

Appendix 1: Osteopathic Graduate Medical Education, 2015

Bulmaro Martinez, MPH
Maura Biszewski, BA

From the Department of Education at the American Osteopathic Association (AOA) in Chicago, Illinois.

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Address correspondence to Bulmaro Martinez, MPH, Division of Educational Resource Services, AOA Department of Education, 142 E Ontario St, Chicago, IL 60611-2864.

E-mail: bmartinez@osteopathic.org

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The American Osteopathic Association (AOA) Department of Education maintains historical annual data on approved, funded, and filled AOA positions, as reported by the National Matching Services (an AOA vendor) and the Trainee Information, Verification and Registration Audit (TIVRA) survey tool. The current appendix includes an update for the 2013-2014 academic year. The AOA does not finalize postdoctoral training data until May of each calendar year. Trends and information on training slots from the AOA Match are also summarized.

Approved positions are the number of training slots awarded to a program by the Program and Trainee Review Council upon initial accreditation or through a request for an increase or decrease submitted by an already established program. *Filled positions* are the number of those approved training slots that are actually used to accommodate a trainee enrolled in the program. Growth in programs and positions is primarily a result of new programs at new hospitals and the expansion of other specialties at institutions with already established AOA residencies.

The *Figure* depicts trends of osteopathic physician (ie, DO) enrollment in osteopathic and allopathic graduate medical education programs between academic

years 2004-2005 and 2013-2014. The number of DOs in Accreditation Council for Graduate Medical Education postdoctoral programs, total DOs in AOA internship and residency programs, and osteopathic medical school graduates all showed steady growth between 2009-2010 and 2013-2014.

Table 1 illustrates the distribution of AOA residency and internship programs and trainees filling available positions by state. Compared with the previous year, the following 9 states increased their number of trainees by more than 25%: Alaska, Arkansas, Colorado, Connecticut, Iowa, Massachusetts, North Carolina, Utah, and Washington. In addition, the following 5 states have the greatest number of programs, positions, and trainees: Florida, Michigan, New York, Ohio, and Pennsylvania. Twenty states experienced a growth in the number of programs, with Idaho sponsoring its first AOA residency program in 2014.

Table 2 shows the number of AOA-approved residency programs and approved and filled positions by academic year and specialty. Forty-six percent of residents are in the primary care specialties of family medicine (26%) and internal medicine (20%) for academic year 2013-2014.

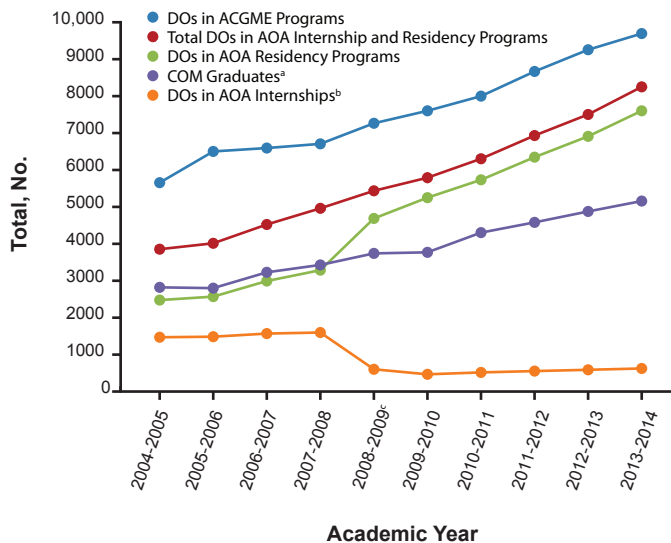


Figure.

Trends of osteopathic physician (ie, DO) enrollment in osteopathic and allopathic graduate medical education programs. Data may change and should be considered incomplete until finalized in the 2016 osteopathic medical education issue of *The Journal of the American Osteopathic Association (JAOA)*. Data for academic years 2004-2005 through 2012-2013 were previously published in the *JAOA*.
^aTotal college of osteopathic medicine (COM) graduates do not include previous years' graduates.
^bTotal DOs in American Osteopathic Association (AOA) internships include trainees who matched to osteopathic internship positions during both the Match and post-Match scramble.
[†]Restructuring of the AOA internship, effective July 1, 2008. *Abbreviation:* ACGME, Accreditation Council for Graduate Medical Education.

