

Trends Among Foreign-Graduate Faculty at U.S. Medical Schools, 1981-2000

According to a recent study published in the *Journal of the American Medical Association*, one in four physicians in the U.S. received his/her medical degree from an institution outside of the U.S., Puerto Rico, or Canada.* But less is known regarding the presence and growth of U.S. medical school faculty who received M.D. and/or Ph.D. degrees from foreign institutions. Using the Association of American Medical Colleges' Faculty Roster data, which cover approximately 95% of all full-time faculty at U.S. medical schools, this analysis answers the following questions: (1) To what extent are U.S. medical school faculty composed of those educated in foreign countries? (2) How many of these individuals are in basic and clinical science departments? (3) What types of advanced degrees do they hold? and (4) In which countries did they receive their training?

In this analysis, the term "foreign-graduate faculty" refers to U.S. medical school full-time faculty members who received M.D.s and/or Ph.D.s (or their equivalents) from outside the U.S., regardless of their citizenship.

Faculty Growth and Makeup

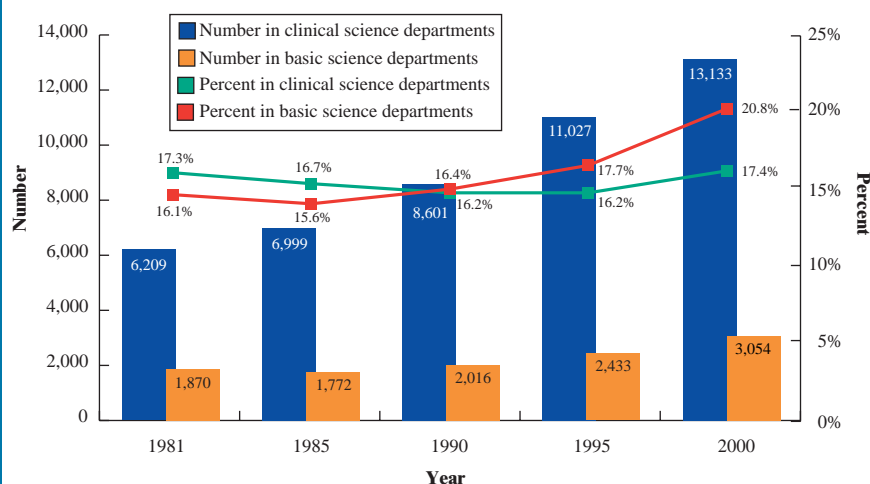
From 1981 to 2000, the number of full-time U.S. medical school faculty reported to the AAMC Faculty Roster increased by 86% from 49,200 to almost 91,400. Similarly, the number of foreign-graduate faculty at U.S. medical schools doubled from 8,100 to 16,200 over the same period. Overall, foreign-graduate faculty as a proportion of U.S. medical school faculty has remained fairly constant: 17% in 1981 and 18% in 2000. The representation of foreign graduates among clinical faculty has been stable (16-17% over the past two decades). Meanwhile, foreign-graduate faculty as a proportion of basic science faculty gradually increased from 16% in 1981 to 21% in 2000. (See Figure 1.) This increase, however, did not affect the overall representation of foreign-graduate faculty, because less than 20% of U.S. medical school faculty members were in basic science departments.

The makeup of foreign-graduate faculty by degree type has also changed over time. Faculty with M.D.s as a percentage of the overall foreign-graduate faculty has declined from 74% in 1981 to 65% in 2000, while the proportion of such faculty with Ph.D.s increased from 15% to 22% over the same period. Those with dual degrees (M.D.s and Ph.D.s) remained at approximately 12-13% over time. (See Figure 2.) Among this group, over 70% received both degrees from outside of the U.S., while 20% who received their medical degrees from abroad earned their Ph.D.s in the U.S.

Degree-Granting Countries

While the number of countries where foreign-graduate faculty received their degrees increased from 81 to 104 over the past 20 years, the majority of these individuals came from only a handful of nations. With all degree types com-

