Statement

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Legislative Hearing on

H.R. 4997: "Physicians for Underserved Areas Act"

Testimony to

United States House of Representatives
Committee on the Judiciary
Subcommittee on Immigration, Border Security, and Claims

by

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May 18, 2006

Good afternoon, Chairman Hostettler and members of the Subcommittee.

My name is Edward Salsberg, I am the Director of the Center for Workforce Studies at the Association of American Medical Colleges (AAMC). Thank you for this opportunity to speak to you today regarding the physician workforce and the response of America's allopathic medical schools and teaching hospitals to a growing concern about potential future physician shortages.

The AAMC is a nonprofit association representing all 125 accredited U.S. allopathic medical schools; nearly 400 major teaching hospitals and health systems, including Department of Veterans Affairs medical centers; and 94 academic and scientific societies. Through these institutions and organizations, the AAMC represents 109,000 faculty members, 67,000 medical students, and 104,000 resident physicians.

Our mission is to improve the health of the public by enhancing the effectiveness of academic medicine. Together with our members we pursue this mission through the education of the physician and medical scientist workforce, the discovery of new medical knowledge, the development of innovative technologies for prevention, diagnosis and treatment of disease, and the delivery of health care services in academic settings. The AAMC is committed to promoting an adequate supply of well-educated physicians sufficient in number and competencies to meet likely future needs of Americans.

The AAMC established its Center for Workforce Studies in 2004 to enhance and make publicly available more sophisticated data and analysis regarding the supply of and demand for physicians. The Center is committed to providing the medical education community (medical

schools, medical students, residency programs and teaching hospitals), the public and policy makers with better information on current and likely future physician workforce needs. The Center does this through original research, analysis of existing data, collaboration with other associations representing physicians and through an annual conference on physician workforce research. The information on future workforce needs is intended to help guide decision making in the medical education community and where necessary, inform and promote public policies to help assure an appropriate supply of well prepared physicians. The Center has already produced a number of reports including:

- Medical School Expansion Plans: Results of the AAMC 2005 Survey of U.S. Medical Schools;
- Recent Reports and Studies of Physician Shortages in the U.S.;
- Key Physician Data by State.

These reports and additional information on the Center are available at: http://www.aamc.org/workforce .

In my comments today, I want to provide you with some basic background on the physician workforce, why we are concerned about the likelihood of a future physician shortage, what the AAMC is recommending in terms of physician workforce policies, and finally, how the nation's allopathic medical schools and teaching hospitals are responding.

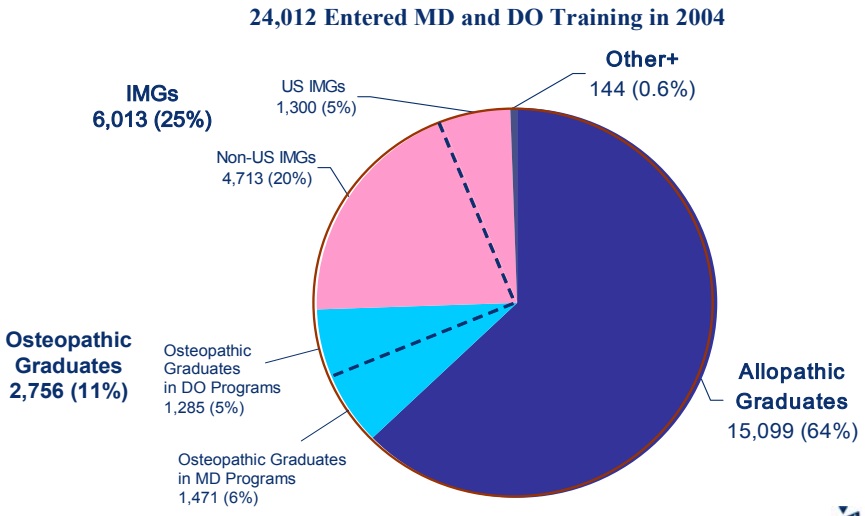
Background on the Supply of Physicians

The vast majority of licensed physicians in the U.S. are educated in allopathic schools—those that confer an MD degree—and residency training programs in the nation's teaching hospitals

accredited by the Accreditation Council for Graduate Medical Education (ACGME). Allopathic medical schools and their affiliated teaching hospitals are a critical source of research, new medical knowledge, and clinical care, and are a vital part of the nation's medical safety net.

Physicians in the United States can practice medicine only after completion of a medical degree ("undergraduate medical education"), and at least one year of post-graduate training in an accredited residency program ("graduate medical education" or GME). About 16,000 physicians graduate from U.S. allopathic medical schools every year with an MD degree; they fill about two-thirds of first-year residency positions in training programs—such as internal medicine, general surgery, pediatrics, and others—that are accredited by the ACGME. Graduates of foreign medical schools, generally referred to as international medical school graduates or IMGs, represent about 25% of the new residents each year; and about 1 in 4 of these IMGs are U.S. citizens who attended schools outside of the U.S. Graduates of osteopathic medical schools (DOs) represent about 11% of all physicians entering graduate training each year. About two-thirds of DOs enter ACGME accredited residency programs. Physicians in the U.S. are licensed by individual states, all of whom require an MD or DO degree, as well as some level of accredited graduate training (GME). The figure below presents the distribution of the physicians entering training in the U.S. in 2004.

Number and Source of Physicians Entering Training in 2004



* Total IMGs = 6,013; Distribution among US and Non-US IMGs is estimated.
+ Includes Canadian Graduates (72)
Source: AAMC GMETrack and AOA Master File

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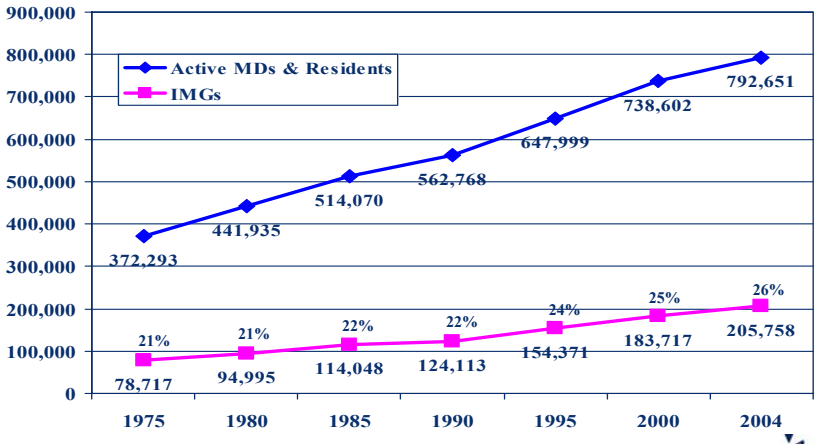
In 2005, there were almost 850,000 physicians active in medicine in the U.S., including about 101,000 in residency training and nearly 60,000 osteopaths. About 24% of active physicians in the US are graduates of non-U.S. medical schools.

Active US MDs and IMGs (1975-2004)
(Includes Residents but not Osteopaths)



Physician Characteristics & Distribution in the US, 2006 Edition, AMA.
Prepared by AAMC Center for Workforce Studies, Jan 2006

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Why a Physician Shortage Is Likely

The expected future shortage of physicians is driven by likely changes in both the supply and the demand for physicians. On the demand side, key factors include: (1) the growing U.S. population; (2) the rapid growth in people over the age of 65 (those that consume the greatest resources); and (3) the rising expectations of Americans along with increasing wealth that will motivate and enable them to use more services. On the supply side, key factors include: (1) the aging of the physician workforce (1 of 3 active physicians over the age 55 and they are likely to retire by 2020); and (2) a new generation of physicians who may not be willing to work the long hours that prior generations of physicians have worked. At current levels of training, the physician–to-population ratio will peak by 2020 and then fall, just as the baby boomers begin to reach 75 years of age.

A dozen states already report physician shortages or expect shortages within the next decade; nationally, at least a dozen specialties report similar shortages.[1] These shortages are likely to exacerbate the existing lack of access for the 20 percent of Americans that live in government designated Health Professional Shortage Areas (HPSA).[2] Many rural and urban communities, economically disadvantaged, and underrepresented minority populations are likely to remain medically under-served for the foreseeable future, and certainly will be more under served if a national shortage emerges.

[1] http://www.aamc.org/meded/cfws/rcntwrkfce.pdf
[2] http://bhpr.hrsa.gov/shortage/

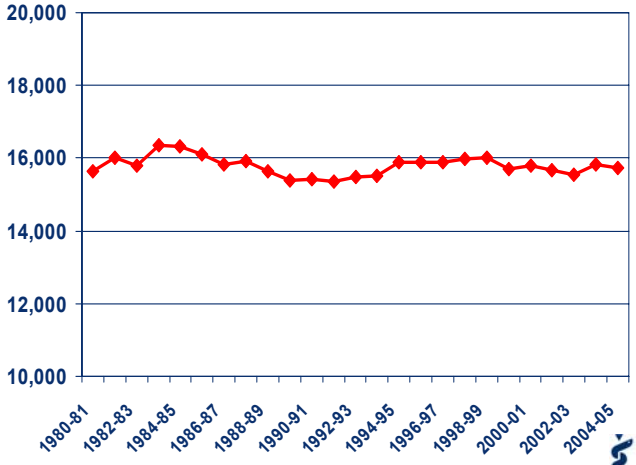
The Supply of Physicians

For the last 50 years, the physician–to-population ratio has been growing steadily. This reflects a doubling in medical school enrollment in the 1960s and 1970s. The nation's physician supply is still rising due to the higher levels of enrollment established in that period. But with the report of the Graduate Medical Education National Advisory Commission (GMENAC) in the late 1970s predicting a large surplus of physicians, allopathic enrollment stabilized. In fact, the number of graduates from U.S. allopathic schools has been virtually flat since 1980. As a result, a very large number of active physicians are now nearing retirement age. If historical retirement patterns continue, the annual number of physicians retiring each year will grow from less than 9,000 in 2000 to over 22,000 a year by 2020, slightly less than the number of new physicians completing training annually in 2005.

The near-zero growth in U.S. MD graduates has translated to a sharp decrease in the number of allopathic educational slots per population in America. In fact, between 1980 and 2005, the US population grew by more than 70 million (31%)[3] while there was no growth in allopathic enrollment; this has led to a significant and steady decline in enrollment per 100,000 population.

