Bound participants are females, it is important to recognize that the application of these benefit-cost ratios to the total population of Upward Bound is possible only when some assumptions are made about the relevance of the earnings benefits to female participants.

Significant differences in earnings occur according to racial and geographic differences. The earnings in this analysis are weighted by the white-nonwhite, North-South distribution of the program's participants.

As higher levels of "success" are reached by the participants in this program, the benefits accrue to fewer and fewer of the original Upward Bound participants. The benefits of a high school graduate over a high school dropout accrue to 88 percent of the participants. The benefits of college attendance accrue to 44 percent of the participants, half of these who graduate high school. The benefits of college graduation, under our assumptions, can be expected to go to 22 percent of the original participants, that is, to half of those who start college. The benefit in each of these cases is the marginal increase in earnings gained by a marginal increase in education. The benefits of the high school graduate are compared to those of the high school dropout, and the benefits of those who attend or graduate college are compared with those of high school graduates.

In estimating the benefits of the increased number of high school graduates which Upward Bound could produce, it is assumed that the program can reduce the high school dropout rate of its participants from 38 percent to 10 percent (with an additional 2 percent dropout rate for the program itself).

Experience of the 1966 program indicates that about 80 percent of the program's participants will probably be accepted by a college or university. In light of the difficulties involved in obtaining financing for these students, this analysis has assumed that slightly more than half of them will attend college for at least 1–3 years. This is close to the average rate of college attendance for high school graduates in general, a reasonable assumption in light of the fact that whereas these students do face more obstacles to college attendance than the average high school graduate, Upward Bound is designed to overcome these obstacles and give the program's participant the same opportunity as the average student to attend college.

The average college dropout rate of 50 percent (half of these dropouts occurring the first year) is used to estimate the benefits available to individuals who become college graduates as a result of the Upward Bound program, but who would probably have not graduated college otherwise. Twenty-two percent of the original Upward Bound participants are assumed in this analysis to graduate college.

Other benefits of the program include a small stipend paid to participants and their room and board during the summer residence program. These are transfer payments and are included in the benefits to balance their inclusion in the grant costs.

COSTS

The costs which have been measured in this analysis are the OEO grant, the wages foregone by Upward Bound participants while they are attending the summer programs, and the costs of a college education for those who attend college. Although OEO provides only the first of these funds, other costs must be invested to produce the various benefits that can be expected to arise from the program.

The OEO grant cost per participant is based on the 1967 funding operations. The 1967 per capita grant is the highest thus far as a result of the two previous years' experience which demonstrated that additional costs would have to be covered. The grant is weighted by the proportion of participants in each grade. Eighty-one percent of the participants are in the 12th grade or have completed the 12th grade. As the number of participants in the early grades rises, the longer stay in the program will increase grant costs. It is likely that it will also mean that a higher percentage of participants reach college and college graduation. The present analysis includes higher success factors for students picked up by the program early in their high school career than for those picked up later.

Foregone wages are calculated for participants during attendance at summer programs. There is no restriction on students working during the regular school year. Hypothetical wage rates of $1.25 for Northern students and $1 for Southern students are used, and differential unemployment rates are used for white and nonwhite students. Wages foregone while participants are attending high school or college have been figured into the net life-time earnings benefits.