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Coming to America for Higher Education: An Analysis of the Predictors of International Student Enrollment at Colleges and Universities in the Southeast

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International students enrich the educational and cultural environment on college campuses as well as contribute to the economic health of institutions of higher education and their surrounding communities. International student recruitment has never been easy at non-doctoral institutions, but it has become even more challenging in the age of Trump. Our study begins with a description of the enrollment trends of international students at US colleges and universities, with special attention given to the impact of President Trump. We explore the factors that influence the decision of an international student to study in the United States, focusing particularly on the role of cost (tuition and fees) for regional universities and baccalaureate institutions. The heart of our study examines the percentage of international students enrolled at almost 200 institutions of higher education in the Southeast. We investigate the impact of institutional diversity, academic classification, cost, and public vs. private status on the percentage of international students enrolled for 2015–16. We find significantly higher rates of enrollment at doctoral institutions when compared to those which offer only master’s, bachelor’s, and associate degrees. Significant differences also emerge by the type of research classification for doctoral institutions with those universities designated as highest research activity reporting an international

student enrollment more than three times greater than moderate research activity universities. Furthermore, the average percentage of international students enrolled in private institutions is more than double that of enrollees in public institutions. In a multivariate regression model, percentage white and percentage female are negative predictors of the percentage of international students, while the cost of tuition and fees is a positive predictor. In a truncated model of just public master's universities, the cost of out-of-state tuition is a negative predictor of the percentage of international students, but it does not attain statistical significance. We conclude with policy recommendations for college and university campuses as well as for policymakers at the state level.

International students contribute mightily to the intellectual climate of our classrooms and college campuses. For all of us who have taught Introduction to American Government, Introduction to Political Science, or Global Issues in the core curriculum, international students provide a comparative perspective that is enlightening for the rest of our students. In upper-division classes, the intellectual impact of international students can be particularly powerful, whether the courses are in international relations, comparative politics, public administration, or American politics. International students can also have a significant economic impact on our university budgets and local communities. Given our current political environment, the higher education community faces great challenges in terms of recruiting international students to the United States. While we are currently witnessing a decline in international students studying in the United States, international students still remain an important part of the student population. According to the Open Doors report (IIE 2016), international students make up a little more than 5 percent of students in higher education across the United States, although 22 percent of those students attend the top 25 hosting institutions.

Our study begins with an examination of international student enrollment trends, the impact of our immigration debates and the Trump presidency, and an exploration of the factors that influence why international students choose to study in the United States. The heart of our study examines the key predictors of international student enrollment across colleges and universities in the Southeast. The dependent variable is the percentage of international students at colleges and universities in Alabama, Florida, Georgia, North Carolina, South Carolina, and Tennessee. Key institutional characteristics (total student

enrollment, Carnegie classification, public vs. private, and institutional diversity) serve as the independent variables to predict the percentage of international students on a college campus. An independent variable of particular interest is the tuition rate for an institution. We expect the impact of out-of-state tuition to be negligible at research-intensive doctoral institutions, but it may well be a key detrimental factor in the ability to attract international students at regional comprehensive universities and smaller schools. We conclude with policy recommendations that can be employed at the campus level to improve and expand the recruitment of international students along with policy recommendations to be considered at the state level.

International Student Enrollment in the Age of Trump

The recruitment of international students is an important issue not only from a cultural perspective but also because of the contribution international students make to the US economy. The Office of Immigration Statistics gathers information on nonimmigrant foreign nationals and publishes a report annually. The last year for which statistics are available is 2015. The report shows that 1,886,948 students entered the country on an F-1 visa in 2015. Additionally, exchange visitors coming in on J-1 visas added another 502,372 foreign national entries associated with higher education (Teke and Navarro 2016, 4). These international students contributed over \$3.8 billion to the US economy in 2015 (IIE 2016). Those dollars help keep our universities and university communities healthy and growing.

Key factors in the decline in overall international student numbers since the 2016 presidential election involve not only increased competition but also President Donald Trump's anti-immigrant rhetoric and proposed travel ban. Telling is the drop in enrollments from China and Mexico, two countries Trump has openly criticized. Chinese student enrollment dropped by almost 2.2 percent, and enrollments from Mexico have declined by 11 percent (Trines 2017, 2). Enrollment across the board began to flatten in 2016 for a number of reasons. One reason is increased competition from Canada and Australia, but another reason college administrators cite is Trump's anti-immigrant rhetoric and "restrictive views on immigration" (Saul 2017).

Trump's attempt at banning travel from some countries is another factor. *The Atlantic* reports that the largest decline in numbers of applications came from the Middle East. A recent survey of university applications and enrollments reveals that there was "a 39 percent decrease in Middle Eastern undergraduate applications and a 31 percent decrease in graduate applications from the region" (Bendix 2017). Additionally, the number of students in the United States from the revised list of banned countries was about 15,000 in 2016 (Bendix 2017). That is a significant number of students for institutions to lose. While it is argued

that the ban is justified for security reasons by the Trump administration, the news of such a policy is bound to affect students in more than just the countries targeted by the ban. When immigration policies are in flux, international student applications suffer because of the confusion and uncertainty over new policies (Saul 2017, 3). According to the survey, many potential students have expressed concern about the possibility of the list growing to include their countries, including potential students from China and India (Bendix 2017).

