



• PHYSICIAN WORKFORCE 2000 •
GRADUATE MEDICAL EDUCATION

▲▲▲
THE FIFTH IN A SERIES

THIS PHYSICIAN WORKFORCE SERIES

ALL LICENSED PHYSICIANS
PRIMARY CARE PHYSICIANS
LICENSED MD PHYSICIANS
LICENSED DO PHYSICIANS
• GRADUATE MEDICAL EDUCATION
DATA REFERENCE AND SOURCE BOOK

Introduction

Graduates of medical schools are not immediately licensed to practice medicine in Oklahoma. Licensure requires at least one additional year of training in an accredited graduate medical education program (GME).

Generations ago, a sizeable number of physicians completed a one-year post medical school internship then entered practice. The single year of training met minimum state licensure requirements. However, an increasing number of hospitals began requiring more than one year of GME for staff credentialing. Also, younger physicians were becoming more aware of their individual need for a multiple year GME experience.

Today, virtually all medical school graduates pursue multiple years of GME education and training. These programs will provide an additional three to seven years of education and training.

The Year 2000

2000 has significance concerning physician workforce issues. State public policy concerning physician workforce focuses upon graduate medical education enterprises.

- Oklahoma established two new medical education programs in Tulsa to educate, train and produce primary care physicians.
- Oklahoma created a Physician Manpower Training Commission more than 25 years ago. Its initial focus was to promote primary care. Statewide DO-directed training programs were major beneficiaries of these appropriations and programs.

Given these critical policy initiatives, it is important to accurately and comprehensively measure and document benchmarked progress.

MICHAEL LAPOLLA, DIRECTOR

LORI RYAN, RESEARCH ASSISTANT

Data Sources

The primary data for GME enrollments are provided by the program sponsors. They include: Office of the Dean, University of Oklahoma College of Medicine; Office of the Dean, University of Oklahoma College of Medicine-Tulsa; Office of the Dean, Oklahoma State University College of Osteopathic Medicine; and the Oklahoma Physician Manpower Training Commission. The collated information was transmitted back to each office prior to publication. No corrections were necessary.

This Analysis

The information arrayed in this analysis has never been published in this form in Oklahoma. This is especially noteworthy because of the emerging interdependence of MD and DO training programs.

State Goals

Since the mid-1970's, it has been an unwritten state goal that there be sufficient residency positions to accommodate each graduate of an Oklahoma medical school, and that a significant portion of these positions be in primary care specialties.

Another unwritten state goal is to "produce primary care physicians and influence more physicians to practice in rural communities".

Interdependency

There are two separate medical schools, and subsequent GME tracks, in Oklahoma. One is for allopathic (MD) physicians; the other for osteopathic (DO) physicians.

The two systems are parallel, but they are neither consciously balanced nor intentionally integrated or articulated. There is no state in the nation where that level of centralized control exists.

In reality, the osteopathic medical school produces many more graduates than available DO-directed GME positions; the allopathic (MD) medical school sponsors more GME opportunities than it has graduates.

As a result, many osteopathic graduates pursuing GME must either leave Oklahoma for GME or enroll in an Oklahoma-based MD-directed program. Conversely, MD training programs will either "fill" with Oklahoma DO graduates or recruit out-of-state applicants or foreign students.

Fortuitously, the aggregated individual actions of both graduates and GME selection personnel have created a balanced program articulation. These actions have created an optimal balance of training to best serve Oklahoma needs.

Findings

Tables 1-3 provide a snapshot of available and filled GME positions as of July 2000, by profession and in the statewide aggregate. The tables array these positions by specialty, specialty grouping and professional program sponsor.

Opportunity

The authorized combined class size of Oklahoma's public medical schools is 238. In July 2000, there were 228 first year GME positions available in Oklahoma. This nominally provides each graduate an Oklahoma GME opportunity. It appears that the state goal of one GME position per graduate is nearly met.

However, the match is not as optimal by profession. To some that is very important, to others it is not very relevant.