Table 1.
No. of AOA-Approved Residency and Internship Programs and Trainees
Filling Available Positions as Reported by State, 2013-2014 Academic Year^a

State	Internship Programs			Residency Programs ^b			Total		
	Programs	Positions	Trainees	Programs	Positions	Trainees	Programs	Positions	Trainees
Alabama	0	0	0	2	15	2	2	15	2
Alaska	0	0	0	1	14	15	1	14	15
Arizona	0	0	0	13	135	72	13	135	72
Arkansas	0	0	0	2	15	7	2	15	7
California	5	45	32	32	436	235	37	481	267
Colorado	1	8	0	11	150	33	12	158	33
Connecticut	2	18	7	3	37	15	5	55	22
Delaware	1	15	11	1	24	12	2	39	23
Florida	9	142	90	92	1076	747	101	1218	837
Georgia	1	4	1	6	62	36	7	66	37
Idaho	0	0	0	1	12	0	1	12	0
Illinois	2	20	19	41	458	377	43	478	396
Indiana	0	0	0	3	27	23	3	27	23
Iowa	0	0	0	6	73	45	6	73	45
Kansas	0	0	0	1	20	19	1	20	19
Kentucky	2	14	7	9	99	39	11	113	46
Maine	0	0	0	6	75	46	6	75	46
Massachusetts	1	4	4	4	32	15	5	36	19
Michigan	18	176	71	209	2272	1580	227	2448	1651
Minnesota	0	0	0	1	8	7	1	8	7
Mississippi	0	0	0	5	66	24	5	66	24
Missouri	3	15	4	24	188	146	27	203	150

(continued)

Table 3 depicts the net growth from 2012-2013 to 2013-2014 academic years of the AOA-approved residency programs and approved and filled positions by specialty. Family medicine and internal medicine have experienced the greatest amount of growth since academic year 2012-2013. Family medicine grew by 294 positions and internal medicine grew by 256 positions. Psychiatry and general surgery also had considerable growth in

terms of the number of positions, with 52 positions and 44 positions, respectively. (doi:10.7556/jaoa.2015.052)

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Editor's Note: The JAOA theme issue on osteopathic medical education includes annual updates from the American Osteopathic Association's departments of accreditation and education. Last year's article on osteopathic graduate medical education can be accessed online at <http://www.jaoa.org/content/114/4/299.full>.

Table 1 (continued).
No. of AOA-Approved Residency and Internship Programs and Trainees
Filling Available Positions as Reported by State, 2013-2014 Academic Year^a

State	Internship Programs			Residency Programs ^b			Total		
	Programs	Positions	Trainees	Programs	Positions	Trainees	Programs	Positions	Trainees
Montana	0	0	0	2	22	5	2	22	5
Nevada	1	10	8	8	104	71	9	114	79
New Jersey	7	97	60	73	891	559	80	988	619
New York	17	225	111	84	1068	677	101	1293	788
North Carolina	2	17	3	8	123	43	10	140	46
Ohio	11	103	35	102	1004	741	113	1107	776
Oklahoma	2	16	10	40	411	288	42	427	298
Oregon	1	12	12	10	107	73	11	119	85
Pennsylvania	26	215	112	118	1531	997	144	1746	1109
Rhode Island	0	0	0	5	54	43	5	54	43
South Carolina	0	0	0	1	14	15	1	14	15
Tennessee	0	0	0	2	28	27	2	28	27
Texas	1	12	6	25	236	147	26	248	153
Utah	0	0	0	1	9	2	1	9	2
Virginia	3	27	11	14	234	175	17	261	186
Washington	0	0	0	9	118	47	9	118	47
West Virginia	5	33	14	19	207	126	24	240	140
Wisconsin	0	0	0	2	59	40	2	59	40
Wyoming	0	0	0	2	21	11	2	21	11
Total	121	1228	628	998	11,535	7582	1119	12,763	8210

^a Data shown represent positions approved by the American Osteopathic Association (AOA) Program and Trainee Review Council and are not necessarily all funded. Data are current as of May 31, 2014. No internship or residency positions are currently approved by the AOA in the District of Columbia or in the following states: Hawaii, Louisiana, Maryland, Nebraska, New Hampshire, New Mexico, North Dakota, South Dakota, and Vermont.

