

WHAT DO WE KNOW ABOUT STUDENTS?

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I've selected for myself this morning the perhaps overly ambitious task of attempting to provide some answers to the question, "What do we know about students?" Given the tremendous strides of educational research over the past decade, I really can't hope to do justice to my own question. But rather than describe any particular research project, I'd like to venture upon the rather risky path of making some generalizations about what we do know about students through educational research. To do this, I shall rather arbitrarily select what seem to me three major areas to which research has contributed some important understandings. My biases in the selection will operate from my own experience with the research on college students conducted by Educational Testing Service and the Center for Research & Development in Higher Education at the University of California in Berkeley. Let me begin by making three flat statements about what we know about students as groups, remembering that to generalize is to ignore temporarily the infinite variety of individuals.

1. We know that the family background from which students come has a profound effect on their future education -- whether they go to college, where they go, and how long they stay.

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2. We know that there is a tremendous diversity among institutions of higher education in this country and that students tend to sort themselves ^{and are sorted} by the type of college which they ^{attend.} select. The differences in student bodies on non-cognitive characteristics are at least as great as those on the more traditional tests of academic achievement and ability.

3. We know that the college experience does have an impact upon certain attitudes and values for most college students.

In America we have long attempted to perpetuate the folklore that it is not who your parents are or what your background is but rather what you are and where you are going that counts. It is only recently that we have faced the reality that family background plays a very large role in determining what an individual is and perhaps, to some extent, what he is capable of becoming. Certainly parental attitudes toward things educational and cultural bear an important relationship to college attendance. As a matter of fact, what we know about the parent may often be as good a predictor about college attendance and persistence as what we know about the student.

Starting in 1959, the Center for Higher Education at Berkeley took a longitudinal look at 10,000 high school graduates in 16 communities across the United States. These students were followed through the next four years with some of the following questions in mind: Who goes where

to college? Who doesn't go to college? What characteristics differentiate those who stay in college from those who drop out? What impact do home and community have upon college decisions?

One of the more sobering findings of the study was that the occupation of the father had somewhat more to do with whether the child attended college than did the ability of the student. Whereas most students from upper socio-economic families entered college regardless of ability, most students from lower socio-economic strata did not enter college -- again, regardless of ability. If a high school student's father worked at a high occupational level, his chances of going to college ranged from 84% if the student ranked in the top two-fifths of his class to 57% if he fell in the lowest two-fifths in ability. In contrast, the bright child of a father with low occupational status had only a 41% chance of going to college; if he also had low ability, his chances for college fell to 20%. Even when the students from families of lower occupational levels overcame initial barriers and entered college, the data showed that they tended to drop out with greater frequency. And they dropped out despite the fact that they appeared to have no greater academic or financial difficulties than their fellow students who persisted. What distinguished the groups was motivation -- and the parents appeared to provide a prime source of academic motivation.

Although we speak of the rebellion of adolescence, and frustrated parents often feel that the best way to get a teenager to do something

is to oppose it, the students perception of their parents' attitudes toward college attendance had a definite -- and positive -- relationship to what paths the young people took. As seniors in high school, the students were asked how important it was to their parents to have them attend college. Seventy percent of those who subsequently persisted in college over the four-year period of the study had stated that their parents definitely wanted them to attend. For the dropouts, the figure was 48%, and for the bright (upper 30%) high school graduates who did not attend college, only 15% having reported having received strong parental encouragement to do so.

Parental encouragement is also closely linked with college choice. The first wave of data is now in for the 90,000 student SCOPE (School to College: Opportunity for Postsecondary Education) Study and we are finding that most of the students who enter 4-year colleges (66%) receive strong encouragement from home. About half (55%) of the junior college entrants and only 26% of the noncollege group reported equal parental interest.

