

10. UNC Global Engagement Report Leslie Boney

Situation: Presentation of the 2014 UNC Global Engagement Report.

Background: There has been no report to the Board on international activity since 2005. Our Time Our Future recommended investment of \$400,000 to further system efforts to increase engagement with partners in China, India, Brazil, Mexico and Africa, to recruit more international students and to build UNC's global "brand." The report looks at campus international activity, progress toward strategic plan goals and potential strategies going forward.

Assessment: North Carolina's economy has gone global, and UNC must prepare its students to compete in the global economy through global courses, study abroad, sponsored research and recruitment of international students.
Campuses vary widely in the percentage of students who study abroad and the percentage of international students enrolled.
UNC efforts to internationalize will be more effective if they are part of a larger statewide effort. UNC is positioned to lead such an effort.

Action: The item is for information and discussion.

Global *Connections*: UNC and the World



October, 2014
Office of International, Community and
Economic Engagement

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Executive summary:

Increasingly, North Carolina is in a global “coopetition,” looking for ways to cooperate and compete with the rest of the world. Our state is rising to this international challenge, contributing knowledge, services and products, and taking advantage of the best the world has to offer to shape our state’s future. The new, global economy has already changed our state in notable ways:

- **People:** Our state population is diversifying, with 750,000 foreign-born residents living here. On average these foreign-born residents are more likely to be working age and have a greater positive economic impact than native-born North Carolinians.ⁱ
- **Investment:** The amount of foreign investment coming in to North Carolina from outside the country is increasing, with programs like EB-5 and others that encourage foreign direct investment and increased knowledge of the state by international companies who see the state as a good investment. Dick Lindenmuth, CEO of the North Carolina Economic Development Partnership, notes that in 2013-2014 about 30% of the investment coming into the state came from international sources.ⁱⁱ Each day nearly 200,000 North Carolinians go to work in foreign-owned companies in the state.ⁱⁱⁱ
- **Export-Import:** North Carolina exports totaled close \$30 billion in 2013. Imports totaled about \$50 billion. Exports are increasing substantially, in part with UNC’s help.^{iv} But the world still knows more about how to sell to us than we do to them.

Every day nearly 200,000 North Carolinians go to work in a foreign-owned company.

UNC has an important role to play in getting our students ready for the global economy. It is in North Carolina’s best interest that UNC continue to teach and learn from the rest of the world, in ways that enhance its teaching, research and public service.

UNC campuses and UNC General Administration are taking a variety of approaches to increase the global connections and knowledge our students, faculty members and staff have, and to recruit top students and faculty from across the world to collaborate with us, study with us and teach us.

The Board of Governors has begun to emphasize strategic international engagement on campus as a means of better preparing students for success. The 2007 UNC Tomorrow report called for a new commitment to increasing students’ “global readiness” and called for the university to “promote increased partnerships between its own campuses and international universities and to enhance the global awareness of faculty and students.” A delegation of Board of Governors members conducted a fact-finding mission to China in 2012 and requested that the university develop new strategies to learn more about China. The 2013 UNC Strategic Plan, “Our Time, Our Future,” called upon UNC to establish “beachheads in key areas, deepening student, faculty, staff and institutional connections to innovators and colleagues in China, India, Brazil, Mexico and Africa,”^v to “bring into UNC international students from these and other countries,” and to work to “enhance the global ‘brand’ of North Carolina and UNC.”^{vi} To date no new funding has been appropriated to support this effort.

From Our Time Our Future 2013:
UNC should:

- Deepen connections to innovators and colleagues in China, India, Brazil, Mexico and Africa.
- Bring more international students to UNC
- Enhance UNC’s global ‘brand’

Recommended investment: \$400,000 recurring

This report, our first on international efforts in a decade, provides an update on progress on these priorities.

To determine where UNC campuses are in addressing issues related to international engagement, UNC General Administration conducted a survey of campuses in May, 2014, with a less-extensive followup in September 2014. The information gathered through those surveys and through analysis of other data sources for academic year 2012-2013 falls into three broad categories of activity:

64% of UNC language students take Spanish.
About 2% take Chinese.

1. **Connecting UNC students to the world:** last year students at UNC took more than 65,000 language classes in 25 foreign languages, with 90% studying the languages of Western Europe. UNC has formed course-sharing consortia to increase opportunities for students interested in studying other world languages. The most popular of these “other” languages is Chinese.

Beyond language courses, many students learn about international culture and perspectives in courses ranging from anthropology to economics to history to art. There is opportunity for sharing of the best of these courses on multiple campuses using technology.

**UNC Study Abroad
Destinations:**

Western Europe: 44.5%

China, India, Brazil,
Mexico, Africa:
11%

There appears to be a connection between the languages people study and the places they choose to study abroad. In 2012-2013, more than 6000 students from 14 UNC campuses studied abroad, with about four times as many studying in Western Europe as in all of the focus geographies. Study abroad in China is increasing, but about four times as many UNC students study in Western Europe as in all of the focus geographies.

Campuses are beginning to outline certificates, minors and other measures designed to assess students for their “global competence.” Defining what a UNC student should know and be able to do in order to succeed in the world should be a key focus of UNC.

2. **Connecting faculty and institutions to global partners:** On paper, UNC campuses are connected -- through faculty, students or formal agreements -- to nearly 1000 partners across the world. In practice, they identify 43 particularly important partners in 21 countries(see Appendix C)– universities, nongovernmental organizations, businesses and government agencies – with whom they work most actively. These partnerships form the basis of a range of collaborations, ranging from student and faculty exchange to joint research projects, joint degree programs, and joint classes.

UNC faculty are the key to expanding student and institutional engagement with international partners, but they need institutional support in focusing and developing their efforts. There is much potential. REACH NC identifies nearly 5000 academic “collaborations” between UNC faculty and Chinese, South Korean and Indian colleagues. UNC faculty are involved in about 400 international research projects each year, totaling about \$19 million in annual support, a tiny percentage of the overall research budget, in part due to the challenges of getting approval for this research.

