

institutions for the conduct of educational and training activities relating to the fields of subsection a.

PART II. DATA BEARING ON ECONOMIC ASPECTS AND IMPACTS OF THE PROGRAM

9. *Economic effects.* (See tables 2 to 6.)

(a) *Effects on personal incomes of persons served.*—

(1) The graduate students provided support through fellowships and traineeships (nearly 400 in fiscal year 1965) receive an immediate financial benefit in terms of their economic ability to obtain advanced degrees. These degrees in turn significantly increase their lifetime earnings, for example, recent Ph. D.'s in nonsupervisory positions in research and development work received median salaries of \$11,800 compared to \$7,400 for recent B.S. recipients according to a recent NSF report.

(2) Similarly, on a larger scale but less susceptible of measurement, all faculty and students participating in AEC nuclear education and training activities have improved their technical backgrounds and thus their potential earning capacities.

(b) *Effects on the placement or productivity of workers, or both, and on their earnings.*—As mentioned earlier, the original cadre of scientific and technical personnel employed in the atomic energy program were largely trained through the in-house training activities of the Manhattan District and its contractors and through the 1946-56 education program of the AEC. All of these individuals had their technical productivity and therefore their potential earning powers increased by these efforts. Since 1956, educational institutions, largely through the encouragement and assistance of the AEC have developed increased capacity for training individuals preparing themselves to enter the nuclear field, as well as providing additional education for working individuals who wished to improve their technical capabilities.

Specific data on the effects of the educational component of the AEC program as sought by your question are lacking. However, the atomic energy field as a whole now employs approximately 186,000 individuals and accounts for the employment of perhaps another 110,000 individuals who provide standard goods and services to the atomic energy industry. We suggest that this total employment has largely resulted from the multiple effects of the AEC research, development, and educational activities over a 20-year period. We confidently anticipate that the atomic energy field and resultant employment will continue to grow. Similarly, through the impetus provided by the AEC educational program, colleges and universities will continue to develop and strengthen their nuclear science education capabilities contributing to the output of scientists and engineers well prepared to utilize existing technology in ever-broadening areas as well as develop new technology.

It should be noted that technical manpower is quite mobile. Individuals from AEC research and development activities as well as graduates from nuclear education curriculums also migrate to other fields, so that the ultimate economic benefit is far greater in scope than the confines of the atomic energy field itself.

(c) *Effects on business or industrial organization and management; the stimulation of new business enterprises or expansion of existing*