

provide interesting comparisons between the attitudes of scientists and the public on research, technology and R&D. The first uses a Delphi technique to solicit and synthesize the judgments of 81 scientists representing a cross-section of the scientific and technological community. When the Delphi panel of scientists was asked to identify problem areas warranting major increases in R&D funding, they most often chose the areas of pollution, power and energy resources, adequacy of natural resources, and the high cost and ineffectiveness of health services.

In the second survey the public (2209 participating) most frequently stated they wanted their science and technology tax dollars spent on improving health care, reducing and controlling pollution, reducing crime, and finding methods for preventing and treating drug addiction.

Science Indicators 1972 is available from the US Government Printing Office, Washington, D.C. 20402 for \$3.35.

New staff and programs for NSF education group

The education directorate of the NSF has undergone changes in leadership, organization and programs. Lowell J. Paige from UCLA has been nominated to be Assistant Director of the NSF for education, succeeding Lloyd G. Humphreys, who resigned in September 1971. While at UCLA, Paige was dean of physical sciences and professor of mathematics.

The education directorate has been reorganized to help increase the effectiveness of science teaching. Directors have been appointed for the three divisions of the directorate: Lyle W. Phillips is the division director for the recently created Office of Experimental Projects and Programs, Howard J. Hausman heads the Division for Pre-college Education in Science and Francis G. O'Brien will direct the recently established Division of Higher Education in Science.

The restructured directorate, according to NSF Director H. Guyford Stever, "will attempt to develop new and innovative approaches to the implementation and conduct of science education at all academic levels."

The NSF has also announced the specifics of their education activities. These activities will be structured around five major themes:

- ▶ Improvement of education for careers in science.
- ▶ Development of science literacy (development of materials for elementary and secondary-school use).
- ▶ Increasing efficiency of educational processes.
- ▶ Experimental projects and problem

assessment regarding science education.

▶ Graduate student support.

The emphasis of the education programs at the elementary and secondary level will be more toward problem solving and practical science. College-level programs will stress self-paced and self-directed study in interdisciplinary and traditional fields. Emphasis will also be placed on programs offering degrees that will enable scientists to tackle the problems that face society more effectively.

Schardt to head physics and astronomy at NASA

Alois W. Schardt will direct the Physics and Astronomy Programs in NASA's Office of Space Science after being deputy director since 1970. He succeeds Jesse L. Mitchell, who is retiring after 26 years with NASA, the last seven as physics and astronomy chief.

Schardt, who joined NASA in 1963 as Chief of Particles and Fields, will have responsibility for programs that use spacecraft and sounding rockets to explore the earth's environment, to study the sun and make other astronomical observations.

Before coming to NASA, Schardt held positions with the Advanced Research Projects Agency, the Department of Defense, Los Alamos, Brookhaven and Cal Tech.

NSF to help support Virginia space lab

NASA's Space Radiation Effects Laboratory at Newport News, Virginia has been given another year of life by a \$261 000 NSF grant. \$145 000 is also forthcoming from the College of William and Mary to support the laboratory, which has one of the largest synchrotrons in the US.

In its announcement NSF said it considers the laboratory to be an important intermediate-energy facility for the next year until other newer accelerators become fully operational. It will be used for basic research in intermediate-energy physics. Originally the accelerator was built to simulate conditions in outer space.

Brookhaven Tandem users form discussion group

The outside users of the Brookhaven Tandem Van de Graaff Facility have established a formal organization called the Tandem Users Discussion Group. At the organizing meeting held recently at BNL an executive committee was elected for a one-year

term, with Lee Grodzins of the Massachusetts Institute of Technology as chairman. This committee will plan future meetings and consider the long-term organization of the group.

Among the topics discussed at the meeting were the new capabilities to be realized from the upgrading now in progress at the facility, the QDDD spectrometer and heavy-ion recoil mass spectrometer under construction, the present capabilities and future development of the on-line computer system and ideas about a booster accelerator. Anyone wishing to join the Group should write Lee Grodzins, Physics Dept., Bldg. 26, Rm 421, MIT, Cambridge, Mass. 02139.

in brief

Physics Manpower 1973: Education and Employment Studies, an analysis of physics manpower for the 1972-73 academic year, can be obtained by writing the Back Numbers Dept., American Institute of Physics, 335 E. 45th Street, New York, N.Y. 10017, for \$10.00 a copy (see *PHYSICS TODAY*, April, page 84).

Two \$1500 awards for small-college science-teaching programs are available through the R. K. Scott Memorial National College Grants Award Program. Direct proposals (due 7 January 1974) and inquiries to Joseph R. Ryan, Chairman, R. K. Scott Memorial National College Grants Award Program, Harbison-Walker Refractories, Garger Research Center, PO Box 98037, Pittsburgh, Pa. 15227.

William A. Anders, Apollo 8 lunar-module pilot, has been confirmed by the Senate to be a member of the Atomic Energy Commission. Anders was the Executive Secretary of the National Aeronautics and Space Council from 1969 to June 1973.

Thomas A. Nemzek, formerly AEC Richland Operations Office Manager, is the new Director of the AEC Division of Reactor Research and Development, succeeding Milton Shaw.

Energy Policy, a new quarterly journal, edited by John A. G. Thomas, is published by IPC Science and Technology Press Ltd, IPC House, 32 High Street, Guildford, Surrey, UK. Subscriptions are £14.00 (\$36.40) a year.

In an effort to consolidate federal earthquake-research activities, the NSF has taken over funding and policy responsibility for the Seismological Field Survey, which was formerly held by the National Oceanographic and Atmospheric Administration of the Commerce Department.