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Stratification in Study Abroad Participation After Accounting for Student Intent

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Abstract
This study uses the Wabash National Study on Liberal Arts Education to understand student study abroad participation while holding a student's prior intent to study abroad constant. The study augments previous use of the data set by (1) holding intent to study abroad constant across models and (2) focusing on study abroad participation and the socioeconomic construct of parental education. Consistent with theories of *high-brow* embodied cultural capital and effectively maintained inequality, students of advanced degree parents are more likely to study abroad after holding intent to study abroad and the various forms of capital constant. Intent to study abroad, gender, prior and current academic characteristics, university type, diverse coursework, orientation towards diversity, non-classroom faculty interactions, and co-curricular involvement have associations with study abroad participation. After controlling for intent to study abroad, individual analyses of student socioeconomic status indicate that intent to participate, academic achievement, and liberal arts institution attendance remain salient for increasing study abroad participation, and some other factors had heterogeneous associations among subgroups.

Keywords Study abroad · Cultural capital · Social capital · Effectively maintained inequality · Socioeconomic status · Internationalization · Parental education

Because of positive long-term gains associated with studying abroad, colleges and universities often encourage students to participate in such programs. With 313,515 American students participating during the 2014–2015 school year, study abroad participation grew by 2.9% over the 2013–2014 school year in the United States (Institute of International Education 2016). Although 27.1% of study abroad participants are of minority status, there has been a 71% increase in minority participation since the 2004–2005 school year. During the same time, the percentage of minorities involved in Fulbright study abroad programs grew from 29 to 35%. As student involvement in study abroad programs change, there is a continual need to reevaluate data to understand the types of students that engage in such programs. Although research within the context of study abroad has focused mainly on the intent to study abroad as well as different skills/abilities studying abroad may cultivate,

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only a handful of studies involve intent when looking at other factors that may be affecting study abroad participation (Luo and Jamieson-Drake 2015; Stroud 2015). When the intent to study abroad is held constant, one can understand which factors mitigate or encourage student participation among those that intend and do not intend to participate.

Given the number of studies that cite socioeconomic considerations as a mitigating factor in the choice to study abroad, further analysis is needed to understand the potential heterogeneous differences associated with socioeconomic status (SES), including how different factors in the college experience may affect the participation of different social classes (Brux and Fry 2009; Lörz et al. 2015; Presley et al. 2010; Relyea et al. 2008; Sánchez et al. 2006; Simon and Ainsworth 2012). If study abroad's participation benefits are enjoyed disproportionately by students of higher-SES, participation may result in greater human, cultural, and social capital accumulation for students from higher social backgrounds. It may be possible to improve equity in participation rates by finding potential factors that would increase the propensity for those of lower SES standing to study abroad. With intent held constant, one can uncover other facets of the college experience that encourage study abroad for both those that do and do not initially intend to participate. This paper uses a series of logistic regressions to investigate intent to study abroad and other factors associated with higher study abroad participation, not only overall but also based upon students' parental academic degree level as a proxy for SES.

Literature Review

Benefits of Study Abroad

In higher education, participation in study abroad is important primarily because of the many positive gains reported for participants. Students participating in study abroad report more significant growth in the areas of sociocultural awareness and cultural competence (Bell et al. 2016; Kilgo et al. 2015; Kitsantas 2004; Mapp 2012; Nguyen 2017; Pedersen 2010; Rexeisen et al. 2008; Salisbury et al. 2013). Students were able to create connections between the United States and the world, and students found the programming to be a catalyst for future trips out of the United States (Rowan-Kenyon and Niehaus 2011). In addition to growth in metrics of diversity and global mindedness, participation shares an association with growth in creative thinking (Lee et al. 2012) and an increase in academic focus and performance (Hadis 2005; Luo and Jamieson-Drake 2015). Such students became both more orally proficient by objective standards and perceived a significant growth in the host country's language (Magnan and Back 2007). Student evaluations from an environmentally focused study abroad programs indicate positive growth in students' connectedness to the natural world and increases in concern for the environment (Bell et al. 2016; Tarrant and Lyons 2012; Tarrant et al. 2014; Wynveen et al. 2012). After a study abroad experience, participants of color reported interacting more interracially off campus, seeking friends of different races/ethnicities, and being more willing to accept diversity (Murphy et al. 2014). Although arguments persist concerning superior gains from long-term study abroad (a semester to a year) over short-term (several weeks to a month), there is little evidence against the positive impact of short-term study abroad programs (Dwyer 2004; Kehl and Morris 2008; Mapp 2012; Perry et al. 2012; Rowan-Kenyon and Niehaus 2011).

Regarding economic gains, literature presents a decidedly mixed review of outcomes. Using a quasi-experimental instrumental variable design, participation in one university's

study abroad program had no associated influence on income 43 years later (Schmidt and Pardo 2017). Using a national representative data set, Partlo and Ampaw (2018) used a multilevel model for predicting study abroad's relationship to income. Overall, the study abroad variable on its own was not significant, but the interaction terms may warrant further exploration. Their analysis indicates that Asian students participating in the study abroad made more money than non-participating peers 1 year after college, while non-participating African Americans made significantly less than participants 3 years after college. Economic returns aside, the number of positive outcomes associated with studying abroad may influence parents' and students' views of studying abroad as a chance elevate the quality of a collegiate experience.

Cultural Capital and Effectively Maintained Inequality

The possible mitigating effects of families provides an area of concern for student study abroad participation. Because students from lower-SES backgrounds are less likely to intend to participate in study abroad, it is necessary to explore how SES distinctions affect study abroad participation. It is possible that not only financial restrictions can reduce lower-SES likelihood in study abroad participation, but lower-SES students and their families could view study abroad as a form of *high-brow* cultural capital. Bourdieu popularized the idea of cultural capital as a way in which education served to convert social hierarchies into legitimized academic hierarchies (Bourdieu 1977; Bourdieu and Passeron 1990). Cultural capital acts as a mechanism for the distinction between social groups by cultural norms (Bourdieu 1986). The framing of cultural capital includes it either as *embodied* (engagement in items perceived as high culture, such as the ballet or museums), *objectified* (the owning of cultural goods and the ability to enjoy or use these goods), or *institutionalized* (granted licenses, such as a high school diploma or college degree) (Bourdieu 1984, 1986). With students who have traveled abroad indicating that the travel made them more *worldly* and *cultured* (Simon and Ainsworth 2012), there appears to be some support for the notion that study abroad participation is a *high-brow* form of embodied cultural capital. If this is true, one should expect SES differences to remain when other factors are held constant.

It is entirely possible that study abroad serves as a form of effectively maintained inequality (EMI) as well as a form of *embodied* cultural capital (Lucas 2001, 2009, 2017). For the theory of EMI to take hold, at least one of the following must happen: (1) higher-SES parents seek out qualitative advantages for their children when there are no longer quantitative advantages in years of education, (2) higher-SES parents seek out quantitative advantages in education when qualitative advantages cease, or (3) higher-SES parents seek out both qualitative and quantitative advantages in their child's education if either qualitative or quantitative advantages cease to exist. In the realm of collegiate education, it is possible for parents from affluent backgrounds to provide economic, cultural, and social resources that foster their child's engagement in forms of extracurricular and internship involvement. These students are then able to build remarkable resumes to stand out from their peers in the graduate school and employment marketplace (Rivera 2011, 2012; Stuber 2009). Participation in study abroad may not only embody a higher form of cultural capital, but higher-SES parents may view the opportunity as a way for their children to acquire skills in college not found elsewhere.

