

The Effect of Study Abroad on College Completion in a State University System

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Abstract

Until recently studying abroad was regarded as an academic luxury that might contribute to college students' personal growth, but detracted from efficient degree completion. Few studies examine the impact of study abroad on academic learning outcomes. The present study, in contrast, examines the impact of studying abroad on the probability of graduating in four, five, or six years. It utilizes a large data base (N>14000) from an institutionally diverse state-wide higher education system. Study abroad cohorts were matched with domestic-only students who had identical levels of persistence. Regression procedures also controlled on precollege variables and on college achievement up to the semester of study abroad. Results indicated that the graduation rates for study abroad students exceeded those for domestic students by 7.5%, 7.9%, and 5.3% for four-, five-, and six-year graduation rates, respectively. Regression models showed a 10% advantage for the probability of graduating in four-years and 25% for five-year graduation. These findings support the view that studying abroad actually can increase the likelihood of timely college completion.

Recently, U.S. policymakers have responded to severe concerns about college completion rates. Four-year graduation rates have shown improvement in the past decade, increasing from 33 percent in 1995 to 37 percent in 2007. However, these gains have been outpaced by the gains of other nations. In 1995, the U.S. had the highest graduation rates in the world. By 2007, the rates had fallen to fourteenth in the world (OECD, 2009, p.65) President Obama responded to the national crisis with a pledge to regain the highest proportion of college graduates in the world by 2020 (Obama, 2009). The President is joined by the National Governors Association, which has made college completion a top priority with their “compete to complete” initiative (OECD, 2009, p.65).

The college completion agenda has been dominated by alarm vis a vis international economic competitiveness, but popular concerns that the lower graduation rates of minority and low-income students may undermine equality of opportunity have also emerged (Thomas, 2010). The most recently measured six-year graduation rates were 39 percent for African Americans students and 49 percent for Hispanic students, compared to 59 percent for white students (Knapp et al., 2010, p.4). Only 40% of low-income four-year college students graduate by age 26, while 72% of high-income college students do so (Bowen, Chingos & McPherson, 2009, p. 23). Disparities in graduation rates also appear to be widening over time (Cook & Cordova, 2006) despite evidence that the fact that the effects of college completion on wages and workplace benefits are actually greatest for minority and low-income students (Perna, 2005, Brand & Xie, 2010).

The problem of depressed minority graduation rates is exacerbated because African-American students and low income students are concentrated in schools that suffer the lowest overall graduation rates (Carey, 2008; Horn & Carroll, 2006).

Institutions operate in a context of strong external pressure to improve graduation rates and therefore aggressively pursue various strategies to enable student success (Bowen, Chingos & McPherson, 2009). Under these pressures, study abroad programs may be marginalized as supposedly wasteful luxuries (Burness, 2009; Rodriguez, 2001). Joan Elias Gore (2009) argues that American higher education remains dominated by a viewpoint that devalues study abroad as a “Grand Tour” for affluent (mostly female) students. In the prevailing discourse, study abroad is, at best, merely tangential to student success, and, at worse, disruptive to timely degree completion.

According to the National Survey of Student Engagement (NSSE), a substantial minority (44%) of faculty view study abroad as an important part of a student's experience (NSSE, 2007). Study abroad is becoming an increasingly popular component of students' college careers. In the 2007-08 academic year, 15% of students in a bachelor's degree program had studied abroad, compared with 9% of students in 1997-08 and in 1987-88 (Open Doors, 2009). About a quarter of a million U.S. students now pursue some form of education abroad each year. Of course study abroad participation is disproportionate among some demographic sectors. For example males and minority students continue to have low rates of participation (Desoff, 2006). Sophisticated models reveal that student social capital and habitus can be powerful determinants of the decision to enroll in education abroad (Salisbury, Umbach, Paulsen & Pascarella).

Most research on outcomes of education abroad assess development of personal traits such as self-efficacy, adjustment, and global awareness (e.g., Black & Duhan, 2006; Carlson et al, 1990; Savicki, Downing-Burnette, Heller, et al., 2004). Academically, study abroad has been seen as useful for learning additional languages (Freed, 1995) and

cultural competencies (Kappler, Cohen & Paige, 2009). Most recently a new strand of research has been developing, in which broad as well as discipline-specific academic learning outcomes of study abroad are assessed (Sutton, Miller & Rubin, 2007; Sutton & Rubin, 2004) .

Students who study abroad evince higher levels of multiple aspects of engagement, including abstract reasoning, higher order thinking, integrative learning, and social development, (Che et al, 1999; McKeown, 2009; NSSE, 2007). Moreover, student engagement has been consistently shown to improve graduation rates (Astin, 1990; Pascarelli & Terenzini, 2005; Tinto, 1993), and studying abroad has emerged as a “high impact” activity for enhancing engagement. Given that study abroad is one mechanism for improving student engagement, it is reasonable to expect students who study abroad to have higher graduation rates than comparable students who did not.

