Diversity and a Liberal Arts Education

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[A] great deal of learning occurs informally. It occurs through interactions among students of both sexes; of different races, religions, and backgrounds; who come from cities and rural areas, from various states and countries; who have a wide variety of interests, talents, and perspectives; and who are able, to directly or indirectly, learn from their differences and to stimulate one another to reexamine even their most deeply held assumptions about themselves and their world.

-- Regents of the University of California v. Bakke, 438 U.S. 265 (1978), at 312-13 n.48.

Introduction

A fundamental goal of a liberal arts education is to guarantee that all students' educational experiences are informed by a broad range of perspectives, that they are exposed to competing values and ideas, and that they have the opportunity to study, evaluate, and question complex problems from a variety of views. Art and music, for example, are subject not only to scholarly criticism and analysis, but they are also subjects of taste and preference. Even science and technology require a choice to study one subject rather than another or to concentrate on one laboratory outcome more than another. History records that scientific discovery often has a greater impact on one segment of society than another. Understanding these subjects requires that faculty and student blend their personal experiences with knowledge and information in an academic setting that supports an exchange of principles, beliefs, values, ideas, and facts.

This model of higher education depends upon people from different backgrounds and competing values interacting with another in an educational setting. Lively academic discourse often depends upon women with different values and experiences than men, the poor with different beliefs and goals than the wealthy, and racial and ethnic minorities with different preferences than whites. Learning is a process of allowing people with diverse backgrounds to contribute to a collective wisdom and to engage each other in academic pursuits.

To encourage this model of higher education to flourish on COFHE campuses requires attention to the diversity of admitted students. Admission deans talk about "molding" a class to meet the educational objectives of an institution. They describe admission committees insuring that people with differentiated talents will enroll at our institutions. An admission decision not only evaluates the achievement and talents of an applicant, but it also considers the potential contribution to an exchange of viewpoints. In this sense,

affirmative action in college admission is an educational objective to insure a broad exchange of ideas and lively discourse.

Admission is only the first condition for enriching educational opportunities and learning experiences. Students must also interact with each other once they arrive on campus. One can observe many secondary schools in the United States where students of different racial and ethnic backgrounds attend the same institution but are separately tracked through subtly biased academic programs. Only when students of differing backgrounds interact with one another will classroom exercises, dormitory living, and intellectual exchange achieve the academic objectives of diversity.

Interaction with diverse groups is not only a fundamental characteristic of campus life in a liberal arts setting but it has an added benefit for college students after graduation. Diversity is, itself, a learning experience. Feeling comfortable in an environment where members of minority and majority groups interact regularly is a byproduct of campus diversity. In a society with changing racial and ethnic populations, the experience with diversity is an essential feature of higher education. With this educational model in mind, we explored the racial and ethnic group interactions of COFHE alumni from the Class of 1989.

Twenty-eight COFHE institutions[1] participated in the *2000 Alumni Survey*. Questionnaires were sent to 26,019 alumni from the Class of 1989 and 62,108 alumni from all classes. The overall response rates for the Class of 1989 was 41 percent. Institutional response rates ranged from 25 to 64 percent, with a median of 42 percent. Response rates were highest among women's and coed colleges. One Ivy League university used a raffle with a grand prize of a trip for two to France; it had the highest response rate of all universities. The database for the Class of '89 consists of 10,511 individuals. Sixty-seven percent are from universities, 84 percent are white, and 57 percent are women.

The *2000 Alumni Survey* uses standards similar to the 2000 census for identifying members of a racial or ethnic group. Survey respondents could self-identify with one or more groups, which complicates comparisons with demographic data that were collected while the Class of 1989 was in college. Figure 5-1 displays the racial and ethnic identities of the survey respondents and the racial and ethnic make-up of the Class of 1989 when it began college in 1985.[2] The *Survey* slightly over-represents white alumni and, to a lesser extent, Asian alumni; black and Hispanic alumni were underrepresented in the survey.[3]

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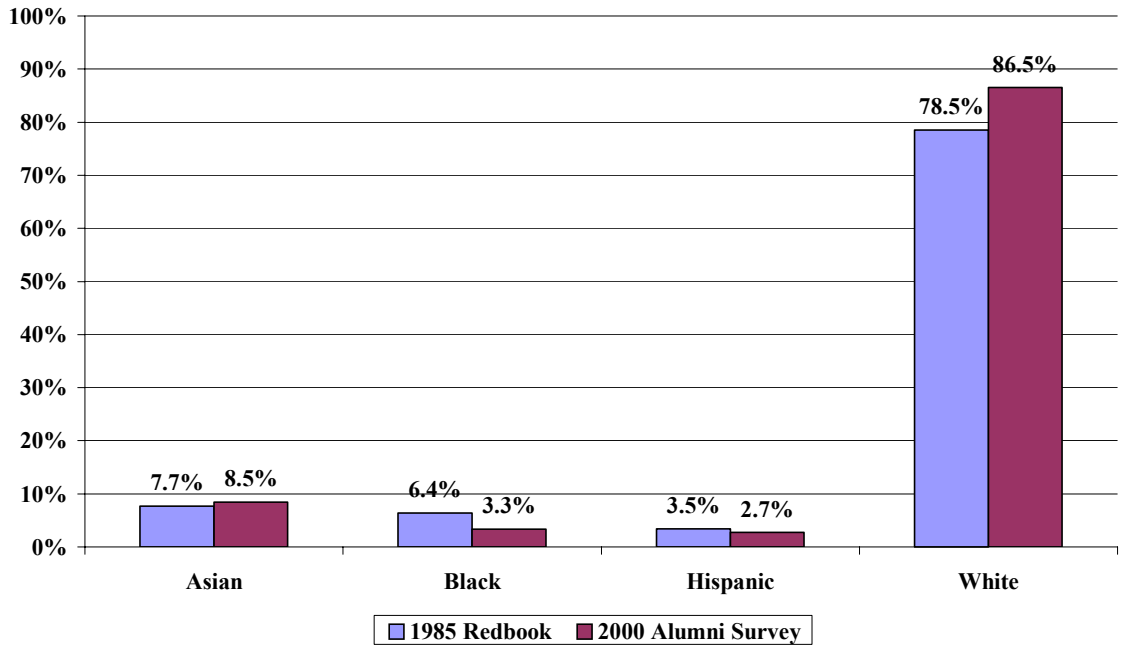
[1] Amherst, Carleton Oberlin, Pomona, Swarthmore, Trinity, Wesleyan, Williams; Barnard, Bryn Mawr, Mount Holyoke, Smith Wellesley; Brown, Columbia, Cornell, Pennsylvania, Princeton, Yale; Duke, Georgetown, Johns Hopkins, MIT, Northwestern, Rice, Chicago, Rochester, and Washington. In addition, Dartmouth administered the survey in the Fall 2000 but is not included in this analysis.

[2] *COFHE Admission Statistics, Classes Entering 1984 and 1985* Cambridge, MA: Consortium on Financing Higher Education, 1986.

[3] COFHE has data from the freshman year; this percentage over-represents the percentage of black and Hispanic who graduated since the attrition among minorities is higher than the attrition among whites. The *2000 Alumni Survey* sampled only alumni who graduated. Thus, Figure 5-1 probably exaggerates the under-representation of minority groups in the survey.

Figure 5-1
Racial and Ethnic Background of the Class of 1989 Reported in the 1985 Redbook and the 2000 Alumni Survey



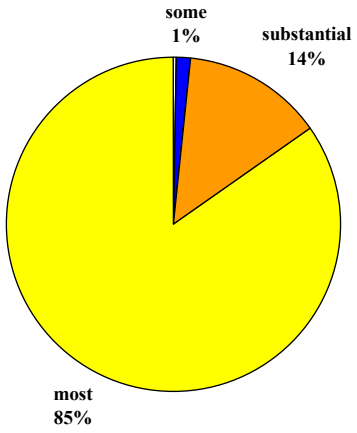
The *COFHE 2000 Alumni Survey* builds on prior research in *The Shape of the River,*[4] which documented how admission to highly selective institutions affects both minority and majority students. This chapter addresses the role of racial and ethnic diversity in supporting a liberal arts education.

Interactions with Racial and Ethnic Groups in College

In general, the patterns of interaction among racial and ethnic groups vary by the size of the group in 1989. The greatest amount of interaction was with white students; all alumni reported that they had at least some interaction with "whites" during college. Since all COFHE campuses have much larger white enrollments than minority enrollments, even chance meetings among students would result in interaction of white students for everyone. (See Figure 5.2)

[4] William G. Bowen and Derek Bok, *The Shape of the River*. Princeton: Princeton University Press, 1998.

Figure 5-2
Interaction with white students during college



21 percent of the alumni recalled interacting "substantially" or "mostly" with black students.[5] Interaction during college was less with a smaller group of students. However, almost half of the students said they had "some" interaction with black students. Hispanic students were fewer in number than black students in 1989 and the amount of interaction was also less with them than interactions with black students. Only 10 percent of the alumni recalled interacting substantially or mostly with Hispanic students and 16 percent reported no interaction with Hispanic students at all.

Figure 5-3a
Interaction with black students during college

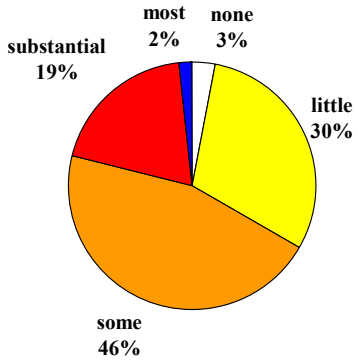
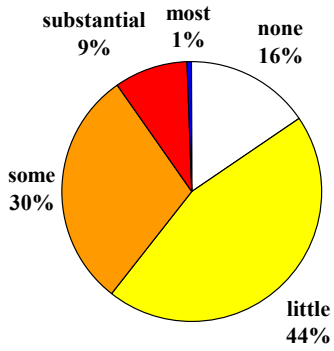


Figure 5-3b
Interaction with Hispanic students during college

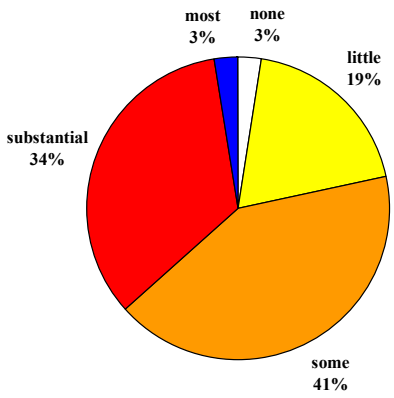


[5] The exact question wording was "Please indicate the extent to which you had interaction with students from each of the following groups when you were in college. Then indicate how much interaction you have with people from these groups today." The groups included African American/Black, Asian American, Hispanic/Latino, Native American, White American, From outside the U.S., Different religion from yours. The response categories included none, little, some, substantial, and the most.

Interaction with Asian students was, on the other hand, greater than one might expect. Thirty-seven percent of the alumni recalled interacting substantially or mostly with Asian students

Consider an undergraduate student with five friends in a population that reflects the racial/ethnic background of students at COFHE institutions in 1989. What is the probability that at least one of the five would be Asian? Although hypothetical, binomial expansion of this probability produces an answer that is remarkably close to the actual percentage reporting "substantial" or "most" interactions with Asian students – about 33

Figure 5-4
Interaction with Asian students during college



percent.

