

Plans,
Participation,
and Outcomes

Overseas Study at Indiana University Bloomington



University Planning,
Institutional Research, and Accountability
May, 2009

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Introduction

This report utilizes data from seven cohorts (2001-2007) of beginning students at Indiana University Bloomington to examine students' plans to participate in study abroad, their actual participation in overseas study courses during college, and the impact of their participation in overseas study on a number of academic and developmental outcomes. The release of this report is timely, given the university's approval of its International Strategic Plan (2008) that stresses the need to expand education abroad. Specifically, the university's near-term goals for education abroad are to:

1. Increase participation in study abroad programs on all campuses, where this is consistent with campus missions
2. Increase participation in study abroad programs in Asia and other underrepresented areas
3. Provide improved incentives to both faculty and students for participation in study abroad
4. Eliminate or reduce disincentives associated with structural impediments to expanded study-abroad participation

This report may assist the university in moving closer toward several of these goals by establishing a profile for students who both plan to study abroad and actually participate in overseas study. In creating such a profile, target groups that are unable to realize their intentions to study abroad are identified, the specific barriers facing these students can be further studied, and resources dedicated to increasing the number of students who study abroad can be used more efficiently.

The findings presented in this report are based on inferential as opposed to descriptive statistics. The aim of this approach is to isolate the impact of various factors on students' study abroad plans, participation, and outcomes by statistically adjusting for other student characteristics and experiences that are presumed to influence these decisions. As such, the results presented in this report provide the unique "estimated" differences among groups of students while holding constant other known characteristics and experiences of these students. This report relies on correlational analyses; although providing a measure of the strength of association among two or more factors, this approach does not verify and should not imply causation.

An overview of the reports' findings is provided below. The main body of the report is divided into sections that follow the chronology of the student pipeline for overseas study from pre-college intentions to first-year intentions to eventual participation in college and its associated outcomes. Two appendices to the report provide more detailed information for interested readers. Appendix 1 provides information on the methodology, including the student samples, data sources and variable definitions, and analytic techniques employed in this study. Appendix 2 provides detailed information on the parameter estimates, standard errors, and statistical significance for each model estimated in this study.

Overview of Findings

1. Pre-college plans to study abroad differ by gender, race, residence, parents' education level, prior academic achievement, level of high school involvement, and expected college major.
 - Compared to their peers, females, underrepresented minorities, nonresidents, students with college educated parents, and students with higher SAT scores all have greater likelihoods of planning to study abroad during college.
 - Students who are more involved in high school, especially those students who participate in one or more multicultural activities, are more likely to plan to study abroad during college.
 - Students who expect to major in the Arts & Humanities or in the Social Sciences have the highest relative likelihoods of planning to study abroad during college, whereas students who expect to major in the Biological & Health Sciences, Education, and Physical Sciences and Mathematics have the lowest relative likelihoods.

Overview of Findings (continued)

2. Even after taking into account students' pre-college plans to study abroad, differences in students' first-year plans to study abroad are still evident by gender, race, residency, financial aid status, prior academic achievement, and college major.
 - Females, underrepresented minorities, nonresidents, students who do not apply for financial aid or who apply and have no financial need, and students with higher SAT scores all have greater likelihoods of planning to study abroad during college than their peers.
 - Students who select majors within the Biological & Health Sciences, Education, and Physical Sciences and Mathematics still have the lowest relative likelihoods of planning to study abroad at the end of their first year of college.
3. Having greater levels of engagement with diverse others and more opportunities to reflect on views and opinions that are different from one's own significantly increases the students' chances of planning to study abroad during the first year of college, even after taking into account the students' pre-college plans.
4. Even after taking into account the students' prior plans to study abroad, students' participation in overseas study by the end of their fourth year of college differs significantly by gender, residency, first generation status, financial aid status, prior academic achievement, and college major,.
 - Compared to their peers, females, nonresidents, students with college educated parents, students who do not apply for financial aid, and students with higher SAT scores and higher first semester GPAs all have greater likelihoods of participating in overseas study.
 - Students who major in Business & Communications, in the Arts & Humanities, or in the Social Sciences have the highest relative likelihoods of participating in overseas study, whereas students who major in the Biological & Health Sciences, Education, and Physical Sciences and Mathematics have the lowest relative likelihoods.
5. Students who participate in one or more overseas study courses by the end of their fourth year of college have significantly higher cumulative grade point averages than non-participants, even after accounting for prior academic achievement and college major.
6. Compared to their peers, students who participate in one or more overseas study courses by the end of their fourth year of college have a greater likelihood of graduating within four years, even after accounting for prior academic achievement and college major.
7. Seniors' self-reported gains in general education, practical competence, and personal and social development do not differ significantly by their participation in overseas study.

