

ACCREDITATION COUNCIL FOR GRADUATE MEDICAL EDUCATION

DATA RESOURCE BOOK

ACADEMIC YEAR 2015-2016



Data Resource Book
Academic Year 2015-2016

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



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Introduction

Overview

The Accreditation Council for Graduate Medical Education (ACGME)'s mission is to improve health care and population health by assessing and advancing the quality of resident physicians' education through accreditation. The collection and analysis of data are crucial to performing these functions. The ACGME's Data Resource Book contains the most recent data on ACGME-accredited programs and institutions, and physicians in ACGME-accredited graduate medical education (GME). The Data Resource Book is intended to be a concise reference for policymakers, designated institutional officials, residency/fellowship 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 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 Field Activities (DFA) and the staff of the Review Committees in the Department of Accreditation Services (DAS) in conducting accreditation activities. ADS incorporates several applications and functions, including the Annual Update, Milestones, Case Logs, Surveys, and the application for accreditation.

ADS was originally built by the Department of Applications and Data Analysis in 2000, and went through a major re-design in 2012. During the re-design process, numerous disparate data systems were consolidated and the underlying database structure was completely refactored. Resident/fellow 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 residency and fellowship program and Sponsoring Institution, but a system to track residents and fellows longitudinally through their training.

The ADS Annual Update is scheduled for programs and sponsors following the start of each new academic year. At that time, programs are required to enter information on new residents/fellows, confirm the status of existing/graduating residents/fellows, and enter critical information regarding the members of their faculty, scholarly activity participation, participating sites, and other major changes to the program. 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/fellows, schedule Milestones evaluations for all residents/fellows twice a year, and conduct the annual ACGME Resident/Fellow and Faculty Surveys. While the Annual Update occurs once a year, programs and Sponsoring Institutions are expected to keep their information up-to-date at all times. In this sense, ADS is currently the most comprehensive database of GME programs, Sponsoring Institutions, 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 2014-2015 academic year). Up-to-date information on individual programs and Sponsoring Institutions can be found on the ADS website (<https://apps.acgme.org/ads/public/>).

Definitions

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 includes faculty members, other than program directors, who devote at least 15 hours per week to resident education and administration. Core faculty members should also evaluate the competency domains, work closely with and support the program director, assist in developing and implementing evaluation systems, and teach and advise residents.

Designated Institutional Official (DIO): The individual in a Sponsoring Institution who has the authority and responsibility for all of the ACGME-accredited GME programs.

International Medical Graduate (IMG): A graduate of a medical school outside the United States and Canada (and not accredited by the Liaison Committee on Medical Education (LCME)). IMGs may be citizens of the United States who chose to be educated elsewhere or non-citizens who were admitted to the United States by US Immigration authorities. All IMGs should undertake residency education in the United States before they can obtain a license to practice medicine in the United States even if they were fully educated, licensed, and practicing in another country.

Newly Accredited Programs: Programs achieving Initial Accreditation during the academic year following review of their application for accreditation.

Osteopathic-Focused Track: Programs with Osteopathic Recognition may designate all residents in the program as osteopathic-focused, or only a portion of the program. The latter is referred to as an osteopathic-focused track.

Osteopathic Recognition: Osteopathic Recognition is conferred upon any ACGME-accredited program providing requisite training in Osteopathic Principles and Practice after appropriate application and review for adherence to established requirements by the Osteopathic Principles Committee.

Participating Site: An organization providing educational experiences or educational assignments/rotations for residents in a program. Examples of sites include: a university; a medical school; a teaching hospital that includes its ambulatory clinics and related facilities; a private medical practice or group practice; a nursing home; a school of public health; a health department; a federally qualified health center; a public health agency; an organized health care delivery system; a health maintenance organization (HMO); a medical examiner's office; a consortium or an educational foundation.

Pipeline Specialties: Pipeline specialties are those specialties that lead to initial 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.

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.

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 Year: Refers to the current year of education within a specific program; this designation may or may not correspond to the resident's post-graduate year level.

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

Recognition Committee: The Osteopathic Principles Committee grants recognition of the osteopathic principles dimension of ACGME-accredited programs that meet the Osteopathic Recognition Requirements.

Review Committee: There are three types of Review Committee(s): Specialty Review Committee, Transitional Year Review Committee, and Institutional Review Committee. Each sets accreditation standards, provides peer evaluation of programs or Sponsoring Institutions to assess the degree to which these comply with the published educational requirements, and confers an accreditation status on each program or Sponsoring Institution with regard to meeting those standards.

Resident: Any physician in an accredited graduate medical education program, including interns, residents, and fellows.

Sponsoring Institution: The organization (or entity) that assumes the ultimate financial and academic responsibility for a program. The Sponsoring Institution has the primary purpose of providing educational programs and/or health care services. Examples of a Sponsoring Institution 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, an educational foundation.

Specialty Group: The ACGME classifies specialties and subspecialties into three categories based on patient care focus. Surgical specialties use manually operative and instrumental techniques to treat disorders. Medical specialties are concerned with the diagnosis and non-surgical management of disease, especially of internal organs. Hospital-based specialties, neither strictly medical nor surgical, provide referral and technical expertise to the medical and surgical specialty patients. 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; formerly known as 'core' programs.

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.

Subspecialty Resident: A physician who has completed the requirements for eligibility for first board certification and is in further training in an ACGME-accredited subspecialty program. Such physicians have also been termed fellows.

Withdrawal of Accreditation: Withdrawal of accreditation may occur administratively or voluntarily. These decisions may be effective at any time during the year, most frequently aligning with the date that residents are completing the program. Any program with a withdrawal status effective prior to June 30, 2016 will be excluded from the count of accredited programs for Academic Year 2015-2016.

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 2006-2007 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 the programs that achieved Osteopathic Recognition during the 2015-2016 academic year.

Accredited Programs by Status

Of the 9,977 total number of accredited programs, 8,996 (3,857 specialty programs and 5,139 subspecialty programs) had a status of Continued Accreditation, accounting for 90.2% of programs. Only 200 programs (2.0%) had a status of Continued Accreditation with Warning, and an even smaller number, 31 (0.3%) had a status of Probationary Accreditation. Remaining programs had a status of either Initial Accreditation (7.2%) or Withdrawal of Accreditation (0.3%). Among specialty programs, the specialties with the highest percentage of programs with a Continued Accreditation with Warning status are:

- Colon and rectal surgery (14.0%)
- Thoracic surgery (10.3%)
- Surgery (10.0%)
- Otolaryngology (8.5%)

Surgery also had the highest number of programs on probation, with 7 out of 261 (2.7%) programs being issued Probationary Accreditation. Other specialties with more than one program on probation include family medicine (4), emergency medicine (2), neurological surgery (2), and neurology (2).

Trends in Accredited Programs

The total number of ACGME-accredited programs has increased every year over the last 10 years. While historically, this number has been mainly attributed to new subspecialty programs, there was increased growth in specialty programs this year due to the transition to a single GME accreditation system. The following specialties had the highest 5-year change in total number of programs:

- Family medicine (46 – 5 previously AOA-approved)
- Internal medicine (41 – 13 previously AOA-approved)
- Plastic surgery – Integrated (24)
- Psychiatry (21)
- Emergency Medicine (20 – 7 previously AOA-approved)

The growth in these specialties contributed to an overall 5-year growth of 6.4% across all pipeline specialties.

Newly Accredited Programs

A total of 394 programs were newly accredited during the 2015-2016 academic year. Of the newly accredited programs, 247 (62.7%) are medical programs, 86 (21.8%) are hospital-based programs, and 61 (15.5%) are surgical programs. While subspecialty programs have historically accounted for the majority of the growth, the 2015-2016 academic year is the first time since 2006-2007 during which specialty programs exceed 35% of the total number of newly accredited programs, largely due to the transition to a single GME accreditation system. The specialties with the highest number of newly accredited programs are:

- Internal medicine (26)
- Interventional radiology – integrated (24)
- Family medicine (21)

Epilepsy, a subspecialty of neurology had the highest number of new programs among all subspecialties, with 28 programs (7.1% of all newly accredited) added this year. Epilepsy is 1 of 16 subspecialties newly accredited by the ACGME in the past 5 years. New programs in these 16 subspecialties account for approximately one-third of all new subspecialty programs.

Withdrawn Programs

Withdrawn programs are reported in three categories: those withdrawn prior to the end of the 2015-2016 academic year (which are not included in the population of accredited programs), those withdrawn at the end of the 2015-2016 academic year, and those with a future effective withdrawal date. At the time of this report, the following specialties/subspecialties had the highest number of withdrawn programs across all three categories:

- Family medicine (6)
- Orthopaedic sports medicine (4)
- Transitional year (4)

The withdrawals in the individual subspecialties of hematology and medical oncology represent a significant percentage of the total number of programs in those specialties (33.3% and 22.2%, respectively). These withdrawals, however, are offset by 5 newly accredited programs in the joint subspecialty of hematology and medical oncology.

Accredited Training Length

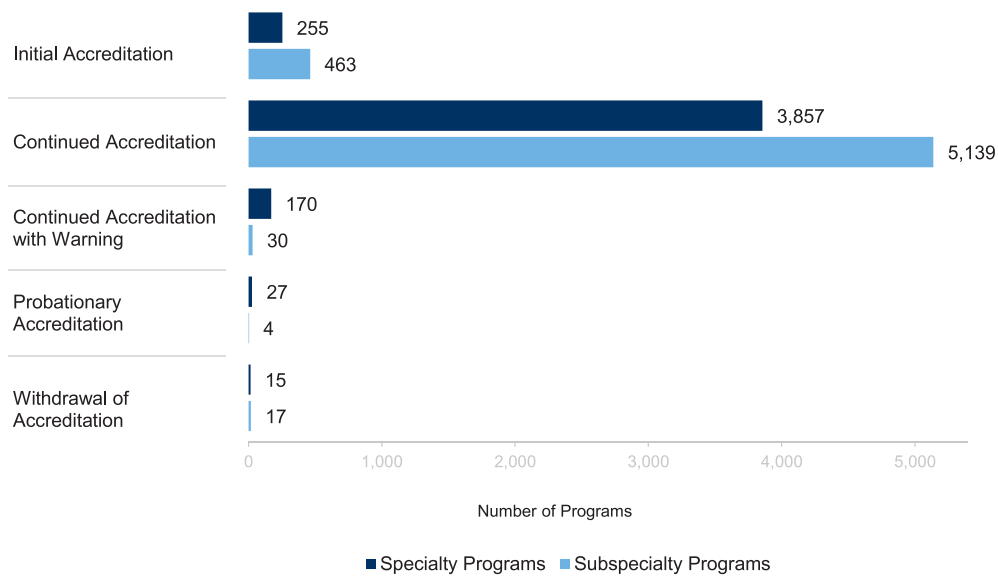
The majority of core programs take 3 or 4 years to complete. Neurological surgery programs have the longest training length among core programs at 7 years. Fellowship programs are generally 1 year in length, but can require up to 3 years of training to complete. Four of the 20 internal medicine subspecialties require the completion of another fellowship program prior to entering training, resulting in 6 total years of prior training required before entry.

Osteopathic Recognition

The 2015-2016 academic year is the first year that the ACGME began to recognize osteopathic training in ACGME-accredited programs. Programs achieving Osteopathic Recognition together with ACGME-accredited programs in osteopathic neuromusculoskeletal medicine account for all programs offering education in Osteopathic Principles and Practice. Of the 36 programs achieving Osteopathic Recognition, 26 (72.2%) were family medicine programs, 8 (22.2%) were internal medicine programs, 1 (1.3%) was a combined internal medicine/pediatrics program, and 1 (1.3%) was a sports medicine program. [Ⓐ]

FIGURE A.1

Accreditation Statuses of Currently Accredited Programs



Notes: Total number of accredited programs = 9,977. Excluding programs withdrawn prior to the end of the academic year (n=13).

FIGURE A.2

Number of Accredited Programs by Academic Year, 2006-2007 to 2015-2016

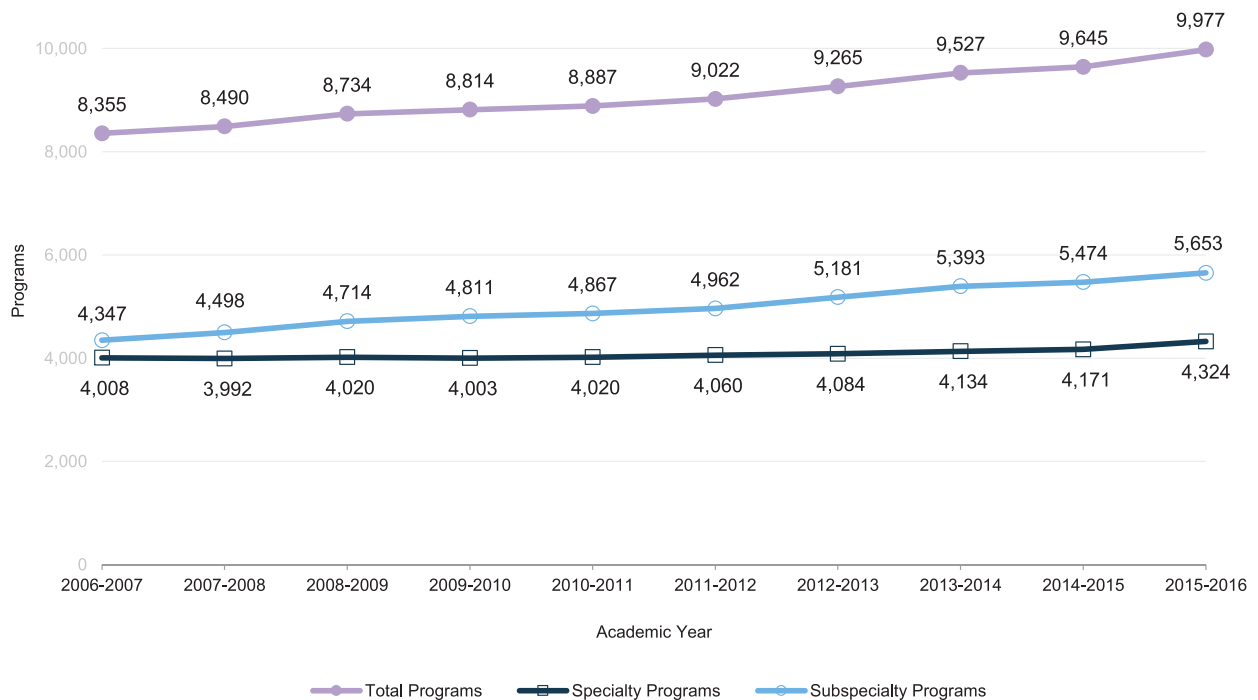


TABLE A.3											
Accreditation Statuses of Currently Accredited Programs by Specialty and Subspecialty											
Specialty	Total Programs	Accreditation Status									
		Initial Accreditation		Continued Accreditation		Continued Accreditation with Warning		Probationary Accreditation		Withdrawal of Accreditation	
		#	%	#	%	#	%	#	%	#	%
OVERALL	9,977	718	7.2%	8,996	90.2%	200	2.0%	31	0.3%	32	0.3%
TOTAL PIPELINE	4,021	243	6.0%	3,590	89.3%	151	3.8%	26	0.6%	11	0.3%
Allergy and immunology	77	2	2.6%	74	96.1%	1	1.3%	0	0.0%	0	0.0%
Anesthesiology	135	4	3.0%	126	93.3%	4	3.0%	1	0.7%	0	0.0%
- Adult cardiothoracic anesthesiology	62	2	3.2%	59	95.2%	1	1.6%	0	0.0%	0	0.0%
- Clinical informatics (Anesthesiology)	1	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Critical care medicine	54	2	3.7%	50	92.6%	2	3.7%	0	0.0%	0	0.0%
- Obstetric anesthesiology	28	5	17.9%	23	82.1%	0	0.0%	0	0.0%	0	0.0%
- Pain medicine (multidisciplinary)	100	5	5.0%	95	95.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric anesthesiology	56	6	10.7%	50	89.3%	0	0.0%	0	0.0%	0	0.0%
Colon and rectal surgery	57	3	5.3%	45	78.9%	8	14.0%	1	1.8%	0	0.0%
Dermatology	120	5	4.2%	113	94.2%	1	0.8%	0	0.0%	1	0.8%
- Dermatopathology (multidisciplinary)	53	2	3.8%	51	96.2%	0	0.0%	0	0.0%	0	0.0%
- Micrographic surgery and dermatologic oncology	69	10	14.5%	58	84.1%	0	0.0%	1	1.4%	0	0.0%
Emergency medicine	179	15	8.4%	161	89.9%	1	0.6%	2	1.1%	0	0.0%
- Clinical informatics (Emergency medicine)	3	3	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Emergency medical services	50	26	52.0%	24	48.0%	0	0.0%	0	0.0%	0	0.0%
- Medical toxicology	26	0	0.0%	26	100.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric emergency medicine	22	1	4.5%	21	95.5%	0	0.0%	0	0.0%	0	0.0%
- Sports medicine	7	2	28.6%	5	71.4%	0	0.0%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	7	0	0.0%	7	100.0%	0	0.0%	0	0.0%	0	0.0%
Family medicine	498	47	9.4%	408	81.9%	33	6.6%	4	0.8%	6	1.2%
- Clinical informatics (Family medicine)	1	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	41	2	4.9%	39	95.1%	0	0.0%	0	0.0%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	115	23	20.0%	90	78.3%	1	0.9%	0	0.0%	1	0.9%
- Sports medicine	127	14	11.0%	112	88.2%	0	0.0%	0	0.0%	1	0.8%
Internal medicine	421	33	7.8%	378	89.8%	9	2.1%	1	0.2%	0	0.0%
- Adult congenital heart disease	7	7	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Advanced heart failure and transplant cardiology	68	34	50.0%	34	50.0%	0	0.0%	0	0.0%	0	0.0%
- Cardiovascular disease	193	6	3.1%	187	96.9%	0	0.0%	0	0.0%	0	0.0%
- Clinical cardiac electrophysiology	104	2	1.9%	101	97.1%	0	0.0%	0	0.0%	1	1.0%
- Clinical informatics (Internal medicine)	8	8	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Critical care medicine	33	2	6.1%	31	93.9%	0	0.0%	0	0.0%	0	0.0%
- Endocrinology, diabetes, and metabolism	136	2	1.5%	134	98.5%	0	0.0%	0	0.0%	0	0.0%
- Gastroenterology	168	10	6.0%	158	94.0%	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	105	3	2.9%	102	97.1%	0	0.0%	0	0.0%	0	0.0%
- Hematology	3	0	0.0%	2	66.7%	0	0.0%	0	0.0%	1	33.3%
- Hematology and medical oncology	144	9	6.3%	134	93.1%	1	0.7%	0	0.0%	0	0.0%
- Infectious disease	148	1	0.7%	147	99.3%	0	0.0%	0	0.0%	0	0.0%
- Interventional cardiology	145	4	2.8%	141	97.2%	0	0.0%	0	0.0%	0	0.0%
- Nephrology	147	3	2.0%	143	97.3%	1	0.7%	0	0.0%	0	0.0%
- Medical oncology	9	0	0.0%	7	77.8%	0	0.0%	0	0.0%	2	22.2%
- Pulmonary disease	18	0	0.0%	18	100.0%	0	0.0%	0	0.0%	0	0.0%
- Pulmonary disease and critical care medicine	147	8	5.4%	137	93.2%	2	1.4%	0	0.0%	0	0.0%
- Rheumatology	113	2	1.8%	111	98.2%	0	0.0%	0	0.0%	0	0.0%
- Sleep medicine (multidisciplinary)	83	12	14.5%	71	85.5%	0	0.0%	0	0.0%	0	0.0%
- Transplant hepatology	47	8	17.0%	39	83.0%	0	0.0%	0	0.0%	0	0.0%
Medical genetics and genomics	45	0	0.0%	43	95.6%	1	2.2%	1	2.2%	0	0.0%
- Medical biochemical genetics	14	4	28.6%	10	71.4%	0	0.0%	0	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	39	3	7.7%	35	89.7%	1	2.6%	0	0.0%	0	0.0%
Neurological surgery	108	4	3.7%	98	90.7%	4	3.7%	2	1.9%	0	0.0%
- Endovascular surgical neuroradiology	2	0	0.0%	2	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	139	6	4.3%	127	91.4%	3	2.2%	2	1.4%	1	0.7%
- Child neurology	73	0	0.0%	73	100.0%	0	0.0%	0	0.0%	0	0.0%
- Clinical neurophysiology	96	3	3.1%	90	93.8%	2	2.1%	0	0.0%	1	1.0%
- Epilepsy	39	38	97.4%	1	2.6%	0	0.0%	0	0.0%	0	0.0%
- Endovascular surgical neuroradiology	1	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
- Neurodevelopmental disabilities	8	0	0.0%	8	100.0%	0	0.0%	0	0.0%	0	0.0%
- Neuromuscular medicine	45	9	20.0%	35	77.8%	0	0.0%	0	0.0%	1	2.2%
- Vascular neurology	87	9	10.3%	77	88.5%	0	0.0%	0	0.0%	1	1.1%
Nuclear medicine	43	0	0.0%	40	93.0%	2	4.7%	0	0.0%	1	2.3%
Obstetrics and gynecology	250	8	3.2%	223	89.2%	18	7.2%	1	0.4%	0	0.0%
- Female pelvic medicine and reconstructive surgery	48	9	18.8%	39	81.3%	0	0.0%	0	0.0%	0	0.0%
Ophthalmology	116	0	0.0%	109	94.0%	6	5.2%	1	0.9%	0	0.0%
- Ophthalmic plastic and reconstructive surgery	5	0	0.0%	5	100.0%	0	0.0%	0	0.0%	0	0.0%
Orthopaedic surgery	162	7	4.3%	149	92.0%	5	3.1%	1	0.6%	0	0.0%
- Adult reconstructive orthopaedics	23	2	8.7%	20	87.0%	0	0.0%	0	0.0%	1	4.3%
- Foot and ankle orthopaedics	6	0	0.0%	6	100.0%	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	67	3	4.5%	63	94.0%	1	1.5%	0	0.0%	0	0.0%
- Musculoskeletal oncology	11	0	0.0%	11	100.0%	0	0.0%	0	0.0%	0	0.0%
- Orthopaedic sports medicine	94	4	4.3%	89	94.7%	0	0.0%	1	1.1%	0	0.0%
- Orthopaedic surgery of the spine	17	1	5.9%	15	88.2%	0	0.0%	0	0.0%	1	5.9%
- Orthopaedic trauma	9	0	0.0%	9	100.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric orthopaedics	25	0	0.0%	25	100.0%	0	0.0%	0	0.0%	0	0.0%
Osteopathic neuromusculoskeletal medicine	1	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Otolaryngology	106	0	0.0%	97	91.5%	9	8.5%	0	0.0%	0	0.0%
- Neurotology	20	1	5.0%	19	95.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric otolaryngology	23	3	13.0%	19	82.6%	0	0.0%	0	0.0%	1	4.3%
Pathology-anatomic and clinical	142	0	0.0%	134	94.4%	8	5.6%	0	0.0%	0	0.0%
- Blood banking/transfusion medicine	48	1	2.1%	46	95.8%	0	0.0%	0	0.0%	1	2.1%
- Clinical informatics (Pathology)	2	2	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Chemical pathology	3	1	33.3%	2	66.7%	0	0.0%	0	0.0%	0	0.0%
- Cytopathology	91	1	1.1%	89	97.8%	1	1.1%	0	0.0%	0	0.0%
- Forensic pathology	39	4	10.3%	34	87.2%	0	0.0%	0	0.0%	1	2.6%
- Hematology	85	2	2.4%	82	96.5%	1	1.2%	0	0.0%	0	0.0%
- Medical microbiology	14	0	0.0%	14	100.0%	0	0.0%	0	0.0%	0	0.0%
- Neuropathology	33	1	3.0%	32	97.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric pathology	26	1	3.8%	25	96.2%	0	0.0%	0	0.0%	0	0.0%
- Selective pathology	79	10	12.7%	66	83.5%	1	1.3%	0	0.0%	2	2.5%
Pediatrics	204	8	3.9%	195	95.6%	1	0.5%	0	0.0%	0	0.0%
- Adolescent medicine	28	0	0.0%	28	100.0%	0	0.0%	0	0.0%	0	0.0%
- Child abuse pediatrics	28	5	17.9%	23	82.1%	0	0.0%	0	0.0%	0	0.0%
- Clinical informatics (Pediatrics)	4	4	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Developmental-behavioral pediatrics	38	2	5.3%	36	94.7%	0	0.0%	0	0.0%	0	0.0%
- Neonatal-perinatal medicine	98	1	1.0%	97	99.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric cardiology	59	3	5.1%	56	94.9%	0	0.0%	0	0.0%	0	0.0%
- Pediatric critical care medicine	67	3	4.5%	63	94.0%	1	1.5%	0	0.0%	0	0.0%
- Pediatric emergency medicine	52	2	3.8%	50	96.2%	0	0.0%	0	0.0%	0	0.0%
- Pediatric endocrinology	69	1	1.4%	68	98.6%	0	0.0%	0	0.0%	0	0.0%
- Pediatric gastroenterology	60	3	5.0%	57	95.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric hematology/oncology	72	4	5.6%	68	94.4%	0	0.0%	0	0.0%	0	0.0%
- Pediatric infectious diseases	64	3	4.7%	60	93.8%	1	1.6%	0	0.0%	0	0.0%
- Pediatric nephrology	45	2	4.4%	43	95.6%	0	0.0%	0	0.0%	0	0.0%
- Pediatric pulmonology	54	2	3.7%	51	94.4%	0	0.0%	0	0.0%	1	1.9%

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 rheumatology	36	2	5.6%	34	94.4%	0	0.0%	0	0.0%	0	0.0%
- Pediatric sports medicine	17	3	17.6%	14	82.4%	0	0.0%	0	0.0%	0	0.0%
- Pediatric transplant hepatology	9	2	22.2%	7	77.8%	0	0.0%	0	0.0%	0	0.0%
Physical medicine and rehabilitation	83	6	7.2%	76	91.6%	1	1.2%	0	0.0%	0	0.0%
- Brain injury medicine	8	7	87.5%	1	12.5%	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	20	2	10.0%	18	90.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric rehabilitation	19	2	10.5%	17	89.5%	0	0.0%	0	0.0%	0	0.0%
- Sports medicine	17	6	35.3%	11	64.7%	0	0.0%	0	0.0%	0	0.0%
Plastic surgery	68	0	0.0%	67	98.5%	1	1.5%	0	0.0%	0	0.0%
Plastic Surgery - Integrated	69	14	20.3%	53	76.8%	1	1.4%	1	1.4%	0	0.0%
- Craniofacial surgery	10	3	30.0%	7	70.0%	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	16	1	6.3%	15	93.8%	0	0.0%	0	0.0%	0	0.0%
Preventive medicine	74	3	4.1%	71	95.9%	0	0.0%	0	0.0%	0	0.0%
- Medical toxicology	1	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	1	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%
Psychiatry	203	13	6.4%	185	91.1%	4	2.0%	0	0.0%	1	0.5%
- Addiction psychiatry	45	2	4.4%	43	95.6%	0	0.0%	0	0.0%	0	0.0%
- Child and adolescent psychiatry	126	3	2.4%	122	96.8%	1	0.8%	0	0.0%	0	0.0%
- Forensic psychiatry	42	5	11.9%	37	88.1%	0	0.0%	0	0.0%	0	0.0%
- Geriatric psychiatry	56	3	5.4%	53	94.6%	0	0.0%	0	0.0%	0	0.0%
- Psychosomatic medicine	57	5	8.8%	52	91.2%	0	0.0%	0	0.0%	0	0.0%
Radiation oncology	91	3	3.3%	87	95.6%	1	1.1%	0	0.0%	0	0.0%
Radiology-diagnostic	188	4	2.1%	180	95.7%	3	1.6%	1	0.5%	0	0.0%
- Abdominal radiology	12	1	8.3%	11	91.7%	0	0.0%	0	0.0%	0	0.0%
- Endovascular surgical neuroradiology	3	0	0.0%	3	100.0%	0	0.0%	0	0.0%	0	0.0%
- Musculoskeletal radiology	15	1	6.7%	14	93.3%	0	0.0%	0	0.0%	0	0.0%
- Neuroradiology	86	3	3.5%	83	96.5%	0	0.0%	0	0.0%	0	0.0%
- Nuclear radiology	18	1	5.6%	17	94.4%	0	0.0%	0	0.0%	0	0.0%
- Pediatric radiology	46	0	0.0%	46	100.0%	0	0.0%	0	0.0%	0	0.0%
- Vascular and interventional radiology	95	3	3.2%	92	96.8%	0	0.0%	0	0.0%	0	0.0%
Interventional radiology - integrated	24	24	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Surgery	261	10	3.8%	217	83.1%	26	10.0%	7	2.7%	1	0.4%
- Complex general surgical oncology	22	11	50.0%	11	50.0%	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	1	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%
- Pediatric surgery	47	4	8.5%	38	80.9%	5	10.6%	0	0.0%	0	0.0%
- Surgical critical care	113	6	5.3%	104	92.0%	3	2.7%	0	0.0%	0	0.0%
- Vascular surgery	106	6	5.7%	97	91.5%	2	1.9%	1	0.9%	0	0.0%
Vascular surgery - integrated	51	8	15.7%	42	82.4%	0	0.0%	1	2.0%	0	0.0%
Thoracic surgery	68	4	5.9%	57	83.8%	7	10.3%	0	0.0%	0	0.0%
- Congenital cardiac surgery	12	0	0.0%	11	91.7%	0	0.0%	1	8.3%	0	0.0%
Thoracic surgery - integrated	27	5	18.5%	22	81.5%	0	0.0%	0	0.0%	0	0.0%
Urology	134	12	9.0%	113	84.3%	9	6.7%	0	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	10	5	50.0%	5	50.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric urology	28	3	10.7%	25	89.3%	0	0.0%	0	0.0%	0	0.0%
Transitional year	101	3	3.0%	91	90.1%	3	3.0%	0	0.0%	4	4.0%
Internal medicine/Pediatrics	79	3	3.8%	76	96.2%	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=13).

TABLE A.4

Number of Programs by Specialty and Subspecialty and Academic Year, 2011-2012 to 2015-2016

Specialty	Academic Year					5-Year Change	
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	#	%
	#	#	#	#	#	#	%
OVERALL	9,022	9,265	9,527	9,645	9,977	955	10.6%
TOTAL PIPELINE	3,756	3,782	3,831	3,875	4,021	240	6.4%
Allergy and immunology	72	73	74	75	77	5	6.9%
Anesthesiology	132	132	133	133	135	3	2.3%
- Adult cardiothoracic anesthesiology	56	58	60	61	62	6	10.7%
- Clinical informatics (Anesthesiology) *					1	N/A	N/A
- Critical care medicine	48	51	55	54	54	6	12.5%
- Obstetric anesthesiology *		13	27	27	28	15	115.4%
- Pain medicine (multidisciplinary)	92	97	97	97	100	8	8.7%
- Pediatric anesthesiology	46	46	51	53	56	10	21.7%
Colon and rectal surgery	52	55	55	55	57	5	9.6%
Dermatology	114	114	115	117	120	6	5.3%
- Dermatopathology (multidisciplinary)	54	53	54	53	53	-1	-1.9%
- Micrographic surgery and dermatologic oncology	47	54	63	63	69	22	46.8%
Emergency medicine	159	160	164	167	179	20	12.6%
- Clinical informatics (Emergency medicine) *				1	3	2	200.0%
- Emergency medical services *		10	31	42	50	40	400.0%
- Medical toxicology	28	27	26	25	26	-2	-7.1%
- Pediatric emergency medicine	20	20	21	22	22	2	10.0%
- Sports medicine	4	4	5	6	7	3	75.0%
- Undersea and hyperbaric medicine	6	6	6	6	7	1	16.7%
Family medicine	452	460	471	480	498	46	10.2%
- Clinical informatics (Family medicine) *					1	N/A	N/A
- Geriatric medicine	42	41	42	40	41	-1	-2.4%
- Hospice and palliative medicine (multidisciplinary)	79	89	97	108	115	36	45.6%
- Sports medicine	111	113	124	125	127	16	14.4%
Internal medicine	380	385	390	396	421	41	10.8%
- Adult congenital heart disease *					7	N/A	N/A
- Advanced heart failure and transplant cardiology *		25	57	62	68	43	172.0%
- Cardiovascular disease	187	187	191	192	193	6	3.2%
- Clinical cardiac electrophysiology	101	103	104	104	104	3	3.0%
- Clinical informatics (Internal medicine) *				1	8	7	700.0%
- Critical care medicine	34	34	34	33	33	-1	-2.9%
- Endocrinology, diabetes, and metabolism	129	132	134	135	136	7	5.4%
- Gastroenterology	158	160	162	165	168	10	6.3%
- Geriatric medicine	104	104	105	105	105	1	1.0%
- Hematology	4	3	3	3	3	-1	-25.0%
- Hematology and medical oncology	134	135	136	139	144	10	7.5%
- Infectious disease	144	147	148	148	148	4	2.8%
- Interventional cardiology	137	141	142	142	145	8	5.8%
- Nephrology	143	147	147	147	147	4	2.8%
- Medical oncology	14	13	11	10	9	-5	-35.7%
- Pulmonary disease	20	21	20	20	18	-2	-10.0%
- Pulmonary disease and critical care medicine	137	138	141	142	147	10	7.3%
- Rheumatology	112	111	113	113	113	1	0.9%
- Sleep medicine (multidisciplinary)	74	74	79	83	83	9	12.2%
- Transplant hepatology	36	36	41	43	47	11	30.6%
Medical genetics and genomics	50	49	47	46	45	-5	-10.0%
- Medical biochemical genetics	11	11	12	11	14	3	27.3%
- Molecular genetic pathology (multidisciplinary)	33	34	36	37	39	6	18.2%
Neurological surgery	101	102	105	105	108	7	6.9%
- Endovascular surgical neuroradiology	2	2	2	2	2	0	0.0%

TABLE A.4 Continued

Number of Programs by Specialty and Subspecialty and Academic Year, 2011-2012 to 2015-2016

Specialty	Academic Year					5-Year Change	
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	#	%
	#	#	#	#	#	#	%
Neurology	128	130	130	133	139	11	8.6%
- Child neurology	68	70	73	73	73	5	7.4%
- Clinical neurophysiology	94	95	97	96	96	2	2.1%
- Epilepsy*				11	39	28	254.5%
- Endovascular surgical neuroradiology	2	2	2	1	1	-1	-50.0%
- Neurodevelopmental disabilities	9	9	9	8	8	-1	-11.1%
- Neuromuscular medicine	31	34	38	43	45	14	45.2%
- Vascular neurology	72	75	81	84	87	15	20.8%
Nuclear medicine	54	50	47	43	43	-11	-20.4%
Obstetrics and gynecology	242	243	242	243	250	8	3.3%
- Female pelvic medicine and reconstructive surgery*		44	45	45	48	4	9.1%
Ophthalmology	117	117	116	116	116	-1	-0.9%
- Ophthalmic plastic and reconstructive surgery	5	5	5	5	5	0	0.0%
Orthopaedic surgery	153	154	155	156	162	9	5.9%
- Adult reconstructive orthopaedics	21	21	21	21	23	2	9.5%
- Foot and ankle orthopaedics	9	8	7	7	6	-3	-33.3%
- Hand surgery	60	60	65	65	67	7	11.7%
- Musculoskeletal oncology	11	11	11	11	11	0	0.0%
- Orthopaedic sports medicine	95	96	95	95	94	-1	-1.1%
- Orthopaedic surgery of the spine	18	17	18	17	17	-1	-5.6%
- Orthopaedic trauma	10	10	10	9	9	-1	-10.0%
- Pediatric orthopaedics	22	24	26	25	25	3	13.6%
Osteopathic neuromusculoskeletal medicine*					1	N/A	N/A
Otolaryngology	105	105	106	106	106	1	1.0%
- Neurotology	17	18	19	19	20	3	17.6%
- Pediatric otolaryngology	15	19	21	22	23	8	53.3%
Pathology-anatomic and clinical	145	143	142	142	142	-3	-2.1%
- Blood banking/transfusion medicine	47	48	48	47	48	1	2.1%
- Clinical informatics (Pathology)*					2	N/A	N/A
- Chemical pathology	2	2	2	3	3	1	50.0%
- Cytopathology	91	92	93	91	91	0	0.0%
- Forensic pathology	36	34	35	36	39	3	8.3%
- Hematology	83	85	84	85	85	2	2.4%
- Medical microbiology	13	13	13	14	14	1	7.7%
- Neuropathology	32	33	33	32	33	1	3.1%
- Pediatric pathology	25	27	27	27	26	1	4.0%
- Selective pathology	67	69	77	80	79	12	17.9%
Pediatrics	198	199	199	199	204	6	3.0%
- Adolescent medicine	26	28	28	28	28	2	7.7%
- Child abuse pediatrics	14	22	25	26	28	14	100.0%
- Clinical informatics (Pediatrics)*				1	4	3	300.0%
- Developmental-behavioral pediatrics	34	36	35	37	38	4	11.8%
- Neonatal-perinatal medicine	96	97	97	98	98	2	2.1%
- Pediatric cardiology	54	55	56	57	59	5	9.3%
- Pediatric critical care medicine	63	62	64	64	67	4	6.3%
- Pediatric emergency medicine	49	51	51	51	52	3	6.1%
- Pediatric endocrinology	67	67	69	69	69	2	3.0%
- Pediatric gastroenterology	56	57	57	57	60	4	7.1%
- Pediatric hematology/oncology	65	68	67	70	72	7	10.8%
- Pediatric infectious diseases	60	61	61	61	64	4	6.7%
- Pediatric nephrology	39	40	45	45	45	6	15.4%
- Pediatric pulmonology	49	50	52	52	54	5	10.2%

TABLE A.4 Continued

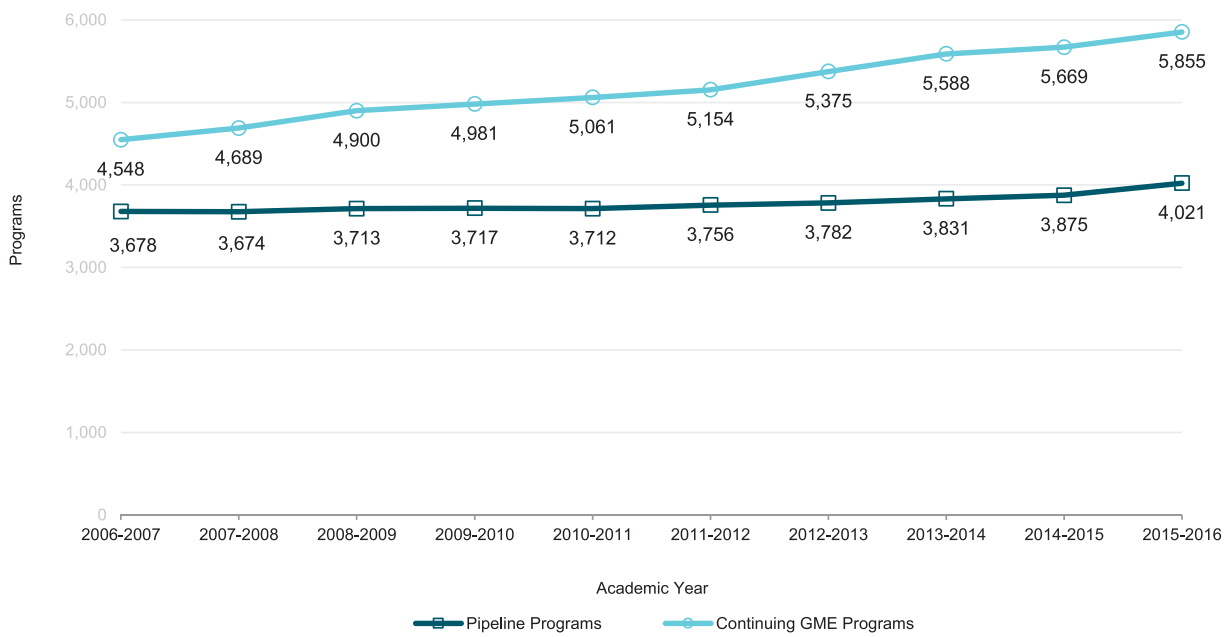
Number of Programs by Specialty and Subspecialty and Academic Year, 2011-2012 to 2015-2016

Specialty	Academic Year					5-Year Change	
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	#	%
	#	#	#	#	#	#	%
- Pediatric rheumatology	30	33	34	34	36	6	20.0%
- Pediatric sports medicine	13	14	14	14	17	4	30.8%
- Pediatric transplant hepatology	5	6	6	7	9	4	80.0%
Physical medicine and rehabilitation	77	77	77	78	83	6	7.8%
- Brain injury medicine *			3	4	8	5	166.7%
- Neuromuscular medicine *		1	1	1	1	0	0.0%
- Spinal cord injury medicine	18	18	18	19	20	2	11.1%
- Pediatric rehabilitation	18	16	17	17	19	1	5.6%
- Sports medicine	11	12	14	16	17	6	54.5%
Plastic surgery	71	71	71	71	68	-3	-4.2%
Plastic Surgery - Integrated	45	49	59	67	69	24	53.3%
- Craniofacial surgery	5	7	8	9	10	5	100.0%
- Hand surgery	15	16	15	16	16	1	6.7%
Preventive medicine	73	73	74	72	74	1	1.4%
- Medical toxicology	2	2	2	2	1	-1	-50.0%
- Undersea and hyperbaric medicine	2	2	2	2	1	-1	-50.0%
Psychiatry	182	184	188	193	203	21	11.5%
- Addiction psychiatry	45	45	46	45	45	0	0.0%
- Child and adolescent psychiatry	124	124	123	124	126	2	1.6%
- Forensic psychiatry	38	36	39	40	42	4	10.5%
- Geriatric psychiatry	54	55	56	55	56	2	3.7%
- Psychosomatic medicine	54	53	54	54	57	3	5.6%
Radiation oncology	87	87	88	89	91	4	4.6%
Radiology-diagnostic	187	186	185	185	188	1	0.5%
- Abdominal radiology	10	10	11	12	12	2	20.0%
- Endovascular surgical neuroradiology	3	3	3	3	3	0	0.0%
- Musculoskeletal radiology	14	14	14	15	15	1	7.1%
- Neuroradiology	85	85	85	84	86	1	1.2%
- Nuclear radiology	19	19	20	20	18	-1	-5.3%
- Pediatric radiology	46	46	47	46	46	0	0.0%
- Vascular and interventional radiology	92	92	92	94	95	3	3.3%
Interventional radiology - integrated *					24	N/A	N/A
Surgery	249	250	254	256	261	12	4.8%
- Complex general surgical oncology *		16	19	19	22	6	37.5%
- Hand surgery	1	1	1	1	1	0	0.0%
- Pediatric surgery	41	44	45	46	47	6	14.6%
- Surgical critical care	102	107	110	112	113	11	10.8%
- Vascular surgery	105	104	106	106	106	1	1.0%
Vascular surgery - integrated	36	42	47	51	51	15	41.7%
Thoracic surgery	68	66	66	65	68	0	0.0%
- Congenital cardiac surgery	11	11	12	12	12	1	9.1%
Thoracic surgery - integrated	17	18	23	26	27	10	58.8%
Urology	122	123	124	126	134	12	9.8%
- Female pelvic medicine and reconstructive surgery *		9	9	9	10	1	11.1%
- Pediatric urology	25	25	28	28	28	3	12.0%
Transitional year	112	108	108	101	101	-11	-9.8%
Internal medicine/pediatrics	80	79	79	79	79	-1	-1.3%

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.

FIGURE A.5

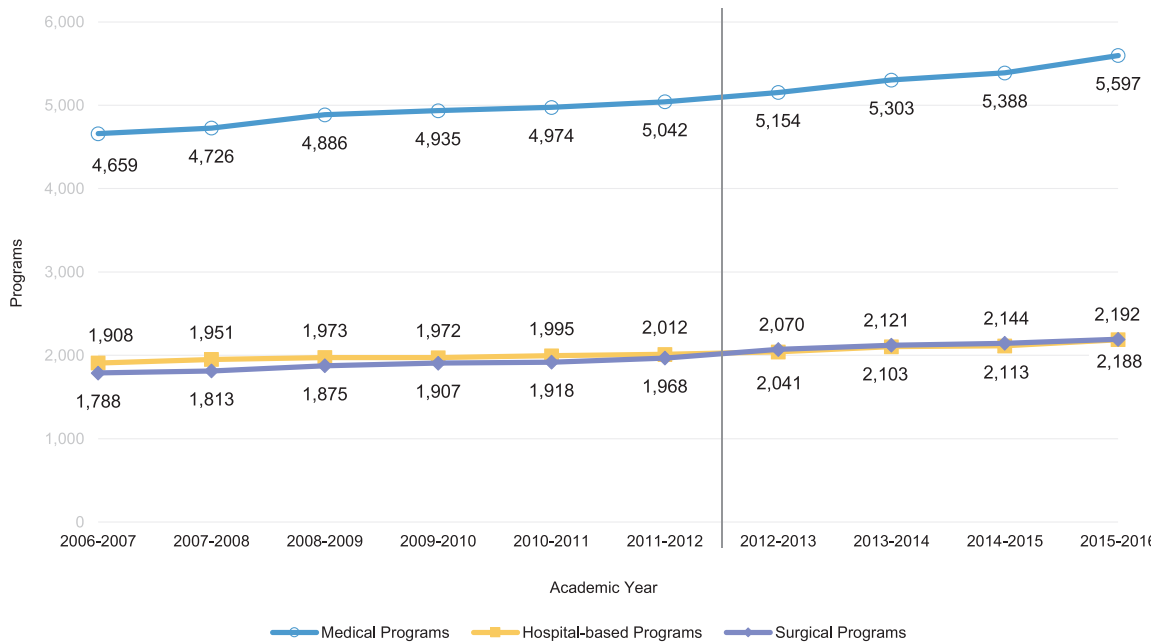
Number of Pipeline and Continuing GME Programs by Academic Year, 2006-2007 to 2015-2016



Note: Excluding transitional year programs.
Abbreviation: GME, graduate medical education.

FIGURE A.6

Number of Programs by Specialty Group and Academic Year, 2006-2007 to 2015-2016



Notes: The number of surgical programs exceeds the number of hospital-based programs beginning in the 2012-2013 academic year primarily due to the accreditation of new subspecialty programs in female pelvic medicine and reconstructive surgery and complex surgical oncology. 'Surgical Programs' labels are displayed above the line beyond that point.

FIGURE A.7

Number of Newly Accredited Programs by Specialty Group

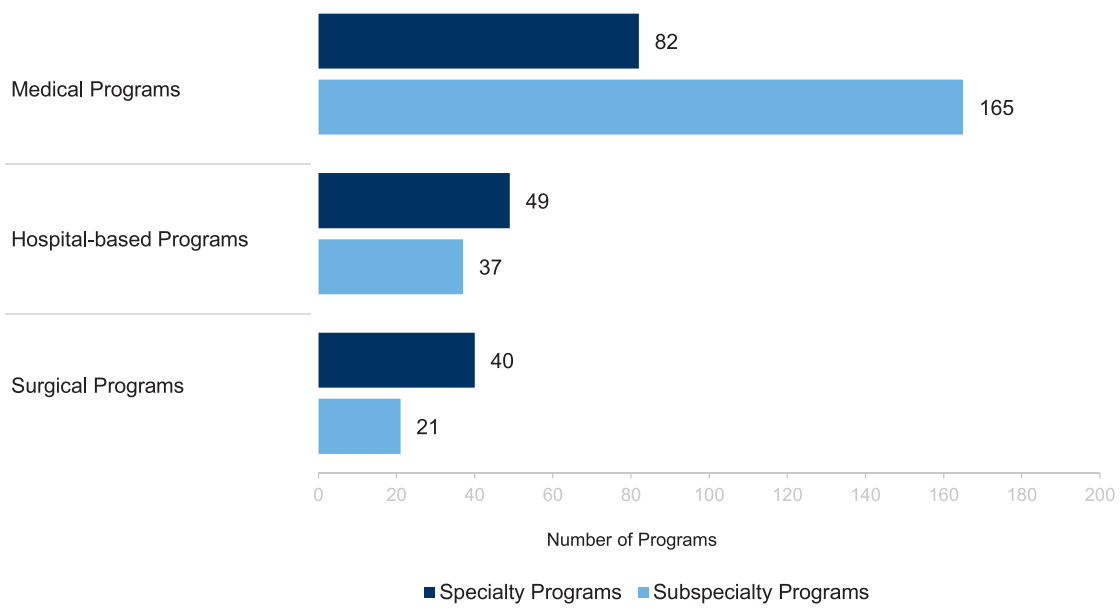


FIGURE A.8

Number of Newly Accredited Programs by Academic Year, 2006-2007 to 2015-2016

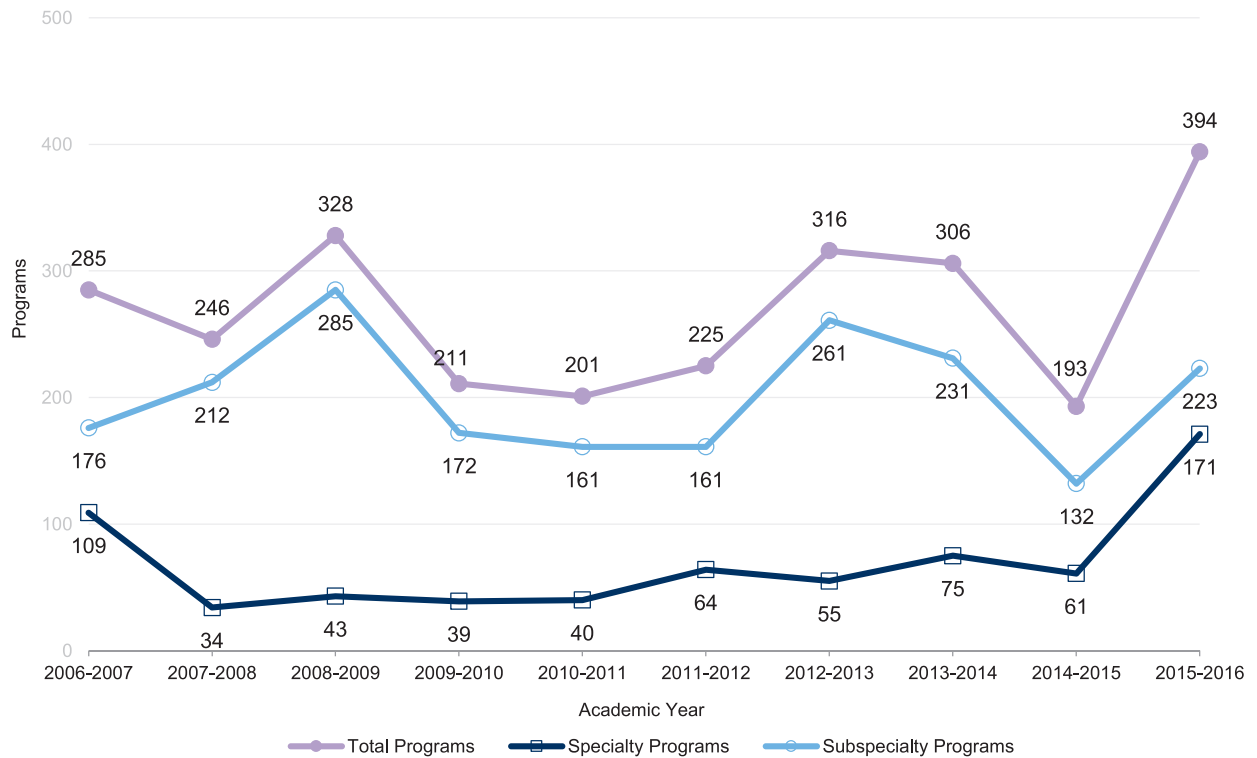


TABLE A.9

Number of Newly Accredited Programs during the Academic Year by Specialty and Subspecialty

Specialty	Number of Programs	Newly Accredited Programs	Percent of Specialty	Percent of All Newly Accredited Programs
OVERALL	9,977	394	3.9%	100.0%
TOTAL PIPELINE	4,021	159	4.0%	40.4%
Allergy and immunology	77	2	2.6%	0.5%
Anesthesiology	135	2	1.5%	0.5%
- Adult cardiothoracic anesthesiology	62	1	1.6%	0.3%
- Clinical informatics (Anesthesiology) *	1	1	100.0%	0.3%
- Critical care medicine	54	0	0.0%	0.0%
- Obstetric anesthesiology *	28	1	3.6%	0.3%
- Pain medicine (multidisciplinary)	100	4	4.0%	1.0%
- Pediatric anesthesiology	56	3	5.4%	0.8%
Colon and rectal surgery	57	3	5.3%	0.8%
Dermatology	120	5	4.2%	1.3%
- Dermatopathology (multidisciplinary)	53	0	0.0%	0.0%
- Micrographic surgery and dermatologic oncology	69	6	8.7%	1.5%
Emergency medicine	179	12	6.7%	3.0%
- Clinical informatics (Emergency medicine) *	3	2	66.7%	0.5%
- Emergency medical services *	50	8	16.0%	2.0%
- Medical toxicology	26	0	0.0%	0.0%
- Pediatric emergency medicine	22	0	0.0%	0.0%
- Sports medicine	7	0	0.0%	0.0%
- Undersea and hyperbaric medicine	7	0	0.0%	0.0%
Family medicine	498	21	4.2%	5.3%
- Clinical informatics (Family medicine) *	1	1	100.0%	0.3%
- Geriatric medicine	41	1	2.4%	0.3%
- Hospice and palliative medicine (multidisciplinary)	115	11	9.6%	2.8%
- Sports medicine	127	9	7.1%	2.3%
Internal medicine	421	26	6.2%	6.6%
- Adult congenital heart disease *	7	7	100.0%	1.8%
- Advanced heart failure and transplant cardiology *	68	7	10.3%	1.8%
- Cardiovascular disease	193	2	1.0%	0.5%
- Clinical cardiac electrophysiology	104	0	0.0%	0.0%
- Clinical informatics (Internal medicine) *	8	7	87.5%	1.8%
- Critical care medicine	33	1	3.0%	0.3%
- Endocrinology, diabetes, and metabolism	136	1	0.7%	0.3%
- Gastroenterology	168	4	2.4%	1.0%
- Geriatric medicine	105	1	1.0%	0.3%
- Hematology	3	0	0.0%	0.0%
- Hematology and medical oncology	144	5	3.5%	1.3%
- Infectious disease	148	0	0.0%	0.0%
- Interventional cardiology	145	3	2.1%	0.8%
- Nephrology	147	1	0.7%	0.3%
- Medical oncology	9	0	0.0%	0.0%
- Pulmonary disease	18	0	0.0%	0.0%
- Pulmonary disease and critical care medicine	147	4	2.7%	1.0%
- Rheumatology	113	1	0.9%	0.3%
- Sleep medicine (multidisciplinary)	83	2	2.4%	0.5%
- Transplant hepatology	47	4	8.5%	1.0%
Medical genetics and genomics	45	0	0.0%	0.0%
- Medical biochemical genetics	14	3	21.4%	0.8%
- Molecular genetic pathology (multidisciplinary)	39	2	5.1%	0.5%
Neurological surgery	108	3	2.8%	0.8%
- Endovascular surgical neuroradiology	2	0	0.0%	0.0%

TABLE A.9 Continued

Number of Newly Accredited Programs during the Academic Year by Specialty and Subspecialty				
Specialty	Number of Programs	Newly Accredited Programs	Percent of Specialty	Percent of All Newly Accredited Programs
Neurology	139	6	4.3%	1.5%
- Child neurology	73	0	0.0%	0.0%
- Clinical neurophysiology	96	2	2.1%	0.5%
- Epilepsy *	39	28	71.8%	7.1%
- Endovascular surgical neuroradiology	1	0	0.0%	0.0%
- Neurodevelopmental disabilities	8	0	0.0%	0.0%
- Neuromuscular medicine	45	2	4.4%	0.5%
- Vascular neurology	87	3	3.4%	0.8%
Nuclear medicine	43	0	0.0%	0.0%
Obstetrics and gynecology	250	7	2.8%	1.8%
- Female pelvic medicine and reconstructive surgery *	48	3	6.3%	0.8%
Ophthalmology	116	0	0.0%	0.0%
- Ophthalmic plastic and reconstructive surgery	5	0	0.0%	0.0%
Orthopaedic surgery	162	6	3.7%	1.5%
- Adult reconstructive orthopaedics	23	1	4.3%	0.3%
- Foot and ankle orthopaedics	6	0	0.0%	0.0%
- Hand surgery	67	2	3.0%	0.5%
- Musculoskeletal oncology	11	0	0.0%	0.0%
- Orthopaedic sports medicine	94	3	3.2%	0.8%
- Orthopaedic surgery of the spine	17	1	5.9%	0.3%
- Orthopaedic trauma	9	0	0.0%	0.0%
- Pediatric orthopaedics	25	0	0.0%	0.0%
Osteopathic neuromusculoskeletal medicine *	1	1	100.0%	0.3%
Otolaryngology	106	0	0.0%	0.0%
- Neurotology	20	1	5.0%	0.3%
- Pediatric otolaryngology	23	1	4.3%	0.3%
Pathology-anatomic and clinical	142	0	0.0%	0.0%
- Blood banking/transfusion medicine	48	1	2.1%	0.3%
- Clinical informatics (Pathology) *	2	2	100.0%	0.5%
- Chemical pathology	3	0	0.0%	0.0%
- Cytopathology	91	0	0.0%	0.0%
- Forensic pathology	39	2	5.1%	0.5%
- Hematology	85	1	1.2%	0.3%
- Medical microbiology	14	0	0.0%	0.0%
- Neuropathology	33	1	3.0%	0.3%
- Pediatric pathology	26	0	0.0%	0.0%
- Selective pathology	79	2	2.5%	0.5%
Pediatrics	204	5	2.5%	1.3%
- Adolescent medicine	28	0	0.0%	0.0%
- Child abuse pediatrics	28	3	10.7%	0.8%
- Clinical informatics (Pediatrics) *	4	3	75.0%	0.8%
- Developmental-behavioral pediatrics	38	1	2.6%	0.3%
- Neonatal-perinatal medicine	98	0	0.0%	0.0%
- Pediatric cardiology	59	2	3.4%	0.5%
- Pediatric critical care medicine	67	3	4.5%	0.8%
- Pediatric emergency medicine	52	1	1.9%	0.3%
- Pediatric endocrinology	69	1	1.4%	0.3%
- Pediatric gastroenterology	60	3	5.0%	0.8%
- Pediatric hematology/oncology	72	2	2.8%	0.5%
- Pediatric infectious diseases	64	3	4.7%	0.8%
- Pediatric nephrology	45	0	0.0%	0.0%
- Pediatric pulmonology	54	2	3.7%	0.5%

TABLE A.9 Continued

Number of Newly Accredited Programs during the Academic Year by Specialty and Subspecialty

Specialty	Number of Programs	Newly Accredited Programs	Percent of Specialty	Percent of All Newly Accredited Programs
- Pediatric rheumatology	36	2	5.6%	0.5%
- Pediatric sports medicine	17	3	17.6%	0.8%
- Pediatric transplant hepatology	9	2	22.2%	0.5%
Physical medicine and rehabilitation	83	5	6.0%	1.3%
- Brain injury medicine *	8	4	50.0%	1.0%
- Neuromuscular medicine *	1	0	0.0%	0.0%
- Spinal cord injury medicine	20	1	5.0%	0.3%
- Pediatric rehabilitation	19	2	10.5%	0.5%
- Sports medicine	17	2	11.8%	0.5%
Plastic surgery	68	0	0.0%	0.0%
Plastic Surgery - Integrated	69	2	2.9%	0.5%
- Craniofacial surgery	10	1	10.0%	0.3%
- Hand surgery	16	0	0.0%	0.0%
Preventive medicine	74	2	2.7%	0.5%
- Medical toxicology	1	0	0.0%	0.0%
- Undersea and hyperbaric medicine	1	0	0.0%	0.0%
Psychiatry	203	10	4.9%	2.5%
- Addiction psychiatry	45	2	4.4%	0.5%
- Child and adolescent psychiatry	126	2	1.6%	0.5%
- Forensic psychiatry	42	3	7.1%	0.8%
- Geriatric psychiatry	56	1	1.8%	0.3%
- Psychosomatic medicine	57	4	7.0%	1.0%
Radiation oncology	91	2	2.2%	0.5%
Radiology-diagnostic	188	4	2.1%	1.0%
- Abdominal radiology	12	0	0.0%	0.0%
- Endovascular surgical neuroradiology	3	0	0.0%	0.0%
- Musculoskeletal radiology	15	0	0.0%	0.0%
- Neuroradiology	86	2	2.3%	0.5%
- Nuclear radiology	18	0	0.0%	0.0%
- Pediatric radiology	46	0	0.0%	0.0%
- Vascular and interventional radiology	95	1	1.1%	0.3%
Interventional radiology - integrated *	24	24	100.0%	6.1%
Surgery	261	6	2.3%	1.5%
- Complex general surgical oncology *	22	3	13.6%	0.8%
- Hand surgery	1	0	0.0%	0.0%
- Pediatric surgery	47	1	2.1%	0.3%
- Surgical critical care	113	2	1.8%	0.5%
- Vascular surgery	106	1	0.9%	0.3%
Vascular surgery - integrated	51	0	0.0%	0.0%
Thoracic surgery	68	4	5.9%	1.0%
- Congenital cardiac surgery	12	0	0.0%	0.0%
Thoracic surgery - integrated	27	1	3.7%	0.3%
Urology	134	8	6.0%	2.0%
- Female pelvic medicine and reconstructive surgery *	10	1	10.0%	0.3%
- Pediatric urology	28	0	0.0%	0.0%
Transitional year	101	3	3.0%	0.8%
Internal medicine/pediatrics	79	1	1.3%	0.3%

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	9,977	13	0.1%	29	0.3%	3	0.0%
TOTAL PIPELINE	4,021	0	0.0%	10	0.2%	1	0.0%
Allergy and immunology	77	0	0.0%	0	0.0%	0	0.0%
Anesthesiology	135	0	0.0%	0	0.0%	0	0.0%
- Adult cardiothoracic anesthesiology	62	0	0.0%	0	0.0%	0	0.0%
- Clinical informatics (Anesthesiology)	1	0	0.0%	0	0.0%	0	0.0%
- Critical care medicine	54	0	0.0%	0	0.0%	0	0.0%
- Obstetric anesthesiology	28	0	0.0%	0	0.0%	0	0.0%
- Pain medicine (multidisciplinary)	100	1	1.0%	0	0.0%	0	0.0%
- Pediatric anesthesiology	56	0	0.0%	0	0.0%	0	0.0%
Colon and rectal surgery	57	0	0.0%	0	0.0%	0	0.0%
Dermatology	120	0	0.0%	1	0.8%	0	0.0%
- Dermatopathology (multidisciplinary)	53	0	0.0%	0	0.0%	0	0.0%
- Micrographic surgery and dermatologic oncology	69	0	0.0%	0	0.0%	0	0.0%
Emergency medicine	179	0	0.0%	0	0.0%	0	0.0%
- Clinical informatics (Emergency medicine)	3	0	0.0%	0	0.0%	0	0.0%
- Emergency medical services	50	0	0.0%	0	0.0%	0	0.0%
- Medical toxicology	26	0	0.0%	0	0.0%	0	0.0%
- Pediatric emergency medicine	22	0	0.0%	0	0.0%	0	0.0%
- Sports medicine	7	0	0.0%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	7	0	0.0%	0	0.0%	0	0.0%
Family medicine	498	0	0.0%	5	1.0%	1	0.2%
- Clinical informatics (Family medicine)	1	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	41	0	0.0%	0	0.0%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	115	0	0.0%	1	0.9%	0	0.0%
- Sports medicine	127	0	0.0%	1	0.8%	0	0.0%
Internal medicine	421	0	0.0%	0	0.0%	0	0.0%
- Adult congenital heart disease	7	0	0.0%	0	0.0%	0	0.0%
- Advanced heart failure and transplant cardiology	68	0	0.0%	0	0.0%	0	0.0%
- Cardiovascular disease	193	0	0.0%	0	0.0%	0	0.0%
- Clinical cardiac electrophysiology	104	0	0.0%	1	1.0%	0	0.0%
- Clinical informatics (Internal medicine)	8	0	0.0%	0	0.0%	0	0.0%
- Critical care medicine	33	0	0.0%	0	0.0%	0	0.0%
- Endocrinology, diabetes, and metabolism	136	0	0.0%	0	0.0%	0	0.0%
- Gastroenterology	168	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	105	0	0.0%	0	0.0%	0	0.0%
- Hematology	3	0	0.0%	1	33.3%	0	0.0%
- Hematology and medical oncology	144	0	0.0%	0	0.0%	0	0.0%
- Infectious disease	148	0	0.0%	0	0.0%	0	0.0%
- Interventional cardiology	145	0	0.0%	0	0.0%	0	0.0%
- Nephrology	147	0	0.0%	0	0.0%	0	0.0%
- Medical oncology	9	0	0.0%	2	22.2%	0	0.0%
- Pulmonary disease	18	0	0.0%	0	0.0%	0	0.0%
- Pulmonary disease and critical care medicine	147	0	0.0%	0	0.0%	0	0.0%
- Rheumatology	113	0	0.0%	0	0.0%	0	0.0%
- Sleep medicine (multidisciplinary)	83	0	0.0%	0	0.0%	0	0.0%
- Transplant hepatology	47	0	0.0%	0	0.0%	0	0.0%
Medical genetics and genomics	45	0	0.0%	0	0.0%	0	0.0%
- Medical biochemical genetics	14	0	0.0%	0	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	39	0	0.0%	0	0.0%	0	0.0%
Neurological surgery	108	0	0.0%	0	0.0%	0	0.0%
- Endovascular surgical neuroradiology	2	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	139	0	0.0%	1	0.7%	0	0.0%
- Child neurology	73	0	0.0%	0	0.0%	0	0.0%
- Clinical neurophysiology	96	1	1.0%	1	1.0%	0	0.0%
- Epilepsy	39	0	0.0%	0	0.0%	0	0.0%
- Endovascular surgical neuroradiology	1	0	0.0%	0	0.0%	0	0.0%
- Neurodevelopmental disabilities	8	0	0.0%	0	0.0%	0	0.0%
- Neuromuscular medicine	45	0	0.0%	1	2.2%	0	0.0%
- Vascular neurology	87	0	0.0%	1	1.1%	0	0.0%
Nuclear medicine	43	0	0.0%	1	2.3%	0	0.0%
Obstetrics and gynecology	250	0	0.0%	0	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	48	0	0.0%	0	0.0%	0	0.0%
Ophthalmology	116	0	0.0%	0	0.0%	0	0.0%
- Ophthalmic plastic and reconstructive surgery	5	0	0.0%	0	0.0%	0	0.0%
Orthopaedic surgery	162	0	0.0%	0	0.0%	0	0.0%
- Adult reconstructive orthopaedics	23	0	0.0%	0	0.0%	1	4.3%
- Foot and ankle orthopaedics	6	1	16.7%	0	0.0%	0	0.0%
- Hand surgery	67	0	0.0%	0	0.0%	0	0.0%
- Musculoskeletal oncology	11	0	0.0%	0	0.0%	0	0.0%
- Orthopaedic sports medicine	94	4	4.3%	0	0.0%	0	0.0%
- Orthopaedic surgery of the spine	17	1	5.9%	0	0.0%	1	5.9%
- Orthopaedic trauma	9	0	0.0%	0	0.0%	0	0.0%
- Pediatric orthopaedics	25	0	0.0%	0	0.0%	0	0.0%
Osteopathic neuromusculoskeletal medicine	1	0	0.0%	0	0.0%	0	0.0%
Otolaryngology	106	0	0.0%	0	0.0%	0	0.0%
- Neurotology	20	0	0.0%	0	0.0%	0	0.0%
- Pediatric otolaryngology	23	0	0.0%	1	4.3%	0	0.0%
Pathology-anatomic and clinical	142	0	0.0%	0	0.0%	0	0.0%
- Blood banking/transfusion medicine	48	0	0.0%	1	2.1%	0	0.0%
- Clinical informatics (Pathology)	2	0	0.0%	0	0.0%	0	0.0%
- Chemical pathology	3	0	0.0%	0	0.0%	0	0.0%
- Cytopathology	91	0	0.0%	0	0.0%	0	0.0%
- Forensic pathology	39	0	0.0%	1	2.6%	0	0.0%
- Hematology	85	0	0.0%	0	0.0%	0	0.0%
- Medical microbiology	14	0	0.0%	0	0.0%	0	0.0%
- Neuropathology	33	0	0.0%	0	0.0%	0	0.0%
- Pediatric pathology	26	0	0.0%	0	0.0%	0	0.0%
- Selective pathology	79	0	0.0%	2	2.5%	0	0.0%
Pediatrics	204	0	0.0%	0	0.0%	0	0.0%
- Adolescent medicine	28	0	0.0%	0	0.0%	0	0.0%
- Child abuse pediatrics	28	0	0.0%	0	0.0%	0	0.0%
- Clinical informatics (Pediatrics)	4	0	0.0%	0	0.0%	0	0.0%
- Developmental-behavioral pediatrics	38	0	0.0%	0	0.0%	0	0.0%
- Neonatal-perinatal medicine	98	0	0.0%	0	0.0%	0	0.0%
- Pediatric cardiology	59	0	0.0%	0	0.0%	0	0.0%
- Pediatric critical care medicine	67	0	0.0%	0	0.0%	0	0.0%
- Pediatric emergency medicine	52	0	0.0%	0	0.0%	0	0.0%
- Pediatric endocrinology	69	0	0.0%	0	0.0%	0	0.0%
- Pediatric gastroenterology	60	0	0.0%	0	0.0%	0	0.0%
- Pediatric hematology/oncology	72	0	0.0%	0	0.0%	0	0.0%
- Pediatric infectious diseases	64	0	0.0%	0	0.0%	0	0.0%
- Pediatric nephrology	45	0	0.0%	0	0.0%	0	0.0%
- Pediatric pulmonology	54	0	0.0%	1	1.9%	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 rheumatology	36	0	0.0%	0	0.0%	0	0.0%
- Pediatric sports medicine	17	0	0.0%	0	0.0%	0	0.0%
- Pediatric transplant hepatology	9	0	0.0%	0	0.0%	0	0.0%
Physical medicine and rehabilitation	83	0	0.0%	0	0.0%	0	0.0%
- Brain injury medicine	8	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	20	0	0.0%	0	0.0%	0	0.0%
- Pediatric rehabilitation	19	0	0.0%	0	0.0%	0	0.0%
- Sports medicine	17	1	5.9%	0	0.0%	0	0.0%
Plastic surgery	68	0	0.0%	0	0.0%	0	0.0%
Plastic surgery - integrated	69	0	0.0%	0	0.0%	0	0.0%
- Craniofacial surgery	10	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	16	0	0.0%	0	0.0%	0	0.0%
Preventive medicine	74	0	0.0%	0	0.0%	0	0.0%
- Medical toxicology	1	0	0.0%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	1	0	0.0%	0	0.0%	0	0.0%
Psychiatry	203	0	0.0%	1	0.5%	0	0.0%
- Addiction psychiatry	45	1	2.2%	0	0.0%	0	0.0%
- Child and adolescent psychiatry	126	0	0.0%	0	0.0%	0	0.0%
- Forensic psychiatry	42	1	2.4%	0	0.0%	0	0.0%
- Geriatric psychiatry	56	0	0.0%	0	0.0%	0	0.0%
- Psychosomatic medicine	57	1	1.8%	0	0.0%	0	0.0%
Radiation oncology	91	0	0.0%	0	0.0%	0	0.0%
Radiology-diagnostic	188	0	0.0%	0	0.0%	0	0.0%
- Abdominal radiology	12	0	0.0%	0	0.0%	0	0.0%
- Endovascular surgical neuroradiology	3	0	0.0%	0	0.0%	0	0.0%
- Musculoskeletal radiology	15	0	0.0%	0	0.0%	0	0.0%
- Neuroradiology	86	0	0.0%	0	0.0%	0	0.0%
- Nuclear radiology	18	0	0.0%	0	0.0%	0	0.0%
- Pediatric radiology	46	0	0.0%	0	0.0%	0	0.0%
- Vascular and interventional radiology	95	0	0.0%	0	0.0%	0	0.0%
Interventional radiology - integrated	24	0	0.0%	0	0.0%	0	0.0%
Surgery	261	0	0.0%	1	0.4%	0	0.0%
- Complex general surgical oncology	22	0	0.0%	0	0.0%	0	0.0%
- Hand surgery	1	0	0.0%	0	0.0%	0	0.0%
- Pediatric surgery	47	0	0.0%	0	0.0%	0	0.0%
- Surgical critical care	113	0	0.0%	0	0.0%	0	0.0%
- Vascular surgery	106	0	0.0%	0	0.0%	0	0.0%
Vascular surgery - integrated	51	0	0.0%	0	0.0%	0	0.0%
Thoracic surgery	68	1	1.5%	0	0.0%	0	0.0%
- Congenital cardiac surgery	12	0	0.0%	0	0.0%	0	0.0%
Thoracic surgery - integrated	27	0	0.0%	0	0.0%	0	0.0%
Urology	134	0	0.0%	0	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	10	0	0.0%	0	0.0%	0	0.0%
- Pediatric urology	28	0	0.0%	0	0.0%	0	0.0%
Transitional year	101	0	0.0%	4	4.0%	0	0.0%
Internal medicine/pediatrics	79	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=13).