When looked at in the total context of the research, it is clear that parental influence on college attendance is not something that suddenly appears when the student becomes a senior in high school. College graduates, for the most part, made their decision to attend college when they were in elementary school, whereas dropouts

decided much later. Furthermore, the decisions apparently occur in a complex of parental and student cultural and educational interests. The parents of eventual college graduates were reported by their children as having much broader interests in reading, music, and discussion of world affairs than were those of the dropouts or bright non-attenders. As a matter of fact, the amount of serious reading reportedly done by the parents had somewhat more relationship to college attendance than did the amount of reading done by the students themselves. The educational level of the parents is related not only to whether the student goes to college and how long he stays, but also to where he goes and to a broad spectrum of student attitudes and values. Several recent national studies are in close agreement on the fact that the majority -- almost 2/3 -- of the students attending private universities are the children of college-educated fathers. The concentration of such culturally advantaged children in 2 and 4-year public colleges is just about half ^{that} -- roughly 1/3.

It should not surprise student personnel administrators to know that the students who reported any kind of regular attention from teachers or counselors were those who were already highly motivated and strongly supported by their parents. I suspect that these were the students who came to the personnel offices. It seems to be an administrative fact of life, at least in my experience, that we tackle the problems that are immediately at our doorstep. These are frequently sufficient in number

to keep us from looking any further. But the clear implication of this research is that student personnel administrators must make provision in the program for reaching the able student who lacks cultural background and educational encouragement. It is this student who represents the wave of the future in higher education.

Several years ago, we spoke glibly at conventions like this of the "new breed" of student. Ironically enough, the new breed turn out to be the traditional college student in wolf's clothing. To be sure, they appear to think and act in new and dramatic ways, but by and large, the new breed are the bright children of affluent, college-educated parents. They are essentially the same segment of society that has been represented in the college-going population for a hundred years. Today they are very much a product of their liberal, intellectually oriented home environment. The Berkeley Free Speech students, for example, came from what must be termed educationally elite homes, with 26% of the fathers and 16% of the mothers possessing masters or doctors degrees. This particular new breed tends to be concentrated in the prestige college and universities of the country. And it is the high visibility of this student in recent years that has led us to believe that college students are changing, that the generation gap is growing, and that personnel workers are coping with a new breed. These observations are only part truths.

Richard Peterson of ETS has estimated that only 2% of the college students share the "powerful sense of outrage" that has led to the revolt against what they see as a hypocritical social system. And Paul Heist, of the Center research staff, notes that his research indicates that there are institutions with no students who fit the activist model and that even in selective, large public universities the possible candidates for activism or "liberal causes" remains below 5%.

On most campuses, I suspect, there exists neither the leadership nor followership for a sustained student ^{protest} movement. This forecast of the future may be both encouraging and discouraging to personnel workers. While it should relieve the feelings of panic on those campuses where the desire is to "keep the lid on", it may also remove a very effective pressure which has forced college faculties and administrations to give serious attention to the voices of students.

concern which I have for personnel programs of the future is that the
The [^]needs of America's newest student to higher education may be easier to ignore; in many

* See Paul Heist "The student thrust in contemporary society and education" and Dick Peterson, "The student left in American higher education. In Students and Politics, Daedalus, Winter, 1968 p. 312.

~~There is now a much newer student to higher education, and in many~~
ways he represents a more difficult challenge to student personnel programming than does the articulate self-confident student who confronts the administration with his demands. When 80 to 90 percent of the bright high school graduates from middle and upper class homes are now attending college, higher education has just about reached its saturation point for the so-called traditional college student. The new student to higher education is necessarily going to come from the second and third quartiles in ability and from the homes of the lower socio-economic levels. This new student constitutes the major segment of the junior college population now, but he is also coming in increasing numbers to the state colleges, and he is transferring to institutions of all kinds. With the exception of some of the better junior colleges, few student personnel programs are geared to meet his needs. With America's dedication to the goal of universal higher education, this student constitutes the "new breed" of the future, and through research we know something about him. Let me describe him briefly, primarily in terms of the ways in which research shows him to differ from the more traditional college student.