Section 1: Pre-College Plans to Study Abroad

A recent study from the Wabash National Study of Liberal Arts Education (Salisbury, Umbach, Paulsen, & Pascarella, 2009) found that students' pre-disposition to study abroad differs both by their socioeconomic status and their social and cultural capital. Aside from the Salisbury, et al. study, very little research has examined entering students' intentions to study abroad during college. If measured during the early stages of the college experience, however, information on the characteristics of students who plan or do not plan to study abroad could assist campus policy-makers in realigning programs and resources toward maximizing the number of students who participate in overseas study while in college. This section provides the results of an analysis predicting pre-college plans to study abroad among 20,839 students who took the SAT Reasoning Test and entered Indiana University Bloomington as beginning students during a fall semester between 2004 and 2008. Overall, 24% of these entering students planned to study abroad.

Demographic and Socioeconomic Background

Pre-college plans to study abroad differed significantly by the students' demographic and socioeconomic backgrounds (see Table 1.1). Specifically, students were more likely to express pre-college plans to study abroad if they:

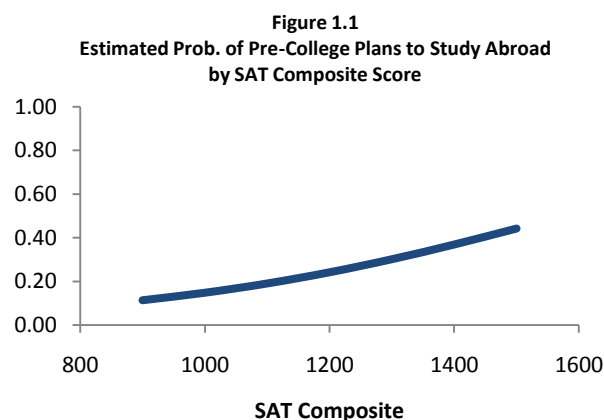
- Were female instead of male
- Were members of an historically underrepresented racial/ethnic minority (i.e., African American, American Indian, or Hispanic) as opposed to members of another racial or ethnic group
- Were non-residents instead of Indiana residents
- Had college-educated parents as opposed to being first-generation college students

Table 1.1 Estimated Prob. of Pre-College Plans to Study Abroad by Background Characteristics			
		Probability	Difference in Prob.
	Male	0.15	
	Female	0.26	0.11
	Other Race	0.20	
	Underrepresented Minority	0.24	0.04
	Resident	0.20	
	Nonresident	0.23	0.03
	College-Educated Parents	0.21	
	First-Generation	0.19	-0.02

Pre-college plans to study abroad, however, did not differ by the students' economic background. In particular, students who filed a FAFSA and were determined to have financial need had roughly the same pre-college likelihood of planning to study abroad as either students who did not file a FAFSA or students who filed and were determined to have no financial need.

High School Achievement

Pre-college plans to study abroad also differed significantly by the students' level of academic achievement. As seen in Figure 1.1, the students' SAT composite score was positively related to the students' study abroad plans. Students' pre-college plans to study abroad, however, were not related to their high school GPA.