If there are social class differences in study abroad participation, the differences may not only be an embodied form of cultural capital but a way for higher-SES parents to use their resources to secure the qualitative advantages for their children through study abroad

participation. Marianne Cooper's (2014) series of ethnographic case studies of different socioeconomic classes in Silicon Valley may provide some insight into the characterization of global trips as a form of EMI. According to Cooper, the higher-SES families asserted a need for their children to both experience the world and learn other world languages in order to compete in the new globalized economy. The higher-SES parents viewed globalized travel as an essential form of effective preparation for their children to function in the new globalized economy. None of the middle-, working-, or lower-class families held similar regard for globalized travel. Given the number of growth opportunities associated with study abroad, there is reason to think that study abroad functions as a qualitative advantage in the educational process.

Intent and Participation in Study Abroad

A variety of qualitative and quantitative studies have concerned themselves with students' intent to study abroad. Due to the increased likelihood that a student who intends to study abroad is more likely to follow through with participation (Luo and Jamieson-Drake 2015), it remains important to understand potential catalysts of intent. Students' SES and questions of the ability to afford study abroad opportunities have been salient indicators of students' intent to study abroad (Salisbury et al. 2009; Schnusenberg et al. 2012; Simon and Ainsworth 2012). Salisbury and fellow researchers expressed a keen interest in different factors associated with the intent to study abroad in a series of papers using the Wabash National Study on Liberal Arts (WNS) (Salisbury et al. 2009, 2010, 2011). Salisbury et al. (2009, 2010) both used 19 of the total of 49 four-year institutions of the WNS, while the 2011 study used all 49 institutions. Salisbury et al. (2009) concerned itself with the overall intent of all students to study abroad. The study indicated greater study abroad intent with students who: were females, had parents at higher levels of education, had more positive attitudes towards literacy, were more open to diversity, majored in social sciences or were undecided, attended a liberal arts institution, participated in diverse interactions, and had increased levels of co-curricular involvement. Students receiving a Federal grant, reporting higher levels of involvement in high school, attending a regional or research institution, and Asian students were all less likely to study abroad.

The gender differences of the Salisbury et al. 2009 study resulted in a study of the heterogeneous nature of gender and intent. Among males, intent to study abroad was associated with positive attitudes towards literacy, increased scores on the diversity scale, and those with an undecided major (Salisbury et al. 2010). Asian males and males with more involvement throughout high school were less likely to be associated with the intent to study abroad. For females, the study indicated Latinos relative to Whites, those whose parents had a higher level of education, and students with greater scores on the diversity scale had associations with a higher likelihood to intend to study abroad. Females were less likely to intend to study abroad if they received Federal student aid, attended a research or regional institution, or indicated greater degrees of integration in their school.

Because of the differences of outcomes between race/ethnicity-related variables concerning study abroad intent, a third study was commissioned (Salisbury et al. 2011). For African Americans, the researchers indicated intent's positive relationship with those aspiring to obtain a graduate degree, those with higher literacy, those who attended a liberal arts school, and those who were social science majors relative to liberal arts majors. African American students with higher ACT scores were less likely to intend to study abroad. In several studies, many African American students reported study abroad as a *White* thing to do (Brux and Fry 2009; Simon and Ainsworth 2012) and expressed concerns over how people of

other countries would treat African Americans (Simon and Ainsworth 2012). When delving into the intent of Asian students, Salisbury et al. (2011) indicate students are more likely to intend if they were business majors, had institutional grants, or reported greater diversity scores. Asian students were less likely to intend to study abroad if they were male, aspiring towards a graduate degree, had more highly educated parents, attended a regional college, or were STEM (science, technology, engineering, or math) majors. Brux and Fry's (2009) study suggests that Asian students had trouble rationalizing the academic constraints of long-term study abroad programs, giving some credence to Salisbury et al. (2011)'s claim that degree aspirations may be a mitigating factor for interest in study abroad. Salisbury et al. (2011) indicate that Latino students were more likely to intend to study abroad if they received a Federal grant, were female, had more positive attitudes towards literacy, had a higher number of diverse interactions, and were a STEM or undecided major rather than majoring in liberal arts. Latino students who received a loan were less likely to intend to study abroad. In other studies, Latino students expressed difficulty in fitting study abroad into their schedule, and they saw possible financial costs as too high, did not want to leave family, and viewed study abroad as predominantly for White females (Brux and Fry 2009; McClure et al. 2010). When Salisbury et al. (2009) and Salisbury et al. (2010, 2011) findings are combined with other research about intent to study abroad, the result paints a comprehensive picture of which students are likely to intend to study abroad.

Beyond Intent

After studying intent to study abroad itself, the next logical step is using intent as a factor to understand actual participation. With the inclusion of intent as an element in the regression analysis, it is possible to analyze how factors associated with study abroad may influence participation over the next several years of college among those who do and do not intend to participate in study abroad. For example, if an analysis were to find a positive significance in the *student's orientation towards diversity*, then those with a greater orientation to diversity would be more likely to study abroad among those that do intend and those who do not intend to participate. Luo and Jamieson-Drake (2015) is one of the few studies to hold intent constant while modeling other factors associated with participation. The study failed to find any statistically significant relationships with other factors that might affect the likelihood of studying abroad outside of *strong intent*. The study suffered from several limitations that may account for the lack of other different influential characteristics. First, the study uses only data from one self-described prestigious university. It is hard to give weight to the possible selection bias in the outcomes when the clear majority of college students in the United States do not receive education from a prestigious private university experience. Secondly, the sample is limited to 297 students. Third, the model did not control for students' use of time throughout college, beliefs about diversity, or financial aid. Since these factors have been identified as significant indicators of intent (Salisbury et al. 2009, 2010, 2011), the factors may be connected with actual participation. In a data set using only the 1969 students who expressed an intent to study abroad in an earlier publication (Stroud 2010), Stroud (2015) used logistic regression to uncover any potential factors related to actual participation. She discovered increased participation among students with higher GPAs, honors college membership, greater fluency in a foreign language, or three or more trips outside of the U.S. Transferring from another college, viewing money as an obstacle, or worrying about graduating on-time were negatively associated with study abroad participation. Like Luo and Jamieson-Drake's (2015) study, the study suffers from

the use of one institution. The focus of one college limits the study's applicability to other collegiate settings. Exploration of data sets with a more substantial number of schools could provide greater context to the study abroad process.

Outside of Luo and Jamieson-Drake (2015) and Stroud (2015), there is a lack of literature regarding the factors that influence actual participation in studying abroad while holding intent to participate in such programs as a constant. Furthermore, the lack of clarity regarding social class differences in studies of study abroad participation at a quantitative level limits the overall scope of the research. Analyzing the factors affecting a student's overall participation and controlling for those students' intent to study abroad in the spring of the first year of college will improve our understanding of the factors that either can encourage or hinder a student's choice in study abroad participation. For school administrators and program directors that are trying to encourage participation of lower-SES students, they may be able to cater their program offerings to meet the needs of these students. As discussed, this study will analyze intent to participate and actual participation in study abroad through a series of logistic regressions aimed at determining a better understanding of influences on study abroad participation.

Expanding the generalizability towards more colleges and universities than Luo and Jamieson-Drake (2015) and Stroud (2015), the study will use the WNS data set's 46 different 4-year colleges and universities. The study uses the past theories of Salisbury et al. (2009) and Salisbury et al. (2010, 2011) to look at factors concerning cultural, economic, social, and human capital and how they might have associations with study abroad participation. The study will develop upon Salisbury et al. (2009) and Salisbury et al. (2010, 2011) in two ways. Instead of focusing on the heterogeneity of differences among race and gender, the study concerns itself with differences among students by SES. The focus on parental education provides another indication of how socioeconomic characteristics relate to participation, while the use of the full WNS data set adds greater robustness to the study. Second, the study utilizes the full WNS data set of 46 4-year institutions that was not available for the Salisbury et al.'s two earlier studies.