Professional Balance

There are approximately 88 graduates of the osteopathic medical school each year. The profession only directs 54 first-year GME positions, and the majority are single-year internships. Therefore, at least a theoretical 39% of the class will either enroll in an Oklahoma MD directed program or leave the state. In reality, the percentage is higher.

Conversely, there are about 150 MD graduates annually in Oklahoma, but 183 MD-directed GME program slots filled by 172 individuals. Therefore, a theoretical 22% "surplus" of positions exist. These additional positions must be filled by osteopathic physicians, foreign medical graduates, out-of-state students or remain unfilled.

Specialty Mix

The majority of first-year GME positions are in either general internships leading to primary care training, or primary care residencies. Of all GME experiences, exactly half are in primary care.

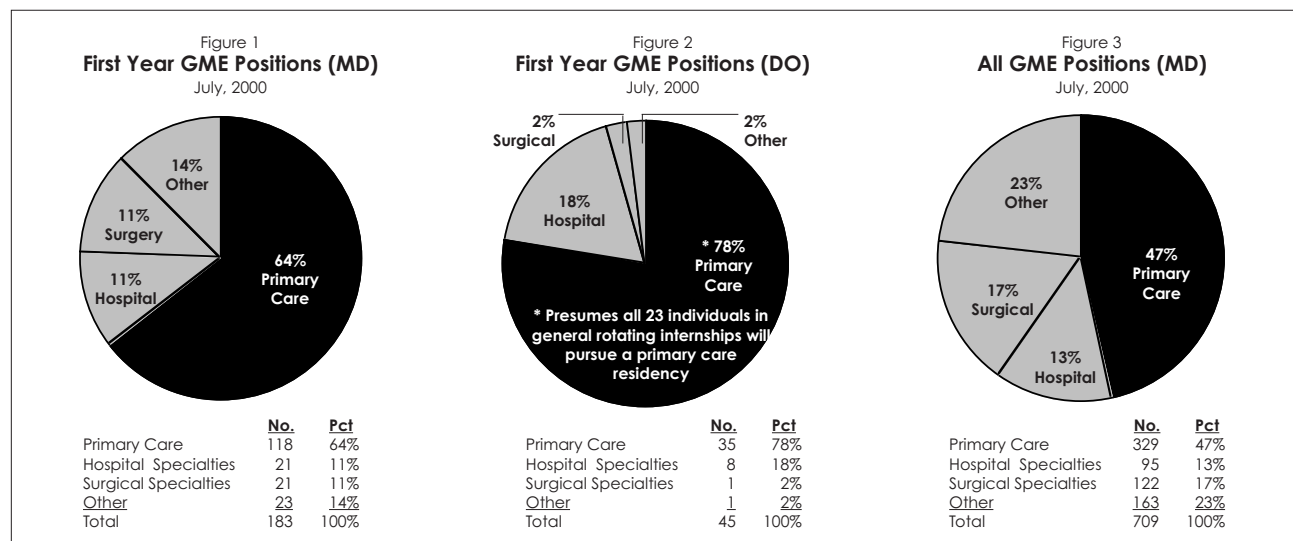
The Next Step

National workforce policy, as stated by the federal Council on Graduate Medical Education (COGME), has pursued the production of greater numbers of primary care physicians while reducing the number of overall physicians.

Oklahoma has achieved enviable results in creating an excellent balance of physician production and specialty mix.

COGME has foreseen that graduate medical education must be delivered differently in the future. It is forcefully recommending the creation of substantial and dynamic medical educational consortia.

The term "consortia" has a broader and deeper meaning than what we commonly know as collaborative and affiliated organizations (see Inset 1, page 3).



Oklahoma Consortia?

The medical education processes in Oklahoma do not meet the definition of a "system". In truth, the Oklahoma graduate medical education system produces excellent and well-balanced results. This is due to the fortuitous aggregation of thousands of individual and self-interested decisions made by both students and programs.

COGME has taken a strong position supporting coordinated educational consortia (see Inset 1, this page). There have been, and are, local attempts at operating medical education consortia.

The first such consortium was the Tulsa Medical Education Foundation established in the early 1970's. The osteopathic profession recently organized a local OPTI (Osteopathic Postgraduate Training Institution) consortium as part of a national medical education plan.

