13
- Clinical informatics	10	56	5.6	3	10
- Chemical pathology	4	11	2.8	1	5
- Cytopathology	92	535	5.8	1	17
- Forensic pathology	50	326	6.5	1	15
- Hematopathology	86	578	6.7	1	29
- Medical microbiology	16	38	2.4	0	5
- Neuropathology	40	187	4.7	1	10
- Pediatric pathology	27	205	7.6	2	16
- Selective pathology	131	886	6.8	1	28
Pediatrics	218	7,954	36.5	17	61
- Adolescent medicine	33	229	6.9	1	25
- Child abuse pediatrics	33	144	4.4	0	12
- Clinical informatics	10	98	9.8	3	22
- Developmental-behavioral pediatrics	45	278	6.2	0	15
- Neonatal-perinatal medicine	110	1,720	15.6	5	35
- Pediatric cardiology	64	1,138	17.8	6	61
- Pediatric critical care medicine	76	1,251	16.5	6	39
- Pediatric emergency medicine	59	1,125	19.1	5	58
- Pediatric endocrinology	72	614	8.5	2	29
- Pediatric gastroenterology	67	743	11.1	2	35
- Pediatric hematology/oncology	79	1,257	15.9	4	47
- Pediatric infectious diseases	64	564	8.8	2	25

TABLE G.8 Continued

Number of Physician Faculty Members and Mean Number of Physician Faculty Members per Program by Specialty and Subspecialty					
Specialty	Total Programs	Total Number of Physician Faculty	Mean	MIN	MAX
- Pediatric nephrology	48	316	6.6	1	18
- Pediatric pulmonology	57	529	9.3	2	35
- Pediatric rheumatology	38	224	5.9	2	12
- Sports medicine	17	126	7.4	4	13
- Pediatric transplant hepatology	17	98	5.8	3	9
- Pediatric hospital medicine	73	1,027	14.1	5	28
Physical medicine and rehabilitation	108	2,371	22.0	5	57
- Brain injury medicine	28	163	5.8	3	12
- Neuromuscular medicine	1	5	5.0	5	5
- Spinal cord injury medicine	26	171	6.6	3	12
- Pediatric rehabilitation medicine	23	154	6.7	2	13
- Sports medicine	24	172	7.2	2	14
Plastic surgery	47	749	15.9	3	31
Plastic Surgery - integrated	89	1,807	20.3	5	51
- Craniofacial surgery	9	31	3.4	2	7
- Hand surgery	19	136	7.2	3	15
Public health and general preventive medicine	42	433	10.3	3	26
- Undersea and hyperbaric medicine	1	4	4.0	4	4
Aerospace medicine	5	42	8.4	5	10
Occupational and environmental medicine	23	211	9.2	2	25
Psychiatry	334	7,327	21.9	4	83
- Addiction medicine (multidisciplinary)	105	839	8.0	2	20
- Addiction psychiatry	55	424	7.7	2	23
- Child and adolescent psychiatry	155	1,611	10.4	1	34
- Forensic psychiatry	53	331	6.2	1	17
- Geriatric psychiatry	61	404	6.6	2	16
- Consultation-liaison psychiatry	69	510	7.4	2	27
Radiation oncology	89	1,305	14.7	4	71
Radiology-diagnostic	197	6,643	33.7	7	101
- Abdominal radiology	13	137	10.5	3	19
- Musculoskeletal radiology	21	148	7.0	2	23
- Neuroendovascular intervention	5	20	4.0	2	6
- Neuroradiology	91	919	10.1	2	37
- Nuclear radiology	20	113	5.7	1	23
- Pediatric radiology	48	562	11.7	0	40
Interventional radiology - independent	91	871	9.6	3	36
Interventional radiology - integrated	99	2,601	26.3	10	73
Surgery	364	11,655	32.0	5	139
- Complex general surgical oncology	34	584	17.2	8	38
- Hand surgery	2	19	9.5	6	13
- Pediatric surgery	52	536	10.3	3	24
- Surgical critical care	165	1,778	10.8	2	32
- Vascular surgery - independent	123	975	7.9	2	19
Vascular surgery - integrated	78	1,071	13.7	4	57
Thoracic surgery - independent	79	1,089	13.8	4	35
- Congenital cardiac surgery	17	76	4.5	2	11
Thoracic surgery - integrated	36	830	23.1	9	75
Urology	150	2,758	18.4	4	60
- Female pelvic medicine and reconstructive surgery	16	115	7.2	3	11
- Pediatric urology	27	150	5.6	2	15
Transitional year	190	2,217	11.7	3	61
Internal medicine/Pediatrics	77	756	9.8	2	27
Health care administration, leadership, and management	5	30	6.0	3	12

Notes: Excluding program directors. Total number of physician faculty does not represent the count of distinct people as individuals may be listed in more than one program. Total number of distinct physician faculty across all programs = 163,421. Pipeline specialties are highlighted.

TABLE G.9

Total Number of Core Faculty Members and Core Faculty Members per Program by Specialty

Specialty	Total Programs	Total Number of Core Faculty	Mean	MIN	MAX
OVERALL	5,866	73,416	12.5	0	85
Allergy and immunology	90	512	5.7	1	15
Anesthesiology	167	4,057	24.3	3	85
Colon and rectal surgery	71	401	5.6	2	18
Dermatology	143	1,481	10.4	1	29
Emergency medicine	289	3,978	13.8	3	53
Family medicine	778	5,418	7.0	0	36
Internal medicine	651	7,233	11.1	2	57
Medical genetics and genomics	47	249	5.3	0	20
Clinical biochemical genetics (Medical Related Specialty)	15	46	3.1	0	8
Laboratory genetics and genomics (Medical Related Specialty)	38	73	1.9	0	5
Neurological surgery	118	1,380	11.7	3	28
Neurology	188	3,044	16.2	3	84
Child neurology	81	812	10.0	2	31
Nuclear medicine	36	173	4.8	1	11
Obstetrics and gynecology	295	4,713	16.0	2	61
Ophthalmology	126	1,811	14.4	3	39
Orthopaedic surgery	209	3,677	17.6	4	56
Osteopathic neuromusculoskeletal medicine	26	91	3.5	0	8
Otolaryngology - head and neck Surgery	131	1,982	15.1	5	40
Pathology-anatomic and clinical	142	2,355	16.6	3	61
Pediatrics	218	4,938	22.7	4	50
Physical medicine and rehabilitation	108	1,407	13.0	3	50
Plastic surgery	47	475	10.1	3	28
Plastic Surgery - integrated	89	946	10.6	2	29
Public health and general preventive medicine	42	168	4.0	1	11
Aerospace medicine	5	26	5.2	2	7
Occupational and environmental medicine	23	93	4.0	2	7
Psychiatry	334	3,685	11.0	2	44
Radiation oncology	89	1,025	11.5	2	42
Radiology-diagnostic	197	3,896	19.8	5	73
Interventional radiology - integrated	99	1,901	19.2	4	50
Surgery	364	5,740	15.8	2	81
Vascular surgery - integrated	78	687	8.8	3	18
Thoracic surgery - independent	79	894	11.3	2	25
Thoracic surgery - integrated	36	515	14.3	5	28
Urology	150	1,853	12.4	3	35
Transitional year	190	1,123	5.9	3	21
Internal medicine/Pediatrics	77	558	7.2	2	19

Notes: Excluding program directors. Total number of core faculty does not represent the count of distinct people as individuals may be listed in more than one program.

Total number of distinct core faculty in specialty programs = 69,089.

FIGURE G.10

Specialties Organized by Largest Mean Number of Core Faculty Members per Program

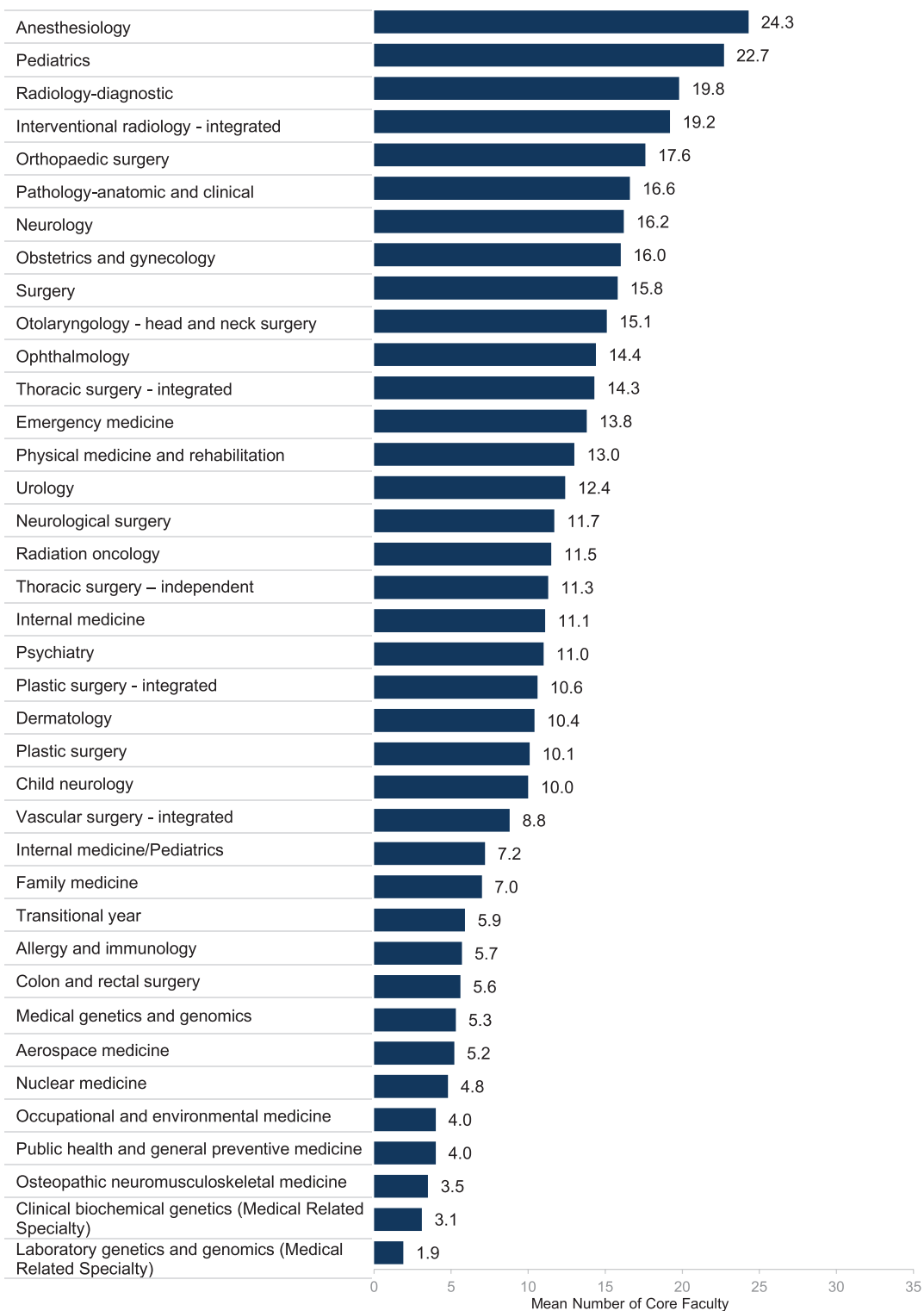
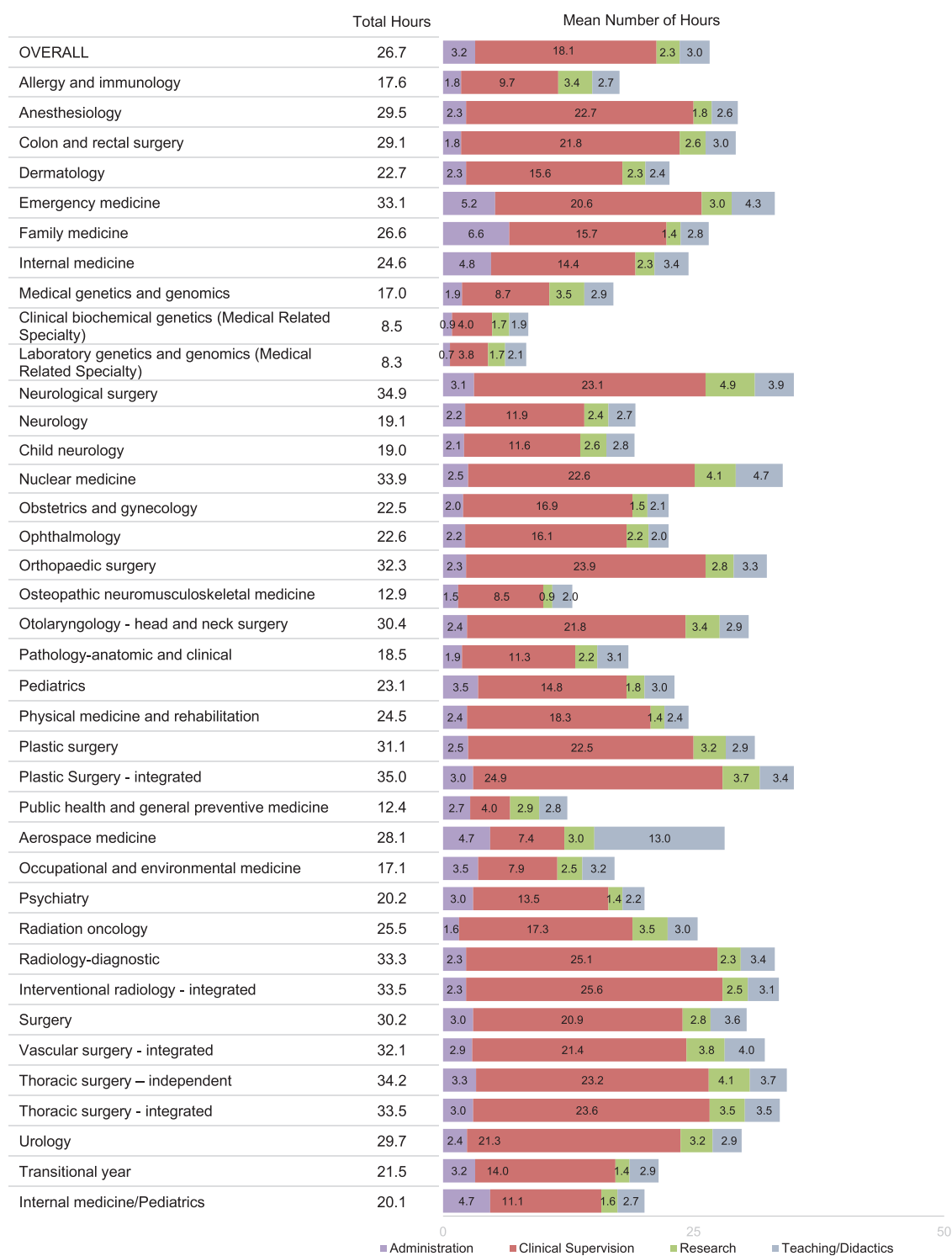