Methods

Sample

The WNS examines a diverse set of colleges and universities throughout different regions of the United States. The study was funded by the Center for Inquiry in the Liberal Arts at Wabash College. It is a longitudinal investigation of both liberal arts colleges and experiences within liberal arts programming. During the construction of the study, faculty, staff, and students were interviewed to identify concerns about campuses, and this information was used to refine the data set. The full study consisted of 52 different colleges and universities in a total of three cohorts beginning in the fall of 2006. The first cohort had 19 institutions, adding seven institutions in 2007, and 26 institutions in 2008. The data set consists of data collected from 33 liberal arts colleges, six research universities, 10 regional universities, and three community colleges. Students were surveyed and followed throughout the next 4 years of their college experience. The data set was collected at both the institutional and individual level during the fall of first-year, spring of first-year, and spring of the fourth-year. Information gathered during the survey included: activity participation, effective teaching exposure, experiences related to diversity, active learning, integrative

experiences, and both co-curricular and out-of-class experiences. This study relies on the survey data from the WNS.

Roughly 17,000 students participated at the beginning of the study and 8600 participated in the spring of the first-year survey. Of those 8600 students, only 4200 students responded to the spring of fourth year survey. Due to data only covering the first 2 years of their college experience, the analysis does not include the 126 community college students from the three community colleges. Because a significant amount of data is missing for students whose major is not identified, those 415 students were removed from the analysis. The final sample consists of 3824 students. Since the data set's primary concern is liberal arts education, the creators of the survey oversampled liberal arts students. As a control for oversampling, factors are included for institutional type and covariate standard errors are clustered by the specific collegiate institution.

Theoretical Model and Research Questions

The study mimics Salisbury et al.'s (2009, 2010, 2011) previous use of the WNS's large number of covariates to model student economic, social, and human capital. Cultural capital and class dispositions of students may not always dictate their participation in study abroad. Human, economic, and social capital may influence a student's likelihood of studying abroad. To be able to explore how similarly situated students among the parental education subgroups choose to study abroad, it remains crucial to control for forms of capital. According to human capital theory, students will invest in study abroad programming if they expect the experience will result in future economic gains (Becker 1994; Becker and Tomes 1986). When deciding to study abroad, students and their families look at both the monetary and non-monetary costs of studying abroad. While some students and their families may find the economic cost of studying abroad prohibitive in the short-term, others may regard participation as a worthy investment for developing language and intercultural skills. The decision to study abroad requires not only sufficient economic capital but a clear perception of affordability among the student and their parents. Even if a student has a cultural disposition towards studying abroad, believing that the program is unaffordable may dissuade the student from pursuing the program. A student's *habitus*, or social conditioning, has the possibility of change throughout life to increase the propensity of participation in *high-brow* cultural norms (Bourdieu and Passeron 1990). A possible mechanism by which students could change their dispositions is by accumulating cultural and social capital while in college (Lehman 2013). Portes (1998) defines social capital as "the ability of actors to secure benefits by their membership in social networks or other social structures" (p. 7). The definition allows students to accumulate new forms of capital throughout college. These social connections made through their majors, relationships to faculty members and students, and participation in different organizations around campus could change students' *habitus* and their propensity to participate in study abroad.

Parental education acts as a proxy for both students' SES and cultural capital. Student use of grants and educational loans constitute a student's economic capital to be able to afford study abroad opportunities. Student human capital is measured by ACT scores (SAT scores were converted to ACT scores in the creation of the data set), GPA after the second semester of college, number of courses focusing on diverse subject and cultures during the first-year, student's orientation to diversity, and student's intent to pursue an advanced degree after college. The modeling of social capital incorporates collegiate institutional type, end of first-year student major, outside of class interactions with faculty members,

weekly hours spent in co-curricular activities, weekly hours spent working, weekly hours spent studying, and weekly hours used for socializing. Demographic controls for race/ethnicity and gender remain a component of these analyses. All variables, except study abroad participation, are from the spring of first-year surveys. Because the variables precede studying abroad participation, the model allows for a stronger connection between the forms of capital and participation.

R_1 Does parental education affect study abroad participation after holding a student's intent to participate in study abroad constant? If so, does this remain after holding other forms of economic, human, and social capital constant?

R_2 What factors representing socio-demographic, economic, human, and social capital are associated with studying abroad participation after considering the student's intent to study abroad?

The third research question explores possible homo- and heterogeneity among the demographic and forms of economic, human, and social capital between parental education groupings. Since there have been past differences in demographic characteristics (Salisbury et al. 2010, 2011), there remains a possibility that differences may emerge between parental educational attainment as a proxy of SES.

R_3 For students who have parents with less than a bachelor of arts, a bachelor of arts, or an advanced degree, how do the forms of socio-demographic, economic, human, and social capital differ in their associations with studying abroad after accounting for intent?

Variables

The dependent variable, participation in studying abroad, is coded 0 for not participating in studying abroad and 1 for studying aboard by the end of the spring of the fourth year of college. The intent of studying abroad is coded as a 1 for those expressing a plan to study abroad during the spring of their first-year student experience. Students that either had not decided on the issue or who were not planning to participate coded as a 0. Students who already participated in study abroad during their first year of college were dropped from the analysis to prevent bias in overall estimates. The study contains three variables to express parental education level: parents' highest education is less than a Bachelor of Arts (LBA), parents' highest education is a Bachelor of Arts (BA), and parents' highest education is an advanced degree (AD). Mother's and father's level of education, whichever is higher, determine a student's level of parental education (see Table 1 for coding of measurements of demographic and economic, human, and social capital).

Analyses

The analyses use logistic regressions with participation in study abroad by the end of the fourth year of college. Due to the complexity of the understanding of beta coefficients, all coefficients are converted into their predictive marginal effects with other coefficients set at grand means. Predictive margin outputs are restricted to only coefficients with a significant relationship towards studying abroad. Predictive margins indicate the associated

Table 1 Variable descriptions and missing data

Variable	Description	Coding	Percent missing
Participated in study abroad	Student participated in study abroad in first 4 years of college	0—No 1—Yes	4.53
Intent to study abroad	Student intended to study abroad while in college spring of first-year	0—No 1—Yes	.48
Parental Education	Ordinal variable based upon mother or fathers' highest level of education	1—Less than a bachelor of arts 2—Bachelor of arts 3—AD	2.89
Gender	Student indicated gender	0—Male 1—Female	0
White	Student indicated race	(*Reference*)	
African American	Student indicated race	0—No 1—Yes	0
Asian	Student indicated race	0—No 1—Yes	0
Latino	Student indicated race	0—No 1—Yes	0
Other	Those marking other, multi-race, or Native American	0—No 1—Yes	0
Regional university	Attended a regional university	0—No 1—Yes	0
Research university	Attended a research university	0—No 1—Yes	0
ACT/SAT score	Standardized test scores from college. SAT scores are converted to their ACT equivalent score	8–36	0
Grant recipient	Received an institution, state, or Federal grant spring of first-year of college	0—No 1—Yes	2.23
Loan recipient	Received a student loan spring of the first year of college	0—No 1—Yes	4.36

Table 1 (continued)

Variable	Description	Coding	Percent missing
Major: liberal arts	Majored in Liberal Arts the spring of first-year of college	(*Reference*)	0
Major: STEM	Majored in science, technology, engineering, or math spring of first-year of college	0—No 1—Yes	0
Major: business	Majored in a field of business spring of first-year of college	0—No 1—Yes	0
Major: education	Majored in a field of education spring of first-year of college	0—No 1—Yes	0
Major: social sciences	Majored in on of the social sciences spring of first-year of college	0—No 1—Yes	0
Major: other	Students who had a major not fitting into the other four categories spring of first-year of college	0—No 1—Yes	0
Major: undecided	Student indicated they were undecided spring of first-year of college	0—No 1—Yes	0
Intending an advanced degree	Students who marked their intention of someday receiving a masters, doctorate, or first-professional degree.	0—No 1—Yes	2.58
Number of courses focusing on diversity	Number of courses focusing on diverse cultures and perspective taken during the first-year experience	0—0 Courses 1—1 Course 2—2 Courses 3—3 Courses 4—4 Courses	1.47