TABLE A.11

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

Specialty	MIN No. of Prior Years	Total Programs	Accredited Training Length(s)							
			1	2	3	4	5	6	7	
			#	#	#	#	#	#	#	
Allergy and immunology	3	77		77						
Anesthesiology	1/0	135			26	109				
- Adult cardiothoracic anesthesiology	4	62	62							
- Clinical informatics (Anesthesiology)	4	1		1						
- Critical care medicine	4	54	54							
- Obstetric anesthesiology	3/4	28	28							
- Pain medicine (multidisciplinary)	3/4	100	100							
- Pediatric anesthesiology	4	56	56							
Colon and rectal surgery	5	57	57							
Dermatology	1/0	120			116	4				
- Dermatopathology (multidisciplinary)	4	53	53							
- Micrographic surgery and dermatologic oncology	4	69	69							
Emergency medicine	0	179			135	44				
- Clinical informatics (Emergency medicine)	3	3		3						
- Emergency medical services	3	50	50							
- Medical toxicology	3	26		26						
- Pediatric emergency medicine	3	22			22					
- Sports medicine	3	7	7							
- Undersea and hyperbaric medicine	3	7	7							
Family medicine	0	498			486	12				
- Clinical informatics (Family medicine)	3	1		1						
- Geriatric medicine	3	41	41							
- Hospice and palliative medicine (multidisciplinary)	3	115	115							
- Sports medicine	3	127	127							
Internal medicine	0	421			421					
- Adult congenital heart disease	3	7		7						
- Advanced heart failure and transplant cardiology	6	68	68							
- Cardiovascular disease	3	193			193					
- Clinical cardiac electrophysiology	6	104	104							
- Clinical informatics (Internal medicine)	3	8		8						
- Critical care medicine	3	33		33						
- Endocrinology, diabetes, and metabolism	3	136		136						
- Gastroenterology	3	168			168					
- Geriatric medicine	3	105	105							
- Hematology	3	3		3						
- Hematology and medical oncology	3	144			144					
- Infectious disease	3	148		148						
- Interventional cardiology	6	145	145							
- Nephrology	3	147		147						
- Medical oncology	3	9		9						
- Pulmonary disease	3	18		18						
- Pulmonary disease and critical care medicine	3	147			147					
- Rheumatology	3	113		113						
- Sleep medicine (multidisciplinary)	3/4/5	83	83							
- Transplant hepatology	6	47	47							
Medical genetics and genomics	2/0	45		43	2					
- Medical biochemical genetics	4	14	14							
- Molecular genetic pathology (multidisciplinary)	4	39	39							
Neurological surgery	0	108								108
- Endovascular surgical neuroradiology	6	2	2							

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

Specialty	MIN No. of Prior Years	Total Programs	Accredited Training Length(s)						
			1	2	3	4	5	6	7
			#	#	#	#	#	#	#
Neurology	1/0	139			59	80			
- Child neurology	2	73			73				
- Clinical neurophysiology	4	96	96						
- Epilepsy	3	39	39						
- Endovascular surgical neuroradiology	5	1	1						
- Neurodevelopmental disabilities	2	8				8			
- Neuromuscular medicine	4	45	45						
- Vascular neurology	4	87	87						
Nuclear medicine	1	43			43				
Obstetrics and gynecology	0	250				250			
- Female pelvic medicine and reconstructive surgery	4	48			48				
Ophthalmology	1	116			116				
- Ophthalmic plastic and reconstructive surgery	4	5		5					
Orthopaedic surgery	0	162					162		
- Adult reconstructive orthopaedics	5	23	23						
- Foot and ankle orthopaedics	5	6	6						
- Hand surgery	5	67	67						
- Musculoskeletal oncology	5	11	11						
- Orthopaedic sports medicine	5	94	94						
- Orthopaedic surgery of the spine	5	17	17						
- Orthopaedic trauma	5	9	9						
- Pediatric orthopaedics	5	25	25						
Osteopathic neuromusculoskeletal medicine	1	1		1					
Otolaryngology	0	106					106		
- Neurotology	5	20		20					
- Pediatric otolaryngology	5	23	23						
Pathology-anatomic and clinical	0	142			1	141			
- Blood banking/transfusion medicine	2	48	48						
- Clinical informatics (Pathology)	2	2		2					
- Chemical pathology	2	3	3						
- Cytopathology	2	91	91						
- Forensic pathology	2	39	39						
- Hematology	2	85	85						
- Medical microbiology	4	14	14						
- Neuropathology	2	33		33					
- Pediatric pathology	2	26	26						
- Selective pathology	2	79	79						
Pediatrics	0	204			204				
- Adolescent medicine	3	28			28				
- Child abuse pediatrics	3	28			28				
- Clinical informatics (Pediatrics)	3	4		4					
- Developmental-behavioral pediatrics	3	38			38				
- Neonatal-perinatal medicine	3	98			98				
- Pediatric cardiology	3	59			59				
- Pediatric critical care medicine	3	67			67				
- Pediatric emergency medicine	3	52			52				
- Pediatric endocrinology	3	69			69				
- Pediatric gastroenterology	3	60			60				
- Pediatric hematology/oncology	3	72			72				
- Pediatric infectious diseases	3	64			64				
- Pediatric nephrology	3	45			45				
- Pediatric pulmonology	3	54			54				

TABLE A.11 Continued

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

Specialty	MIN No. of Prior Years	Total Programs	Accredited Training Length(s)						
			1	2	3	4	5	6	7
			#	#	#	#	#	#	#
- Pediatric rheumatology	3	36			36				
- Pediatric sports medicine	3	17	17						
- Pediatric transplant hepatology	6	9	9						
Physical medicine and rehabilitation	1/0	83			51	32			
- Brain injury medicine	3/4	8	8						
- Neuromuscular medicine	3/4	1	1						
- Spinal cord injury medicine	3/4	20	20						
- Pediatric rehabilitation	4	19		19					
- Sports medicine	3/4	17	17						
Plastic surgery	3	68			68				
Plastic surgery - integrated	0	69						69	
- Craniofacial surgery	6	10	10						
- Hand surgery	5	16	16						
Preventive medicine	1/0	74	1	72	1				
- Medical toxicology	3	1		1					
- Undersea and hyperbaric medicine	3	1	1						
Psychiatry	0	203	1			202			
- Addiction psychiatry	4	45	44	1					
- Child and adolescent psychiatry	3	126		126					
- Forensic psychiatry	4	42	42						
- Geriatric psychiatry	4	56	55	1					
- Psychosomatic medicine	4	57	57						
Radiation oncology	1	91				91			
Radiology-diagnostic	1	188				187	1		
- Abdominal radiology	5	12	12						
- Endovascular surgical neuroradiology	5	3	3						
- Musculoskeletal radiology	5	15	15						
- Neuroradiology	5	86	86						
- Nuclear radiology	5	18	18						
- Pediatric radiology	5	46	46						
- Vascular and interventional radiology	5	95	95						
Interventional radiology - integrated	1	24					24		
Surgery	0	261					261		
- Complex general surgical oncology	5	22		22					
- Hand surgery	5	1	1						
- Pediatric surgery	5	47		47					
- Surgical critical care	3	113	113						
- Vascular surgery	5	106		106					
Vascular surgery - integrated	0	51					51		
Thoracic surgery	5	68		45	23				
- Congenital cardiac surgery	7	12	12						
Thoracic surgery - integrated	0	27						27	
Urology	1/2	134				133	1		
- Female pelvic medicine and reconstructive surgery	3/4	10			10				
- Pediatric urology	5	28	28						
Transitional year	0	101	101						
Internal medicine/pediatrics	0	79				79			

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	Number of Programs	Programs with Osteopathic Recognition	Percent of Specialty	Percent of All Programs with Osteopathic Recognition
OVERALL	9,977	36	0.4%	100.0%
Family medicine	498	26	5.2%	72.2%
- Sports medicine	127	1	0.8%	2.8%
Internal medicine	421	8	1.9%	22.2%
Internal medicine/pediatrics	79	1	1.3%	2.8%

B

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, and Puerto Rico. Based on the most recent U.S. Census estimate from 2015, there are approximately 3.07 total programs (1.33 specialty, 1.74 subspecialty) per 100,000 population, including Puerto Rico. The following states have the highest total number of programs:

- New York (1,159)
- California (881)
- Pennsylvania (639)
- Texas (634)

States with the lowest number of programs include Montana (4), Alaska (2), and Wyoming (2). These patterns are consistent when looking at total programs, specialty programs, or pipeline programs by state. Family medicine is currently the only specialty represented across all 50 states, D.C., and Puerto Rico.

Distributions by Specialty and Program Size

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

- Family medicine (11.5%)
- Internal medicine (9.7%)
- Surgery (6.0%)
- Obstetrics and gynecology (5.8%)

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

- Internal medicine (24.4%)
- Family medicine (10.5%)
- Pediatrics (8.7%)
- Surgery (7.6%)

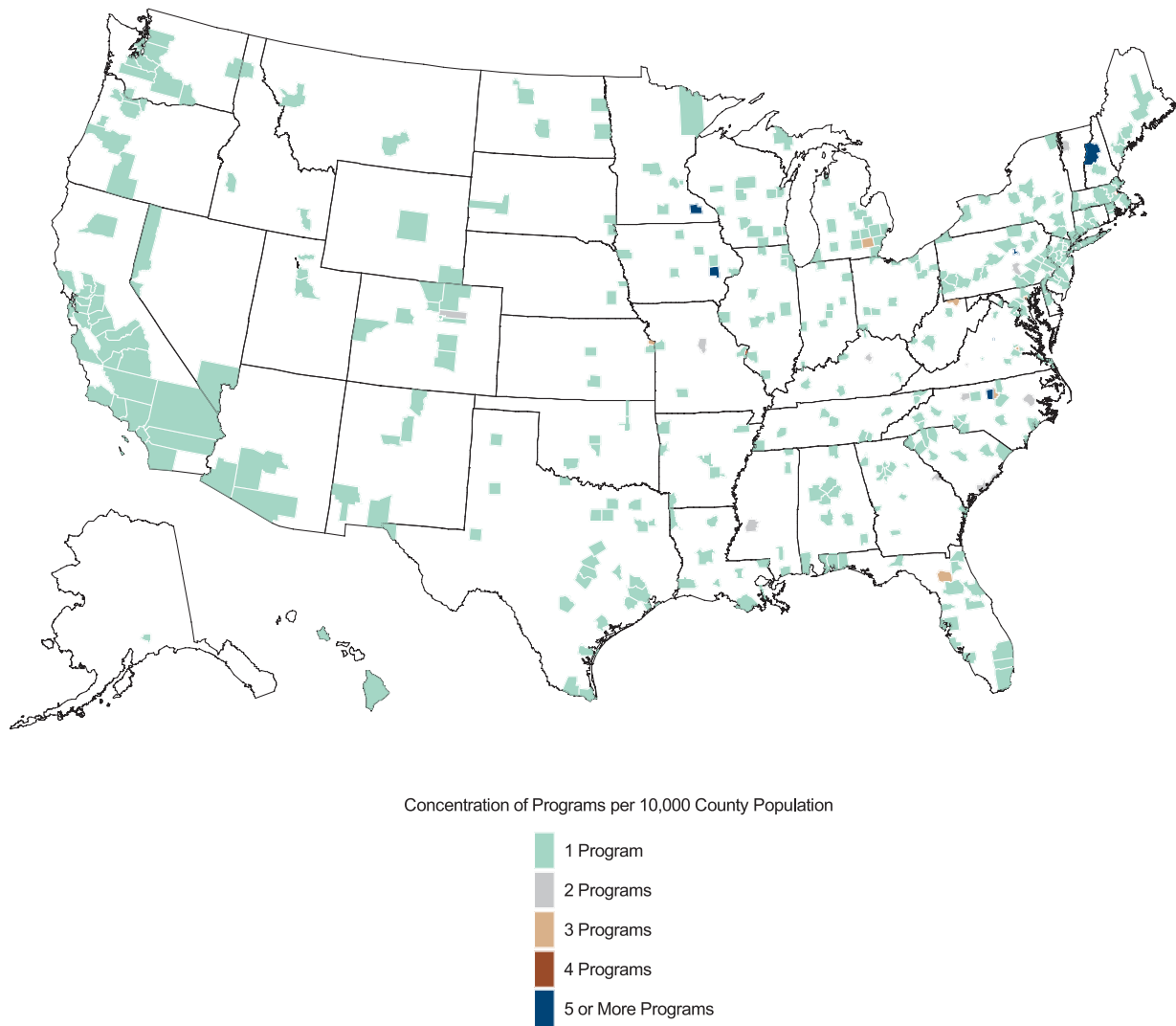
These distributions are driven by total number of programs and average program size (average number of residents per program). Internal medicine programs, for example, have an average of approximately 60 residents per program, with at least 1 program having 177 active residents during the 2015-2016 academic 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 the average size of subspecialty programs has remained fairly constant over the last 10 years. There has been a trend among specialty programs, however, of increasing program size. The average number of residents per program peaked at 24 in 2014-2015 and is down slightly in the 2015-2016 academic year to 23.7.

Distributions by Specialty Group

The distribution of programs by specialty group differs in specialty versus subspecialty programs. Of the total number of specialty programs, 42.2% of programs are in medical specialties, 34.2% are in surgical specialties, and 23.6% are in hospital-based specialties. Among subspecialty programs, 66.7% of programs are in medical subspecialties, 12.6% are in surgical subspecialties, and 20.6% are in hospital-based subspecialties. The relative patterns in the distributions of residents/fellows across specialty groups can be attributed to both the number of programs and average number of residents/fellows per program in the medical, surgical, and hospital-based disciplines. [^]

FIGURE B.1

Geographic Distribution of Programs



Sources: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016; SAS Enterprise Guide Software, Version 7.1.

TABLE B.2

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

State Name	State Abbreviation	State Population – Census Estimate 2015	Total Programs	Percentage of All Programs	Program Concentration per 100,000 Pop
OVERALL	--	324,893,002	9,977	100.00%	3.07
Alabama	AL	4,858,979	119	1.20%	2.45
Alaska	AK	738,432	2	0.00%	0.27
Arizona	AZ	6,828,065	144	1.40%	2.11
Arkansas	AR	2,978,204	65	0.70%	2.18
California	CA	39,144,818	881	8.80%	2.25
Colorado	CO	5,456,574	115	1.20%	2.11
Connecticut	CT	3,590,886	179	1.80%	4.98
Delaware	DE	945,934	34	0.30%	3.59
District of Columbia	DC	672,228	136	1.40%	20.23
Florida	FL	20,271,272	394	3.90%	1.94
Georgia	GA	10,214,860	193	1.90%	1.89
Hawaii	HI	1,431,603	31	0.30%	2.17
Idaho	ID	1,654,930	8	0.10%	0.48
Illinois	IL	12,859,995	463	4.60%	3.60
Indiana	IN	6,619,680	111	1.10%	1.68
Iowa	IA	3,123,899	91	0.90%	2.91
Kansas	KS	2,911,641	60	0.60%	2.06
Kentucky	KY	4,425,092	119	1.20%	2.69
Louisiana	LA	4,670,724	163	1.60%	3.49
Maine	ME	1,329,328	26	0.30%	1.96
Maryland	MD	6,006,401	252	2.50%	4.20
Massachusetts	MA	6,794,422	426	4.30%	6.27
Michigan	MI	9,922,576	420	4.20%	4.23
Minnesota	MN	5,489,594	203	2.00%	3.70
Mississippi	MS	2,992,333	61	0.60%	2.04
Missouri	MO	6,083,672	242	2.40%	3.98
Montana	MT	1,032,949	4	0.00%	0.39
Nebraska	NE	1,896,190	70	0.70%	3.69
Nevada	NV	2,890,845	27	0.30%	0.93
New Hampshire	NH	1,330,608	48	0.50%	3.61
New Jersey	NJ	8,958,013	210	2.10%	2.34
New Mexico	NM	2,085,109	57	0.60%	2.73
New York	NY	19,795,791	1,159	11.60%	5.85
North Carolina	NC	10,042,802	293	2.90%	2.92
North Dakota	ND	756,927	9	0.10%	1.19
Ohio	OH	11,613,423	515	5.20%	4.43
Oklahoma	OK	3,911,338	73	0.70%	1.87
Oregon	OR	4,028,977	86	0.90%	2.13
Pennsylvania	PA	12,802,503	639	6.40%	4.99
Puerto Rico	PR	3,474,182	71	0.70%	2.04
Rhode Island	RI	1,056,298	70	0.70%	6.63
South Carolina	SC	4,896,146	108	1.10%	2.21
South Dakota	SD	858,469	11	0.10%	1.28
Tennessee	TN	6,600,299	206	2.10%	3.12
Texas	TX	27,469,114	634	6.40%	2.31
Utah	UT	2,995,919	79	0.80%	2.64
Vermont	VT	626,042	38	0.40%	6.07
Virginia	VA	8,382,993	228	2.30%	2.72
Washington	WA	7,170,351	158	1.60%	2.20
West Virginia	WV	1,844,128	61	0.60%	3.31
Wisconsin	WI	5,771,337	183	1.80%	3.17
Wyoming	WY	586,107	2	0.00%	0.34

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

TABLE B.3

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

State Name	State Abbreviation	State Population – Census Estimate 2015	Specialty Programs	Percentage of All Programs	Program Concentration per 100,000 Pop
OVERALL	--	324,893,002	4,324	100.00%	1.33
Alabama	AL	4,858,979	52	1.20%	1.07
Alaska	AK	738,432	1	0.00%	0.14
Arizona	AZ	6,828,065	68	1.60%	1.00
Arkansas	AR	2,978,204	28	0.60%	0.94
California	CA	39,144,818	371	8.60%	0.95
Colorado	CO	5,456,574	44	1.00%	0.81
Connecticut	CT	3,590,886	73	1.70%	2.03
Delaware	DE	945,934	13	0.30%	1.37
District of Columbia	DC	672,228	52	1.20%	7.74
Florida	FL	20,271,272	170	3.90%	0.84
Georgia	GA	10,214,860	90	2.10%	0.88
Hawaii	HI	1,431,603	22	0.50%	1.54
Idaho	ID	1,654,930	6	0.10%	0.36
Illinois	IL	12,859,995	216	5.00%	1.68
Indiana	IN	6,619,680	46	1.10%	0.69
Iowa	IA	3,123,899	42	1.00%	1.34
Kansas	KS	2,911,641	34	0.80%	1.17
Kentucky	KY	4,425,092	52	1.20%	1.18
Louisiana	LA	4,670,724	86	2.00%	1.84
Maine	ME	1,329,328	15	0.30%	1.13
Maryland	MD	6,006,401	102	2.40%	1.70
Massachusetts	MA	6,794,422	151	3.50%	2.22
Michigan	MI	9,922,576	218	5.00%	2.20
Minnesota	MN	5,489,594	68	1.60%	1.24
Mississippi	MS	2,992,333	27	0.60%	0.90
Missouri	MO	6,083,672	91	2.10%	1.50
Montana	MT	1,032,949	3	0.10%	0.29
Nebraska	NE	1,896,190	33	0.80%	1.74
Nevada	NV	2,890,845	16	0.40%	0.55
New Hampshire	NH	1,330,608	19	0.40%	1.43
New Jersey	NJ	8,958,013	118	2.70%	1.32
New Mexico	NM	2,085,109	20	0.50%	0.96
New York	NY	19,795,791	484	11.20%	2.44
North Carolina	NC	10,042,802	114	2.60%	1.14
North Dakota	ND	756,927	9	0.20%	1.19
Ohio	OH	11,613,423	211	4.90%	1.82
Oklahoma	OK	3,911,338	36	0.80%	0.92
Oregon	OR	4,028,977	33	0.80%	0.82
Pennsylvania	PA	12,802,503	265	6.10%	2.07
Puerto Rico	PR	3,474,182	43	1.00%	1.24
Rhode Island	RI	1,056,298	24	0.60%	2.27
South Carolina	SC	4,896,146	56	1.30%	1.14
South Dakota	SD	858,469	8	0.20%	0.93
Tennessee	TN	6,600,299	89	2.10%	1.35
Texas	TX	27,469,114	266	6.20%	0.97
Utah	UT	2,995,919	30	0.70%	1.00
Vermont	VT	626,042	15	0.30%	2.40
Virginia	VA	8,382,993	101	2.30%	1.20
Washington	WA	7,170,351	74	1.70%	1.03
West Virginia	WV	1,844,128	40	0.90%	2.17
Wisconsin	WI	5,771,337	77	1.80%	1.33
Wyoming	WY	586,107	2	0.00%	0.34

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

TABLE B.4

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

State Name	State Abbreviation	State Population – Census Estimate 2015	Subspecialty Programs	Percentage of All Programs	Program Concentration per 100,000 Pop
OVERALL	--	324,893,002	5,653	100.00%	1.74
Alabama	AL	4,858,979	67	1.20%	1.38
Alaska	AK	738,432	1	0.00%	0.14
Arizona	AZ	6,828,065	76	1.30%	1.11
Arkansas	AR	2,978,204	37	0.70%	1.24
California	CA	39,144,818	510	9.00%	1.30
Colorado	CO	5,456,574	71	1.30%	1.30
Connecticut	CT	3,590,886	106	1.90%	2.95
Delaware	DE	945,934	21	0.40%	2.22
District of Columbia	DC	672,228	84	1.50%	12.50
Florida	FL	20,271,272	224	4.00%	1.11
Georgia	GA	10,214,860	103	1.80%	1.01
Hawaii	HI	1,431,603	9	0.20%	0.63
Idaho	ID	1,654,930	2	0.00%	0.12
Illinois	IL	12,859,995	247	4.40%	1.92
Indiana	IN	6,619,680	65	1.10%	0.98
Iowa	IA	3,123,899	49	0.90%	1.57
Kansas	KS	2,911,641	26	0.50%	0.89
Kentucky	KY	4,425,092	67	1.20%	1.51
Louisiana	LA	4,670,724	77	1.40%	1.65
Maine	ME	1,329,328	11	0.20%	0.83
Maryland	MD	6,006,401	150	2.70%	2.50
Massachusetts	MA	6,794,422	275	4.90%	4.05
Michigan	MI	9,922,576	202	3.60%	2.04
Minnesota	MN	5,489,594	135	2.40%	2.46
Mississippi	MS	2,992,333	34	0.60%	1.14
Missouri	MO	6,083,672	151	2.70%	2.48
Montana	MT	1,032,949	1	0.00%	0.10
Nebraska	NE	1,896,190	37	0.70%	1.95
Nevada	NV	2,890,845	11	0.20%	0.38
New Hampshire	NH	1,330,608	29	0.50%	2.18
New Jersey	NJ	8,958,013	92	1.60%	1.03
New Mexico	NM	2,085,109	37	0.70%	1.77
New York	NY	19,795,791	675	11.90%	3.41
North Carolina	NC	10,042,802	179	3.20%	1.78
North Dakota	ND	756,927	0	0.00%	0.00
Ohio	OH	11,613,423	304	5.40%	2.62
Oklahoma	OK	3,911,338	37	0.70%	0.95
Oregon	OR	4,028,977	53	0.90%	1.32
Pennsylvania	PA	12,802,503	374	6.60%	2.92
Puerto Rico	PR	3,474,182	28	0.50%	0.81
Rhode Island	RI	1,056,298	46	0.80%	4.35
South Carolina	SC	4,896,146	52	0.90%	1.06
South Dakota	SD	858,469	3	0.10%	0.35
Tennessee	TN	6,600,299	117	2.10%	1.77
Texas	TX	27,469,114	368	6.50%	1.34
Utah	UT	2,995,919	49	0.90%	1.64
Vermont	VT	626,042	23	0.40%	3.67
Virginia	VA	8,382,993	127	2.20%	1.51
Washington	WA	7,170,351	84	1.50%	1.17
West Virginia	WV	1,844,128	21	0.40%	1.14
Wisconsin	WI	5,771,337	106	1.90%	1.84
Wyoming	WY	586,107	0	0.00%	0.00

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

TABLE B.5

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

State Name	State Abbreviation	State Population – Census Estimate 2015	Total Pipeline Programs	Percentage of All Programs	Program Concentration per 100,000 Pop
OVERALL	--	324,893,002	4,021	100.00%	1.24
Alabama	AL	4,858,979	49	1.20%	1.01
Alaska	AK	738,432	1	0.00%	0.14
Arizona	AZ	6,828,065	63	1.60%	0.92
Arkansas	AR	2,978,204	28	0.70%	0.94
California	CA	39,144,818	343	8.50%	0.88
Colorado	CO	5,456,574	40	1.00%	0.73
Connecticut	CT	3,590,886	69	1.70%	1.92
Delaware	DE	945,934	11	0.30%	1.16
District of Columbia	DC	672,228	51	1.30%	7.59
Florida	FL	20,271,272	159	4.00%	0.78
Georgia	GA	10,214,860	83	2.10%	0.81
Hawaii	HI	1,431,603	20	0.50%	1.40
Idaho	ID	1,654,930	6	0.10%	0.36
Illinois	IL	12,859,995	201	5.00%	1.56
Indiana	IN	6,619,680	41	1.00%	0.62
Iowa	IA	3,123,899	38	0.90%	1.22
Kansas	KS	2,911,641	32	0.80%	1.10
Kentucky	KY	4,425,092	49	1.20%	1.11
Louisiana	LA	4,670,724	80	2.00%	1.71
Maine	ME	1,329,328	15	0.40%	1.13
Maryland	MD	6,006,401	93	2.30%	1.55
Massachusetts	MA	6,794,422	133	3.30%	1.96
Michigan	MI	9,922,576	196	4.90%	1.98
Minnesota	MN	5,489,594	62	1.50%	1.13
Mississippi	MS	2,992,333	25	0.60%	0.84
Missouri	MO	6,083,672	85	2.10%	1.40
Montana	MT	1,032,949	3	0.10%	0.29
Nebraska	NE	1,896,190	30	0.70%	1.58
Nevada	NV	2,890,845	16	0.40%	0.55
New Hampshire	NH	1,330,608	19	0.50%	1.43
New Jersey	NJ	8,958,013	116	2.90%	1.29
New Mexico	NM	2,085,109	20	0.50%	0.96
New York	NY	19,795,791	454	11.30%	2.29
North Carolina	NC	10,042,802	108	2.70%	1.08
North Dakota	ND	756,927	8	0.20%	1.06
Ohio	OH	11,613,423	193	4.80%	1.66
Oklahoma	OK	3,911,338	36	0.90%	0.92
Oregon	OR	4,028,977	31	0.80%	0.77
Pennsylvania	PA	12,802,503	244	6.10%	1.91
Puerto Rico	PR	3,474,182	38	0.90%	1.09
Rhode Island	RI	1,056,298	23	0.60%	2.18
South Carolina	SC	4,896,146	53	1.30%	1.08
South Dakota	SD	858,469	7	0.20%	0.82
Tennessee	TN	6,600,299	82	2.00%	1.24
Texas	TX	27,469,114	251	6.20%	0.91
Utah	UT	2,995,919	27	0.70%	0.90
Vermont	VT	626,042	15	0.40%	2.40
Virginia	VA	8,382,993	94	2.30%	1.12
Washington	WA	7,170,351	68	1.70%	0.95
West Virginia	WV	1,844,128	39	1.00%	2.11
Wisconsin	WI	5,771,337	71	1.80%	1.23
Wyoming	WY	586,107	2	0.00%	0.34

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

TABLE B.6

Hospital-Based Specialty Programs by Specialty and State

State Name	State Abbreviation	AN	EM	MG	NM	PTH	GPM	IRI	DR	RO	TY	Total
OVERALL	--	135	179	45	43	142	74	24	188	91	101	1,022
Alabama	AL	1	1	1	1	3	2	1	3	1	1	15
Alaska	AK	0	0	0	0	0	0	0	0	0	0	0
Arizona	AZ	2	3	0	0	2	0	1	4	2	2	16
Arkansas	AR	1	1	0	1	1	0	0	1	0	0	5
California	CA	12	15	5	7	11	7	1	15	12	7	92
Colorado	CO	1	1	1	0	2	2	1	1	1	1	11
Connecticut	CT	2	2	2	0	3	2	1	6	1	1	20
Delaware	DE	0	1	0	0	0	0	1	1	0	1	4
District of Columbia	DC	2	2	0	0	3	0	0	2	1	0	10
Florida	FL	5	9	1	1	6	3	1	7	4	1	38
Georgia	GA	2	2	1	1	2	3	1	3	2	3	20
Hawaii	HI	0	0	0	0	1	0	0	1	0	2	4
Idaho	ID	0	0	0	0	0	0	0	0	0	0	0
Illinois	IL	7	8	0	2	6	2	1	11	4	6	47
Indiana	IN	1	1	1	1	1	0	0	1	1	3	10
Iowa	IA	1	1	1	1	1	1	1	1	1	2	11
Kansas	KS	2	1	0	0	1	0	0	2	1	0	7
Kentucky	KY	2	2	0	0	2	2	0	2	2	0	12
Louisiana	LA	4	3	0	0	3	1	0	4	0	0	15
Maine	ME	1	1	0	0	0	0	0	1	0	0	3
Maryland	MD	3	2	2	3	4	6	0	3	3	3	29
Massachusetts	MA	9	5	2	1	7	3	0	10	2	6	45
Michigan	MI	5	14	3	2	5	1	2	11	4	13	60
Minnesota	MN	2	3	1	0	2	3	0	2	2	1	16
Mississippi	MS	1	1	0	0	1	0	0	1	1	0	5
Missouri	MO	4	4	1	3	4	0	0	4	1	1	22
Montana	MT	0	0	0	0	0	0	0	0	0	0	0
Nebraska	NE	1	1	1	0	2	0	0	2	1	0	8
Nevada	NV	0	1	0	0	0	0	0	0	0	0	1
New Hampshire	NH	1	1	0	0	1	1	0	1	0	0	5
New Jersey	NJ	5	7	0	0	3	2	0	7	1	0	25
New Mexico	NM	1	1	0	0	1	1	0	1	0	0	5
New York	NY	16	21	4	6	17	8	5	23	13	6	119
North Carolina	NC	3	5	2	1	4	2	0	3	3	0	23
North Dakota	ND	0	0	0	0	0	0	0	0	0	1	1
Ohio	OH	6	10	3	1	7	4	0	7	4	7	49
Oklahoma	OK	1	1	1	1	1	0	0	2	1	0	8
Oregon	OR	1	1	1	1	1	1	1	1	1	0	9
Pennsylvania	PA	8	15	2	1	8	1	3	12	6	7	63
Puerto Rico	PR	1	2	0	1	1	0	0	1	0	4	10
Rhode Island	RI	0	1	0	0	1	0	1	1	0	0	4
South Carolina	SC	1	3	1	1	1	1	0	1	1	2	12
South Dakota	SD	0	0	0	0	1	0	0	0	0	1	2
Tennessee	TN	2	4	0	1	4	2	0	4	2	3	22
Texas	TX	8	11	3	2	9	7	0	10	6	5	61
Utah	UT	1	1	1	0	1	1	0	1	1	1	8
Vermont	VT	1	0	0	0	1	0	0	1	0	0	3
Virginia	VA	3	5	1	1	2	0	1	4	2	3	22
Washington	WA	2	2	1	1	2	3	1	4	1	3	20
West Virginia	WV	1	1	0	0	1	1	0	1	0	1	6
Wisconsin	WI	2	2	2	1	2	1	0	4	2	3	19
Wyoming	WY	0	0	0	0	0	0	0	0	0	0	0

Abbreviations: AN, Anesthesiology; EM, Emergency medicine; MG, Medical genetics and genomics; NM, Nuclear medicine; PTH, Pathology-anatomic and clinical; GPM, Preventive medicine; IRI, Interventional radiology - integrated; DR, Radiology-diagnostic; RO, Radiation oncology; TY, Transitional year.

TABLE B.7

Medical Specialty Programs by Specialty and State

State Name	State Abbreviation	AI	D	FM	IM	N	ONM	PD	PM	P	IP	Total
OVERALL	--	77	120	498	421	139	1	204	83	203	79	1,825
Alabama	AL	1	1	7	5	2	0	2	1	2	2	23
Alaska	AK	0	0	1	0	0	0	0	0	0	0	1
Arizona	AZ	2	2	7	6	5	0	2	0	4	1	29
Arkansas	AR	0	1	7	2	1	0	1	1	1	1	15
California	CA	10	11	48	33	11	0	16	5	18	4	156
Colorado	CO	2	1	11	2	1	0	1	1	1	1	21
Connecticut	CT	1	2	3	14	2	0	2	0	3	1	28
Delaware	DE	1	0	2	1	0	0	1	0	1	1	7
District of Columbia	DC	0	3	1	5	3	0	2	1	4	1	20
Florida	FL	3	5	16	23	6	0	11	3	6	2	75
Georgia	GA	2	2	13	11	2	0	5	1	3	0	39
Hawaii	HI	0	0	3	3	0	0	2	0	2	0	10
Idaho	ID	0	0	5	1	0	0	0	0	0	0	6
Illinois	IL	2	7	27	21	7	0	11	5	10	5	95
Indiana	IN	0	1	10	3	1	0	2	1	2	1	21
Iowa	IA	1	1	9	3	1	0	2	0	1	0	18
Kansas	KS	1	1	4	2	1	0	2	1	2	1	15
Kentucky	KY	0	1	7	2	2	0	2	2	2	2	20
Louisiana	LA	3	2	10	8	4	0	4	1	4	3	39
Maine	ME	0	0	4	1	0	0	1	0	1	1	8
Maryland	MD	3	3	4	12	3	0	4	3	4	2	38
Massachusetts	MA	4	4	6	16	5	0	5	2	10	4	56
Michigan	MI	3	4	24	25	6	1	10	6	8	6	93
Minnesota	MN	1	2	11	4	2	0	2	2	3	1	28
Mississippi	MS	1	1	3	3	1	0	1	0	1	1	12
Missouri	MO	3	3	6	7	3	0	4	2	4	2	34
Montana	MT	0	0	2	1	0	0	0	0	0	0	3
Nebraska	NE	1	0	5	2	1	0	1	0	1	1	12
Nevada	NV	0	0	4	2	0	0	1	0	2	0	9
New Hampshire	NH	0	1	1	1	1	0	1	0	1	0	6
New Jersey	NJ	1	3	13	20	4	0	9	2	5	2	59
New Mexico	NM	0	1	4	1	1	0	1	0	1	0	9
New York	NY	9	11	26	54	14	0	30	14	29	4	191
North Carolina	NC	3	4	14	8	3	0	5	3	5	3	48
North Dakota	ND	0	0	5	1	0	0	0	0	1	0	7
Ohio	OH	3	6	21	21	6	0	9	5	8	4	83
Oklahoma	OK	0	1	7	2	1	0	2	0	3	2	18
Oregon	OR	0	1	5	4	1	0	1	0	2	0	14
Pennsylvania	PA	4	7	29	26	11	0	8	5	9	4	103
Puerto Rico	PR	1	1	4	8	1	0	3	2	2	1	23
Rhode Island	RI	0	2	1	4	1	0	1	0	1	1	11
South Carolina	SC	0	1	8	4	2	0	3	0	3	2	23
South Dakota	SD	0	0	2	1	0	0	1	0	1	0	5
Tennessee	TN	2	2	11	7	2	0	4	1	4	2	35
Texas	TX	4	10	30	21	11	0	13	6	12	3	110
Utah	UT	0	1	4	1	1	0	1	1	1	1	11
Vermont	VT	0	1	1	1	1	0	1	0	1	0	6
Virginia	VA	2	4	12	6	3	0	6	3	5	1	42
Washington	WA	1	1	19	4	2	0	2	1	2	0	32
West Virginia	WV	0	1	6	3	1	0	3	0	3	3	20
Wisconsin	WI	2	3	13	5	2	0	3	2	4	2	36
Wyoming	WY	0	0	2	0	0	0	0	0	0	0	2

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

TABLE B.8

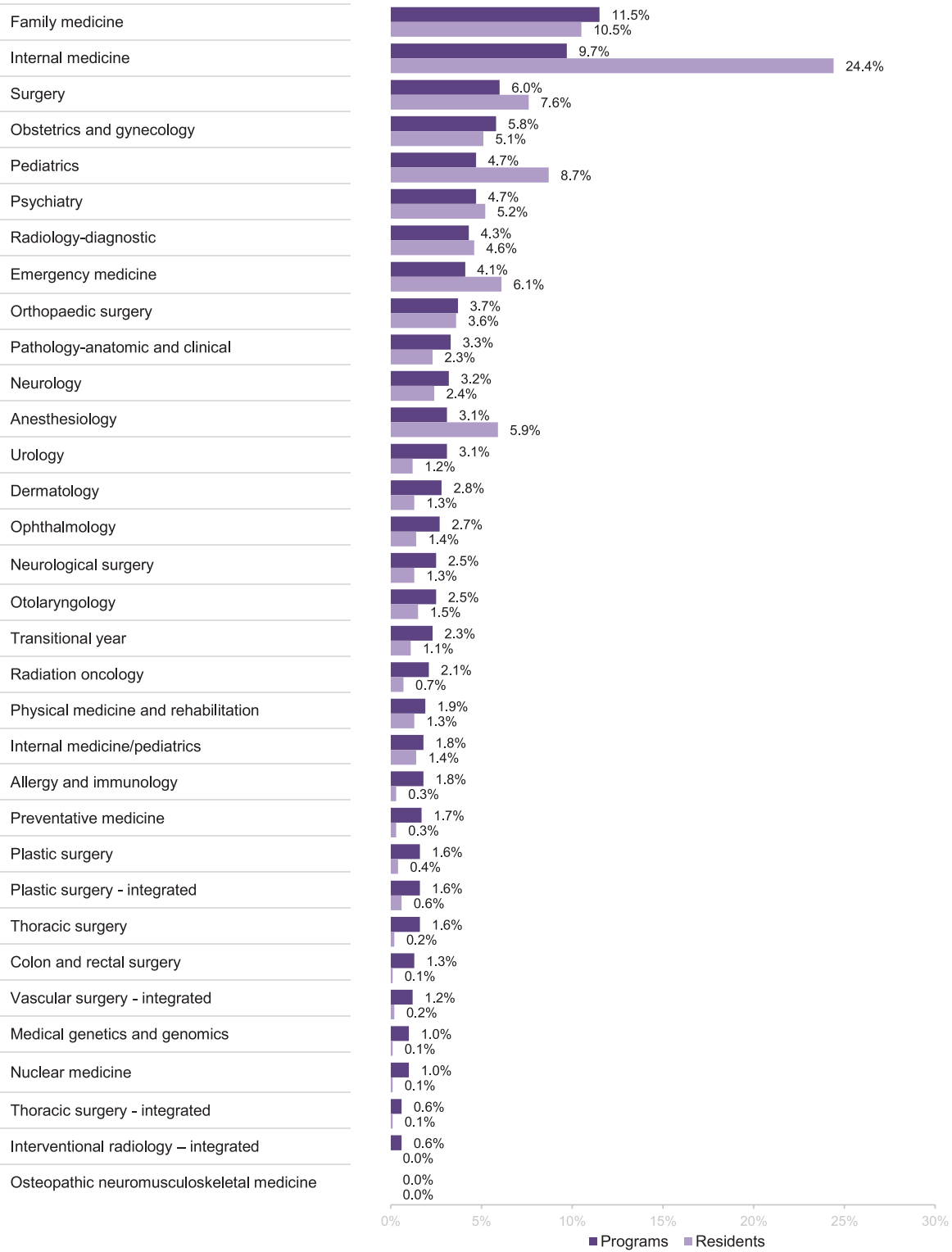
Surgical Specialty Programs by Specialty and State

State Name	State Abbreviation	CRS	NS	OBG	OPH	ORS	OTO	PS	PSI	GS	VSI	TS	TSI	U	Total
OVERALL	--	57	108	250	116	162	106	68	69	261	51	68	27	134	1,477
Alabama	AL	0	1	2	1	2	1	1	0	3	1	1	0	1	14
Alaska	AK	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	AZ	0	2	3	2	3	2	1	1	5	1	1	0	2	23
Arkansas	AR	0	1	1	1	1	1	0	0	1	1	0	0	1	8
California	CA	3	9	19	10	13	10	5	7	21	4	8	3	11	123
Colorado	CO	0	1	2	1	1	1	1	1	2	0	1	0	1	12
Connecticut	CT	1	1	6	1	2	2	0	1	6	1	1	1	2	25
Delaware	DE	0	0	1	0	0	0	0	0	1	0	0	0	0	2
District of Columbia	DC	1	2	3	3	3	2	0	1	4	1	0	0	2	22
Florida	FL	5	4	7	4	6	3	3	3	14	1	2	0	5	57
Georgia	GA	1	2	6	2	4	2	2	1	7	0	1	1	2	31
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	6	6	4	4	11	2	4	1	7	74
Indiana	IN	1	1	2	1	1	1	1	1	2	1	1	1	1	15
Iowa	IA	0	1	1	1	1	1	1	0	3	1	1	1	1	13
Kansas	KS	0	1	2	1	2	1	0	1	2	0	1	0	1	12
Kentucky	KY	1	2	2	2	2	2	1	1	2	0	2	1	2	20
Louisiana	LA	2	3	5	3	4	3	2	1	4	1	1	0	3	32
Maine	ME	0	0	1	0	0	0	0	0	1	1	0	0	1	4
Maryland	MD	1	4	5	4	4	3	1	1	6	0	2	1	3	35
Massachusetts	MA	4	4	6	3	4	3	2	2	9	3	4	1	5	50
Michigan	MI	4	3	15	4	9	3	3	2	11	2	2	1	6	65
Minnesota	MN	2	2	2	2	2	2	2	2	3	1	2	0	2	24
Mississippi	MS	0	1	1	1	1	1	1	0	2	0	1	0	1	10
Missouri	MO	1	3	5	4	4	3	2	3	4	2	1	0	3	35
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	0	2	0	1	0	2	13
Nevada	NV	0	0	2	0	0	1	0	1	2	0	0	0	0	6
New Hampshire	NH	0	1	1	0	1	1	1	0	1	1	0	0	1	8
New Jersey	NJ	1	1	11	1	5	1	2	1	6	2	0	0	3	34
New Mexico	NM	0	1	1	0	1	1	0	0	1	0	0	0	1	6
New York	NY	7	11	32	17	18	10	6	7	29	8	8	4	17	174
North Carolina	NC	0	4	8	3	4	3	2	3	6	1	3	2	4	43
North Dakota	ND	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Ohio	OH	5	4	12	5	10	4	5	5	14	4	3	2	6	79
Oklahoma	OK	0	1	2	1	1	1	1	0	2	0	0	0	1	10
Oregon	OR	1	1	1	1	1	1	0	1	1	0	1	0	1	10
Pennsylvania	PA	5	7	17	7	11	6	4	4	20	4	5	2	7	99
Puerto Rico	PR	0	1	3	1	1	1	0	0	2	0	0	0	1	10
Rhode Island	RI	1	1	1	1	1	0	1	1	1	0	0	0	1	9
South Carolina	SC	0	1	3	2	3	1	1	1	5	1	1	1	1	21
South Dakota	SD	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Tennessee	TN	1	2	7	2	3	2	3	1	6	0	1	0	4	32
Texas	TX	3	7	18	8	13	7	4	4	16	3	3	1	8	95
Utah	UT	1	1	1	1	1	1	1	1	1	0	1	0	1	11
Vermont	VT	0	1	1	0	1	1	0	0	1	0	0	0	1	6
Virginia	VA	0	3	7	3	3	4	2	3	6	0	2	1	3	37
Washington	WA	1	1	2	2	2	2	1	1	4	1	1	1	3	22
West Virginia	WV	0	1	3	1	2	1	0	0	3	1	0	0	2	14
Wisconsin	WI	0	2	3	2	2	2	0	2	4	1	1	1	2	22
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; 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

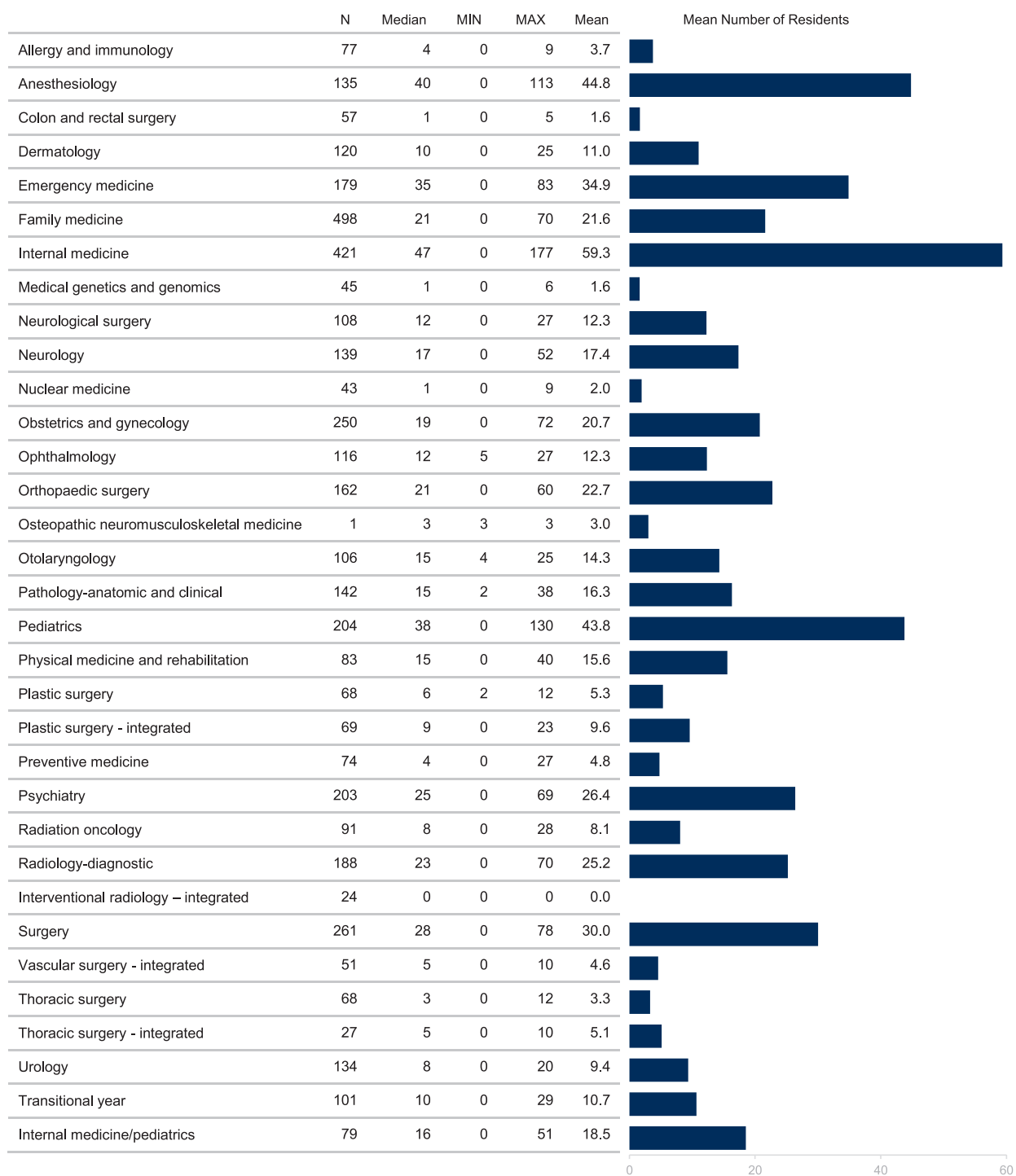
Percentage of Programs and Residents in Each Specialty



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 = 4,324. Total number of residents in specialties = 102,442.

FIGURE B.10

Mean Number of Residents per Program by Specialty



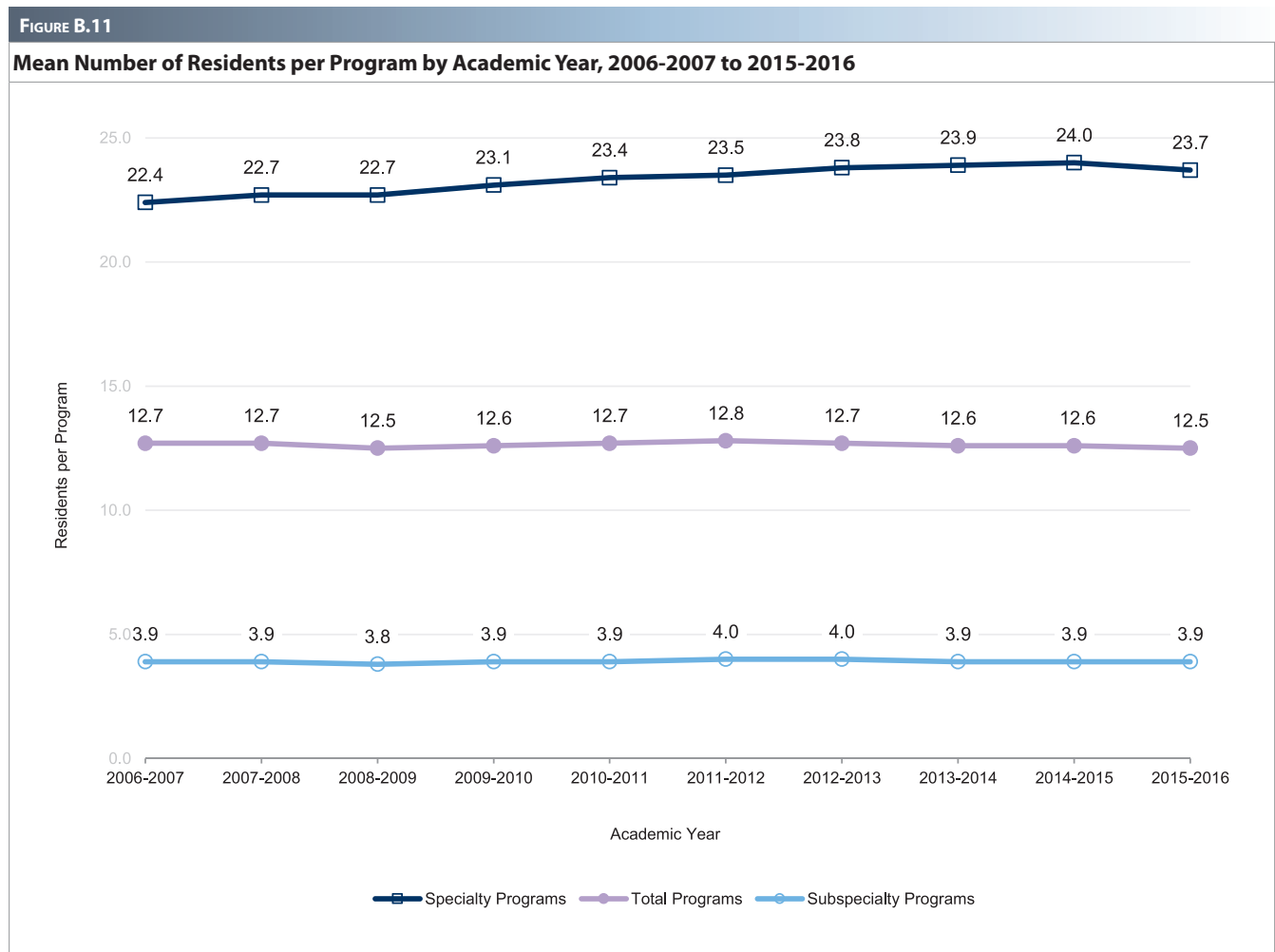
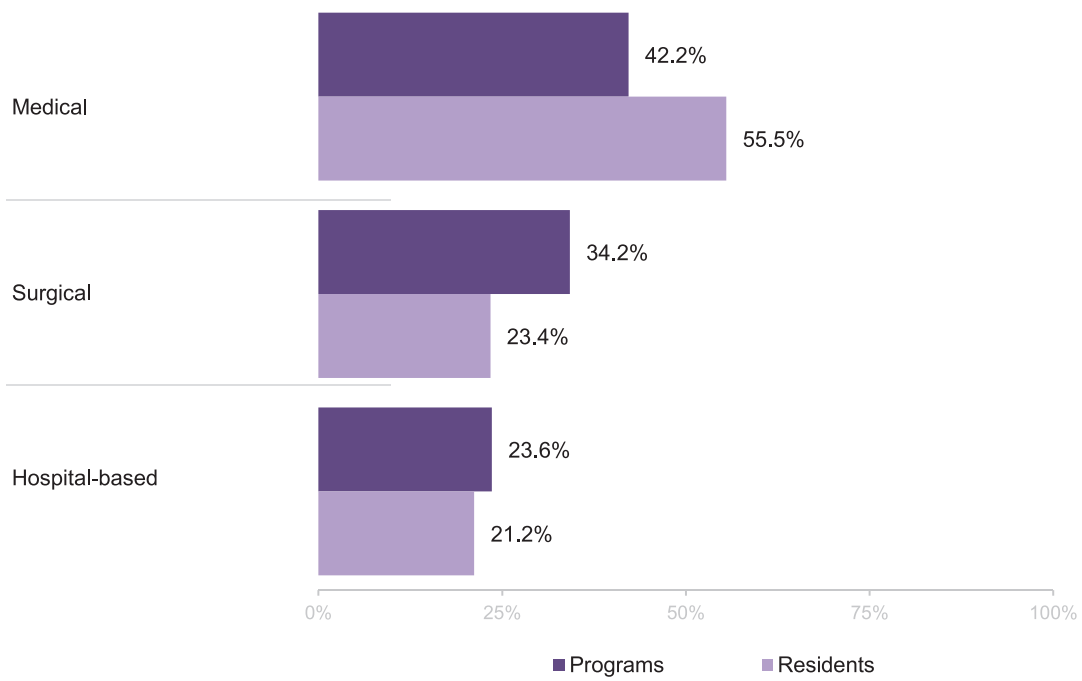


FIGURE B.12

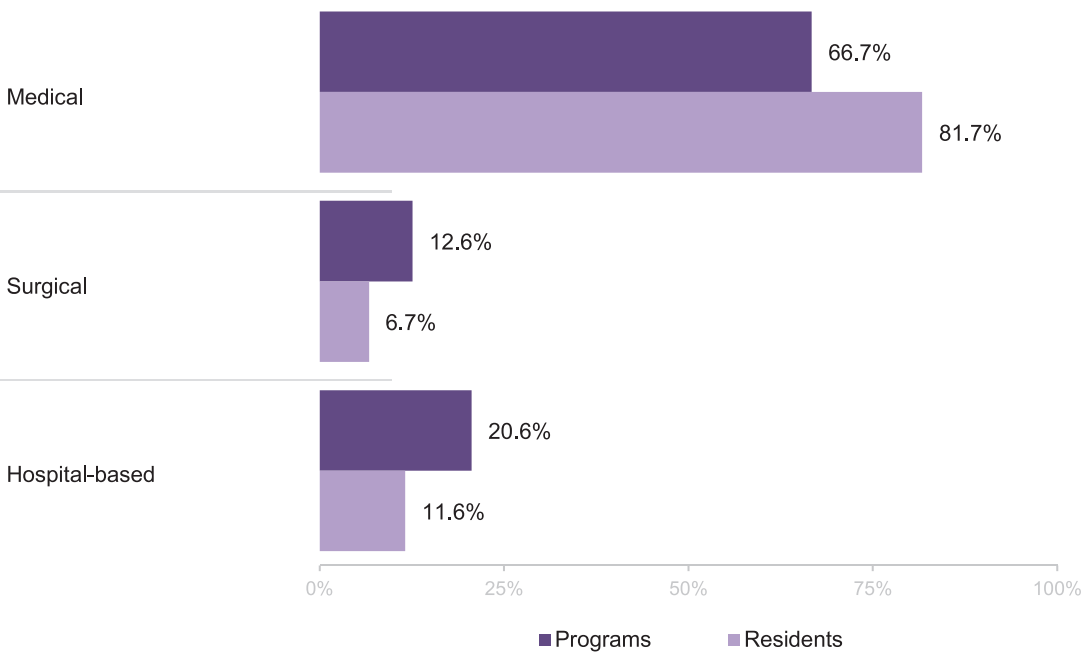
Percent of Programs and Residents in Specialties by Specialty Group



Notes: Total number of specialty programs = 4,324. Total number of residents in specialties = 102,442.

FIGURE B.13

Percent of Programs and Residents in Subspecialties by Specialty Group



Notes: Total number of subspecialty programs = 5,653. Total number of residents in subspecialties = 21,967.

Resident Characteristics

This section summarizes the characteristics of all active residents and fellows, and shows aggregate statistics on their distribution by specialty, medical school type, gender, and ethnicity since the 2006-2007 academic year. In addition, this section includes information on residents and fellows entering pipeline and continuing graduate medical education (GME) programs. In this section, “residents” refers to both residents and fellows.

Active Residents

Of the total number of active residents (124,409), 102,442 (82.3%) are in specialty programs and 21,967 (17.7%) are in subspecialty programs. Only 0.2% (239) of the total number of active residents are part-time. In terms of trends, there has been a 16.9% increase in total active residents since 2006-2007, with growth in the number of specialty residents at 14.3% and growth in the number of subspecialty residents at 30.9% over the last 10 years. Among residents in specialty programs, 45.7% (56,819) are in medical specialties, 17.4% (21,675) are in hospital-based specialties, and 19.2% (23,948) are in surgical specialties. The specialties with the highest percentage of total active residents are:

- Internal medicine (20.1%)
- Family medicine (8.7%)
- Pediatrics (7.2%)
- Surgery (6.3%)

Geographic Distribution

Based on the most recent U.S. Census estimate from 2015, there are approximately 38.29 active residents (31.53 specialty, 6.76 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 (16,579)
- California (11,175)
- Texas (8,231)
- Pennsylvania (8,090)

Active Residents by Medical School Type

Of the 102,442 total active residents in specialty programs, 66.5% (68,092) are US allopathic medical school graduates, 22.9% (23,413) are international medical school graduates (IMGs), and 10.6% (10,863) are osteopathic medical school graduates. There are also 68 Canadian medical school graduates and 6 residents for whom medical school was un-

known. The distribution by medical school type is slightly different in subspecialty programs (21,967 active residents), with 56.8% of active residents being graduates of US allopathic medical schools, 35.0% being graduates of international medical schools, 7.7% being graduates of osteopathic medical schools, and less than 1% being Canadian medical school graduates. Over the last 10 years, there has been a 14.7% increase in US allopathic medical school graduates, a 7.6% increase in IMGs, and an 84.0% increase in osteopathic medical school graduates. The specialties with the highest percentage of IMG residents include:

- Nuclear medicine (71.4%)
- Medical genetics and genomics (42.5%)
- Internal medicine (40%)

While internal medicine has the third highest percentage of IMGs, this specialty accounts for the highest number of IMGs (9,991) among all specialty programs.

Active Residents by Sex and Ethnicity

Of the 124,409 active residents, 52.6% are male, 44.2% are female, and 3.1% are unreported. The number of female residents in medical programs, however, exceeds the number of males in medical programs. This is primarily due to higher numbers of females than males in pediatrics and family medicine (5,959 vs. 2,221 and 5,837 vs. 4,793, respectively). Following osteopathic neuromusculoskeletal medicine, in which 100% of residents are female (n=3), these specialties have the highest percentage of female residents:

- Obstetrics and gynecology (81.9%)
- Medical genetics and genomics (72.6%)
- Allergy and immunology (67.6%)

The specialties with the lowest percentage of female residents include:

- Orthopaedic surgery (14.0%)
- Neurological surgery (17.0%)
- Thoracic surgery (20.2%)

Overall, 42.9% of all active residents are white, non-Hispanic; 18.1% are Asian or Pacific Islander; 5.0% are Hispanic; 4.6% are black (non-Hispanic); and 0.2% are Native American/Alaskan. 5.4% of active residents were reported as “other,” and 23.8% were reported as “unknown.”

Entering Pipeline and Continuing GME Programs

The total number of residents entering the pipeline reached 28,456 for the 2015-2016 academic year. Since 2006-2007,

there has been a 14.2% increase in entering pipeline residents, with varying patterns in growth by medical school type (13.7% increase among US LCME-accredited medical school graduates, 3.8% decrease among IMGs, and 94.8% increase among osteopathic medical school graduates).

Among the 2015-2016 entering pipeline residents, 64.6% (18,396) are US LCME-accredited graduates, 23.5% (6,693) are IMGs, 11.8% (3,347) are osteopathic medical school graduates, and 0.1% (18) are Canadian medical school graduates. ^Λ

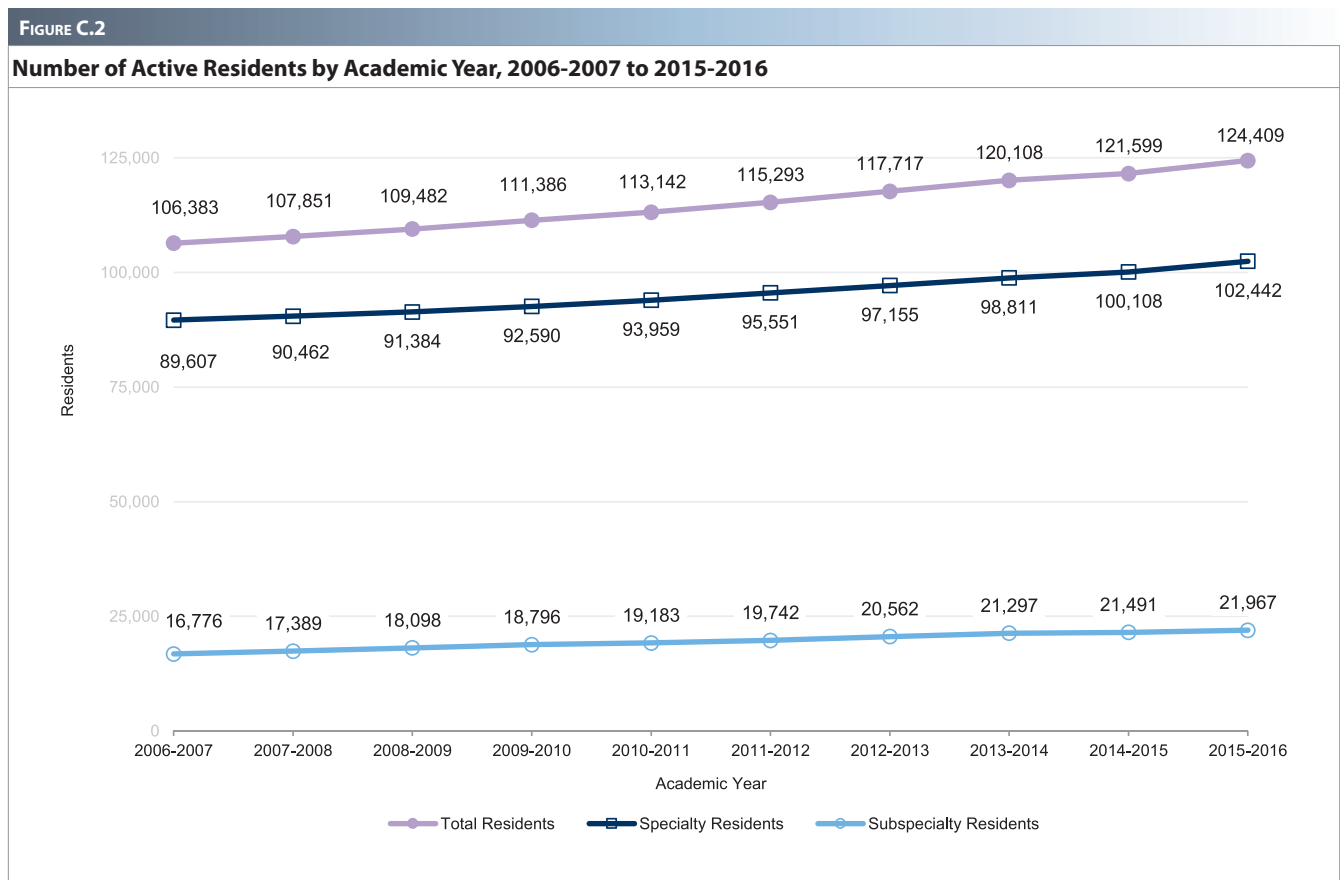
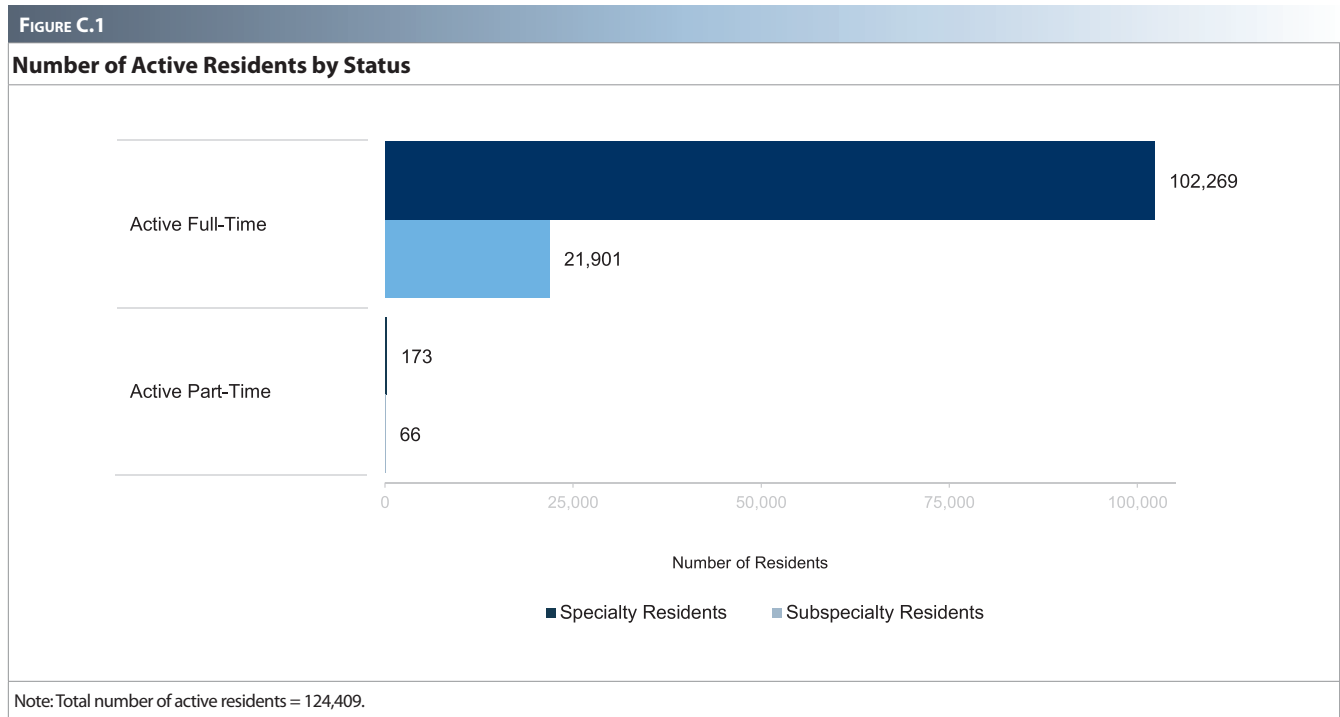
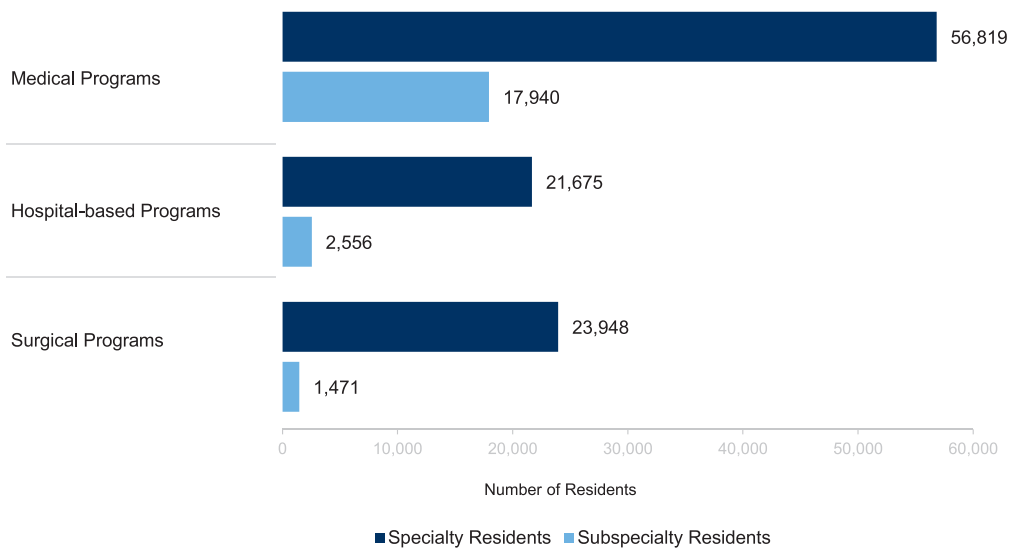


FIGURE C.3

Number of Active Residents by Specialty Group



Notes: Total number of active residents in specialty programs = 102,442. Total number of active residents in subspecialty programs = 21,967.