He comes from lower socio-economic levels. His parents have been unable to provide much intellectual stimulation in the home, and he sees higher education primarily as the pathway to upward social mobility. He comes to college unsure of himself, and his highschool record in

both academic and non-academic pursuits is undistinguished. His goal in college is frankly vocational, and he expects his future satisfactions to come from business and financial success. On measures of personality, he tends to be less independent, more authoritarian and more cautious and controlled in his thinking than the present four-year college students. To college administrators, he is essentially non-troublesome, but his entry into the world of traditional higher education may be personally difficult.

Because the protesting activist of the past five years has received publicity out of all proportion to his numbers, many colleges -- even those who lack such students on their own campuses -- are revising their programs primarily to meet the criticisms and needs of this vocal and declining minority. While I do not criticize the attempts of any college to meet the needs of any group of students, I do think that colleges must set their own priorities and those priorities will necessarily be different, depending upon the nature of the students to be served. It is all too easy for personnel administrators to ignore the needs of the large numbers of students who quietly leave our institutions of higher education, experiencing personal failure but not forcing college administrations to take serious account of their needs in the educational process.

American higher education is characterized by its great diversity. The personnel dean whose college attracts students primarily from the

upper socio-economic levels with all of the value system and interest and attitudes toward education that this implies has a quite different concern from the personnel dean whose institution serves the sons and daughters of skilled and unskilled laborers. *And some of the institutions moving now to serve increasing numbers of ghetto youth face problems so foreign to traditional h.e. that none of us yet has many answers.*

Nowhere else on earth do so many students have such a cafeteria of choices in colleges as they do here. And the diversity of American higher education can be regarded, at one and the same time, as our greatest strength and our greatest weakness. If we knew more about the characteristics of students and the learning environments of colleges, we could presumably direct students to the college which would most nearly fulfill the potential of the student. Here diversity is a strength. On the other hand, although we speak of a college degree as a standard of education, such a standard is in reality, meaningless. While a college degree may mean a specified number of credit hours, it means next to nothing about the education of the student. The entering students at some colleges measure higher on almost any dimension of the educated man that you care to select than the graduates of other colleges.

Many of you are probably aware of the research of the 1950's which attempted to identify the most "productive" colleges -- usually in terms of the proportion of the graduating class going on for graduate studies or other scholarly endeavors. It didn't take long to discover, however, that the primary difference between a productive and a non-productive

college was present in its freshmen class. It is easier to show that the graduating class is a function of the freshmen class than it is to show that the educational process on the campus makes a difference. If a college has many graduates going on to graduate school, it is due in part to the fact that it attracts the kind of freshmen who are interested in graduate study. Students choose ^{+ are chosen by this mutual selective process} colleges and ~~in so doing~~ determines in part, the learning environment of the campus.

~~Woodrow Wilson went so far as to say, "The real intellectual life of a body of undergraduates, if there be any, manifests itself, not in the classroom, but in what they do and talk of and set before themselves as their favorite objects between classes and lectures. You will see the true life of a college... where youths get together and let themselves go upon their favorite themes..."~~ ~~At a later time in history, James B. Conant~~ ^{has claimed} ~~echoed Wilson's sentiments by claiming that, "The most important single factor in a modern liberal education is the education which students receive from one another." And the education which students receive from one another differs greatly from campus to campus because the characteristics of the students who teach and who learn from each other differ so greatly.~~

One of the research instruments which has been used frequently in the research of the Center is the Omnibus Personality Inventory (OPI).

A combination of several scales of the OPI results in a measure of a characteristic that we have termed intellectual disposition. A student who scores high on intellectual disposition enjoys reflective thought and the manipulation of ideas for their own sake rather than for their immediate practical application. He expresses a preference for novel situations and ideas over more certain and structured situations. He responds to a greater variety of environmental stimuli and is somewhat more likely to try his own analysis rather than to rely heavily upon rules or rituals or conventions for dealing with new problems.

