

How the Liberal Arts College Affects Students

THE QUESTION OF EDUCATIONAL EFFICACY is probably more important to the private liberal arts college than to any other type of institution. Indeed, the fact that so many of these institutions have been able to survive and even prosper during several decades of massive expansion of low-cost public higher education can only be attributed to the fact that many parents and students believe they offer special educational benefits not likely to be found either in the more prestigious private universities or in the various types of public institutions with whom they often compete for students. How justified are these beliefs?

The short answer to this question is that residential liberal arts colleges in general, and highly selective liberal arts colleges in particular, produce a pattern of consistently positive student outcomes not found in any other type of American higher-education institution. Moreover, the selective liberal arts colleges, more than any other type of institution, have managed not only to effect a reasonable balance between undergraduate teaching and scholarly research, but also to incorporate a wide range of exemplary educational practices in their educational programs.

In this essay I will review some of the empirical evidence concerning these unique educational benefits and then discuss the implications of this research for the larger higher-education system. However, in order to make sense out of this rather

extensive body of evidence, it is important first to be clear about what we mean when we talk about “the private liberal arts college.”

VARIETIES OF LIBERAL ARTS COLLEGES

There are nearly one thousand private colleges in the United States.¹ Since most of these colleges are relatively small, residential, and devoted primarily to providing a liberal arts education for undergraduates, people tend to think of them as a homogeneous group. The fact is that private liberal arts colleges are in certain respects more diverse than any other type of higher-education institution. A few of the most affluent liberal arts colleges, for example, spend *five* times more money per student than do the less affluent ones.² And while many liberal arts colleges are closely tied to a particular religious denomination and place a great deal of emphasis in the curriculum and cocurriculum on the student’s spiritual development, many others are completely independent of any church. Liberal arts colleges also vary widely in their educational programs, with curricula that range from a highly structured “common core” to a completely idiosyncratic approach where students design their own programs, and with pedagogies that vary from the traditional classroom lecture and discussion approach to a heavy emphasis on independent study or contract learning. Finally, while most of these institutions put little or no emphasis on graduate or professional education, a substantial minority have sizable postbaccalaureate programs in business, education, law, and other professional fields.

Perhaps the most important aspect of diversity is the great variation among private liberal arts colleges in the average level of academic preparation of the students they admit, an institutional quality that has come to be known popularly as “selectivity.” Residential liberal arts colleges include some of the most selective institutions in the country, together with a larger number of moderately selective colleges and an even larger number of colleges that operate what amounts to open admission. Selectivity is, among other things, probably the most commonly used yardstick of an institution’s degree of prestige or “eliteness.”³

This diversity contributes to a certain fuzziness in our thinking about this unique and interesting institution. Given that the American liberal arts college was modeled after an elite form of undergraduate education exemplified by the colleges of England's ancient Oxford and Cambridge universities, and given that many of our most elite or selective liberal arts colleges today were among the first such colleges to be founded in the United States, it is understandable that many of us are inclined to equate a "residential liberal arts education" with an *elite* form of higher education. Yet the fact of the matter is that most residential liberal arts colleges today are *not* highly selective or elite. Under these conditions, to limit any discussion of the effects of a residential liberal arts education to that relatively small subset of prestigious or very selective colleges would be highly presumptuous if not misleading. Moreover, contrasting the characteristics of the elite and nonelite liberal arts colleges could prove to be a very interesting and informative exercise in itself. Accordingly, in this essay the research on student outcomes will be examined from several perspectives: effects of liberal arts colleges in general, comparative effects of Roman Catholic, Protestant, and independent colleges, and the effects of highly selective or elite colleges.

INTERPRETING THE RESEARCH EVIDENCE

To review and synthesize the research evidence concerning how the residential liberal arts college affects student development turns out to be a somewhat problematic task, primarily because very few studies have been designed to be both comparative and longitudinal. If we are to have any hope of saying something definitive about the unique effects of the residential liberal arts college, it is obviously necessary to compare student outcomes at these institutions with student outcomes at other types of institutions. One serious limitation of the earliest research evidence is that much of it dealt with individual liberal arts colleges rather than with *samples* of such colleges that are more representative of this highly diverse population.⁴ And if we are to have any confidence in the findings, it is also necessary to study how students change and develop over time,

rather than simply to take a snapshot of them at a single point in time (a simplistic method that may tell us more about the types of students who enroll than about how they are actually affected by their undergraduate experience).⁵

Still another limitation of this literature is that while some studies examine general institutional characteristics such as private control⁶ or religious affiliation,⁷ the issue of how such characteristics relate specifically to liberal arts colleges (as distinct from universities) is usually not addressed.⁸