The largest sponsor of Oklahoma-based GME (University of Oklahoma Health Sciences Center) maintains a traditional academic health center model with minimal affiliations. The Physician Manpower Training Commission is a common ground for some state issues and local consortia for others.

But there does not yet exist a statewide consortia in the manner that COGME suggests. And the local efforts are neither as broad nor as deep as COGME postulates.

Summary Observation

Oklahoma's "system" is apparently doing very well in providing balanced GME projects. Perhaps it is best to not tinker at the margins with the current systems. Incremental change may have unintended and adverse consequences. This may be the perfect opportunity to focus attention on the creation of dynamic consortia that can positively assure balanced results in the future at the least cost, while providing excellent and relevant education.

Inset 1
Abstracted Summary of Ninth COGME Report
Graduate Medical Education Consortia
Changing the Governance of Graduate Medical Education to Achieve Physician Workforce Objectives, June 1997

"Fragmented governance is a particular problem at the level of graduate medical education, where hospital executives, clinical service chiefs, medical school deans and academic department chairs often represent different constituencies, and have to respond to a confusing plethora of accrediting and certifying bodies and other professional organizations. The increasing emphasis on education in ambulatory care settings, puts further stress on the present system of governance."

"In order to teach those competencies necessary in a managed care world and to contain health care costs, multiple health care provider and planning organizations must be involved. The day when medical education could be confined to one entity, the university hospital or its surrogate, has passed. Once said, then new systems for addressing physician workforce issues, for the measurement and maintenance of educational quality, for the administration of educational programs, for allowing input from the various stakeholders, and providing for an equitable distribution of resources are both reasonable and necessary. In principle, the consortium concept fulfills this need."

"Mutual partnerships and collaborations have long been an essential element for successful medical education, and consortia provide a means of perpetuating, and where necessary expanding, such interactions in the future. Consortia presently occupy the middle portion of the spectrum of entities involved in graduate medical education, bridging the territory between traditional affiliations and acquisitions or mergers."

"Consortia differ substantially from affiliations, which imply no formal organization or collaboration beyond that stipulated by the agreement, are typically bilateral (rather than multilateral), and are usually negotiated independently with each partner (rather than collectively among a broader range of partners). Consortia also differ substantially from acquisitions or mergers, which lead to the formation of a single organization (rather than a cooperative alliance of institutions with shared interests) and imply a pooling of all assets and a surrender of fiduciary control (neither of which occurs during the formation of a consortium)."

