Appendix 1: Osteopathic Graduate Medical Education 2014

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Submitted January 7, 2014; revision received January 28, 2014; accepted February 18, 2014. The American Osteopathic Association (AOA) Department of Education maintains historical annual data on approved, funded, and filled AOA first-year positions, as reported by the National Matching Services (an AOA vendor) and the Trainee Information, Verification, and Registration Audit (TIVRA) survey tool. This appendix includes an update for the 2012-2013 academic year. The AOA does not finalize postdoctoral training data until May of each year. Trends and information on training slots from the AOA Match are also summarized.

Approved positions are the number of training slots granted to a program by the Program and Trainee Review Council on 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 established AOA residencies.

The *Figure* depicts trends of osteopathic physician (ie, DO) enrollment in osteopathic and allopathic postdoctoral training programs between academic years 2003-2004 and 2012-2013. The number of DOs in Accreditation Council for Graduate Medical Education postdoctoral training programs, total DOs in AOA internship and residency programs, DOs in AOA residency programs, and osteopathic medical school graduates all show steady growth between 2011-2012 and 2012-2013.

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 11 states increased their number of trainees by more than 25%: Alaska, Colorado, Florida, Georgia, Kansas, Kentucky, Mississippi, North Carolina, Oregon, Washington, and Wyoming. In addition, the following 5 states have the greatest number of programs, positions, and trainees: Florida, Michigan, New York, Ohio, and Pennsylvania. Eighteen states experienced a growth in the number of programs. New Jersey demonstrated the greatest program growth, increasing its number of programs from 67 to 79, a growth of 18%.

Table 2 quantifies the number of AOA-approved residency programs and approved and filled positions as reported by academic year and specialty. Forty-three percent of residents in AOAapproved residency programs are in the primary care specialties of family medicine (25%) and internal medicine (18%).

Table 3 illustrates the net growth from the 2011-2012 to 2012-2013 academic years of the AOAapproved residency programs and approved and filled positions by specialty. Family medicine and internal medicine experienced the greatest growth since academic year 2011-2012. Family medicine grew by 341 positions and internal medicine grew by 192 positions. Emergency medicine and general surgery also demonstrated considerable growth in terms of the number of positions, with 148 positions and 94 positions, respectively. (doi:10.7556 /jaoa.2014.057)

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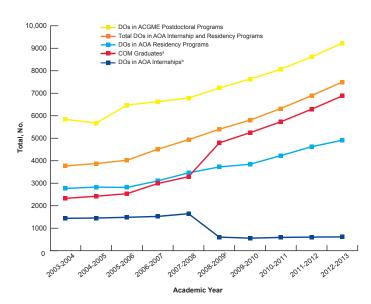


Figure.

Trends of osteopathic physician (ie, DO) enrollment in osteopathic and allopathic postdoctoral training programs. Data may change and should be considered incomplete until finalized in the 2015 osteopathic medical education issue of The Journal of the American Osteopathic Association (JAOA). Data for academic years 2003-2004 through 2011-2012 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. ^cRestructuring 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, 2012-2013 Academic Year^a

