About 20 years ago Alice, a virologist, was up for a position as university president. She was one of three possible candidates. But during her interview things started to go a bit sour when the committee persistently asked her what she would be willing to give up should she be given the job. Sensing this, she told them point blank, “I don’t think I’ll get this job because of how I look.” The committee members all grew silent. In the past, Alice may not have gotten the job because of her gender. But now she believes it is because of her race. Alice Huang is Chinese.

“Their silence sort of admitted it,” says Huang, who now serves as president-elect of the American Association for the Advancement of Science (AAAS). She still contends that she was lucky to have even gotten that far in the interview process.

The face of the US scientist is changing: Asian Americans now make up 14 percent of the science and engineering workforce, according to recent data from the National Science Foundation (NSF), which can be found at www.nsf.gov/statistics/seind08. With these numbers one would expect a proportionate increase in leadership positions. However, this is not the case.

In academia and federal institutes, Asian Americans encounter what some call a “bamboo ceiling,” similar to what female scientists faced 30 years ago. In academia and federal institutes, Asian Americans encounter what some call a “bamboo ceiling,” similar to what female scientists faced 30 years ago.

In academia and federal institutes, Asian Americans encounter what some call a “bamboo ceiling,” similar to what female scientists faced 30 years ago. A diverse group, Asian Americans comprise numerous ethnicities, including Chinese, Japanese, Korean, Filipino, Indian, Southeast Asian, and Pacific Islanders. All lumped under the umbrella of the “model minority,” this community faces a number of misperceptions or stereotypes—some of which work in their favor and some of which do not.

For instance, this group is viewed as being quiet, hardworking, family oriented, and good at math
and science. They also are seen as passive and nonconfrontational. While this model minority myth has boxed Asian Americans in, it has also helped them obtain jobs. However, within this box, they usually face "sticky floors" when it comes time to ascend the upper ladder of an organization.

**Making the Case**

Earlier this year, the US Equal Employment Opportunity Commission (EEOC) published recommendations from the Asian American Pacific Islander Work Group it set up two years ago to examine this issue (see [www.eeoc.gov/federal/report/aapi.htm](http://www.eeoc.gov/federal/report/aapi.htm)). The Work Group collected data and anecdotal evidence from Asian American scientists throughout the federal sector.

Problems raised by this Asian American community boiled down to three categories: employment, lack of support, and failure to file complaints.

“We found that most federal agencies didn’t even look at Asian American numbers—they’ve become the forgotten minority,” says Gazal Modhera, chair of the EEOC’s Work Group.

The initial numbers revealed that of the 2.6 million individuals employed in the federal sector, 5.9 percent are Asian American, indicating that the group is well represented in the overall federal workforce. However, these numbers do not tell the entire story.

“The numbers are very good in terms of overall participation rate, but drop further up the GS [governmental grade salary] scale,” says Modhera.

For instance, at the National Institutes of Health (NIH) in 2006, Asian Americans made up 13.49 percent of the workforce and represented 10.16 percent of those with a rank of GS 13, 12.89 percent of GS 14, and 8.21 percent of GS 15. At the topmost or senior executive service level, they made up just 3.28 percent.

Discussions held with the Work Group further reinforced the “forgotten minority” theme. Anecdotes showed that several special emphasis programs within agencies lacked support for or focus on Asian American issues or programs. While other minority groups were allowed time off to attend special conferences focusing on minority issues, a former president of the Federal Asian Pacific American Council (FAPAC) told the group she was forced to use annual leave so she could meet with the EEOC chair or with other FAPAC members to raise concerns facing Asian Americans in the federal sector.

Despite the plethora of stories that were heard, official complaints remain few. A December 2005 EEOC Gallup Poll revealed that, although Asian Americans had the highest reports of discrimination (31 percent) of all the minority groups, only 3 percent of official charges were filed by them.

“There is more discrimination occurring in the workplace than is being reflected in our charge/complaint statistics,” says Modhera, who suggested that the model minority stereotype of not complaining may play a role in these numbers.

The Work Group made several recommendations on how federal agencies can improve, ranging from engaging the leadership to becoming more aware and involved in this issue to reinvigorating the agencies’ career development programs. The Work Group also suggested that the employees need to be held more accountable by sharpening their skill sets, making themselves more visible, and building reputations outside of stereotypes. A management directive order, called MD-715, has
been issued from the EEOC to all federal agencies, asking them to make their data available and to look for situations that could trigger this particular glass ceiling effect.

