beings with wealth; many people still associate such a concept with serfdom and forced labor. But the notion of capital investment in humans is not, in fact, inconsistent with our high esteem for freedom and individuality. On the contrary, it has become increasingly clear that investments in people greatly enhance their freedom of choice and their capacity for individual development. Also, it has become evident that the concept of investment in human resources (as constituting an important segment of the stock of capital) is essential to analytical efforts to account for the economic growth and productive achievements of technically advanced countries, such as the United States.

Traditional economic doctrine has treated outlays for the improvement of people—their health, strength, training, education, and morale—as though they were exclusively expenditures for consumption. This has influenced decisions on the Nation's priorities in the allocation of resources. Extensive analytical work has been done on the returns which may be derived from investment in physical capital (nonhuman factors of production), and great weight is given, in both private and public decisionmaking, to the results of these analyses. It is a common procedure to compare the discounted capitalized value of the prospective returns (the estimated future flow of income) with the cost of a proposed physical improvement in determining whether the capital investment is justified. Application of a similar calculus as a guide to investments in people is barely beginning. Yet there is reason to believe that yields from investment in human capital may be at least equally great—and in some circumstances, they may be greater.

Over the long run, the ratio of the stock of physical capital to income has been declining in the United States. The national income has been increasing at a faster rate than national resources and productive efforts—land, the stock of reproducible capital, and man-hours worked. These trends and the large increase in real earnings of workers can be explained only by recognizing that there has been improvement in the productivity of the human component. A man-hour of work today is generally more productive than was a man-hour of work in 1900 because the worker today is typically more skilled, healthier, and less fatigued than was his grandfather. There have been tremendous improvements, also, in the tools, equipment, materials, and machinery used by today's workers; but these advances in the quality of physical capital in many cases would be much less effective if the qualities of the workers were unchanged. The large increase in real earnings of labor may be in large measure a return on investments in people.

In evaluating alternatives for fruitful investment in human resources, the consumption aspects need not be brushed aside. In fact, it would be a mistake to ignore this special characteristic of human capital—the fact that some outlays may simultaneously yield satisfactions to consumers and enhance their individual capacities as producers (and, in some cases, the productive capacities of their fellow men). Appropriate weight needs to be given to noneconomic objectives, which economists often lump within consumer satisfactions. The economic values are means, not ends, in the search for the ultimate values of individual and social life.