FIGURE G.11

Mean Number of Hours per Week Core Faculty Members Spent in Key Areas by Specialty



Notes: Sum of individual means may not add to overall mean due to rounding.

TABLE G.12

Number of Active Core Physician Faculty by Specialty and Subspecialty and Race/Ethnicity

Specialty	Race/Ethnicity								
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/Ethnicity	Other	Unknown
OVERALL	74,671	26,007	8,316	4,731	173	81	2,730	1,552	2,928
TOTAL PIPELINE	44,710	14,000	4,838	3,039	122	47	1,563	864	1,830
Allergy and immunology	298	143	24	15	0	1	14	4	13
Anesthesiology	2,521	830	277	182	8	3	100	66	70
- Adult cardiothoracic anesthesiology	435	160	41	24	0	0	19	10	14
- Critical care medicine	360	120	51	16	1	0	16	8	3
- Obstetric anesthesiology	144	46	20	17	1	0	12	2	5
- Pain medicine (multidisciplinary)	375	207	28	25	2	3	18	12	12
- Pediatric anesthesiology	348	138	38	25	1	0	13	4	10
- Pediatric cardiac anesthesiology	72	15	12	3	0	0	0	0	3
- Regional anesthesiology and acute pain medicine	180	73	12	16	0	0	10	5	4
Colon and rectal surgery	268	59	32	16	0	0	7	7	12
Dermatology	985	268	96	48	2	0	27	15	40
- Dermatopathology (multidisciplinary)	135	38	11	8	0	0	3	2	5
- Micrographic surgery and dermatologic oncology	122	41	10	6	0	0	7	2	0
- Pediatric dermatology	69	23	4	1	0	0	1	0	0
Emergency medicine	2,875	488	287	148	6	1	78	34	61
- Emergency medical services	223	19	17	5	1	0	4	1	0
- Medical toxicology	104	13	4	3	0	0	1	1	2
- Pediatric emergency medicine	178	31	17	9	0	0	3	5	2
- Sports medicine	19	2	1	1	0	0	0	0	0
- Undersea and hyperbaric medicine	16	2	3	0	0	0	0	0	2
Family medicine	3,492	766	437	308	18	3	145	73	176
- Clinical informatics	27	6	2	1	0	0	1	0	0
- Geriatric medicine	73	28	11	9	0	0	3	2	1
- Hospice and palliative medicine (multidisciplinary)	550	184	71	34	4	2	17	9	24
- Sports medicine	368	49	24	19	0	0	14	4	11
Internal medicine	3,747	1,935	523	383	14	8	148	124	351
- Adult congenital heart disease	74	15	1	2	1	0	1	2	2
- Advanced heart failure and transplant cardiology	181	133	30	17	0	0	9	3	4
- Cardiovascular disease	1,558	919	198	104	2	4	72	57	108
- Clinical cardiac electrophysiology	290	155	26	10	0	0	8	9	12
- Clinical informatics	118	25	8	4	0	0	3	3	3
- Critical care medicine	275	134	45	11	1	0	15	7	9
- Endocrinology, diabetes, and metabolism	423	276	75	30	0	3	18	16	23
- Gastroenterology	983	692	122	82	2	1	59	37	74
- Geriatric medicine	290	140	44	20	0	1	8	9	17
- Hematology and medical oncology	1,125	644	114	63	0	0	32	30	46
- Infectious disease	692	237	134	34	0	0	23	19	22
- Interventional cardiology	386	230	37	18	0	0	12	14	17
- Interventional pulmonology	19	15	5	0	0	1	3	0	1
- Medical oncology	0	3	0	1	0	0	1	1	0
- Nephrology	507	406	78	40	1	0	26	24	25
- Pulmonary disease	23	36	4	0	1	0	2	1	8
- Pulmonary disease and critical care medicine	1,222	571	191	60	1	2	51	42	50
- Rheumatology	384	203	50	18	0	0	14	19	23
- Sleep medicine (multidisciplinary)	218	143	34	9	2	1	7	5	4
- Transplant hepatology	143	95	28	18	1	0	8	3	5
Medical genetics and genomics	161	41	25	2	0	0	9	5	6
- Medical biochemical genetics	52	14	7	0	1	0	3	2	4
- Molecular genetic pathology (multidisciplinary)	90	47	7	1	0	0	4	1	0
Clinical biochemical genetics	33	5	4	0	1	0	1	0	2
Laboratory genetics and genomics	41	20	5	0	0	0	2	0	5
Neurological surgery	877	302	75	44	4	1	23	23	31
- Neuroendovascular intervention	5	3	0	0	0	0	0	0	0

TABLE G.12 *Continued*

Number of Active Core Physician Faculty by Specialty and Subspecialty and Race/Ethnicity									
Specialty	Race/Ethnicity								
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/ Ethnicity	Other	Unknown
Neurology	1,787	738	251	74	2	1	70	53	68
- Clinical neurophysiology	316	154	43	9	0	0	16	6	10
- Epilepsy	340	178	45	13	1	0	14	5	11
- Neurocritical care (multidisciplinary)	184	93	24	7	0	0	7	10	6
- Neuroendovascular intervention	4	2	1	0	0	0	0	0	0
- Neurodevelopmental disabilities	46	9	1	2	0	0	1	0	1
- Neuromuscular medicine	176	64	17	4	0	0	7	3	4
- Vascular neurology	291	169	42	19	1	0	11	13	8
Child neurology	513	189	58	18	0	0	19	10	5
Nuclear medicine	97	41	17	5	0	0	5	2	6
Obstetrics and gynecology	3,113	614	331	385	12	5	104	40	109
- Female pelvic medicine and reconstructive surgery	172	41	17	16	0	2	3	5	3
- Gynecologic oncology	311	78	24	19	1	0	5	3	4
- Maternal-fetal medicine	608	102	49	59	1	0	15	6	12
- Reproductive endocrinology and infertility	197	41	21	12	0	0	5	1	5
- Complex family planning	88	27	10	6	0	0	6	1	2
Ophthalmology	1,046	514	87	55	1	0	40	24	44
- Ophthalmic plastic and reconstructive surgery	5	3	1	0	0	0	1	0	1
Orthopaedic surgery	2,802	456	136	102	8	0	58	28	87
- Adult reconstructive orthopaedics	89	13	10	2	0	0	0	0	2
- Foot and ankle orthopaedics	26	2	1	0	0	0	0	1	1
- Hand surgery	263	53	17	5	0	0	9	3	5
- Musculoskeletal oncology	35	3	1	3	0	0	0	0	1
- Orthopaedic sports medicine	313	54	10	16	0	0	1	1	5
- Orthopaedic surgery of the spine	30	19	5	2	0	0	1	1	1
- Orthopaedic trauma	38	12	1	1	0	0	2	2	1
- Pediatric orthopaedics	126	22	6	6	0	0	3	1	1
Osteopathic neuromusculoskeletal medicine	61	8	5	2	1	0	2	0	12
Otolaryngology - head and neck Surgery	1,332	427	89	49	2	0	36	18	29
- Neurotology	73	23	5	1	1	0	3	2	6
- Pediatric otolaryngology	164	59	13	7	1	0	2	2	2
Pathology-anatomic and clinical	1,383	555	194	67	2	3	75	30	46
- Blood banking/transfusion medicine	122	47	19	11	0	0	3	3	2
- Clinical informatics	21	11	0	2	0	0	1	0	2
- Chemical pathology	4	0	0	0	0	0	0	0	0
- Cytopathology	174	126	27	12	0	0	20	5	10
- Forensic pathology	176	15	22	14	0	0	8	3	11
- Hematopathology	213	149	27	7	0	0	13	9	9
- Medical microbiology	17	4	0	0	0	0	0	1	0
- Neuropathology	90	22	8	2	0	0	4	2	2
- Pediatric pathology	89	17	7	6	1	0	3	1	2
- Selective pathology	292	200	40	10	0	0	21	10	24
Pediatrics	3,061	863	439	288	5	6	111	47	118
- Adolescent medicine	111	20	15	24	0	0	7	1	0
- Child abuse pediatrics	71	5	5	3	0	0	2	0	3
- Clinical informatics	48	14	3	1	1	0	1	1	1
- Developmental-behavioral pediatrics	137	38	11	6	1	0	10	0	2
- Neonatal-perinatal medicine	755	328	94	45	0	0	44	16	17
- Pediatric cardiology	556	189	40	11	0	1	17	7	18
- Pediatric critical care medicine	621	168	74	31	1	2	20	11	3
- Pediatric emergency medicine	530	137	33	42	1	0	18	8	9
- Pediatric endocrinology	311	98	45	13	1	0	9	5	5
- Pediatric gastroenterology	337	139	50	19	1	1	8	18	5
- Pediatric hematology/oncology	632	176	57	19	1	1	16	6	11
- Pediatric infectious diseases	305	82	41	17	0	0	7	5	3