On campuses with less funding to support international travel, UNC is encouraging approaches that lead to efficiencies. The UNC Exchange Program, a system-level initiative,

"What nations don't know can hurt them. The stakes involved in study abroad are that simple, that straightforward and that important. For their own future and that of the nation, college graduates today must be internationally competent." From the final report of the Bush Administration's "Lincoln Commission," November 2005

maintains partnerships with international universities and systems that enable all campuses to do more affordable student exchange in multiple countries. And a growing number of faculty and students are taking part in joint virtual classes, building off of an ECU model, in which faculty will share teaching with international colleagues in China and India, and students will use electronic means to work collaboratively with students in those countries on class projects. New system level relationships with the educational system in Beijing and the state government of the Indian state of Kerala may help individual campuses find new partners.

International relationships or collaborations, whether they are formed "top down," "bottom up" or "middle out," increase the opportunity for faculty to conduct cutting edge scholarship and research, and provide UNC students a chance to graduate with deeper knowledge of the world.

- 3. Connecting global students to UNC:** Since most native-born domestic students at UNC don't study abroad, the least expensive way to provide them with experiences working with people from other cultures is to recruit more international students.

More than 9000 international students attended UNC during 2012-2013. While there, these students make important contributions to our classrooms, labs and dorm rooms, providing important insights and experience to our native North Carolina students. They spend money in the state – \$173 million in 2012. Once they graduate, many international students stay, doing work in key industries here and creating new companies at twice the rate of natives. Others return to their home country after graduation with connections to North Carolina to draw on as they begin their careers.

Origins of international students at UNC:

| | |
|-----------------|-----|
| China: | 30% |
| India: | 22% |
| South Korea: | 6% |
| Saudi Arabia: | 4% |
| Iran: | 3% |
| United Kingdom: | 2% |

More than half of the international students at UNC come from China and India. There is strong representation from South Korea, Saudi Arabia (mostly undergraduates), Iran (mostly graduate students) and the United Kingdom (mostly undergraduates). The rest of the world sends one third of our international students.

Overall international students make up about 1.1% of undergraduates, with no school having more than 2.4% international undergraduates. International graduate students make up 10% of all grad students: NC State, UNC Charlotte and UNC Chapel Hill are the only schools with more than 10% international graduate students. One recent analysis of 26 states' higher education (public and private) internationalization activities found that North Carolina ranked 19 of 26 in the percentage of international students enrolled.^{vii}

As the number of international students seeking to study in the US or other countries continues to increase, admissions officers throughout the country are looking to increase international enrollment, but so far at UNC only nine campuses have more than 100 international students: NC State, UNC-Chapel Hill and UNC Charlotte each have more than

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1000, a total of 77% of all international students at UNC. UNC Greensboro, East Carolina, UNC Wilmington, NCA&T State, Appalachian State and Western Carolina each have more than 100. UNC has launched a statewide shared portal, [StudyNorthCarolina](#), that attempts to market all participating universities in the state to talented potential international students.^{viii} Going forward, campuses with low

international profiles will need to find a way to efficiently raise their profile in targeted geographies and will need to invest in additional student support services to ensure these students get the full benefit of their experience at UNC.

As UNC looks for opportunities to get more globally connected, particularly in priority geographies, it has some capacity to act. Most of the capacity for international work is on a campus level, where faculty provide students with data and knowledge about the world, administrators and admissions departments encourage native North Carolinians to study abroad and take on more global studies, and encourage international students to attend and fully integrate themselves into the UNC student body.

On a system level, two central office staff and two affiliated entities focus on international programs. The [Center for International Understanding](#) has led study groups made up of North Carolina business and legislative leaders to key strategic countries for the past 35 years, and its new strategic plan calls on the agency to build on those efforts, bringing together globally-focused entities across the state to find common ground, improved communication and shared opportunities. The [UNC Exchange Program](#) is a shared service which has systemwide relationships with universities and governmental organizations around the world, facilitating student exchange and internships.

There are a host of other activities UNC entities are involved in, on and off campus, including:

- hosting classes, student research projects and customized training for businesses on how to increase exports through SBTDC and campus efforts^{ix} (see, for example, Appendix A);
- supporting spinout of research by immigrant inventors, founders or cofounders;
- gathering data about the impact of North Carolina's global connections on a county-by-county level through the Center for International Understanding's [Heat Map](#) (see Appendix B);
- welcoming and providing programs to delegations of [international educational or business leaders](#);
- [hosting international companies](#) on [millennial campuses](#); and
- bringing Chinese language programs to the community through NC State's [Confucius Institute](#) and finding [Chinese language teachers](#) for the NC K-12 school systems through the Center for International Understanding's Confucius Classrooms program.

When it comes to implementing strategic plans for increasing collective efforts in China (2013) and India (2013), however, there is limited capacity to move forward without the funding proposed in the strategic plan, and future development and implementation of strategies in Brazil (planned for 2015), Mexico (2017) and Africa (2018) will either have to be delayed or scaled down.

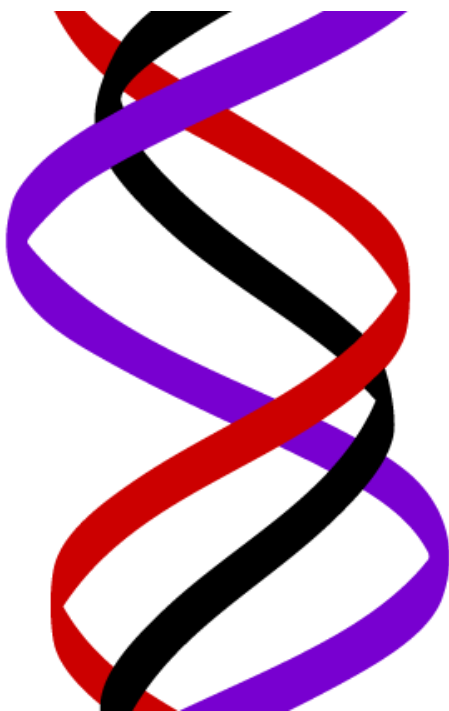
A survey of campuses in September 2014 found that they were eager to send more students out for study abroad, focus more intently on strategic international partners and recruit more international students to UNC. Their ability to do this, though, as well as carry out the call in "Our Time, Our Future," to "build the global brand" of UNC and the state, will be limited without strategic investment.