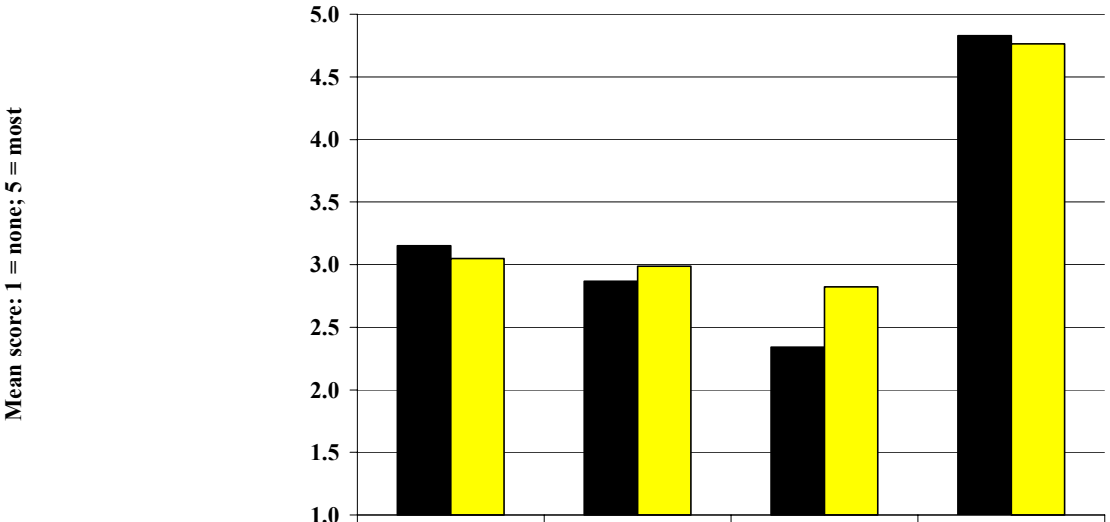
One clear conclusion to these figures is that the percentage of alumni recalling interaction with racial and ethnic minorities is much higher than the percentage of racial and ethnic minorities in the student population. Indeed almost three times as many alumni reported having interactions with black students as one might expect from the percentage of black students that were enrolled. The ratio of interactions to enrollment is also three to one for Hispanic students and 4.5 to one for Asian students.

Interactions then and now[6]

The patterns of interaction during college and the patterns of interaction ten years later were similar. Figure 5-5 displays the average amount of interaction on a five-point scale during college and at the time of the alumni survey. It repeats the finding presented above that the frequency of interaction with each racial or ethnic group, in part, depends upon its size. Interaction was greatest both during and after college with whites. Interaction with minority groups was much smaller, but varied by the size of the group: greatest with Asians, second with blacks, and least with Hispanics.

[6] The actual survey question asks about interaction "during college" and "now." Throughout this chapter I use "now" interchangeably with "ten-years after graduation" and "1999" – the time of the survey.

Figure 5-5
Patterns of Interaction with Racial/ethnic groups during college and in 1999



	Asian	black	Hispanic	white
Interaction in college with group:	3.2	2.9	2.3	4.8
Interaction ten-years later with group:	3.0	3.0	2.8	4.8

Interactions with Asian, black, and white groups were essentially the same in 1989 as they were in 1999. The height of each bar in Figure 5-5 is nearly equal for all except one category. Only interactions with Hispanic groups varied, suggesting growth between college and the time of the survey.

One explanation for the difference in interactions with Hispanics is the change in the size of this group. COFHE data[7] show that the entering class of 1985 was made up of only 3.5 percent Hispanic students – half the percentage of Asian students or the percentage of black students. In 1999, Hispanics comprised 11 percent of the United States population. The probability of interacting with a Hispanic student at a COFHE institution in 1989 was smaller than the probability of interacting with a Hispanic person in the population in 1999. The alumni were reporting patterns of interaction with Hispanic students that reflect the populations they were likely to encounter.

A second reason for the difference with Hispanic groups is its identity. During the 1980s – when these alumni were in college – Hispanic groups had only started to gain visibility as an underrepresented minority. The 1980 census was the first to ask about "Spanish origin."[8] The economic boom of the 1990s and its accompanying influx of Mexican

[7] This percentage includes matriculants from the four racial/ethnic groups discussed in this chapter. It omits American Indians, foreign students, and students from multiple, unknown, or other racial/ethnic classifications.

[8] The 1970 census analyzed a subset of the population with "Spanish surnames" that was compiled by the Immigration and Naturalization Service. The category of "Hispanic" did not become an ethnic classification until 1977 as part of an Executive Order, OMB Statistical Directive 15.

immigrants had not begun. California voters had not yet considered limiting state services through Proposition 187, which had a secondary effect of giving national visibility to Hispanic immigration. In short, members of the Class of 1989 may not recall having interactions with Hispanic students because they did not think of those students as Hispanic students.

The similarity in the pattern of interactions during college and ten-years after college raises the question as to whether the alumni who reported many interactions in college are the same alumni who reported many interactions later in life. This speculation has roots in psychological theory that suggests college experiences affect lifelong patterns of interaction after graduation.[9] Having developed an identity in college, various personality patterns presumably shape postgraduate behavior.[10]

A crosstablulation shows the alumni who reported relatively high[11] interactions with various racial and ethnic groups in college and those who reported relatively high interactions ten-years later. Similarly it shows the alumni who reported relatively low interactions in college and those who reported relatively low interactions ten-years later. Alumni who report "no" or "little" interaction with black students in college were more likely to report "none or little" interaction in 1999 than alumni who report "substantial" or "most" interaction in college with black students. See Table 5-1. Conversely, alumni who reported "substantial" or "most" interactions with black students in college were more likely than others to report "substantial" or "most" interactions in 1999. The data are consistent.[12] 41 percent compared to 17 percent on the former point; 48 percent compared to 21 percent on the latter.

[9] A. W. Chickering, for example, theorizes that college students acquire an "identity," that is subsequently integrated into a coherent worldview. His definition of "identity" is composed of seven "vectors," one of which is called "freeing interpersonal relationships." Chickering summarizes the shaping of a personal identity on this vector as "increased tolerance and respect for those of different backgrounds, habits, values, and appearance, and a shift in the quality of relationships with intimates and close friends." See, A. W. Chickering, *Education and Identity.* San Francisco: Jossey-Bass, 1969, p. 94. This theory would predict that individual alumni report the same interaction with racial and ethnic groups in college as later in life – and at least ten years after college.

[10] A review of social-psychological theory and its predictions about college students can be found in Ernest A. Pascarella and Patrick T. Terenzini, *How College Affects Students*. San Francisco: Jossey-Bass Publishers, 1991, chapter 2.

[11] Defined here as "substantial" or "most" interactions with the specified racial/ethnic group.

[12] The results are also consistent with Bowen and Bok, p. 238. Similar analysis for Hispanic students is currently in progress by sociologist Marta Tienda. See "New grants support research on diversity in higher education," Princeton University press release, August 30, 2000.

Table 5-1
Interaction with Blacks

		Interaction with Blacks in College		
Interaction with Blacks Now		None, little	Some	Substantial, Most
	None, little	41%	24%	17%
	Some	38%	51%	35%
	Substantial, most	21%	25%	48%
	Total	100%	100%	100%
	No. of responses	3412	4712	2169

A relationship between college and later interactions with Asians is also present in the data – as is interactions with Hispanics, and whites. In each case there is a 20 to 30 percent difference between those individuals who had little or no interaction and those who had substantial or most interaction with the racial/ethnic group. These data suggest that the patterns of interaction with racial and ethnic groups in college are likely to remain with COFHE alumni later in life – or at least ten years after graduation.

Several explanations, as well as a note of caution, come to mind with this finding. First experience with a particular racial or ethnic group may raise a person's comfort level with a particular group; and having reached some threshold, the individual seeks contact and friendship with others from the same racial/ethnic group. This model of behavior probably underlies much of the desegregation efforts in primary and secondary education following *Brown v. Board of Education* in the 1950s as well as college affirmative action programs since the early 1960s. The assumption is that placing black students in predominantly white schools will raise the comfort level of majority students in educational and social settings, resulting in a more integrated society after schooling. These data are consistent with this theory.

Another explanation is that college and postgraduate interactions with racial/ethnic groups result from some common behaviors and attitudes. Alumni who attended COFHE schools typically would not encounter various racial/ethnic groups for the first time in college. They arrive on campus with 18 years of experience – three-fourths of which is spent in an educational setting. The patterns of interaction that these students establish prior to college result in patterns that the survey reports for alumni both during and after college. In this sense, college was not a learning experience for racial/ethnic interaction

as much as it was a venue for allowing earlier patterns of interaction with racial/ethnic groups to continue unchanged.

A third explanation is a variant on the theme that memory about both sets of racial and ethnic interactions – in college and now – may result from the survey itself. Answering survey questions is itself an event for the alumni who are asked about racial and ethnic interactions in the survey instrument. The survey question might possibly evoke memories of recent or past events that the alumni record as answers to multiple questions. Several survey techniques in the 2000 Alumni Survey, such as asking about several different types of events, are designed to limit this possibility; but it remains a plausible explanation for the data.

A fourth explanation is that the alumni interactions with racial/ethnic groups later in life affects their perceptions about what college really was like. In this model, the direction of causality is reversed from the chronology implied by the question wording. While college experiences for these alumni took place in the years leading up to 1989 and the survey asks about "now" or 1999, the answers to both questions were recorded at one point in time. In survey jargon, the alumni survey recorded the respondents' recall about events rather than actual events while they were occurring. Numerous social-psychological experiments describe how individuals shape their perceptions – sometimes accurately and sometimes erroneously – but typically conforming to stimuli in their environment. Anecdotally, one could imagine an alumnus interacting with a particular racial/ethnic group recently in the workplace or in a neighborhood and thinking more often or more clearly about earlier college experiences with the same racial/ethic group.

With all of these possible explanations of the alumni survey data, one factor is common: the stated interaction among racial/ethnic groups in college is highly consistent with reported interaction among racial/ethnic groups later in life. Those who say they interact with a various racial/ethnic group the most in college are also the most likely to say they interact latter. Conversely, those who say they interact with various racial/ethnic groups the least in college are least likely to say they interact later. The pattern is consistent for interactions with Asian, black, Hispanic, and white groups.

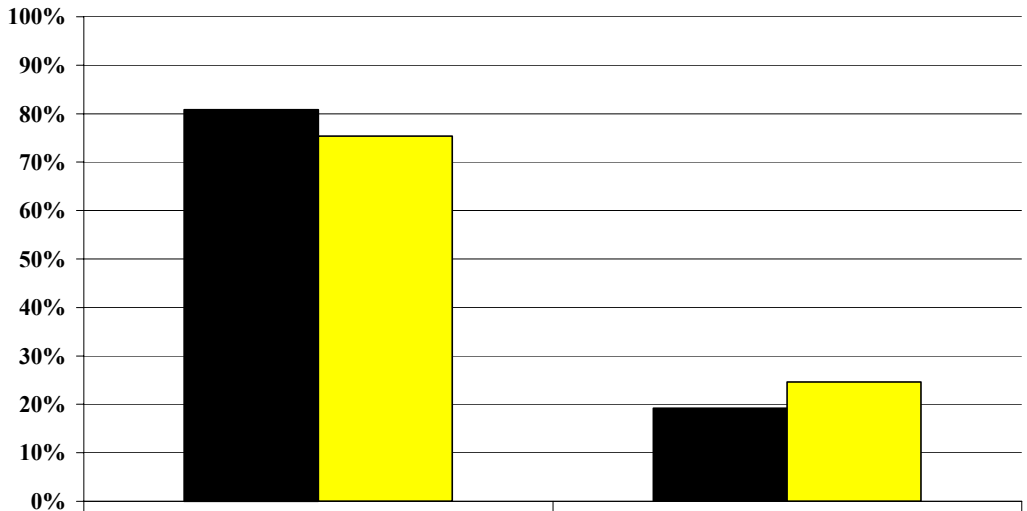
Interactions different from oneself

Exposure of students to unknown and unfamiliar backgrounds and cultures produces the educational objectives that most colleges wish to effect from diversity. The model of education posed at the beginning of this chapter describes not only interactions of students among several racial or ethnic groups, it depends upon students interacting with other students different from their own race or ethnicity. One might predict that alumni recall interacting with people from a race/ethnicity different from themselves more in college than they do at any other time in life. K-12 public schools, for example, are often segregated by school districts drawn around housing patterns of homogeneous socio-economic conditions. Housing patterns and employment opportunities also often result in segregated settings for college graduates. In contrast, affirmative action programs in

selective institutions, dormitory living conditions in residential colleges, as well as patterns of enrollment from large geographic areas all suggest that college may be the most racially/ethnically diverse period in one's life. But do the data support this image of college life at COFHE institutions?

