Osteopathic Graduate Medical Education 2013

Andrea DeRosier, MUPP
Terri A. Lischka, BS
Bulmaro Martinez, MPH

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

Financial Disclosures: None reported.

Address correspondence to Andrea DeRosier, MUPP, Director, AOA Division of Postdoctoral Training, Department of Education, 142 E Ontario St, Chicago, IL 60611-2864.

E-mail: aderosier@osteopathic.org

Submitted January 25, 2013; revision received February 28, 2013; accepted March 5, 2013.

The authors report updates on osteopathic graduate medical education training programs and positions for the 2011-2012 academic year. American Osteopathic Association Match trends and information on training slots are also examined.

J Am Osteopath Assoc. 2013;113(4):303-310

In the 2011-2012 academic year, modest growth in the number of available osteopathic graduate medical education (OGME) positions and the number of trainees in slots approved by the American Osteopathic Association (AOA) was observed. The rate of growth, however, has not kept up with the increasing number of graduating osteopathic physicians (ie, DOs) each year,[1] and AOA leadership have expressed concern regarding this imbalance and the need for additional DO residency slots. The imbalance was an agenda item at the Bureau of Osteopathic Education retreat in August 2012. The present article reports the number of training slots that are available to DOs through the AOA Match and expresses the concern that there will be insufficient slots for first-year DO trainees should the current availability of training slots available to DOs become limited in the future. In the current report, this issue will be examined from the vantage of specialty and geographic location.

A Review of OGME Data

The AOA Department of Education's Division of Educational Resource Services maintains historical annual data on approved, funded, and filled AOA first-year positions, as reported by the National Matching Service (an AOA vendor) and the Trainee Information, Verification and Registration Audit (TIVRA) survey tool. The division has reported this information to education bureaus and councils to ensure that AOA leadership is aware of the alarming growth in the rate of filled, funded first-year positions, which topped at 91% in 2012 after the postmatch scramble was reported in TIVRA. In addition, AOA staff have monitored National Resident Matching Plan outcomes for DOs. Although 2012 showed the highest rate of successful matches, with a fill rate of 95.3%,[1] there remains concern that the number of unmatched graduating DOs may increase.

Table 1.
No. of AOA-Approved Residency and Internship Programs and Trainees Filling Available Positions as Reported by State, 2011-2012 Academic Year[a]

State	Internship Programs			Residency Programs			Total		
	Programs	Positions	Trainees	Programs	Positions	Trainees	Programs	Positions	Trainees
Alabama	0	0	0	2	21	4	2	21	4
Alaska	0	0	0	1	9	6	1	9	6
Arizona	0	0	0	8	78	52	8	78	52
Arkansas	0	0	0	2	15	4	2	15	4
California	5	45	34	22	299	203	27	344	237
Colorado	0	0	0	4	71	9	4	71	9
Connecticut	1	12	5	2	35	6	3	47	11
Delaware	1	15	10	1	24	10	2	39	20
Florida	11	162	59	81	936	466	92	1098	525
Georgia	1	4	2	4	47	17	5	51	19
Illinois	4	36	30	42	450	311	46	486	341
Indiana	1	3	3	3	23	15	4	26	18
Iowa	0	0	0	4	40	32	4	40	32
Kansas	0	0	0	1	16	16	1	16	16
Kentucky	2	9	6	6	51	27	8	60	33
Maine	0	0	0	6	72	46	6	72	46
Massachusetts	1	4	4	3	21	13	4	25	17
Michigan	19	198	82	194	1980	1433	213	2178	1515
Minnesota	0	0	0	2	14	13	2	14	13
Mississippi	0	0	0	3	30	17	3	30	17
Missouri	3	15	8	24	188	127	27	203	135
Montana	0	0	0	1	9	0	1	9	0
Nevada	1	10	11	9	99	69	10	109	80
New Jersey	7	84	37	60	713	412	67	797	449
New York	17	213	106	74	979	619	91	1192	725
North Carolina	2	17	3	4	54	21	6	71	24
Ohio	11	100	33	98	907	647	109	1007	680
Oklahoma	2	16	8	34	357	238	36	373	246
Oregon	1	12	12	9	91	40	10	103	52
Pennsylvania	29	231	112	102	1249	889	131	1480	1001
Rhode Island	0	0	0	4	52	35	4	52	35
South Carolina	0	0	0	1	12	12	1	12	12
Tennessee	0	0	0	3	33	23	3	33	23
Texas	4	32	13	23	193	121	27	225	134
Utah	0	0	0	1	9	0	1	9	0
Virginia	3	26	11	14	223	134	17	249	145
Washington	0	0	0	8	56	7	8	56	7
West Virginia	6	35	16	20	223	147	26	258	163
Wisconsin	0	0	0	2	50	39	2	50	39
Wyoming	0	0	0	1	12	10	1	12	10
Total	**132**	**1279**	**605**	**883**	**9741**	**6290**	**1015**	**11,020**	**6895**