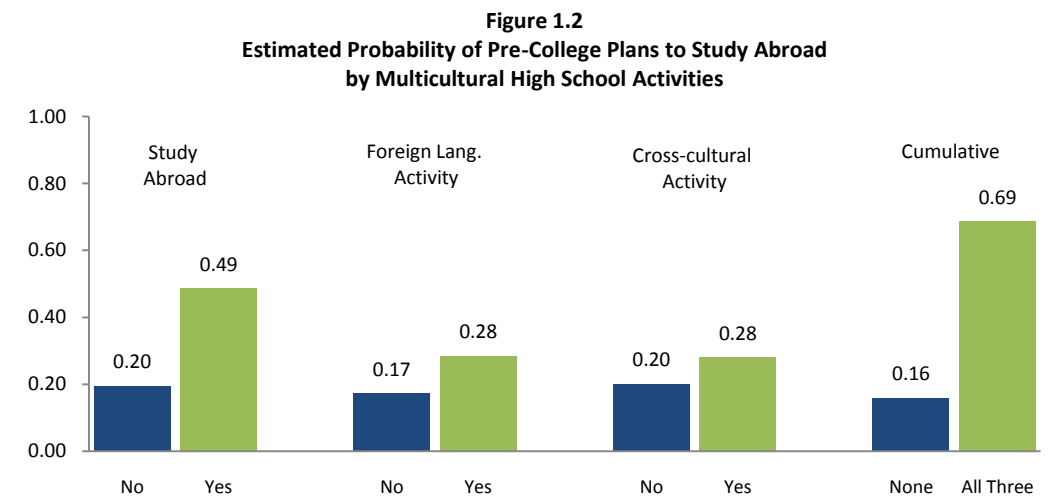


Pre-college plans to study abroad differ by gender, race, residency, and parents' education, but not by financial aid status.

Section 1: Pre-College Plans to Study Abroad (continued)

High School Involvement

Student involvement in various multicultural high school activities was also significantly related to the students’ pre-college plans to study abroad (see Figure 1.2).



Chief among these activities was the students’ participation in study abroad while in high school. Although only 4% of entering students participated in such foreign exchange or study abroad activities while in high school, the magnitude of the impact of such participation on students’ pre-college plans to study abroad was substantial. Specifically, all else being equal, students who participated in study abroad while in high school had a probability of planning to participate in study abroad during college of 0.49 (compared to a probability of 0.20 for nonparticipants). This difference in probability due to participation in high school study abroad is roughly equivalent to the difference in the probability of planning to study abroad between a student with an 1100 SAT (at 0.19) and a student with a 1550 SAT (at 0.48) (see Figure 1.1). Significant differences in pre-college plans to study abroad were also evident by participation in a high school foreign language activity and by participation in a cross-cultural or ethnic activity. Finally, there is a cumulative effect of having participated in all three of these activities while in high school. Whereas students who did not participate in any of these activities had a probability of planning to study abroad during college of 0.16, the students who participated in all three activities had a probability of planning to study abroad of 0.69.

Plans to study abroad also differed by participation in more common high school activities, such as student government and community service (see Table 1.2). Differences in plans to study abroad by the students’ participation in an honor society, however, were not statistically significant. This lack of statistical significance is likely due to students’ SAT scores and high school GPAs also being predictors in the statistical model.

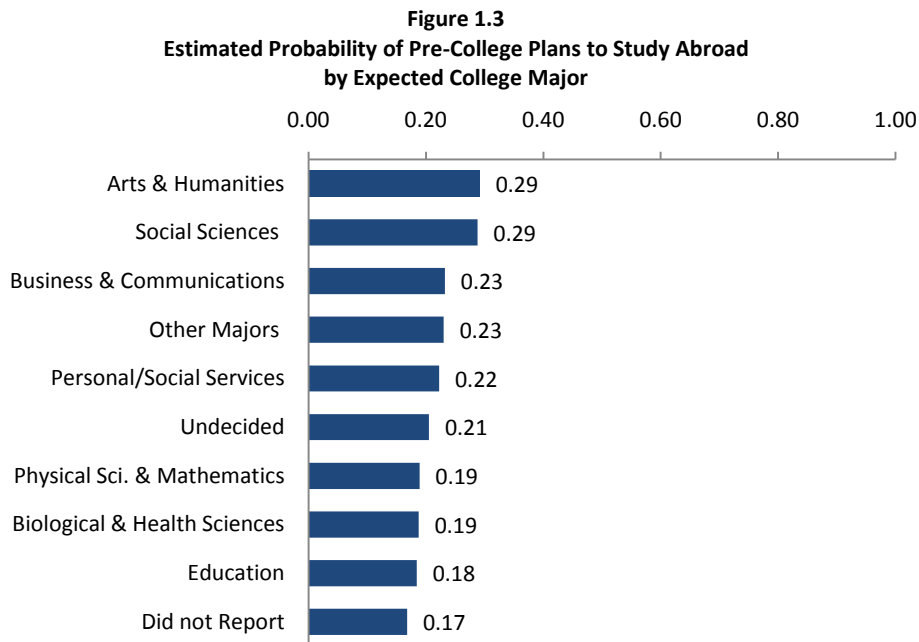
Table 1.2 Estimated Prob. of Pre-College Plans to Study Abroad by High School Activities		
	Probability	Difference in Prob.
Student Government		
No	0.20	
Yes	0.24	0.04
Community Service		
No	0.17	
Yes	0.24	0.07

Participation in one or more multi-cultural activity while in high school significantly increases the students’ pre-college plans to study abroad during college.

