

Student Involvement as Predictive of College Freshmen Plans to Study Abroad

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Almost a quarter century ago, a President's Commission on Foreign Language and International Studies argued that by the year 2000, at least 10 percent of university students in America should be engaged in a study abroad experience.¹ The date for reaching this projected figure has come and gone, and although the number of students engaging in such an experience has tripled in the past decade, presently only about three percent of America's higher education students study abroad.² Some scholars maintain that a projection of 10 percent may be unrealistically high. However, the European Union (EU) also aspires to a participation rate of 10 percent, and while it has not yet achieved that aim, some EU countries have done far better than the United States. The rate of participation in Germany, for instance, is 6 percent; in Austria, 5.6 percent; and in the United Kingdom, 4 percent,³ which suggests that the United States could aspire to a higher participation rate.⁴

We often speculate on the reasons why our students do not study abroad. Many students may not be adventurous and are content to remain at home. Some feel it is too expensive, while still others face family resistance. Many higher education programs are so tightly structured that students in these programs are virtually prohibited from studying abroad unless they are willing to extend their time at college. In addition, faculty members and advisors often discourage students from going abroad, claiming that nowhere else can students obtain the same quality of educational experience as at their particular university.

Recent survey data of high school seniors sheds new light on the issue. Almost half (48 percent) of the respondents indicated that they expected to study abroad while attending college or university.⁵ This tells us that the problem of raising study abroad participation rates should not necessarily be seen as a marketing issue as much as an effort to cultivate the attitudes and interests students bring to college. Study abroad advisors need to focus more on students who are inclined to study abroad and try to develop strategic ways to sustain the interest students bring with them as they arrive at the university campus.

Involvement Theory and Academic and Social Integration

Theoretical approaches by Alexander Astin and Vincent Tinto provide a good starting point to investigate study abroad as part of the college experience. Astin and his colleagues have developed a theory of student involvement that is defined as “the amount of physical and psychological energy that the student devotes to the academic experience.”⁶ A highly involved student is one who, for example, devotes considerable energy to studying, spends much time on campus, participates actively in student organizations, and interacts frequently with faculty members and other students. Much research has been done in the past on the effects of student involvement and the college experience. According to Astin’s theory, “the amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program.”⁷ Therefore, according to Astin, the greater a student’s involvement in the college experience, the more engaged and motivated a student will be not only to persist in college, but also to engage in an increased number of activities, thereby further enriching the college experience.

Astin’s theory of involvement is closely aligned with Tinto’s theory of academic and social integration. Involvement also plays a key role in Tinto’s theory which argues that “the more students are involved, academically and socially, in shared learning experiences that link them as learners with their peers, the more likely they are to become more involved in their own learning and invest the time and energy needed to learn.”⁸ Through involvement, students become more socially and academically integrated into the college environment, thereby better ensuring the possibility of success and overall contentment while in college. Involvement not only facilitates persistence in the college environment, but also allows students to become more actively and socially engaged in the institution. This should lead to greater participation in various university programs.

Building on Astin's and Tinto's definitions of involvement and its positive effects on the college experience, study abroad can be seen as one important form of involvement. Students who are involved are more likely to stay involved and to expand their involvement into other aspects of the college experience. We hypothesize that students who are highly involved in their school experience are likely to show more interest in study abroad and will incorporate this experience into their regular programs of study.

Data Source: The CIRP Freshman Survey

A useful source for measuring student involvement is an annual survey conducted by the Higher Education Research Institute (HERI) at the University of California, Los Angeles (UCLA). Its Cooperative Institutional Research Program (CIRP) Freshman Survey is the nation's oldest and largest empirical research source of higher education.⁹ Each year since 1962, a large sample of freshmen fills out a lengthy questionnaire that covers demographic characteristics, expectations of the college experience, past experiences, degree goals, career plans, finances, attitudes, values, life goals, and reasons for attending college.¹⁰ In 2003, approximately 400,000 students, at 614 of the nation's colleges and universities, representing 23 percent of all freshmen students in the country entering four-year institutions, filled out the questionnaire.