In summarizing what we know about the effects of liberal arts colleges on students we also need to be clear about what is meant by “outcomes.” In discussing this question I have found it convenient to differentiate among three types of outcomes: 1) *educational* outcomes as reflected in relatively long-lasting changes in the student that can be attributed to the educational experience—What did the student learn? How was the student changed? 2) *existential* outcomes reflecting the quality of the educational experience itself—Did the student find the experience challenging and meaningful? Did the student feel that the time and energy invested was well spent? and 3) *fringe* benefits, which have to do with the practical value of the degree itself—What further educational, social, and career advantages are associated with having a degree from this particular institution (the so-called sheepskin effect)?⁹ While this essay will focus on the first two types of benefits, the question of fringe benefits highlights one of the most critical distinctions between the selective or elite liberal arts college and liberal arts colleges in general. There is good reason to believe that the fringe benefits associated with attending a highly selective liberal arts college are substantially greater than they would be at a less selective college.¹⁰ Thus, while the small size and relative “invisibility” of many private liberal arts colleges probably puts their graduates at somewhat of a disadvantage in competing with graduates of larger and better-known institutions for jobs or admission to postgraduate study, the same is not true (as will be discussed) of the highly selective or elite liberal arts college, given its greater prestige.¹¹

The studies to be reviewed here focus primarily on educational benefits, but they also include some measures of existen-

tial outcomes, usually in the form of various measures of student satisfaction with their college experience. While none of these studies looked specifically at fringe benefits, it seems safe to assume that such benefits are proportional to the college's degree of selectivity or eliteness.¹² Most of the findings summarized here are based either on a comprehensive review of the literature through 1990 or on a more recent national longitudinal study of student development in 135 private liberal arts colleges.¹³ These studies have examined close to a hundred different aspects of the student's personal development, including academic outcomes (academic performance, skill development, and performance on standardized tests), career development (choice of a major field of study and of a career), patterns of behavior, personality, self-concept, attitudes, values, and beliefs. However, rather than simply reporting the particular student outcomes that are associated with each type of liberal arts college, I will also discuss some of the environmental factors that appear to account for the liberal arts colleges' unique effects on students. In this manner we can avoid the "black box" approach to student outcomes where one simply notes that "private liberal arts colleges have such and such an effect . . ." without any real understanding of the institutional-student dynamics that mediate such effects. I shall thus attempt, to the extent permitted by the research evidence, to discuss student outcomes in more explanatory terms: "Liberal arts colleges have such and such an effect *because* they are characterized by this kind of peer group, this kind of faculty, this kind of academic program."

For the methodologically inclined reader, I should point out that these explanatory summaries are made possible by the fact that one major national study was able to examine institutional effects in two stages. First, the comparative effects of institutional type (e.g., private liberal arts colleges versus other types of institutions) were examined after controlling for the characteristics of the entering student, but without reference to any particular explanatory (environmental) variables. Next, the effects of the possible explanatory variables (e.g., institutional size, peer-group characteristics, faculty characteristics) were controlled in order to determine whether they could account for

the unique effect of institutional type (i.e., liberal arts colleges).¹⁴ The first stage of the analysis revealed that liberal arts colleges do differ from other types of institutions in their effects on a number of student outcomes. However, virtually all these effects disappear once the environmental or explanatory variables are taken into account in the second stage. In other words, we are able to explain most of the effects of residential liberal arts colleges and the differential effects of different types of liberal arts colleges on the basis of other measurable characteristics of their environments. In the jargon of path analysis, this means that most of the effects of the private liberal arts college (and of the different types of private liberal arts colleges) are “indirect.”

It is also important to mention that these analyses included a third stage, designed to identify the mechanisms that *mediate* the effects of environmental attributes such as size, peer-group characteristics, and faculty characteristics. In brief, we found that the environmental attributes that were most likely to be associated with positive student outcomes were those that tended to enhance student “involvement.” Involvement, in turn, was defined primarily in terms of student-faculty contact, student-student contact, and time spent on academic work. In other words, a typical causal chain of events might go something like this: the positive effect of attending a liberal arts college on, say, student retention (stage one analysis) is largely attributable to the fact that these colleges are heavily residential (stage two analysis), and the residential experience, in turn, increases retention because it serves to engage the student more deeply in the academic experience (stage three analysis).

Findings will be summarized first for private liberal arts colleges in general, and then for three specific subtypes: independent, Protestant, and Roman Catholic. Since these are all comparative findings based on an analysis of student development in many types of institutions studied simultaneously, when I state that liberal arts colleges “have a positive effect on . . .”, I mean “relative to nonliberal arts colleges.” And given that most findings can be attributed to particular *characteristics* of private liberal arts colleges that distinguish them from most other types of institutions (small size or residential status, for

example), rather than to the effects of being a private liberal arts college per se, as I report the effects associated with a particular type of liberal arts college I will also mention the special characteristics of those colleges that appear to account for their effects.

Private Liberal Arts Colleges in General

All three subtypes of private liberal arts colleges—independent, Protestant, and Roman Catholic—produce similar patterns of effects on several student developmental outcomes. The strongest and most consistent effects are on existential outcomes—the student’s satisfaction with faculty, the quality of instruction, and general education requirements, and on the student’s perception that the institution is student-oriented. In other words, students attending private liberal arts colleges, compared to students attending other types of institutions, are more satisfied with the faculty, the quality of teaching, and the general education program, and are more likely to view the institution as student-oriented. Attending a private liberal arts college also enhances the student’s odds of completing the bachelor’s degree, being elected to a student office, trusting the administration, and seeing the institution as being focused on social change.

