
The University of North Carolina UNC Global Connections Report 2015



The University of North Carolina
General Administration

October 2015

Introduction

APPENDIX T

UNC connects to the world in a variety of ways: by sending out faculty and students to other countries; by teaching and studying about world history, languages, cultures and economies, and by bringing in international students to study here. As the world gets more closely connected, as more jobs require more global knowledge and more challenges require global collaboration, students must know more about the rest of the world to be successful.

The UNC Board of Governors has recognized that each campus will take its own approach to meeting the challenge of preparing its students for a global economy. Following a study trip to China in spring 2012, the Board offered overall guidance for priority areas of focus, first in its 2013 strategic plan, [Our Time Our Future](#), and then with the adoption of the report of a special subcommittee on international programs in May 2015.

[Our Time Our Future](#) called for new state investment to support a three-part approach to deepening global engagement. First, the report recommended increased attention be paid to connections in five priority geographies: China, India, Brazil, Mexico and the continent of Africa. Second, it called for bringing in increasing numbers of students from those and other geographies. And finally it asked UNC to look for ways to build off of its relationships with other countries to enhance the “global brand” of the state and of UNC institutions.

UNC General Administration has begun developing approaches to increase engagement with the identified geographies, developing strategic plans for [China and India](#) and launching small scale initiatives in both of those countries. Campuses have shown increased interest in international student recruitment, and, with support from UNC General Administration, UNC-Chapel Hill has played an important role in [North Carolina's recent “rebranding” effort](#). But no new funding was appropriated to support implementation of the plans.

In November 2014, Craig Souza, the then-chair of the Committee on Educational Policy, Planning and Programs, formed a special subcommittee to review the recommendations in [Our Time, Our Future](#) and in last year's international report, [Global Connections](#).

The subcommittee, chaired by Ann Maxwell and including Rodney Hood and Hari Nath, further focused UNC General Administration's efforts on a system level to identify four focus areas that require no additional appropriations.

1. *Narrow priority geographic focus areas:* [Our Time Our Future's](#) recommendation of five geographic priorities (Brazil, China, India, Mexico and the continent of Africa) was built on the assumption that there would be additional funding to support implementation of new strategies and pilot programs in these geographies. Given no new funding, the subcommittee recommended that as a system, UNC should narrow its focus to implementation of new strategies with China and India only. We highlight UNC activity in China and India throughout this Update.
2. *Increase emphasis on global certificate programs:* The subcommittee reviewed existing campus efforts to encourage more students to develop a deeper knowledge of the world, and was particularly impressed by the global certificate programs operating on six UNC campuses. In August 2015, representatives of all sixteen four-year institutions met to discuss how to expand existing programs at campuses currently offering certificate programs and how to start new certificate programs on other campuses. Fourteen campuses are currently developing strategies to enhance global certificate programs, and will report progress to the board at the May 2016 meeting.

APPENDIX T

3. *Explore shared service strategies for international student recruitment:* The subcommittee observed that international students bring a variety of benefits to both UNC institutions and the state, but that many campuses are having difficulty recruiting international students, particularly on an undergraduate level: in 2012-2013, 11 campuses had less than 1% international undergraduate enrollment; in 2013-2014, 12 campuses were below 1%. The subcommittee recommended that UNC General Administration explore creating a “shared service” for a consortium of campuses that might expand brand awareness of UNC institutions and bring in more international students. UNC General Administration hopes to launch such a consortium in November, 2015. We take an extensive look at the latest data on international students in Section 3 of this Update.
4. *Lead development of statewide strategic plan for international engagement:* The subcommittee noted that progress by UNC in increasing its global engagement efforts would be difficult if there was no consensus in the state that such engagement was worthwhile. It endorsed efforts by the Center for International Understanding (CIU), a program of UNC General Administration, to produce a plan that brought together business, government, nonprofits and educational institutions to increase and improve North Carolina’s connections to the world. CIU is nearing completion of this “blueprint,” and will announce it in November, 2015.

The subcommittee’s four recommendations were adopted by the full Board of Governors at its May 2015 meeting.

This year’s report takes a comprehensive look at where UNC stands with regard to global engagement, with special attention paid to data related to the board’s priorities.

Report Summary

The 2014 [Global Connections](#) report was the first effort in a decade to assess the international activity of UNC institutions, and attempted to draw a comprehensive picture of the state of the system as it worked to connect to the world. This 2015 report is condensed with an overview of a few areas of particular importance. Due to a lag in collection of international data, the report looks at study abroad data during academic year 2012-2013 and international student data during academic year 2013-2014. It provides an important baseline; future reports can assess progress against Board of Governors' priorities identified in the 2013 strategic plan, [Our Time, Our Future](#). There are three sections:

Section 1: Connecting UNC students to the world

- Study abroad numbers rose 2.8% between 2011-2012 and 2012-2013 to 6,348, slightly higher than the national increase of 2.0%. UNC-Chapel Hill sent the highest percentage, about 9.1%. On six of our campuses, less than 1% of students studied abroad.
- Western European countries remain the most popular countries for UNC students. China ranks fourth where 5.2% of students studied. India lags significantly behind China where only 1.6% of UNC students studied.

Section 2: Connecting UNC faculty to the world

- An analysis of UNC's research expertise portal, [REACH NC](#), shows that during the period 2012 through late August 2015, UNC researchers collaborated on 3,416 publications with European colleagues and 2,674 with colleagues in the Asia Pacific.
- Chinese researchers were second to the United Kingdom among all countries in the number of collaborations with UNC faculty, with 1,031 joint publications. Relatively few UNC collaborations with Indian colleagues resulted in only 91 joint papers.

Section 3: Connecting international students to UNC

- Between 2012-2013 and 2013-2014, the number of international students attending UNC at all education levels increased by 2.8% to 9,404. Nationally international student enrollment grew by 8%.ⁱ
- The number and percentage of international students at UNC varied significantly among campuses. NC State had a total of 3,068 international undergraduate and graduate students; Elizabeth City State, where there is no central data source, reported none.
- Graduate students represented 4.5% of UNC graduate enrollment, With NC State having the highest percentage at 26.4%; on seven campuses less than 1% of graduate students were international. International graduate student growth at UNC between 2012-2013 and 2013-2014 was 0.5%; nationally that growth was 6.0%.
- International undergraduate enrollment is much lower with about 1.1% of the undergraduates at all UNC institutions. Again, the percentage varied significantly by campus: 2.3% of undergraduates at UNC-Chapel Hill and NC State in 2013-2014 were international; on 12 campuses, less than 1% of students were international. International undergraduate student growth at UNC between 2012-2013 and 2013-2014 was 4.0%; nationally it was 9.0%.
- Chinese and Indian students made up more than half of all international students at UNC. Among undergraduate students, China had the highest number. Among graduate students, India had the largest number. The number of Indian students overall increased significantly, by 43% between 2012-2013 and 2013-2014.

Conclusion:

The report findings show a system of universities with significant variation in the amount and nature of international engagement as the recommendations of [Our Time, Our Future](#) were first introduced, and help identify some areas of potential focus going forward.