Table 1 (continued)

Variable	Description	Coding	Percent missing
Openness to diversity	A scale score based upon the following questions: (*Overall alpha* = .874; *LBA alpha* = .882; *BA alpha* = .869; *AD alpha* = .872) Extent to which the student believes contact with individuals whose background (e.g., race, national origin, sexual orientation) are different from his/her own is an essential part of his/her college education Extent to which student enjoys taking courses that challenge his/her beliefs and values Extent to which courses the student enjoys most are those that make him/her think about things from a different perspective Extent to which the student believes that learning about people from different cultures is a very important part of their college education Extent to which the student enjoys having discussions with people whose ideas and values are different from his/her own Extent to which the student enjoys talking with people who have values different from his/her own because it helps him/her better understand him/herself and his/her own values Extent to which the student agrees that the real value of a college education lies in being introduced to different values	1—Strongly Disagree 2—Disagree 3—Neutral 4—Agree 5—Strongly Agree	1.95
Non-classroom faculty interactions	A standardized scale score based upon the following questions: (*Overall alpha* = .857; *LBA alpha* = .861; *BA alpha* = .870; *AD alpha* = .847) Extent the student agrees that non-classroom interactions with faculty have had a positive influence on personal growth, values, and attitudes Extent the student agrees that non- classroom interactions with faculty have had a positive influence on intellectual growth and interest in ideas Extent the student agrees that non- classroom interactions with faculty have had a positive influence on career goals and aspirations Extent the student agrees that since coming to this institution, the student has developed a close, personal relationship with at least one faculty member Extent the student agrees that he/she is satisfied with the opportunities to meet and interact informally with faculty members	1—Strongly Disagree 2—Disagree 3—Neutral 4—Agree 5—Strongly Agree	1.44
GPA	Spring of first-year GPA	4.0 continuous scale	6.61

Table 1 (continued)

Variable	Description	Coding	Percent missing
Co-curricular activity hours	Number of hours on average the student reported spending each week in co-curricular activities	1—0 h 2—1–5 h 3—6–10 h 4—11–15 h 5—16–20 h 6—21–25 h 7—26 h or more	.43
Hours worked	Average number of hours a student reported working in the spring of their first year of college	1—0 h 2—1–10 h 3—11–20 h 4—Over 20 h	.51
Hours spent studying	Average number of hours spent per week studying by students in the spring of their first year of college	1—Five or fewer hours 2—6–10 h 3—11–15 h 4—16–20 h 5—21–25 h 6—26–30 h 7—More than 30 h	.46
Hours spent socializing	The average number of hours a student reported socializing in the spring of their first year of college	1—Less than 5 h 2—6–10 h 3—11–15 h 4—16–20 h 5—21–25 h 6—More than 25 h	.51

probability of a student participating in study abroad given a certain change in an independent variable. If an output in *gender* indicates a .32 for men, the analysis indicates that men have a 32% associated probability of studying abroad. If the analysis shows a .42 for females, the outcome signifies that women are associated with being ten percentage points more likely to study abroad than men. The inclusion of log-odds is included for the interest of readers. Each analysis holds the intent to study abroad in the spring of the first-year constant. The purpose of holding intent constant is to help negate issues of self-selection for those already intending to study abroad. Because the correlation coefficient between intent and studying abroad is .42, intent provides a robust measurement of control over self-selection. If a student of higher-SES has a significantly higher coefficient, it would indicate that, even among those that do intend to participate in study abroad, higher-SES students are more likely to follow through on their initial intent. In the same scenario, students of higher-SES who do not intend to study abroad would be significantly more likely to participate than non-intending lower-SES peers.

The analysis concerns five models. The first model (*M1*) involves a comparison of the three levels of parental education and their association with studying abroad when holding intent constant. The second model (*M2)* investigates how factors surrounding demographic characteristics and human, social, and economic capitals may mediate parental education's association with study abroad participation. Models *M3*, *M4*, and *M5* investigate how the characteristics may be associated with study abroad participation when holding intent constant for students whose parents have an LBA, a BA, and an AD. The analyses indicate any significant differences in beta coefficients. The combination of the three models permits a better understanding of heterogeneity in outcomes based on the parental education as a proxy for SES. Fourteen of the variables contained missing data items. The percentage of missing data points for the variables ranged from .43 to 6.61% (see Table 1). The missing data within the variables are treated with multiple imputations by chained equations to mitigate the loss of cases from list-wise deletion (Allison 2001). A total of 100 imputations were created to have sufficient power to detect small effect sizes (Graham et al. 2007).

Results

Descriptive Statistics

While 65.8% of students intended to study abroad, only 43% of students in the sample participated in study abroad during their first 4 years of college (see Table 2). Both the percentage of students intending to study abroad and participating in studying abroad increased in tandem with parental education. Approximately 24.8% of students have parents with LBA, 33.1% of students have a parent with at least a BA, and 42.1% of the students have at least one parent with an AD. Women constitute 64% of the sample. The subgroup of parents at LBA had 6.5 percentage points more females in their sample than students of AD parents. White students are 73.2% of the sample. The percentage of White students increases as parental education increased. The percentage of African American and Latino students decreases as parental education increases and constitute, respectively, 5.8% and 4.9% of the overall sample. Asian students represent 4.8% of the sample. Asian students are more prevalent in the LBA and AD subsamples. Other racial backgrounds constituted 11.2% of the students. Those students were concentrated in the BA parental education level. The overall average ACT score is 26.6 and has a 3.8-point gap between the LBA and AD subsamples.

Table 2 Descriptive statistics (imputed means and standard deviations)

	Full sample		Parent without a BA		Parent with a BA		Parent with an adv. deg.		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Range
Study abroad participation	.430	.495	.311	.463	.408	.491	.520	.500	0–1
Intent to study abroad	.658	.474	.571	.494	.655	.475	.710	.454	0–1
Parents education	2.174	.799							1–3
Less than a bachelor's degree	.248	.432							0–1
Bachelors degree	.331	.471							0–1
Advanced degree	.421	.494							0–1
Female	.640	.480	.670	.470	.632	.482	.614	.487	0–1
White	.732	.442	.649	.477	.743	.436	.776	.417	0–1
African American	.058	.234	.109	.312	.051	.219	.033	.179	0–1
Asian	.048	.214	.072	.258	.032	.175	.048	.213	0–1
Latino	.049	.216	.093	.290	.042	.200	.029	.169	0–1
Other	.112	.315	.074	.267	.133	.339	.114	.317	0–1
ACT/SAT scores	26.631	4.445	24.358	4.382	26.531	4.289	28.135	3.981	8–36
Liberal arts college/univ.	.563	.385	.550	.498	.743	.498	.573	.495	0–1
Regional university	.181	.436	.249	.432	.195	.396	.125	.332	0–1
Research university	.256	.496	.202	.401	.257	.437	.301	.459	0–1
Grant recipient	.803	.398	.922	.268	.810	.392	.731	.444	0–1
Loan recipient	.604	.488	.803	.398	.626	.484	.471	.499	0–1
Major: arts and humanities	.177	.382	.146	.353	.186	.498	18.4	.387	0–1
Major: STEM	.329	.470	.353	.478	.312	.463	.334	.472	0–1
Major: business	.095	.293	.100	.300	.113	.317	.078	.268	0–1
Major: education	.060	.238	.093	.290	.077	.267	.027	.162	0–1
Major: social sciences	.195	.396	.192	.394	.167	.373	.213	.410	0–1
Major: other	.099	.298	.073	.260	.106	.308	.110	.313	0–1
Major: undecided	.045	.208	.043	.202	.038	.192	.053	.224	0–1
Intending an advanced degree	.826	.379	.762	.426	.790	.407	.893	.309	0–1
Number of courses focusing on diversity	.674	.940	.631	.895	.685	.957	.701	.950	0–4
Openness towards diversity	3.796	.687	3.774	.697	3.735	.688	3.849	.679	1–5
Non-class faculty interaction	.075	.775	.080	.772	.065	.791	.063	.771	− 2.8 to 2.7
GPA spring of freshman year	3.327	.538	3.207	.592	3.350	.526	3.387	.506	0–4.3
Co-curricular activity hours	2.778	1.527	2.532	1.496	2.832	1.566	2.881	1.507	1–7
Hours worked	1.667	.796	1.883	.890	1.650	.766	1.553	.728	1–4
Hours studying	3.729	1.658	3.520	1.644	3.684	1.662	3.871	1.652	1–7
Hours socializing	2.935	1.503	2.807	1.559	2.939	1.469	3.020	1.490	1–6