FIGURE C.4

Number of Active Residents by Specialty Group and Academic Year, 2006-2007 to 2015-2016

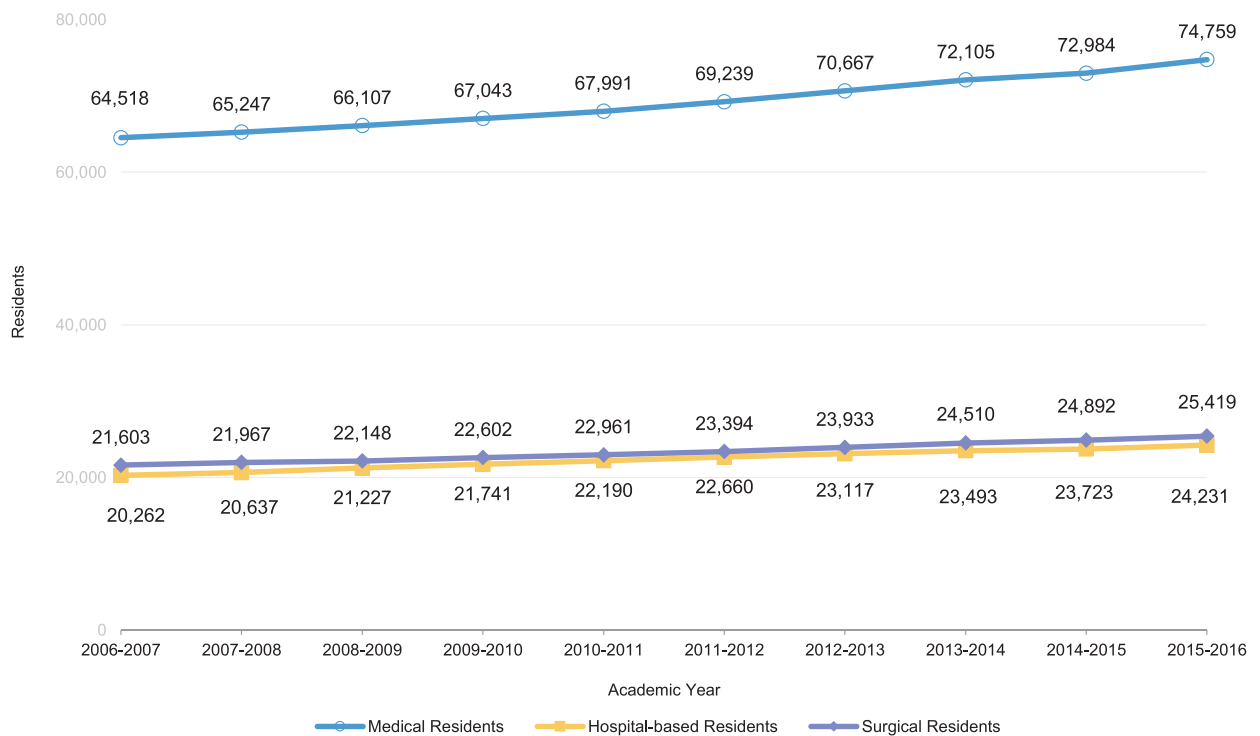


TABLE C.5											
Number of Active Residents by Specialty and Subspecialty, Position Type, and Resident Year											
Specialty	Total Residents	Resident Year									
		1		2		3		4	5	6	7
		Cat	Prel	Cat	Prel	Cat	Prel	Cat	Cat	Cat	Cat
		#	#	#	#	#	#	#	#	#	#
OVERALL	124,409	42,036	3,595	34,674	320	31,129	12	9,729	2,506	268	140
TOTAL PIPELINE	100,761	28,456	3,595	28,348	320	27,390	12	9,726	2,506	268	140
Allergy and immunology	287	138		149							
Anesthesiology	6,051	1,355		1,679		1,645		1,372			
- Adult cardiothoracic anesthesiology	183	183									
- Clinical informatics (Anesthesiology)	0										
- Critical care medicine	175	175									
- Obstetric anesthesiology	38	38									
- Pain medicine (multidisciplinary)	337	337									
- Pediatric anesthesiology	205	205									
Colon and rectal surgery	94	94									
Dermatology	1,323	460		440		419		4			
- Dermatopathology (multidisciplinary)	76	76									
- Micrographic surgery and dermatologic oncology	73	73									
Emergency medicine	6,244	1,959		1,925		1,893		467			
- Clinical informatics (Emergency medicine)	3	1		2							
- Emergency medical services	50	50									
- Medical toxicology	61	33		28							
- Pediatric emergency medicine	101	39		36		26					
- Sports medicine	11	11									
- Undersea and hyperbaric medicine	9	9									
Family medicine	10,762	3,663		3,591		3,492		16			
- Clinical informatics (Family medicine)	2	2									
- Geriatric medicine	49	49									
- Hospice and palliative medicine (multidisciplinary)	274	274									
- Sports medicine	210	210									
Internal medicine	24,983	7,801	2,168	7,661	8	7,343	2				
- Adult congenital heart disease	5	5									
- Advanced heart failure and transplant cardiology	82	82									
- Cardiovascular disease	2,670	922		882		866					
- Clinical cardiac electrophysiology	154	154									
- Clinical informatics (Internal medicine)	5	5									
- Critical care medicine	208	122		86							
- Endocrinology, diabetes, and metabolism	613	326		287							
- Gastroenterology	1,505	538		505		462					
- Geriatric medicine	239	239									
- Hematology	22	15		7							
- Hematology and medical oncology	1,660	560		560		540					
- Infectious disease	724	359		365							
- Interventional cardiology	309	309									
- Nephrology	863	434		429							
- Medical oncology	59	30		29							
- Pulmonary disease	75	39		36							
- Pulmonary disease and critical care medicine	1,630	591		532		507					
- Rheumatology	445	235		210							
- Sleep medicine (multidisciplinary)	165	165									
- Transplant hepatology	40	40									
Medical genetics and genomics	73	36		37							
- Medical biochemical genetics	9	9									
- Molecular genetic pathology (multidisciplinary)	53	53									
Neurological surgery	1,325	212		210		203		192	180	188	140
- Endovascular surgical neuroradiology	2	2									

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	2,413	735		697		677		304			
- Child neurology	360	125		119		116					
- Clinical neurophysiology	200	200									
- Epilepsy	53	53									
- Endovascular surgical neuroradiology	1	1									
- Neurodevelopmental disabilities	23	7		8		5		3			
- Neuromuscular medicine	63	63									
- Vascular neurology	112	112									
Nuclear medicine	84	39		23		22					
Obstetrics and gynecology	5,187	1,295	18	1,296	1	1,289		1,288			
- Female pelvic medicine and reconstructive surgery	132	48		43		41					
Ophthalmology	1,432	482		479		471					
- Ophthalmic plastic and reconstructive surgery	6	3		3							
Orthopaedic surgery	3,684	747		750		748		723	716		
- Adult reconstructive orthopaedics	44	44									
- Foot and ankle orthopaedics	16	16									
- Hand surgery	144	144									
- Musculoskeletal oncology	15	15									
- Orthopaedic sports medicine	203	203									
- Orthopaedic surgery of the spine	31	31									
- Orthopaedic trauma	17	17									
- Pediatric orthopaedics	43	43									
Osteopathic neuromusculoskeletal medicine	3	2		1							
Otolaryngology	1,517	312		310		305		297	293		
- Neurotology	30	17		13							
- Pediatric otolaryngology	33	33									
Pathology-anatomic and clinical	2,318	630		610		589		489			
- Blood banking/transfusion medicine	48	48									
- Clinical informatics (Pathology)	3	2		1							
- Chemical pathology	2	2									
- Cytopathology	141	141									
- Forensic pathology	50	50									
- Hematology	132	132									
- Medical microbiology	10	10									
- Neuropathology	50	31		19							
- Pediatric pathology	22	22									
- Selective pathology	154	154									
Pediatrics	8,933	2,988	56	2,980	42	2,867					
- Adolescent medicine	79	36		25		18					
- Child abuse pediatrics	37	15		14		8					
- Clinical informatics (Pediatrics)	7	5		2							
- Developmental-behavioral pediatrics	102	40		28		34					
- Neonatal-perinatal medicine	738	272		246		220					
- Pediatric cardiology	422	149		139		134					
- Pediatric critical care medicine	496	176		168		152					
- Pediatric emergency medicine	373	132		132		109					
- Pediatric endocrinology	243	94		80		69					
- Pediatric gastroenterology	282	103		88		91					
- Pediatric hematology/oncology	476	170		156		150					
- Pediatric infectious diseases	162	51		60		51					
- Pediatric nephrology	101	32		36		33					
- Pediatric pulmonology	159	52		58		49					

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 rheumatology	76	25		29		22					
- Pediatric sports medicine	24	24									
- Pediatric transplant hepatology	6	6									
Physical medicine and rehabilitation	1,293	363		402		395		133			
- Brain injury medicine	7	7									
- Neuromuscular medicine	1	1									
- Spinal cord injury medicine	16	16									
- Pediatric rehabilitation	25	18		7							
- Sports medicine	24	24									
Plastic surgery	363	103		128		132					
Plastic surgery - integrated	663	147		134		125		105	81	71	
- Craniofacial surgery	9	9									
- Hand surgery	23	23									
Preventive medicine	355	199		156							
- Medical toxicology	3	3									
- Undersea and hyperbaric medicine	3	3									
Psychiatry	5,358	1,452		1,454		1,421		1,031			
- Addiction psychiatry	80	80									
- Child and adolescent psychiatry	826	430		396							
- Forensic psychiatry	72	72									
- Geriatric psychiatry	58	58									
- Psychosomatic medicine	79	79									
Radiation oncology	733	191		189		171		182			
Radiology-diagnostic	4,740	1,219		1,180		1,152		1,184	5		
- Abdominal radiology	45	45									
- Endovascular surgical neuroradiology	5	5									
- Musculoskeletal radiology	30	30									
- Neuroradiology	256	256									
- Nuclear radiology	13	13									
- Pediatric radiology	79	79									
- Vascular and interventional radiology	275	275									
Interventional radiology - integrated	0										
Surgery	7,834	1,271	1,353	1,251	269	1,282	10	1,215	1,183		
- Complex general surgical oncology	101	52		49							
- Hand surgery	8	8									
- Pediatric surgery	82	46		36							
- Surgical critical care	236	236									
- Vascular surgery	233	116		117							
Vascular surgery - integrated	234	57		55		48		42	32		
Thoracic surgery	223	94		98		31					
- Congenital cardiac surgery	10	10									
Thoracic surgery - integrated	138	35		33		29		19	13	9	
Urology	1,254	323		309		316		303	3		
- Female pelvic medicine and reconstructive surgery	28	10		13		5					
- Pediatric urology	25	25									
Transitional year	1,077	1,077									
Internal medicine/pediatrics	1,464	380		368		356		360			

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, 2011-2012 to 2015-2016

Specialty	Academic Year					5-Year Change	
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	#	%
	#	#	#	#	#	#	%
OVERALL	115,293	117,717	120,108	121,599	124,409	9,116	7.9%
TOTAL PIPELINE	93,767	95,379	97,035	98,411	100,761	6,991	7.5%
Allergy and immunology	293	289	298	298	287	-6	-2.0%
Anesthesiology	5,719	5,848	5,931	5,978	6,051	332	5.8%
- Adult cardiothoracic anesthesiology	153	165	167	177	183	30	19.6%
- Clinical informatics (Anesthesiology) *						N/A	N/A
- Critical care medicine	104	131	142	159	175	71	68.3%
- Obstetric anesthesiology *		19	26	35	38	19	100.0%
- Pain medicine (multidisciplinary)	292	305	326	336	337	45	15.4%
- Pediatric anesthesiology	185	185	200	191	205	20	10.8%
Colon and rectal surgery	87	90	91	94	94	7	8.0%
Dermatology	1,214	1,240	1,262	1,275	1,323	109	9.0%
- Dermatopathology (multidisciplinary)	87	85	76	77	76	-11	-12.6%
- Micrographic surgery and dermatologic oncology	48	58	64	68	73	25	52.1%
Emergency medicine	5,388	5,590	5,743	5,941	6,244	856	15.9%
- Clinical informatics (Emergency medicine) *				1	3	2	200.0%
- Emergency medical services *		8	36	44	50	42	525.0%
- Medical toxicology	47	55	60	58	61	14	29.8%
- Pediatric emergency medicine	70	80	90	98	101	31	44.3%
- Sports medicine	7	9	9	9	11	4	57.1%
- Undersea and hyperbaric medicine	7	7	8	7	9	2	28.6%
Family medicine	9,900	10,060	10,316	10,499	10,762	862	8.7%
- Clinical informatics (Family medicine) *					2	N/A	N/A
- Geriatric medicine	57	64	55	49	49	-8	-14.0%
- Hospice and palliative medicine (multidisciplinary)	170	182	209	243	274	104	61.2%
- Sports medicine	171	181	190	202	210	39	22.8%
Internal medicine	23,144	23,597	23,891	24,259	24,983	1,839	7.9%
- Adult congenital heart disease *					5	N/A	N/A
- Advanced heart failure and transplant cardiology *		35	58	74	82	47	134.3%
- Cardiovascular disease	2,521	2,548	2,617	2,626	2,670	149	5.9%
- Clinical cardiac electrophysiology	172	150	146	151	154	-18	-10.5%
- Clinical informatics (Internal medicine) *					5	N/A	N/A
- Critical care medicine	195	199	206	210	208	13	6.7%
- Endocrinology, diabetes, and metabolism	571	581	597	604	613	42	7.4%
- Gastroenterology	1,397	1,428	1,458	1,467	1,505	108	7.7%
- Geriatric medicine	257	256	268	249	239	-18	-7.0%
- Hematology	27	20	24	21	22	-5	-18.5%
- Hematology and medical oncology	1,485	1,552	1,586	1,637	1,660	175	11.8%
- Infectious disease	732	751	752	727	724	-8	-1.1%
- Interventional cardiology	287	302	308	309	309	22	7.7%
- Nephrology	886	900	930	895	863	-23	-2.6%
- Medical oncology	93	85	73	67	59	-34	-36.6%
- Pulmonary disease	77	83	80	81	75	-2	-2.6%
- Pulmonary disease and critical care medicine	1,427	1,489	1,535	1,571	1,630	203	14.2%
- Rheumatology	414	424	433	431	445	31	7.5%
- Sleep medicine (multidisciplinary)	148	154	154	153	165	17	11.5%
- Transplant hepatology	25	32	38	41	40	15	60.0%
Medical genetics and genomics	73	79	79	74	73	0	0.0%
- Medical biochemical genetics	5	6	5	8	9	4	80.0%
- Molecular genetic pathology (multidisciplinary)	38	44	48	49	53	15	39.5%
Neurological surgery	1,179	1,212	1,265	1,295	1,325	146	12.4%
- Endovascular surgical neuroradiology	3	3	3	2	2	-1	-33.3%

TABLE C.6 Continued							
Number of Active Residents by Specialty and Subspecialty and Academic Year, 2011-2012 to 2015-2016							
Specialty	Academic Year					5-Year Change	
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016		
	#	#	#	#	#	#	%
Neurology	2,080	2,139	2,238	2,323	2,413	333	16.0%
- Child neurology	289	308	341	347	360	71	24.6%
- Clinical neurophysiology	217	238	249	220	200	-17	-7.8%
- Epilepsy *				12	53	41	341.7%
- Endovascular surgical neuroradiology	4	2	2	2	1	-3	-75.0%
- Neurodevelopmental disabilities	19	18	18	17	23	4	21.1%
- Neuromuscular medicine	41	45	56	54	63	22	53.7%
- Vascular neurology	77	94	96	91	112	35	45.5%
Nuclear medicine	136	120	107	93	84	-52	-38.2%
Obstetrics and gynecology	4,978	4,993	5,021	5,102	5,187	209	4.2%
- Female pelvic medicine and reconstructive surgery *		75	120	123	132	57	76.0%
Ophthalmology	1,418	1,417	1,409	1,420	1,432	14	1.0%
- Ophthalmic plastic and reconstructive surgery	5	5	6	6	6	1	20.0%
Orthopaedic surgery	3,484	3,523	3,566	3,604	3,684	200	5.7%
- Adult reconstructive orthopaedics	39	42	36	37	44	5	12.8%
- Foot and ankle orthopaedics	16	17	18	16	16	0	0.0%
- Hand surgery	128	128	140	140	144	16	12.5%
- Musculoskeletal oncology	15	16	14	15	15	0	0.0%
- Orthopaedic sports medicine	216	223	216	219	203	-13	-6.0%
- Orthopaedic surgery of the spine	38	32	36	31	31	-7	-18.4%
- Orthopaedic trauma	18	16	16	16	17	-1	-5.6%
- Pediatric orthopaedics	35	35	39	39	43	8	22.9%
Osteopathic neuromusculoskeletal medicine *					3	N/A	N/A
Otolaryngology	1,465	1,472	1,488	1,506	1,517	52	3.5%
- Neurotology	26	28	29	28	30	4	15.4%
- Pediatric otolaryngology	22	24	32	34	33	11	50.0%
Pathology-anatomic and clinical	2,373	2,340	2,341	2,339	2,318	-55	-2.3%
- Blood banking/transfusion medicine	47	50	45	53	48	1	2.1%
- Clinical informatics (Pathology) *					3	N/A	N/A
- Chemical pathology			1	1	2	1	100.0%
- Cytopathology	138	139	150	136	141	3	2.2%
- Forensic pathology	43	33	39	41	50	7	16.3%
- Hematology	133	133	134	137	132	-1	-0.8%
- Medical microbiology	8	9	11	11	10	2	25.0%
- Neuropathology	41	40	41	44	50	9	22.0%
- Pediatric pathology	23	18	20	28	22	-1	-4.3%
- Selective pathology	148	151	156	158	154	6	4.1%
Pediatrics	8,460	8,669	8,828	8,867	8,933	473	5.6%
- Adolescent medicine	66	77	74	72	79	13	19.7%
- Child abuse pediatrics	17	31	31	34	37	20	117.6%
- Clinical informatics (Pediatrics) *				2	7	5	250.0%
- Developmental-behavioral pediatrics	90	99	97	97	102	12	13.3%
- Neonatal-perinatal medicine	645	661	685	703	738	93	14.4%
- Pediatric cardiology	387	401	411	415	422	35	9.0%
- Pediatric critical care medicine	403	410	447	467	496	93	23.1%
- Pediatric emergency medicine	319	331	349	355	373	54	16.9%
- Pediatric endocrinology	242	253	244	245	243	1	0.4%
- Pediatric gastroenterology	263	269	274	274	282	19	7.2%
- Pediatric hematology/oncology	423	442	461	473	476	53	12.5%
- Pediatric infectious diseases	180	185	177	175	162	-18	-10.0%
- Pediatric nephrology	127	122	111	115	101	-26	-20.5%
- Pediatric pulmonology	153	160	158	165	159	6	3.9%

TABLE C.6 Continued

Number of Active Residents by Specialty and Subspecialty and Academic Year, 2011-2012 to 2015-2016

Specialty	Academic Year					5-Year Change	
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	#	%
	#	#	#	#	#	#	%
- Pediatric rheumatology	78	73	69	76	76	-2	-2.6%
- Pediatric sports medicine	20	22	21	22	24	4	20.0%
- Pediatric transplant hepatology	4	4	6	8	6	2	50.0%
Physical medicine and rehabilitation	1,270	1,250	1,265	1,276	1,293	23	1.8%
- Brain injury medicine *			3	3	7	4	133.3%
- Neuromuscular medicine *		1	1	0	1	0	0.0%
- Spinal cord injury medicine	13	13	17	15	16	3	23.1%
- Pediatric rehabilitation	20	18	22	28	25	5	25.0%
- Sports medicine	14	13	18	21	24	10	71.4%
Plastic surgery	343	346	401	392	363	20	5.8%
Plastic Surgery - Integrated	380	431	501	574	663	283	74.5%
- Craniofacial surgery	3	5	8	10	9	6	200.0%
- Hand surgery	20	22	20	20	23	3	15.0%
Preventive medicine	316	344	326	332	355	39	12.3%
- Medical toxicology	5	3	5	4	3	-2	-40.0%
- Undersea and hyperbaric medicine	4	2	6	5	3	-1	-25.0%
Psychiatry	4,997	5,034	5,128	5,176	5,358	361	7.2%
- Addiction psychiatry	62	67	66	66	80	18	29.0%
- Child and adolescent psychiatry	834	855	853	820	826	-8	-1.0%
- Forensic psychiatry	72	70	69	66	72	0	0.0%
- Geriatric psychiatry	64	67	65	58	58	-6	-9.4%
- Psychosomatic medicine	79	53	81	82	79	0	0.0%
Radiation oncology	666	676	705	721	733	67	10.1%
Radiology-diagnostic	4,650	4,652	4,652	4,676	4,740	90	1.9%
- Abdominal radiology	43	49	47	44	45	2	4.7%
- Endovascular surgical neuroradiology	5	7	4	4	5	0	0.0%
- Musculoskeletal radiology	35	32	33	33	30	-5	-14.3%
- Neuroradiology	237	252	259	245	256	19	8.0%
- Nuclear radiology	18	16	15	16	13	-5	-27.8%
- Pediatric radiology	91	92	88	88	79	-12	-13.2%
- Vascular and interventional radiology	224	244	259	260	275	51	22.8%
Interventional radiology - integrated *						N/A	N/A
Surgery	7,480	7,590	7,720	7,732	7,834	354	4.7%
- Complex general surgical oncology *		73	97	104	101	28	38.4%
- Hand surgery	8	7	8	8	8	0	0.0%
- Pediatric surgery	77	80	83	83	82	5	6.5%
- Surgical critical care	182	194	211	218	236	54	29.7%
- Vascular surgery	246	243	248	248	233	-13	-5.3%
Vascular surgery - integrated	96	135	171	205	234	138	143.8%
Thoracic surgery	216	213	208	216	223	7	3.2%
- Congenital cardiac surgery	6	7	8	8	10	4	66.7%
Thoracic surgery - integrated	41	63	85	117	138	97	236.6%
Urology	1,105	1,131	1,146	1,177	1,254	149	13.5%
- Female pelvic medicine and reconstructive surgery *		20	27	27	28	8	40.0%
- Pediatric urology	19	22	23	26	25	6	31.6%
Transitional year	1,188	1,184	1,179	1,089	1,077	-111	-9.3%
Internal medicine/pediatrics	1,412	1,428	1,450	1,458	1,464	52	3.7%

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.

TABLE C.7

Number of Active Part-Time Residents by Specialty and Subspecialty

Specialty	Total Residents	Number of Part-Time Residents	Percent of Total Residents in Specialty	Percent of Total Part-Time Residents
OVERALL	124,409	239	0.2%	100.0%
TOTAL PIPELINE	100,761	169	0.2%	70.7%
Allergy and immunology	287	2	0.7%	0.8%
Anesthesiology	6,051	8	0.1%	3.3%
- Adult cardiothoracic anesthesiology	183	0	0.0%	0.0%
- Clinical informatics (Anesthesiology)	0	0	N/A	0.0%
- Critical care medicine	175	0	0.0%	0.0%
- Obstetric anesthesiology	38	0	0.0%	0.0%
- Pain medicine (multidisciplinary)	337	0	0.0%	0.0%
- Pediatric anesthesiology	205	0	0.0%	0.0%
Colon and rectal surgery	94	0	0.0%	0.0%
Dermatology	1,323	4	0.3%	1.7%
- Dermatopathology (multidisciplinary)	76	0	0.0%	0.0%
- Micrographic surgery and dermatologic oncology	73	0	0.0%	0.0%
Emergency medicine	6,244	7	0.1%	2.9%
- Clinical informatics (Emergency medicine)	3	0	0.0%	0.0%
- Emergency medical services	50	0	0.0%	0.0%
- Medical toxicology	61	1	1.6%	0.4%
- Pediatric emergency medicine	101	0	0.0%	0.0%
- Sports medicine	11	0	0.0%	0.0%
- Undersea and hyperbaric medicine	9	0	0.0%	0.0%
Family medicine	10,762	23	0.2%	9.6%
- Clinical informatics (Family medicine)	2	0	0.0%	0.0%
- Geriatric medicine	49	0	0.0%	0.0%
- Hospice and palliative medicine (multidisciplinary)	274	3	1.1%	1.3%
- Sports medicine	210	2	1.0%	0.8%
Internal medicine	24,983	33	0.1%	13.8%
- Adult congenital heart disease	5	0	0.0%	0.0%
- Advanced heart failure and transplant cardiology	82	0	0.0%	0.0%
- Cardiovascular disease	2,670	9	0.3%	3.8%
- Clinical cardiac electrophysiology	154	0	0.0%	0.0%
- Clinical informatics (Internal medicine)	5	0	0.0%	0.0%
- Critical care medicine	208	0	0.0%	0.0%
- Endocrinology, diabetes, and metabolism	613	0	0.0%	0.0%
- Gastroenterology	1,505	1	0.1%	0.4%
- Geriatric medicine	239	4	1.7%	1.7%
- Hematology	22	0	0.0%	0.0%
- Hematology and medical oncology	1,660	7	0.4%	2.9%
- Infectious disease	724	1	0.1%	0.4%
- Interventional cardiology	309	1	0.3%	0.4%
- Nephrology	863	2	0.2%	0.8%
- Medical oncology	59	0	0.0%	0.0%
- Pulmonary disease	75	0	0.0%	0.0%
- Pulmonary disease and critical care medicine	1,630	3	0.2%	1.3%
- Rheumatology	445	1	0.2%	0.4%
- Sleep medicine (multidisciplinary)	165	0	0.0%	0.0%
- Transplant hepatology	40	0	0.0%	0.0%
Medical genetics and genomics	73	2	2.7%	0.8%
- Medical biochemical genetics	9	0	0.0%	0.0%
- Molecular genetic pathology (multidisciplinary)	53	0	0.0%	0.0%
Neurological surgery	1,325	3	0.2%	1.3%
- Endovascular surgical neuroradiology	2	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 Total Residents in Specialty	Percent of Total Part-Time Residents
Neurology	2,413	8	0.3%	3.3%
- Child neurology	360	1	0.3%	0.4%
- Clinical neurophysiology	200	1	0.5%	0.4%
- Epilepsy	53	0	0.0%	0.0%
- Endovascular surgical neuroradiology	1	0	0.0%	0.0%
- Neurodevelopmental disabilities	23	1	4.3%	0.4%
- Neuromuscular medicine	63	0	0.0%	0.0%
- Vascular neurology	112	1	0.9%	0.4%
Nuclear medicine	84	0	0.0%	0.0%
Obstetrics and gynecology	5,187	10	0.2%	4.2%
- Female pelvic medicine and reconstructive surgery	132	0	0.0%	0.0%
Ophthalmology	1,432	3	0.2%	1.3%
- Ophthalmic plastic and reconstructive surgery	6	0	0.0%	0.0%
Orthopaedic surgery	3,684	5	0.1%	2.1%
- Adult reconstructive orthopaedics	44	0	0.0%	0.0%
- Foot and ankle orthopaedics	16	0	0.0%	0.0%
- Hand surgery	144	0	0.0%	0.0%
- Musculoskeletal oncology	15	0	0.0%	0.0%
- Orthopaedic sports medicine	203	0	0.0%	0.0%
- Orthopaedic surgery of the spine	31	0	0.0%	0.0%
- Orthopaedic trauma	17	0	0.0%	0.0%
- Pediatric orthopaedics	43	0	0.0%	0.0%
Osteopathic neuromusculoskeletal medicine	3	0	0.0%	0.0%
Otolaryngology	1,517	1	0.1%	0.4%
- Neurotology	30	0	0.0%	0.0%
- Pediatric otolaryngology	33	0	0.0%	0.0%
Pathology-anatomic and clinical	2,318	4	0.2%	1.7%
- Blood banking/transfusion medicine	48	0	0.0%	0.0%
- Clinical informatics (Pathology)	3	0	0.0%	0.0%
- Chemical pathology	2	0	0.0%	0.0%
- Cytopathology	141	2	1.4%	0.8%
- Forensic pathology	50	0	0.0%	0.0%
- Hematology	132	0	0.0%	0.0%
- Medical microbiology	10	0	0.0%	0.0%
- Neuropathology	50	0	0.0%	0.0%
- Pediatric pathology	22	0	0.0%	0.0%
- Selective pathology	154	0	0.0%	0.0%
Pediatrics	8,933	12	0.1%	5.0%
- Adolescent medicine	79	1	1.3%	0.4%
- Child abuse pediatrics	37	0	0.0%	0.0%
- Clinical informatics (Pediatrics)	7	0	0.0%	0.0%
- Developmental-behavioral pediatrics	102	2	2.0%	0.8%
- Neonatal-perinatal medicine	738	1	0.1%	0.4%
- Pediatric cardiology	422	2	0.5%	0.8%
- Pediatric critical care medicine	496	3	0.6%	1.3%
- Pediatric emergency medicine	373	1	0.3%	0.4%
- Pediatric endocrinology	243	0	0.0%	0.0%
- Pediatric gastroenterology	282	0	0.0%	0.0%
- Pediatric hematology/oncology	476	1	0.2%	0.4%
- Pediatric infectious diseases	162	0	0.0%	0.0%
- Pediatric nephrology	101	0	0.0%	0.0%
- Pediatric pulmonology	159	0	0.0%	0.0%

TABLE C.7 Continued

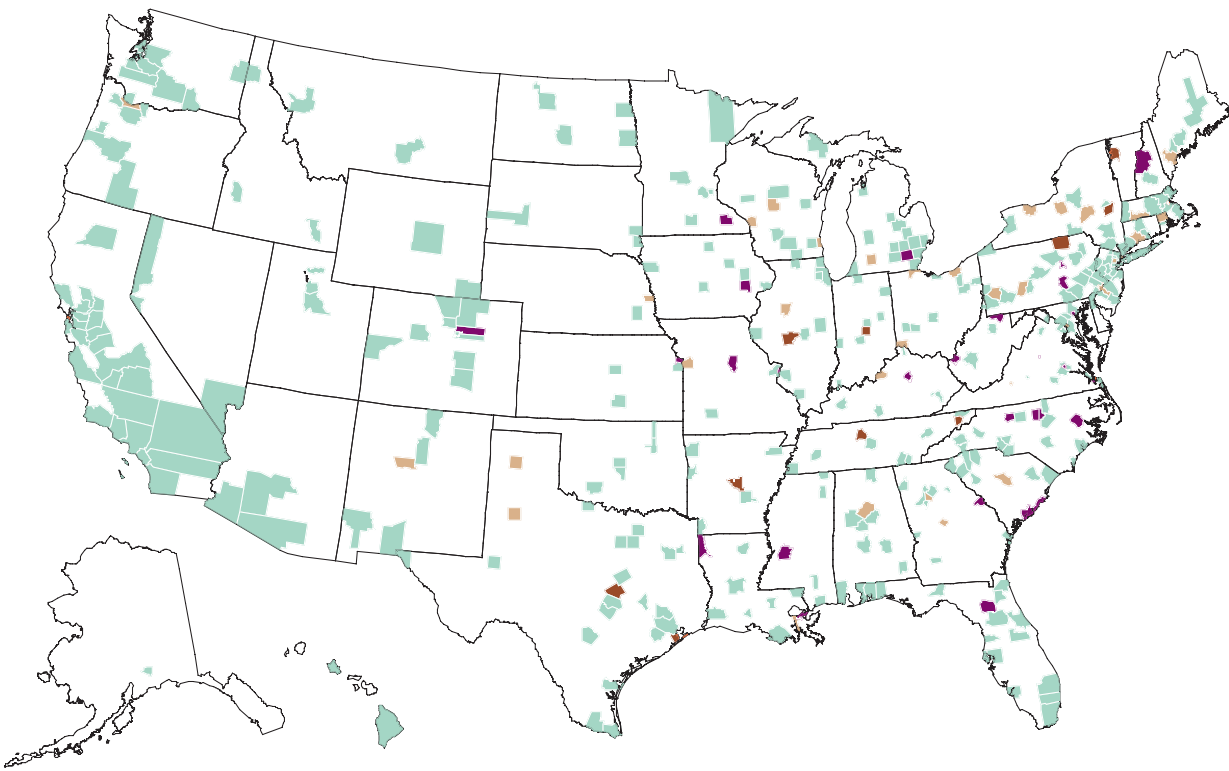
Number of Active Part-Time Residents by Specialty and Subspecialty

Specialty	Total Residents	Number of Part-Time Residents	Percent of Total Residents in Specialty	Percent of Total Part-Time Residents
- Pediatric rheumatology	76	0	0.0%	0.0%
- Pediatric sports medicine	24	0	0.0%	0.0%
- Pediatric transplant hepatology	6	0	0.0%	0.0%
Physical medicine and rehabilitation	1,293	1	0.1%	0.4%
- Brain injury medicine	7	0	0.0%	0.0%
- Neuromuscular medicine	1	0	0.0%	0.0%
- Spinal cord injury medicine	16	0	0.0%	0.0%
- Pediatric rehabilitation	25	0	0.0%	0.0%
- Sports medicine	24	0	0.0%	0.0%
Plastic surgery	363	2	0.6%	0.8%
Plastic surgery - integrated	663	1	0.2%	0.4%
- Craniofacial surgery	9	0	0.0%	0.0%
- Hand surgery	23	0	0.0%	0.0%
Preventive medicine	355	2	0.6%	0.8%
- Medical toxicology	3	0	0.0%	0.0%
- Undersea and hyperbaric medicine	3	0	0.0%	0.0%
Psychiatry	5,358	14	0.3%	5.9%
- Addiction psychiatry	80	4	5.0%	1.7%
- Child and adolescent psychiatry	826	3	0.4%	1.3%
- Forensic psychiatry	72	0	0.0%	0.0%
- Geriatric psychiatry	58	1	1.7%	0.4%
- Psychosomatic medicine	79	0	0.0%	0.0%
Radiation oncology	733	3	0.4%	1.3%
Radiology-diagnostic	4,740	7	0.1%	2.9%
- Abdominal radiology	45	0	0.0%	0.0%
- Endovascular surgical neuroradiology	5	0	0.0%	0.0%
- Musculoskeletal radiology	30	0	0.0%	0.0%
- Neuroradiology	256	1	0.4%	0.4%
- Nuclear radiology	13	0	0.0%	0.0%
- Pediatric radiology	79	0	0.0%	0.0%
- Vascular and interventional radiology	275	2	0.7%	0.8%
Interventional radiology - integrated	0	0	N/A	0.0%
Surgery	7,834	12	0.2%	5.0%
- Complex general surgical oncology	101	1	1.0%	0.4%
- Hand surgery	8	0	0.0%	0.0%
- Pediatric surgery	82	0	0.0%	0.0%
- Surgical critical care	236	2	0.8%	0.8%
- Vascular surgery	233	0	0.0%	0.0%
Vascular surgery - integrated	234	2	0.9%	0.8%
Thoracic surgery	223	0	0.0%	0.0%
- Congenital cardiac surgery	10	0	0.0%	0.0%
Thoracic surgery - integrated	138	0	0.0%	0.0%
Urology	1,254	0	0.0%	0.0%
- Female pelvic medicine and reconstructive surgery	28	0	0.0%	0.0%
- Pediatric urology	25	0	0.0%	0.0%
Transitional year	1,077	2	0.2%	0.8%
Internal medicine/pediatrics	1,464	2	0.1%	0.8%

Note: Pipeline specialties are highlighted.

FIGURE C.8

Geographic Distribution of Active Residents



Concentration of Residents per 10,000 County Population

- 1 to 5 Residents
- 6 to 10 Residents
- 11 to 15 Residents
- More than 15 Residents

Sources: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016; SAS Enterprise Guide Software, Version 7.1.

TABLE C.9

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

State Name	State Abbreviation	State Population -Census Estimate 2015	Total Residents	Percentage of All Residents	Resident Concentration per 100,000 Pop
OVERALL	--	324,893,002	124,409	100.0%	38.29
Alabama	AL	4,858,979	1,407	1.1%	28.96
Alaska	AK	738,432	37	0.0%	5.01
Arizona	AZ	6,828,065	1,668	1.3%	24.43
Arkansas	AR	2,978,204	772	0.6%	25.92
California	CA	39,144,818	11,175	9.0%	28.55
Colorado	CO	5,456,574	1,327	1.1%	24.32
Connecticut	CT	3,590,886	2,303	1.9%	64.13
Delaware	DE	945,934	365	0.3%	38.59
District of Columbia	DC	672,228	1,709	1.4%	254.23
Florida	FL	20,271,272	4,492	3.6%	22.16
Georgia	GA	10,214,860	2,312	1.9%	22.63
Hawaii	HI	1,431,603	438	0.4%	30.60
Idaho	ID	1,654,930	112	0.1%	6.77
Illinois	IL	12,859,995	6,285	5.1%	48.87
Indiana	IN	6,619,680	1,413	1.1%	21.35
Iowa	IA	3,123,899	941	0.8%	30.12
Kansas	KS	2,911,641	805	0.6%	27.65
Kentucky	KY	4,425,092	1,257	1.0%	28.41
Louisiana	LA	4,670,724	2,073	1.7%	44.38
Maine	ME	1,329,328	316	0.3%	23.77
Maryland	MD	6,006,401	3,173	2.6%	52.83
Massachusetts	MA	6,794,422	5,515	4.4%	81.17
Michigan	MI	9,922,576	5,618	4.5%	56.62
Minnesota	MN	5,489,594	2,262	1.8%	41.21
Mississippi	MS	2,992,333	667	0.5%	22.29
Missouri	MO	6,083,672	2,823	2.3%	46.40
Montana	MT	1,032,949	74	0.1%	7.16
Nebraska	NE	1,896,190	760	0.6%	40.08
Nevada	NV	2,890,845	389	0.3%	13.46
New Hampshire	NH	1,330,608	415	0.3%	31.19
New Jersey	NJ	8,958,013	2,945	2.4%	32.88
New Mexico	NM	2,085,109	602	0.5%	28.87
New York	NY	19,795,791	16,579	13.3%	83.75
North Carolina	NC	10,042,802	3,303	2.7%	32.89
North Dakota	ND	756,927	136	0.1%	17.97
Ohio	OH	11,613,423	6,159	5.0%	53.03
Oklahoma	OK	3,911,338	849	0.7%	21.71
Oregon	OR	4,028,977	925	0.7%	22.96
Pennsylvania	PA	12,802,503	8,090	6.5%	63.19
Puerto Rico	PR	3,474,182	906	0.7%	26.08
Rhode Island	RI	1,056,298	776	0.6%	73.46
South Carolina	SC	4,896,146	1,323	1.1%	27.02
South Dakota	SD	858,469	142	0.1%	16.54
Tennessee	TN	6,600,299	2,406	1.9%	36.45
Texas	TX	27,469,114	8,231	6.6%	29.96
Utah	UT	2,995,919	778	0.6%	25.97
Vermont	VT	626,042	298	0.2%	47.60
Virginia	VA	8,382,993	2,460	2.0%	29.35
Washington	WA	7,170,351	1,955	1.6%	27.27
West Virginia	WV	1,844,128	734	0.6%	39.80
Wisconsin	WI	5,771,337	1,868	1.5%	32.37
Wyoming	WY	586,107	41	0.0%	7.00

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

TABLE C.10

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

State Name	State Abbreviation	State Population -Census Estimate 2015	Total Specialty Residents	Percentage of All Residents	Resident Concentration per 100,000 Pop
OVERALL	--	324,893,002	102,442	100.0%	31.53
Alabama	AL	4,858,979	1,171	1.1%	24.10
Alaska	AK	738,432	36	0.0%	4.88
Arizona	AZ	6,828,065	1,437	1.4%	21.05
Arkansas	AR	2,978,204	643	0.6%	21.59
California	CA	39,144,818	9,135	8.9%	23.34
Colorado	CO	5,456,574	1,066	1.0%	19.54
Connecticut	CT	3,590,886	1,911	1.9%	53.22
Delaware	DE	945,934	310	0.3%	32.77
District of Columbia	DC	672,228	1,366	1.3%	203.20
Florida	FL	20,271,272	3,691	3.6%	18.21
Georgia	GA	10,214,860	1,903	1.9%	18.63
Hawaii	HI	1,431,603	406	0.4%	28.36
Idaho	ID	1,654,930	110	0.1%	6.65
Illinois	IL	12,859,995	5,360	5.2%	41.68
Indiana	IN	6,619,680	1,187	1.2%	17.93
Iowa	IA	3,123,899	798	0.8%	25.55
Kansas	KS	2,911,641	710	0.7%	24.38
Kentucky	KY	4,425,092	1,038	1.0%	23.46
Louisiana	LA	4,670,724	1,767	1.7%	37.83
Maine	ME	1,329,328	286	0.3%	21.51
Maryland	MD	6,006,401	2,482	2.4%	41.32
Massachusetts	MA	6,794,422	4,238	4.1%	62.37
Michigan	MI	9,922,576	4,811	4.7%	48.49
Minnesota	MN	5,489,594	1,756	1.7%	31.99
Mississippi	MS	2,992,333	575	0.6%	19.22
Missouri	MO	6,083,672	2,233	2.2%	36.70
Montana	MT	1,032,949	73	0.1%	7.07
Nebraska	NE	1,896,190	646	0.6%	34.07
Nevada	NV	2,890,845	356	0.3%	12.31
New Hampshire	NH	1,330,608	330	0.3%	24.80
New Jersey	NJ	8,958,013	2,630	2.6%	29.36
New Mexico	NM	2,085,109	487	0.5%	23.36
New York	NY	19,795,791	13,645	13.3%	68.93
North Carolina	NC	10,042,802	2,644	2.6%	26.33
North Dakota	ND	756,927	136	0.1%	17.97
Ohio	OH	11,613,423	4,971	4.9%	42.80
Oklahoma	OK	3,911,338	734	0.7%	18.77
Oregon	OR	4,028,977	765	0.7%	18.99
Pennsylvania	PA	12,802,503	6,496	6.3%	50.74
Puerto Rico	PR	3,474,182	790	0.8%	22.74
Rhode Island	RI	1,056,298	614	0.6%	58.13
South Carolina	SC	4,896,146	1,130	1.1%	23.08
South Dakota	SD	858,469	129	0.1%	15.03
Tennessee	TN	6,600,299	1,938	1.9%	29.36
Texas	TX	27,469,114	6,670	6.5%	24.28
Utah	UT	2,995,919	614	0.6%	20.49
Vermont	VT	626,042	244	0.2%	38.98
Virginia	VA	8,382,993	2,097	2.0%	25.01
Washington	WA	7,170,351	1,624	1.6%	22.65
West Virginia	WV	1,844,128	666	0.7%	36.11
Wisconsin	WI	5,771,337	1,546	1.5%	26.79
Wyoming	WY	586,107	41	0.0%	7.00

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

TABLE C.11					
Total Number of Active Subspecialty Residents and Active Subspecialty Resident Concentration per 100,000 Population by State					
State Name	State Abbreviation	State Population - Census Estimate 2015	Total Subspecialty Residents	Percentage of All Residents	Resident Concentration per 100,000 Pop
OVERALL	--	324,893,002	21,967	100.0%	6.76
Alabama	AL	4,858,979	236	1.1%	4.86
Alaska	AK	738,432	1	0.0%	0.14
Arizona	AZ	6,828,065	231	1.1%	3.38
Arkansas	AR	2,978,204	129	0.6%	4.33
California	CA	39,144,818	2,040	9.3%	5.21
Colorado	CO	5,456,574	261	1.2%	4.78
Connecticut	CT	3,590,886	392	1.8%	10.92
Delaware	DE	945,934	55	0.3%	5.81
District of Columbia	DC	672,228	343	1.6%	51.02
Florida	FL	20,271,272	801	3.6%	3.95
Georgia	GA	10,214,860	409	1.9%	4.00
Hawaii	HI	1,431,603	32	0.1%	2.24
Idaho	ID	1,654,930	2	0.0%	0.12
Illinois	IL	12,859,995	925	4.2%	7.19
Indiana	IN	6,619,680	226	1.0%	3.41
Iowa	IA	3,123,899	143	0.7%	4.58
Kansas	KS	2,911,641	95	0.4%	3.26
Kentucky	KY	4,425,092	219	1.0%	4.95
Louisiana	LA	4,670,724	306	1.4%	6.55
Maine	ME	1,329,328	30	0.1%	2.26
Maryland	MD	6,006,401	691	3.1%	11.50
Massachusetts	MA	6,794,422	1,277	5.8%	18.79
Michigan	MI	9,922,576	807	3.7%	8.13
Minnesota	MN	5,489,594	506	2.3%	9.22
Mississippi	MS	2,992,333	92	0.4%	3.07
Missouri	MO	6,083,672	590	2.7%	9.70
Montana	MT	1,032,949	1	0.0%	0.10
Nebraska	NE	1,896,190	114	0.5%	6.01
Nevada	NV	2,890,845	33	0.2%	1.14
New Hampshire	NH	1,330,608	85	0.4%	6.39
New Jersey	NJ	8,958,013	315	1.4%	3.52
New Mexico	NM	2,085,109	115	0.5%	5.52
New York	NY	19,795,791	2,934	13.4%	14.82
North Carolina	NC	10,042,802	659	3.0%	6.56
North Dakota	ND	756,927	0	0.0%	0.00
Ohio	OH	11,613,423	1,188	5.4%	10.23
Oklahoma	OK	3,911,338	115	0.5%	2.94
Oregon	OR	4,028,977	160	0.7%	3.97
Pennsylvania	PA	12,802,503	1,594	7.3%	12.45
Puerto Rico	PR	3,474,182	116	0.5%	3.34
Rhode Island	RI	1,056,298	162	0.7%	15.34
South Carolina	SC	4,896,146	193	0.9%	3.94
South Dakota	SD	858,469	13	0.1%	1.51
Tennessee	TN	6,600,299	468	2.1%	7.09
Texas	TX	27,469,114	1,561	7.1%	5.68
Utah	UT	2,995,919	164	0.7%	5.47
Vermont	VT	626,042	54	0.2%	8.63
Virginia	VA	8,382,993	363	1.7%	4.33
Washington	WA	7,170,351	331	1.5%	4.62
West Virginia	WV	1,844,128	68	0.3%	3.69
Wisconsin	WI	5,771,337	322	1.5%	5.58
Wyoming	WY	586,107	0	0.0%	0.00

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

TABLE C.12

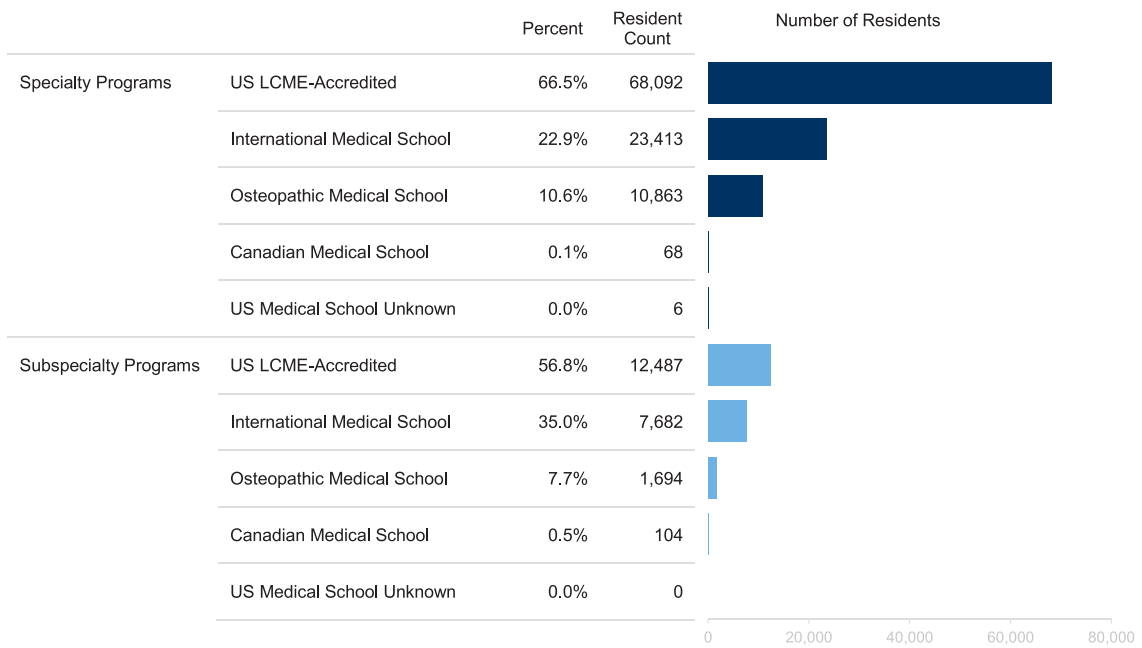
Total Number of Active Pipeline Residents and Active Pipeline Resident Concentration per 100,000 Population by State

State Name	State Abbreviation	State Population -Census Estimate 2015	Total Pipeline Residents	Percentage of All Residents	Resident Concentration per 100,000 Pop
OVERALL	--	324,893,002	96,834	100.0%	29.80
Alabama	AL	4,858,979	1,119	1.2%	23.03
Alaska	AK	738,432	36	0.0%	4.88
Arizona	AZ	6,828,065	1,345	1.4%	19.70
Arkansas	AR	2,978,204	628	0.6%	21.09
California	CA	39,144,818	8,625	8.9%	22.03
Colorado	CO	5,456,574	981	1.0%	17.98
Connecticut	CT	3,590,886	1,800	1.9%	50.13
Delaware	DE	945,934	287	0.3%	30.34
District of Columbia	DC	672,228	1,281	1.3%	190.56
Florida	FL	20,271,272	3,505	3.6%	17.29
Georgia	GA	10,214,860	1,795	1.9%	17.57
Hawaii	HI	1,431,603	372	0.4%	25.98
Idaho	ID	1,654,930	106	0.1%	6.41
Illinois	IL	12,859,995	5,064	5.2%	39.38
Indiana	IN	6,619,680	1,109	1.1%	16.75
Iowa	IA	3,123,899	768	0.8%	24.58
Kansas	KS	2,911,641	687	0.7%	23.59
Kentucky	KY	4,425,092	999	1.0%	22.58
Louisiana	LA	4,670,724	1,677	1.7%	35.90
Maine	ME	1,329,328	280	0.3%	21.06
Maryland	MD	6,006,401	2,243	2.3%	37.34
Massachusetts	MA	6,794,422	3,970	4.1%	58.43
Michigan	MI	9,922,576	4,573	4.7%	46.09
Minnesota	MN	5,489,594	1,661	1.7%	30.26
Mississippi	MS	2,992,333	543	0.6%	18.15
Missouri	MO	6,083,672	2,117	2.2%	34.80
Montana	MT	1,032,949	73	0.1%	7.07
Nebraska	NE	1,896,190	623	0.6%	32.86
Nevada	NV	2,890,845	341	0.4%	11.80
New Hampshire	NH	1,330,608	317	0.3%	23.82
New Jersey	NJ	8,958,013	2,527	2.6%	28.21
New Mexico	NM	2,085,109	470	0.5%	22.54
New York	NY	19,795,791	12,825	13.2%	64.79
North Carolina	NC	10,042,802	2,548	2.6%	25.37
North Dakota	ND	756,927	126	0.1%	16.65
Ohio	OH	11,613,423	4,708	4.9%	40.54
Oklahoma	OK	3,911,338	715	0.7%	18.28
Oregon	OR	4,028,977	744	0.8%	18.47
Pennsylvania	PA	12,802,503	6,141	6.3%	47.97
Puerto Rico	PR	3,474,182	715	0.7%	20.58
Rhode Island	RI	1,056,298	588	0.6%	55.67
South Carolina	SC	4,896,146	1,082	1.1%	22.10
South Dakota	SD	858,469	121	0.1%	14.09
Tennessee	TN	6,600,299	1,827	1.9%	27.68
Texas	TX	27,469,114	6,332	6.5%	23.05
Utah	UT	2,995,919	576	0.6%	19.23
Vermont	VT	626,042	238	0.2%	38.02
Virginia	VA	8,382,993	1,963	2.0%	23.42
Washington	WA	7,170,351	1,510	1.6%	21.06
West Virginia	WV	1,844,128	639	0.7%	34.65
Wisconsin	WI	5,771,337	1,473	1.5%	25.52
Wyoming	WY	586,107	41	0.0%	7.00

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

FIGURE C.13

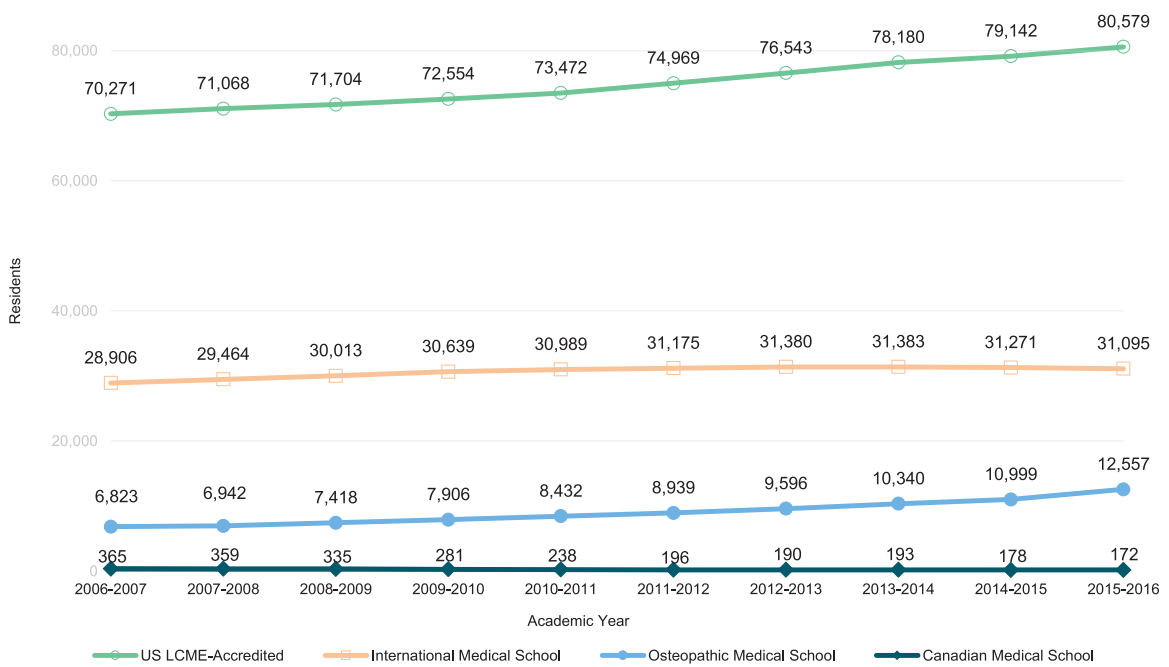
Number of Active Residents by Medical School Type



Notes: Total number of active residents in specialty programs = 102,442. Total number of active residents in subspecialty programs = 21,967.

FIGURE C.14

Number of Active Residents by Medical School Type and Academic Year, 2006-2007 to 2015-2016



Note: Not shown are those graduates for which the specific U.S. medical school is unknown. This number has been fewer than 20 per year for the past five years. 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	124,409	80,579	64.8%	31,095	25.0%	12,557	10.1%	172	0.1%
TOTAL PIPELINE	100,761	66,773	66.3%	23,213	23.0%	10,710	10.6%	59	0.1%	6	0.0%
Allergy and immunology	287	213	74.2%	50	17.4%	22	7.7%	2	0.7%	0	0.0%
Anesthesiology	6,051	4,630	76.5%	696	11.5%	719	11.9%	5	0.1%	1	0.0%
- Adult cardiothoracic anesthesiology	183	138	75.4%	31	16.9%	12	6.6%	2	1.1%	0	0.0%
- Clinical informatics (Anesthesiology)	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
- Critical care medicine	175	124	70.9%	31	17.7%	20	11.4%	0	0.0%	0	0.0%
- Obstetric anesthesiology	38	31	81.6%	4	10.5%	2	5.3%	1	2.6%	0	0.0%
- Pain medicine (multidisciplinary)	337	226	67.1%	60	17.8%	50	14.8%	1	0.3%	0	0.0%
- Pediatric anesthesiology	205	170	82.9%	21	10.2%	12	5.9%	2	1.0%	0	0.0%
Colon and rectal surgery	94	65	69.1%	23	24.5%	3	3.2%	3	3.2%	0	0.0%
Dermatology	1,323	1,245	94.1%	38	2.9%	40	3.0%	0	0.0%	0	0.0%
- Dermatopathology (multidisciplinary)	76	53	69.7%	20	26.3%	1	1.3%	2	2.6%	0	0.0%
- Micrographic surgery and dermatologic oncology	73	70	95.9%	0	0.0%	3	4.1%	0	0.0%	0	0.0%
Emergency medicine	6,244	4,968	79.6%	351	5.6%	923	14.8%	2	0.0%	0	0.0%
- Clinical informatics (Emergency medicine)	3	3	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Emergency medical services	50	39	78.0%	5	10.0%	6	12.0%	0	0.0%	0	0.0%
- Medical toxicology	61	49	80.3%	5	8.2%	6	9.8%	1	1.6%	0	0.0%
- Pediatric emergency medicine	101	55	54.5%	28	27.7%	18	17.8%	0	0.0%	0	0.0%
- Sports medicine	11	7	63.6%	2	18.2%	2	18.2%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	9	9	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Family medicine	10,762	4,993	46.4%	3,432	31.9%	2,331	21.7%	4	0.0%	2	0.0%
- Clinical informatics (Family medicine)	2	2	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	49	20	40.8%	23	46.9%	6	12.2%	0	0.0%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	274	172	62.8%	60	21.9%	42	15.3%	0	0.0%	0	0.0%
- Sports medicine	210	108	51.4%	35	16.7%	66	31.4%	1	0.5%	0	0.0%
Internal medicine	24,983	12,614	50.5%	9,991	40.0%	2,365	9.5%	11	0.0%	2	0.0%
- Adult congenital heart disease	5	3	60.0%	2	40.0%	0	0.0%	0	0.0%	0	0.0%
- Advanced heart failure and transplant cardiology	82	51	62.2%	25	30.5%	4	4.9%	2	2.4%	0	0.0%
- Cardiovascular disease	2,670	1,434	53.7%	1,100	41.2%	130	4.9%	6	0.2%	0	0.0%
- Clinical cardiac electrophysiology	154	76	49.4%	69	44.8%	8	5.2%	1	0.6%	0	0.0%
- Clinical informatics (Internal medicine)	5	2	40.0%	3	60.0%	0	0.0%	0	0.0%	0	0.0%
- Critical care medicine	208	67	32.2%	127	61.1%	13	6.3%	1	0.5%	0	0.0%
- Endocrinology, diabetes, and metabolism	613	245	40.0%	326	53.2%	42	6.9%	0	0.0%	0	0.0%
- Gastroenterology	1,505	953	63.3%	484	32.2%	67	4.5%	1	0.1%	0	0.0%
- Geriatric medicine	239	78	32.6%	137	57.3%	22	9.2%	2	0.8%	0	0.0%
- Hematology	22	13	59.1%	9	40.9%	0	0.0%	0	0.0%	0	0.0%
- Hematology and medical oncology	1,660	876	52.8%	697	42.0%	84	5.1%	3	0.2%	0	0.0%
- Infectious disease	724	344	47.5%	327	45.2%	53	7.3%	0	0.0%	0	0.0%
- Interventional cardiology	309	129	41.7%	164	53.1%	12	3.9%	4	1.3%	0	0.0%
- Nephrology	863	232	26.9%	564	65.4%	66	7.6%	1	0.1%	0	0.0%
- Medical oncology	59	26	44.1%	31	52.5%	2	3.4%	0	0.0%	0	0.0%
- Pulmonary disease	75	6	8.0%	68	90.7%	1	1.3%	0	0.0%	0	0.0%
- Pulmonary disease and critical care medicine	1,630	808	49.6%	684	42.0%	138	8.5%	0	0.0%	0	0.0%
- Rheumatology	445	167	37.5%	229	51.5%	49	11.0%	0	0.0%	0	0.0%
- Sleep medicine (multidisciplinary)	165	62	37.6%	91	55.2%	11	6.7%	1	0.6%	0	0.0%
- Transplant hepatology	40	31	77.5%	7	17.5%	1	2.5%	1	2.5%	0	0.0%
Medical genetics and genomics	73	39	53.4%	31	42.5%	1	1.4%	2	2.7%	0	0.0%
- Medical biochemical genetics	9	6	66.7%	3	33.3%	0	0.0%	0	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	53	33	62.3%	19	35.8%	0	0.0%	1	1.9%	0	0.0%
Neurological surgery	1,325	1,211	91.4%	105	7.9%	8	0.6%	1	0.1%	0	0.0%
- Endovascular surgical neuroradiology	2	2	100.0%	0	0.0%	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	2,413	1,325	54.9%	872	36.1%	214	8.9%	2	0.1%	0	0.0%
- Child neurology	360	252	70.0%	91	25.3%	17	4.7%	0	0.0%	0	0.0%
- Clinical neurophysiology	200	105	52.5%	83	41.5%	11	5.5%	1	0.5%	0	0.0%
- Epilepsy	53	30	56.6%	21	39.6%	2	3.8%	0	0.0%	0	0.0%
- Endovascular surgical neuroradiology	1	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
- Neurodevelopmental disabilities	23	20	87.0%	3	13.0%	0	0.0%	0	0.0%	0	0.0%
- Neuromuscular medicine	63	39	61.9%	18	28.6%	3	4.8%	3	4.8%	0	0.0%
- Vascular neurology	112	57	50.9%	47	42.0%	7	6.3%	1	0.9%	0	0.0%
Nuclear medicine	84	23	27.4%	60	71.4%	1	1.2%	0	0.0%	0	0.0%
Obstetrics and gynecology	5,187	3,967	76.5%	605	11.7%	613	11.8%	2	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	132	96	72.7%	20	15.2%	16	12.1%	0	0.0%	0	0.0%
Ophthalmology	1,432	1,328	92.7%	66	4.6%	36	2.5%	2	0.1%	0	0.0%
- Ophthalmic plastic and reconstructive surgery	6	5	83.3%	1	16.7%	0	0.0%	0	0.0%	0	0.0%
Orthopaedic surgery	3,684	3,529	95.8%	66	1.8%	88	2.4%	0	0.0%	1	0.0%
- Adult reconstructive orthopaedics	44	28	63.6%	9	20.5%	4	9.1%	3	6.8%	0	0.0%
- Foot and ankle orthopaedics	16	14	87.5%	1	6.3%	0	0.0%	1	6.3%	0	0.0%
- Hand surgery	144	134	93.1%	3	2.1%	4	2.8%	3	2.1%	0	0.0%
- Musculoskeletal oncology	15	11	73.3%	4	26.7%	0	0.0%	0	0.0%	0	0.0%
- Orthopaedic sports medicine	203	154	75.9%	15	7.4%	27	13.3%	7	3.4%	0	0.0%
- Orthopaedic surgery of the spine	31	22	71.0%	4	12.9%	4	12.9%	1	3.2%	0	0.0%
- Orthopaedic trauma	17	15	88.2%	0	0.0%	2	11.8%	0	0.0%	0	0.0%
- Pediatric orthopaedics	43	35	81.4%	3	7.0%	4	9.3%	1	2.3%	0	0.0%
Osteopathic neuromusculoskeletal medicine	3	0	0.0%	0	0.0%	3	100.0%	0	0.0%	0	0.0%
Otolaryngology	1,517	1,488	98.1%	18	1.2%	10	0.7%	1	0.1%	0	0.0%
- Neurotology	30	30	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric otolaryngology	33	25	75.8%	4	12.1%	2	6.1%	2	6.1%	0	0.0%
Pathology-anatomic and clinical	2,318	1,201	51.8%	907	39.1%	207	8.9%	3	0.1%	0	0.0%
- Blood banking/transfusion medicine	48	27	56.3%	15	31.3%	5	10.4%	1	2.1%	0	0.0%
- Clinical informatics (Pathology)	3	3	100.0%	0	0.0%	0	0.0%	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	141	65	46.1%	69	48.9%	6	4.3%	1	0.7%	0	0.0%
- Forensic pathology	50	28	56.0%	11	22.0%	11	22.0%	0	0.0%	0	0.0%
- Hematology	132	73	55.3%	49	37.1%	9	6.8%	1	0.8%	0	0.0%
- Medical microbiology	10	8	80.0%	2	20.0%	0	0.0%	0	0.0%	0	0.0%
- Neuropathology	50	31	62.0%	15	30.0%	4	8.0%	0	0.0%	0	0.0%
- Pediatric pathology	22	14	63.6%	5	22.7%	2	9.1%	1	4.5%	0	0.0%
- Selective pathology	154	66	42.9%	77	50.0%	8	5.2%	3	1.9%	0	0.0%
Pediatrics	8,933	6,042	67.6%	1,792	20.1%	1,094	12.2%	5	0.1%	0	0.0%
- Adolescent medicine	79	58	73.4%	12	15.2%	9	11.4%	0	0.0%	0	0.0%
- Child abuse pediatrics	37	30	81.1%	5	13.5%	2	5.4%	0	0.0%	0	0.0%
- Clinical informatics (Pediatrics)	7	7	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Developmental-behavioral pediatrics	102	57	55.9%	30	29.4%	15	14.7%	0	0.0%	0	0.0%
- Neonatal-perinatal medicine	738	421	57.0%	238	32.2%	77	10.4%	2	0.3%	0	0.0%
- Pediatric cardiology	422	297	70.4%	102	24.2%	21	5.0%	2	0.5%	0	0.0%
- Pediatric critical care medicine	496	335	67.5%	118	23.8%	40	8.1%	3	0.6%	0	0.0%
- Pediatric emergency medicine	373	275	73.7%	60	16.1%	38	10.2%	0	0.0%	0	0.0%
- Pediatric endocrinology	243	135	55.6%	93	38.3%	15	6.2%	0	0.0%	0	0.0%
- Pediatric gastroenterology	282	160	56.7%	98	34.8%	23	8.2%	1	0.4%	0	0.0%
- Pediatric hematology/oncology	476	305	64.1%	113	23.7%	56	11.8%	2	0.4%	0	0.0%
- Pediatric infectious diseases	162	101	62.3%	49	30.2%	11	6.8%	1	0.6%	0	0.0%
- Pediatric nephrology	101	52	51.5%	46	45.5%	3	3.0%	0	0.0%	0	0.0%
- Pediatric pulmonology	159	94	59.1%	54	34.0%	11	6.9%	0	0.0%	0	0.0%