	Internship Programs			Residency Programs			Total		
itate	Programs	Positions	Trainees	Programs	Positions	Trainees	Programs	Positions	Trainee
Alabama	0	0	0	1	3	0	1	3	0
Alaska	0	0	0	1	9	9	1	9	9
Arizona	0	0	0	12	124	64	12	124	64
Arkansas	0	0	0	2	15	5	2	15	5
California	6	49	30	30	423	217	36	472	247
Colorado	0	0	0	8	104	20	8	104	20
Connecticut	2	18	6	2	35	3	4	53	9
Delaware	1	15	11	1	24	13	2	39	24
Florida	10	150	92	85	991	627	95	1141	719
Georgia	1	4	2	4	47	28	5	51	30
Illinois	3	30	28	42	452	339	45	482	367
Indiana	0	0	0	3	27	20	3	27	20
lowa	0	0	0	5	70	35	5	70	35
Kansas	0	0	0	1	20	20	1	20	20
Kentucky	2	14	13	8	81	37	10	95	50
Maine	0	0	0	6	75	46	6	75	46
Massachusetts	1	4	4	4	26	11	5	30	15
Michigan	19	181	69	203	2181	1477	222	2362	1546
Minnesota	0	0	0	2	14	9	2	14	9
Mississippi	0	0	0	3	30	23	3	30	23
Missouri	3	15	5	24	188	133	27	203	138
Montana	0	0	0	1	9	0	1	9	0
Nevada	1	10	12	8	90	70	9	100	82
New Jersey	8	102	39	71	851	464	79	953	503
New York	16	215	107	79	1034	641	95	1249	748
North Carolina	2	17	2	5	57	32	7	74	34
Ohio	11	103	37	102	987	685	113	1090	722
Oklahoma	2	16	9	38	394	269	40	410	278
Oregon	1	12	12	9	91	59	10	103	71
Pennsylvania	28	229	112	107	1426	932	135	1655	1044
Rhode Island	0	0	0	4	52	39	4	52	39
South Carolina	0	0	0	1	14	14	1	14	14
Tennessee	0	0	0	3	34	29	3	34	29
Texas	1	12	6	22	192	143	23	204	149
Utah	0	0	0	1	9	1	1	9	1
Virginia	3	27	10	14	229	159	17	256	169
Washington	0	0	0	9	79	26	9	79	26
West Virginia	5	33	9	17	201	133	22	234	142
Wisconsin	0	0	0	2	50	35	2	50	35
Wyoming	0	0	0	2	21	16	2	21	16
Total	126	1256	615	942	10,759	6883	1068	12,015	7498

^a Data shown represent positions approved by the American Osteopathic Association (AOA) Program and Trainee Review Council. Data are current as of May 31, 2013. No internship or residency positions are currently approved by the AOA in the District of Columbia or in the following states: Hawaii, Idaho, Louisiana, Maryland, Nebraska, New Hampshire, New Mexico, North Dakota, South Dakota, and Vermont.

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

	2010-2011			2011-2012			2012-2013		
ecialty	Programs	Positions	Residents	Programs	Positions	Residents	Programs	Positions	Resident
Anesthesiology	12	118	107	13	137	111	13	139	117
Anesthesiology and pain management	2	3	2	3	6	2	3	6	2
Pediatric anesthesiology	1	3	0	1	3	0	1	3	0
Dermatology	23	137	106	26	158	106	30	176	114
Mohs micrographic surgery	1	1	0	2	3	1	3	4	1
Diagnostic Radiology	15	161	129	15	170	124	17	199	127
Pediatric radiology	1	3	0	1	3	0	1	3	0
Vascular and interventional radiology ^a	NA	NA	NA	NA	NA	NA	1	3	0
Emergency Medicine	45	1042	839	45	1055	900	50	1203	919
Emergency medical service	1	1	1	2	3	1	2	3	0
Family Medicine	192	2553	1347	200	2699	1527	215	3040	1731
Geriatrics (family medicine)	10	37	2	10	34	5	13	40	8
Internal Medicine	102	1672	935	105	1775	1103	114	1967	1278
Allergy and immunology ^b	1	4	0	2	8	0	NA	NA	NA
Cardiac electrophysiology	2	5	0	2	5	0	2	5	0
Cardiology	24	156	90	24	162	94	26	174	110
Cardiology (interventional)	12	29	11	13	30	11	13	30	9
Critical care medicine ^c	5	13	8	6	15	3	6	23	9
Endocrinology	3	6	3	4	10	3	5	12	5
Gastroenterology	13	63	39	15	75	45	17	86	51
Geriatrics (internal medicine)	5	15	2	6	21	2	6	21	1
Hematology and oncology	5	14	11	7	24	10	7	24	13
Infectious diseases	2	8	2	3	12	2	4	16	3
Nephrology	7	20	8	7	20	10	8	22	13
Oncology	4	12	0	2	6	1	2	6	1
Pulmonary (critical care)	8	31	17	8	34	22	10	44	26
Pulmonary medicine	4	11	3	4	11	6	3	7	2
Rheumatology	4	12	9	5	16	10	5	16	8
Neurology	7	74	54	8	90	55	9	96	64
NMM/OMM	7	38	17	8	41	19	7	38	18
NMM plus 1	20	63	20	24	76	22	23	75	27
Obstetrics and Gynecology	29	363	295	31	391	297	30	375	296
Female pelvic medicine	0	0	0	1	3	0	1	3	0
Gynecologic oncology	3	9	8	3	9	8	3	9	8
Maternal and fetal medicine	3	10	4	5	16	2	5	16	8
Reproductive endocrinology	4	12	1	3	9	1	3	9	1
Ophthalmology	12	58	46	15	73	47	15	71	55
Orthopedic Surgery	35	520	419	38	564	443	40	596	464
Hand surgery	1	3	0	1	3	1	1	3	1
Musculoskeletal oncology	1	1	0	1	1	0	1	1	0
Orthopedic spine surgery ^d	1	1	0	0	0	0	NA	NA	NA
Otolaryngology and Facial Plastic Surgery	20	143	120	19	139	122	19	139	121
Otolaryngic allergy	3	9	3	3	9	3	3	9	1
Pathologyd	0	0	0	0	0	0	NA	NA	NA
Forensic pathology	1	1	0	1	1	0	1	1	0
Pediatrics	18	250	153	19	268	175	19	283	170
Pediatric allergy and immunology ^b	1	2	2	1	2	1	NA	NA	NA