Section 1: Pre-College Plans to Study Abroad (continued)

Expected College Major

Pre-college plans to study abroad during college also differed by the students' expected college major (see Figure 1.3). Students who expected to major in the Arts & Humanities or in the Social Sciences had the highest relative probabilities of planning to study abroad during college, whereas students who expected to major in such areas as Physical Sciences & Mathematics, Biological & Health Sciences, and Education had significantly lower relative probabilities of planning to study abroad.



IU Bloomington's college-bound students who expect to major in the Arts & Humanities and in the Social Sciences have the greatest likelihoods of planning to study abroad during college.

Section 2: First-Year Plans to Study Abroad

The first year of college is a transitional period in which students identify, evaluate, and make important choices about their educational goals. Study abroad is one specific educational objective that can be shaped during this pivotal stage of student development. When Salisbury, et al. (2009) analyzed first-year students' interest in study abroad, they concluded that intentions to participate were mitigated by students' first-year experiences. The results presented in this section are based on the analysis of a sample of 1,642 beginning students who took the SAT Reasoning Test, first entered Indiana University Bloomington during a fall semester between 2004 and 2008, and completed the National Survey of Student Engagement during a subsequent spring semester. Overall, 55% of these first-year students indicated that they planned to study abroad during college.

Demographic and Socioeconomic Background

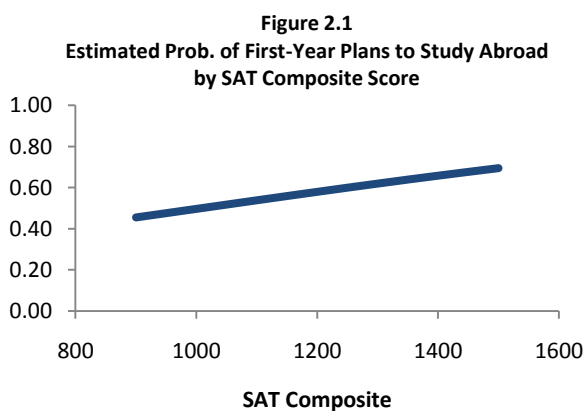
After statistically controlling for the students pre-college plans to study abroad, the students' first-year plans to study abroad continued to differ significantly by many of the students' demographic and socioeconomic characteristics (see Table 2.1). Specifically, students were more likely to express first-year plans to study abroad if they:

- Were female instead of male
- Were members of a historically underrepresented racial/ethnic minority (i.e., African American, American Indian, or Hispanic) as opposed to members of another racial or ethnic group
- Were non-residents instead of Indiana residents
- Did not apply for financial aid or applied and did not have financial need as opposed to those who were determined to have financial need
- Had pre-college plans to study abroad

Table 2.1 Estimated Probability of First-Year Plans to Study Abroad by Background Characteristics		
	Probability	Difference in Prob.
Male	0.51	
Female	0.60	0.09
Other Race	0.55	
Underrepresented Minority	0.69	0.14
Resident	0.52	
Nonresident	0.68	0.16
Financial Need	0.48	
No Financial Need	0.60	0.12
Did not File FAFSA	0.67	0.19
No pre-college plans	0.48	
Pre-college study abroad plans	0.74	0.26

High School Achievement

First-year plans to study abroad also differed significantly by the students' level of academic achievement. Specifically, the students' SAT composite score was positively related to the students' study abroad plans (see Figure 2.1). Students' first-year plans to study abroad were not related to their high school GPA.