Also in 2003, a question about study abroad was included for the first time. The question asked, "What is your best guess as to the chances that you will participate in a study abroad program?" The responses of freshman students were generally positive. At least 21.9 percent of them indicated there was a "very good chance" they would participate in a study abroad experience, while another 31.9 percent indicated "some chance," 30.0 percent indicated "very little chance," and only 16.2 percent indicated "no chance."¹¹ In other words, more than half the freshman students (53.8 percent) felt there was either a good chance or some chance that they would study abroad.

Scale Creation

In the present study, we analyze the 2003 CIRP Freshman Survey to investigate whether freshmen who intend to study abroad express a history of active involvement. The CIRP Freshman Survey has a number of items indicating student involvement and participation. We created six scales based on the theory of student involvement. We hypothesized that students who are generally active and involved in the academic, social, political, diversity, work, and community arenas would also be more likely to demonstrate interest and future

involvement in studying abroad. Our scales were based on student responses to thematically similar questionnaire items that pertained to six particular types of student involvement: academic, social, political, diversity, work, and community. Each scale consisted of 3 to 9 items drawn from the survey. We relied on a group of four judges who came to a consensus as to which items ought to be included in a particular scale. This collapsing of items into more generalized scales was intended to increase the reliability of statistical results and strengthen the predictive value of the overall model.

Finally, two more scales were created based on students' responses to their intended college majors. Based on study abroad trends, we predicted that students intending to major in humanities and social science fields would be more likely to show interest in studying abroad, while the reverse would be the case with intended math and "hard" science majors. Although study abroad trends indicate that those in the humanities and social sciences majors comprise the greater proportion of individuals who study abroad, the humanities/social sciences scale did not highly correlate with our study abroad variable, and the math/"hard" sciences scale was not highly negatively correlated with study abroad. Both scales were therefore removed from our final model.

Ultimately, neither of the major scales and only five of the six involvement scales had high predictive values. Academic, social, political, diversity, and community involvement were the five scales that were included in our final regression model. Student work involvement did not end up contributing to our overall regression model and was dropped. Its coefficient was $-.033$, indicating a very slight negative impact on our study abroad outcome variable. The work scale was comprised of three variables: hours per week working for pay, likelihood of getting a job to pay expenses in college, and likelihood of working full-time in college. We believe that the coefficient is close to zero because of two competing and contradictory forces within student work involvement. While our conceptual framework indirectly suggests that greater student work involvement may positively correlate with study abroad on the one hand, the issue of students' financial situations and SES tend to slightly negatively correlate with interest in study abroad. Therefore, the two factors seem to cancel each other out within this scale.

Data Analysis

We used regression analysis to examine the relationship between our independent and dependent variables. Even though our sample size was extremely large, statistical analysis was complicated by two major problems. First,

because involvement in the CIRP Freshman Survey is voluntary for higher education institutions, participation is neither representative nor generalizable. For example, liberal arts colleges were far more represented in the raw data than were community colleges. Therefore, it was necessary to weight and filter the data so that it mirrored national trends and averages. In order for us to account for sample bias, we followed the Higher Education Research Institute's (HERI) guidelines by filtering the data, placing the 614 participating institutions into 41 stratification cells. These cells were created based on type, such as whether the institution has public or private status, is a university, four-year college, community college, is a historically Black college or university (HBCU), or has a religious affiliation. Each of these demographic categories was then further divided based on institutional selectivity, determined by mean SAT scores of entering students. After the filtering process, the sample size was reduced from the original 614 institutions, comprised of more than 400,000 students, to 413 institutions, comprised of 276,449 students. A weighting technique was then applied to these filtered cases, in order to project the national number of approximately 1.2 million freshmen.

