

We educators often feel under enormous pressure to justify federal expenditures in research and development by pointing to concrete "products" of our activities in use in numerous public schools. People sometimes seem to be saying to us, "All right; we supported your Head Start Program for a year; where are those additional graduate engineers?" Educationists try to resist these pressures, yet it is safe to say that at Harvard alone, there are a number of "products" to which we can point which probably would not exist today had the Government not become involved in the business of improving education. These "products" run the full gamut from pure research to eminently practical curriculum materials already in use in numerous classrooms. At the first end of the spectrum, we are proud of our association (with Hunter College of New York City) in Professor Gerald Lesser's study of mental abilities among several ethnic groups and social classes in New York City and Boston. For the first time, Dr. Lesser has been able to demonstrate clearly that contrasting patterns of mental abilities exist in five-year-old children in different ethnic and class groups. These differences seem to stem from environmental factors, currently under study; they have serious implications for the manner in which youngsters are introduced to the standard school curriculum. Another study, this conducted by Mr. Leslie Cramer, has developed a computer program for cutting redundant sounds from recorded speech, thereby creating an exciting new means of compressing instructional materials for blind people.

As final examples, we have three extremely promising curriculum development projects in a stage very close to completion. Working through Mr. Wayne Altree of the Social Studies Department of the Newton, Massachusetts, Public Schools, and Professor Richard Douglas of M. I. T., the R. & D. Center has sponsored the development of an entirely new course of study for tenth, eleventh, and twelfth grade social studies, which instead of attempting a chronological coverage of the history of Western man, digs deeply into selected periods of history and examines social and cultural circumstances as well as political and economic developments, and ranges well beyond the usual European and American events. Another project, this funded by the Project Social Studies program of USOE, seeks to develop a set of procedures and materials for the teaching of social studies through close analysis and debate of current public issues. Finally, let me mentioned Harvard Project Physics, an example of USOE's wise policy of encouraging competition among curriculum projects within relatively narrow subject matter fields. This project, supported by a combination of USOE and National Science Foundation funds, is conceived by its directors, Professor Gerald Holton of the Harvard Physics Department, and Professor Fletcher Watson and Dr. James Rutherford of the Graduate School of Education, as an effort to broaden the range of physics curricula available to high schools. The materials under development are aimed at the upper half of the junior and senior classes, a slice somewhat larger than usual for instruction in physics.

I am sure that other universities, research and development organizations, and school systems could provide this Committee with similar examples of achievements which could not have come about without the new Government support.

There is one other happy facet of the past years which I also wish to mention, briefly. As we have been drawn into increasing association and cooperation with officials at the U.S. Office of Education, we have been much impressed with the caliber of these men and women. It is amazing to us that this governmental agency, emerging from almost complete obscurity during a short three or four year period, has been able to find within its ranks, and to recruit from without, such an outstanding team of intelligent, sensible, and dedicated individuals. It is clear that the nation and the Congress have received full value, if not more, from their investment in personnel.

Yet, there have certainly been some problems, and I would now like to turn to them.

The first set of problems relates to the topic which I was just discussing: the professional staff at USOE. The people we know at USOE are capable individuals; the problem is that they must move at a steady dog trot, if not gallop; and that as result of one reorganization or another, they are perpetually engaged in musical chairs. In sort, gentlemen, OE people strike us as competent, but grossly insufficient in numbers. These are fighting words, in view of widespread feelings about the growth of the federal bureaucracy, and the fiscal current