

MORE SIGNS OF TIGHT MARKET IN SURVEY OF 1991 GRADUATES

The latest survey of physics graduate students, a study produced annually by the education and employment statistics division of the American Institute of Physics under the supervision of Susanne D. Ellis, not surprisingly found many signs of a tighter job market. Among the changes identified in the class of 1990-91:

▷ Fewer foreign students earning doctoral degrees were offered potentially permanent initial employment in the US.

▷ First-year graduate students from abroad enrolled at master's institutions had to rely more than those the year before on personal funds.

▷ Experimenters were just as likely to take postdocs as theorists.

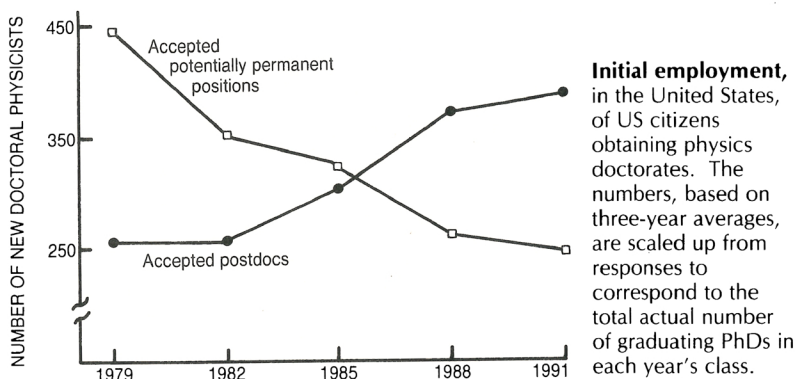
Perhaps the most dramatic trend highlighted in the survey is a long-term one (see figure at right): Whereas in 1979 about two-thirds of new doctorates who are US citizens took potentially permanent jobs and one-third took postdocs, the pattern is now largely reversed. The statistics confirm the general impression that taking a postdoc has come to be the expected next step after earning a doctorate and that obtaining a tenure-track university or college position immediately after graduate school has become quite exceptional.

Among the physics doctorates who did find potentially permanent jobs in 1990-91, industry was the single largest employer: The proportion, 39%, was essentially the same as the year before.

The proportion of PhDs who took jobs in R&D in the broad sense increased by seven percentage points from 1989-90 to 1990-91. "Another change worth noting," the report says, "was the decline in research positions at universities and a corresponding increase in teaching positions at colleges."

Among the US physicists who obtained doctorates in 1990-91, about 9% left the country to obtain positions, up from 4-5% in the immediately previous years. Roughly four-fifths of foreign-born recipients of doctoral degrees remained in the US to work, about the same as in previous years.

Other findings: Foreigners formed a majority in 1990-91 of women earning doctoral degrees in physics; attrition was significantly higher among graduate students at public institutions than among students at private schools; among physics sub-



fields, PhDs in elementary particles and astrophysics were the most likely to take postdocs; mathematical physicists were most likely to accept initial employment overseas.

A total of 1264 doctoral degrees and 674 terminal master's degrees were awarded in physics in 1990-91, and

there were 3278 first-year graduate students.

The complete 1990-91 Graduate Student Survey, by Ellis and Patrick J. Mulvey, is available from AIP, Education and Employment Statistics Division, 335 East 45 Street, New York NY 10017.

NEW MANAGER SOUGHT FOR SANDIA, FOLLOWING AT&T's WITHDRAWAL

The US Department of Energy has issued a request-for-proposal—RFP in government jargon—for a new manager for Sandia National Laboratories, the multipurpose facility based in New Mexico that has as its principal responsibilities development of the nonnuclear components of nuclear weapons and stewardship of the nation's nuclear weapons stockpile. Since the late 1940s, when President Harry S. Truman asked AT&T to manage the lab as a national service, AT&T has presided over the facility on a no-fee, no-cost, no-profit basis, regularly sending senior executives and researchers to Sandia for stints at the lab.

Although AT&T's role in managing Sandia may have seemed increasingly anomalous after the phone company was converted in 1984 from a regulated monopoly into a private corporation, the announcement by AT&T earlier this year that it would withdraw from management of the lab nonetheless caught most people completely by surprise. Venky Narayanamurti, who took early retirement and left the research vice presidency of Sandia to become dean of engineering at the University of California, Santa Barbara, just months before the announcement, told PHYSICS TODAY he had no inkling it even was under consideration.

Narayanamurti says he felt a sense of loss when he heard the news,

mainly because of the uncertainty it would cause employees of Sandia. But he also expressed confidence in the future of the lab, which has an annual budget of \$1.34 billion and 8500 employees. (Research accounts for \$200 million and 1100 employees.)

AT&T traditionally maintained an arms-length relationship with Sandia, taking care to avoid profiting from public service, and so researchers at the two institutions were not much intertwined. Still, the relationship was of some value to both institutions. Sandia benefited from having a top layer of managers from outside who brought perspective, detachment and objectivity. And AT&T benefited in various ways from having some of its top people acquaint themselves firsthand with the kind of research done at Sandia.

Even so, once the question was raised in the inner circles of AT&T's leaders of whether AT&T should continue to serve as Sandia manager, the case for withdrawing quickly came to seem compelling. According to William Brinkman, who currently is head of physics research at Bell Labs and who previously served as vice president for research at Sandia, there was no talk of seeking to renegotiate the Sandia contract with DOE once AT&T's leaders began to focus on the disadvantages of the relationship.

Among the reasons mentioned by