While we have no data on pre-collegiate experience in the *2000 Alumni Survey*, COFHE alumni report that interactions in college and later in life are quite similar. Nineteen percent of the alumni report that their interactions in college were mostly with groups of people that were different from themselves. The percentage is not statistically different, twenty-five percent, for alumni who ten years after graduation reported interacting substantially or mostly with groups of people different from their own reported race/ethnicity. These data add no support to the notion that college represents one of the most diverse periods in one's life.

Figure 5-6
Percentage of Alumni Reporting Interactions with Racial/Ethnic Groups that are the Same or Different from Themselves

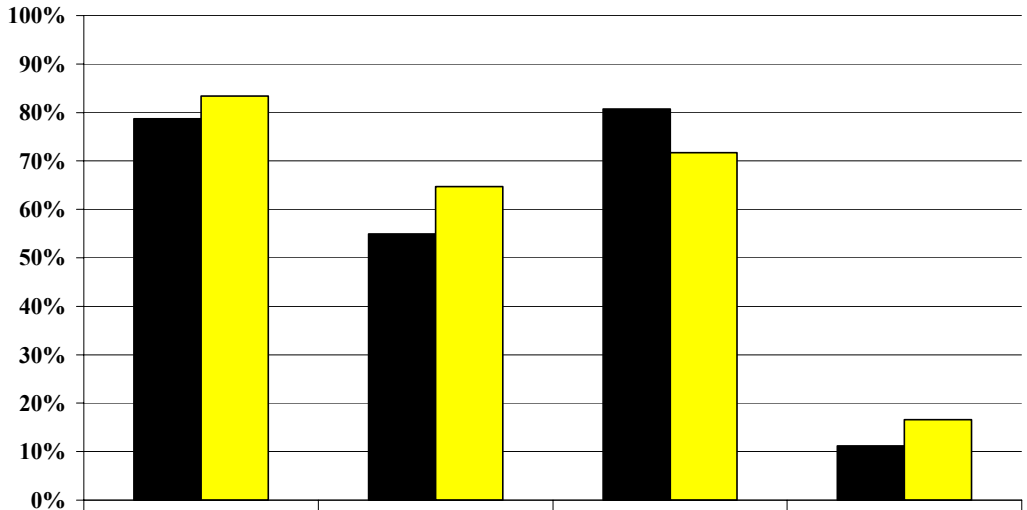


	Same as self	Different from self
In College	81%	19%
10-years later	75%	25%

These data, however, require an appropriate context, because the percentages also demonstrate how segregated the college experience and society at large remain for COFHE alumni. Fully 81 percent in college, and 75 percent ten-years later, report interactions that were mostly with groups of the same race as themselves. However, further analysis will demonstrate that these percentages require specification.

Since white alumni make up 84 percent of the sample, it is not surprising that only a small percentage, 11 percent in college and 17 percent ten years after graduation, report substantial interactions with a non-white group. The pattern is quite different for minorities. Over half -- and as many as six-out-of-seven -- members of a COFHE minority group interact substantially with a racial or ethnic group different from themselves; that group is most likely the majority group. Interaction with a racial or ethnic group different from oneself is, in part, a function of whether or not the alumnus is a member of a majority or a minority group.

Figure 5-7
Percentage of Alumni Reporting Interactions with Racial/Ethnic Groups Different from Themselves (By Race/Ethnicity of Alumni)



	Asian	Black	Hispanic	White
In College	79%	55%	81%	11%
10-years later	83%	65%	72%	17%

There is an interesting mathematical phenomenon of racial and ethnic interactions on campus and the society at large. Simply stated, a higher percentage of minorities interact with different races than the percentage of the majority – even if the absolute number of interactions were the same for all groups. If 100 black students interact with 100 white students at a COFHE institution on a regular basis, the black students have a higher percentage interaction than the white students since there are fewer black students. So the black students, to stay with this example, will correctly feel that a larger portion of their group is engaged in interracial interactions. Ironically, the opposite is not true. When black students are not engaged in interracial interactions, it will also be the case that a lower percentage are engaged in segregated behavior – compared to the percentage of white students who may be engaged in the same behavior. A minority observing this behavior may feel that the minority group is making a large effort to interact with the majority, but the majority is not making an effort to interact with the minority.

Figure 5-7 also demonstrates the differences among minority groups. All racial and ethnic groups, except Hispanics, had slightly less interaction with racial or ethnic groups different from themselves in college than they had after college. Fifty-five percent of black alumni report that most of their interactions were with students of a different race while a larger percentage – 65 percent – report the same kind of interactions ten years after graduation. The percentage difference over the ten year period is in the same direction for Asian and white alumni: from 79 percent to 83 percent for Asian alumni and from 11 percent to 17 percent for white alumni. Only Hispanic alumni display a downward trend; college apparently was a more diverse experience than their current life situation.

Equally important, the magnitude of interactions with racial or ethnic groups different from oneself varies by minority group.[13] Black alumni are the least likely of the three minority groups in this analysis to report interactions with a group different from themselves. Asian alumni are the most likely. Indeed about four out of five Asian alumni report that they had racial or ethnic interactions different from themselves in college and six-out-of-seven ten-years later.

These patterns of interaction among minority groups follow conventional wisdom about levels of assimilation into society. Asian groups are less likely to live in segregated neighborhoods in the United States than are Hispanics who are less segregated than blacks. Douglas Massey calculates an average "isolation index" in metropolitan areas on a 100-point scale for each of the three minority groups as 20.6, 45.1, and 64.9, respectively. Asians are the least isolated, Hispanics next least, and blacks the most. [14] Similarly government statistics on interracial marriages, another indicator of assimilation, follow the same pattern. Forty-five percent of Asian American women aged 25 to 34 are married to non-Asian American men. Almost one-third of U.S. born Hispanic women aged 25 to 34 are married to non-Hispanic men. Four percent of black women aged 25 to 34 had a white spouse.[15]

For all except Hispanic alumni at COFHE institutions, racial and ethnic interaction increased between college and the time of the survey. This finding defies the hypothesis that college is the most diverse experience of one's life.

The common patterns of racial interaction for each of the four racial and ethnic groups during college and ten years after graduation raise questions about the persistence of behavior throughout one's life. Are the alumni who report college interactions with racial and ethnic groups that are different from themselves the same alumni who report

[13] Significant at .05 for the Index during college and the Index ten-years after college. Nevertheless, the differences among minority groups are not nearly as large as the difference between minority groups and whites.

[14] Douglas S. Massey, "The Residential Segregation of Blacks, Hispanics, and Asians: 1970 to 1990," in Gerald D. Jaynes, [ed.], *Immigration and Race: New Challenges for American Democracy. New Haven: Yale University Press, 2000, pp. 44-73.*

[15] Michael A. Fletcher, "Interracial Marriages Eroding Barriers," *Washington Post*, December 29, 1998. Also in *1998 Statistical Abstract of the United States.* Washington: Government Printing Office, 1999.

post-graduate interactions with groups different from themselves? If they are, this adds evidence to the earlier finding that racial and ethnic interactions persist for at least ten years. Table 5-2 displays the data from the survey.

Table 5-2
Interaction with races different from ones own

		Interaction in college with races different from self	
		Same as self	**Different from self**
Interaction now with races different from self	**Same as self**	89%	19%
	Different from self	11%	81%
	Total	100%	100%
	No. of Responses	8376	1991

The relationship is quite strong; 89 percent of the alumni who report having college interactions with racial/ethnic groups different from themselves also report similar interactions at the time of the survey. This compares with only 19 percent of the alumni who recalled having college interactions with racial/ethnic groups that were the same as themselves. The bivariate correlation between these two variables is .64 – a very strong relationship for survey data.[16]

This section begins to address a model of a liberal arts education where knowledge depends upon both understanding and appreciating different points of view – perspectives represented by different racial and ethnic groups. The general finding is that a portion of COFHE graduates report interacting with racial and ethnic groups different from themselves even though most of their interactions are with groups that are the same as themselves -- and these patterns persist over time.

[16] On the other hand a correlation this high also recalls the methodological reservation discussed earlier in this chapter. Another interpretation of the correlation coefficient is that the two variables are actually measuring a single underlying phenomenon and that the alumni are responding to both questions from a single, current set of beliefs.

Interactions with Minority Groups

In sum, the patterns of interaction were relatively consistent across racial and ethnic groups,[17] but differences in the size of the various groups affect interactions both on campus and in society at large. Interactions with at least one racial group different from oneself is simply not the same phenomenon for students from smaller, minority groups as for majority students. Minority students – Asian, black, and Hispanic – made up less than eighteen percent of the first-year class at all COFHE institutions in 1985.[18] Even chance encounters would mean that minority students were much more likely as a group to interact with people of different racial or ethnic groups than majority students.[19]

Interactions of whites with minorities are not as common since the number of white students is much greater. Recall the earlier hypothetical of 100 percent of the black students on a campus having one good friend who was white. For the class entering in 1985, this would have resulted in only eight percent[20] of the majority students with one black friend. Statistically, the combination of dyadic interactions between whites and minorities results in a much lower percentage of whites reporting the exact same interactions.

This summary discussion of hypothetical friendship patterns suggests that interaction with a race different from one's self is, in part a function of the size of the racial or ethnic group. Interaction with white students was universal. Interactions among minority groups were greatest with Asian students, second with black students, and least with Hispanic students. We turn now to the "Diversity Index" which captures the amount of interaction with racial and ethnic minorities among all groups regardless of their size.

The Diversity Index: An indicator of racial and ethnic interactions

The implications of the previous section support the construction of a "diversity index" that measures the degree to which alumni interact with different racial and ethnic minorities. The index should be sensitive to the different size of the majority and minority groups and measure the propensity of an alumnus to interact with a variety of racial and ethnic groups.

The diversity index in this analysis counts the number of minority groups different from themselves with which an individual claims to have had "substantial" or "most" of their

[17] Hispanic alumni displayed a minor exception in that they reported a decrease after graduation in the number of interactions with racial/ethnic groups different from themselves. Interactions with Hispanic groups among all alumni also followed a slightly different pattern than interactions with other minority and white groups.

[18] *COFHE Admission Statistics, Classes Entering 1984 and 1985* Cambridge, MA: Consortium on Financing Higher Education, 1986.

