# In seeking a job, new PhDs need more patience and flexibility

Physics may no longer be entirely outside the shadow of US unemployment. It is taking new recipients of physics PhDs longer to find jobs, and more of them are finding none, according to the latest Employment Survey of the AIP Manpower Statistics Division.

The present survey analyzes responses to questionnaires sent December 1982 to new graduates who had indicated the previous summer that they intended to find jobs. Out of 912 new PhD physicists, more than 400 responded to this follow-up survey. The survey finds that only 34% of 1982 PhDs found potentially permanent jobs in less than three months. During each of the two years previous, 46% of new PhDs found such jobs in that time. And as of last winter, six months after most had graduated, a few more PhDs were still unemployed than had been the previous year. While new recipients of master's and bachelor's degrees found jobs last year at the rates their predecessors did, twice as many 1982 bachelors remained unemployed the winter after their graduations than did 1981 bachelors: Among 1982 bachelors, 8%, or 59 persons, remained unemployed.

The survey finds that the difference in rates of potentially permanent employment for theoretical and experimental physicists has moderated somewhat: Among 1982 doctorate recipients, 58% of experimentalists and 42% of theoretical physicists had potentially permanent jobs; among 1981 graduates, the proportions were 60% and 38%, respectively.

In examining the relation between employment and subfield, the survey reports that the percentages of PhD graduates who left their subfields for potentially permanent jobs rose to 46% from 40% the year previous. In a new table, the survey displays the movement from subfield of dissertation to subfield of employment for 1982 PhD recipients. Of those in potentially permanent jobs, between one-quarter and one-half stayed in the same subfield. (The highest percentages were in plasmas and fluids, optics, and solid-state physics.) Of new postdocs, over 90% stayed in subfields of elementary particles, solid state, and astrophysics. The survey also reveals that 43% of all postdoc appointments were for a year or less, a rise from 28% the previous year. The rise was steepest in elementary-particle physics, where the percentage of these short postdocs doubled.

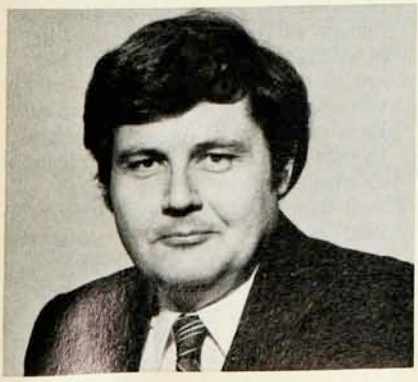
The survey is available, free, from its author, Susanne D. Ellis, Manpower Statistics Division, AIP, 335 East 45 Street, New York, NY 10017. (Request Publication No. R 282.6.)

# Purdy is AAPM president-elect

The American Association of Physicists in Medicine has chosen James Purdy president-elect for 1984. Purdy will succeed the president for 1984, Edward S. Sternick, who is the director of the medical physics division of the Tufts–New England Medical Center and associate professor at Tufts.

Purdy was educated at Lamar University (BA in math-physics, 1967) and the University of Texas at Austin (MA in physics, 1969; PhD in nuclear physics, 1971). After a postdoctoral appointment at the M.D. Anderson Hospital and Tumor Institute, he joined the Washington University School of Medicine as an instructor in radiation physics. He is now professor and chief of radiation physics in the Division of Radiation Oncology there. His research has concerned clinical dosimetry, high-energy photon/electron beam dosimetry, electron beam arc therapy, compensating filter development, dose computation and quality assurance instrumentation.

PURDY



Alexander P. Turner was elected to a three-year term as treasurer. He is the director of the department of radiological physics, Radiation Oncology Center, in Sacramento, California. Four new members-at-large of the AAPM Board were elected for three-year terms: Alfred Smith (cancer expert and acting chief of the Radiotherapy Development Branch of the Radiation Research Program, National Cancer Institute), Dale Starchman (professor of clinical radiation biophysics, Northeastern Ohio University Medical College), Jean St. Germain (assistant attending physicist, Memorial Hospital, and assistant professor of clinical radiology, Cornell University Medical College) and Charles R. Wilson (associate professor of radiology, Medical College of Wisconsin–Milwaukee).

## Newsletter helps joint physics education efforts

A new newsletter is disseminating information about joint efforts of high schools and colleges to improve high-school physics education.

The first issue arrived at hundreds of university and college physics departments in November. In it, college and university physicists describe programs at their schools. Among topics covered in the newsletter are: a cooperative of high schools organized by Eastern Carolina University that develops resources for demonstrations and provides visits by scientists, a physics olympics for high-school students at Youngstown State University in Ohio, an MS degree program for high-school physics teachers at Mar-

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shall University in West Virginia, and Saturday and summer courses for high-school teachers and students at several universities. Funding for the various programs described comes from NSF and the states, as well as from participating schools and individuals.

