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# Disparities In Human Resources: Addressing The Lack Of Diversity In The Health Professions

Despite daunting disparities in primary education, interventions in the educational pipeline can pay off for increasing minority entrants into the health professions.

## by Kevin Grumbach and Rosalia Mendoza

**ABSTRACT:** African Americans, Latinos, and American Indians are severely underrepresented in the health professions. A strong case for diversity may be made on the grounds of civil rights, public health and educational benefit, and business gains. Improving the diversity of the health professions requires multiprong strategies addressing the educational pipeline, admissions policies and the institutional culture at health professions schools, and the broader policy environment. [*Health Affairs* 27, no. 2 (2008): 413–422; 10.1377/hlthaff.27.2.413]

THE COMPLEXION OF THE HEALTH PROFESSIONS in the United States little resembles the nation's ethnic and racial composition. Whether it be dentists, nurses, pharmacists, or physicians, African Americans, Latinos, and American Indians/Alaskan Natives are markedly underrepresented relative to their shares in the overall U.S. population.[1]

In this paper we present the case for why diversity in the health care workforce is a public policy imperative and describe the current status of underrepresented minorities in the health professions and health professions schools. We then explore some of the major reasons for lack of greater diversity and discuss interventions and policies that hold promise for increasing workforce diversity.

## The Case For Diversity

Several lines of reasoning underpin the case for diversity in the health professions. The civil rights case recognizes the nation's legacy of racially segregated ed-

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ucational institutions and hospitals; it argues that measures such as affirmative action in health professions schools' admissions policies are justifiable to redress the lack of equal opportunity. The public health case emphasizes the utilitarian benefits to society of workforce diversity as a way to eliminate health disparities. This argument rests on a substantial body of research demonstrating that racial, ethnic, and linguistic diversity among health professionals is associated with better access to and quality of care for disadvantaged populations.[2] The educational case is another utilitarian argument, based on evidence that college students of all ethnicities perform better on several measures of intellectual and civic development when there is racial and ethnic diversity among the student body.[3] The educational benefit of diversity was the "compelling interest" cited by Justice Sandra Day O'Connor in the 2003 majority decision in *Grutter v. Bolinger* upholding race-conscious admissions policies at the University of Michigan School of Law.[4] The business case highlights the customer service and competitive advantages to the health industry of having a workforce that is culturally and linguistically attuned to the increasing diversity of the nation's health care consumers.

One caveat about utilitarian arguments for diversity: the fact that underrepresented minority health professionals have a greater tendency than their nonminority counterparts to care for underserved populations should not be misconstrued as suggesting that minority health professionals have a unique obligation to care for such populations or to otherwise limit their role to this public service niche. Such interpretations not only are unfair to minority health professionals, but they also risk unfairly absolving all health professionals of the collective responsibility for eliminating inequities in health and health care.

## Status Of Health Workforce Diversity

African Americans, Latinos, and American Indians together constituted one-quarter of the overall U.S. adult population in the 2000 census but far lower percentages of health professionals. Asians as a whole are not underrepresented in most of the health professions, although some Asian subpopulations, such as Cambodian and Samoan ethnicities, are underrepresented. For the health professions for which national data are available on race/ethnicity, the proportion of underrepresented minorities ranged from 9.9 percent among pharmacists in 2000 to 5.4 percent among dentists in 2003 (Exhibit 1). In health professions schools there was a somewhat greater representation of underrepresented minorities (Exhibit 2). However, public health is the only field in which the proportion of underrepresented minority students approaches population parity. During 1990–2005 the largest relative increase was among baccalaureate nursing programs, with underrepresented minorities increasing from 12 percent to 18 percent of enrollees. Health professions schools that require doctoral-level degree entry—such as medicine, dentistry, and pharmacy—showed little net change in the percentages of underrepresented minorities enrolled during those years.