Regarding the type of institution attended, 56.3% of the sample attended a liberal arts college or university, 18.1% attended regional universities, 25.6% attended research universities. Among each parental education subset, the majority of students attended liberal arts institutions. Students with higher levels of parental education were less likely to attend regional universities and more likely to attend research universities. The percentage of students in each major area are as follows: 17.7% in arts and humanities, 32.9% in STEM, 9.5% in business, 6% in education, 19.5% in social sciences, 9.9% in other majors, and 4.5% are undecided. Overall, there are few differences in subsamples. Students with parents having either LBA or a BA are more likely to be majoring in education, while students with parents with ADs are more likely to be majoring in the social sciences. Overall, 82.6% of the students from the sample intend to pursue an advanced degree. The percentage of students wishing to pursue an advanced degree remained high for each subsample, but there was a 13.1 percentage point gap between the LBA and AD subsamples.

The number of courses focusing on diverse cultures and perspectives taken during the first-year experience averaged .674, indicating that on average students took less than one diversity course during their first year of college. The average increased as parental education increased among subsamples. Student openness towards diversity has a Likert scale of 1 (Strongly Disagree) to 5 (Strongly Agree). Among the surveyed students, average openness toward diversity was 3.796, suggesting that the average student leaned towards an *agreeable* openness towards diversity. Among the parental education subsamples, those with AD parents were most open to diversity. The variable non-classroom faculty interaction is a standardized average value of four constructs. The non-classroom faculty interaction averaged .075 across all students. Students with parents who do not have a BA are .017 standard deviations higher than those students of AD parents. The overall GPA of students the spring of first-year averaged nearly a B + (3.32). When broken down into the subsamples, GPA increased with parental education leaving a .18-point gap between the LBA and AD parented students.

The average weekly temporal use of students during their first year of college shows several trends. Time spent in co-curricular activities is an ordinal scale beginning at 1 (0 h) and ending at 7 (26 or more hours). The average student indicated a score of 2.79 for the number of co-curricular activity hours, suggesting that that the average student spent nearly five to ten hours a week in such activities. Those students whose parents were at a BA or AD level were almost identical and above average, but LBA parented students were below average. There is a .3-point gap between the LBA and the other two groups. The average number of hours worked is an ordinal scale beginning at 1 (0 h) and ending at 4 (over 20 h). The average hours worked was 1.67, indicating that students typically worked close to one to five hours a week their first-year of college. Students who had LBA parents tended to work more hours, and hours worked tended to decrease as parents' education increased. Beginning at 1 (5 or fewer hours) and ending at 7 (more than 30 h), time spent studying is an ordinal scale. Hours spent studying averaged a 3.7 on the scale, which implies that students studied nearly sixteen to twenty hours a week. Students with LBA parents were lower than the average, and the average number of hours spent studying increased as parental education increased. As an ordinal scale, hours spent socializing begins at 1 (less than 5 h) and ended at 6 (more than 25 h). The average student socialized 2.9 on the scale, indicating that students socialized between eleven to fifteen hours a week. Students whose parental education was lower tended to socialize less and the amount of time spent socializing increased as parental education increased.

Research Question 1

After holding intent constant, the level of a student's parental education shapes the probability of the student's associated likelihood of studying in both models (see Tables 3 and 4). Students with at least one parent with a BA had a 6.8 percentage point increase in the likelihood of studying abroad. Other factors of human and social capital alongside socio-demographics mediated the significant differences between LBA and BA parented students in the second model. Students with AD educated parents had significantly higher beta coefficients than both LBA and BA parented students in both models. Comparand to LBA and BA parented students, students with an AD parent had associated increases of 13.4 and 8.6 percentage points in the probability of studying abroad. Once controls for socio-demographics and forms of capital were applied, the gap between AD and LBA parented students narrowed to 7.8 percentage points. Also, the difference between AD and BA parented students narrowed to 5.6 percentage points in the associated likelihood of studying abroad. Finally, intent to study abroad remained the single greatest predictor of studying abroad in all models. After accounting for socio-demographic and forms of capital, intending to study abroad had an associated increase of 37.5 percentage points in likelihood of participation over those not intending to participate.

Research Question 2

After accounting for the level of parental education and intent, several factors remained salient in their relationship with studying abroad. Females had an associated 6.6 percentage point advantage in their likelihood of studying abroad. No variables concerning race/ethnicity reached a relationship of statistical significance in the likelihood of studying abroad. Neither receiving a grant nor a student loan have a relationship with studying abroad. Before college academic characteristics surrounding ACT/SAT scores indicate a 9.8 percentage point increase in the likelihood of studying abroad for students one-standard deviation over the mean score compared to those students at one-standard deviation below. The type of college chosen by a student plays an associated role in a student's likelihood to study abroad. Students at liberal arts universities had an associated 14.3 and an 11.6 percentage point increases in the likelihood of studying abroad over, respectively, regional and research university attending students. Additionally, student major and intending for an advanced degree appear to play little role in the likelihood of studying abroad. Similar to ACT/SAT as a characteristic of human capital, spring of first-year GPA had a strong relationship with studying abroad. Students one-standard deviation above the mean GPA had a 13-percentage point increase in the likelihood of studying abroad over those students one-standard deviation below the mean.

Several in-college factors have an associated relationship with studying abroad while in college. For each course a student took with a focus on diversity during the first year, their probability of studying abroad increased by 1.8 percentage points. Meaning a student who took four or more courses with a focus on diversity had a 7.4 percentage point associated increase in the likelihood of studying abroad over a student who participated in none. A one-unit increase in agreeability of openness towards diversity coincided with an associated increase in likelihood to study abroad by 2.3 percentage points. For those students one-standard deviation above the mean in non-classroom faculty interaction, they had an associated 3.3 percentage point increase in the likelihood of studying abroad compared to those students one-standard deviation below. With concern for involvement on and