TABLE C.15 Continued

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

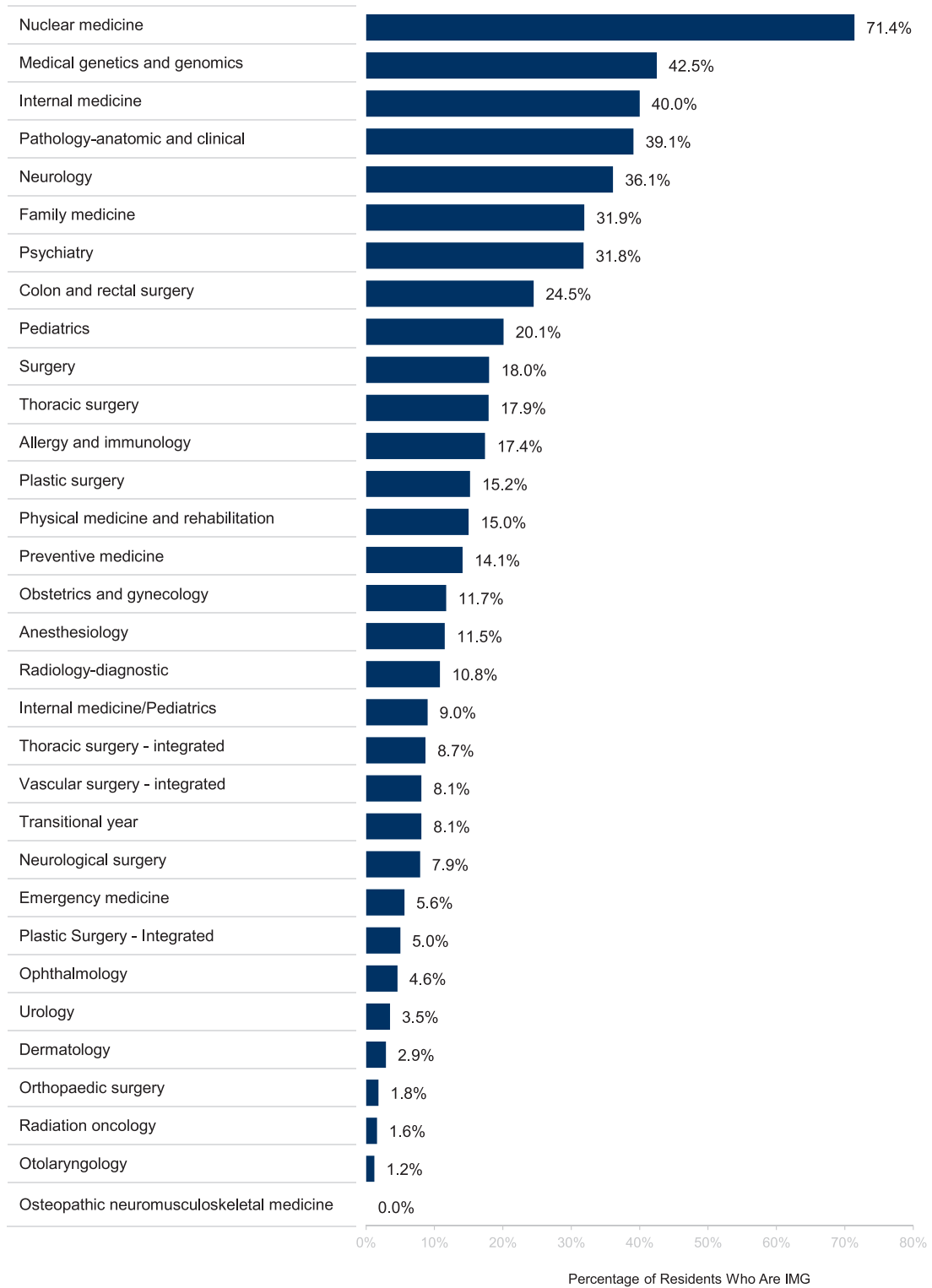
Specialty	Total Residents	US LCME - Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
- Pediatric rheumatology	76	45	59.2%	23	30.3%	8	10.5%	0	0.0%	0	0.0%
- Pediatric sports medicine	24	15	62.5%	2	8.3%	7	29.2%	0	0.0%	0	0.0%
- Pediatric transplant hepatology	6	2	33.3%	4	66.7%	0	0.0%	0	0.0%	0	0.0%
Physical medicine and rehabilitation	1,293	723	55.9%	194	15.0%	375	29.0%	1	0.1%	0	0.0%
- Brain injury medicine	7	5	71.4%	1	14.3%	1	14.3%	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	16	10	62.5%	2	12.5%	4	25.0%	0	0.0%	0	0.0%
- Pediatric rehabilitation	25	15	60.0%	4	16.0%	6	24.0%	0	0.0%	0	0.0%
- Sports medicine	24	14	58.3%	4	16.7%	6	25.0%	0	0.0%	0	0.0%
Plastic surgery	363	302	83.2%	55	15.2%	5	1.4%	1	0.3%	0	0.0%
Plastic surgery - integrated	663	626	94.4%	33	5.0%	4	0.6%	0	0.0%	0	0.0%
- Craniofacial surgery	9	8	88.9%	0	0.0%	0	0.0%	1	11.1%	0	0.0%
- Hand surgery	23	17	73.9%	2	8.7%	1	4.3%	3	13.0%	0	0.0%
Preventive medicine	355	250	70.4%	50	14.1%	53	14.9%	2	0.6%	0	0.0%
- Medical toxicology	3	3	100.0%	0	0.0%	0	0.0%	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%
Psychiatry	5,358	2,972	55.5%	1,704	31.8%	675	12.6%	7	0.1%	0	0.0%
- Addiction psychiatry	80	42	52.5%	27	33.8%	9	11.3%	2	2.5%	0	0.0%
- Child and adolescent psychiatry	826	444	53.8%	258	31.2%	124	15.0%	0	0.0%	0	0.0%
- Forensic psychiatry	72	38	52.8%	23	31.9%	11	15.3%	0	0.0%	0	0.0%
- Geriatric psychiatry	58	28	48.3%	24	41.4%	6	10.3%	0	0.0%	0	0.0%
- Psychosomatic medicine	79	45	57.0%	27	34.2%	5	6.3%	2	2.5%	0	0.0%
Radiation oncology	733	709	96.7%	12	1.6%	12	1.6%	0	0.0%	0	0.0%
Radiology-diagnostic	4,740	3,818	80.5%	514	10.8%	404	8.5%	4	0.1%	0	0.0%
- Abdominal radiology	45	32	71.1%	7	15.6%	3	6.7%	3	6.7%	0	0.0%
- Endovascular surgical neuroradiology	5	2	40.0%	2	40.0%	0	0.0%	1	20.0%	0	0.0%
- Musculoskeletal radiology	30	27	90.0%	2	6.7%	1	3.3%	0	0.0%	0	0.0%
- Neuroradiology	256	195	76.2%	35	13.7%	24	9.4%	2	0.8%	0	0.0%
- Nuclear radiology	13	7	53.8%	5	38.5%	1	7.7%	0	0.0%	0	0.0%
- Pediatric radiology	79	55	69.6%	15	19.0%	7	8.9%	2	2.5%	0	0.0%
- Vascular and interventional radiology	275	229	83.3%	31	11.3%	12	4.4%	3	1.1%	0	0.0%
Interventional radiology - integrated	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Surgery	7,834	6,097	77.8%	1,414	18.0%	322	4.1%	1	0.0%	0	0.0%
- Complex general surgical oncology	101	77	76.2%	16	15.8%	1	1.0%	7	6.9%	0	0.0%
- Hand surgery	8	5	62.5%	1	12.5%	2	25.0%	0	0.0%	0	0.0%
- Pediatric surgery	82	76	92.7%	6	7.3%	0	0.0%	0	0.0%	0	0.0%
- Surgical critical care	236	191	80.9%	26	11.0%	18	7.6%	1	0.4%	0	0.0%
- Vascular surgery	233	163	70.0%	51	21.9%	19	8.2%	0	0.0%	0	0.0%
Vascular surgery - integrated	234	205	87.6%	19	8.1%	10	4.3%	0	0.0%	0	0.0%
Thoracic surgery	223	169	75.8%	40	17.9%	11	4.9%	3	1.3%	0	0.0%
- Congenital cardiac surgery	10	9	90.0%	1	10.0%	0	0.0%	0	0.0%	0	0.0%
Thoracic surgery - integrated	138	122	88.4%	12	8.7%	4	2.9%	0	0.0%	0	0.0%
Urology	1,254	1,139	90.8%	44	3.5%	69	5.5%	2	0.2%	0	0.0%
- Female pelvic medicine and reconstructive surgery	28	26	92.9%	2	7.1%	0	0.0%	0	0.0%	0	0.0%
- Pediatric urology	25	24	96.0%	0	0.0%	0	0.0%	1	4.0%	0	0.0%
Transitional year	1,077	872	81.0%	87	8.1%	117	10.9%	1	0.1%	0	0.0%
Internal medicine/pediatrics	1,464	1,207	82.4%	132	9.0%	124	8.5%	1	0.1%	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



Note: Excluding Interventional Radiology – integrated which had 0 residents in the 2015-2016 academic year.
 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	--	124,409	80,579	31,095	12,557	172	6
Alabama	AL	1,407	1,011	299	97	0	0
Alaska	AK	37	20	1	16	0	0
Arizona	AZ	1,668	1,014	416	236	2	0
Arkansas	AR	772	465	236	71	0	0
California	CA	11,175	9,182	1,133	841	19	0
Colorado	CO	1,327	1,154	54	119	0	0
Connecticut	CT	2,303	1,329	803	164	7	0
Delaware	DE	365	214	61	90	0	0
District of Columbia	DC	1,709	1,144	502	62	1	0
Florida	FL	4,492	2,638	1,346	503	5	0
Georgia	GA	2,312	1,591	519	199	2	1
Hawaii	HI	438	272	62	103	1	0
Idaho	ID	112	69	18	25	0	0
Illinois	IL	6,285	3,966	1,660	647	9	3
Indiana	IN	1,413	1,036	230	147	0	0
Iowa	IA	941	522	211	206	2	0
Kansas	KS	805	487	166	152	0	0
Kentucky	KY	1,257	826	277	154	0	0
Louisiana	LA	2,073	1,343	617	112	1	0
Maine	ME	316	184	48	81	3	0
Maryland	MD	3,173	2,262	655	251	5	0
Massachusetts	MA	5,515	4,094	1,134	256	31	0
Michigan	MI	5,618	2,760	1,957	898	3	0
Minnesota	MN	2,262	1,634	445	175	8	0
Mississippi	MS	667	432	135	100	0	0
Missouri	MO	2,823	1,897	623	300	3	0
Montana	MT	74	39	17	18	0	0
Nebraska	NE	760	460	217	83	0	0
Nevada	NV	389	159	169	61	0	0
New Hampshire	NH	415	308	69	38	0	0
New Jersey	NJ	2,945	986	1,593	366	0	0
New Mexico	NM	602	409	131	62	0	0
New York	NY	16,579	8,547	6,828	1,175	28	1
North Carolina	NC	3,303	2,645	408	245	5	0
North Dakota	ND	136	64	61	11	0	0
Ohio	OH	6,159	3,622	1,708	824	5	0
Oklahoma	OK	849	483	259	107	0	0
Oregon	OR	925	737	73	113	2	0
Pennsylvania	PA	8,090	4,905	1,985	1,188	12	0
Puerto Rico	PR	906	632	274	0	0	0
Rhode Island	RI	776	583	155	36	2	0
South Carolina	SC	1,323	1,026	143	154	0	0
South Dakota	SD	142	72	41	29	0	0
Tennessee	TN	2,406	1,776	461	168	1	0
Texas	TX	8,231	5,622	1,644	959	5	1
Utah	UT	778	655	81	42	0	0
Vermont	VT	298	233	51	13	1	0
Virginia	VA	2,460	1,697	409	351	3	0
Washington	WA	1,955	1,625	120	204	6	0
West Virginia	WV	734	410	236	88	0	0
Wisconsin	WI	1,868	1,333	331	204	0	0
Wyoming	WY	41	5	23	13	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	30.6	30.0	32.2	30.5	33.4	32.5
OVERALL PIPELINE	29.5	29.0	30.9	29.7	31.7	32.5
Allergy and immunology	32.0	31.5	33.7	32.0	45.0	
Anesthesiology	29.5	29.0	31.6	30.4	28.0	
- Adult cardiothoracic anesthesiology	33.1	32.6	35.3	32.6	35.0	
- Critical care medicine	33.6	33.2	35.4	33.2		
- Obstetric anesthesiology	32.9	32.8	33.5	34.5	30.0	
- Pain medicine (multidisciplinary)	33.6	32.9	35.8	33.7	43.0	
- Pediatric anesthesiology	33.2	33.1	35.0	32.3	31.0	
Colon and rectal surgery	34.9	34.2	37.4	33.7	31.3	
Dermatology	30.0	29.8	36.2	29.7		
- Dermatopathology (multidisciplinary)	34.9	34.0	37.4	33.0	37.5	
- Micrographic surgery and dermatologic oncology	32.3	32.1		37.7		
Emergency medicine	29.5	29.3	31.0	30.0	30.0	
- Clinical informatics (Emergency medicine)	44.0	44.0				
- Emergency medical services	32.7	32.4	33.0	34.3		
- Medical toxicology	33.1	33.0	33.5	34.0	32.0	
- Pediatric emergency medicine	33.1	31.7	35.9	32.7		
- Sports medicine	31.6	31.7	32.5	30.5		
- Undersea and hyperbaric medicine	39.1	39.1				
Family medicine	30.1	29.5	31.4	29.7	29.0	32.5
- Clinical informatics (Family medicine)	40.0	40.0				
- Geriatric medicine	35.1	34.9	36.2	31.7		
- Hospice and palliative medicine (multidisciplinary)	36.2	36.2	36.7	35.4		
- Sports medicine	32.8	32.7	33.7	32.5	35.0	
Internal medicine	29.3	28.7	30.2	29.3	32.5	
- Adult congenital heart disease	35.0	36.0	33.5			
- Advanced heart failure and transplant cardiology	36.0	35.7	37.2	34.0	32.5	
- Cardiovascular disease	32.2	31.4	33.3	32.1	36.0	
- Clinical cardiac electrophysiology	36.0	34.9	37.4	35.3	39.0	
- Clinical informatics (Internal medicine)	37.6	35.0	39.3			
- Critical care medicine	33.5	32.6	33.9	33.2	37.0	
- Endocrinology, diabetes, and metabolism	32.6	31.6	33.4	32.1		
- Gastroenterology	32.0	31.3	33.4	31.9	33.0	
- Geriatric medicine	34.9	34.3	35.2	34.9	35.5	
- Hematology	32.8	32.6	33.2			
- Hematology and medical oncology	32.3	32.0	32.8	32.4	31.0	
- Infectious disease	33.6	32.8	34.3	33.6		
- Interventional cardiology	35.7	34.8	36.3	35.8	35.3	
- Nephrology	33.7	31.9	34.8	31.5		
- Medical oncology	33.5	32.3	34.5	32.0		
- Pulmonary disease	34.1	37.0	33.9			
- Pulmonary disease and critical care medicine	32.1	31.6	32.5	32.5		
- Rheumatology	33.0	32.0	34.1	31.7		
- Sleep medicine (multidisciplinary)	35.8	34.9	36.6	33.8	44.0	
- Transplant hepatology	34.2	33.8	35.7	36.0	33.0	
Medical genetics and genomics	35.0	32.2	39.4	39.0	32.0	
- Medical biochemical genetics	38.1	35.8	42.7			
- Molecular genetic pathology (multidisciplinary)	37.3	36.4	38.8		39.0	
Neurological surgery	29.1	28.8	31.6		34.0	
- Endovascular surgical neuroradiology	33.0	33.0				

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				
		USLCME - Accredited Medical School	International Medical School	Osteopathic Medical School	Canadian Medical School	US Medical School Unknown
Neurology	30.1	29.5	31.3	30.0		
- Child neurology	31.9	31.4	33.4	30.7		
- Clinical neurophysiology	34.3	33.1	35.7	34.4	39.0	
- Epilepsy	34.8	33.9	36.3	33.5		
- Endovascular surgical neuroradiology	37.0		37.0			
- Neurodevelopmental disabilities	30.3	29.4	32.5			
- Neuromuscular medicine	33.2	32.2	35.6	32.0	33.0	
- Vascular neurology	33.9	33.7	34.2	33.9	34.0	
Nuclear medicine	37.8	38.6	37.7	32.0		
Obstetrics and gynecology	28.8	28.5	30.4	29.4		
- Female pelvic medicine and reconstructive surgery	32.6	31.8	36.2	33.7		
Ophthalmology	29.5	29.3	33.6	30.0	31.0	
- Ophthalmic plastic and reconstructive surgery	32.0	32.0				
Orthopaedic surgery	28.4	28.3	31.2	29.4		
- Adult reconstructive orthopaedics	34.8	34.0	36.8	35.8	34.7	
- Foot and ankle orthopaedics	34.6	34.1	41.0		34.0	
- Hand surgery	34.2	34.2	38.0	33.5	32.7	
- Musculoskeletal oncology	35.7	34.6	38.5			
- Orthopaedic sports medicine	34.4	34.2	36.9	34.2	31.7	
- Orthopaedic surgery of the spine	33.4	33.2	36.0	33.0	30.0	
- Orthopaedic trauma	34.1	33.9		35.0		
- Pediatric orthopaedics	33.4	33.3	36.7	32.8	32.0	
Osteopathic neuromusculoskeletal medicine	28.5			28.5		
Otolaryngology	28.5	28.5		29.3		
- Neurotology	33.1	33.1				
- Pediatric otolaryngology	33.2	33.2	34.3	32.0	31.5	
Pathology-anatomic and clinical	31.5	30.2	33.6	30.0	29.0	
- Blood banking/transfusion medicine	35.3	35.5	35.2	34.8	32.0	
- Clinical informatics (Pathology)	30.5	30.5				
- Chemical pathology	37.5	37.5				
- Cytopathology	37.2	34.1	40.3	35.5	30.0	
- Forensic pathology	35.1	35.8	34.6	33.8		
- Hematology	36.3	34.9	39.0	33.0	33.0	
- Medical microbiology	34.0	33.5	36.0			
- Neuropathology	35.5	35.5	35.9	34.8		
- Pediatric pathology	35.4	34.8	37.0	34.5	37.0	
- Selective pathology	36.1	34.0	38.2	33.8	33.7	
Pediatrics	28.7	28.3	30.0	28.9	25.0	
- Adolescent medicine	31.9	32.1	31.2	31.5		
- Child abuse pediatrics	32.0	31.5	34.0			
- Clinical informatics (Pediatrics)	34.0	34.0				
- Developmental-behavioral pediatrics	34.1	34.4	34.0	33.5		
- Neonatal-perinatal medicine	32.1	31.6	33.5	31.3		
- Pediatric cardiology	31.6	31.3	32.3	30.9		
- Pediatric critical care medicine	31.9	31.9	31.8	31.7	35.0	
- Pediatric emergency medicine	32.4	31.9	33.8	32.6		
- Pediatric endocrinology	32.5	31.3	34.1	33.3		
- Pediatric gastroenterology	31.7	31.5	32.5	31.1		
- Pediatric hematology/oncology	31.7	31.8	31.3	31.7	35.0	
- Pediatric infectious diseases	32.6	32.0	33.5	32.6		
- Pediatric nephrology	33.2	30.5	35.5	31.5		
- Pediatric pulmonology	32.3	31.6	33.2	31.3		

TABLE C.18 Continued

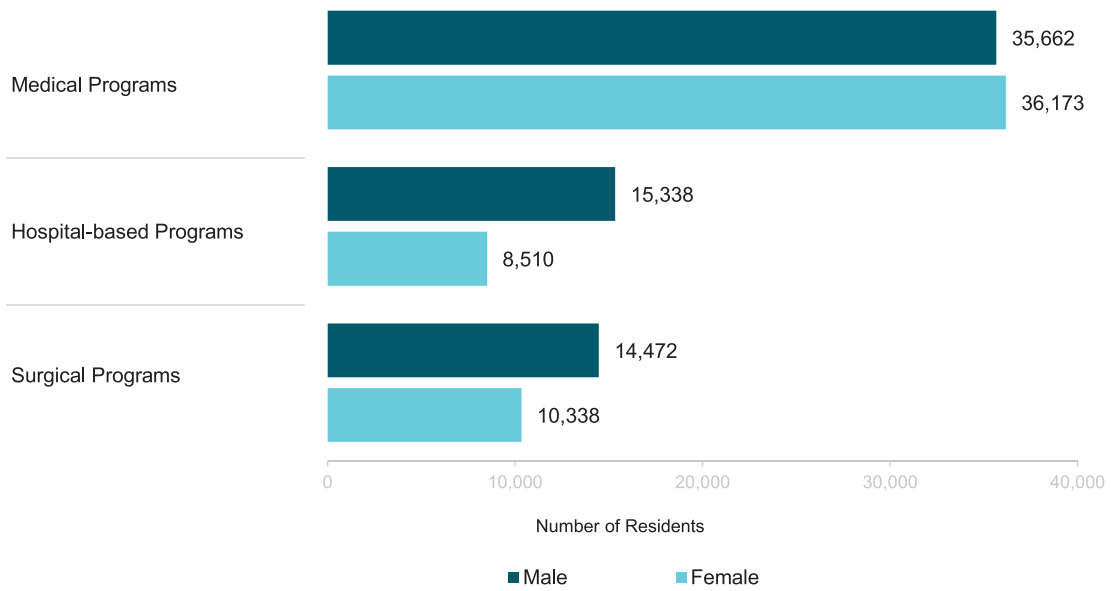
Mean Age of Year 1 Residents by Specialty and Subspecialty and Medical School Type

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 rheumatology	32.0	31.1	33.9	29.0		
- Pediatric sports medicine	31.3	30.7	31.0	32.6		
- Pediatric transplant hepatology	36.3	35.5	36.8			
Physical medicine and rehabilitation	30.1	29.7	31.8	30.2		
- Brain injury medicine	30.9	30.8	31.0	31.0		
- Neuromuscular medicine	39.0		39.0			
- Spinal cord injury medicine	33.4	32.9	35.5	33.5		
- Pediatric rehabilitation	33.6	33.4	35.0	33.5		
- Sports medicine	33.6	33.5	33.8	33.8		
Plastic surgery	33.7	33.5	34.9	33.0		
Plastic surgery - integrated	28.2	28.1	31.2	31.0		
- Craniofacial surgery	34.9	34.5			38.0	
- Hand surgery	34.5	34.6	36.5	35.0	32.7	
Preventive medicine	37.5	37.2	38.4	37.8	49.0	
- Medical toxicology	32.0	32.0				
- Undersea and hyperbaric medicine	40.7	41.0			40.0	
Psychiatry	30.7	29.8	32.7	30.2	26.0	
- Addiction psychiatry	35.8	35.6	37.1	33.4	33.0	
- Child and adolescent psychiatry	33.7	33.0	35.1	33.1		
- Forensic psychiatry	35.2	34.6	36.5	34.5		
- Geriatric psychiatry	35.1	33.6	36.4	37.2		
- Psychosomatic medicine	33.4	32.9	34.1	34.0	32.5	
Radiation oncology	30.2	30.1	32.3	29.5		
Radiology-diagnostic	30.3	30.0	32.1	30.8	34.0	
- Abdominal radiology	33.2	32.8	35.9	33.7	30.7	
- Endovascular surgical neuroradiology	35.0	34.0	38.0		31.0	
- Musculoskeletal radiology	33.5	33.0	37.5	39.0		
- Neuroradiology	34.6	33.8	36.3	38.3	35.0	
- Nuclear radiology	34.7	34.3	35.4	34.0		
- Pediatric radiology	34.6	34.1	36.9	34.9	30.5	
- Vascular and interventional radiology	34.1	33.8	35.8	36.7	32.0	
Surgery	29.1	28.7	30.6	29.3	34.0	
- Complex general surgical oncology	34.6	34.7	34.7	33.0	34.4	
- Hand surgery	37.1	39.4	34.0	33.0		
- Pediatric surgery	35.3	35.4	34.7			
- Surgical critical care	35.3	35.3	36.1	34.7	33.0	
- Vascular surgery	34.1	33.9	35.4	33.4		
Vascular surgery - integrated	28.6	28.5	29.5	30.0		
Thoracic surgery	34.5	34.2	34.8	36.3	39.0	
- Congenital cardiac surgery	38.1	38.7	33.0			
Thoracic surgery - integrated	29.2	28.9	28.0	35.0		
Urology	29.3	29.2	31.5	29.1		
- Female pelvic medicine and reconstructive surgery	33.4	33.0	37.0			
- Pediatric urology	33.5	33.5			34.0	
Transitional year	29.0	28.7	30.9	29.4	26.0	
Internal medicine/pediatrics	28.5	28.2	31.4	28.7		

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

FIGURE C.19

Number of Active Residents by Specialty Group and Sex



Note: Not shown are those residents for which sex is unreported (n = 3,916).

FIGURE C.20

Percent of Active Residents by Sex and Academic Year, 2006-2007 to 2015-2016

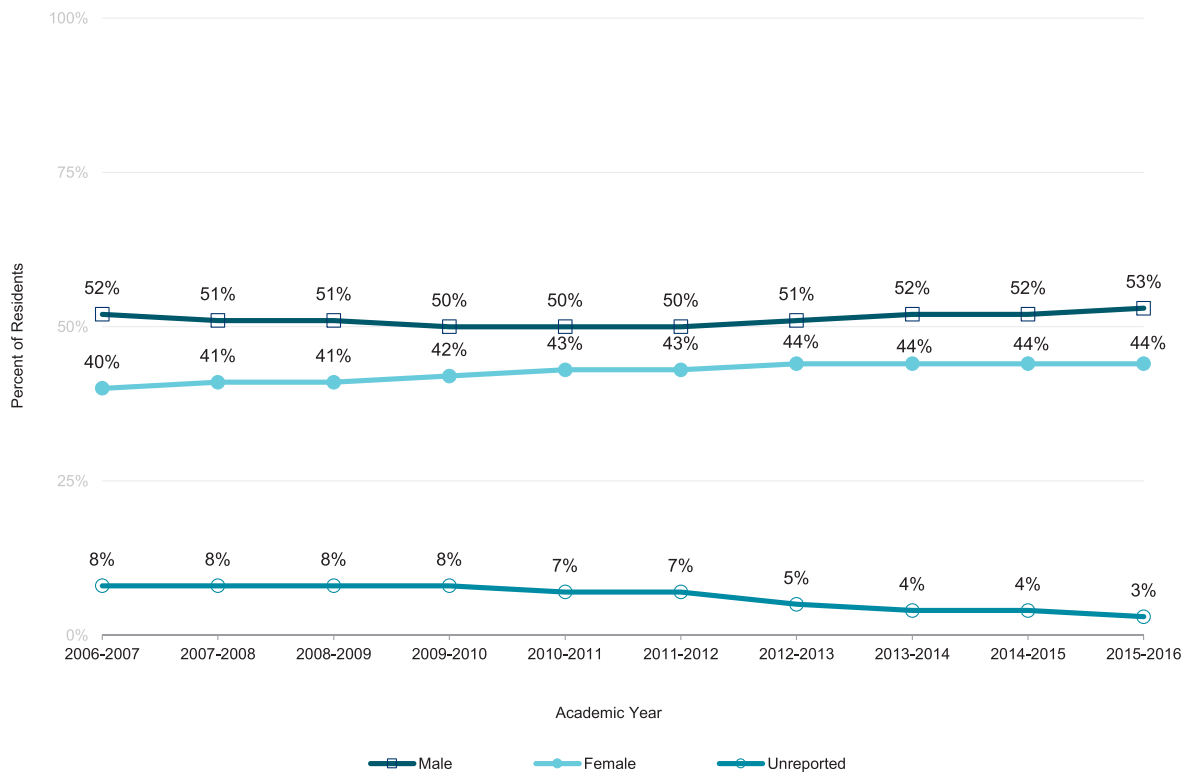


TABLE C.21								
Number of Active Residents by Specialty and Subspecialty and Sex								
Specialty	Total Programs	Total Residents	Sex					
			Female		Male		Not Reported	
			#	%	#	%	#	%
OVERALL	9,977	124,409	55,021	44.2%	65,472	52.6%	3,916	3.1%
TOTAL PIPELINE	4,021	100,761	44,830	44.5%	52,242	51.8%	3,689	3.7%
Allergy and immunology	77	287	194	67.6%	92	32.1%	1	0.3%
Anesthesiology	135	6,051	2,140	35.4%	3,844	63.5%	67	1.1%
- Adult cardiothoracic anesthesiology	62	183	51	27.9%	131	71.6%	1	0.5%
- Clinical informatics (Anesthesiology)	1	0	0	N/A	0	N/A	0	N/A
- Critical care medicine	54	175	55	31.4%	120	68.6%	0	0.0%
- Obstetric anesthesiology	28	38	26	68.4%	12	31.6%	0	0.0%
- Pain medicine (multidisciplinary)	100	337	73	21.7%	262	77.7%	2	0.6%
- Pediatric anesthesiology	56	205	112	54.6%	93	45.4%	0	0.0%
Colon and rectal surgery	57	94	35	37.2%	59	62.8%	0	0.0%
Dermatology	120	1,323	840	63.5%	478	36.1%	5	0.4%
- Dermatopathology (multidisciplinary)	53	76	37	48.7%	39	51.3%	0	0.0%
- Micrographic surgery and dermatologic oncology	69	73	33	45.2%	40	54.8%	0	0.0%
Emergency medicine	179	6,244	2,222	35.6%	3,871	62.0%	151	2.4%
- Clinical informatics (Emergency medicine)	3	3	2	66.7%	1	33.3%	0	0.0%
- Emergency medical services	50	50	14	28.0%	36	72.0%	0	0.0%
- Medical toxicology	26	61	30	49.2%	31	50.8%	0	0.0%
- Pediatric emergency medicine	22	101	61	60.4%	38	37.6%	2	2.0%
- Sports medicine	7	11	3	27.3%	8	72.7%	0	0.0%
- Undersea and hyperbaric medicine	7	9	0	0.0%	8	88.9%	1	11.1%
Family medicine	498	10,762	5,837	54.2%	4,793	44.5%	132	1.2%
- Clinical informatics (Family medicine)	1	2	1	50.0%	1	50.0%	0	0.0%
- Geriatric medicine	41	49	34	69.4%	15	30.6%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	115	274	169	61.7%	104	38.0%	1	0.4%
- Sports medicine	127	210	58	27.6%	152	72.4%	0	0.0%
Internal medicine	421	24,983	10,163	40.7%	13,391	53.6%	1,429	5.7%
- Adult congenital heart disease	7	5	2	40.0%	3	60.0%	0	0.0%
- Advanced heart failure and transplant cardiology	68	82	29	35.4%	52	63.4%	1	1.2%
- Cardiovascular disease	193	2,670	562	21.0%	2,084	78.1%	24	0.9%
- Clinical cardiac electrophysiology	104	154	12	7.8%	140	90.9%	2	1.3%
- Clinical informatics (Internal medicine)	8	5	1	20.0%	4	80.0%	0	0.0%
- Critical care medicine	33	208	55	26.4%	151	72.6%	2	1.0%
- Endocrinology, diabetes, and metabolism	136	613	442	72.1%	170	27.7%	1	0.2%
- Gastroenterology	168	1,505	506	33.6%	986	65.5%	13	0.9%
- Geriatric medicine	105	239	145	60.7%	89	37.2%	5	2.1%
- Hematology	3	22	12	54.5%	10	45.5%	0	0.0%
- Hematology and medical oncology	144	1,660	739	44.5%	907	54.6%	14	0.8%
- Infectious disease	148	724	387	53.5%	322	44.5%	15	2.1%
- Interventional cardiology	145	309	26	8.4%	280	90.6%	3	1.0%
- Nephrology	147	863	314	36.4%	546	63.3%	3	0.3%
- Medical oncology	9	59	22	37.3%	37	62.7%	0	0.0%
- Pulmonary disease	18	75	19	25.3%	56	74.7%	0	0.0%
- Pulmonary disease and critical care medicine	147	1,630	517	31.7%	1,106	67.9%	7	0.4%
- Rheumatology	113	445	272	61.1%	172	38.7%	1	0.2%
- Sleep medicine (multidisciplinary)	83	165	69	41.8%	96	58.2%	0	0.0%
- Transplant hepatology	47	40	19	47.5%	21	52.5%	0	0.0%
Medical genetics and genomics	45	73	53	72.6%	20	27.4%	0	0.0%
- Medical biochemical genetics	14	9	8	88.9%	1	11.1%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	39	53	22	41.5%	31	58.5%	0	0.0%
Neurological surgery	108	1,325	225	17.0%	1,084	81.8%	16	1.2%
- Endovascular surgical neuroradiology	2	2	0	0.0%	2	100.0%	0	0.0%

TABLE C.21 *Continued*

Number of Active Residents by Specialty and Subspecialty and Sex

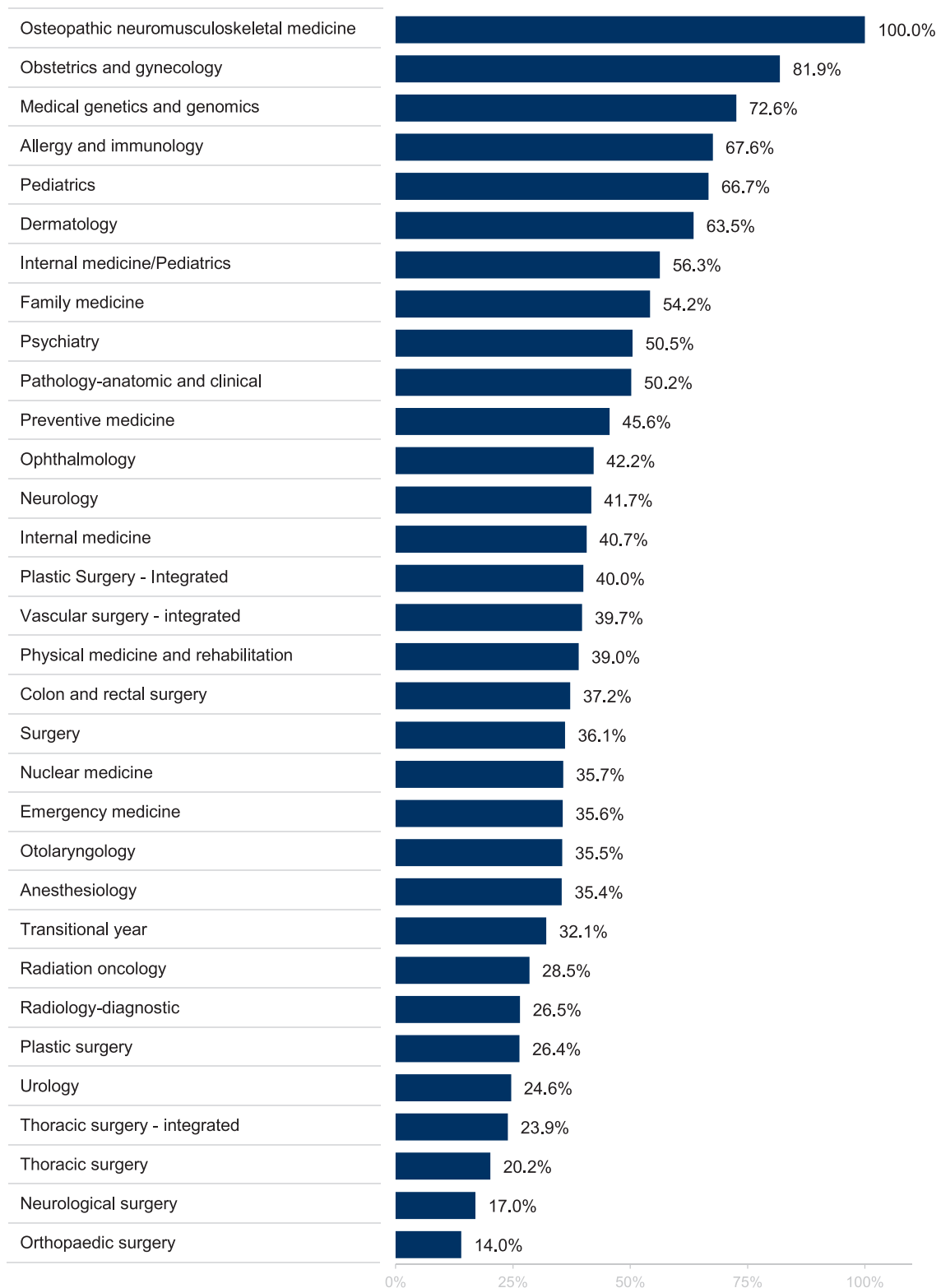
Specialty	Total Programs	Total Residents	Sex					
			Female		Male		Not Reported	
			#	%	#	%	#	%
Neurology	139	2,413	1,007	41.7%	1,256	52.1%	150	6.2%
- Child neurology	73	360	244	67.8%	116	32.2%	0	0.0%
- Clinical neurophysiology	96	200	100	50.0%	100	50.0%	0	0.0%
- Epilepsy	39	53	28	52.8%	24	45.3%	1	1.9%
- Endovascular surgical neuroradiology	1	1	0	0.0%	1	100.0%	0	0.0%
- Neurodevelopmental disabilities	8	23	17	73.9%	6	26.1%	0	0.0%
- Neuromuscular medicine	45	63	35	55.6%	26	41.3%	2	3.2%
- Vascular neurology	87	112	47	42.0%	65	58.0%	0	0.0%
Nuclear medicine	43	84	30	35.7%	54	64.3%	0	0.0%
Obstetrics and gynecology	250	5,187	4,247	81.9%	864	16.7%	76	1.5%
- Female pelvic medicine and reconstructive surgery	48	132	100	75.8%	32	24.2%	0	0.0%
Ophthalmology	116	1,432	604	42.2%	820	57.3%	8	0.6%
- Ophthalmic plastic and reconstructive surgery	5	6	1	16.7%	5	83.3%	0	0.0%
Orthopaedic surgery	162	3,684	517	14.0%	3,058	83.0%	109	3.0%
- Adult reconstructive orthopaedics	23	44	1	2.3%	43	97.7%	0	0.0%
- Foot and ankle orthopaedics	6	16	4	25.0%	12	75.0%	0	0.0%
- Hand surgery	67	144	28	19.4%	115	79.9%	1	0.7%
- Musculoskeletal oncology	11	15	3	20.0%	12	80.0%	0	0.0%
- Orthopaedic sports medicine	94	203	24	11.8%	176	86.7%	3	1.5%
- Orthopaedic surgery of the spine	17	31	1	3.2%	30	96.8%	0	0.0%
- Orthopaedic trauma	9	17	3	17.6%	14	82.4%	0	0.0%
- Pediatric orthopaedics	25	43	22	51.2%	21	48.8%	0	0.0%
Osteopathic neuromusculoskeletal medicine	1	3	3	100.0%	0	0.0%	0	0.0%
Otolaryngology	106	1,517	539	35.5%	940	62.0%	38	2.5%
- Neurotology	20	30	5	16.7%	25	83.3%	0	0.0%
- Pediatric otolaryngology	23	33	17	51.5%	16	48.5%	0	0.0%
Pathology-anatomic and clinical	142	2,318	1,163	50.2%	1,121	48.4%	34	1.5%
- Blood banking/transfusion medicine	48	48	24	50.0%	24	50.0%	0	0.0%
- Clinical informatics (Pathology)	2	3	0	0.0%	3	100.0%	0	0.0%
- Chemical pathology	3	2	0	0.0%	2	100.0%	0	0.0%
- Cytopathology	91	141	98	69.5%	42	29.8%	1	0.7%
- Forensic pathology	39	50	33	66.0%	17	34.0%	0	0.0%
- Hematology	85	132	68	51.5%	64	48.5%	0	0.0%
- Medical microbiology	14	10	4	40.0%	6	60.0%	0	0.0%
- Neuropathology	33	50	20	40.0%	30	60.0%	0	0.0%
- Pediatric pathology	26	22	15	68.2%	7	31.8%	0	0.0%
- Selective pathology	79	154	84	54.5%	69	44.8%	1	0.6%
Pediatrics	204	8,933	5,959	66.7%	2,221	24.9%	753	8.4%
- Adolescent medicine	28	79	64	81.0%	15	19.0%	0	0.0%
- Child abuse pediatrics	28	37	33	89.2%	4	10.8%	0	0.0%
- Clinical informatics (Pediatrics)	4	7	2	28.6%	5	71.4%	0	0.0%
- Developmental-behavioral pediatrics	38	102	85	83.3%	17	16.7%	0	0.0%
- Neonatal-perinatal medicine	98	738	523	70.9%	212	28.7%	3	0.4%
- Pediatric cardiology	59	422	210	49.8%	211	50.0%	1	0.2%
- Pediatric critical care medicine	67	496	310	62.5%	181	36.5%	5	1.0%
- Pediatric emergency medicine	52	373	243	65.1%	129	34.6%	1	0.3%
- Pediatric endocrinology	69	243	184	75.7%	57	23.5%	2	0.8%
- Pediatric gastroenterology	60	282	185	65.6%	94	33.3%	3	1.1%
- Pediatric hematology/oncology	72	476	326	68.5%	149	31.3%	1	0.2%
- Pediatric infectious diseases	64	162	108	66.7%	54	33.3%	0	0.0%
- Pediatric nephrology	45	101	73	72.3%	26	25.7%	2	2.0%
- Pediatric pulmonology	54	159	90	56.6%	69	43.4%	0	0.0%

TABLE C.21 <i>Continued</i>								
Number of Active Residents by Specialty and Subspecialty and Sex								
Specialty	Total Programs	Total Residents	Sex					
			Female		Male		Not Reported	
			#	%	#	%	#	%
- Pediatric rheumatology	36	76	56	73.7%	19	25.0%	1	1.3%
- Pediatric sports medicine	17	24	15	62.5%	8	33.3%	1	4.2%
- Pediatric transplant hepatology	9	6	5	83.3%	1	16.7%	0	0.0%
Physical medicine and rehabilitation	83	1,293	504	39.0%	785	60.7%	4	0.3%
- Brain injury medicine	8	7	4	57.1%	3	42.9%	0	0.0%
- Neuromuscular medicine	1	1	1	100.0%	0	0.0%	0	0.0%
- Spinal cord injury medicine	20	16	10	62.5%	6	37.5%	0	0.0%
- Pediatric rehabilitation	19	25	18	72.0%	7	28.0%	0	0.0%
- Sports medicine	17	24	8	33.3%	16	66.7%	0	0.0%
Plastic surgery	68	363	96	26.4%	267	73.6%	0	0.0%
Plastic surgery - integrated	69	663	265	40.0%	374	56.4%	24	3.6%
- Craniofacial surgery	10	9	2	22.2%	7	77.8%	0	0.0%
- Hand surgery	16	23	4	17.4%	19	82.6%	0	0.0%
Preventive medicine	74	355	162	45.6%	193	54.4%	0	0.0%
- Medical toxicology	1	3	1	33.3%	2	66.7%	0	0.0%
- Undersea and hyperbaric medicine	1	3	0	0.0%	3	100.0%	0	0.0%
Psychiatry	203	5,358	2,705	50.5%	2,385	44.5%	268	5.0%
- Addiction psychiatry	45	80	38	47.5%	41	51.3%	1	1.3%
- Child and adolescent psychiatry	126	826	486	58.8%	333	40.3%	7	0.8%
- Forensic psychiatry	42	72	28	38.9%	44	61.1%	0	0.0%
- Geriatric psychiatry	56	58	31	53.4%	27	46.6%	0	0.0%
- Psychosomatic medicine	57	79	48	60.8%	30	38.0%	1	1.3%
Radiation oncology	91	733	209	28.5%	515	70.3%	9	1.2%
Radiology-diagnostic	188	4,740	1,256	26.5%	3,456	72.9%	28	0.6%
- Abdominal radiology	12	45	8	17.8%	37	82.2%	0	0.0%
- Endovascular surgical neuroradiology	3	5	1	20.0%	4	80.0%	0	0.0%
- Musculoskeletal radiology	15	30	11	36.7%	19	63.3%	0	0.0%
- Neuroradiology	86	256	45	17.6%	208	81.3%	3	1.2%
- Nuclear radiology	18	13	5	38.5%	8	61.5%	0	0.0%
- Pediatric radiology	46	79	32	40.5%	47	59.5%	0	0.0%
- Vascular and interventional radiology	95	275	23	8.4%	246	89.5%	6	2.2%
Interventional radiology - integrated	24	0	0	N/A	0	N/A	0	N/A
Surgery	261	7,834	2,825	36.1%	4,696	59.9%	313	4.0%
- Complex general surgical oncology	22	101	50	49.5%	51	50.5%	0	0.0%
- Hand surgery	1	8	2	25.0%	6	75.0%	0	0.0%
- Pediatric surgery	47	82	32	39.0%	50	61.0%	0	0.0%
- Surgical critical care	113	236	113	47.9%	122	51.7%	1	0.4%
- Vascular surgery	106	233	63	27.0%	167	71.7%	3	1.3%
Vascular surgery - integrated	51	234	93	39.7%	138	59.0%	3	1.3%
Thoracic surgery	68	223	45	20.2%	178	79.8%	0	0.0%
- Congenital cardiac surgery	12	10	2	20.0%	8	80.0%	0	0.0%
Thoracic surgery - integrated	27	138	33	23.9%	103	74.6%	2	1.4%
Urology	134	1,254	309	24.6%	933	74.4%	12	1.0%
- Female pelvic medicine and reconstructive surgery	10	28	16	57.1%	12	42.9%	0	0.0%
- Pediatric urology	28	25	12	48.0%	13	52.0%	0	0.0%
Transitional year	101	1,077	346	32.1%	654	60.7%	77	7.1%
Internal medicine/pediatrics	79	1,464	824	56.3%	582	39.8%	58	4.0%

Note: Pipeline specialties are highlighted.

FIGURE C.22

Specialties Organized by Largest Percentages of Active Female Residents



Note: Excluding Interventional Radiology – integrated which had 0 residents in the 2015-2016 academic year.

TABLE C.23							
Number of Active Residents by Specialty and Subspecialty and Ethnicity							
Specialty	Ethnicity						
	White, Non-Hispanic	Asian or Pacific Islander	Hispanic	Black, Non-Hispanic	Native American/Alaskan	Other	Unknown
OVERALL	53,386	22,491	6,195	5,714	287	6,737	29,599
TOTAL PIPELINE	43,073	16,728	4,824	4,667	252	4,925	26,292
Allergy and immunology	117	82	13	8	1	17	49
Anesthesiology	2,797	1,081	184	286	14	231	1,458
- Adult cardiothoracic anesthesiology	108	35	7	10	0	10	13
- Clinical informatics (Anesthesiology)	0	0	0	0	0	0	0
- Critical care medicine	98	30	5	11	1	7	23
- Obstetric anesthesiology	23	8	0	2	1	0	4
- Pain medicine (multidisciplinary)	142	93	9	19	1	27	46
- Pediatric anesthesiology	110	34	6	12	1	9	33
Colon and rectal surgery	49	14	6	6	1	8	10
Dermatology	759	181	44	45	1	41	252
- Dermatopathology (multidisciplinary)	42	15	4	2	0	5	8
- Micrographic surgery and dermatologic oncology	48	13	1	1	0	4	6
Emergency medicine	3,611	691	314	285	15	209	1,119
- Clinical informatics (Emergency medicine)	2	0	1	0	0	0	0
- Emergency medical services	38	6	1	4	0	0	1
- Medical toxicology	41	6	3	1	0	1	9
- Pediatric emergency medicine	46	19	7	8	0	4	17
- Sports medicine	8	1	0	0	0	2	0
- Undersea and hyperbaric medicine	6	1	0	0	0	1	1
Family medicine	5,323	1,916	719	774	60	523	1,447
- Clinical informatics (Family medicine)	1	0	1	0	0	0	0
- Geriatric medicine	22	11	4	1	0	9	2
- Hospice and palliative medicine (multidisciplinary)	157	50	21	13	0	16	17
- Sports medicine	144	32	6	14	0	6	8
Internal medicine	6,441	5,168	1,193	996	41	1,414	9,730
- Adult congenital heart disease	3	2	0	0	0	0	0
- Advanced heart failure and transplant cardiology	38	24	4	3	0	5	8
- Cardiovascular disease	968	756	140	118	5	275	408
- Clinical cardiac electrophysiology	54	48	12	6	0	18	16
- Clinical informatics (Internal medicine)	1	3	0	0	0	0	1
- Critical care medicine	77	56	10	11	1	34	19
- Endocrinology, diabetes, and metabolism	194	208	66	24	0	60	61
- Gastroenterology	550	462	85	71	0	109	228
- Geriatric medicine	74	66	23	21	2	17	36
- Hematology	3	16	0	0	0	0	3
- Hematology and medical oncology	547	499	66	43	2	139	364
- Infectious disease	291	168	74	46	0	38	107
- Interventional cardiology	99	100	17	11	0	35	47
- Nephrology	195	351	72	61	0	101	83
- Medical oncology	18	24	2	0	0	6	9
- Pulmonary disease	16	31	9	7	0	5	7
- Pulmonary disease and critical care medicine	668	433	79	50	1	157	242
- Rheumatology	169	132	26	11	1	39	67
- Sleep medicine (multidisciplinary)	54	56	8	6	0	19	22
- Transplant hepatology	19	10	3	1	0	5	2
Medical genetics and genomics	34	10	7	2	0	11	9
- Medical biochemical genetics	6	0	1	0	0	2	0
- Molecular genetic pathology (multidisciplinary)	24	13	5	1	0	4	6
Neurological surgery	660	205	51	59	3	104	243
- Endovascular surgical neuroradiology	2	0	0	0	0	0	0

TABLE C.23 *Continued***Number of Active Residents by Specialty and Subspecialty and Ethnicity**

Specialty	Ethnicity						
	White, Non-Hispanic	Asian or Pacific Islander	Hispanic	Black, Non-Hispanic	Native American/Alaskan	Other	Unknown
Neurology	885	501	111	80	3	195	638
- Child neurology	152	84	21	15	0	27	61
- Clinical neurophysiology	79	46	14	6	1	28	26
- Epilepsy	25	8	6	2	0	9	3
- Endovascular surgical neuroradiology	0	1	0	0	0	0	0
- Neurodevelopmental disabilities	17	2	2	0	0	0	2
- Neuromuscular medicine	26	17	1	2	0	5	12
- Vascular neurology	43	37	4	2	0	11	15
Nuclear medicine	29	17	4	3	1	22	8
Obstetrics and gynecology	2,746	496	329	425	11	186	994
- Female pelvic medicine and reconstructive surgery	76	21	10	9	0	4	12
Ophthalmology	724	322	48	29	3	75	231
- Ophthalmic plastic and reconstructive surgery	1	1	1	0	0	2	1
Orthopaedic surgery	2,265	342	106	111	12	118	730
- Adult reconstructive orthopaedics	23	6	3	1	0	4	7
- Foot and ankle orthopaedics	11	1	0	1	0	1	2
- Hand surgery	99	14	2	4	0	3	22
- Musculoskeletal oncology	10	1	0	0	0	2	2
- Orthopaedic sports medicine	131	17	8	6	0	11	30
- Orthopaedic surgery of the spine	16	3	2	1	0	4	5
- Orthopaedic trauma	13	1	0	0	0	1	2
- Pediatric orthopaedics	31	2	0	3	0	2	5
Osteopathic neuromusculoskeletal medicine	3	0	0	0	0	0	0
Otolaryngology	840	218	46	27	5	66	315
- Neurotology	24	4	0	1	0	0	1
- Pediatric otolaryngology	22	6	0	0	0	0	5
Pathology-anatomic and clinical	1,018	466	105	66	2	169	492
- Blood banking/transfusion medicine	21	12	5	4	0	2	4
- Clinical informatics (Pathology)	2	0	1	0	0	0	0
- Chemical pathology	0	2	0	0	0	0	0
- Cytopathology	64	36	9	4	0	12	16
- Forensic pathology	35	5	4	1	0	1	4
- Hematology	66	29	9	4	0	13	11
- Medical microbiology	6	2	1	1	0	0	0
- Neuropathology	33	7	4	0	0	2	4
- Pediatric pathology	8	6	3	0	0	1	4
- Selective pathology	53	51	5	4	0	19	22
Pediatrics	3,154	1,138	477	374	14	324	3,452
- Adolescent medicine	39	9	7	15	0	5	4
- Child abuse pediatrics	24	4	1	4	0	0	4
- Clinical informatics (Pediatrics)	4	1	0	0	0	0	2
- Developmental-behavioral pediatrics	57	12	13	4	0	4	12
- Neonatal-perinatal medicine	371	162	43	51	1	29	81
- Pediatric cardiology	229	98	23	13	2	37	20
- Pediatric critical care medicine	289	70	35	20	0	27	55
- Pediatric emergency medicine	251	45	13	18	1	12	33
- Pediatric endocrinology	112	58	18	14	1	16	24
- Pediatric gastroenterology	123	62	22	14	0	26	35
- Pediatric hematology/oncology	244	92	27	22	2	29	60
- Pediatric infectious diseases	77	25	17	8	0	11	24
- Pediatric nephrology	38	28	8	4	0	10	13
- Pediatric pulmonology	77	31	20	4	0	14	13

TABLE C.23 Continued

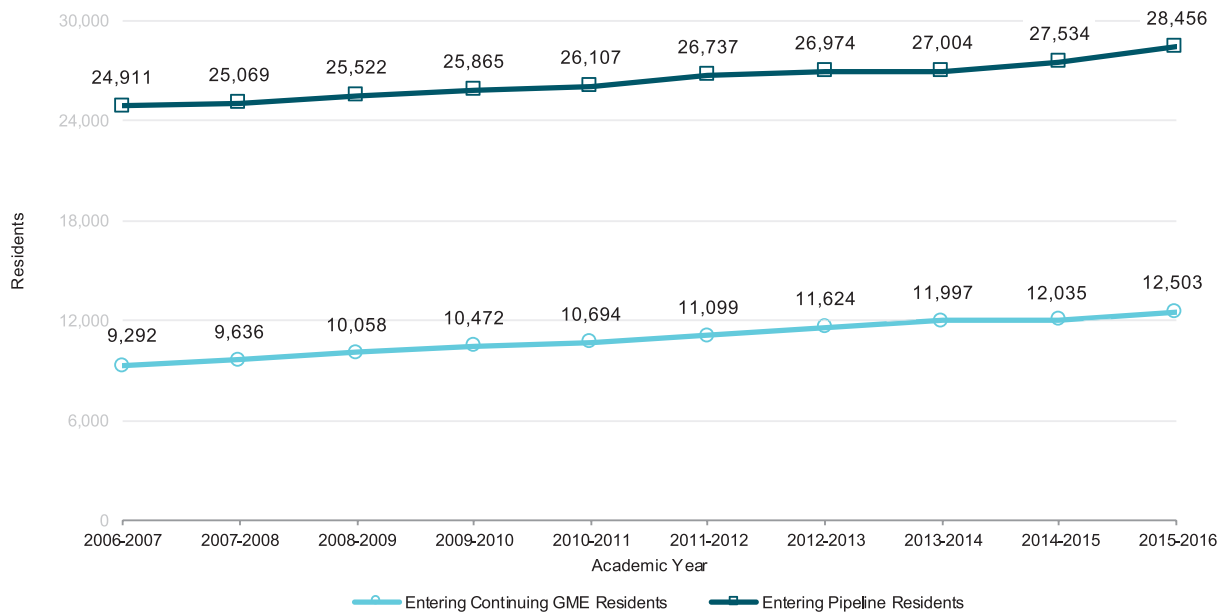
Number of Active Residents by Specialty and Subspecialty and Ethnicity

Specialty	Ethnicity						
	White, Non-Hispanic	Asian or Pacific Islander	Hispanic	Black, Non-Hispanic	Native American/Alaskan	Other	Unknown
- Pediatric rheumatology	47	13	4	0	0	3	9
- Pediatric sports medicine	16	2	0	1	0	1	4
- Pediatric transplant hepatology	2	1	1	0	0	1	1
Physical medicine and rehabilitation	644	249	77	73	7	63	180
- Brain injury medicine	5	1	0	1	0	0	0
- Neuromuscular medicine	1	0	0	0	0	0	0
- Spinal cord injury medicine	8	6	0	0	0	1	1
- Pediatric rehabilitation	17	2	2	0	0	2	2
- Sports medicine	12	5	1	0	0	3	3
Plastic surgery	202	68	21	20	1	17	34
Plastic surgery - integrated	347	79	20	14	4	29	170
- Craniofacial surgery	5	3	0	0	0	0	1
- Hand surgery	15	2	0	2	0	2	2
Preventive medicine	176	62	19	41	3	21	33
- Medical toxicology	2	1	0	0	0	0	0
- Undersea and hyperbaric medicine	3	0	0	0	0	0	0
Psychiatry	2,166	1,057	317	333	17	277	1,191
- Addiction psychiatry	33	21	5	13	0	5	3
- Child and adolescent psychiatry	337	231	50	76	3	51	78
- Forensic psychiatry	44	14	3	2	0	4	5
- Geriatric psychiatry	25	22	3	1	0	3	4
- Psychosomatic medicine	43	15	5	5	0	7	4
Radiation oncology	361	188	21	26	1	32	104
Radiology-diagnostic	2,561	907	142	131	8	250	741
- Abdominal radiology	24	5	1	0	0	5	10
- Endovascular surgical neuroradiology	2	2	0	1	0	0	0
- Musculoskeletal radiology	17	8	0	0	0	0	5
- Neuroradiology	135	62	18	4	0	12	25
- Nuclear radiology	6	3	2	0	0	1	1
- Pediatric radiology	48	11	1	1	0	8	10
- Vascular and interventional radiology	158	43	9	9	0	22	34
Interventional radiology - integrated	0	0	0	0	0	0	0
Surgery	3,712	959	376	360	20	410	1,997
- Complex general surgical oncology	55	17	4	5	0	8	12
- Hand surgery	4	2	0	1	0	0	1
- Pediatric surgery	56	9	4	1	0	6	6
- Surgical critical care	148	30	9	16	1	9	23
- Vascular surgery	123	35	15	16	0	21	23
Vascular surgery - integrated	120	38	8	9	2	17	40
Thoracic surgery	127	35	12	7	0	22	20
- Congenital cardiac surgery	8	1	0	0	0	1	0
Thoracic surgery - integrated	80	24	8	0	0	9	17
Urology	723	187	41	36	1	67	199
- Female pelvic medicine and reconstructive surgery	16	3	2	3	0	2	2
- Pediatric urology	15	4	1	0	0	3	2
Transitional year	462	127	60	17	5	31	375
Internal medicine/pediatrics	692	158	36	62	3	45	468

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.

FIGURE C.24

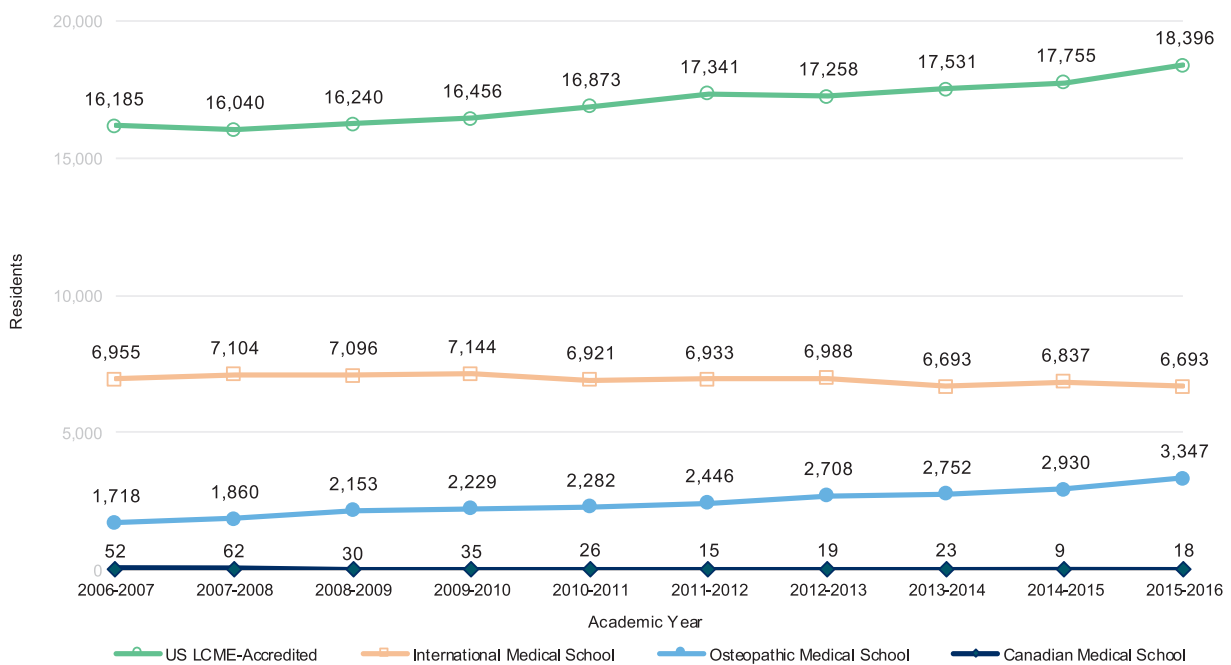
Number of Residents Entering Pipeline and Continuing GME Programs by Academic Year, 2006-2007 to 2015-2016



Notes: Excluding residents doing prerequisite training for a pipeline specialty program (preliminary and transitional year residents).
Abbreviations: GME, graduate medical education.

FIGURE C.25

Number of Residents Entering the Pipeline by Medical School Type and Academic Year, 2006-2007 to 2015-2016



Notes: Not shown are those graduates for which the specific U.S. medical school is unknown. This number has been fewer than 10 per year for the past five years.
Abbreviations: LCME, Liaison Committee on Medical Education.

TABLE C.26											
Number of Residents Entering the GME Pipeline by Specialty and Medical School Type											
Specialty	Total Residents	Medical School Type									
		US LCME-Accredited		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
OVERALL	28,456	18,396	64.6%	6,693	23.5%	3,347	11.8%	18	0.1%	2	0.0%
Anesthesiology	1,355	1,016	75.0%	151	11.1%	187	13.8%	1	0.1%	0	0.0%
Dermatology	460	433	94.1%	13	2.8%	14	3.0%	0	0.0%	0	0.0%
Emergency medicine	1,959	1,540	78.6%	116	5.9%	302	15.4%	1	0.1%	0	0.0%
Family medicine	3,663	1,719	46.9%	1,121	30.6%	818	22.3%	3	0.1%	2	0.1%
Internal medicine	7,801	3,811	48.9%	3,198	41.0%	787	10.1%	5	0.1%	0	0.0%
Medical genetics and genomics	36	21	58.3%	13	36.1%	1	2.8%	1	2.8%	0	0.0%
Neurological surgery	212	195	92.0%	16	7.5%	0	0.0%	1	0.5%	0	0.0%
Neurology	735	433	58.9%	238	32.4%	64	8.7%	0	0.0%	0	0.0%
Nuclear medicine	39	11	28.2%	27	69.2%	1	2.6%	0	0.0%	0	0.0%
Obstetrics and gynecology	1,295	1,037	80.1%	121	9.3%	137	10.6%	0	0.0%	0	0.0%
Ophthalmology	482	446	92.5%	22	4.6%	13	2.7%	1	0.2%	0	0.0%
Orthopaedic surgery	747	717	96.0%	13	1.7%	17	2.3%	0	0.0%	0	0.0%
Osteopathic neuromusculoskeletal medicine	2	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%
Otolaryngology	312	309	99.0%	0	0.0%	3	1.0%	0	0.0%	0	0.0%
Pathology-anatomic and clinical	630	330	52.4%	250	39.7%	49	7.8%	1	0.2%	0	0.0%
Pediatrics	2,988	2,043	68.4%	565	18.9%	379	12.7%	1	0.0%	0	0.0%
Physical medicine and rehabilitation	363	210	57.9%	46	12.7%	107	29.5%	0	0.0%	0	0.0%
Plastic surgery	103	85	82.5%	17	16.5%	1	1.0%	0	0.0%	0	0.0%
Plastic surgery - integrated	147	141	95.9%	5	3.4%	1	0.7%	0	0.0%	0	0.0%
Preventive medicine	199	140	70.4%	23	11.6%	35	17.6%	1	0.5%	0	0.0%
Psychiatry	1,452	841	57.9%	415	28.6%	195	13.4%	1	0.1%	0	0.0%
Radiation oncology	191	182	95.3%	3	1.6%	6	3.1%	0	0.0%	0	0.0%
Radiology-diagnostic	1,219	934	76.6%	157	12.9%	127	10.4%	1	0.1%	0	0.0%
Interventional radiology - integrated	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Surgery	1,271	1,100	86.5%	126	9.9%	45	3.5%	0	0.0%	0	0.0%
Vascular surgery - integrated	57	51	89.5%	4	7.0%	2	3.5%	0	0.0%	0	0.0%
Thoracic surgery - integrated	35	31	88.6%	2	5.7%	2	5.7%	0	0.0%	0	0.0%
Urology	323	299	92.6%	6	1.9%	18	5.6%	0	0.0%	0	0.0%
Internal medicine/pediatrics	380	321	84.5%	25	6.6%	34	8.9%	0	0.0%	0	0.0%

Abbreviations: GME, graduate medical education; LCME, Liaison Committee on Medical Education.

TABLE C.27

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

State Name	State Abbreviation	AN	EM	MG	NM	PTH	GPM	IRI	DR	RO	Total
OVERALL	--	1,355	1,959	36	39	630	199	0	1,219	191	5,628
Alabama	AL	15	10	1	0	10	5	0	19	3	63
Alaska	AK	0	0	0	0	0	0	0	0	0	0
Arizona	AZ	17	35	0	0	3	0	0	20	2	77
Arkansas	AR	14	10	0	0	5	0	0	8	0	37
California	CA	133	168	5	3	65	16	0	106	21	517
Colorado	CO	4	17	1	0	8	6	0	10	2	48
Connecticut	CT	21	33	0	0	14	2	0	29	3	102
Delaware	DE	0	12	0	0	0	0	0	6	0	18
District of Columbia	DC	13	23	0	0	11	0	0	10	1	58
Florida	FL	48	58	1	3	22	20	0	48	9	209
Georgia	GA	19	36	0	2	11	4	0	22	6	100
Hawaii	HI	0	0	0	0	2	0	0	5	0	7
Idaho	ID	0	0	0	0	0	0	0	0	0	0
Illinois	IL	75	106	0	2	30	2	0	56	9	280
Indiana	IN	26	19	0	0	5	0	0	15	3	68
Iowa	IA	13	8	1	1	6	2	0	8	3	42
Kansas	KS	13	8	0	0	4	0	0	9	0	34
Kentucky	KY	21	20	0	0	6	3	0	12	2	64
Louisiana	LA	21	35	0	0	10	1	0	16	0	83
Maine	ME	5	8	0	0	0	0	0	4	0	17
Maryland	MD	33	24	5	5	21	23	0	27	8	146
Massachusetts	MA	62	69	2	0	42	8	0	67	9	259
Michigan	MI	58	156	1	2	19	1	0	59	10	306
Minnesota	MN	18	30	1	0	10	5	0	24	4	92
Mississippi	MS	8	11	0	0	2	0	0	7	1	29
Missouri	MO	32	37	0	6	18	0	0	39	3	135
Montana	MT	0	0	0	0	0	0	0	0	0	0
Nebraska	NE	12	9	0	0	6	0	0	10	1	38
Nevada	NV	0	9	0	0	0	0	0	0	0	9
New Hampshire	NH	7	6	0	0	3	7	0	5	0	28
New Jersey	NJ	25	56	0	0	8	2	0	29	2	122
New Mexico	NM	7	12	0	0	4	1	0	6	0	30
New York	NY	198	255	5	8	76	15	0	144	24	725
North Carolina	NC	36	61	0	0	19	6	0	30	8	160
North Dakota	ND	0	0	0	0	0	0	0	0	0	0
Ohio	OH	65	122	1	0	25	31	0	47	7	298
Oklahoma	OK	12	6	1	0	4	0	0	11	2	36
Oregon	OR	10	10	1	0	3	1	0	6	2	33
Pennsylvania	PA	87	141	3	1	39	6	0	86	12	375
Puerto Rico	PR	3	17	0	1	4	0	0	5	0	30
Rhode Island	RI	0	12	0	0	3	0	0	7	0	22
South Carolina	SC	15	22	0	0	5	6	0	9	2	59
South Dakota	SD	0	0	0	0	1	0	0	0	0	1
Tennessee	TN	26	34	0	1	12	5	0	26	1	105
Texas	TX	84	144	3	0	49	11	0	81	17	389
Utah	UT	3	9	1	0	6	4	0	6	2	31
Vermont	VT	4	0	0	0	4	0	0	6	0	14
Virginia	VA	24	46	0	0	10	0	0	30	5	115
Washington	WA	35	24	2	3	12	4	0	21	3	104
West Virginia	WV	4	10	0	0	4	0	0	4	0	22
Wisconsin	WI	29	21	1	1	9	2	0	24	4	91
Wyoming	WY	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; IRI, Interventional radiology - integrated; DR, Radiology-diagnostic; RO, Radiation oncology.

TABLE C.28

Medical Specialty Residents Entering the GME Pipeline by Specialty and State

State Name	State Abbreviation	D	FM	IM	N	ONM	PD	PM	P	IP	Total
OVERALL	--	460	3,663	7,801	735	2	2,988	363	1,452	380	17,844
Alabama	AL	5	56	80	6	0	34	4	13	6	204
Alaska	AK	0	12	0	0	0	0	0	0	0	12
Arizona	AZ	5	54	97	15	0	50	0	22	6	249
Arkansas	AR	3	52	20	4	0	25	4	8	6	122
California	CA	47	403	616	56	0	285	27	133	18	1,585
Colorado	CO	7	67	60	6	0	30	3	13	4	190
Connecticut	CT	7	17	217	13	0	40	0	28	4	326
Delaware	DE	0	11	12	0	0	23	0	4	4	54
District of Columbia	DC	9	6	125	12	0	50	6	25	4	237
Florida	FL	18	127	355	40	0	137	9	49	11	746
Georgia	GA	10	89	144	16	0	57	7	21	0	344
Hawaii	HI	0	17	34	0	0	16	0	16	0	83
Idaho	ID	0	22	8	0	0	0	0	0	0	30
Illinois	IL	23	207	452	40	0	150	20	53	26	971
Indiana	IN	0	89	58	8	0	31	4	7	14	211
Iowa	IA	5	56	43	6	0	21	0	7	0	138
Kansas	KS	4	44	34	7	0	14	3	12	3	121
Kentucky	KY	2	39	49	8	0	34	6	15	11	164
Louisiana	LA	9	68	124	11	0	43	6	30	16	307
Maine	ME	0	24	12	0	0	6	0	5	3	50
Maryland	MD	16	30	206	15	0	57	14	40	8	386
Massachusetts	MA	18	43	389	45	0	90	10	78	20	693
Michigan	MI	21	177	380	27	2	110	22	55	29	823
Minnesota	MN	12	75	108	15	0	35	10	23	10	288
Mississippi	MS	3	25	38	4	0	16	0	4	4	94
Missouri	MO	13	58	146	21	0	76	7	32	9	362
Montana	MT	0	19	10	0	0	0	0	0	0	29
Nebraska	NE	0	49	42	4	0	12	0	8	2	117
Nevada	NV	0	21	41	0	0	13	0	10	0	85
New Hampshire	NH	2	8	21	4	0	7	0	7	0	49
New Jersey	NJ	3	72	295	16	0	86	11	30	8	521
New Mexico	NM	2	24	27	4	0	17	0	10	0	84
New York	NY	57	212	1322	93	0	444	71	240	19	2,458
North Carolina	NC	13	109	142	16	0	70	13	39	18	420
North Dakota	ND	0	24	8	0	0	0	0	4	0	36
Ohio	OH	17	129	371	42	0	183	9	50	27	828
Oklahoma	OK	3	56	27	6	0	25	0	15	6	138
Oregon	OR	5	35	76	3	0	17	0	12	0	148
Pennsylvania	PA	28	214	514	53	0	142	30	67	16	1,064
Puerto Rico	PR	3	26	80	3	0	25	6	12	2	157
Rhode Island	RI	6	11	66	6	0	16	0	9	4	118
South Carolina	SC	3	72	58	9	0	40	0	23	7	212
South Dakota	SD	0	13	8	0	0	6	0	7	0	34
Tennessee	TN	7	75	128	11	0	62	3	22	18	326
Texas	TX	45	254	399	47	0	179	31	92	14	1,061
Utah	UT	4	25	33	6	0	23	4	8	3	106
Vermont	VT	3	6	15	4	0	7	0	4	0	39
Virginia	VA	7	95	105	12	0	81	11	37	4	352
Washington	WA	3	116	78	9	0	43	3	19	0	271
West Virginia	WV	1	40	42	5	0	17	0	16	8	129
Wisconsin	WI	11	76	86	7	0	43	9	18	8	258
Wyoming	WY	0	14	0	0	0	0	0	0	0	14

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

TABLE C.29

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	--	212	1,295	482	747	312	103	147	1,271	57	35	323	4,984
Alabama	AL	3	12	5	9	4	2	0	16	1	0	3	55
Alaska	AK	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	AZ	5	21	4	8	3	1	1	25	1	0	4	73
Arkansas	AR	2	5	3	4	3	0	0	5	1	0	2	25
California	CA	17	104	43	69	32	9	18	107	5	5	27	436
Colorado	CO	2	14	5	6	3	2	0	14	0	0	2	48
Connecticut	CT	2	32	5	10	5	0	2	24	1	2	4	87
Delaware	DE	0	6	0	0	0	0	0	7	0	0	0	13
District of Columbia	DC	4	21	13	12	4	0	3	19	1	0	5	82
Florida	FL	9	39	18	25	9	6	5	44	2	0	13	170
Georgia	GA	3	26	9	16	6	5	2	31	0	2	6	106
Hawaii	HI	0	11	0	5	2	0	0	8	0	0	1	27
Idaho	ID	0	0	0	0	0	0	0	0	0	0	0	0
Illinois	IL	14	63	23	31	14	4	7	51	2	1	18	228
Indiana	IN	3	15	6	5	3	2	2	12	1	1	4	54
Iowa	IA	2	5	5	6	5	1	0	17	1	1	3	46
Kansas	KS	2	9	3	8	4	0	2	11	0	0	3	42
Kentucky	KY	4	11	7	9	5	2	2	15	0	1	4	60
Louisiana	LA	4	27	14	12	9	2	1	23	1	0	7	100
Maine	ME	0	4	0	0	0	0	0	4	1	0	1	10
Maryland	MD	8	29	16	18	9	2	4	26	0	1	7	120
Massachusetts	MA	6	38	15	26	10	5	5	51	5	0	13	174
Michigan	MI	5	71	22	38	10	3	6	56	2	2	15	230
Minnesota	MN	5	13	8	20	8	3	5	22	1	0	8	93
Mississippi	MS	2	6	4	4	3	2	0	9	0	0	2	32
Missouri	MO	6	32	15	20	9	3	7	21	2	0	5	120
Montana	MT	0	0	0	0	0	0	0	0	0	0	0	0
Nebraska	NE	2	8	2	5	2	1	0	9	0	0	3	32
Nevada	NV	0	3	0	0	1	0	1	5	0	0	0	10
New Hampshire	NH	1	4	0	4	1	1	0	4	1	0	2	18
New Jersey	NJ	1	48	5	16	2	1	2	31	2	0	5	113
New Mexico	NM	2	6	0	5	2	0	0	5	0	0	2	22
New York	NY	21	154	66	91	32	11	15	141	9	5	39	584
North Carolina	NC	8	43	13	22	10	3	7	32	0	2	10	150
North Dakota	ND	0	0	0	0	0	0	0	6	0	0	0	6
Ohio	OH	8	69	22	42	16	4	8	65	4	3	17	258
Oklahoma	OK	1	10	4	6	2	1	0	8	0	0	3	35
Oregon	OR	2	7	5	5	3	0	2	13	0	0	3	40
Pennsylvania	PA	16	91	30	48	19	7	9	86	5	4	23	338
Puerto Rico	PR	1	12	4	4	2	0	0	8	0	0	2	33
Rhode Island	RI	1	0	3	6	0	0	2	6	0	0	2	20
South Carolina	SC	2	16	7	10	4	2	0	20	1	1	3	66
South Dakota	SD	0	0	0	0	0	0	0	3	0	0	0	3
Tennessee	TN	5	28	10	16	8	8	2	33	0	0	10	120
Texas	TX	16	104	41	55	20	7	13	86	4	1	21	368
Utah	UT	3	6	3	5	3	2	1	7	0	0	2	32
Vermont	VT	1	3	0	3	1	0	0	4	0	0	1	13
Virginia	VA	5	33	8	14	10	1	4	27	0	1	5	108
Washington	WA	3	11	7	12	6	0	4	22	1	1	4	71
West Virginia	WV	1	9	3	7	2	0	0	12	1	0	3	38
Wisconsin	WI	4	16	6	10	6	0	5	20	1	1	6	75
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; PS, Plastic surgery; PSI, Plastic Surgery - Integrated; GS, Surgery; VSI, Vascular surgery - integrated; TSI, Thoracic surgery - integrated; U, Urology.