[3] US Census. http://www.census.gov/ipc/www/usinterimproj/natprojtab02a.pdf Accessed May 15, 2006

Allopathic Graduation Trends



Source: AAMC Data Book, AAMC Facts

Prepared by AAMC, Center for Workforce Studies, Jan 2006

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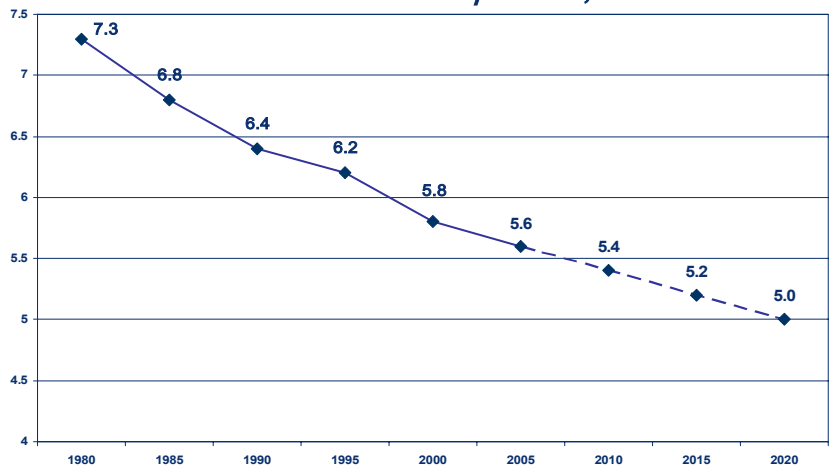
Per Capita MD Enrollment Has Fallen Since 1980

First Year Enrollment per 100,000



Source: AAMC Data Book; US Census Bureau.

Prepared by Center for Workforce Studies, AAMC, Feb 2006.

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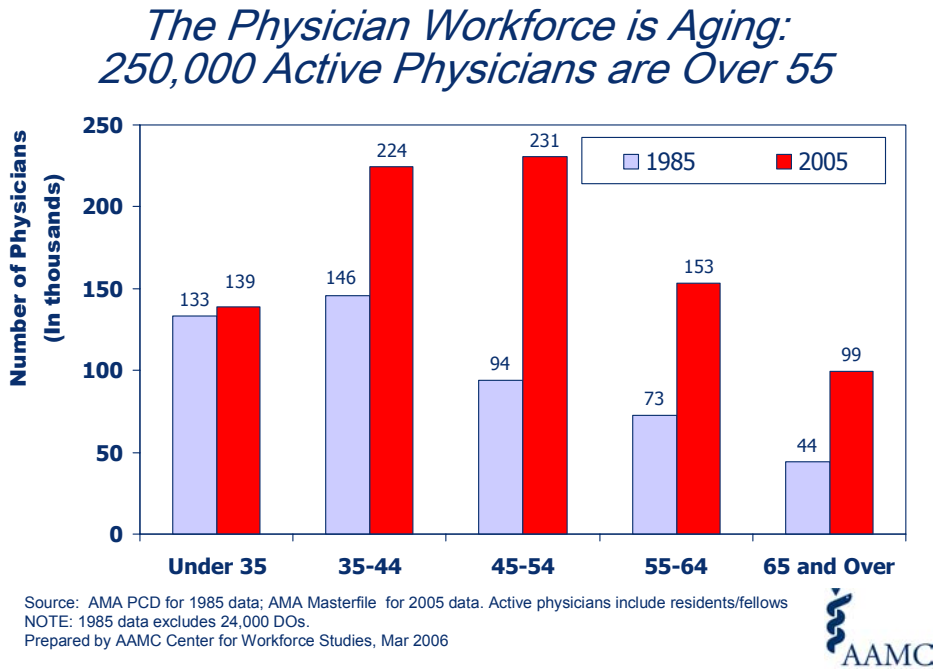

In addition to the large number of physicians approaching retirement age, there are growing reports that the newest generation of physicians do not want to work the long hours of physicians in the past. Gender plays a role. While only 10% of practicing physicians were female in 1980, they are now about 50% of the medical students. While this trend is encouraging from a societal perspective, it has implications for the physician workforce because women tend to work fewer hours than their male counterparts. Moreover, there are growing reports that many of today's young physicians, male and female, are choosing to work fewer hours than their older counterparts regardless of their gender. As a result, the future physician workforce may effectively be 10% lower than their aggregate numbers may suggest.

Because of the enormous potential impact on supply of both changes in retirement patterns by older physicians and work hours by younger physicians, the AAMC Center for Workforce

Studies in collaboration with the AMA and numerous physician specialty associations, is currently conducting surveys of older and younger physicians to obtain more detailed data on their practice patterns.

International Medical School Graduates (IMGs)

IMGs have been a critical component of the physician workforce serving Americans for many decades. For the past 30 years, between 4,000 and 6,500 IMGs have entered the American health care system every year by entering an ACGME accredited residency (GME) program. Currently the number is near 6,500. While IMGs come to the U.S. on many types of visas, the vast majority stay in the U.S. after completing their training. In recent years, the number of U.S. citizen-IMGs has been increasing, with the majority going to for-profit medical schools in the Caribbean. In 2006, about 1,400 US IMGs will enter residency training in the U.S. Little information is available about the number that actually leave the U.S. to attend school, but we do know that about 2,500 are applying each year to take the exam required of all IMGs who want to enter GME in the U.S.

One of the most common visas among IMGs in training is the J-1 visa. The formal name of the J-1 visa program is the "Exchange Visitor Sponsorship Program". It was established to train physicians from other countries to share America's medical knowledge with the world, and is reserved for trainees. J-1 visa holders are required to return to their home country for at least 2 years after completing their training. However, more than half the J-1 visa holders currently receive a waiver of the requirement to return to their home country under the current Conrad 30.

It is important for the Committee to be aware that there is growing international concern about the flow of physicians from undeveloped countries to the most developed and wealthiest English-speaking countries of the world. A recent World Health Organization (WHO) report released in April 2006 documents the major burden caused by the migration of physicians, nurses and other health professionals from the poorest, most needy countries to the more developed countries. An article and editorial in the *New England Journal of Medicine* this past winter and the WHO report strongly urge the developed countries to reduce their reliance on health professionals from under-developed countries.[4, 5]

Migration to the US, UK, Canada and Australia from the Indian Sub-Continent and Sub-Saran Africa

Regions and top countries	Sending country MDs in recipient countries	MDs in sending country	Emigration Factor
Indian Sub-Continent			
1. Sri Lanka	3,027	7,963	27.5
2. Pakistan	12,813	96,900	11.7
3. India	59,523	503,900	10.6
4. Myanmar	1,545	14,356	9.7
5. Bangladesh	1,718	32,498	5.0
6. Nepal	54	1,259	4.1
Sub-Saharan Africa			
1. Ghana	791	1,842	30.0
2. South Africa	6,993	30,740	18.5
3. Ethiopia	359	1,971	15.4
4. Uganda	195	1,175	14.2
5. Nigeria	4,053	30,885	11.6
6. Sudan	622	4,973	11.1

Source: Fitzhugh Mullan, November 2005

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[4] Mullan F. The Metrics of the Physician Brain Drain. *NEJM* 2005 353: 1810-1818.
[5] World Health Organization. *The World Health Report 2006 - Working Together for Health.* Geneva: WHO; 2006.

The Demand for Physician Services

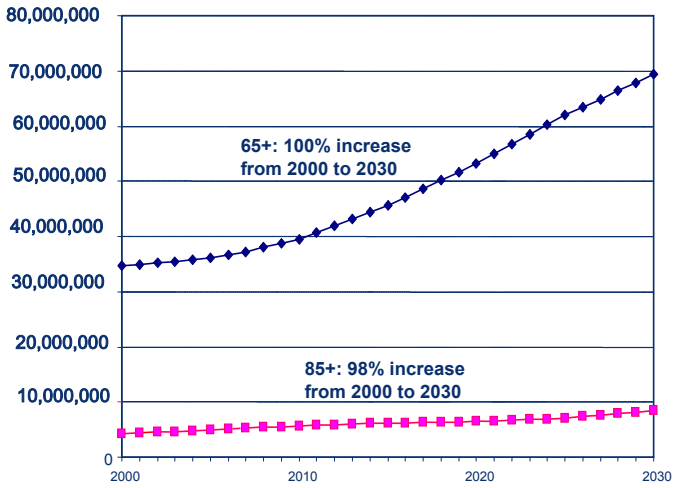
As set forth earlier in this testimony, the demand for physician services is influenced by a number of factors including: population growth, aging of the population, public expectations, economic growth, changes in diagnosis and treatment, cost containment efforts, and other changes in organization and financing of services. However, most of these factors are difficult to forecast with confidence beyond a few years except the aging and growth of the population, both of which have major ramifications for the future demand for physician services.

The population of the U.S. is growing rapidly. According to the U.S. Census Bureau, the nation is growing by more than 25 million people every decade[6]. By 2020, the nation will be growing by almost 1% per year (0.8%), a rate which exceeds the expected rate of growth in the supply of physicians. Thus, we expect a decrease in the physician-to-population ratio at a time when the number of elderly will be increasing even more rapidly.

The number of Americans age 65 and older will double by 2030[7]. Why is this important? Because older Americans use far more physician services than their younger counterparts. In the outpatient setting, patients aged 65 and older averaged 6.3 physician visits a year compared with 2.7 per year for those under 65; in percentage terms this amounts to 133% more visits per year[8]. The elderly also account for a disproportionate share of hospitalizations, procedures, and high-intensity services. For instance, over half of intensive care unit (ICU) days are paid for by Medicare.[9]

[6] US Census. http://www.census.gov/ipc/www/usinterimproj/natprojtab02a.pdf Accessed May 15, 2006.
[7] US Census. http://www.census.gov/ipc/www/usinterimproj/natprojtab02a.pdf Accessed May 15, 2006.
[8] NAMCS, 1980, 1990, 2002 & 2003
[9] Pronovost PJ, et al. *JAMA* 2002; 288(17): 2151—2162.

