



UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

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HUMAN RESOURCES  
DIVISION

B-209515

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RELEASED

The Honorable Orrin G. Hatch  
Chairman, Committee on Labor  
and Human Resources  
United States Senate



121133

Dear Mr. Chairman:

Subject: Review of the Upward Bound Program  
(GAO/HRD-83-19)

In your February 20, 1981, letter, you requested that we review the Department of Education's (ED's) Special Programs for Students from Disadvantaged Backgrounds--commonly known as the TRIO programs. We have reviewed the administration of two TRIO programs (Upward Bound and Special Services for Disadvantaged Students). This report concerns Upward Bound; a separate report on the Special Services program has previously been provided to you.<sup>1</sup> Upward Bound is a discretionary grant program which provides funds to eligible grantees--usually colleges and universities--for projects which seek to develop, in participating high school students, the motivation and skills necessary for success in postsecondary education.

Although Upward Bound has been in operation since the summer of 1965, it is unclear whether the program is achieving its intended purpose of generating in disadvantaged youths the skills and motivation necessary for success in postsecondary education. At the 12 Upward Bound projects we visited, about 50 percent of the participants who entered the program dropped out before graduating from high school. For the students who remained in the program and graduated from high school, 10 of the 12 projects either did not properly measure the academic improvements made in the participants' skills levels or did not adequately report to ED the academic skills obtained. Also, the projects we visited generally did not assess the postsecondary performance of participants. Because of the lack of data on academic skills and postsecondary performance, neither ED nor the projects know whether all of the program's goals are being achieved.

<sup>1</sup>"Department of Education Uncertain About Effectiveness of Its Special Services Program" (GAO/HRD-83-13, Nov. 12, 1982).

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Both we and an ED contractor performed evaluations which indicated that the program may be more successful in placing students in postsecondary education than it is in providing them with the skills needed for postsecondary success. Each of these evaluations found that although over 75 percent of Upward Bound graduates entered postsecondary education shortly after high school graduation, most withdrew or did not perform or progress at a rate that their postsecondary schools considered to be normal.

An earlier GAO report<sup>2</sup> also concluded that (1) ED did not know the effectiveness of Upward Bound in achieving its program goals and (2) limited data indicated the program was more successful in motivating students to seek a college education than it was in providing students with the academic skills needed to succeed in college.

In commenting on a draft of our report (see enc. VII), ED concurred with the general thrust of our recommendations and stated it was in the process of implementing several of them. However, it stated the limited number of sites and participants we studied cannot be used as a basis for assessing how well Upward Bound has achieved its statutory mandate. We agree with ED. We had intended to determine the success of the projects visited in achieving the program's goals but were unable to do so because neither ED nor the projects maintained the necessary data. Therefore we did not draw any conclusions concerning the achievements of the Upward Bound program, rather we have concluded that ED does not know whether the program is achieving all of its statutory goals.

A more detailed discussion on the results of our review follows.

#### BACKGROUND

During the program years examined (1977-78 through 1979-80), only high school students with inadequate secondary school preparation from low income families were eligible to participate in the program. The 1980 amendments to the Higher Education Act, which became effective in fiscal year 1982, changed the eligibility requirements. Now a student participant must need academic support to successfully pursue postsecondary

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<sup>2</sup>"Problems of the Upward Bound Program in Preparing Disadvantaged Students for a Postsecondary Education" (B-164031(1), Mar. 7, 1974).

education and either be from a low income family or be a potential first generation college student (a person neither of whose parents has completed a baccalaureate degree).

A typical Upward Bound project consists of an academic year component and a summer component. During the academic year, the participants receive, usually on a weekly basis, academic instruction, counseling, and/or tutoring. They may also participate in periodic cultural enrichment activities, such as field trips to museums. The summer component is usually an intensive 6-week residential program on the campus of the grantee institution where students participate in counseling and social and cultural activities, and they receive instruction in subjects, such as mathematics, English, reading, and science. Before the 1980 amendments were implemented, students were supposed to enter Upward Bound in their sophomore or junior year in high school. Now projects can also routinely accept freshmen.

Since the beginning of the program in 1965, through fiscal year 1982, Federal funds obligated for the Upward Bound program totaled about \$700 million. In fiscal year 1982, 444 projects were funded to serve about 36,000 participants at a cost of about \$64 million.

#### OBJECTIVES, SCOPE, AND METHODOLOGY

Our review was made in accordance with generally accepted government auditing standards. The purpose of the review was to (1) assess ED's overall administration of the program and its evaluation of the selected projects' operations and (2) determine the success of Upward Bound projects in achieving program goals. However, we were unable to determine if the Upward Bound projects were achieving all program goals because neither ED nor the projects maintained sufficient data on changes in participants' skills or on their postsecondary success. The work was performed at ED headquarters and at a sample of Upward Bound projects each operated by different postsecondary schools. (See enc. I.) In choosing this judgmentally selected sample we considered the schools' demographic characteristics, such as type (2-year or 4-year), source of support (public or private), location, and ethnic/racial population served.

At ED headquarters, we interviewed the key ED officials who administer the Upward Bound program to ascertain the (1) guidance ED provides to grantees and (2) methods ED uses to determine whether the grantees managed their projects both programmatically and fiscally in accordance with regulations. We also reviewed applicable Upward Bound legislation, regulations, and congressional hearings and reports.

At each institution, we interviewed project officials and reviewed the approved project proposals, performance reports, financial records, and other data that provided insight on project operations.

We also examined the records of all (616) eligible participants who first entered the projects examined at the beginning of the 1977-78 program year<sup>3</sup> to determine the projects' success in retaining and graduating students from the program.

We wanted to examine the postsecondary performance of the same 616 students. However, current postsecondary data were readily available for only 95 (15 percent) of these students because (1) the majority of these students dropped out of Upward Bound before graduating from high school and (2) postsecondary performance data generally were not available at the projects and the projects could readily obtain these data only for students who attended the grantee institution. Therefore, we examined the postsecondary performance of all 1978, 1979, and 1980 graduates of our sample projects who also attended postsecondary education at the grantee institutions.<sup>4</sup> This group of 282 students included 95 of the 616 students who first entered Upward Bound in 1977-78.

Due to time and staff constraints we visited 12 judgmentally selected projects and, as described above, obtained postsecondary performance data on a limited number of the participants from these projects. Therefore, we cannot project, with any statistical validity, our findings to other Upward Bound projects.

NEITHER ED NOR THE PROJECTS KNOW  
IF THE UPWARD BOUND PROGRAM IS  
ACHIEVING ALL OF ITS GOALS

For most of the 12 projects we reviewed, neither ED nor the projects determined whether the Upward Bound participants attained the academic skills essential for postsecondary education

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<sup>3</sup>One project had very few new participants in 1977-78. At this project, we examined the records of the 54 participants who first entered Upward Bound in program year 1976-77.

<sup>4</sup>At one project only one student who graduated from high school in 1978, 1979, or 1980 attended postsecondary education at the grantee institution. Our postsecondary sample for this project consisted of the 21 1978, 1979, and 1980 graduates who attended postsecondary schools located in the same metropolitan area as the grantee institution.

and whether the participants were successful in postsecondary education. About 50 percent of the participants we examined dropped out of the program before graduating from high school, and most of the students who entered postsecondary education dropped out or performed or progressed below the schools' standards (see pp. 9 to 11).