The second problem with the data had to do with the values attached to the individual items. Some of the items in the scales were ordinal (e.g., frequently, occasionally, not at all), while other items in the scales were categorical (e.g., your probable career, father's career, mother's career). Ordinary Least Squares (OLS) is a standard linear regression procedure that assumes the values of items are ordinal. In our study, the dependent variable, interest in study abroad, had a value system of 1 to 4, where 1 = no chance, and 4 = a very good chance of "participating in a study abroad program." When the scales are categorical, the ordinary least squares (OLS) method is supplemented by categorical dependent variable regression models which provide ways of estimating parameters. Unlike the OLS, the categorical dependent variable regression models are not linear. There are various types: binary, ordinal, and nominal. We selected the ordinal model because it is based on a numerical scale rather than letters or some other value.

In our statistical analyses, OLS regression and ordinal logistic regression produced complementary results. Therefore, only the latter set of results will be presented in this article. As a word of caution, statistical tests of a sample size of this magnitude are significant even with the slightest variance in the variables, so statistical significance is not a useful measure of variance.

Findings: Student Involvement and Intentions to Study Abroad

We hypothesized that students who report that they have been active and involved in the academic, social, political, diversity, and community arenas, would also be more likely to demonstrate interest and future involvement in studying abroad. Upon adding the predictor variables (academic, social, political, diversity, and community) into our OLS regression model, we received the following output. The *R-square* value is 0.157, meaning that the overall model accounts for approximately 15.7 percent of the variation in the likelihood of participation in study abroad. Considering all the factors that go into such a decision, including family, financial, and personal issues, this is a good indicator that the model fits the data well.

Table 1: Scale Scores for Likelihood of Study Abroad Participation

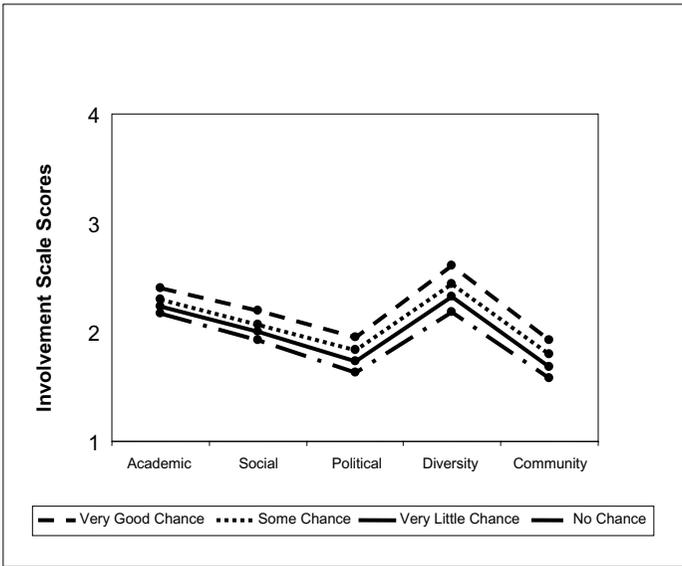


Table 1 provides descriptive information of our final five scales with respect to our study abroad outcome variable. We performed a comparison of the means for each of the 5 scales within the 4 values of study abroad ranging from 1 (no chance of studying abroad) to 4 (very good chance of studying abroad). This produced a total of 20 mean scores indicated by the points on the chart. The lines on the chart represent the four response levels for our study abroad variable.

As Table 1 indicates, the general trend in the data is that the higher the mean in each of the involvement scales, the greater the likelihood of a student’s indicated interest in studying abroad. Therefore, the higher one scores in each of the involvement scales, the more likely he or she is to show interest in studying abroad. While the margin of difference is not great, this general rule remains consistent for each of the four levels of expectancy to study abroad; all involvement scales directly correlate with our study abroad indicator.

