

that bring physics to the general public and into the local schools, SPS can increase science literacy. In Neuenschwander's model, any student's potential for science literacy is "proportional to the product of interest and the ability to handle abstract concepts." To help generate and sustain that interest, Neuenschwander encourages SPS chapters to offer tutoring and other services, including visits to grade schools and high schools to do physics demonstrations. In support of these efforts, SPS is preparing a booklet of science-outreach ideas developed by successful practitioners throughout the US. Neuenschwander says that the long-term goal of such activities is "to help prepare the way for systemic reform" of US science education.

ΣΠΣ

In 1996 AIP will celebrate the 75th anniversary of the founding of Sigma Pi Sigma, and so Neuenschwander will be looking at this organization too. For now, he and his assistants are reviewing membership data on the diverse careers followed by ΣΠΣ members (not all of whom were physics majors). Neuenschwander wants to know if ΣΠΣ can be enlarged from its mostly ceremonial role to a more active one that directly serves the physics community and the public.

Amid the rush of plans and possibilities, one function of SPS continues: helping students alleviate the anxiety that can accompany the transition to a new level of intellectual rigor. Mary Beth Todd Monroe, zone 13 (Texas) councilor and chapter adviser at Southwest Texas Junior College (one of the few chapters at a junior college), says that for her students SPS "brings about a positive, family atmosphere—with good physics."

DENIS F. CIOFFI

Physics Enrollments Drop for 2nd Straight Year

Word of the tough job market in physics seems to be getting around, judging from figures in the latest survey of US physics enrollments and degrees conducted by the American Institute of Physics's education and employment statistics division. Enrollments in physics programs at both the undergraduate and graduate level appear to be eroding, and although the number of new bachelor's degree recipients and PhDs was up slightly in 1993–94, a drop in

physics degrees is in the offing if current enrollment trends continue.

The number of first-year physics grad students dropped by 6% for the second year in a row: About 2900 students entered physics graduate programs in 1993–94, down from 3300 in 1991–92. The dip in first-year enrollments contributed to a small decline in overall graduate enrollment, which totaled 14 200 in 1993–94. When the survey's authors, Patrick J. Mulvey and Michael Neuschatz, looked more closely at these data, they found that the recent declines were largely "the result of drops in the size of the first-year classes at the larger departments." In some cases these drops may have been due to explicit policy changes. For example, Cornell and the University of Texas at Austin have both announced that they are intentionally holding down physics enrollments.

Undergrad enrollments were also down, with the number of junior-year physics majors in 1993–94 (about 6150) at its lowest since 1982. Such figures "strongly suggest that a decrease in the production of both bachelor's and doctorate degrees is on the horizon," the report says.

There were 4800 bachelor's degrees, 1797 master's degrees and 1369 doctorates awarded in physics during 1992–93, about the same as in the previous year. In light of the much-discussed physics job market, "I was surprised to see that degree production hadn't started to decline," Mulvey told PHYSICS TODAY. "I suspect that most students, having already invested time in grad school, are not being enticed to drop out, especially with the comparably poor employment prospects in similar disciplines."

The survey, which was conducted during the fall and winter of 1993, polled all US physics departments to obtain data on enrollments in the 1993–94 academic year and physics degrees conferred in 1992–93.

The survey report highlighted a 10-year trend among undergrads in their fifth or higher year of study. "The number of students in this category has doubled during the past 11 years," the report notes. At present at least one-fifth of the senior class stay on beyond four years. By comparison, the Department of Education found that one-half of all bachelor's degree recipients in the US now take more than four years to graduate. Mulvey said that future surveys would attempt to explain this phenomenon.

In 1992–93, astronomy departments conferred 190 bachelor's degrees, 102 master's degrees and 119 PhDs. The PhD figure is the highest ever in the 30-year history of the survey. Undergraduate and graduate enrollments in

astronomy have remained more or less steady for the past several years.

Single copies of the enrollments and degrees report are available free by writing to Education and Employment Statistics Division, AIP, One Physics Ellipse, College Park MD 20740-3843.

Don't Miss Physics Day

The celebration from 21 to 29 April of the 11th annual National Science and Technology Week includes the 25th Earth Day and the first National Physics Day, Wednesday, 26 April. The theme of this year's NSTW is "Explore New Worlds Through Science and Technology." The American Institute of Physics is an associate sponsor of NSTW, which is organized by the National Science Foundation.

In a letter sent to faculty advisers of the Society of Physics Students, John Rigden, AIP's director of physics programs, has challenged SPS to get involved in NSTW by bringing physics demonstrations and lectures to local schools and shopping malls. Those wishing to participate should check the World Wide Web site at <http://soundprint.brandwine.american.edu/~nstw/> or call David Heil of the Oregon Museum of Science and Industry at 503-797-4508 for more information.

IN BRIEF

"The Nobel Legacy," three new one-hour television shows about medicine, physics and chemistry, can be seen on the Public Broadcasting System on 21 April and the two succeeding Fridays (check local listings). A Nobel laureate presides over each program, with Leon Lederman hosting the physics episode. The series is underwritten by Baxter International, a manufacturer and distributor of medical services and products.

On 26 February Daniel C. Stanzione succeeded John S. Mayo (see PHYSICS TODAY, December, page 51) as president of AT&T Bell Laboratories. Stanzione has a BS in electrical engineering (1967), an MS in environmental systems engineering (1968) and a PhD in electrical and computer engineering (1972), all from Clemson University. He joined Bell Laboratories in 1972 and has worked on software systems, network architecture and signal processing. ■