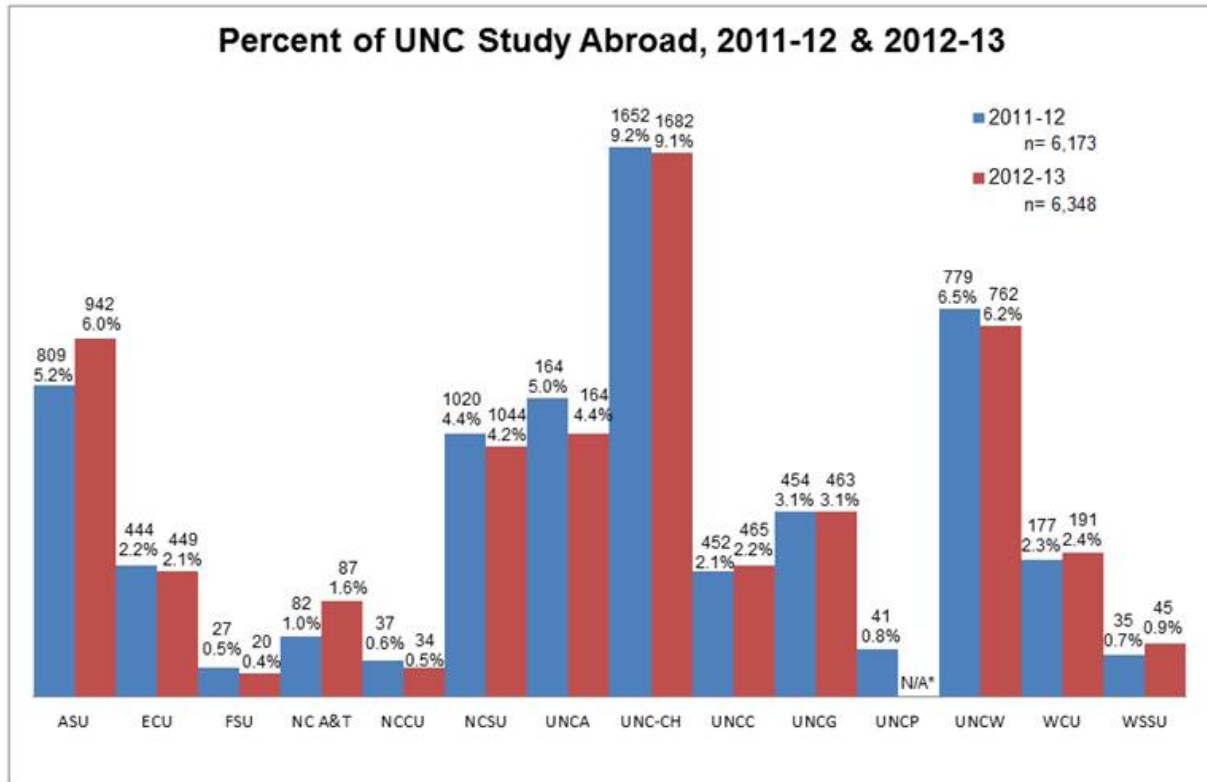
Section 1: Connecting UNC Students to the World

This year UNC is launching efforts to significantly increase UNC students' connections to the world in a variety of forms through "Global Certificate" programs – combinations of academic courses and co-curricular activities and reflective analysis that will provide some evidence of a student's understanding of the world. These certificate programs will vary by campus, but generally will emphasize increased depth of foreign language study; more courses in global geography, economics and culture; and more collaborative projects or classes undertaken with resident or electronically-connected international students, such as the Global Understanding programs pioneered by East Carolina.

In the 2014 Global Connections report, we collected extensive data on language study and highlighted preliminary efforts by the UNC Language Assembly to share resources to enhance language study. The 2015 report of the Board of Governors' international programs subcommittee assessed current global certificate programs. As new data becomes available, we can assess the results of these efforts.

In this section we look at a key element of developing students' global competence: sending students to study abroad.

Between the 2011-2012 academic year and 2012-2013 academic year, the number of UNC system students studying abroad increased from 6,173 to 6,348, a 2.8% increase, slightly higher than the national average over the same period.ⁱⁱ Since decisions to study abroad are in part driven by cost, or perceptions of cost,ⁱⁱⁱ this could reflect an improvement in the economy during that period.

Figure 1.1

No available data for ECSU and UNCSA.

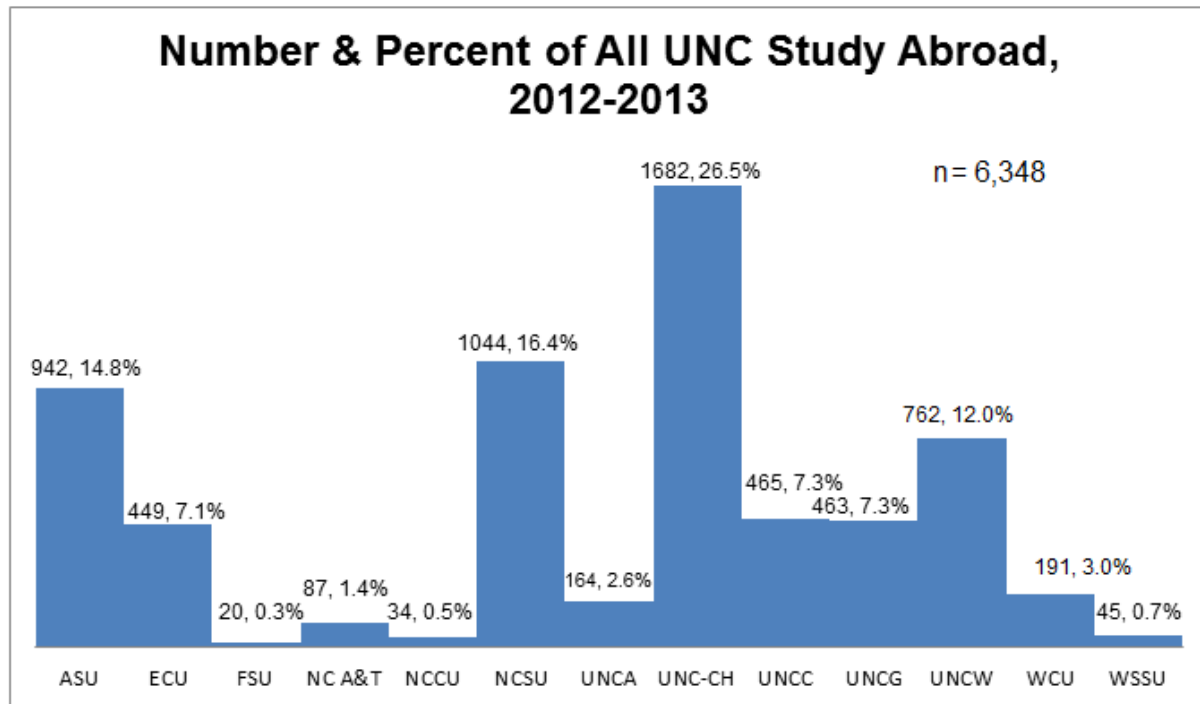
The percentage of students studying abroad in 2012-2013 on individual campuses was generally steady compared to 2011-2012; UNC-Chapel Hill remains far and away the highest, with more than 9% of students studying abroad. UNC Wilmington (6.2%), Appalachian State (6.0%), UNC Asheville (4.4%) AND N.C. State each has more than 4% of students studying abroad.

According to IIE's Open Doors report, the national average was 1.5% in 2012-2013. Elizabeth City State, Fayetteville State, N.C. Central, UNC Pembroke, UNC School of the Arts and Winston-Salem State each have less than 1% of students studying abroad.

Observation:

The percentage of students studying abroad is likely to increase in future years, as institutions increase promotion of "global certificate" programs, which will increase awareness of the importance of "global literacy." In addition, new efforts such as the Institute for International Education- (IIE) led initiative, "Generation Study Abroad," will bring new awareness, new strategies and new resources to participating members, with the goal of doubling the number of students studying abroad by 2020 (the 400 U.S. members include Appalachian State, East Carolina, N.C. State, UNC Charlotte, UNC Wilmington and Western Carolina).

The increase in Appalachian State's study abroad numbers between 2011-2012 and 2012-2013 is striking. Jesse Lutabingwa, Associate Vice Chancellor for International Education at ASU, credits increased promotional efforts on campus and a new program designed to encourage more faculty-led study experiences, an effort that was described in the just-published Generation Study Abroad Year One Impact, as a best practice: "a faculty development initiative in which novice faculty hoping to establish a study abroad program travel with a veteran mentor to learn the fundamentals of leading a study abroad program."