(continued)

Table 2 (continued).

No. of AOA-Approved Residency Programs and Approved and Filled Positions as Reported by Academic Year and Specialty

	2010-2011			2011-2012			2012-2013		
pecialty	Programs	Positions	Residents	Programs	Positions	Residents	Programs	Positions	Residents
Physical Medicine and Rehabilitation	4	38	23	5	61	24	5	61	30
Preventive Medicine and Public Health	1	3	0	1	3	1	1	3	2
Preventive Medicine (Occupational and Environmenta	1 I) ^d	3	1	1	3	0	NA	NA	NA
Proctology	2	5	2	2	5	1	2	5	2
Psychiatry	13	151	65	14	175	78	16	242	94
Child psychiatry	3	12	3	3	12	4	4	18	6
Forensic psychiatry	0	0	0	1	4	0	1	4	0
Geriatric psychiatry	1	3	1	2	6	1	2	6	0
Surgery (General)	43	620	481	46	671	507	51	765	554
Cardiothoracic surgery	1	9	0	1	9	0	1	9	0
Critical care surgery ^c	3	7	0	3	7	1	3	7	1
General vascular surgery	8	17	6	8	19	5	8	19	5
Neurologic surgery	11	103	83	11	104	92	11	114	95
Plastic and reconstructive surgery	7	24	16	6	23	17	7	26	15
Urologic surgery	10	98	68	10	106	84	10	108	95
Combined									
Emergency medicine and family medicine	4	60	38	4	53	39	4	53	45
Emergency medicine and internal medicine	11	129	82	11	117	80	11	122	74
Integrated family medicine and NMM	8	64	18	8	64	31	8	64	38
Integrated internal medicine and NMM	0	0	0	1	4	0	1	4	1
Pediatrics and internal medicine	1	10	10	1	10	8	1	10	7
Conjoint ^e									
Addiction medicine	0	0	0	1	6	0	1	6	6
Adult and pediatric allergy and immunology ^b	NA	NA	NA	NA	NA	NA	2	10	5
Correctional medicine ^a	NA	NA	NA	NA	NA	NA	1	4	0
Dermatopathology	0	0	0	1	2	1	1	2	0
Hospice and palliative care	5	10	2	7	15	2	7	17	2
Pain medicine ^a	NA	NA	NA	NA	NA	NA	1	5	0
Pediatric emergency medicine	1	6	0	1	6	0	2	12	0
Sleep medicine	1	2	0	2	8	0	2	8	4
Sports medicine	17	47	19	19	56	18	20	57	19
Undersea and hyperbaric medicine	1	2	0	1	2	1	1	2	1
Total	827	9110	5731	883	9741	6290	942	10,759	6883

^a New specialties in the 2012-2013 academic year: vascular and interventional radiology, correctional medicine, and pain medicine.

^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 Starting with the 2011-2012 academic year, the subcategories of critical care medicine and critical care surgery were assigned to 2 different categories: internal medicine and surgery (general), respectively. Data for the 2010-2011 academic year have been adjusted to reflect this change.

^d Specialties not available in the 2012-2013 academic year: orthopedic spine surgery, pathology, and preventive medicine (occupational and environmental).