A call to coalition:

The reality is that UNC's efforts to internationalize further will likely fail unless they are seen as part of a larger state commitment to join and succeed in the "coopetition" for success in the global economy. Campuses across the country and across the world are competing for the best and brightest students in the world and to get their native-born students ready to compete in the global economy. States across the US are competing for international business investment and partnerships and new export markets; 23 states have adopted resolutions since 2001

supporting increased internationalization of higher education.* But there is an opportunity for North Carolina. UNC General Administration conducted a study in the summer of 2014 to determine which states had developed systematic strategic plans for internationalization. There were none.

That means the opportunity is open for North Carolina to be the first, building off of our history of bringing together business, government and education in a "triple helix" of collaboration.



Voices in North Carolina in the education, manufacturing, services, high tech, agriculture and nonprofit sectors are beginning to coalesce around the creation of a first-of-its-kind statewide strategy to position North Carolina more firmly as a leader in internationalization. There is no other state bringing these voices together. UNC can help us be the first.

Voices here in the education, manufacturing, services, high tech, agriculture and nonprofit sectors are beginning to coalesce to look for ways each can take advantage of the global "coopetition" – ways we can compete for our share of the global market of sales, investment and students and our share of the benefits of collaborating with partners across the world.

Each of these North Carolina sectors has slightly different motivations for embracing the market: in business, global markets, talent and sourcing offer a potential competitive edge; for politicians, closer ties to global investors mean jobs; for educators, global engagement helps get students from North Carolina better prepared to succeed, increases research opportunities and offers new opportunities to work with the best and the brightest.

The differences are clear, but so are the benefits of working together.

UNC, working closely with partners, can and should begin the work of building this coalition, to or risk falling behind. The Center for International Understanding has begun the challenging work of convening these groups to look for common ground for collective effort. Finding that common ground from among these groups will be time-consuming, and there is no guarantee of success. But the opportunity is great and the time is now.

Introduction: Why Engage Globally?

North Carolina and Global Engagement

In the past decade North Carolina has stopped wondering whether we should engage with the rest of the world and moved toward answering the question of how. Our economy is no longer state or regional; it's gone global. The products and services we create in North Carolina may be sent to Charlotte or Singapore; the things we wear and drive and eat and learn on could originate in Enfield or India, and might include components or ideas developed in Sao Paulo or St. Paul. The people we work with, compete with or sell to could live anywhere; the companies we work for and with could have their headquarters anywhere.

With 95% of the world's population living outside of the US, and with population, prosperity and connectivity increasing in parts of every continent, more geographies than ever are a visible or invisible part of our daily life. We ignore the opportunity to work with, sell to and learn from the rest of the world at our own peril.

Since 2010, 57% of foreign-born people moving to the state have "some college or more"

Across North Carolina, counties, companies and people are increasingly globally connected:

- More than 4000 internationally-based companies are doing business in the state's 100 counties, employing nearly 200,000 people in the state.
- About 9000 North Carolina companies are doing business overseas, exporting \$29.3 billion in goods and services.
- According to a [2006 study](#), 18.7% of new companies founded in the Research Triangle Park had at least one immigrant cofounder. A [recent national study](#) determined that immigrants start new businesses at twice the rate of native-born citizens.
- A [study by UNC-Chapel Hill and the NC Banker's Association](#) finds that roughly 750,000 immigrants live in North Carolina, up from just 22,000 in 1960, and up 55% since 2000. The state's immigrants spend roughly \$20 billion dollars into the economy annually, creating a ripple effect of 171,000 jobs. Increasingly, these immigrants are highly educated. Since 2010, the percentage of immigrants with "some college or more" education has increased, to about 57%.

Much of the international activity in our state takes place in the state's major metropolitan areas. International businesses and immigrants, in many cases, are voting with their feet to locate in the state's urban areas.

- [Lenovo](#), the world's largest computer company, began in China. Its international headquarters are now co-located in Beijing and in Research Triangle Park. It's one of 58 international companies across the state with U.S. headquarters in North Carolina. India-based [HCL](#), an IT company with headquarters in India and offices in 26 countries, announced in September 2014 that it will be adding 1237 jobs to the 831 it already has in its Cary offices for a new "global development center."^{xi}
- In the Charlotte region, companies exported a record \$6.3 billion in goods and services in 2013. Overall two-thirds of the state's exports came from metro areas.
- According to the UNC-Chapel Hill/NCBA study, 9.4% of people in the urban areas of North Carolina are foreign-born, compared to 4.3% in rural areas.

But the rest of the world has an impact on every part of the state. The UNC Center for International Understanding, with the help of SAS, developed a new tool in 2012 to keep track of every North Carolina counties' connections to the rest of the world. A few facts from this [global "heat map"](#)

illustrate how global connectivity is increasing throughout our state (for more information on the heat map, see Appendix B):

- In Duplin County, the Latino population makes up 21% of the population, and plays a key role in the success of the pork and poultry industries there. More than 3000 Latino children, nearly one third of the students) are currently in Duplin County schools and will become a critical part of the future workforce.
- In Scotland County, which generally has the state's highest unemployment rate, 16 work sites owned by foreign companies employ nearly 1200 people, or about 10% of the county's total workforce.^{xiii} FCC, a division of Honda, and Pilkington North America, Inc. are two of the biggest employers, providing jobs for 860 people.
- Sixteen companies in Carteret County export nearly \$900 million in products a year.