**EXHIBIT 1**
**Race/Ethnicity Of The U.S. Population Compared With U.S. Health Care Professions, Selected Years 2000–2006**

| | Non-Hispanic white (%) | Non-Hispanic black (%) | Hispanic (%) | Asian/ Pacific Islander (%) | American Indian/ Alaska Native (%) | Other/ multiracial (%) | Percent URM |
|---|---|---|---|---|---|---|---|
| U.S. population over age 18 (2000) | 69.1 | 12.1 | 12.5 | 3.7 | 0.7 | 1.8 | 25.3 |
| Pharmacists (2000) | 75.9 | 6.2 | 3.4 | 14.2 | 0.3 | —[a] | 9.9 |
| Physicians (2005) | 74.7 | 3.7 | 5.0 | 13.0 | 0.1 | 3.6 | 8.7 |
| Physician assistants (2006) | 86.4 | 3.5 | 3.7 | 3.5 | 0.8 | —[a] | 8.0 |
| Licensed registered nurses (2004) | 81.8 | 4.2 | 1.7 | 3.3 | 0.4 | 1.5 | 6.2 |
| Dentists (2003) | 88.5 | 1.9 | 3.3 | 7.1 | 0.2 | 2.4 | 5.4 |

**SOURCES:** U.S. population: U.S. census, 2000; Pharmacists: K. Grumbach et al., *Strategies for Increasing the Diversity of the Health Professions* (Woodland Hills: California Endowment, 2003); Physicians: American Medical Association, *Physician Characteristics and Distribution in the U.S., 2007 Edition,* Table 1.20, Total Physicians by Race/Ethnicity—2005, http://www .ama-assn.org/ama/pub/category/12930.html (accessed 6 January 2008); Physician assistants: American Academy of Physician Assistants, *Physician Assistant Census Report 2006* (Alexandria, Va.: AAPA, 2006); Registered nurses: D. Steiger et al., *Registered Nurse Population: Findings from the 2004 National Sample Survey of Registered Nurses* (Rockville, Md.: HRSA, Bureau of Health Professions, 2006); Dentists: American Dental Association, Survey Center, *Distribution of Dentists in the United States by Region and State, 2003* (Chicago: American Dental Association, 2005).
**NOTES:** *Underrepresented minority* (URM) is defined as African American/black, Hispanic/Latino, and American Indian/Alaska Native for these calculations. Unreported or missing data were excluded when calculating totals and percentages.
[a] Not available.

Several factors may explain the divergent trajectories of minority student enrollment in the various health professions. Underrepresented minorities may experience fewer financial and educational barriers in fields such as nursing that do not require doctoral degrees for initial licensing. Also, legal challenges to race-conscious admissions policies have focused on medical and law schools, and

**EXHIBIT 2**
**Percentage Of Underrepresented Minorities Among U.S. Health Professional Students, 1990–2005**
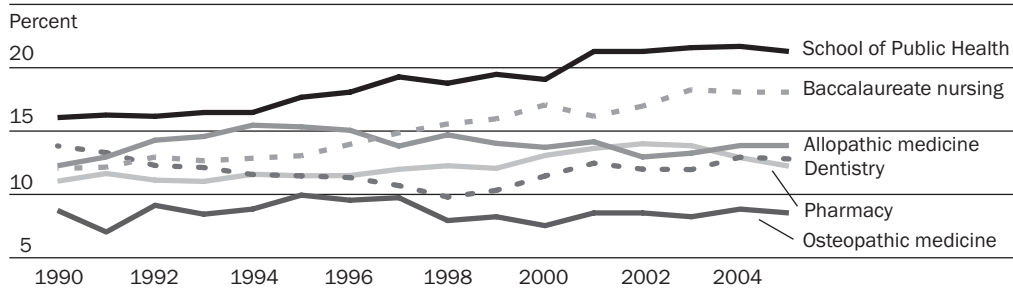


