

erally are the dominant factors accounting for differences in salary levels and salary increases between 1983 and 1985. PhD physicists working in industry commanded the highest median salary, \$52 600, in 1985; those employed at universities on 11- to 12-month contracts earned a median of \$42 700; at four-year colleges, those on 9- to 10-month contracts earned a median of \$30 000.

Member-society members staying with the same employer generally saw their salaries increase at about twice the rate of inflation from 1983 to 1985. Their median salary in industry went up by 15.5%, in four-year colleges by 14.8% and at universities (on a 11- to 12-month basis) by 17.9%. Median salary increases varied quite strongly among those who switched employers. Those who switched universities, for example, saw their median salary increase by \$11 400. Those who changed industrial employers registered a median increase of \$10 000. The 33 sample respondents who moved from university to industry positions chalked up a median increase of \$22 300—an increase of more than 100%.

The gap between men's and women's salaries in academia and industry is closing. In 1981 women's sala-

ries lagged behind men's by 25% at colleges and universities and by 16% outside the academic world. During the next four years women physicists consistently received proportionally larger salary increases than men, so that their salaries lagged in 1985 by 12% inside academia and 10% outside. At entry level, women earned on the average only 3% less than men in 1985, but at the most experienced level the gap was 27%. These findings are consistent with a detailed profile of The American Physical Society's members, which was based partly on AIP survey data and partly on information from the National Academy of Sciences (see page 107).

Overall, median salaries for members of AIP member societies increased to \$44 100 in 1985 from \$40 000 in 1983. "The aging of the university professoriate... continues to be a major concern," the report notes. Over 60% of the society members who hold a professorial rank in a university are full professors, and their median age climbed to 52 in 1985 from 49 in 1981.

Individual copies of the 1985 salary report are available free of charge from the Education and Employment Statistics Division, AIP, 335 East 45 Street, New York NY 10017.

tory courses.

Foreign students represented 40% of all physics graduate students in the US in 1986-87, 44% of first-year physics graduate students and 51% of physics TAs. Their overrepresentation in the ranks of the teaching assistants may be related to their greater preference, in comparison with US students, for theoretical over experimental research. Research assistantships, the other major support mechanism, are given primarily for experimental work.

The AIP survey found that nine out of ten physics departments screen foreign candidates for assistantships with some kind of written English test, and that three departments out of four use the Test of English as a Foreign Language. But department heads do not generally consider TOEFL to be an adequate test of spoken English skills. Despite that fact, only about a third of the physics departments require any kind of oral test. Instead, most monitor the reactions of students to the TAs and provide remedial or corrective action where necessary. TAs are offered formal instruction and informal opportunities to practice English at most universities. When a TA's English is found to be inadequate, the most prevalent solution is to assign the assistant to tasks that do not involve direct student contact.

Although three-quarters of the departments noted undergraduate complaints about the communication skills of TAs who are not native English speakers, department heads disagree about whether the heavy use of TAs has caused or may cause serious problems. "As might be expected," the AIP report says, "those departments that felt that the screening was good were less likely to have encountered problems."

The report concludes: "Although

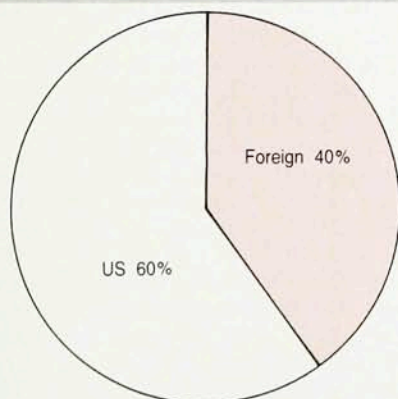
SURVEY EVALUATES USE OF FOREIGN TEACHING ASSISTANTS

A majority of PhD-granting physics departments responding to a recent survey reported that 50% or more of their teaching assistants were from abroad. AIP's Education and Employment Statistics Division sent the survey in fall 1986 to the heads of the 172 PhD-granting departments in the US, and the response rate was 80%. In 76 of the 138 responding depart-

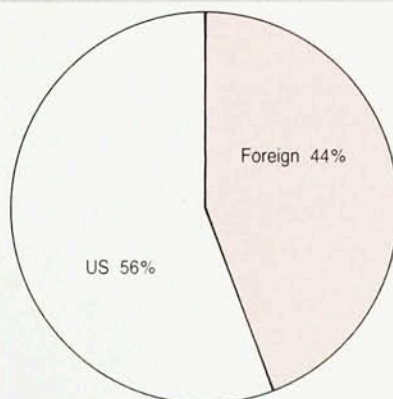
ments half or more of the teaching assistants were foreign citizens. The concentration of foreign teaching assistants was most frequently between 40% and 60%.