Since the findings reported here are relatively short-term (covering the four or five years between freshman entry and baccalaureate completion), it is reasonable to ask whether there is any evidence concerning longer-term effects. While there has been disappointingly little longer-term research conducted in recent years, several such studies were done during the 1950s and 1960s.¹⁵ While the outcome measures used were limited in scope, the results are consistent with the more recent shorter-term studies: liberal arts colleges, more than other types of institutions, enhance the student’s chances of enrolling in graduate study, winning graduate fellowships, and eventually earning the doctorate degree.¹⁶ These conclusions appear to be especially applicable to the highly selective liberal arts college.

Most of the effects summarized above appear to be attributable to the private liberal arts college’s small size, its residential nature, and the strong student orientation of its faculty. These three qualities, in turn, lead to positive outcomes because they

enhance student involvement in academic work and increase the amount of student-student and student-faculty contact.¹⁷ In other words, once differences in institutional size, residential status, and the relative strength of the faculty's student orientation are taken into account, the private liberal arts college does not differ much from other institutions in its effects on these student outcomes. Student orientation, an environmental "climate" measure derived from a comprehensive survey completed by members of the faculties of 221 colleges and universities, is defined in terms of the following variables:

- Faculty here are interested in students' academic problems.
- Faculty here are interested in students' personal problems.
- Faculty here are committed to the welfare of the institution.
- Many faculty are sensitive to the issues of minorities.
- Faculty are easy to see outside of office hours.
- There are many opportunities for student-faculty interaction.
- Students are treated like numbers in a book (scored negatively).¹⁸

A strong student orientation, characteristic of most private liberal arts colleges (especially the Protestant colleges), means that most of the faculty tends to agree that these seven statements are descriptive of the institution's climate. A weak student orientation, by contrast, would mean that most of the faculty believe that these statements are not descriptive of the climate. Not surprisingly, the weakest student orientations tend to be found at the public research universities. Public four-year colleges and private universities also have relatively weak student orientations. As would be expected, the student orientation of the faculty shows a strong negative correlation (-.72) with institutional size.

Although small size, residential status, and a strong student orientation are the most important explanatory factors in assessing the unique effects of private liberal arts colleges, several other characteristics of these institutions also contribute to some of the effects summarized above. These principally include a high percentage of expenditures devoted to student services, positive relationships between students and adminis-

trators, and a positive faculty attitude toward students' abilities and preparation. In short, the private liberal arts college's positive effects on the student's chances of completing the bachelor's degree and on student satisfaction with the faculty and the quality of instruction would appear to be attributable primarily to the following qualities:

- small size
- a residential program
- a strong faculty commitment to student development
- trust between students and administrators
- generous expenditures on student services

Although the larger study from which most of these findings have been abstracted concluded that the student peer group constitutes the most potent source of influence on the undergraduate, the peer group did not prove to be a major factor in the findings just discussed.¹⁹ The reason for this seeming contradiction is that private liberal arts college students—considered as a group—do not differ much from students enrolling at other types of baccalaureate-granting institutions. This is not to say that there is not great diversity in peer-group characteristics *among* different types of private liberal arts colleges; as we shall see, peer-group differences do indeed play a significant role in accounting for the comparative effects of different types of liberal arts colleges.

Independent Colleges

This is by far the largest and most diverse subgrouping of private liberal arts colleges. It includes most of the highly selective and elite colleges, together with a much larger number of moderately selective and nonselective colleges. During the past thirty years the size of this subcategory has increased, largely because many institutions founded with religious affiliations have become officially nonsectarian.

In addition to the general effects of private liberal arts colleges already noted, the independent colleges have positive effects on writing skills, cultural awareness, scores on the Medical College Admissions Test (MCAT), and choosing a major in the physical or social sciences. They also have positive effects on

the student's degree of satisfaction with individual support services (counseling, health services, and the like), with opportunities to take interdisciplinary courses, and with the student's perception that the institution values diversity. Independent colleges also show positive effects on cultural awareness, participation in protests, and attending recitals or concerts, while showing a negative effect on the student's materialistic views (that is, their likelihood of agreeing that "The principal purpose of college is to increase one's earning power"). This last finding is especially significant, in light of the fact that one of the most dramatic changes in college students during the past three decades has been an increase in their materialistic values.²⁰

Independent colleges possess a pattern of unique environmental characteristics that appear to explain most of these effects. For example, the decline in materialism and the positive effects on cultural awareness, attendance at recitals or concerts, interest in social science, or participation in protests are mostly accounted for by the fact that these institutions tend to have student peer groups that are liberal, permissive, and artistically inclined, faculties that are also politically liberal, "progressive" course offerings (for example, women's and ethnic studies), and a strong diversity emphasis. At the same time, growth in writing skills and excellent performance on the MCAT are largely attributable to the strong humanities orientation at these institutions, and to the fact that their student bodies tend to be academically competitive and of high socioeconomic status (SES). It is particularly interesting to note that attending an independent college enhances student performance on the MCAT, despite the fact that the professors in these colleges seldom use multiple-choice exams in their courses.²¹