Number of Americans Over 65 will Double Between 2000 - 2030



Source: U.S. Census; Prepared by NY Center for Health Workforce Studies

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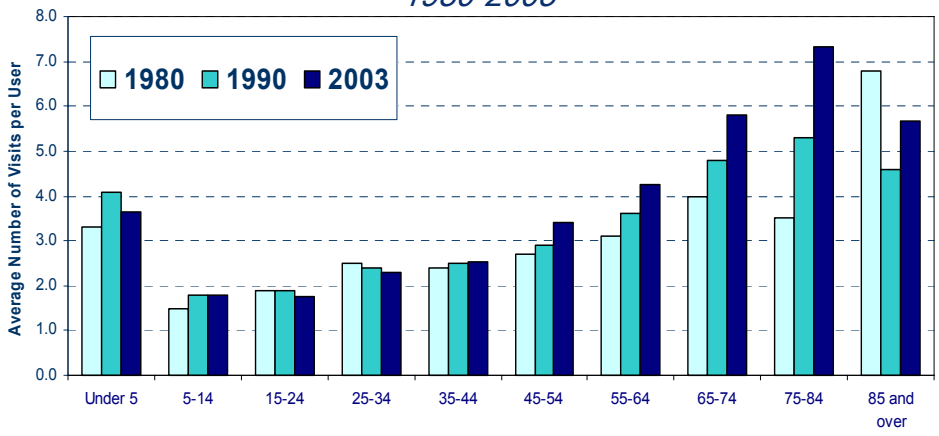
Visit Rates are Higher and Growing for Those Over 45

Ambulatory Care Visits to Physician Offices and Clinics, 1980-2003



Source: NAMCS, 1980, 1990, 2000 & 2003
Prepared by AAMC Center for Workforce Studies

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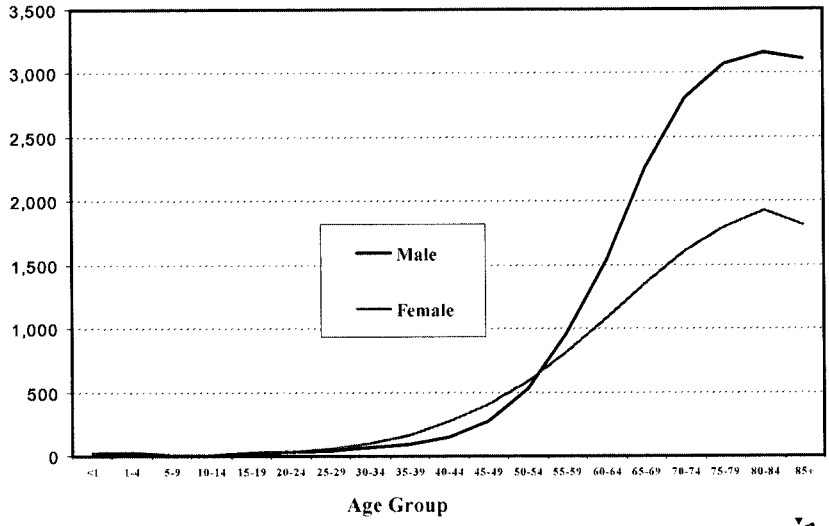
Most illnesses are also far more prevalent among the elderly. Take, for example, cancer rates: for men age 40 to 44, there are 146 new cancers per year per 100,000, while for men age 70 to 74

the rate rises to almost twenty times that of younger men at 2,806 new cases per year. If the age-specific rate of cancer is applied to Census Bureau projections of the U.S. population in 2020, the annual number of new cases will increase by nearly 50% (from 1,334,326 to 1,979,921). In fact, the incidence and prevalence of many common chronic and acute diseases will increase by similar numbers as the elderly population doubles in the next 25 years.

Age-Specific Cancer Incidence Rates/100,000, 2000



Source: CDC, Age-Specific Invasive Cancer Incidence Rates by Primary Site and Race, United Sates (U.S. Cancer Statistics, 2000).
Prepared by AAMC Center for Workforce Studies

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While new advances in treatment and early screening should bring improved outcomes, the prevalence of chronic diseases will increase over time. Patients are likely to live longer lives, but will do so with multiple conditions that require ongoing physician services and accompanying resources.

The baby-boom generation will likely expect more from the health care system than other generations before them having grown up in an era of unprecedented medical advancements. The work by Richard Cooper and others has also highlighted the positive relationship between per

capita income and use of physician services which indicates that countries use more health care services as their per capita income increases (reinforcing health care as a "normal" good)[10]. Through an enormous investment in medicine, technology, and direct-to-consumer advertising, Americans have come to expect miracles from modern health care.

If current health care utilization patterns do not change, or if there are no changes in the way in which we deliver health services, the average patient in the future will consume more physician services than they do today, effectively increasing the number of physicians required to take care of the same number of people—requiring an increase in the ratio of physicians to population. Much of this increase will be related to the expanding population over the age of 65. The increase in per capita demand for health services, the declining number of hours worked by physicians, and the decrease in the ratio of physicians to population will result in a shortage of physicians in the U.S. by 2020 unless more physicians are educated and trained.

The American allopathic medical education community has spent decades developing standards and methods to help assure that schools meet appropriate requirements and that physicians that graduate from these schools have the skills and knowledge necessary to provide high quality care. The nation is better served when a greater, not lesser, proportion of future physicians are held to these standards.

Achieving the desired growth in allopathic graduates will require increased enrollment at most existing medical schools as well as the establishment of new medical schools. Increases in

[10] Cooper RA, Getzen TE, Laud P. Economic Expansion Is a Major Determinant of Physician Supply and Utilization. *Health Services Research.* April 2003;38(2):675–696.

enrollment are particularly appropriate in areas of the country where the population has grown rapidly over the past 25 years and areas where the population is projected to grow rapidly in future years. In addition, states with low medical school enrollment per capita, with numerous under-served areas, and with large and growing elderly populations may also be appropriate areas for medical school enrollment growth.

A Historical Perspective on Workforce Policies

Given the growing concern with potential shortages, some might ask why allopathic medical school enrollment hasn't increased faster. To understand this, it is important to review the history of physician workforce policy recommendations. During the 1980s and 1990s, the national Council on Graduate Medical Education (COGME), the National Academy of Science's Institute of Medicine (IOM), the Pew Health Professions Commission, the AMA, the AAMC and other national physician associations expressed strong concern with a potential surplus of physicians. The recommendations from these public and private organizations were striking in their consistency with one another.

In its 1994 report to both Congress and the Secretary of Health and Human Services, COGME concluded that, "in a managed [sic] care dominated health system, the Bureau of Health Professions projects a year 2000 shortage of 35,000 generalist physicians and a surplus of 115,000 specialist physicians" and recommended that the nation "produce 25% fewer physicians annually."[11] In 1995, the Pew Commission recommended that medical schools "by 2005 reduce the size of the entering medical school class in the U.S. by 20-25%," arguing further that this

[11] Council on Graduate Medical E. Fourth Report: Recommendation to Improve Access to Health Care Through Physician Workforce Reform. In: Services HaH, ed; 1994.

reduction should come from the closure of existing medical schools.[12] In 1996, an IOM committee recommended that "no new schools of allopathic or osteopathic medicine be opened, that class sizes in existing schools not be increased, and that public funds not be made available to open new schools or expand class size."[13] In 1996, the AAMC and five other major medical associations urged policymakers to follow IOM recommendations but also to create a national physician workforce advisory body to monitor and periodically assess the adequacy of the size and specialty composition of the physician workforce.[14]

These recommendations and analyses missed the mark for several reasons, including the incorrect belief that the nation's health care system was going to be dominated by managed care plans that would tightly control the use of services. The US population also grew more rapidly than anticipated. Finally, the studies were done in a period when the physician to population ratio was still growing from the surge in medical school enrollment in the 1960s and 70s. We are now approaching the end of this historic period of growth and it will be occurring just as the baby-boom generation begins to reach 70.

Current and Proposed AAMC Workforce Policy Recommendations

Based on the new realities, in 2005, the association issued a new position statement on the physician workforce[15]. Among the key recommendations were the following.

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[12] Pew Health Professions C. *Critical Challenges: Revitalizing the Health Professions for the Twenty-First Century. The Third Report of the Pew Health Professions Commission* 1995.
[13] Commitee on the U.S. Physician S. *The Nation's Physician Workforce: Options for Balancing Supply and Requirements.* Washington, DC: Institute of Medicine; 1996.
[14] AAMC, AACOM, AMA, AOA, AAHC, NMA Consensus Statement on the Physician Workforce: 1996.
[15] While the association's recommendations are only recommendations, we hope that the information and logic of our recommendations encourage our members to seriously consider them. Each medical school decides on their enrollment.

1. ***The number of U.S. medical school graduates should be increased by 15% by 2015.***

In response to growing concerns about a likely future physician shortage, the association recommended that existing schools consider expanding enrollment, and that new schools be established to add an additional 2,700 graduates each year. The AAMC Executive Council is now considering a new recommendation calling for a 30% increase in allopathic medical school enrollment over the next decade compared to 2002. As indicated in the attached research brief, allopathic schools have begun to increase enrollment.

In addition to allopathic schools, osteopathic schools are also planning increases. New and existing DO schools are expected to increase enrollment by 2,000 to 3,000 per year over the next decade.

2. ***The number of graduate medical education (GME) positions reimbursed by Medicare should be increased to accommodate the increase in enrollment in U.S. medical schools.***

While U.S. medical schools have begun to respond to the growing concern about physician shortages by increasing enrollment, residency training programs also play a critical role in physician supply. In 1997, Congress established a cap on the number of resident physicians (physicians in training) that can be paid for by the Medicare program. This cap seriously discourages teaching hospitals from increasing the number of resident physicians being trained. Thus, if there is to be an adequate supply of physicians to care for Americans in the future, we will need to increase the number of GME positions supported by Medicare.

3. ***AAMC and its members remain committed to educating a diverse physician workforce***

Studies indicate that medical students from racial and ethnic minority groups are more likely to practice in under-served communities and to care for a disproportionate number of disadvantaged patients. Studies also indicate that students from rural areas are more likely to return to rural areas to practice after they complete their education. This information, coupled with other compelling arguments, undergrids the AAMC's strong advocacy for greater diversity in medical education.

4. The National Health Service Corps (NHSC) has played an important role in expanding access for under-served populations, and continued expansion of this program is strongly recommended.

The NHSC is an HHS sponsored program that helps place physicians and other health care providers in communities where they are most needed, both through scholarships and through loan repayment. The NHSC has a proven record of serving the under-served in both rural and urban settings; 60% of its clinicians are located in rural areas, while the remainder serve urban populations in such settings as Community Health Centers (CHC), health departments, and other critical access facilities. A recent report in the *Journal of the American Medical Association* by Rosenblatt and colleagues demonstrates the reliance of Community Health Centers on NHSC scholars and loan repayment recipients and the inability of these safety net sites to recruit an adequate number of physicians.[16]

[16] Rosenblatt RA, Andrilla CHA, Curtin T, Hart LG. Shortages of Medical Personnel at Community Health Centers: Implications for Planned Expansion. *JAMA.* March 1, 2006 2006;295(9):1042-1049.

