phase. The attempt was not to measure which programs are "best," but rather which programs are more effective with certain kinds of students?"

This test, plus previous research, strongly indicates that low maturity students, need structured educational settings; whereas high maturity students perform best in a more flexible classroom environment.

Thus, the greatest increase in positive attitudes about Upward Bound occurred in structured programs with predominantly low maturity students, and in flexible programs with predominantly high maturity students.

Program flexibility was measured in the target programs by students' responses to questions such as: "When the students make suggestions, the pro-

gram is changed; yes or no?"

To investigate the differential in program effectiveness, the 21 target programs were classified according to: (1) predominant type of student (low versus high interpersonal maturity); and (2) type of program approach (structured versus flexible).

Students in "matched" programs (structured/low maturity and flexible/high maturity) also showed the highest increase in five of the six student measurements: motivation for college; possibility of graduating from college; self-evaluation of intelligence; self-responsibility; and inter-personal understanding. Self-esteem was the only measurement that did not appear to have a casual relationship.

In the five student measurements of attitude and motivation where differential effectiveness was present, neither flexible nor structured approaches show any general superiority. It is only when the degree of "matching" student and program is pinpointed that program effectiveness can be determined. With this kind of information on each program, OEO can advise Upward Bound projects on changes needed to better reach their particular student body.

Source: Syracuse University Youth Development Center.

## PROFILE OF 20,000 UPWARD BOUND STUDENTS

A large percentage of the 20,000 high school students enrolled in Upward Bound in the summer of 1966 come from families below OEO's minimum poverty level; and are severely handicapped culturally when compared with the U.S. high school population.

Indications of the level of deprivation of the more than 20,000 students en-

rolled in Upward Bound in the summer of 1966 are— Mean family income: \$3.501.86 (OEO considers \$4,000 a poverty level for family of 6).

Size of family: 53% have 6 or more members in a family.

Parental guidance: 55% of students were living with only one parent (30% living with mother) or with no parent.

Comparison with a national high school sample graphically points up the deprivation of Upward Bound students:

## [In percent]

|   | Upward<br>bound | U.S. high<br>school<br>students |
|---|-----------------|---------------------------------|
| 6 to 8 members in family 9 or more members in family Living with both parents Living with mother only Education of parents: |                 | 25<br>5<br>82<br>8              |
| High school graduate: Father Mother Post high school education:   |                 | 48<br>57                        |
| Post nigh school education: Father  |                 | 25<br>23                        |