Why Students Choose to Study in the United States

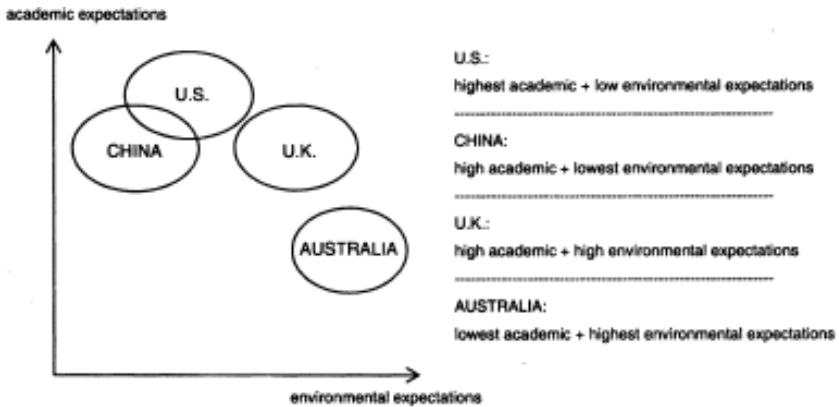
In this section, we investigate the reasons students choose particular countries and educational institutions. As the United States is currently the most popular destination for international students worldwide, some of the reasons for selecting the United States as a destination are clear. First, the United States has the largest economy in the world, and an education in the United States gives students more possibilities for participating in the global economy. Second, the United States has a reputation for high-quality educational options. By looking at some data on how students evaluate and select universities, we hope to provide information on other attractive features of an education in the United States.

The following study by Elisa Park demonstrates the specific motivations for Korean students. However, similar studies would likely show different results based on the socioeconomic outlook of the *exporting* country and perhaps students' views of their own educational system, plus a myriad of other factors. Nevertheless, as South Korea sends a large number of students to the United States, lessons can be taken from this study.

The United States is a favorite destination for Korean students who want to study abroad. South Korea sent over 61,000 students to the United States in 2016 (IIE 2016). In her study of Korean student international-mobility motivations, Park (2009) polled Korean high school students regarding four popular destinations for those seeking an education abroad (see Figure 1). Students were given questionnaires regarding environment and academic expectations of an education in the United States, China, the United Kingdom, and Australia.

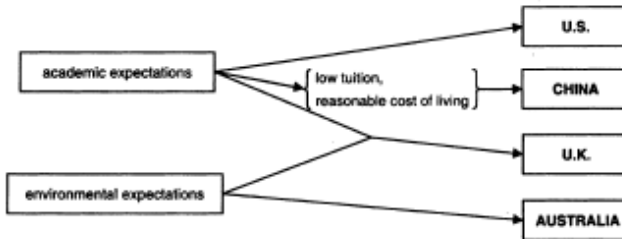
“Students who selected the United States as an ideal destination had their high expectations of ‘curriculum excellence,’ ‘high reputation of school,’ and ‘high job opportunity after graduation’ for U.S. higher education” (Park 2009, 750). The United Kingdom was perceived similarly to the United States in terms of academic expectation but was deemed more traditional and conservative. Korean students who selected China as a study abroad destination did so due to monetary issues (Park 2009, 753), as summarized in Figure 2. Students who chose Australia had lower academic expectations and were looking for an exciting environment.

Figure 1: Comparison of Academic and Environmental Expectations in Four Countries



Source: Park (2009).

Figure 2: Academic and Environmental Expectations and Choice of Destination Countries



Source: Park (2009).

This study tells us that Korean students believe that an education in the United States represents the best option for future success. Similar results can be expected from Chinese students. An article on the BBC website reporting on Chinese students in the United States credits world-class universities as one reason, and the Chinese system failures as another. It posits that Chinese

students are eager to leave the Chinese system because test scores determine which subjects students will take (Svoboda 2015). Because of the quality and the prestige of an education in the United States, it is still the number-one choice for students considering study abroad in nearly every country (Gold 2016).

Coming to America

In order to understand the international student market, the first issue that needs to be addressed is how students evaluate and select a university abroad. The information we are most interested in is how students evaluate a university. These factors include national rankings, scholarships, research opportunities, and location. Understanding these factors is the key to the development of a recruitment strategy that targets your potential students.

From our experience recruiting abroad, for example, we have learned that most students we talked to in China asked about our national rankings. Our experience tells us that schools that can show high rankings in various programs have an advantage with Chinese students. The research from International Education Advantage (INTEAD), highlighted in Figure 3, confirms our sentiments regarding Chinese students' evaluation criteria. However, rankings are not a strong factor for all students according to a study done by INTEAD. In a survey sent to more than 807,000 students in 94 countries (not including China), INTEAD received more than 35,000 responses. The responses summarized in Figure 3 indicate that scholarships were clearly the top criteria students used when selecting a university abroad, followed by research opportunities, rankings, and then geography (INTEAD and FPP EDU Media 2016, 15).