Our 1974 review of Upward Bound found that the projects were neither establishing measurable objectives related to the program goal of providing participants with the academic skills needed for success in college nor measuring participants' academic skills levels. ED addressed these issues in regulations issued in 1977. These regulations, which were in effect during our review, stated that projects should assist participants to obtain a minimum of 1 year's growth in academic skills, such as reading, English, and mathematics. These regulations also required the projects to follow Upward Bound participants through postsecondary education to determine their postsecondary status. Revised regulations, issued in March 1982, removed the goal of 1 year's growth and instead provided that project services should enable participants to attain academic skills essential for postsecondary education. The requirement for followup was also eliminated in the revised regulations. In the absence of a measurable specific goal for academic growth and a requirement to follow up on participants through postsecondary education, the likelihood that ED or the projects will assess whether the Upward Bound program is achieving its goal of preparing students to succeed in postsecondary education, in our opinion, is diminished.

Eleven of the 12 projects we visited administered standardized tests in an attempt to measure the academic growth of their participants. However, only two projects were able to use test results to determine their participants' academic growth for the 3 years examined. A third project was able to use test results to measure participants' growth for 2 of the 3 years examined, but did not have test results for the third year. The results of tests administered by the other eight projects could not be used to measure academic growth because, among other reasons, the projects

--did not require the majority of the students to take both pretests and posttests in all subjects in which the project proposed to measure growth (or did not retain all test results),

--did not convert raw test scores to a scale which measured achievement levels,

--used tests which did not measure achievement levels for some of the subjects in which they proposed to measure growth, or

--did not compare results of tests given at different times to determine growth in achievement levels.

The 12th project did not routinely administer standardized tests. Officials of this project said they measured growth through improvements in participants' grades on teacher-prepared tests in their Upward Bound classes and by comparing high school grades for each grading period.

Project performance reports, submitted by the projects to ED, are supposed to include information on the status of the projects' objectives for assisting participants in achieving the academic skills and motivation necessary for success in post-secondary education. The reports are required to note actual accomplishments and to provide reasons for any objectives that are not met. Nine of the projects visited had objectives to increase participants' academic skills. The stated objective of eight projects was to attain at least "1-year's growth" in the academic skills of participants.

The other projects described their objective for participants' academic growth in terms of changes in percentile test scores. Only two of the nine projects reported adequate information on participants' academic growth for each of the 3 years examined. The reports of the other projects were incomplete for one or more of the following reasons:

--Projects reported growth for participants who were tested, but did not indicate that the majority of the participants had not received pretests and posttests in all subjects for which growth was reported.

--Projects reported adequate growth data for only 1 or 2 of the 3 years examined.

--Projects reported the number or percent of participants whose scores increased without indicating the amount of growth.

--Projects reported average test scores without indicating whether any growth had occurred.

In addition, five of the eight projects which had objectives expressed in terms of 1-year's growth reported increases in terms of raw scores, stanines, percentiles, or passing

grades. Because these projects did not, or could not, provide information to convert these scores to a scale that could measure 1 year's growth, ED could not determine if these projects met their objectives for participants' academic growth.

Although the regulations in effect at the time of our review also required projects to implement a plan for following participants through postsecondary education, none of the projects visited could provide information on the postsecondary success of participants. Two of the projects had no system to follow up on participants and most of the other projects generally limited their followup attempts to identifying the postsecondary school at which the participants were enrolled. Two projects had the written permission of their participants to obtain transcripts directly from the postsecondary institution attended by the participants. Neither of these projects, however, obtained sufficient data to determine whether the participants successfully completed postsecondary education. One obtained transcripts only for the first year of the participants' postsecondary education. The other had first-year transcripts for 64 percent of the postsecondary students we examined and less complete information for succeeding years.

ED had an automated management information system which provided data on the postsecondary enrollment, retention, and graduation of individual Upward Bound participants. However, reports from this system were not always accurate and neither ED nor the projects found them useful. Because ED officials did not believe the reports' limited usefulness justified the cost and effort of obtaining the data, they revised the reporting requirements in program year 1981-82. The revised reports provide ED with data on the number of participants each project places in postsecondary education, but does not provide data on the academic performance or progress of participants enrolled in postsecondary education.

The 1980 amendments to the Higher Education Act of 1965 require ED to consider a project's prior experience as an Upward Bound grantee when awarding new grants. On June 8, 1982, ED issued program regulations for evaluating a grantee's past experience. The regulations do not specifically address students' success in postsecondary education. Evaluations under the regulations will primarily concern the degree to which the project met the requirements of the prior grant and the skills and motivation displayed by students while they were receiving project services. Specifically, evaluations will consider the extent to which

--projects served the number of participants they were funded to serve,

- projects generated the skills and motivation in participants that are necessary for admission to an educational program beyond high school,
- projects' participants entered postsecondary education,
- projects achieved other goals and objectives as stated in the previously funded application or negotiated program plan, and
- projects met the administrative requirements of the previous grant.

An ED-sponsored longitudinal study of Upward Bound, discussed in more detail in the following section of this report, concluded that while there is substantial evidence that the program has a positive impact on postsecondary entry, there is less evidence that the program has an impact on postsecondary success. Since success in postsecondary education is a primary program goal, it appears to us, in light of the study's conclusion, that evaluations of prior experience should consider participants' progress toward obtaining a postsecondary degree.

MOST UPWARD BOUND GRADUATES ENTER  
POSTSECONDARY EDUCATION BUT MANY  
PERFORM BELOW SCHOOLS' STANDARDS

A longitudinal evaluation of Upward Bound, done by the Research Triangle Institute (RTI) for ED, is considered by ED to be the best source of "comprehensive scientifically accurate statistics" on the program. This study generally concluded that Upward Bound was providing participants with the skills and motivation necessary for entry and success in postsecondary education. However, it also found that the program appeared to be much more successful at placing participants in postsecondary education than it was in providing them with the skills and motivation necessary for postsecondary success.

Although our review of Upward Bound was more recent than the RTI study and our methodology significantly less sophisticated, many of our findings were consistent with those of the RTI study. Both studies found that over 75 percent of the students who were participating in Upward Bound when they graduated from high school entered postsecondary education shortly thereafter. This entry rate is greater than that for (1) similar students who do not participate in Upward Bound (RTI study) and (2) all high school graduates (our review). However, both studies also found that many of those participants who entered postsecondary education withdrew and/or performed and progressed below their schools' standards.



Our prior review of Upward Bound had similar findings. In that review, statistical tests of the relationship between the amount of time students participated in the program and the extent to which they enrolled and succeeded in college indicated that the program motivated students to enroll in college, but had not raised their academic skills to the level necessary for success in college.

Our current review and the RTI study each examined some aspects of the Upward Bound program which were not included in the other's study. For example, RTI sought to determine the impact of Upward Bound on educational aspirations while we examined the rate at which participants dropped out of the program before graduating from high school. The RTI study often used several variables to measure one aspect of the program, but we usually used only one.

Generally, our data on project dropout rates and postsecondary placement were for students who first entered Upward Bound in the beginning of program year 1977-78.<sup>5</sup> Our analysis of postsecondary progress, persistence, and performance was for participants who graduated from high school in 1978, 1979, or 1980. Base year data for the RTI study were collected during the 1973-74 school year when the sample students were in 10th, 11th, or 12th grade. Followup data were collected on the same students during the 1976-77 and 1978-79 school years. The RTI study compared the performance of a sample of program participants to a control group of comparable nonparticipants and compared the performance of both groups to traditional standards of normal performance (i.e., maintenance of 2.0 grade point average, earning credits at a rate which enables graduation from 4-year colleges within 4 years, etc.). We compared the performance of the Upward Bound participants we examined to these traditional standards, to national norms for standardized tests, and to national postsecondary entry rates.