Within the Table 2 Parameter Estimate results, the “Estimate” column coefficients allow us to compute the odds ratio that provides the critical information needed to determine the effects of academic, social, political, diversity, and community involvement on study abroad participation. It is calculated by raising *e* (which has a value of approximately 2.7183) to the power of each of the coefficient as observed in Table 2. The results will be discussed in the ensuing descriptions of each of the five involvement scales.

Table 2: Parameter Estimate results

Scales	Coefficient	Operation	Odds Ratio
Academic	0.390	$e^{0.390} = 1.477$	1.477
Social	0.641	$e^{0.641} = 1.898$	1.898
Political	0.556	$e^{0.556} = 1.744$	1.744
Diversity	0.848	$e^{0.848} = 2.335$	2.335
Community	0.427	$e^{0.427} = 1.533$	1.533

Academic Involvement

The nine variables comprising our academic involvement scale included some of the following: frequency of “tutoring another student” last year, frequency of “using the internet for research or homework,” hours per week “studying or doing homework,” and hours per week “talking with the teacher outside of class.”¹² Variables such as teacher interaction and time spent studying or doing homework are some of the more obvious academic involvement variables, while others may be arguably less indicative of students’ academic involvement, such as “likelihood of making at least a B average in college.” Much deliberation went on as to what should and should not be included, and we ultimately felt that the chosen variables were good indicators of students’ academic involvement.

In order to analyze the data, we begin with the ordinal logistic coefficient for academic involvement. The value from Table 2 is 0.390, which indicates that the odds ratio of a student likely to participate in study abroad is 1.477. Since the likelihood of participation in study abroad is based on a 4-point system, 0.477 is a noteworthy increase. The information may be restated as,

the statistical odds of an academically involved student participating in study abroad is 47.7 percent greater than a student who does not have a one point increase in academic involvement.

Social Involvement

Five variables were selected for our social involvement scale, generally pertaining to two elements: frequency of interaction with friends and participation in student clubs or groups.¹³ The variables in all the scales refer to various points in time, either in the past, in the future, or to students' projected goals and intentions. For instance, for the social involvement scale, students were asked how many hours per week they participated in student clubs during their senior year as well as the frequency or likelihood of participating in student clubs or groups while attending college. Social involvement centers on participation with peers.

We find that freshmen who socialize extensively with friends were more likely to plan to study abroad, although the type of socializing was crucial. Partying, for instance, was not the crucial activity associated with plans to study abroad.

From Table 2, we observe that the ordinal logistic coefficient for social involvement is 0.641. It then follows that the odds ratio of a student reporting a likelihood to participate in study abroad is 1.898. The information may be restated as, the statistical odds of a socially involved student participating in study abroad is 89.8 percent greater than a student who does not have a one point increase in social involvement.

Political Involvement

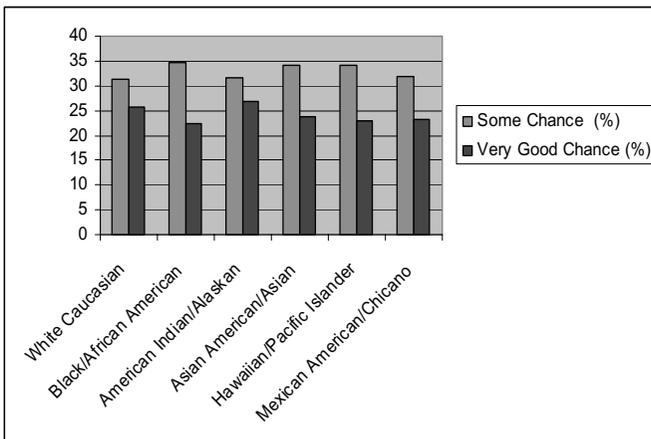
With respect to political involvement, we wanted the variables to reinforce *overall* political action as opposed to partisan political ideology; we therefore attempted to include only general political involvement variables, such as frequency of participating in a demonstration, discussing politics, or taking part in student elections.¹⁴ It could be argued that a variable such as "participated in a demonstration" is more likely to represent students from the political left. However, we decided to keep this variable in our scale because it is a political action that all individuals have a right to practice, irrespective of political orientation or any other demographic criteria. Political activism is also associated with plans to study abroad. Politically active students are assumed to discuss politics and participate in demonstrations on a more frequent basis.¹⁵ We assume that students who are interested in politics tend to be interested in foreign policy and to be more critical of current events, therefore, possibly making them more likely to be curious about issues abroad.