Figure 1.2: Percent of all study abroad by campus

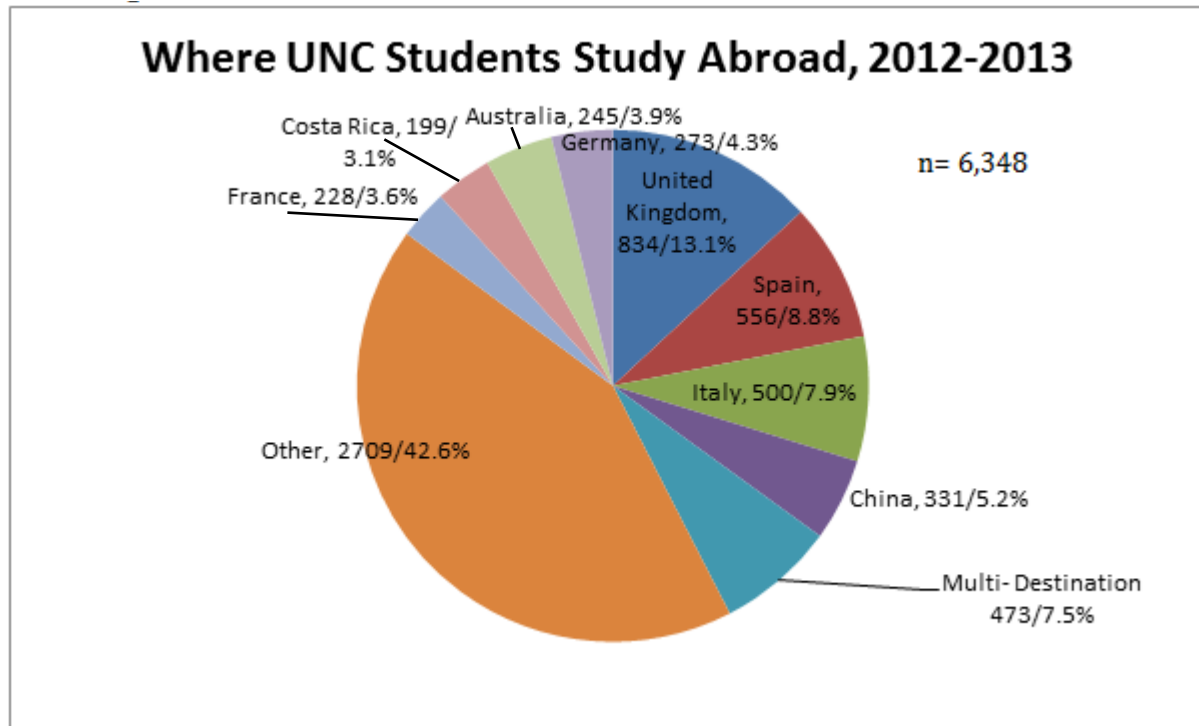
No available data from ECSU, UNCP, and UNCSA.

About 70% of the total number of UNC system students studying abroad attends four of our institutions: UNC-Chapel Hill, N.C. State, Appalachian State and UNC Wilmington. Adding in East Carolina, UNC Charlotte and UNC Greensboro brings the number to 91%.

Elizabeth City State, Fayetteville State, NC Central, UNC Pembroke, UNC School of the Arts and Winston-Salem State each has less than 1% of the UNC total.

Observation:

Nationally there are a number of barriers cited by students to studying abroad, ranging from perceptions that it may be unaffordable, concern about losing progress to degree, belief that study abroad may not be possible if studying in the STEM disciplines.^v African Americans study abroad at rates lower than either whites or Latinos.^{vi} Participants in IIE's Generation Study Abroad are addressing many of these issues^{vii} and finding new sources of funds to support expansion efforts.^{viii}

Figure 1.3:

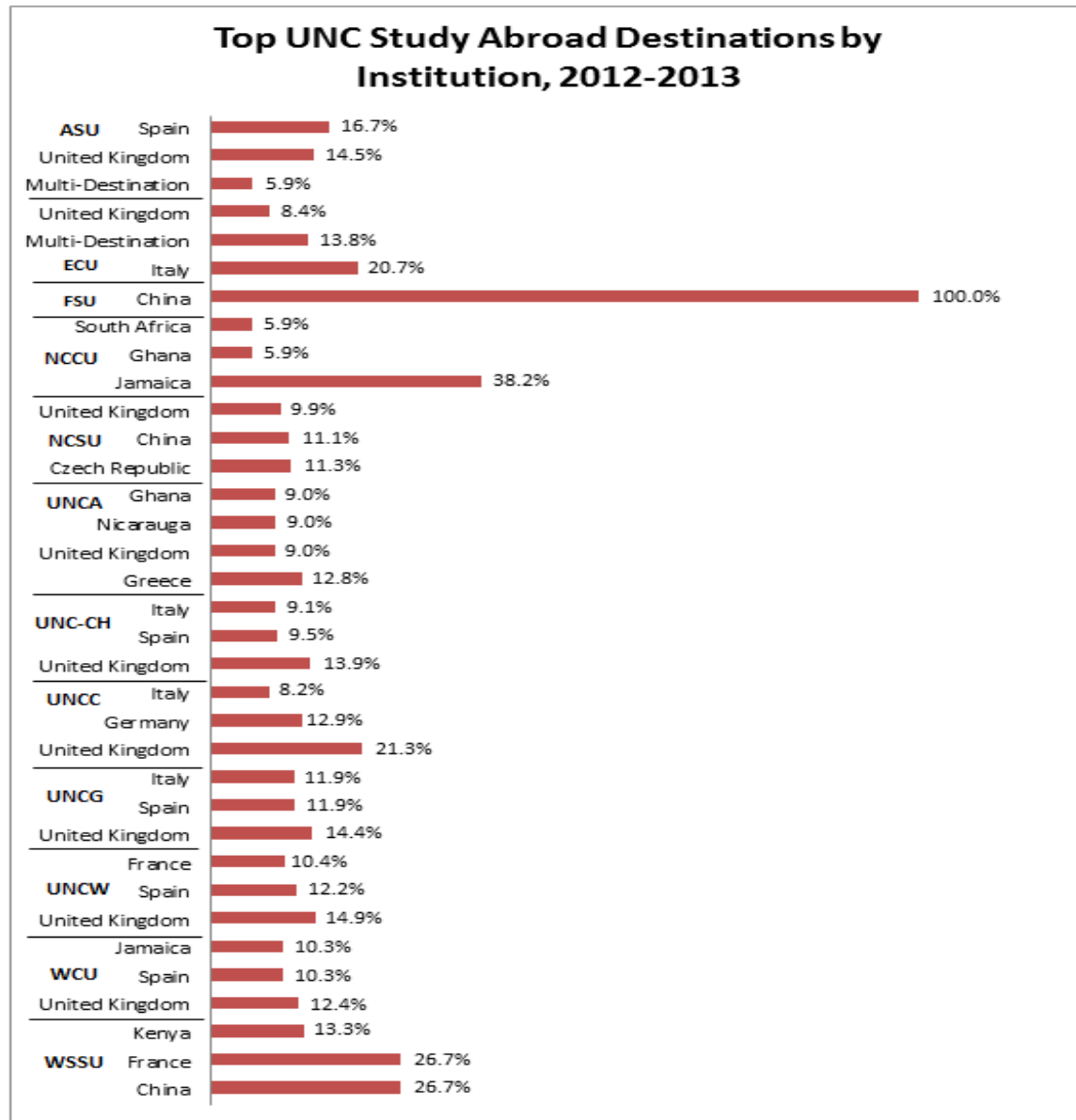
Most of the most popular countries for UNC system study abroad are located in western Europe. China remains popular, attracting about 5.2% of the students studying abroad.