TABLE G.12 *Continued*

Number of Active Core Physician Faculty by Specialty and Subspecialty and Race/Ethnicity

Specialty	Race/Ethnicity								
	White	Asian	Hispanic, Latino or of Spanish origin	Black or African American	American Indian or Alaskan Native	Native Hawaiian or Pacific Islander	Multiple Race/Ethnicity	Other	Unknown
- Pediatric nephrology	152	70	13	17	1	0	9	2	4
- Pediatric pulmonology	264	78	44	8	0	1	11	5	5
- Pediatric rheumatology	112	38	13	3	1	0	5	1	1
- Sports medicine	69	6	3	3	0	0	0	1	1
- Pediatric transplant hepatology	39	25	8	2	0	0	1	0	0
- Pediatric hospital medicine	452	131	39	25	1	2	10	8	10
Physical medicine and rehabilitation	813	317	133	62	3	1	27	17	34
- Brain injury medicine	55	24	4	4	0	0	3	2	2
- Neuromuscular medicine	3	0	0	0	0	0	0	0	0
- Spinal cord injury medicine	65	27	11	5	0	0	3	0	1
- Pediatric rehabilitation medicine	75	26	8	1	0	0	4	0	1
- Sports medicine	55	22	12	5	0	0	2	0	0
Plastic surgery	318	96	25	7	3	0	12	2	12
Plastic Surgery - integrated	634	190	51	23	3	0	17	6	22
- Craniofacial surgery	19	5	2	0	0	0	0	0	0
- Hand surgery	73	24	3	3	0	0	0	1	0
Public health and general preventive medicine	101	30	10	15	0	0	6	2	4
- Undersea and hyperbaric medicine	4	0	0	0	0	0	0	0	0
Aerospace medicine	18	5	2	0	0	0	1	0	0
Occupational and environmental medicine	61	13	3	9	0	0	1	1	5
Psychiatry	2,199	716	290	177	8	1	105	48	141
- Addiction medicine (multidisciplinary)	272	64	23	11	0	0	9	4	14
- Addiction psychiatry	143	56	24	7	1	0	14	4	6
- Child and adolescent psychiatry	600	244	80	54	0	1	38	11	16
- Forensic psychiatry	138	23	16	7	0	0	6	0	9
- Geriatric psychiatry	135	48	15	8	0	0	9	2	3
- Consultation-liaison psychiatry	209	63	39	6	0	0	7	2	1
Radiation oncology	573	341	35	32	2	3	23	4	12
Radiology-diagnostic	2,417	968	215	87	7	2	88	46	66
- Abdominal radiology	53	28	2	3	0	0	4	3	9
- Musculoskeletal radiology	81	20	5	5	0	0	3	1	3
- Neuroendovascular intervention	14	6	0	0	0	0	0	0	0
- Neuroradiology	369	184	30	13	0	0	18	14	14
- Nuclear radiology	37	17	5	2	0	0	3	2	3
- Pediatric radiology	202	67	15	7	0	0	7	7	13
Interventional radiology - independent	375	174	32	14	1	0	20	12	18
Interventional radiology - integrated	1,136	510	102	52	2	1	39	26	33
Surgery	3,825	941	390	284	5	2	104	62	127
- Complex general surgical oncology	234	85	26	15	1	1	10	4	9
- Hand surgery	7	2	2	1	0	0	1	0	0
- Pediatric surgery	284	67	29	16	1	0	9	3	10
- Surgical critical care	877	162	96	56	1	0	21	19	7
- Vascular surgery - independent	511	163	51	23	1	1	20	9	16
Vascular surgery - integrated	432	139	52	21	1	1	16	10	15
Thoracic surgery - independent	538	186	65	24	0	1	19	10	51
- Congenital cardiac surgery	36	15	6	2	0	0	3	0	7
Thoracic surgery - integrated	319	105	42	9	0	0	10	8	22
Urology	1,236	342	98	58	1	4	33	25	56
- Female pelvic medicine and reconstructive surgery	40	15	6	7	1	0	2	0	1
- Pediatric urology	81	34	6	0	0	1	2	2	2
Transitional year	647	216	114	48	4	0	25	11	58
Internal medicine/Pediatrics	400	78	31	29	1	1	11	3	4
Health care administration, leadership, and management	13	2	1	2	0	0	0	0	3

Notes: Pipeline specialties are highlighted. Unknown ethnicity includes both unknown and blank, while 'Other' indicates a known ethnicity other than the ones available for selection.

Source: The gender and race/ethnicity reported are based upon self-reported data provided by the Association of American Medical Colleges ("AAMC").

TABLE G.13

Number and Percent of Program Coordinator Changes

Specialty	Total Programs	Number of Programs with Multiple Program Coordinators				Number of Programs with Program Coordinator Changes		Number of New Program Coordinators
		No		Yes		N	%	
		N	%	N	%			
OVERALL	13,393	7,011	52.3%	6,382	47.7%	1,802	13.5%	2,153
TOTAL PIPELINE	5,474	2,925	53.4%	2,549	46.6%	717	13.1%	874
Allergy and immunology	90	43	47.8%	47	52.2%	19	21.1%	20
Anesthesiology	167	67	40.1%	100	59.9%	28	16.8%	47
- Adult cardiothoracic anesthesiology	75	24	32.0%	51	68.0%	13	17.3%	14
- Critical care medicine	67	24	35.8%	43	64.2%	6	9.0%	10
- Obstetric anesthesiology	41	20	48.8%	21	51.2%	6	14.6%	8
- Pain medicine (multidisciplinary)	118	58	49.2%	60	50.8%	17	14.4%	18
- Pediatric anesthesiology	61	21	34.4%	40	65.6%	7	11.5%	8
- Pediatric cardiac anesthesiology	15	5	33.3%	10	66.7%	3	20.0%	3
- Regional anesthesiology and acute pain medicine	44	18	40.9%	26	59.1%	4	9.1%	4
Colon and rectal surgery	71	36	50.7%	35	49.3%	9	12.7%	11
Dermatology	143	98	68.5%	45	31.5%	15	10.5%	17
- Dermatopathology (multidisciplinary)	57	32	56.1%	25	43.9%	9	15.8%	9
- Micrographic surgery and dermatologic oncology	85	60	70.6%	25	29.4%	6	7.1%	6
- Pediatric dermatology	34	20	58.8%	14	41.2%	4	11.8%	6
Emergency medicine	289	117	40.5%	172	59.5%	42	14.5%	54
- Emergency medical services	83	44	53.0%	39	47.0%	8	9.6%	9
- Medical toxicology	32	17	53.1%	15	46.9%	4	12.5%	5
- Pediatric emergency medicine	29	15	51.7%	14	48.3%	4	13.8%	5
- Sports medicine	8	4	50.0%	4	50.0%	1	12.5%	2
- Undersea and hyperbaric medicine	8	5	62.5%	3	37.5%	0	0.0%	0
Family medicine	778	501	64.4%	277	35.6%	96	12.3%	114
- Clinical informatics	8	5	62.5%	3	37.5%	1	12.5%	1
- Geriatric medicine	44	37	84.1%	7	15.9%	6	13.6%	7
- Hospice and palliative medicine (multidisciplinary)	190	117	61.6%	73	38.4%	30	15.8%	33
- Sports medicine	174	130	74.7%	44	25.3%	19	10.9%	21
Internal medicine	651	296	45.5%	355	54.5%	105	16.1%	133
- Adult congenital heart disease	30	8	26.7%	22	73.3%	2	6.7%	3
- Advanced heart failure and transplant cardiology	85	29	34.1%	56	65.9%	11	12.9%	16
- Cardiovascular disease	281	141	50.2%	140	49.8%	45	16.0%	56
- Clinical cardiac electrophysiology	118	48	40.7%	70	59.3%	14	11.9%	21
- Clinical informatics	32	14	43.8%	18	56.3%	6	18.8%	7
- Critical care medicine	67	36	53.7%	31	46.3%	13	19.4%	16
- Endocrinology, diabetes, and metabolism	161	95	59.0%	66	41.0%	21	13.0%	28
- Gastroenterology	238	149	62.6%	89	37.4%	43	18.1%	51
- Geriatric medicine	120	79	65.8%	41	34.2%	19	15.8%	23
- Hematology and medical oncology	187	112	59.9%	75	40.1%	31	16.6%	32
- Infectious disease	168	96	57.1%	72	42.9%	29	17.3%	31
- Interventional cardiology	183	85	46.4%	98	53.6%	20	10.9%	26
- Interventional pulmonology	17	10	58.8%	7	41.2%	1	5.9%	1
- Medical oncology	2	1	50.0%	1	50.0%	0	0.0%	0
- Nephrology	151	98	64.9%	53	35.1%	24	15.9%	30
- Pulmonary disease	19	13	68.4%	6	31.6%	2	10.5%	2
- Pulmonary disease and critical care medicine	204	115	56.4%	89	43.6%	26	12.7%	32
- Rheumatology	133	80	60.2%	53	39.8%	17	12.8%	19
- Sleep medicine (multidisciplinary)	98	55	56.1%	43	43.9%	16	16.3%	19
- Transplant hepatology	68	39	57.4%	29	42.6%	15	22.1%	16
Medical genetics and genomics	47	27	57.4%	20	42.6%	7	14.9%	8
- Medical biochemical genetics	22	9	40.9%	13	59.1%	4	18.2%	5
- Molecular genetic pathology (multidisciplinary)	43	16	37.2%	27	62.8%	3	7.0%	3
Clinical biochemical genetics	15	9	60.0%	6	40.0%	2	13.3%	2
Laboratory genetics and genomics	38	13	34.2%	25	65.8%	3	7.9%	3
Neurological surgery	118	83	70.3%	35	29.7%	8	6.8%	9
- Neuroendovascular intervention	3	2	66.7%	1	33.3%	0	0.0%	0