The growing debt of graduating students is likely to increase the interest and willingness of U.S. medical school graduates to apply for NHSC funding and awards. The scholarship program funds tuition and other fees for over 150 medical students annually. Moreover, almost 80% of the NHSC budget funds loan repayments for physicians that agree to serve underserved communities after the completion of residency training. The adequacy of current funding levels for loan repayments (numbering about 1,200 annually) should also be assessed to assure that they are adequate to attract physicians to the NHSC in light of growing student debt.

5. ***To assure the continuous availability of updated information on the supply and demand for physicians, the public and private sector should collectively support analysis of, and monitor changes over time in the physician workforce.***

Federal funding of medical education through programs such as Title VII has been instrumental in increasing the supply of the primary care workforce and in addressing the needs of the underserved.[17] Along with its health professions training program grants, the Bureau of Health Professions has long been the only federally funded research center studying health professions supply and demand. In addition to its own work on the nursing and physician workforce, the Bureau funded six regional centers for health workforce analysis across the nation. This small but important commitment to improving health workforce information and analysis has been eliminated from the current federal budget.

While Title VII and health workforce research have been eliminated from the 2007 budget, we have not eliminated the problems they were designed to address, including stimulating medical

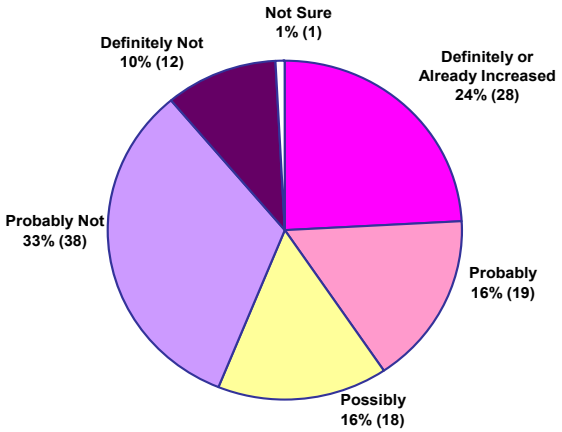
[17] Meyers D, Fryer GE, Krol D, Phillips RL, Green LA, Dovey SM. Title VII funding is associated with more family physicians and more physicians serving the underserved. Am Fam Physician 2002;66:554.

school growth, increasing minority student enrollments, improving access to care for the underserved, or better understanding and planning for the future health care needs of the nation. Funding for the national Council on Graduate Medical Education (COGME) has also been eliminated. As a result of all of these changes there is little or no national leadership in physician workforce research and planning from the federal government.

The Response of Allopathic Medical Schools to the Calls for Increased Enrollment

The AAMC is making every effort to inform the medical education community about the growing likelihood of a physician shortage but does not control the number of medical student enrollments or training positions available. The AAMC's recommendation to increase enrollment has not gone unnoticed. For the 2005-06 school year, enrollment topped 17,000, a 2.1% increase from the previous year. According to a 2005 survey of medical school deans, over 40% of the nation's medical schools are likely to increase enrollment in the next five years.

Allopathic Schools Plans to Increase First-Year Enrollment Between 2005 and 2011
Results of 2005 Survey of Deans (116 of 125 schools)



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In the 2005 survey of medical school deans, 25 indicated they had "definite" plans to increase enrollments. An additional 37 schools indicated they had "probable" or "possible" plans to increase their class sizes. If all of schools follow through on their "definite," "probable" or "possible" plans to increase enrollment in the next five years, 5.4% increase from today's enrollment would result. If potential enrollees from the 5 new medical schools that are likely to be able to collectively enroll an additional 360 students by the 2010-11 academic year are factored in, a maximum of a 8.6% increase above current enrollment would occur.

The cost of building new infrastructure to support increased enrollments is the major challenge. State and local governments do the majority of financing, which is supplemented by local fundraising efforts. The federal government currently does not finance the expansion of existing schools or the development new medical schools.

In conclusion, the issues surrounding the physician workforce and potential shortages are complex. The AAMC and our member institutions are committed to assuring an adequate supply of well educated physicians to ensure that the future needs of Americans are met. Thank you for the opportunity to address the Subcommittee today. I would be happy to answer any questions you may have at this time.

Analysis IN BRIEF

AAMC
Tomorrow's Doctors, Tomorrow's Cures®

Volume 6, Number 2
April 2006

Association of
American Medical Colleges

An Analysis of Medical School Expansion Plans

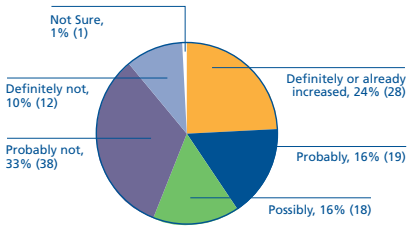
Growing evidence indicates that the nation will face a shortage of physicians in the next one to two decades. In 2005, the AAMC recommended a 15 percent increase in the number of U.S. medical school graduates by 2015, a small increase given the near-zero growth in M.D.-granting institutions over the last two decades. A 15 percent increase in allopathic enrollment would be about equal to an additional 2,400 students per year over 2003 levels. While osteopathic enrollment and graduations have grown by nearly 300 percent over the past 25 years, their continued growth alone will not meet the needs of the nation.

To better understand and inform the expansion plans of medical schools, this "Analysis in Brief" highlights the results of a 2005 survey of U.S. allopathic medical schools conducted by the AAMC Center for Workforce Studies.[1] Of the 125 eligible schools, 116 responded (93 percent). The information provided by schools was self-reported.

Medical Schools' Plans to Change First-Year Enrollment

Sixty-two (53 percent) of the 116 schools indicated that they would "definitely," "probably," or "possibly" change first-year enrollment in the next five years. In addition, three schools reported that they had increased enrollment since 2000, though they do not plan to change enrollment in the next five years. Altogether, 65 schools (56 percent) are considering enrollment changes or have already increased enrollment since 2000 (Figure 1).

Figure 1. Distribution of Schools by Plans to Change First-Year Enrollment, 2005



Of these schools, 28 (24 percent) reported that their plans to expand are "definite" or that enrollment had already been increased. Nineteen schools (16 percent) reported that increases are "probable" while another 18 schools (16 percent) reported "possible" expansion.

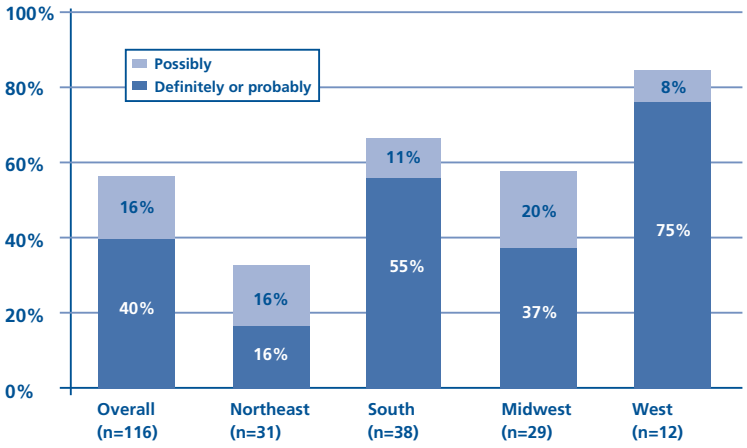
Plans to Change First-Year Enrollment by School Characteristics

The likelihood of schools to increase enrollment varied by geographic location, ownership, and other characteristics.

Region: Fifty-five percent of schools in the South and 75 percent of schools in the West reported definite or probable enrollment changes or had already increased enrollment, compared to only 16 percent of schools in the Northeast and 37 percent in the Midwest. When "possible" enrollment changes are included, two-thirds of schools in the South and over 80 percent of schools in the West are considering changing enrollment (Figure 2).

Public vs. Private: Forty-nine percent (32) of 66 public schools reported definite or probable enrollment changes or had already increased enrollment, compared with 32 percent (14) of 44

Figure 2. Schools with Plans to Change First-Year Enrollment by Region, 2005



private schools responding to the survey (Figure 3). When "possible" enrollment changes are included, 64 percent of public schools and 46 percent of private schools have already increased enrollment or are considering enrollment changes.

Community-Based, Private Freestanding, and Research Intensive schools[2]: Fifty percent of community-based schools reported that they would definitely or probably change enrollment (or had already increased) compared with 31 percent of private freestanding schools and research-intensive schools. If schools with "possible" enrollment changes are included, over 80 percent of community-based schools are currently considering enrollment changes (Figure 4).

Size of Expected First-Year Enrollment

Existing U.S. allopathic medical schools expect to increase enrollment by as many as 919 first-year students by 2010-11, 5.4 percent more students than in 2005-06. Specifically:

- Of the 116 schools that responded to the survey, 25 (22 percent) indicated that they would "definitely" change enrollment over the next 5 years (by 2010-11), an increase of 453 students.
- Nineteen schools indicated "probable" enrollment changes representing 308 additional students.
- Eighteen schools indicated "possible" additional enrollment of 158 students.

It appears likely that five new allopathic schools will open in the next five years.

Figure 3. Schools with Plans to Change First-Year Enrollment by Ownership, 2005

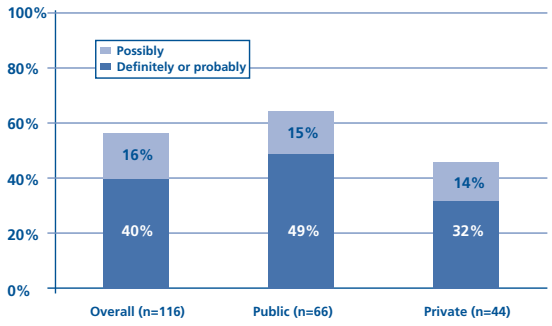
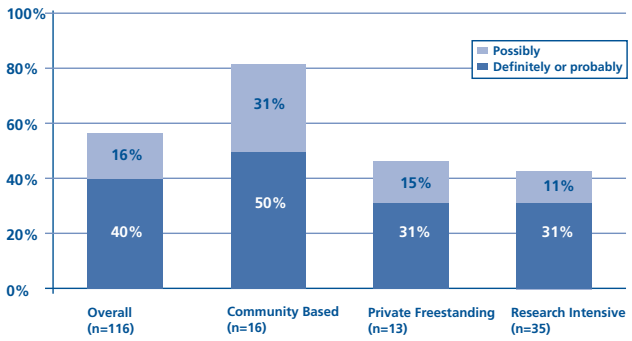


Figure 4. Schools with Plans to Change First-Year Enrollment by Institutional Type, 2005



The aggregate enrollment increase from new schools is estimated to be as many as 360 students by 2010-11; by 2015, as many as 500 students per year may be enrolled in new schools.