**SOURCES:** American Association of Colleges of Nursing; American Association of Colleges of Osteopathic Medicine; American Association of Colleges of Pharmacy: Enrollment Survey - Fall 2006 Professional Pharmacy Degree Programs; American Association of Medical Colleges Data Warehouse: Applicant Matriculant File; American Dental Association; and Association of Schools of Public Health.
**NOTES:** Underrepresented minority is defined as non-Hispanic black, Hispanic/Latino, and American Indian/Alaska Native for these calculations.

schools of nursing and public health might not have been exposed to as much pub-lic scrutiny of their admissions procedures. Tracking of minority participation in the health professions remains challenged by lack of uniform race/ethnicity cate-gories and reporting methods across disciplines.

## Why Minorities Are Underrepresented In The Health Professions, And What To Do About It

Recent reports from the Institute of Medicine and the Sullivan Commission on Diversity in the Healthcare Workforce have elucidated the many factors that ac-count for underrepresentation of minorities in the health professions and offered recommendations to address them.[5] We highlight three major areas that we be-lieve are particularly deserving of strategic policy making.

■ **The educational pipeline.** The single biggest impediment to greater diversity in the health professions is the failure of primary education in the United States, par-ticularly in meeting the educational needs of minority and low-income students in kindergarten through grade twelve. Disparities in academic achievement are appar-ent as early as kindergarten. By high school, more than one in five Latinos and one in ten African Americans have dropped out of school, compared with one in seventeen white students.[6] The result is leakage of many minority youth at early stages of the health career educational pipeline.

*Funding and sustained partnerships for primary-education changes.* We believe that health organizations need to be realistic about what is required to reduce dispari-ties in primary education and be prepared to make a deep commitment to this work. Superficial engagement, such as sporadic volunteerism for health career days and tutoring sessions, does not produce meaningful, lasting benefits for stu-dents and schools. Making a real difference in primary education for minority children means advocating for more funding for public schools; supporting the types of whole-school reforms that have been demonstrated to produce better aca-demic achievement among all at-risk children; and developing sustained, ongoing partnerships between primary schools and health professions schools and other health organizations that bring expertise and resources to local schools. Examples of meaningful partnerships are the Doctors Academies developed by the Fresno Unified School District and the University of California, San Francisco (UCSF), Fresno Latino Center for Medical Education and Research; and the Gateway to Higher Education programs developed by the New York City Department of Edu-cation, City University of New York, and Mount Sinai Medical School.[7]

The magnitude of the root problem of disparities in K–12 education might also obscure a more hopeful trend in U.S. education. Despite inequities in primary edu-cation, a steadily increasing number of minority students are graduating from four-year colleges. Between 1990 and 2005, while the number of whites obtaining bachelor's degrees in the United States increased 15 percent, the number of Afri-can Americans and American Indians receiving bachelor's degrees doubled, and

the number of Latinos obtaining bachelor's degrees increased nearly threefold.[8] Moreover, among college students, underrepresented minorities are as likely as nonminorities to major in biological and biomedical sciences.

*Interventions at the college and graduate school levels.* It is striking to note that the lack of gains in enrollment of underrepresented minorities in schools of medicine, pharmacy, and dentistry in the past decade occurred at a time when the pool of college-educated underrepresented minorities in the United States was steadily growing. This observation suggests that a fruitful short-term strategy for boosting minorities' entry into the health professions might be to intervene at the relatively "downstream" pipeline stage of college. Interventions at this stage may be especially attractive to health-sector funders and stakeholders because of the shorter timeline between administering an effective intervention and the outcome of underrepresented minorities entering health professions schools, and the ability to focus interventions more narrowly on health career trajectories. Moreover, some of the most persuasive research evidence on the effectiveness of pipeline interventions comes from studies at the college and postbaccalaureate levels. For example, a well-designed study of a summer program sponsored by the Robert Wood Johnson Foundation to support minority college students in their aspirations toward and preparations for medical school found that participants had 70 percent greater odds than the minority control group of students in gaining admission to medical school.[9] A study using a similar design to evaluate UC premedical postbaccalaureate programs that disproportionately enroll minority and disadvantaged students found that program participants were more than twice as likely as control students to matriculate into medical school.[10]