TABLE G.13 *Continued*

Number and Percent of Program Coordinator Changes

Specialty	Total Programs	Number of Programs with Multiple Program Coordinators				Number of Programs with Program Coordinator Changes		Number of New Program Coordinators
		No		Yes		N	%	
		N	%	N	%			
Neurology	188	100	53.2%	88	46.8%	25	13.3%	30
- Clinical neurophysiology	97	45	46.4%	52	53.6%	12	12.4%	16
- Epilepsy	99	41	41.4%	58	58.6%	17	17.2%	21
- Neurocritical care (multidisciplinary)	52	23	44.2%	29	55.8%	9	17.3%	9
- Neuroendovascular intervention	2	1	50.0%	1	50.0%	0	0.0%	0
- Neurodevelopmental disabilities	10	3	30.0%	7	70.0%	3	30.0%	3
- Neuromuscular medicine	57	26	45.6%	31	54.4%	5	8.8%	8
- Vascular neurology	114	59	51.8%	55	48.2%	18	15.8%	26
Child neurology	81	39	48.1%	42	51.9%	14	17.3%	18
Nuclear medicine	36	18	50.0%	18	50.0%	8	22.2%	9
Obstetrics and gynecology	295	164	55.6%	131	44.4%	47	15.9%	59
- Female pelvic medicine and reconstructive surgery	58	26	44.8%	32	55.2%	8	13.8%	9
- Gynecologic oncology	74	34	45.9%	40	54.1%	4	5.4%	5
- Maternal-fetal medicine	109	60	55.0%	49	45.0%	13	11.9%	15
- Reproductive endocrinology and infertility	52	26	50.0%	26	50.0%	3	5.8%	4
- Complex family planning	35	15	42.9%	20	57.1%	7	20.0%	9
Ophthalmology	126	83	65.9%	43	34.1%	17	13.5%	18
- Ophthalmic plastic and reconstructive surgery	4	3	75.0%	1	25.0%	0	0.0%	0
Orthopaedic surgery	209	107	51.2%	102	48.8%	22	10.5%	24
- Adult reconstructive orthopaedics	26	10	38.5%	16	61.5%	4	15.4%	4
- Foot and ankle orthopaedics	9	3	33.3%	6	66.7%	0	0.0%	0
- Hand surgery	73	38	52.1%	35	47.9%	8	11.0%	9
- Musculoskeletal oncology	12	6	50.0%	6	50.0%	2	16.7%	4
- Orthopaedic sports medicine	93	49	52.7%	44	47.3%	8	8.6%	9
- Orthopaedic surgery of the spine	16	7	43.8%	9	56.3%	3	18.8%	3
- Orthopaedic trauma	12	4	33.3%	8	66.7%	0	0.0%	0
- Pediatric orthopaedics	24	12	50.0%	12	50.0%	4	16.7%	4
Osteopathic neuromusculoskeletal medicine	26	14	53.8%	12	46.2%	1	3.8%	1
Otolaryngology - head and neck Surgery	131	78	59.5%	53	40.5%	13	9.9%	17
- Neurotology	29	17	58.6%	12	41.4%	1	3.4%	1
- Pediatric otolaryngology	34	17	50.0%	17	50.0%	1	2.9%	1
Pathology-anatomic and clinical	142	79	55.6%	63	44.4%	13	9.2%	13
- Blood banking/transfusion medicine	56	23	41.1%	33	58.9%	10	17.9%	10
- Clinical informatics	10	5	50.0%	5	50.0%	2	20.0%	2
- Chemical pathology	4	2	50.0%	2	50.0%	1	25.0%	1
- Cytopathology	92	45	48.9%	47	51.1%	11	12.0%	13
- Forensic pathology	50	32	64.0%	18	36.0%	9	18.0%	10
- Hematopathology	86	43	50.0%	43	50.0%	9	10.5%	9
- Medical microbiology	16	2	12.5%	14	87.5%	3	18.8%	3
- Neuropathology	40	11	27.5%	29	72.5%	3	7.5%	5
- Pediatric pathology	27	12	44.4%	15	55.6%	4	14.8%	6
- Selective pathology	131	54	41.2%	77	58.8%	16	12.2%	16
Pediatrics	218	100	45.9%	118	54.1%	28	12.8%	33
- Adolescent medicine	33	15	45.5%	18	54.5%	3	9.1%	3
- Child abuse pediatrics	33	21	63.6%	12	36.4%	3	9.1%	4
- Clinical informatics	10	2	20.0%	8	80.0%	2	20.0%	2
- Developmental-behavioral pediatrics	45	30	66.7%	15	33.3%	9	20.0%	10
- Neonatal-perinatal medicine	110	55	50.0%	55	50.0%	17	15.5%	20
- Pediatric cardiology	64	22	34.4%	42	65.6%	12	18.8%	13
- Pediatric critical care medicine	76	30	39.5%	46	60.5%	10	13.2%	13
- Pediatric emergency medicine	59	35	59.3%	24	40.7%	10	16.9%	14
- Pediatric endocrinology	72	36	50.0%	36	50.0%	14	19.4%	14
- Pediatric gastroenterology	67	28	41.8%	39	58.2%	9	13.4%	10
- Pediatric hematology/oncology	79	38	48.1%	41	51.9%	10	12.7%	12
- Pediatric infectious diseases	64	34	53.1%	30	46.9%	11	17.2%	12

TABLE G.13 *Continued*

Number and Percent of Program Coordinator Changes

Specialty	Total Programs	Number of Programs with Multiple Program Coordinators				Number of Programs with Program Coordinator Changes		Number of New Program Coordinators
		No		Yes		N	%	
		N	%	N	%			
- Pediatric nephrology	48	18	37.5%	30	62.5%	12	25.0%	13
- Pediatric pulmonology	57	30	52.6%	27	47.4%	8	14.0%	8
- Pediatric rheumatology	38	14	36.8%	24	63.2%	4	10.5%	5
- Sports medicine	17	10	58.8%	7	41.2%	5	29.4%	5
- Pediatric transplant hepatology	17	9	52.9%	8	47.1%	1	5.9%	2
- Pediatric hospital medicine	73	41	56.2%	32	43.8%	13	17.8%	15
Physical medicine and rehabilitation	108	71	65.7%	37	34.3%	13	12.0%	16
- Brain injury medicine	28	16	57.1%	12	42.9%	2	7.1%	3
- Neuromuscular medicine	1	0	0.0%	1	100.0%	0	0.0%	0
- Spinal cord injury medicine	26	13	50.0%	13	50.0%	4	15.4%	6
- Pediatric rehabilitation medicine	23	7	30.4%	16	69.6%	4	17.4%	6
- Sports medicine	24	10	41.7%	14	58.3%	1	4.2%	1
Plastic surgery	47	26	55.3%	21	44.7%	8	17.0%	8
Plastic Surgery - integrated	89	41	46.1%	48	53.9%	8	9.0%	8
- Craniofacial surgery	9	5	55.6%	4	44.4%	0	0.0%	0
- Hand surgery	19	11	57.9%	8	42.1%	0	0.0%	0
Public health and general preventive medicine	42	31	73.8%	11	26.2%	2	4.8%	2
- Undersea and hyperbaric medicine	1	0	0.0%	1	100.0%	0	0.0%	0
Aerospace medicine	5	3	60.0%	2	40.0%	1	20.0%	1
Occupational and environmental medicine	23	14	60.9%	9	39.1%	2	8.7%	2
Psychiatry	334	193	57.8%	141	42.2%	45	13.5%	55
- Addiction medicine (multidisciplinary)	105	65	61.9%	40	38.1%	21	20.0%	22
- Addiction psychiatry	55	22	40.0%	33	60.0%	9	16.4%	12
- Child and adolescent psychiatry	155	78	50.3%	77	49.7%	14	9.0%	18
- Forensic psychiatry	53	28	52.8%	25	47.2%	8	15.1%	10
- Geriatric psychiatry	61	35	57.4%	26	42.6%	9	14.8%	12
- Consultation-liaison psychiatry	69	40	58.0%	29	42.0%	6	8.7%	8
Radiation oncology	89	61	68.5%	28	31.5%	9	10.1%	11
Radiology-diagnostic	197	91	46.2%	106	53.8%	26	13.2%	30
- Abdominal radiology	13	3	23.1%	10	76.9%	2	15.4%	2
- Musculoskeletal radiology	21	8	38.1%	13	61.9%	1	4.8%	1
- Neuroendovascular intervention	5	1	20.0%	4	80.0%	0	0.0%	0
- Neuroradiology	91	33	36.3%	58	63.7%	9	9.9%	10
- Nuclear radiology	20	4	20.0%	16	80.0%	2	10.0%	2
- Pediatric radiology	48	27	56.3%	21	43.8%	5	10.4%	5
Interventional radiology - independent	91	31	34.1%	60	65.9%	8	8.8%	10
Interventional radiology - integrated	99	28	28.3%	71	71.7%	11	11.1%	13
Surgery	364	167	45.9%	197	54.1%	57	15.7%	70
- Complex general surgical oncology	34	13	38.2%	21	61.8%	6	17.6%	8
- Hand surgery	2	1	50.0%	1	50.0%	0	0.0%	0
- Pediatric surgery	52	26	50.0%	26	50.0%	3	5.8%	3
- Surgical critical care	165	83	50.3%	82	49.7%	16	9.7%	20
- Vascular surgery - independent	123	57	46.3%	66	53.7%	21	17.1%	25
Vascular surgery - integrated	78	33	42.3%	45	57.7%	12	15.4%	16
Thoracic surgery - independent	79	33	41.8%	46	58.2%	13	16.5%	13
- Congenital cardiac surgery	17	9	52.9%	8	47.1%	0	0.0%	0
Thoracic surgery - integrated	36	12	33.3%	24	66.7%	3	8.3%	3
Urology	150	105	70.0%	45	30.0%	15	10.0%	17
- Female pelvic medicine and reconstructive surgery	16	9	56.3%	7	43.8%	4	25.0%	4
- Pediatric urology	27	17	63.0%	10	37.0%	2	7.4%	2
Transitional year	190	119	62.6%	71	37.4%	27	14.2%	32
Internal medicine/Pediatrics	77	47	61.0%	30	39.0%	8	10.4%	8
Health care administration, leadership, and management	5	4	80.0%	1	20.0%	2	40.0%	2

Note: Pipeline specialties are highlighted.



Program Activities

This section summarizes what residents are taught about pain management, including the recognition of the signs of addiction, by specialty and subspecialty programs during the 2023-2024 academic year.