[a] Data shown represent positions approved by the American Osteopathic Association (AOA) Program and Trainee Review Council for the academic year indicated. Data are current as of May 31, 2012. 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.

OGME Programs and Positions

The AOA Program and Trainee Review Council reviews and approves all OGME programs and positions. For the 2011-2012 academic year, 9741 positions were approved in 883 residency programs (*Table 1*). A comparison of this number of AOA-approved positions and programs to the 2010-2011 academic year shows an increase, whereas before there were 9110 positions in 827 approved residency programs.[2] The number of AOA-approved internship programs and positions has continued to decline because of the internship restructuring program that was implemented in 2008. Beginning July 1, 2008, the first year of training in an osteopathic residency was accepted in lieu of the internship year and, for most specialties, the internship year was no longer needed for completion of a residency (AOA House of Delegates Resolution H-207).[2-5]

Internship positions for the 2011-2012 academic year totaled 1279 in 132 programs compared with 1284 positions in 134 programs for the 2010-2011 academic year. Internship and residency positions have increased by 626, or 6%, since the 2010-2011 academic year. It is clear that—despite the values that the osteopathic profession placed on internships, which were required for most specialties until 2008—students have opted to bypass the internship, unless it is required by a specialty or by 1 of the 4 states that mandates a first year of AOA training for licensure (ie, Florida, Michigan, Oklahoma, and Pennsylvania).

The number of trainees in OGME programs continues to grow (*Figure 1*). In the 2011-2012 academic year, 6895 DOs trained in AOA-approved programs (*Table 1*), an increase of 573 trainees (9.1%) since the previous academic year.[2]

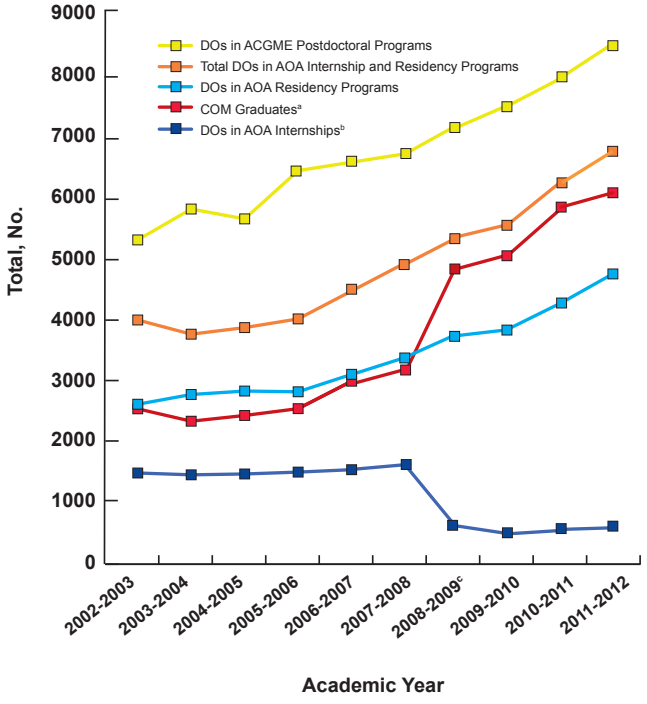

Figure 1.
Trends of osteopathic physician (DO) enrollment in osteopathic and allopathic postdoctoral training programs.[2,6] Data may change and should be considered incomplete until finalized in the 2014 osteopathic medical education issue of *The Journal of the American Osteopathic Association* (*JAOA*). Data for academic years 1999-2000 through 2009-2010 were previously published in the *JAOA*.[3] [a]Total college of osteopathic medicine (COM) graduates do not include previous years' graduates. [b]Total DOs in American Osteopathic Association (AOA) internships include trainees who matched to osteopathic internship positions during both the Match and post-Match scramble. [c]Restructuring of the AOA internship, effective July 1, 2008. *Abbreviation:* ACGME, Accreditation Council for Graduate Medical Education.