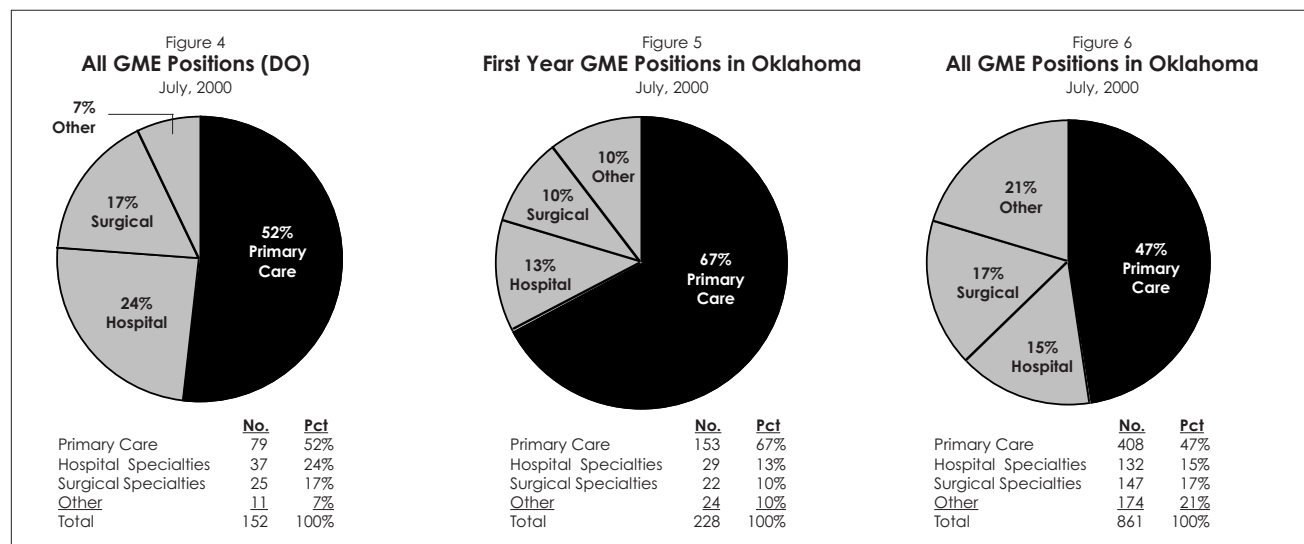


Figure 7
DOs In Single-Year Internship Programs
 Oklahoma-Based Graduate Medical Education
 Source: Oklahoma Osteopathic Association

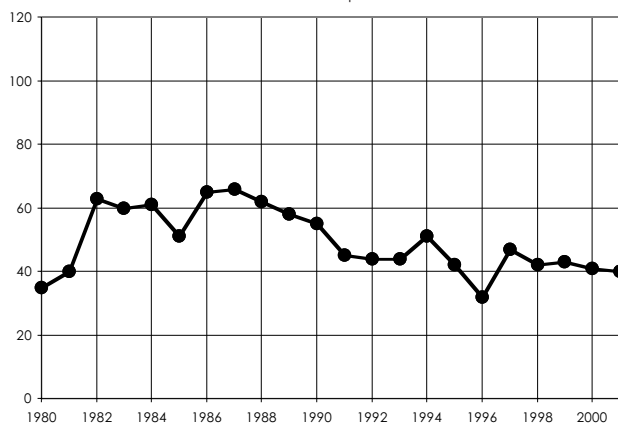


Figure 8
DOs In DO Directed Residency Programs
 Oklahoma-Based Graduate Medical Education
 Source: Oklahoma Osteopathic Association

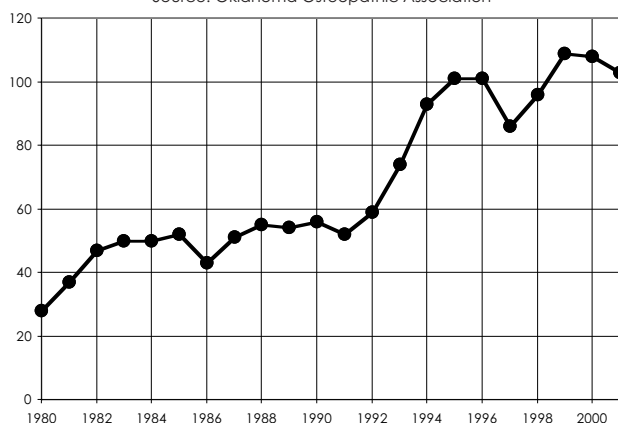
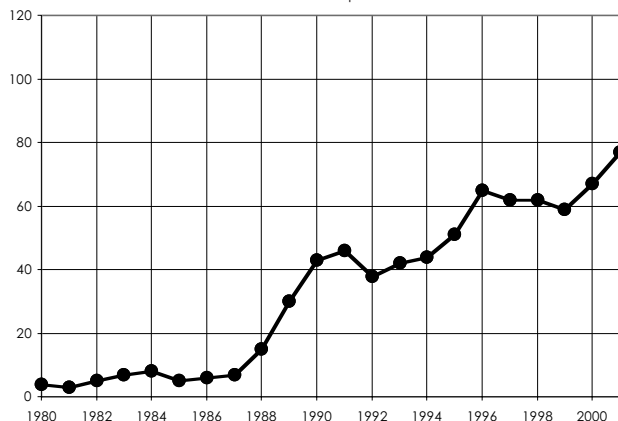


Figure 9
DOs In MD Directed Residency Programs
 Oklahoma-Based Graduate Medical Education
 Source: Oklahoma Osteopathic Association



Osteopathic Physicians and GME

On a statewide basis there is good balance of medical school graduates and GME opportunity. However, there is a profession-specific imbalance between both MD and DO graduates and GME positions. DOs have more graduates than available GME positions; MDs have the opposite imbalance.

