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The Pimentel Report

The long-awaited National Research Council document "Opportunities in Chemistry", also called the Pimentel Report, analyzes the current status of chemistry in the United States. The case is made that chemistry requires far greater funding than is now available. Thus, according to the Jan. 27, 1986, issue of C&EN, "throughout the report there is a not-at-all subtle emphasis on dollars and the need for more of them". Chemistry...."cannot fulfill its promise at the present levels of financial support". It is my contention that large increases in government funding for chemistry are neither necessary for the health of the science nor consistent with the budgetary restraints that face all Federal programs (including restraints that now jeopardize, for example, Aid to Dependent Children).

The growth in the number of publications in the United States over the past decade has been astounding. Data from Chemical Abstracts show that we are now producing more than 1.2×10^5 papers per year. We do not lack new information; we are choking on it. "More money" directed toward academic research and training is, therefore, too facile and self-serving an answer. It ignores the diminishing capacity of the American chemical industry to absorb the Ph.D. output. It ignores the gross overkill in certain fields of chemistry while other equally important fields are being sorely neglected. It ignores inequities in the funding distribution and in the peer review system which often focuses more on style of research than its prospects for impact. It asks a financially overburdened government to support research for no other reason than it is an "intellectual challenge", an internally generated game where tangible value to the public is unnecessary or at least secondary. Pimentel, like Oliver Twist, asks for "more"; the difference between the two is that Oliver was hungry.

How might research costs be reduced with little impact? One might begin by realizing that a research group funded for 40 (or even 20) individuals would not be seriously affected by a 2-fold reduction in size. Indeed, if we did not prop up outmoded research modalities, chemistry programs would focus only on their best ideas, and overall quality might actually improve. Another way to economize might be to reduce government-paid summer salaries for all but the younger professors. Under the current system, many a professor can touch the public for $15 000–30 000 in a single summer. We could also save by curbing spending sprees where money is disbursed in the final weeks of a grant period rather than returned to Washington. Further savings could be realized by restricting the number of meetings and by reducing travel support for the peripatetic among us. The hiring of personal secretaries, the mailings of unsolicited reprints, and the charging of academic-year salaries to Federal grants should all be scrupulously examined. And the dollars generated by our financial stringency should, in my opinion, be used for (a) young investigators; (b) courageous mid-career moves to new areas; and (c) "high-risk" chemistry that would not receive funding in today's climate.

My purpose here is not to render judgment but to suggest emphatically that the scientific community undergo a critical self-examination before escalating its funding requests. The issue can be resolved only by tough, objective scrutiny from as broad a perspective as possible.

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