The ordinal logistic coefficient for political involvement is 0.556, which indicates that the odds ratio of a student likely to participate in study abroad is 1.744. In other words, Table 2 shows that the logistical odds of a politically involved student participating in study abroad is 74.4 percent greater than a student who does not have a one point increase in political involvement.

Diversity Involvement

The variables ultimately selected for our diversity involvement scale generally emphasize involvement with racial and ethnic groups other than one’s own — both nationally and internationally — as well as the desire to improve one’s understanding of other countries and cultures, or to promote racial understanding.¹⁶ The ordinal logistic coefficient for diversity involvement is 0.848, which results in an odds ratio of 2.335 for a student likely to participate in study abroad. This is the largest increase we found among the academic, social, political, diversity, financial, and community involvement scales. Students who frequently socialize with different ethnic groups were far more likely to plan on studying abroad than those who did not. Since study abroad is an international enterprise, it follows that students more inclined to associate with people from different ethnic backgrounds would most likely be open to experiencing different cultures abroad.¹⁷

Table 3: Interest in Studying Abroad among Ethnic Groups



One possible explanation for the strong relationship with diversity issues may be the unexpected finding that ethnic minority freshmen are about as inclined to be interested in studying abroad as are Caucasians. The number of Caucasian students studying abroad, however, far outnumbers other racial and

ethnic groups; in the 2003/04 school year, around 83.7 percent of all students engaged in a study abroad experience were Caucasian.¹⁸ But as is shown in Table 3, Caucasian freshmen do not appear to show significantly more *intent* to study abroad than do African Americans, American Indians/Alaskans, Asian Americans, Hawaiians/Pacific Islanders, and Mexican Americans/Chicano/as.

In other words, factors other than interest play a role in the low frequencies at which racial and ethnic minorities study abroad. Ethnic and racial minorities are just as likely to show interest in studying abroad, but fall out in much greater numbers. These findings are highly significant and should be further examined. It is important for study abroad advisors and programs, college counselors, and higher education institutions in general to better address issues of access and equity that are likely at play. While such figures are cause for concern, we were unable to further examine the issue based on the CIRP Freshman Survey, since the survey deals only with freshmen's perceptions of what decisions they will make once they get to college rather than indicators that actually occur in college.

Community Involvement

The community involvement scale was comprised of four variables related to students' volunteer and community service work and did significantly contribute to our overall *R-square*.¹⁹ The more students participate in volunteer work, the more inclined they are to study abroad.²⁰ From Table 2, the ordinal logistic coefficient for community involvement is 0.427, which is computed to an odds ratio of 1.533. The logistical odds of a student involved in the community participating in study abroad is 53.3 percent greater than a student who does not have a one point increase in community involvement.

Discussion

We began this inquiry with the intention of adding to the sparse literature on factors contributing to the decision students make to study abroad. Almost all of the literature on this issue falls into two main categories. Most of the literature consists of anecdotal accounts usually connected with personal experiences or generalizations made from a series of these accounts. There are also a small number of studies that attempt to be more systematic in analyzing why students choose to study abroad.²¹ We wished to contribute to this second category of research by investigating how the annual CIRP Freshman Survey taken by the Higher Education Research Institute at UCLA might be helpful in gaining some insight into study abroad in the United States. Because the students who fill out the survey are freshmen, it is not possible to determine

which of them would actually go abroad as well as which would be successful in their study abroad experience.²² However, we conjectured that if we could identify which students begin their university experience with the *intent* to study abroad, the study abroad offices on university campuses might be able to target their resources in such a way as to sustain this interest and help increase participation rates. Furthermore, in identifying intent as being relatively comparable along race/ethnicity status, future studies can further examine why intent does not translate to proportional numbers along these lines, so that institutions and study abroad offices can begin to address the issues and obstacles specific to minority and underprivileged groups.

