1 May 1981, Volume 212, Number 4494 **SCIENCE**

Affordable Science

To the question "What is scientific research," there are several possible answers. One reasonable response is that it constitutes an ordered pursuit of questions that need and are worth studying. Here the trouble begins. Need and worth dance up and down the value scale, depending on where one is coming from and on a satisfactory consensus between investigators and sponsors.

That the federal government is not about to abandon science and technology is clear enough. In the aggregate, the provisions for support of research and development appear robust. Science has been found to be affordable across the spectrum from fundamental research to the stage where commercialization begins, provided it does not tread on the values of the new masters. For the first time in the postwar partnership of science with government, summary judgment has been passed on the legitimacy of particular fields of scientific inquiry without the benefit of due process. The social and economic sciences have been scored as flunking the tests of need and worth on the scale of government's fiscal values.

Even more troubling than the star-chamber procedures followed in reaching this choice is the implicit judgment that science has nothing useful to say about contemporary dilemmas and issues. For these matters, it must be presumed, neat answers are to be found in the transition reports. It is even possible that the social and economic sciences have been convicted for luring government into social experiments and programs that are now deemed wasteful and improvident.

But there are some realities that cast a different light on the need and worth of the social and economic sciences. As far ahead as one cares to look, for example, the United States will face close encounters with risks domestic and foreign, including those of surprise and miscalculation. There is little to show that we are well prepared for them. Going further, it would seem that while we set about spending $1.3 trillion on our defense forces there is a powerful case for honing our skills at conflict resolution. And rather than disposing of terrorism by nailing it as a Soviet conspiracy, it would be profitable to employ science to search into the formation of terrorism and find strategies for their management. As for improving productivity in the nation's economy, it should be clear by now that prayers and good works will not suffice in the absence of much greater understanding of economic behavior than we have at hand.

The charge being leveled against the social and economic sciences is that they are esoteric, meaning that they are practiced by insiders for insiders. If this is nonsense, it is nonetheless plain that the same act of public faith that legitimizes theoretical and applied research in the physical and life sciences has been withheld from the social and economic sciences because the benefits are less amenable to measurement. It is a Catch-22 situation, and it is not likely to improve unless the stronger scientific disciplines come to the relief of their embattled colleagues. Isolating the social and economic sciences means inflicting damage on integrity of all scholarship.

The dilemma that is framed by the exclusionary thrust at the worth of social and economic research raises unsettling questions as to what our national science policy is, and how it is decided. Budgetary dispositions should be consistent with a policy for science, and not presume to reinvent it. It would be a strange species of national science policy that forecloses progress toward understanding and illuminating the tides of human choice and denies that it is affordable science.—WILLIAM D. CAREY