

None of the above studies utilized the conceptual framework of this study. However Holmes' emphasis upon better measures of consumption such as the value of consumption concept is well taken. Brode's finding that families in the ADC Program do not increase the nutritional value of their diets coupled with the United States Department of Agriculture's Food Stamp study showing that participants in the Pilot Food Stamp Program do, indeed, improve the nutritional value of their diets suggests that perhaps the WE and T participants will not improve their diets unless they participate in the Pilot Food Stamp Program as well.

THEORY OF INVESTMENT IN HUMAN CAPITAL

Recently, there has been an increasing interest by economists in the economic aspects of health, welfare, and education.³⁰ Much of the initial work has been in terms of assessing the current programs from a national point of view, and has been helpful in bringing together a corpus of material not previously subjected to rigorous economic analysis. Noteworthy for its theoretical corruscations as well as its concise and rather complete analysis is T. W. Schultz's work, *The Economic Value of Education*.

In attempting to expand the conventional notions of capital investment, Schultz asserts that human beings may justly be considered as a form of capital investment for "... the economic capabilities of man are predominantly a produced means of production and that, except for some pure rent (in earning) for differences in inherited abilities, most of the differences in earnings are a consequence of differences in the amounts which have been invested in people."³¹

Specifically, Schultz maintains that schooling is properly regarded as an investment when it increases the students' future earnings.³² This concept of human skills as forms of capital is important in this study, for it offers a useful take-off point from which to view programs such as the WE and T Program.

Schultz's work has stimulated some promising contributions to the analysis of the investment in human capital.³³ A major portion of the contributions of increased earnings resulting from education is of a deferred nature and depends upon subsequent educational and experience inputs. In the WE and T Program, only short-run effects can be observed and direct effects on earning capacity are not readily observable because most participants are still in the program.

Although not explicitly indebted to Schultz, Ronald W. Conley's recent work, *The Economics of Vocational Rehabilitation*, presents an analysis of the federal-state rehabilitation program which utilizes the Schultzian framework.³⁴ Using Public Health Service data for the period 1959-63, the focus of his analysis is the distinction between costs and returns to the rehabilitated individuals and society in general. Only increased earnings are used to approximate social benefits, and dividing by program costs, returns of \$10-\$17 per dollar spent by governments are estimated. The variation stems from different time periods, methods of estimating increased income, and discount rates. The data are rough, the calculations tentative; the book represents an important pioneering effort in the area of investment in human capital. Vocational rehabilitation is often argued for in terms of human compassion or charity; Conley has tried to demonstrate that on purely objective criteria, it is an economically rational public investment.

Worth Bateman attempted to apply a cost-benefit analysis to the WE and T program.³⁵ However, insufficient data only permitted a very tentative break-even analysis, that is, an estimate of the point where the costs of the WE and T Program equal the increased earnings of the participants. If one assumes the participants would receive the same amount of income from public assistance, regardless of the WE and T Program, the incremental cost of the WE and T Program is quite low, for it would include only administrative and work related expenses. This is a questionable assumption, for as Professor Richard Cloward has shown, a large per cent of the population who might qualify for public assistance do not

³⁰ See especially Herbert E. Klarman, *The Economics of Health* (New York: Columbia University Press, 1965); Ruth Gordon, *The Economics of Welfare* (New York: Columbia University Press, 1965); and Theodore William Schultz, *The Economic Value of Education* (New York: Columbia University Press, 1965).

³¹ Schultz, *The Economic Value of Education*, p. 64.

³² *Ibid.*, p. 10.

³³ Gary S. Becker, *Human Capital—A Theoretical and Empirical Analysis with Special Reference to Education* (New York: Columbia University Press, 1964).

³⁴ Baltimore: Johns Hopkins, 1966.

³⁵ Worth Bateman, "An Application of Cost-Benefit Analysis to the Work Experience and Training Program," *American Economic Review*, forthcoming.