NC Economic Development Board Jobs Plan:

- Expand export assistance
- Aggressively attract foreign direct investment
- Establish North Carolina as the destination for creative talent
- Leverage global corporate and educational connections to attract and grow jobs

North Carolina is already benefiting from its connections

to the rest of the world. But leaders are looking for more. Gov. McCrory's Economic Development Board's "Jobs Plan," released in December 2013,^{xiii} includes recommendations to "expand export assistance," "aggressively attract foreign direct investment," "establish North Carolina as the destination for creative talent" and leverage the state "global corporate and educational connections to attract and grow jobs."^{xiv}

"I believe that selling to 100 percent of the world market is better than selling to 5 percent of it."
Steve Troxler, NC Commissioner of Agriculture

The state's agricultural fortunes are becoming more closely tied to the rest of the world. Last year, the state exported more than \$3.9 billion in agricultural products^{xv} to other countries, an increase of 21.9% since 2008. For NC Agriculture Commissioner Steve Troxler, moving more aggressively into the export market makes perfect logical sense: "I believe that selling to 100 percent of the world market is better than selling to 5 percent of it," he says. "The best way to raise prices paid to North Carolina farmers at the farm gate is to make sure they have access to the world market. That is why I make international trade a priority."^{xvi} The NC Department of Agriculture reports that agricultural exports support an estimated 68,000 North Carolina jobs.^{xvii} And international agricultural relationships go both ways. As one example: last year the Chinese company Shuanghui announced plans to invest \$4.7 billion in North Carolina's Smithfield Foods, a hog production company.^{xviii}

The General Assembly has renamed its Economic Development Oversight Committee the "Economic Development and Global Engagement Oversight Committee." In the past three years, UNC's Center for International Understanding (a program of UNC General Administration) has led "Global Leaders" delegations of legislators and business leaders on a total of four fact-finding missions: two to China, to study China's strategies for developing new biotechnology and medical devices; one to India, to study the country's approach to innovation and entrepreneurship; and one to Germany, to study advanced

"A recent trip to China along with my experience as a small business owner tells me that, as a state, we cannot become complacent and take for granted our place in the global economy....I invite all businesses to consider our state before making a decision on where they want to relocate, expand or export their products."
Harry Brown, NC Senate Majority Leader

manufacturing and apprenticeships. The delegations come back with new perspective on the importance of international trade and engagement. Returning delegate and NC House member Donny Lambeth puts it bluntly: “If jobs are the highest priority for our state, what better way to bring them here than by connecting our products to the needs of the rest of the world?”^{xix} NC Senate Majority Leader Harry Brown notes that international companies employ about 6% of the state’s workforce, and that the state must be proactive in shaping its global future: “A recent trip to China along with my experience as a small business owner tells me that, as a state, we cannot become complacent and take for granted our place in the global economy....I invite all businesses to consider our state before making a decision on where they want to relocate, expand or export their products.”^{xx}

In 2011, the State Board of Education formed a Task Force on Global Education. Chair Bill Cobey wrote in a report last year on the task force recommendations: “Our global relationships will become deeper and more extensive over the next few decades...It would be naïve to fall into the trap of believing that North Carolina can be harbored from globalization and still prosper in the coming decades.”^{xxi} In October 2014, the Board voted to create a “Global Educator Badge” program beginning in January 2015, ^{xxii}to encourage teachers to proactively complete 100 hours of continuing “global education” courses and, more importantly, to apply those lessons in the classroom.^{xxiii}

“72% of employers surveyed say they want universities to put more emphasis on global issues and developments.”
From the final report of the Bush administration’s “Lincoln Commission,” 2005

North Carolina community colleges are beginning to get more closely connected to international students, partners and markets. A delegation of community college leaders recently accompanied universities, workforce development officials and business leaders on a program to Germany sponsored by the Center for International Understanding and the Institute for Emerging Issues to study apprenticeship strategies. Some campuses are actively recruiting international students. Others are working with UNC-Chapel Hill’s World View to integrate global lessons into classroom teaching, and some have formed a “[Global Learners Consortium](#)” designed to help share information about international activities and strategies.

There is still some ambivalence about full engagement with the world. The NCDA’s Peter Thornton, assistant director of international marketing, who has been working with NC agribusinesses for a decade on exporting products, says that convincing everyone of the value of greater global engagement would likely require “about 9.5 million separate conversations.” Still, there is growing momentum among state leadership to increase efforts. Momentum is growing at UNC as well.

UNC and Global Engagement:

The argument for UNC to increase focus on international engagement has three elements.

- To educate the top students in North Carolina, UNC needs to help them understand how to work with and learn from the rest of the world, whether by studying about the world, learning overseas, or being exposed to international faculty or students.
- To solve the greatest challenges of our future, UNC should recognize that they are increasingly global challenges: where food will come from; how we will sustain our water tables; how we can keep air clean; how we can get the energy we need to be successful; what the jobs of the future look like. Answers to problems like security, immigration, chronic disease and many other issues are global, not local. To solve them, our faculty, staff and students need to be connected to the best thinkers, regardless of where they live.

- To strengthen the state's future economy, UNC needs to recruit some of the best and the brightest students and faculty from around the world. International students and faculty don't just spend money in the state, they bring new perspective to the classroom. They create new products. Students who decide to stay following graduation create companies at twice the rate of native North Carolinians; those who return to their native countries have an increased interest in doing business and collaborating with people from the state.

The UNC Board of Governors has challenged UNC General Administration and each of our campuses to persistently look for how we can best "serve the people of North Carolina." Connecting to the rest of the world is a key part of that effort.

