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# The Government, Secrecy, and University Research

Fundamental science in the United States is a successful venture, but a peculiar one. Its success is attested by the dramatic increase in scientific awards won by Americans and by the contributions it makes to our technological productivity. Its peculiarity lies in the organizational arrangements for its sustenance. It is an activity pursued in one culture, supported out of another: more than two-thirds of the nations's fundamental science is done in the research universities, with the government sponsoring nearly all of it. Given the contrast in style and values between the two cultures, it is hardly surprising that this patronage arrangement sometimes generates quarrels. The current one is a debate over the government's efforts to regulate scholarly activities related to critical technologies.

The problem is that the Communist bloc nations have obtained and then copied U.S. innovations in military technology. The solution proposed by the Administration—based on the hypothesis that these leaks partly involved academic exchanges—is that universities restrict the access of foreign students and visitors to, and dissemination of research results in, certain fields of study. These restrictions are sought by applying to fundamental research regulations originally intended for devices or industrial processes.

The universities have countered that if unpatrolled academic visits and the participation of foreign students in research programs contribute to technology leakage, they do so minimally, and that interdicting academic exchange would therefore yield trivial benefits to national security. We have also emphasized the potential damage to the scientific enterprise from government efforts to restrict its openness—especially when these coincide with efforts of private sponsors to expand secrecy for proprietary reasons. It surely will be difficult to resist the latter if we are forced to accept the former.

There is, fortunately, encouraging progress to report. The Department of Defense has created a forum with the universities to examine research restrictions, among other things. The National Academy of Sciences will be studying the matter as well. The Department of State and the Department of Commerce are responsible for the regulations under which the current restrictions have been mandated. The State Department has revised its instructions on the handling of Soviet visitors, so that their academic hosts will not be required to shield them from exposure to particular unclassified projects. That department, which is responsible for the International Traffic in Arms Regulations, has also adopted an appropriately narrow view of their scope. We are informed that the regulations will apply only to technical data significantly and directly related to specific items on the Munitions List—the limitation set out by the United States Court of Appeals for the Ninth Circuit in *U.S.* v. *Edler Industries*.

These are promising signs of change, and they should be encouraged; there are other ways to meet our national security objective. If a Soviet scientist is viewed with such alarm that universities must be asked to police his visit, then the Department of State can apply visa controls. And if a technology has such military value that exposure in an open environment presents clear risks to national security, the government can classify the technology—thereby permitting the universities to decide in advance whether they can accept the restrictions that come along with the work. But to apply a burdensome set of regulations to a venture that has gained such great strength through its openness will cost the nation more than it can be worth.—DONALD KENNEDY, *President, Stanford University, Stanford, California 94305*