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

Specialty	2009-2010			2010-2011			2011-2012		
	Programs	Positions	Residents	Programs	Positions	Residents	Programs	Positions	Residents
Anesthesiology	12	112	96	12	118	107	13	137	111
Anesthesiology and pain management	2	3	2	2	3	2	3	6	2
Pediatric anesthesiology	1	3	0	1	3	0	1	3	0
Dermatology	22	130	94	23	137	106	26	158	106
MOHS micrographic surgery	1	1	1	1	1	0	2	3	1
Diagnostic Radiology	15	156	114	15	161	129	15	170	124
Pediatric radiology	1	3	0	1	3	0	1	3	0
Emergency Medicine	44	1007	810	45	1042	839	45	1055	900
Emergency medical service	1	1	0	1	1	1	2	3	1
Family Medicine	187	2391	1213	192	2553	1347	200	2699	1527
Geriatrics (family medicine)	8	33	2	10	37	2	10	34	5
Internal Medicine	96	1476	796	102	1672	935	105	1775	1103
Allergy and immunology	0	0	0	1	4	0	2	8	0
Cardiac electrophysiology	2	5	1	2	5	0	2	5	0
Cardiology	23	148	82	24	156	90	24	162	94
Cardiology (interventional)	11	28	5	12	29	11	13	30	11
Critical care medicine[a]	5	13	5	5	13	8	6	15	3
Endocrinology	3	6	3	3	6	3	4	10	3
Gastroenterology	13	60	32	13	63	39	15	75	45
Geriatrics (internal medicine)	4	13	0	5	15	2	6	21	2
Hematology and oncology	5	14	9	5	14	11	7	24	10
Infectious diseases	2	8	2	2	8	2	3	12	2
Nephrology	7	20	10	7	20	8	7	20	10
Oncology	4	12	0	4	12	0	2	6	1
Pulmonary (critical care)	7	24	14	8	31	17	8	34	22
Pulmonary medicine	4	11	2	4	11	3	4	11	6
Rheumatology	4	10	7	4	12	9	5	16	10
Neurology	7	74	47	7	74	54	8	90	55
NMM/OMM	8	40	16	7	38	17	8	41	19
NMM plus 1	17	55	24	20	63	20	24	76	22
Obstetrics and Gynecology	30	380	265	29	363	295	31	391	297
Female pelvic medicine	0	0	0	0	0	0	1	3	0
Gynecologic oncology	3	9	6	3	9	8	3	9	8
Maternal and fetal medicine	3	10	5	3	10	4	5	16	2
Reproductive endocrinology	3	9	2	4	12	1	3	9	1
Ophthalmology	12	58	44	12	58	46	15	73	47
Orthopedic Surgery	33	497	407	35	520	419	38	564	443
Hand surgery	1	3	0	1	3	0	1	3	1
Musculoskeletal oncology	0	0	0	1	1	0	1	1	0
Orthopedic spine surgery	2	3	0	1	1	0	0	0	0
Otolaryngology and Facial Plastic Surgery	19	134	114	20	143	120	19	139	122
Otolaryngic allergy	2	6	3	3	9	3	3	9	3

(continued)

[a] 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. In previous academic years, *critical care surgery* was grouped with *critical care medicine* under *internal medicine*. Data for the 2009-2010 and 2010-2011 academic years listed on this table have been adjusted to reflect this change.

[b] *Addiction medicine, dermatopathology, hospice and palliative care, 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; 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 system, or TIVRA, academic years 2010-2011. Data for the 2009-2010 and 2010-2011 academic years have been reported previously in *The Journal of the American Osteopathic Association*.