The RTI report did not discuss the rates at which participants dropped out of Upward Bound before graduating from high school. We found that 322 of the 616 (52 percent) participants we examined dropped out of the program before graduating from high school. Sixty-two percent (201) of the dropouts occurred during the first year of the students' participation in the program. About two-thirds of the dropouts left the project for financial or personal reasons. About a quarter of the dropouts

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<sup>5</sup>See footnote 3 on page 4 for the exception.

left at the direction of the project director, usually for lack of attendance or because of discipline problems. As shown in enclosure II, dropout rates ranged by project from 23 to 69 percent.

For those students who graduated from high school, RTI found that between 75 and 81 percent entered postsecondary education directly after graduation compared to 49 to 52 percent of the nonparticipants. We found that 223 (77 percent) of the students we examined who were in the program when they graduated from high school, entered, or planned to enter, postsecondary education shortly thereafter.<sup>6</sup> By comparison, the National Center for Educational Statistics reported that about 59 percent of all 1978 high school graduates entered college shortly after graduation.<sup>7</sup>

The RTI study showed that there was no significant difference in the postsecondary withdrawal rates of participants and nonparticipants. Neither group had a withdrawal rate greater than one-third. Thirty-two percent of the students on whom we obtained postsecondary data had withdrawn from the sample schools by the Spring of 1981 (see enc. IV).

Regarding student progress at the postsecondary level, RTI found that within the institution type there was no significant difference in the rate of progress (number of credits earned compared to what would be earned under normal progression while enrolled) of participants and nonparticipants. The rate of progress at 4-year schools was about 60 percent of the normal pace, while at 2-year and vocational schools it was about 30 percent of the normal pace.

We found that of the 191 postsecondary students examined who had not withdrawn from college, 118 (62 percent) were not progressing toward a college degree at a normal rate (see enc. V). Of this group, 15 (13 percent) were progressing at

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<sup>6</sup>Two projects did not maintain lists of program graduates by year. In those cases we relied on the memory of project staff and limited data from the Upward Bound information system to identify graduates and their postsecondary education plans.

<sup>7</sup>RTI also examined students who entered postsecondary education at some time later than directly after high school graduation. These delayed entrants raised postsecondary entry rates to 86 to 93 percent for Upward Bound participants and to 70 to 72 percent for nonparticipants. We did not obtain data on delayed entrants.

10 percent or less below the normal rate, 23 (19 percent) were 11 to 25 percent below normal, 35 (30 percent) were 26 to 50 percent below normal, 26 (22 percent) were 51 to 75 percent below normal, and 19 (16 percent) were over 75 percent below the normal rate of progression.

According to RTI, a substantial proportion of both participants and nonparticipants were in potential jeopardy of not completing their postsecondary program of study since the average grade point averages were about 2.0 which is the normal minimum required for graduation. The RTI study showed no significant difference in grade point averages of typical participants and nonparticipants in 2-year academic schools. Within 4-year colleges, however, typical participants exhibited statistically lower grade point averages than nonparticipants. One hundred and forty-three (51 percent) of the 282 students on whom we obtained postsecondary performance data had grade point averages of less than 2.0 and were thus in potential jeopardy of not graduating. (See enc. VI.)

There is no evidence, according to RTI, that Upward Bound participants develop greater academic skills than nonparticipants. In high school there were no differences in changes in grade point averages and there was little if any difference in postsecondary progress, persistence, and performance. The study added that considering the limited time spent on instruction by the projects, it might be unrealistic to expect a clear cut impact on academic skills.

We had planned to use the results of achievement tests given by the projects to measure participants' academic growth. However, as described on pages 5 and 6 of this report, complete test data were not available for most of the students examined. We were able to obtain Scholastic Aptitude Test (SAT) or American College Test (ACT) scores for 202 (72 percent) of the 282 students we traced into postsecondary education. These tests are designed to assess each student's general educational development and ability to complete college level work. An ACT publication<sup>8</sup> states that numerous research studies show that ACT and other such tests are essentially as predictive of college grades for minority or disadvantaged students as for white middle-class students. As shown in enclosure III, the ACT and SAT scores of the Upward Bound students we traced into postsecondary education were substantially below the national norms.

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<sup>8</sup>The ACT Assessment Counselor's Handbook, 1980-81 edition.

In its comments, ED stated that lower SAT scores are obtained by students who are minorities, from low income families, or the first in their families to go to college. These characteristics precisely describe the Upward Bound population. Therefore, according to ED, comparing the SAT scores of Upward Bound participants with norms for all college aspirants is "mixing apples with oranges." We tend to agree with ED's position. However, since the purpose of Upward Bound is to assist disadvantaged students in overcoming the limitations of their backgrounds, we believe it is reasonable to expect successful Upward Bound participants to obtain SAT scores which are higher than those of comparable nonparticipants and are thus closer to the national norms for all college aspirants.

We recognize the limitations on the use of standardized test data and realize that the achievements of the small number of students we were able to trace may not be representative of all Upward Bound graduates. However, if considered in conjunction with the postsecondary progress and performance data of Upward Bound participants discussed previously, we believe the test data indicate that many of these students may not have been adequately prepared to achieve success in postsecondary education. Directors of several of the projects visited stated that, given the low skills levels of students entering the program and the fact that students only participate for 2 or 3 years, it is unreasonable to expect Upward Bound projects to raise participants' skills levels sufficiently to ensure postsecondary success.

Although the RTI study concluded that the Upward Bound program was providing participants with the skills and motivation needed for entry and success in postsecondary education, it also concluded that once the postsecondary setting has been established, Upward Bound participants do not perform, progress, or persist at significantly different rates than comparable nonparticipants. Overall the typical Upward Bound participant persisted about one term longer than the nonparticipant, earned two-thirds of a term more credit, and had a slightly lower grade point average. These differences were attributed mostly to the fact that Upward Bound participants are more likely than nonparticipants to (1) enter postsecondary education (particularly 4-year colleges instead of 2-year colleges or technical schools), (2) have good financial aid packages, and (3) make greater use of tutoring and counseling services.

### CONCLUSIONS

ED does not know if the Upward Bound program is achieving two important program goals: (1) increasing participants'

academic skills and (2) enabling participants to be successful in postsecondary education. Recent changes in the program regulations and elimination of the old automated Upward Bound information system will further diminish ED's probability of determining program and project impact on these two areas.

We believe it is especially important that data be collected on these two goals because the limited data from our review at the 12 projects and the data from an ED-sponsored comprehensive evaluation indicate that the program may be more successful in placing students in postsecondary education than it is in providing them with the skills needed for postsecondary success.

We also believe that assessments of postsecondary entry and success rates should also consider the percent of Upward Bound participants who drop out of the program before graduating from high school. The ED-sponsored evaluation did not consider this aspect of the program. About 50 percent of the Upward Bound participants we examined dropped out of the program before graduating from high school.

If the Upward Bound program is expected to achieve its goals, ED and the projects must pay greater attention to increasing participants' academic skills, reducing project dropout rates, and performing followup which concentrates on postsecondary progress and performance.

#### RECOMMENDATIONS

To better determine if the Upward Bound program is meeting its goals of providing participants with the motivation and skills necessary for success in postsecondary education, the Secretary of Education should

- require Upward Bound projects to measure the academic growth of participants and to report such growth to ED;
- develop a system to obtain accurate data on participants' postsecondary success; and
- consider project dropout rates, the changes in participants' academic skills levels, and participants' postsecondary success when awarding new Upward Bound grants.