TABLE C.30

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	29,074	100.0%	28,218	100.0%	28,456	100.0%
Anesthesiology	1,011	3.5%	976	3.5%	1,355	4.8%
Dermatology	9	0.0%	0	0.0%	460	1.6%
Emergency medicine	1,951	6.7%	1,858	6.6%	1,959	6.9%
Family medicine	3,663	12.6%	3,551	12.6%	3,663	12.9%
Internal medicine	9,969	34.3%	9,752	34.6%	7,801	27.4%
Medical genetics and genomics	5	0.0%	1	0.0%	36	0.1%
Neurological surgery	212	0.7%	206	0.7%	212	0.7%
Neurology	328	1.1%	305	1.1%	735	2.6%
Nuclear medicine	0	0.0%	0	0.0%	39	0.1%
Obstetrics and gynecology	1,313	4.5%	1,288	4.6%	1,295	4.6%
Ophthalmology	0	0.0%	0	0.0%	482	1.7%
Orthopaedic surgery	747	2.6%	725	2.6%	747	2.6%
Osteopathic neuromusculoskeletal medicine	0	0.0%	0	0.0%	2	0.0%
Otolaryngology	312	1.1%	299	1.1%	312	1.1%
Pathology-anatomic and clinical	630	2.2%	596	2.1%	630	2.2%
Pediatrics	3,044	10.5%	3,004	10.6%	2,988	10.5%
Physical medicine and rehabilitation	100	0.3%	89	0.3%	363	1.3%
Plastic surgery	0	0.0%	0	0.0%	103	0.4%
Plastic surgery - integrated	147	0.5%	143	0.5%	147	0.5%
Preventive medicine	8	0.0%	2	0.0%	199	0.7%
Psychiatry	1,452	5.0%	1,421	5.0%	1,452	5.1%
Radiation oncology	0	0.0%	0	0.0%	191	0.7%
Radiology-diagnostic	0	0.0%	0	0.0%	1,219	4.3%
Interventional radiology - integrated	0	0.0%	0	0.0%	0	0.0%
Surgery	2,624	9.0%	2,505	8.9%	1,271	4.5%
Vascular surgery - integrated	57	0.2%	55	0.2%	57	0.2%
Thoracic surgery - integrated	35	0.1%	30	0.1%	35	0.1%
Urology	0	0.0%	0	0.0%	323	1.1%
Transitional year	1,077	3.7%	1,033	3.7%	0	0.0%
Internal medicine/pediatrics	380	1.3%	379	1.3%	380	1.3%

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

TABLE C.31

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	29,074	100.0%	28,218	100.0%	28,456	100.0%
Alabama	319	1.1%	309	1.1%	322	1.1%
Alaska	12	0.0%	11	0.0%	12	0.0%
Arizona	420	1.4%	403	1.4%	399	1.4%
Arkansas	183	0.6%	177	0.6%	184	0.6%
California	2,580	8.9%	2,506	8.9%	2,538	8.9%
Colorado	304	1.0%	300	1.1%	286	1.0%
Connecticut	528	1.8%	521	1.8%	515	1.8%
Delaware	97	0.3%	91	0.3%	85	0.3%
District of Columbia	386	1.3%	375	1.3%	377	1.3%
Florida	1,094	3.8%	1,064	3.8%	1,125	4.0%
Georgia	534	1.8%	515	1.8%	550	1.9%
Hawaii	144	0.5%	141	0.5%	117	0.4%
Idaho	34	0.1%	34	0.1%	30	0.1%
Illinois	1,563	5.4%	1,526	5.4%	1,479	5.2%
Indiana	336	1.2%	330	1.2%	333	1.2%
Iowa	219	0.8%	216	0.8%	226	0.8%
Kansas	192	0.7%	189	0.7%	197	0.7%
Kentucky	286	1.0%	277	1.0%	288	1.0%
Louisiana	512	1.8%	493	1.7%	490	1.7%
Maine	78	0.3%	77	0.3%	77	0.3%
Maryland	689	2.4%	661	2.3%	652	2.3%
Massachusetts	1,121	3.9%	1,095	3.9%	1,126	4.0%
Michigan	1,402	4.8%	1,359	4.8%	1,359	4.8%
Minnesota	445	1.5%	439	1.6%	473	1.7%
Mississippi	162	0.6%	160	0.6%	155	0.5%
Missouri	613	2.1%	604	2.1%	617	2.2%
Montana	29	0.1%	29	0.1%	29	0.1%
Nebraska	190	0.7%	182	0.6%	187	0.7%
Nevada	119	0.4%	115	0.4%	104	0.4%
New Hampshire	85	0.3%	83	0.3%	95	0.3%
New Jersey	756	2.6%	746	2.6%	756	2.7%
New Mexico	137	0.5%	135	0.5%	136	0.5%
New York	3,916	13.5%	3,806	13.5%	3,767	13.2%
North Carolina	708	2.4%	687	2.4%	730	2.6%
North Dakota	51	0.2%	47	0.2%	42	0.1%
Ohio	1,443	5.0%	1,397	5.0%	1,384	4.9%
Oklahoma	202	0.7%	198	0.7%	209	0.7%
Oregon	214	0.7%	210	0.7%	221	0.8%
Pennsylvania	1,785	6.1%	1,730	6.1%	1,777	6.2%
Puerto Rico	272	0.9%	248	0.9%	220	0.8%
Rhode Island	158	0.5%	155	0.5%	160	0.6%
South Carolina	353	1.2%	343	1.2%	337	1.2%
South Dakota	46	0.2%	44	0.2%	38	0.1%
Tennessee	569	2.0%	546	1.9%	551	1.9%
Texas	1,816	6.2%	1,758	6.2%	1,818	6.4%
Utah	165	0.6%	159	0.6%	169	0.6%
Vermont	62	0.2%	60	0.2%	66	0.2%
Virginia	618	2.1%	591	2.1%	575	2.0%
Washington	483	1.7%	458	1.6%	446	1.6%
West Virginia	205	0.7%	194	0.7%	189	0.7%
Wisconsin	425	1.5%	410	1.5%	424	1.5%
Wyoming	14	0.0%	14	0.0%	14	0.0%

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



Graduating Residents and Residents Leaving Prior to Completion

This section summarizes the characteristics of both graduating residents/fellows who successfully completed all accredited training, and residents/fellows who left their program prior to successful completion of their training. Resident/fellow completion status for the 2014-2015 academic year was reported during the fall of the 2015-2016 academic year, therefore, the following data includes only those residents/fellows who graduated or left their programs between 9/1/2014 and 8/31/2015. In this section, “residents” refers to both residents and fellows.

Graduating Residents

Of the 39,810 residents graduating from ACGME-accredited programs in the 2014-2015 academic year, 62.4% graduated from a medical program, 22.9% graduated from a hospital-based program, and 14.7% graduated from a surgical program. From the 2005-2006 academic year to the 2014-2015 academic year, there was a 20.0% increase in graduating residents (a 12.6% increase in specialty program graduates and a 42.6% increase in subspecialty program graduates). The specialties with the highest number of graduating residents in the 2014-2015 academic year include:

- Internal medicine (7,370)
- Family medicine (3,392)
- Pediatrics (2,916)

International medical school graduates account for 11,158 (28.0%) of all graduating residents.

Residents Completing Preliminary Training

A total of 3,497 residents completed preliminary training during the 2014-2015 academic year, with the majority of these residents completing internal medicine programs (2,103, 60.1%). The total number of preliminary graduates has fluctuated over the last 10 years, reaching a high of 3,854 completing residents in the 2008-2009 academic year, and a low of 3,118 completing residents in the 2011-2012 academic year. Residents completing preliminary training and residents graduating from a transitional year program are completing the necessary prerequisite training for specialty programs that require a clinical base year.

Geographic Distribution of Graduates

There were approximately 12.25 graduating residents per 100,000 population, including Puerto Rico, during the 2014-2015 academic year (8.65 specialty graduates and 3.60 subspecialty graduates). The following states have the highest total number of graduating residents:

- New York (5,293)
- California (3,520)
- Pennsylvania (2,687)
- Texas (2,624)

The concentration of specialty graduates ranges from 0.87 per 100,000 population in Montana to 77.35 per 100,000 population in the District of Columbia.

Residents Leaving Prior to Completion

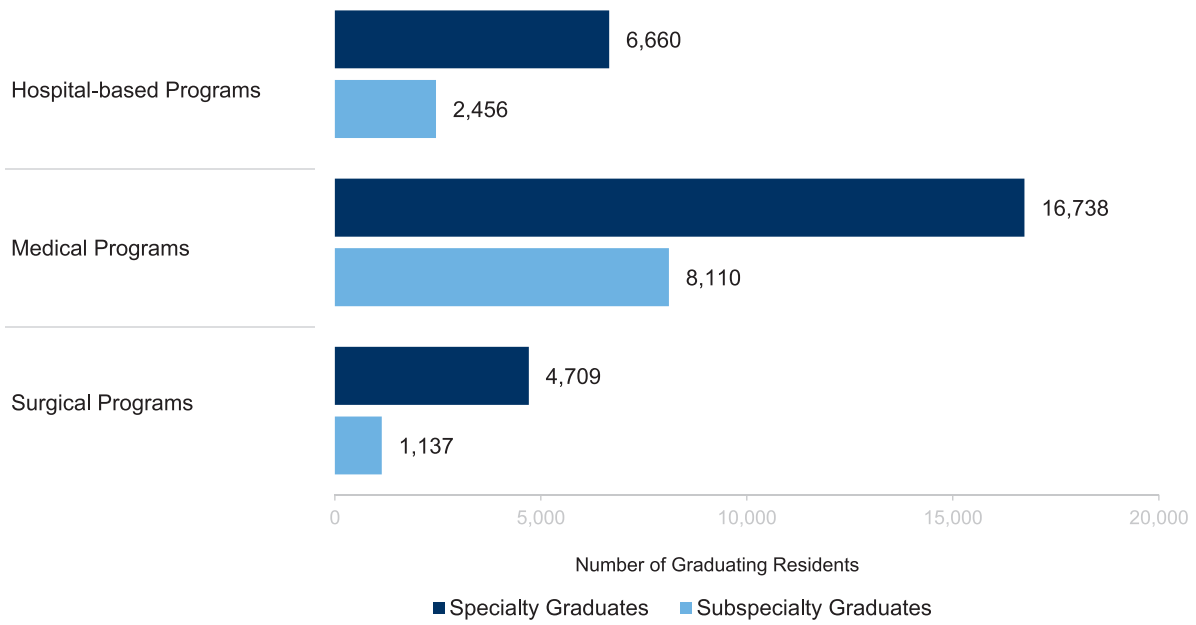
In the 2014-2015 academic year, 2,248 left their programs prior to successful completion with statuses of either deceased (0.7%), dismissed (9.7%), transferred (49.2%), unsuccessfully completed program (0.9%), or withdrawn (29.5%). In addition to having the highest number of residents who left prior to successful completion, the following specialties have the highest number of transferring residents:

- Psychiatry (321)
- Internal medicine (169)
- Surgery (134)

Overall, of the 1,064 transfers that occurred among residents in specialty programs during the 2014-2015 academic year, 436 (41.0%) occurred during the first year of training, 265 (24.9%) occurred during the second year of training, 320 (30.1%) occurred during the third year of training, and 43 (4.0%) occurred in the fourth and fifth years of training. ♪

FIGURE D.1

Number of Graduating Residents by Specialty Group, 2014-2015 AY



Note: Total number of graduating residents = 39,810.
Abbreviations: AY, academic year.

FIGURE D.2

Number of Graduating Residents by Academic Year, 2005-2006 to 2014-2015

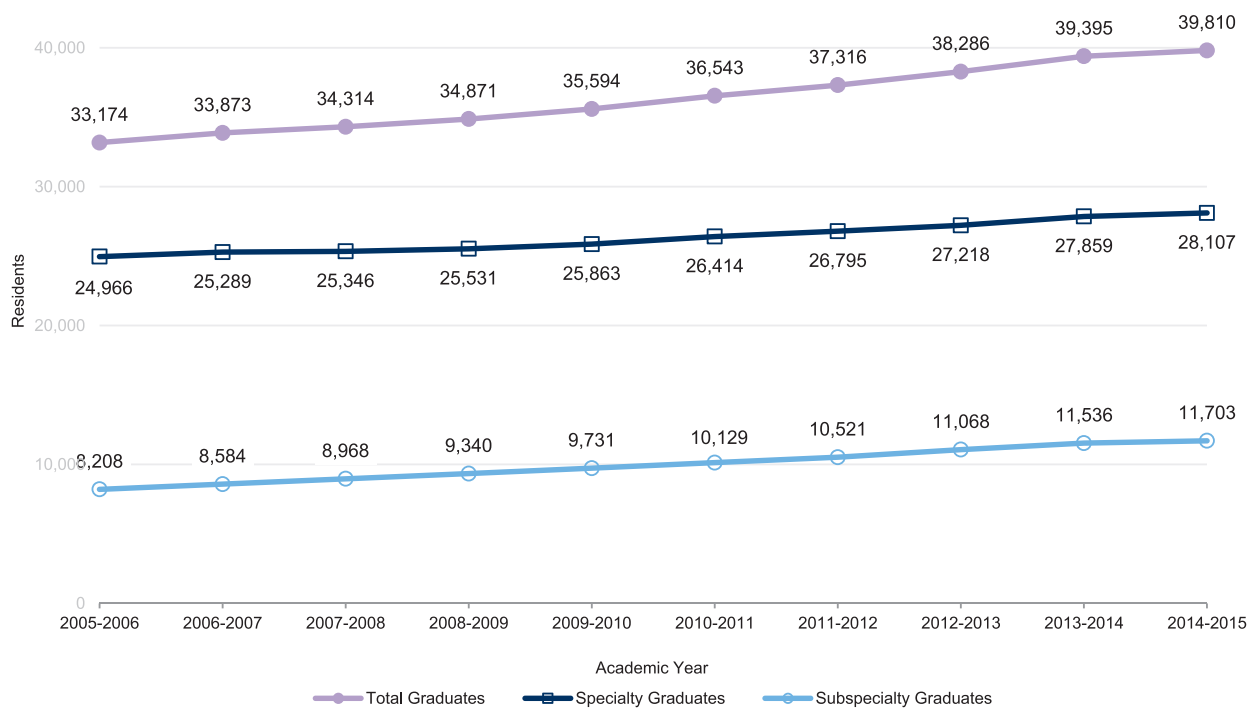
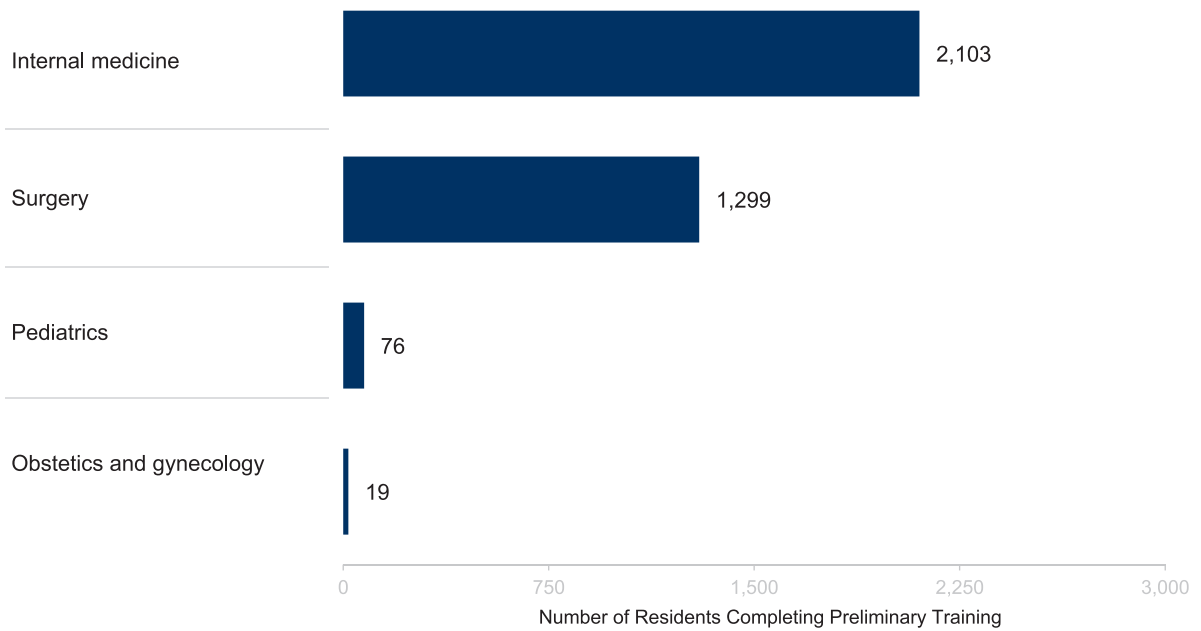


FIGURE D.3

Number of Residents Completing Preliminary Training by Specialty, 2014-2015 AY



Note: Total number of residents completing preliminary training = 3,497.
Abbreviations: AY, academic year.

FIGURE D.4

Number of Residents Completing Preliminary Training, 2005-2006 to 2014-2015

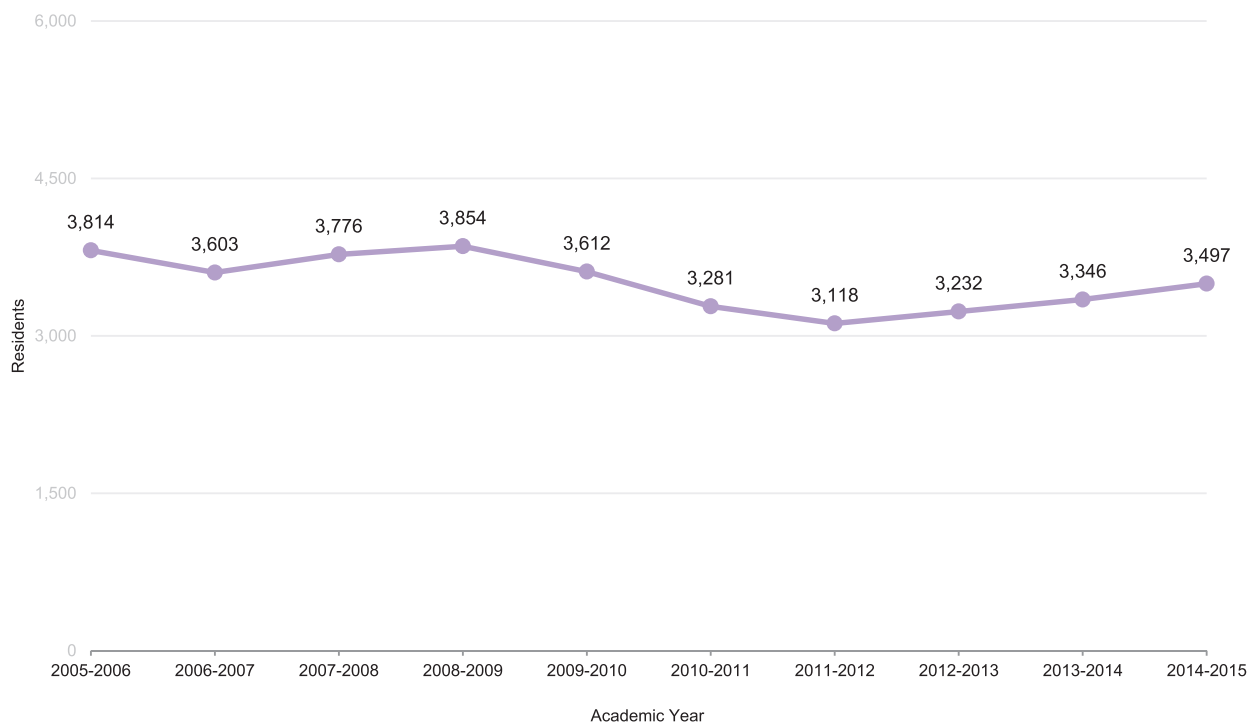


TABLE D.5				
Number of Graduating Residents and Residents Completing Preliminary Training by Specialty and Subspecialty, 2014-2015 AY				
Specialty	Number of Graduating Residents	Percent of Total Graduating Residents	Number of Residents Completing Preliminary Training	Percent of Total Residents Completing Preliminary Training
OVERALL	39,810	100.0%	3,497	100.0%
TOTAL PIPELINE	26,712	67.1%	3,497	100.0%
Allergy and immunology	151	0.4%	0	0.0%
Anesthesiology	1,631	4.1%	0	0.0%
- Adult cardiothoracic anesthesiology	187	0.5%	0	0.0%
- Clinical informatics (Anesthesiology)	0	0.0%	0	0.0%
- Critical care medicine	168	0.4%	0	0.0%
- Obstetric anesthesiology	40	0.1%	0	0.0%
- Pain medicine (multidisciplinary)	345	0.9%	0	0.0%
- Pediatric anesthesiology	223	0.6%	0	0.0%
Colon and rectal surgery	93	0.2%	0	0.0%
Dermatology	415	1.0%	0	0.0%
- Dermatopathology (multidisciplinary)	74	0.2%	0	0.0%
- Micrographic surgery and dermatologic oncology	67	0.2%	0	0.0%
Emergency medicine	1,768	4.4%	0	0.0%
- Clinical informatics (Emergency medicine)	0	0.0%	0	0.0%
- Emergency medical services	46	0.1%	0	0.0%
- Medical toxicology	32	0.1%	0	0.0%
- Pediatric emergency medicine	37	0.1%	0	0.0%
- Sports medicine	11	0.0%	0	0.0%
- Undersea and hyperbaric medicine	9	0.0%	0	0.0%
Family medicine	3,392	8.5%	0	0.0%
- Clinical informatics (Family medicine)	1	0.0%	0	0.0%
- Geriatric medicine	52	0.1%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	237	0.6%	0	0.0%
- Sports medicine	198	0.5%	0	0.0%
Internal medicine	7,370	18.5%	2,103	60.1%
- Adult congenital heart disease	0	0.0%	0	0.0%
- Advanced heart failure and transplant cardiology	76	0.2%	0	0.0%
- Cardiovascular disease	888	2.2%	0	0.0%
- Clinical cardiac electrophysiology	140	0.4%	0	0.0%
- Clinical informatics (Internal medicine)	2	0.0%	0	0.0%
- Critical care medicine	119	0.3%	0	0.0%
- Endocrinology, diabetes, and metabolism	309	0.8%	0	0.0%
- Gastroenterology	493	1.2%	0	0.0%
- Geriatric medicine	265	0.7%	0	0.0%
- Hematology	18	0.0%	0	0.0%
- Hematology and medical oncology	539	1.4%	0	0.0%
- Infectious disease	354	0.9%	0	0.0%
- Interventional cardiology	304	0.8%	0	0.0%
- Nephrology	464	1.2%	0	0.0%
- Medical oncology	29	0.1%	0	0.0%
- Pulmonary disease	37	0.1%	0	0.0%
- Pulmonary disease and critical care medicine	541	1.4%	0	0.0%
- Rheumatology	213	0.5%	0	0.0%
- Sleep medicine (multidisciplinary)	152	0.4%	0	0.0%
- Transplant hepatology	43	0.1%	0	0.0%
Medical genetics and genomics	40	0.1%	0	0.0%
- Medical biochemical genetics	8	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	51	0.1%	0	0.0%
Neurological surgery	169	0.4%	0	0.0%
- Endovascular surgical neuroradiology	2	0.0%	0	0.0%

TABLE D.5 Continued
Number of Graduating Residents and Residents Completing Preliminary Training by Specialty and Subspecialty, 2014-2015 AY

Specialty	Number of Graduating Residents	Percent of Total Graduating Residents	Number of Residents Completing Preliminary Training	Percent of Total Residents Completing Preliminary Training
Neurology	651	1.6%	0	0.0%
- Child neurology	110	0.3%	0	0.0%
- Clinical neurophysiology	233	0.6%	0	0.0%
- Epilepsy	17	0.0%	0	0.0%
- Endovascular surgical neuroradiology	2	0.0%	0	0.0%
- Neurodevelopmental disabilities	1	0.0%	0	0.0%
- Neuromuscular medicine	54	0.1%	0	0.0%
- Vascular neurology	94	0.2%	0	0.0%
Nuclear medicine	48	0.1%	0	0.0%
Obstetrics and gynecology	1,237	3.1%	19	0.5%
- Female pelvic medicine and reconstructive surgery	40	0.1%	0	0.0%
Ophthalmology	469	1.2%	0	0.0%
- Ophthalmic plastic and reconstructive surgery	3	0.0%	0	0.0%
Orthopaedic surgery	701	1.8%	0	0.0%
- Adult reconstructive orthopaedics	40	0.1%	0	0.0%
- Foot and ankle orthopaedics	14	0.0%	0	0.0%
- Hand surgery	140	0.4%	0	0.0%
- Musculoskeletal oncology	15	0.0%	0	0.0%
- Orthopaedic sports medicine	215	0.5%	0	0.0%
- Orthopaedic surgery of the spine	31	0.1%	0	0.0%
- Orthopaedic trauma	16	0.0%	0	0.0%
- Pediatric orthopaedics	39	0.1%	0	0.0%
Osteopathic neuromusculoskeletal medicine	0	0.0%	0	0.0%
Otolaryngology	297	0.7%	0	0.0%
- Neurotology	15	0.0%	0	0.0%
- Pediatric otolaryngology	34	0.1%	0	0.0%
Pathology-anatomic and clinical	617	1.5%	0	0.0%
- Blood banking/transfusion medicine	53	0.1%	0	0.0%
- Clinical informatics (Pathology)	0	0.0%	0	0.0%
- Chemical pathology	0	0.0%	0	0.0%
- Cytopathology	139	0.3%	0	0.0%
- Forensic pathology	40	0.1%	0	0.0%
- Hematology	138	0.3%	0	0.0%
- Medical microbiology	11	0.0%	0	0.0%
- Neuropathology	21	0.1%	0	0.0%
- Pediatric pathology	26	0.1%	0	0.0%
- Selective pathology	160	0.4%	0	0.0%
Pediatrics	2,916	7.3%	76	2.2%
- Adolescent medicine	30	0.1%	0	0.0%
- Child abuse pediatrics	10	0.0%	0	0.0%
- Clinical informatics (Pediatrics)	1	0.0%	0	0.0%
- Developmental-behavioral pediatrics	34	0.1%	0	0.0%
- Neonatal-perinatal medicine	218	0.5%	0	0.0%
- Pediatric cardiology	140	0.4%	0	0.0%
- Pediatric critical care medicine	144	0.4%	0	0.0%
- Pediatric emergency medicine	117	0.3%	0	0.0%
- Pediatric endocrinology	88	0.2%	0	0.0%
- Pediatric gastroenterology	89	0.2%	0	0.0%
- Pediatric hematology/oncology	157	0.4%	0	0.0%
- Pediatric infectious diseases	59	0.1%	0	0.0%
- Pediatric nephrology	45	0.1%	0	0.0%
- Pediatric pulmonology	59	0.1%	0	0.0%

TABLE D.5 Continued

Number of Graduating Residents and Residents Completing Preliminary Training by Specialty and Subspecialty, 2014-2015 AY

Specialty	Number of Graduating Residents	Percent of Total Graduating Residents	Number of Residents Completing Preliminary Training	Percent of Total Residents Completing Preliminary Training
- Pediatric rheumatology	26	0.1%	0	0.0%
- Pediatric sports medicine	19	0.0%	0	0.0%
- Pediatric transplant hepatology	8	0.0%	0	0.0%
Physical medicine and rehabilitation	392	1.0%	0	0.0%
- Brain injury medicine	6	0.0%	0	0.0%
- Neuromuscular medicine	0	0.0%	0	0.0%
- Spinal cord injury medicine	15	0.0%	0	0.0%
- Pediatric rehabilitation	15	0.0%	0	0.0%
- Sports medicine	20	0.1%	0	0.0%
Plastic surgery	129	0.3%	0	0.0%
Plastic surgery - integrated	64	0.2%	0	0.0%
- Craniofacial surgery	10	0.0%	0	0.0%
- Hand surgery	20	0.1%	0	0.0%
Preventive medicine	154	0.4%	0	0.0%
- Medical toxicology	2	0.0%	0	0.0%
- Undersea and hyperbaric medicine	4	0.0%	0	0.0%
Psychiatry	1,095	2.8%	0	0.0%
- Addiction psychiatry	68	0.2%	0	0.0%
- Child and adolescent psychiatry	403	1.0%	0	0.0%
- Forensic psychiatry	68	0.2%	0	0.0%
- Geriatric psychiatry	61	0.2%	0	0.0%
- Psychosomatic medicine	84	0.2%	0	0.0%
Radiation oncology	177	0.4%	0	0.0%
Radiology-diagnostic	1,164	2.9%	0	0.0%
- Abdominal radiology	44	0.1%	0	0.0%
- Endovascular surgical neuroradiology	4	0.0%	0	0.0%
- Musculoskeletal radiology	34	0.1%	0	0.0%
- Neuroradiology	257	0.6%	0	0.0%
- Nuclear radiology	16	0.0%	0	0.0%
- Pediatric radiology	89	0.2%	0	0.0%
- Vascular and interventional radiology	261	0.7%	0	0.0%
Interventional radiology - integrated	0	0.0%	0	0.0%
Surgery	1,146	2.9%	1,299	37.1%
- Complex general surgical oncology	55	0.1%	0	0.0%
- Hand surgery	8	0.0%	0	0.0%
- Pediatric surgery	45	0.1%	0	0.0%
- Surgical critical care	219	0.6%	0	0.0%
- Vascular surgery	129	0.3%	0	0.0%
Vascular surgery - integrated	26	0.1%	0	0.0%
Thoracic surgery	90	0.2%	0	0.0%
- Congenital cardiac surgery	8	0.0%	0	0.0%
Thoracic surgery - integrated	9	0.0%	0	0.0%
Urology	279	0.7%	0	0.0%
- Female pelvic medicine and reconstructive surgery	14	0.0%	0	0.0%
- Pediatric urology	25	0.1%	0	0.0%
Transitional year	1,061	2.7%	0	0.0%
Internal medicine/pediatrics	356	0.9%	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, 2014-2015 AY

Specialty	Total Graduates	US LCME - Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
OVERALL	39,810	24,897	62.5%	11,158	28.0%	3,629	9.1%	121	0.3%	5	0.0%
TOTAL PIPELINE	26,712	16,946	63.4%	7,093	26.6%	2,654	9.9%	18	0.1%	1	0.0%
Allergy and immunology	151	106	70.2%	32	21.2%	13	8.6%	0	0.0%	0	0.0%
Anesthesiology	1,631	1,294	79.3%	199	12.2%	138	8.5%	0	0.0%	0	0.0%
- Adult cardiothoracic anesthesiology	187	147	78.6%	26	13.9%	12	6.4%	2	1.1%	0	0.0%
- Clinical informatics (Anesthesiology)	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
- Critical care medicine	168	133	79.2%	26	15.5%	9	5.4%	0	0.0%	0	0.0%
- Obstetric anesthesiology	40	33	82.5%	5	12.5%	2	5.0%	0	0.0%	0	0.0%
- Pain medicine (multidisciplinary)	345	228	66.1%	75	21.7%	42	12.2%	0	0.0%	0	0.0%
- Pediatric anesthesiology	223	175	78.5%	28	12.6%	18	8.1%	2	0.9%	0	0.0%
Colon and rectal surgery	93	76	81.7%	12	12.9%	3	3.2%	2	2.2%	0	0.0%
Dermatology	415	397	95.7%	14	3.4%	4	1.0%	0	0.0%	0	0.0%
- Dermatopathology (multidisciplinary)	74	61	82.4%	7	9.5%	4	5.4%	2	2.7%	0	0.0%
- Micrographic surgery and dermatologic oncology	67	63	94.0%	2	3.0%	2	3.0%	0	0.0%	0	0.0%
Emergency medicine	1,768	1,431	80.9%	112	6.3%	224	12.7%	1	0.1%	0	0.0%
- Clinical informatics (Emergency medicine)	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
- Emergency medical services	46	38	82.6%	4	8.7%	4	8.7%	0	0.0%	0	0.0%
- Medical toxicology	32	24	75.0%	1	3.1%	6	18.8%	1	3.1%	0	0.0%
- Pediatric emergency medicine	37	31	83.8%	4	10.8%	2	5.4%	0	0.0%	0	0.0%
- Sports medicine	11	5	45.5%	3	27.3%	3	27.3%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	9	8	88.9%	0	0.0%	1	11.1%	0	0.0%	0	0.0%
Family medicine	3,392	1,549	45.7%	1,166	34.4%	677	20.0%	0	0.0%	0	0.0%
- Clinical informatics (Family medicine)	1	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Geriatric medicine	52	19	36.5%	24	46.2%	9	17.3%	0	0.0%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	237	141	59.5%	58	24.5%	37	15.6%	1	0.4%	0	0.0%
- Sports medicine	198	116	58.6%	29	14.6%	53	26.8%	0	0.0%	0	0.0%
Internal medicine	7,370	3,397	46.1%	3,334	45.2%	629	8.5%	9	0.1%	1	0.0%
- Adult congenital heart disease	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
- Advanced heart failure and transplant cardiology	76	35	46.1%	32	42.1%	6	7.9%	3	3.9%	0	0.0%
- Cardiovascular disease	888	459	51.7%	376	42.3%	50	5.6%	3	0.3%	0	0.0%
- Clinical cardiac electrophysiology	140	75	53.6%	58	41.4%	4	2.9%	3	2.1%	0	0.0%
- Clinical informatics (Internal medicine)	2	1	50.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%
- Critical care medicine	119	24	20.2%	84	70.6%	11	9.2%	0	0.0%	0	0.0%
- Endocrinology, diabetes, and metabolism	309	116	37.5%	173	56.0%	20	6.5%	0	0.0%	0	0.0%
- Gastroenterology	493	310	62.9%	159	32.3%	24	4.9%	0	0.0%	0	0.0%
- Geriatric medicine	265	97	36.6%	143	54.0%	23	8.7%	2	0.8%	0	0.0%
- Hematology	18	13	72.2%	4	22.2%	0	0.0%	1	5.6%	0	0.0%
- Hematology and medical oncology	539	291	54.0%	228	42.3%	19	3.5%	1	0.2%	0	0.0%
- Infectious disease	354	175	49.4%	160	45.2%	17	4.8%	1	0.3%	1	0.3%
- Interventional cardiology	304	149	49.0%	145	47.7%	9	3.0%	1	0.3%	0	0.0%
- Nephrology	464	116	25.0%	321	69.2%	25	5.4%	2	0.4%	0	0.0%
- Medical oncology	29	11	37.9%	18	62.1%	0	0.0%	0	0.0%	0	0.0%
- Pulmonary disease	37	4	10.8%	31	83.8%	2	5.4%	0	0.0%	0	0.0%
- Pulmonary disease and critical care medicine	541	263	48.6%	243	44.9%	32	5.9%	2	0.4%	1	0.2%
- Rheumatology	213	78	36.6%	109	51.2%	26	12.2%	0	0.0%	0	0.0%
- Sleep medicine (multidisciplinary)	152	57	37.5%	86	56.6%	9	5.9%	0	0.0%	0	0.0%
- Transplant hepatology	43	26	60.5%	13	30.2%	1	2.3%	3	7.0%	0	0.0%
Medical genetics and genomics	40	25	62.5%	14	35.0%	1	2.5%	0	0.0%	0	0.0%
- Medical biochemical genetics	8	2	25.0%	6	75.0%	0	0.0%	0	0.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	51	32	62.7%	17	33.3%	2	3.9%	0	0.0%	0	0.0%
Neurological surgery	169	146	86.4%	23	13.6%	0	0.0%	0	0.0%	0	0.0%
- Endovascular surgical neuroradiology	2	1	50.0%	1	50.0%	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, 2014-2015 AY

Specialty	Total Graduates	US LCME - Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
Neurology	651	370	56.8%	225	34.6%	56	8.6%	0	0.0%	0	0.0%
- Child neurology	110	73	66.4%	34	30.9%	3	2.7%	0	0.0%	0	0.0%
- Clinical neurophysiology	233	114	48.9%	98	42.1%	19	8.2%	2	0.9%	0	0.0%
- Epilepsy	17	11	64.7%	5	29.4%	0	0.0%	1	5.9%	0	0.0%
- Endovascular surgical neuroradiology	2	1	50.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%
- Neurodevelopmental disabilities	1	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Neuromuscular medicine	54	28	51.9%	20	37.0%	3	5.6%	3	5.6%	0	0.0%
- Vascular neurology	94	53	56.4%	37	39.4%	3	3.2%	1	1.1%	0	0.0%
Nuclear medicine	48	17	35.4%	28	58.3%	3	6.3%	0	0.0%	0	0.0%
Obstetrics and gynecology	1,237	930	75.2%	177	14.3%	130	10.5%	0	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	40	31	77.5%	6	15.0%	3	7.5%	0	0.0%	0	0.0%
Ophthalmology	469	440	93.8%	26	5.5%	2	0.4%	1	0.2%	0	0.0%
- Ophthalmic plastic and reconstructive surgery	3	3	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Orthopaedic surgery	701	673	96.0%	19	2.7%	9	1.3%	0	0.0%	0	0.0%
- Adult reconstructive orthopaedics	40	23	57.5%	7	17.5%	6	15.0%	4	10.0%	0	0.0%
- Foot and ankle orthopaedics	14	12	85.7%	1	7.1%	1	7.1%	0	0.0%	0	0.0%
- Hand surgery	140	127	90.7%	4	2.9%	6	4.3%	3	2.1%	0	0.0%
- Musculoskeletal oncology	15	6	40.0%	7	46.7%	1	6.7%	1	6.7%	0	0.0%
- Orthopaedic sports medicine	215	173	80.5%	14	6.5%	24	11.2%	4	1.9%	0	0.0%
- Orthopaedic surgery of the spine	31	20	64.5%	8	25.8%	1	3.2%	2	6.5%	0	0.0%
- Orthopaedic trauma	16	12	75.0%	2	12.5%	0	0.0%	2	12.5%	0	0.0%
- Pediatric orthopaedics	39	29	74.4%	7	17.9%	0	0.0%	3	7.7%	0	0.0%
Osteopathic neuromusculoskeletal medicine	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Otolaryngology	297	287	96.6%	9	3.0%	1	0.3%	0	0.0%	0	0.0%
- Neurotology	15	13	86.7%	0	0.0%	0	0.0%	2	13.3%	0	0.0%
- Pediatric otolaryngology	34	30	88.2%	1	2.9%	1	2.9%	2	5.9%	0	0.0%
Pathology-anatomic and clinical	617	349	56.6%	223	36.1%	44	7.1%	1	0.2%	0	0.0%
- Blood banking/transfusion medicine	53	35	66.0%	12	22.6%	5	9.4%	1	1.9%	0	0.0%
- Clinical informatics (Pathology)	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
- Chemical pathology	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
- Cytopathology	139	89	64.0%	42	30.2%	8	5.8%	0	0.0%	0	0.0%
- Forensic pathology	40	29	72.5%	4	10.0%	5	12.5%	2	5.0%	0	0.0%
- Hematology	138	71	51.4%	57	41.3%	9	6.5%	1	0.7%	0	0.0%
- Medical microbiology	11	6	54.5%	3	27.3%	2	18.2%	0	0.0%	0	0.0%
- Neuropathology	21	12	57.1%	8	38.1%	0	0.0%	1	4.8%	0	0.0%
- Pediatric pathology	26	17	65.4%	6	23.1%	1	3.8%	2	7.7%	0	0.0%
- Selective pathology	160	77	48.1%	76	47.5%	3	1.9%	4	2.5%	0	0.0%
Pediatrics	2,916	1,865	64.0%	706	24.2%	344	11.8%	1	0.0%	0	0.0%
- Adolescent medicine	30	26	86.7%	3	10.0%	1	3.3%	0	0.0%	0	0.0%
- Child abuse pediatrics	10	9	90.0%	1	10.0%	0	0.0%	0	0.0%	0	0.0%
- Clinical informatics (Pediatrics)	1	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Developmental-behavioral pediatrics	34	25	73.5%	6	17.6%	3	8.8%	0	0.0%	0	0.0%
- Neonatal-perinatal medicine	218	127	58.3%	73	33.5%	18	8.3%	0	0.0%	0	0.0%
- Pediatric cardiology	140	90	64.3%	38	27.1%	11	7.9%	1	0.7%	0	0.0%
- Pediatric critical care medicine	144	80	55.6%	50	34.7%	13	9.0%	0	0.0%	1	0.7%
- Pediatric emergency medicine	117	85	72.6%	19	16.2%	12	10.3%	1	0.9%	0	0.0%
- Pediatric endocrinology	88	52	59.1%	32	36.4%	4	4.5%	0	0.0%	0	0.0%
- Pediatric gastroenterology	89	57	64.0%	28	31.5%	4	4.5%	0	0.0%	0	0.0%
- Pediatric hematology/oncology	157	102	65.0%	47	29.9%	7	4.5%	0	0.0%	1	0.6%
- Pediatric infectious diseases	59	39	66.1%	18	30.5%	2	3.4%	0	0.0%	0	0.0%
- Pediatric nephrology	45	27	60.0%	16	35.6%	2	4.4%	0	0.0%	0	0.0%
- Pediatric pulmonology	59	29	49.2%	28	47.5%	2	3.4%	0	0.0%	0	0.0%

TABLE D.6 Continued
Number of Graduating Residents by Specialty and Subspecialty and Medical School Type, 2014-2015 AY

Specialty	Total Graduates	US LCME - Accredited Medical School		International Medical School		Osteopathic Medical School		Canadian Medical School		US Medical School Unknown	
		#	%	#	%	#	%	#	%	#	%
- Pediatric rheumatology	26	17	65.4%	7	26.9%	2	7.7%	0	0.0%	0	0.0%
- Pediatric sports medicine	19	14	73.7%	1	5.3%	4	21.1%	0	0.0%	0	0.0%
- Pediatric transplant hepatology	8	5	62.5%	2	25.0%	0	0.0%	1	12.5%	0	0.0%
Physical medicine and rehabilitation	392	203	51.8%	72	18.4%	117	29.8%	0	0.0%	0	0.0%
- Brain injury medicine	6	5	83.3%	0	0.0%	1	16.7%	0	0.0%	0	0.0%
- Neuromuscular medicine	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
- Spinal cord injury medicine	15	7	46.7%	6	40.0%	2	13.3%	0	0.0%	0	0.0%
- Pediatric rehabilitation	15	13	86.7%	0	0.0%	2	13.3%	0	0.0%	0	0.0%
- Sports medicine	20	11	55.0%	2	10.0%	7	35.0%	0	0.0%	0	0.0%
Plastic surgery	129	104	80.6%	21	16.3%	3	2.3%	1	0.8%	0	0.0%
Plastic surgery - integrated	64	60	93.8%	3	4.7%	1	1.6%	0	0.0%	0	0.0%
- Craniofacial surgery	10	8	80.0%	0	0.0%	0	0.0%	2	20.0%	0	0.0%
- Hand surgery	20	13	65.0%	2	10.0%	0	0.0%	5	25.0%	0	0.0%
Preventive medicine	154	104	67.5%	24	15.6%	25	16.2%	1	0.6%	0	0.0%
- Medical toxicology	2	2	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
- Undersea and hyperbaric medicine	4	2	50.0%	2	50.0%	0	0.0%	0	0.0%	0	0.0%
Psychiatry	1,095	616	56.3%	365	33.3%	114	10.4%	0	0.0%	0	0.0%
- Addiction psychiatry	68	38	55.9%	26	38.2%	4	5.9%	0	0.0%	0	0.0%
- Child and adolescent psychiatry	403	229	56.8%	127	31.5%	47	11.7%	0	0.0%	0	0.0%
- Forensic psychiatry	68	51	75.0%	11	16.2%	5	7.4%	1	1.5%	0	0.0%
- Geriatric psychiatry	61	28	45.9%	25	41.0%	8	13.1%	0	0.0%	0	0.0%
- Psychosomatic medicine	84	53	63.1%	22	26.2%	8	9.5%	1	1.2%	0	0.0%
Radiation oncology	177	164	92.7%	7	4.0%	6	3.4%	0	0.0%	0	0.0%
Radiology-diagnostic	1,164	1,028	88.3%	80	6.9%	56	4.8%	0	0.0%	0	0.0%
- Abdominal radiology	44	29	65.9%	8	18.2%	3	6.8%	4	9.1%	0	0.0%
- Endovascular surgical neuroradiology	4	3	75.0%	1	25.0%	0	0.0%	0	0.0%	0	0.0%
- Musculoskeletal radiology	34	31	91.2%	1	2.9%	2	5.9%	0	0.0%	0	0.0%
- Neuroradiology	257	192	74.7%	42	16.3%	18	7.0%	5	1.9%	0	0.0%
- Nuclear radiology	16	8	50.0%	8	50.0%	0	0.0%	0	0.0%	0	0.0%
- Pediatric radiology	89	73	82.0%	13	14.6%	3	3.4%	0	0.0%	0	0.0%
- Vascular and interventional radiology	261	225	86.2%	18	6.9%	18	6.9%	0	0.0%	0	0.0%
Interventional radiology - integrated	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Surgery	1,146	911	79.5%	192	16.8%	40	3.5%	3	0.3%	0	0.0%
- Complex general surgical oncology	55	40	72.7%	12	21.8%	0	0.0%	3	5.5%	0	0.0%
- Hand surgery	8	7	87.5%	0	0.0%	1	12.5%	0	0.0%	0	0.0%
- Pediatric surgery	45	40	88.9%	4	8.9%	1	2.2%	0	0.0%	0	0.0%
- Surgical critical care	219	164	74.9%	22	10.0%	31	14.2%	2	0.9%	0	0.0%
- Vascular surgery	129	94	72.9%	32	24.8%	3	2.3%	0	0.0%	0	0.0%
Vascular surgery - integrated	26	21	80.8%	5	19.2%	0	0.0%	0	0.0%	0	0.0%
Thoracic surgery	90	64	71.1%	18	20.0%	6	6.7%	2	2.2%	0	0.0%
- Congenital cardiac surgery	8	4	50.0%	4	50.0%	0	0.0%	0	0.0%	0	0.0%
Thoracic surgery - integrated	9	5	55.6%	3	33.3%	1	11.1%	0	0.0%	0	0.0%
Urology	279	257	92.1%	17	6.1%	5	1.8%	0	0.0%	0	0.0%
- Female pelvic medicine and reconstructive surgery	14	13	92.9%	0	0.0%	0	0.0%	1	7.1%	0	0.0%
- Pediatric urology	25	23	92.0%	1	4.0%	0	0.0%	1	4.0%	0	0.0%
Transitional year	1,061	860	81.1%	86	8.1%	115	10.8%	0	0.0%	0	0.0%
Internal medicine/pediatrics	356	303	85.1%	29	8.1%	24	6.7%	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, 2014-2015 AY

State Name	State Abbreviation	State Population - Census Estimate 2015	Total Number of Graduates	Percent of All Graduates	Graduates per 100,000 Population
OVERALL	--	324,893,002	39,810	100.0%	12.25
Alabama	AL	4,858,979	453	1.1%	9.32
Alaska	AK	738,432	13	0.0%	1.76
Arizona	AZ	6,828,065	506	1.3%	7.41
Arkansas	AR	2,978,204	238	0.6%	7.99
California	CA	39,144,818	3,520	8.8%	8.99
Colorado	CO	5,456,574	438	1.1%	8.03
Connecticut	CT	3,590,886	703	1.8%	19.58
Delaware	DE	945,934	122	0.3%	12.90
District of Columbia	DC	672,228	520	1.3%	77.35
Florida	FL	20,271,272	1,307	3.3%	6.45
Georgia	GA	10,214,860	788	2.0%	7.71
Hawaii	HI	1,431,603	139	0.3%	9.71
Idaho	ID	1,654,930	32	0.1%	1.93
Illinois	IL	12,859,995	2,042	5.1%	15.88
Indiana	IN	6,619,680	491	1.2%	7.42
Iowa	IA	3,123,899	289	0.7%	9.25
Kansas	KS	2,911,641	233	0.6%	8.00
Kentucky	KY	4,425,092	382	1.0%	8.63
Louisiana	LA	4,670,724	622	1.6%	13.32
Maine	ME	1,329,328	108	0.3%	8.12
Maryland	MD	6,006,401	1,101	2.8%	18.33
Massachusetts	MA	6,794,422	1,931	4.9%	28.42
Michigan	MI	9,922,576	1,792	4.5%	18.06
Minnesota	MN	5,489,594	791	2.0%	14.41
Mississippi	MS	2,992,333	180	0.5%	6.02
Missouri	MO	6,083,672	890	2.2%	14.63
Montana	MT	1,032,949	9	0.0%	0.87
Nebraska	NE	1,896,190	229	0.6%	12.08
Nevada	NV	2,890,845	110	0.3%	3.81
New Hampshire	NH	1,330,608	136	0.3%	10.22
New Jersey	NJ	8,958,013	903	2.3%	10.08
New Mexico	NM	2,085,109	205	0.5%	9.83
New York	NY	19,795,791	5,293	13.3%	26.74
North Carolina	NC	10,042,802	1,050	2.6%	10.46
North Dakota	ND	756,927	44	0.1%	5.81
Ohio	OH	11,613,423	1,999	5.0%	17.21
Oklahoma	OK	3,911,338	242	0.6%	6.19
Oregon	OR	4,028,977	299	0.8%	7.42
Pennsylvania	PA	12,802,503	2,687	6.7%	20.99
Puerto Rico	PR	3,474,182	293	0.7%	8.43
Rhode Island	RI	1,056,298	243	0.6%	23.00
South Carolina	SC	4,896,146	393	1.0%	8.03
South Dakota	SD	858,469	49	0.1%	5.71
Tennessee	TN	6,600,299	747	1.9%	11.32
Texas	TX	27,469,114	2,624	6.6%	9.55
Utah	UT	2,995,919	260	0.7%	8.68
Vermont	VT	626,042	88	0.2%	14.06
Virginia	VA	8,382,993	784	2.0%	9.35
Washington	WA	7,170,351	657	1.7%	9.16
West Virginia	WV	1,844,128	208	0.5%	11.28
Wisconsin	WI	5,771,337	613	1.5%	10.62
Wyoming	WY	586,107	14	0.0%	2.39

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

Abbreviations: AY, academic year.

TABLE D.8

Number of Specialty Graduates and Specialty Graduate Concentration per 100,000 Population by State, 2014-2015 AY

State Name	State Abbreviation	State Population - Census Estimate 2015	Total Number of Specialty Graduates	Percent of All Specialty Graduates	Specialty Graduates per 100,000 Population
OVERALL	--	324,893,002	28,107	100.0%	8.65
Alabama	AL	4,858,979	331	1.2%	6.81
Alaska	AK	738,432	13	0.0%	1.76
Arizona	AZ	6,828,065	389	1.4%	5.70
Arkansas	AR	2,978,204	181	0.6%	6.08
California	CA	39,144,818	2,421	8.6%	6.18
Colorado	CO	5,456,574	292	1.0%	5.35
Connecticut	CT	3,590,886	492	1.8%	13.70
Delaware	DE	945,934	93	0.3%	9.83
District of Columbia	DC	672,228	347	1.2%	51.62
Florida	FL	20,271,272	877	3.1%	4.33
Georgia	GA	10,214,860	564	2.0%	5.52
Hawaii	HI	1,431,603	115	0.4%	8.03
Idaho	ID	1,654,930	31	0.1%	1.87
Illinois	IL	12,859,995	1,544	5.5%	12.01
Indiana	IN	6,619,680	374	1.3%	5.65
Iowa	IA	3,123,899	210	0.7%	6.72
Kansas	KS	2,911,641	190	0.7%	6.53
Kentucky	KY	4,425,092	267	0.9%	6.03
Louisiana	LA	4,670,724	475	1.7%	10.17
Maine	ME	1,329,328	88	0.3%	6.62
Maryland	MD	6,006,401	702	2.5%	11.69
Massachusetts	MA	6,794,422	1,192	4.2%	17.54
Michigan	MI	9,922,576	1,364	4.9%	13.75
Minnesota	MN	5,489,594	498	1.8%	9.07
Mississippi	MS	2,992,333	133	0.5%	4.44
Missouri	MO	6,083,672	603	2.1%	9.91
Montana	MT	1,032,949	8	0.0%	0.77
Nebraska	NE	1,896,190	178	0.6%	9.39
Nevada	NV	2,890,845	96	0.3%	3.32
New Hampshire	NH	1,330,608	91	0.3%	6.84
New Jersey	NJ	8,958,013	762	2.7%	8.51
New Mexico	NM	2,085,109	131	0.5%	6.28
New York	NY	19,795,791	3,774	13.4%	19.06
North Carolina	NC	10,042,802	682	2.4%	6.79
North Dakota	ND	756,927	44	0.2%	5.81
Ohio	OH	11,613,423	1,364	4.9%	11.75
Oklahoma	OK	3,911,338	193	0.7%	4.93
Oregon	OR	4,028,977	203	0.7%	5.04
Pennsylvania	PA	12,802,503	1,809	6.4%	14.13
Puerto Rico	PR	3,474,182	246	0.9%	7.08
Rhode Island	RI	1,056,298	171	0.6%	16.19
South Carolina	SC	4,896,146	286	1.0%	5.84
South Dakota	SD	858,469	44	0.2%	5.13
Tennessee	TN	6,600,299	521	1.9%	7.89
Texas	TX	27,469,114	1,798	6.4%	6.55
Utah	UT	2,995,919	170	0.6%	5.67
Vermont	VT	626,042	63	0.2%	10.06
Virginia	VA	8,382,993	592	2.1%	7.06
Washington	WA	7,170,351	469	1.7%	6.54
West Virginia	WV	1,844,128	178	0.6%	9.65
Wisconsin	WI	5,771,337	434	1.5%	7.52
Wyoming	WY	586,107	14	0.0%	2.39

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

Abbreviations: AY, academic year.

TABLE D.9

Number of Subspecialty Graduates and Subspecialty Graduate Concentration per 100,000 Population by State, 2014-2015 AY

State Name	State Abbreviation	State Population - Census Estimate 2015	Total Number of Subspecialty Graduates	Percent of All Subspecialty Graduates	Subspecialty Graduates per 100,000 Population
OVERALL	--	324,893,002	11,703	100.0%	3.60
Alabama	AL	4,858,979	122	1.0%	2.51
Alaska	AK	738,432	0	0.0%	0.00
Arizona	AZ	6,828,065	117	1.0%	1.71
Arkansas	AR	2,978,204	57	0.5%	1.91
California	CA	39,144,818	1,099	9.4%	2.81
Colorado	CO	5,456,574	146	1.2%	2.68
Connecticut	CT	3,590,886	211	1.8%	5.88
Delaware	DE	945,934	29	0.2%	3.07
District of Columbia	DC	672,228	173	1.5%	25.74
Florida	FL	20,271,272	430	3.7%	2.12
Georgia	GA	10,214,860	224	1.9%	2.19
Hawaii	HI	1,431,603	24	0.2%	1.68
Idaho	ID	1,654,930	1	0.0%	0.06
Illinois	IL	12,859,995	498	4.3%	3.87
Indiana	IN	6,619,680	117	1.0%	1.77
Iowa	IA	3,123,899	79	0.7%	2.53
Kansas	KS	2,911,641	43	0.4%	1.48
Kentucky	KY	4,425,092	115	1.0%	2.60
Louisiana	LA	4,670,724	147	1.3%	3.15
Maine	ME	1,329,328	20	0.2%	1.50
Maryland	MD	6,006,401	399	3.4%	6.64
Massachusetts	MA	6,794,422	739	6.3%	10.88
Michigan	MI	9,922,576	428	3.7%	4.31
Minnesota	MN	5,489,594	293	2.5%	5.34
Mississippi	MS	2,992,333	47	0.4%	1.57
Missouri	MO	6,083,672	287	2.5%	4.72
Montana	MT	1,032,949	1	0.0%	0.10
Nebraska	NE	1,896,190	51	0.4%	2.69
Nevada	NV	2,890,845	14	0.1%	0.48
New Hampshire	NH	1,330,608	45	0.4%	3.38
New Jersey	NJ	8,958,013	141	1.2%	1.57
New Mexico	NM	2,085,109	74	0.6%	3.55
New York	NY	19,795,791	1,519	13.0%	7.67
North Carolina	NC	10,042,802	368	3.1%	3.66
North Dakota	ND	756,927	0	0.0%	0.00
Ohio	OH	11,613,423	635	5.4%	5.47
Oklahoma	OK	3,911,338	49	0.4%	1.25
Oregon	OR	4,028,977	96	0.8%	2.38
Pennsylvania	PA	12,802,503	878	7.5%	6.86
Puerto Rico	PR	3,474,182	47	0.4%	1.35
Rhode Island	RI	1,056,298	72	0.6%	6.82
South Carolina	SC	4,896,146	107	0.9%	2.19
South Dakota	SD	858,469	5	0.0%	0.58
Tennessee	TN	6,600,299	226	1.9%	3.42
Texas	TX	27,469,114	826	7.1%	3.01
Utah	UT	2,995,919	90	0.8%	3.00
Vermont	VT	626,042	25	0.2%	3.99
Virginia	VA	8,382,993	192	1.6%	2.29
Washington	WA	7,170,351	188	1.6%	2.62
West Virginia	WV	1,844,128	30	0.3%	1.63
Wisconsin	WI	5,771,337	179	1.5%	3.10
Wyoming	WY	586,107	0	0.0%	0.00

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016

Abbreviations: AY, academic year.

TABLE D.10

Number of Pipeline Graduates and Pipeline Graduate Concentration per 100,000 Population by State, 2014-2015 AY

State Name	State Abbreviation	State Population - Census Estimate 2015	Total Number of Pipeline Graduates	Percent of All Pipeline Graduates	Pipeline Graduates per 100,000 Population
OVERALL	--	324,893,002	26,702	100.0%	8.22
Alabama	AL	4,858,979	310	1.2%	6.38
Alaska	AK	738,432	13	0.0%	1.76
Arizona	AZ	6,828,065	368	1.4%	5.39
Arkansas	AR	2,978,204	181	0.7%	6.08
California	CA	39,144,818	2,313	8.7%	5.91
Colorado	CO	5,456,574	274	1.0%	5.02
Connecticut	CT	3,590,886	480	1.8%	13.37
Delaware	DE	945,934	81	0.3%	8.56
District of Columbia	DC	672,228	343	1.3%	51.02
Florida	FL	20,271,272	858	3.2%	4.23
Georgia	GA	10,214,860	519	1.9%	5.08
Hawaii	HI	1,431,603	91	0.3%	6.36
Idaho	ID	1,654,930	31	0.1%	1.87
Illinois	IL	12,859,995	1,462	5.5%	11.37
Indiana	IN	6,619,680	328	1.2%	4.95
Iowa	IA	3,123,899	199	0.7%	6.37
Kansas	KS	2,911,641	189	0.7%	6.49
Kentucky	KY	4,425,092	264	1.0%	5.97
Louisiana	LA	4,670,724	465	1.7%	9.96
Maine	ME	1,329,328	88	0.3%	6.62
Maryland	MD	6,006,401	642	2.4%	10.69
Massachusetts	MA	6,794,422	1,126	4.2%	16.57
Michigan	MI	9,922,576	1,201	4.5%	12.10
Minnesota	MN	5,489,594	462	1.7%	8.42
Mississippi	MS	2,992,333	130	0.5%	4.34
Missouri	MO	6,083,672	580	2.2%	9.53
Montana	MT	1,032,949	8	0.0%	0.77
Nebraska	NE	1,896,190	175	0.7%	9.23
Nevada	NV	2,890,845	96	0.4%	3.32
New Hampshire	NH	1,330,608	91	0.3%	6.84
New Jersey	NJ	8,958,013	758	2.8%	8.46
New Mexico	NM	2,085,109	131	0.5%	6.28
New York	NY	19,795,791	3,679	13.8%	18.58
North Carolina	NC	10,042,802	673	2.5%	6.70
North Dakota	ND	756,927	36	0.1%	4.76
Ohio	OH	11,613,423	1,296	4.9%	11.16
Oklahoma	OK	3,911,338	192	0.7%	4.91
Oregon	OR	4,028,977	201	0.8%	4.99
Pennsylvania	PA	12,802,503	1,722	6.4%	13.45
Puerto Rico	PR	3,474,182	206	0.8%	5.93
Rhode Island	RI	1,056,298	169	0.6%	16.00
South Carolina	SC	4,896,146	274	1.0%	5.60
South Dakota	SD	858,469	39	0.1%	4.54
Tennessee	TN	6,600,299	492	1.8%	7.45
Texas	TX	27,469,114	1,705	6.4%	6.21
Utah	UT	2,995,919	157	0.6%	5.24
Vermont	VT	626,042	63	0.2%	10.06
Virginia	VA	8,382,993	548	2.1%	6.54
Washington	WA	7,170,351	419	1.6%	5.84
West Virginia	WV	1,844,128	169	0.6%	9.16
Wisconsin	WI	5,771,337	391	1.5%	6.77
Wyoming	WY	586,107	14	0.1%	2.39

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

Abbreviations: AY, academic year.

TABLE D.11

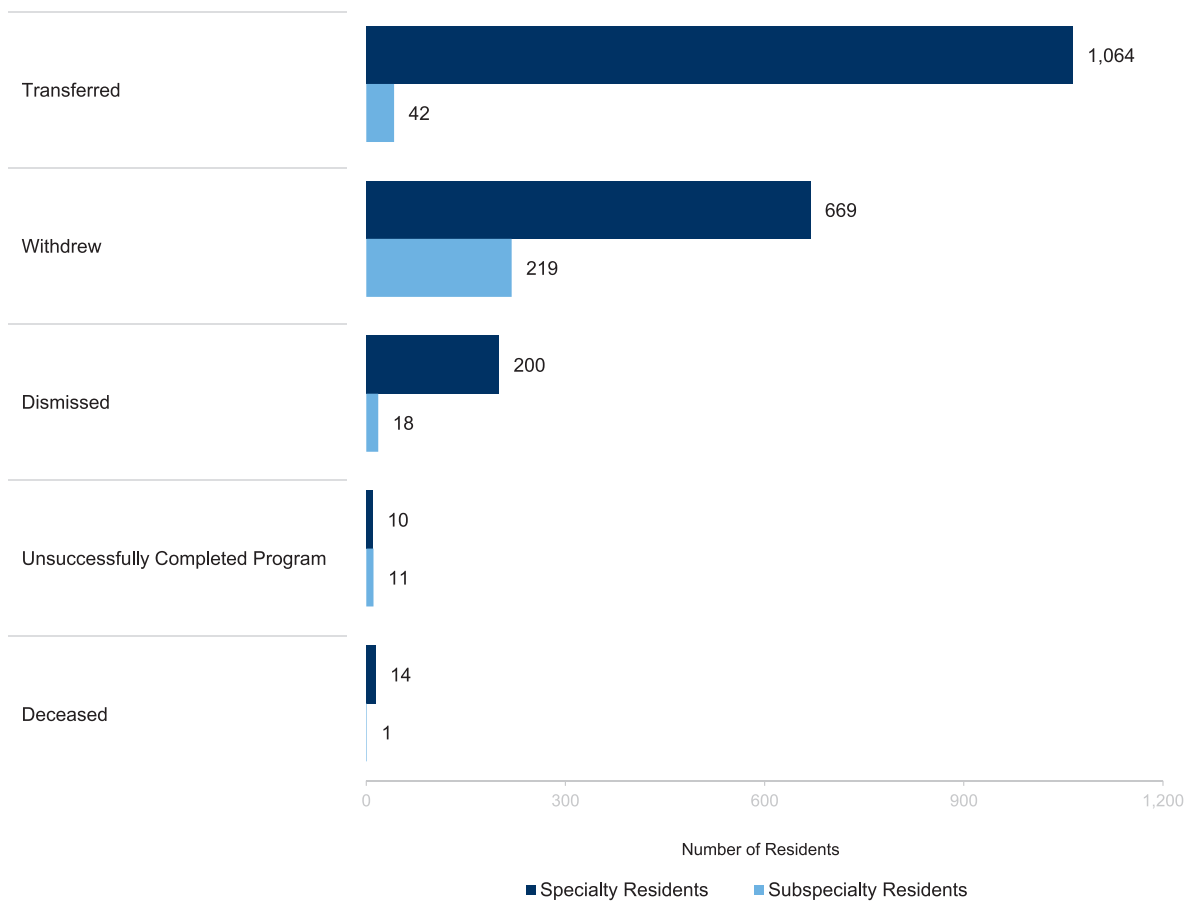
Number of Graduating Residents by State and Medical School Type, 2014-2015 AY

State Name	State Abbreviation	Total Number of Graduating Residents	Medical School Type				
			USLCME-Accredited Medical School	International Medical School	Osteopathic Medical School	Canadian Medical School	US Medical School Unknown
OVERALL	--	39,810	24,897	11,158	3,629	121	5
Alabama	AL	453	329	101	23	0	0
Alaska	AK	13	8	0	5	0	0
Arizona	AZ	506	296	133	76	1	0
Arkansas	AR	238	122	101	15	0	0
California	CA	3,520	2,855	392	259	13	1
Colorado	CO	438	388	17	33	0	0
Connecticut	CT	703	385	259	53	4	2
Delaware	DE	122	68	20	34	0	0
District of Columbia	DC	520	321	189	10	0	0
Florida	FL	1,307	759	429	115	4	0
Georgia	GA	788	499	216	71	2	0
Hawaii	HI	139	84	19	36	0	0
Idaho	ID	32	21	3	8	0	0
Illinois	IL	2,042	1211	609	215	7	0
Indiana	IN	491	331	103	57	0	0
Iowa	IA	289	157	79	53	0	0
Kansas	KS	233	125	57	51	0	0
Kentucky	KY	382	220	111	51	0	0
Louisiana	LA	622	419	188	15	0	0
Maine	ME	108	52	18	38	0	0
Maryland	MD	1,101	760	253	83	5	0
Massachusetts	MA	1,931	1403	435	71	22	0
Michigan	MI	1,792	883	726	182	1	0
Minnesota	MN	791	556	180	48	7	0
Mississippi	MS	180	103	52	25	0	0
Missouri	MO	890	581	221	87	1	0
Montana	MT	9	6	1	2	0	0
Nebraska	NE	229	125	74	30	0	0
Nevada	NV	110	44	50	16	0	0
New Hampshire	NH	136	92	32	12	0	0
New Jersey	NJ	903	279	515	108	1	0
New Mexico	NM	205	127	58	18	2	0
New York	NY	5,293	2,510	2,421	340	22	0
North Carolina	NC	1,050	841	134	72	3	0
North Dakota	ND	44	21	22	1	0	0
Ohio	OH	1,999	1123	650	217	8	1
Oklahoma	OK	242	139	72	31	0	0
Oregon	OR	299	245	27	26	1	0
Pennsylvania	PA	2,687	1,589	720	374	4	0
Puerto Rico	PR	293	198	95	0	0	0
Rhode Island	RI	243	184	50	9	0	0
South Carolina	SC	393	308	42	43	0	0
South Dakota	SD	49	26	17	6	0	0
Tennessee	TN	747	536	155	54	1	1
Texas	TX	2,624	1,707	616	294	7	0
Utah	UT	260	216	32	12	0	0
Vermont	VT	88	70	15	3	0	0
Virginia	VA	784	509	173	101	1	0
Washington	WA	657	541	51	62	3	0
West Virginia	WV	208	102	84	21	1	0
Wisconsin	WI	613	423	134	56	0	0
Wyoming	WY	14	0	7	7	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, 2014-2015 AY



Abbreviations: AY, academic year.

