EDUCATIONAL INVESTMENT IN MANPOWER DEVELOPMENT**


Discusses both private and social returns to education. The rate of return on total college expenditure for urban white males is about 9 per cent, compared with 8 per cent for capital owned by business enterprises. It is argued that the number of college graduates generating external economies is much smaller than frequently assumed. The author considers that underinvestment in science implies only a small underinvestment in college education as a whole. (See discussion of Becker’s paper by Henry H. Villard on p. 375 of the same citation and “Investment in human capital,” Journal of Political Economy, Supplement, October, 1962.)


Bowen distinguishes four main approaches to assessing the economic contribution of education: (1) simple correlation, (2) residual, (3) returns-to-education, (4) forecasting-manpower-needs. Most of the discussion is devoted to the returns-to-education approach. In this section the author examines some methodological problems such as ceteris paribus, the validity of measuring productivity in terms of earnings, the consumption-investment distinction, discount rates, and extrapolation. Manpower projections meet several objections and thus “ought not to be viewed as an alternative method of approach, but as a way of obtaining information that can usefully be incorporated into broader-gauged analyses.”

* Compiled by David Stager, Assistant in Research.
** Items from this list should be ordered directly from the publisher. Addresses are given in connection with each reference.

“This chapter considers the contribution that increased education of the labor force has made to past growth and is likely to make to future growth, together with the possibilities for altering future growth through the education route.”


Secondary education is discussed in relation to national manpower needs, preparation for work, development of skills, girls' education, and vocational schooling. Chapters most relevant to manpower development questions are those concerned with the potential candidates for higher education and with the factors influencing education for scientific and professional occupations.


This is “a study of the comparative position of European education and of the plans and perspectives for its development in the next decade.” Considers education from the consumption and production aspects. Outlines the problems of balanced expansion in education. Discusses growth and allocation of expenditures and problems in using education statistics. There are projections of enrollments and ratios for 1970. Contains inter-country tables and diagrams of enrollment ratios, teachers' salaries, educational expenditures, and statistical data for individual countries.


This volume includes papers by F. H. Harbison, “The Strategy of Human Resource Development in Modernizing Economies”; W. Arthur Lewis, “Priorities for Educational Expansion”; John Vaizey,
Some of the Main Issues in the Strategy of Educational Supply"; J. Tinbergen and H. C. Bos, "The Global Demand for Higher and Secondary Education in the Underdeveloped Countries in the Next Decade." After examining some of the manpower problems emerging in the modernizing economies, Harbison argues for giving priority to secondary and higher education rather than to universal primary education.

Lewis deals with the nature and limits of the investment side of education. The percentage of the age cohort who should receive secondary and higher education is calculated for Jamaica and Nigeria using a formula derived by the author.

Vaizey emphasizes that "unless the programmes for economic development include policies to make use of all the skills that are produced, and for producing the right sort of skills, there will be a tendency to develop unemployment among educated people." The educational structure, social factors, the teacher problem, and financial cost are considered as the main obstacles to an optimum educational expansion.

Tinbergen and Bos attempt to estimate the need for qualified manpower in the developing countries during the next decade, and to assess the effort required in terms of both students and teachers. The usefulness of their tables relating to numbers of students, enrollment ratio, and numbers of teachers is limited to the extent that the figures are given by continent rather than by country.


Schultz argues that investment in human capital is the major explanation for the discrepancy between national output and the inputs of land, man-hours, and physical reproducible capital. He considers five categories of activities as an aid to measurement of human capital: (1) health services, (2) on-the-job training, (3) formal education, (4) adult education, and (5) migration. The investment and consumption distinction is not significant in consideration of earnings and national income. The concluding section lists several social and political implications for this approach to education.


The four parts of this important volume concern (1) the demands of students for higher education and of the nation for high-level manpower, (2) the fundamentals of a theory of investment in people through education, (3) the financing of higher education, and (4) the ongoing research in the economics of education. Three papers in Part II are especially relevant to manpower development: “Human capital: concepts and measures,” by Mary Jean Bowman; “Rise in the capital stock represented by education in the United States, 1900-57,” by Theodore W. Schultz; and “Education and economic growth,” by Richard S. Eckaus. Bowman discusses several basic conceptual problems encountered in considering education as human capital formation such as the treatment of quality versus quantity, the measuring of units of human capital, allocating cost between consumption and investment, and adjustments to arrive at net capital formation measures. Schultz examines three measures of the stock of education: (1) years of schooling completed, (2) equivalent years of schooling completed, based on 1940, and (3) real cost of a year of schooling. Using the third measure, the stock of education in the labor force is shown to have increased 84 per cent between 1900 and 1957 as compared with a 450 per cent increase in the stock of reproducible nonhuman wealth.

Eckaus examines the educated labor required for economic growth and the conditions of supply of such manpower. Concludes that “there are many good reasons why the market mechanism by itself would not lead to optimal resource allocation in this field.”


As a review of existing work and for teaching purposes, this book has considerable merit. The necessarily superficial treatment of the many economic problems of education, however, limits the author’s contribution to any specific problem. A chapter on manpower is concerned mainly with the calculations involved in forecasting manpower needs as a basis for educational planning.

Note. Several significant contributions to the more general field of the economics of education could not be included in the above list because of space limitations. Notable exclusions include: (1) publications concerned primarily with the returns to the individual on investment in his own education, and (2) the several national surveys or economic plans which discuss manpower development and needs. Most of these items, however, are included in the citations given in the above publications and in the bibliography included in Vaizey’s book. See also the papers presented at the National Bureau of Economic Research Conference on Capital Investment in Human Beings, published in the Journal of Political Economy (University of Chicago Press, 5750 Ellis Avenue, Chicago 37), Supplement, October, 1962, $1.75 and Selected References No. 90, May, 1961, published by the Industrial Relations Section, Princeton University, Princeton, N.J., 40 cents.