 Addiction medicine, adult/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 AOA's Trainee Information, Verification, and Registration Audit (TIVRA) system, academic year 2012-2013. Data for the 2010-2011 and 2011-2012 academic years have been reported previously in *The Journal of the American Osteopathic Association*.

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Table 3.

Net Growth From the 2011-2012 to 2012-2013 Academic Years of the AOA-Approved Residency Programs and Approved and Filled Positions as Reported by Specialty

ecialty	Programs	No. Positions	Residen
Anesthesiology	0	2	6
Anesthesiology and	0	0	0
pain management	0	0	0
Pediatric anesthesiology	0	0	0
Dermatology	4	18	8
Mohs micrographic surgery	1	1	0
Diagnostic Radiology	2	29	3
Pediatric radiology	0	0	0
Vascular and interventional radiology ^a	NA	NA	NA
Emergency Medicine	5	148	19
Emergency medical service	0	0	-1
Family Medicine	15	341	204
Geriatrics (family medicine)	3	6	3
Internal Medicine	9	192	175
Cardiac electrophysiology	0	0	0
Cardiology	2	12	16
Cardiology (interventional)	0	0	-2
Critical care medicine	0	8	6
Endocrinology	1	2	2
Gastroenterology	2	11	6
Geriatrics (internal medicine)	0	0	-1
Hematology and oncology	0	0	3
Infectious diseases	1	4	1
Nephrology	1	2	3
Oncology	0	0	0
Pulmonary (critical care)	2	10	4
Pulmonary medicine	-1	-4	-4
Rheumatology	0	0	-2
Neurology	1	6	9
NMM/OMM	-1	-3	-1
NMM plus 1	-1	-1	5
Obstetrics and Gynecology	-1	-16	-1
Female pelvic medicine	0	0	0
Gynecologic oncology	0	0	0
Maternal and fetal medicine	0	0	6
Reproductive endocrinology	0	0	0
Ophthalmology	0	-2	8
Orthopedic Surgery	2	32	21
Hand surgery	0	0	0
Musculoskeletal oncology	0	0	0
Orthopedic spine surgery ^b	NA	NA	NA
Otolaryngology and Facial Plastic Surgery	0	0	-1
Otolaryngic allergy	0	0	-2
Pathology⁵	NA	NA	NA
Forensic pathology	0	0	0
Pediatrics	0	15	-5
Physical Medicine and Rehabilitation	0	0	6

Table 3 (continued).

Net Growth From the 2011-2012 to 2012-2013 Academic Years of the AOA-Approved Residency Programs and **Approved and Filled Positions as Reported by Specialty**

	No.					
ecialty	Programs	Positions	Resident			
Preventive Medicine and Public Health	0	0	1			
Preventive Medicine (Occupational and Environmental) ^b	NA	NA	NA			
Proctology	0	0	1			
Psychiatry	2	67	16			
Child and adolescent psychiatry	1	6	2			
Forensic psychiatry	0	0	0			
Geriatric psychiatry	0	0	-1			
Surgery (General)	5	94	47			
Cardiothoracic surgery	0	0	0			
Critical care surgery	0	0	0			
General vascular surgery	0	0	0			
Neurologic surgery	0	10	3			
Plastic and reconstructive surgery	1	3	-2			
Urologic surgery	0	2	11			
Combined						
Emergency medicine and family medicine	0	0	6			
Emergency medicine and internal medicine	0	5	-6			
Integrated family medicine and NMM	0	0	7			
Integrated internal medicine and NMM	1 0	0	1			
Pediatrics and internal medicine	0	0	-1			
Conjoint Note ^c						
Addiction medicine	0	0	6			
Adult and pediatric allergy and immunology ^a	NA	NA	NA			
Correctional medicine ^a	NA	NA	NA			
Dermatopathology	0	0	-1			
Hospice and palliative care	0	2	0			
Pain medicine ^a	NA	NA	NA			
Pediatric emergency medicine	1	6	0			
Sleep medicine	0	0	4			
Sports medicine	1	1	1			
Undersea and hyperbaric medicine	0	0	0			
Total	59	1018	593			

^a New specialties in the 2012-2013 academic year: vascular and interventional radiology, adult and pediatric allergy and immunology (previously available as allergy and immunology and pediatric allergy and immunology), correctional medicine, and pain medicine.
^b Specialties not available in the 2012-2013 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.

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