- In the UNC Tomorrow report of 2007, the Board challenged UNC to "enhance the global competitiveness of its institutions and their graduates. Among the approaches suggested were "increased partnerships between its own campuses and international universities," international research and study by faculty and "more opportunities for students to work, study and experience different cultures overseas," setting goals for international experiences, increased use of technology to virtual international experiences, increased foreign language proficiency and scaling existing UNC programs "that focus on global awareness and global education."
- In 2011, President Tom Ross added a new vice president-level focus at UNC General Administration, to identify cost-effective strategies to send more faculty and students abroad, connect campuses more deeply to international partners and recruit more top international students and scholars to UNC.
- In 2012, President Tom Ross and Vice President Leslie Boney led a delegation of Board of Governors members on a fact-finding trip to China, including current members Lou Bissette, Hannah Gage, Leroy Lail, Anne Maxwell and Dick Taylor, as well as then-board members Paul Fulton, Bill Daughtridge and Atul Bhula. The group returned with a renewed sense of the value of increased international engagement. As Gage noted: "to ignore the opportunity that exists for our students would be a failure to recognize a changing world."
- In the strategic plan approved January 2013, "Our Time, Our Future," the board endorsed a "five geography" strategy developed by campuses, highlighting countries identified as particularly important to the state's – and our students' -- future: China, the world's largest nation, second-largest economy and number one source of international students; India, the world's largest democracy and second-largest source of international students; Brazil, the largest nation in South America and a priority North Carolina partner; Mexico, the largest source of immigrants to North Carolina and our state's number two trading partner; and Africa, a continent of one billion people and an increasing geostrategic partner. The plan called for \$400,000 in recurring funding to permit implementation of strategies in those geographies, as well as stepping up efforts to "bring into UNC international students from these and other countries and working "to enhance the global 'brand' of North Carolina and UNC."^{xxiv} Since the release of "Our Time Our Future," the system has developed plans for strategic engagement with [China](#) and [India](#), with a summit on Brazil scheduled for January 2015, using some strategic funds to support development activity. There has been no new funding for implementation.
- Two systemwide summits focused on India explored possibilities for expansion of collaboration between UNC and Indian counterparts. Board of Governors member Hari Nath described the potential as "pregnant for partnership – through student and faculty exchange, research and collaboration."^{xxv}

The challenge is great. As UNC President Tom Ross notes: "The world's challenges and its opportunities are becoming more important to the future of North Carolina every day. We benefit from international trade, markets, investment and engage with international students and faculty. We learn from international thinkers and policy makers, even as our state and nation wrestle with

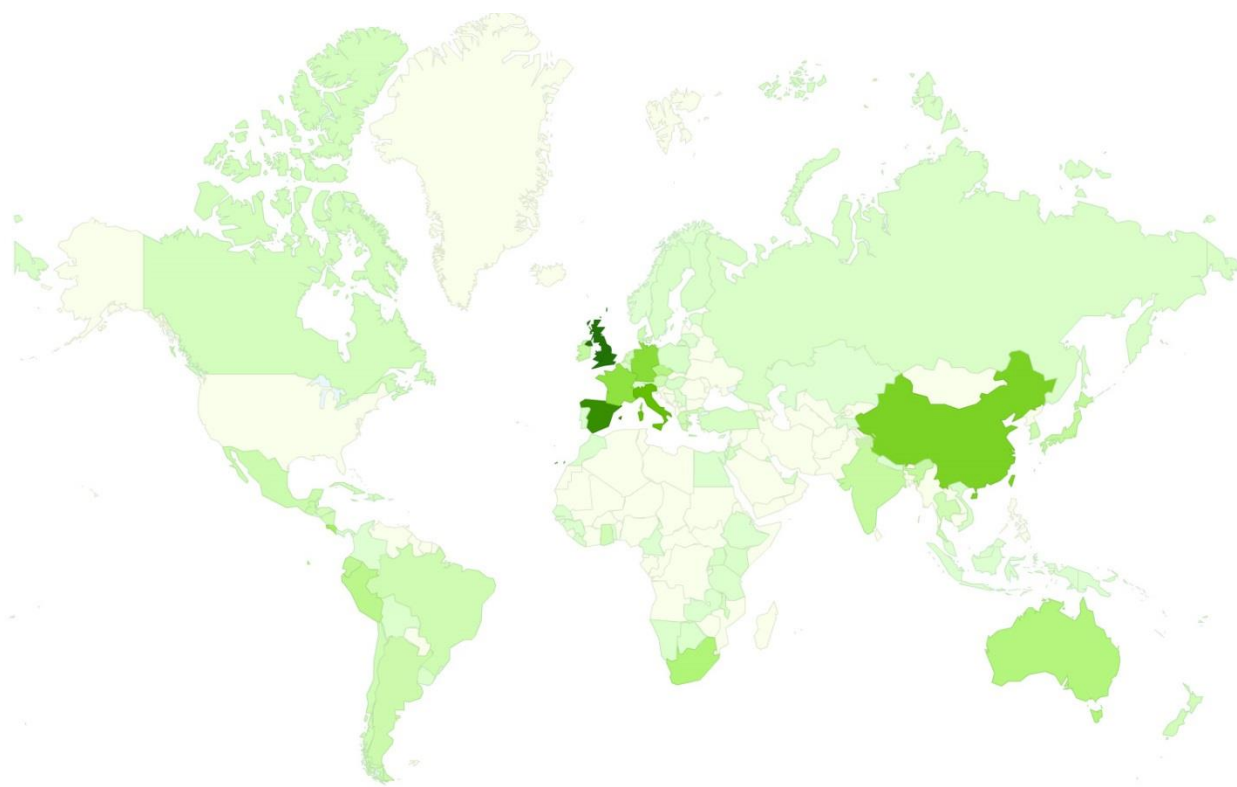
immigration, safety and security issues. We're inspired by art, music and culture. In my view, we ignore the rest of the world to our detriment and at our peril, and if we are to do our job as educators successfully, we must constantly look for ways to connect our University to the world."

Two questions face UNC as we try to connect the university to the world: how do we join with global partners in ways that are both meaningful and affordable, and how do we combine those efforts with other North Carolina allies to make them most meaningful?

"The world's challenges and its opportunities are becoming more important to the future of North Carolina every day. We benefit from international trade, markets, investment and engage with international students and faculty. We learn from international thinkers and policy makers, even as our state and nation wrestle with immigration, safety and security issues. We're inspired by art, music and culture. In my view, we ignore the rest of the world to our detriment and at our peril, and if we are to do our job as educators successfully, we must constantly look for ways to connect our University to the world."

UNC President Tom Ross

UNC and International Engagement



Above: "Heat map" depicts where UNC students are most likely to study abroad

At its core, UNC is about the job of creating and disseminating knowledge.

As the world grows closer, our mission of teaching, research and public service becomes a global exercise. We learn from and teach bright, creative minds from around the world about science, technology, engineering, math, history, economics, art and culture. We discuss and write and invent new papers, products, processes and ways of seeing the world with the smartest people in the world, regardless of where they live. We serve our community and our state by learning from others about diseases and disasters and decisions we already face and ones we may face in the future.

