

saying to another, "Damn it, he's a good man, and he deserves to be in, but he's just too abrasive."

One of the highest officers of the Academy confidentially states that "creativity in certain narrow fields is rewarded more than in others. High-energy physics," he contends, "is over-represented, while, for example, inorganic chemists don't get elected in proper numbers." He also contended that "creative scientists from smaller places don't have much of a chance." An analysis of Academy membership seems to bear out at least this last observation. Out of 740 members, 407 reside in California, New York, and Massachusetts, and most of these are employed at major universities. Eighty-five percent of the membership is from nine states: the three cited above, plus the Maryland-District of Columbia region, Illinois, New Jersey, Wisconsin, Connecticut, and Pennsylvania. At last count, 12 states had no Academy members at all: South Carolina, West Virginia, Kentucky, Mississippi, Arkansas, North Dakota, South Dakota, Nebraska, Oklahoma, Wyoming, Idaho, and Alaska.

Furthermore, while the volume and quality of basic research in industrial and government laboratories have markedly expanded since World War II, the Academy still stands as a bastion of academic basic research. And its election criterion of original contributions to scientific knowledge—which was established by Joseph Henry—has probably played no small part in the lesser prestige that this country accords technology and engineering. Of the current 740 members, 592 are affiliated with universities, 46 are with government laboratories, 32 are in industry, and 43 are with various other types of research institutions. The rest are otherwise occupied or retired.

Of the 740 members, 423 are employed by 14 universities: University of California, 86 (43 of them at Berkeley); Harvard, 62; Rockefeller University, 34; Massachusetts Institute of Technology, 32; Stanford, 29; Wisconsin, 28; Caltech, 27; Columbia, 27; Chicago, 23; Princeton, 22; Hopkins, 16; Yale, 15; Illinois (Champaign and Chicago), 13; and Cornell, 9.

There is no doubt, however, that, once allowance is made for the tendency to favor the old over the young, and the coastal academic enclaves over science in the interior, members of the Academy are drawn from the cream of

## NEWS IN BRIEF

### ● ENGINEERING GRADUATE

**GAP:** According to a recent survey by the Engineering Manpower Commission of the Engineers Joint Council, between 1965 and 1976 employers will demand 830,000 new college graduates in engineering, but only 500,000 will be available. The projected national growth in engineering employment is 33 percent from 1965 to 1976, with employment in education topping all other engineering fields with a predicted growth of 66 percent during that period. Other high-growth industries for engineers are aerospace, construction, metals, chemicals, and electronics. Employment of engineering technicians is expected to increase by 36 percent during the decade, the survey indicated. Factors contributing to the shortage, the report suggested, are: declining popularity of engineering among freshmen; lengthening of the average curriculum from 4 to 5 years; increasing number of graduates who continue on to advanced degrees, and loss of 10 to 15 percent of engineering graduates to other fields. The report, *Demand for Engineers and Technicians—1966*, is available for \$4 from the Engineers Joint Council, Department P, 345 East 47 St., New York.

### ● GAS CENTRIFUGE POLICY:

In line with the government's nonproliferation policy, the Atomic Energy Commission has announced that it is terminating all authorizations for privately sponsored work on the gas centrifuge process for separation of isotopes. National security interests would be best served, the Commission said, if the private work were discontinued. The process lends itself to small plants, a Commission spokesman said, and therefore may have a nuclear weapons proliferation potential. Further, more firms had expressed an interest in working in the field, which would have expanded the numbers having knowledge of the process. The decision affects two joint projects—General Electric—Allied Chemical and W. R. Grace & Co.—Electro-Nucleonics, Inc. The commission will review the programs of the firms to determine if they could make a substantial contribution to the Commission's own classified program under direct contractual arrangements. If, in the future, it is in the national interest

to allow private participation in gas centrifuge development, the Commission said, it will then make available, subject to security regulations, economic and other required information for investment decisions by industry.

### ● CONGRESSIONAL SCIENCE

**COMMITTEE:** Establishment of a Joint Congressional Committee on Science and Technology to promote efficient management and coordination has been proposed in a bill (S. 1305) introduced in the Senate recently by Senator Gordon Allott (R-Colo.). The goals of the committee, which would have no legislative power, would be to review all federal scientific and technical programs and to make recommendations to the appropriate legislative committees, to Congress, and to executive departments and agencies. It would also serve as a center for information on all governmental and non-governmental programs and promote cooperation between the two. Further it would seek a means for the distribution of federal research grants and contracts in a geographically fair manner without endangering the quality of the research. In explaining the need for the committee, Allott said, despite the existence of the Office of Science and Technology, the President's Science Advisory Committee, and the Federal Council for Science and Technology, there has been no guarantee of efficient management of federal programs or effective intergovernmental coordination. The bill was referred to the Commission on Labor and Public Welfare where hearings have not yet been scheduled.

### ● GROUND TRANSPORTATION:

A report on research and development of high-speed ground transportation has been issued by a special panel appointed last year by the Commerce Technical Advisory Board to study the subject. The report contains recommendations to the Department of Transportation for both immediate and long-range research and development which may lead to practical high speed ground transportation systems. Copies may be obtained from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. Order No. PB173911.