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

Specialty	2009-2010			2010-2011			2011-2012		
	Programs	Positions	Residents	Programs	Positions	Residents	Programs	Positions	Residents
Pathology	0	0	0	0	0	0	0	0	0
Forensic pathology	1	1	0	1	1	0	1	1	0
Pediatrics	17	229	140	18	250	153	19	268	175
Pediatric allergy and immunology	1	2	2	1	2	2	1	2	1
Physical Medicine and Rehabilitation Medicine	3	29	26	4	38	23	5	61	24
Preventive Medicine and Public Health	1	3	1	1	3	0	1	3	1
Preventive Medicine (Occupational and Environmental)	1	3	1	1	3	1	1	3	0
Proctology	2	5	3	2	5	2	2	5	1
Psychiatry	11	127	49	13	151	65	14	175	78
Child psychiatry	2	8	1	3	12	3	3	12	4
Forensic psychiatry	0	0	0	0	0	0	1	4	0
Geriatric psychiatry	1	3	0	1	3	1	2	6	1
Surgery (General)	42	571	455	43	620	481	46	671	507
Cardiothoracic surgery	1	9	0	1	9	0	1	9	0
Critical care surgery[a]	2	4	2	3	7	0	3	7	1
General vascular surgery	7	15	3	8	17	6	8	19	5
Neurological surgery	11	99	86	11	103	83	11	104	92
Plastic and reconstructive surgery	7	24	16	7	24	16	6	23	17
Urological surgery	9	82	66	10	98	68	10	106	84
Combined									
Emergency medicine and family medicine	5	64	37	4	60	38	4	53	39
Emergency medicine and internal medicine	12	133	80	11	129	82	11	117	80
Integrated family medicine/NMM	6	40	18	8	64	18	8	64	31
Integrated internal medicine/NMM	0	0	0	0	0	0	1	4	0
Pediatrics and internal medicine	2	18	10	1	10	10	1	10	8
Conjoint[b]									
Addiction medicine	0	0	0	0	0	0	1	6	0
Dermatapathology	0	0	0	0	0	0	1	2	1
Hospice and palliative care	4	9	1	5	10	2	7	15	2
Pediatric emergency medicine	1	6	0	1	6	0	1	6	0
Sleep medicine	1	2	1	1	2	0	2	8	0
Sports medicine	17	47	16	17	47	19	19	56	18
Undersea and hyperbaric medicine	1	2	0	1	2	0	1	2	1
Total	**792**	**8501**	**5247**	**827**	**9110**	**5731**	**883**	**9741**	**6290**

[a] 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. In previous academic years, *critical care surgery* was grouped with *critical care medicine* under *internal medicine*. Data for the 2009-2010 and 2010-2011 academic years listed on this table have been adjusted to reflect this change.

[b] *Addiction medicine, dermatopathology, hospice and palliative care, 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; 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 system, or TIVRA, academic years 2010-2011. Data for the 2009-2010 and 2010-2011 academic years have been reported previously in *The Journal of the American Osteopathic Association*.

Table 3.
Net Growth From the 2010-2011 to 2011-2012 Academic Years of the AOA-Approved Residency Programs, Positions, and Residents as Reported by Specialty

Specialty	No.		
	Programs	Positions	Residents
Anesthesiology	1	19	4
Anesthesiology and pain management	1	3	0
Pediatric anesthesiology	0	0	0
Dermatology	3	21	0
MOHS micrographic surgery	1	2	1
Diagnostic Radiology	0	9	−5
Pediatric radiology	0	0	0
Emergency Medicine	0	13	61
Emergency medical service	1	2	0
Family Medicine	8	146	180
Geriatrics (family medicine)	0	−3	3
Internal Medicine	3	103	168
Allergy and immunology	1	4	0
Cardiac electrophysiology	0	0	0
Cardiology	0	6	4
Cardiology (interventional)	1	1	0
Critical care medicine[a]	1	2	-5
Endocrinology	1	4	0
Gastroenterology	2	12	6
Geriatrics (internal medicine)	1	6	0
Hematology and oncology	2	10	−1
Infectious diseases	1	4	0
Nephrology	0	0	2
Oncology	−2	−6	1
Pulmonary (critical care)	0	3	5
Pulmonary medicine	0	0	3
Rheumatology	1	4	1
Neurology	1	16	1
NMM/OMM	1	3	2
NMM plus 1	4	13	2
Obstetrics and Gynecology	2	28	2
Female pelvic medicine	1	3	0
Gynecologic oncology	0	0	0
Maternal and fetal medicine	2	6	−2
Reproductive endocrinology	−1	−3	0
Ophthalmology	3	15	1
Orthopedic Surgery	3	44	24
Hand surgery	0	0	1
Musculoskeletal oncology	0	0	0
Orthopedic spine surgery	−1	−1	0