Multi-destination study abroad is slowly increasing in popularity, moving from 5% of the total in 2011-2012 to 7.5% in 2012-2013.

Observation:

It is interesting to note that Costa Rica is a more popular destination for study abroad than Mexico. This could signal ongoing concerns about safety in Mexico.

Only a very small number of students are willing to study in India – 1.6% of all UNC students studying abroad (see Figure 1.5). New efforts by the Indian government to expedite visa processing and build more “western-style” dormitories may help overcome the perception that India is a “difficult” place to study.^{ix}

Figure 1.4

Traditions of “where” to study abroad vary widely among UNC campuses, with seven different countries leading the way on different campuses and a total of 14 countries among the top three destinations for students on UNC campuses. The United Kingdom is the most popular destination on five UNC campuses, and China is most popular on two.

Observations:

Decisions about where to study abroad are often based on activities by faculty.^x Campuses interested in increasing study abroad in general should look for ways to build off the interests or home countries of their faculty.

Figure 1.5

	Number Abroad	China (#)	China (%)	India (#)	India (%)	Brazil (#)	Brazil (%)	Mexico (#)	Mexico (%)	Africa* (#)	Africa* (%)
ASU	925	33	3.6%	13	1.4%	17	1.8%	30	3.2%	56	6.1%
ECSU	N/A*										
ECU	450	8	1.8%	17	3.8%			2	0.4%	9	2.0%
FSU	20	20	100%								
NCA&T	87										
NCCU	34					22	64.7%			4	11.8%
NCSU	1,073	119	11.1%	16	1.5%	14	1.3%	1	.01%	36	3.4%
UNCA	188	14	7.4%	3	1.6%	3	1.6%			21	11.2%
UNC-CH	1,699	90	5.3%	45	2.6%	23	1.4%	30	1.8%	96	5.7%
UNCC	465	21	4.5%	2	0.4%					7	1.5%
UNCG	443	9	2.0%			1	0.2%	6	1.4%	13	2.9%
UNCP	N/A*										
UNCSA	N/A*										
UNCW	776	5	0.6%	3	0.4%	1	0.1%			32	4.1%
WCU	194							1	0.5%	20	10.3%
WSSU	45	12	26.7%			5	11.1%			8	17.8%
Total	6,399	331	5.3%	99	1.6%	86	1.4%	70	1.1%	302	4.7%

*Combines the 16 African countries where UNC students studied in 2012-2013; South Africa hosted 152, or 50.3% of all UNC students studying in Africa

Among the five “priority geographies” identified by the Board of Governors in its 2013 UNC strategic plan, *Our Time, Our Future*, China clearly is the most popular destination for UNC system students studying abroad, and the fourth most popular destination among all countries.

India attracts less than a third the number of UNC students as China.

In spite of its proximity, Mexico attracts about one third the numbers of UNC students who study in Costa Rica.

Among the 16 African nations where UNC students study abroad, South Africa attracts more than half of all UNC students studying abroad.

Observation:

Because of the lag of data availability, there is not yet data from institutions following the Board of Governors adoption of priority geographies, nor from the additional recommendation of the Board subcommittee in May 2015 on China and India. In following years it will be possible to measure if increased emphasis on geographies increases study abroad and other connections to these countries.

Section 2: Connecting to Institutions

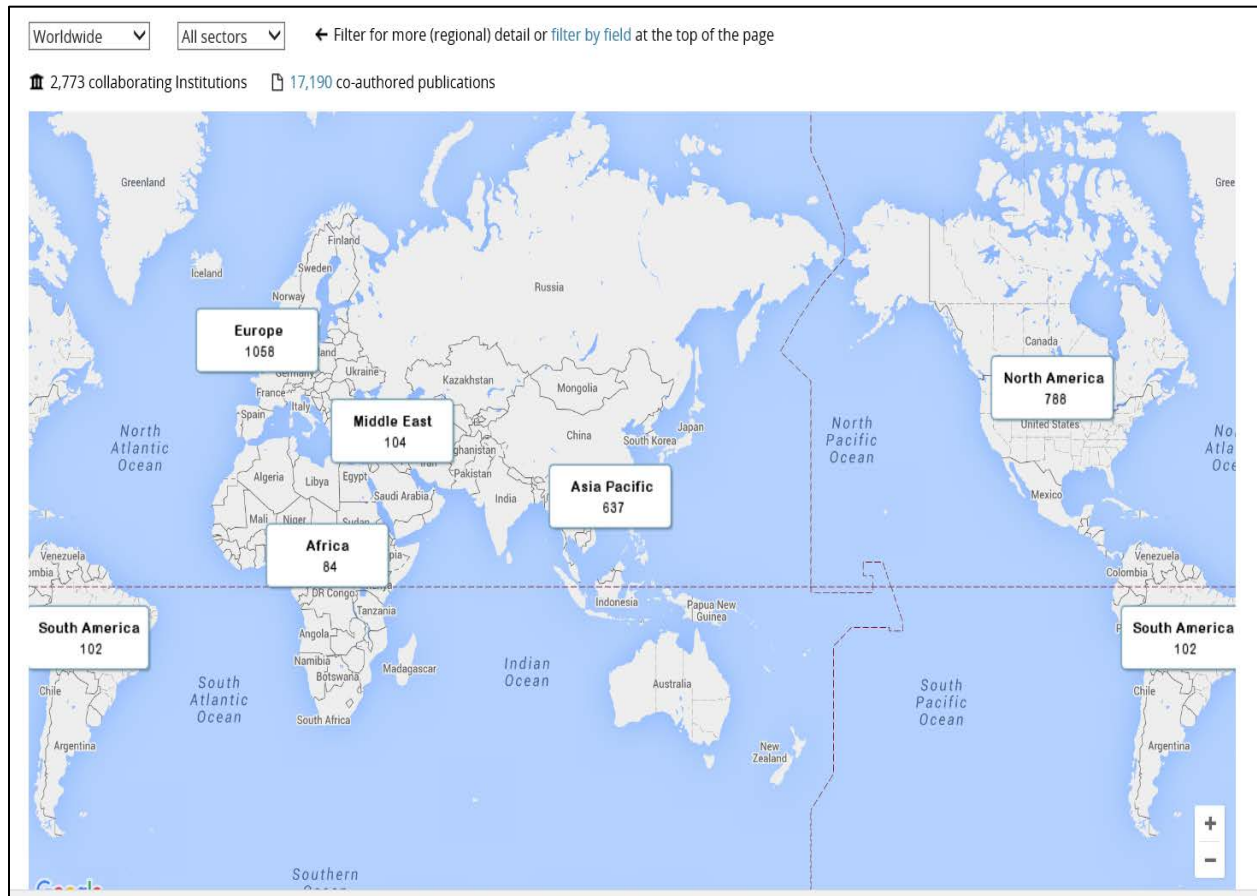
Connections between UNC and other countries and institutions happen in a variety of ways, including leadership visits and student exchange. But one of the most important connections is faculty-to-faculty, particularly through research.

In 2014-2015, UNC institutions received 401 awards totaling \$26 million from international sponsors, and increase from 2013-2014, when internationally-funded research amounted to just over \$19 million. About 81% of the awards and 82% of the 2014-2015 funding from international sponsors went to UNC-Chapel Hill and NC State, which may indicate that research operations of a certain scale may have an advantage when it comes to seeking and receiving international sponsored awards. Sponsors from the United Kingdom, China and Zambia each awarded over \$2 million in funding to UNC institutions, and sponsors from several other countries awarded over \$1 million each, including Switzerland, Canada, France, Denmark, Germany, India, and the Republic of Korea.

In most cases money doesn't change hands between UNC faculty and their international colleagues. Instead the medium is scholarly exchange, as they write papers, conduct research, or share research findings with one another to produce publications.

