



GRADUATE MEDICAL EDUCATION FUNDING IN CALIFORNIA

Medical Residents: Where Are They From?

In California, graduate medical education (GME) trainees, or medical residents, come from recognized medical schools around the world, though the overwhelming majority of them come from schools within the United States. GME in California is important not only because it trains the future US physician workforce, but also because physicians are more likely to stay within 100 miles of where they were trained, thus ensuring a quality physician workforce for California's growing population.¹

Medical School in California

Although California is the most populous state, with 12% of the US population, only 6.1% of US allopathic (as opposed to osteopathic) medical school matriculants entered medical school in California in 2017.² Applications for medical school overwhelm the number of available first-year positions in California. For example, for the 2017–18 academic year, there were 72,363 applications for the 1,300 allopathic positions available in California, 53% of which were from California residents. Of the 1,300 matriculants, 972 (75%) were California residents. However, 1,469

more Californians matriculated to a medical school in another state, and 3,543 matriculated to a medical school but not a US allopathic medical school³; these students may have attended an international medical school or an osteopathic medical school (data not available).

In 2016, California had 12 well-established medical schools — six public allopathic, four private allopathic, and two private osteopathic. There are several new medical schools undergoing the accreditation process in California. Between 2002 and 2016,

ABOUT THIS SERIES

Graduate medical education (GME) — also known as residency and/or fellowship — is the final training that physicians undergo after graduation from allopathic or osteopathic medical school, domestically or internationally. GME, and how it is funded, determines the number and specialty types of practicing physicians in the workforce.

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enrollment in California’s allopathic medical schools grew by 12%, compared with 28% nationally.⁴ In response to concerns regarding a future physician shortage, first-year enrollment at US allopathic and osteopathic medical schools is projected to increase by 59% between 2002 and 2022, raising the concern that enrollment growth is outpacing the growth in GME.⁵

GME Matriculants in California

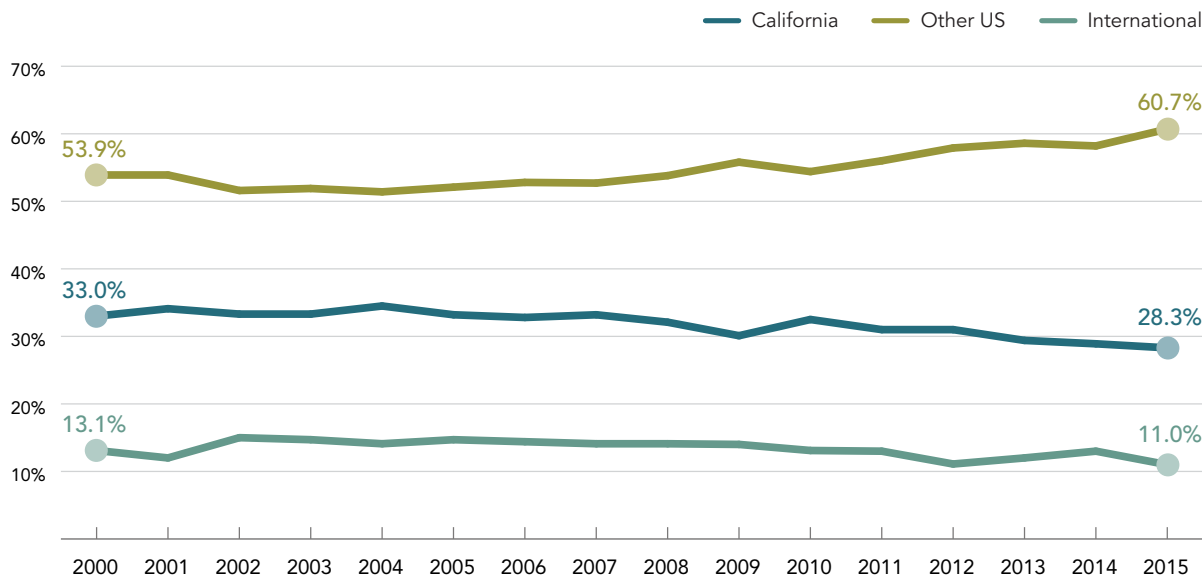
Unlike many other states, California offers more GME positions than it has medical school graduates. In 2017, there were 1,133 allopathic medical school graduates in California and 2,617 first-year residency positions. Retention is the highest in the nation: 62.8% of California’s allopathic medical school graduates remain in California for residency training.⁶

Although the majority of California medical school graduates remain in California for GME, they historically represent roughly one-third of all California GME trainees (see Figure 1). That percentage has

slowly been declining since 2000, while the percentage of medical school graduates coming from other states and the District of Columbia (D.C.) has gradually increased. A third group comprising medical school graduates from US territories, Canada, and other recognized international medical schools has consistently represented roughly 12% to 15% of the California GME trainees over time.

Not surprisingly, nine of the 10 states that send the most medical school graduates to California for GME are also among the 10 states with the largest medical school programs (excluding California) (see Table 1). The one exception is Washington, D.C., which in 2015 had the 17th-largest program but sent the

Figure 1. California GME Residents Coming from Different Medical School Locations, 2000–2015



Source (Figure 1 and Table 1): American Medical Association (AMA) Masterfile Historical Residency File, 2017.