The College–High School Interaction newsletter is compiled and sent free by Richard Sands of the Joint AAPT–APS College–High School Interaction Committee in the hope that descriptions of successful programs will encourage additional efforts. The APS Education Committee so far is paying expenses for this project of the committee. The first newsletter contains material selected from over 75 descriptions of activities the committee received. The newsletter, which will appear every few months, is being sent to almost 500 college and university physicists who are willing to act as liaisons to local high-school teachers, and to over 800 heads of departments.

Persons interested should contact Richard Sands, Department of Physics, 745 Dennison Building, University of Michigan, Ann Arbor, MI 48109.

## AAPT starts journal on computers in teaching

The American Association of Physics Teachers is starting a new journal on the use of computers in teaching physics. It is likely to appear in early 1985.

The journal will carry information more specific and more technical than appears in the *American Journal of Physics* and *The Physics Teacher*, the other AAPT journals. Articles will cover such topics as software compatibility, the applicability of particular programs in drill and practice, simulation, computer-assisted instruction, or numerical analysis, and the use and misuse of computers in teaching.

A search committee is accepting applications for an editor. Inquiries should be directed to Larry Kirkpatrick, who is head of that committee and chairman of the AAPT committee on computers in physics education. His address is Department of Physics, Kansas State University, Manhattan, KS 66506. Applications will be accepted until 31 December 1983.

## Bell Labs gives scholarships; seven go to physicists

Bell Laboratories has selected the first 25 doctoral students in physics, computer science, electrical engineering and chemistry to receive scholarships in a new program. Seven are in physics.

The awards were granted last fall. They are expected to be given for an average of four years, the time recipients will need to complete their PhDs. In each succeeding year 25 more will be chosen, so that starting in 1986 there will be about 100 "Bell Labs scholars."

The awards include stipends of $8400 plus tuition, book expenses and living costs. They will average, in total, $20 000 per year. In addition, students will have the opportunity to work—for additional salary—at Bell Labs during summers with scientists working in their areas of study. After graduation, students are under no obligation to work for Bell.

Recipients are nominated by graduate departments selected by a panel of Bell scientists, who also select winners. Physics departments included in this year's awards are Berkeley, University of Chicago, Cornell, Harvard, University of Illinois, MIT and Stanford.

## New astrophysics group started at Fermilab

An astrophysics group has been started at Fermilab supported by a grant from NASA.

In September, other astro–particle physicists joined David Schramm, who already divides his time between the lab and the University of Chicago. The group is headed by Edward Kolb, who came from Los Alamos, and Michael Turner, who also will continue at the University of Chicago. Other members are Keith Olive (CERN) and David Seckel (University of Washington). David Lindley (Cambridge University) joined the group for a year beginning last fall; Alex Szalay (Eotvos Institute, Budapest) will join it for a year beginning in spring 1984. A workshop, "Inner Space–Outer Space," is planned for spring 1984.

## Travel awards to international crystallography congress

The US National Committee of the National Research Council is administering a travel award program to provide partial travel support to a limited number of US scientists attending the 13th Congress of the International Union of Crystallography being held in Hamburg, FRG, 9–18 August 1984. All are welcome to apply, but the award program will focus on assisting outstanding younger scientists, including senior graduate students, who until now may not have had an opportunity to participate in international meetings. The deadline for posting applications is 31 January. Application forms can be obtained by writing Peggy J. Posey, Staff Officer, National Academy of Sciences, 2101 Constitution Avenue NW, Washington, DC 20418, or by phoning her at (202) 334-2156.

## in brief

The Australian Optical Society held its first meeting in May in Sydney. Elections were held for officers: W. H. Steel is president; J. A. Piper, vice president; R. C. McPhedran, secretary; and J. L. Gardner, treasurer.

A new Center for Fusion Engineering at the University of Texas, Austin, completes the triad of facilities for basic experimental, theoretical and engineering programs in magnetic fusion research at the University. A newly formed committee will coordinate these efforts with the existing Fusion Research Center and Institute for Fusion Studies.

Ezra D. Heitowit has moved from the House Subcommittee on Energy Development and Applications to the Subcommittee on Science, Research and Technology where his concerns include National Science Foundation activities and general science policy. He has a PhD in applied physics from Cornell, and was a plasma physicist at NASA's Ames Research Center.

The NSF report "Changing Employment Patterns of Scientists, Engineers, and Technicians in Manufacturing Industries: 1977–1980" is available by requesting NSF 82-331 from the Division of Science Resources Studies, NSF, 1800 G Street NW, Washington, D.C. 20550.

The Japanese subscription agency, Kinokuniya Company, has been appointed AIP's exclusive agent to fill non-member subscription orders from Japan for AIP and for Member Society journals distributed by AIP. AIP's agreement with Kinokuniya provides that journals will be sent to non-member subscribers in Japan at a favorable air freight rate. The foreign sea mail rate will no longer be available to non-member subscribers in Japan. Member subscribers who elect to place their orders with Kinokuniya will benefit from air freight delivery at no additional charge.

Three societies have joined the fourteen already affiliated with the American Institute of Physics: The American Meteorological Society, the International Association of Mathematical Physicists, and the Materials Research Society. □