Three out of five foreign-born TAs were responsible for supervising labs, and about half graded papers; only 17% taught recitation sections and just 10% taught required or introduc-

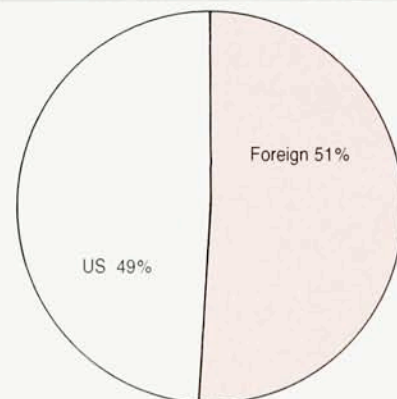
TOTAL GRADUATE STUDENTS
11 400



FIRST-YEAR GRADUATE STUDENTS
3 700



TEACHING ASSISTANTS
4 300



the majority of the department chairs did not feel that a serious problem had yet developed in their own physics department, they were cautious about the future and sensitive to student complaints. . . . When English language difficulties arose, a variety of remedial actions were turned to and teaching assistants were, at least temporarily, reassigned to tasks that did not entail contact with undergraduates. There was recognition, however, that this was only a partial solution. As the number and proportion of non-native-English-speaking graduate students increased, it would become more and more difficult to find alternative tasks for them."

Individual copies of the report, "Foreign Teaching Assistants in Physics Departments," are available free of charge from the Education and Employment Statistics Division, AIP, 335 East 45 Street, New York NY 10017.

ROYAL SOCIETY AND SOVIET ACADEMY REACH AGREEMENT

The Royal Society of London and the Academy of Sciences of the USSR have signed a new agreement that may bring about as much as a doubling of exchanges between the United Kingdom and the Soviet Union in the coming years. The agreement was signed in mid-November during a visit to England of a delegation from the Soviet Academy headed by Academy President Guri I. Marchuk. During the visit Marchuk was received by Prime Minister Margaret Thatcher.

Under the agreement, representatives of the Royal Society and the Soviet Academy will meet every two years, alternating between the two countries. Financing for individual exchanges is to be increased 50% immediately, and the countries are to work during the next year toward an additional 50% increase.

MENDELSON IS PRESIDENT OF RHEOLOGY SOCIETY

Robert A. Mendelson, Monsanto Science Fellow at the Monsanto Chemical Company laboratories in Springfield, Massachusetts, has taken office as vice president of the Society of Rheology. He will be vice president for two years, with the expectation that he will then be elected president at the end of 1989, when John M.



Robert A. Mendelson

Dealy's term expires. Dealy, a professor of chemical engineering at McGill University and formerly the vice president of the Society of Rheology, was elected president in the recent election.

Mendelson earned his BS in chemistry in 1952 and his PhD in physical chemistry in 1956 at Case Institute of Technology (now Case Western Reserve University). He joined Monsanto in 1956 and has done research on the molecular characterization of polymers, principally on the melt rheological behavior of various polymeric systems, with special emphasis on structure-rheology relations and on processing behavior. Most recently he has studied the behavior of multiphase polymer blends.

Edward A. Collins of MITECH Corporation, Donald G. Baird of Virginia Polytechnic Institute & State University, and Arthur B. Metzner of the University of Delaware were reelected treasurer, secretary and editor, respectively. Newly elected additional members of the executive committee are Joe D. Goddard of the University of Southern California and Gregory B. McKenna of the National Bureau of Standards. Robert F. Landel of the Jet Propulsion Laboratory rejoins the executive committee as past president.

MOUNT WILSON TELESCOPE TO BE RECOMMISSIONED

The trustees of the Carnegie Institution of Washington have approved a plan to recommission the 100-inch Hooker telescope at the Mount Wilson Observatory under the auspices of a new non-profit corporation called the Mount Wilson Institute. Carne-

gie will transfer title to the observatory's buildings, equipment and other property, contingent upon the institute's raising adequate funds, approval by the US Forest Service—which owns the land where the observatory is located—and negotiation of satisfactory arrangements regarding Carnegie's rights of reversion.

The Hooker telescope was mothballed in June 1985, when Carnegie decided to concentrate its resources on its observatory at Las Campanas in Chile and its other instruments on Mount Wilson. These include two solar telescopes and a 60-inch stellar telescope. The Carnegie Institution's complex also provides a home for an interferometer operated by Harvard-Smithsonian. Many astronomers and astrophysicists have complained that the Hooker telescope has not exhausted its useful life and that it deserves to be kept operational at a time when astronomy suffers from a worldwide shortage of viewing time. Various plans were proposed to reopen the facility; in one such scheme the observatory was to have made a series of photographs for educational use during the appearance of Halley's Comet two years ago.

The current plan calls for the Mount Wilson complex to be used primarily for research but also for education and recreation. Trustees of the new institute include representatives of the Los Angeles County Department of Parks and Recreation and the county's Museum of Natural History.

CHATURVEDI IS OUTSTANDING SPS CHAPTER ADVISER

The Society of Physics Students has honored Ram P. Chaturvedi of the State University of New York College, Cortland, as its outstanding SPS chapter adviser of 1987. The award consists of a certificate, a citation and a donation of \$500 to the recipient's institution to support a public talk by a distinguished lecturer.

Chaturvedi has served as chapter adviser at SUNY Cortland since 1973. A native of India, he earned a BSc in 1953 and an MSc in 1955 at Agra University and a PhD at the University of British Columbia in 1963. He taught at Agra University from 1955 to 1959 and at Panjab University from 1963 to 1964. He joined the faculty at the State University of New York, Buffalo, in 1964, and moved to State University College, Cortland, in 1965. He became a full professor in 1970. ■