Milestones

In 1977, the Oklahoma College of Osteopathic Medicine & Surgery graduated its first class, and in 1984 OCOMS converted from a three-year to a four-year curriculum. In 1988, OCOMS became part of the Oklahoma State University system and is known as the OSU College of Osteopathic Medicine. Both of Oklahoma's public medical schools adopt identical minimum entry requirements.

The charts dramatically illustrate the significant changes in the pursuit of GME by DO physicians. The milestone years initiated accelerated GME training.

Internships

Many graduates of osteopathic medical schools have traditionally taken a one-year general rotating internship, then enrolled in a specific residency program. The number of one-year internships in 2001 is about identical to 1981 ... with a noticeable spike between 1982-92. There are only 40 Oklahoma-based DO internships available to meet the needs of 88 graduates.

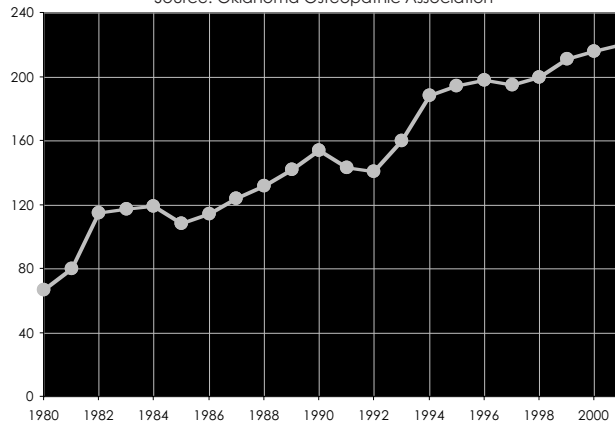
DO Residencies

The number and mix of DO-directed GME positions has increased sharply to respond to graduates seeking additional education and training. Although these positions have increased significantly, these Oklahoma-based positions do not meet the numerical needs of graduates.

MD Residencies

DO graduates are seeking MD-directed GME with increasing frequency. In 2001, there were 77 DO physicians enrolled in MD-directed programs in Oklahoma. Conversely, these graduates provide excellent inputs to state-focused programs, and they logically lead to a greater number of DOs eventually practicing in the state.

Figure 10
DOs In All Oklahoma-based GME programs
 Oklahoma-Based Graduate Medical Education
 Source: Oklahoma Osteopathic Association