Looking at the survey results and the countries surveyed, we see that promotion of scholarships and strong academic programs with research opportunities will interest students more than university rankings in many countries. We also see that geography plays a very small role for students from these same countries. The information we are most interested in is how students evaluate a university. For example, in the Middle East, an area with significant growth in study abroad numbers during the last decade, 56 percent of students surveyed said they looked at academic programs when deciding where to go, while 49 percent said scholarships were important, and 34 percent said rankings were important. However, in Vietnam, another country with strong growth in numbers of students going abroad to study, 68 percent said scholarships were an important factor in their choice. Academic programs were considered important by 59 percent of the respondents, and academic rankings as a consideration in choosing schools was so low, it did not merit mentioning (FPP EDU Media 2016). The data reveal that what attracts students in one country or region does not necessarily attract students in another country or region.

Figure 3: Decision-Making Criteria for Students from Select Countries When Selecting a University Abroad

What Do You Evaluate When Choosing...



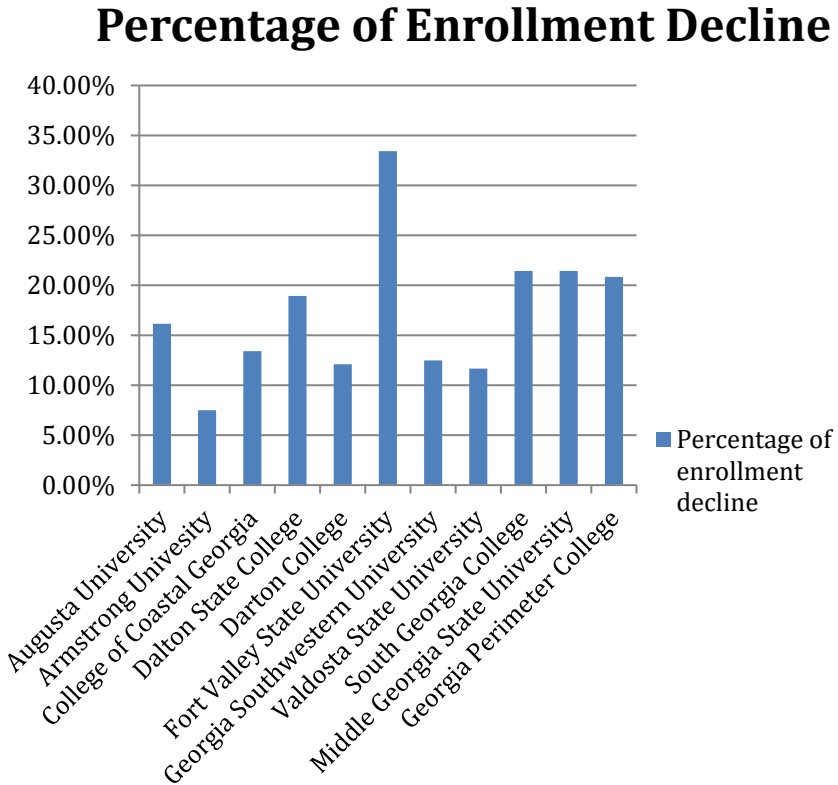
Source: INTEAD and FPP EDU Media (2016).

On the Homefront

International students provided a significant boon to the economy in Georgia. There were 21,122 international students in Georgia last year, and it is estimated that they spent more than \$683 million in the state (IIE 2016). However, enrollment declines have had a significant effect on revenues. Janel Davis (2015) of the *Atlanta Journal-Constitution* reports that nearly every non-research-intensive university had significant declines in enrollment, ranging from 7.65 percent at Armstrong State University to 33.42 percent at Fort Valley State University. Valdosta State's enrollment declined by 11.7 percent during this period (Davis 2015). Figure 3 shows the serious enrollment decline at USG schools.

Regional comprehensive universities and smaller institutions have lost a significant number of students as well as funding provided by appropriations. Doctoral research-intensive universities have made up for lost funding through increases in out-of-state and international enrollments. In a recent journal article, Ashley Macrander (2017) posits that as state funding decreases, international student tuition dollars are seen as a replacement. Georgia Tech provides an example of this. In 2008, Georgia Tech enrolled 3,459 international students out of slightly fewer than 19,000 total students. In 2015, there were slightly more

Figure 4: Enrollment Declines at University System of Georgia Schools, Fall 2014



than 5,100 international students out of slightly over 19,000 students, a disproportionate increase (Georgia Tech Fact Book 2016).

International students are clearly attracted to doctoral research-intensive universities because of their academic programs and research. They are also enticed by their reputations as top-quality universities. However, not every international student qualifies for or can afford an education at a doctoral research-intensive institution. While the attraction of these top universities is understandable, what is less clear is how students select regional universities,

and how we can attract and enroll international students in quality programs at these universities. What are the key factors in terms of a regional university or four-year baccalaureate institution attracting international students? Is it academic rankings, program offerings, scholarships, geographical location, climate, or institutional characteristics?