Table 1. Top 10 States Sending Medical Students to GME Training in California, 2000 and 2015

	NUMBER OF GME TRAINEES IN CA	
	2000	2015
New York	227	290
Illinois	195	203
Pennsylvania	142	172
Texas	83	143
Massachusetts	114	138
Ohio	61	105
Washington, D.C.	75	95
Missouri	76	84
Michigan	53	79
Florida	26	72

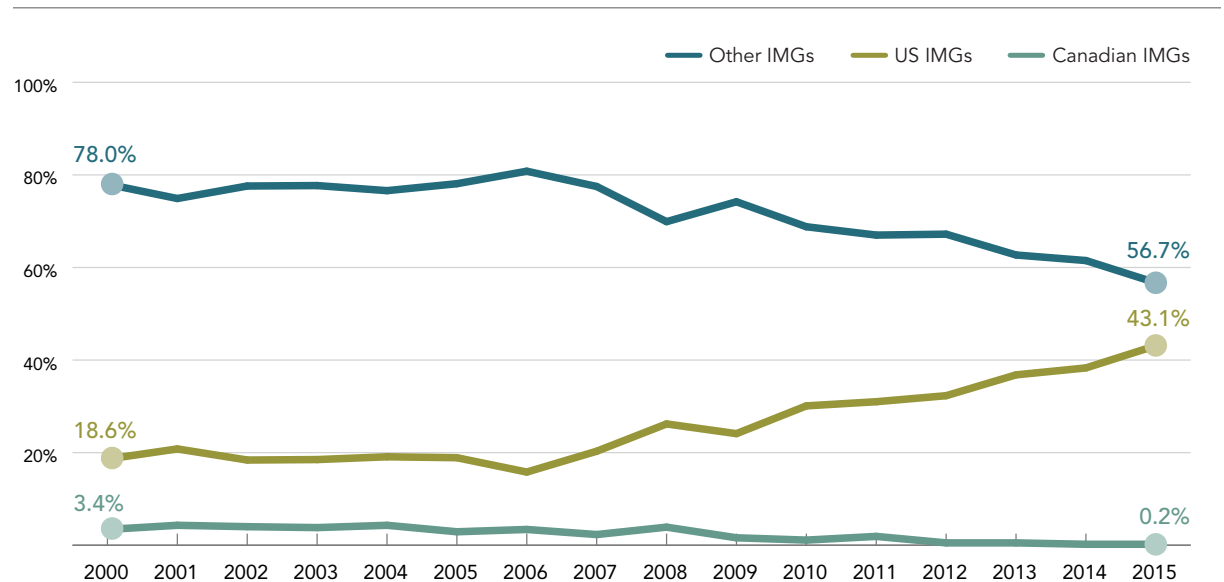
seventh-largest number of graduates to California. However, in terms of the number of graduates training in California relative to the size of a state's medical student population, the top contributors are very different (see Table 2). Regionally, the Northeast and Midwest send the most graduates to California, with roughly 20% coming from each region historically (data not shown).

Graduates of international medical schools (IMGs) have historically represented roughly 12% to 15% of the medical residents in California. However, this number is deceptive as some of these graduates are US citizens attending medical school internationally (US IMGs). Between 2000 and 2015, the proportion of IMGs that are US IMGs has increased while the proportion that are Canadian and other has decreased, from 81% to 57% (see Figure 2).

Table 2. Top 10 States Sending Medical Students to GME Training in California, as a Percentage of All Medical Students in that State, 2015

	NUMBER OF MEDICAL STUDENTS	GME TRAINEES IN CALIFORNIA	
		NUMBER	AS % OF MEDICAL STUDENTS
Hawaii	269	33	12.3%
Oregon	574	34	5.9%
Washington, D.C.	2,031	95	4.7%
New Hampshire	389	18	4.6%
Massachusetts	3,014	138	4.6%
Wisconsin	1,602	70	4.4%
Rhode Island	508	20	3.9%
Nevada	816	32	3.9%
Vermont	471	18	3.8%
Connecticut	1,092	41	3.8%

Figure 2. International Medical Graduates (IMGs) Coming to California for GME, 2000–2015



Source (Table 2 and Figure 2): American Medical Association (AMA) Masterfile Historical Residency File, 2017.

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About the Foundation

The California Health Care Foundation is dedicated to advancing meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo. We work to ensure that people have access to the care they need, when they need it, at a price they can afford.

CHCF informs policymakers and industry leaders, invests in ideas and innovations, and connects with changemakers to create a more responsive, patient-centered health care system.

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Endnotes

1. Ernest Blake Fagan et al., "Family Medicine Graduate Proximity to Their Site of Training: Policy Options for Improving the Distribution of Primary Care Access," *Family Medicine* 47, no. 2 (February 2015): 124–30.
2. US Census Bureau and Association of American Medical Colleges (AAMC) data tables, www.aamc.org (PDF).
3. AAMC data tables.
4. AAMC data tables.
5. *Results of the 2016 Medical School Enrollment Survey*, Association of American Medical Colleges, May 2017.
6. *California Physician Workforce Profile*, Association of American Medical Colleges, 2017, www.aamc.org (PDF).