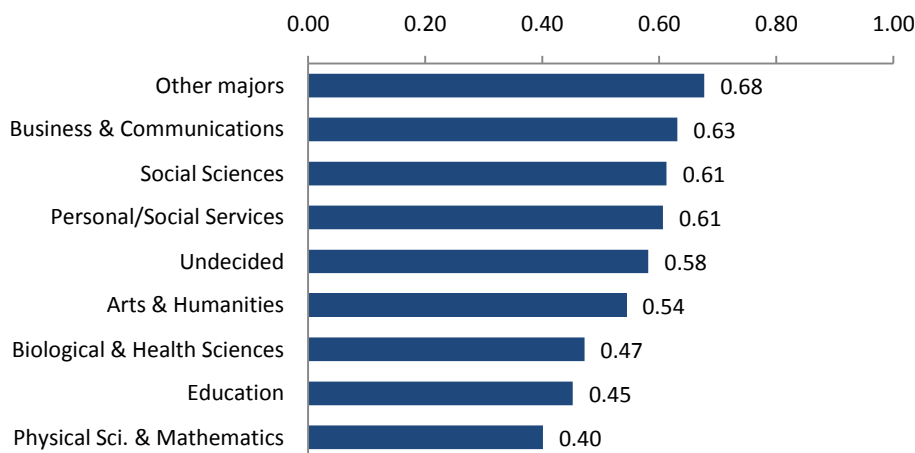
Even after taking into account students' pre-college plans, differences in first-year plans to study abroad are still evident by gender, race, residency, and financial aid status.

Section 2: First-Year Plans to Study Abroad (continued)

College Major in Year 1

When compared to students who selected a college major in the Art & Humanities, first-year students' plans to study abroad did not differ significantly by the students choice of major (see Figure 2.1). Despite the absence of statistical significance, it is notable that the probabilities of planning to study abroad were still relatively lower for students majoring in the Biological & Health Sciences, Education, and Physical Sciences & Mathematics, even after statistically controlling for pre-college plans.

Figure 2.2
Estimated Probability of First-Year Plans to Study Abroad
by Choice of College Major

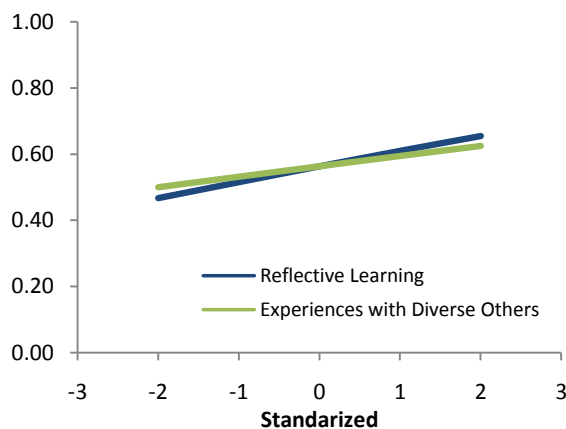


First-year Experience

First-year plans to study abroad differed significantly by students' first-year experiences (see Figure 2.2). Specifically, first-year students were more likely to express plans to study abroad if during the first year of college they had:

- More exposure to diverse others, such as serious conversations with students who are different in terms of race or ethnicity, religious beliefs, political opinions, and personal values.
- Greater levels of reflective learning, such as examining the strengths and weaknesses of one's own views, understanding someone else's views by imagining the issue from his or her perspective, and learning something that changed the way one understands an issue or concept.

Figure 2.3
Estimated Prob. of First-Year Plans to Study Abroad
by First-Year Experiences



Other first-year experiences, such as living off campus or working while enrolled were not significantly related to first-year plans to study abroad.

UP NEXT: Participation in Overseas Study

First-year college students who have more exposure to diverse others and greater levels of reflective learning are more likely to form study abroad plans.

Section 3: Participation in Overseas Study

In a recent report by the Association of American Colleges and Universities (2007), study abroad is listed among the more effective educational practices in augmenting students' diversity and global learning. The National Survey of Student Engagement (2007) has also recently listed study abroad among a set of "high impact" activities that it recommends students should participate in before graduating from college. The purpose of this section is to explore the differences in the characteristics of students who participated in overseas study by the end of their fourth year of college after statistically controlling for their pre-college plans. In other words, this section identifies those students who are able from those who are unable to realize their intentions to study abroad. The results presented in this section are based on the analysis of 7,759 students who took the SAT Reasoning Test, entered Indiana University Bloomington as beginners during the fall semesters of 2004 and 2005, and were retained through the fall semester of their third year of college. Of these students, approximately 23% had pre-college plans to study abroad. Among students with pre-college plans to study abroad, only 34% had participated in overseas study by the end of their fourth year of college. Among students with no pre-college plans, 14% had participated in overseas study by their fourth year of college.