Roman Catholic Colleges

In addition to the general effects of residential liberal arts colleges already noted, Roman Catholic colleges show negative effects on "libertarianism," an attitudinal outcome defined as the tendency to support legalized abortion and the legalization of marijuana, and to oppose the idea that college officials have the right to regulate student behavior off campus or to ban persons with extreme views from speaking on campus. The

second stage of the analysis shows that this effect is primarily attributable to the peer group at the typical Catholic college, which is not only predominantly of the Roman Catholic faith but which also scores relatively low on “permissiveness” (a peer-group factor defined by infrequent attendance at religious services and permissive attitudes toward sex, divorce, abortion, and drug use). In other words, Catholic colleges reinforce the individual student’s support for institutional authority and discourage the formation of social libertarian views primarily because the student peer group is heavily populated by practicing Roman Catholics and nonpermissive in its views on sex, divorce, abortion, and drug use.

Catholic colleges also show negative effects on joining social fraternities or sororities and positive effects on college grades. In effect, this means that attending a Catholic college will increase the students’ chances of getting good grades and reduce their chances of becoming members of social fraternities or sororities. The negative effect on the student’s chances of joining a social fraternity or sorority may simply be an artifact of the relative lack of such student organizations on the typical Roman Catholic college campus. But the positive effect on the students’ college grades is more difficult to interpret: does it suggest that the grading standards at the Catholic colleges are more lax, or does it reflect a higher level of actual academic achievement?

Protestant Colleges

This is a highly heterogeneous group of institutions that encompasses colleges affiliated with the mainline Protestant denominations (Presbyterian, Methodist, Lutheran, Baptist, etc.) as well as a substantial number of non-Catholic institutions affiliated with a variety of other Christian churches (some of which probably do not consider themselves to be “Protestant”).

In contrast to the Roman Catholic colleges, attending a Protestant college *increases* the likelihood that the student will join a social fraternity or sorority. Again, this finding may simply be an artifact of the greater availability of such social organizations on the Protestant college campus. Attending Protestant colleges also increases the student’s likelihood of attending a

recital or concert and has negative effects on satisfaction with facilities and on performance on the MCAT. While the second stage of the analysis did not reveal any clear-cut explanations for each of these effects, it is worth noting some of the distinguishing features of the typical Protestant college environment: A peer group that includes a high proportion of born-again or evangelical Christians and very few Roman Catholics, that scores low on permissiveness, and that is politically conservative; a faculty that is also politically conservative and that expresses positive attitudes toward the general education program, but which is not research-oriented and has relatively low morale.

In concluding this discussion of the effects of different types of private liberal arts colleges on student development, it is important to remind ourselves that there are substantial peer-group differences among the three major types that help to explain their differential impacts. For example, both major types of religiously affiliated colleges—Roman Catholic and Protestant—tend to attract peer groups that are very low in permissiveness (i.e., conservative in their views on sexual behavior, drug use, abortion rights, and divorce). However, while the student peer groups at the Roman Catholic colleges are relatively strong in social activism and below average in intellectual self-esteem, the students attending Protestant colleges are below average in feminism, scientific orientation, and materialism and status.

By contrast, the peer environments of the independent liberal arts colleges show an entirely different pattern: they tend to be very strong in permissiveness, artistic interests, and feminism and slightly above average in artistic interests and intellectual self-esteem.

There is one other subgroup of liberal arts colleges that should be noted in this discussion of student outcomes: the historically black college (HBC). HBCs include institutions that fit within one or another of all three types of liberal arts colleges examined above. Evidence from two sources suggests that attending an HBC has positive effects on the African-American student's grade-point average (GPA), intellectual self-

esteem, satisfaction with college, and chances of attending musical events, participating in protests, tutoring other students, choosing a career in science, and graduating with honors.²² As with the Roman Catholic colleges, it is difficult to interpret the findings with respect to GPA and honors: are grading standards in the HBCs more lax, or do students actually achieve at a higher level? Most of these effects appear to be attributable to the HBCs' small size, residential program, peer group (which is very low in SES), faculty (which emphasizes diversity, is heavily involved in administrative work, and *frequently* uses multiple-choice exams), and very low selectivity. Notably, when compared to other small institutions of comparably low selectivity, the HBCs also show a *positive* effect on student retention.

THE ROLE OF RESEARCH

One of the most intractable problems in American higher education is the issue of "research versus teaching." Since residential liberal arts colleges, considered as a group, tend to put a much greater emphasis on their teaching function than on their research, the question naturally arises: does research have a significant place in the American liberal arts college? More specifically, one might ask: Does a significant emphasis on research and scholarship necessarily come at the expense of student development? Is it possible to emphasize the research function without sacrificing student development? Can research in the liberal arts college actually be used to *enhance* the educational process?