(continued)

[a] 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. In previous academic years, *critical care surgery* was grouped with *critical care medicine* under *internal medicine*. Data have been adjusted to reflect this change.

[b] *Addiction medicine, dermatopathology, hospice and palliative care, 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; NMM, neuromusculoskeletal medicine; OMM, osteopathic manipulative medicine.

Sources: AOA Intern/Resident Contracts received by the division of postdoctoral training for the academic year shown (taken annually on May 31) and AOA's Trainee Information, Verification and Registration Audit system, or TIVRA, academic year 2011-2012. Data for the 2010-2011 academic year have been reported previously in *The Journal of the American Osteopathic Association*.

Table 2 identifies the number of AOA residency programs, approved positions, and trainees by specialty for the past 3 academic years. On the basis of feedback we have received from hospital and program directors, primary care specialties directly support the needs of the hospitals and therefore have the greatest number of slots. Specifically, family medicine and internal medicine continue to show strong growth in terms of the number of new programs, positions, and trainees. Family medicine showed the most growth this past year with an additional 8 programs, 146 positions, and 180 trainees. Internal medicine grew by 3 programs, 103 positions, and 168 trainees. There are indications that primary care residencies will continue to grow as governmental decisions and actions such as the Affordable Care Act propose to fund an increase in the number of primary care specialists.[6,8]

The percentage of filled positions in funded osteopathic residency program positions continues to increase. In the 2011-2012 academic year, there were 883 AOA-approved residency programs with 9741 approved funded positions, of which 6290 were filled, for a fill rate of 65%—an increase over the 63% fill rate for 2010-2011 and 62% fill rate for 2009-2010.[2,5]

Table 3 notes AOA-approved residency programs and approved and filled positions. From 2010-2011 to 2011-2012, there was a net growth of 56 programs, 631 positions, and 559 trainees, compared with a net growth of 35 programs, 609 positions, and 484 trainees from 2009-2010 to 2010-2011.[2]

Geographic Distribution

Figure 2 depicts the geographic concentration of approved OGME positions. Programs approved by the AOA are located in 40 of the 50 states. Approximately 54% of all AOA-approved training positions are located in the following 4 states: Florida, New York, Michigan, and Pennsylvania. Florida had the most growth in 2011-2012, with an increase of 25 programs and 242 approved positions. Also of note are increases in New Jersey, with

an additional 97 positions; Oklahoma, with an additional 66 positions; and New York, with an additional 56 positions. Internship and residency data by state for the 2011-2012 academic year are also provided in *Table 1*.

Comment

Data reports continue to show modest growth in the number of available OGME positions and trainees in AOA-approved slots. This increase, however, has not kept up with the increasing number of graduating DOs each year. Strategies to increase the number of training positions for graduating DOs continue to be a priority for the osteopathic medical profession. The AOA Bureau of Osteopathic Graduate Medical Education Development is available to provide support for new residency training program development. Efforts to increase primary care positions remain a priority of the US government.[6,7]

The AOA has invested time and effort to investigate whether it has become appropriate to permit allopathic physicians (ie, MDs) into osteopathic residency training slots. Because of the high number of filled, funded slots, the AOA Board of Trustees, after convening a task force to study the issue, has asked the Council on Osteopathic Postdoctoral Training to monitor this factor and make a recommendation to the Board of Trustees by 2015. From the outset, many members of the task force expressed doubts AOA programs had room for MDs, particularly because the MD community has agreed to a 30% increase in the number of MD graduates by 2020 to meet the physician shortage predicted in the next decade.[9]

Conclusion

Although the number of osteopathic postdoctoral training positions has increased over the years, the number of students graduating from DO schools has increased at a substantial rate. Strategies to increase the number of residency slots for graduating DOs will continue to be a priority for the osteopathic medical community.