Demographic and Socioeconomic Background

Participation in overseas study differed significantly by all demographic and socioeconomic characteristics but race/ethnicity, even after statistically controlling for the students' pre-college plans to study abroad (see Table 3.1). Specifically, students were more likely to participate in overseas study if they:

- Were female instead of male
- Were non-residents instead of Indiana residents
- Had college-educated parents as opposed to being first-generation college students.
- Did not apply for financial aid as opposed to having financial need
- Had pre-college plans to study abroad

Table 3.1
Estimated Probability of Participation in Overseas Study
by Background Characteristics

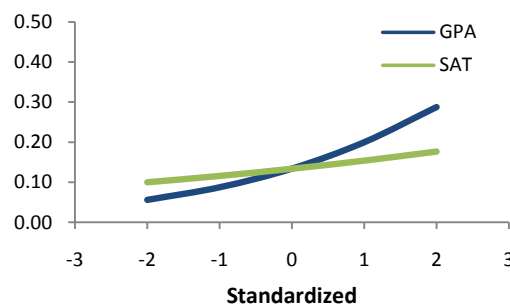
	Probability	Difference in Prob.
Male	0.10	
Female	0.17	0.07
Resident	0.11	
Nonresident	0.21	0.10
College-Educated Parents	0.14	
First-Generation	0.10	-0.04
Need	0.11	
No Need	0.13	0.02 NS
No Application	0.18	0.07
No pre-college plans	0.11	
Pre-college study abroad plans	0.22	0.11

NS = Not Significant

Prior Academic Achievement

Both SAT scores and first semester GPA had a positive impact on student's participation in overseas study (see Figure 3.1). After placing each measure on a standardized scale to enhance comparability, the impact of first semester GPA on overseas study appears greater than the impact of the students' SAT scores.

Figure 3.1
Estimated Prob. of Overseas Study
by First Semester GPA and SAT



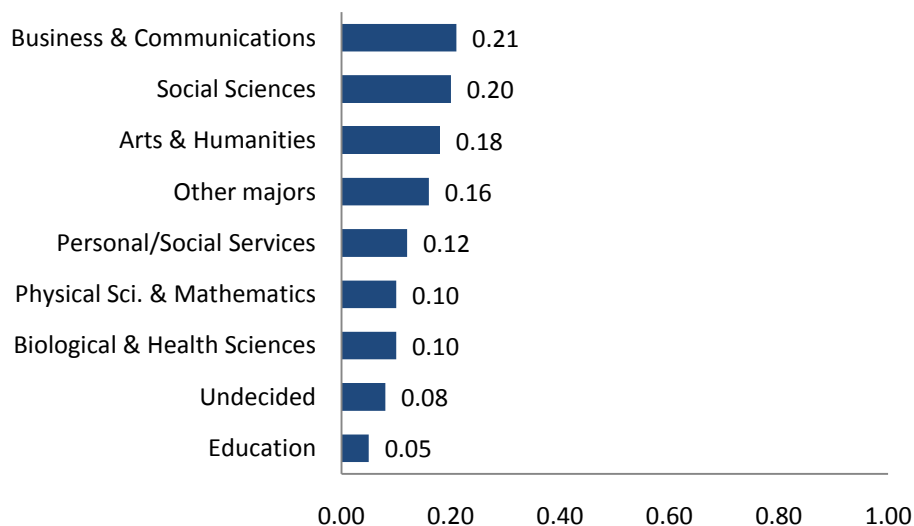
Student participation in overseas study differed significantly by gender, residency, first generation status, and financial aid status, even after taking into account the students' prior plans to study abroad.

Section 3: Participation in Overseas Study (continued)

College Major in Year 3

Participation in overseas study also differed by the students' choice of major (see Figure 3.3). Students who majored in Business & Communications, the Social Sciences, or the Arts & Humanities had the highest relative probabilities of participating in overseas study by the end of the fourth year of college, whereas those who majored Physical Sciences & Mathematics, Biological & Health Sciences, and Education had substantially lower relative probabilities of participating in overseas study.