A meta-analysis of research done by UNC faculty show that, over a four-year period, UNC researchers worked with a variety of colleagues across the world, publishing more than 7,000 books or papers, with the greatest number of partnerships outside the United States taking place in Europe and the Asia-Pacific region.

These collaborations inevitably lead to side benefits, including increased student and faculty exchange, joint classes and other impacts.

Figure 2.1 World map of UNC collaborating institutions – 1/1/2012- 8/23/2015

*Source: REACH NC calculation using Scopus Data

Sharlini Sankaran, executive director of the research expertise portal REACH NC, analyzed the research done by 10,400 UNC researchers published in the Scopus database of journals between January 1, 2012 and August 23, 2015, and found that, in addition to collaborations with colleagues in North America, UNC faculty are doing research with partners around the world. In all UNC researchers collaborated on 7,377 publications with international colleagues. As the map indicates, during that time, UNC faculty worked with faculty at 1,058 institutions in Europe, 788 in North America (most in the United States), 637 institutions in the Asia-Pacific region, 104 in the Middle East and 84 institutions in Africa.

Figure 2.2: UNC Collaborations with European colleagues

Total # of Collaborating Institutions: 1,058. Total number of co-authored publications: 3,416.

Country	No. of collaborating inst	No. of publications
United Kingdom	226	1,230
France	151	520
Germany	147	759
Italy	103	463
Spain	85	412
Netherlands	37	545
Russia	33	127
Turkey	32	77
Poland	31	96
Greece	25	116

*Source: REACH NC calculation using Scival Data. Collaboration in this case is measured by co-authorship of publications in the Scopus database.

UNC researchers co-authored 3,416 papers with European colleagues, led by collaborations with 226 institutions in the United Kingdom, where they produced a total of 1,230 publications.

Figure 2.3: UNC Collaborations with Asian-Pacific colleagues

Total # of Collaborating Institutions: 637. Total number of co-authored publications: 2,674.

Country	No. of collaborating inst	No. of publications
China	205	1,031
Japan	125	406
Australia	77	612
South Korea	75	403
India	44	91
Taiwan	34	208
Thailand	12	81
Singapore	10	166
Hong Kong	8	96
Pakistan	8	28

*Source: REACH NC calculation using Scopus Data

UNC faculty worked with colleagues in 637 different institutions in the Asia-Pacific region, producing a total of 2,674 co-authored presentations. With Chinese colleagues alone, UNC faculty co-authored 1,031 publications. India ranked fifth among Asian-Pacific nations in institutional collaborations and 8th in the number of publications.

Observation

Faculty collaboration on research can be an important first step for greater levels of international collaboration between campuses, including greater levels of faculty exchange, increased student interest in international research or study, and new joint degree programs or courses.^{xi}

Section 3: Connecting to International Students

The presence of international students on UNC campuses makes a difference – to domestic students, to the state of North Carolina and to the students themselves.

With most domestic UNC students unable or unwilling to study abroad, having international students on campus provides domestic students the opportunity to be exposed to students from different cultures and backgrounds, which help native-born students gain valuable experience.

International students at UNC spend money, an estimated \$173 million during the 2013-2014 year, and are more likely to stay in North Carolina following graduation than out-of-state students are.

If they stay in North Carolina, international students are about twice as likely as domestic students to start their own businesses. If they return to their native country, they have the potential to speak positively about North Carolina as a place to live, work, visit or do businesses.^{xii}

Overall, since our last report, the number of international students connected to UNC institutions has increased slightly, from 9,193 in last year's report (looking at academic year 2012-2013) to 9,404 in this year's report (looking at academic year 2013-2014). That's a 2.3% increase.

About one in three international undergraduates comes from China, with one in seven coming from Saudi Arabia.

International graduate students look slightly different, with the leading countries being India (34% and China (32%).

Graduate students make up the largest group of international students in the UNC system, with about half of the students coming for graduate school. Among graduate students, two out of every three come from either India or China.

Graduate student enrollment increased slightly between 2012-2013 and 2013-2014, from 4,608 to 4,629, or about 0.5%. The net positive growth was driven primarily by growth at UNC Charlotte, which grew enrollment by 126 students, an 18.7% increase.

International undergraduate student enrollment increased overall from 1,872 to 1,947, about 4%. The increase was driven by N.C. State, UNC Charlotte and UNC Greensboro, which gained 194 international students. The remainder of campuses lost a net of 119 students.

Figure 3.1 International student status, 2013-2014

Institution	Undergraduate	Graduate	Non-Degree	OPT	Total
ASU	59	14	64	18	155
ECSU	N/A*				
ECU	50	71	73	44	238
FSU	16	2	5	3	26
NC A&T	18	N/A*	25	25	68
NCCU	31	23	0	20	74
NCSU	569	2,499	209	975	4,252
UNCA	13	0	18	0	31
UNC-CH	418	988	257	214	1,877
UNCC	409	792	85	400	1,686
UNCG	217	188	127	87	619
UNCP	16	3	7	2	28
UNCSA	N/A*				
UNCW	66	17	126	15	224
WCU	55	11	32	3	101
WSSU	10	11	0	4	25
Total	1,947	4,619	1,028	1,810	9,404

*No available data

About half (49.1%) of the 9,404 international students at UNC come as graduate students. Among those graduate students, 54% attend NC State, 21.3% attend UNC-Chapel Hill and 17.1% UNC Charlotte. The remaining 13 four-year campuses have 7.6% of all UNC international graduate students.

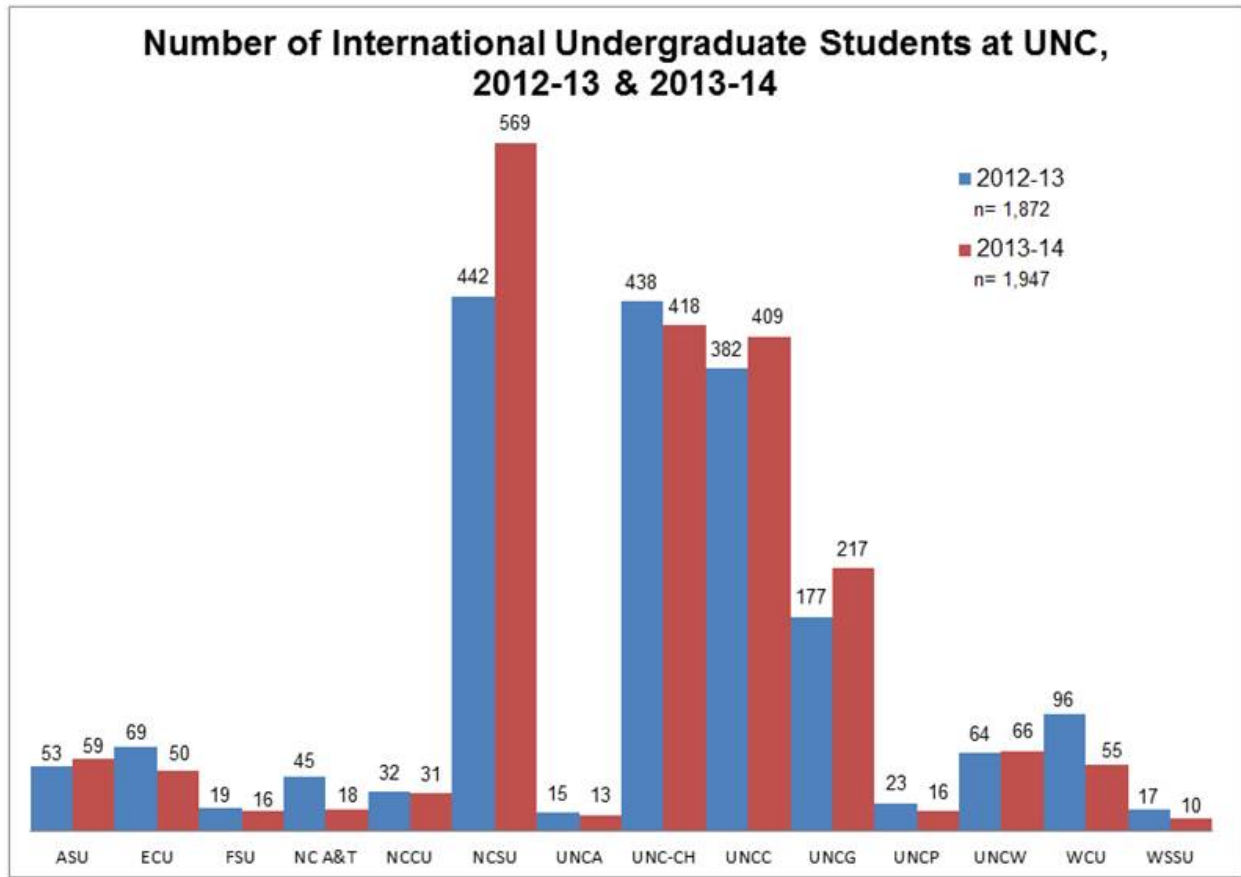
About 21% of all international students at UNC institutions are undergraduates. N.C. State again has the greatest share of those students, with 29.2% of all international undergraduates. 21.5% of all international undergraduates attending UNC go to UNC-Chapel Hill; 21% of the system total attends UNC Charlotte. The remaining 13 four-year campuses have a total of 28.3% of all international undergraduates.