TABLE D.13
Number of Residents Leaving Prior to Completion of a Program by Specialty and Subspecialty and Status, 2014-2015 AY

Specialty	Number of Residents Not Graduating	Resident Status				
		Transferred	Withdrew	Dismissed	Unsuccessfully Completed Program	Deceased
OVERALL	2,248	1,106	888	218	21	15
TOTAL PIPELINE	1,937	1,052	663	198	10	14
Allergy and immunology	0	0	0	0	0	0
Anesthesiology	81	32	39	7	0	3
- Adult cardiothoracic anesthesiology	1	0	1	0	0	0
- Clinical informatics (Anesthesiology)	0	0	0	0	0	0
- Critical care medicine	4	0	4	0	0	0
- Obstetric anesthesiology	0	0	0	0	0	0
- Pain medicine (multidisciplinary)	3	0	1	2	0	0
- Pediatric anesthesiology	2	0	1	0	1	0
Colon and rectal surgery	0	0	0	0	0	0
Dermatology	9	3	4	2	0	0
- Dermatopathology (multidisciplinary)	0	0	0	0	0	0
- Micrographic surgery and dermatologic oncology	1	0	1	0	0	0
Emergency medicine	45	13	27	5	0	0
- Clinical informatics (Emergency medicine)	0	0	0	0	0	0
- Emergency medical services	0	0	0	0	0	0
- Medical toxicology	4	0	4	0	0	0
- Pediatric emergency medicine	4	0	4	0	0	0
- Sports medicine	0	0	0	0	0	0
- Undersea and hyperbaric medicine	0	0	0	0	0	0
Family medicine	199	72	92	35	0	0
- Clinical informatics (Family medicine)	0	0	0	0	0	0
- Geriatric medicine	1	0	1	0	0	0
- Hospice and palliative medicine (multidisciplinary)	4	0	2	2	0	0
- Sports medicine	0	0	0	0	0	0
Internal medicine	312	169	92	41	5	5
- Adult congenital heart disease	0	0	0	0	0	0
- Advanced heart failure and transplant cardiology	0	0	0	0	0	0
- Cardiovascular disease	17	3	12	2	0	0
- Clinical cardiac electrophysiology	7	1	2	0	4	0
- Clinical informatics (Internal medicine)	0	0	0	0	0	0
- Critical care medicine	6	5	1	0	0	0
- Endocrinology, diabetes, and metabolism	7	2	4	0	1	0
- Gastroenterology	5	0	4	1	0	0
- Geriatric medicine	6	0	5	1	0	0
- Hematology	0	0	0	0	0	0
- Hematology and medical oncology	10	1	6	3	0	0
- Infectious disease	16	2	13	1	0	0
- Interventional cardiology	1	0	0	0	1	0
- Nephrology	22	4	18	0	0	0
- Medical oncology	1	0	1	0	0	0
- Pulmonary disease	0	0	0	0	0	0
- Pulmonary disease and critical care medicine	14	2	12	0	0	0
- Rheumatology	5	2	3	0	0	0
- Sleep medicine (multidisciplinary)	1	0	1	0	0	0
- Transplant hepatology	1	0	0	0	1	0
Medical genetics and genomics	3	1	2	0	0	0
- Medical biochemical genetics	0	0	0	0	0	0
- Molecular genetic pathology (multidisciplinary)	0	0	0	0	0	0
Neurological surgery	40	16	18	6	0	0
- Endovascular surgical neuroradiology	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, 2014-2015 AY

Specialty	Number of Residents Not Graduating	Resident Status				
		Transferred	Withdrew	Dismissed	Unsuccessfully Completed Program	Deceased
Neurology	64	32	23	8	0	1
- Child neurology	7	2	5	0	0	0
- Clinical neurophysiology	3	1	1	1	0	0
- Epilepsy	0	0	0	0	0	0
- Endovascular surgical neuroradiology	0	0	0	0	0	0
- Neurodevelopmental disabilities	0	0	0	0	0	0
- Neuromuscular medicine	4	0	4	0	0	0
- Vascular neurology	1	0	1	0	0	0
Nuclear medicine	9	7	1	0	1	0
Obstetrics and gynecology	82	43	23	14	1	1
- Female pelvic medicine and reconstructive surgery	1	0	1	0	0	0
Ophthalmology	6	5	0	1	0	0
- Ophthalmic plastic and reconstructive surgery	0	0	0	0	0	0
Orthopaedic surgery	37	18	14	5	0	0
- Adult reconstructive orthopaedics	1	1	0	0	0	0
- Foot and ankle orthopaedics	0	0	0	0	0	0
- Hand surgery	1	0	1	0	0	0
- Musculoskeletal oncology	0	0	0	0	0	0
- Orthopaedic sports medicine	0	0	0	0	0	0
- Orthopaedic surgery of the spine	0	0	0	0	0	0
- Orthopaedic trauma	0	0	0	0	0	0
- Pediatric orthopaedics	0	0	0	0	0	0
Osteopathic neuromusculoskeletal medicine	0	0	0	0	0	0
Otolaryngology	12	4	6	2	0	0
- Neurotology	0	0	0	0	0	0
- Pediatric otolaryngology	0	0	0	0	0	0
Pathology-anatomic and clinical	59	35	20	4	0	0
- Blood banking/transfusion medicine	2	0	2	0	0	0
- Clinical informatics (Pathology)	0	0	0	0	0	0
- Chemical pathology	0	0	0	0	0	0
- Cytopathology	1	0	1	0	0	0
- Forensic pathology	3	0	2	0	1	0
- Hematology	1	0	1	0	0	0
- Medical microbiology	0	0	0	0	0	0
- Neuropathology	1	0	1	0	0	0
- Pediatric pathology	0	0	0	0	0	0
- Selective pathology	0	0	0	0	0	0
Pediatrics	126	64	41	18	1	2
- Adolescent medicine	1	0	1	0	0	0
- Child abuse pediatrics	1	0	1	0	0	0
- Clinical informatics (Pediatrics)	0	0	0	0	0	0
- Developmental-behavioral pediatrics	0	0	0	0	0	0
- Neonatal-perinatal medicine	13	1	12	0	0	0
- Pediatric cardiology	7	0	7	0	0	0
- Pediatric critical care medicine	11	1	9	1	0	0
- Pediatric emergency medicine	1	0	0	1	0	0
- Pediatric endocrinology	4	0	4	0	0	0
- Pediatric gastroenterology	4	0	3	0	0	1
- Pediatric hematology/oncology	12	0	12	0	0	0
- Pediatric infectious diseases	3	0	3	0	0	0
- Pediatric nephrology	3	1	2	0	0	0
- Pediatric pulmonology	4	0	4	0	0	0

TABLE D.13 *Continued*

Number of Residents Leaving Prior to Completion of a Program by Specialty and Subspecialty and Status, 2014-2015 AY

Specialty	Number of Residents Not Graduating	Resident Status				
		Transferred	Withdrew	Dismissed	Unsuccessfully Completed Program	Deceased
- Pediatric rheumatology	3	1	2	0	0	0
- Pediatric sports medicine	0	0	0	0	0	0
- Pediatric transplant hepatology	0	0	0	0	0	0
Physical medicine and rehabilitation	10	3	6	1	0	0
- Brain injury medicine	0	0	0	0	0	0
- Neuromuscular medicine	0	0	0	0	0	0
- Spinal cord injury medicine	0	0	0	0	0	0
- Pediatric rehabilitation	0	0	0	0	0	0
- Sports medicine	0	0	0	0	0	0
Plastic surgery	3	0	2	1	0	0
Plastic surgery - integrated	15	5	7	3	0	0
- Craniofacial surgery	0	0	0	0	0	0
- Hand surgery	0	0	0	0	0	0
Preventive medicine	13	1	10	2	0	0
- Medical toxicology	0	0	0	0	0	0
- Undersea and hyperbaric medicine	0	0	0	0	0	0
Psychiatry	396	321	59	15	1	0
- Addiction psychiatry	2	0	2	0	0	0
- Child and adolescent psychiatry	28	10	18	0	0	0
- Forensic psychiatry	1	0	1	0	0	0
- Geriatric psychiatry	3	0	3	0	0	0
- Psychosomatic medicine	2	0	2	0	0	0
Radiation oncology	17	10	7	0	0	0
Radiology-diagnostic	84	53	26	5	0	0
- Abdominal radiology	3	0	2	0	1	0
- Endovascular surgical neuroradiology	0	0	0	0	0	0
- Musculoskeletal radiology	0	0	0	0	0	0
- Neuroradiology	0	0	0	0	0	0
- Nuclear radiology	0	0	0	0	0	0
- Pediatric radiology	3	0	3	0	0	0
- Vascular and interventional radiology	3	2	0	1	0	0
Interventional radiology - integrated	0	0	0	0	0	0
Surgery	285	134	129	21	1	0
- Complex general surgical oncology	1	0	1	0	0	0
- Hand surgery	0	0	0	0	0	0
- Pediatric surgery	0	0	0	0	0	0
- Surgical critical care	2	0	2	0	0	0
- Vascular surgery	5	0	3	2	0	0
Vascular surgery - integrated	0	0	0	0	0	0
Thoracic surgery	6	2	4	0	0	0
- Congenital cardiac surgery	1	0	0	0	1	0
Thoracic surgery - integrated	0	0	0	0	0	0
Urology	10	2	7	1	0	0
- Female pelvic medicine and reconstructive surgery	0	0	0	0	0	0
- Pediatric urology	1	0	1	0	0	0
Transitional year	14	10	2	2	0	0
Internal medicine/pediatrics	20	9	8	1	0	2

Note: Pipeline specialties are highlighted.
Abbreviations: AY, academic year.

TABLE D.14

Number of Transferring Residents by Specialty and Resident Year, 2014-2015 AY

Specialty	Number of Transferring Residents	Resident Year				
		1	2	3	4	5
OVERALL	1,064	436	265	320	42	1
Allergy and immunology	0					
Anesthesiology	32	6	19	6	1	
Colon and rectal surgery	0					
Dermatology	3	1	2			
Emergency medicine	13	9	3	1		
Family medicine	72	57	11	4		
Internal medicine	169	108	60	1		
Medical genetics and genomics	1	1				
Neurological surgery	16	2	3	7	4	
Neurology	32	25	6		1	
Nuclear medicine	7	7				
Obstetrics and gynecology	43	28	14	1		
Ophthalmology	5	5				
Orthopaedic surgery	18	4	4	8	2	
Osteopathic neuromusculoskeletal medicine	0					
Otolaryngology	4		3	1		
Pathology-anatomic and clinical	35	11	15	8	1	
Pediatrics	64	32	30	2		
Physical medicine and rehabilitation	3	2	1			
Plastic surgery	0					
Plastic surgery - integrated	5	2	1	2		
Preventive medicine	1		1			
Psychiatry	321	35	18	246	22	
Radiation oncology	10	1	5	3	1	
Radiology-diagnostic	53	34	18	1		
Interventional radiology - integrated	0					
Surgery	134	50	47	26	10	1
Vascular surgery - integrated	0					
Thoracic surgery	2	1		1		
Thoracic surgery - integrated	0					
Urology	2	1		1		
Transitional year	10	10				
Internal medicine/pediatrics	9	4	4	1		

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 changes that have occurred throughout the 2015-2016 academic year.

Accredited Sponsors by Status

Of the 792 total number of ACGME-accredited Sponsoring Institutions, 148 (18.7%) are in the initial phase of accreditation, 619 (78.2%) have a status of Continued Accreditation, 23 (2.9%) have a status of Continued Accreditation with Warning, and 2 (0.3%) are on probation. Overall there has been a 15.3% increase in number of sponsors since the 2012-2013 academic year (at that time, the total number of Sponsoring Institutions was 687). 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 sponsor occurred simultaneously. This change, combined with sponsors seeking accreditation through the transition to a single GME accreditation system, has led to the recent upward trend in total accredited sponsors.

Distribution by Sponsor Size

Sponsors with 1 program and those with 2-5 programs account for the majority of all Sponsoring Institutions (33.5% and 24.2%, respectively). The remaining Sponsoring Institutions with accredited programs all have more than 5 programs: 17.2% have between 6 and 25 programs; 5.9% have between 26 and 50 programs; 5.3% have between 51 and 75 programs; 3.4% have between 76 and 100 programs; and less than 1% have more than 100 programs. There are 77 (9.7%) 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 (82)
- New York (60)
- Florida (53)

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

- New York (40)
- California (39)
- Pennsylvania (28)

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

- California (39)
- Florida (19)
- Michigan (17)

Sponsors that do not yet have ACGME-accredited programs (77) are located in 25 states and Puerto Rico, with the highest number (12) of these located in Florida. Many of these could be sponsors with AOA-approved GME programs that will seek accreditation through the transition to a single GME accreditation system.

Distribution by Institution Type

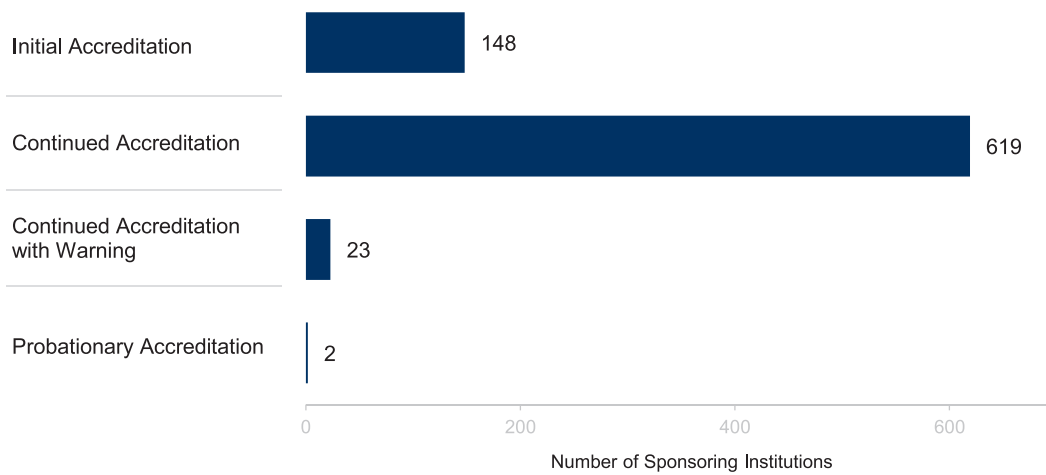
The type of institution is self-reported by Sponsoring Institutions. More than half of Sponsoring Institutions with ACGME-accredited programs are General/Teaching Hospitals (395, 55.2%); the next largest group are Academic Medical Centers/Medical Schools, with 105 (14.7%) sponsors in this category. Though a much smaller percentage of total Sponsoring Institutions, Academic Medical Centers/Medical Schools account for almost the same number of programs and residents as General/Teaching Hospitals.

DIO Changes

Each year between 12% and 16% of Sponsoring Institutions have a change in leadership in the designated institutional official (DIO) role (excluding any newly accredited sponsors and sponsors that do not have accredited programs). In the 2015-2016 academic year, 83 (12.0%) Sponsoring Institutions had a single DIO change and 14 (2.0%) had more than one DIO change. ♪

FIGURE E.1

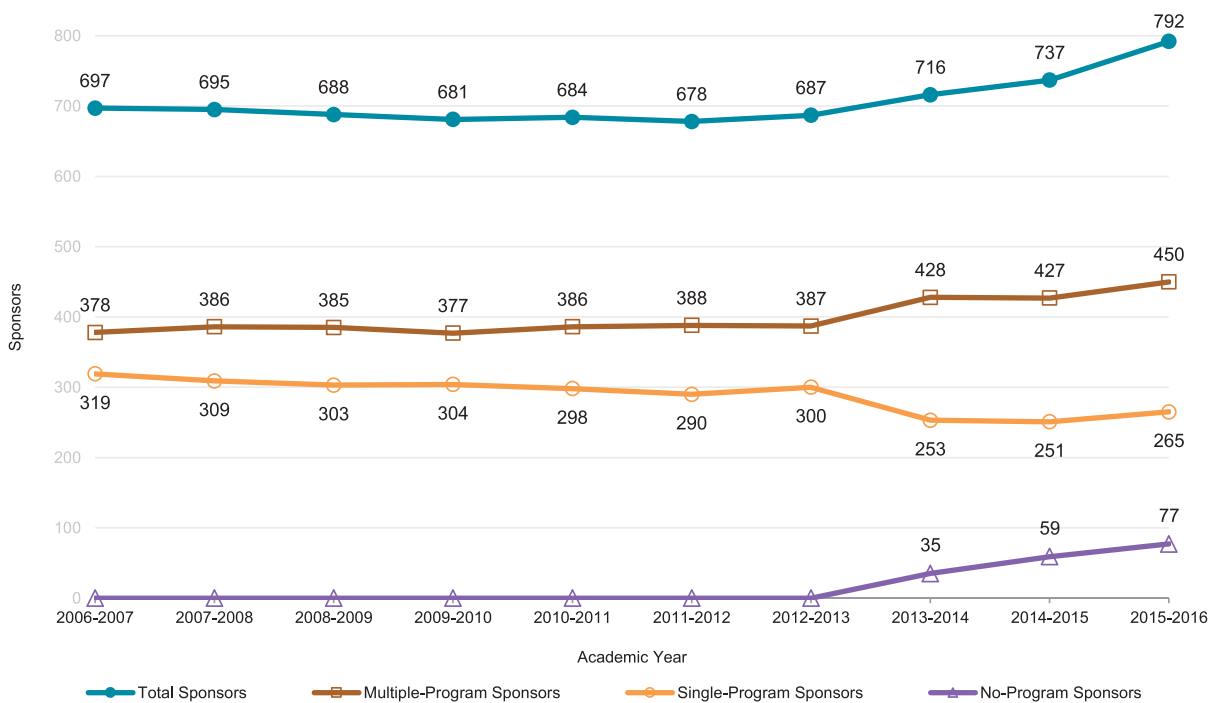
Accreditation Statuses of Currently Accredited Sponsoring Institutions



Note: Total number of ACGME-accredited Sponsoring Institutions = 792.

FIGURE E.2

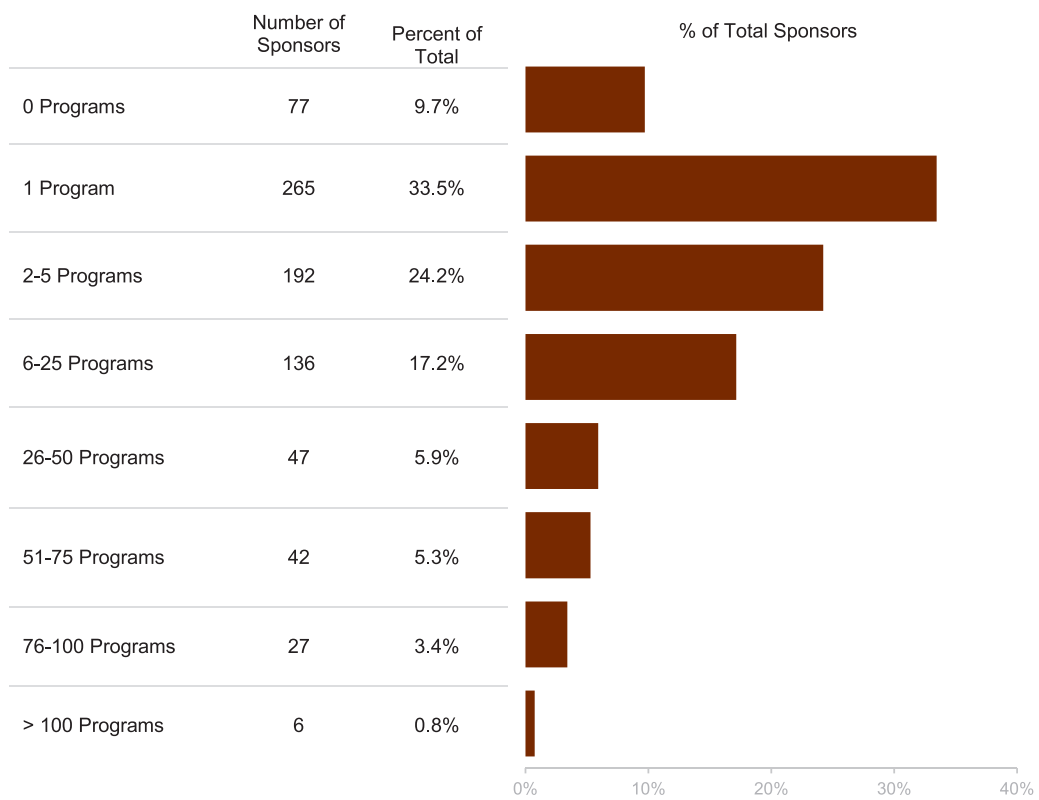
Number of Sponsoring Institutions by Academic Year, 2006-2007 to 2015-2016



Note: Effective July 1, 2013, new policies required Sponsoring Institutions to be accredited prior to applying for program accreditation. There was also a change in the definitions of single-program and multi-program sponsors at that time. The trends in the 2013-2014 academic year and beyond reflect these changes.

FIGURE E.3

Number of Sponsoring Institutions by Size of Sponsor



Note: Total number of ACGME-accredited Sponsoring Institutions = 792. Percentages may not add to 100% due to rounding.

TABLE E.4

Number of Sponsoring Institutions by State

State Name	State Abbreviation	State Population – Census Estimate 2015	Total Sponsors	Percentage of All Sponsors	Sponsor Concentration per 100,000 Pop
OVERALL	--	324,893,002	792	100.0%	0.24
Alabama	AL	4,858,979	11	1.4%	0.23
Alaska	AK	738,432	1	0.1%	0.14
Arizona	AZ	6,828,065	14	1.8%	0.21
Arkansas	AR	2,978,204	4	0.5%	0.13
California	CA	39,144,818	82	10.4%	0.21
Colorado	CO	5,456,574	14	1.8%	0.26
Connecticut	CT	3,590,886	16	2.0%	0.45
Delaware	DE	945,934	3	0.4%	0.32
District of Columbia	DC	672,228	8	1.0%	1.19
Florida	FL	20,271,272	53	6.7%	0.26
Georgia	GA	10,214,860	24	3.0%	0.23
Hawaii	HI	1,431,603	4	0.5%	0.28
Idaho	ID	1,654,930	3	0.4%	0.18
Illinois	IL	12,859,995	33	4.2%	0.26
Indiana	IN	6,619,680	11	1.4%	0.17
Iowa	IA	3,123,899	10	1.3%	0.32
Kansas	KS	2,911,641	2	0.3%	0.07
Kentucky	KY	4,425,092	4	0.5%	0.09
Louisiana	LA	4,670,724	10	1.3%	0.21
Maine	ME	1,329,328	4	0.5%	0.30
Maryland	MD	6,006,401	16	2.0%	0.27
Massachusetts	MA	6,794,422	25	3.2%	0.37
Michigan	MI	9,922,576	48	6.1%	0.48
Minnesota	MN	5,489,594	10	1.3%	0.18
Mississippi	MS	2,992,333	6	0.8%	0.20
Missouri	MO	6,083,672	13	1.6%	0.21
Montana	MT	1,032,949	3	0.4%	0.29
Nebraska	NE	1,896,190	4	0.5%	0.21
Nevada	NV	2,890,845	4	0.5%	0.14
New Hampshire	NH	1,330,608	2	0.3%	0.15
New Jersey	NJ	8,958,013	25	3.2%	0.28
New Mexico	NM	2,085,109	6	0.8%	0.29
New York	NY	19,795,791	60	7.6%	0.30
North Carolina	NC	10,042,802	16	2.0%	0.16
North Dakota	ND	756,927	2	0.3%	0.26
Ohio	OH	11,613,423	43	5.4%	0.37
Oklahoma	OK	3,911,338	8	1.0%	0.20
Oregon	OR	4,028,977	4	0.5%	0.10
Pennsylvania	PA	12,802,503	41	5.2%	0.32
Puerto Rico	PR	3,474,182	13	1.6%	0.37
Rhode Island	RI	1,056,298	7	0.9%	0.66
South Carolina	SC	4,896,146	13	1.6%	0.27
South Dakota	SD	858,469	3	0.4%	0.35
Tennessee	TN	6,600,299	10	1.3%	0.15
Texas	TX	27,469,114	41	5.2%	0.15
Utah	UT	2,995,919	5	0.6%	0.17
Vermont	VT	626,042	1	0.1%	0.16
Virginia	VA	8,382,993	13	1.6%	0.16
Washington	WA	7,170,351	23	2.9%	0.32
West Virginia	WV	1,844,128	7	0.9%	0.38
Wisconsin	WI	5,771,337	8	1.0%	0.14
Wyoming	WY	586,107	1	0.1%	0.17

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

TABLE E.5

Number of Multiple-Program Sponsoring Institutions by State

State Name	State Abbreviation	State Population – Census Estimate 2015	Multiple-Program Sponsors	Percentage of All Sponsors	Sponsor Concentration per 100,000 Pop
OVERALL	--	324,893,002	450	100.0%	0.14
Alabama	AL	4,858,979	7	1.6%	0.14
Alaska	AK	738,432	1	0.2%	0.14
Arizona	AZ	6,828,065	6	1.3%	0.09
Arkansas	AR	2,978,204	2	0.4%	0.07
California	CA	39,144,818	39	8.7%	0.10
Colorado	CO	5,456,574	5	1.1%	0.09
Connecticut	CT	3,590,886	11	2.4%	0.31
Delaware	DE	945,934	1	0.2%	0.11
District of Columbia	DC	672,228	8	1.8%	1.19
Florida	FL	20,271,272	22	4.9%	0.11
Georgia	GA	10,214,860	10	2.2%	0.10
Hawaii	HI	1,431,603	2	0.4%	0.14
Idaho	ID	1,654,930	1	0.2%	0.06
Illinois	IL	12,859,995	22	4.9%	0.17
Indiana	IN	6,619,680	6	1.3%	0.09
Iowa	IA	3,123,899	5	1.1%	0.16
Kansas	KS	2,911,641	2	0.4%	0.07
Kentucky	KY	4,425,092	3	0.7%	0.07
Louisiana	LA	4,670,724	6	1.3%	0.13
Maine	ME	1,329,328	3	0.7%	0.23
Maryland	MD	6,006,401	13	2.9%	0.22
Massachusetts	MA	6,794,422	18	4.0%	0.26
Michigan	MI	9,922,576	26	5.8%	0.26
Minnesota	MN	5,489,594	4	0.9%	0.07
Mississippi	MS	2,992,333	2	0.4%	0.07
Missouri	MO	6,083,672	6	1.3%	0.10
Montana	MT	1,032,949	1	0.2%	0.10
Nebraska	NE	1,896,190	2	0.4%	0.11
Nevada	NV	2,890,845	2	0.4%	0.07
New Hampshire	NH	1,330,608	1	0.2%	0.08
New Jersey	NJ	8,958,013	13	2.9%	0.15
New Mexico	NM	2,085,109	1	0.2%	0.05
New York	NY	19,795,791	40	8.9%	0.20
North Carolina	NC	10,042,802	11	2.4%	0.11
North Dakota	ND	756,927	1	0.2%	0.13
Ohio	OH	11,613,423	26	5.8%	0.22
Oklahoma	OK	3,911,338	3	0.7%	0.08
Oregon	OR	4,028,977	3	0.7%	0.07
Pennsylvania	PA	12,802,503	28	6.2%	0.22
Puerto Rico	PR	3,474,182	7	1.6%	0.20
Rhode Island	RI	1,056,298	5	1.1%	0.47
South Carolina	SC	4,896,146	8	1.8%	0.16
South Dakota	SD	858,469	1	0.2%	0.12
Tennessee	TN	6,600,299	7	1.6%	0.11
Texas	TX	27,469,114	27	6.0%	0.10
Utah	UT	2,995,919	3	0.7%	0.10
Vermont	VT	626,042	1	0.2%	0.16
Virginia	VA	8,382,993	9	2.0%	0.11
Washington	WA	7,170,351	8	1.8%	0.11
West Virginia	WV	1,844,128	3	0.7%	0.16
Wisconsin	WI	5,771,337	7	1.6%	0.12
Wyoming	WY	586,107	1	0.2%	0.17

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

TABLE E.6					
Number of Single-Program Sponsoring Institutions by State					
State Name	State Abbreviation	State Population – Census Estimate 2015	Single-Program Sponsors	Percentage of All Sponsors	Sponsor Concentration per 100,000 Pop
OVERALL	--	324,893,002	265	100.0%	0.08
Alabama	AL	4,858,979	4	1.5%	0.08
Alaska	AK	738,432	0	0.0%	0.00
Arizona	AZ	6,828,065	4	1.5%	0.06
Arkansas	AR	2,978,204	0	0.0%	0.00
California	CA	39,144,818	39	14.7%	0.10
Colorado	CO	5,456,574	7	2.6%	0.13
Connecticut	CT	3,590,886	5	1.9%	0.14
Delaware	DE	945,934	2	0.8%	0.21
District of Columbia	DC	672,228	0	0.0%	0.00
Florida	FL	20,271,272	19	7.2%	0.09
Georgia	GA	10,214,860	10	3.8%	0.10
Hawaii	HI	1,431,603	2	0.8%	0.14
Idaho	ID	1,654,930	2	0.8%	0.12
Illinois	IL	12,859,995	10	3.8%	0.08
Indiana	IN	6,619,680	5	1.9%	0.08
Iowa	IA	3,123,899	4	1.5%	0.13
Kansas	KS	2,911,641	0	0.0%	0.00
Kentucky	KY	4,425,092	1	0.4%	0.02
Louisiana	LA	4,670,724	3	1.1%	0.06
Maine	ME	1,329,328	1	0.4%	0.08
Maryland	MD	6,006,401	1	0.4%	0.02
Massachusetts	MA	6,794,422	7	2.6%	0.10
Michigan	MI	9,922,576	17	6.4%	0.17
Minnesota	MN	5,489,594	6	2.3%	0.11
Mississippi	MS	2,992,333	4	1.5%	0.13
Missouri	MO	6,083,672	5	1.9%	0.08
Montana	MT	1,032,949	2	0.8%	0.19
Nebraska	NE	1,896,190	2	0.8%	0.11
Nevada	NV	2,890,845	1	0.4%	0.03
New Hampshire	NH	1,330,608	1	0.4%	0.08
New Jersey	NJ	8,958,013	11	4.2%	0.12
New Mexico	NM	2,085,109	4	1.5%	0.19
New York	NY	19,795,791	14	5.3%	0.07
North Carolina	NC	10,042,802	3	1.1%	0.03
North Dakota	ND	756,927	1	0.4%	0.13
Ohio	OH	11,613,423	11	4.2%	0.09
Oklahoma	OK	3,911,338	5	1.9%	0.13
Oregon	OR	4,028,977	1	0.4%	0.02
Pennsylvania	PA	12,802,503	9	3.4%	0.07
Puerto Rico	PR	3,474,182	4	1.5%	0.12
Rhode Island	RI	1,056,298	2	0.8%	0.19
South Carolina	SC	4,896,146	2	0.8%	0.04
South Dakota	SD	858,469	2	0.8%	0.23
Tennessee	TN	6,600,299	1	0.4%	0.02
Texas	TX	27,469,114	13	4.9%	0.05
Utah	UT	2,995,919	2	0.8%	0.07
Vermont	VT	626,042	0	0.0%	0.00
Virginia	VA	8,382,993	3	1.1%	0.04
Washington	WA	7,170,351	10	3.8%	0.14
West Virginia	WV	1,844,128	2	0.8%	0.11
Wisconsin	WI	5,771,337	1	0.4%	0.02
Wyoming	WY	586,107	0	0.0%	0.00

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

TABLE E.7

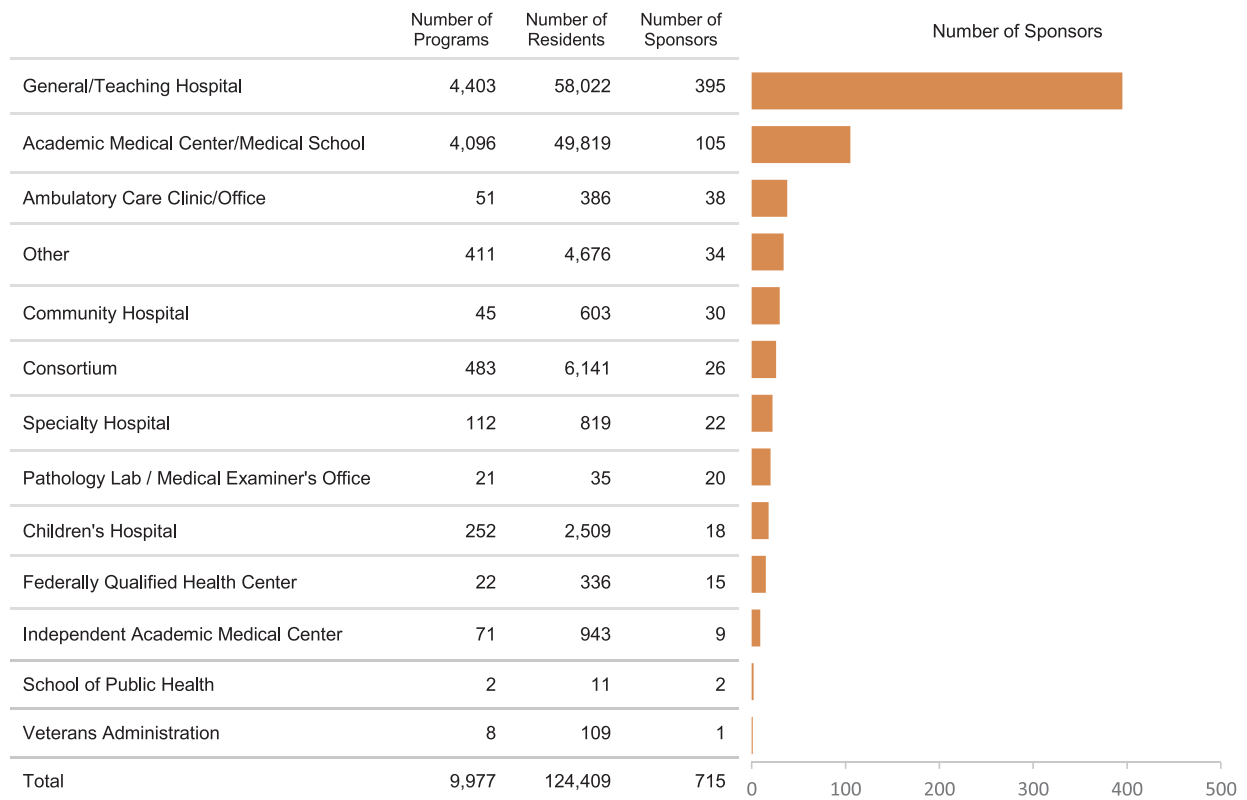
Number of No-Program Sponsoring Institutions by State

State Name	State Abbreviation	State Population – Census Estimate 2015	No-Program Sponsors	Percentage of All Sponsors	Sponsor Concentration per 100,000 Pop
OVERALL	--	324,893,002	77	100.0%	0.02
Alabama	AL	4,858,979	0	0.0%	0.00
Alaska	AK	738,432	0	0.0%	0.00
Arizona	AZ	6,828,065	4	5.2%	0.06
Arkansas	AR	2,978,204	2	2.6%	0.07
California	CA	39,144,818	4	5.2%	0.01
Colorado	CO	5,456,574	2	2.6%	0.04
Connecticut	CT	3,590,886	0	0.0%	0.00
Delaware	DE	945,934	0	0.0%	0.00
District of Columbia	DC	672,228	0	0.0%	0.00
Florida	FL	20,271,272	12	15.6%	0.06
Georgia	GA	10,214,860	4	5.2%	0.04
Hawaii	HI	1,431,603	0	0.0%	0.00
Idaho	ID	1,654,930	0	0.0%	0.00
Illinois	IL	12,859,995	1	1.3%	0.01
Indiana	IN	6,619,680	0	0.0%	0.00
Iowa	IA	3,123,899	1	1.3%	0.03
Kansas	KS	2,911,641	0	0.0%	0.00
Kentucky	KY	4,425,092	0	0.0%	0.00
Louisiana	LA	4,670,724	1	1.3%	0.02
Maine	ME	1,329,328	0	0.0%	0.00
Maryland	MD	6,006,401	2	2.6%	0.03
Massachusetts	MA	6,794,422	0	0.0%	0.00
Michigan	MI	9,922,576	5	6.5%	0.05
Minnesota	MN	5,489,594	0	0.0%	0.00
Mississippi	MS	2,992,333	0	0.0%	0.00
Missouri	MO	6,083,672	2	2.6%	0.03
Montana	MT	1,032,949	0	0.0%	0.00
Nebraska	NE	1,896,190	0	0.0%	0.00
Nevada	NV	2,890,845	1	1.3%	0.03
New Hampshire	NH	1,330,608	0	0.0%	0.00
New Jersey	NJ	8,958,013	1	1.3%	0.01
New Mexico	NM	2,085,109	1	1.3%	0.05
New York	NY	19,795,791	6	7.8%	0.03
North Carolina	NC	10,042,802	2	2.6%	0.02
North Dakota	ND	756,927	0	0.0%	0.00
Ohio	OH	11,613,423	6	7.8%	0.05
Oklahoma	OK	3,911,338	0	0.0%	0.00
Oregon	OR	4,028,977	0	0.0%	0.00
Pennsylvania	PA	12,802,503	4	5.2%	0.03
Puerto Rico	PR	3,474,182	2	2.6%	0.06
Rhode Island	RI	1,056,298	0	0.0%	0.00
South Carolina	SC	4,896,146	3	3.9%	0.06
South Dakota	SD	858,469	0	0.0%	0.00
Tennessee	TN	6,600,299	2	2.6%	0.03
Texas	TX	27,469,114	1	1.3%	0.00
Utah	UT	2,995,919	0	0.0%	0.00
Vermont	VT	626,042	0	0.0%	0.00
Virginia	VA	8,382,993	1	1.3%	0.01
Washington	WA	7,170,351	5	6.5%	0.07
West Virginia	WV	1,844,128	2	2.6%	0.11
Wisconsin	WI	5,771,337	0	0.0%	0.00
Wyoming	WY	586,107	0	0.0%	0.00

Source: US Bureau of the Census. Annual Resident Population Estimates, Estimated Components of Resident Population Change, and Rates of the Components of Resident Population Change for States and Counties: April 1, 2010 to July 1, 2015. <http://www.census.gov/popest/data/counties/totals/2015/files/CO-EST2015-alldata.csv>. Published March, 2016. Accessed July 11, 2016.

FIGURE E.8

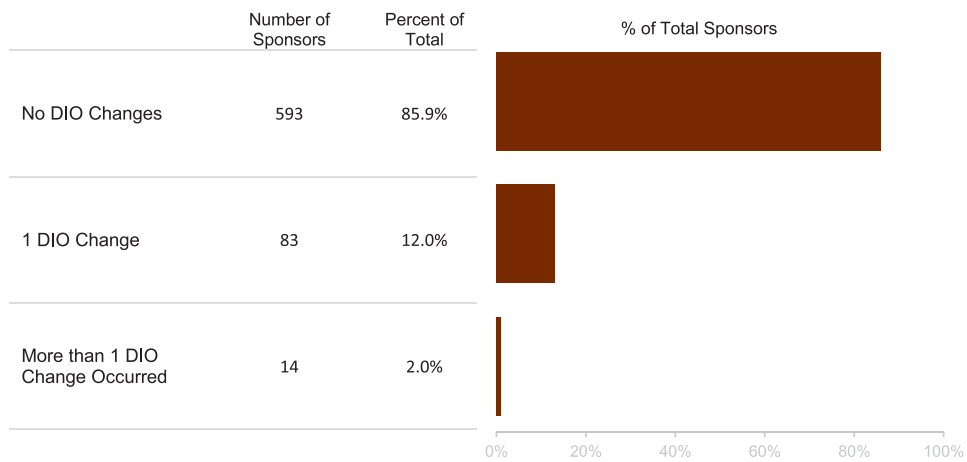
Number of Sponsoring Institutions by Institution Type



Note: Excluding sponsors with no ACGME-accredited programs.

FIGURE E.9

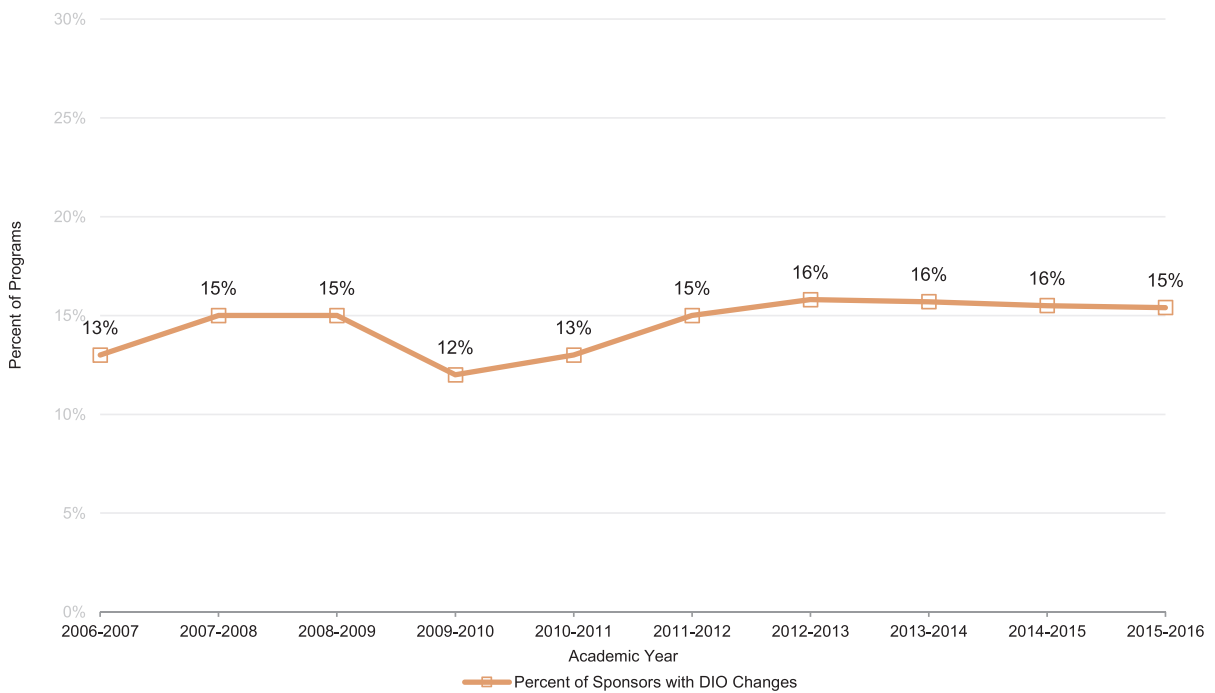
Number of Sponsoring Institutions with DIO Changes



Notes: Excluding sponsors with no ACGME-accredited programs and any sponsors newly accredited in the 2015-2016 academic year. Total number of sponsors included = 690.
 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, 2006-2007 to 2015-2016



Note: Excluding sponsors with no ACGME-accredited programs and any sponsors newly accredited in the academic year.
 Abbreviations: DIO, designated institutional official.

F

Participating Sites

This section includes information and trends on the number of unique participating sites where residents and fellows 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 5,189 unique participating sites at which residents and fellows rotated during the 2015-2016 academic year. The highest number of sites were in the following categories:

- Ambulatory Care Clinic/Office (1,577)
- General/Teaching Hospital (1,493)
- Specialty Hospital (488)

Since the 2006-2007 academic year, there has been a 81.6% 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 (474.2% increase)
- Specialty Hospital (113.2% increase)
- General Teaching/Community Hospital (48.1% increase)

The number of academic medical centers listed as participating sites also increased by 143.2%. With only 163 unique sites in this category in the 2015-2016 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 2.9. Among pipeline specialty programs,

this number is slightly higher at 3.7 participating sites per program. The pipeline specialties with the highest average number of participating sites include:

- Preventive medicine (7.3)
- Plastic surgery – integrated (5.3)
- Psychiatry (5.2)

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

- Internal medicine/pediatrics (25)
- Internal medicine (23)
- Preventive medicine (20)

The subspecialty with the highest average number of participating sites and the highest maximum number of participating sites per program is ophthalmic plastic and reconstructive surgery (5.6 and 18, respectively).

Number of Sites by Specialty and Subspecialty

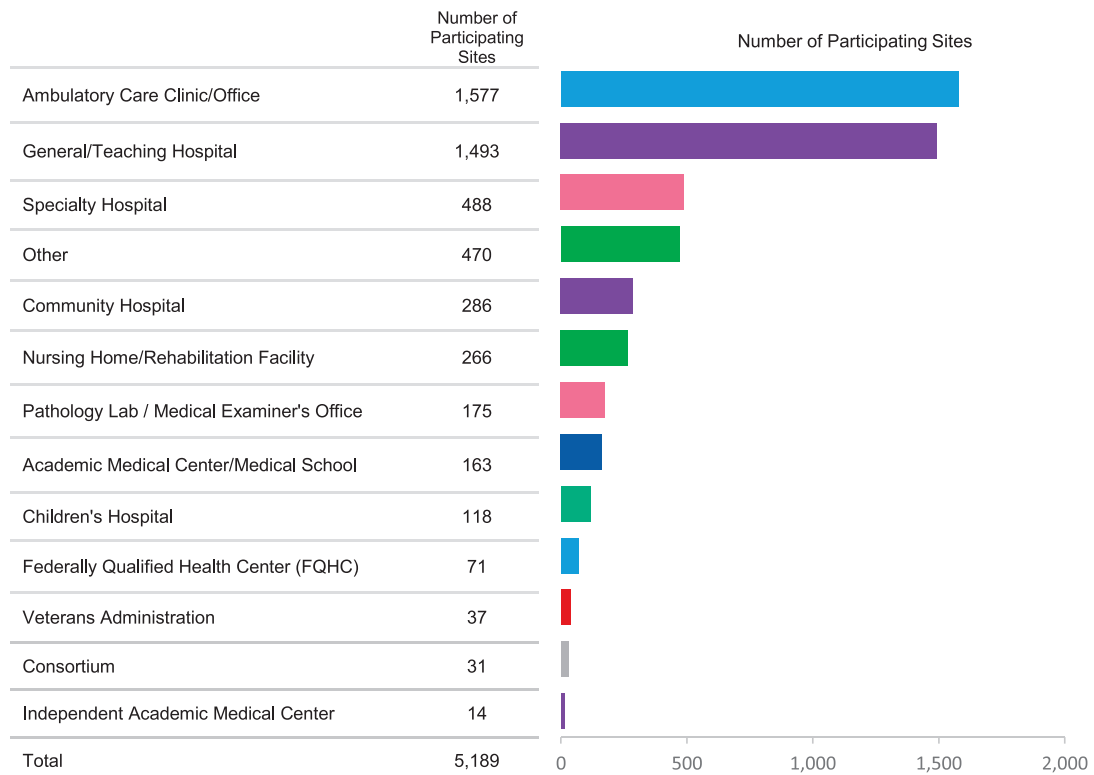
The specialties with the highest number of unique participating sites to which residents and fellows rotate include:

- Family medicine (1,628)
- Surgery (1,173)
- Internal medicine (1,167)
- Psychiatry (1,057)

Sponsors account for 10.7% of all participating sites with 556 Sponsoring Institutions listed as participating sites to which residents and fellows rotate. ↖

FIGURE F.1

Number of Unique Participating Sites Where Residents Rotate by Institution Type



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

FIGURE F.2

Number of Unique Participating Sites Where Residents Rotate by Academic Year, 2006-2007 to 2015-2016

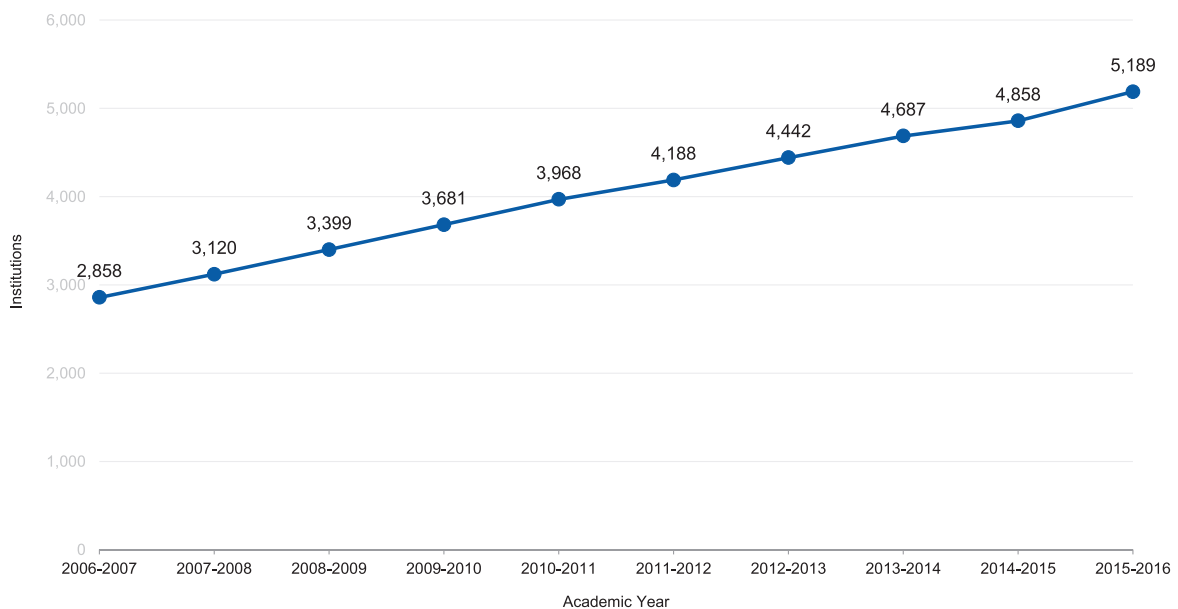
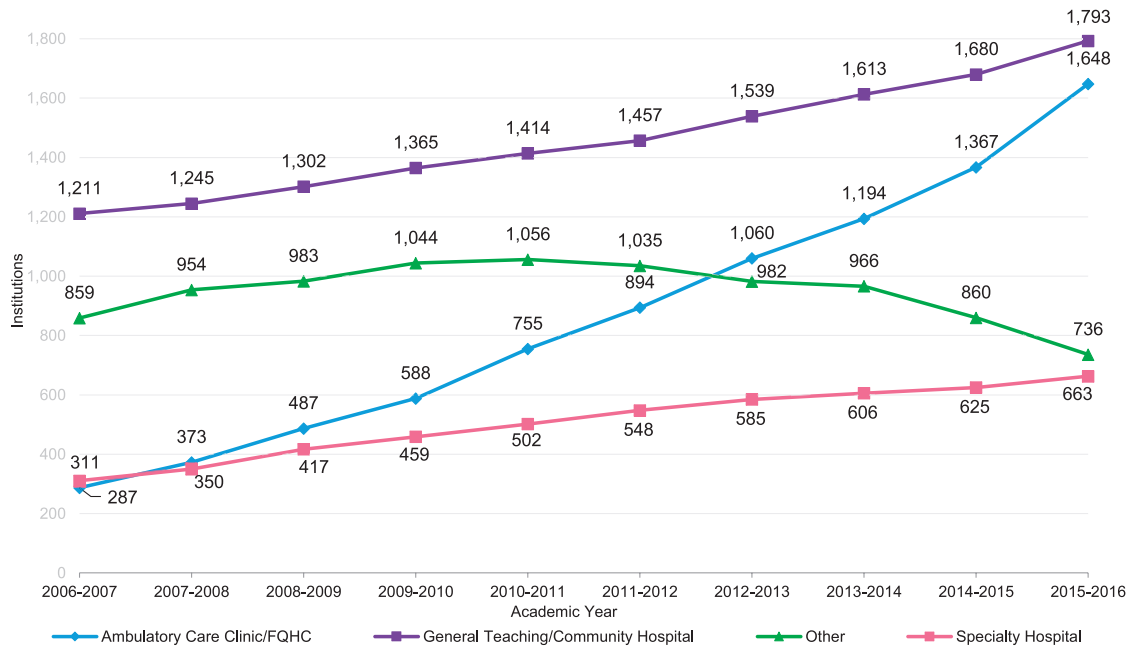


FIGURE F.3

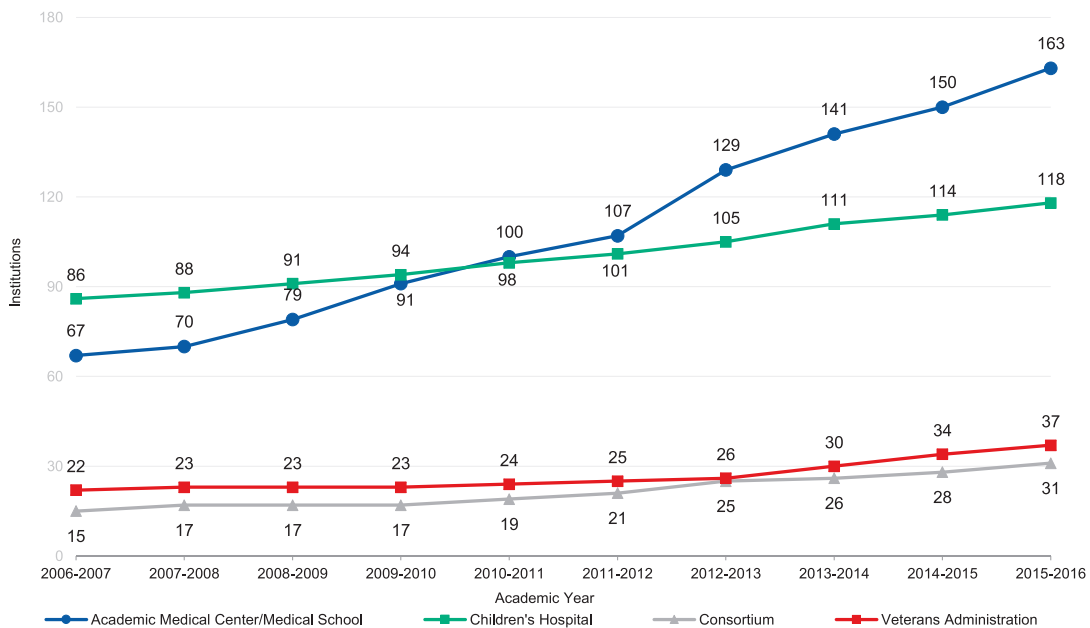
Number of Participating Sites where Residents Rotate by Institution Type Groups (Largest Groups Only) and Academic Year, 2006-2007 to 2015-2016



Note: See Appendix C for list of institution type groups.
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, 2006-2007 to 2015-2016



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

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	9,977	2.9	2.0	1	25
TOTAL PIPELINE	4,021	3.7	2.2	1	25
Allergy and immunology	77	2.6	1.4	1	6
Anesthesiology	135	3.9	1.8	1	10
- Adult cardiothoracic anesthesiology	62	1.9	1.0	1	5
- Clinical informatics (Anesthesiology)	1	1.0	0.0	1	1
- Critical care medicine	54	1.9	0.9	1	5
- Obstetric anesthesiology	28	1.3	0.6	1	3
- Pain medicine (multidisciplinary)	100	2.7	1.4	1	7
- Pediatric anesthesiology	56	1.5	0.7	1	3
Colon and rectal surgery	57	2.8	1.7	1	11
Dermatology	120	3.3	1.7	1	10
- Dermatopathology (multidisciplinary)	53	2.1	1.2	1	6
- Micrographic surgery and dermatologic oncology	69	2.2	1.7	1	11
Emergency medicine	179	3.8	1.9	1	12
- Clinical informatics (Emergency medicine)	3	5.0	2.4	2	8
- Emergency medical services	50	2.9	2.6	1	14
- Medical toxicology	26	3.1	1.5	1	7
- Pediatric emergency medicine	22	2.5	0.9	1	4
- Sports medicine	7	4.7	3.6	1	10
- Undersea and hyperbaric medicine	7	2.3	1.3	1	5
Family medicine	498	3.3	2.2	1	19
- Clinical informatics (Family medicine)	1	1.0	0.0	1	1
- Geriatric medicine	41	3.7	2.2	1	10
- Hospice and palliative medicine (multidisciplinary)	115	4.5	1.9	1	12
- Sports medicine	127	3.8	3.0	1	16
Internal medicine	421	2.8	2.4	1	23
- Adult congenital heart disease	7	2.3	0.7	1	3
- Advanced heart failure and transplant cardiology	68	1.4	0.6	1	3
- Cardiovascular disease	193	2.6	1.2	1	6
- Clinical cardiac electrophysiology	104	1.7	0.9	1	5
- Clinical informatics (Internal medicine)	8	2.1	1.6	1	6
- Critical care medicine	33	2.5	1.5	1	7
- Endocrinology, diabetes, and metabolism	136	2.7	1.2	1	6
- Gastroenterology	168	2.7	1.2	1	7
- Geriatric medicine	105	3.5	1.9	1	11
- Hematology	3	3.0	0.8	2	4
- Hematology and medical oncology	144	2.8	1.3	1	7
- Infectious disease	148	2.9	1.2	1	6
- Interventional cardiology	145	1.7	0.8	1	4
- Nephrology	147	2.7	1.2	1	7
- Medical oncology	9	2.3	0.9	1	4
- Pulmonary disease	18	2.4	1.0	1	4
- Pulmonary disease and critical care medicine	147	3.1	1.4	1	8
- Rheumatology	113	2.6	1.2	1	8
- Sleep medicine (multidisciplinary)	83	2.4	1.1	1	5
- Transplant hepatology	47	1.2	0.4	1	2
Medical genetics and genomics	45	3.1	2.0	1	9
- Medical biochemical genetics	14	2.3	1.2	1	5
- Molecular genetic pathology (multidisciplinary)	39	2.2	1.5	1	8
Neurological surgery	108	3.4	1.5	1	8
- Endovascular surgical neuroradiology	2	1.0	0.0	1	1

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	139	3.2	1.4	1	7
- Child neurology	73	3.0	1.3	1	6
- Clinical neurophysiology	96	2.1	1.0	1	5
- Epilepsy	39	1.9	0.9	1	5
- Endovascular surgical neuroradiology	1	2.0	0.0	2	2
- Neurodevelopmental disabilities	8	4.4	1.3	3	7
- Neuromuscular medicine	45	2.0	1.1	1	6
- Vascular neurology	87	1.8	0.9	1	4
Nuclear medicine	43	2.4	1.3	1	6
Obstetrics and gynecology	250	3.2	1.8	1	10
- Female pelvic medicine and reconstructive surgery	48	2.6	1.2	1	5
Ophthalmology	116	3.6	1.5	1	9
- Ophthalmic plastic and reconstructive surgery	5	5.6	6.3	1	18
Orthopaedic surgery	162	4.9	2.2	1	15
- Adult reconstructive orthopaedics	23	2.3	1.2	1	5
- Foot and ankle orthopaedics	6	1.8	0.9	1	3
- Hand surgery	67	3.2	1.7	1	8
- Musculoskeletal oncology	11	2.1	1.1	1	4
- Orthopaedic sports medicine	94	2.8	2.2	1	15
- Orthopaedic surgery of the spine	17	2.4	1.8	1	9
- Orthopaedic trauma	9	1.7	1.3	1	5
- Pediatric orthopaedics	25	1.6	0.8	1	3
Osteopathic neuromusculoskeletal medicine	1	2.0	0.0	2	2
Otolaryngology	106	4.0	1.8	1	9
- Neurotology	20	2.4	1.4	1	5
- Pediatric otolaryngology	23	1.3	0.4	1	2
Pathology-anatomic and clinical	142	4.1	1.8	1	9
- Blood banking/transfusion medicine	48	3.1	1.5	1	7
- Clinical informatics (Pathology)	2	2.5	1.5	1	4
- Chemical pathology	3	1.3	0.5	1	2
- Cytopathology	91	1.5	0.6	1	3
- Forensic pathology	39	1.3	0.6	1	3
- Hematology	85	1.9	1.0	1	5
- Medical microbiology	14	1.9	1.0	1	4
- Neuropathology	33	2.2	1.4	1	6
- Pediatric pathology	26	2.4	1.3	1	5
- Selective pathology	79	1.4	0.6	1	3
Pediatrics	204	2.7	1.8	1	13
- Adolescent medicine	28	2.9	1.9	1	8
- Child abuse pediatrics	28	2.5	1.3	1	6
- Clinical informatics (Pediatrics)	4	3.3	0.8	2	4
- Developmental-behavioral pediatrics	38	2.0	1.3	1	6
- Neonatal-perinatal medicine	98	2.1	0.9	1	6
- Pediatric cardiology	59	1.5	0.7	1	5
- Pediatric critical care medicine	67	1.4	0.8	1	4
- Pediatric emergency medicine	52	2.9	0.9	1	5
- Pediatric endocrinology	69	1.5	0.7	1	4
- Pediatric gastroenterology	60	1.6	0.8	1	4
- Pediatric hematology/oncology	72	1.9	0.9	1	4
- Pediatric infectious diseases	64	2.0	1.3	1	7
- Pediatric nephrology	45	1.4	0.6	1	3
- Pediatric pulmonology	54	1.6	0.8	1	4

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 rheumatology	36	1.7	0.7	1	3
- Pediatric sports medicine	17	3.1	1.9	1	7
- Pediatric transplant hepatology	9	1.4	0.5	1	2
Physical medicine and rehabilitation	83	4.8	1.8	1	10
- Brain injury medicine	8	2.8	0.8	2	4
- Neuromuscular medicine	1	2.0	0.0	2	2
- Spinal cord injury medicine	20	3.0	0.7	2	5
- Pediatric rehabilitation	19	2.2	0.9	1	4
- Sports medicine	17	2.9	1.7	1	7
Plastic surgery	68	4.9	2.0	1	9
Plastic surgery - integrated	69	5.3	2.3	1	12
- Craniofacial surgery	10	2.4	1.1	1	5
- Hand surgery	16	3.4	2.2	1	10
Preventive medicine	74	7.3	4.5	1	20
- Medical toxicology	1	4.0	0.0	4	4
- Undersea and hyperbaric medicine	1	2.0	0.0	2	2
Psychiatry	203	5.2	2.7	1	15
- Addiction psychiatry	45	3.2	1.4	1	8
- Child and adolescent psychiatry	126	4.3	2.6	1	12
- Forensic psychiatry	42	3.8	1.5	1	8
- Geriatric psychiatry	56	3.4	1.4	1	7
- Psychosomatic medicine	57	2.2	1.1	1	6
Radiation oncology	91	2.7	1.3	1	7
Radiology-diagnostic	188	3.1	1.6	1	13
- Abdominal radiology	12	1.8	1.0	1	4
- Endovascular surgical neuroradiology	3	2.0	0.8	1	3
- Musculoskeletal radiology	15	1.6	1.0	1	4
- Neuroradiology	86	2.0	1.0	1	5
- Nuclear radiology	18	1.7	1.1	1	5
- Pediatric radiology	46	1.2	0.6	1	3
- Vascular and interventional radiology	95	2.1	1.3	1	7
Interventional radiology - integrated	24	3.0	2.0	1	10
Surgery	261	4.5	1.8	1	11
- Complex general surgical oncology	22	1.8	0.9	1	4
- Hand surgery	1	5.0	0.0	5	5
- Pediatric surgery	47	1.6	0.7	1	3
- Surgical critical care	113	1.7	0.9	1	4
- Vascular surgery	106	2.3	1.1	1	6
Vascular surgery - integrated	51	3.5	1.4	1	7
Thoracic surgery	68	2.6	1.2	1	7
- Congenital cardiac surgery	12	1.6	0.6	1	3
Thoracic surgery - integrated	27	4.1	1.9	1	8
Urology	134	3.9	1.3	1	8
- Female pelvic medicine and reconstructive surgery	10	2.0	1.0	1	4
- Pediatric urology	28	1.4	0.7	1	4
Transitional year	101	2.2	1.3	1	6
Internal medicine/pediatrics	79	3.6	2.8	1	25

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	Sponsor	
		#	%
OVERALL	5,189	556	10.7%
TOTAL PIPELINE	3,661	484	13.2%
Allergy and immunology	204	36	17.6%
Anesthesiology	533	64	12.0%
- Adult cardiothoracic anesthesiology	118	34	28.8%
- Clinical informatics (Anesthesiology)	1	1	100.0%
- Critical care medicine	103	28	27.2%
- Obstetric anesthesiology	36	15	41.7%
- Pain medicine (multidisciplinary)	267	51	19.1%
- Pediatric anesthesiology	85	20	23.5%
Colon and rectal surgery	157	34	21.7%
Dermatology	399	55	13.8%
- Dermatopathology (multidisciplinary)	112	25	22.3%
- Micrographic surgery and dermatologic oncology	153	34	22.2%
Emergency medicine	676	89	13.2%
- Clinical informatics (Emergency medicine)	15	1	6.7%
- Emergency medical services	144	20	13.9%
- Medical toxicology	80	9	11.3%
- Pediatric emergency medicine	55	13	23.6%
- Sports medicine	33	1	3.0%
- Undersea and hyperbaric medicine	16	5	31.3%
Family medicine	1,628	282	17.3%
- Clinical informatics (Family medicine)	1	1	100.0%
- Geriatric medicine	151	24	15.9%
- Hospice and palliative medicine (multidisciplinary)	521	59	11.3%
- Sports medicine	479	70	14.6%
Internal medicine	1,167	255	21.9%
- Adult congenital heart disease	16	3	18.8%
- Advanced heart failure and transplant cardiology	94	32	34.0%
- Cardiovascular disease	496	89	17.9%
- Clinical cardiac electrophysiology	181	54	29.8%
- Clinical informatics (Internal medicine)	17	4	23.5%
- Critical care medicine	83	17	20.5%
- Endocrinology, diabetes, and metabolism	365	63	17.3%
- Gastroenterology	457	81	17.7%
- Geriatric medicine	369	51	13.8%
- Hematology	9	2	22.2%
- Hematology and medical oncology	406	73	18.0%
- Infectious disease	425	68	16.0%
- Interventional cardiology	240	69	28.8%
- Nephrology	402	74	18.4%
- Medical oncology	21	4	19.0%
- Pulmonary disease	43	12	27.9%
- Pulmonary disease and critical care medicine	452	70	15.5%
- Rheumatology	295	55	18.6%
- Sleep medicine (multidisciplinary)	201	36	17.9%
- Transplant hepatology	58	25	43.1%
Medical genetics and genomics	141	24	17.0%
- Medical biochemical genetics	32	8	25.0%
- Molecular genetic pathology (multidisciplinary)	84	21	25.0%
Neurological surgery	370	49	13.2%
- Endovascular surgical neuroradiology	2	1	50.0%

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	Sponsor	
		#	%
Neurology	444	57	12.8%
- Child neurology	218	34	15.6%
- Clinical neurophysiology	205	46	22.4%
- Epilepsy	74	19	25.7%
- Endovascular surgical neuroradiology	2	0	0.0%
- Neurodevelopmental disabilities	35	4	11.4%
- Neuromuscular medicine	92	27	29.3%
- Vascular neurology	160	41	25.6%
Nuclear medicine	105	20	19.0%
Obstetrics and gynecology	800	139	17.4%
- Female pelvic medicine and reconstructive surgery	127	26	20.5%
Ophthalmology	422	49	11.6%
- Ophthalmic plastic and reconstructive surgery	28	2	7.1%
Orthopaedic surgery	799	79	9.9%
- Adult reconstructive orthopaedics	52	10	19.2%
- Foot and ankle orthopaedics	11	6	54.5%
- Hand surgery	217	30	13.8%
- Musculoskeletal oncology	23	7	30.4%
- Orthopaedic sports medicine	263	59	22.4%
- Orthopaedic surgery of the spine	41	12	29.3%
- Orthopaedic trauma	15	6	40.0%
- Pediatric orthopaedics	41	13	31.7%
Osteopathic neuromusculoskeletal medicine	2	0	0.0%
Otolaryngology	428	45	10.5%
- Neurotology	48	13	27.1%
- Pediatric otolaryngology	29	12	41.4%
Pathology-anatomic and clinical	578	69	11.9%
- Blood banking/transfusion medicine	149	28	18.8%
- Clinical informatics (Pathology)	5	1	20.0%
- Chemical pathology	4	3	75.0%
- Cytopathology	132	43	32.6%
- Forensic pathology	50	21	42.0%
- Hematology	158	42	26.6%
- Medical microbiology	27	8	29.6%
- Neuropathology	72	15	20.8%
- Pediatric pathology	62	12	19.4%
- Selective pathology	109	39	35.8%
Pediatrics	547	108	19.7%
- Adolescent medicine	80	11	13.8%
- Child abuse pediatrics	71	12	16.9%
- Clinical informatics (Pediatrics)	13	3	23.1%
- Developmental-behavioral pediatrics	77	21	27.3%
- Neonatal-perinatal medicine	201	45	22.4%
- Pediatric cardiology	86	26	30.2%
- Pediatric critical care medicine	97	31	32.0%
- Pediatric emergency medicine	151	23	15.2%
- Pediatric endocrinology	103	31	30.1%
- Pediatric gastroenterology	99	25	25.3%
- Pediatric hematology/oncology	134	31	23.1%
- Pediatric infectious diseases	131	31	23.7%
- Pediatric nephrology	62	19	30.6%
- Pediatric pulmonology	86	26	30.2%

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	Sponsor	
		#	%
- Pediatric rheumatology	60	13	21.7%
- Pediatric sports medicine	52	11	21.2%
- Pediatric transplant hepatology	13	4	30.8%
Physical medicine and rehabilitation	396	40	10.1%
- Brain injury medicine	22	3	13.6%
- Neuromuscular medicine	2	0	0.0%
- Spinal cord injury medicine	59	6	10.2%
- Pediatric rehabilitation	41	5	12.2%
- Sports medicine	50	3	6.0%
Plastic surgery	333	30	9.0%
Plastic surgery - integrated	368	29	7.9%
- Craniofacial surgery	24	3	12.5%
- Hand surgery	55	8	14.5%
Preventive medicine	537	37	6.9%
- Medical toxicology	4	1	25.0%
- Undersea and hyperbaric medicine	2	1	50.0%
Psychiatry	1,057	105	9.9%
- Addiction psychiatry	143	16	11.2%
- Child and adolescent psychiatry	542	55	10.1%
- Forensic psychiatry	161	17	10.6%
- Geriatric psychiatry	191	21	11.0%
- Psychosomatic medicine	125	27	21.6%
Radiation oncology	245	43	17.6%
Radiology-diagnostic	574	100	17.4%
- Abdominal radiology	21	6	28.6%
- Endovascular surgical neuroradiology	6	1	16.7%
- Musculoskeletal radiology	24	10	41.7%
- Neuroradiology	171	44	25.7%
- Nuclear radiology	31	12	38.7%
- Pediatric radiology	57	22	38.6%
- Vascular and interventional radiology	200	46	23.0%
Interventional radiology - integrated	72	13	18.1%
Surgery	1,173	141	12.0%
- Complex general surgical oncology	40	11	27.5%
- Hand surgery	5	0	0.0%
- Pediatric surgery	73	16	21.9%
- Surgical critical care	191	56	29.3%
- Vascular surgery	241	51	21.2%
Vascular surgery - integrated	177	25	14.1%
Thoracic surgery	179	33	18.4%
- Congenital cardiac surgery	19	4	21.1%
Thoracic surgery - integrated	111	14	12.6%
Urology	520	64	12.3%
- Female pelvic medicine and reconstructive surgery	20	7	35.0%
- Pediatric urology	40	10	25.0%
Transitional year	218	72	33.0%
Internal medicine/pediatrics	287	37	12.9%

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 training program. Statistics on the total number of faculty members, faculty members per program, and hours faculty members spend in key areas are also included in this section.

Program Director Changes

Excluding programs newly accredited during the 2015-2016 academic year, a total of 536 specialty programs (12.9%) and 637 subspecialty programs (11.7%) had at least one program director change. Of these, a small number (36 specialty programs and 25 subspecialty programs) had more than one program director change during the academic year. Overall, 1,235 distinct program director changes occurred in 1,173 programs. The specialties with the highest percentage of program director turnover include:

- Medical genetics and genomics (20.0%)
- Vascular surgery – integrated (19.6%)
- Preventive medicine (19.4%)
- Pathology – anatomic and clinical (19.0%)

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

- Family medicine (62)
- Surgery (47)
- Internal medicine (44)

The specialties with the lowest percentage of previously existing programs with new program director turnover include:

- Allergy and Immunology (6.7%)
- Neurology (7.5%)
- Internal medicine/pediatrics (7.7%)

Historically, between 11% and 13% of programs each year have a change in the program director role.

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, 2006, nuclear medicine program directors have had the highest average tenure at 10.5 years, while integrated vascular surgery program directors have had the lowest tenure at 3.4 years.