The Open Doors report (IIE 2016) indicates that one out of three international students chooses to study in California, New York, or Texas. Where do the rest of them go? Georgia ranks 15th in states with the most international students, which sounds respectable; but of the more than 21,000 international students in Georgia, 15,870 went to University of Georgia, Georgia State, Georgia Tech, Emory, and Savannah College of Arts and Design (SCAD) (IIE 2016). That means that slightly over 5,000 students were spread out across all the other public and private institutions in Georgia. It is clear that the big draws for international students who come to Georgia are doctoral research-intensive universities or, in the case of SCAD, specialization of the programming; and the reason they selected these programs was because of their reputation for academic excellence. This is not just the case for Georgia, but a pattern across the United States. In the 2015–2016 academic year, eight US institutions had more than 10,000 international students enrolled: New York University led the way with 15,543 international students, the University of Southern California followed with 13,340, and Arizona State University and Columbia University enrolled more than 12,700 each. The University of Illinois and Northeastern University both enrolled more than 12,000, while the University of California, Los Angeles, had more than 11,000 international students. Purdue University rounds out the list with slightly more than 10,000 international students enrolled (Zong and Batalova 2017).

The Role of Out-of-State Tuition

We have established that the United States is a top destination for international students; however, money is still a very big impediment to an education in the United States. Those who are unable to gain admission to a top-ranked university, and more of those who cannot afford an education at a top-ranked school, would be well served by a good education at a regional comprehensive university or four-year baccalaureate institution. The problem for many of these students is that even at regional comprehensive universities, tuition charges are often so high as to make it too difficult for the majority of applicants to come. One reason is the additional tuition that international students pay.

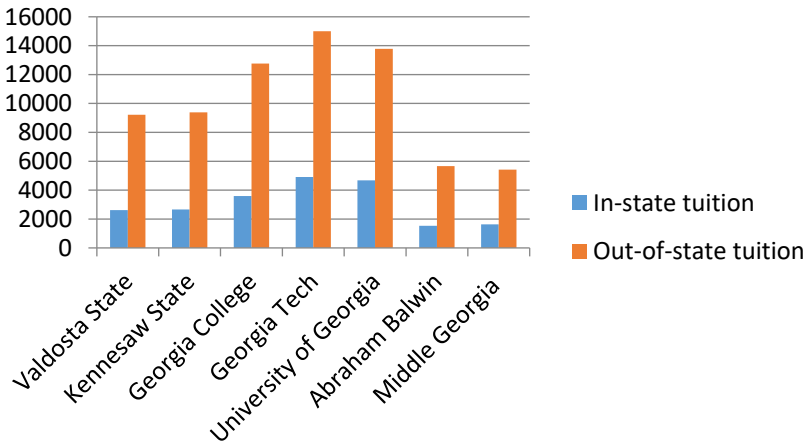
Nearly every US state has a system whereby university tuition is charged according to whether you reside in the state. State residents receive a “discounted” rate because the students or their parents are presumed to have paid state taxes

to support that state's educational system. Students from out of state pay an "out-of-state tuition" rate, which is about three times higher than the in-state rate. In Georgia, this out-of-state rate is supposed to reflect the cost of education in the Georgia system. The policy governing out-of-state tuition rates is important for several reasons. First, most four-year baccalaureate universities and colleges in Georgia do not operate at full capacity and badly need students to fill empty seats. Enrollment in nearly all of these institutions has dropped drastically since its peak in 2010 (Davis 2015).

Enrollment management practices at all institutions in Georgia, including Valdosta State University, are made primarily at the state level. It can be argued that the policies set by the Board of Regents of the State of Georgia regarding out-of-state tuition rates help research institutions and flagship universities, but hurt regional comprehensive universities as well as baccalaureate colleges. Doctoral research-intensive universities are not impacted by high tuition rates for international or domestic students and enrollment rates remain strong, as discussed below. The unnecessarily high out-of-state tuition rates set by the Board of Regents, a key element of our data analysis in this study, can make it difficult for regional comprehensive universities and four-year baccalaureate colleges to recruit international students to fill vacant seats left open by declining enrollment numbers.

Prior research has shown that "public universities increase nonresident enrollment following declines in the state appropriations" (Jaquette et al. 2016). In Georgia, this is true for doctoral research-intensive universities, but not true for smaller institutions. Research-intensive universities across the country and in the state of Georgia (Georgia Tech and the University of Georgia) attract international students primarily through their reputations as high-quality institutions, and they are not noticeably affected by increases in tuition in terms of international student numbers. For example, in fall 2015 Georgia Tech had 5,193 international students out of a student body of 19,541 (Georgia Tech Fact Book 2016). International students made up over 25 percent of all students at Georgia Tech. Another 24 percent consisted of students from out of state (Georgia Tech Fact Book 2016). To further illustrate the point that research-intensive universities like Georgia Tech are immune from declines in enrollment, during the same period, Georgia Tech had approximately 27,000 freshman applications and 15,000 graduate school applications, the large majority of which were denied (Georgia Tech Fact Book 2016). In contrast to doctoral research-intensive universities, which can regulate out-of-state and international student admissions based on a desire for the extra revenue from out-of-state tuition, few regional comprehensive or four-year baccalaureate institutions are that lucky. Nevertheless, many regional universities are beginning to invest in strategies to attract out-of-state and international students to fill vacant seats.

Figure 5: Tuition Rates at Select University System of Georgia Institutions



Source: System University Fact sheets.