Table 3 Marginal effects as to the probability of studying abroad

Parental educational attainment			
	Less than a BA	Bachelor's degree	Advanced degree
Overall—M1	.341 (.029)	.409 (.026)**	.495 (.031)***[b]
Overall—M2	.389 (.022)	.411 (.021)	.467 (.021)***[b]
Intent to study abroad			
		No	Yes
Overall***		.175 (.014)	.550 (.025)
Less than BA***		.145 (.017)	.419 (.031)
Bachelors degree***[a]		.135 (.022)	.537 (.028)
Advanced degree***		.222 (.026)	.636 (.027)
Gender			
		Male	Female
Overall**		.388 (.025)	.454 (.019)
Less than BA*		.264 (.029)	.334 (.023)
Advanced degree*		.477 (.033)	.546 (.024)
African American			
		White	African Americans
Less than BA*		.323 (.197)	.197 (.049)
Received student loan			
		No	Yes
Less than BA*[b]		.249 (.032)	.327 (.023)
Bachelors degree*		.448 (.028)	.384 (.022)
ACT/SAT scores			
	− 1 SD	Mean	+ 1 SD
Overall**	.378 (.025)	.427 (.019)	.476 (.024)
Less than BA*	.260 (.028)	.306 (.021)	.355 (.031)
Bachelors degree*	.362 (.029)	.404 (.022)	.447 (.030)
Advanced degree*	.469 (.031)	.520 (.024)	.569 (.032)
College/university type			
	Liberal arts	Regional university	Research university
Overall	.482 (.021)	.339 (.054)*	.366 (.048)*
Less than BA	.367 (.030)	Not significant	.254 (.040)*
Bachelors deg.	.458 (.028)	.342 (.048)*	.337 (.059)*
Advanced degree	.569 (.026)	.450 (.052)*	Not significant

Table 3 (continued)

GPA spring of first-year							
		− 1 SD		Mean		+ 1 SD	
Overall***		.363 (.019)		.428 (.019)		.493 (.022)	
Less than BA*		.269 (.025)		.309 (.021)		.350 (.030)	
Bachelors degree***		.319 (.037)		.404 (.023)		.490 (.024)	
Advanced degree***		.457 (.022)		.520 (.024)		.581 (.030)	
Number of courses focusing on diversity							
	0 courses	1 course	2 courses	3 courses	4 + courses		
Overall*	.418 (.019)	.436 (.019)	.455 (.022)	.473 (.026)	.492 (.031)		
Advanced degree***[b]	.491 (.024)	.532 (.024)	.573 (.028)	.613 (.034)	.651 (.041)		
Openness to diversity and challenge (1—Strongly Disagree…5—Strongly Agree)							
	1	2	3	4	5		
Overall*	.365 (.033)	.388 (.025)	.411 (.019)	.434 (.019)	.457 (.026)		
Less than BA*	.184 (.054)	.225 (.041)	.270 (.027)	.319 (.023)	.372 (.040)		
Non-class faculty interaction							
		− 1 SD		Mean		+ 1 SD	
Overall**		.413 (.019)		.430 (.019)		.446 (.020)	
Bachelors degree**[c]		.368 (.024)		.406 (.021)		.443 (.025)	
Hours a week spent in co-curricular activities during first-year							
	0	1–5	5–10	11–15	16–22	21–25	Over 25
Overall**	.396 (.023)	.415 (.020)	.434 (.019)	.453 (.019)	.472 (.022)	.491(.026)	.510 (.030)
Advanced degree***[a]	.457 (.032)	.491 (.026)	.524 (.023)	.556 (.023)	.588 (.027)	.619 (.031)	.648 (.037)
Hours a week spent socializing outside of class and activities per week during first-year							
	Less than 5	6–10	11–15	16–20	21–25	More than 25	
Less than BA	.354 (.025)	.329 (.022)	.305 (.022)	.282 (.024)	.259 (.029)	.238 (.033)	
Bachelors degree**[a,c]	Not significant						
Advanced degree*	.555 (.029)	.538 (.025)	.520 (.023)	.502 (.025)	.484 (.029)	.466 (.036)	

Data from the Wabash National Study on Liberal Arts Education 2006-12 of students completing all three surveys

All other variables regarding socio-demographic characteristics and human, social, and economic capital are held at grand means

*p < .05; **p < .01; ***p < .001

[a]Beta coefficient is significantly greater than LBA Beta coefficient at the p < .05 level (2-tailed test)

[b]Beta coefficient is significantly greater than BA Beta coefficient at the p < .05 level (2-tailed test)

[c]Beta coefficient is significantly greater than AD Beta coefficient at the p < .05 level (2-tailed test)

Table 4 Participation in Study Abroad and Parents' Highest Education with Intent Held Constant

	M1	M2	M3	M4	M5
	Full sample		Parent without a BA	Parent with a BA	Parent with an adv. degree
	OR/SE	OR/SE			
Study abroad participation					
Intent to study abroad	8.053 (.741)***	7.167 (.659)***	5.307 (.828)***	9.634 (2.044)***[a]	7.430 (.973)***
Parents education					
Less than bachelor of arts	Comparison	Comparison			
Bachelor of arts	1.407 (.165)**	1.125 (.126)			
Advanced degree	2.150 (.331)***[b]	1.531 (.141)***[b]			
Female		1.446 (.167)**	1.544 (.301)*	1.377 (.235)	1.451 (.240)*
African American		.537 (.172)	.431 (.173)*	.518 (.280)	.670 (.251)
Asian		1.057 (.194)	1.363 (.413)	1.145 (.553)	1.015 (.221)
Latino		1.058 (.173)	.747 (.236)	1.154 (.553)	1.592 (.613)
Other		.776 (.122)	.839 (.216)	.824 (.203)	.785 (.167)
Grant recipient		.863 (.119)	1.543 (.572)	1.029 (.243)	.758 (.139)
Loan recipient		1.063 (.125)	1.639 (.640)*[b]	.690 (.201)*	1.181 (.205)
ACT/SAT scores		1.062 (.020)**	1.07 (.031)*	1.058 (.028)*	1.069 (.031)*
Regional university		.457 (.148)*	.367 (.191)	.513 (.174)*	.535 (.152)*
Research university		.531 (.155)*	.513 (.167)*	.497 (.173)*	.532 (.184)*
Major: STEM		.905 (.138)	.890 (.304)	1.021 (.279)	.835 (.166)
Major: business		1.054 (.185)	1.311 (.480)	.724 (.194)	1.625 (.497)
Major: education		.731 (.166)	.869 (.445)	.939 (.321)	.418 (.237)
Major: social sciences		1.071 (.154)	1.190 (.429)	1.154 (.333)	.989 (.196)
Major: other		.933 (.152)	1.614 (.640)	.684 (.201)	.987 (.275)
Major: undecided		1.236 (.278)	1.796 (.833)	1.020 (.362)	1.196 (.440)

Table 4 (continued)

	M1	M2	M3	M4	M5
	Full sample		Parent without a BA	Parent with a BA	Parent with an adv. degree
	OR/SE	OR/SE			
Intending an advanced degree		.973 (.099)	1.152 (.245)	.861 (.120)	.889 (.140)
GPA spring of freshman year		1.933 (.165)***	1.143 (.109)	.954 (.083)	1.249 (.076)***[b]
Number of courses focusing on diversity		1.109 (.045)*	1.357 (.203)*	1.193 (.132)	1.013 (.107)
Openness towards diversity		1.138 (.075)*	1.169 (.142)	1.316 (.114)**[c]	1.021 (.074)
Non-classroom faculty interaction		1.123 (.048)**	1.522 (.286)*	2.514 (.600)***	1.910 (.256)***
Co-curricular activities hours		1.112 (.039)**	.989 (.060)	1.099 (.055)	1.192 (.059)***[a]
Hours worked		.944 (.051)	.902 (.084)	.918 (.097)	.968 (.084)
Hours studying		.976 (.024)	1.034 (.064)	.951 (.040)	.987 (.037)
Hours socializing		.946 (.030)	.863 (.047)**	1.068 (.047)[a,c]	.908 (.044)*
Constant	.109 (.019)***	.002 (.002)***	.001 (.001)***	.001 (.001)***	.004 (.005)***
n =	3824	3824	917	1227	1567
R2	.154	.221	.213	.243	.204

Data from the Wabash National Study on Liberal Arts Education 2006–2012 of students completing all three surveys

*p < .05; **p < .05; ***p < .001

[a]Beta coefficient is significantly greater than LBA Beta coefficient at the p < .05 level (2-tailed test)

[b]Beta coefficient is significantly greater than BA Beta coefficient at the p < .05 level (2-tailed test)

[c]Beta coefficient is significantly greater than AD Beta coefficient at the p < .05 level (2-tailed test)

around campus, only hours spent on co-curricular activities had a relationship with studying abroad. For every five-hour increase in co-curricular activities, a student had an associated increase of 1.9 percentage points in studying abroad. For a student averaging 25 or more hours of co-curricular activities a week compared to a student not in any, they were 11.4 percentage points more likely to study abroad.