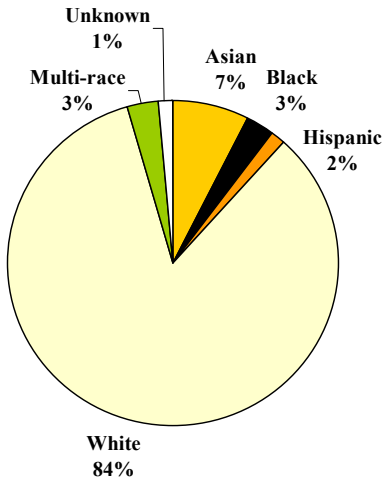
[19] On the other hand, isolation and the feeling of separation may make the absolute number of interactions with the majority more difficult.

[20] There were 1707 black students and 21,761 white students.

interactions. For example, a white alumna reporting that she had "substantial" interaction with black students while in college and "substantial" interaction with Asian students while in college would receive a score of two on the "Diversity Index." This person presumably had a more diverse set of racial and ethnic interactions in college than alumni who said they had "substantial" interactions with only one racial or ethnic minority. Individuals who score zero are classified as "low;" individuals with a score of one are "medium;" and individuals with two or more are "high."

The index has several properties relevant to its interpretation. First, by scoring interactions with minority groups, the index measures groups that are similar in size. Thus the statistical chance of interacting with any single minority is relatively close when compared with the near universal probability of interacting "substantially" with whites. Figure 5-8 gives a visual image of this property of the Diversity Index.[21] The categories of non-white alumni are closer to each other in size than they are to white alumni. This characteristic has the mathematical property – desirable for creating indices -- of adding together similarly sized sets of numbers.

Figure 5-8
Reported Race and Ethnicity of COFHE Alumni
Class of 1989



Second, the Diversity Index records only interactions with a group that is different from the respondent. This property is consistent with the model of education outlined at the beginning of this chapter. Both majority and minority students are expected to benefit from the juxtaposition of backgrounds and perspectives different from themselves. The Diversity Index therefore only increases for interaction with minority groups that are different from a minority alumnus who was answering the survey.

[21] Figure 5-1 also displays the number of responses for each racial and ethnic category in the survey. See Appendix 5-3 for a methodological discussion of this property.

Third, the Diversity Index scores individuals highest for interactions with the most minority groups and lowest for interactions with the fewest minority groups. In this sense, diversity is greater when it includes a large number of groups, albeit minority groups. By definition, interaction with multiple groups is more diverse than interaction with only one group. Diversity, in this sense, is insensitive to the intensity of interaction with any single minority group; it rewards interaction with multiple groups.

Fourth, it depends on interaction with minority groups, which are typically the focus of efforts to diversify a campus. Campuses with predominantly white students have race-conscious decisions in their admission process to insure the enrollment of minority students. Virtually everyone interacts with majority culture; the Diversity Index scores higher for people who interact with a racial or ethnic group other than the majority.[22]

Fifth, the highest number of minority groups different from oneself with which an alumnus could interact is not the same for whites and minorities. Whites could interact with Asians, blacks, and Hispanics – a total of three -- while minorities could interact with only two groups different from themselves. Hence the top two scores on the Diversity Index were combined into a single category called "high." Interactions with zero or one group have been classified as "low" and "medium," respectively.

Finally, the Diversity Index also has the property of considering all minority groups similarly. It does not differentiate among "underrepresented minorities" or minorities from historically disadvantaged background. Substantial interaction with Asian students is the similar to substantial interaction with black or Hispanic students. This property of the Diversity Index is particularly important because it assigns a specific meaning that is not always the focus of empirical analysis about diversity. It means that diversity is a function of the total number of minority racial and ethnic groups with which one interacts – not interaction with a specific racial or ethnic group. Interaction with more groups produce a higher score than, say, interaction with blacks or Hispanics individually, even though any one group might have numerous background differences from the alumni responding to the question.

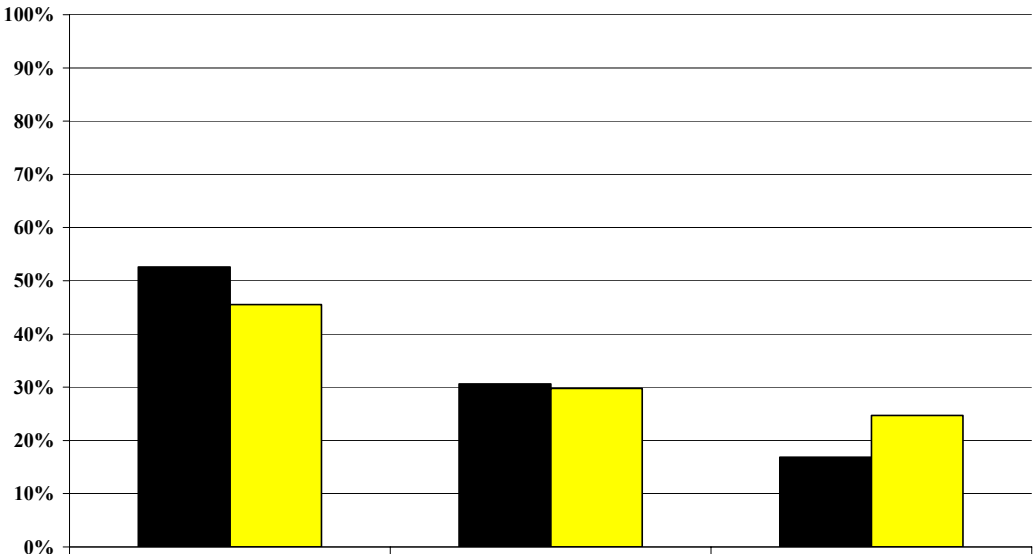
How Alumni Array Themselves on the Diversity Index

Figure 5-9 displays the alumni scores on the Diversity Index from interactions while they were in college and from interactions at the time of the survey in 1999. Consistent with the earlier discussion, COFHE alumni have a relatively low score on the Diversity Index, which results from the large portion – 53 percent -- of the alumni that report having substantial interaction with none of the minority groups of students while they were in college. A similarly large portion of alumni – 46 percent – report having substantial interactions with none ten years after college. These data result from the relatively low

[22] As Figure 5-2 indicated, nearly every alumnus reported interacting "substantially" or "mostly" with white students. Thus adding the interactions of the majority students with minority students would not change the variation in the Diversity Index.

enrollments of minority students at COFHE schools and the relatively segregated society that produces limited opportunity for interactions with people of different racial and ethnic background.

Figure 5-9
Alumni Scores on the Diversity Index



	Low	Medium	High
In College	53%	31%	17%
10-years later	46%	30%	25%

Figure 5-9 also shows how the scores of alumni on the Diversity Index increase after college. Clearly society changed in the intervening ten years such that interactions among people of different races is more likely in 1999 than in 1989.[23] The alumni survey data are consistent with this observation. Another potential explanation is that COFHE alumni themselves enter a society after graduation that is more diverse than their college experience. Twenty-five percent of the COFHE alumni were high on the Diversity Index from interactions in 1999 while only 17 percent of the them recalled college interactions that would place them at the high end of the index.

The overall percentage of people scoring high on the Diversity Index is more noteworthy than it may at first appear. One out of every seven COFHE alumni report substantial or greater interactions with fellow students from at least two minority groups while they were in college. When combined with the alumni who had interactions with at least one racial or ethnic minority, the findings are quite striking. Almost half of the alumni report substantial interactions with one or more racial and ethnic minority while they were in college. Diverse students are not just there; they interact with each other – substantially.

[23] In the intervening ten years, the non-white population of the United States grew from 24 percent to 28 percent.

That the patterns of interaction persist beyond college adds to the importance of a diverse college setting. Table 5-3 indicates that those who scored high on the diversity index in college also score high ten years after graduation. Conversely, those who scored low in college scored low later in life. For example, 47 percent of the alumni who scored high on the Diversity Index in college also scored high at the time of the survey. But only 19 percent of those who scored low on the Diversity Index in college scored high ten years later. These data support the proposition that patterns of interaction in college are consistent with patterns of interaction later in life. [24]

Table 5-3
Scores on the Diversity Index Now by Scores on the Diversity Index in College

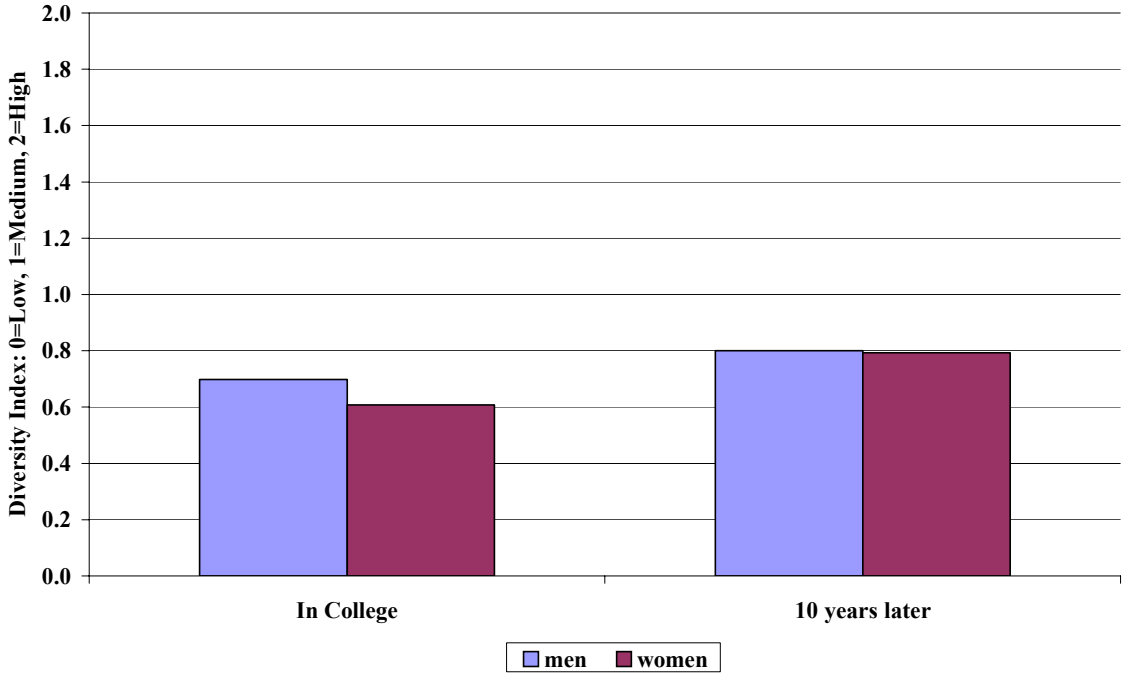
		Diversity Index in College		
		Low	**Medium**	**High**
Diversity Index Now	**Low**	57%	37%	26%
	Medium	26%	37%	27%
	High	19%	26%	47%
	Total	100%	100%	100%
	No. of responses	5542	3203	1766

Men and women had the same average scores on the Diversity Index ten years after graduation, indicating that they interacted with minority groups at about the same frequency. This was not true while they were in college. Figure 5-10 displays the average scores on the Diversity Index at both times. The scores are significantly different for gender while in college but the same 10-years later.[25]

[24] The Tau-beta correlation between the two variables is .22, a solid relationship for indices of this type in survey research.