#### AGENCY COMMENTS AND OUR EVALUATION

In commenting on a draft of our report (see enc. VII), ED concurred with the general thrust of our recommendations and

stated it was in the process of implementing several of them. However, ED believes the report should be considered in light of the following two factors:

--The Congress and past and present administrations have consistently sought to manage Federal programs with fewer staff and to reduce the regulatory and reporting burdens on grantees.

--The limited number of sites and participants we studied cannot be used as a basis for assessing how well Upward Bound has achieved its statutory mandate.

Regarding managing Federal programs with fewer staff and regulatory burdens, ED stated that it believed a balance can be struck between grantee accountability and autonomy. ED believes grantees should be held accountable for the achievement of objectives set forth in their approved funding requests.

With respect to the scope of our review, we agree with ED that it does not provide a sufficient basis for assessing whether Upward Bound has achieved its statutory mandate, and have so stated earlier in this report. We believe, however, and ED agrees that the findings, even though limited, appear to be indicative of significant problems. As noted on page 3 of our report, we had intended to determine the success of the Upward Bound projects reviewed in achieving program goals, but were unable to do so because neither ED nor the projects maintain sufficient data on changes in participants' skills levels or on their postsecondary success. Therefore, we have not drawn any conclusions concerning the success of the Upward Bound program in achieving its statutory goals. Rather, we have concluded that ED does not know whether the Upward Bound program is achieving two important goals: (1) increasing participants' academic skills and (2) enabling participants to be successful in postsecondary education. We have considered each of the concerns raised by ED in an analysis which follows its comments (see enc. VIII). ED's specific comments on each of our recommendations are presented below.

Require Upward Bound projects to measure and report participants' academic growth

ED agreed that it should make every effort to require Upward Bound participants to measure academic growth. ED said that although neither current statute nor regulations mandate in any specific fashion the measurement of academic growth, it is reasonable to assume that such growth is implied by the statutory mandate and that project-sponsored activities designed for

preparation and motivation necessary for success in postsecondary education must be evaluated to determine the impact on participants. ED is seeking to refine and improve project responsiveness to the need for performance measurement. In the fiscal year 1983 request for Upward Bound grant applications, ED suggested that an applicant's proposal would be strengthened by placing greater emphasis on basic skills instruction and addressing the techniques that will be employed to monitor student performance. In addition, ED's recently revised Annual Performance Report requires grantees to summarize accomplishments on activities designed to improve participants' reading, writing, mathematics, and study skills based on the goals and objectives the project had set for itself.

ED also agreed that projects should be required to report measures of academic growth. However, ED said since it is committed to reducing the grantees' reporting burden, the wording of any new requirement would have to be carefully considered and subject to the most strenuous review, in order to avoid overly regulating.

Develop a system to obtain accurate data on participants' postsecondary success

ED plans to develop a system that will facilitate a project's ability to periodically determine the postsecondary academic achievement levels of Upward Bound graduates. At a minimum it will require annual followup of Upward Bound graduates for 4 years after they complete high school.

Consider project dropout rates, changes in participants' academic skills levels and participants' postsecondary success when awarding new grants

ED agreed with our recommendation on dropout rates and said that if the dropout rates in our limited sample held for the population in general, the finding is highly significant. ED said that it will explore possibilities for incorporating its concern for excessive dropout rates in its consideration of applications for funding.

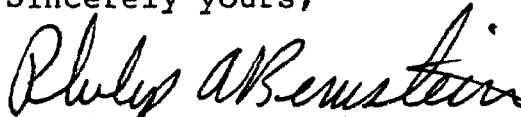
Regarding changes in skill levels, ED stated that the criterion on generating skills and motivation in its regulations concerning prior experience should be clarified to include changes in participants' academic skills levels.

On postsecondary success, ED also stated that it currently considers participants' postsecondary success in the application review process. ED said that under the selection criterion, "Likelihood of Success," applicants with prior experience in administering an Upward Bound project invariably cite the success that they have experienced in placing Upward Bound graduates in college, and the success these graduates have had, as a means of substantiating their case for a renewed 3-year commitment. ED will consider a revision of its current published criteria to take into account the relative differences among projects in this regard before the next funding cycle. ED believes that postsecondary success should be included as a criterion in the evaluation of prior experience. The postsecondary academic success of project participants should, according to ED, receive stronger consideration than the mere admission and entry of project participants into postsecondary educational programs.

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As arranged with your office, unless you publicly announce the report's contents earlier, we plan no further distribution of the report until 30 days from its issue date. At that time, we will send copies to the Secretary of Education; the Director, Office of Management and Budget; and other interested parties; and make copies available to others upon request.

Sincerely yours,



Philip A. Bernstein  
Director

Enclosures - 8



INSTITUTIONS VISITED DURING REVIEW (note a)

<u>Name</u>	<u>Location</u>	<u>Type</u>	<u>First received Upward Bound grant in</u>	<u>Upward Bound funding 1977-78 through 1979-80</u>	<u>Minority classification (note b)</u>
Clark College	Atlanta, Georgia	4-year private	1966	\$409,937	Historically Black
Embry-Riddle Aeronautical University	Daytona Beach, Florida	4-year private	1974	411,186	-
Huston- Tillotson College	Austin, Texas	4-year private	1966	324,818	Historically Black
Lurleen B. Wallace State Junior College	Andalusia, Alabama	2-year private	1977	258,012	-
Morris Brown College	Atlanta, Georgia	4-year private	1966	554,055	Historically Black
Pan American University	Edinburg, Texas	4-year public	1974	525,956	Hispanic
Rhode Island College	Providence, Rhode Island	4-year public	1966	439,823	-
Saint Mary's University	San Antonio, Texas	4-year private	1968	382,073	-
Southeastern Massachusetts University	North Dartmouth, Massachusetts	4-year public	1967	420,365	-
Southern Methodist University	Dallas, Texas	4-year private	1967	339,290	-
University of Massachusetts	Boston, Massachusetts	4-year public	1965	373,888	-
University of South Carolina	Columbia, South Carolina	4-year public	1966	464,702	-

a/The sequence in which institutions are listed in this appendix differs from the sequence in which they are listed in enclosures II through VI.

b/Schools with no entry in this column were not classified as minority by ED.

UPWARD BOUND DROPOUTS AND THEIRLENGTH OF PARTICIPATION

<u>Project</u>	<u>Number of students</u> (note a)	<u>Number of dropouts</u>	<u>Dropout</u>	<u>Length of participation before dropping out</u>				
				<u>1 year or less</u>	<u>Over 1 to 2 years</u>	<u>Over 2 to 3 years</u>	<u>Over 3 years</u>	<u>Unknown</u>
			(percent)					
A	82	51	62	24	23	4	-	-
B	40	16	40	6	10	-	-	-
C	59	39	66	23	14	2	-	-
D	80	41	51	40	1	-	-	-
E	61	21	34	11	10	-	-	-
F	54	24	44	17	3	1	-	3
G	36	22	61	16	4	2	-	-
H	42	29	69	12	8	8	1	-
I	47	28	60	20	8	-	-	-
J	51	21	41	14	1	6	-	-
K	22	5	23	3	1	1	-	-
L	<u>42</u>	<u>25</u>	60	<u>15</u>	<u>9</u>	<u>1</u>	-	-
Total	<u>616</u>	<u>322</u>	52	<u>b/201</u>	<u>92</u>	<u>25</u>	<u>1</u>	<u>3</u>

a/See page 4 for a description of population.

b/About 62 percent of those who dropped out left during their first year of participation.