^b Residency data include fellowship programs, positions, and trainees.

Source: *Training Programs by State: Year-End Reports*, Division of Postdoctoral Training, AOA, Chicago, Illinois.

Table 2.
**No. of AOA-Approved Residency Programs and Approved
 and Filled Positions as Reported by Academic Year and Specialty^a**

Specialty	2011-2012			2012-2013			2013-2014		
	Programs	Positions	Residents	Programs	Positions	Residents	Programs	Positions	Residents
Anesthesiology	13	137	111	13	139	117	13	139	118
Anesthesiology and pain management	3	6	2	3	6	2	3	6	2
Pediatric anesthesiology	1	3	0	1	3	0	1	3	0
Dermatology	26	158	106	30	176	114	30	179	125
Mohs micrographic surgery	2	3	1	3	4	1	3	4	3
Diagnostic Radiology	15	170	124	17	199	127	17	195	128
Pediatric radiology	1	3	0	1	3	0	1	3	0
Vascular and interventional radiology	NA	NA	NA	1	3	0	1	3	0
Emergency Medicine	45	1055	900	50	1203	919	50	1215	953
Emergency medical service	2	3	1	2	3	0	2	3	1
Family Medicine	200	2699	1527	215	3040	1731	227	3334	1982
Geriatrics (family medicine)	10	34	5	13	40	8	15	46	7
Internal Medicine	105	1775	1103	114	1967	1278	121	2223	1494
Allergy and immunology ^b	2	8	0	NA	NA	NA	NA	NA	NA
Cardiac electrophysiology	2	5	0	2	5	0	2	5	0
Cardiology	24	162	94	26	174	110	27	178	129
Cardiology (interventional)	13	30	11	13	30	9	13	29	11
Critical care medicine	6	15	3	6	23	9	7	27	6
Endocrinology	4	10	3	5	12	5	5	13	6
Gastroenterology	15	75	45	17	86	51	18	85	56
Geriatrics (internal medicine)	6	21	2	6	21	1	11	36	1
Hematology and oncology	7	24	10	7	24	13	7	24	14
Infectious diseases	3	12	2	4	16	3	4	16	4
Nephrology	7	20	10	8	22	13	8	22	11
Oncology	2	6	1	2	6	1	2	6	2
Pulmonary (critical care)	8	34	22	10	44	26	11	50	30
Pulmonary medicine	4	11	6	3	7	2	3	7	0
Rheumatology	5	16	10	5	16	8	4	12	9
Transplant hepatology ^c	NA	NA	NA	NA	NA	NA	1	2	0
Neurology	8	90	55	9	96	64	9	96	64
NMM/OMM	8	41	19	7	38	18	8	43	18
NMM plus 1	24	76	22	23	75	27	26	83	25

(continued)

Table 2 (continued).
**No. of AOA-Approved Residency Programs and Approved
 and Filled Positions as Reported by Academic Year and Specialty^a**

Specialty	2011-2012			2012-2013			2013-2014		
	Programs	Positions	Residents	Programs	Positions	Residents	Programs	Positions	Residents
Obstetrics and Gynecology	31	391	297	30	375	296	33	409	300
Female pelvic medicine	1	3	0	1	3	0	1	3	0
Gynecological oncology	3	9	8	3	9	8	3	9	9
Maternal and fetal medicine	5	16	2	5	16	8	5	17	12
Reproductive endocrinology	3	9	1	3	9	1	3	9	1
Ophthalmology	15	73	47	15	71	55	15	71	56
Orthopedic Surgery	38	564	443	40	596	464	39	590	492
Hand surgery	1	3	1	1	3	1	1	3	0
Musculoskeletal oncology	1	1	0	1	1	0	1	1	0
Orthopedic spine surgery ^d	0	0	0	NA	NA	NA	NA	NA	NA
Otolaryngology and Facial Plastic Surgery	19	139	122	19	139	121	19	139	121
Otolaryngic allergy	3	9	3	3	9	1	3	9	2
Pathology^d	0	0	0	NA	NA	NA	NA	NA	NA
Forensic pathology	1	1	0	1	1	0	1	1	0
Pediatrics	19	268	175	19	283	170	20	292	187
Pediatric allergy and immunology ^b	1	2	1	NA	NA	NA	NA	NA	NA
Physical Medicine and Rehabilitation	5	61	24	5	61	30	6	67	37
Preventive Medicine and Public Health	1	3	1	1	3	2	1	3	2
Preventive Medicine (Occupational and Environmental)^d	1	3	0	NA	NA	NA	NA	NA	NA
Proctology	2	5	1	2	5	2	2	5	2
Psychiatry	14	175	78	16	242	94	20	294	133
Child and adolescent psychiatry ^e	3	12	4	4	18	6	4	18	8
Forensic psychiatry	1	4	0	1	4	0	1	4	0
Geriatric psychiatry	2	6	1	2	6	0	2	6	1
Surgery (General)	46	671	507	51	765	554	53	809	586
Cardiothoracic surgery	1	9	0	1	9	0	1	9	0
Critical care surgery	3	7	1	3	7	1	5	13	2
General vascular surgery	8	19	5	8	19	5	8	18	12
Neurologic surgery	11	104	92	11	114	95	10	108	97
Plastic and reconstructive surgery	6	23	17	7	26	15	8	29	14
Urologic surgery	10	106	84	10	108	95	10	107	92