Graduate Medical Education in Oklahoma, July 2000

	OU College of Med (OKC)				OU College of Med - Tulsa				Tulsa Regional/OSU				Other GME Programs				State of Oklahoma							
	PG1 Slots	PG1 Filled	All Slots	Filled Slots	PG1 Slots	PG1 Filled	All Slots	Filled Slots	PG1 Slots	PG1 Filled	All Slots	Filled Slots	PG1 Slots	PG1 Filled	All Slots	Filled Slots	PG1 Slots	PG1 Filled	All Slots	Filled Slots				
General Internship (Rotating)																								
Internal Medicine-Preliminary																								
Family Medicine	16	13	45	49	14	15	42	38	5	5	16	16	21	22	79	71	56	55	182	174				
Internal Medicine	25	25	57	56	15	22	45	50	5	5	16	16					45	52	118	122				
Pediatrics	11	12	36	37	5	6	15	16	2	2	8	8					18	20	59	61				
Internal Medicine/Pediatrics	3	3	12	12	2	2	8	10									5	5	20	22				
PRIMARY CARE SPECIALTIES	55	53	150	154	42	45	116	114	23	23	51	51	33	32	91	81	153	153	408	400				
Anesthesiology	7	5	30	27					1	1	5	5					8	6	35	32				
Emergency Medicine	6		18						3	3	13	13	2	2	11	11	11	5	42	24				
Nuclear Medicine			1																1					
Pathology	4	4	19	17													4	4	19	17				
Radiology	4		27	21					2	1	8	8					6	1	35	29				
HOSPITAL SPECIALTIES	21	9	95	65					6	5	26	26	2	2	11	11	29	16	132	102				
Internal Medicine Specialties			34	39																	34	39		
Dermatology			7	7															7	7				
Neurology			9	9							1	1							10	10				
MEDICINE SPECIALTIES			50	55							1	1							51	56				
OBSTETRICS/GYNECOLOGY	5	5	23	24	4	4	16	17	1		6	6			4	3	10	9	49	50				
Psychiatry, Adult	4	5	18	14	4	4	16	13					4	4	16	14	12	13	50	41				
Psychiatry, Child			4	4															4	4				
PSYCHIATRY	4	5	22	18	4	4	16	13					4	4	16	14	12	13	54	45				
Ophthalmology			12	11							2	2									14	13		
Otorhinolaryngology			9	9							5	5									14	14		
Surgery, Preliminary					3	3											3		3					
Surgery, General	10	10	27	27	2	4	10	13			8	8					12	14	45	48				
Surgery, Neurological			6	5															6	5				
Surgery, Oral	2	2	8	7													2	2	8	7				
Surgery, Orthopedic	4	4	27	26					1	27	6	6			4	4	5	4	37	36				
Surgery, Pediatric			1	1															1	1				
Surgery, Plastic			4	4															4	4				
Surgery, Thoracic			2	2															2	2				
Surgery, Urology			13	12															13	12				
SURGERY	16	16	109	104	5	4	13	13	1		21	21			4	4	22	20	147	142				
Family Medicine/Psychiatry					2	1	10	3									2	1	10	3				
Occupational Medicine			3	2															3	2				
Geriatric Medicine			7	6															7	6				
OTHER SPECIALTIES			10	8	2	1	10	3									2	1	20	11				
GRAND TOTALS	101	88	459	428	57	58	171	160	31	28	105	105	39	38	126	113	228	212	861	806				
Residency Positions																								
Primary Care	55	53	150	154	42	45	116	114	23	23	51	51	33	32	91	81	153	153	408	400				
Specialties	46	35	309	274	15	13	55	46	8	5	54	54	6	6	35	32	75	59	453	406				
Total	101	88	459	428	57	58	171	160	31	28	105	105	39	38	126	113	228	212	861	806				
Primary Care	54%	60%	33%	36%	74%	78%	68%	71%	74%	82%	49%	49%	85%	84%	72%	72%	67%	72%	47%	50%				
Specialties	46%	40%	67%	64%	26%	22%	32%	29%	26%	18%	51%	51%	15%	16%	28%	28%	33%	28%	53%	50%				

Table 2
Sources of Oklahoma MD GME
MD Graduate Medical Education Programs, July 2000

	PG1 Slots	PG1 Filled	All Slots	Filled Slots
General Internship (Rotating)	-	-	-	-
Internal Medicine-Preliminary	6	-	6	-
Family Medicine	51	50	150	144
Internal Medicine	40	47	102	106
Pediatrics	16	18	51	53
<u>Internal Medicine/Pediatrics</u>	<u>5</u>	<u>5</u>	<u>20</u>	<u>22</u>
PRIMARY CARE SPECIALTIES	118	120	329	325
Anesthesiology	7	5	30	27
Emergency Medicine	6	-	18	-
Nuclear Medicine	-	-	1	-
Pathology	4	4	19	17
<u>Radiology</u>	<u>4</u>	<u>-</u>	<u>27</u>	<u>21</u>
HOSPITAL SPECIALTIES	21	9	95	65
Internal Medicine Specialties *	-	-	34	39
Dermatology *	-	-	7	7
<u>Neurology *</u>	<u>-</u>	<u>-</u>	<u>9</u>	<u>9</u>
MEDICINE SPECIALTIES	-	-	50	55
OBSTETRICS/GYNECOLOGY	9	9	39	41
Psychiatry, Adult	12	13	50	41
<u>Psychiatry, Child</u>	<u>-</u>	<u>-</u>	<u>4</u>	<u>4</u>
PSYCHIATRY	12	13	54	45
Ophthalmology *	-	-	12	11
Otorhinolaryngology *	-	-	9	9
Surgery, Preliminary	3	-	3	-
Surgery, General	12	14	37	40
Surgery, Neurological *	-	-	6	5
Surgery, Oral	2	2	8	7
Surgery, Orthopedic	4	4	27	26
Surgery, Pediatric *	-	-	1	1
Surgery, Plastic *	-	-	4	4
Surgery, Thoracic *	-	-	2	2
<u>Surgery, Urology *</u>	<u>-</u>	<u>-</u>	<u>13</u>	<u>12</u>
SURGERY	21	20	122	117
Family Medicine/Psychiatry	2	1	10	3
Occupational Medicine	-	-	3	2
<u>Geriatric Medicine</u>	<u>-</u>	<u>-</u>	<u>7</u>	<u>6</u>
OTHER SPECIALTIES	2	1	20	11
GRAND TOTALS	183	172	709	659
SUMMARY				
Primary Care	118	120	329	325
<u>Specialties</u>	<u>65</u>	<u>52</u>	<u>380</u>	<u>334</u>
Total	183	172	709	659
SUMMARY				
Primary Care	64%	70%	46%	49%
Specialties	36%	30%	54%	51%

