Although college catalogs contain expressions of devotion to the cause of developing in students a capacity for and commitment to critical thought, there are philosophical, scientific and practical problems surrounding this aim. To measure student values and differences in intellectual dispositions, the Center designed a research instrument, the Omnibus Personality Inventory (OPI). But the question is in which students and on which campuses is growth most likely to take place? The Trent-Medsker study BEYOND HIGH SCHOOL, which followed 10,000 high school graduates through the next 4 years of their lives as they entered college, the labor market or full time homemaking, indicates that college students become more tolerant, flexible and autonomous in their thinking whereas persons who embark on jobs or homemaking are uninterested in reflective thought. This is borne out by 3 of the OPI scales. By including youths who did not attend college as a control group, it was shown changes cannot be attributed to maturity alone. Related studies show the movement from occupational to intellectual orientations, from grade to learning consciousness, from extrinsic to intrinsic rewards. Very different students attend a wide variety of institutions and studies are under way to identify what factors in the learning environments of 12 colleges promote or inhibit intellectual changes. In its dedication to understanding the processes of higher education, the Center is measuring the entering student, the graduate, and developing means for assessing what happens in between. (JS)
STUDENT VALUES REVISITED

by

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The Center staff now numbers 130, of whom about 30, not including graduate research assistants, would be classified as professional. We are no longer a small compact group with ease of communication; the Center operates in two locations—once on the campus and the other, which houses most of the staff, in the Educational Testing Service building, close to campus. Although principal funding is from the Office of Education, grants from a number of other agencies and foundations enable the Center to expand its program beyond what possible under Office of Education funding.

LELAND L. MESSER

Student Values Revisited

Just a decade ago, Philip Jacob caused considerable stir in the ranks of higher education by observing that, with a few outstanding exceptions, nothing much happened in colleges to "alter the mold of values for most students." This conclusion, drawn after a review of the research literature, raised a number of questions—questions which are philosophical, scientific, and practical. On the philosophical side, there is the question of the extent to which colleges should attempt to influence student values and, if so, which ones. The scientific questions center around the ability of the behavioral sciences to measure values. The practical questions for education are concerned with how values are taught or caught. Some progress has been made in sharpening and clarifying the philosophical and scientific questions. And advances on these fronts have implications for the practice of higher education.

Educators manage to turn out some rather articulate value goals for higher education when they write the statements for the college catalogs, as these statements taken from three catalogs illustrate:

**From a private university in the west:** The willingness "to weigh varying viewpoints...is the mark of a man or woman with a true liberal education."

**From a four-year liberal arts college:** "The college does not seek to impose upon its students (a particular) view of life, or any...specific set of convictions about the nature of things and the duty of man. It does, however, have the twofold aim of encouraging conscious concern about such questions and unceasing reexamination of any view which may be held regarding them."

**From a private men's college:** "The educational effort in the undergraduate college is directed towards leading the student to be an independent seeker in his own right, not a passive recipient of information..."

In statements such as these, colleges have accepted a responsibility for attempting to help their students develop the capacity for and the commitment to independent and critical thought. As college administrators are well aware, a dedication to teaching people to think for themselves is not without its hazards. While society at large appears willing to accept these value goals as statements in the college catalog, the "unceasing reexamination" of "the nature of things and the duty of man" is not always popular with the community, legislators, alumni, or even trustees. These values are far from innocuous, and they are being defended vigorously on college campuses today; many believe them to be a fundamental concern of higher education.

The question of the scientific measurement of student values has long been one of the interests of the Center. In 1962, Paul Heist and his colleagues at the Center set about developing a research instrument to measure some student characteristics which were felt to have a special relevance for college and university education. They designed measures for studying variables such as flexibility and openness to new ideas, interest in intellectual inquiry, attraction to reflective thought, and tolerance of varying points of view. These attitudes or values would appear to be the measurable aspects of the catalog statements calling for a willingness "to weigh varying viewpoints," an interest in becoming "an independent seeker"...rather than a "passive recipient of information," and the like. The research instrument which was designed to measure-intellectual values, such as these, was called The Omnibus Personality Inventory (OPI) and it has been used frequently in the Center's continuing research on students.

Basic to the potential usefulness of the instrument are the findings that young people show dramatic individual differences in intellectual disposition as measured by the OPI and that entering classes of various colleges differ greatly in their OPI profiles. In other words, we can state with assurance that students do show differences in intellectual disposition when they arrive on the campus; it is of even greater importance to know what has happened by the time they leave our colleges. The fundamental question, of course, is: In which students and on which campuses is growth most likely to take place? When we can isolate some of the conditions for change, then we are ready to tackle the practical problems of how to produce such conditions.

One of the Center studies recently reported by James Trent and Leland Medsker, in a monograph entitled Beyond High
School, followed 10,000 high school graduates through the next four years of their lives as they entered colleges, the labor market, or full-time homemaking.