**Titanic Problem for the NIH?**

As the NIH prepares to submit its MD-715 report, the latest 2008 numbers haven’t changed much from those of 2006. While Asian Americans represented 23 percent of those holding tenure-track positions, they were only 12 percent of those at the tenure or senior scientist level. In the higher administrative positions the numbers further tapered off, with only 6 percent holding lab chief positions. Currently out of the 27 scientific director positions there is only one Asian American scientific director. There are no Asian Americans running any of the 27 Institutes, although one recently retired. For more information, see oeodm.od.nih.gov/policiesresources/sitesresources/md715memo.html.

“The current statistics show a bottom-heavy, top-light representation of Asians in the scientific work force in NIH,” says Kuan-Teh Jeang, a senior investigator at NIH’s National Institute of Allergy and Infectious Diseases and president-elect of the Society for Chinese Bioscientists in America, who also testified at the EEOC Work Group hearing. “These iceberg-shaped demographics are disturbing. The leadership should see this as a raison d’etre for change.”

Indeed they do.

“We’re at the stage where we think there’s a problem,” says Michael Gottesman, deputy director for intramural research at NIH. “If it reflects in any way that people are not being chosen based on their merits, then this is a serious problem for the NIH and we want to investigate.”

One possible contribution to these skewed numbers may be a “cohort effect.” The relative increase of Asians over the last 10–12 years in tenure-track positions may not be represented yet as an increase in individuals in leadership positions. However, analysis of the data over time does not support this simple explanation for the underrepresentation of Asians at the highest levels, according to Gottesman.

To determine whether the glass ceiling that Asians face is due to this effect or to an actual discriminatory barrier, the NIH plans in the following months to set up a focus group comprising Asian American principal investigators at all levels, as well as scientific administrators, to talk about how both sides perceive this problem.

“We’ll get together, we’ll talk, and my experience has been that’s very salutary at NIH,” says Gottesman. “We’ll end up with improvements in our diversity as a result.”

In his testimony to EEOC, Jeang brought up one point that may need to be raised at these future meetings: invisible hiring. “There is some concern expressed by my colleagues on the transparency of the leadership selection process. We are
aware of past examples whereby laboratory chiefs were hired with no advertising for the positions. It is my understanding that under the present rules, if a director chooses to promote internally, he/she can make a choice without an open search or competition. Rightly or wrongly, Asian Pacific Americans often perceive that openings are filled by preselected candidates,” he said.

**Culture Clash in Academia?**

Similarly, academia is not immune to the glass ceiling problem among Asian Americans. According to the Higher Education Report Card recently issued by the Committee of 100 (www.committee100.org/publications/edu/C100_Higher_Ed_Report_Card.pdf), a non-profit Chinese American organization, Asian Americans account for 6.2 percent of faculty—more than any other minority group—yet hold only 2.4 percent of the 145,371 administrative positions in higher education. This compares to 9.4 percent of such positions held by African Americans and 3.6 percent by Latino Americans.

“Things are slowly starting to improve, but they’re far from perfect,” says Huang, who in addition to being AAAS president-elect is a member of the Committee of 100. “In the intervening 20 years, we’ve seen more university presidents and chancellors who are Asian, but they do stand out because there are so few of them at the top institutions.”

The past explanation for this discrepancy has been that while Asian Americans were well qualified for performing research, they were not fully acculturated for administrative positions.

When Ajit Varki, now a cellular and molecular medicine professor at the University of California, San Diego, came into the country over 30 years ago he experienced what he called the “double whammy” of being both a foreigner and a foreign medical school graduate. Not only did he come from India, but despite graduating top of his class from one of his former country’s best medical schools, American universities, not always familiar with the qualities of foreign universities, were skeptical. He gradually made it through academia’s doors, becoming the first foreign president of the American Society for Clinical Investigation and first foreign editor of the *Journal of Clinical Investigation.*

“It’s not the same issues as there were 30 years ago,” says Varki, adding that Asian Americans may have an easier time on the West Coast where there is more of a melting pot for the Asian population than the East Coast. Currently Asian Americans comprise about 30 percent of the student populations among West Coast colleges.

Another issue changing the landscape is that the demographics of Asian Americans have shifted as more are born and raised in the United States, weakening the acculturation argument.

“It would be hard to use this argument that Asian Americans are not ‘Americanized’ enough to be leaders—not with the current Asian Americans who grew up here,” says Huang. “If someone blindfolded me in my classroom, I couldn’t tell if the student speaking was Asian American or not.”