*Federal government programs.* Although many foundations have provided financial support for health professions pipeline programs, the largest single funder for these types of activities has been the federal government. Specifically, the Health Careers Opportunities Program and the Centers of Excellence Program administered by the Health Resources and Services Administration (HRSA) are the most prominent sources of funds. The federal government drastically reduced the budgets for these programs in fiscal year 2006—by 89 percent and 65 percent, respectively—thereby jeopardizing the continuation of pipeline interventions formerly supported by this funding.

■ **Admissions policies and institutional culture.** In addition to interventions targeting primary and college-level education, efforts to increase the diversity of the health workforce rightly also focus on health professions schools themselves. Institutional culture has many dimensions. Perhaps the best way to understand what constitutes a positive institutional culture for diversity is to examine examples of health professions schools that have been leaders in diversifying their student bodies.

*UCSF and Duke.* The School of Medicine at UCSF, a public university on the West Coast, and the School of Medicine at Duke University, a private university in the Southeast, are both considered elite biomedical research institutions, and

both are among the top medical schools in enrolling underrepresented minorities. How did these schools go from enrolling almost exclusively white students in 1960 to being highly diverse schools now?

At UCSF, integration of the medical school class occurred in the early 1960s as a result of the convergence of grassroots advocacy and responsive institutional leadership. This movement originated from a group of African Americans employed by the UCSF hospital as orderlies, janitors, and cooks, who demanded that UCSF open its doors to minority students. Philip Lee, appointed as UCSF chancellor in 1968 after serving as assistant secretary of health in the Johnson administration, was receptive to these appeals. With the support of Lee and several key faculty leaders, UCSF embarked on an aggressive outreach effort to colleges in the South to recruit minority students to its medical school. By the 1980s, UCSF had enrolled proportionately more minority students than any other medical school, with the exception of the historically black medical schools such as those at Howard, Meharry, and Morehouse Universities.[11]

The Duke School of Medicine admitted its first African American medical student in 1966, making it one of the last southern medical schools to integrate. Students across the campus in the 1960s pressed for a more rapid pace of integration and greater sensitivity to issues of race and racism, occupying the Duke administration building in 1969 to press their claims. Enrollment of underrepresented minorities grew slowly over the ensuing years. In 1993, Nannerl Keohane was appointed president of Duke University. One of her priorities was developing a formal Institutional Commitment to Diversity for the campus. A former student protester, Brenda Armstrong, was selected to become director of admissions for the School of Medicine and proceeded to revamp the admissions procedures to emphasize more qualitative, "whole file" reviews of applicants with less rigid reliance on quantitative metrics such as grade-point averages and admissions test scores. By 2004, 29 percent of the matriculating class of the Duke School of Medicine were underrepresented minorities—the highest proportion of any U.S. medical school.[12]

These case studies highlight several of the key elements of an institutional culture supportive of diversity: grassroots activism among students, faculty, and staff; commitment at the highest levels of institutional leadership; reconsideration of admissions processes; and explicit mission statements, action plans, and institutional policies that embrace diversity as critical to institutional excellence. In medical education there have been key periods when a broad commitment to diversity among medical schools has translated into a collective increase in enrollment of underrepresented minorities across schools.

*Other medical schools.* The experiences of UCSF and Duke were mirrored at many medical schools in the 1960s, when underrepresented minorities as a percentage of matriculating U.S. medical school students tripled from 3 percent in 1968 to 9 percent in 1973.[13] In 1991, after minority enrollment had remained flat for many years,

the Association of American Medical Colleges (AAMC) launched Project 3000 by 2000, with the goal of increasing the number of minority matriculants by 50 percent by the year 2000. The number of minority matriculants began a large upswing in the early 1990s, with medical schools reconsidering their admissions policies and implementing educational pipeline partnerships with local school districts and colleges. These experiences suggest that determined efforts by health professions schools and professional organizations can make a difference in improving workforce diversity, even when many minority students are lost in the earlier stages of the health professions educational pipeline.