In this report we will look at three facets of UNC's global engagement: 1) how UNC students are getting connected to global knowledge and perspectives; 2) how UNC's institutions and faculty members are getting connected to global partners; and 3) how we are connecting the rest of the world to UNC.

Chapter 1: Connecting students to global opportunities and knowledge

“Success in today’s economy depends on a deep and meaningful understanding of the global marketplace.”

Randy Woodson, Chancellor, NCSU

“International experience sets students apart when they begin searching for work after graduation and benefits them in other academic, cultural, social and personal ways.” Bob Miles, Associate Dean for Study Abroad and International Exchanges, College of Arts and Sciences, UNC-Chapel Hill

UNC has an obligation to prepare students to succeed in the world they will graduate into. Campuses are looking for creative ways to efficiently meet student demand for knowledge of global languages, culture, history and economics. Interested students gain deeper knowledge of global skills through short and long-term study abroad.

UNC campuses are joining others across the nation in trying to determine how to get students more “globally ready.” A July 2012 report from the Center for Internationalization and Global Engagement of the American Council on Education shows that high percentages of US universities are putting more emphasis on expanding the “pipeline” of students interested in international study: 93% of doctoral institutions, 84% of master’s institutions and 78% of baccalaureate institutions report accelerating activities between 2008 and 2011, with changes in behavior ranging from incorporating international principles into the curriculum to increasing the number of international courses in the curriculum to increasing emphasis on study abroad generally.^{xxvi}

Courses in Language

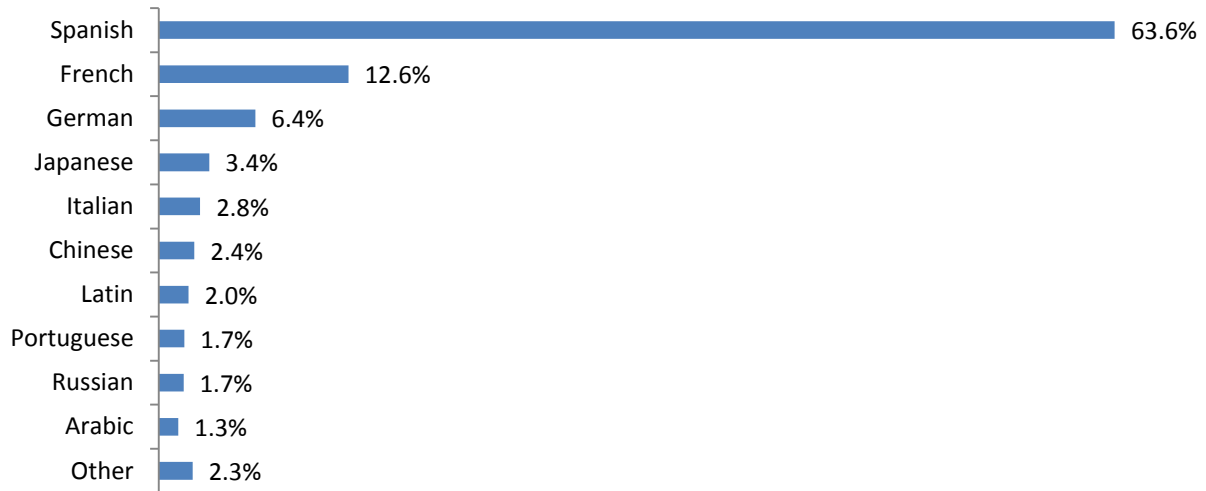
One way students learn more about other cultures and develop different ways of thinking is through language study. Language study can lead to further study of the history, economics, policy, and culture of other countries, both in person and in the classroom.

There is some evidence that knowledge of a foreign language can be a strategic advantage for students. Knowledge of a foreign language has been shown to improve young people’s executive function and reduce older people’s dementia.^{xxvii} More recently it has been positively correlated with increased earnings. Albert Saiz, an economist from MIT, recently calculated that there is a 2% annual earnings bump for those who learn at least one foreign language.^{xxviii} Some of the perceived value may come in an employee’s enhanced ability to communicate with international clients, a deeper understanding of culture and markets, or a broader perspective.

Foreign languages have faced a rough road in universities over the past decade, with some questioning the value of learning a second or third language in a world where English is widely spoken. Between 2001 and 2011, the percentage of campuses nationally requiring any foreign language study decreased from 71% to 65%.^{xxix} Financial issues have caused further challenges; campuses looking for efficiencies are sharing faculty and courses in lower-enrollment courses.

Knowledge of a language appears to be an important part of students’ efforts to more deeply understand other countries, economies and cultures. The UNC Language Assembly, a consortium of language faculty from across the system, highlights in its mission statement the link between knowledge of language and effectiveness of work in a foreign setting: “Businesses outsource language skills to third parties in foreign countries, but they cannot outsource the basic cultural knowledge to succeed in those markets.” At UNC during the 2012-2013 year, there were a total of 65,041 enrollments in 25 different foreign languages.

UNC Language Enrollment, 2012-2013



Spanish is an important language as the state's Latino population grows and it has the highest number of enrollments on every campus (see Appendix C) with the exception of UNC School of the Arts, and nearly two-thirds of all language enrollments, followed by French (12.6%), German (6.4%), Japanese (3.4%) and Italian (2.8%).

About 2.4% of enrollments were in Chinese, with classes available at 10 campuses; another 1.7% of students were enrolled in Portuguese (the language of Brazil) on 9 campuses; and 0.5% were enrolled in Hindi-Urdu (two important Indian languages).

Courses in Economics, History and Culture

Students learn more about the world not just through language study, but through a variety of courses, including courses ranging from economics to history to anthropology, from scientific research to dance, art and music.