Pain Management and Recognition of Addiction

The following education types were offered to manage pain and recognize addiction by the highest percentage of specialty programs:

- Recognition of dependence and substance-use disorder (92.9%)
- Pharmacologic pain management (92.5%)
- Opioid prescribing, management and tapering, including opioid selection, dosage and duration (91.5%)
- Non-pharmacologic pain management (88.5%)

A similar trend can be seen in subspecialty programs. ↘

TABLE H.1

Percentage of Programs Teaching Residents and Fellows to Manage Pain and Recognize Substance Use Disorder by Type of Education and by Specialty and Subspecialty

Specialty	Number of Programs	Non-Pharmacologic Pain Management		Pharmacologic Pain Management		Opioid Prescribing and Management, Including Opioid Selection, Dosage, and Duration		Recognition of Dependence and Substance Use Disorder	
		#	%	#	%	#	%	#	%
OVERALL	13,319	11,086	83.2%	11,590	87.0%	11,119	83.5%	11,711	87.9%
TOTAL PIPELINE	5,465	4,879	89.3%	5,106	93.4%	5,052	92.4%	5,117	93.6%
Allergy and immunology	88	53	60.2%	53	60.2%	47	53.4%	57	64.8%
Anesthesiology	167	165	98.8%	167	100.0%	166	99.4%	167	100.0%
- Adult cardiothoracic anesthesiology	75	63	84.0%	72	96.0%	53	70.7%	67	89.3%
- Critical care medicine	67	60	89.6%	67	100.0%	59	88.1%	61	91.0%
- Obstetric anesthesiology	41	37	90.2%	41	100.0%	35	85.4%	39	95.1%
- Pain medicine (multidisciplinary)	118	118	100.0%	118	100.0%	118	100.0%	118	100.0%
- Pediatric anesthesiology	61	59	96.7%	61	100.0%	54	88.5%	56	91.8%
- Pediatric cardiac anesthesiology	15	14	93.3%	15	100.0%	12	80.0%	14	93.3%
- Regional anesthesiology and acute pain medicine	44	43	97.7%	43	97.7%	43	97.7%	43	97.7%
Colon and rectal surgery	71	56	78.9%	67	94.4%	69	97.2%	63	88.7%
Dermatology	143	114	79.7%	129	90.2%	109	76.2%	120	83.9%
- Dermatopathology (multidisciplinary)	54	16	29.6%	17	31.5%	21	38.9%	28	51.9%
- Micrographic surgery and dermatologic oncology	84	71	84.5%	73	86.9%	74	88.1%	73	86.9%
- Pediatric dermatology	34	28	82.4%	29	85.3%	20	58.8%	20	58.8%
Emergency medicine	289	274	94.8%	288	99.7%	288	99.7%	287	99.3%
- Emergency medical services	83	78	94.0%	81	97.6%	74	89.2%	75	90.4%
- Medical toxicology	32	31	96.9%	32	100.0%	32	100.0%	32	100.0%
- Pediatric emergency medicine	29	29	100.0%	29	100.0%	27	93.1%	29	100.0%
- Sports medicine	8	6	75.0%	6	75.0%	7	87.5%	8	100.0%
- Undersea and hyperbaric medicine	8	7	87.5%	6	75.0%	5	62.5%	6	75.0%
Family medicine	778	777	99.9%	777	99.9%	776	99.7%	776	99.7%
- Clinical informatics	8	4	50.0%	4	50.0%	4	50.0%	4	50.0%
- Geriatric medicine	44	42	95.5%	43	97.7%	41	93.2%	44	100.0%
- Hospice and palliative medicine (multidisciplinary)	190	190	100.0%	190	100.0%	189	99.5%	188	98.9%
- Sports medicine	174	172	98.9%	170	97.7%	152	87.4%	155	89.1%
Internal medicine	650	632	97.2%	645	99.2%	645	99.2%	645	99.2%
- Adult congenital heart disease	29	21	72.4%	22	75.9%	15	51.7%	24	82.8%
- Advanced heart failure and transplant cardiology	84	64	76.2%	71	84.5%	59	70.2%	70	83.3%
- Cardiovascular disease	281	202	71.9%	232	82.6%	221	78.6%	241	85.8%
- Clinical cardiac electrophysiology	115	83	72.2%	92	80.0%	92	80.0%	87	75.7%
- Clinical informatics	31	18	58.1%	20	64.5%	20	64.5%	19	61.3%
- Critical care medicine	67	60	89.6%	65	97.0%	57	85.1%	64	95.5%
- Endocrinology, diabetes, and metabolism	160	93	58.1%	99	61.9%	75	46.9%	116	72.5%
- Gastroenterology	237	204	86.1%	214	90.3%	193	81.4%	212	89.5%
- Geriatric medicine	120	119	99.2%	120	100.0%	120	100.0%	116	96.7%
- Hematology and medical oncology	187	172	92.0%	186	99.5%	181	96.8%	168	89.8%
- Infectious disease	167	106	63.5%	108	64.7%	106	63.5%	153	91.6%
- Interventional cardiology	182	133	73.1%	146	80.2%	128	70.3%	152	83.5%
- Interventional pulmonology	17	10	58.8%	10	58.8%	8	47.1%	8	47.1%
- Medical oncology	2	1	50.0%	2	100.0%	2	100.0%	2	100.0%
- Nephrology	151	112	74.2%	128	84.8%	113	74.8%	114	75.5%
- Pulmonary disease	19	14	73.7%	17	89.5%	18	94.7%	18	94.7%
- Pulmonary disease and critical care medicine	204	170	83.3%	194	95.1%	185	90.7%	182	89.2%
- Rheumatology	133	131	98.5%	131	98.5%	112	84.2%	110	82.7%
- Sleep medicine (multidisciplinary)	97	62	63.9%	55	56.7%	67	69.1%	79	81.4%
- Transplant hepatology	68	54	79.4%	56	82.4%	49	72.1%	62	91.2%
Medical genetics and genomics	45	26	57.8%	26	57.8%	24	53.3%	36	80.0%
- Medical biochemical genetics	19	13	68.4%	13	68.4%	10	52.6%	15	78.9%
- Molecular genetic pathology (multidisciplinary)	42	12	28.6%	11	26.2%	10	23.8%	18	42.9%
Clinical biochemical genetics	15	9	60.0%	6	40.0%	5	33.3%	6	40.0%
Laboratory genetics and genomics	37	9	24.3%	8	21.6%	8	21.6%	13	35.1%
Neurological surgery	118	108	91.5%	112	94.9%	115	97.5%	113	95.8%
- Neuroendovascular intervention	3	2	66.7%	2	66.7%	3	100.0%	2	66.7%

TABLE H.1 *Extended*

Referral for Dependence and Substance Use Disorder Treatment		Treatment of Dependence and Substance Use Disorder		Other		Do Not Provide This Education/ Not Applicable		Identifying and Eliminating Stigma, Stereotypes, and Bias Around Patients with Substance Use Disorder		Communicating with Patients About a Pain Treatment Plan	
#	%	#	%	#	%	#	%	#	%	#	%
10,230	76.8%	7,001	52.6%	281	2.1%	441	3.3%	5,483	41.2%	6,195	46.5%
4,700	86.0%	3,564	65.2%	119	2.2%	79	1.4%	3,066	56.1%	3,355	61.4%
52	59.1%	19	21.6%	3	3.4%	8	9.1%	15	17.0%	15	17.0%
157	94.0%	143	85.6%	3	1.8%	0	0.0%	124	74.3%	140	83.8%
44	58.7%	32	42.7%	0	0.0%	0	0.0%	19	25.3%	27	36.0%
53	79.1%	45	67.2%	0	0.0%	0	0.0%	28	41.8%	32	47.8%
29	70.7%	29	70.7%	1	2.4%	0	0.0%	24	58.5%	25	61.0%
118	100.0%	105	89.0%	4	3.4%	0	0.0%	85	72.0%	97	82.2%
42	68.9%	38	62.3%	1	1.6%	0	0.0%	18	29.5%	34	55.7%
10	66.7%	7	46.7%	0	0.0%	0	0.0%	3	20.0%	6	40.0%
40	90.9%	34	77.3%	0	0.0%	0	0.0%	20	45.5%	28	63.6%
51	71.8%	28	39.4%	1	1.4%	0	0.0%	21	29.6%	32	45.1%
97	67.8%	24	16.8%	2	1.4%	0	0.0%	37	25.9%	51	35.7%
18	33.3%	8	14.8%	2	3.7%	17	31.5%	5	9.3%	3	5.6%
56	66.7%	19	22.6%	2	2.4%	0	0.0%	10	11.9%	30	35.7%
19	55.9%	5	14.7%	1	2.9%	1	2.9%	5	14.7%	12	35.3%
286	99.0%	277	95.8%	12	4.2%	0	0.0%	255	88.2%	230	79.6%
69	83.1%	64	77.1%	4	4.8%	0	0.0%	46	55.4%	34	41.0%
32	100.0%	31	96.9%	1	3.1%	0	0.0%	22	68.8%	14	43.8%
23	79.3%	17	58.6%	0	0.0%	0	0.0%	8	27.6%	11	37.9%
7	87.5%	4	50.0%	0	0.0%	0	0.0%	3	37.5%	5	62.5%
7	87.5%	0	0.0%	0	0.0%	1	12.5%	1	12.5%	2	25.0%
766	98.5%	724	93.1%	20	2.6%	0	0.0%	653	83.9%	675	86.8%
4	50.0%	4	50.0%	1	12.5%	4	50.0%	1	12.5%	2	25.0%
42	95.5%	26	59.1%	1	2.3%	0	0.0%	27	61.4%	32	72.7%
182	95.8%	147	77.4%	10	5.3%	0	0.0%	143	75.3%	152	80.0%
139	79.9%	70	40.2%	2	1.1%	1	0.6%	71	40.8%	102	58.6%
629	96.8%	559	86.0%	13	2.0%	0	0.0%	500	76.9%	515	79.2%
21	72.4%	9	31.0%	0	0.0%	1	3.4%	6	20.7%	7	24.1%
56	66.7%	24	28.6%	1	1.2%	1	1.2%	15	17.9%	24	28.6%
193	68.7%	101	35.9%	2	0.7%	4	1.4%	67	23.8%	68	24.2%
62	53.9%	31	27.0%	4	3.5%	2	1.7%	19	16.5%	31	27.0%
17	54.8%	10	32.3%	2	6.5%	6	19.4%	3	9.7%	4	12.9%
53	79.1%	43	64.2%	0	0.0%	0	0.0%	27	40.3%	27	40.3%
94	58.8%	34	21.2%	1	0.6%	15	9.4%	21	13.1%	22	13.8%
192	81.0%	96	40.5%	1	0.4%	1	0.4%	78	32.9%	79	33.3%
105	87.5%	75	62.5%	2	1.7%	0	0.0%	52	43.3%	82	68.3%
143	76.5%	68	36.4%	1	0.5%	0	0.0%	59	31.6%	115	61.5%
144	86.2%	73	43.7%	5	3.0%	2	1.2%	76	45.5%	45	26.9%
118	64.8%	58	31.9%	2	1.1%	2	1.1%	31	17.0%	38	20.9%
8	47.1%	3	17.6%	1	5.9%	1	5.9%	6	35.3%	8	47.1%
1	50.0%	0	0.0%	0	0.0%	0	0.0%	1	50.0%	2	100.0%
109	72.2%	48	31.8%	3	2.0%	1	0.7%	38	25.2%	40	26.5%
15	78.9%	12	63.2%	0	0.0%	0	0.0%	3	15.8%	4	21.1%
158	77.5%	104	51.0%	0	0.0%	0	0.0%	69	33.8%	73	35.8%
96	72.2%	35	26.3%	4	3.0%	0	0.0%	42	31.6%	69	51.9%
61	62.9%	23	23.7%	2	2.1%	0	0.0%	21	21.6%	24	24.7%
54	79.4%	36	52.9%	0	0.0%	0	0.0%	21	30.9%	14	20.6%
27	60.0%	14	31.1%	1	2.2%	5	11.1%	7	15.6%	6	13.3%
8	42.1%	4	21.1%	0	0.0%	3	15.8%	3	15.8%	2	10.5%
16	38.1%	9	21.4%	0	0.0%	20	47.6%	2	4.8%	2	4.8%
4	26.7%	2	13.3%	0	0.0%	6	40.0%	0	0.0%	1	6.7%
9	24.3%	7	18.9%	2	5.4%	18	48.6%	1	2.7%	2	5.4%
97	82.2%	61	51.7%	4	3.4%	0	0.0%	49	41.5%	70	59.3%
2	66.7%	2	66.7%	0	0.0%	0	0.0%	1	33.3%	1	33.3%

