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A Department of Science?

The news that a cabinet-level Department of Science is being contemplated is important to every citizen, scientist and nonscientist, in the country. Before detailed plans are unveiled, it is premature to decide whether such a step is a blessing or a hazard, but it is not too early to consider the criteria on which judgments can be made.

Scientific research and development have grown increasingly larger in dollars, more pervasive in areas of application, and more important to the material well-being of society with each passing year. In fiscal 1984 the U.S. federal budget allocated \$7 billion for basic research and \$38 billion for applied research and development. In addition to the well-accepted roles of research in preventing illness, providing for our defense, and improving our agriculture, there is a growing realization that a nation that pays high wages must have the technological head start provided by basic research to provide goods at internationally competitive prices.

One argument for a Department of Science is administrative tidiness. The present sprawling giant with fingers reaching into numerous departments and agencies does not produce aesthetic organization charts or clear lines for policy implementation. The consequent pluralism in funding and in administrative mechanisms could be vastly simplified in a single department. An accountant's nightmare, however, may be a scientist's sweet dream of happiness. Science is basically untidy—a mixture of big science and little science; programs that need expensive hardware, like astronomy, and programs that need only time for thinking, like some mathematics; programs that can be planned in advance, like a space station, and programs that arise unexpectedly, like the response to the AIDS epidemic. A single department could succumb to the hobgoblin of internal consistency and thus eliminate the individualistic administrative practices on which science has thrived.

A second argument for a single department is budgetary tidiness. Scientific research and development could be made into a "zero sum game," in which a space station is weighed against a supercollider, polymer chemistry against biotechnology, and economics against solid state physics. A better formula would seem to consider basic research financing as a "percentage game" based on the gross dollar value of a given output. Du Pont spends 6 percent of its total sales on research. Extending these percentages to other areas provides a logical impetus for major growth in basic research in areas such as criminal justice, demography, and environmental protection. These areas are at the moment vastly underfunded in basic research, but they relate to problems for which society is in desperate need of solutions. It is not difficult to argue that a small diversion of funds to generate new ideas in these areas is a good investment, given the large outlays for prisons, immigration control, and toxic waste disposal. It is much more difficult to make the argument for funds at the expense of highly successful research programs in medicine, chemistry, and physics, none of which are at the 6 percent level.

A Department of Science could be useful if it is devoted to untidiness and evangelism. It could serve as a catalytic force for increasing scientific research and generating scientific approaches in all phases of our society and our governmental structures. It could send out its missionaries to bring the gospel of basic research to the heathen in the outer darkness. For research is not only an endless frontier but a peaceful one in which the gains of one country are not made at the expense of others. The temporary technological edge achieved in one country is eventually reflected in increased living standards for all. Mankind should be conquering ignorance, not territories. If a Department of Science is designed to be a focal center for the expansion and encouragement of research, it would be a boon. If it is too tidy and too encapsulated, it would be far better to abandon the idea and to consider modifications of the present pluralistic structure to achieve the same goals.—DANIEL E. KOSHLAND, JR.