Some new data that we are just now analyzing at the Center show dramatic differences in the intellectual disposition of groups of students choosing various post-secondary activities. On a short experimental intellectual disposition scale, the SCOPE research found that almost 60% of the students entering four-year colleges in the fall following high school graduation scored in the top one-third of the high school population on intellectual disposition. Only 35% of the students entering junior colleges scored this high and less than one-quarter of the students who did not enter college were in the top third on intellectual interests. Stated the other way around, only 12% of the four-year college freshmen scored low on intellectual interests, 25% of the junior college students are in this group, and 41% of the non-college youth expressed little interest in ideas and intellectual pursuits. While the differences are great among types of colleges, they are frequently even greater between colleges of the same generic grouping. In one of our studies at the Center, for

example, we found 50% of the students at one four-year college scoring very high on intellectual disposition whereas at another college nearby we found only 5% of the student body showing the same degree of interest in intellectual inquiry. The extreme differences in the concentration of intellectually motivated students on the two campuses will certainly affect the types of interests and values the students learn from one another.

Across the broad range of American higher education, however, research is showing that the college experience does seem to have an impact upon certain student attitudes and values. In numerous 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 freshmen classes seeking job preparation as opposed to those seeking liberal education. In one 8-college study 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 a less selective college. In every one of the eight senior 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 freshmen class in which 62 per cent 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. ^{Fresh} Ralph 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 freshmen 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, none 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, job rewards of money and security decreased in importance from the freshmen 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 for 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 statements which we make in the college catalogues and

with the avowed purposes of the stronger faculty members. They ^{are} also *in accord* square with the changes shown on the intellectual disposition scales of the OPI.)

Generally speaking, college students do show significant changes on the OPI from the freshmen to the senior year. They become more critical in their thinking, more tolerant, flexible, and autonomous in attitude, and less prejudiced in their judgments. There is research evidence that young people who embark upon jobs or full-time homemaking immediately after high school graduation do not show the same kind of development. As a matter of fact, one of the research projects of the Center found that the girls who had spent the four years of the study in full-time homemaking actually regressed on all of the OPI measures of intellect disposition.

The intellectual values which we espouse in the college community apparently do have an impact on students and the new research on college environments and the ^{increasing ability of the social sciences to measure & understand} ~~related~~ changes shown by ~~subgroups~~ ^{in groups, subgroups or individuals} of students promise to provide further understandings of the impact of the college experience on the student.

In conclusion, let me note that the diversity of American higher education and the self-selection practiced by young people in their choice of colleges makes it impossible to develop a single model for an effective student personnel program. Student personnel services are ideally designed

to serve the needs of the students, and the needs of students on various campuses obviously differ. It is important, I think, that student personnel administrators understand the relationships which are being established by research, but it is imperative that they understand the students on their own campus. And it is for this reason that I believe research is the foundation upon which an effective student personnel program is built. Unfortunately, personnel workers have tended to shy away from involvement in research -- partly for the very understandable reason that they just don't have the time to plan an appropriate program of descriptive and evaluative research. Useful programs of research on student characteristics, however, are now within the grasp of almost every institution of higher education. The increase in offices of institutional research in colleges has been tremendous over the past five years. Admittedly, some offices are still investing heavily in studies of space utilization, budget analysis, and other problems related to the fiscal operation of higher education. But I am convinced that many of the new institutional research officers are interested in broadening their investigations to include the study of educational effectiveness. Perhaps some encouragement and support from the office of the Dean of Students would result in an effective local program of educational research.

Two other hopeful signs are appearing on the horizon. There is a great increase in both the quality and quantity of professionally designed

research instruments available for use by non-specialists. Not only are the instruments carefully designed, but many now come with centralized scoring and computer services available --thus freeing the personnel administrator for the educational contribution of translating the research data into programs of action. The other trend which is not yet utilized fully by personnel administrators is the use of data already collected. The ACE research survey on students, for example, contains some extremely valuable information for those campuses that participated in the survey. All too often, however, we simply find the data interesting instead of subjecting it to careful and imaginative analyses to see what application it has for personnel programs. It seems to me that the new opportunities for understanding students through research represent the most promising pathway for assuring that the personnel staff of colleges and universities assume their rightful position as full partners in the planning of the total educational program for students.