[25] The patterns are the same for each racial and ethnic group except Asian students who showed no difference between men and women both in college and 10-years later. This pattern is consistent with census data on intermarriage from about the same period. Black men, for example, were more likely to have a spouse of a different race than black women – 10 percent of the former and 4 percent of the latter. See Michael A. Fletcher, "Interracial Marriages Eroding Barriers," *Op Cit.*

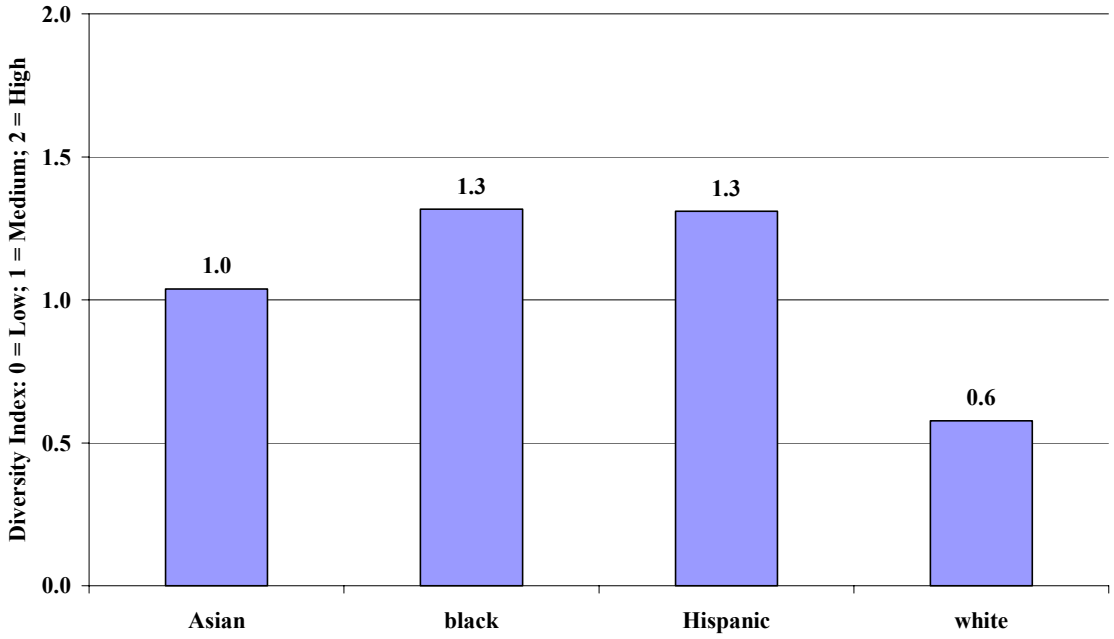
Figure 5-10
Average Score on the Diversity Index by Gender



Racial and ethnic groups have different mean scores on the Diversity Index as displayed in Figure 5-11. Black and Hispanic alumni score the highest; alumni from these groups recall interacting with the largest number of racial and ethnic groups different from themselves. White alumni recalled interactions with the least number of minority groups. Alumni from Asian groups were somewhat between the two extremes. These data conform to conventional wisdom about racial and ethnic interactions on campus. Underrepresented minority groups, i.e. blacks and Hispanics, are the most likely to interact with other minority groups while white alumni – and those who did not report their race or ethnicity[26]-- are the least likely.

[26] The data are not reported here.

Figure 5-11
Average Score on the Diversity Index by race and ethnicity



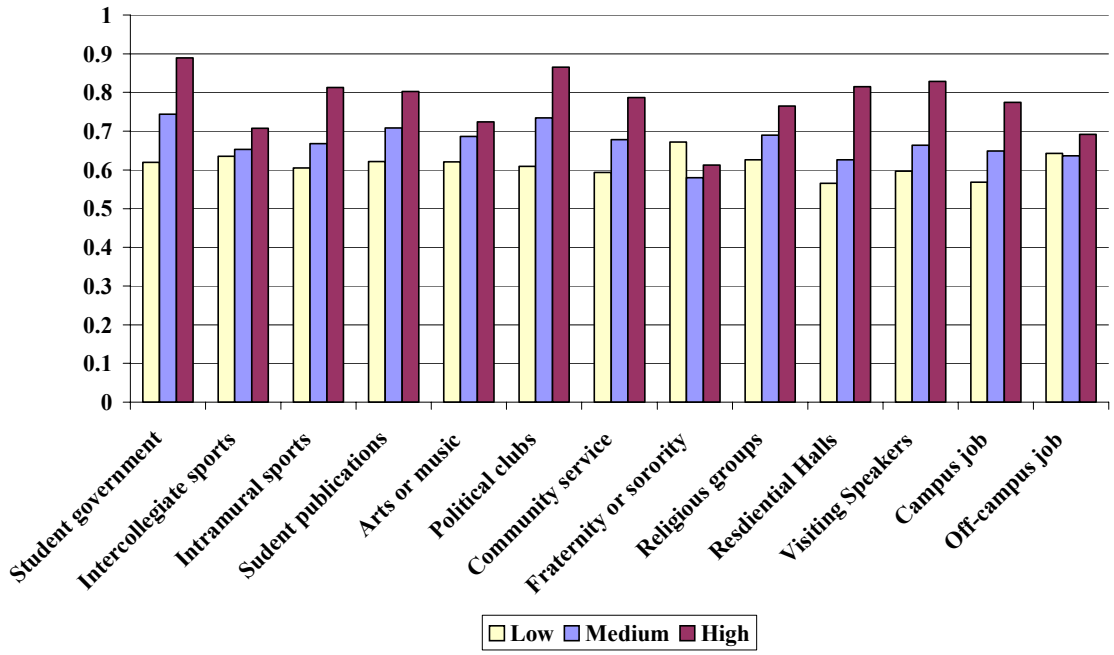
Finally, campus organizations, team sports, religious life, dormitory living, and campus jobs are all thought to create opportunities for students to interact with other students of different racial and ethnic backgrounds. Sports figures often attributed their comfort level with people of different races to experience as a basketball, or football, or baseball player. The National Collegiate Athletic Association encourages interaction among students of different races by including the campus climate for minority students as a factor in its periodic re-certification program. Campus reports on race relations at several COFHE schools throughout the 1990s typically focused on extracurricular activities, including sports, as a mechanism for integrating social, cultural, religious, and political life.[27] Student government and campus political organizations, almost by definition, require understanding and often advocacy for students of all backgrounds. On the other hand, fraternities and sororities are accused of segregating students from different racial and ethnic groups. Do the data support these stereotypes about campus activities?

In general, data from the *2000 Alumni Survey* provide evidence for most of the speculation about campus activities and diversity. As Figure 5-12 displays, alumni with increasing amounts of participation in most campus activities had increasingly higher scores on the Diversity Index. This suggests that the activity was an "integrating mechanism" on campus since more campus activity is associated with greater interaction with minorities. Alumni who were not involved with student government had an average

[27] Such reports were issued, for example, by Princeton, Stanford, and MIT.

Diversity Index score of .62 while those who were highly involved had a score of .89. The pattern is the same for intramural sports, student publications, arts or music performance, political clubs, community service, religious group activity, residence hall life, visiting speakers program, and a campus job; participation in each of these campus activities is correlated with racial and ethnic interactions.[28]

Figure 5-12
Campus Activities and the Diversity Index



COFHE institutions seem to support the conjecture that college athletics creates opportunity for racial and ethnic interactions. While this opportunity no doubt varies by sport, the overall correlation between intercollegiate athletics and the Diversity Index is positive – participation in intercollegiate athletics is associated with interaction among higher numbers of racial and ethnic groups. Nevertheless, the overall impact of sports is not as great as most other campus activities. With the exception of an off-campus job and participation in fraternities and sororities, high participation in any other campus activity resulted in a higher score on the Diversity Index than high participation in college athletics.

The only campus activity that does follows a different pattern for campus activities is membership in a fraternity or sorority. Alumni who reported "high" participation in these

[28] This finding is consistent with recent research on extracurricular activities in high school. Charles Clotfelter examined photographs of 8,875 high school teams and organizations at 194 high schools. He observes that the "rate of contact…appears to be much higher than what would occur if friendships were the only vehicle for interracial contact outside the classroom." See Charles T. Clotfelter, "Interracial Contact in High School Extracurricular Activities," © Working Paper 799, National Bureau of Economic Research, 2000.

groups had lower scores on the Diversity Index. This finding is consistent with the criticism of fraternities and sororities that selectivity is an obstacle to diverse campus interactions. Another explanation of this finding is that some fraternities and sororities have minority only membership. For at one COFHE institution that forbids fraternities and sororities as an "official" policy, the organizations have seen their greatest growth among minority students. Minority participation in primarily minority fraternities/sororities and majority participation in primarily white fraternities/sororities would encourage these results.

Beliefs and Values in College

As discussed earlier a major premise of this chapter concerns the importance of confronting subjects from a variety of perspectives. The objective is to have students challenge beliefs that, prior to college, may have been internalized through ignorance or perhaps purely on stereotype. Intellectual engagement in higher education requires the rejection of indoctrination with an academic pursuit of new ideas and concepts. If a liberal arts education has this impact on students, alumni should recall a period of time when they seriously rethought, challenged, questioned, or perhaps changed a belief or value.

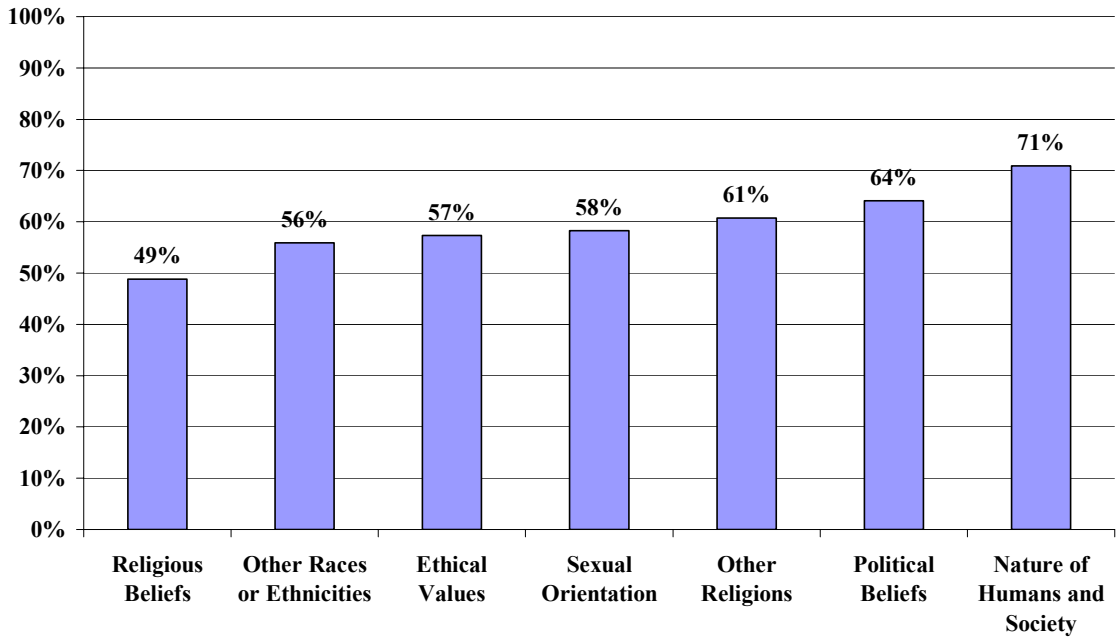
The COFHE Alumni Survey 2000 provides some insight on this theory of higher education. The alumni were asked "did you ever seriously question or rethink" several beliefs and values "that [you] held while [you] were in college." The survey text explained that the respondents "need not have changed" their beliefs or values to have "questioned them in a fundamental way." The response options were either "yes" the belief or value had been questioned or "no" the belief or value had not been questioned.