Therefore, total annual enrollment increases from existing and new allopathic medical schools are estimated to be as many as approximately 1,400 students by 2010-11. While this represents a 9 percent growth over 2005-06 levels, or a 12.2 percent increase from 2002-03, it will not reach the 15 percent growth called for by the AAMC without additional expansion by 2015.

Conclusion

U.S. medical schools are responding to existing and expected physician shortages and the AAMC call for increased in enrollment. As of fall 2005, over 40 percent of allopathic schools are likely to increase their enrollment in the coming five years or have done so since 2000.

While current efforts are encouraging, they are unlikely to achieve the 15 percent increase recommended by the AAMC and the 3,000 graduates per year recommended by the Council on Graduate Medical Education (COGME).[3] The AAMC and COGME recommendations both are far below the likely increased demand for physician services; the fact that current plans do not even meet the current recommended increase is of concern.

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[1] This Analysis in Brief is excerpted from *Medical School Expansion Plans: Results of the AAMC 2005 Survey of U.S. Medical Schools*. See www.aamc.org/cfws for the full report.

[2] Private freestanding medical schools are private entities that are not part of a parent university. Community-based schools are characterized by their affiliation with community hospitals and local physicians where the schools depend upon local hospitals for clinical facilities and appoint many community physicians to their faculties. Forty research-intensive schools were selected by the volume of federal research grants and contracts awarded to support faculty work (NIH Awards to Medical Schools by Rank, Fiscal Year 2004).

[3] See www.cogme.gov/16.pdf

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Key Physician Data by State

Association of American Medical Colleges
Center for Workforce Studies

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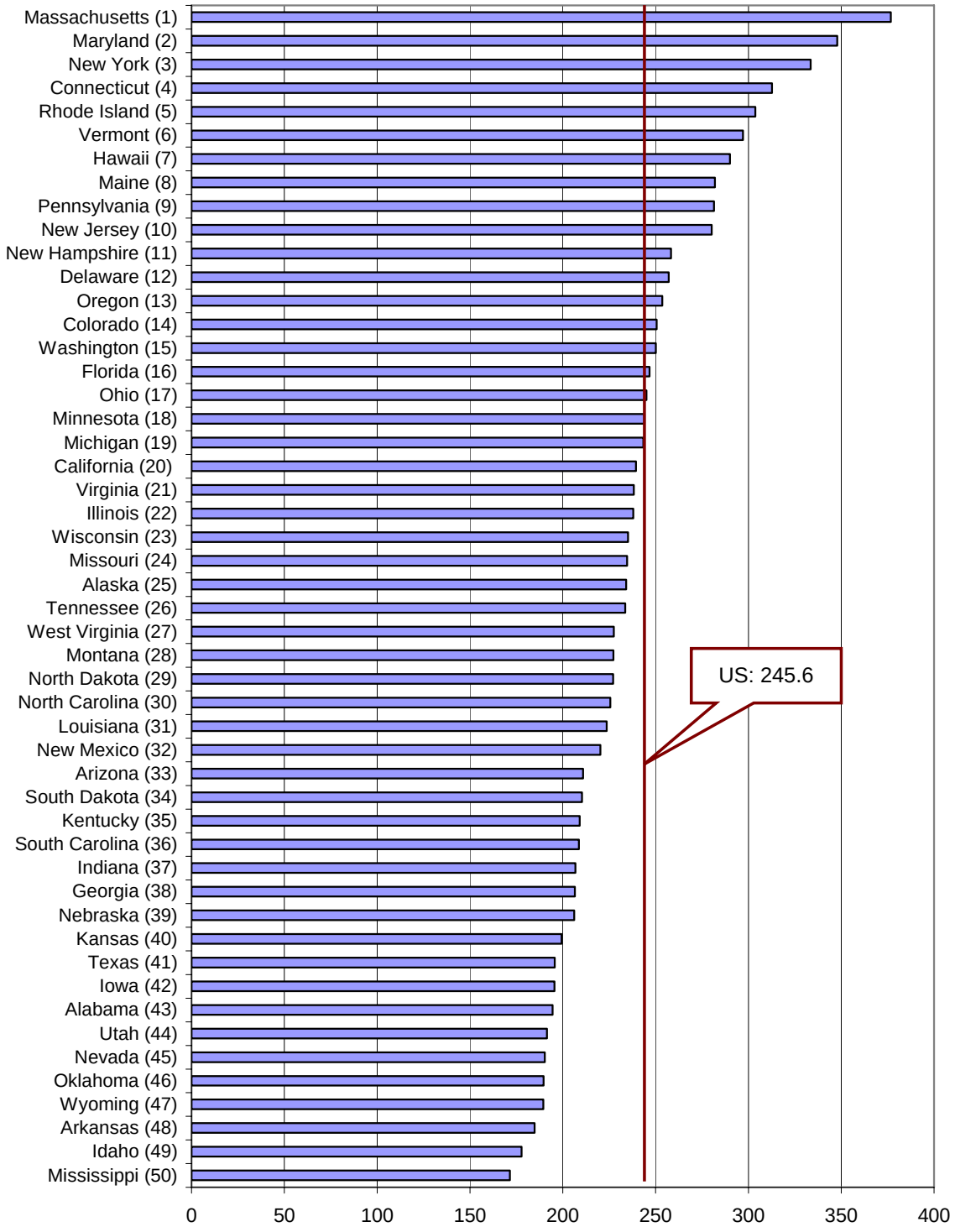
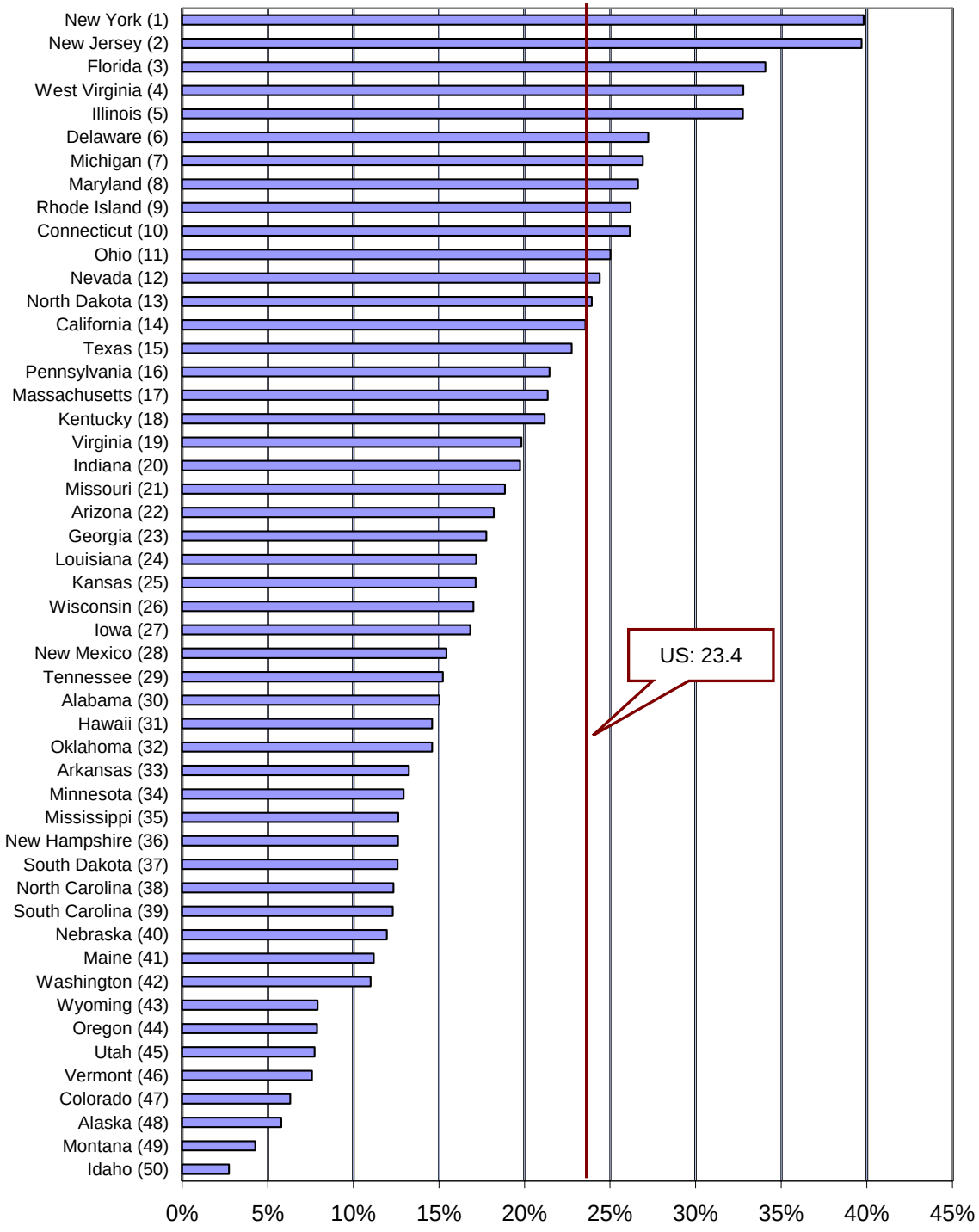
Figure 1.
Active Physicians per 100,000 Population, by State



Source: AMA Masterfile, January 2005

Includes physicians who graduated from US allopathic (MD) and osteopathic (DO) schools as well as international medical graduates (IMG). Active physicians includes those involved in patient care, research, and/or administration at least 20 hours a week.