Table 3 (continued).
Net Growth From the 2010-2011 to 2011-2012 Academic Years of the AOA-Approved Residency Programs, Positions, and Residents as Reported by Specialty

Specialty	No. Programs	No. Positions	No. Residents
Otolaryngology and Facial Plastic Surgery	−1	−4	2
Otolaryngic allergy	0	0	0
Pathology	0	0	0
Forensic pathology	0	0	0
Pediatrics	1	18	22
Pediatric allergy and immunology	0	0	−1
Physical Medicine and Rehabilitation Medicine	1	23	1
Preventive Medicine and Public Health	0	0	1
Preventive Medicine (occupational and environmental)	0	0	−1
Proctology	0	0	−1
Psychiatry	1	24	13
Child psychiatry	0	0	1
Forensic psychiatry	1	4	0
Geriatric psychiatry	1	3	0
Surgery (General)	3	51	26
Cardiothoracic surgery	0	0	0
Critical care surgery[a]	0	0	1
General vascular surgery	0	2	−1
Neurological surgery	0	1	9
Plastic and reconstructive surgery	−1	−1	1
Urological surgery	0	8	16
Combined			
Emergency medicine and family medicine	0	−7	1
Emergency medicine and internal medicine	0	−12	-2
Integrated family medicine/NMM	0	0	13
Integrated internal medicine/NMM	1	4	0
Pediatrics and internal medicine	0	0	−2
Conjoint[b]			
Addiction medicine	1	6	0
Dermatapathology	1	2	1
Hospice and palliative care	2	5	0
Pediatric emergency medicine	0	0	0
Sleep medicine	1	6	0
Sports medicine	2	9	−1
Undersea and hyperbaric medicine	0	0	1
Total	**56**	**631**	**559**

[a] 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. In previous academic years, *critical care surgery* was grouped with *critical care medicine* under *internal medicine*. Data have been adjusted to reflect this change.

[b] *Addiction medicine, dermatopathology, hospice and palliative care, 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; NMM, neuromusculoskeletal medicine; OMM, osteopathic manipulative medicine.

Sources: AOA Intern/Resident Contracts received by the division of postdoctoral training for the academic year shown (taken annually on May 31) and AOA's Trainee Information, Verification and Registration Audit system, or TIVRA, academic year 2011-2012. Data for the 2010-2011 academic year have been reported previously in *The Journal of the American Osteopathic Association*.