The survey identified seven different beliefs and values that alumni might have questioned while in college:

- Own political beliefs/values
- Own religious beliefs
- Own moral/ethical values
- Beliefs about the nature of humans or society
- Beliefs about religion(s) other than your own
- Beliefs about a race or ethical group other than your own
- Beliefs about people with sexual orientation other than your own

Figure 5-13 displays the alumni responses to the seven topics ranging from the values and beliefs least likely to be questioned to the values most likely to be questioned. The least questioned were one's own religious beliefs; yet almost half of the alumni reported that they had questioned their religion while in college. Beliefs about another race or ethnicity were the second least questioned value among those in the survey, but again over half, 56 percent, reported that they questioned this belief.

Figure 5-13
Beliefs or Values questioned as an undergraduate



At least three observations seem relevant to these findings. First, religion, race, and ethnicity are at one end of the spectrum of values that COFHE alumni challenged during their college years. These are values that were probably socialized in throughout childhood. And yet 49 and 56 percent are high numbers on their face. Considering the nature of religious training and the saliency of racial and ethnic relations in the United States, the fact that the numbers are this high is a statement about the impact of college on the examination of fundamental beliefs.

Although religion, race, and ethnicity are at one end of the spectrum, they look more like all other values than separate or isolated values. Indeed, "ethical values" and beliefs about "sexual orientation" were likely to be questioned by about the same percentage of alumni – 57 percent and 58 percent respectively -- as beliefs about race and ethnicity.[29]

Alumni question other beliefs and values at relatively higher levels. Sixty-one percent report questioning the beliefs about religions other than their own and 64 percent questioned political beliefs. The latter findings are consistent with some of the oldest social psychological research about college students. Theodore Newcomb found that

[29] The relatively high percentage of alumni questioning these values is consistent with the conclusions of Pascarella and Terenzini in their overview of higher education research. See Chapter 8, "Moral Development," in Ernest T. Pascarella and Patrick T. Terenzini, *How College Affects Students.* San Francisco: Jossey-Bass Publishers, 1991.

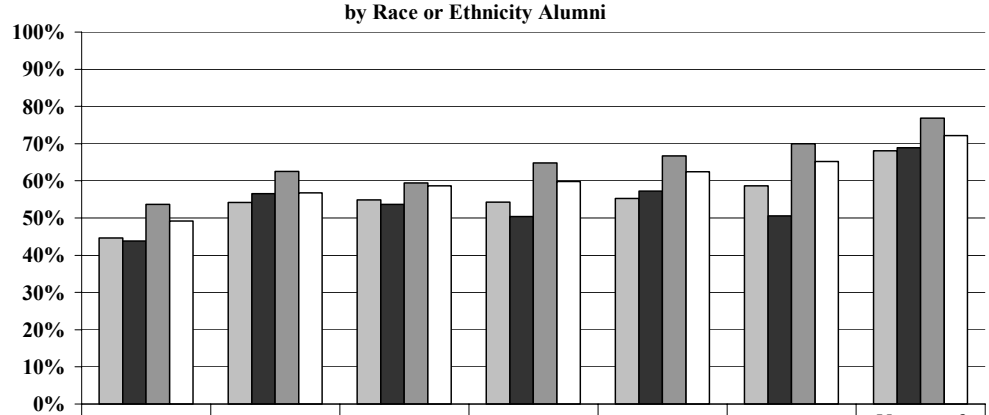
Bennington College students in the 1930s changed their political and social beliefs in an ideological direction of the prevailing environment over the four years of enrollment and that the beliefs persisted for at least 25 years after graduation.[30] Alexander Astin's more recent research using the same cohort of students as those in this report, found "college environmental" changes in political identification, ideology, liberalism, and feminism among the 1989 cohort of students.[31] While the *2000 Alumni Survey* did not ascertain the direction of belief change, i.e. whether liberal or conservative, the questioning of one's own political beliefs is a likely first step in rationally embracing higher levels of political sophistication.

Finally, the Class of 1989 alumni reported the greatest questioning of their beliefs about the nature of humans and society in general. For these individuals, college was a time to expand one's knowledge about the world, about follow people, about life itself. Robert Lane's analysis of Yale undergraduate essays in the 1960s documents a learning process of challenging basic beliefs and developing a "political consciousness" that guides college students through their daily campus activities.[32] Lane's graduate students re-interviewed several of the undergraduate subjects after graduation and found that the beliefs they formed in college persisted as a fundamental belief structure later in life. The findings of the *2000 Alumni Survey* add weight to this earlier research, demonstrating that almost three-out-of-four alumni recalled questioning fundamental values that might make up one's philosophy of life.

The questioning of beliefs and values is not the same for all racial and ethnic groups as Figure 5-14 displays. In general, Hispanic alumni questioned the beliefs or values the most, whites second, and Asian alumni the least. The amount of questioning by black alumni, compared to other racial and ethnic groups is quite variable. Black alumni were the least likely group to question beliefs about "people with a sexual orientation different than your own" and "political beliefs/values." But they were equal or more likely than Asian alumni to question other topics, such as the "nature of humans or society," "beliefs about others' religion," and "beliefs about others' race or ethnicity." The data suggest that black alumni were less introspective in questioning their beliefs and values than other racial and ethnic groups while Hispanic alumni had the broadest range of values that they questioned in college.

[30] Theodore Newcomb and E. Wilson. *College Peer Groups*. Chicago: Aldine, 1966.
[31] Alexander Astin, *What Matters in College?* San Francisco: Jossey-Bass, 1993.
[32] Robert E. Lane, *Political Thinking and Consciousness.* Chicago: Markham Publishing Company, 1969. There is a large political science literature on the relationship between education and beliefs about democratic principles of democracy and political tolerance. For a summary see, George E. Marcus, et al., *With Malice Toward Some.* New York: Cambridge University Press. 1995.

Figure 5-14
Beliefs or Values Questioned as an undergraduate
by Race or Ethnicity Alumni



	Religious Beliefs	Other Race or Ethnicity	Ethical Values	Sexual Orientation	Other Religions	Political Beliefs	Nature of Humans or Society
Asian	45%	54%	55%	54%	55%	59%	68%
Black	44%	57%	54%	50%	57%	51%	69%
Hispanic	54%	63%	59%	65%	67%	70%	77%
White	49%	57%	59%	60%	62%	65%	72%

The differences among racial and ethnic groups may be important when assessing the impact and outcomes of an undergraduate education. Quite simply, minority groups respond differently from whites, and quite differently from each other to their undergraduate experience. A liberal arts curriculum and a diverse campus setting will produce different academic responses from people of different racial and ethnic backgrounds.

Yet the overall level of questioning is relatively high for all topics among all racial and ethnic groups. With the exception of one's own religious beliefs, a majority of alumni from each racial and ethnic group reported questioning all of the beliefs and values in the survey. Differences exist among topics; some values and beliefs are questioned more than others. The variation among racial and ethnic groups for questioning any single topic is not as great as the overall variation between the least and the most questioned topic. Clearly the Class of 1989 was more engaged with some topics more than others.

Insights from the Questioning of Beliefs and Values

Before drawing conclusions about the questioning of beliefs and values, we should review the exact wording on the survey instrument. The "questioning" of these fundamental values and beliefs need not have created any **changed** values or beliefs – only a "serious" questioning to have evoked a positive response.

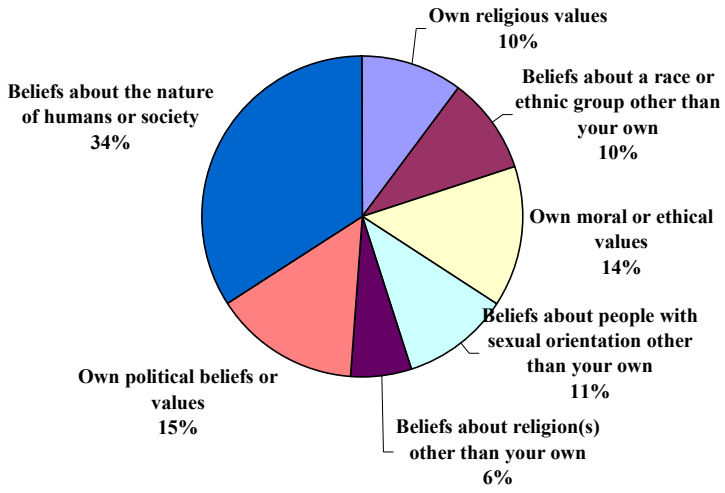
> While you were an undergraduate, did you ever seriously question or rethink your beliefs or values in any of the following areas? You need not have changed [emphasis in the original] your beliefs or values in order to answer "yes" to having questioned them in a fundamental way. Please mark "yes" or "no" on each line.

The follow-up question allows greater probing into the responses:

> If you answered "yes" on any line above, in which area did your questioning produce the most valuable insights? [Mark only one of the answers that you marked "yes."]

The responses allow a second cut at the relative position about the questioning of core values and beliefs. Figure 5-15 displays the responses of the Class of 1989.

Figure 5-15
Area of Beliefs and Values where questioning produced the most valuable insights



In general, the questioning that provided the most valuable insights divide into two groups: (1) beliefs about the nature of humans and society, and (2) everything else. That is, alumni were most likely to report that the questioning about the "nature of humans and society" produced their most valuable insight. Thirty-four percent of the alumni reported that this questioning created the greatest insights. The questioning of any other beliefs and values produced the "greatest insights" for a much smaller proportion of alumni – typically 10 to 15 percent.[33]

[33] This finding is consistent with a rather large theoretical literature about the impact of college on beliefs and values as well as some empirically based surveys by other researchers on higher education. A

On the Importance of Questioning Beliefs and Values as an Undergraduate

How does one evaluate the observation that a large portion of alumni report questioning beliefs and values while in college? From the perspective of liberal arts education, most faculty and administrators would be pleased with the findings reported here. College is supposed to be a period when students are engaged with ideas – where questioning fundamental beliefs and values is a required rite of passage from teenager to adulthood. This notion is, of course, a familiar argument among neo-Freudian psychologists,[34] as well as cognitive developmental psychologists.[35] And, their theories have been applied to college students to describe students' changing political values and world-view -- a kind of collective "identity crisis.[36]" Higher education journals are also filled with articles about the impact of college on beliefs and values.[37]

The underlying theme to this scholarly work is that a person's core values and beliefs are more firmly grounded when challenged, questioned, reformulated, and informed. This is the essence of a liberal arts education, the kind of experience that COFHE institutions articulate in their mission statements, market to incoming freshman, and publish in campus brochures.[38] The amount of questioning that is part of the undergraduate experience is an important indicator of success in accomplishing what COFHE schools claim to do best – provide conceptual grounding for critical thinking that lasts a lifetime.

This is not to say that a liberal arts education should be judged solely on its utilitarian contribution to those who attend college. Indeed the phenomenological experience of enjoying learning, experiencing the arts and sciences, or living the life of the mind for four years in late adolescence has virtue itself. And in this context, the finding that a majority of alumni from the Class of 1989 recalled questioning all of the beliefs and values in this survey is important, in and of itself, to administrators and faculty at COFHE institutions. But clearly the expectation of parents and students at the turn of the twenty-first century is for a college education to have use for students as an individual. Perhaps the greatest claim for a broad liberal arts background is that it expands one's capacity for critical thinking of the kind explored in this set of survey questions.