According to the Open Doors report (IIE 2016), international students make up 5.2 percent of students across the United States, and almost 20 percent of that number attended the top 20 hosting institutions. In contrast, international students in the United Kingdom make up approximately 20 percent of the student body at higher education institutions (HESA 2017), nearly 15 percent higher than in US institutions. In Australia, international students make up nearly 25 percent of the student body in higher education (Australian Education Network n.d.). Both the United Kingdom and Australia have focused on increasing numbers and revenue from the international student market, while the United States has been content to watch our market share slip away.

In-state and out-of-state tuition rates vary across the University System of Georgia institutions. Figure 5 shows the tuition rates of a selected number of institutions, showing doctoral research-intensive institutions such as Georgia Tech and the University of Georgia, regional comprehensive institutions such as Valdosta State and Kennesaw State, and four-year baccalaureate institutions such as Abraham Baldwin Agricultural College, Georgia College and State University, and Middle Georgia University. The columns in blue represent the cost of in-state tuition at each college, and the columns in red represent the cost of out-of-state tuition at each university or college for the fall semester of 2016. Data were taken directly from the college/university admissions websites. As

highlighted in Figure 5, the rates for out-of-state tuition are roughly three to three and a half times more than the rates for in-state tuition.

From Figure 5, one can clearly see the difference in the in-state and out-of-state tuition charges. The supposition is that the real cost for educating a student at each of these schools is the cost of the out-of-state tuition charge. One could then also deduce that the cost differential between in-state and out-of-state tuition is met through the state appropriations process (a reflection of what state taxpayers contribute that out-of-state students must compensate for by paying much higher tuition rates). This differential assumes that state appropriations constitute the vast majority of higher education funding, but this has not been true for many years. In Georgia, state appropriations constitute a quarter to one-third of the budget for most public institutions, with the majority of funding now coming from sources such as student-paid tuition and fees, grants and contracts, and auxiliary services.

The Board of Regents has already acted to address declining enrollments at regional comprehensive and four-year baccalaureate institutions. One step they have taken is the consolidation of many of the universities in the system. Another step afforded to several institutions has been the ability to offer in-state tuition rates to the border states of Florida, Alabama, and South Carolina (Davis 2015). While these are positive steps in addressing declining enrollments, they will not completely solve the problem. International student recruitment may be the best avenue for helping to boost Georgia's declining enrollment problems. There are millions of students from around the globe who want an education in the United States, and more and more who can now afford to come. Georgia would be wise to consider investing in international recruitment before too many other states are competing for those students.

Data and Methods

For our exploratory analysis of the key predictors of international student enrollment, this study analyzes colleges and universities in the Southeast. The Open Doors report (IIE 2016) provides data on colleges and universities with more than 10 international students. From the Open Doors report, almost 200 colleges and universities (n = 195) are in the six southeastern states of Alabama, Florida, Georgia, North Carolina, South Carolina, and Tennessee. The enrollment data are for the 2015–2016 academic year. The dependent variable in our study is the total number of international students enrolled divided by the total enrollment (undergraduate + graduate students) at the institution. We analyzed the percentage of international students as a reflection of how successful small, medium, and large institutions are at recruiting international students.

Four hypotheses guide our analysis:

H1: Doctoral research-intensive universities will have the highest percentage of international students.

H2: Private colleges and universities will have a higher percentage of international students in their student body than public institutions.

H3: More diverse institutions will have a higher percentage of international students.

H4: Higher tuition rates, especially out-of-state tuition rates, will depress the percentage of international students at colleges and universities.

Initially, we expect that institutions with a large research and doctoral portfolio will be most successful in recruiting international students. These prestigious institutions are attractive for international students around the globe. We also hypothesize that private colleges and universities will be most successful in attracting international students through scholarships or waivers of tuition and fees. Furthermore, a diverse student body should help to attract international students to a college or university. As discussed previously, high rates of tuition should serve as a disincentive for international students to attend, especially at nondoctoral universities.

The diversity of a college campus is measured through four independent variables: percentage white, percentage African American, percentage Latino, and percentage female. Institutional cost is measured as the reported tuition and fees for private institutions and the out-of-state tuition rate and fees for public colleges and universities. The institutional academic classification is based upon five categories from the Open Doors report (specialty, associate's, bachelor's, master's, and doctoral) which is modeled from the Carnegie academic classifications. The final independent variable is a dummy variable for public or private institutions.

Table 1 summarizes all the variables in this study. For the 195 colleges and universities in this study, the total number of international students ranges from 10 to 6,751 (University of Florida) with a mean of 532 and a standard deviation of a little more than 1,000. Total enrollment ranges from 550 to 62,953 with an average institutional enrollment of approximately 10,000 for the institutions of higher education in this study. The percentage of international students, the dependent variable, ranges from a low of 0.14 percent (Greenville Technical College in South Carolina) to a high of 39 percent (Florida International University) with a mean percentage of international students of 4.65 and a standard deviation

Table 1: Variables, Characteristics, and Sources

Variables	Minimum	Maximum	Mean	Standard Deviation	Source
Total Enrollment of International Students	10	6,751	532.47	1053.87	Open Doors 2015–2016
Total Enrollment (undergraduate + graduate)	550	62,953	10,380.06	11861.31	IPEDS
Percentage International Students	0.14	38.79	4.65	5.59	Open Doors Report/ IPEDS
Percentage White	0	85	53.81	22.97	IPEDS
Percentage African American	1	96	23.32	22.13	IPEDS
Percentage Latino	0	86	8.69	11.87	IPEDS
Percentage Female	20	100	58.56	9.72	IPEDS
Total Tuition and Fees	4,810	49,241	22,561.09	9,857.24	IPEDS
Institutional Academic Classification	1	5	3.56	1.14	IPEDS
Public/Private	0	1	.56	.50	IPEDS

of 5.59. The average of 4.65 percent for the institutions in this sample is very close to the national mean of 5 percent for international student enrollment.