Over the past few years, new courses have been created that both respond to and drive interest in key geographies. These show great promise, and can help drive interest in countries of particular interest to UNC. For example, our 2013 [report on India](#) identified seven UNC campuses that teach courses about Indian history or economics, with 30 being taught at Appalachian State, East Carolina, NC State, UNC Asheville, UNC Charlotte, UNC Wilmington and Winston-Salem State. Another 43 are taught at UNC-Chapel Hill.^{xxx} Our 2012 [report on China](#) found 62 courses taught about China or Taiwan at UNC.^{xxxi} A key resource in this work is UNC-Chapel Hill, which gets regular support from the US Departments of Education for centers of expertise, called National Resource Centers, most recently receiving \$1.1 million to support development of learning focused on Western Europe, Africa, East Asia, the Middle East, and, broadly, international studies, for universities, community colleges and K-12 classes.^{xxxii}

UNC's critical role in preparing North Carolina's classroom teachers can further spark interest among North Carolina students in learning about foreign cultures. UNC schools of education, led by N.C. State, are working on a project called "Internationalizing Higher Education," which seeks to better prepare future K-12 teachers to be "global" with their students. Through a grant from the Longview

“Not only has my personal understanding of the world outside America grown, but so has my network of like-minded and ambitious young professionals. Studying abroad has been one of the most educational and inspiring experiences of my life....My understanding of Chinese society has been particularly influenced and has subsequently changed my opinions about China’s role in the international community.” McKenzie Linen, UNC student, who spent the summer of 2014 studying at Fudan University, UNC’s China partner.

Foundation, education schools will be doing research on the impact of student teaching abroad on performance in the classroom.

The Center for International Understanding, a program of UNC General Administration, has led delegations of teachers and principals to China, India and Germany over the past three years, and has taken 750 teachers to 13 different countries through its Global Teachers program, encouraging educators to integrate global learning modules into their existing course content to supplement learning. World View, a program started by UNC-Chapel Hill in 2001, works hands-on each year with 3500 K-12 educators to develop international modules for the classroom.

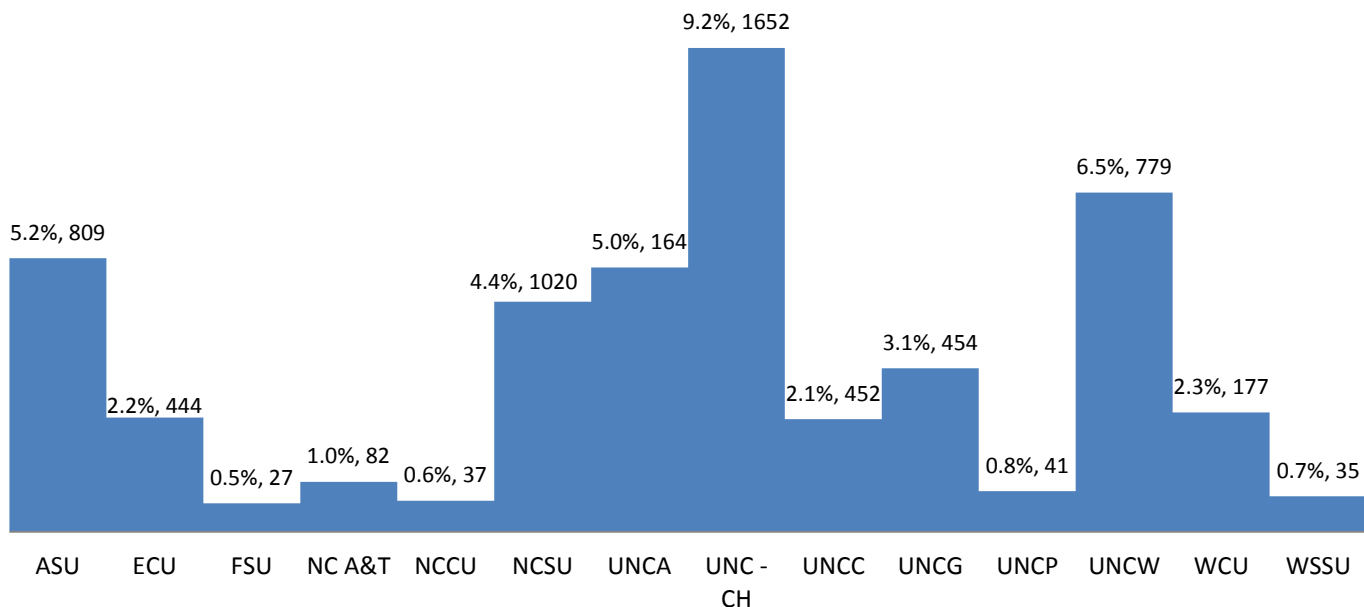
Study abroad numbers

The Institute for International Education has set a goal of doubling the number of US students studying abroad by 2020, and is forming a consortium of US universities, “Generation Study Abroad,” including NC State, UNC Wilmington and Western Carolina, that are setting individual campus-level goals. Separately the federal government has set a goal of one million American students studying abroad by 2016.

The statistics for this activity don’t capture all of the ways students gain experience in foreign countries. In recent years the options for students have expanded dramatically, to include research projects, internships, service learning, engagement projects, and other activities and the trend is toward shorter, not longer, study abroad experiences – more than half of students studying abroad do short-term (eight weeks or less) study.^{xxxiii} Still some studies show that only about 5% of students who would like to study abroad end up doing so.^{xxxiv}

In 2012-2013, 6173 students from 14 UNC campuses studied abroad. Dividing that number by the total number in the student body, ^{xxxv} we find that those percentages range from more than 4% on

Number and % of UNC Study Abroad, 2012-2013



five campuses, UNC-Chapel Hill, UNC Wilmington, Appalachian State, UNC Asheville and NC State), to seven campuses (NCA&T, UNC Pembroke, Winston-Salem State, NC Central and Fayetteville State, Elizabeth City State and UNC School of the Arts with 1% or fewer students studying abroad.

The number of students studying abroad at any given institution depends not just on availability of gateway language, history and economics courses taught on campus. Other factors could include family income levels, scholarship aid available to support study, student perception of whether they will be able to stay on track to graduate during their study abroad and others.