We found evidence against the prevailing myth within the study abroad community that recruitment must focus on convincing the students that they should consider study abroad. Our research shows that the majority of freshmen surveyed, about 53.8%, already had some interest in study abroad. Interest is there, and the task of study abroad offices is to sustain and retain that interest and make the opportunity to study abroad as attainable as possible for every student. Influences such as family obligations, cost, and interference with academic progress may hinder likelihood to study abroad, but as the study demonstrates, lack of student interest is not the problem.

We also developed a multi-variable descriptive profile of students most inclined to study abroad. These students come directly from high school to college; they are largely female;²³ they tend to attend private schools, particularly liberal arts colleges;²⁴ they attend high-status institutions of higher learning; and they generally have high SAT test scores and high grade point averages.²⁵ This profile would suggest that study abroad is the province of liberal arts institutions that attract high achieving, female students whose families can pay high tuition fees.²⁶ Indeed, liberal arts colleges actively develop such programs for their students. However, there are counterintuitive insights gained from this study. For example, family income does not appear to make much difference in the intention to study abroad among income brackets lower than \$100,000. And, even though studies of participation indicate clearly that students in the humanities and the social sciences tend to participate in study abroad much more than other students,²⁷ our survey indicated those freshmen planning to major in math, engineering, and the physical sciences were just as interested in studying abroad as those in the humanities and social sciences. Those freshmen aspiring to be architects, lawyers, physicians, university professors, and science researchers, all fields which require a science and a technical background, were particularly positive about studying abroad.

In spite of the fact that there has been extensive research on student involvement during the college experience, our review of study abroad literature did not produce any other citation that considered the relationship between student involvement and study abroad. Our intention here is to define a theoretical framework that will help identify the types of students inclined to study abroad. We chose to look at the level and type of involvement as key indicators of inclination to study abroad. Because involvement plays such a key role in higher education and the college experience, we hypothesized that it would also play a key role in inclination to study abroad.

We found that students who reported that they were active participants in social, academic, community, and political, and diversity activities were much more inclined to plan to go abroad than those who were not, and those who were involved with populations different from their own were much more likely to plan to go abroad than those who were involved in other ways. This finding is consistent with the literature that emphasizes not only the capacity of people who have fluid personalities to change, but also the deliberate choices they make to encounter environments that require personal change and adaptation of values.²⁸ Study abroad is primarily about intentionally moving beyond one's local comfort zone and attempting to navigate in an environment different from one's own. It is about discovering worlds beyond those the student already knows. It is about learning new languages, cultures, and ways of life.²⁹

Of course, involvement is a complex process; we must always be aware of the kind of involvement we are talking about. For example, we were unable to find any relationship between involvement in work and intent to study abroad. Similarly, diversity could also have been considered a student development or personal preference indicator rather than an *action* of involving oneself with diversity.

There is also a potential shadow side to involvement. The freshman survey indicates that those students who are extremely involved are often also stretched to their limit in terms of their emotional and physical capacity to cope. These students were more likely, for instance, to indicate that they "felt overwhelmed." However, even this shadow side has a potentially positive dimension to it in that an involved student has chosen to be a high-strung racehorse rather than a contented cow. Emotional and physical expenditure of energy simply goes with the territory of the students most inclined to engage in a study abroad experience.