Percentage white ranges from 0 to 85 percent with a mean of 54 percent across the colleges and universities of this study. Percentage African American ranges from 1 to 96 percent with a mean of 23 percent, and percentage Latino ranges from 0 to 86 percent with a mean of almost 9 percent. Percentage female ranges from 20 to 100 percent with an average female student body of 58 percent across the 195 colleges and universities in this study. There are 45 doctoral institutions (23 percent of the sample), 69 master’s institutions (35 percent of the sample), 40 bachelor’s institutions (21 percent of the sample), 34 associate’s institutions (17 percent of the sample), and 7 specialty institutions (4 percent of the sample). For the final independent variable in Table 1, the dummy variable

for public/private is coded 0 for private colleges and universities (44 percent of the sample) and 1 for public institutions (56 percent of the sample). All of the independent variables are derived from the Integrated Postsecondary Education Data System (IPEDS n.d.) of the National Center for Education Statistics to match the academic year of data from the Open Doors report.

Findings

Our data analysis proceeds in two stages. The first stage examines the percentage of international students by institutional type. The second stage utilizes an OLS (ordinary least squares) regression analysis to predict the percentage of international students across the 195 institutions of higher education in this study.

Table 2 highlights the percentage of international students by institutional academic classification as well as public compared to private colleges and universities. Interestingly, the highest percentage of international students in the overall student body (more than 10 percent) is evident at specialty institutions. Keep in mind that only 7 institutions fall in this category, with the majority being colleges of art and design, which are attractive to international students. As we hypothesized, the doctoral research-intensive universities have a larger percentage of international students (7.84 percent) than associate's (1.39 percent), bachelor's (4.9 percent), and master's (3.46 percent) institutions. The differences between doctoral-associate's and doctoral-master's institutions are highly significant at $p < .01$, with doctoral-bachelor's statistically significant at $p < .05$ based upon a *t*-test. The difference between doctoral (7.84 percent) and specialty (10.21 percent) institutions is not statistically significant ($t = -.735$, $p = .484$). The difference between master's-associate's is highly significant at $p < .01$, while the differences between master's-bachelor's and master's-specialty are not significant. Furthermore, the difference between bachelor's-associate's is highly significant at $p < .01$, while the difference between bachelor's-specialty is not significant. The last possible combination for the difference of means test of associate's-specialty is significant at $p < .05$.

We further disaggregated the doctoral institutions by the three Carnegie classifications of research activity: moderate, higher, and highest. As we expected, those institutions with the *highest* research activity have the highest international student enrollment (11.38 percent). Doctoral institutions that fall into the higher research activity category have a smaller percentage of international students (7.41 percent). It is noteworthy that doctoral institutions with the *highest* research activity have an international student enrollment more than three times greater than moderate research activity institutions (11.38 vs. 3.71 percent). Most regional comprehensive universities fall in the category of moderate research activity, and their level of international student enrollment is

Table 2: Percentage International Student Enrollment by Institutional Type

Institutional Academic Classification	Percentage International Students	Difference of Means Test: <i>t</i>-test
<i>Doctoral</i>	7.84	Doctoral-Master's: 3.61** Doctoral-Bachelor's: 2.18* Doctoral-Associate's: 5.63** Doctoral-Specialty: -.735
<i>Master's</i>	3.46	Master's-Bachelor's: -1.61 Master's-Associate's: 3.72** Master's-Specialty: -2.20
<i>Bachelor's</i>	4.90	Bachelor's-Associate's: 4.38** Bachelor's-Specialty: -1.69
<i>Associate's</i>	1.40	Associate's-Specialty: -2.89*
<i>Specialty</i>	10.21	
Doctoral Carnegie Classification		
<i>Highest Research Activity</i>	11.38	Highest-Higher: 1.37
<i>Higher Research Activity</i>	7.41	Higher-Moderate: 1.51
<i>Moderate Research Activity</i>	3.71	Moderate-Highest: -4.18**
Public or Private		
<i>Public</i>	3.05	Public-Private: -4.39**
<i>Private</i>	6.67	

*p < .05
**p < .01

roughly on par with master's institutions and even below bachelor's institutions. As reported in Table 2, the difference between moderate and highest research activity doctoral institutions is highly significant with a *t*-test of -4.18 with a probability below .01, while the differences between highest-higher and higher-moderate research activity are not significant.

Table 2 also highlights the significantly higher level of international student enrollment at private colleges and universities when compared to public institutions of higher education. The average percentage of international students at the 86 private colleges and universities in this study is 6.67 percent, which is more than double the average of 3.05 percent at the 109 public institutions in the sample. The difference is statistically significant with a *t*-test of -4.39 ($p < .01$), which provides support for the second hypothesis of this study.