Recently my colleague Mitchell Chang and I sought to examine this question using a national sample of 212 baccalaureate-granting institutions of all types (including liberal arts colleges and universities, public and private). For each institution we calculated two measures, its "student orientation" (as defined earlier) and its "research orientation." For any individual institution, the research orientation is defined by a combination of the following items derived from surveying the faculty at each institution:

- Number of publications (journal articles and book chapters, with additional weight being given to recent publications)
- Hours per week spent on research and scholarly writing
- Subjective value assigned to doing research (versus teaching)
- Receipt of outside funds to support research
- Research-oriented values (professional recognition, becoming an authority in one's field)
- Time spent off campus in professional activities

The student orientation of the faculty, it will be recalled, is based on the faculty's expressed interest in and commitment to working with students on a personal basis.

As would be expected, the scores of the 212 institutions on these two environmental measures were strongly negatively correlated ($r = -.69$). In effect, this means that institutions that are strongly research-oriented *tend* to have weak student orientations, and that institutions that are strongly student-oriented *tend* to have weak research orientations.

Considering that research and teaching are *both* regarded as fundamental parts of the mission of American higher education, Chang and I were naturally interested in the possibility that there may be a few institutions that defy the trend, that is, that are strong in *both* their research and student orientations.²³ The initial search for such institutions within our sample of 212 proved to be disappointing; not a single institution turned out to be among the top 10 percent in both student and research orientation. As a matter of fact, among the twenty-one institutions that make up the top 10 percent in research orientation, *there are no institutions that are even average in their student orientations*. Even if we were to relax our definition of a "strong" research orientation to include the forty-two institutions constituting the top 20 percent of this measure, we can find only one that is also in the top 10 percent in student orientation.

These findings convinced us that it was necessary to relax our definition of "strong" in *both* measures. Thus, if we define "strong" as being in the top 35 percent, we do find eight of the 212 institutions that are strong in both orientations. If we further relax the definition of a "strong" student orientation to include the top 40 percent, we are able to add three more to the

list that “emphasize” both values. What is most important, however, is that all eleven of these “high-high” institutions are residential liberal arts colleges! Each of the eleven is also *highly* selective, placing it in the Carnegie classification of Liberal Arts I colleges. As a matter of fact, if we relax the “high” cutting points on research and student orientation to include the top 45 percent on each, virtually every institution that we would add to the “high-high” group is also a selective liberal arts college. In short, these results suggest that the selective liberal arts college comes closer than any other type of institution in the American higher-education system to achieving a balance between research and teaching.

THE SELECTIVE LIBERAL ARTS COLLEGE

What was especially intriguing about this study was that it had, in effect, “rediscovered” the selective liberal arts college by conducting a purely statistical search for institutions that are best able to emphasize both teaching and research. The next obvious question is: Are there any other unique characteristics of the selective liberal arts college that distinguish it from *both* the research university (the “high-lows”) and the nonselective liberal arts colleges (the “low-highs”)? (Small size, for example, would not be an “unique” characteristic because the nonselective colleges are also small.) In particular, are there unique qualities that have implications for student outcomes?

To explore this question Chang and I compared the three groups with each other across a wide range of characteristics. We did indeed find many differences in finances, students, faculty, and curriculum, but the most relevant findings have to do with the *educational practices* that distinguish these selective liberal arts colleges simultaneously from their nonselective counterparts *and* the research universities.²⁴ More to the point, each of the practices identified has been shown in a separate study to be associated with positive student outcomes.²⁵ These practices are:

- Frequent student-faculty interaction
- Frequent student-student interaction
- Generous expenditures on student services

- A strong faculty emphasis on diversity
- Frequent use of interdisciplinary and humanities courses (especially history and foreign languages)
- Frequent use of courses that emphasize writing
- Frequent use of narrative evaluations
- *Infrequent* use of multiple-choice exams
- Frequent involvement of students in independent research
- Frequent involvement of students in faculty research

It is important to keep in mind that the selective liberal arts colleges surveyed differ from the other types of institutions only in the *degree* to which they exemplify these characteristics. For example, while there is also frequent student-student interaction in the nonselective liberal arts colleges, it is somewhat more frequent in the selective liberal arts colleges. Also, it should be pointed out that we are considering *average* differences here, and that not all of the selective liberal arts colleges surpass all of the nonselective colleges and research universities on every attribute shown above.

These findings make it clear that the selective private liberal arts college, perhaps more than any other institution of American higher education, exemplifies much of what has come to be known as best educational practice in undergraduate education.²⁶ “Best,” in this context, refers to practices shown to have a favorable impact on student learning and development. Why then should such practices be more common among the selective liberal arts colleges than among their nonselective counterparts or, for that matter, among the research universities as well? Since the elite liberal arts colleges are able to spend at least 50 percent more for instructional purposes than most other types of institutions, could it be that these practices are “resource-intensive,” and therefore more difficult to fund in the less affluent institutions?²⁷ Interacting frequently with students, emphasizing essay examinations, and using narrative evaluations clearly require more faculty time and effort. (The same might be true of interdisciplinary courses, depending upon how they are structured and taught.) While one could argue that “generous” expenditures on student services is not necessarily resource-intensive—it is a relative measure reflecting the pro-

portion (rather than the absolute amount) of educational expenditures invested in student services—it could also be argued that it would be easier to spend a higher proportion of a college’s resources for student services if the absolute amount of money available for other purposes were also greater.