AVERAGE SCHOLASTIC APTITUDE AND  
AMERICAN COLLEGE TEST SCORES FOR 1978-80  
UPWARD BOUND HIGH SCHOOL GRADUATES (note a)

SAT—Math and Verbal combined

<u>Project</u>	<u>Tested during</u> <u>1977-78</u>		<u>Tested during</u> <u>1978-79</u>		<u>Tested during</u> <u>1979-80</u>	
	<u>Number</u> <u>tested</u>	<u>Average score</u> <u>(note b)</u>	<u>Number</u> <u>tested</u>	<u>Average score</u> <u>(note b)</u>	<u>Number</u> <u>tested</u>	<u>Average score</u> <u>(note b)</u>
A	7	513	7	562	13	577
B	9	778	12	573	7	597
D	6	565	13	547	2	590
F	0	-	0	-	1	790
G	2	615	2	590	2	510
K	5	682	6	840	5	906
L	3	597	9	581	3	530
Total tested	32		49		33	
Average score		638		599		620

ACT—Composite

<u>Project</u> <u>(note c)</u>	<u>Tested during</u> <u>1977-78</u>		<u>Tested during</u> <u>1978-79</u>		<u>Tested during</u> <u>1979-80</u>	
	<u>Number</u> <u>tested</u>	<u>Average score</u> <u>(note d)</u>	<u>Number</u> <u>tested</u>	<u>Average score</u> <u>(note d)</u>	<u>Number</u> <u>tested</u>	<u>Average score</u> <u>(note d)</u>
C	1	11	6	11.3	0	-
I	4	16	6	16.5	4	16.0
J	18	11.2	24	10.3	25	12.0
Total tested	23		36		29	
Average score		12.0		10.7		12.6

a/Scores were readily available and obtained for only 202 (72 percent) of the 282 students we traced into postsecondary education. See page 4 for description of that population.

b/Mean SAT score for college bound high school seniors was 897 in 1978, 894 in 1979, and 890 in 1980.

c/No scores were obtained for students in projects E and H.

d/Mean composite ACT score for all high school students taking the test was 18.5 in 1978, 18.6 in 1979, and 18.5 in 1980.

POSTSECONDARY PERSISTENCE OF  
1978, 1979, AND 1980 UPWARD BOUND

HIGH SCHOOL GRADUATES

<u>Project</u>	Students entering postsecondary education (note a)	<u>Students withdrawing</u>		<u>Students persisting</u>	
		<u>Number</u>	<u>Percent</u> (note b)	<u>Number</u>	<u>Percent</u> (note b)
A	30	7	23	23	77
B	28	7	25	21	75
C	13	6	46	7	54
D	21	5	24	16	76
E	24	9	38	15	63
F	21	7	33	14	67
G	9	6	67	3	33
H	19	6	32	13	68
I	17	6	35	11	65
J	68	20	29	48	71
K	16	6	38	10	63
L	<u>16</u>	<u>6</u>	37	<u>10</u>	63
Total	<u>282</u>	<u>91</u>	32	<u>191</u>	68

a/See page 4 for description of population.

b/Due to rounding percentage of students withdrawing plus percentage of students persisting may not equal 100 percent of students entering.

POSTSECONDARY PROGRESS OF 1978, 1979, AND 1980UPWARD BOUND GRADUATES (notes a and b)

Project	Students progressing at normal rate		Students progressing at less than normal rates						
	Number	Percent of students persisting	Number	Percent of students persisting	Percent below normal rate				
					10 or less	11-25	26-50	51-75	Over 75
A	1	04	22	96	0	5	6	7	4
B	14	67	7	33	1	2	4	0	0
C	3	43	4	57	0	2	2	0	0
D	4	25	12	75	2	4	3	1	2
E	2	13	13	87	1	1	3	4	4
F	6	43	8	57	2	3	1	2	0
G	1	33	2	67	0	0	2	0	0
H	8	62	5	38	1	2	1	1	0
I	5	45	6	55	2	1	2	0	1
J	21	44	27	56	3	3	8	9	4
K	7	70	3	30	2	0	1	0	0
L	1	10	9	90	1	0	2	2	4
Total	73	38	118	62	15	23	35	26	19

a/See page 4 for description of population.

b/Rates of progress were based on what each school considered the normal number of credits to be earned each term. We did not consider any terms in which a student was not enrolled (i.e., if a student dropped out for a semester but earned the normal number of credits for the semesters in which he was enrolled, he was considered to be progressing at the normal rate). Credits earned by placement tests or during summer sessions (including the Upward Bound "bridge" session between high school and college) were used to offset any deficiencies in credits earned during the normal academic year. If a student's transcript included credits from another school without indicating the number of terms in which those credits were earned, we assumed the student progressed at a normal rate at the first school.

POSTSECONDARY PERFORMANCE OF1978, 1979, AND 1980UPWARD BOUND HIGH SCHOOL GRADUATES

<u>Project</u>	<u>Number of students (note a)</u>	<u>Student grade point averages</u>			
		<u>Less than 2.0</u>		<u>2.0 and above</u>	
		<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
A	30	24	80	6	20
B	28	12	43	16	57
C	13	6	46	7	54
D	21	7	33	14	67
E	24	12	50	12	50
F	21	13	62	8	38
G	9	7	78	2	22
H	19	9	47	10	53
I	17	7	41	10	59
J	68	24	35	44	65
K	16	9	56	7	44
L	<u>16</u>	<u>13</u>	81	<u>3</u>	19
Total	<u>282</u>	<u>143</u>	51	<u>139</u>	49

a/See page 4 for description of population.



UNITED STATES DEPARTMENT OF EDUCATION  
OFFICE OF THE ASSISTANT SECRETARY FOR POSTSECONDARY EDUCATION

THE ASSISTANT SECRETARY

JAN 24 1983

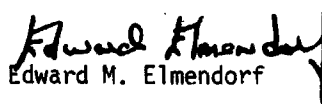
Mr. Philip Bernstein  
Director  
Human Services Division  
United States General Accounting Office  
Washington, D.C. 20548

Dear Mr. Bernstein:

Enclosed is our response to the draft GAO report on the Upward Bound Program. I should note that even though we are in agreement with your recommendations, we are concerned that the limited sample of Upward Bound projects and Upward Bound participants used in the study do not warrant the conclusions drawn. To our knowledge, no one has yet conducted a study of Upward Bound sufficiently large in scope to generate statistically significant results. Such a study could provide a more accurate assessment of Upward Bound project performance.

If there are any questions concerning our comments, please feel free to call me on 245-9274.

Sincerely,

  
Edward M. Elmendorf

Enclosure

Response to GAO Study  
on the  
Upward Bound Program

While we concur with the general thrust of the several recommendations set forth in this G.A.O. report on the Upward Bound Program, we feel obliged to underscore your reservations on the statistical validity of your findings. We do not believe the 12 sites and the limited number of participants on which your conclusions were drawn can be used as the basis for assessing how well Upward Bound has been doing in fulfilling its statutory mandate.

A second major point that should be underscored at the outset is that the Congress, this Administration and the past several Administrations have consistently sought to reduce regulatory burden on grantees, to reduce reporting burden on grantees, and to manage Federal programs with fewer people. We do believe, however, that a balance can be struck between maintaining an appropriate degree of accountability in the achievement of program goals and the autonomy of grantees to address the needs that exist in their local communities in the manner they described in their request for Federal assistance. We in the Department of Education are fully committed to the attainment of that balance. We believe grantees should be held accountable for the achievement of those objectives set forth in their requests for assistance. If they fail to deliver what is expected, they should not be refunded. To fully achieve this goal in Upward Bound the Department



may have to reconsider the regulatory and reporting requirements placed on grantees. As mentioned in our responses to the specific recommendations later on in this report, we will do just that.