TABLE H.1 *Continued*
Percentage of Programs Teaching Residents and Fellows to Manage Pain and Recognize Substance Use Disorder by Type of Education and by Specialty and Subspecialty

Specialty	Number of Programs	Non-Pharmacologic Pain Management		Pharmacologic Pain Management		Opioid Prescribing and Management, Including Opioid Selection, Dosage, and Duration		Recognition of Dependence and Substance Use Disorder	
		#	%	#	%	#	%	#	%
Neurology	188	179	95.2%	186	98.9%	163	86.7%	176	93.6%
- Clinical neurophysiology	96	74	77.1%	79	82.3%	65	67.7%	75	78.1%
- Epilepsy	99	62	62.6%	67	67.7%	58	58.6%	76	76.8%
- Neurocritical care (multidisciplinary)	52	52	100.0%	52	100.0%	47	90.4%	47	90.4%
- Neuroendovascular intervention	2	2	100.0%	2	100.0%	1	50.0%	2	100.0%
- Neurodevelopmental disabilities	10	10	100.0%	8	80.0%	6	60.0%	9	90.0%
- Neuromuscular medicine	57	53	93.0%	55	96.5%	38	66.7%	46	80.7%
- Vascular neurology	114	95	83.3%	96	84.2%	81	71.1%	96	84.2%
Child neurology	81	80	98.8%	80	98.8%	54	66.7%	66	81.5%
Nuclear medicine	36	27	75.0%	21	58.3%	21	58.3%	25	69.4%
Obstetrics and gynecology	295	282	95.6%	293	99.3%	290	98.3%	292	99.0%
- Female pelvic medicine and reconstructive surgery	58	56	96.6%	58	100.0%	56	96.6%	51	87.9%
- Gynecologic oncology	74	67	90.5%	74	100.0%	73	98.6%	69	93.2%
- Maternal-fetal medicine	109	105	96.3%	107	98.2%	104	95.4%	108	99.1%
- Reproductive endocrinology and infertility	52	49	94.2%	51	98.1%	47	90.4%	41	78.8%
- Complex family planning	35	35	100.0%	35	100.0%	33	94.3%	34	97.1%
Ophthalmology	126	96	76.2%	105	83.3%	98	77.8%	99	78.6%
- Ophthalmic plastic and reconstructive surgery	4	3	75.0%	4	100.0%	3	75.0%	3	75.0%
Orthopaedic surgery	209	195	93.3%	202	96.7%	207	99.0%	196	93.8%
- Adult reconstructive orthopaedics	26	24	92.3%	24	92.3%	26	100.0%	25	96.2%
- Foot and ankle orthopaedics	9	8	88.9%	9	100.0%	9	100.0%	9	100.0%
- Hand surgery	73	66	90.4%	69	94.5%	70	95.9%	65	89.0%
- Musculoskeletal oncology	12	10	83.3%	11	91.7%	12	100.0%	9	75.0%
- Orthopaedic sports medicine	93	91	97.8%	89	95.7%	91	97.8%	85	91.4%
- Orthopaedic surgery of the spine	16	13	81.3%	15	93.8%	15	93.8%	15	93.8%
- Orthopaedic trauma	12	11	91.7%	12	100.0%	12	100.0%	12	100.0%
- Pediatric orthopaedics	24	24	100.0%	23	95.8%	24	100.0%	20	83.3%
Osteopathic neuromusculoskeletal medicine	26	26	100.0%	26	100.0%	25	96.2%	26	100.0%
Otolaryngology - head and neck Surgery	131	115	87.8%	129	98.5%	131	100.0%	125	95.4%
- Neurotology	29	25	86.2%	26	89.7%	27	93.1%	25	86.2%
- Pediatric otolaryngology	34	27	79.4%	32	94.1%	31	91.2%	24	70.6%
Pathology-anatomic and clinical	139	34	24.5%	36	25.9%	49	35.3%	75	54.0%
- Blood banking /transfusion medicine	53	10	18.9%	12	22.6%	16	30.2%	24	45.3%
- Clinical informatics	10	6	60.0%	5	50.0%	5	50.0%	5	50.0%
- Chemical pathology	4	1	25.0%	1	25.0%	0	0.0%	0	0.0%
- Cytopathology	89	24	27.0%	27	30.3%	25	28.1%	41	46.1%
- Forensic pathology	45	6	13.3%	10	22.2%	8	17.8%	29	64.4%
- Hematopathology	78	17	21.8%	20	25.6%	23	29.5%	40	51.3%
- Medical microbiology	13	4	30.8%	4	30.8%	4	30.8%	4	30.8%
- Neuropathology	39	9	23.1%	9	23.1%	7	17.9%	16	41.0%
- Pediatric pathology	26	3	11.5%	4	15.4%	6	23.1%	14	53.8%
- Selective pathology	128	36	28.1%	39	30.5%	40	31.3%	61	47.7%
Pediatrics	218	213	97.7%	216	99.1%	213	97.7%	211	96.8%
- Adolescent medicine	33	32	97.0%	30	90.9%	22	66.7%	33	100.0%
- Child abuse pediatrics	32	18	56.3%	16	50.0%	16	50.0%	27	84.4%
- Clinical informatics	10	2	20.0%	5	50.0%	6	60.0%	5	50.0%
- Developmental-behavioral pediatrics	44	35	79.5%	27	61.4%	21	47.7%	41	93.2%
- Neonatal-perinatal medicine	110	106	96.4%	107	97.3%	99	90.0%	90	81.8%
- Pediatric cardiology	63	51	81.0%	59	93.7%	55	87.3%	51	81.0%
- Pediatric critical care medicine	76	72	94.7%	75	98.7%	70	92.1%	66	86.8%
- Pediatric emergency medicine	59	56	94.9%	59	100.0%	58	98.3%	53	89.8%
- Pediatric endocrinology	70	43	61.4%	38	54.3%	33	47.1%	52	74.3%
- Pediatric gastroenterology	67	61	91.0%	60	89.6%	54	80.6%	55	82.1%
- Pediatric hematology/oncology	79	78	98.7%	79	100.0%	78	98.7%	72	91.1%
- Pediatric infectious diseases	63	42	66.7%	43	68.3%	42	66.7%	51	81.0%

TABLE H.1 Continued Extended

Referral for Dependence and Substance Use Disorder Treatment		Treatment of Dependence and Substance Use Disorder		Other		Do Not Provide This Education/ Not Applicable		Identifying and Eliminating Stigma, Stereotypes, and Bias Around Patients with Substance Use Disorder		Communicating with Patients About a Pain Treatment Plan	
#	%	#	%	#	%	#	%	#	%	#	%
165	87.8%	97	51.6%	2	1.1%	0	0.0%	82	43.6%	98	52.1%
63	65.6%	31	32.3%	2	2.1%	2	2.1%	12	12.5%	22	22.9%
57	57.6%	22	22.2%	2	2.0%	2	2.0%	14	14.1%	17	17.2%
40	76.9%	31	59.6%	1	1.9%	0	0.0%	29	55.8%	38	73.1%
2	100.0%	2	100.0%	0	0.0%	0	0.0%	1	50.0%	2	100.0%
5	50.0%	1	10.0%	0	0.0%	0	0.0%	1	10.0%	3	30.0%
42	73.7%	14	24.6%	0	0.0%	0	0.0%	13	22.8%	17	29.8%
78	68.4%	32	28.1%	0	0.0%	1	0.9%	24	21.1%	27	23.7%
57	70.4%	28	34.6%	1	1.2%	0	0.0%	19	23.5%	32	39.5%
20	55.6%	12	33.3%	0	0.0%	2	5.6%	5	13.9%	6	16.7%
288	97.6%	220	74.6%	3	1.0%	0	0.0%	215	72.9%	202	68.5%
42	72.4%	19	32.8%	1	1.7%	0	0.0%	13	22.4%	22	37.9%
63	85.1%	23	31.1%	4	5.4%	0	0.0%	26	35.1%	45	60.8%
105	96.3%	88	80.7%	2	1.8%	0	0.0%	62	56.9%	55	50.5%
30	57.7%	11	21.2%	0	0.0%	0	0.0%	12	23.1%	13	25.0%
30	85.7%	13	37.1%	0	0.0%	0	0.0%	14	40.0%	8	22.9%
84	66.7%	37	29.4%	4	3.2%	2	1.6%	35	27.8%	37	29.4%
3	75.0%	0	0.0%	0	0.0%	0	0.0%	1	25.0%	0	0.0%
176	84.2%	96	45.9%	4	1.9%	0	0.0%	84	40.2%	124	59.3%
22	84.6%	10	38.5%	0	0.0%	0	0.0%	4	15.4%	10	38.5%
8	88.9%	3	33.3%	0	0.0%	0	0.0%	1	11.1%	0	0.0%
52	71.2%	24	32.9%	1	1.4%	0	0.0%	10	13.7%	25	34.2%
8	66.7%	4	33.3%	0	0.0%	0	0.0%	3	25.0%	3	25.0%
72	77.4%	33	35.5%	4	4.3%	0	0.0%	18	19.4%	38	40.9%
12	75.0%	5	31.3%	0	0.0%	0	0.0%	3	18.8%	4	25.0%
8	66.7%	4	33.3%	0	0.0%	0	0.0%	2	16.7%	6	50.0%
15	62.5%	4	16.7%	0	0.0%	0	0.0%	3	12.5%	12	50.0%
25	96.2%	15	57.7%	0	0.0%	0	0.0%	15	57.7%	15	57.7%
109	83.2%	51	38.9%	0	0.0%	0	0.0%	40	30.5%	63	48.1%
17	58.6%	7	24.1%	0	0.0%	0	0.0%	4	13.8%	6	20.7%
18	52.9%	7	20.6%	0	0.0%	0	0.0%	3	8.8%	11	32.4%
52	37.4%	27	19.4%	8	5.8%	51	36.7%	11	7.9%	7	5.0%
17	32.1%	5	9.4%	3	5.7%	19	35.8%	1	1.9%	1	1.9%
3	30.0%	2	20.0%	1	10.0%	2	20.0%	0	0.0%	1	10.0%
2	50.0%	0	0.0%	1	25.0%	1	25.0%	0	0.0%	0	0.0%
29	32.6%	15	16.9%	4	4.5%	33	37.1%	2	2.2%	5	5.6%
9	20.0%	8	17.8%	6	13.3%	14	31.1%	10	22.2%	1	2.2%
26	33.3%	12	15.4%	2	2.6%	30	38.5%	5	6.4%	6	7.7%
3	23.1%	3	23.1%	0	0.0%	8	61.5%	0	0.0%	0	0.0%
8	20.5%	3	7.7%	1	2.6%	20	51.3%	0	0.0%	0	0.0%
10	38.5%	2	7.7%	2	7.7%	10	38.5%	1	3.8%	0	0.0%
53	41.4%	32	25.0%	3	2.3%	55	43.0%	12	9.4%	11	8.6%
191	87.6%	134	61.5%	1	0.5%	0	0.0%	125	57.3%	156	71.6%
33	100.0%	24	72.7%	0	0.0%	0	0.0%	23	69.7%	14	42.4%
22	68.8%	9	28.1%	1	3.1%	3	9.4%	14	43.8%	5	15.6%
2	20.0%	2	20.0%	2	20.0%	2	20.0%	1	10.0%	1	10.0%
35	79.5%	13	29.5%	2	4.5%	0	0.0%	14	31.8%	7	15.9%
53	48.2%	76	69.1%	3	2.7%	0	0.0%	44	40.0%	43	39.1%
30	47.6%	23	36.5%	2	3.2%	0	0.0%	10	15.9%	24	38.1%
42	55.3%	44	57.9%	2	2.6%	1	1.3%	16	21.1%	31	40.8%
42	71.2%	36	61.0%	1	1.7%	0	0.0%	21	35.6%	30	50.8%
41	58.6%	15	21.4%	0	0.0%	8	11.4%	13	18.6%	8	11.4%
42	62.7%	21	31.3%	0	0.0%	0	0.0%	13	19.4%	25	37.3%
51	64.6%	32	40.5%	0	0.0%	0	0.0%	31	39.2%	59	74.7%
42	66.7%	16	25.4%	1	1.6%	2	3.2%	17	27.0%	15	23.8%

