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## Is There Underinvestment in Education?

Belief is widespread that we are not spending enough money on college education in terms of our needs for economic growth, but little systematic research has been done on education as a form of investment. As part of a study for the National Bureau of Economic Research, Gary S. Becker, of Columbia University, has now compared the financial return from a college education with the return from other kinds of investments. The full report is still to be published, but to judge from a preliminary account that appeared in the May issue of the *American Economic Review*, the results will challenge one of our more treasured beliefs. So far as the return to the person getting the education is concerned, Becker finds no evidence for underinvestment. The average return to college graduates is about the same as the average return to business capital.

Although the preliminary account gives few details of the computation, there is some discussion of the operations performed. The return from a college education is calculated on the basis of total college costs, not just costs to the student and his family. The income of college graduates, as measured against the income of persons whose education ended at a lower level, is adjusted for such factors as differences in ability. And the study is limited to men, although Becker does suggest that even for those women who expect to do little work outside the home there may be sound economic reasons for going to college. Women who go to college probably secure husbands with higher incomes than women who do not.

Economists distinguish between direct and external returns, and in the analysis of education this distinction corresponds to that between the effect of a college education on the incomes of persons getting the education and the effect on the incomes of others. The study is concerned only with direct returns, but those arguing that too little is being spent on education can note, for example, that developments in atomic physics are necessary for atomic power and that most atomic physicists are college graduates. To this argument Becker replies that it is easier to give examples of the contribution of science and technology to economic growth than it is to assess the contribution quantitatively or to compare it to the external returns from business capital. In fact, he intimates that, generally speaking, economists know very little about external returns. Consequently, since direct returns indicate no great underinvestment, if the existence of underinvestment is to be argued, the argument must lie in the little explored area of external returns.

The American economy, not to mention American military technology, of course, needs scientists and engineers. To this particular point Becker replies that the special demand for technical experts can be met with a comparatively small increase in the total expenditures on college education. Investment in scientific training is important, but by itself such training is not so very expensive.

To be sure, college attendance offers other rewards besides economic gain; it offers personal enlightenment and preparation for effective citizenship. But restriction of the study to economic considerations no more reflects on these other objectives than it lessens the value of the study as it bears on strictly economic arguments. One comment that has been directed against the study from the economic side is that even if the return to college graduates is the same as the return to business capital, this finding does not necessarily imply that there is no underinvestment in education. The finding might just as well imply that college graduates are underpaid or, to strike an anti-inflationary note, that everyone else is overpaid.—J.T.