ary press conference, Secretary of State Condoleezza Rice and Homeland Security Secretary Michael Chertoff announced new visa application submission and screening procedures aimed at making travel to the US easier for foreign nationals, including students and researchers. The goal, Rice said, "is to get travel back up to pre-9/11 levels without downgrading security."

At the press conference, Rice outlined the three pillars of the new procedures. First, on arrival in the US, visitors will be told in a selection of languages how to clear customs. Second, since US driver's licenses will no longer be accepted as identity cards for travel to Canada or Mexico, the Department of Homeland Security is issuing a replacement travel document for US citizens. Third, and most significant for students and researchers, is a streamlined, electronic visa application process.


US STATE DEPARTMENT

Rice

A trial of the new paperless application process will go into effect in the UK by December of this year. British citizens will be able to apply for visas electronically and attend interviews by teleconference, rather than having to travel up to hundreds of kilometers to a US consulate. If the trial is successful, the system will be deployed in other countries in 2007.

In addition, consulates in all countries will issue visas to US-bound visitors 120 days before their entry to the US, up from 90 days, and students and scientists will be permitted to enter the country 45 days before the start of their studies or research posts, up from 30 days. And since last June, a bilateral agreement has allowed Chinese applicants seeking US student, scholar, or vocational training visas to obtain 12-month, multiple-entry visas instead of six-month, single-entry visas. Some efforts at cutting wait times have also been implemented. "A Russian scientist who applied for a visa two years ago would have waited 75 days, perhaps even longer, while his application underwent additional screening and review," Rice said. "Today that review time would take less than two weeks."

Visa processing has improved, says the American Physical Society's director of international affairs, Amy Flatten (see her article in PHYSICS TODAY, February 2005, page 49). "We have definitely noticed a drop in [problem] cases in the last few months," she says, "but some individuals still have troubles."

For the past three years, the US research community has been vocal about the need to improve the visa situation. A report from the Council of Graduate Schools, a Washington, DC–based nonprofit organization, says the numbers of foreign researchers and students in the US have dropped since September 11th, although last year saw a 1% increase in the number of foreign students in physical sciences at US universities. According to Rice, "Getting visas into the hands of foreign students is becoming a top priority."

Paul Guinnessy

Physics Employment in US Reflects Weakened Economy

The production of physics and astronomy bachelors is rising, more bachelors are doing less-technical jobs, and more physics PhDs are doing postdocs. These and other data about all levels of US physics and astronomy degree recipients from the classes of 2002 and 2003 are presented in the latest employment report by the American Institute of Physics.

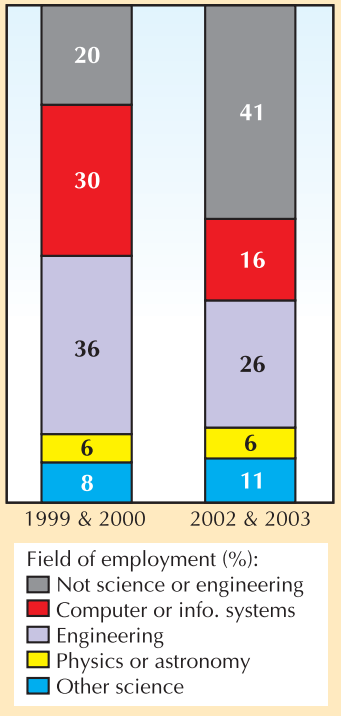
The 4553 bachelor's degrees conferred in physics in 2003 represent a 6% increase over 2002 and a 25% increase over a low in 1999. In astronomy, some 325 bachelor's degrees were awarded in 2002 and again in 2003, a 63% increase over 2000. Women comprised 22% of the combined classes of 2002 and 2003 in physics and 44% in astronomy. Among the nearly two-thirds of physics bachelors who borrowed money to help pay for their education, the median debt was $18 000.

Reflecting a weakened economy, the proportion of physics bachelors who took jobs has declined, from 50% in 2000 to 35% in 2003. Concurrently, the proportions who were unemployed, accepted part-time positions, and enrolled in graduate school increased. In the private sector, the proportion of physics bachelors working in fields unrelated to science or engineering climbed to 41% for the classes of 2002 and 2003, up from 20% in 1999 and 2000 (see the top figure below).