Program Director Years of Teaching

In general, new program directors have spent less time teaching in their specialty than program directors that are not new to their role (continuing program directors). The mean length in years that new program directors have taught in their specialty is 13.7 years among medical specialty programs, 10.9 years among hospital-based specialty programs, and 13.1 years among surgical specialty programs. In each group, the years that subspecialty program directors have taught in their subspecialty is slightly lower at 11.2 years, 10.7 years, and 11.9 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 18.7 years among medical specialty programs, 16.9 years among hospital-based specialty programs, 18.0 years among surgical specialty programs.

Physician Faculty

A total of 155,001 physician faculty members were listed as active at the time of the Academic Year 2015-2016 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 10.8 overall. The specialties with the highest average number of faculty members per program include:

- Anesthesiology (60.9)
- Pediatrics (43.7)
- Radiology – diagnostic (39.5)

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

- Pediatric emergency medicine (16.7)
- Pediatric cardiology (16.5)
- Complex general surgical oncology (16.4)

Core Faculty

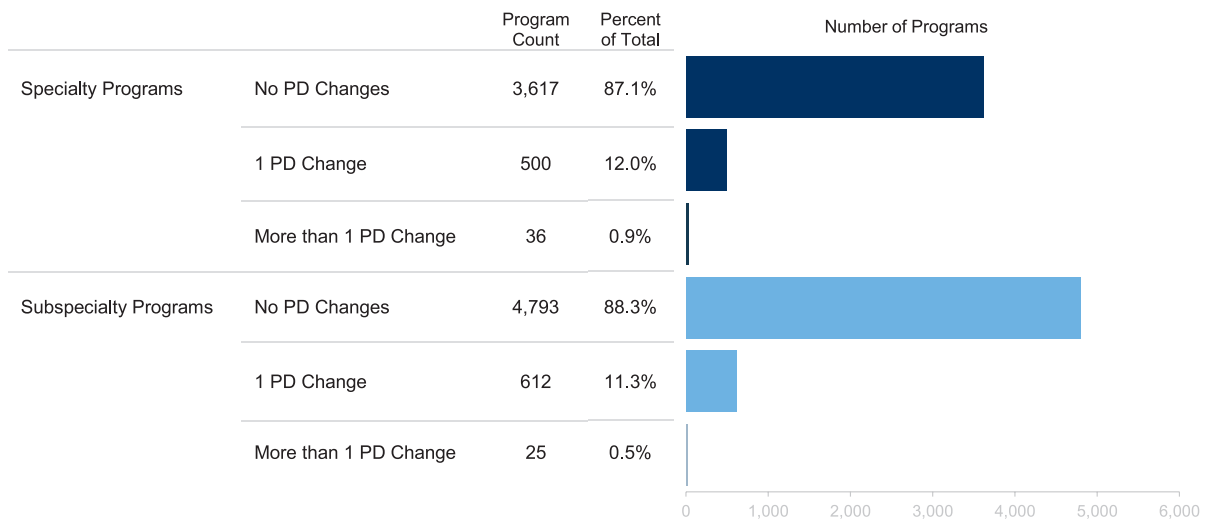
A total of 60,001 core faculty members were listed as active in specialty programs at the time of the Academic Year 2015-2016 snapshot. The specialties with the highest average number of core faculty members per program include:

- Anesthesiology (29.2)
- Radiology – diagnostic (26.1)
- Pediatrics (23.9)

A small number of programs had over 100 core faculty members listed on their Faculty Roster. ♪

FIGURE G.1

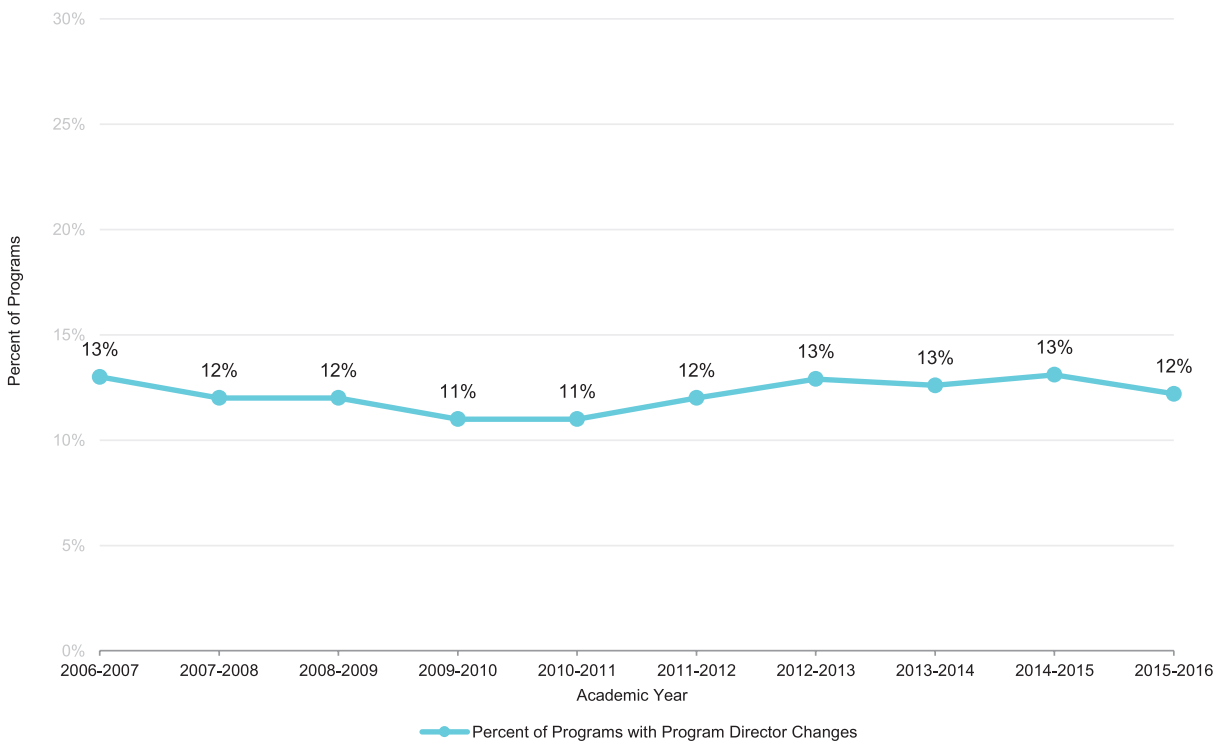
Number of Programs with Program Director Changes during the Academic Year



Notes: Excluding programs newly accredited in the 2015-2016 academic year. Total number of programs included = 9,583. Total number of distinct program director changes = 1,235. Abbreviations: PD, program director.

FIGURE G.2

Percent of Programs with at Least One Program Director Change by Academic Year, 2006-2007 to 2015-2016



Note: Excluding programs newly accredited in the academic year.

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	Newly Accredited Programs	Total Existing Programs	Existing Programs with New PDs		Number of Distinct PD Changes in Existing Programs
				#	%	
OVERALL	9,977	394	9,583	1,173	12.2%	1,235
TOTAL PIPELINE	4,021	159	3,862	504	13.1%	539
Allergy and immunology	77	2	75	5	6.7%	5
Anesthesiology	135	2	133	22	16.5%	22
- Adult cardiothoracic anesthesiology	62	1	61	6	9.8%	6
- Clinical informatics (Anesthesiology)	1	1	0	0	N/A	0
- Critical care medicine	54	0	54	6	11.1%	7
- Obstetric anesthesiology	28	1	27	5	18.5%	5
- Pain medicine (multidisciplinary)	100	4	96	16	16.7%	16
- Pediatric anesthesiology	56	3	53	8	15.1%	8
Colon and rectal surgery	57	3	54	6	11.1%	6
Dermatology	120	5	115	19	16.5%	19
- Dermatopathology (multidisciplinary)	53	0	53	5	9.4%	5
- Micrographic surgery and dermatologic oncology	69	6	63	2	3.2%	2
Emergency medicine	179	12	167	20	12.0%	23
- Clinical informatics (Emergency medicine)	3	2	1	0	0.0%	0
- Emergency medical services	50	8	42	2	4.8%	2
- Medical toxicology	26	0	26	2	7.7%	2
- Pediatric emergency medicine	22	0	22	2	9.1%	2
- Sports medicine	7	0	7	1	14.3%	1
- Undersea and hyperbaric medicine	7	0	7	0	0.0%	0
Family medicine	498	21	477	55	11.5%	62
- Clinical informatics (Family medicine)	1	1	0	0	N/A	0
- Geriatric medicine	41	1	40	5	12.5%	5
- Hospice and palliative medicine (multidisciplinary)	115	11	104	10	9.6%	10
- Sports medicine	127	9	118	8	6.8%	8
Internal medicine	421	26	395	41	10.4%	44
- Adult congenital heart disease	7	7	0	0	N/A	0
- Advanced heart failure and transplant cardiology	68	7	61	7	11.5%	8
- Cardiovascular disease	193	2	191	15	7.9%	15
- Clinical cardiac electrophysiology	104	0	104	5	4.8%	5
- Clinical informatics (Internal medicine)	8	7	1	1	100.0%	1
- Critical care medicine	33	1	32	1	3.1%	1
- Endocrinology, diabetes, and metabolism	136	1	135	15	11.1%	16
- Gastroenterology	168	4	164	20	12.2%	20
- Geriatric medicine	105	1	104	21	20.2%	22
- Hematology	3	0	3	0	0.0%	0
- Hematology and medical oncology	144	5	139	17	12.2%	17
- Infectious disease	148	0	148	20	13.5%	20
- Interventional cardiology	145	3	142	11	7.7%	12
- Nephrology	147	1	146	26	17.8%	29
- Medical oncology	9	0	9	4	44.4%	4
- Pulmonary disease	18	0	18	2	11.1%	2
- Pulmonary disease and critical care medicine	147	4	143	18	12.6%	20
- Rheumatology	113	1	112	12	10.7%	12
- Sleep medicine (multidisciplinary)	83	2	81	12	14.8%	14
- Transplant hepatology	47	4	43	5	11.6%	5
Medical genetics and genomics	45	0	45	9	20.0%	9
- Medical biochemical genetics	14	3	11	1	9.1%	1
- Molecular genetic pathology (multidisciplinary)	39	2	37	3	8.1%	4
Neurological surgery	108	3	105	17	16.2%	17
- Endovascular surgical neuroradiology	2	0	2	2	100.0%	2

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	Newly Accredited Programs	Total Existing Programs	Existing Programs with New PDs		Number of Distinct PD Changes in Existing Programs
				#	%	
Neurology	139	6	133	10	7.5%	10
- Child neurology	73	0	73	16	21.9%	16
- Clinical neurophysiology	96	2	94	16	17.0%	16
- Epilepsy	39	28	11	2	18.2%	2
- Endovascular surgical neuroradiology	1	0	1	0	0.0%	0
- Neurodevelopmental disabilities	8	0	8	1	12.5%	1
- Neuromuscular medicine	45	2	43	7	16.3%	8
- Vascular neurology	87	3	84	18	21.4%	18
Nuclear medicine	43	0	43	4	9.3%	5
Obstetrics and gynecology	250	7	243	28	11.5%	31
- Female pelvic medicine and reconstructive surgery	48	3	45	6	13.3%	7
Ophthalmology	116	0	116	13	11.2%	14
- Ophthalmic plastic and reconstructive surgery	5	0	5	1	20.0%	1
Orthopaedic surgery	162	6	156	26	16.7%	28
- Adult reconstructive orthopaedics	23	1	22	4	18.2%	4
- Foot and ankle orthopaedics	6	0	6	0	0.0%	0
- Hand surgery	67	2	65	5	7.7%	5
- Musculoskeletal oncology	11	0	11	0	0.0%	0
- Orthopaedic sports medicine	94	3	91	7	7.7%	7
- Orthopaedic surgery of the spine	17	1	16	0	0.0%	0
- Orthopaedic trauma	9	0	9	1	11.1%	1
- Pediatric orthopaedics	25	0	25	1	4.0%	1
Osteopathic neuromusculoskeletal medicine	1	1	0	0	N/A	0
Otolaryngology	106	0	106	12	11.3%	15
- Neurotology	20	1	19	0	0.0%	0
- Pediatric otolaryngology	23	1	22	2	9.1%	2
Pathology-anatomic and clinical	142	0	142	27	19.0%	27
- Blood banking/transfusion medicine	48	1	47	1	2.1%	1
- Clinical informatics (Pathology)	2	2	0	0	N/A	0
- Chemical pathology	3	0	3	0	0.0%	0
- Cytopathology	91	0	91	11	12.1%	11
- Forensic pathology	39	2	37	10	27.0%	10
- Hematology	85	1	84	6	7.1%	7
- Medical microbiology	14	0	14	1	7.1%	1
- Neuropathology	33	1	32	2	6.3%	2
- Pediatric pathology	26	0	26	3	11.5%	3
- Selective pathology	79	2	77	10	13.0%	11
Pediatrics	204	5	199	18	9.0%	18
- Adolescent medicine	28	0	28	2	7.1%	2
- Child abuse pediatrics	28	3	25	4	16.0%	4
- Clinical informatics (Pediatrics)	4	3	1	1	100.0%	1
- Developmental-behavioral pediatrics	38	1	37	2	5.4%	2
- Neonatal-perinatal medicine	98	0	98	14	14.3%	14
- Pediatric cardiology	59	2	57	8	14.0%	8
- Pediatric critical care medicine	67	3	64	8	12.5%	8
- Pediatric emergency medicine	52	1	51	5	9.8%	5
- Pediatric endocrinology	69	1	68	9	13.2%	9
- Pediatric gastroenterology	60	3	57	5	8.8%	5
- Pediatric hematology/oncology	72	2	70	12	17.1%	12
- Pediatric infectious diseases	64	3	61	8	13.1%	8
- Pediatric nephrology	45	0	45	4	8.9%	4
- Pediatric pulmonology	54	2	52	4	7.7%	4

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	Newly Accredited Programs	Total Existing Programs	Existing Programs with New PDs		Number of Distinct PD Changes in Existing Programs
				#	%	
- Pediatric rheumatology	36	2	34	4	11.8%	5
- Pediatric sports medicine	17	3	14	0	0.0%	0
- Pediatric transplant hepatology	9	2	7	1	14.3%	1
Physical medicine and rehabilitation	83	5	78	9	11.5%	9
- Brain injury medicine	8	4	4	0	0.0%	0
- Neuromuscular medicine	1	0	1	1	100.0%	1
- Spinal cord injury medicine	20	1	19	1	5.3%	1
- Pediatric rehabilitation	19	2	17	2	11.8%	2
- Sports medicine	17	2	15	1	6.7%	1
Plastic surgery	68	0	68	8	11.8%	8
Plastic surgery - integrated	69	2	67	6	9.0%	6
- Craniofacial surgery	10	1	9	1	11.1%	1
- Hand surgery	16	0	16	1	6.3%	1
Preventive medicine	74	2	72	14	19.4%	15
- Medical toxicology	1	0	1	0	0.0%	0
- Undersea and hyperbaric medicine	1	0	1	0	0.0%	0
Psychiatry	203	10	193	27	14.0%	31
- Addiction psychiatry	45	2	43	2	4.7%	3
- Child and adolescent psychiatry	126	2	124	13	10.5%	14
- Forensic psychiatry	42	3	39	2	5.1%	2
- Geriatric psychiatry	56	1	55	9	16.4%	9
- Psychosomatic medicine	57	4	53	7	13.2%	7
Radiation oncology	91	2	89	12	13.5%	12
Radiology-diagnostic	188	4	184	31	16.8%	33
- Abdominal radiology	12	0	12	4	33.3%	5
- Endovascular surgical neuroradiology	3	0	3	1	33.3%	1
- Musculoskeletal radiology	15	0	15	2	13.3%	3
- Neuroradiology	86	2	84	15	17.9%	15
- Nuclear radiology	18	0	18	5	27.8%	5
- Pediatric radiology	46	0	46	3	6.5%	3
- Vascular and interventional radiology	95	1	94	9	9.6%	9
Interventional radiology - integrated	24	24	0	0	N/A	0
Surgery	261	6	255	44	17.3%	47
- Complex general surgical oncology	22	3	19	2	10.5%	2
- Hand surgery	1	0	1	1	100.0%	1
- Pediatric surgery	47	1	46	6	13.0%	6
- Surgical critical care	113	2	111	9	8.1%	10
- Vascular surgery	106	1	105	18	17.1%	20
Vascular surgery - integrated	51	0	51	10	19.6%	12
Thoracic surgery	68	4	64	9	14.1%	10
- Congenital cardiac surgery	12	0	12	1	8.3%	1
Thoracic surgery - integrated	27	1	26	4	15.4%	4
Urology	134	8	126	12	9.5%	12
- Female pelvic medicine and reconstructive surgery	10	1	9	0	0.0%	0
- Pediatric urology	28	0	28	3	10.7%	3
Transitional year	101	3	98	12	12.2%	13
Internal medicine/pediatrics	79	1	78	6	7.7%	6

Notes: Program directors in the 394 newly accredited programs are all considered to be new program directors for the 2015-2016 academic year. Total number of new program directors = 1,567 (707 in specialty programs and 860 in subspecialty programs). Pipeline specialties are highlighted.

Abbreviations: PD, program director.

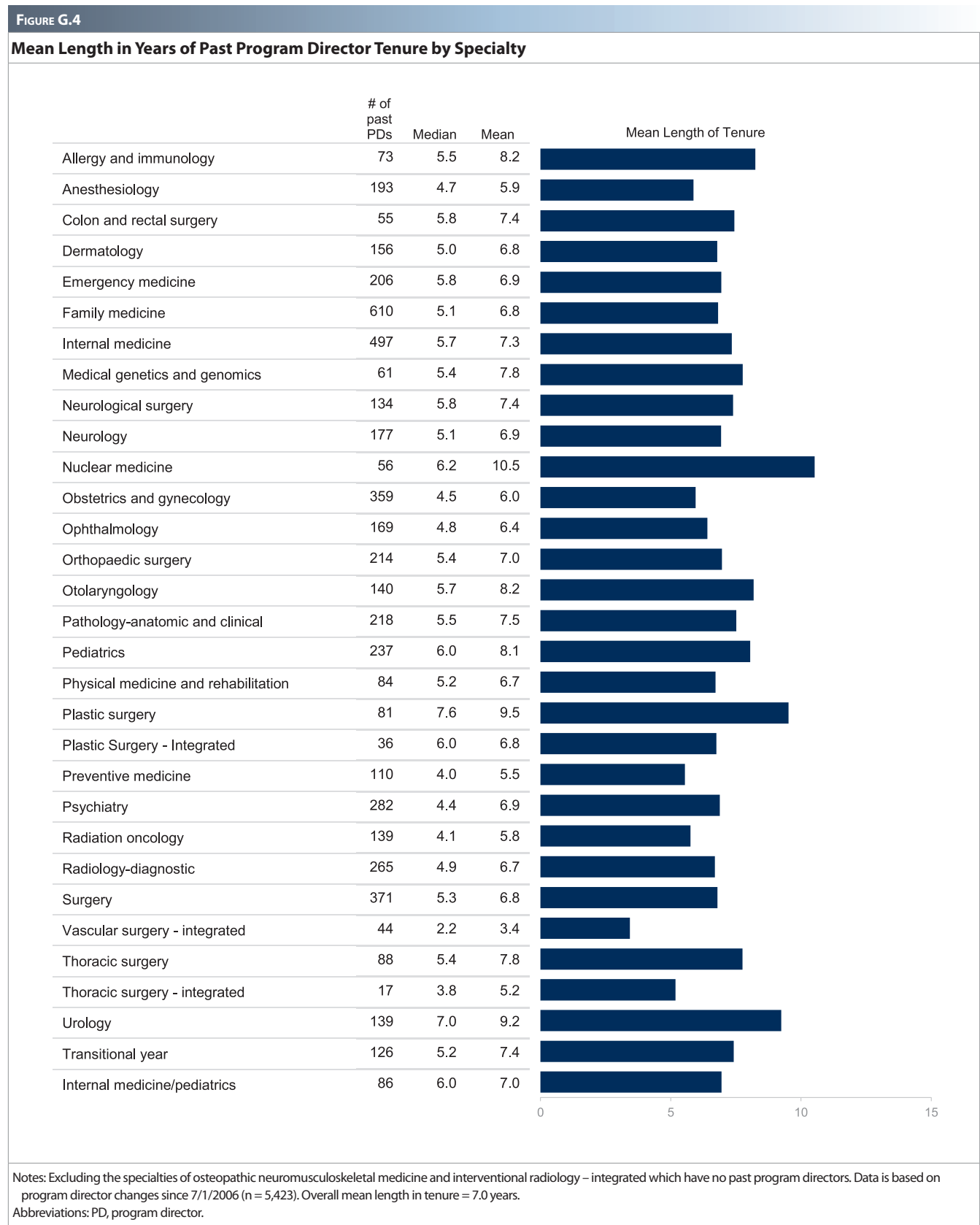
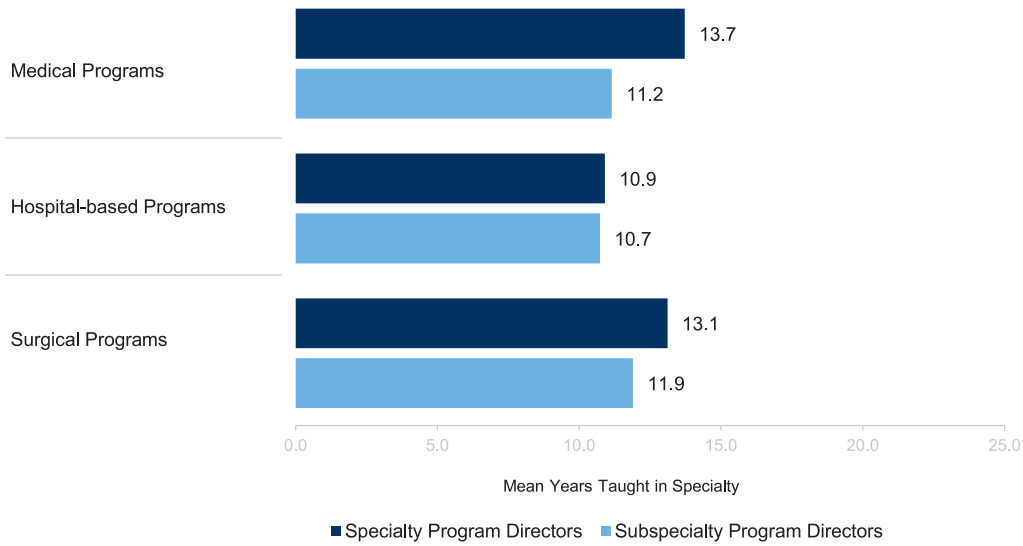


FIGURE G.5

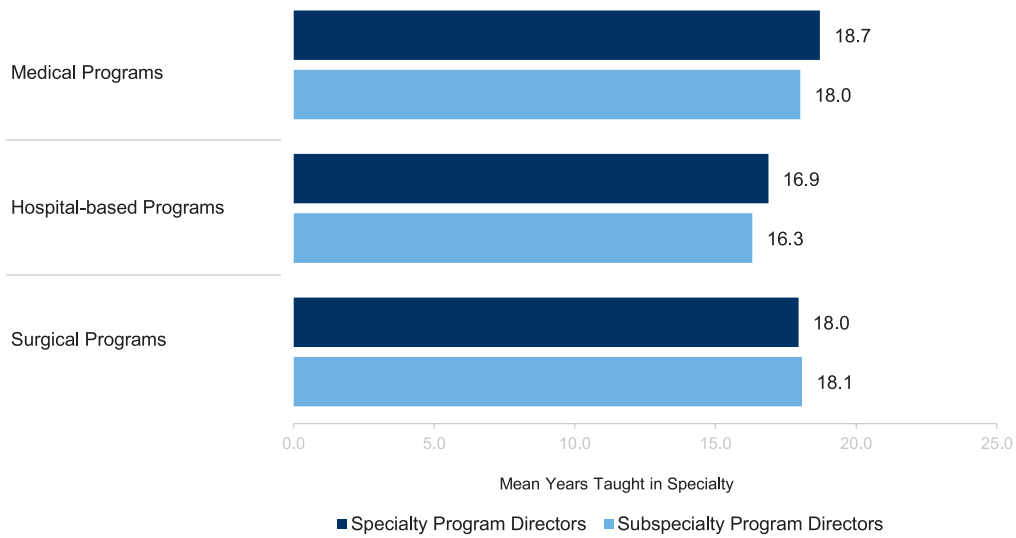
Mean Length in Years New Program Directors Have Taught in Their Specialty



Notes: Total number of new program directors in specialty programs = 707. Total number of new program directors in subspecialty programs = 860.

FIGURE G.6

Mean Length in Years Continuing Program Directors Have Taught in Their Specialty



Notes: Total number of continuing program directors in specialty programs = 3,617. Total number of continuing program directors in subspecialty programs = 4,793.

FIGURE G.7

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

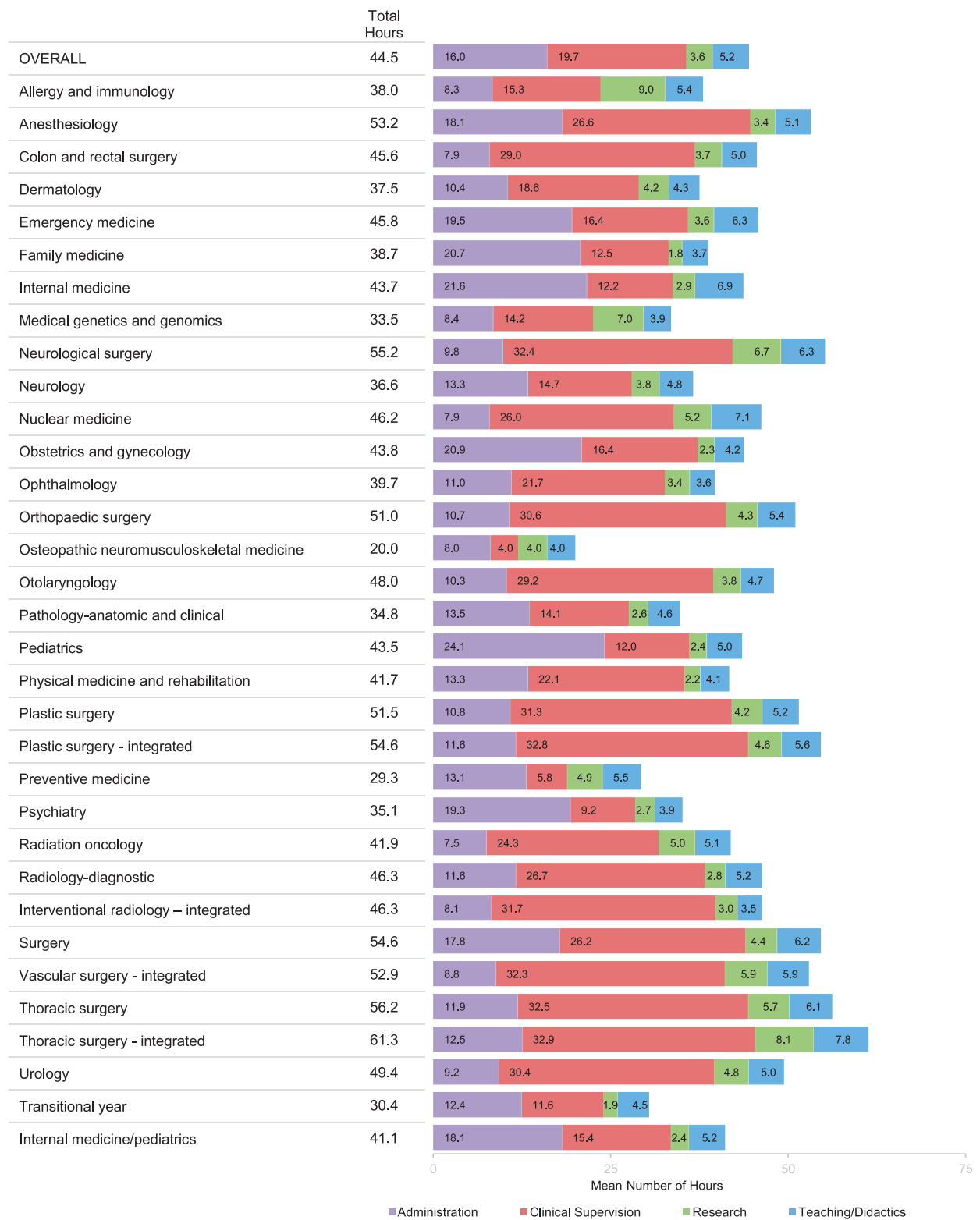


TABLE G.8

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

Specialty	Total Programs	Total Number of Physician Faculty	Mean	MIN	MAX
OVERALL	9,977	155,001	10.8	0	253
TOTAL PIPELINE	4,021	103,816	14.3	1	253
Allergy and immunology	77	748	9.7	2	35
Anesthesiology	135	8,221	60.9	10	241
- Adult cardiothoracic anesthesiology	62	733	11.8	4	41
- Clinical informatics (Anesthesiology)	1	6	6.0	6	6
- Critical care medicine	54	746	13.8	4	30
- Obstetric anesthesiology	28	303	10.8	2	25
- Pain medicine (multidisciplinary)	100	950	9.5	2	59
- Pediatric anesthesiology	56	897	16.0	4	55
Colon and rectal surgery	57	387	6.8	2	25
Dermatology	120	1,759	14.7	2	60
- Dermatopathology (multidisciplinary)	53	419	7.9	1	26
- Micrographic surgery and dermatologic oncology	69	236	3.4	0	14
Emergency medicine	179	4,560	25.5	5	117
- Clinical informatics (Emergency medicine)	3	25	8.3	6	12
- Emergency medical services	50	145	2.9	2	6
- Medical toxicology	26	126	4.8	1	10
- Pediatric emergency medicine	22	209	9.5	2	23
- Sports medicine	7	38	5.4	1	10
- Undersea and hyperbaric medicine	7	30	4.3	2	8
Family medicine	498	12,742	25.6	1	112
- Clinical informatics (Family medicine)	1	4	4.0	4	4
- Geriatric medicine	41	444	10.8	2	23
- Hospice and palliative medicine (multidisciplinary)	115	1,064	9.3	1	33
- Sports medicine	127	1,082	8.5	1	32
Internal medicine	421	8,056	19.1	3	124
- Adult congenital heart disease	7	48	6.9	3	13
- Advanced heart failure and transplant cardiology	68	310	4.6	1	13
- Cardiovascular disease	193	2,784	14.4	3	41
- Clinical cardiac electrophysiology	104	488	4.7	1	18
- Clinical informatics (Internal medicine)	8	77	9.6	6	13
- Critical care medicine	33	353	10.7	2	28
- Endocrinology, diabetes, and metabolism	136	959	7.1	1	26
- Gastroenterology	168	1,915	11.4	0	41
- Geriatric medicine	105	612	5.8	1	18
- Hematology	3	29	9.7	7	14
- Hematology and medical oncology	144	1,877	13.0	3	55
- Infectious disease	148	1,260	8.5	1	37
- Interventional cardiology	145	651	4.5	1	14
- Nephrology	147	1,301	8.9	2	25
- Medical oncology	9	76	8.4	4	16
- Pulmonary disease	18	116	6.4	2	13
- Pulmonary disease and critical care medicine	147	1,938	13.2	3	39
- Rheumatology	113	762	6.7	1	25
- Sleep medicine (multidisciplinary)	83	400	4.8	1	16
- Transplant hepatology	47	235	5.0	1	13
Medical genetics and genomics	45	459	10.2	3	36
- Medical biochemical genetics	14	81	5.8	1	17
- Molecular genetic pathology (multidisciplinary)	39	247	6.3	1	16
Neurological surgery	108	1,703	15.8	4	36
- Endovascular surgical neuroradiology	2	2	1.0	0	2

TABLE G.8 Continued

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

Specialty	Total Programs	Total Number of Physician Faculty	Mean	MIN	MAX
Neurology	139	4,021	28.9	5	105
- Child neurology	73	1,009	13.8	2	43
- Clinical neurophysiology	96	863	9.0	0	28
- Epilepsy	39	299	7.7	2	20
- Endovascular surgical neuroradiology	1	2	2.0	2	2
- Neurodevelopmental disabilities	8	127	15.9	6	28
- Neuromuscular medicine	45	269	6.0	1	14
- Vascular neurology	87	545	6.3	1	18
Nuclear medicine	43	271	6.3	1	19
Obstetrics and gynecology	250	7,546	30.2	6	125
- Female pelvic medicine and reconstructive surgery	48	323	6.7	2	14
Ophthalmology	116	3,050	26.3	9	73
- Ophthalmic plastic and reconstructive surgery	5	24	4.8	1	9
Orthopaedic surgery	162	4,910	30.3	5	99
- Adult reconstructive orthopaedics	23	130	5.7	1	20
- Foot and ankle orthopaedics	6	27	4.5	2	8
- Hand surgery	67	393	5.9	1	22
- Musculoskeletal oncology	11	33	3.0	1	7
- Orthopaedic sports medicine	94	558	5.9	1	28
- Orthopaedic surgery of the spine	17	111	6.5	2	20
- Orthopaedic trauma	9	36	4.0	2	11
- Pediatric orthopaedics	25	218	8.7	3	21
Osteopathic neuromusculoskeletal medicine	1	9	9.0	9	9
Otolaryngology	106	2,101	19.8	6	39
- Neurotology	20	113	5.7	1	14
- Pediatric otolaryngology	23	192	8.3	3	16
Pathology-anatomic and clinical	142	4,140	29.2	8	91
- Blood banking/transfusion medicine	48	247	5.1	1	13
- Clinical informatics (Pathology)	2	23	11.5	5	18
- Chemical pathology	3	11	3.7	2	5
- Cytopathology	91	497	5.5	1	17
- Forensic pathology	39	249	6.4	2	26
- Hematology	85	501	5.9	1	20
- Medical microbiology	14	44	3.1	1	10
- Neuropathology	33	144	4.4	1	10
- Pediatric pathology	26	221	8.5	0	19
- Selective pathology	79	591	7.5	1	34
Pediatrics	204	8,909	43.7	10	253
- Adolescent medicine	28	164	5.9	1	18
- Child abuse pediatrics	28	90	3.2	1	21
- Clinical informatics (Pediatrics)	4	34	8.5	5	10
- Developmental-behavioral pediatrics	38	241	6.3	2	17
- Neonatal-perinatal medicine	98	1,407	14.4	3	46
- Pediatric cardiology	59	975	16.5	3	70
- Pediatric critical care medicine	67	851	12.7	4	42
- Pediatric emergency medicine	52	868	16.7	5	48
- Pediatric endocrinology	69	537	7.8	2	33
- Pediatric gastroenterology	60	535	8.9	3	29
- Pediatric hematology/oncology	72	1,052	14.6	5	46
- Pediatric infectious diseases	64	429	6.7	1	26
- Pediatric nephrology	45	252	5.6	2	17
- Pediatric pulmonology	54	436	8.1	1	24

TABLE G.8 Continued

Total Number of Physician Faculty and Mean Number of Physician Faculty per Program by Specialty and Subspecialty					
Specialty	Total Programs	Total Number of Physician Faculty	Mean	MIN	MAX
- Pediatric rheumatology	36	155	4.3	1	11
- Pediatric sports medicine	17	118	6.9	1	16
- Pediatric transplant hepatology	9	45	5.0	2	12
Physical medicine and rehabilitation	83	1,608	19.4	6	46
- Brain injury medicine	8	50	6.3	3	13
- Neuromuscular medicine	1	4	4.0	4	4
- Spinal cord injury medicine	20	107	5.3	2	10
- Pediatric rehabilitation	19	95	5.0	1	15
- Sports medicine	17	84	4.9	1	12
Plastic surgery	68	961	14.1	2	53
Plastic surgery - integrated	69	1,405	20.4	3	76
- Craniofacial surgery	10	35	3.5	2	7
- Hand surgery	16	99	6.2	0	13
Preventive medicine	74	701	9.5	2	23
- Medical toxicology	1	5	5.0	5	5
- Undersea and hyperbaric medicine	1	8	8.0	8	8
Psychiatry	203	4,898	24.1	3	82
- Addiction psychiatry	45	280	6.2	1	15
- Child and adolescent psychiatry	126	1,130	9.0	2	38
- Forensic psychiatry	42	225	5.4	0	18
- Geriatric psychiatry	56	334	6.0	1	15
- Psychosomatic medicine	57	323	5.7	1	16
Radiation oncology	91	956	10.5	3	50
Radiology-diagnostic	188	7,418	39.5	8	160
- Abdominal radiology	12	158	13.2	6	22
- Endovascular surgical neuroradiology	3	8	2.7	1	5
- Musculoskeletal radiology	15	102	6.8	2	18
- Neuroradiology	86	815	9.5	1	36
- Nuclear radiology	18	77	4.3	0	13
- Pediatric radiology	46	504	11.0	2	39
- Vascular and interventional radiology	95	669	7.0	2	27
Interventional radiology - integrated	24	620	25.8	3	82
Surgery	261	8,913	34.1	4	132
- Complex general surgical oncology	22	361	16.4	5	44
- Hand surgery	1	10	10.0	10	10
- Pediatric surgery	47	402	8.6	3	17
- Surgical critical care	113	1,040	9.2	1	24
- Vascular surgery	106	702	6.6	2	16
Vascular surgery - integrated	51	640	12.5	3	58
Thoracic surgery	68	862	12.7	3	42
- Congenital cardiac surgery	12	41	3.4	1	7
Thoracic surgery - integrated	27	530	19.6	5	84
Urology	134	2,164	16.1	3	49
- Female pelvic medicine and reconstructive surgery	10	64	6.4	3	8
- Pediatric urology	28	118	4.2	2	8
Transitional year	101	1,371	13.6	4	68
Internal medicine/pediatrics	79	545	6.9	1	21

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. Pipeline specialties are highlighted.

Specialty	Total Programs	Total Number of Core Faculty	Mean	MIN	MAX
OVERALL	4,324	60,001	13.9	0	114
Allergy and immunology	77	368	4.8	0	18
Anesthesiology	135	3,948	29.2	5	114
Colon and rectal surgery	57	282	4.9	2	14
Dermatology	120	951	7.9	1	19
Emergency medicine	179	2,639	14.7	5	66
Family medicine	498	3,681	7.4	0	34
Internal medicine	421	5,333	12.7	2	48
Medical genetics and genomics	45	220	4.9	1	15
Neurological surgery	108	1,252	11.6	3	30
Neurology	139	2,126	15.3	4	54
Nuclear medicine	43	206	4.8	0	19
Obstetrics and gynecology	250	4,276	17.1	2	54
Ophthalmology	116	1,603	13.8	2	32
Orthopaedic surgery	162	3,286	20.3	2	54
Osteopathic neuromusculoskeletal medicine	1	2	2.0	2	2
Otolaryngology	106	1,509	14.2	3	31
Pathology-anatomic and clinical	142	2,275	16.0	1	49
Pediatrics	204	4,884	23.9	6	60
Physical medicine and rehabilitation	83	1,097	13.2	4	29
Plastic surgery	68	611	9.0	2	31
Plastic surgery - integrated	69	687	10.0	2	31
Preventive medicine	74	279	3.8	0	12
Psychiatry	203	2,557	12.6	1	40
Radiation oncology	91	751	8.3	3	26
Radiology-diagnostic	188	4,898	26.1	5	96
Interventional radiology - integrated	24	392	16.3	3	43
Surgery	261	5,717	21.9	2	109
Vascular surgery - integrated	51	392	7.7	3	19
Thoracic surgery	68	735	10.8	3	30
Thoracic surgery - integrated	27	304	11.3	4	24
Urology	134	1,443	10.8	2	27
Transitional year	101	925	9.2	0	35
Internal medicine/pediatrics	79	372	4.7	0	13

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.

FIGURE G.10

Specialties Organized by Largest Mean Number of Core Faculty per Program

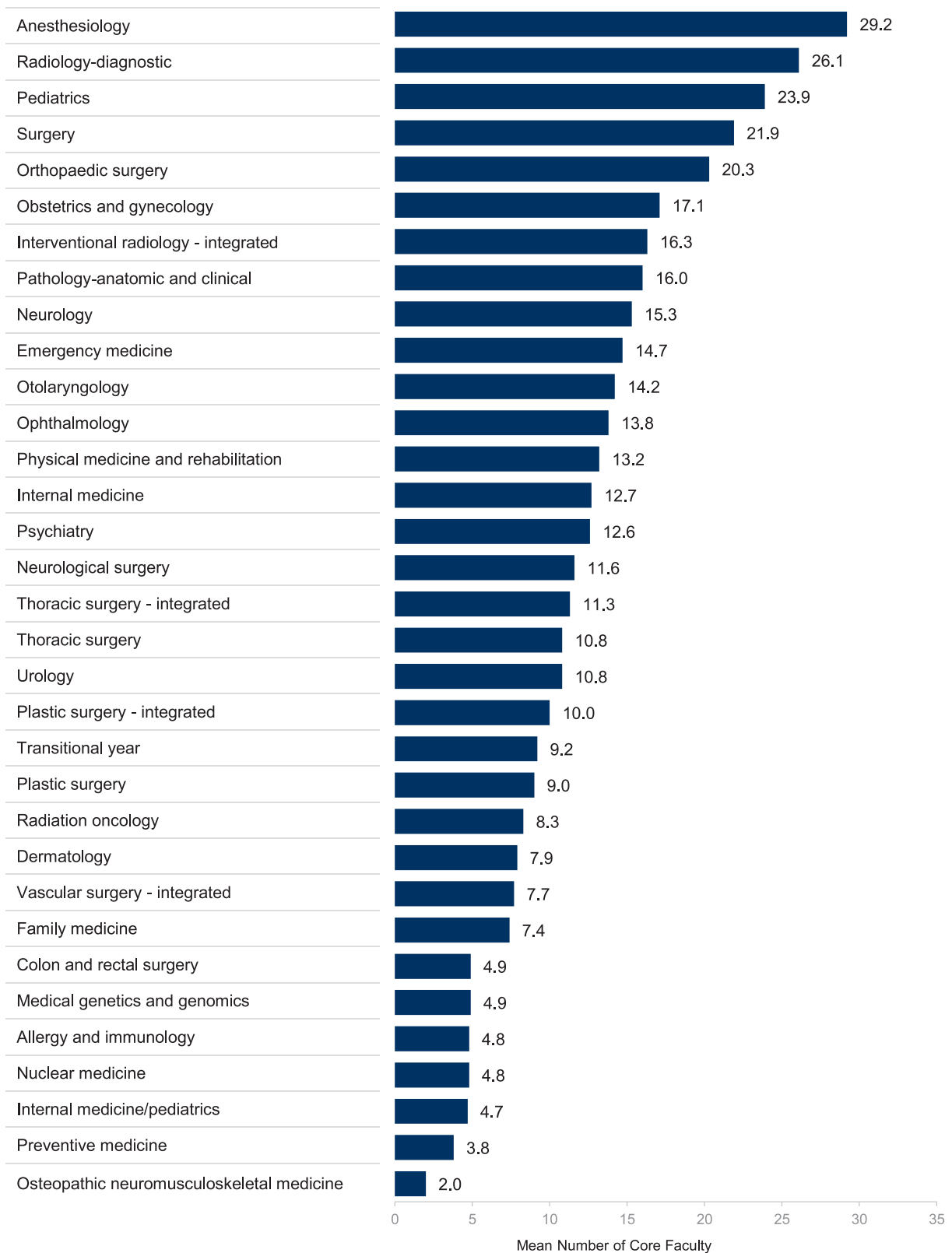
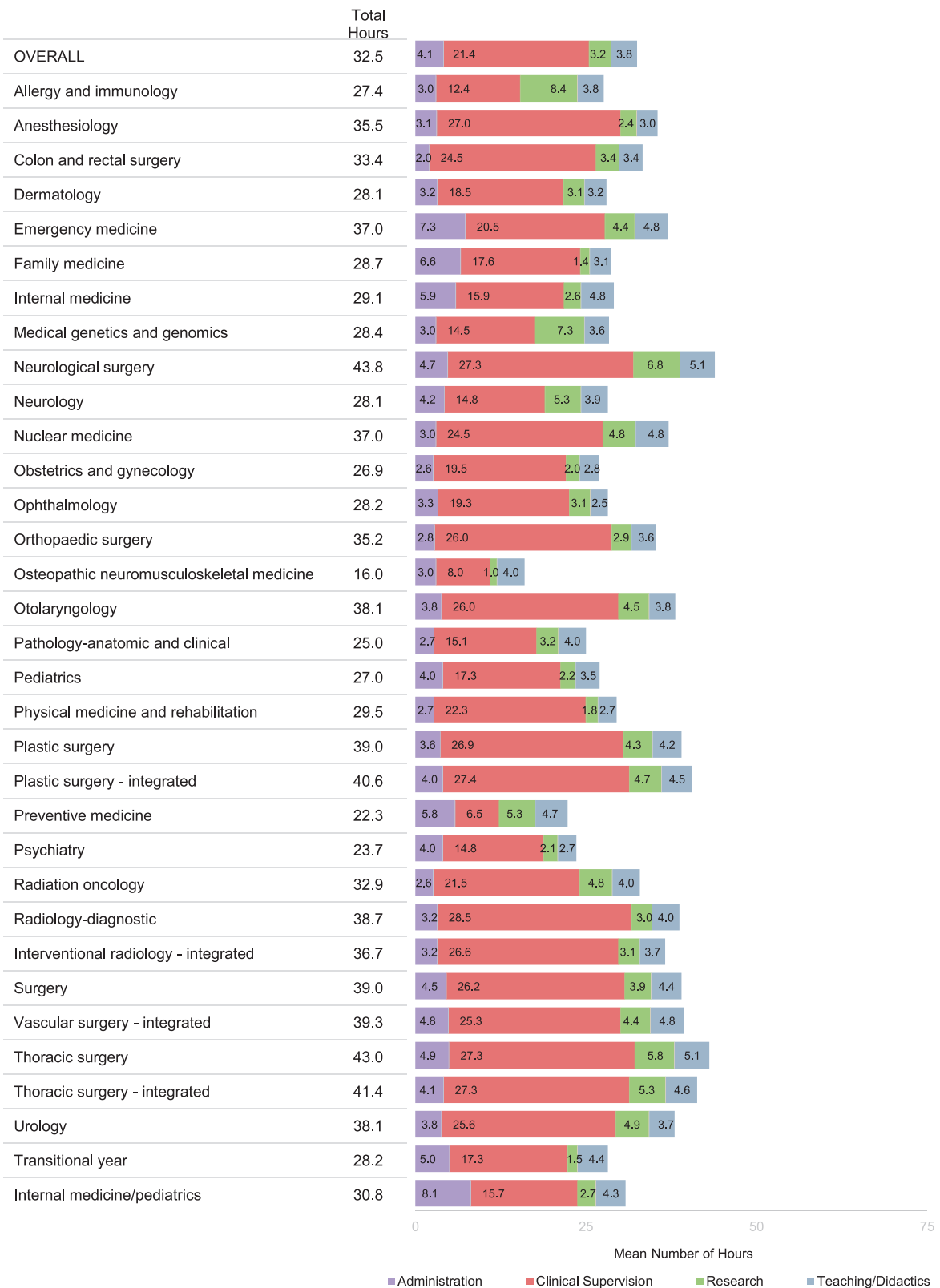


FIGURE G.11

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





Program Activities

This section summarizes self-reported assessments of each competency, resident/fellow participation in patient safety and quality improvement programs, and use of ambulatory and/or non-hospital settings and electronic medical records by specialty and subspecialty programs during the 2015-2016 academic year.

Competency Assessment

Among specialty programs, the mean number of evaluators for each competency ranged from 5.4 in the competency area of practice-based learning and improvement to 8.0 in both the professionalism and interpersonal and communication skills competencies. Among subspecialty programs, the mean number of evaluators for each competency ranged from 4.2 to 6.5 in practice-based learning and improvement and professionalism, respectively.

The mean number of assessment methods for each competency among specialty programs ranged from 3.1 in systems-based practice to 4.6 in patient care. In subspecialty programs, the mean number of assessment methods was lower for each competency, ranging from 2.3 to 3.2 in systems-based practice and patient care, respectively.

Patient Safety and Quality Improvement

The vast majority of specialty and subspecialty programs reported that all residents participated in patient safety in

at least one year of their training (94.8% of programs in each group). The percentage of programs reporting that 100% of residents participated in interprofessional clinical quality improvement programs in at least one year of training was slightly less: 92.6% and 94.2% of specialty and subspecialty programs, respectively. Overall, the percentage of programs reporting that none of their residents participated in patient safety and interprofessional clinical quality improvement programs was less than 1%.

Use of Ambulatory and/or Non-Hospital Settings

Across all programs, 89.5% of programs reported using ambulatory and/or non-hospital settings. The following ambulatory and/or non-hospital settings were used by the highest percentage of specialty programs:

- Ambulatory/outpatient settings (66.3%)
- Hospital-Based Continuity Clinic (61.7%)
- Faculty Ambulatory Practice (52.7%)
- Private Physician's Offices (47.9%)

The percentage of programs using each type of setting varies significantly across specialties. For example, of those programs that use ambulatory/non-hospital settings, only 21.8% of pathology-anatomic and clinical programs selected the category of ambulatory/outpatient settings while 87.2% of family medicine programs reported using this type of setting. ⁸⁶

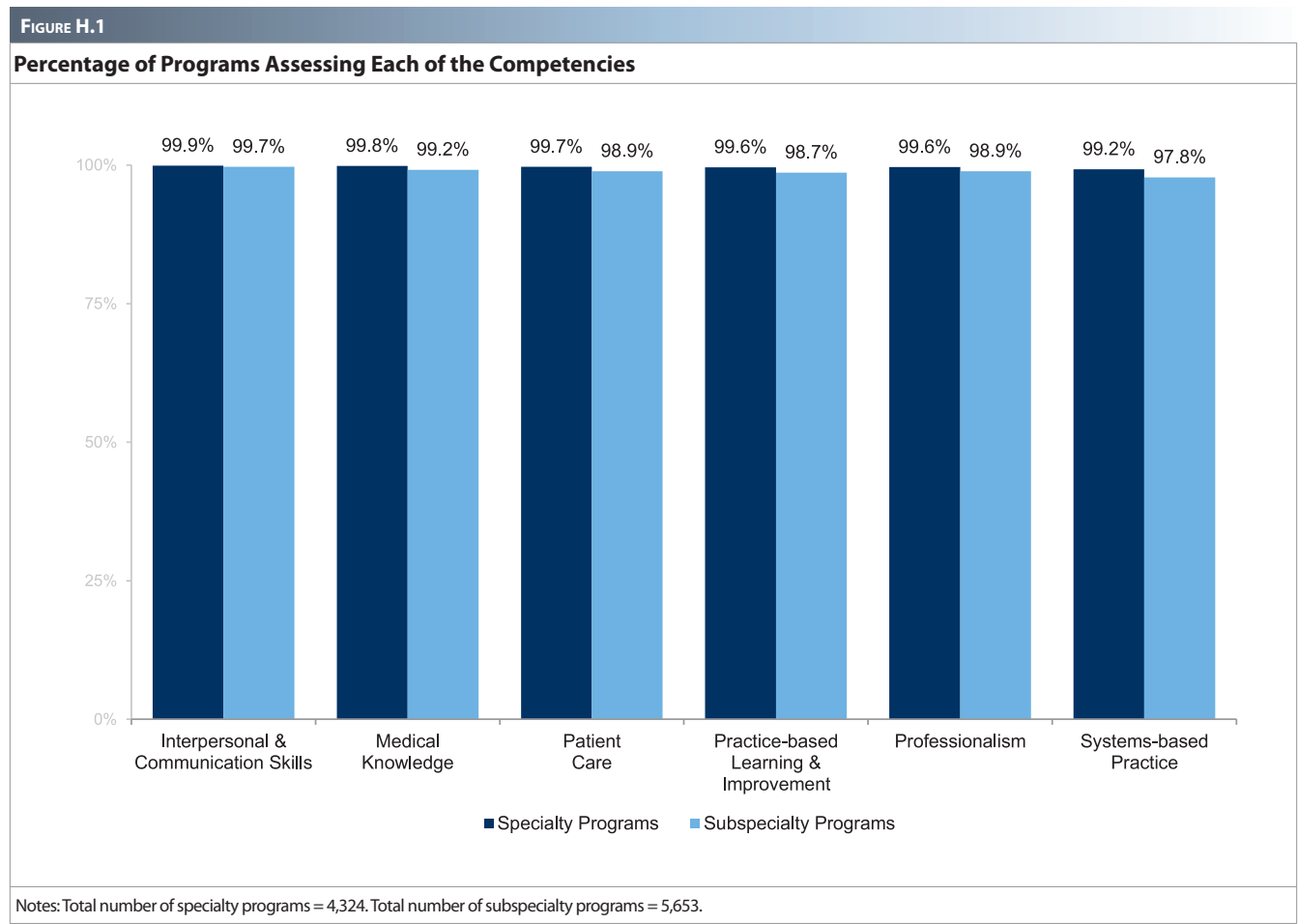
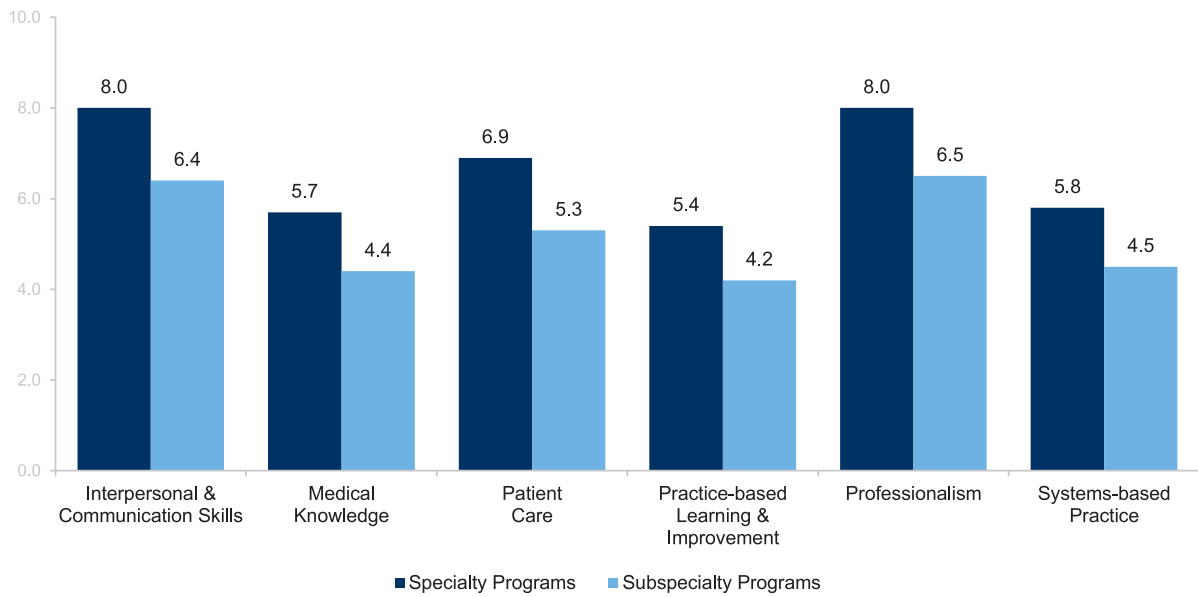


FIGURE H.2

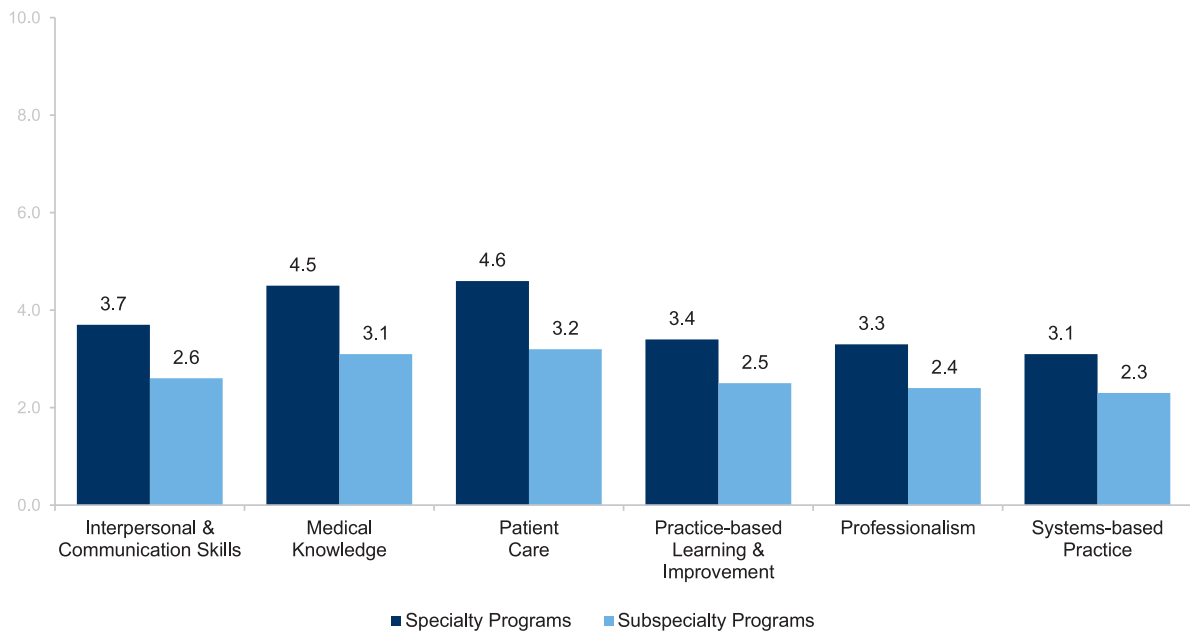
Mean Number of Evaluators for Each Competency



Notes: Total number of specialty programs = 4,324. Total number of subspecialty programs = 5,653.

FIGURE H.3

Mean Number of Assessment Methods for Each Competency



Notes: Total number of specialty programs = 4,324. Total number of subspecialty programs = 5,653.

TABLE H.4							
Mean Number of Evaluators for Each Competency by Specialty and Subspecialty							
Specialty	Total Programs	Mean Number of Evaluators					
		ICS	MK	PC	PBLI	PROF	SBP
OVERALL	9,977	7.1	5.0	6.0	4.7	7.1	5.1
TOTAL PIPELINE	4,021	8.1	5.8	7.0	5.4	8.1	5.8
Allergy and immunology	77	6.7	4.2	5.2	4.3	6.2	4.6
Anesthesiology	135	7.7	4.9	6.5	5.0	7.5	5.5
- Adult cardiothoracic anesthesiology	62	5.8	3.7	4.5	3.8	6.0	4.0
- Clinical informatics (Anesthesiology)	1	7.0	6.0	7.0	10.0	9.0	9.0
- Critical care medicine	54	5.7	4.0	4.9	4.0	6.3	4.4
- Obstetric anesthesiology	28	5.9	4.0	5.6	4.7	6.7	4.7
- Pain medicine (multidisciplinary)	100	6.9	4.3	5.5	4.5	7.0	4.8
- Pediatric anesthesiology	56	6.3	3.9	4.7	3.9	6.4	4.1
Colon and rectal surgery	57	6.1	4.1	5.6	4.1	6.4	4.4
Dermatology	120	7.2	5.2	6.6	5.1	7.3	5.4
- Dermatopathology (multidisciplinary)	53	5.3	3.6	3.9	3.5	5.5	3.7
- Micrographic surgery and dermatologic oncology	69	5.8	3.9	5.0	4.1	5.9	4.3
Emergency medicine	179	8.1	6.1	7.1	5.4	7.9	6.1
- Clinical informatics (Emergency medicine)	3	6.0	3.7	3.0	3.3	5.3	3.5
- Emergency medical services	50	5.3	4.4	4.9	3.8	5.8	4.1
- Medical toxicology	26	5.0	4.0	4.1	4.0	5.5	4.1
- Pediatric emergency medicine	22	7.3	5.5	5.6	4.9	6.4	4.7
- Sports medicine	7	6.0	4.3	4.1	3.9	5.6	4.6
- Undersea and hyperbaric medicine	7	6.7	4.9	5.9	4.3	6.4	5.1
Family medicine	498	9.0	6.9	8.0	5.9	9.2	6.6
- Clinical informatics (Family medicine)	1	10.0	5.0	4.0	4.0	10.0	10.0
- Geriatric medicine	41	6.3	3.8	5.4	3.8	6.4	4.0
- Hospice and palliative medicine (multidisciplinary)	115	6.7	4.6	5.8	4.7	6.7	4.8
- Sports medicine	127	6.2	4.7	5.6	4.4	6.7	4.9
Internal medicine	421	9.0	6.4	7.8	6.0	9.0	6.9
- Adult congenital heart disease	7	7.4	5.4	7.4	4.4	8.0	5.7
- Advanced heart failure and transplant cardiology	68	6.1	3.8	5.0	3.8	6.3	4.3
- Cardiovascular disease	193	7.0	4.7	5.9	4.3	7.0	5.0
- Clinical cardiac electrophysiology	104	5.7	3.7	4.7	3.7	5.8	4.3
- Clinical informatics (Internal medicine)	8	5.8	4.9	5.7	5.9	6.8	5.9
- Critical care medicine	33	7.0	4.4	5.7	4.1	7.2	5.1
- Endocrinology, diabetes, and metabolism	136	6.6	4.3	5.1	3.8	6.4	4.4
- Gastroenterology	168	7.1	4.7	5.8	4.5	7.1	5.1
- Geriatric medicine	105	6.5	3.7	5.1	3.8	6.6	4.4
- Hematology	3	4.0	2.7	4.3	3.7	4.0	4.0
- Hematology and medical oncology	144	6.9	4.8	5.8	4.5	7.0	5.1
- Infectious disease	148	6.8	4.6	5.6	4.3	6.7	4.9
- Interventional cardiology	145	5.9	3.9	5.3	3.6	6.0	4.3
- Nephrology	147	6.7	4.4	5.4	4.1	6.5	4.8
- Medical oncology	9	5.8	4.0	4.3	3.8	6.0	3.9
- Pulmonary disease	18	7.3	4.7	5.7	4.2	7.3	4.6
- Pulmonary disease and critical care medicine	147	6.9	4.8	6.0	4.5	7.1	4.9
- Rheumatology	113	6.9	4.4	5.6	4.1	6.7	4.5
- Sleep medicine (multidisciplinary)	83	6.3	4.3	5.4	4.1	6.3	4.6
- Transplant hepatology	47	5.8	4.1	4.9	4.1	6.0	4.4
Medical genetics and genomics	45	5.6	4.6	4.9	4.0	5.3	4.4
- Medical biochemical genetics	14	5.9	4.5	5.0	4.3	5.4	4.4
- Molecular genetic pathology (multidisciplinary)	39	4.8	3.6	3.9	3.6	5.0	3.4
Neurological surgery	108	7.7	5.6	6.8	5.4	7.7	5.8
- Endovascular surgical neuroradiology	2	8.0	4.5	4.5	7.0	7.0	7.5

TABLE H.4 Continued

Mean Number of Evaluators for Each Competency by Specialty and Subspecialty

Specialty	Total Programs	Mean Number of Evaluators					
		ICS	MK	PC	PBLI	PROF	SBP
Neurology	139	8.1	5.5	6.5	4.9	7.9	5.5
- Child neurology	73	7.3	4.7	5.6	4.3	7.1	5.1
- Clinical neurophysiology	96	6.2	4.3	5.1	3.7	6.1	4.1
- Epilepsy	39	6.9	3.9	5.6	3.4	7.1	4.3
- Endovascular surgical neuroradiology	1	8.0	9.0	7.0	8.0	6.0	7.0
- Neurodevelopmental disabilities	8	7.4	3.9	6.5	3.4	6.6	3.4
- Neuromuscular medicine	45	5.6	3.6	4.8	3.2	5.7	3.2
- Vascular neurology	87	5.8	3.7	5.3	3.8	6.1	4.5
Nuclear medicine	43	6.1	4.6	5.8	4.0	6.0	4.3
Obstetrics and gynecology	250	8.7	6.3	7.6	5.9	8.6	6.2
- Female pelvic medicine and reconstructive surgery	48	7.5	5.5	6.6	5.3	7.4	5.4
Ophthalmology	116	8.5	5.6	6.7	5.5	8.2	5.9
- Ophthalmic plastic and reconstructive surgery	5	6.4	5.0	6.0	4.2	6.2	4.0
Orthopaedic surgery	162	7.7	5.5	6.9	5.5	7.7	5.7
- Adult reconstructive orthopaedics	23	5.8	3.7	4.7	3.7	6.7	4.2
- Foot and ankle orthopaedics	6	6.2	5.7	6.0	5.8	6.5	5.2
- Hand surgery	67	6.0	4.2	5.2	3.9	5.8	4.0
- Musculoskeletal oncology	11	5.6	3.8	5.5	4.1	6.1	4.6
- Orthopaedic sports medicine	94	5.3	4.2	4.9	3.8	5.5	4.0
- Orthopaedic surgery of the spine	17	5.2	3.8	4.2	3.5	6.0	3.8
- Orthopaedic trauma	9	4.2	3.3	3.8	4.0	4.4	3.7
- Pediatric orthopaedics	25	5.0	3.8	4.7	3.6	5.8	4.0
Osteopathic neuromusculoskeletal medicine	1	6.0	5.0	7.0	4.0	8.0	5.0
Otolaryngology	106	7.8	5.6	7.1	5.0	7.8	5.9
- Neurotology	20	5.8	4.8	5.1	4.2	6.3	4.3
- Pediatric otolaryngology	23	5.9	4.3	5.9	4.0	6.1	5.1
Pathology-anatomic and clinical	142	7.0	5.3	5.5	4.7	7.2	4.8
- Blood banking/transfusion medicine	48	5.0	3.8	3.9	3.5	5.3	3.8
- Clinical informatics (Pathology)	2	9.5	5.5	7.0	6.5	8.5	7.5
- Chemical pathology	3	4.0	3.0	2.7	2.3	4.0	3.5
- Cytopathology	91	5.3	3.9	4.2	3.7	5.5	3.7
- Forensic pathology	39	4.9	3.2	3.7	3.3	5.3	3.7
- Hematology	85	5.1	3.8	4.2	3.7	5.5	3.8
- Medical microbiology	14	4.1	3.7	3.5	3.3	5.1	3.2
- Neuropathology	33	5.7	4.2	3.9	4.1	5.7	4.0
- Pediatric pathology	26	4.7	3.6	3.2	3.2	5.1	3.6
- Selective pathology	79	5.4	3.5	3.5	3.4	5.4	3.4
Pediatrics	204	8.7	6.2	7.3	5.5	8.5	5.7
- Adolescent medicine	28	7.1	4.7	6.4	5.0	6.9	5.1
- Child abuse pediatrics	28	8.0	5.4	6.4	4.9	7.8	5.8
- Clinical informatics (Pediatrics)	4	6.3	3.0	3.5	3.5	7.0	5.3
- Developmental-behavioral pediatrics	38	7.2	4.8	6.0	4.8	7.2	4.9
- Neonatal-perinatal medicine	98	7.6	5.8	7.2	5.3	7.5	5.4
- Pediatric cardiology	59	6.9	4.5	5.8	4.4	6.8	4.5
- Pediatric critical care medicine	67	7.7	5.6	6.5	5.1	7.7	5.4
- Pediatric emergency medicine	52	7.3	5.6	6.6	5.0	7.0	4.9
- Pediatric endocrinology	69	7.4	5.2	6.2	4.9	7.1	5.1
- Pediatric gastroenterology	60	6.6	4.8	5.6	4.4	6.9	4.5
- Pediatric hematology/oncology	72	7.3	5.3	6.1	5.2	7.3	5.1
- Pediatric infectious diseases	64	6.7	5.0	5.8	4.6	7.0	4.7
- Pediatric nephrology	45	6.8	4.7	5.4	4.3	6.6	4.5
- Pediatric pulmonology	54	7.3	5.7	6.6	5.2	7.4	5.3

TABLE H.4 Continued							
Mean Number of Evaluators for Each Competency by Specialty and Subspecialty							
Specialty	Total Programs	Mean Number of Evaluators					
		ICS	MK	PC	PBLI	PROF	SBP
- Pediatric rheumatology	36	6.9	4.3	5.8	4.2	6.6	4.4
- Pediatric sports medicine	17	6.4	4.2	5.3	4.0	5.6	4.1
- Pediatric transplant hepatology	9	5.7	4.8	6.6	5.3	7.0	4.9
Physical medicine and rehabilitation	83	8.3	5.2	6.8	4.9	8.0	5.5
- Brain injury medicine	8	7.8	3.6	6.0	5.3	7.8	4.1
- Neuromuscular medicine	1	2.0	2.0	2.0	2.0	2.0	2.0
- Spinal cord injury medicine	20	6.3	3.5	5.2	3.9	5.8	3.4
- Pediatric rehabilitation	19	6.3	3.9	5.6	4.1	6.2	5.1
- Sports medicine	17	6.4	3.6	4.9	3.4	6.4	4.2
Plastic surgery	68	7.5	5.6	6.6	5.4	7.2	5.6
Plastic Surgery - Integrated	69	7.3	5.3	6.3	5.3	7.2	5.4
- Craniofacial surgery	10	4.8	4.2	4.4	3.8	5.3	3.8
- Hand surgery	16	6.9	5.0	5.9	4.6	7.0	5.3
Preventive medicine	74	7.2	5.3	5.8	5.2	7.2	5.1
- Medical toxicology	1	13.0	10.0	12.0	11.0	12.0	12.0
- Undersea and hyperbaric medicine	1	3.0	3.0	3.0	4.0	6.0	3.0
Psychiatry	203	8.2	5.5	6.8	5.2	8.3	5.7
- Addiction psychiatry	45	5.5	3.7	4.5	3.8	5.9	4.3
- Child and adolescent psychiatry	126	7.7	5.1	6.5	5.1	7.9	5.5
- Forensic psychiatry	42	4.9	3.4	3.4	3.5	4.7	3.7
- Geriatric psychiatry	56	5.8	3.9	4.9	3.7	6.2	4.3
- Psychosomatic medicine	57	6.2	4.1	5.3	3.8	6.4	4.4
Radiation oncology	91	7.1	5.0	5.8	4.6	6.9	4.8
Radiology-diagnostic	188	7.5	5.0	6.1	4.6	7.5	4.5
- Abdominal radiology	12	4.2	2.9	3.6	2.8	4.9	3.1
- Endovascular surgical neuroradiology	3	5.3	3.3	4.3	4.0	5.7	3.0
- Musculoskeletal radiology	15	6.1	3.9	5.5	3.6	6.1	3.9
- Neuroradiology	86	5.1	3.3	4.4	3.2	5.3	3.3
- Nuclear radiology	18	5.7	3.4	4.5	3.3	5.1	2.9
- Pediatric radiology	46	5.1	3.7	4.3	3.3	5.3	3.1
- Vascular and interventional radiology	95	5.8	3.8	5.0	3.8	5.8	3.7
Interventional radiology - integrated	24	7.7	4.9	6.0	4.2	7.5	4.3
Surgery	261	8.2	6.0	7.4	5.9	8.3	6.0
- Complex general surgical oncology	22	6.2	4.7	5.8	4.9	6.1	4.5
- Hand surgery	1	2.0	2.0	2.0	2.0	3.0	2.0
- Pediatric surgery	47	6.8	4.9	6.1	5.0	7.0	5.1
- Surgical critical care	113	5.9	4.9	5.5	4.3	6.1	4.5
- Vascular surgery	106	7.2	5.2	6.5	4.7	7.3	5.2
Vascular surgery - integrated	51	7.7	5.4	6.8	4.8	7.6	5.5
Thoracic surgery	68	6.9	5.1	6.2	4.8	6.9	5.0
- Congenital cardiac surgery	12	4.6	3.7	4.3	4.1	4.7	4.0
Thoracic surgery - integrated	27	7.7	5.9	6.9	5.6	7.7	5.8
Urology	134	7.2	5.1	6.4	4.8	7.2	5.1
- Female pelvic medicine and reconstructive surgery	10	6.7	5.3	6.3	3.3	6.4	5.2
- Pediatric urology	28	5.2	3.9	4.7	4.0	6.0	4.1
Transitional year	101	7.5	5.6	6.6	5.3	7.8	5.8
Internal medicine/pediatrics	79	8.8	6.4	8.0	6.1	8.8	6.4

Note: Pipeline specialties are highlighted.
Abbreviations: ICS, Interpersonal & Communication Skills; MK, Medical Knowledge; PC, Patient Care; PBLI, Practice-based Learning & Improvement; PROF, Professionalism; SBP, Systems-based Practice.