Methods

Sample

This study uses data from University System of Georgia (USG). The data span the period from 2000 to 2007 and included 31,133 unique records, which is a complete census of students who studied abroad at USG institutions during that period. Data cleaning and filtering yielded 19,109 usable records that were for the purposes of this study are limited to degree-seeking undergraduate students' first credit-bearing study abroad experience. Demographic and academic information was collected for each study abroad student for five different semesters of the student's progress through the University System of Georgia: (1) the first semester the student was in the system, (2) the semester immediately before the student studied abroad, (3) the semester the student studied

abroad, (4) the semester immediately after study abroad, and (5) the student's last semester in the system.

To provide a comparison group of domestic students, a stratified random sample was taken from the system-wide student records databases. To obtain a meaningful comparison, it was not sufficient to merely sample students from the same entering classes as the students studying abroad. Rather, it was necessary to select cohorts who never studied abroad (“domestic” students) but who had survived at least until the semester corresponding to the semester preceding study abroad. The first step for constructing the comparison group was to draw random sample of ten percent of students at the University System of Georgia from the same time period as the study abroad databases. The study abroad data were then divided into subgroup's based on the study abroad students' institution and class level for each semester. For example, a subgroup could be comprised of all of the study abroad students who were sophomores (defined by semester hours earned) at Georgia Southern University in Spring 2005 the semester before studying abroad. After these subgroups were constructed, a random sample was taken from the domestic student data that was twice the size of the study abroad subgroup. For example, if there were eight students who studied abroad who were sophomores at Georgia Southern University in Spring 2005, sixteen domestic students were sampled who were Sophomores at Georgia Southern University in Spring 2005. This clustered sampling was used to give the control group a similar distribution across semesters, institution, and class level as the study abroad group. However, if the study abroad rate for a particular semester, institution, and class level exceeded five percent, it was impossible to draw a clustered sample of twice as many domestic students from the

larger sample of ten percent of all students. In these cases, the full ten percent of students from the domestic subgroup was used as the control group. . The total size of the comparison group sample thus selected was 17,903.

Our study examines the effect of study abroad on college-completion measured by graduation rates after four, five, and six years. For the graduation rate analyses, only students who entered the University System of Georgia as first-time, full-time bachelor's degree-seeking freshman were included. In the four-year graduation rate analysis, students who studied abroad more than four years after first matriculating are excluded from the analysis. Also excluded are students who matriculated too late to have been observed for four complete years in our dataset. Similar exclusions are made for the five-year and six-year graduation rate analyses. Sample sizes for each of the graduation rate calculations are shown in table 1.

Results

The first step of the analysis was a comparison of the four-, five-, and six-year graduation rates of the study abroad students to the rates of the domestic control group (table 1). The groups that studied abroad had higher four-, five-, and six-year graduation rates than the comparison domestic group. The associations between study abroad status and graduation status within each time frame were all significant when Fisher's Exact Tests were applied.

The next step of analysis was the application of logistic regression to control for precursor variables than may also affect graduation rates. We controlled for each student's previous academic performance as measured by (1) precursor achievement as

indicated by high school grade point average, (2) current achievement indexed by university grade point average prior to study abroad (3) academic ability as indexed by combined verbal and mathematics SAT scores, (4) effort toward graduation progress as reflected by number of hours enrolled in the semester prior to study abroad.

Since graduation is a binary variable, logistic regression was used to examine the joint impact of study abroad status along with the five control variables. Odds ratios were calculated to describe the change in the relative odds of the occurrence of the binary outcome resulting from a one-unit change in the independent variable. Domestic students were the reference group in these logistic regressions.

As shown in table 2, all the variables in the model emerged as statistically significant factors in determining the probability of graduating within four years . While study abroad status was the least potent of those factors, the odds ratio of students who studied abroad to students who did not was 1.1. A student who studied abroad thus had a 10% higher chance of graduating within four years, even after controlling for previous academic ability and performance.

Studying abroad exerted an even stronger effect on the relative odds of graduation within five years (Table 3.) A student who studied abroad had a 25% higher odds of graduating within five years, compared to a domestic only student. All of the precursor variables were likewise significant in the five-year analysis. However, study abroad emerged as having a stronger effect than combined SAT score on the relative odds of five-year graduation.

In the logistic analysis of the odds of graduating within six years (see table 4), study abroad did not manifest a significant effect, nor did combined SAT score..

Discussion

Contrary to the common supposition that studying abroad diverts students from the timely pursuit of their degrees, our results point to study abroad as a significant contributor to college completion. The impact of study abroad on timely college completion invites serious reconsideration of the place of study abroad in the undergraduate experience. For many decades and at many U.S. colleges and universities, study abroad has been valued primarily as an enrichment activity that promotes greater self-awareness, self-efficacy, and personal growth (Black & Duhon, 2006; Carlson, et al., 1990). It was a recommended but optional endeavor for students who could find the time and money to go (Hoffa, 2007). If, however--as our findings demonstrate--study abroad provides a major boost toward graduating within four or five years, perhaps it deserves to have a more central home in a college degree structure. At an institutional level, universities might consider how study abroad could be better integrated into general education courses. At a disciplinary level, academic departments might consider how study abroad could be integrated into the designs of particular academic majors that have traditionally been hostile for students aspiring to study abroad (Blumental & Grothus, 2009). Rather than seeing study abroad as only personal benefit that enhances the life of the individual who participates, we may now think of study abroad as a process that contributes to the goals of public institutions of higher education (Lincoln Commission, 2005). Faced with growing pressures and expectations to increase graduation rates, public universities may begin to envision, design, and promote study abroad as an activity that serves broader interests in promoting college completion.