Those with Optional Practical Training (OPT) status may be active students or recent graduates temporarily working in the U.S. Figure 3.1 presents the number of recent graduates in OPT status and make up 19% of the international total. Among this cohort, 53.9% are associated with N.C. State; 22.1% are connected to UNC Charlotte; 11.8% attend UNC-Chapel Hill.

Non-degree students, most likely exchange students who take courses at one of the UNC institutions, make up 11% of all international students. UNC-Chapel Hill is the most successful at attracting these students, enrolling 25% of the total number.

Observation:

Some institutions have greater percentages of their overall international population in one category than another. For example, 61.5% of Fayetteville State's international population comes as undergraduates; 59% of NC State's international population is graduate students; 53% of UNC Asheville's international students are non-degree seeking; and 27% of NC Central's international population is in the OPT category.

Figure 3.2

*No data available for ECSU or UNCSA.

Overall numbers of undergraduates were up slightly in 2013-2014 compared to 2012-2013. The largest absolute and percentage increase came at N.C. State, which increased undergraduate international student enrollment by 127 students, or 28%. UNC Greensboro increased by 40 students, or 22.6%. UNC Charlotte was up by 27 students, about 7%. Appalachian State was up by 6 students, an 11.3% increase. UNC Wilmington increased by 2 students.

On the remaining campuses, international undergraduate student enrollment fell from 754 to 614, an 18.6% drop.

Observation:

According to Baillian Li, Vice Provost for International Affairs, NC State's increases in international undergraduate student enrollment are the result of a broad strategy with two key elements: forming deep relationships with high-performing high schools and setting up intensive English programs for entering students. The University's overall goal is to eventually reach 5% international student enrollment.

Figure 3.3 International Undergraduate Students at UNC, 2013-2014, by institution and percentage

Institution	Number of Undergraduates	Number of International Undergraduates	Percent of Undergrad Student Body
ASU	16,025	59	0.4%
ECSU	2,336	N/A*	N/A*
ECU	21,508	50	0.3%
FSU	5,410	16	0.3%
NC A&T	8,872	18	0.2%
NCCU	6,220	31	0.5%
NCSU	24,536	569	2.3%
UNCA	3,736	13	0.3%
UNC-CH	18,370	418	2.3%
UNCC	21,503	409	1.9%
UNCG	14,753	217	1.5%
UNCP	5,429	16	0.3%
UNC SA	797	N/A*	N/A*
UNCW	12,447	66	0.5%
WCU	8,448	55	0.6%
WSSU	4,938	10	0.2%
Total	175,328	1,947	0.8%

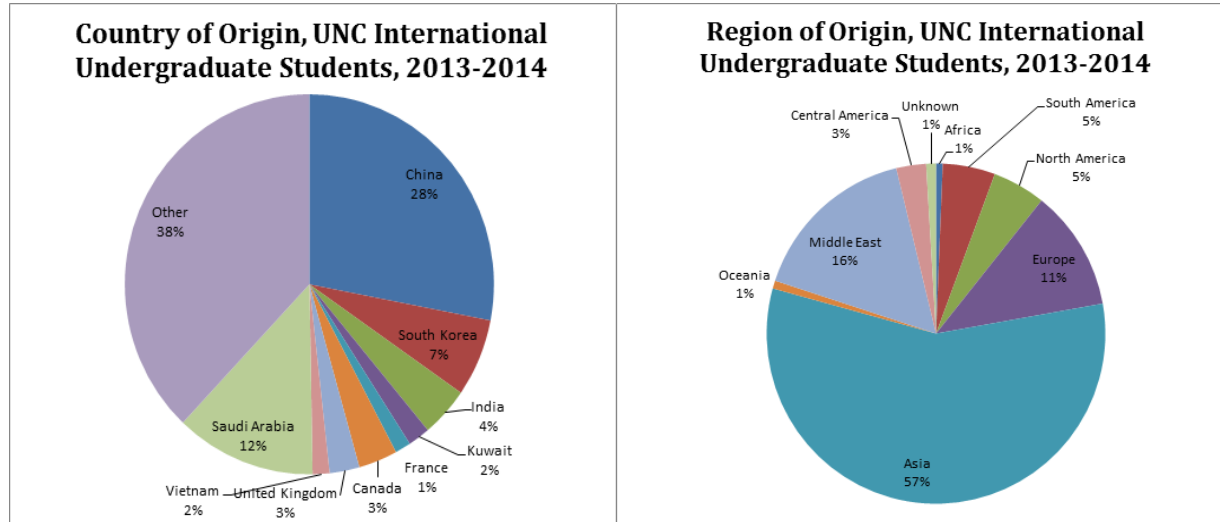
*National average for international undergraduate enrollment is 1.5%.

Four UNC campuses meet or exceed the national average of 1.5% international undergraduates – N.C. State (2.3%), UNC-CH (2.3%), UNC Charlotte (1.9%) and UNC Greensboro (1.5%).

At all the remaining twelve four-year campuses, international students make up 0.6% of the total undergraduate population or lower.

Observation:

Other US universities are growing their undergraduate international populations more quickly than UNC institutions: overall growth of UNC international undergraduate students between 2012-2013 and 2013-2014, 4.0% lagged the U.S. growth during that period of 9.0%.^{xiii}