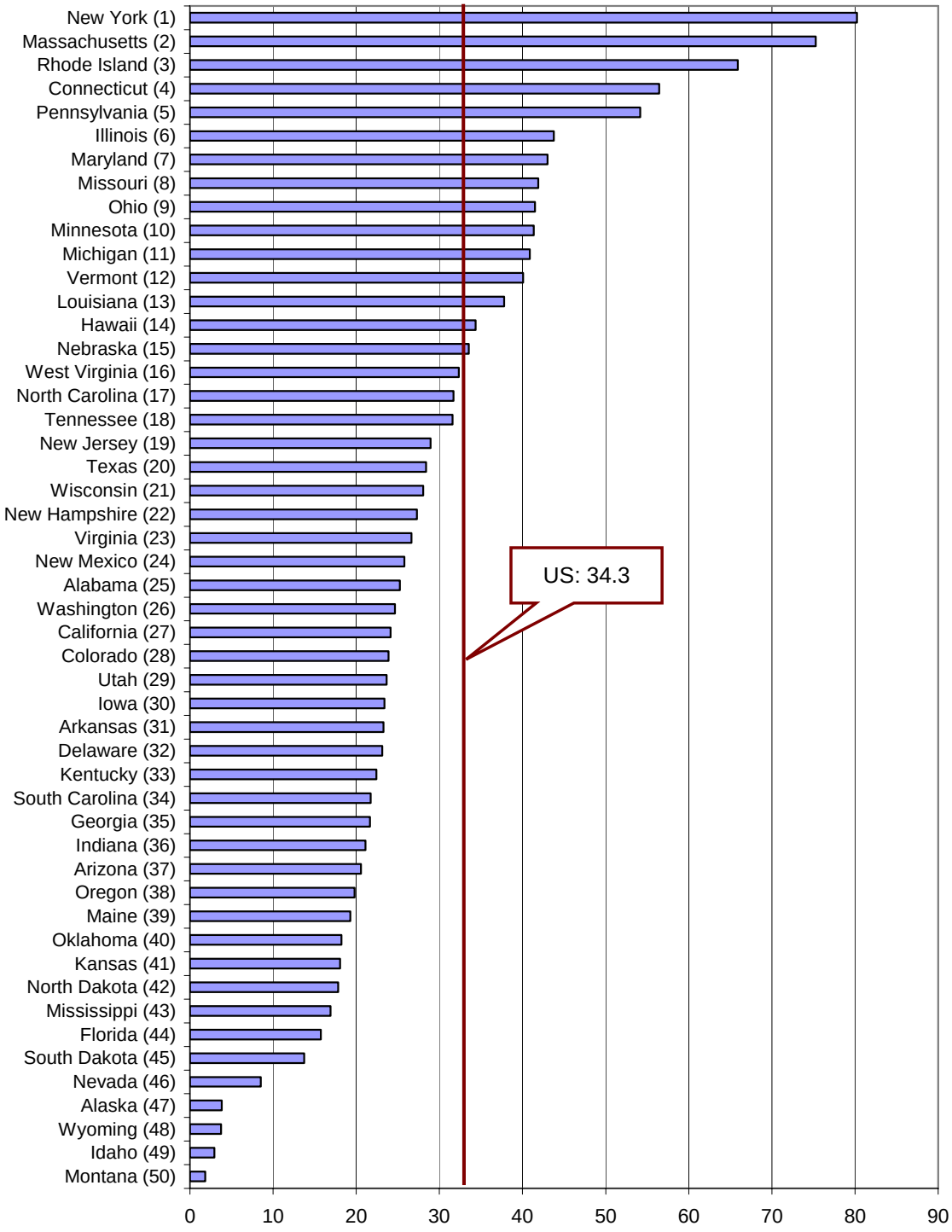
Figure 2.
International Medical Graduates (IMGs) as a Proportion of Active Physicians in the State



Source: AMA Masterfile, January 2005

Includes active physicians (MDs and DOs). The percentage represents active IMGs divided by total active physicians.

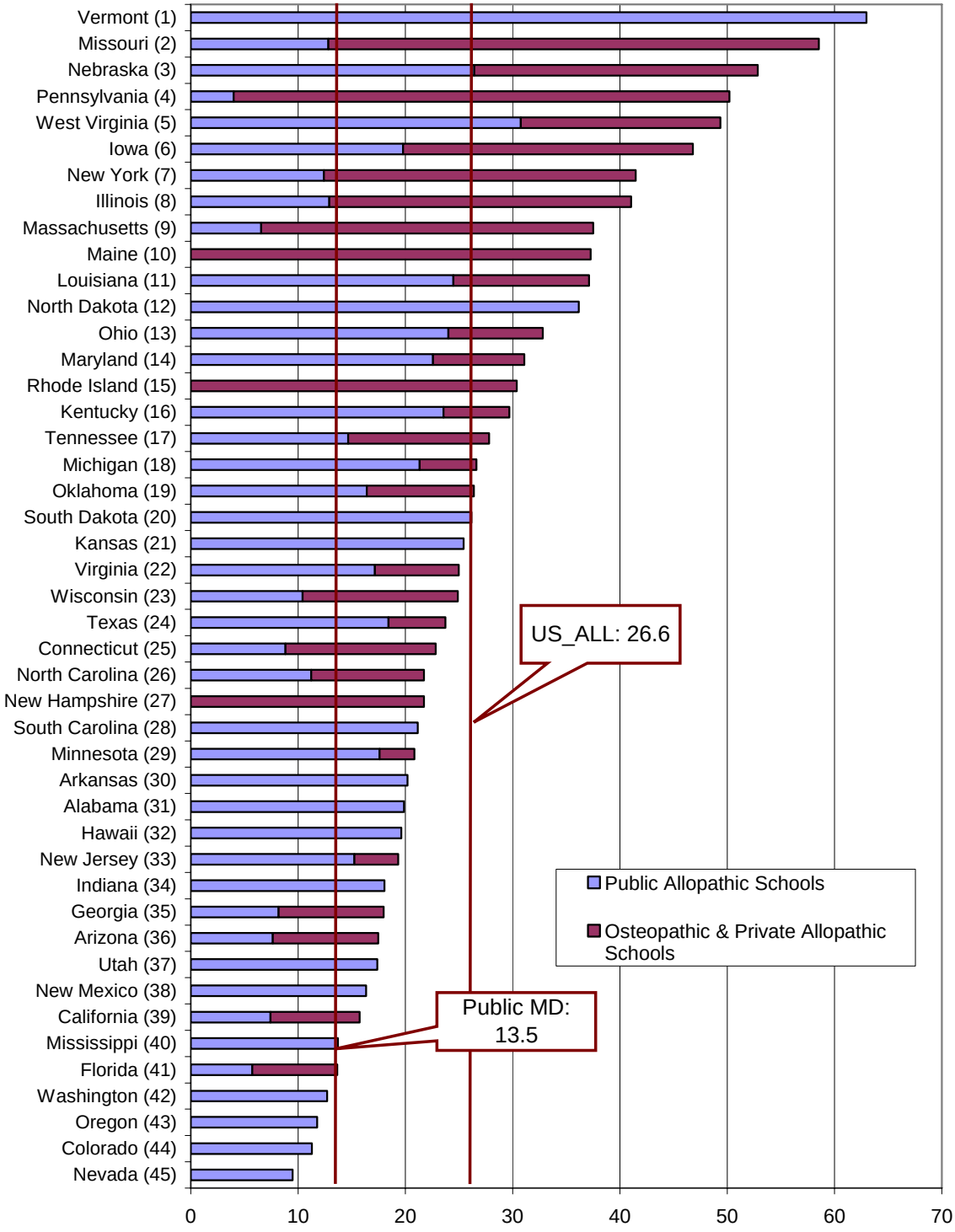
Figure 3.
Physicians in ACGME Residencies and Fellowships: Per 100,000 Population



Source: AAMC GMETrack, 2004

Includes MDs, DOs, and IMGs in ACGME accredited GME training positions per 100,000 population.

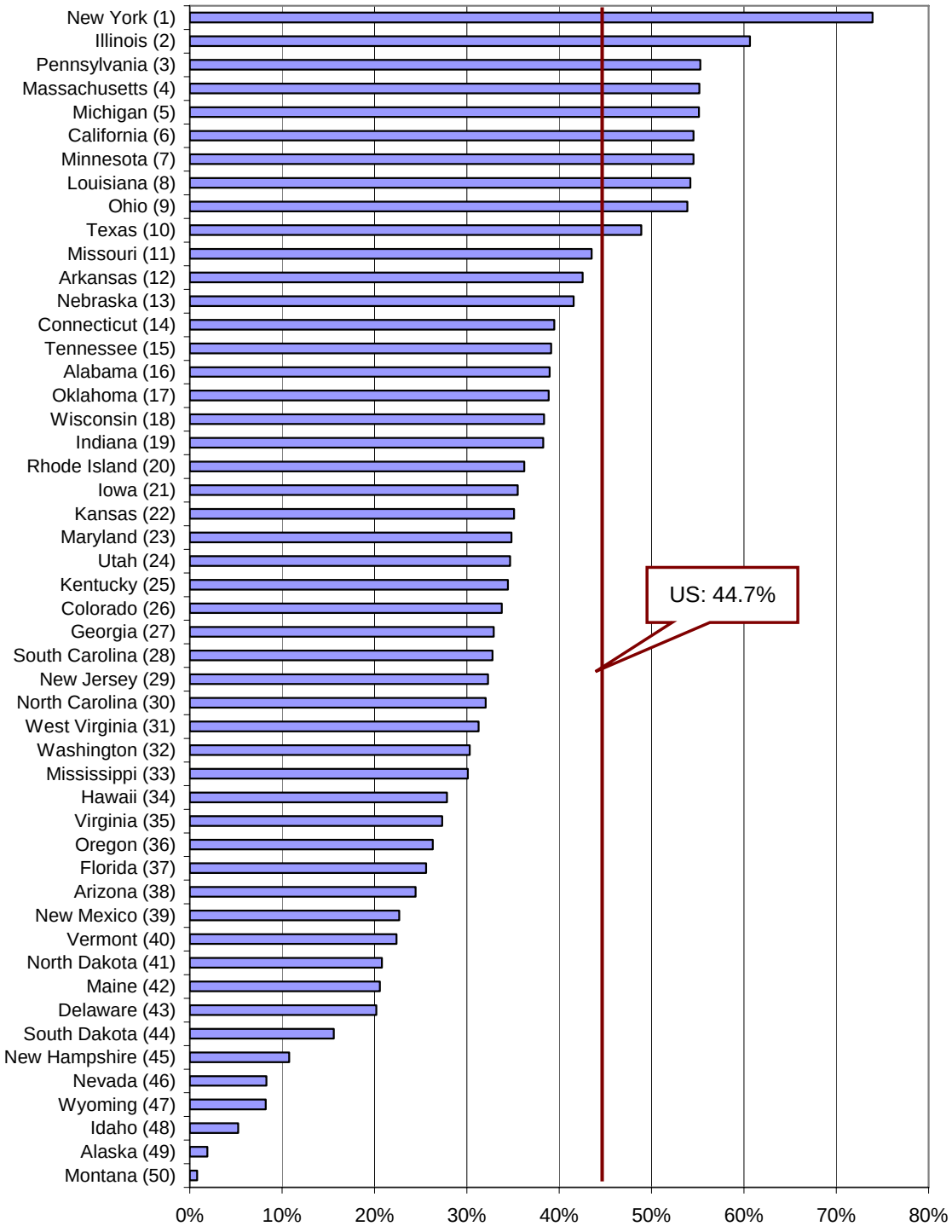
Figure 4.
Number of Current Medical School Students: Per 100,000 Population



Source: AAMC FACTS—Applicants, Matriculants, and Graduates

Includes students in allopathic (MD) and osteopathic (DO) schools of medicine, 2003-2004, per 100,000 population. Includes only states with a medical school located in state.