It should be emphasized here that many of the less selective liberal arts colleges do, in fact, employ many of the “best practices” listed above, in spite of their relatively limited financial resources. Also, when it comes to course content, the less selective liberal arts colleges may put less emphasis on the humanities simply because, in comparison to the selective liberal arts colleges, many more of their students are majoring in education, business, or other professional fields. In fact, most of the selective liberal arts colleges do not even offer majors in such fields.²⁸

A more subtle factor affecting the educational practices of the selective liberal arts colleges may be the student *peer group*. The fact that the typical student entering the selective liberal arts college is well prepared academically may make it easier to employ practices such as independent research and involvement in faculty research projects. The better-prepared student may also be more inclined to interact frequently with faculty members. And even if the less well prepared student who frequents the nonselective liberal arts college and the public college would benefit equally from research involvement and frequent interaction with faculty, there is mounting evidence to suggest that faculty who teach such students frequently *assume* that they need a more traditional, didactic kind of pedagogy.²⁹

An even more subtle aspect of the student peer group in the selective liberal arts college is its very high socioeconomic status (SES). In a recent longitudinal study of more than eighty-four student outcomes, the average SES of the student peer group was associated with more positive outcomes than virtually any other environmental attribute of the institution, its program, or its faculty.³⁰ Although the reasons why students seem to benefit from attending institutions where their peers generally come from high-SES backgrounds are not well understood, the fact remains that this is an attribute of the undergraduate environment over which the institution has little control.³¹

Although the original study from which most of these findings were derived looked at the *independent* effects of institutional selectivity and of the independent liberal arts college, it did not look at the combined effect of these two variables; that is to say, it did not specifically examine the effect of selective liberal arts colleges. Since the exemplary educational practices (as outlined above) that differentiate the selective liberal arts colleges from their nonselective counterparts (and from most other types of institutions) have, as I have already indicated, been shown to be associated with positive educational outcomes, it seems reasonable to conclude that students who attend selective liberal arts colleges will enjoy unique educational benefits. Such a conclusion would be substantially reinforced, however, if we could obtain more direct evidence of such effects. Accordingly, for this essay I reanalyzed the data from the original study on an exploratory basis to look specifically at the effect of attending a selective private liberal arts college on two outcomes: critical thinking ability and overall satisfaction with the undergraduate experience. A “selective” college was defined as one where the mean SAT composite score of the entering students is at least 1200. As it turns out, these colleges do indeed show statistically significant, positive effects on both outcomes, a result that clearly confirms the expectation that the exemplary educational practices that one tends to find most often in the selective liberal arts college should lead to positive educational outcomes.

IMPLICATIONS FOR AMERICAN HIGHER EDUCATION

Given that the quality of undergraduate education provided by the residential liberal arts college appears to be unmatched by any other type of institution, one might have expected that this particular approach to undergraduate education would provide the principal model for the many new institutions that came into being following the end of World War II. But quite the opposite seems to have happened in the case of the massive expansion of our higher-education system that took place during the 1950s and 1960s. Instead of relying on smallness, we built very large institutions. Instead of requiring residence, we

built hundreds of commuter institutions. Instead of insisting that all teaching faculty place a high value on working with undergraduates, we created dozens of research universities where the only hiring and promotion requirement was scientific or scholarly talent. And instead of effecting a balance between scholarly work and working with students, we created hundreds of community colleges where scholarship was given virtually no weight. While this is not the place to attempt to document all the reasons for these paradoxical trends, it seems to me that there are at least two closely related considerations that guided these policies.

First and most obvious are money and prestige. In the case of the research universities, the massive federal investment in research was just too tempting to resist. Recognizing that outstanding scientists and scholars are the strongest magnets with which to attract federal research dollars, and that having a large stable of such faculty is the key to building institutional prestige, universities initiated an all-out competition for top research talent and instituted unidimensional academic personnel policies that relied almost exclusively on the professor's scholarly performance—"publish or perish." One of the "perks" offered to the top scholars, of course, was a low (or no) "teaching load" (a revealing phrase, to say the least).

The second consideration was more subtle than money and prestige, but no less powerful. In brief, it was the belief that an "undergraduate liberal arts education" could be defined simply in terms of course credits; take such and such an array of courses in these fields, pass them, and ipso facto you've been "liberally educated." Under this view of undergraduate education, it did not much matter how one acquires the requisite degrees or credits: in one institution or in five, in four years or in fifteen years, as a resident or a commuter, through part-time attendance or full-time attendance, in classes of twenty students or classes of five hundred students, with a lot of peer interaction or with no peer interaction at all, with a lot of faculty contact or with no faculty contact, with heavy cocurricular involvement or no such involvement. It did not matter. And if it did not matter, then why inconvenience the student? And why not design the new institutions—research

universities as well as community colleges—to operate undergraduate education as cheaply as possible? I might add here that this same kind of thinking, I fear, underlies much of the current interest in “distance education” and the “technology revolution” in higher education.

