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National Science Foundation Hearings

The current oversight hearings concerning the enabling legislation for the National Science Foundation have raised questions about the adequacy of the Foundation's present mandate and the role and composition of the National Science Board. The following observations are based on my experience as a university administrator, 10 years as a member of the National Science Board, and experience on the boards of several corporations and nonprofit organizations.

The mandate of the NSF is sound and ought not to be tampered with. It obliges the Foundation to support basic science research, as the only agency with that responsibility. At the same time it permits the support of applied research. During the 30 years of NSF's existence, its programs have changed with scientific developments and social needs.

The National Science Board has played an essential role in the successful performance of the NSF. It has set policy in all important respects. It interprets the NSF to its constituencies and those constituencies to the NSF. It has successfully protected the agency from potentially overwhelming penetrations—from Congress, the Executive Branch, and the research community. The NSF has responded to the nation's requirements, to the advice and counsel of the scientific community, and to the concerns of the legislative and executive branches of government. At the same time, the organization has been remarkably free from perturbations.

Those who recommend that the composition of the Board be prescribed by law have not given adequate weight to the fact that, over the years, the membership of the Board has changed as the size and composition of the science community and the subject matter interests of the NSF have changed. Its membership has reflected the national desire to include women and minorities in policy-making roles. The early heavy domination of the large research universities has been reduced. The process of Board selections, which begins with nominations (based heavily on suggestions from the scientific community) and terminates in the advice and consent of the Senate, has demonstrated the capacity to balance the many considerations that should be taken into account in appointments to a policy group so important to the nation. It is a political process in the best sense of that word.

There are two difficulties with the basically wholesome process of oversight review. The first is the disposition to make changes: all organizations can be made better, according to this line of reasoning. The other is the problem of finding disinterested parties. The present Board members and officers of the NSF and the scientific community are suspect of special interest if they defend the status quo. Critics inside or outside these groups, in turn, can be discounted as ignorant, spiteful, or disgruntled.

The final appeal must be to the actual performance of the Board and the Foundation over the years. The Board/Foundation mechanism was a unique government invention: a 24-member Board appointed for 6-year terms by the President, subject to the advice and consent of the Senate; a professional staff, most of whom are subject to Civil Service regulations; annual appropriations from Congress with final decisions concerning allocations made by the Board. The record shows that NSF is one of the nation's most effective government agencies, untouched by major fiscal scandals, singularly free from political uses, and highly regarded by the vast majority of the scientists, engineers, and educators who have had to deal with it. Its awards are generally perceived to be honestly and wisely made.

It is not my purpose here to speculate about the reasons this instrument has worked so well. The restraint of Congress and the Presidents over the years, the caliber of the Board and the staff undoubtedly were important factors. The total explanation is not available. Suffice it to say that it is a remarkable and rare structure. Until we understand more fully why it works so well, we would be ill-advised to change it.—ROGER W. HEYNS, *President, William and Flora Hewlett Foundation, Palo Alto, California 94304*