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comprehensive review of these theories can be found in Pascarella and Terenzini, *How Colleges Affect Students*.

[34] For example, Erik H. Erikson, *Identity: Youth and Crisis.* New York: W. W. Norton, 1968.

[35] For example, see Howard E. Gruber [ed.], *The Essential Piaget.* New York: Basic Books, Inc. Publishers.

[36] See Kenneth Keniston, *Young Radicals.* New York: Harcourt, Brace & World, Inc., 1968.

[37] A comprehensive review of these theories can be found in Pascarella and Terenzini, *How Colleges Affect Students.*

[38] Several associations in higher education, including COFHE, have shown a recent interest in articulating and understanding the beliefs among the public about a liberal arts education. Its general appeal and potential support is probably an essential component of its continued success as the basis for undergraduate education.

The primary message in *The Shape of the River* is that educational outcomes of college for both minority and majority students are better when students of different racial and ethnic backgrounds enroll at highly selective institutions.

> According to the testimony of the overwhelming majority of the graduates of these colleges, the presence of a diverse student body has enabled students of all races to have richer, more valuable educational experience that has served them well in later life. In addition selective institutions have graduated large numbers of black students who have achieved a great deal not only economically and professionally but in civic and community affairs as well.[39]

But researchers are only now exploring the college dynamics that may help explain "why." Why do highly selective institutions, such as COFHE schools, benefit minority students who might have chosen to go elsewhere as well as majority students? Perhaps the answer lies in how group interactions relate to the values of a liberal arts education?

Diversity and a Liberal Arts Education

Analysis of the *2000 Alumni Survey* shows that schools differ in challenging students to question fundamental beliefs and values as an undergraduate. Drawing on work by Joseph Pettit,[40] we summed the number of values and beliefs that each alumni recalled questioning as an undergraduate to create a measure of the impact of the undergraduate, liberal arts experience. The indicator taps the propensity to question values and beliefs, an indication that the respondent engaged in some level of "critical thinking" as an undergraduate. By adding together the number of "yes" responses, the variable records high values for those who questioned the most and low values for those who questioned the least.

[39] Princeton University Press, "Principal Findings and Conclusions," press release, September 9, 1998, p. 4.
[40] Correspondence between C. Anthony Broh and Joseph Pettit, October, 2000. COFHE staff wishes to thank Joe for his innovative work and help with this research.

Figure 5-16
Average Number of Topics Questioned in College by Race and Ethnicity of Alumni

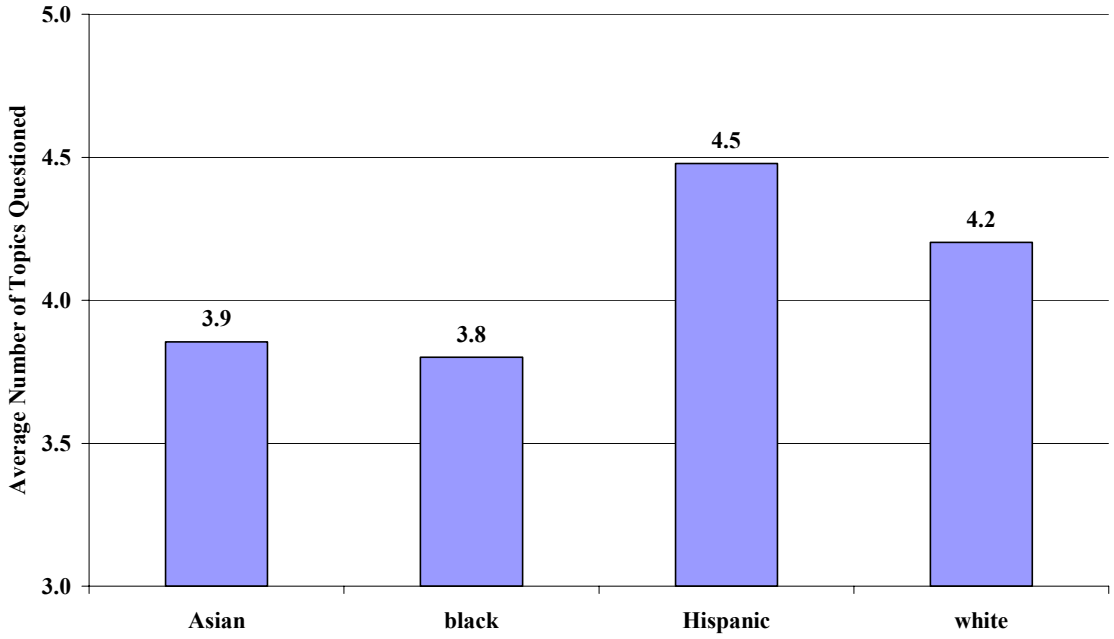
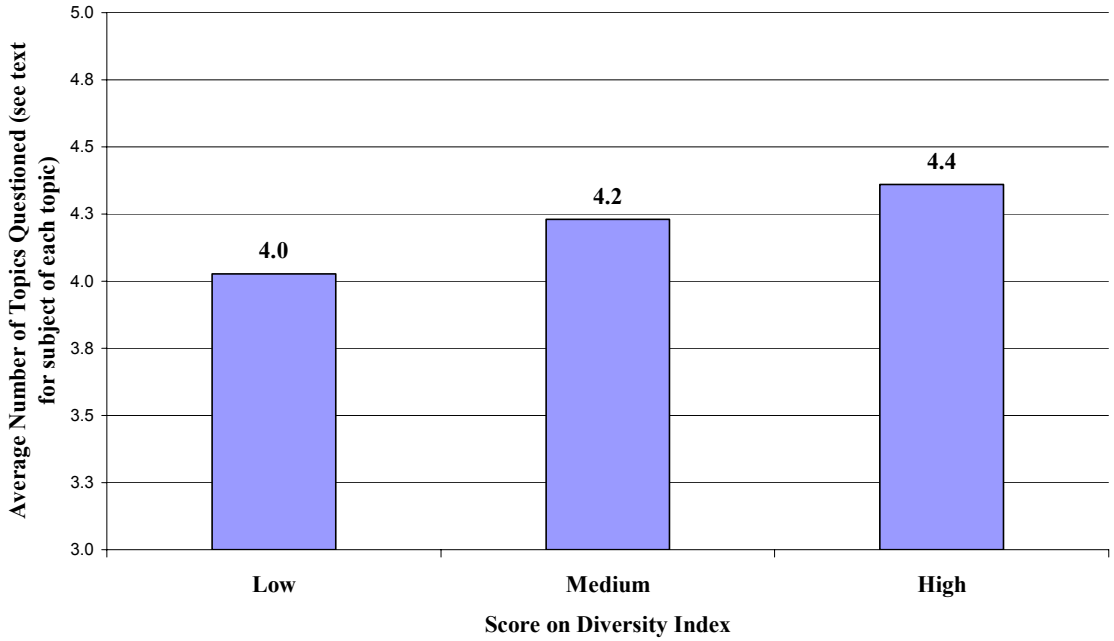


Figure 5-16 displays the average number of topics that the alumni reported questioning while they were in college. All racial and ethic groups reported questioning several beliefs and values – from Asians who questioned slightly fewer than four to Hispanics who questioned considerably more than four.

To explore the relationships between diversity and a liberal arts education, we looked at the relationship between the Diversity Index and the amount of questioning of beliefs and values that alumni recalled as an undergraduate. Should increased interaction with minority groups be associated with increased questioning of beliefs and values, we would know more about at least one component of a liberal arts education. Figure 5-17 presents data on this topic.

Figure 5-17
Average Topics Questioned in College by Score on the Diversity Index

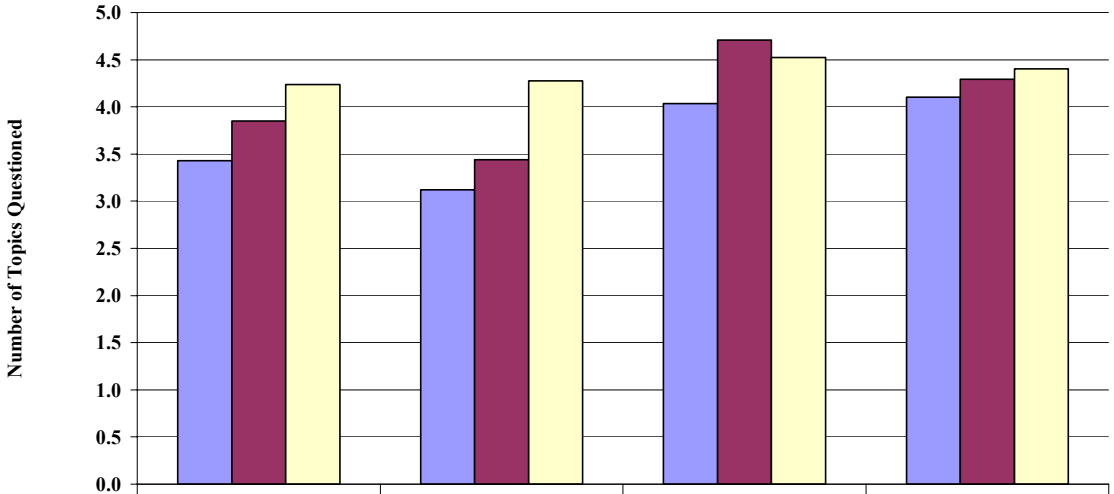


In general, Figure 5-17 shows that the higher the score on the Diversity Index, the greater the number of topics that alumni from the Class of 1989 recalled questioning as an undergraduate. Those without substantial interaction with any minority group, questioned the fewest number of beliefs and values. Those with the highest score on the Index questioned the greatest number of beliefs and values. Although the difference between the lowest and highest appear small,[41] they are statistically significant. Substantively, the difference between the lowest and highest scores means that about one-third of the alumni questioned an additional belief or value if they were the highest on the Index.

The validity of this finding is supported by the relatively consistent pattern across all racial and ethnic categories, specified in Figure 5-18. For all groups except Hispanic alumni, the relationship between the Diversity Index and the amount of questioning as an undergraduate is the same; the mean scores increase monotonically. Alumni who reported a multi-racial background and those who did not report their race or ethnicity followed the same pattern – increased questioning associated with increased Diversity Index scores.[42] The only deviation from the pattern is Hispanic alumni, whose "medium" score on the Diversity Index has a slightly higher amount of questioning than Hispanic alumni whose score is "high" on the Index. Nevertheless, patterns this consistent across all racial and ethnic groups add evidence that the underlying relationship between these two variables is substantively valid.

[41] 4.41 – 4.05 = 0.36
[42] Data not shown here.

Figure 5-18
Number of Topics Questioned by Scores on the Diversity Index for Alumni from Each Racial and Ethnic Group



	Asian	Black	Hispanic	White
Low	3.43	3.12	4.03	4.10
Medium	3.85	3.44	4.71	4.29
High	4.23	4.27	4.52	4.41

T his relationship suggests that interactions with minority students have an impact on critical thinking in college. Those with the lowest amount of interaction with minority groups were the least likely to recall questioning fundamental beliefs and values – an exercise important to a liberal arts education. Those with the greatest amount of interaction with minorities also recalled the greatest amount of questioning.

That this finding is consistent across all racial and ethnic groups suggests that interaction with minorities has an educational benefit for everyone on campus. Whites display increasing amounts of questioning with interaction between increasing numbers of racial and ethnic groups. So do Asian alumni, Hispanic alumni, and alumni from all other groups.