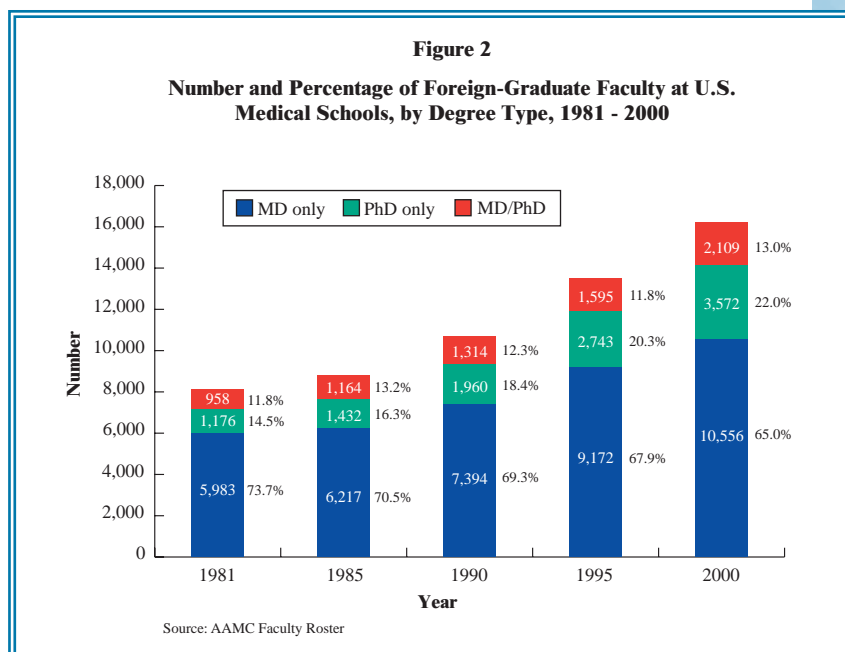
Figure 1
Number and Percentage of Foreign-Graduate Faculty at U.S. Medical Schools, by Department Type, 1981 - 2000



Source: AAMC Faculty Roster

bined, 10 nations account for 53-54% of all foreign-graduate faculty. (See Table 1.) The percentage is even higher among foreign-graduate Ph.D.s at 75%. While the output of the four top-ranked nations (India, Canada, the United Kingdom, and Germany) has remained relatively stable, other nations have experienced changes in rank starting in 1990. Argentina, Japan, and South Korea moved out of the top 10 ranking between 1995 and 2000, while Israel, Italy, and, most prominently, China, moved in. The growth of faculty educated in China has been the most extraordinary thus far. The number of faculty members who received their training in China was 35 (ranking the country 41st) in 1981; by 1995, that number jumped to 341, ranking the country 9th. In 2000, it reached 763, surpassing the United Kingdom and out-ranked only by India and Canada.

This study examines a dimension of the diversity among U.S. medical school faculty that has generally not been addressed. The number of foreign-graduate faculty has been increasing over time, constituting approximately one-fifth of U.S. medical school full-time faculty. While the overall percentage of foreign-graduate faculty has remained fairly constant over the past two decades, the percentage of basic scientists trained outside the



United States has been on the rise. With the preliminary findings of this study in place, future studies will examine other characteristics that relate to the appointment, demographics, and career mobility of foreign-graduate faculty.

*Whelan, Gerald P., Nancy E. Gary, John Kostis, John R. Boulet, and James A. Hallock. 2002. "The Changing Pool of International Medical Graduates Seeking Certification Training in U.S. Graduate Medical Education Programs," *JAMA* 288(9): 1079-84.

Table 1
Number of Foreign-Graduate Faculty at U.S. Medical Schools by Degree-Granting Countries, Top 10 Countries, 1990 - 2000

Ranking	1990		1995		2000	
	N	(%)	N	(%)	N	(%)
TOTAL	9,843*		12,221*		14,669*	
1 India	1,601	(16.3%)	2,024	(16.6%)	2,565	(17.5%)
2 Canada	921	(9.4%)	1,127	(9.2%)	1,367	(9.3%)
3 United Kingdom	711	(7.2%)	680	(5.6%)	763	(5.2%)
4 Germany	382	(3.9%)	453	(3.7%)	638	(4.3%)
5 The Philippines	351	(3.6%)	395	(3.2%)	534	(3.6%)
6 South Africa	315	(3.2%)	387	(3.2%)	465	(3.2%)
7 Mexico	292	(3.0%)	364	(3.0%)	426	(2.9%)
8 Japan	261	(2.7%)	353	(2.9%)	400	(2.7%)
9 South Korea	256	(2.6%)	341	(2.8%)	391	(2.7%)
10 Argentina	248	(2.5%)	331	(2.7%)	379	(2.6%)
Subtotal	5,338	(54.2%)	6,455	(52.8%)	7,928	(54.0%)

*Excludes individuals whose degree-granting countries are unknown.
Source: AAMC Faculty Roster

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