TABLE H.1 *Continued***Percentage of Programs Teaching Residents and Fellows to Manage Pain and Recognize Substance Use Disorder by Type of Education and by Specialty and Subspecialty**

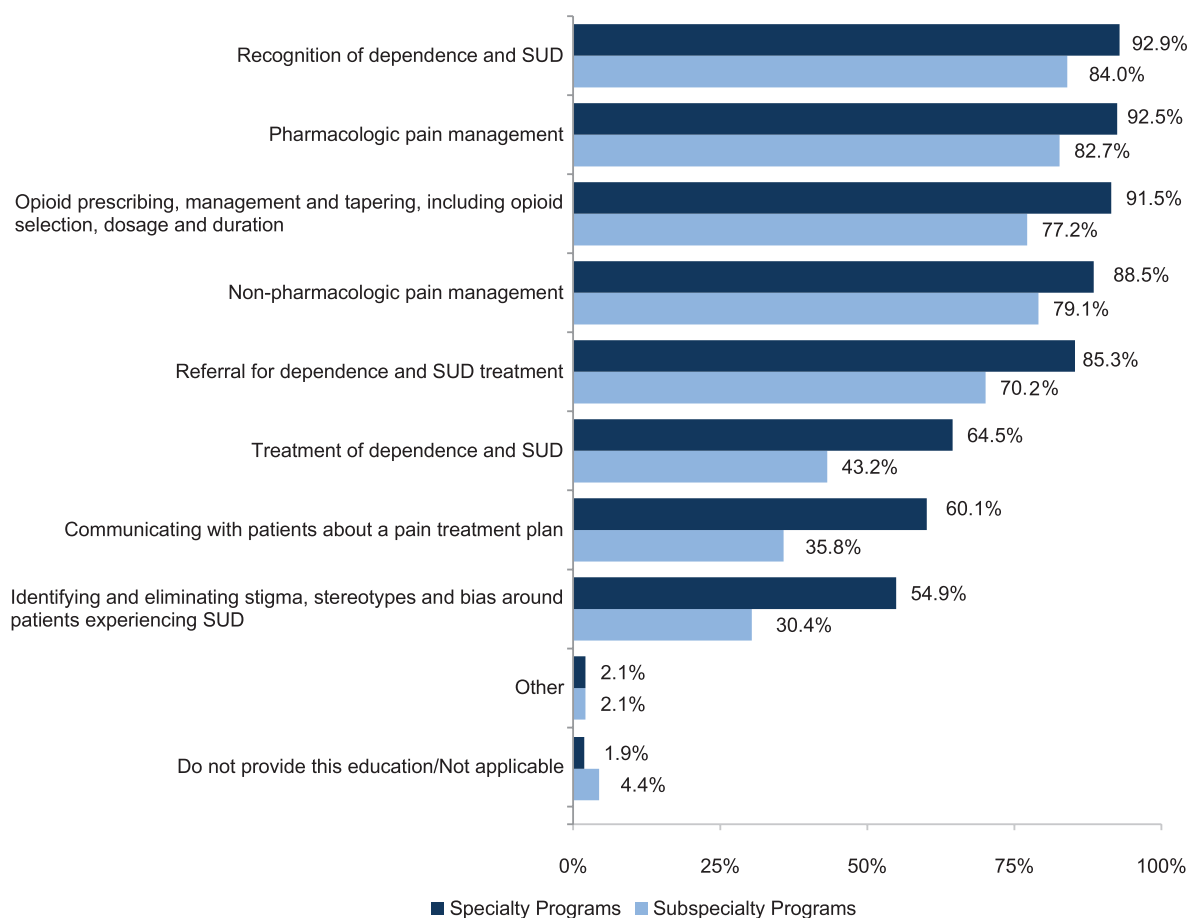
Specialty	Number of Programs	Non-Pharmacologic Pain Management		Pharmacologic Pain Management		Opioid Prescribing and Management, Including Opioid Selection, Dosage, and Duration		Recognition of Dependence and Substance Use Disorder	
		#	%	#	%	#	%	#	%
- Pediatric nephrology	48	36	75.0%	41	85.4%	34	70.8%	36	75.0%
- Pediatric pulmonology	55	42	76.4%	41	74.5%	37	67.3%	49	89.1%
- Pediatric rheumatology	38	37	97.4%	35	92.1%	22	57.9%	27	71.1%
- Sports medicine	17	17	100.0%	17	100.0%	14	82.4%	14	82.4%
- Pediatric transplant hepatology	17	14	82.4%	16	94.1%	15	88.2%	14	82.4%
- Pediatric hospital medicine	73	73	100.0%	73	100.0%	70	95.9%	72	98.6%
Physical medicine and rehabilitation	108	108	100.0%	108	100.0%	106	98.1%	108	100.0%
- Brain injury medicine	28	28	100.0%	28	100.0%	28	100.0%	27	96.4%
- Neuromuscular medicine	1	1	100.0%	1	100.0%	1	100.0%	1	100.0%
- Spinal cord injury medicine	26	26	100.0%	26	100.0%	25	96.2%	25	96.2%
- Pediatric rehabilitation medicine	23	22	95.7%	23	100.0%	22	95.7%	19	82.6%
- Sports medicine	24	24	100.0%	24	100.0%	23	95.8%	22	91.7%
Plastic surgery	47	38	80.9%	45	95.7%	47	100.0%	43	91.5%
Plastic Surgery - integrated	89	73	82.0%	87	97.8%	89	100.0%	83	93.3%
- Craniofacial surgery	9	7	77.8%	9	100.0%	9	100.0%	5	55.6%
- Hand surgery	19	14	73.7%	18	94.7%	19	100.0%	16	84.2%
Public health and general preventive medicine	41	31	75.6%	29	70.7%	31	75.6%	40	97.6%
- Undersea and hyperbaric medicine	1	1	100.0%	1	100.0%	1	100.0%	1	100.0%
Aerospace medicine	5	4	80.0%	3	60.0%	3	60.0%	5	100.0%
Occupational and environmental medicine	23	21	91.3%	22	95.7%	21	91.3%	23	100.0%
Psychiatry	334	294	88.0%	301	90.1%	294	88.0%	333	99.7%
- Addiction medicine (multidisciplinary)	105	104	99.0%	105	100.0%	105	100.0%	105	100.0%
- Addiction psychiatry	55	53	96.4%	52	94.5%	52	94.5%	55	100.0%
- Child and adolescent psychiatry	155	118	76.1%	99	63.9%	79	51.0%	155	100.0%
- Forensic psychiatry	53	24	45.3%	27	50.9%	24	45.3%	48	90.6%
- Geriatric psychiatry	61	53	86.9%	50	82.0%	37	60.7%	61	100.0%
- Consultation-liaison psychiatry	69	65	94.2%	66	95.7%	54	78.3%	69	100.0%
Radiation oncology	89	79	88.8%	84	94.4%	87	97.8%	82	92.1%
Radiology-diagnostic	195	114	58.5%	139	71.3%	130	66.7%	146	74.9%
- Abdominal radiology	13	9	69.2%	10	76.9%	7	53.8%	9	69.2%
- Musculoskeletal radiology	21	11	52.4%	14	66.7%	13	61.9%	14	66.7%
- Neuroendovascular intervention	5	5	100.0%	5	100.0%	2	40.0%	2	40.0%
- Neuroradiology	90	45	50.0%	52	57.8%	52	57.8%	63	70.0%
- Nuclear radiology	18	11	61.1%	11	61.1%	11	61.1%	12	66.7%
- Pediatric radiology	45	20	44.4%	18	40.0%	21	46.7%	29	64.4%
Interventional radiology - independent	91	68	74.7%	82	90.1%	84	92.3%	78	85.7%
Interventional radiology - integrated	99	76	76.8%	86	86.9%	92	92.9%	85	85.9%
Surgery	364	334	91.8%	356	97.8%	359	98.6%	339	93.1%
- Complex general surgical oncology	34	30	88.2%	32	94.1%	33	97.1%	28	82.4%
- Hand surgery	2	2	100.0%	2	100.0%	2	100.0%	1	50.0%
- Pediatric surgery	52	47	90.4%	51	98.1%	51	98.1%	41	78.8%
- Surgical critical care	165	148	89.7%	160	97.0%	158	95.8%	151	91.5%
- Vascular surgery - independent	123	101	82.1%	113	91.9%	120	97.6%	109	88.6%
Vascular surgery - integrated	78	61	78.2%	74	94.9%	76	97.4%	71	91.0%
Thoracic surgery - independent	78	61	78.2%	70	89.7%	74	94.9%	70	89.7%
- Congenital cardiac surgery	17	12	70.6%	14	82.4%	15	88.2%	12	70.6%
Thoracic surgery - integrated	36	26	72.2%	32	88.9%	34	94.4%	31	86.1%
Urology	150	134	89.3%	144	96.0%	148	98.7%	139	92.7%
- Female pelvic medicine and reconstructive surgery	16	16	100.0%	15	93.8%	16	100.0%	14	87.5%
- Pediatric urology	27	21	77.8%	24	88.9%	26	96.3%	22	81.5%
Transitional year	190	183	96.3%	188	98.9%	185	97.4%	188	98.9%
Internal medicine/Pediatrics	77	75	97.4%	76	98.7%	77	100.0%	76	98.7%
Health care administration, leadership, and management	5	1	20.0%	1	20.0%	0	0.0%	1	20.0%

Notes: Not all accredited programs completed these data. Total number of specialty programs = 5,866. Total number of subspecialty programs = 7,527. Programs can select more than one education type.