Sources: Office of the Dean, University of Oklahoma College of Medicine, OU Health Sciences Center; Office of the Dean, University of Oklahoma College of Medicine - Tulsa; OK Physician Manpower Training Commission.

* Note: Some specialty residencies have no PG1 (first post-graduate) year. They require the completion of a prerequisite residency experience.

Table 3
Sources of Oklahoma DO GME
DO Graduate Medical Education Programs, July 2000

	PG1 Slots	PG1 Filled	All Slots	Filled Slots
General Internship (Rotating)	23	21	23	21
Internal Medicine-Preliminary	-	-	-	-
Family Medicine	5	5	32	30
Internal Medicine	5	5	16	16
Pediatrics	2	2	8	8
<u>Internal Medicine/Pediatrics</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
PRIMARY CARE SPECIALTIES	35	33	79	75
Anesthesiology	1	1	5	5
Emergency Medicine	5	5	24	24
Nuclear Medicine	-	-	-	-
Pathology	-	-	-	-
<u>Radiology</u>	<u>2</u>	<u>1</u>	<u>8</u>	<u>8</u>
HOSPITAL SPECIALTIES	8	7	37	37
Internal Medicine Specialties	-	-	-	-
Dermatology	-	-	-	-
<u>Neurology *</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>1</u>
MEDICINE SPECIALTIES	-	-	1	1
OBSTETRICS/GYNECOLOGY	1	-	10	9
Psychiatry, Adult	-	-	-	-
<u>Psychiatry, Child</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
PSYCHIATRY	-	-	-	-
Ophthalmology *	-	-	2	2
Otorhinolaryngology *	-	-	5	5
Surgery, Preliminary	-	-	-	-
Surgery, General *	-	-	8	8
Surgery, Neurological	-	-	-	-
Surgery, Oral	-	-	-	-
Surgery, Orthopedic *	1	-	10	10
Surgery, Pediatric	-	-	-	-
Surgery, Plastic	-	-	-	-
Surgery, Thoracic	-	-	-	-
<u>Surgery, Urology</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
SURGERY	1	-	25	25
Family Medicine/Psychiatry	-	-	-	-
Occupational Medicine	-	-	-	-
<u>Geriatric Medicine</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
OTHER SPECIALTIES	-	-	-	-
GRAND TOTALS	45	40	152	147
SUMMARY				
Primary Care	35	33	79	75
<u>Specialties</u>	<u>10</u>	<u>7</u>	<u>73</u>	<u>72</u>
Total	54	49	152	147
SUMMARY				
Primary Care	78%	83%	52%	51%
Specialties	22%	17%	48%	49%

Sources: Oklahoma State University College of Osteopathic Medicine; OK Physician Manpower Training Commission.

* Note: Some specialty residencies have no PG1 (first post-graduate) year. They require the completion of a prerequisite internship or residency experience.