US universities conferred 1106 physics PhDs in 2003. The median time to earn the PhD was six years, with nearly 20% of recipients requiring eight years or longer. The number of PhDs awarded in astronomy departments was 88 in 2003, down from 102 in 2002.

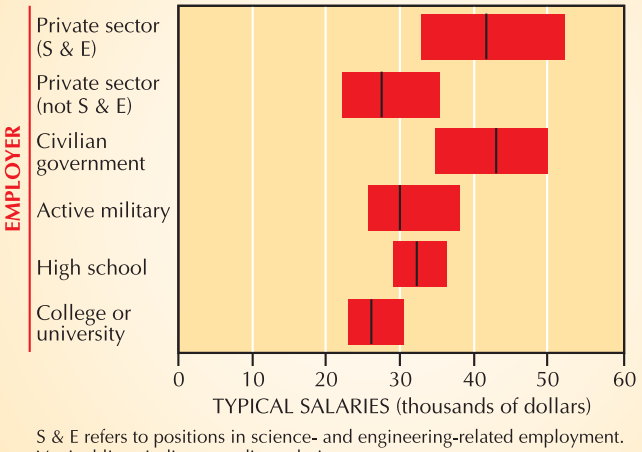
In the combined classes of 2002

Changes in field of employment for physics bachelors in the private sector



AIP STATISTICAL RESEARCH CENTER, INITIAL EMPLOYMENT REPORT

Typical range of starting salaries for physics bachelors, classes of 2002 & 2003



S & E refers to positions in science- and engineering-related employment. Vertical lines indicate median salaries.

and 2003, 52% of physics PhD recipients were foreign citizens and 13% were women; in astronomy, 19% were from outside the US and 25% were women. The proportion of new physics PhDs who took postdocs rose for the third straight year to nearly 70% in 2003.

The private sector continues to be the dominant employer of physics degree recipients, but at the bachelor's and PhD levels its share is falling—from around two-thirds of recipients who took potentially permanent jobs in the mid-1990s to about half for the combined classes of 2002 and 2003.

Overall, starting salaries for physics bachelors (see the lower figure on page 28) remained flat or declined slightly compared with two years earlier. The only salaries that went up were those of high-school teachers, which rose by about 8%. The median starting salaries for PhDs in potentially permanent positions were $42 000 in colleges, $49 000 in universities, $80 000 in the private sector, and $90 000 in the national labs.

More than 75% of physics bachelor's recipients, 84% of physics PhDs, and 94% of astronomy PhDs surveyed said that if they had it to do over again, they would choose the same academic path.

A separate report on employment in the geosciences says that 58% of new PhDs took postdocs in 2003, up only slightly from the year before. In nonprofit organizations, the government, and potentially permanent positions in academia, median starting salaries were around $45 000; in industry they were $70 000.

The *Initial Employment Report: Physics and Astronomy Degree Recipients of 2002 & 2003* is available on the Web at http://www.aip.org/statistics/trends/reports/emp.pdf. Single copies may be obtained free of charge from AIP, Statistical Research Center, One Physics Ellipse, College Park, MD 20740; e-mail stats@aip.org. Employment data for PhDs in the geosciences are available in *Earth & Space Science PhDs, Class of 2003*, a report by the American Geological Institute and the American Geophysical Union; see http://www.agu.org/sci_soc/cpst/2003PhDSurvey.pdf.

Toni Feder ■

WEB WATCH

http://www.exploratorium.edu/eclipse/turkey2006.html

At sunrise on 29 March, people on the eastern tip of Brazil will be the first to see the day's total solar eclipse. The last viewing chance will occur three hours later as the Sun sets over northern Mongolia. You can follow the eclipse on your computer thanks to the Exploratorium. Its webcast, **Total Solar Eclipse: Live from Turkey**, begins at 5 AM EST.

http://www.setwomenresource.org.uk

Although its prime focus is on one country, the **UK Resource Centre for Women in Science, Engineering and Technology** contains information that is more generally helpful. Under Role Models, for example, you can find Sarah House's weblog of repairing water and sewage systems in earthquake-stricken Pakistan.

http://ben.clusty.com

The **Clusty** Web portal brings together Ben Franklin's sayings and proverbs and provides links to thousands of sites devoted to the statesman, scientist, inventor, and publisher on the 300th anniversary of his birth.

To suggest topics or sites for Web Watch, please visit http://www.physicstoday.org/suggestwebwatch.html.

Compiled and edited by **Charles Day**