If insights from this study are to be useful, study abroad offices might consider how they should orient their recruitment strategies so that they can reach students who already are involved. All too often, recruitment efforts target loca-

tions where involved students are no more likely to be found than uninvolved students, such as classrooms and dormitories. Involved students are much more likely to be found in student clubs, extracurricular programs, etc. Of course, it would be irresponsible to focus exclusively on involved students. While study abroad offices need to explore ways of retaining student interest in going abroad, there should also be continued efforts to explore how best to target students who have not shown interest in going abroad. It may be that involved and uninvolved students respond to quite different recruitment strategies.

Because this is a first project using the CIRP Freshman Survey in analyzing intent to study abroad, we can anticipate further insights through future research of two kinds. First, the Freshman Survey is issued each year, and we can begin to chart shifts in attitudes of freshman students over time. Second, we will eventually be able to relate this anticipatory study to studies of students who actually decide to study abroad. The Higher Education Research Institute at UCLA conducts a College Student Survey that could be useful in assessing changes in students as they progress through their higher education experience. This survey may help to assess what factors contribute to the dramatic change that occurs in students between the freshman year when they express their intention to study abroad and the time when they actually study abroad.

Endnotes

¹ President's Commission, "Strength through Wisdom, a Critique of U.S. Capability: A Report to the President from the President's Commission on Foreign Language and International Studies." (Washington, D.C.: U.S. Dept. of Health, Education, and Welfare, Office of Education, 1979).

² Todd M. Davis, "Open Doors 1998/99: Report on International Educational Exchange," (New York: Institute of International Education, 1998–99).

³ American Council on Education, "Internationalization of U.S. Higher Education," (Washington, D. C.: American Council on Education, 2000).

⁴ G.D. Praetzel and J. Curcio, "Making Study Abroad a Reality for All Students," *International Advances in Economic Research* 2, no. 2 (1996).

⁵ StudentPoll, "Survey of Senior High School Students' Interest and Motivation in Higher Education," (American Council on Education, 2000).

⁶ Alexander W. Astin, "Student Involvement: A Development Theory for Higher Education," *Journal of College Student Personnel* 68 (1984): 297.

⁷ *Ibid.*: 298.

⁸ Vincent Tinto, "Classrooms as Communities: Exploring the Education Character of Student Persistence," *Journal of Higher Education* 68 (1997).

⁹ A copy of the survey is available online at UCLA. Go to http://www.gseis.ucla.edu/heri/cirp_survey.html.

¹⁰ CIRP *CIRP Freshman Survey* (<http://www.gseis.ucla.edu/heri/freshman.html>) (Higher Education Research Institute, 2004 [cited 2004]).

¹¹ After filtering the data the breakdown of the data was as follows: 1) Very good chance, 21.9 percent; 2) Some chance, 31.9 percent; Very little chance, 30.0 percent; and No chance, 16.2 percent. All of the data reflect the filtered and weighted data, rather than the raw scores of the survey.

¹² Specific variables for the academic involvement scale are as follows: Frequency of tutoring another student; Frequency of studying with other students; Frequency of asking teacher for advice; Frequency of oversleeping and missing class (inverted); Frequency of using the internet for research or homework; Hours per week studying or doing homework; Hours per week talking with teacher outside of class; Likelihood of making at least a B average in college, and; Likelihood of communicating regularly with professors in college.

¹³ Specific variables for the social involvement scale are as follows: Hours per week socializing with friends; Hours per week partying; Hours per week participating in student clubs or groups; Likelihood of developing close friendships with students in college, and; Likelihood of participating in student clubs or groups in college.

¹⁴ Specific variables for the political involvement scale are as follows: Frequency of participating in a demonstration; Frequency of discussing politics; Likelihood of voting in a student election; Likelihood of taking part in student protest in college, and; Importance of keeping up to date with political affairs.

¹⁵ Students who answered that they frequently discussed politics were over twice as likely (35.8 percent versus 16.3 percent of those who do not discuss politics at all) to have a very good chance of studying abroad. Furthermore, students who answered that they frequently participate in demonstrations were 31.2 percent inclined to have a very good chance of studying abroad versus 24.4 percent of those who had never participated in demonstrations.