Figure 3.3
Estimated Probability of Participating in Study Abroad by End of Year 4
by Choice of College Major



Students majoring in areas such as Business & Communications, the Social Sciences, or the Arts & Humanities had the greatest chances of participating in overseas study.

Section 4: Academic Outcomes of Overseas Study

Prior research has found that studying abroad enhances students' academic gains as measured by overall GPA and graduation rates. Specifically, students who study abroad tend to earn higher cumulative grade point averages than their peers, particularly among those with lower grades prior to studying abroad (Clabby & Wright, 2009). Similarly, a recent analysis at the University of Minnesota (Malmgren & Galvin, 2008) found that studying abroad did not prevent students from graduating on time; rather, they made greater gains than their peers in terms of degree attainment. Malmgren & Galvin also found that underrepresented minorities who studied abroad had higher graduation rates than their peers who did not study abroad.

This section explores the impact of overseas study on cumulative grade point average and on the students' status (i.e., graduated, persisted, or departed) at the beginning of what would be their fifth year of college. The results presented in this section are based on the analysis of 20,030 students who entered Indiana University Bloomington as beginners during a fall semester between 2001 and 2004 and who were retained at IU Bloomington through the fall semester of their third year of college. Of this population, approximately 18% had actually participated in overseas study by the end of their fourth year of college. The average cumulative GPA for this population was 3.14; 79% had graduated from IU Bloomington within four years, 9% had persisted at IU Bloomington to the fifth year of college, and 12% had departed IU Bloomington without a degree.

Cumulative Grade Point Average

After statistically controlling for such confounding influences on cumulative college GPA as entering SAT scores, first semester grades, area of study, and socioeconomic and demographic background, students who participated in one or more overseas study courses had significantly higher cumulative grade point averages than non-participants. All else being equal, the average student participating in one or more overseas courses had a cumulative GPA of 3.21, whereas the nonparticipant had a cumulative GPA of 3.12. The impact of overseas study on cumulative GPA differed by the students' demographic background, but not by their socioeconomic background (See Table 4.1). Specifically, participation in overseas study had a greater impact on the cumulative GPAs of students who were:

- Male instead of female
- Members of an historically underrepresented racial/ethnic minority (i.e., African American, American Indian, or Hispanic) as opposed to members of another racial/ethnic group
- Indiana residents instead of nonresidents

Table 4.1
Estimated Cumulative GPA by Overseas Study and Background Characteristics

	Overseas Study		Difference	Differential Impact
	Yes	No		
Male	3.21	3.06	0.15	
Female	3.26	3.18	0.08	-0.07
Other Race	3.24	3.13	0.11	
Underrepresented Minority	3.17	2.98	0.19	0.08
Resident	3.26	3.13	0.13	
Nonresident	3.19	3.12	0.07	-0.06

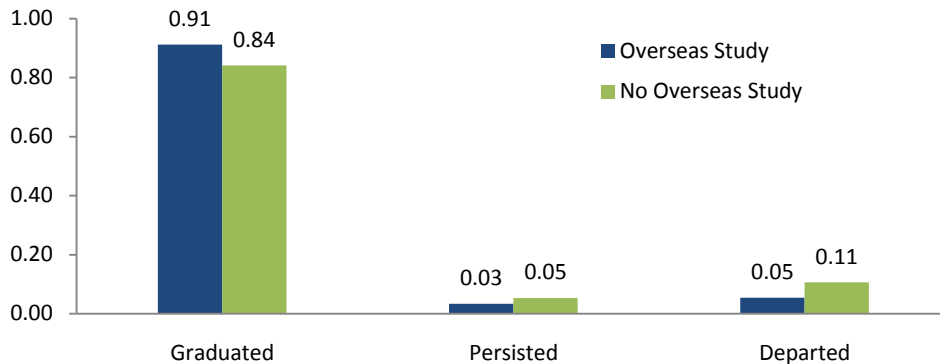
Students who participated in one or more overseas study courses had significantly higher cumulative grade point averages than non-participants.