When I discuss these findings with colleagues in universities and community colleges, I am often told that the residential liberal arts college is “anachronistic” or “not cost-effective,” and that what we have learned about its positive effects on students is “irrelevant” to the rest of higher education. A common response is “The modern university is not a liberal arts college.” Or “Those findings are not relevant to community colleges, because our average student is thirty-one years old.” I must admit that these kinds of responses strike me as non sequiturs, given that all other kinds of institutions *claim* to share one fundamental function in common with the residential liberal arts college: the liberal education of undergraduate students. While it is true that these other institutions perform other functions—graduate education, research, and vocational education, for example—does having multiple functions somewhat entitle an institution to offer baccalaureate education programs that are second-rate? Does engaging in research and graduate education justify shortchanging undergraduate education? Does engaging in vocational education justify offering mediocre transfer education? And while it may be true that the *average* age of community college students may be higher than the average age of students at most liberal arts colleges, we need to remind ourselves that community colleges enroll some five hundred thousand new eighteen- and nineteen-year-old freshmen each fall, most of whom are attending full time in pursuit of bachelor’s degrees.³² This is double the number of new freshmen enrolling at all types of liberal arts colleges!

In trying to understand the larger implications for American higher education of what we have learned about the environments and student outcomes of residential liberal arts colleges, it would be easy to dismiss these findings on the grounds that the key structural feature distinguishing these institutions from most others in our diverse higher-education system—small size—is unattainable for most other types of institutions. Such an

argument overlooks the fact that size is confounded with many other characteristics that make it hazardous to generalize from what we know about the effects of the “small college.” I use the term “confounded” here to mean that, as the size of institutions increases, *other* qualities begin to appear that substantially alter the capacity of an institution to provide a high quality undergraduate education. These other qualities include public control, a more bureaucratic and impersonal form of administrative structure, a diversification of the clientele served (i.e., increases in older, part-time, commuter, professional, and nondegree-credit students), and larger academic departments. This last quality is especially significant since, as departments grow in size, pressures to emphasize research and graduate education and to seek greater autonomy from the larger institution increase. When this happens, general education—the heart of an undergraduate liberal arts education—tends to become fragmented and marginalized. Indeed, in many of our leading research universities today, regular faculty do little or no advising of freshmen or sophomores and much of the undergraduate instruction is done either by graduate students or by part-time and adjunct instructors.

The key point is that these correlates of large size are just that—correlates—and that *none* of them is a necessary or inevitable consequence of large size. At the same time, being small is no guarantee that these “undesirable” correlates (undesirable, that is, from the perspective of exemplary undergraduate practices) will be absent from the institution (the California Institute of Technology, for example, places an extremely strong emphasis on research and graduate education, even though its enrollment is much smaller than the enrollments of most liberal arts colleges). Moreover, there are structural changes that large institutions can make—for example, the creation of relatively autonomous “colleges” like those at the Santa Cruz and San Diego campuses of the University of California—that can mitigate some of the usual limitations of large size.

Since the issue of comparative costs could be the subject of a separate essay, let me offer just a few observations. First of all, we need to recognize that there is great variation in the expenditures of liberal arts colleges, and that indeed many liberal arts

colleges spend less per student than many large public institutions. At the same time, we must acknowledge that the highly selective liberal arts college does indeed spend much more per student than do most other types of institutions. There is no question that costs may well become a significant issue for any institution wishing either to achieve a better balance between teaching and research or to emulate some of the selective liberal arts college's exemplary practices—say, narrative evaluations, essay exams, and generous support of student services. Even so, there is no *necessary* reason why any institution cannot consider more frequent use of some of these practices, with the overall aim of increasing student-student interaction, faculty-student interaction, time devoted to academic work, and other forms of student involvement.

The real danger in pursuing educational reform and educational policy from a purely economic or materialistic view, however, is that we tend to forget the basic values that led us to support the idea of a residential liberal arts education in the first place. The real meaning of such an education goes far beyond merely producing more physicians, teachers, scientists, technicians, lawyers, business executives, and other professionals to fill slots in the labor market. A liberal education in a small residential setting is really about encouraging the student to grapple with some of life's most fundamental questions: What is the meaning of life? What is *my* purpose in life? What do I think and feel about life, death, God, religion, love, art, music, history, literature, and science? What kinds of friends and associates do I want in my life? What kinds of peer groups do I want to associate with?

In many ways the philosophy underlying the notion of a liberal education in a small college setting is a tribute to the power of the peer group. This form of education implicitly assumes that an excellent liberal education is much more than a collection of course credits, and that a little bit of serendipity is a good thing. Allow young people to go away from home and live together in an intimate academic environment for a while, and some good things will happen. Often we really have no idea what these good things will be, but the students will seldom disappoint us.