*Reaching beyond the traditional applicant pool.* Ultimately, a key indicator of success in diversity efforts is an increase in the total number of minority students matriculating in and graduating from health professions schools nationally, not just from a few individual schools. One of the risks of making inferences about "best practices" based on a few case studies is that schools that increase their number of minority students may simply be more successful in attracting students from the same pool of highly rated minority applicants who receive multiple acceptance offers in what amounts to a zero-sum game of minority recruitment. An example of a systematic diversity effort that reached beyond the traditional applicant pool is the partnership between the Baylor School of Medicine and the University of Texas–Pan American (UT-PA), focusing on the predominantly Latino populations of South Texas. The Premedical Honors College Program at UT-PA, a college that historically sent almost no graduates on to medical school, provides students with a rigorous premedical curriculum and with academic and career counseling. Students receive conditional acceptance to Baylor School of Medicine at program entry, contingent on successfully completing the honors program and meeting the Baylor prerequisites and minimum required Medical College Admission Test (MCAT) scores. Program participants receive full tuition and fee waivers for both undergraduate work at UT-PA and medical school at Baylor. A well-designed evaluation found that the number of UT-PA graduates matriculating into medical school dramatically increased after implementation of the honors program, demonstrating that a comprehensive college-level program can boost the overall number of minority students from an underserved region entering medical school.[14]

## Policy And Politics

Success often comes at a price. Successful diversity-promoting policies in health professions schools and in higher education in general have often been followed by anti–affirmative action backlashes. A sentinel event that marked the end of the first wave of major growth in minority enrollment in U.S. medical schools was the 1978 Supreme Court ruling in *The Regents of the University of California v. Bakke.* Although the Court did not completely discount the validity of special consideration of race in the admissions process, it determined that the UC Davis medical school's relatively blunt quota system for minority admissions violated the 1964

Civil Rights Act.[15]

■ **Challenges to affirmative action.** When minority enrollment in U.S. medical schools began an upturn again in the 1990s, coinciding with the AAMC's 3000 by 2000 campaign, an organized movement emerged to challenge affirmative action policies. In 1995, the UC Regents decided to forbid consideration of race and ethnicity in university admissions decisions, which was followed by successful anti–affirmative action ballot measures mounted in several states, including California, prohibiting the use of racial and ethnic preferences in public education, employment, and state contracting.[16] In 1996, a U.S. Circuit Court decision in *Hopwood vs. University of Texas* ruled against the race-conscious admissions procedures of the University of Texas School of Law.[17] Between 1995 and 2000, minority enrollment in medical schools plummeted, largely accounted for by sharp decreases in the numbers of underrepresented minorities applying to and accepted into medical schools in California and Texas.[18] Together these states train the largest number of Latino medical students in the United States.

For proponents of race-conscious admissions, a judicial victory occurred in 2003 with the Supreme Court's ruling in *Grutter v. Bolinger* upholding the narrowly tailored use of race/ethnicity in the admissions policies of the University of Michigan School of Law.[19] And despite a series of electoral setbacks, a public opinion poll of California voters in September 2007 found that 60 percent of respondents agreed that it is important for the state to have "doctors, nurses and other health professionals who reflect the racial and ethnic diversity of the patients they are serving" and endorsed more state funding and scholarships targeted to graduating more underrepresented minorities from health professions schools.[20]

These various court cases, ballot measures, and opinion polls make clear that diversity policy decisions play out in both the court of law and public opinion. Often, advocates of affirmative action have been outflanked by opponents of racial preferences in both of these arenas. Diversity proponents increasingly recognize the need to become more strategic in their approach to advocacy and messaging. A wide group of organizations—including the AAMC and other health professions educational organizations, higher education institutions, consumer groups, and Fortune 500 companies—contributed amicus briefs and other documents in support of the University of Michigan in *Grutter v. Bolinger,* signifying a more concerted effort to identify and organize stakeholders interested in supporting diversity efforts. Foundations in California have invested in a communications strategy to help make the case to stakeholders and the public about the benefits of diversity in the health professions. The recent public opinion poll findings in California suggest a receptiveness to such efforts.