Finally, the *2000 Alumni Survey* allowed additional testing of the thesis presented in this chapter. The respondents were asked to identify several items that "contributed to any of the questioning marked in 18.b" [the list of values and beliefs that they might have "seriously questioned in college"]. The alumni were asked to mark an item if it "contributed directly to the questioning/rethinking." The list of items included the following:

- Lectures, course-related readings
- Contact with faculty outside of class
- Off-campus study program

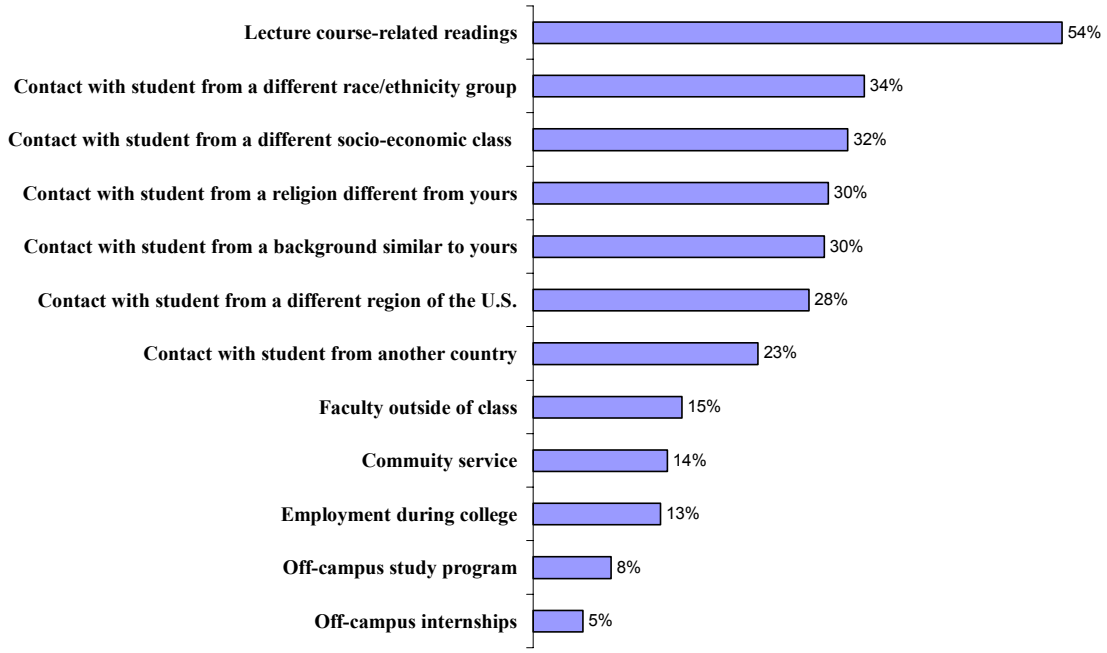
- Off-campus internships
- Community service
- Employment during college

On-campus contact with student(s) from:

- another country
- a religion different from yours
- a different region of the U.S.
- a different race/ethnic group
- a different socio-economic class
- a background similar to yours

The results of the question are displayed in Figure 5-19. By far the most important factor that alumni recalled as contributing to their undergraduate questioning was course-related activity.[43] Academic Deans take heart: the curriculum matters in college! Off campus activities contribute the least. Student Deans take heart: campus life matters in college.

Figure 5-19
Campus Contacts that Contributed to Questioning



[43] High school students in Jefferson County, Kentucky also report that discussion and readings in their English class and their social studies class about different cultures and racial and ethnic groups helped them understand viewpoints different from themselves. See Michal Kurlaender and John T. Yun, "Is Diversity a Compelling Educational Interest?" The Civil Rights Project, August, 2000.

Particularly relevant to this chapter, alumni attribute contact with students from different backgrounds as also contributing to questioning of beliefs and values as an undergraduate. Highest among the different backgrounds was contact with students from a different racial/ethnic group.[44] Not only is there a relationship between interactions with racial/ethnic minorities and questioning about fundamental beliefs, but alumni are aware of the relationship.[45] When asked, they attribute contact with different racial and ethnic groups, second only to course-related activity, as contributing to the questioning of beliefs and values that they did as an undergraduate.

This finding is worth explication due to its importance for affirmative action programs. Using two entirely different approaches, the questioning of values and beliefs as an undergraduate is, in part, a function of interaction with different racial and ethnic groups. In the first instance the amount of questioning of beliefs and values increased if alumni also recalled interacting with different minority groups as an undergraduate. In the second instance, alumni stated explicitly that the interactions they had with racial and ethnic groups different from themselves contributed to the questioning of beliefs and values.

Regression Analysis and Institutional Comparisons

An additional test of these findings is to introduce all of the items that are correlated with the questioning of beliefs and values into a regression model. This statistical procedure allows evaluation of several variables simultaneously. One can test, for example, whether the Diversity Index is related to questioning of topics in college conditional on the influence of gender or differences among racial and ethnic groups or different participation rates in various campus activities. Regression analysis also allows one to estimate the relative influence of each of these items separately.

Table 5-4 presents the coefficients for two least-squares analyses that were performed on the *2000 Alumni Survey* data. It shows that the Diversity Index is related to the number of topics questioned in college while holding gender and race. The beta coefficient of .06 is the highest positive value among all variables suggesting that the Diversity Index is the most important variable in the first regression equation. The negative coefficients in the first column of data suggest that Asian and black alumni questioned slightly fewer beliefs and values in college than white citizens with equal amounts of interaction with racial and ethnic groups.

[44] This finding is consistent with the response to a similar question of Harvard University and University of Michigan Law students. See Gary Orfield and Dean Whitla, "Diversity and Legal Education," The Civil Rights Project, August, 1999.

[45] There is a danger relying solely a question where alumni are aware of the intent of the survey question. However, the *2000 Alumni Survey* disguised the intent by offering numerous alternatives – most of which were unrelated to issues of race. Considerable credit goes to Larry Litten and the survey COFHE advisory team for the innovative design of this portion of the questionnaire.

Table 5-4

Regression Analysis of the Number of Topics Questioned in College

	Regression Coefficients for First Equation				Regression Coefficients for Second Equation			
	Unstandardized Coefficients		Sig	Beta	Unstandardized Coefficients		Sig	Beta
	Regression	Standard Error			Regression	Standard Error		
Constant	4.07	0.04	**		5.05	0.10	**	
Diversity Index	0.19	0.03	**	0.06	0.10	0.03	**	0.03
Sex (Male)	0.04	0.05		0.01	0.11	0.05	**	0.02
Asian	-0.48	0.09	**	-0.06	-0.37	0.09	**	-0.04
Black	-0.55	0.13	**	-0.04	-0.73	0.13	**	-0.06
Hispanic	0.16	0.14		0.01	0.15	0.14		0.01
Student government					0.00	0.13		0.00
Intercollegiate sports					0.04	0.07		0.01
Intramural sports					-0.29	0.10	**	-0.03
Student publications					0.10	0.13		0.01
Art or music					0.24	0.08	**	0.03
Political clubs					0.52	0.12	**	0.05
Community service					0.35	0.10	**	0.04
Fraternity or sorority					-0.27	0.08	**	-0.04
Religious groups					0.15	0.12		0.01
Residential hall life					0.30	0.07	**	0.05
Visiting speakers					0.64	0.13	**	0.05
Campus job					0.24	0.06	**	0.04
Off-campus job					-0.06	0.08		-0.01
	** Statistically significant, p < .05							

The last four columns in Table 5-4 provide additional information about this relationship. As noted earlier, campus activities are associated with varying amounts of racial and ethnic interaction. By introducing these variables into a second regression equation, one can observe any changes in the previously observed relationship and identify those activities that are important to questioning values and beliefs as an undergraduate. Eight of the thirteen campus activities in the study had an independent influence on the number of topics questioned in college. This suggests, for example, that participating in an art or music performance as a student was a source for alumni of questioning beliefs and values, as was membership in political clubs, a campus job, and the items indicated with ** in column 8 of Table 5-4.

The second regression analysis modifies some of the earlier observations about student government and intercollegiate sports. These two campus activities, among others, were related to interaction with racial and ethnic groups. That is, those with high participation

in these activities also had a higher number of interactions. But the activities themselves were not associated with the kind of questioning of values as an undergraduate that were evident with other activities, once the effect of the Diversity Index was considered. While participation in student government, intercollegiate sports, student publications, religious groups resulted in higher interactions with racial and ethnic minorities (as described earlier), they did not have an independent effect the questioning of beliefs and values in college.

The implications of these findings are that campus activities are likely to play two different roles for alumni in the questioning of fundamental beliefs and values. Some activities, themselves, create an opportunity for questioning a number of topics. Others create the opportunity through greater exposure to diverse group, which may, in turn, result in greater questioning of beliefs and values.[46]

The negative coefficients in column 6 of Table 5-4 are also instructive. Membership in fraternities and sororities is negatively associated with the number of topics questioned in college. Earlier we observed that membership in fraternities and sororities was negatively related to interactions with racial and ethnic minorities. These findings are consistent with the criticisms that the culture of selectivity isolates students from people different than themselves as well as ideas that would challenge their fundamental beliefs.

Perhaps the most important observation from the two regression analyses is the decline in the size of the beta weight when participation in campus activities is added to the regression equation. While a beta coefficient of .06 is relatively small, the decline to .03 in the second equation is important. Thus the robustness of the Diversity Index in explaining the number of topics that alumni questioned in college is, in part, dependent on participation in campus activities.

Substantively, this suggests that alumni question beliefs and values in college as a result of their interactions with racial and ethnic minorities in campus activities. This is a model of education that has long been understood by campus administrators who work closely with students. Some of the most important education takes place outside the classroom – in campus activities unrelated to courses and the curriculum. Interactions with racial and ethnic groups has an independent effect on the educational process; but another portion of it – or at least the kind of questioning of values associated with a liberal arts education – results from campus activities that create the opportunity for students to interact with people different than themselves.

Conclusion

The primary conclusion of this research is that interaction with racial and ethnic groups is associated with the questioning of the fundamental beliefs and values that both minority and white alumni recall as important to their intellectual growth. Political beliefs, ethical values, moral values, religion, indeed a philosophy of life, are the intellectual building blocks of a liberal arts education. The interactions with racial and ethnic groups different

[46] We expect to explore some of these models in subsequent research on campus life.

from oneself stimulates the kind of questioning of these values and beliefs that COFHE schools are trying to achieve.

The policy implication of the analysis in this chapter is clear. Majority and minority students benefit academically when students from different racial and ethnic backgrounds interact with one another. In addition, a diverse campus setting creates a campus experience that makes students familiar with the patterns of racial and ethnic interaction that they will encounter after they graduate from college. Admission policies that establish the opportunity for this interaction not only create a favorable academic environment but they allow an institution to accomplish its educational objectives. Affirmative action, in this sense, is not a "zero sum game" where the admission of one type of student denies the admission of another type of student. It is a "positive-sum game" where the institution creates a "win-win" opportunity for those that enter its academic gates.[47]

[47] This conclusion was written prior to the recent court decision in *Gratz, et al. V Bolling, et al.,* No. 97-75231 (E.D. Mich.). The court concluded: "This court is persuaded, based upon the record before it, that a racially and ethnically diverse student body produces significant educational benefits such that diversity, in the context of higher education, constitutes a compelling government interest under strict scrutiny."