Table 3: OLS Regression Analysis of International Student Enrollment across Colleges and Universities in the Southeast

Independent Variables	Model 1 All Colleges and Universities	Model 2 Public Masters
<i>Diversity of Institution</i>		
Percentage White	-.261**	.397
Percentage Latino	.098	-.368*
Percentage Female	-.327**	.122
<i>Institutional Cost</i>		
Total Cost of Tuition + Fees	.493**	-.173
<i>Institutional Type</i>		
Public or Private	-.050	
<i>Institutional Size</i>		
Total Enrollment (undergraduate + graduate)	.070	.051
<i>F Score</i>		
Adjusted r ²	22.609**	1.476
	.401	.064

Notes: Cell entries are standardized regression coefficients.

*p < .05

**p < .01

The second stage of our study employs a multiple regression analysis to predict the percentage of international students. The first model in Table 3 includes all the colleges and universities in our sample (n = 195). Three independent variables capture the diversity of the student body at an institution: percentage white, percentage Latino, and percentage female. Percentage African American and percentage white cannot be included together because of multicollinearity (each variable has a VIF score above 10 when included together in a multivariate model). We find mixed evidence for the third hypothesis of this study. As the percentage white increases at an institution, the percentage of international students declines, and the relationship is statistically significant at p < .01. Percentage Latino is positively associated with the percentage of international students, but the regression coefficient is not statistically significant. Intriguingly, the percentage of female students is negatively associated with the percentage of international students, and the relationship is statistically

significant at $p < .01$. The standardized regression coefficient for percentage female ($-.327$) is the second largest in the model.

When examining institutional cost, total tuition + fees is a positive predictor of the percentage of international students, and it is the strongest variable in the first model of Table 3 with a standardized regression coefficient of .493, which is statistically significant at $p < .01$. The positive and powerful relationship likely captures the prestigious doctoral institutions, which are particularly effective in recruiting international students although they have especially high out-of-state tuition rates. The same likely holds true at private colleges, where the sticker shock of sky-high tuition rates is mitigated by waivers or scholarships for international students. The dummy variable for public vs. private is not statistically significant in the first model in Table 3 with controls for the diversity of the institution, institutional cost, and total enrollment. Total enrollment is not significant in the first model of Table 3. While the largest state institutions are successful in recruiting international students, there are many large two-year institutions in this study with relatively small percentages of international students. Model 1 in Table 3 is fairly robust, with the independent variables accounting for slightly more than 40 percent of the variance in the percentage of international students enrolled at colleges and universities in the Southeast.

The second model in Table 3 truncates the regression analysis to just public master's institutions. Obviously, out-of-state vs. in-state tuition rates are applicable only to public institutions of higher education. As discussed previously in this study, we expect out-of-state tuition rates to have the most noticeable negative impact on international student enrollment at nondoctoral universities such as those in the master's category. While the out-of-state tuition variable has a negative coefficient in the second model of Table 3, it fails to reach statistical significance. The only variable that attains statistical significance in the second model is percentage Latino. As the percentage Latino rises at public master's institutions, the percentage of international students declines. With only 35 cases, Model 2 is rather weak with the independent variables explaining only 6 percent of the variance in the percentage of international students and the F score failing to achieve statistical significance. When baccalaureate institutions are included in Model 2, the findings are essentially unchanged with the same adjusted r^2 .

Discussion of Findings

Our data analysis produced some findings that were very much expected as well as several interesting results for colleges and universities in the Southeast. Not surprisingly, in relation to our first hypothesis, we find higher percentages of international students at research-intensive doctoral institutions (7.84

percent) when compared to master's (3.46 percent), bachelor's (4.90 percent), and associate's (1.39 percent) colleges and universities. Specialty institutions have the highest percentage (just above 10 percent) which is accounted for by several colleges of art and design in the very small subsample ($n = 7$) for these institutions. When disaggregating doctoral institutions, it is remarkable that the percentage of international students is three times greater at the highest research activity institutions when contrasted to moderate research activity schools (11.38 to 3.71 percent), which clearly confirms the first hypothesis of this study. Furthermore, we find the average percentage of international students at private institutions (6.67 percent) is more than double the rate at public institutions (3.05 percent) in support of the second hypothesis. Private colleges and universities have been particularly active in the recruitment strategies that we outline below, and these institutions often have the capacity to waive tuition or substantially discount those rates for international students they wish to recruit.

For our third hypothesis, we have mixed evidence that the diversity of institutions of higher education in the Southeast helps to attract international students. In support of the hypothesis, we find that as the percentage white increases in the student body, there is an accompanying decline in the percentage of international students, and the results are statistically significant. In contrast to the hypothesis, we find that as the percentage female increases across the almost 200 institutions in this study, there is a decline in the percentage of international students, with the relationship statistically significant. This may well be explained by STEM colleges and universities, especially in relation to engineering, which still have a majority-male student population and are also successful in recruiting international students.