■ **The toughest sell.** Probably the toughest sell in the public debate over diversity is about reforms to admissions policies in health professions schools. No patient, of any race or ethnicity, wants to be taken care of by an unqualified doctor, nurse, or dentist. But is the traditional reliance on quantitative measures such as

grades and standardized admission test scores adequate for assessing the merit of applicants? The validity of quantitative measures to predict which applicants will ultimately achieve proficiency as health professionals has been questioned. Research on the psychology of test taking has revealed that the conventional social context of testing adversely affects minority students' performance on these measures.[21] Underrepresented minority students admitted to medical school under affirmative action programs are as likely as nonminority students are to graduate from medical school, pass their licensing boards, and enter practice, despite minority students' having lower MCAT scores and college grade-point averages.[22] These research findings, along with the previously cited evidence on the benefits of diversity, provide support for the use of more qualitative approaches to assessing applicants to health professions schools that consider, in addition to test scores and grades, an applicant's character, life experiences, ability to overcome adversity, humanistic and community service orientation, and related attributes.

In summary, despite daunting disparities in primary education, interventions in the educational pipeline can pay off for increasing minority entrants into the health professions. Interventions at the college and postbaccalaureate levels may be particularly high-yield short-term strategies for increasing health professions diversity. Research has demonstrated the effectiveness of these types of interventions, making the recent cripping cuts in federal funding for health professions diversity programs such as the Health Careers Opportunity Program indefensible. Sharing of best practices in student outreach, admissions procedures, mission statements and strategic plans on diversity, and other strategies can strengthen the institutional climate for diversity across institutions. Building stronger regional and national coalitions among diversity proponents to develop coordinated advocacy, communications, and implementation strategies can foster a policy climate more receptive to the benefits of health professions diversity.

THE PREDICAMENT OF HEALTH PROFESSIONS DIVERSITY is symptomatic of the nation's long and unresolved struggle to come to terms with the uncomfortable and often divisive issues of race and racism. The tensions are particularly acute in regard to decisions about which people will have the opportunity to enter professions that bring prestige, influence, and high incomes. How our society resolves these tensions will tell much not only about the prospects for achieving a more racially and ethnically diverse health workforce, but also about how the nation will come to terms with addressing long-standing and fundamental social inequities.

**NOTES**

1. We define *underrepresented minorities* as non-Hispanic blacks, Hispanic/Latinos, and American Indians/Alaska Natives.

2. For a recent systematic review, see Health Resources and Services Administration, *The Rationale for Diversity in the Health Professions: A Review of the Evidence*, October 2006, ftp://ftp.hrsa.gov/bhpr/workforce/diversity.pdf

(accessed 30 November 2007). See also E.A. Mertz and K. Grumbach, "Identifying Communities with Low Dentist Supply in California," *Journal of Public Health Dentistry* 61, no. 3 (2001): 172–177; E. Moy and B.A. Bartman, "Physician Race and Care of Minority and Medically Indigent Patients," *Journal of the American Medical Association* 273, no. 19 (1995): 1515–1520; and M. Komaromy et al., "The Role of Black and Hispanic Physicians in Providing Health Care for Underserved Populations," *New England Journal of Medicine* 334, no. 20 (1996): 1305–1310.

3. B.D. Smedley, A.S. Butler, and L.R. Bristow, eds., *In the Nation's Compelling Interest: Ensuring Diversity in the Health Care Workforce* (Washington: National Academies Press, 2004).

4. *Grutter v. Bollinger et al.*, 539 U.S. 306 (2006).