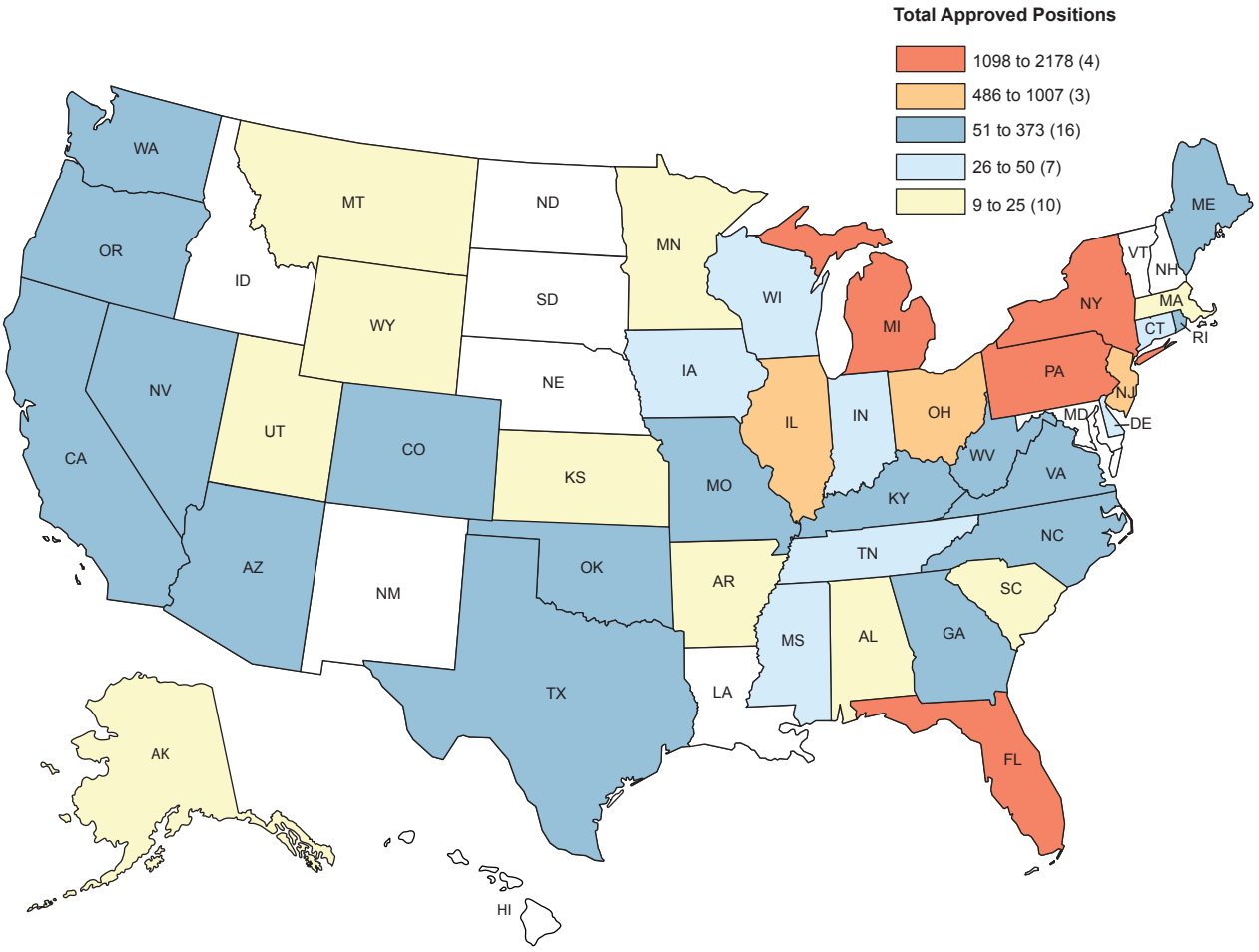

Figure 2.
Total approved internship and residency positions by state.

References

1. *Results and Data: 2012 Main Residency Match*. National Residency Matching Program. Washington, DC; 2012. http://www.nrmp.org/data/resultsanddata2012.pdf. Accessed February 28, 2013.
2. DeRosier A, Lischka TA. Osteopathic graduate medical education 2012. *J Am Osteopath Assoc*. 2012;112(4):196-203.
3. Freeman E, Lischka TA. Osteopathic graduate medical education. *J Am Osteopath Assoc*. 2009;109(3):135-145. http://www.jaoa.org/content/109/3/135.full. Accessed February 28, 2013.
4. Burkhart DN, Lischka TA. Osteopathic graduate medical education. *J Am Osteopath Assoc*. 2008;108(3):127-137. http://www.jaoa.org/content/108/3/127.full. Accessed February 28, 2013.
5. Freeman E, DeRosier A, Lischka TA. Osteopathic graduate medical education 2011. *J Am Osteopathic Assoc*. 2011;111(4):234-243. http://www.jaoa.org/content/111/4/234.full. Accessed February 28, 2013.
6. Brotherton SE, Etzel SI. Graduate medical education, 2011-2012. *JAMA*. 2012;308(21):2264-2279.
7. Porter S. Provision in health care reform law gives primary care financial boost. *AAFP News Update*. September 3, 2010. http://www.aafp.org/online/en/home/publications/news/news-now/practice-management/ 20100903primcarebonus.html. Accessed February 28, 2013.
8. Council on Graduate Medical Education. *Twentieth Report Advancing Primary Care*. Washington, DC; US Dept of Health and Human Services; December 2010. http://www.hopkinsmedicine.org/gim/_pdf/COGME_20_prim_care.pdf. Accessed March 6, 2012.
9. Greenberg D. M.D. graduates: from glut to shortage [blog post]. *The Chronicle of Higher Education*. May 28, 2008. http://chronicle.com/blogs/brainstorm/md-graduates-from-glut-to-shortage/5973. Accessed February 28, 2013.

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/112/4/196.full.