Research Question 3

Intent to study abroad remains strongly tied to participation in the programming across all parental education levels. Additionally, intent's associated effect is stronger among BA parented students than students with LBA. While intending to study abroad increases the associated likelihood of an LBA parented student's likelihood of studying abroad by 27.4 percentage points, it increases the likelihood of BA parented students by 40.2 percentage points. Among AD parented students, intending to study abroad increases the likelihood by 41.4 percentage points. Only LBA and AD parented students had significant gender differences in study abroad participation. LBA parented male students were seven percentage points less likely to study abroad than female students. Among students with an AD parent, female students were 6.9 percentage points more likely than male students to study abroad during college. At the LBA parental education level, African American students were 12.4 percentage points less likely to study abroad than their White counterparts. There were no other significant race/ethnicity differences among the students. Though no significant differences concerning student loans emerged in the overall analysis of students, significant differences emerged between the standard-beta coefficients of LBA and BA parented students. While LBA parented students receiving a student loan were 7.3 percentage points more likely to study abroad than non-recipients, BA parented students receiving a student loan were 6.4 percentage points less likely to study abroad than non-recipients.

Several differences emerged surrounding academics. Among all parental education levels ACT/SAT scores remained significantly associated with the likelihood of studying abroad. Between one-standard deviation above and below the mean ACT/SAT score, higher scoring LBA parented students were 9.5 percentage points more likely than lower scoring students to study abroad. A difference of 8.5 percentage points favoring higher ACT/SAT scoring BA parented students emerged, while the difference favoring higher ACT/SAT scoring students was ten percentage points among AD parented students. Liberal arts students were at an advantage in study abroad participation among the educational groups. The BA and AD parented liberal arts students had an associated 11.6 and 11.9 percentage points advantage in study abroad participation compared to their regional university attending peers. Liberal arts school attending LBA and BA parented students were 11.3 and 12.1 percentage points more likely to study abroad than peers attending regional universities. There were no significant differences by student major or for the intention of an advanced degree.

Overall student GPA in the spring of first-year remained significant in its influence of study abroad for all groups. Students with a GPA one-standard deviation above the mean were 10.1–17.1 percentage point more likely to study abroad than students one-standard deviation below. The number of courses focusing on diverse cultures and perspectives remained significantly associated with only AD parented students. For every one course increase, these students were 4.1 percentage points more likely to study abroad. Meaning a student in four or more diversity-related courses was 16 percentage points more likely to study abroad than a student with zero diversity-related courses. A student's openness to

diversity remained significant only among LBA parented students. Students rating themselves as very agreeable (5) were 10.2 percentage points more likely to study abroad than those student rating themselves as neutral (3).

How students spent their time outside the classroom indicated several unique trends lost in the overall model. First, only students with a BA educated parent were significantly associated with non-course faculty interaction influencing their likelihood to study abroad. Also, their association was significantly higher than AD parented students. A BA parented student one-standard deviation above the mean in non-course faculty interaction was 7.5 percentage points more likely to study abroad than a BA parented student one-standard deviation below the mean. Only AD parented students had an associated increase in likelihood to study abroad from time spent in co-curricular activities. Additionally, the beta coefficient was significantly greater than LBA parented students. For AD parented students, a five-hour increase in co-curricular activities results in roughly a 3.4 percentage point increase in likelihood of studying abroad. Though hours spent socializing outside of class had no significant relationship towards studying abroad in the overall analysis, time spent socializing has an associated significant decrease in study abroad for both LBA and AD parented students. Additionally, the beta coefficient for BA parented students was significantly higher than LBA and BA parented students. For every five-hour increase in time spent socializing throughout the first year of college, the LBA and AD parented students were 2.5 and 1.8 percentage points less likely to study abroad.

Discussion

Research Question 1

Intent to study abroad has been has been thoroughly explored in the WNS (Salisbury et al. 2009, 2010, 2011), but none explores the associations with actual study abroad participation or the socioeconomic construct of parental education. When accounting for intent to study abroad, both LBA and BA parented students are less likely to study abroad than are AD parented students. In the original model, there was a distinct advantage in favor of students from the highest SES backgrounds. The advantage remains even when one accounts for different forms of human, social, and economic forms of capital and the intent to study abroad. The differences prompt a question as to why AD parented students, both intending and not intending to study abroad, participate at significantly higher rates than their peers. Between Simon and Ainsworth (2012) interviews describing study abroad as a normative experience of the higher social classes and Cooper's (2014) assertion that higher-SES students' parents seek out world travel for their children to better prepare their child for the globalized world, this study provides quantitative evidence that study abroad acts as an embodied form of cultural capital and a method of EMI in the higher social classes at the collegiate level.

Research Questions 2 and 3

If schools are investigating ways to encourage study abroad participation, it is essential to identify influences in order to mitigate adverse impacts and support positive associations. First, the shaping and framing of encouragement towards intent to studying abroad among students during the first year should be of clear concern for those working

to encourage study abroad participation among students. Clearly, intent remains the single greatest predictor of participation. Mirroring Salisbury et al.'s (2009) earlier work on intent over the WNS and current trends in overall participation (Institute of International Education 2016), even after controlling for intent females were significantly more likely to participate in study abroad in the overall and the LBA/AD subsamples. The positive significance did not hold for the BA parented students, and there may be another factor or factors that mediate the relationship. These results suggest it is entirely possible women are more often experiencing the gains associated with studying abroad, and this affects the gender equity of study abroad outcomes. It may be that Gore's (2005) historical assertion that before WWII study abroad was seen as the trivial pursuits of upper-SES women still holds partial truth for today's gendered decision to participate in the programming. Simon and Ainsworth (2012) offer contemporary support of Gore's (2005) from interviews indicating that African American females view study abroad as a *White female* thing to do. Further research could provide an understanding of how the current social construction of study abroad programming offers greater appeal to women even after controlling for intent to study abroad.

At the level of the full-sample, there appeared to be no other significant demographic trends. When delving further into the subsamples, it becomes apparent that African Americans of the lowest parental education background are less likely to study abroad than are their LBA parented White peers. The finding indicates a vexing scenario for efforts to increase African American study abroad, in the LBA parented group at the very least. Given that students of color experiencing better campus integration and involvement after study abroad participation (Lowe et al. 2014), African American students of lower parental education may be missing out on a significant opportunity to build social capital. Overall, the study lends credence to study abroad being inclusive of other races/ethnicities (Brux and Fry 2009).

There was a consistent positive association between the sample and subsamples of both high school ACT/SAT scores and the end of the first-year GPA and studying abroad. The coefficients between individual regressions based on parent education and ACT/SAT scores were similar across groups. Among the three parent education classifications, first-year GPA affected LBA parented student participation in study abroad the least, and it affected BA parented students the most. There are several ways in which higher academic aptitudes may influence study abroad opportunities. First, a study abroad program may have specific grade requirements for student participation. Thus, there is a possibility of self-selection by the various study abroad programs. Secondly, a higher GPA may put a student in a better position to not worry about repeating a class, or it may present a better chance for on-time graduation. A higher academic aptitude may allow a student to enroll in five or six courses a semester, freeing up time for other pursuits. The scenarios may allow a high achieving student the opportunity of time to spend an academic semester abroad as opposed to seeing grades as a barrier to studying abroad. Finally, a higher GPA may place a student in line for study abroad scholarships. In any case, there is a strong connection between student academic aptitude and participation in study abroad across all parental education classes. One limitation of this data set is that these are the students who remained at their institutions for 4 years, thus leaving out students that transferred schools or dropped out of academia. The limitation creates an academically selective sub-sample of the WNS. The decrease in academic variability from this limitation indicates how strong the influence of academics are for studying abroad.