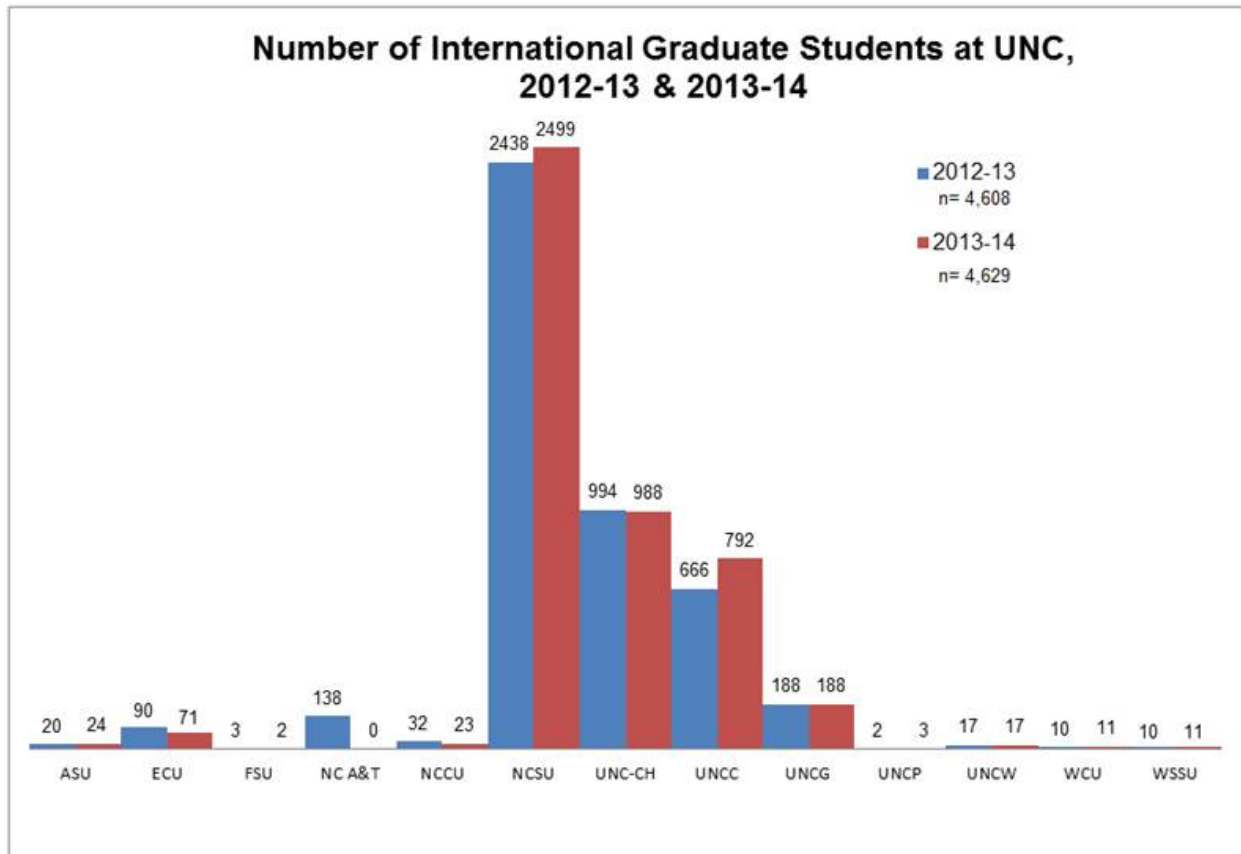
Figures 3.4 and 3.5

Chinese students represent the greatest number of international undergraduates at UNC, making up 31% of the total. Saudi Arabian students (many of them fully sponsored by their government), make up the second-largest cohort (14%), followed by South Korea (7%) and India (4%). Canada and the UK, which the previous year sent about 8% of international undergraduates, have lower numbers in 2013-2014.

There are three times as many international undergraduates from Asia as any other continent.

Observation:

Government-sponsored scholarships for students also exist in Brazil, Nigeria (targeted to enrollment in HBCU's) and other countries.

Figure 3.6

No data available for ECSU, UNCSA

International students enrolled in UNC graduate schools increased slightly between 2012-2013 and 2013-2014, from 4,608 to 4,629, an increase of 0.5%.

The increase was led by UNC Charlotte, which moved from 666 graduate students to 792, an 18.7% increase and NC State, which gained an additional 61 students, an increase of 2.5%. Most of the remaining institutions graduate student enrollment remained fairly consistent.

Observation:

Joel Gallegos, UNC Charlotte's Assistant Provost for International Programs, and Johnna Watson, Associate Dean of the Graduate School note that the institution's 18.9% year-to-year increase in graduate students has mostly come from growth in the number of Indian students, especially in master's programs in computer science, electrical engineering and information technology. Technical changes at UNC Charlotte helped as well, including a streamlined and totally online application process, expedited visa assistance and strong support personnel.

Figure 3.7 International Graduate Students at UNC, 2013-2014, by institution and percentage

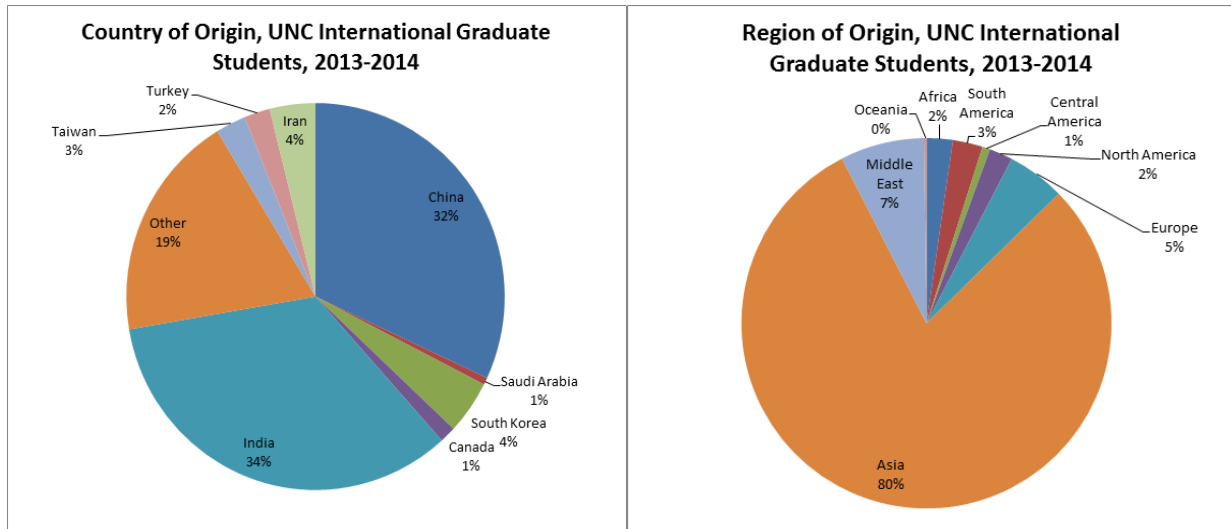
Institution	Number of Graduate Students	Number of International Grad Students	Percent of Graduate Student Body
ASU	1,813	24	1.3%
ECSU	85	N/A*	N/A*
ECU	5,379	71	1.3%
FSU	769	2	0.3%
NC A&T	1,689	0	0.0%
NCCU	1,873	23	1.2%
NCSU	9,473	2,499	26.4%
UNCA	48	0	0.0%
UNC-CH	10,757	988	9.2%
UNCC	5,068	792	15.6%
UNCG	3,321	188	5.7%
UNCP	793	3	0.4%
UNCSA	115	N/A*	N/A*
UNCW	1,490	17	1.1%
WCU	1,659	11	0.7%
WSSU	461	11	2.4%
Total	44,793	4,629	4.7%

*National average for international student enrollment in graduate schools is 15%.

International graduate students made up 4.7% of all graduate students at UNC institutions, but the percentages on each campus varied widely. NC State (26.4%) and UNC Charlotte (15.6%) both exceed the national average of 15% international graduate students, and UNC-Chapel Hill (9.2%) and UNC Greensboro (5.7%) each have more than 5% international graduate student enrollment. All other institutions had 2.4% or less international graduate student enrollment, with 7 of those campuses having less than 1% international graduate student enrollment.

Observation:

Other US universities are growing international graduate student populations more quickly than UNC. The growth in graduate students at UNC between 2012-2013 and 2013-2014, 0.5%, lagged the national average growth during that same period of 6.0%.^{xiv}

Figure 3.8 and 3.9:

Overall two-thirds of graduate students at UNC are from either India (34%) or China (32%). South Korea and Iran follow at 4% each, with Taiwan (3%) and Turkey (2%) next. Looked at regionally, Asian countries send 80% of all students to UNC system graduate schools.

