

Prof. Glen Cain of the University of Wisconsin. We did not have the problem of trying to justify a benefit-cost ratio of less than one. The range of investment portion of the benefit-cost ratio was in the order of 1.1 to 1.5, and we used the number that about 1.2 was the best estimate of the—

Chairman PROXMIRE. What was the discount used?

Mr. LEVINE. They were discounting the estimated future earnings attributable to the Job Corps program.

Chairman PROXMIRE. What percent, what interest?

Mr. LEVINE. The numbers we used for discount rate were 5 percent and 7 percent. As I said in the paper, the effective discount rate was 3 percent compared to 5, and 5 percent compared to 7, because we believe it is in this particular sort of training program that it is necessary to take account of the overall increase of general labor productivity at roughly 2 percent a year, which has historically been occurring in our economy. We take this into account by reducing the discount rate for purposes of computation, although the conceptual and theoretical discount rate used here is 5 and 7 percent.

In any case, we did arrive at these benefit-cost ratios on the order of 1.2, but we did not allow for benefits which are some of the chief benefits claimed by the Job Corps, benefits which we could not measure, what they call the socialization process, the ability of these kids to get along with other kids and therefore to get along with fellow workers. We did not allow for their learning about the world of work. We did not allow, in the case of the Women's Job Corps, for future family stability, which is very crucial to the problem of poverty, which would stem from the training they get in the Women's Job Corps.

All of these components are immeasurable. They are on the uncertain side of my dichotomy of social benefits. For these reasons we have made a guess, that perhaps a true benefit-cost ratio, if you discounted the consumption benefits the same way, would be something on the order of 2 rather than 1.2. That is a pure guess. You cannot do it mathematically.

The second qualification, the state of the art, and state of data in our field, are both primitive enough that it is almost always unwise to compare programs unless the ratios are computed in a single specific study for the purposes of such a comparison. We have done one such study, a sensitivity study, comparing the Upward Bound program for senior high school students to go to college and the Headstart program, which presumably is to get similar kids at a much younger age. What we wanted to know is what would be the effect of a discount rate using estimated future earnings increase as a benefit measure between two programs, one of which paid off in earnings immediately after the program was finished—that is the Upward Bound program—as compared to one which could not conceivably pay off in the earnings until 10, 11, 12 years later. This study was done and the kind of estimate we came up with was that, given the partially known benefits of Upward Bound, which gave us a pretty good benefit-cost ratio for Upward Bound, the Headstart effectiveness would have to be on the order of 1 to 2 increased years of education attributable to the Headstart program to equalize them.

Frankly, this surprised me. I think if Headstart works at all, it is going to be an easy thing to achieve, and I would have guessed the