TABLE H.1 Continued Extended

Referral for Dependence and Substance Use Disorder Treatment		Treatment of Dependence and Substance Use Disorder		Other		Do Not Provide This Education/ Not Applicable		Identifying and Eliminating Stigma, Stereotypes, and Bias Around Patients with Substance Use Disorder		Communicating with Patients About a Pain Treatment Plan	
#	%	#	%	#	%	#	%	#	%	#	%
24	50.0%	13	27.1%	0	0.0%	0	0.0%	9	18.8%	11	22.9%
34	61.8%	13	23.6%	2	3.6%	1	1.8%	11	20.0%	10	18.2%
21	55.3%	7	18.4%	1	2.6%	1	2.6%	8	21.1%	20	52.6%
13	76.5%	7	41.2%	0	0.0%	0	0.0%	5	29.4%	9	52.9%
9	52.9%	7	41.2%	0	0.0%	0	0.0%	2	11.8%	3	17.6%
63	86.3%	37	50.7%	0	0.0%	0	0.0%	35	47.9%	42	57.5%
100	92.6%	84	77.8%	6	5.6%	0	0.0%	68	63.0%	90	83.3%
23	82.1%	12	42.9%	1	3.6%	0	0.0%	11	39.3%	17	60.7%
1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%
20	76.9%	11	42.3%	0	0.0%	0	0.0%	12	46.2%	18	69.2%
14	60.9%	8	34.8%	0	0.0%	0	0.0%	5	21.7%	11	47.8%
16	66.7%	10	41.7%	0	0.0%	0	0.0%	6	25.0%	10	41.7%
34	72.3%	25	53.2%	1	2.1%	0	0.0%	16	34.0%	25	53.2%
68	76.4%	41	46.1%	0	0.0%	0	0.0%	22	24.7%	38	42.7%
3	33.3%	1	11.1%	0	0.0%	0	0.0%	0	0.0%	1	11.1%
12	63.2%	3	15.8%	0	0.0%	0	0.0%	3	15.8%	6	31.6%
33	80.5%	28	68.3%	1	2.4%	1	2.4%	21	51.2%	14	34.1%
1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
5	100.0%	4	80.0%	0	0.0%	0	0.0%	2	40.0%	2	40.0%
21	91.3%	12	52.2%	0	0.0%	0	0.0%	12	52.2%	11	47.8%
331	99.1%	333	99.7%	12	3.6%	0	0.0%	261	78.1%	189	56.6%
105	100.0%	105	100.0%	7	6.7%	0	0.0%	86	81.9%	81	77.1%
52	94.5%	55	100.0%	1	1.8%	0	0.0%	36	65.5%	26	47.3%
153	98.7%	143	92.3%	6	3.9%	0	0.0%	100	64.5%	48	31.0%
39	73.6%	34	64.2%	1	1.9%	1	1.9%	25	47.2%	11	20.8%
58	95.1%	58	95.1%	0	0.0%	0	0.0%	28	45.9%	26	42.6%
69	100.0%	64	92.8%	3	4.3%	0	0.0%	43	62.3%	32	46.4%
69	77.5%	30	33.7%	2	2.2%	0	0.0%	25	28.1%	48	53.9%
106	54.4%	66	33.8%	5	2.6%	17	8.7%	41	21.0%	44	22.6%
6	46.2%	4	30.8%	0	0.0%	1	7.7%	1	7.7%	1	7.7%
10	47.6%	7	33.3%	0	0.0%	2	9.5%	2	9.5%	2	9.5%
2	40.0%	2	40.0%	0	0.0%	0	0.0%	1	20.0%	2	40.0%
44	48.9%	26	28.9%	3	3.3%	14	15.6%	8	8.9%	9	10.0%
10	55.6%	8	44.4%	0	0.0%	3	16.7%	1	5.6%	2	11.1%
20	44.4%	9	20.0%	1	2.2%	9	20.0%	1	2.2%	2	4.4%
52	57.1%	25	27.5%	2	2.2%	0	0.0%	10	11.0%	24	26.4%
67	67.7%	39	39.4%	1	1.0%	1	1.0%	18	18.2%	34	34.3%
311	85.4%	174	47.8%	6	1.6%	0	0.0%	165	45.3%	230	63.2%
28	82.4%	11	32.4%	2	5.9%	0	0.0%	6	17.6%	12	35.3%
1	50.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%	1	50.0%
33	63.5%	21	40.4%	1	1.9%	0	0.0%	9	17.3%	22	42.3%
129	78.2%	88	53.3%	5	3.0%	0	0.0%	46	27.9%	69	41.8%
94	76.4%	52	42.3%	3	2.4%	0	0.0%	32	26.0%	35	28.5%
54	69.2%	29	37.2%	0	0.0%	0	0.0%	21	26.9%	30	38.5%
57	73.1%	41	52.6%	0	0.0%	0	0.0%	23	29.5%	34	43.6%
7	41.2%	8	47.1%	0	0.0%	0	0.0%	0	0.0%	2	11.8%
26	72.2%	18	50.0%	0	0.0%	0	0.0%	9	25.0%	16	44.4%
121	80.7%	70	46.7%	4	2.7%	0	0.0%	58	38.7%	71	47.3%
11	68.8%	3	18.8%	0	0.0%	0	0.0%	3	18.8%	4	25.0%
13	48.1%	7	25.9%	0	0.0%	0	0.0%	3	11.1%	5	18.5%
171	90.0%	142	74.7%	2	1.1%	0	0.0%	97	51.1%	105	55.3%
76	98.7%	67	87.0%	1	1.3%	0	0.0%	61	79.2%	62	80.5%
1	20.0%	0	0.0%	1	20.0%	2	40.0%	1	20.0%	0	0.0%

FIGURE H.2
Percentage of Programs Teaching Residents and Fellows to Manage Pain and Recognize Substance Use Disorder (SUD) by Type of Education



Notes: Not all accredited programs completed these data. Total number of specialty programs = 5,866. Total number of subspecialty programs = 7,527. Programs can select more than one education type.

Appendix A

ACGME-Accredited Pipeline Specialties

Anesthesiology
Dermatology
Emergency medicine
Family medicine
Internal medicine
Medical genetics and genomics
Neurological surgery
Neurology
Child neurology
Nuclear medicine
Obstetrics and gynecology
Ophthalmology
Orthopaedic surgery
Osteopathic neuromusculoskeletal medicine
Otolaryngology – head and neck surgery
Pathology – anatomic and clinical
Pediatrics
Physical medicine and rehabilitation
Plastic surgery
Plastic surgery – integrated
Public health and general preventive medicine
Aerospace medicine
Occupational and environmental medicine
Psychiatry
Radiation oncology
Radiology-diagnostic
Interventional radiology – independent
Interventional radiology – integrated
Surgery
Vascular surgery – integrated
Thoracic surgery – integrated
Urology
Internal medicine/Pediatrics

Appendix B

Specialties and Subspecialties by Specialty Group

Hospital-based Specialties and Subspecialties

Anesthesiology

- Adult cardiothoracic anesthesiology
- Critical care medicine
- Regional anesthesiology and acute pain medicine
- Pediatric cardiac anesthesiology
- Obstetric anesthesiology
- Pain medicine (multidisciplinary)
- Pediatric anesthesiology

Emergency medicine

- Emergency medical services
- Medical toxicology
- Pediatric emergency medicine
- Sports medicine
- Undersea and hyperbaric medicine

Medical genetics and genomics

- Medical biochemical genetics
- Molecular genetic pathology (multidisciplinary)

Clinical biochemical genetics

Laboratory genetics and genomics

Nuclear medicine

Pathology-anatomic and clinical

- Blood banking/transfusion medicine
- Clinical informatics
- Chemical pathology
- Cytopathology
- Forensic pathology
- Hematopathology
- Medical microbiology
- Neuropathology
- Pediatric pathology
- Selective pathology

Public health and general preventive medicine

Aerospace medicine

Occupational and environmental medicine

- Undersea and hyperbaric medicine

Radiation oncology

Radiology-diagnostic

- Abdominal radiology
- Neuroendovascular intervention
- Musculoskeletal radiology
- Neuroradiology
- Nuclear radiology
- Pediatric radiology

Interventional radiology – independent

Interventional radiology – integrated

Transitional year

Medical Specialties and Subspecialties

Allergy and immunology

Dermatology

- Dermatopathology (multidisciplinary)

- Micrographic surgery and dermatologic oncology
- Pediatric dermatology
- Family medicine
 - Clinical informatics
 - Geriatric medicine
 - Hospice and palliative medicine (multidisciplinary)
 - Sports medicine
- Internal medicine
 - Adult congenital heart disease
 - Advanced heart failure and transplant cardiology
 - Cardiovascular disease
 - Clinical cardiac electrophysiology
 - Clinical informatics
 - Critical care medicine
 - Endocrinology, diabetes, and metabolism
 - Gastroenterology
 - Geriatric medicine
 - Hematology and medical oncology
 - Infectious disease
 - Interventional cardiology
 - Nephrology
 - Medical oncology
 - Pulmonary disease
 - Pulmonary disease and critical care medicine
 - Rheumatology
 - Sleep medicine (multidisciplinary)
 - Transplant hepatology
- Neurology
 - Clinical neurophysiology
 - Epilepsy
 - Neurocritical care (multidisciplinary)
 - Neuroendovascular intervention
 - Neurodevelopmental disabilities
 - Neuromuscular medicine
 - Vascular neurology
- Child neurology
- Osteopathic neuromusculoskeletal medicine
- Pediatrics
 - Adolescent medicine
 - Child abuse pediatrics
 - Clinical informatics
 - Developmental-behavioral pediatrics
 - Neonatal-perinatal medicine
 - Pediatric cardiology
 - Pediatric critical care medicine
 - Pediatric emergency medicine
 - Pediatric endocrinology
 - Pediatric gastroenterology
 - Pediatric hematology/oncology
 - Pediatric infectious diseases
 - Pediatric nephrology
 - Pediatric pulmonology
 - Pediatric rheumatology
 - Sports medicine
 - Pediatric transplant hepatology
 - Pediatric hospital medicine

Physical medicine and rehabilitation

- Brain injury medicine
- Neuromuscular medicine
- Spinal cord injury medicine
- Pediatric rehabilitation medicine
- Sports medicine

Psychiatry

- Addiction medicine (multidisciplinary)
- Addiction psychiatry
- Child and adolescent psychiatry
- Forensic psychiatry
- Geriatric psychiatry
- Consultation-liaison psychiatry

Internal medicine/Pediatrics

Surgical Specialties and Subspecialties

Colon and rectal surgery

Neurological surgery

- Neuroendovascular intervention

Obstetrics and gynecology

- Female pelvic medicine and reconstructive surgery
- Gynecologic oncology
- Maternal-fetal medicine
- Reproductive endocrinology and infertility
- Complex family planning

Ophthalmology

- Ophthalmic plastic and reconstructive surgery

Orthopaedic surgery

- Adult reconstructive orthopaedics
- Foot and ankle orthopaedics
- Hand surgery
- Musculoskeletal oncology
- Orthopaedic sports medicine
- Orthopaedic surgery of the spine
- Orthopaedic trauma
- Pediatric orthopaedics

Otolaryngology – head and neck surgery

- Neurotology
- Pediatric otolaryngology

Plastic surgery

Plastic surgery – integrated

- Craniofacial surgery
- Hand surgery

Surgery

- Complex general surgical oncology
- Hand surgery
- Pediatric surgery
- Surgical critical care
- Vascular surgery

Vascular surgery – integrated

Thoracic surgery

- Congenital cardiac surgery

Thoracic surgery – integrated

Urology

- Female pelvic medicine and reconstructive surgery
- Pediatric urology

Sponsor Institution-Based Fellowship

Appendix C

Institution Type Groups

Academic Medical Center/Medical School

Ambulatory Care Clinic/Federally Qualified Health Center (FQHC)

- Ambulatory Care Clinic/Office

- Federally Qualified Health Center (FQHC)

Children's Hospital

Consortium

General Teaching/Community Hospital

- General/Teaching Hospital

- Community Hospital

- Independent Academic Medical Center

Other

- Other

- Nursing Home/Rehabilitation Facility

Specialty Hospital

- Specialty Hospital

- Pathology Lab/Medical Examiner's Office

Veterans Administration



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