Detractors of studying abroad have frequently contended that education abroad is often superfluous to academic learning in pursuit of a degree (Huff, 2007). If study abroad students appear to display superior academic outcomes (like timely graduation), they may argue, it is simply because stronger students self-select to study abroad. The present study sought to obviate those objections first by constructing a comparison group of domestic-only students that closely resembled the study abroad cohort in terms of credit hours earned up until the semester prior to the study abroad experience. Relative to that comparison group, a significantly higher proportion of students who had studied abroad did graduate within four, five, and six years of matriculation.

To further bolster the case that the persistence of study abroad students is not merely due to self-selection, we conducted logistic regressions that statistically controlled for characteristics that likely do distinguish study abroad students from their domestic-only peers: precursor measures of achievement, current achievement in college, academic ability, and prior effort toward graduation. Even controlling for these factors, studying abroad contributed independently to the probability of four-year and five-year graduation rates. Students who studied abroad were 10% more likely to graduate in four years and 25% more likely to graduate in five years, relative to domestic-only students. The probability of graduating in six years was not significantly affected by study abroad status in this regression models. After six years a great many more students are able to achieve their degree objectives, and the advantage offered by studying abroad would be diluted by any number of other life events.

Among the strengths of this analysis is a relatively large sample ($N > 14,000$ for the four-year analysis) accruing from a diverse set of public institutions. Although the

Carnegie Research I institutions in this system certainly contributed the bulk of the cases, substantial numbers of students also attended regional universities, 4-year colleges, and historically black universities within this 35-institution system.

In establishing the effects of studying abroad on graduation rates, we have been looking only at the aggregate data from the study abroad and domestic control groups. Additional potentially interesting variables may underlie these data. For example, not all study abroad programs may exert the same impact on college completion. Thus study abroad program design features such as duration (Dwyer, 2004) might prove a more potent predictor of timely college completion than simple study abroad participation. By the same token, academic factors such the stage of academic career (first year, junior year) at which a student studies abroad or major field of study likely also affect time to graduation. Finally, demographic characteristics such as student race, and gender may interact with study abroad participation in determining timely college completion.

While the results do offer compelling evidence that study abroad experiences themselves add value to academic progress, this study cannot isolate the mechanisms by which .studying abroad brings about this impact. We have highlighted the likely mediating effect of student engagement as the link between studying abroad and college completion (NSSE, 2007), however the present data do not include any independent measure of engagement. Finally, although we have endeavored to match our comparison group to our study abroad cohort and then to impose statistical controls for differences in precursors and in achievement, it is possible that some individual difference variable such as social capital (Salisbury, et al, 2009) that was not measured in this study both

differentiates study abroad students from domestic students and also determines college completion.

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*Table 1**Graduation rates for study abroad and domestic students .*

	Four-year rate	Five-year rate	Six-year rate
Study abroad students	49.6%	82.6%	88.7%
Domestic students	42.1%	74.7%	83.4%
Sample Size	14,350	12,284	9,413
Pearson Chi Square	79.675	114.00	53,446
p-value (Fisher's Exact Test)	.000	.000	.000

*Table 2**Logistic regression of four-year graduation rate*

	Beta	S.E.	Wald	Sig.	Exp(B)
Study Abroad	.095	.049	3.737	.053	1.100
College GPA	1.276	.051	630.577	.000	3.584
High School GPA	.405	.061	43.669	.000	1.499
Hours Enrolled	.159	.010	238.795	.000	1.172
SAT in 1000's	.431	.155	7.762	.005	1.539
Constant	-8.509	.268	1005.510	.000	.000

*Table 3**Logistic regression of five-year graduation rate*

	Beta	S.E.	Wald	Sig.	Exp(B)
Study Abroad	.223	.063	12.344	.000	1.249
College GPA	.710	.074	91.627	.000	2.034
High School GPA	.047	.021	5.188	.023	1.048
Hours Enrolled	.142	.012	131.096	.000	1.153
SAT in 1000's	1.057	.059	318.044	.000	2.879
Constant	-6.950	.308	510.098	.000	.001

Table 4
Logistic regression of six-year graduation rate

	Beta	S.E.	Wald	Sig.	Exp(B)
Study Abroad	.125	.084	2.199	.138	1.133
College GPA	.371	.273	1.849	.174	1.450
High School GPA	.849	.073	133.556	.000	2.338
Hours Enrolled	.119	.015	60.371	.000	1.126
SAT in 1000's	.743	.094	62.989	.000	2.102
Constant	-5.290	.365	209.666	.000	.005