(continued)

Table 2 (continued).
**No. of AOA-Approved Residency Programs and Approved
 and Filled Positions as Reported by Academic Year and Specialty^a**

Specialty	2011-2012			2012-2013			2013-2014		
	Programs	Positions	Residents	Programs	Positions	Residents	Programs	Positions	Residents
Combined									
Emergency medicine and family medicine	4	53	39	4	53	45	3	52	43
Emergency medicine and internal medicine	11	117	80	11	122	74	11	122	76
Integrated family medicine and NMM	8	64	31	8	64	38	9	72	40
Integrated internal medicine and NMM	1	4	0	1	4	1	1	4	2
Pediatrics and internal medicine	1	10	8	1	10	7	1	10	7
Conjoint^f									
Addiction medicine	1	6	0	1	6	6	1	6	3
Adult and pediatric allergy and immunology ^b	NA	NA	NA	2	10	5	2	10	8
Correctional medicine	NA	NA	NA	1	4	0	2	6	0
Dermatopathology	1	2	1	1	2	0	2	4	2
Hospice and palliative care	7	15	2	7	17	2	12	28	6
Pain medicine	NA	NA	NA	1	5	0	1	5	4
Pediatric emergency medicine	1	6	0	2	12	0	2	12	0
Sleep medicine	2	8	0	2	8	4	2	8	1
Sports medicine	19	56	18	20	57	19	23	64	25
Undersea and hyperbaric medicine	1	2	1	1	2	1	1	2	0
Total	883	9741	6290	942	10,759	6883	998	11,535	7582

^a Approved positions are not necessarily funded. Data include fellowship programs, positions, and residents.

^b In the 2012-2013 academic year, *allergy and immunology* and *pediatric allergy and immunology* were combined into *adult and pediatric allergy and immunology*.

^c New specialties in the 2013-2014 academic year: *transplant hepatology*.

^d Specialties not available in the 2013-2014 academic year: *orthopedic spine surgery*, *pathology*, and *preventive medicine (occupational and environmental)*.

^e Previously *child psychiatry*.

^f *Addiction medicine*, *adult and pediatric allergy and immunology*, *correctional medicine*, *dermatopathology*, *hospice and palliative care*, *pain medicine*, *pediatric emergency medicine*, *sleep medicine*, *sports medicine*, and *undersea and hyperbaric medicine* are fellowships governed by Conjoint Standards by 2 or more specialties.

Abbreviations: AOA, American Osteopathic Association; NA, not applicable; NMM, neuromusculoskeletal medicine; OMM, osteopathic manipulative medicine.

Sources: AOA Intern/Resident Contracts received by the division of postdoctoral training for the academic years shown (taken annually on May 31); and the AOA's Trainee Information, Verification and Registration Audit system (TIVRA), academic year 2013-2014. Data for the 2011-2012 and 2012-2013 academic years have been reported previously in *The Journal of the American Osteopathic Association*.