5. Smedley et al., eds., *In the Nation's Compelling Interest;* and Sullivan Commission on Diversity in the Healthcare Workforce, "Missing Persons: Minorities in the Health Professions," 20 September 2004, http://www.jointcenter.org/healthpolicy/docs/SullivanExecutiveSummary.pdf (accessed 30 November 2007).

6. G. Orfield et al., *Losing Our Future: How Minority Youth Are Being Left Behind by the Graduation Rate Crisis,* 25 February 2004, http://www.urban.org/url.cfm?ID=410936 (accessed 10 September 2007); and K. Grumbach et al., *Strategies for Improving the Diversity of the Health Professions,* August 2003, http://futurehealth.ucsf.edu/pdf_files/StrategiesforImprovingFINAL.pdf (accessed 30 November 2007).

7. K.A. Flores and B. Dominguez, "University of California, San Francisco, Fresno Latino Center for Medical Education and Research Health Professions Pipeline Program," *Academic Medicine* 81, no. 6 Supp. (2006): S36–S40; and P.B. Campbell et al., "Paths to Success: An Evaluation of the Gateway to Higher Education Program," *Journal of Women and Minorities in Science and Engineering* 4, nos. 2 and 3 (1998): 297–308.

8. U.S. Department of Education, National Center for Education Statistics, "Table 269: Bachelor's Degrees Conferred by Degree-Granting Institutions, by Sex, Race/Ethnicity, and Major Field of Study: 2003–04," in *Digest of Education Statistics,* http://nces.ed.gov/programs/digest/d06/tables/dt06_269.asp (accessed 30 November 2007).

9. J.C. Cantor et al., "Effect of an Intensive Educational Program for Minority College Students and Recent Graduates on the Probability of Acceptance to Medical School," *Journal of the American Medical Association* 280, no. 9 (1998): 772–776.

10. K. Grumbach and E. Chen, "Effectiveness of University of California Postbaccalaureate Premedical Programs in Increasing Medical School Matriculation for Minority and Disadvantaged Students," *Journal of the American Medical Association* 296, no. 9 (2006): 1079–1085.

11. "Minority Admissions to Medical Schools," *Physicians Forum Bulletin* (Spring 1988): 1.

12. J. Rogalski, "Breaking the Barrier: A History of African-Americans at Duke University School of Medicine," *Inside* (Duke University Medical Center and Health System employee newsletter), 20 February 2006, http://inside.mc.duke.edu/article.php?id=140&section=feature&ParentID=12502 (accessed 3 January 2008).

13. J.J. Cohen, B.A. Gabriel, and C. Terrell, "The Case for Diversity in the Health Care Workforce," *Health Affairs* 21, no. 5 (2002): 90–102.

14. W.A. Thomson et al., "Increasing Access to Medical Education for Students from Medically Underserved Communities: One Program's Success," *Academic Medicine* 78, no. 5 (2003): 454–459.

15. *Regents of University of California v. Bakke,* 438 U.S. 265 (1978).

16. Cohen et al., "The Case for Diversity."

17. *Hopwood v. Texas,* 236 F.3d 256 (5th Cir. 2000), *cert. denied,* 533 U.S. 929 (2001).

18. Grumbach, "Strategies for Improving the Diversity."

19. *Grutter v. Bollinger et al.*, 539 U.S. 306 (2006).

20. Field Research Corporation, "Most Californians Believe There Are Insufficient Numbers of Health Professionals in Predominantly Ethnic Communities," Press Release, 6 September 2007, http://www.tcwf.org/pdf_docs/events/ca_voters_poll.pdf (accessed 18 November 2007).

21. Smedley et al., eds., *In the Nation's Compelling Interest.*

22. R.C. Davidson and E.L. Lewis, "Affirmative Action and Other Special Consideration Admissions at the University of California, Davis, School of Medicine," *Journal of the American Medical Association* 278, no. 14 (1997): 1153–1158.