The R.T.I. Study, upon which you draw heavily in your report, concluded that better than 9 out of 10 Upward Bound graduates did in fact gain access to postsecondary education, with 81% of them enrolling in college directly after high school completion. Given the fact that these percentages were representative of individuals who just three to four years earlier were determined to be persons who would not be likely to gain access to postsecondary education because of educational deficiencies noted by the time such students have reached the secondary level, we feel that the program has demonstrated some success in filling behind gaps in disadvantaged students' education at the lower grade levels. We feel the results of this study were not given sufficient attention in the G.A.O. study.

We fully recognize that some projects might do better to prepare young people from disadvantaged backgrounds for entry and success in college. All projects should be expected to:

- a) more carefully select participants who have potential and are receptive to the support Upward Bound can give them;
- b) make greater efforts to measure the academic growth experienced by participants while in the program;
- c) place greater emphasis on basic academic skills that enable participants to successfully pursue higher education; and
- d) follow-up on Upward Bound graduates to ascertain how well these individuals persist, progress, and perform while in college.

Heretofore, the Department has relied upon annual project performance reports which have consisted of a narrative description of a grantee's success in accomplishing program goals and objectives. Occasional site visits, telephone inquiries, and isolated audits, are other means by which the Department obtains performance data. These, however, do not produce statistical evidence of individual project or program-wide achievements.

The Department, as was cited in the report, has recently abandoned an information system initially designed to provide individual student data. The system proved costly and provided minimal useful information to grantees and to the Department. In lieu of this, the Department has developed a new summary performance report and is currently studying a completely new information system scheduled for adoption in FY 1984. In short, the Department has recognized some information gaps and has taken steps to remedy the problem.

In the past, the major means for determining the overall success of the program has been through independent evaluations. These studies have pointed to areas where Upward Bound program goals are being realized. They have also singled out various administrative difficulties, and as a result, the Department has taken positive steps to remedy those administrative difficulties which were identified.

Briefly, these studies include:

- o A 1973-74 Research Triangle Institute (RTI) Study, the first of three R.T.I. studies on Upward Bound. This base-year study provided a comprehensive profile of Upward Bound projects and participants and provided initial evidence of program success. The study

was conducted at 54 Upward Bound sites and included 3,710 Upward Bound participants.

o In 1976-77 the first follow-up was done by R.T.I., and they concluded that Upward Bound increased postsecondary expectations and immediate or eventual participation in postsecondary education. In 1978-79, the second follow-up concluded that the participants in the study benefitted from the Upward Bound projects they participated in, and that they were provided with skills and motivation needed for postsecondary success.

o A 1981-82 American Institutes for Research (AIR) Evaluability Assessment of the Special Programs for Disadvantaged Students. They found that Federal policymakers, from both executive and legislative branches, and non-federal stakeholders shared the view that Upward Bound was meeting its statutory mandate.

o A 1982 study, also conducted by AIR, entitled "Rapid Feedback Assessment of the Upward Bound Program."

AIR interviewed nineteen Upward Bound projects, and concluded that performance information is readily available at project sites, especially in the years in which students are participating in the program, and that such information could be used to assess project performance.

AIR also analyzed data already available from the National Center for Educational Statistics (NCES) longitudinal survey, High School and Beyond. In this base year study a representative sample (58,000) of high school students in the 10th and 12th grades in 1980 were surveyed. Included in the sample were present and former participants in Upward Bound. AIR

found that the Upward Bound cohort was:

- more likely to be enrolled in college preparatory courses than a comparison group with similar socio-economic status and all other students in the survey; and
- more likely to be planning to attend and complete college.

The Education Department plans to analyze closely a Fall 1982 follow-up of the sample group. The data from this follow-up is not currently available. This analysis will provide us with yet another source of information on the impact of the Upward Bound Program.

One caveat should be stated up front. All of the studies listed above rely upon fairly small sample groups of projects and participants. In the recent AIR study, for example, only nineteen projects were included. Since we later will find fault with G.A.O.'s methodology on the basis of sample size, we ought to state for the record that our own studies and surveys, which have found positive evidence of Upward Bound success in meeting statutorily mandated goals, have been based on small sample populations. We would be guilty of inconsistency if we did not point out this fact and suggest that no true picture of Upward Bound project performance over time can be had unless the sample group studied is scientifically selected and is large enough to generate statistically significant conclusions.

Our general belief is that the Upward Bound program has been marked with some success in its eighteen-year history, but that is not the ultimate solution to the problem of motivating and academically preparing disadvantaged

youth for entry into postsecondary education. The burden for providing such learning support ought to fall upon the shoulders of elementary and secondary schools. With a bit of 20-20 hindsight, we can see that Upward Bound projects have stepped into a dangerous void, a void where educational services at the elementary and secondary levels have often been tragically deficient.

The ideal we must move toward is one where the linkage between elementary/secondary education and postsecondary education is strengthened. We all recognize the values of individual self-fulfillment and strengthened career opportunities that come about through higher education. For the disadvantaged, these values are particularly important, because they represent the attainment of the American Dream. We believe the Federal role should include providing a continuous flow of learning support to institutions enrolling large numbers of minority youth. At the same time, for the majority of students, we look to revitalized elementary and secondary schools to place renewed emphasis on basic academic skills and to recognize that early learning must build naturally and congruently toward postsecondary academic and vocational education. The burden should not forever fall on either the Federal government or postsecondary institutions to "rescue" students who have been poorly served by inadequate education at the lower grade levels.

Specific Comments on GAO Methodology and Findings

The stated purpose of the review was to "(1) assess ED's overall administration of the program and its evaluation of the selected projects' operations and (2) determine the success of Upward Bound projects in achieving program goals."

The methodology selected to fulfill the study's purpose was to go to 12 judgementally selected grantees and conduct a longitudinal assessment of the 616 high school students who entered the 12 Upward Bound projects in 1977.

Based on this review of 12 Upward Bound projects the U.S. General Accounting Office concluded that these projects:

- o have not motivated participants, otherwise their project drop-out rates would not be so high;
- o have not prepared participants adequately for postsecondary education because they have not used common tools to measure academic achievement;
- o do have success in placing Upward Bound graduates in postsecondary education; but
- o do not adequately keep up with participants' progress once they enter postsecondary education; and
- o do not adequately prepare persons for success in postsecondary education, otherwise Upward Bound students progress, persistence and performance in postsecondary education would be better.

It should be noted that success for Upward Bound participants can be better measured by a logical sequence of educational achievements, only three of which were examined by G.A.O. In accepting students into Upward Bound, project staff normally have these participant objectives:

1. Retention in high school
2. Retention in Upward Bound Program.\*
3. Grade level advancement throughout high school.
4. Enrollment in college preparatory courses while in high school.
5. Graduation from high school.
6. Application for admission to and acceptance in postsecondary education.
7. Enrollment in postsecondary education.\*
8. Measurable progress in postsecondary education.\*
9. Graduation from postsecondary education.

\*Data in G.A.O. Study

The first seven of these educational goals for the student are more or less under direct control of project staff. If an individual begins to falter at any of these points, project staff can intervene. The 8th and 9th steps, while helping to plot the future directions of the Upward Bound projects, are outside of the capacity of the project to directly intervene. This may help explain why Upward Bound grantees have concentrated upon entry into college as a significant measure of their project performance.

In this regard we reviewed the recently submitted 1981-82 annual performance reports of the twelve projects included in the GAO study and found that 84% of the participants who completed high school this past Spring enrolled in college this Fall. The table below reflects each project's success rate.