Table 3.
Net Growth From the 2012-2013 to 2013-2014 Academic Years of the AOA-Approved Residency Programs and Approved and Filled Positions as Reported by Specialty

Specialty	No.		
	Programs	Positions	Residents
Anesthesiology	0	0	1
Anesthesiology and pain management	0	0	0
Pediatric anesthesiology	0	0	0
Dermatology	0	3	11
Mohs micrographic surgery	0	0	2
Diagnostic Radiology	0	-4	1
Pediatric radiology	0	0	0
Vascular and interventional radiology	0	0	0
Emergency Medicine	0	12	34
Emergency medical service	0	0	1
Family Medicine	12	294	251
Geriatrics (family medicine)	2	6	-1
Internal Medicine	7	256	216
Cardiac electrophysiology	0	0	0
Cardiology	1	4	19
Cardiology (interventional)	0	-1	2
Critical care medicine	1	4	-3
Endocrinology	0	1	1
Gastroenterology	1	-1	5
Geriatrics (internal medicine)	5	15	0
Hematology and oncology	0	0	1
Infectious diseases	0	0	1
Nephrology	0	0	-2
Oncology	0	0	1
Pulmonary (critical care)	1	6	4
Pulmonary medicine	0	0	-2
Rheumatology	-1	-4	1
Transplant hepatology ^a	NA	NA	NA
Neurology	0	0	0
NMM/OMM	1	5	0
NMM plus 1	3	8	-2
Obstetrics and Gynecology	3	34	4
Female pelvic medicine	0	0	0
Gynecologic oncology	0	0	1
Maternal and fetal medicine	0	1	4
Reproductive endocrinology	0	0	0
Ophthalmology	0	0	1
Orthopedic Surgery^b	-1	-6	28
Hand surgery	0	0	-1
Musculoskeletal oncology	0	0	0
Otolaryngology and Facial Plastic Surgery	0	0	0
Otolaryngic allergy	0	0	1
Pathology^b	0	0	0
Forensic pathology	0	0	0
Pediatrics	1	9	17

(continued)

Table 3 (continued).
Net Growth From the 2012-2013 to 2013-2014 Academic Years of the AOA-Approved Residency Programs and Approved and Filled Positions as Reported by Specialty

Specialty	No.		
	Programs	Positions	Residents
Physical Medicine and Rehabilitation	1	6	7
Preventive Medicine and Public Health^b	0	0	0
Proctology	0	0	0
Psychiatry	4	52	39
Child and adolescent psychiatry	0	0	2
Forensic psychiatry	0	0	0
Geriatric psychiatry	0	0	1
Surgery (General)	2	44	32
Cardiothoracic surgery	0	0	0
Critical care surgery	2	6	1
General vascular surgery	0	-1	7
Neurologic surgery	-1	-6	2
Plastic and reconstructive surgery	1	3	-1
Urologic surgery	0	-1	-3
Combined			
Emergency medicine and family medicine	-1	-1	-2
Emergency medicine and internal medicine	0	0	2
Integrated family medicine and NMM	1	8	2
Integrated internal medicine and NMM	0	0	1
Pediatrics and internal medicine	0	0	0
Conjoint^c			
Addiction medicine	0	0	-3
Adult and pediatric allergy and immunology	1	2	0
Correctional medicine	1	2	2
Dermatopathology	5	11	4
Hospice and palliative care	0	0	4
Pain medicine	NA	NA	NA
Pediatric emergency medicine	0	0	0
Sleep medicine	0	0	-3
Sports medicine	3	7	6
Undersea and hyperbaric medicine	0	0	-1
Total	55	774	696

^a New specialty in the 2013-2014 academic year: *transplant hepatology*.

^b Specialties not available in the 2013-2014 academic year: *orthopedic spine surgery, pathology, and preventive medicine (occupational and environmental)*.

^c *Addiction medicine, adult and pediatric allergy and immunology, correctional medicine, dermatopathology, hospice and palliative care, pain medicine, pediatric emergency medicine, sleep medicine, sports medicine, and undersea and hyperbaric medicine* are fellowships governed by Conjoint Standards by 2 or more specialties.

Abbreviations: AOA, American Osteopathic Association; NA, not applicable; NMM, neuromusculoskeletal medicine; OMM, osteopathic manipulative medicine.

Sources: AOA Intern/Resident Contracts received by the division of postdoctoral training for the academic years shown (taken annually on May 31); and the AOA's Trainee Information, Verification and Registration Audit system (TIVRA), academic year 2013-2014. Data for the 2011-2012 and 2012-2013 academic years have been reported previously in *The Journal of the American Osteopathic Association*.