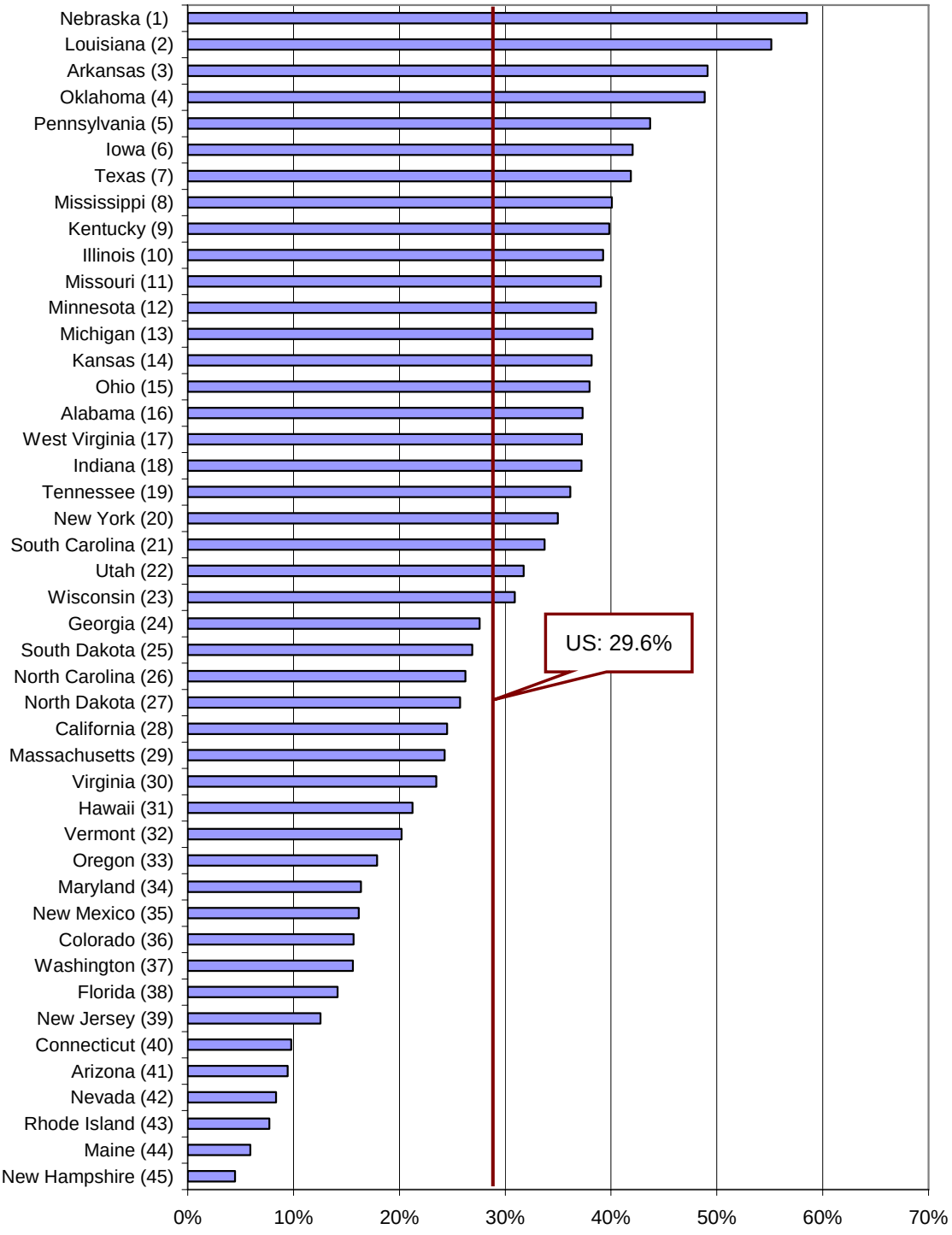
Figure 5.
Active Physicians In-State: Proportion Who Completed an ACGME Accredited Residency or Fellowship In-State



Source: AMA Masterfile, 2005

Number of active physicians in the state who completed training in-state divided by total number of active physicians in-state.

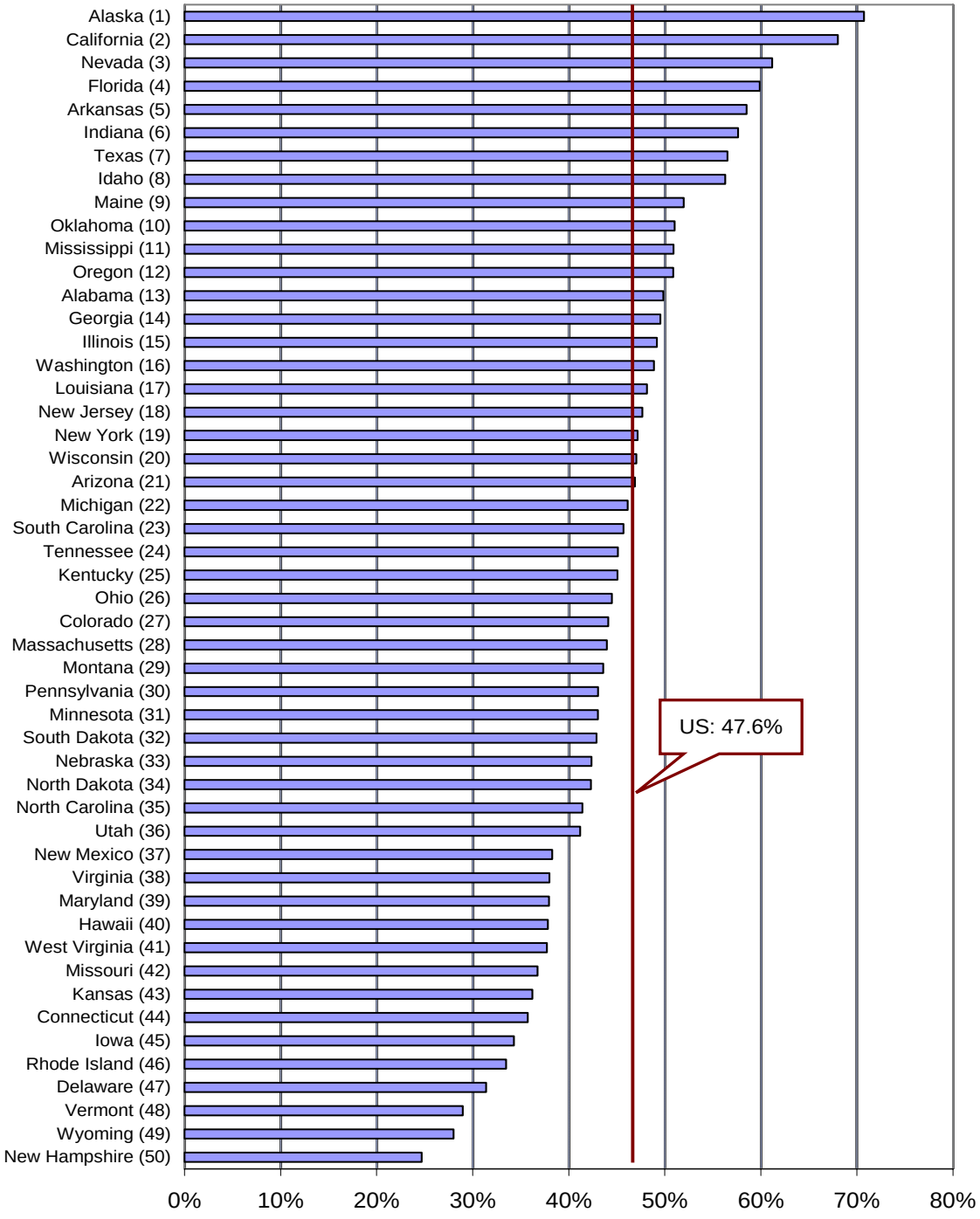
Figure 6.
Active Physicians In-State: Proportion That Attended In-State Medical Schools



Source: AMA Masterfile, January 2005

Of the total active physicians in the state, the percentage that graduated from in-state medical schools. Includes MDs and DOs. Includes only states with a medical school located in state.

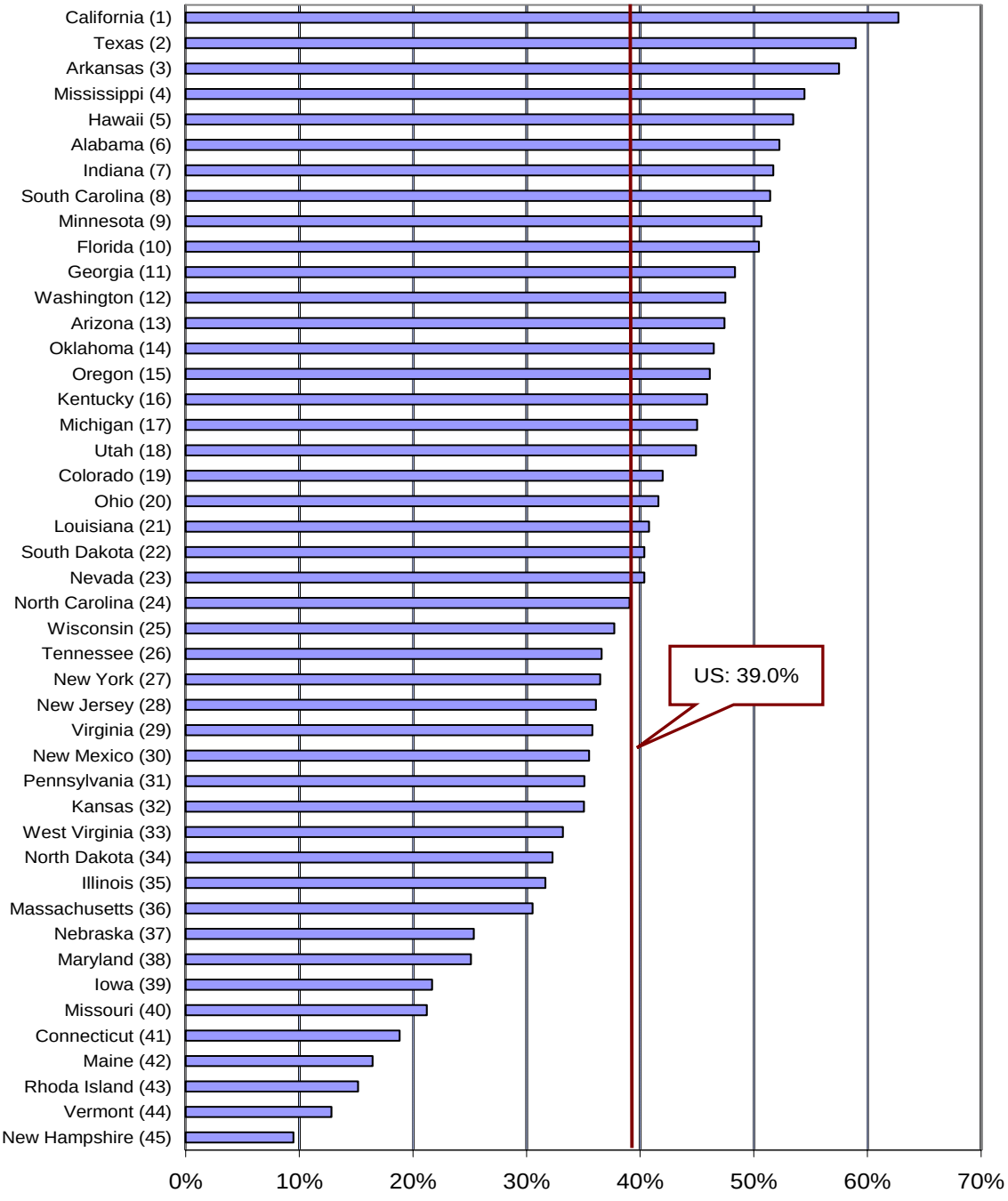
Figure 7.
Retention of Residents and Fellows: Proportion of Physicians Active in US That Completed an ACGME Training Program in a State that are Practicing in that State