Observation:

UNC graduate students disproportionately come here to study in the STEM disciplines. Universities without STEM-intensive graduate programs might productively focus on business, the most popular field for graduate study.^{xv}

Figure 3.10 Focus on UNC Chinese International Students, 2013-2014, by degree program and institution

Institution	Undergraduate	Graduate	Non-Degree	OPT*	Unknown	China Total
ASU	19	10	2	3		34
ECU					30	30
FSU	10	1	1	1		13
NC A&T						
NCCU		1		1		2
NCSU	229	808	160	257		1,454
UNCA	1					1
UNC-CH	168	368	24	88		648
UNCC	69	202	20			291
UNCG	52	53	54	12		171
UNCP	19	2			14	35
UNCW					15	15
WCU	1	2				3
WSSU						
Total	568	1,447	261	362	59	2,697

Twelve UNC institutions reported enrolling Chinese students in 2013-2014, and overall numbers of Chinese students increased to 2,697, a 13.4% increase from 2012-2013. Nationally, enrollment of Chinese students increased by 16.5% between 2012-2013 and 2013-2014.

NC State led the increase, with substantial increases in Chinese undergraduates, non-degree students and OPT's. Appalachian State, East Carolina, UNC-Chapel Hill and UNC Greensboro saw smaller increases.

Figure 3.11 Focus on UNC Indian International Students, 2013-2014, by degree program and institution

Institution	Undergraduate	Graduate	Non-Degree	OPT*	Unknown	India Total
ASU	3	2				5
ECU					27	27
FSU						
NC A&T						
NCCU		2		1		3
NCSU	51	931	13	558		1,553
UNCA						
UNC-CH	19	136	6	37		198
UNCC	6	427	1			434
UNCG	6	37	1	44		88
UNCP	1					1
UNCW					4	4
WCU		1				1
WSSU		2				2
Total	86	1,538	21	640	31	2,316

Eleven UNC institutions enrolled Indian students in 2013-2014, and there were a total of 2,316 Indian students at UNC institutions, a 43% increase from 2012-2013 (much higher than the national 6.1% increase during that period). Most of the increase is accounted for by NC State, which substantially increased its OPT population and also increased graduate school enrollment, and UNC Charlotte, which increased its graduate school enrollment by 50%, from 284 to 427, in a single year.

Recommendations:

This year's Update identifies a number of interesting trends and data related to UNC's global connections.

With limited resources, we recommend focusing on three areas:

Support campuses in developing new or expanded "global certificate" programs to enhance global learning opportunities:

Following the UNC Global Certificate conference, 14 campuses submitted plans that would result in their expanding or launching global certifications or concentrations to provide students with important global skills.

These certificates will look different on every campus, but will encourage campuses to articulate the value of global skills and competencies for their particular student population and the most effective way to equip students with that knowledge and experience.

This year we will conduct a series of sessions designed to establish a learning network among participating campuses, focused on academic offerings, co-curricular activities, and strategies to bring domestic students and international students into meaningful dialogue.

One of the side impacts of the focus on global certificates will be deeper discussion of the value and impact of study abroad. The six campuses participating in the Institute for International Education's ["Generation Study Abroad"](#) (Appalachian State, East Carolina, N.C. State, UNC Charlotte, UNC Wilmington and Western Carolina) will share their learnings through the initiative with other UNC campuses through meetings of the University Council on International Programs and other means. Additional programs such as the national ["100,000 Strong..."](#) programs in China and Latin America may provide funding to support increased study abroad.

As global certificate programs are developed, UNC General Administration should identify a lead campus to study the impact of the certificates on student success.

Explore expansion of international partnerships in research as a strategy to increase research impact

This update identified a significant number of UNC faculty engaged in international research, and there is some preliminary data suggesting that international research collaborations may increase the impact of research.

We need to discuss the value of and barriers to international research further with UNC's Chief Research Officers. Greater international collaboration by faculty is likely to lead to more students becoming interested in global research, and may lead to increased institutional collaboration among UNC and partner universities.

Support interested campuses on expanding international student recruitment and enrollment efforts

International students on campus have been shown to have a variety of impacts, on a student, institutional and statewide level.

UNC General Administration is forming a consortium of campuses that currently do not enroll as many international students as they would like to explore the benefits and costs of increased international student populations. This two-year pilot will provide participating campuses with important qualitative and quantitative data to determine the value of international student populations to each particular institution.

APPENDIX T

None of these efforts come without opportunity cost. In order for campuses to reallocate funding or increase emphasis on study abroad, international research, or student recruitment must be seen as important ways of strengthening the educational enterprise, and moving our institutions into a stronger position with our competitors, both domestic and international.

Acknowledgements



Thanks to Denise DiPuccio, former Assistant Provost for International Programs at UNC Wilmington, who, in one of her final acts before retirement, helped collect the data;

To the UNC system's international officers, for timely submission of this year's data and for all they do to connect our faculty, staff, students and institutions to the world;

To Sharlini Sankaran, executive director of REACH NC, for data about UNC faculty collaborative research efforts with international colleagues;

To Courtney Thornton and Sweta Bhakta in the UNC Office of Research and Graduate Education, for their data on internationally-sponsored research;

To Paige Marley, 2015-2016 Presidential Intern, for creating – and repeatedly recreating -- the charts;

And special thanks to Bonnie Derr, International Programs Coordinator at UNC General Administration, for compiling the data and for her deep commitment to all things international.

-Leslie Boney

October 2015

Endnotes

ⁱ <http://www.iie.org/Research-and-Publications/Open-Doors/Data/International-Students/Infographic>

ⁱⁱ <http://www.iie.org/Research-and-Publications/Open-Doors/Data/US-Study-Abroad>

ⁱⁱⁱ Among commonly cited perceived barriers to study abroad, cost perception is the one that most obviously shows change between 2011-2012 and 2012-2013. See for example this: <http://www.nafsa.org/findresources/Default.aspx?id=8374>

^{iv} The definitive report on study abroad, the annual Open Doors report, computes study abroad percentages differently, looking at what percentage of all students study abroad at some point during their undergraduate career, compared to our computation of study abroad as a percentage of all students. In the future, it would assist our benchmarking if we were to find a comparable measure. See <http://www.iie.org/Research-and-Publications/Open-Doors/Data/US-Study-Abroad/Infographic>.

^v In fact, this year for the first time, STEM majors represent the highest percentage of US students studying abroad. See <http://www.usnews.com/news/blogs/data-mine/2014/11/17/how-studying-abroad-has-changed-in-the-last-decade>.

^{vi} <http://www.theatlantic.com/education/archive/2015/03/why-black-students-dont-study-abroad/387679/>

^{vii} <http://www.iie.org/Programs/Generation-Study-Abroad>

^{viii} <https://www.timeshighereducation.com/news/us-universities-invest-185-million-study-abroad>

^{ix} For a full discussion of obstacles to study in India, see “A Portal for Progress,” our strategic plan for increased engagement with India, at http://www.northcarolina.edu/sites/default/files/unc_india_report_9-13-13_final.pdf. Note especially pp. 27-31.

^x See, for example: <https://www.calstate.edu/engage/documents/study-abroad-for-global-engagement.pdf>

^{xi} See for example: <https://www.aau.edu/WorkArea/DownloadAsset.aspx?id=15751>; http://www.nafsa.org/_/File/_/janfeb10_partnering.pdf

^{xii} See graphics and arguments cited in Global Connections, our 2014 report on international activity at UNC, here: http://www.northcarolina.edu/sites/default/files/documents/unc_global_connections_october_2014_full_report.pdf. Note especially pp. 33, 34.

^{xiii} <http://www.iie.org/Research-and-Publications/Open-Doors/Data/International-Students/By-Academic-Level-and-Place-of-Origin/2013-14>

^{xiv} Ibid.

^{xv} <http://www.iie.org/Research-and-Publications/Open-Doors/Data/International-Students/Fields-of-Study>