

**Percentage shares of in-house and industry funding
in the Federal R&D budget***

	FY 1975	FY 1976	FY 1977 (est.)
Government-wide			
In-house	28.3	27.4	25.8
Industry	44.0	45.9	48.3
NASA			
In-house	34.0	34.3	34.2
Industry	58.5	59.3	59.7
ERDA			
In-house	3.2	3.9	3.8
Industry	24.2	33.8	36.3
DOD			
In-house	30.7	29.7	27.3
Industry	62.2	63.8	66.5

*From NSF 75-334, "Federal Funds for Research, Development and Other Scientific Activities, FY 1975-77."

creased stress on private-sector research in her Department with the explanation that "it is very much a goal of this Administration to avoid doing anything in the Federal Government that can be done privately." For example, she told us, a considerable investigation has gone on to check that the National Bureau of Standards performs no tasks that ought to be done, or could be done, elsewhere. (It doesn't, according to Ancker-Johnson; she said NBS passed the test "extremely well.")

The rationale behind DOD's shift away from the in-house labs appears more complicated. On the one hand, Allen's study has noted that the Congress "has made clear its intention that DOD R&D has no mission to support science or scientific training" beyond the Department's own needs. This conclusion may stem from the 1970 "Mansfield amendment," which provided that no funds authorized for Defense use by the Congress could be applied to projects or studies not directly related to "a specific military function or operation." (The NSF absorbed much of DOD's less obviously defense-related basic research.) In apparent contrast to this restricted-role justification, however, Allen has said that the desire to increase technology transfer within the United States was one of the factors underlying the move to reverse the growth of the in-house share of research efforts: "To get high technology into industry rapidly," he said recently, "one just about has to develop the technology there in the first place."

Other considerations cited in the development of the Pentagon's present approach include the following:

- ▶ disproportionate growth in the in-house operation over the 1964-74 period, which culminated in a 43% in-house share, averaged over the independent Army, Navy and Air Force programs, in 1974;
- ▶ a layered management structure in the in-house enterprise that contributed to

inertia, inhibiting response to new challenges;

- ▶ assertions of better capability (in specific areas) in industry and the universities, alluded to by Currie, and
- ▶ the accretion of personnel who constituted advocacy groups for "matured constituencies," areas of research or technology—a solid-state research effort concerning polycrystalline graphite, for example—for which Defense policymakers believe the demand has waned.

—FCB

Stever is new White House science adviser

The Senate confirmed on 9 August the nomination of H. Guyford Stever to be Director of the new Office of Science and Technology Policy. Stever, Director of the National Science Foundation since February of 1972, had served as part-time *ex officio* adviser to the President on scientific affairs since the abolition of the White House science office in mid-1973. In moving up to his present fulltime role, he becomes the first White House science adviser to serve on a statutory basis.

Stever's primary duty as OSTP director is, of course, to advise the President on scientific, technological and engineering aspects of issues confronting the White House; the science-policy act signed into law by President Gerald R. Ford in May includes among such issues problems of the economy, of national security and foreign relations, of health and of the use of resources and the environment. The White House science adviser holds membership on the Domestic Council and is expected to advise the National Security Council. The new legislation requires that he join with the Office of Management and Budget in annually reviewing Federal funding of R&D. Stever will also assist in the preparation of a yearly report from the President to the

Congress on science and technology. His office, which is to include not more than four associate directors nominated by the President and subject to Senate approval, must also identify problems of a scientific nature that may affect Government decisions in a five-year forecast to be updated annually.

Before he took charge of the Foundation, Stever had been president of Car-



STEVER

negie-Mellon University in Pittsburgh (and one of CMU's predecessors, Carnegie Institute of Technology) since 1965. Earlier he headed MIT's Departments of Mechanical Engineering, Naval Architecture, and Marine Engineering. He earned his PhD in physics in 1941 from the California Institute of Technology.

Stever's research interests have included aeronautical, missile and spacecraft engineering, design and performance (especially aerodynamics) and radiation physics. He has also been active in scientific and engineering education and the determination of science policy. His best known research work consists of studies on condensation phenomena in high-speed flows and the growth of the boundary layer behind a shockwave.

—FCB

Roberts

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country's demand for electricity. "Projections I've seen show the nuclear share increasing to about 25% by 1985," said Roberts, "and around the year 2000 they may supply as much as 50%." Yet the breeder can supply no significant amount of electricity, he predicts, until 1995 or beyond. As breeder technology matures, Roberts told us, utilities will probably shift over from the light-water reactors of