Going to a regional or research university acts as a significant hindrance for all social classes in studying abroad. The difference in association by college type is a concern for administrators investigating ways to implement study abroad programs at regional and research institutions. Leaders at research and regional institutions should look introspectively at their institutional culture concerning study abroad programming. Further research could investigate established social norms of study abroad in both liberal arts colleges and larger regional or research universities. It is possible that having fewer students allows these schools to better tailor individual study abroad experiences through sessions such as *January-Term* or *May-Term* than for schools with larger cohorts of students. Changing institutional culture may mean developing short-term study abroad programs without the lost opportunity cost of a full semester. Short-term study abroad opportunities could ease worries about missing academic requirements due to a missed semester of coursework. Further exploration into this area could better establish why liberal arts college students continue to study abroad at a higher rate than other students do.

It is also important to highlight that finances are a mitigating circumstance for studying abroad (Brux and Fry 2009; Lörz et al. 2015; Presley et al. 2010; Relyea et al. 2008; Sánchez et al. 2006; Simon and Ainsworth 2012). Whatley's (2017) analysis of financial aid packages and their association with studying abroad may help to understand the results. Her analysis indicated a significant positive relationship in the amount of need-based loans and likelihood to study abroad. Furthermore, she found a significant inverse relationship between both subsidized and unsubsidized loans and studying abroad. The inverse relationship between the LBA and BA parented students in this study could be a function of the type of loan received. Because the WNS did not delineate the type of loan the student received, one cannot safely assume that this is the case. Whatley's (2017) analysis does not examine the interaction between student loan type and any characteristic of SES, so it is difficult to safely assume usage of loan types is different among social groups. Further analysis of the relationship between financial aid, SES, and study abroad could shed light on these questions. For future surveys, identifying the type of financial aid, and the total amount of each given type could help provide a better understanding of the relationship of student grants and loans on study abroad participation.

Institutions can also use other means to cultivate more significant interest in study abroad during the first year of college. DiMaggio's (1982) formation of the *cultural reproduction* and *cultural mobility* hypotheses may help in addressing the differential outcomes among students of different parental education backgrounds. The cultural reproduction model states that returns on cultural capital are highest for students in high-status families, while the cultural mobility model holds that returns on cultural capital are highest for low-status families. Although DiMaggio's (1982) original models' were applied to students' cultural/social interactions and academic outcomes, the theories may be aptly applied in study abroad. Increasing the opportunity for diverse course options could be a function of the cultural reproduction model. When broken down by parental education, it seems AD parented students are driving the overall significance level. It may be that increasing the access and exposure to different cultures and lifestyles gives the necessary boost in *habitus* for students that can afford the opportunity to travel abroad. The theory does not necessarily mean that other groups of students do not receive a change in *habitus*, but the change may not be enough to mitigate issues of familial SES and affordability. The analysis of LBA parented students may support the cultural mobility hypothesis. Because of openness toward diversity's positive association with studying abroad for LBA parented students, there may be some hope to increase participation by cultivating a greater openness to diversity. Thus, administrators may consider methods of increasing a student's openness to

diversity during the first-year experience for improving study abroad participation among LBA parented students.

Non-classroom faculty interactions initially appear significant in the overall sample, but the significance seems to be driven by the BA parented students. The building of a social network of institutional actors seems to only benefit these students for reasons that would require further analysis. It may be the relationships with faculty among this class of student is enough to help the student attain the necessary forms of capital to find study abroad participation as a worthy endeavor and to explore options outside of the *typical* campus-only educational experience. Meanwhile, AD parented students may have a sociocultural advantage from living with parents at or near institutions of higher education. Peer interaction can also build sociocultural networks that encourage studying abroad. There is some support for the possibility of co-curricular activity involvement possibly providing these networks, but the analysis should be presented with some caution. Students who have parents with an AD appear to be the driver of the relationship. It is possible the social capital these students are receiving from campus involvement exposes the students towards others with interest in study abroad. Because these students may have the economic capital to afford the opportunity, they are more likely to pursue participation even when they were not initially intending to study abroad. Although co-curricular activity involvement appears to strengthen the resolve of some groups to study abroad, time spent socializing in college may negate this pattern. For both BA parented and AD parented students, socializing depresses the likelihood of studying abroad. For these two groups, it may be that an extensive off-campus relationship with others forms a different kind of institutional attachment than co-curricular activities. If a student is spending time building a network through socializing at athletic events or parties and bars, it is possible the connections would make it difficult to leave their on-campus friends behind. More research is needed in this area to understand this relationship further.

Conclusion

Whether study abroad participation is a component of EMI or perceived as a *higher* form of cultural capital by those of higher social status, study abroad participation's connection to SES should not be ignored given the many advantages the opportunity affords to participating students. AD parented students are significantly more likely to study abroad, even after controlling for intent to study abroad and for access to other forms of capital. Additionally, the associated effect of intent for LBA parented students is significantly lower than BA parented students. Although prior intent still has high significance for both LBA and BA parented students, its lower association possibly indicates that other factors—not found in other students—mediate the relationship. One such association may inevitably be the financial means to pursue study abroad or an appreciation for study abroad as a form of embodied cultural capital. The supplemental aid of student loans may bring some balance in the opportunity to spend time abroad, but given student debt and loan interest rates, the current financial ramifications could outweigh study abroad benefits. These factors are associated with an increased propensity to study abroad but encouraging the use of these financial means to fund study abroad may cause more harm than good as it can increase stratification between students of different parental education background. Attempting to increase the number of courses focusing on diversity or networking opportunities through co-curricular activities may only increase the likelihood for those students of higher

parental education background. To facilitate greater student access to study abroad opportunities for students at regional and research institutions, administrators need to investigate how liberal arts institutions foster the programs in their institutional cultures. It is evident the organizational culture surrounding these institutions acts as a support of participation by their students.

Limitations

The WNS data set has several limitations of note. First, the dependent variable does not measure whether a student participated in study abroad after their fourth year of college and may present some bias towards the results. With over 55% of the participants receiving their education at a liberal arts institution, the data set has an oversampling of these students. Another potential issue is the oversampling of women in the data set. In 2013, the final year of the WNS, 56.2% of college students were female, while 64% of WNS respondents are female (Snyder and Dillow 2015).

Sample attrition may present a concern in the study. Any student that transferred colleges, dropped out, or just refused to complete one of the three surveys was not used in the analysis. The lost participants caused the sample to become more selective academically. The study includes non-graduates for two reasons. First, students have a significantly higher probability of studying abroad in the first 3 years of college than they do in the fourth year (Whatley 2017). Second, roughly 10% of the subsample did not graduate in 4 years. Thus, the likelihood of this small number of students studying abroad after their fourth year of college is probably low. Another potential issue from derived from sample attrition is the high number of study abroad participants. With 43% of the sample participating in study abroad, the sample is quite a bit higher than the national undergraduate average of 10%. Finally, the WNS does not have a reliable parental income variable. The lack of a reliable parental income construct creates difficulty in understanding the dichotomous relationship between economic capital and study abroad participation. The use of student loans and grants as covariates provides some insights into economic capital but will not necessarily foster the same connection as income on participation. Because the WNS is one of the few data sets longitudinally documenting forms of student capital and their relationship to student activity participation during the collegiate education process, the WNS best serves the hypotheses of this analysis despite such issues.

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