Although second and later generation Asian Americans appear to not suffer from the same stereotypes, studies have shown that the fifth generation doesn’t do as well as their immigrant ancestors, an issue known as “immigrant vigor.”

“The immigrants face the challenges head on and succeed, and their immediate children see it and work just as hard. The later generations, being fully acclimatized, start taking things for granted and stop working as hard to prove themselves,” Varki explains. “It’s now more of a generational than a cultural issue.”
Taking the Initiative

As NIH’s only Asian American scientific director, Richard Nakamura, who holds the position at the National Institute of Mental Health, often is asked by fellow Asian American colleagues for tips as to how to advance.

"I regularly get consulted by Asian Americans about problems of advancement and what they can do," says Nakamura. "I try to be responsive, yet since it’s critically important for a scientific leader to be seen as unbiased and fair to all groups, I don’t feel that I can promote or do anything special for Asian Americans that I wouldn’t do for any other group."

Though accepting the idea that discrimination may be part of the problem and that NIH wants to fix this, he made several suggestions on how individuals can be better prepared for a leadership position and also be perceived by the current leadership as being ready. This list ranges from talking to one’s supervisor about the desire to be promoted; taking executive training courses or, if language is a barrier, taking communication classes like Toastmasters, both programs that are offered at NIH; and honing leadership skills by volunteering for committees in which one can take a leadership position without a promotion.

“Often Asians don’t let it be known to their supervisors that they’d like to be promoted into leadership positions,” says Nakamura. “I give examples of how they can gain the confidence of coworkers and demonstrate group leadership.”

Huang agrees. “It’s a two-way interaction,” she says. “The advice is out there for those who really want to do it.” She cites that the AAAS offers a broad range of career advice, especially at its annual meeting, where such topics as how to submit a grant application or enter politics are discussed (see www.aaas.org/careercenter/).

What the United States Stands to Lose

If the United States continues on its current path, it may lose its competitive edge in the global scientific marketplace.

“America is in a global economy, competing with the rest of the world for the best and brightest,” says Jeang. “It is really shortsighted not to utilize this segment of the population who are extremely talented and can potentially pay gigantic dividends down the road.”

Recent NSF data show that science and engineering journal article output worldwide grew at an average annual rate of 2.3 percent between 1995 and 2005, but the US growth rate was much lower, at an annual 0.6 percent. The greatest annual article productivity came from Asia: 6.6 percent.

“American science has plateaued while scientific productivity at the Pacific Rim is going up at an astronomic level,” continues Jeang. “Today we’re still king of the hill, but we have to be vigilant because we’re sitting on a flat hilltop, whereas everybody else is building small mountains. Pretty soon their peaks may eclipse us.”

Huang concurs: “I think making people aware of the data is an important thing. Perhaps the current scientific leaders will examine their own motivations when it comes to deciding who to hire and who to promote to leadership.”
Data Resources


**Committee of 100, Asian Pacific Americans (APAs) in Higher Education Report Card:** [www.committee100.org/publications/edu/C100_Higher_Ed_Report_Card.pdf](http://www.committee100.org/publications/edu/C100_Higher_Ed_Report_Card.pdf)


**NIH, Office of Equal Opportunity & Diversity Management:** [oeo.od.nih.gov](http://oeo.od.nih.gov)

**American Association for the Advancement of Science, Career Support:** [www.aaas.org/careercenter](http://www.aaas.org/careercenter)

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Featured Participants

**American Association for the Advancement of Science (AAAS):** [www.aaas.org](http://www.aaas.org)

**American Society for Clinical Investigation:** [www.the-asci.org](http://www.the-asci.org)

**Asian American Pacific Islander Work Group:** [www.eeoc.gov/federal/report/aapi.html](http://www.eeoc.gov/federal/report/aapi.html)

**Committee of 100:** [www.committee100.org](http://www.committee100.org)

**Federal Asian Pacific American Council (FAPAC):** [www.fapac.org](http://www.fapac.org)

**National Institutes of Health (NIH):** [www.nih.gov](http://www.nih.gov)

**Society of Chinese Bioscientists in America:** [www.scbasociety.org](http://www.scbasociety.org)

**University of California, San Diego:** [www.ucsd.edu](http://www.ucsd.edu)

Upcoming Features

- Focus on Cambridge/Oxford/London - June 26
- Bioentrepreneurship - July 17
- BS/MS - Choosing the Right Graduate Program - August 14