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EDITORIAL

A Paine-ful Start

More than 200 years ago, during a time of crisis in the struggle for national independence, Thomas Paine noted that "These are the times that try men's souls." Although the statement may be lacking in modern political correctness, it remains pertinent at a time when inspiration and fresh thinking are needed. Over the past 2 months, a wide range of leaders in science and government have spoken out in *Science* editorials and letters on the current efforts by Congress to achieve a balanced federal budget and on the consequences for the federal support of scientific research. This week's editorial serves as a summary statement and may be the last on this topic for a while as the ideas under consideration incubate. Time will tell whether those in the scientific community are "summer soldiers and sunshine patriots" or are ready to work for continued federal investment in scientific research—an investment that is endorsed in this issue by the AAAS Board of Directors (page 572) and by 83 of the scientific societies affiliated with AAAS (page 573).

Writing here 2 weeks ago (14 July 1995, page 143), John H. Gibbons, the assistant to President Clinton for science and technology, noted the inevitability of federal budget reductions for science as well as for other federal programs and declared that "we will have to balance our zeal for budget cutting with the need to invest in our future." Gibbons viewed the effort now being made to determine how best to support research and development as a mark of the value of science to the public.

George Keyworth, the science advisor to former President Reagan, testifying before Congress on 28 June 1995, saw the present circumstances as a sign of serious erosion of the special trust that science in this country has enjoyed from the public since the end of World War II. Keyworth recommended replacing the "mythical faith in endless [budgetary] expansion" with the same kinds of priority-setting targets that regulate all other federal budgets. He too noted that "Public support for science stems from society's willingness to invest in its future. And our society has come to view government as the agent for that investment." Similar views were expressed here by the publisher of *Science*, Richard S. Nicholson (2 June 1995, page 1259).

Congressman John E. Porter, chairman of the House Subcommittee on Appropriations for the Departments of Labor, Health and Human Services, and Education succinctly stated the economic case for basic research as an investment: "The federal government funds basic research; private industry applies it" (*Science*, 30 June 1995, page 1827). This process creates money through economic growth in products and services and reduction of the costs of ignorance. Congressman Porter issued a call to citizens across this country to join with scientists and clinicians to speak out to "preserve the government's role in . . . research." A Department of Science and Technology may be one way to ensure that preservation (see Philip M. Smith, *Science*, 26 May 1995, page 1111). Congressman Robert S. Walker, chairman of the House Committee on Science, reaffirmed a strong federal commitment to basic research and training but called for a more efficient approach to federal fund allocation to improve the use of the funds awarded (*Science*, 14 July 1995, page 146).

The views of these leaders apply across national boundaries. Although the new government in France may appear to be downgrading the status of science (*Science*, 7 July 1995, page 22), it is not so in Japan. As noted here by Deputy Editor Philip H. Abelson (7 July 1995, page 11) and confirmed by recent discussions with senior members of the Japanese scientific community, national investment in basic research there is increasing. In contrast with the West, as economic conditions constrain continued investment in research by Japanese industry, the government seems intent on raising its share significantly. Japan may also increase postdoctoral training support, causing a potential radical change in current employment conditions by delaying tenure.

Paine said something else that bears recall: "What we obtain too cheap, we esteem too lightly." Fifty years of continued governmental nurturing of basic science has yielded so many innovations in transportation products, in the distribution of information, and in life-saving treatments and vaccines that we may have come to believe it will always be so. Now is the time for scientists internationally to state the cases for long-term commitment to creative and efficient basic science.

Floyd E. Bloom