¹⁶ Specific variables for the diversity involvement scale are as follows: Socialized with someone of a different racial/ethnic group; Likelihood of socializing with someone of a different ethnic group in college; Importance of improving your understanding of other countries and cultures, and; Importance of helping to promote racial understanding.

¹⁷ 27.4 percent of students who responded that they frequently socialize with different ethnic groups were inclined to study abroad, versus 16.9 percent who answered that they do not socialize at all with different ethnic groups.

¹⁸ Reported in *Open Doors 2004/05* at <http://opendoors.iienetwork.org/?p=69715>.

¹⁹ Specific variables for the community involvement scale are as follows: Hours per week doing volunteer work; Frequency of volunteer work last year; Frequency of community service as part of class last year; Likelihood of participating in volunteer or community service work in college.

²⁰ Students who answered that they frequently performed volunteer work were over twice as likely — at 34.5 percent compared to 14.6 percent of those who never volunteer — to indicate a very good chance of studying abroad. Yet, in terms of hours of volunteering per week, even if a student participates as little as “less than one hour” of volunteering per week, he or she is 23.5 percent likely to have a good chance of studying abroad as compared to 17.7 percent for those who do not volunteer at all.

²¹ For example, see van der Meid, “Asian Americans: Factors Influencing the Decision to Study Abroad,” *Frontiers: The Interdisciplinary Journal of Study Abroad* 9, Fall (2003). For an earlier study, see Val D. Rust and George Urch, “An Evaluation of Study for the University of Michigan Candidates at the University of Sheffield, England,” *Notes and Abstracts in American and International Education*, 28 (Fall, 1969). Project No. 08698, U.S. Department of Health, Education, and Welfare.

²² A number of studies try to deal with these issues, including: Judith N. Martin and Beulah Rohrich, “The Relationship between Study Abroad Student Expectations and Selected Student Characteristics,” *Journal of College Student Development* 32, no. 1 (1991).

²³ Almost twice as many females (31.6 percent) than males (16.9 percent) indicated there was a very good chance of studying abroad, whereas slightly more males (32.2 percent) than females (31.5 percent) indicated there is some chance of going. The actual ratio of female to male students who study abroad stands at 64.9 percent female and 35.1 percent male. See *Open Doors 2003/04* online at <http://opendoors.iienetwork.org/?p=35977>.

²⁴ Almost twice as many students attending private institutions (31.9 percent) than public institutions (18.3 percent) indicated a very good chance of participating in study abroad, whereas slightly more students attending private institutions (32.4 percent) than public institutions (31.2 percent) indicated some chance of participation.

²⁵ Students who score over 600 on both the math and verbal scores tend to be very positive about studying abroad.

²⁶ Open Doors information indicates that among institutions of higher education, liberal arts colleges are the major supporters of study abroad, at

least in terms of percentages of students going abroad. See *Open Doors 2003/04* online at <http://opendoors.iienetwork.org/?p=35977>.

²⁷ According to Open Doors, 21.4 percent of all students are in the social sciences, 13.3 percent in humanities, 9.0 percent in fine arts, and 7.9 percent in foreign languages. Only 7.1 percent are in the physical sciences, 3.0 percent in engineering, and 2.4 percent in math and computer sciences. See Open Doors electron version at <http://opendoors.iienetwork.org/?p=35977>.

²⁸ P. S. Adler, "Beyond Cultural Identity: Reflections upon Cultural and Multicultural Man," in *Topics in Culture Learning*, ed. R.W. Brislin (Honolulu: East West Center, 1974).

²⁹ Michael R. Laubscher, *Encounters with Difference: Student Perceptions of the Role of out-of-Class Experiences in Education Abroad* (Westport, CT: Greenwood Press, 1994).