Source: AMA Masterfile, January 2005

Of the active physicians in the US who received ACGME training in a state, the percentage that are practicing in that state. Includes MDs and DOs completing ACGME accredited programs.

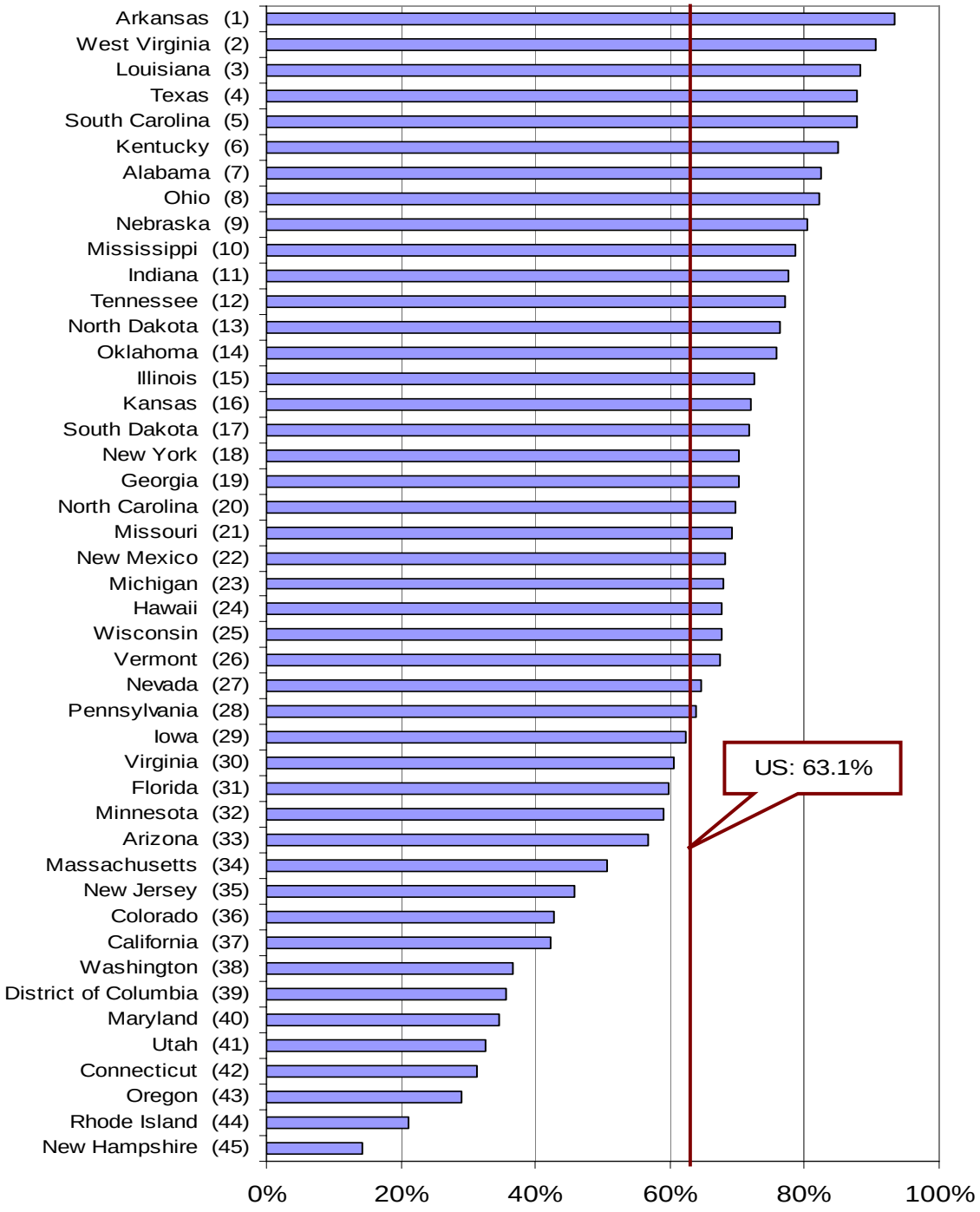
Figure 8.
Retention of Medical Students: Proportion of Physicians Active in US That Graduated from Medical School in a State That are Practicing in that State



Source: AMA Masterfile, January 2005

Of active physicians in the US that went to medical school in the state, the percentage that are currently practicing in the state where they attended medical school. Includes graduates of allopathic (MD) and osteopathic (DO) schools.

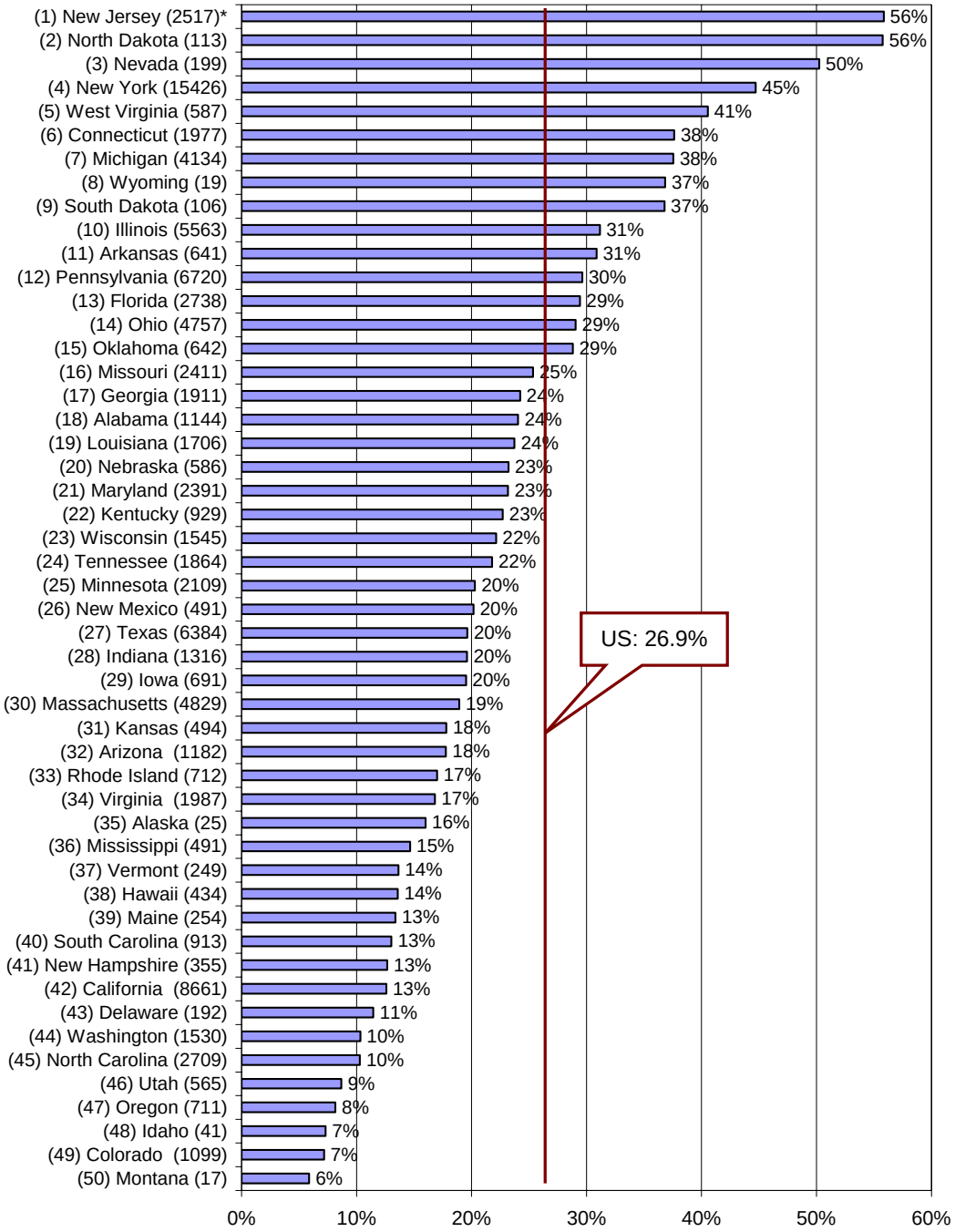
Figure 9.
Proportion of New Allopathic Students from Each State That Matriculated in State Schools in 2004



Source: *AAMC Facts*

The percentage is the number of individuals entering an allopathic medical school in the state in 2004 that listed the state as their residence divided by the total number listing the state as their residence who entered an allopathic school anywhere in the US in 2004. Overall US percentage reflects all new allopathic entrants including those from states without an allopathic school.

Figure 10.
International Medical Graduates (IMGs) as a Proportion of Residents/Fellows in ACGME Accredited Programs in the State (2004)



*: Number of Residents/Fellows in ACGME Accredited Programs in the State.

Source: AAMC GME Track, 2005

The percentage represents IMGs as residents/fellows in ACGME accredited programs divided by total residents and fellows in ACGME accredited programs.