TABLE H.5

Mean Number of Assessment Methods for Each Competency by Specialty and Subspecialty

Specialty	Total Programs	Mean Number of Assessment Methods					
		ICS	MK	PC	PBLI	PROF	SBP
OVERALL	9,977	3.1	3.7	3.8	2.9	2.8	2.7
TOTAL PIPELINE	4,021	3.7	4.6	4.7	3.5	3.4	3.2
Allergy and immunology	77	3.0	3.6	3.7	2.9	2.5	2.6
Anesthesiology	135	4.6	5.5	5.5	3.9	3.8	3.6
- Adult cardiothoracic anesthesiology	62	2.3	2.8	2.8	2.2	2.1	2.1
- Clinical informatics (Anesthesiology)	1	3.0	2.0	4.0	2.0	2.0	2.0
- Critical care medicine	54	2.5	2.9	2.6	2.2	2.2	2.2
- Obstetric anesthesiology	28	2.3	2.8	3.2	2.3	2.0	2.1
- Pain medicine (multidisciplinary)	100	3.0	3.3	3.6	2.9	2.8	2.5
- Pediatric anesthesiology	56	2.6	2.9	2.9	2.5	2.4	2.3
Colon and rectal surgery	57	2.5	3.2	3.3	2.5	2.3	2.1
Dermatology	120	3.1	3.9	4.0	3.1	3.1	2.8
- Dermatopathology (multidisciplinary)	53	1.8	2.6	2.3	1.9	1.7	1.8
- Micrographic surgery and dermatologic oncology	69	2.4	2.9	2.9	2.4	2.3	2.3
Emergency medicine	179	4.6	6.0	6.2	4.3	4.3	4.5
- Clinical informatics (Emergency medicine)	3	2.3	1.7	1.7	1.3	1.7	2.0
- Emergency medical services	50	2.5	2.9	3.2	2.2	2.3	2.2
- Medical toxicology	26	2.2	3.1	2.8	2.2	1.9	2.1
- Pediatric emergency medicine	22	3.1	4.2	4.3	3.2	2.5	3.0
- Sports medicine	7	1.1	2.9	2.1	1.7	1.4	1.7
- Undersea and hyperbaric medicine	7	2.9	3.4	3.1	2.7	2.6	2.6
Family medicine	498	4.3	5.0	5.4	3.8	3.8	3.6
- Clinical informatics (Family medicine)	1	3.0	2.0	1.0	1.0	2.0	3.0
- Geriatric medicine	41	2.6	3.0	3.6	2.3	2.6	2.3
- Hospice and palliative medicine (multidisciplinary)	115	3.2	2.9	3.4	2.8	2.6	2.5
- Sports medicine	127	2.3	3.4	3.2	2.4	2.2	2.2
Internal medicine	421	4.3	4.6	5.2	3.8	3.7	3.5
- Adult congenital heart disease	7	2.3	3.4	3.3	2.0	2.3	1.9
- Advanced heart failure and transplant cardiology	68	2.3	2.6	2.8	2.3	2.2	2.2
- Cardiovascular disease	193	2.7	3.2	3.3	2.5	2.5	2.4
- Clinical cardiac electrophysiology	104	2.2	2.5	2.6	2.1	2.1	2.0
- Clinical informatics (Internal medicine)	8	2.4	2.3	3.0	2.3	2.0	2.4
- Critical care medicine	33	2.8	3.4	3.3	2.4	2.5	2.4
- Endocrinology, diabetes, and metabolism	136	2.8	3.3	3.7	2.8	2.6	2.5
- Gastroenterology	168	3.2	3.7	4.0	3.0	2.9	2.8
- Geriatric medicine	105	3.0	2.8	3.2	2.5	2.7	2.4
- Hematology	3	2.3	2.0	3.0	2.0	1.7	1.7
- Hematology and medical oncology	144	2.9	3.3	3.4	2.7	2.7	2.5
- Infectious disease	148	3.0	3.4	3.2	2.7	2.8	2.5
- Interventional cardiology	145	2.3	2.4	2.7	2.1	2.1	2.1
- Nephrology	147	2.9	3.6	3.7	2.6	2.8	2.6
- Medical oncology	9	2.9	3.3	3.6	2.9	2.3	2.3
- Pulmonary disease	18	3.2	3.7	3.3	2.6	2.5	2.3
- Pulmonary disease and critical care medicine	147	2.9	3.5	3.8	2.8	2.7	2.6
- Rheumatology	113	3.2	3.7	3.9	3.2	2.9	2.7
- Sleep medicine (multidisciplinary)	83	2.6	3.0	3.1	2.4	2.5	2.3
- Transplant hepatology	47	2.3	2.8	3.1	2.6	2.3	2.1
Medical genetics and genomics	45	2.7	3.2	3.0	2.4	2.2	2.3
- Medical biochemical genetics	14	1.9	2.3	1.9	1.9	1.7	1.6
- Molecular genetic pathology (multidisciplinary)	39	1.7	2.2	1.9	1.8	1.6	1.7
Neurological surgery	108	3.0	4.2	4.0	3.2	2.9	2.8
- Endovascular surgical neuroradiology	2	2.5	3.5	3.0	3.5	2.0	3.0

TABLE H.5 Continued							
Mean Number of Assessment Methods for Each Competency by Specialty and Subspecialty							
Specialty	Total Programs	Mean Number of Assessment Methods					
		ICS	MK	PC	PBLI	PROF	SBP
Neurology	139	3.3	4.1	4.0	2.9	3.1	2.7
- Child neurology	73	3.3	4.2	3.8	2.9	3.1	2.8
- Clinical neurophysiology	96	2.1	2.8	2.5	2.0	1.9	1.9
- Epilepsy	39	2.4	2.8	3.2	2.1	2.3	2.1
- Endovascular surgical neuroradiology	1	4.0	5.0	3.0	4.0	2.0	3.0
- Neurodevelopmental disabilities	8	2.6	3.6	3.6	2.5	3.0	2.1
- Neuromuscular medicine	45	1.9	2.5	2.3	1.8	1.8	1.8
- Vascular neurology	87	2.2	2.2	2.5	2.0	1.9	2.1
Nuclear medicine	43	2.8	3.7	3.5	2.8	2.4	2.4
Obstetrics and gynecology	250	4.1	5.1	5.3	4.0	3.8	3.5
- Female pelvic medicine and reconstructive surgery	48	3.5	4.4	5.5	3.6	3.3	3.1
Ophthalmology	116	3.7	4.8	5.2	4.0	3.6	3.3
- Ophthalmic plastic and reconstructive surgery	5	3.2	3.6	4.0	2.2	2.4	2.4
Orthopaedic surgery	162	2.8	3.9	3.7	2.9	2.7	2.7
- Adult reconstructive orthopaedics	23	2.3	2.4	2.4	1.8	2.2	1.8
- Foot and ankle orthopaedics	6	2.7	2.5	3.0	2.3	2.3	1.8
- Hand surgery	67	2.2	2.7	2.7	2.1	2.2	2.0
- Musculoskeletal oncology	11	1.7	1.4	1.8	1.7	1.6	1.8
- Orthopaedic sports medicine	94	1.9	2.7	2.4	2.0	1.8	1.7
- Orthopaedic surgery of the spine	17	2.4	2.8	2.7	2.3	1.8	2.2
- Orthopaedic trauma	9	1.9	2.0	1.7	1.7	1.7	1.4
- Pediatric orthopaedics	25	1.8	2.0	1.9	1.8	1.6	1.7
Osteopathic neuromusculoskeletal medicine	1	2.0	3.0	2.0	1.0	2.0	2.0
Otolaryngology	106	3.3	4.6	4.4	3.4	3.1	3.1
- Neurotology	20	2.4	3.0	3.0	2.7	2.4	2.4
- Pediatric otolaryngology	23	2.2	2.8	2.7	2.3	2.0	2.6
Pathology-anatomic and clinical	142	2.5	3.7	3.1	2.7	2.4	2.5
- Blood banking/transfusion medicine	48	1.8	2.3	1.9	1.8	1.7	1.9
- Clinical informatics (Pathology)	2	3.0	3.5	4.0	4.0	1.5	3.0
- Chemical pathology	3	2.0	2.3	2.0	1.7	1.7	1.5
- Cytopathology	91	2.1	2.6	2.3	2.1	1.9	1.9
- Forensic pathology	39	1.9	2.7	2.3	2.1	1.8	2.0
- Hematology	85	1.9	2.6	2.1	1.9	1.7	1.9
- Medical microbiology	14	1.6	1.9	1.7	1.5	1.4	1.4
- Neuropathology	33	2.4	3.1	2.7	2.5	2.2	2.1
- Pediatric pathology	26	1.9	2.7	2.0	1.9	1.7	1.7
- Selective pathology	79	2.5	2.9	2.7	2.3	2.2	2.1
Pediatrics	204	4.6	4.7	5.2	3.7	4.0	3.3
- Adolescent medicine	28	3.3	3.6	3.4	2.8	2.9	2.7
- Child abuse pediatrics	28	3.3	3.7	3.9	3.0	2.9	2.8
- Clinical informatics (Pediatrics)	4	2.0	2.0	2.0	1.8	1.8	2.0
- Developmental-behavioral pediatrics	38	3.3	3.5	3.8	2.9	2.7	2.8
- Neonatal-perinatal medicine	98	3.0	3.6	3.8	2.9	2.7	2.6
- Pediatric cardiology	59	2.6	3.1	3.2	2.5	2.5	2.4
- Pediatric critical care medicine	67	3.2	3.7	3.9	3.1	2.9	2.5
- Pediatric emergency medicine	52	3.7	4.7	4.8	3.4	3.1	2.9
- Pediatric endocrinology	69	3.1	3.4	3.3	2.8	2.7	2.4
- Pediatric gastroenterology	60	2.7	3.4	3.3	2.8	2.6	2.4
- Pediatric hematology/oncology	72	2.9	3.4	3.4	2.8	2.7	2.4
- Pediatric infectious diseases	64	3.0	3.4	3.0	2.6	2.8	2.4
- Pediatric nephrology	45	2.7	3.3	3.2	2.6	2.5	2.7
- Pediatric pulmonology	54	3.0	3.7	3.8	3.1	2.9	2.4

TABLE H.5 Continued

Mean Number of Assessment Methods for Each Competency by Specialty and Subspecialty

Specialty	Total Programs	Mean Number of Assessment Methods					
		ICS	MK	PC	PBLI	PROF	SBP
- Pediatric rheumatology	36	3.1	3.8	3.9	2.8	2.9	2.7
- Pediatric sports medicine	17	2.6	3.1	3.3	2.4	2.5	2.1
- Pediatric transplant hepatology	9	2.6	2.8	3.6	2.7	2.3	2.3
Physical medicine and rehabilitation	83	3.7	5.3	4.9	3.4	3.5	3.3
- Brain injury medicine	8	3.4	3.3	4.4	2.5	3.0	2.4
- Neuromuscular medicine	1	1.0	1.0	1.0	1.0	1.0	1.0
- Spinal cord injury medicine	20	2.4	2.6	3.4	2.0	1.9	2.1
- Pediatric rehabilitation	19	2.9	3.2	3.9	2.6	3.0	2.7
- Sports medicine	17	2.8	3.5	3.2	2.8	2.7	2.4
Plastic surgery	68	2.5	4.4	3.6	2.9	2.6	2.5
Plastic Surgery - Integrated	69	2.9	4.5	3.9	3.0	2.8	2.9
- Craniofacial surgery	10	1.8	1.9	2.4	1.8	1.8	1.8
- Hand surgery	16	2.3	3.1	3.0	2.6	2.5	2.8
Preventive medicine	74	3.3	3.9	3.9	3.3	3.0	3.2
- Medical toxicology	1	3.0	6.0	5.0	5.0	6.0	5.0
- Undersea and hyperbaric medicine	1	1.0	1.0	1.0	1.0	1.0	1.0
Psychiatry	203	4.5	4.8	5.4	4.0	4.0	3.6
- Addiction psychiatry	45	2.2	2.6	2.6	2.2	2.1	1.9
- Child and adolescent psychiatry	126	4.3	4.6	5.2	3.9	3.9	3.5
- Forensic psychiatry	42	2.4	2.6	2.4	2.1	2.0	2.1
- Geriatric psychiatry	56	2.5	2.9	3.4	2.4	2.3	2.3
- Psychosomatic medicine	57	2.5	2.8	3.1	2.3	2.3	2.1
Radiation oncology	91	2.7	4.0	3.4	2.7	2.4	2.4
Radiology-diagnostic	188	3.0	4.0	3.4	2.6	2.6	2.4
- Abdominal radiology	12	1.9	1.8	2.1	1.5	1.7	1.5
- Endovascular surgical neuroradiology	3	1.3	1.3	1.3	1.3	1.3	1.0
- Musculoskeletal radiology	15	2.3	2.3	1.9	2.0	1.9	1.6
- Neuroradiology	86	2.0	2.1	2.2	1.9	1.8	1.8
- Nuclear radiology	18	1.6	1.8	1.6	1.7	1.6	1.3
- Pediatric radiology	46	1.8	2.1	2.0	1.7	1.8	1.5
- Vascular and interventional radiology	95	2.1	2.2	2.3	1.8	1.9	1.7
Interventional radiology - integrated	24	3.2	3.7	3.6	2.7	2.5	2.2
Surgery	261	3.8	5.1	5.1	3.6	3.5	3.1
- Complex general surgical oncology	22	2.6	3.1	3.5	3.1	2.6	2.6
- Hand surgery	1	1.0	2.0	2.0	1.0	1.0	1.0
- Pediatric surgery	47	2.4	3.4	3.3	2.6	2.4	2.5
- Surgical critical care	113	2.0	2.6	2.7	2.1	2.0	2.0
- Vascular surgery	106	2.8	4.0	4.1	2.8	2.7	2.6
Vascular surgery - integrated	51	2.8	4.2	4.2	3.1	2.8	2.7
Thoracic surgery	68	2.5	3.9	3.5	2.7	2.2	2.3
- Congenital cardiac surgery	12	2.1	1.8	2.2	2.2	1.4	1.7
Thoracic surgery - integrated	27	3.1	4.3	4.0	3.1	2.6	2.7
Urology	134	3.1	4.0	4.1	3.1	3.1	2.8
- Female pelvic medicine and reconstructive surgery	10	2.9	3.3	3.7	2.3	2.1	2.7
- Pediatric urology	28	2.3	2.2	2.5	2.1	2.1	1.9
Transitional year	101	4.0	4.0	4.2	3.5	3.5	3.2
Internal medicine/pediatrics	79	4.2	4.3	5.0	3.7	3.6	3.4

Note: Pipeline specialties are highlighted.

Abbreviations: ICS, Interpersonal & Communication Skills; MK, Medical Knowledge; PC, Patient Care; PBLI, Practice-based Learning & Improvement; PROF, Professionalism; SBP, Systems-based Practice.

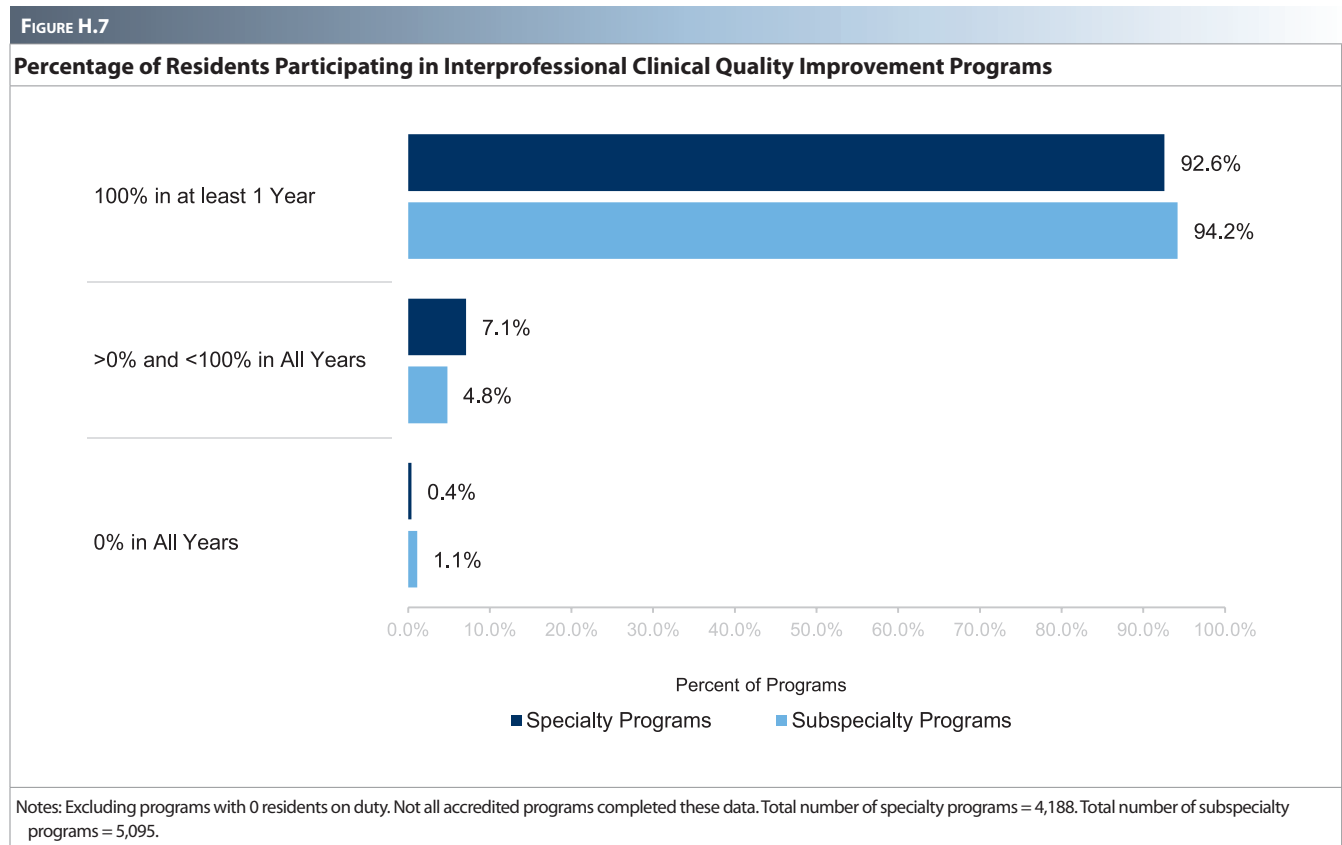
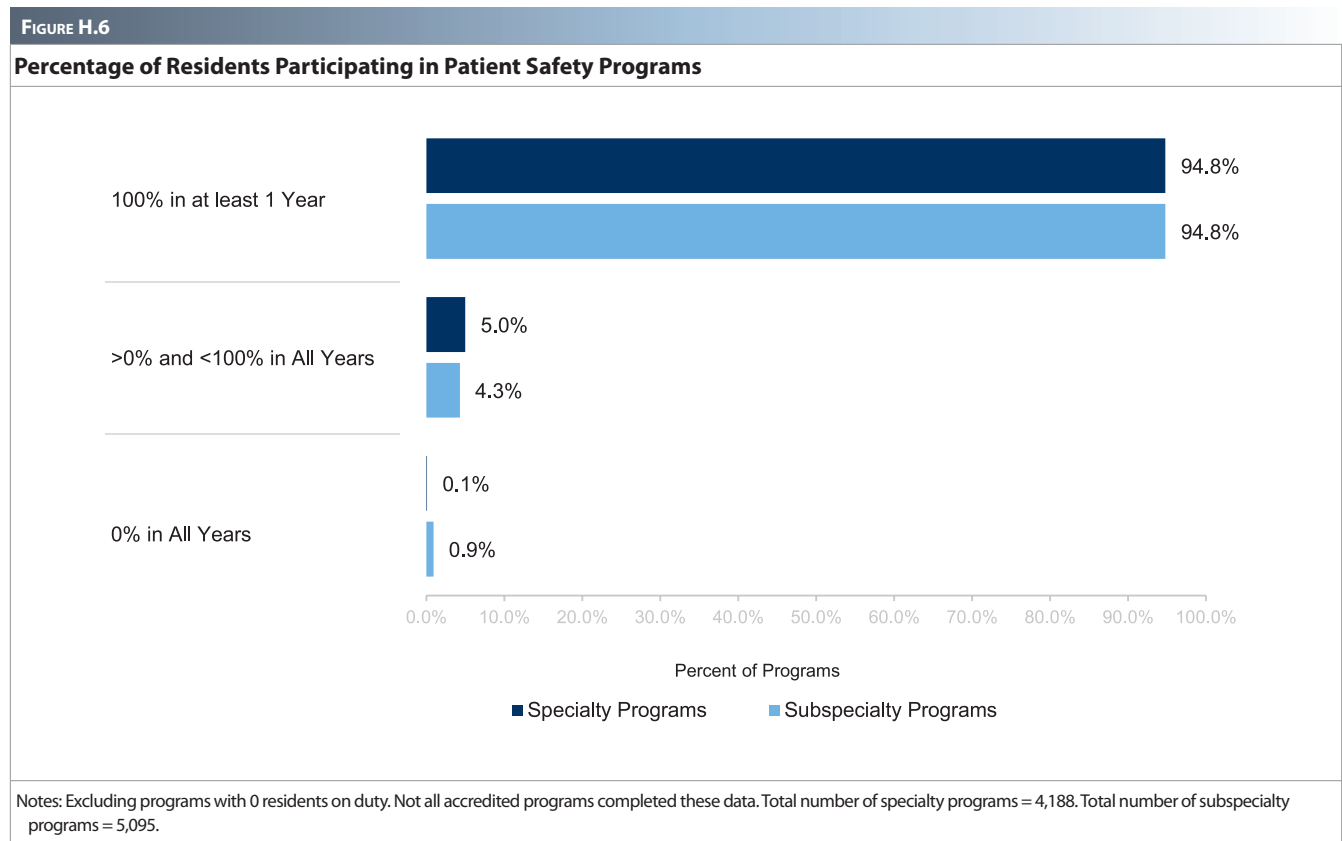


TABLE H.8

Percentage of Residents Participating in Patient Safety Programs and Interprofessional Clinical Quality Improvement Programs by Specialty and Subspecialty

Specialty	Total Programs	Patient Safety Programs			Interprofessional Clinical Quality Improvement Programs		
		100% in at least 1 Year	>0% and <100% in All Years	0% in All Years	100% in at least 1 Year	>0% and <100% in All Years	0% in All Years
OVERALL	9,283	94.8%	4.6%	0.5%	93.4%	5.8%	0.7%
TOTAL PIPELINE	3,899	94.9%	5.1%	0.1%	92.7%	7.1%	0.3%
Allergy and immunology	75	90.7%	8.0%	1.3%	89.3%	9.3%	1.3%
Anesthesiology	134	93.3%	6.7%	0.0%	94.0%	6.0%	0.0%
- Adult cardiothoracic anesthesiology	59	94.9%	5.1%	0.0%	93.2%	6.8%	0.0%
- Clinical informatics (Anesthesiology)	0	N/A	N/A	N/A	N/A	N/A	N/A
- Critical care medicine	46	89.1%	10.9%	0.0%	89.1%	10.9%	0.0%
- Obstetric anesthesiology	24	87.5%	12.5%	0.0%	87.5%	12.5%	0.0%
- Pain medicine (multidisciplinary)	96	92.7%	7.3%	0.0%	90.6%	9.4%	0.0%
- Pediatric anesthesiology	51	98.0%	2.0%	0.0%	96.1%	2.0%	2.0%
Colon and rectal surgery	54	94.4%	5.6%	0.0%	94.4%	5.6%	0.0%
Dermatology	118	94.9%	5.1%	0.0%	90.7%	9.3%	0.0%
- Dermatopathology (multidisciplinary)	51	92.2%	5.9%	2.0%	90.2%	5.9%	3.9%
- Micrographic surgery and dermatologic oncology	61	91.8%	6.6%	1.6%	91.8%	6.6%	1.6%
Emergency medicine	174	96.0%	4.0%	0.0%	94.8%	5.2%	0.0%
- Clinical informatics (Emergency medicine)	1	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Emergency medical services	34	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Medical toxicology	22	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Pediatric emergency medicine	22	95.5%	4.5%	0.0%	90.9%	9.1%	0.0%
- Sports medicine	6	100.0%	0.0%	0.0%	83.3%	0.0%	16.7%
- Undersea and hyperbaric medicine	5	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Family medicine	487	96.3%	3.7%	0.0%	95.9%	3.7%	0.4%
- Clinical informatics (Family medicine)	1	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Geriatric medicine	28	96.4%	3.6%	0.0%	96.4%	3.6%	0.0%
- Hospice and palliative medicine (multidisciplinary)	105	94.3%	2.9%	2.9%	95.2%	3.8%	1.0%
- Sports medicine	115	91.3%	6.1%	2.6%	89.6%	6.1%	4.3%
Internal medicine	416	91.8%	8.2%	0.0%	88.9%	11.1%	0.0%
- Adult congenital heart disease	2	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Advanced heart failure and transplant cardiology	52	96.2%	3.8%	0.0%	96.2%	3.8%	0.0%
- Cardiovascular disease	193	95.9%	3.6%	0.5%	92.2%	7.3%	0.5%
- Clinical cardiac electrophysiology	82	98.8%	0.0%	1.2%	98.8%	0.0%	1.2%
- Clinical informatics (Internal medicine)	3	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Critical care medicine	32	96.9%	3.1%	0.0%	93.8%	6.3%	0.0%
- Endocrinology, diabetes, and metabolism	134	94.0%	5.2%	0.7%	94.8%	4.5%	0.7%
- Gastroenterology	164	93.9%	5.5%	0.6%	93.9%	5.5%	0.6%
- Geriatric medicine	88	94.3%	4.5%	1.1%	95.5%	3.4%	1.1%
- Hematology	3	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Hematology and medical oncology	141	96.5%	3.5%	0.0%	95.0%	5.0%	0.0%
- Infectious disease	147	93.9%	6.1%	0.0%	93.9%	6.1%	0.0%
- Interventional cardiology	142	97.2%	2.1%	0.7%	97.9%	2.1%	0.0%
- Nephrology	145	95.9%	4.1%	0.0%	95.9%	4.1%	0.0%
- Medical oncology	9	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Pulmonary disease	18	94.4%	5.6%	0.0%	94.4%	5.6%	0.0%
- Pulmonary disease and critical care medicine	147	95.2%	4.8%	0.0%	95.2%	4.8%	0.0%
- Rheumatology	111	96.4%	3.6%	0.0%	94.6%	4.5%	0.9%
- Sleep medicine (multidisciplinary)	77	94.8%	3.9%	1.3%	94.8%	5.2%	0.0%
- Transplant hepatology	29	93.1%	6.9%	0.0%	89.7%	6.9%	3.4%
Medical genetics and genomics	31	96.8%	3.2%	0.0%	96.8%	3.2%	0.0%
- Medical biochemical genetics	7	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Molecular genetic pathology (multidisciplinary)	32	100.0%	0.0%	0.0%	96.9%	0.0%	3.1%
Neurological surgery	106	98.1%	1.9%	0.0%	97.2%	2.8%	0.0%
- Endovascular surgical neuroradiology	2	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%

TABLE H.8 Continued

Percentage of Residents Participating in Patient Safety Programs and Interprofessional Clinical Quality Improvement Programs by Specialty and Subspecialty

Specialty	Total Programs	Patient Safety Programs			Interprofessional Clinical Quality Improvement Programs		
		100% in at least 1 Year	>0% and <100% in All Years	0% in All Years	100% in at least 1 Year	>0% and <100% in All Years	0% in All Years
Neurology	135	95.6%	4.4%	0.0%	91.1%	8.1%	0.7%
- Child neurology	72	95.8%	2.8%	1.4%	94.4%	4.2%	1.4%
- Clinical neurophysiology	87	93.1%	6.9%	0.0%	93.1%	5.7%	1.1%
- Epilepsy	28	96.4%	3.6%	0.0%	96.4%	3.6%	0.0%
- Endovascular surgical neuroradiology	1	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Neurodevelopmental disabilities	7	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Neuromuscular medicine	34	100.0%	0.0%	0.0%	94.1%	0.0%	5.9%
- Vascular neurology	62	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Nuclear medicine	31	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Obstetrics and gynecology	246	95.9%	4.1%	0.0%	93.1%	6.9%	0.0%
- Female pelvic medicine and reconstructive surgery	46	97.8%	2.2%	0.0%	97.8%	2.2%	0.0%
Ophthalmology	116	94.8%	5.2%	0.0%	91.4%	8.6%	0.0%
- Ophthalmic plastic and reconstructive surgery	5	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Orthopaedic surgery	160	96.3%	3.8%	0.0%	95.6%	4.4%	0.0%
- Adult reconstructive orthopaedics	21	95.2%	4.8%	0.0%	95.2%	4.8%	0.0%
- Foot and ankle orthopaedics	6	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Hand surgery	67	89.6%	4.5%	6.0%	86.6%	4.5%	9.0%
- Musculoskeletal oncology	10	90.0%	10.0%	0.0%	90.0%	10.0%	0.0%
- Orthopaedic sports medicine	85	91.8%	5.9%	2.4%	92.9%	7.1%	0.0%
- Orthopaedic surgery of the spine	14	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Orthopaedic trauma	9	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Pediatric orthopaedics	24	100.0%	0.0%	0.0%	95.8%	0.0%	4.2%
Osteopathic neuromusculoskeletal medicine	1	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Otolaryngology	106	95.3%	4.7%	0.0%	95.3%	4.7%	0.0%
- Neurotology	20	95.0%	5.0%	0.0%	90.0%	5.0%	5.0%
- Pediatric otolaryngology	20	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Pathology-anatomic and clinical	142	95.8%	4.2%	0.0%	91.5%	8.5%	0.0%
- Blood banking/transfusion medicine	36	91.7%	5.6%	2.8%	97.2%	2.8%	0.0%
- Clinical informatics (Pathology)	2	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Chemical pathology	1	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Cytopathology	81	91.4%	7.4%	1.2%	92.6%	7.4%	0.0%
- Forensic pathology	31	67.7%	12.9%	19.4%	67.7%	12.9%	19.4%
- Hematology	77	89.6%	7.8%	2.6%	93.5%	6.5%	0.0%
- Medical microbiology	9	88.9%	0.0%	11.1%	100.0%	0.0%	0.0%
- Neuropathology	28	96.4%	3.6%	0.0%	96.4%	3.6%	0.0%
- Pediatric pathology	17	88.2%	5.9%	5.9%	88.2%	5.9%	5.9%
- Selective pathology	70	95.7%	2.9%	1.4%	95.7%	2.9%	1.4%
Pediatrics	201	95.5%	4.5%	0.0%	91.0%	9.0%	0.0%
- Adolescent medicine	25	96.0%	4.0%	0.0%	96.0%	4.0%	0.0%
- Child abuse pediatrics	22	95.5%	4.5%	0.0%	95.5%	4.5%	0.0%
- Clinical informatics (Pediatrics)	2	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%
- Developmental-behavioral pediatrics	35	94.3%	5.7%	0.0%	94.3%	5.7%	0.0%
- Neonatal-perinatal medicine	98	98.0%	2.0%	0.0%	95.9%	4.1%	0.0%
- Pediatric cardiology	58	96.6%	3.4%	0.0%	96.6%	3.4%	0.0%
- Pediatric critical care medicine	66	98.5%	1.5%	0.0%	97.0%	3.0%	0.0%
- Pediatric emergency medicine	51	98.0%	2.0%	0.0%	100.0%	0.0%	0.0%
- Pediatric endocrinology	67	95.5%	3.0%	1.5%	95.5%	4.5%	0.0%
- Pediatric gastroenterology	58	91.4%	6.9%	1.7%	91.4%	6.9%	1.7%
- Pediatric hematology/oncology	68	97.1%	2.9%	0.0%	94.1%	5.9%	0.0%
- Pediatric infectious diseases	55	96.4%	3.6%	0.0%	94.5%	3.6%	1.8%
- Pediatric nephrology	37	91.9%	8.1%	0.0%	94.6%	5.4%	0.0%
- Pediatric pulmonology	48	95.8%	4.2%	0.0%	93.8%	4.2%	2.1%

TABLE H.8 Continued

Percentage of Residents Participating in Patient Safety Programs and Interprofessional Clinical Quality Improvement Programs by Specialty and Subspecialty

Specialty	Total Programs	Patient Safety Programs			Interprofessional Clinical Quality Improvement Programs		
		100% in at least 1 Year	>0% and <100% in All Years	0% in All Years	100% in at least 1 Year	>0% and <100% in All Years	0% in All Years
- Pediatric rheumatology	30	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Pediatric sports medicine	15	93.3%	6.7%	0.0%	86.7%	13.3%	0.0%
- Pediatric transplant hepatology	6	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Physical medicine and rehabilitation	79	96.2%	3.8%	0.0%	93.7%	5.1%	1.3%
- Brain injury medicine	7	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Neuromuscular medicine	1	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Spinal cord injury medicine	12	91.7%	8.3%	0.0%	83.3%	8.3%	8.3%
- Pediatric rehabilitation	16	93.8%	6.3%	0.0%	93.8%	6.3%	0.0%
- Sports medicine	17	94.1%	5.9%	0.0%	94.1%	5.9%	0.0%
Plastic surgery	68	95.6%	4.4%	0.0%	95.6%	4.4%	0.0%
Plastic surgery - integrated	67	98.5%	1.5%	0.0%	97.0%	3.0%	0.0%
- Craniofacial surgery	8	87.5%	12.5%	0.0%	100.0%	0.0%	0.0%
- Hand surgery	16	93.8%	6.3%	0.0%	93.8%	6.3%	0.0%
Preventive medicine	69	94.2%	5.8%	0.0%	91.3%	8.7%	0.0%
- Medical toxicology	1	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Undersea and hyperbaric medicine	1	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Psychiatry	195	93.8%	5.6%	0.5%	87.2%	11.3%	1.5%
- Addiction psychiatry	38	94.7%	5.3%	0.0%	94.7%	5.3%	0.0%
- Child and adolescent psychiatry	123	94.3%	5.7%	0.0%	90.2%	8.1%	1.6%
- Forensic psychiatry	32	81.3%	12.5%	6.3%	81.3%	12.5%	6.3%
- Geriatric psychiatry	40	97.5%	2.5%	0.0%	95.0%	2.5%	2.5%
- Psychosomatic medicine	42	90.5%	9.5%	0.0%	90.5%	9.5%	0.0%
Radiation oncology	89	92.1%	7.9%	0.0%	89.9%	9.0%	1.1%
Radiology-diagnostic	186	90.9%	9.1%	0.0%	87.6%	11.8%	0.5%
- Abdominal radiology	11	81.8%	9.1%	9.1%	72.7%	9.1%	18.2%
- Endovascular surgical neuroradiology	3	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Musculoskeletal radiology	14	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Neuroradiology	71	91.5%	5.6%	2.8%	90.1%	7.0%	2.8%
- Nuclear radiology	10	70.0%	20.0%	10.0%	70.0%	30.0%	0.0%
- Pediatric radiology	33	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Vascular and interventional radiology	87	96.6%	3.4%	0.0%	95.4%	3.4%	1.1%
Interventional radiology - integrated	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Surgery	255	92.2%	7.8%	0.0%	91.4%	8.2%	0.4%
- Complex general surgical oncology	20	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Hand surgery	1	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Pediatric surgery	46	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Surgical critical care	103	98.1%	1.9%	0.0%	97.1%	2.9%	0.0%
- Vascular surgery	100	95.0%	4.0%	1.0%	95.0%	5.0%	0.0%
Vascular surgery - integrated	50	100.0%	0.0%	0.0%	98.0%	0.0%	2.0%
Thoracic surgery	62	96.8%	1.6%	1.6%	95.2%	4.8%	0.0%
- Congenital cardiac surgery	10	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Thoracic surgery - integrated	26	92.3%	0.0%	7.7%	100.0%	0.0%	0.0%
Urology	133	96.2%	3.8%	0.0%	94.7%	5.3%	0.0%
- Female pelvic medicine and reconstructive surgery	10	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
- Pediatric urology	24	95.8%	0.0%	4.2%	95.8%	0.0%	4.2%
Transitional year	98	95.9%	3.1%	1.0%	87.8%	9.2%	3.1%
Internal medicine/pediatrics	78	98.7%	1.3%	0.0%	94.9%	5.1%	0.0%

Notes: Pipeline specialties are highlighted. Excluding programs with 0 residents on duty. Not all accredited programs completed these data. Total number of specialty programs = 4,188. Total number of subspecialty programs = 5,095.

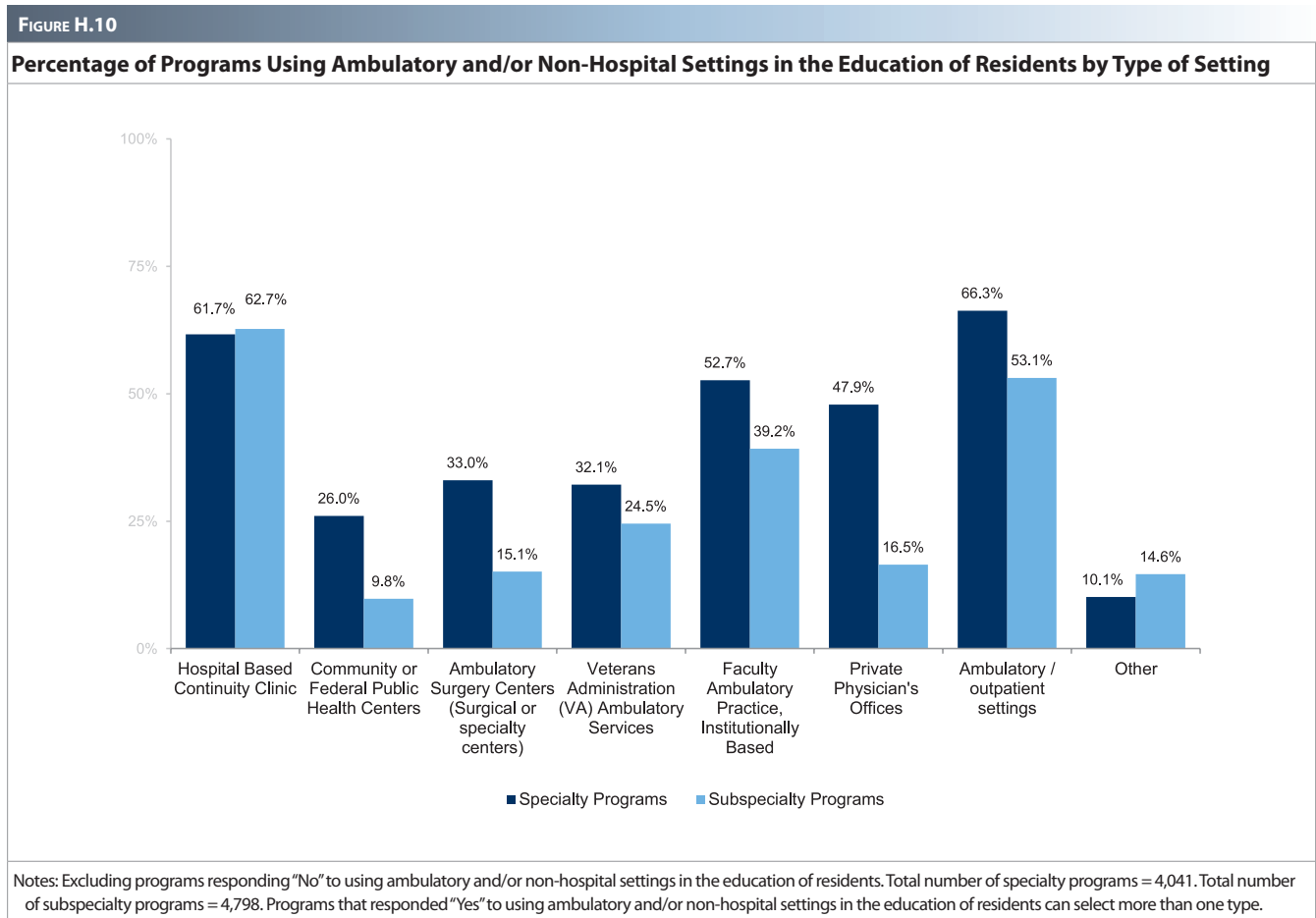
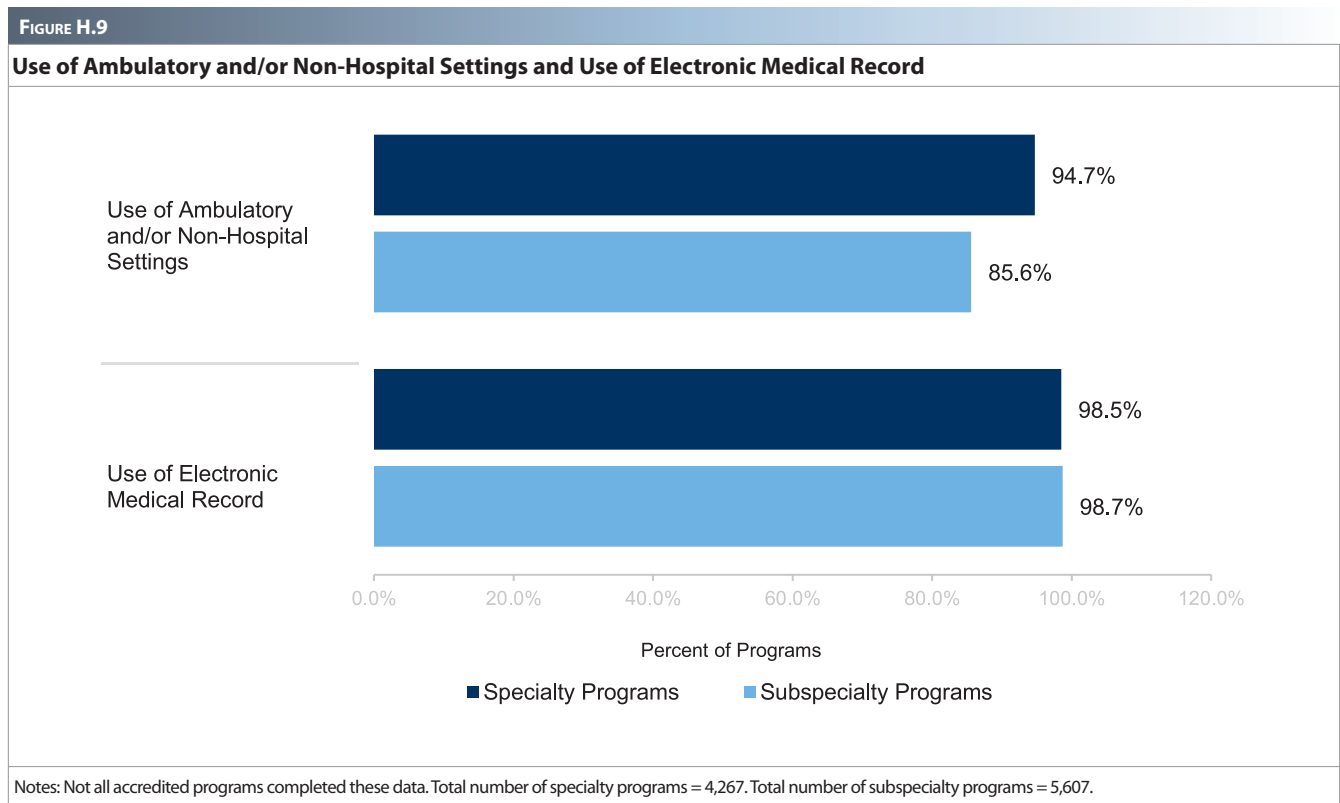


TABLE H.11

Use of Ambulatory and/or Non-Hospital Settings and Use of Electronic Medical Record by Specialty and Subspecialty

Specialty	Total Programs	Use Ambulatory and/or Non-Hospital Setting				Use Electronic Medical Record			
		Yes	%	No	%	Yes	%	No	%
OVERALL	9,874	8,839	89.5%	1,035	10.5%	9,735	98.6%	139	1.4%
TOTAL PIPELINE	3,968	3,750	94.5%	218	5.5%	3,908	98.5%	60	1.5%
Allergy and immunology	77	74	96.1%	3	3.9%	77	100.0%	0	0.0%
Anesthesiology	134	122	91.0%	12	9.0%	129	96.3%	5	3.7%
- Adult cardiothoracic anesthesiology	61	10	16.4%	51	83.6%	61	100.0%	0	0.0%
- Clinical informatics (Anesthesiology)	1	1	100.0%	0	0.0%	1	100.0%	0	0.0%
- Critical care medicine	54	2	3.7%	52	96.3%	53	98.1%	1	1.9%
- Obstetric anesthesiology	27	16	59.3%	11	40.7%	27	100.0%	0	0.0%
- Pain medicine (multidisciplinary)	100	98	98.0%	2	2.0%	99	99.0%	1	1.0%
- Pediatric anesthesiology	56	37	66.1%	19	33.9%	56	100.0%	0	0.0%
Colon and rectal surgery	55	53	96.4%	2	3.6%	55	100.0%	0	0.0%
Dermatology	120	119	99.2%	1	0.8%	120	100.0%	0	0.0%
- Dermatopathology (multidisciplinary)	53	42	79.2%	11	20.8%	53	100.0%	0	0.0%
- Micrographic surgery and dermatologic oncology	69	67	97.1%	2	2.9%	62	89.9%	7	10.1%
Emergency medicine	175	127	72.6%	48	27.4%	171	97.7%	4	2.3%
- Clinical informatics (Emergency medicine)	1	1	100.0%	0	0.0%	1	100.0%	0	0.0%
- Emergency medical services	46	43	93.5%	3	6.5%	46	100.0%	0	0.0%
- Medical toxicology	26	26	100.0%	0	0.0%	26	100.0%	0	0.0%
- Pediatric emergency medicine	22	19	86.4%	3	13.6%	22	100.0%	0	0.0%
- Sports medicine	7	7	100.0%	0	0.0%	7	100.0%	0	0.0%
- Undersea and hyperbaric medicine	7	7	100.0%	0	0.0%	7	100.0%	0	0.0%
Family medicine	494	494	100.0%	0	0.0%	487	98.6%	7	1.4%
- Clinical informatics (Family medicine)	1	1	100.0%	0	0.0%	1	100.0%	0	0.0%
- Geriatric medicine	41	41	100.0%	0	0.0%	41	100.0%	0	0.0%
- Hospice and palliative medicine (multidisciplinary)	113	113	100.0%	0	0.0%	112	99.1%	1	0.9%
- Sports medicine	125	125	100.0%	0	0.0%	121	96.8%	4	3.2%
Internal medicine	420	420	100.0%	0	0.0%	413	98.3%	7	1.7%
- Adult congenital heart disease	5	5	100.0%	0	0.0%	5	100.0%	0	0.0%
- Advanced heart failure and transplant cardiology	68	64	94.1%	4	5.9%	67	98.5%	1	1.5%
- Cardiovascular disease	193	187	96.9%	6	3.1%	189	97.9%	4	2.1%
- Clinical cardiac electrophysiology	104	99	95.2%	5	4.8%	104	100.0%	0	0.0%
- Clinical informatics (Internal medicine)	5	5	100.0%	0	0.0%	5	100.0%	0	0.0%
- Critical care medicine	33	7	21.2%	26	78.8%	33	100.0%	0	0.0%
- Endocrinology, diabetes, and metabolism	135	133	98.5%	2	1.5%	133	98.5%	2	1.5%
- Gastroenterology	166	163	98.2%	3	1.8%	165	99.4%	1	0.6%
- Geriatric medicine	105	105	100.0%	0	0.0%	105	100.0%	0	0.0%
- Hematology	3	3	100.0%	0	0.0%	3	100.0%	0	0.0%
- Hematology and medical oncology	144	143	99.3%	1	0.7%	142	98.6%	2	1.4%
- Infectious disease	148	148	100.0%	0	0.0%	147	99.3%	1	0.7%
- Interventional cardiology	144	136	94.4%	8	5.6%	142	98.6%	2	1.4%
- Nephrology	146	146	100.0%	0	0.0%	145	99.3%	1	0.7%
- Medical oncology	9	9	100.0%	0	0.0%	9	100.0%	0	0.0%
- Pulmonary disease	18	17	94.4%	1	5.6%	18	100.0%	0	0.0%
- Pulmonary disease and critical care medicine	147	146	99.3%	1	0.7%	146	99.3%	1	0.7%
- Rheumatology	112	110	98.2%	2	1.8%	112	100.0%	0	0.0%
- Sleep medicine (multidisciplinary)	83	79	95.2%	4	4.8%	83	100.0%	0	0.0%
- Transplant hepatology	46	45	97.8%	1	2.2%	46	100.0%	0	0.0%
Medical genetics and genomics	45	42	93.3%	3	6.7%	44	97.8%	1	2.2%
- Medical biochemical genetics	12	11	91.7%	1	8.3%	12	100.0%	0	0.0%
- Molecular genetic pathology (multidisciplinary)	39	21	53.8%	18	46.2%	39	100.0%	0	0.0%
Neurological surgery	108	105	97.2%	3	2.8%	107	99.1%	1	0.9%
- Endovascular surgical neuroradiology	2	2	100.0%	0	0.0%	2	100.0%	0	0.0%

TABLE H.11 Continued

Use of Ambulatory and/or Non-Hospital Settings and Use of Electronic Medical Record by Specialty and Subspecialty

Specialty	Total Programs	Use Ambulatory and/or Non-Hospital Setting				Use Electronic Medical Record			
		Yes	%	No	%	Yes	%	No	%
Neurology	137	136	99.3%	1	0.7%	136	99.3%	1	0.7%
- Child neurology	73	71	97.3%	2	2.7%	71	97.3%	2	2.7%
- Clinical neurophysiology	96	93	96.9%	3	3.1%	96	100.0%	0	0.0%
- Epilepsy	38	38	100.0%	0	0.0%	38	100.0%	0	0.0%
- Endovascular surgical neuroradiology	1	1	100.0%	0	0.0%	1	100.0%	0	0.0%
- Neurodevelopmental disabilities	8	8	100.0%	0	0.0%	8	100.0%	0	0.0%
- Neuromuscular medicine	45	42	93.3%	3	6.7%	44	97.8%	1	2.2%
- Vascular neurology	87	83	95.4%	4	4.6%	87	100.0%	0	0.0%
Nuclear medicine	43	24	55.8%	19	44.2%	42	97.7%	1	2.3%
Obstetrics and gynecology	249	249	100.0%	0	0.0%	245	98.4%	4	1.6%
- Female pelvic medicine and reconstructive surgery	48	48	100.0%	0	0.0%	48	100.0%	0	0.0%
Ophthalmology	116	112	96.6%	4	3.4%	113	97.4%	3	2.6%
- Ophthalmic plastic and reconstructive surgery	5	5	100.0%	0	0.0%	5	100.0%	0	0.0%
Orthopaedic surgery	161	156	96.9%	5	3.1%	158	98.1%	3	1.9%
- Adult reconstructive orthopaedics	23	21	91.3%	2	8.7%	22	95.7%	1	4.3%
- Foot and ankle orthopaedics	6	6	100.0%	0	0.0%	6	100.0%	0	0.0%
- Hand surgery	67	66	98.5%	1	1.5%	67	100.0%	0	0.0%
- Musculoskeletal oncology	11	8	72.7%	3	27.3%	11	100.0%	0	0.0%
- Orthopaedic sports medicine	94	92	97.9%	2	2.1%	92	97.9%	2	2.1%
- Orthopaedic surgery of the spine	17	16	94.1%	1	5.9%	17	100.0%	0	0.0%
- Orthopaedic trauma	9	9	100.0%	0	0.0%	9	100.0%	0	0.0%
- Pediatric orthopaedics	25	18	72.0%	7	28.0%	24	96.0%	1	4.0%
Osteopathic neuromusculoskeletal medicine	1	1	100.0%	0	0.0%	1	100.0%	0	0.0%
Otolaryngology	106	105	99.1%	1	0.9%	106	100.0%	0	0.0%
- Neurotology	20	18	90.0%	2	10.0%	20	100.0%	0	0.0%
- Pediatric otolaryngology	22	22	100.0%	0	0.0%	22	100.0%	0	0.0%
Pathology-anatomic and clinical	142	101	71.1%	41	28.9%	141	99.3%	1	0.7%
- Blood banking/transfusion medicine	48	38	79.2%	10	20.8%	47	97.9%	1	2.1%
- Clinical informatics (Pathology)	2	2	100.0%	0	0.0%	2	100.0%	0	0.0%
- Chemical pathology	3	2	66.7%	1	33.3%	3	100.0%	0	0.0%
- Cytopathology	91	49	53.8%	42	46.2%	90	98.9%	1	1.1%
- Forensic pathology	39	20	51.3%	19	48.7%	28	71.8%	11	28.2%
- Hematology	85	34	40.0%	51	60.0%	85	100.0%	0	0.0%
- Medical microbiology	14	7	50.0%	7	50.0%	14	100.0%	0	0.0%
- Neuropathology	33	12	36.4%	21	63.6%	33	100.0%	0	0.0%
- Pediatric pathology	26	10	38.5%	16	61.5%	26	100.0%	0	0.0%
- Selective pathology	79	22	27.8%	57	72.2%	79	100.0%	0	0.0%
Pediatrics	201	200	99.5%	1	0.5%	195	97.0%	6	3.0%
- Adolescent medicine	28	28	100.0%	0	0.0%	28	100.0%	0	0.0%
- Child abuse pediatrics	26	26	100.0%	0	0.0%	25	96.2%	1	3.8%
- Clinical informatics (Pediatrics)	3	3	100.0%	0	0.0%	3	100.0%	0	0.0%
- Developmental-behavioral pediatrics	38	37	97.4%	1	2.6%	37	97.4%	1	2.6%
- Neonatal-perinatal medicine	98	93	94.9%	5	5.1%	97	99.0%	1	1.0%
- Pediatric cardiology	59	55	93.2%	4	6.8%	59	100.0%	0	0.0%
- Pediatric critical care medicine	67	7	10.4%	60	89.6%	66	98.5%	1	1.5%
- Pediatric emergency medicine	51	38	74.5%	13	25.5%	51	100.0%	0	0.0%
- Pediatric endocrinology	69	68	98.6%	1	1.4%	69	100.0%	0	0.0%
- Pediatric gastroenterology	59	53	89.8%	6	10.2%	59	100.0%	0	0.0%
- Pediatric hematology/oncology	70	68	97.1%	2	2.9%	69	98.6%	1	1.4%
- Pediatric infectious diseases	63	61	96.8%	2	3.2%	61	96.8%	2	3.2%
- Pediatric nephrology	45	44	97.8%	1	2.2%	45	100.0%	0	0.0%
- Pediatric pulmonology	54	54	100.0%	0	0.0%	54	100.0%	0	0.0%

TABLE H.11 *Continued***Use of Ambulatory and/or Non-Hospital Settings and Use of Electronic Medical Record by Specialty and Subspecialty**

Specialty	Total Programs	Use Ambulatory and/or Non-Hospital Setting				Use Electronic Medical Record			
		Yes	%	No	%	Yes	%	No	%
- Pediatric rheumatology	36	34	94.4%	2	5.6%	36	100.0%	0	0.0%
- Pediatric sports medicine	16	16	100.0%	0	0.0%	15	93.8%	1	6.3%
- Pediatric transplant hepatology	8	6	75.0%	2	25.0%	8	100.0%	0	0.0%
Physical medicine and rehabilitation	81	81	100.0%	0	0.0%	80	98.8%	1	1.2%
- Brain injury medicine	7	7	100.0%	0	0.0%	7	100.0%	0	0.0%
- Neuromuscular medicine	1	1	100.0%	0	0.0%	1	100.0%	0	0.0%
- Spinal cord injury medicine	19	16	84.2%	3	15.8%	19	100.0%	0	0.0%
- Pediatric rehabilitation	19	19	100.0%	0	0.0%	19	100.0%	0	0.0%
- Sports medicine	17	17	100.0%	0	0.0%	16	94.1%	1	5.9%
Plastic surgery	68	66	97.1%	2	2.9%	68	100.0%	0	0.0%
Plastic Surgery - Integrated	67	66	98.5%	1	1.5%	67	100.0%	0	0.0%
- Craniofacial surgery	10	8	80.0%	2	20.0%	10	100.0%	0	0.0%
- Hand surgery	16	15	93.8%	1	6.3%	16	100.0%	0	0.0%
Preventive medicine	73	73	100.0%	0	0.0%	69	94.5%	4	5.5%
- Medical toxicology	1	1	100.0%	0	0.0%	1	100.0%	0	0.0%
- Undersea and hyperbaric medicine	1	1	100.0%	0	0.0%	1	100.0%	0	0.0%
Psychiatry	198	196	99.0%	2	1.0%	193	97.5%	5	2.5%
- Addiction psychiatry	43	40	93.0%	3	7.0%	42	97.7%	1	2.3%
- Child and adolescent psychiatry	125	125	100.0%	0	0.0%	121	96.8%	4	3.2%
- Forensic psychiatry	41	41	100.0%	0	0.0%	33	80.5%	8	19.5%
- Geriatric psychiatry	56	56	100.0%	0	0.0%	56	100.0%	0	0.0%
- Psychosomatic medicine	56	56	100.0%	0	0.0%	54	96.4%	2	3.6%
Radiation oncology	90	81	90.0%	9	10.0%	90	100.0%	0	0.0%
Radiology-diagnostic	187	145	77.5%	42	22.5%	185	98.9%	2	1.1%
- Abdominal radiology	12	7	58.3%	5	41.7%	12	100.0%	0	0.0%
- Endovascular surgical neuroradiology	3	2	66.7%	1	33.3%	3	100.0%	0	0.0%
- Musculoskeletal radiology	15	12	80.0%	3	20.0%	15	100.0%	0	0.0%
- Neuroradiology	86	46	53.5%	40	46.5%	86	100.0%	0	0.0%
- Nuclear radiology	18	8	44.4%	10	55.6%	18	100.0%	0	0.0%
- Pediatric radiology	46	22	47.8%	24	52.2%	46	100.0%	0	0.0%
- Vascular and interventional radiology	94	74	78.7%	20	21.3%	94	100.0%	0	0.0%
Interventional radiology - integrated	0	0	N/A	0	N/A	0	N/A	0	N/A
Surgery	261	247	94.6%	14	5.4%	259	99.2%	2	0.8%
- Complex general surgical oncology	22	21	95.5%	1	4.5%	22	100.0%	0	0.0%
- Hand surgery	1	1	100.0%	0	0.0%	1	100.0%	0	0.0%
- Pediatric surgery	47	43	91.5%	4	8.5%	47	100.0%	0	0.0%
- Surgical critical care	113	27	23.9%	86	76.1%	112	99.1%	1	0.9%
- Vascular surgery	106	98	92.5%	8	7.5%	105	99.1%	1	0.9%
Vascular surgery - integrated	51	50	98.0%	1	2.0%	51	100.0%	0	0.0%
Thoracic surgery	67	65	97.0%	2	3.0%	67	100.0%	0	0.0%
- Congenital cardiac surgery	12	7	58.3%	5	41.7%	12	100.0%	0	0.0%
Thoracic surgery - integrated	27	25	92.6%	2	7.4%	27	100.0%	0	0.0%
Urology	134	128	95.5%	6	4.5%	133	99.3%	1	0.7%
- Female pelvic medicine and reconstructive surgery	10	10	100.0%	0	0.0%	10	100.0%	0	0.0%
- Pediatric urology	28	25	89.3%	3	10.7%	28	100.0%	0	0.0%
Transitional year	100	99	99.0%	1	1.0%	96	96.0%	4	4.0%
Internal medicine/pediatrics	79	79	100.0%	0	0.0%	78	98.7%	1	1.3%

Notes: Pipeline specialties are highlighted. Not all accredited programs completed these data. Total number of specialty programs = 4,267. Total number of subspecialty programs = 5,607.

TABLE H.12									
Use of Ambulatory and/or Non-Hospital Settings by Type of Setting (Most Common Selections) by Pipeline Specialty									
Pipeline Specialty	Total Programs Using Ambulatory and/or Non-Hospital Settings	Type of Setting							
		Ambulatory / Outpatient Settings		Hospital Based Continuity Clinic		Faculty Ambulatory Practice		Private Physician's Offices	
		#	%	#	%	#	%	#	%
TOTAL PIPELINE	3,750	2,508	66.9%	2,315	61.7%	1,989	53.0%	1,819	48.5%
Anesthesiology	122	67	54.9%	27	22.1%	33	27.0%	14	11.5%
Dermatology	119	79	66.4%	84	70.6%	79	66.4%	52	43.7%
Emergency medicine	127	43	33.9%	35	27.6%	29	22.8%	27	21.3%
Family medicine	494	431	87.2%	298	60.3%	209	42.3%	421	85.2%
Internal medicine	420	292	69.5%	343	81.7%	244	58.1%	265	63.1%
Medical genetics and genomics	42	30	71.4%	26	61.9%	19	45.2%	3	7.1%
Neurological surgery	105	53	50.5%	55	52.4%	56	53.3%	24	22.9%
Neurology	136	84	61.8%	114	83.8%	90	66.2%	29	21.3%
Nuclear medicine	24	17	70.8%	11	45.8%	8	33.3%	3	12.5%
Obstetrics and gynecology	249	144	57.8%	217	87.1%	170	68.3%	140	56.2%
Ophthalmology	112	65	58.0%	76	67.9%	74	66.1%	52	46.4%
Orthopaedic surgery	156	102	65.4%	79	50.6%	88	56.4%	97	62.2%
Osteopathic neuromusculoskeletal medicine	1	0	0.0%	0	0.0%	1	100.0%	0	0.0%
Otolaryngology	105	70	66.7%	54	51.4%	74	70.5%	39	37.1%
Pathology-anatomic and clinical	101	22	21.8%	15	14.9%	9	8.9%	14	13.9%
Pediatrics	200	170	85.0%	160	80.0%	120	60.0%	160	80.0%
Physical medicine and rehabilitation	81	64	79.0%	51	63.0%	60	74.1%	40	49.4%
Plastic surgery	66	51	77.3%	42	63.6%	43	65.2%	49	74.2%
Plastic Surgery - Integrated	66	45	68.2%	38	57.6%	42	63.6%	43	65.2%
Preventive medicine	73	60	82.2%	45	61.6%	45	61.6%	29	39.7%
Psychiatry	196	144	73.5%	145	74.0%	72	36.7%	27	13.8%
Radiation oncology	81	52	64.2%	38	46.9%	25	30.9%	6	7.4%
Radiology-diagnostic	145	104	71.7%	38	26.2%	49	33.8%	20	13.8%
Interventional radiology - integrated	0	0	N/A	0	N/A	0	N/A	0	N/A
Surgery	247	142	57.5%	148	59.9%	154	62.3%	144	58.3%
Vascular surgery - integrated	50	25	50.0%	21	42.0%	35	70.0%	16	32.0%
Thoracic surgery - integrated	25	11	44.0%	13	52.0%	15	60.0%	5	20.0%
Urology	128	74	57.8%	80	62.5%	92	71.9%	47	36.7%
Internal medicine/pediatrics	79	67	84.8%	62	78.5%	54	68.4%	53	67.1%

Notes: Excluding programs responding "No" to using ambulatory and/or non-hospital settings in the education of residents. Programs that responded "Yes" to using ambulatory and/or non-hospital settings in the education of residents can select more than one type.

TABLE H.13

Use of Ambulatory and/or Non-Hospital Settings by Type of Setting (Least Common Selections) by Pipeline Specialty

Pipeline Specialty	Total Programs Using Ambulatory and/or Non-Hospital Settings	Type of Setting							
		Ambulatory Surgery Centers		VA Ambulatory Services		Community or Federal Public Health Centers		Other	
		#	%	#	%	#	%	#	%
TOTAL PIPELINE	3,750	1,277	34.1%	1,241	33.1%	1,034	27.6%	402	10.7%
Anesthesiology	122	87	71.3%	20	16.4%	4	3.3%	9	7.4%
Dermatology	119	28	23.5%	74	62.2%	29	24.4%	5	4.2%
Emergency medicine	127	17	13.4%	7	5.5%	8	6.3%	72	56.7%
Family medicine	494	205	41.5%	88	17.8%	284	57.5%	66	13.4%
Internal medicine	420	20	4.8%	140	33.3%	142	33.8%	26	6.2%
Medical genetics and genomics	42	2	4.8%	3	7.1%	6	14.3%	1	2.4%
Neurological surgery	105	23	21.9%	35	33.3%	2	1.9%	4	3.8%
Neurology	136	5	3.7%	67	49.3%	15	11.0%	3	2.2%
Nuclear medicine	24	1	4.2%	8	33.3%	4	16.7%	1	4.2%
Obstetrics and gynecology	249	134	53.8%	29	11.6%	67	26.9%	7	2.8%
Ophthalmology	112	79	70.5%	75	67.0%	20	17.9%	5	4.5%
Orthopaedic surgery	156	131	84.0%	61	39.1%	9	5.8%	10	6.4%
Osteopathic neuromusculoskeletal medicine	1	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Otolaryngology	105	72	68.6%	63	60.0%	12	11.4%	3	2.9%
Pathology-anatomic and clinical	101	15	14.9%	20	19.8%	11	10.9%	68	67.3%
Pediatrics	200	23	11.5%	1	0.5%	113	56.5%	28	14.0%
Physical medicine and rehabilitation	81	38	46.9%	56	69.1%	12	14.8%	2	2.5%
Plastic surgery	66	54	81.8%	30	45.5%	8	12.1%	0	0.0%
Plastic Surgery - Integrated	66	56	84.8%	38	57.6%	9	13.6%	0	0.0%
Preventive medicine	73	6	8.2%	36	49.3%	49	67.1%	23	31.5%
Psychiatry	196	4	2.0%	117	59.7%	133	67.9%	26	13.3%
Radiation oncology	81	5	6.2%	20	24.7%	6	7.4%	6	7.4%
Radiology-diagnostic	145	25	17.2%	33	22.8%	9	6.2%	24	16.6%
Interventional radiology - integrated	0	0	N/A	0	N/A	0	N/A	0	N/A
Surgery	247	139	56.3%	78	31.6%	21	8.5%	5	2.0%
Vascular surgery - integrated	50	21	42.0%	24	48.0%	3	6.0%	0	0.0%
Thoracic surgery - integrated	25	9	36.0%	10	40.0%	1	4.0%	0	0.0%
Urology	128	72	56.3%	65	50.8%	16	12.5%	2	1.6%
Internal medicine/pediatrics	79	6	7.6%	43	54.4%	41	51.9%	6	7.6%

Notes: Excluding programs responding "No" to using ambulatory and/or non-hospital settings in the education of residents. Programs that responded "Yes" to using ambulatory and/or non-hospital settings in the education of residents can select more than one type.

Appendix A

Pipeline Specialties

Anesthesiology
Dermatology
Emergency medicine
Family medicine
Internal medicine
Medical genetics and genomics
Neurological surgery
Neurology
Nuclear medicine
Obstetrics and gynecology
Ophthalmology
Orthopaedic surgery
Osteopathic neuromusculoskeletal medicine
Otolaryngology
Pathology-anatomic and clinical
Pediatrics
Physical medicine and rehabilitation
Plastic surgery
Plastic surgery - integrated
Preventive medicine
Psychiatry
Radiation oncology
Radiology-diagnostic
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
- Clinical informatics (Anesthesiology)
- Critical care medicine
- Obstetric anesthesiology
- Pain medicine (multidisciplinary)
- Pediatric anesthesiology

Emergency medicine

- Clinical informatics (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)

Nuclear medicine

Pathology-anatomic and clinical

- Blood banking/transfusion medicine
- Clinical informatics (Pathology)
- Chemical pathology
- Cytopathology
- Forensic pathology
- Hematology
- Medical microbiology
- Neuropathology
- Pediatric pathology
- Selective pathology

Preventive medicine

- Medical toxicology
- Undersea and hyperbaric medicine

Radiation oncology

Radiology-diagnostic

- Abdominal radiology
- Endovascular surgical neuroradiology
- Musculoskeletal radiology
- Neuroradiology
- Nuclear radiology
- Pediatric radiology
- Vascular and interventional radiology

Interventional radiology - integrated

Transitional year

Medical Specialties and Subspecialties

Allergy and immunology

Dermatology

- Dermatopathology (multidisciplinary)

- Micrographic surgery and dermatologic oncology
- Family medicine
 - Clinical informatics (Family medicine)
 - 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 (Internal medicine)
 - Critical care medicine
 - Endocrinology, diabetes, and metabolism
 - Gastroenterology
 - Geriatric medicine
 - Hematology
 - 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
 - Child neurology
 - Clinical neurophysiology
 - Epilepsy
 - Endovascular surgical neuroradiology
 - Neurodevelopmental disabilities
 - Neuromuscular medicine
 - Vascular neurology
- Osteopathic neuromusculoskeletal medicine
- Pediatrics
 - Adolescent medicine
 - Child abuse pediatrics
 - Clinical informatics (Pediatrics)
 - 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
 - Pediatric sports medicine
 - Pediatric transplant hepatology
- Physical medicine and rehabilitation
 - Brain injury medicine

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

Psychiatry

- Addiction psychiatry
- Child and adolescent psychiatry
- Forensic psychiatry
- Geriatric psychiatry
- Psychosomatic medicine

Internal medicine/pediatrics

Surgical Specialties and Subspecialties

Colon and rectal surgery

Neurological surgery

- Endovascular surgical neuroradiology

Obstetrics and gynecology

- Female pelvic medicine and reconstructive surgery

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

- 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

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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