**Postsecondary Entry Rates  
1982 High School Graduates in  
GAO Selected Upward Bound Projects**

<u>Project</u>	<u>HS Graduates</u>	<u>Enrolled in PSE</u>	<u>Rate</u>
A	23	20	87%
B	23	23	100%
C	21	11	52%
D	24	24	100%
E	18	18	100%
F	37	26	70%
G	25	25	100%
H	16	12	75%
I	12	10	83%
J	41	32	78%
K	16	16	100%
L	23	18	70%
<b>Total</b>	<b>279</b>	<b>235</b>	<b>84%</b>

While we are unable to offer supportive evidence for some of the other GAO data, we can provide evidence such as above in concurring with GAO that Upward Bound projects have been successful in placing students in postsecondary institutions.



It is worthwhile in our view however to discuss each of the individual participant milestones which must take place in this continuum that ultimately may result in graduation from a postsecondary institution.

#### Persistence in High School

The likelihood that an individual from a low-income family who lacks motivation or who has a history of underachievement in the classroom may drop out of high school is far greater than that of students without these characteristics. We feel that elementary and secondary institutions have become weaker in their ability to address these problems. Thus, the first objective for an Upward Bound project is to address the lack of motivation and the underachievement of the student. If this is successfully accomplished, these students are likely to remain enrolled in high school.

#### Retention in the Upward Bound Program

G.A.O. analyzed this milestone and found varied results in the twelve projects they reviewed. We analyzed the project drop-out rates for 1981-82 for the twelve projects based on recently submitted performance reports and found the results to vary markedly. For all twelve the average project drop-out rate was 18%. Four projects had drop-out rates of 20% or better. The table shows each project's experience in 1981-82.

**Drop-out Rates in 1981-82  
GAO Selected Upward Bound Projects**

<u>Project</u>	<u># Participants</u>	<u># Dropped During Year</u>	<u>Drop-out Rate</u>
A	115	20	17%
B	80	8	10%
C	116	37	32%
D	86	17	20%
E	81	7	9%
F	123	12	10%
G	75	0	0%
H	128	45	35%
I	102	14	14%
J	158	32	20%
K	65	5	8%
L	107	6	6%
Totals	1,136	203	18%

While we do not know all the reasons for this tremendous variance, some factors are known: some students were not willing to commit Saturdays and summers to the program; others had to work to supplement the family income and could not make the time investment; others moved out of the area; some found that they did not need the help, provided by Upward Bound and so on. The point is that poorly prepared youngsters living in poverty have a number of problems that can often make participation in a program like Upward Bound terribly difficult.

To overcome the high turnover rate, some projects have implemented a "trial" period of several weeks or more to determine if the Upward Bound Program can meet the needs of an individual student before that student is accepted as a full participant. The results have been beneficial in reducing the turnover rate.

#### Enrollment in College Preparatory Programs in High School

One of the major counseling responsibilities of Upward Bound project staff is to examine closely the type of high school academic program that will best enable a participant to realize his or her postsecondary/career goal. This usually means that the student must take those courses that will develop the basic skills necessary for success in college. If this critical step is not taken, the likelihood of entry into college is significantly diminished. The G.A.O. report does not address this goal.

#### Grade-level Advancement Throughout High School

An Upward Bound project which is working with a group of poorly prepared students can rightfully take credit for maintaining motivation and academic support, if participants are able to advance from one grade level to the

next each year. We believe this is a significant measure of academic growth, and again it was a measure that G.A.O. did not assess.

#### Graduation from High School

Graduation from high school is almost a universal pre-requisite of entry into college. Yet another factor in assessing a successful Upward Bound project is the extent to which program participants completed the requirements for a high school diploma. G.A.O. did not use this criterion as a measure of academic growth.

#### Application for Admission to and Acceptance into Postsecondary Educational Institution

An important objective that the authorizing legislation mandates for every Upward Bound project is to assist participants in the process of applying for admission to college. This process includes preparing participants to take required entrance examinations and indentifying postsecondary institutions which are appropriate in terms of the participants' academic abilities, financial resources, and career goals. It also includes assisting students in completing admissions forms, student financial aid forms, and in some cases providing references on behalf of the student. We believe that this assistance to disadvantaged high school seniors is important. It is measurable and should also be taken into account when assessing whether or not Upward Bound projects are fulfilling their mission.

#### Progress in Postsecondary Education

The G.A.O. collected and analyzed a substantial amount of information on the experiences Upward Bound graduates were having in postsecondary education. From standarized college aptitude tests they questioned

whether the students in their sample were prepared for college. They looked at persistence by analyzing withdrawal rates; they looked at progress by determining whether or not persons were obtaining a full-year's credit each year; and they looked at academic standing by reviewing grade point averages of Upward Bound graduates. The Department does question the statistical reliability of G.A.O.'s conclusions, since they were based on a limited sample of Upward Bound graduates, and since they involved simplified measures of complex factors.

With respect to the standardized college aptitude test results, the average S.A.T. score for Upward Bound students from the G.A.O. sample fell within the lowest quartile of scores from all persons taking this exam. This is not at all surprising.

In the College Entrance Examination Board's analysis of S.A.T. scores/<sup>1</sup> it is clearly shown that lower scores are obtained by students who are:

- minorities;
- from low-income families; or
- the first in their families to go to college.

This, of course, defines precisely the Upward Bound target population. So, to compare these students' scores with norms for all colleges aspirants or, for that matter, with scores for any single subset of the characteristics noted above, is mixing apples with oranges.

<sup>1</sup> "Profiles, College Board Seniors, 1981," College Entrance Examination Board, New York, 1982.

The G.A.O. data on persistence seems reasonable. The G.A.O. data on student progress, grade point averages, academic standing, etc., is undoubtedly accurate for the small sample. We note however, that the results from 3 or 4 of the projects in each table presented in the G.A.O. report brought down the averages considerably. This is a natural outcome when such a small sample size is used. The Department will attempt, at a later date, to validate these findings from a broader sample of projects and participants.

Graduation from Postsecondary Education

The G.A.O. did not attempt to determine the number of Upward Bound participants who eventually achieve the ultimate mark of success -- graduation from a postsecondary institution. The Department has not been successful to date in obtaining this kind of follow-up data on the approximately 400,000 people who have participated in the program over the past eighteen years. At some point this would undoubtedly be a fruitful undertaking.

COMMENTS ON G.A.O. RECOMMENDATIONS

G.A.O. recommends that the Secretary of Education should:

1. Require Upward Bound projects to measure the academic growth of participants.

Comment: The Department concurs that it must make every effort to require Upward Bound participants to measure academic growth. Although neither current statute nor regulations mandate in any specific fashion the measurement of academic growth, it is reasonable to assume, that such growth is implied by the statutory mandate and that project sponsored activities designed for preparation and motivation necessary for success in postsecondary education must be evaluated to determine the impact on participants. The Department is presently seeking to refine and improve project responsiveness to the need for performance measurement. At the point of application review, the Department's revised selection criteria, application guidelines, and the application evaluation procedures underscore the need for setting goals and objectives that are specific and measurable. In the current fiscal year's call for applications under the Upward Bound Program we did suggest that an applicant's proposal would be strengthened by 1) placing greater emphasis on basic skills instruction and 2) addressing the techniques that will be employed to monitor student performance.

In addition, at the grantee performance stage, the recently revised Annual Performance Report contains a section which requires grantees to summarize accomplishments on those activities designed to improve participants' reading, writing, mathematics and study skills based on the goals and objectives the project had set for itself.