In contrast to our final hypothesis, we actually find that the price tag of tuition and fees is a positive predictor of the percentage of international student in the multivariate regression analysis of all the institutions in our sample. The relationship is the strongest in the model and statistically significant. This likely captures the large public state institutions as well as private institutions, which are particularly effective recruiting international students despite the eye-popping price tag of their tuition. Some of the lowest tuition rates in our sample are for the two-year colleges, which have very small international student populations. When we truncate our sample to public master's institutions, out-of-state tuition rates are a negative predictor of the percentage of international students, but the relationship is not statistically significant. Our sample includes fewer than 40 public master's institutions, so a much larger sample across the country would provide for a better test of the hypothesis.

It is also critical to keep in mind that we employ an aggregate unit of analysis, rather than individuals, with data clustered by college or university. Individual survey data reveal the critical role of cost and the availability of

scholarships for international students who are contemplating study in the United States. For the institutions analyzed in our study, useful independent variables for future research would involve the number of out-of-state tuition waivers, the availability of scholarships, and the scope and activities of Centers for International Programs across institutions.

Policy Recommendations at the Campus Level

Most regional comprehensive universities and smaller institutions in Georgia have not considered international student recruitment options. We have observed that few if any of these universities in Georgia have made serious attempts to recruit international students. They have neither developed nor invested in a recruitment strategy targeted at international student populations.

Recognizing the financial, cultural, and educational benefits of enrolling international students is an important first step for a university interested in bringing international students to campus. With a focus on internationalization on campuses over the last decade, most colleges see the benefits and would love to have more international students enrolled in their programs. Most regional comprehensive and four-year baccalaureate institutions in Georgia are unfamiliar with international recruitment and unprepared to compete for international students. For regional comprehensive and four-year universities to see real increases in international enrollment, they would have to plan and organize international recruitment efforts just like they do for domestic students or student athletes. They would have to develop recruitment strategies and build brand names just like they have done regionally. Developing a marketing strategy for international recruitment should be the top priority.

Another way that universities have seen significant success with increasing international student numbers is through the use of educational recruitment agencies. These agencies hold recruitment fairs, visit high schools in their home countries, and generally represent foreign universities to students. Many of these agencies either charge a consultation fee to the student or a commission to the university for each student they send. Many universities in the United States have been opposed to using paid educational agents, but a growing number are using this important recruitment tool. It was estimated “that in 2007, only 4 percent of international students in the United States identified agents as having played a major role in their choice of college” (Jaschik 2014). In 2013 that figure was estimated at 28 percent (Jaschik 2014). Additionally, a 2012 survey compares the use of agents from seven countries. As expected, the United States ranked lowest for the use of agents in Table 4 (Jaschik 2014).

By 2016, the number of universities directly working with agents in some manner had grown to about 50 percent, according to a study by Bridge Education Group (2016). Their studies claim that 37 percent of US universities

indicated that they work directly with agencies (Bridge Education Group 2016). Whether or not universities are comfortable with working with agents, it is a reality

Table 4: Proportion of International Students Recruited with Agents

Country	Percentage
Australia	53%
Canada	41%
Malaysia	56%
Netherlands	20%
New Zealand	47%
United Kingdom	38%
United States	11%

Source: Jaschik (2014).

that working with educational agencies is one of the most effective ways to bring international students to our college campuses.

Policy Recommendations at the State Level

The decline in enrollment numbers across the Georgia system has to be addressed: we have to either reduce the number of faculty and administrators, raise tuition costs for current students, or find a way to attract students from out of state to fill these seats.

One recommendation would be that the Georgia Board of Regents research how various states structure out-of-state-tuition charges for international students. According to an article by University Language Services (2013), some states like Minnesota and North Dakota allow certain schools to waive out-of-state tuition entirely in order to boost enrollments. As noted earlier, the Board of Regents has already created a policy to offer in-state tuition at a number of colleges and universities in Georgia to residents of the bordering states. It would be prudent for the Board of Regents to consider offering these seats to qualified international students as well. It may help us avoid the first two options and mitigate the impact of lower enrollment numbers.

A second recommendation is that the Georgia Board of Regents consider developing a policy that addresses recommended recruitment strategies for schools across the state. The recommendation is that clear policies and procedures for working with agents be articulated. Working with agents may prove to be the most effective and cheapest way for Georgia to increase its market share of international students.

A third recommendation is that if Georgia is to keep the out-of-state tuition policy in place, the Board of Regents should review the actual cost of tuition for

a university education. The difference between in-state and out-of-state tuition rates could be calculated based upon actual state appropriations for higher education. The difference could be in-state tuition plus 25 to 33 percent of that tuition rate, which more accurately reflects state appropriations. Currently, out-of-state tuition is three to almost four times the cost of in-state tuition. The Board of Regents should consider lowering out-of-state tuition at regional comprehensive and four-year baccalaureate as well as two-year institutions to a number closer to the actual cost to attract additional international students.

The findings of this study dovetail with our policy recommendations. Private institutions as well as doctoral research-intensive universities are doing well in terms of recruiting international students, but regional comprehensive universities lag well behind as do bachelor's and master's institutions. The contributions of international students to the intellectual climate of our classrooms and institutions should not be confined to our largest and most prestigious doctoral institutions. While greater diversity in the student body of an institution can contribute to the level of international student enrollment, the policy recommendations in this study are offered with the hopes of assisting campuses, state legislatures, and system offices spread the wealth of international student recruitment and enrollments across all types of institutions.



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