23 January 1981, Volume 211, Number 4480 SCIENCE

Science Education: Rhetoric and Reality

In 1980 the federal government seemed, at last, to have discovered the low estate into which science education in this country has fallen. The Secretary of Education and the acting director of the National Science Foundation (NSF) delivered to the President, at his request, an assessment in a report which did not whitewash the facts. Headlining their recommendations was a call for "A new national commitment to excellence in science and technology education for all Americans."

That was in October. By Christmas, hopes for federal leadership in the "new commitment" were jolted by the Administration's markup of the 1981 budget of the NSF, with a cutback in support for science education. Never mind that the report to the President had warned that "there has been, over the past fifteen years or so, a shrinking in our national commitment to excellence and international primacy in science, mathematics, and technology." When budget imperatives confront the needs for science education, the budget prevails. Science education continues its decade-long record as NSF's habitual loser.

In the past 12 years, the total budget of NSF has more than doubled in current dollars, while in constant dollars the funding of science education has suffered a two-thirds erosion. In 1970, funds for science education amounted to 27 percent of NSF's total budget, but for 1981 the science education share is down to 7.5 percent. If all were well with the state of science and engineering education, there might be nothing to complain about. But if the Secretary of Education and the acting director of NSF are right in what they report, there is a great deal to complain about. The meaning of the budget action is that the government has chosen to disregard its own findings on the predicament of science and engineering education.

Budget policies are seldom models of economic or political logic, as we have come to realize. But there is this much to be said of them: they are symbolic proxies for the nation's values, expressed in consensus terms. They serve to signal, however imperfectly, the government's view as to how national priorities should be ordered. What we must ask, then, is what inputs go to construct this process of ordering. When a President is sufficiently aroused to call for a fitness report on science and engineering education in the United States, and is given bad news, it would be reasonable to suppose that even painful budget choices would take the findings into account. Instead, the latest budget actions have brought science education in NSF to its smallest share of resources in the last 30 fiscal years. If state and municipal governments, trapped between rising costs and taxpayer revolts, take their cues from the federal government and economize at the expense of science education in the schools, the road back to "excellence" will indeed be a long one.

President Carter will soon send his budget for 1982 to the Congress, whereupon President-elect Reagan will promptly recall it and substitute his own. If the passion for squeezing government's "controllable" outlays should take advantage of the vulnerability of the science education budget, lumping it in with other discretionary programs that make up the celebrated "coast-to-coast soup line," matters would become desperate very quickly. The Reagan Administration has the opportunity, without compromising prudent economic policies, to reorder priorities and set a positive course toward rebuilding America's excellence in science and engineering education.—WILLIAM D. CAREY