In a nutshell, they found that young peoples' values and attitudes do change—that, generally speaking, college students become more critical in their thinking, more tolerant, flexible, and autonomous in attitude, and less prejudiced in their judgments. There is evidence that young people who embark upon jobs or full-time homemaking do not show the same kind of development. For example, young women who marry immediately after high school graduation and who spend the next four years in full-time homemaking stand out rather vividly in this research for their tendency to regress on the OPI measures of intellectual values.

Although the Trent-Medsker study involved numerous measures of student characteristics, this description is concerned primarily with the values and attitudes measured by three scales of the OPI. The Thinking Introversion scale is essentially a measure of general appreciation of and interest in scholarly activity. High scorers are characterized by a liking for reflective thought; their thinking tends not to be dominated by external conditions and generally accepted ideas, but rather by an interest in ideas for their own sake. Low scorers tend to evaluate ideas for their practical, immediate application.

Figure I shows the 1959 and 1963 Thinking Introversion scores for the high school graduates, grouped according to their activities after high school graduation.

![Figure I](image)

Immediately apparent is the difference in the 1959 scores of students who went to college and those who did not. As seniors in high school, the future college students—both men and women—scored significantly higher on Thinking Introversion than did students who took jobs or became housewives. One would expect that high school students who enjoyed abstract thought and the manipulation of ideas would be more attracted to college than those who did not. And certainly it is to be hoped that four years spent in an environment stressing the importance of ideas and reflective thought would result in an increase in student values regarding such activity. As shown in figure I, the men and women who remained in college for the four years following high school graduation do show significant change. The men who were steadily employed from 1959 to 1963 also showed significant growth in contrast to the employed and married women who actually regressed on the measure. As a matter of fact, the future full-time housewives left high school significantly more interested in ideas than the women who went to work, but four years later, the housewives showed the least interest of all of the groups in ideas and abstract thought.

The Complexity scale shown here is essentially a measure of intellectual curiosity and general perceptual orientation. High scorers are tolerant of ambiguities, respond to a greater variety of environmental stimulation, and are fond of novel situations and ideas; low scorers prefer sure, simple, and structured situations.

As shown in figure II, there was no difference between the 1959 scores of the men who went to college and those who went to work. The future housewives actually scored higher on the Complexity scale in 1959 than did the women who went to college. In the time between high school graduation and the second testing four years later, however, women who were consistently in college throughout the period were the only group to make a significant gain. While college men showed an average gain of about one standard point, this does not reach statistical significance, but the decreases shown for employed men and women and for the full-time housewives are statistically significant. A little reflection on what this scale measures would appear to show the effects of the environment. One would suspect that many employers of high school graduates are not especially prone to reward the worker who likes "to fool around with new ideas even if they turn out later to have been a total waste of time." The more intellectual the job demands, however, the more one might expect to be rewarded—internally as well as externally—for coming up with new ideas.

Figure III illustrates the greatest changes to take place in the college group. This is a measure of Nonauthoritarianism.

![Figure III](image)

Those who score high on this measure are characterized by flexibility, tolerance, objectivity, and a lack of dependency upon rules or rituals for dealing with ideas, objects, and people. Low scorers are more rigid and conventional in their thinking, tending to see more situations in black or white fashion.
Two observations may be made regarding figure III. The outstanding fact is that men and women who attend college for four years become markedly less authoritarian. The employed men and women and the housewives, however, showed almost no change. The other observation to be made is that those who were more flexible and tolerant as high school seniors were more likely to attend college and to remain in college. Although not shown here, the Trent-Medsker study also obtained OPI measures for college dropouts, that is, those who started college but dropped out and did not return during the four years of the study. On all three scales, the dropouts fell between the college students and the employed men and women when the measurements were taken again four years later.

Most research, from the Center and elsewhere, and on a variety of measures, shows agreement on the general fact that young people do change in certain attitudes and values which are related to the intellectual goals of higher education. The particular contribution of the study of high school graduates is that by including, as a control group, youth who did not attend college, the researchers were able to show that the changes cannot be attributed to maturity alone. If some changes, however slight, can be demonstrated for this very broad population of high school seniors attending a great variety of colleges all across the country, then higher education as a whole "must be doing something right." The big question that remains to be answered by science is: How much of the demonstrated change can be attributed to the college experience and how much is due to the general predisposition of the college group to change? We will also want to know how permanent the changes are. Does the college-educated housewife, for example, show the same regressions as the high school housewife after a few years of heavy involvement with family responsibilities? James Trent will be seeking answers to questions such as this in his new research project on college alumni.