Section 4: Academic Outcomes of Overseas Study (continued)

Fifth-Year Status

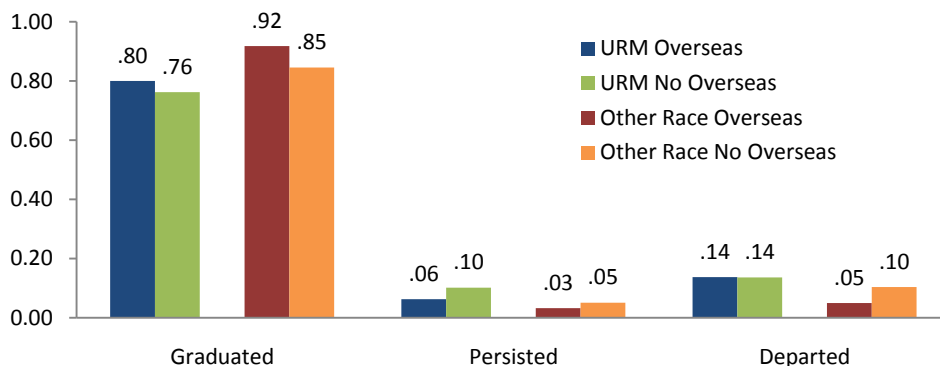
After adjusting for the students' early academic achievement, area of study, and socioeconomic and demographic backgrounds, compared to their peers, students who took one or more overseas study courses had a significantly higher probability of graduating within four years (See Figure 4.1).

Figure 4.1
Estimated Probabilities of Fifth-year Status
by Overseas Study Participation



The impact of participation in overseas study on fifth-year status differed only by the students' race/ethnicity (See Figure 4.2). In particular, although all students who participated in overseas study had a greater probability of graduating within four years when compared to non-participants, this advantage in the probability of graduating credited to overseas study was much smaller for underrepresented minorities (at 4 percentage points) than for students of other races (at 7 percentage points). Further, for underrepresented minorities this advantage in the probability of graduating due to overseas study comes solely at the expense of the students' probability of persisting. In other words, although overseas study may give underrepresented minorities a boost to graduate within four years versus return for a fifth year of study, their participation in overseas study does not appear to reduce their chances of departing without a degree. This pattern is not similarly observed for students of other races.

Figure 4.2
Estimated Probabilities of Fifth-year Status
by Overseas Study and Race/Ethnicity



Compared to their peers, students who participated in one or more overseas study courses had a greater likelihood of graduating within four years.

Section 5: Developmental Gains Due to Overseas Study

In a recent study of the impacts of study abroad on student engagement during the senior year of college, Gonyea (2008) found that students who participated in study abroad reported greater gains in personal and social development than their peers, along with slightly greater gains in their general education. This section explores the impact of overseas study on students' self-reported gains in three developmental areas: personal and social development, general education, and practical competence. The results presented in this section are based on the analysis of 1,556 students who entered Indiana University Bloomington as beginners during a fall semester between 2001 and 2004, were retained through the fall semester of the third year of college, and as seniors were respondents in a spring administrations of the National Survey of Student Engagement between 2004 and 2008. Of this population, approximately 22% participated in at least one overseas study course by the end of their fourth year of college.

For all three outcomes of interest—personal and social development, general education, and practical competence—the difference between participants in overseas study and their nonparticipant peers was not statistically significant. The models were reestimated without the covariates to determine if the nonsignificant difference between participants and nonparticipants was due to the presence of confounding influences in the statistical models. These “total effects” models also did not yield statistically significant differences in the outcomes among participants and nonparticipants. There are at least three possible reasons for these nonsignificant findings:

- These particular outcomes may not have enough specificity to be unique to overseas study. For example, the personal and social development of students could be enhanced by any number of activities within (e.g., team projects) and outside (e.g., community service) the classroom, and both participants and nonparticipants have similar access to a number of these experiences.
- As students' assessments of their progress or change over time, self-reported gains are indirect measures of actual gains. A limitation of this type of measure of change is its absence of both a start- and an end-value. Although participants and nonparticipants reported rates of progress that were similar, it might be the case that, both prior to and after the overseas study experience, participants had higher levels of development than nonparticipants. This hypothesis, however, cannot be addressed given the limitations of the current data.
- As a self-reported assessment of one's developmental progress, these measures may be operating as a proxy for the students' satisfaction with the college experience. In other words, students who are more satisfied with college may be more inclined to believe (and report) that they benefited from their experience. If general satisfaction levels are high among all students, differences in self-reported gains by participation in overseas study may be negligible.

Students' reported gains in general education, practical competence, and personal and social development did not differ by overseas study participation.

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