ENDNOTES

- ¹In its classification of higher-education institutions the Carnegie Foundation for the Advancement of Teaching designates a large number of private liberal arts colleges as “comprehensive colleges and universities” because they had come to award a substantial number of their undergraduate degrees in “professional” rather than “academic” fields (primarily business, education, nursing, and allied health). For the purposes of this essay, these institutions will be considered as “private liberal arts colleges” as long as they claim to offer a “liberal arts education” to undergraduates and as long as their graduate and professional programs are not so extensive that they are considered to be a “university” by the National Center of Educational Statistics. It should also be noted that some private colleges that are self-designated as “universities” (e.g., Wesleyan University) are basically liberal arts colleges and will be considered as such in this essay.
- ²Alexander W. Astin and Calvin B. T. Lee, *The Invisible Colleges* (New York: McGraw-Hill, 1972).
- ³Selectivity is also commonly used as an indicator of academic quality or “excellence,” a practice that, in my judgment, does not serve as well. Alexander W. Astin, *Achieving Educational Excellence* (San Francisco: Jossey-Bass, 1985).
- ⁴Kenneth Feldman and Theodore Newcomb, *The Impact of College on Students* (San Francisco: Jossey-Bass, 1969).
- ⁵Alexander W. Astin, *Assessment for Excellence: The Philosophy and Practice of Assessment and Evaluation in Higher Education* (Washington, D.C. and Phoenix: American Council on Education and Oryx Press, 1991).
- ⁶E.g., Burton R. Clark et al., *Students and Colleges: Interaction and Change* (Berkeley: University of California, Center for Research and Development in Higher Education, 1972).
- ⁷E.g., James W. Trent and Jenette Golds, *Catholics in College: Religious Commitment and the Intellectual Life* (Chicago: University of Chicago Press, 1967).
- ⁸Ernest T. Pascarella and Patrick T. Terenzini, *How College Affects Students* (San Francisco: Jossey-Bass, 1991).
- ⁹Astin, *Achieving Educational Excellence*.
- ¹⁰J. W. Henson, *Institutional Excellence and Student Achievement: A Study of College Quality and Its Impact on Education and Career Achievement*, unpublished Ph.D. dissertation, University of California, Los Angeles, 1980.
- ¹¹Astin and Lee, *The Invisible Colleges*.
- ¹²See Henson, *Institutional Excellence and Student Achievement*.
- ¹³Pascarella and Terenzini, *How College Affects Students*; Alexander W. Astin, *What Matters in College? Four Critical Years Revisited* (San Francisco: Jossey-Bass, 1993).
- ¹⁴Astin, *What Matters in College?*
- ¹⁵Feldman and Newcomb, *The Impact of College on Students*.

- ¹⁶Alexander W. Astin, "An Empirical Characterization of Higher Educational Institutions," *Journal of Educational Psychology* 53 (1962): 224–235; Alexander W. Astin, "Differential College Effects on the Motivation of Talented Students to Obtain the Ph.D. Degree," *Journal of Educational Psychology* (1963): 63–71; Alexander W. Astin, "Further Validation of the Environmental Assessment Technique," *Journal of Educational Psychology* 54 (1963): 217–226; and Alexander W. Astin and Robert J. Panos, *The Educational and Vocational Development of College Students* (Washington, D.C.: American Council on Education, 1969).
- ¹⁷Astin, *What Matters in College?*
- ¹⁸Ibid.
- ¹⁹Ibid.
- ²⁰Alexander W. Astin et al., *The American Freshman: Thirty Year Trends* (Los Angeles: Higher Education Research Institute, UCLA, 1997).
- ²¹Astin, *What Matters in College?*
- ²²Ibid.; Alexander W. Astin, Lisa Tsui, and Juan Avalos, *Degree Attainment Rates at American Colleges and Universities* (Los Angeles: Higher Education Research Institute, UCLA, 1996).
- ²³Given the strong negative correlation between these measures, it is not surprising that ten of the twenty-one institutions that make up the top 10 percent in research orientation are in the bottom 10 percent on student orientation, and that eight of the twenty institutions that make up the top 10 percent on student orientation are in the bottom 10 percent on research orientation. All members of the former group are research universities (including eight public universities), whereas all members of the latter group are nonselective (mostly Protestant) liberal arts colleges, which places them in the Liberal Arts II category of the Carnegie classification. Finally, of the nine institutions that are in the bottom one-third on both measures, six are public four-year colleges.
- ²⁴Alexander W. Astin and Mitchell J. Chang, "Colleges that Emphasize Research and Teaching," *Change* 27 (September/October 1995): 45–49.
- ²⁵Astin, *What Matters in College?*
- ²⁶Arthur W. Chickering and Zelda F. Gamson, "Seven Principles for Good Practice in Undergraduate Education," *The Wingspread Journal* 9 (June 1987 Special Section): 2.
- ²⁷Astin and Chang, "Colleges that Emphasize Research and Teaching"; Astin and Lee, *The Invisible Colleges*.
- ²⁸Astin, *Achieving Educational Excellence*.
- ²⁹Lisa Tsui, *Fostering Critical Thinking in College Students: A Mixed-Methods Study of Influence Inside and Outside of the Classroom*, unpublished Ph.D. dissertation, University of California, Los Angeles, 1998.
- ³⁰Astin, *What Matters in College?*
- ³¹Ibid.
- ³²L. J. Sax et al., *The American Freshman: National Norms for Fall 1997* (Los Angeles: Higher Education Research Institute, UCLA, 1998).