Some of the concomitant changes that take place for a narrower population of college students attending specific colleges are of interest when studied in conjunction with the OPI research. In numerous Center studies, the reasons students give for seeking higher education have shown differences from college to college. The two goals which assume primary importance in the minds of students are vocational preparation and the general development of the intellect, which we usually refer to as liberal or general education. Depending upon the mission and image of the college, there tend to be great differences in the proportions of freshman classes seeking job preparation as opposed to those seeking liberal education. In an eight-college study which is soon to be reported by T. R. McConnell and colleagues at the Center, the vocationally oriented freshmen ranged all the way from only 15 percent in one highly selective private liberal arts college to 62 percent in another selective college. In every one of the eight colleges studied, however, the proportion selecting a primary goal of vocational preparation decreased by the senior year and the percentage interested in liberal education increased. For example, in the college which initially attracted a freshman class in which 62 percent of the students were vocationally oriented, the figure dropped to 32 percent by the senior year. The percentage interested in liberal education showed a proportionate increase—from 24 percent as freshmen to 48 percent as seniors.

Extremely bright students show an even greater endorsement of intellectual objectives as opposed to vocational. Fred Tyler directed some research for the Center which involved a longitudinal study of some 450 National Merit Scholars and Certificate of Merit winners. Nearly half of these very bright freshmen selected basic general education as the primary purpose of a college education, but four years later 71 percent of the students endorsed liberal education, with the proportion favoring vocational training dropping from one-third as freshmen to 14 percent as seniors.

Two other changes from freshman to senior years show a similar move from tangible, extrinsic rewards to more intangible, intrinsic values. Much is made today—especially among the adherents of liberal education—of the overemphasis upon the extrinsic motivation of grades at the expense of the more intrinsic satisfactions to be derived from true learning. And although most colleges still depend upon grades to motivate the student to learn, the students appear to be developing their own view of the matter. In seven of the eight colleges participating in the Center's eight-college study, a majority of the entering freshmen said they attached "a great deal" of importance to getting good grades. Four years later, no one of the eight colleges showed majorities of their surviving seniors giving that response. At the University of California, for example, 81 percent of the freshmen felt grades were quite important, whereas only 35 percent of the seniors did.

Occupational values show similar kinds of changes, although not to the same dramatic extent. Freshmen are more likely than seniors to attach importance to money and security in their concept of the ideal job, whereas seniors are somewhat more likely to express an interest in jobs which will give them an opportunity to be creative or to use their special abilities. In all eight colleges, interest in job rewards of money and security decreased in importance from the freshman to the senior year; intrinsic rewards such as using their special abilities increased, and people-oriented satisfactions (the opportunity to work with people or to be helpful to others) remained roughly constant for freshmen and seniors.

These demonstrated changes—from vocational to intellectual orientations, from grade consciousness to learning consciousness, and from concern for extrinsic occupational rewards to intrinsic rewards—are consistent with the changes shown on the intellectual disposition scales of the OPI. Those who expose themselves to four years of college do tend to reflect the values which we associate with the strongest faculty members and with the educational community.

It goes without saying, perhaps, that colleges differ in the centrality of their concern for intellectual values. In an overview of Center research on higher education, one conclusion stands out above all others. And that is that there is a tremendous diversity offered by American higher education—a condition which this nation is committed to preserving. While most colleges and universities are dedicated to helping young people to experience the satisfaction of intellectual inquiry and independent thought, these goals assume greater or lesser importance depending upon the mission of the institution. The four-year liberal arts college without a graduate school has, as its purpose, the liberal education of undergraduates. It hopes to cast a vivid image which will attract faculty and students dedicated to this mission. The state university and most state colleges generally have broader purposes and tend to attract a more diversified student body. Some of the newest forms of postsecondary education in this country have vocational preparation as their primary goal. The students who attend and the faculty and administrative staff who are dedicated to helping these young people to fulfill their potential have their own hierarchy of educational...
The Revision of Institutional Character

Data from research on students show that colleges and universities affect the values of students even as other data show that the values students bring to colleges and universities affect those institutions. In what was once considered to be a transaction by which the values of the institution were passed along to the youth and what was later, for a nervous interval after the Jacob study, thought of as an impasse where neither institution nor individual was much affected by the values of the other, we now discern a relationship in which each acts and reacts with the result that the values of both are affected.

What institutions of higher education, as institutions, contribute to the value interaction with students is of special concern to Section II researchers at the Center. What are the institutional values worthy to be taken on by the young? Where are those values best expressed? From what sources have they come? To what do they lead? If, now, America is experiencing what Nietzsche called the "transvaluation of values," how are the traditional values of the academy being transformed?

The Center has neither the resources nor the wisdom to deal with all of these questions and their related fields of study in one holistic, unified research project. Nor have I, in speaking of staff interest in fundamental institutional values, yet mentioned the issues other than values that occupy our attention. Organization and administration, graduate and professional education, statewide planning, and curriculum innovation or experimentation are the broad subdivisions of Section II within which are 13 specific research projects. However, concern for what Kenneth Boulding has called the "integrative system"—those personal and social assumptions that validate the several parts of an enterprise and give meaning to the whole—reaches into and across all Section II projects.