We believe that we are taking appropriate steps to ensure greater project emphasis in documenting academic growth of participants. We also intend to explore every possibility for making the measurement of academic growth an explicit requirement.

2. Require Upward Bound projects to report participant academic growth to E.D

Comment: The Department concurs that projects should be required to report measures of academic growth. However, since the Department is also committed to the general reduction of the reporting burden of grantees, the wording of any new requirement would have to be carefully considered and subject to the most strenuous review, so as not to overly regulate.

3. Develop a system to obtain accurate data on participants' postsecondary success.

Comment: The Department concurs in this recommendation. After consultation with persons in the field, we plan to develop a system that will facilitate a project's ability to periodically determine the postsecondary academic achievement levels of Upward Bound graduates. At a minimum it will require annual follow-up of Upward Bound grantees for four years after they complete high school.

4. Consider project dropout rates when awarding new Upward Bound grants.

Comment: The Department concurs with this recommendation. If the dropout rates in this limited sample hold for the population in general, the finding is highly significant. The Department of Education realizes, however, that a very low turnover rate could simply be due to improper selection procedures. Accordingly, we believe that a criterion that discourages excessive dropout rates (such as those in the G.A.O. report) is appropriate.

The Department will explore possibilities for incorporating this concern in its consideration of applications for funding.

5. Consider changes in participants' academic skill level when awarding new Upward Bound grantees.

Comment: The Department concurs with this recommendation. The second criterion on generating skills and motivation in ED's prior experience regulations should be clarified to include changes in participants' academic skill levels.

6. Consider participants' postsecondary success when awarding new Upward Bound grants.

Comment: The Department concurs with this recommendation. We do currently consider participants' postsecondary success in the application review process. Under the selection criterion, "Likelihood of Success," applicants with prior experience in administering an Upward Bound project invariably cite the success that they have experienced in placing Upward Bound graduates in college, and the success these graduates have had, as a means of substantiating their case for a renewed three-year commitment. The Department will consider a revision of the current published criteria to take into account the relative differences among projects in this regard prior to the next funding cycle.

The Department also believes that postsecondary success should be included as a criterion in the evaluation of prior experience. The postsecondary academic success of project participants should, in fact, receive stronger consideration than the mere admission and entry of project participants into postsecondary educational programs.



G.A.O. Conclusions

We believe that the G.A.O. has arrived at their conclusions based upon a review of too limited a sample of Upward Bound projects. Further, we believe that if one is to gain a sense of the overall performance of individual projects or of the entire program, the scope of the investigation needs to be more broadly defined in terms of the range of intermediate objectives that are assessed.

Although the findings of this report need to be validated on the basis of a broader sample of projects and participants, they do appear to be indicative of significant problems.

The Department is now in the process of implementing several of the recommendations contained in the Report. The final section of this response addresses the actions contemplated for each of the specific G.A.O. recommendations.

ANALYSIS OF DETAILED AGENCY COMMENTS

In its comments, ED stated that we concluded that projects "have not prepared participants adequately for postsecondary education because they have not used common tools to measure academic achievement." Although we found that (1) there are insufficient test data at projects to determine if academic growth has occurred and (2) the postsecondary performance of participants raises questions about their academic preparation, we did not draw the conclusion cited by ED. Testing is needed as an evaluation and planning tool. If testing reveals insufficient academic growth, more emphasis could be placed on the academic portion of the program. Hopefully this would eventually lead to better postsecondary performance. However, the mere use of tools to measure academic achievements (regardless of whether all projects use the same tools) will not prepare a participant for postsecondary education.

ED has cited several ED-sponsored studies as evidence of beneficial effects of the Upward Bound program. ED noted, however, that its studies also rely on fairly small sample groups of projects and participants and are thus subject to the same lack of projectability to all projects as our work. We agree that the program appears to have some positive impacts but are concerned about lack of data on the success of the program in achieving its goal of success in postsecondary education. In its comments ED noted that graduation from a postsecondary institution is the ultimate mark of success for program participants.

A Research Triangle Institute study cited by ED concluded that the Upward Bound program provides participants with the skills and motivation necessary for entry and success in education beyond high school. However, the study also concluded that while there is substantial evidence that Upward Bound is providing the skills, motivation, and assistance needed for entry into postsecondary education, it is less clear whether the program provides the skills and motivation necessary for success in postsecondary education. According to the study, once program participants have been established in postsecondary education, there is no evidence that Upward Bound participants progress, persist, or perform any better than comparable nonparticipants. The study notes that overall, Upward Bound participants' postsecondary success is slightly better (one term greater persistence, two-thirds of a term more credit, but a slightly lower grade point average) than that of nonparticipants but attributes this mostly to participants' higher postsecondary entry rate and the type of schools they attend instead of Upward Bound participation.

ED also cited two studies done by the American Institute for Research. One stated that few policymakers expressed a need for performance data because they had been convinced of the program's value by the earlier well-publicized evaluations by RTI. The other, based on data gathered primarily through interviews with project officials, concluded that performance data were readily available at the sites. Officials at most of the projects we visited also told us they had performance data, such as the results of achievement testing and postsecondary followups. However, in our examination of the data we found that the data were incomplete and could not be used to determine changes in participants' academic skills and participants' postsecondary success.

According to ED, the success for Upward Bound participants can be measured by a sequence of nine educational achievements, only three of which were examined by us. These were (1) retention in the Upward Bound program, (2) enrollment in postsecondary education, and (3) measurable progress in postsecondary education. Other achievements included retention in high school, grade level achievement throughout high school, and graduation from postsecondary education. According to ED, the sequence of achievements culminates in "the ultimate mark of success--graduation from a postsecondary institution."

As mentioned earlier, we had intended to examine the success of the Upward Bound projects visited in achieving the legislative goals of generating the skills and motivation necessary for success in postsecondary education but could not because the applicable data were not available from either ED or the projects. We believe, however, that the three achievement measures we examined are significant in determining if the program's ultimate goal of postsecondary graduation is achieved.

While ED considers the nine achievements important in determining the program's ultimate mark of success, it did not maintain information concerning most of them. For example, ED points out in its comments that it has not been successful in obtaining followup data on graduation from postsecondary education over the past 18 years. Also, with regard to retention in the Upward Bound program, ED analyzed the dropout rates for 1981-82 school year for the 12 projects we reviewed and found the results varied markedly. The dropout rates calculated by ED for the 12 projects were substantially lower than the rates shown in our report. A major reason for the difference is that ED's dropout rates for the projects represent the ratio of the number of students who participated during the one academic year

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1981-82 (regardless of when they started) to the number who dropped out during that year. Our calculation represents the ratio of the number of participants in our sample project who entered Upward Bound in the beginning of school year 1977-78 and the number of these students who dropped out of the program before high school graduation. Thus ED's dropout rates are for only 1 year while ours consider the full time period the students were enrolled in Upward Bound. Also, when calculating dropout rates ED did not consider students who dropped out during the summer session or between sessions.

ED's comments concerning other measures of achievement provide little or no statistical data. In recognition of some information gaps, ED stated it has taken steps to remedy the problem. ED developed a new performance report and is currently studying a new information system scheduled for adoption in fiscal year 1984. An analysis of the new performance report indicates it will provide ED with data on only four of the nine achievements ED believes are needed to measure program success; data on retention in the program, graduation from high school, and enrollment in postsecondary education will be provided for all participants, while data on a fourth achievement--retention in high school--will be provided for seniors only. This information should assist ED in managing the program. However, to determine program success ED still needs to obtain data on changes in participants' academic skills and on their postsecondary success.