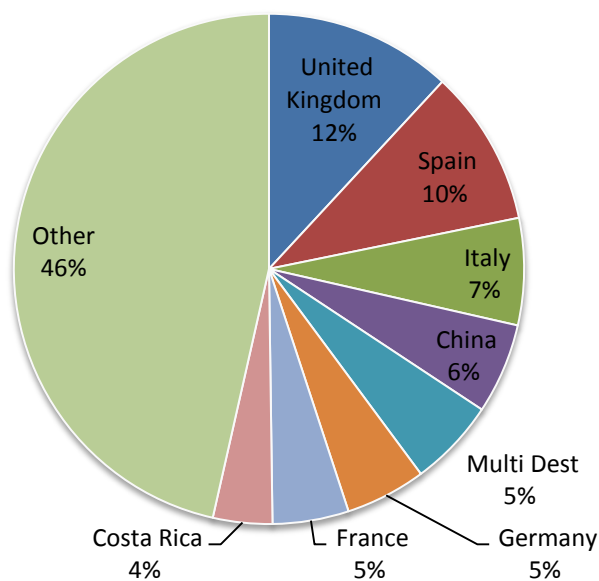
Nationally, the annual “Open Doors” study^{xxxvi} by the Institute for International Education finds that study abroad by U.S. students remains primarily focused on Europe, with 53.3% of students studying there.

At UNC the numbers are slightly lower, with 44.5% of students studying in Western European countries,^{xxxvii} the majority of those in the United Kingdom, Spain, Italy, Germany and France, and a number of students traveling to multiple destinations.

Among the strategic plan focus geographies, China has shown strong growth, with the percentage of students studying there increasing from 3.6% to about 6% in the past two years. But the percentage of students in the other “strategic plan” countries is significantly lower: India (1.7%), Mexico (1.2%); Brazil (1.1%), and, in all the countries of Africa (2.7%).

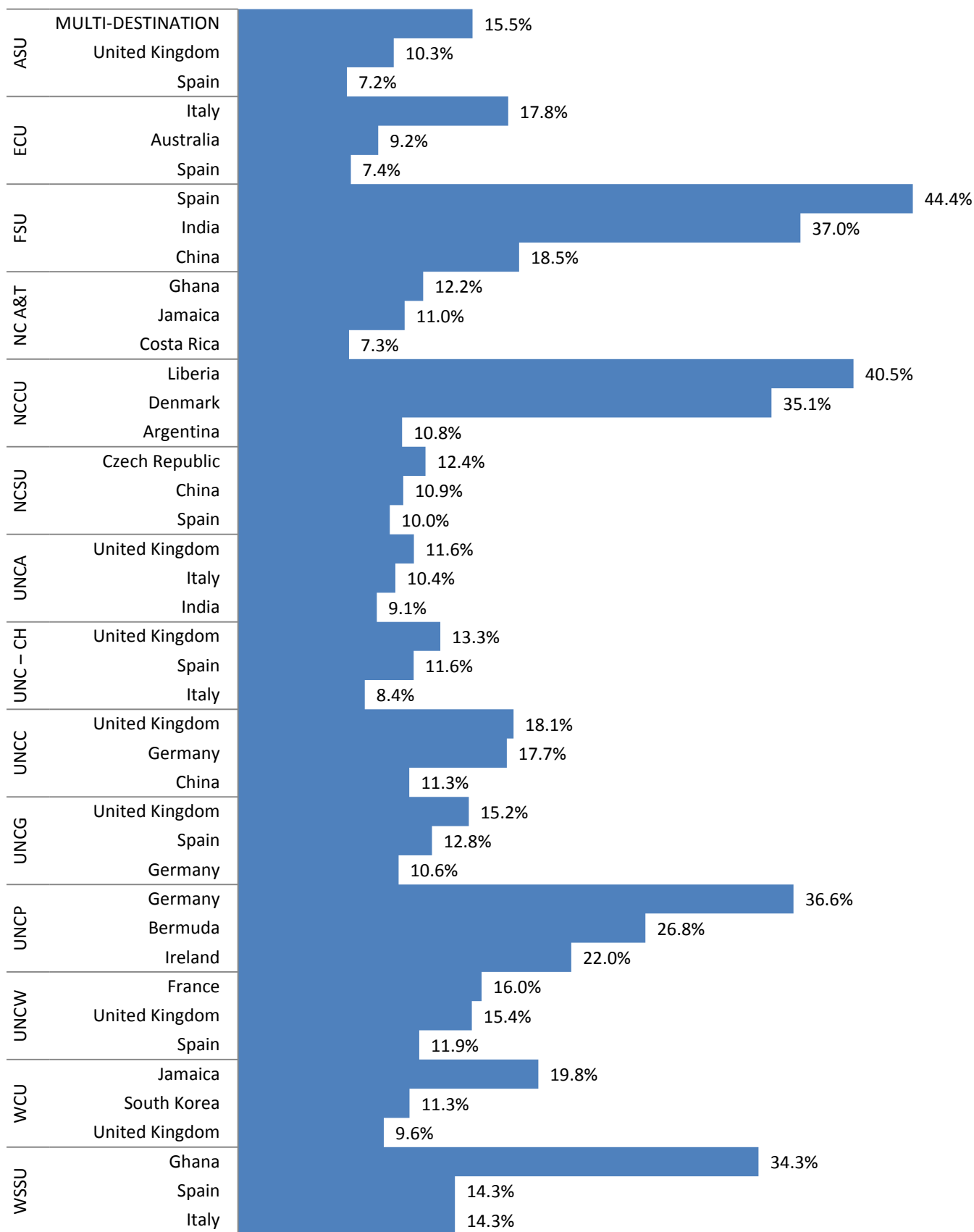
“When I led the Psychology study abroad program to Kingston a couple of summers ago, I was surprised that several of our students had never left NC and one had never been on a plane. I can say that the experience without doubt changed them, really expanding their perspectives and views. Several decided to go abroad again and several decided to pursue further education. The widening of their ‘horizons’ directly produced many positive developmental changes in these students.”
Fary Cahelin, Professor and Department Chair, Psychology, UNC Charlotte

Where UNC Students Study Abroad 2012-2013



Top UNC Study Abroad Destinations by Institution

2012-2013



The top destination countries vary by campus (see table previous page). At UNC Asheville, UNC-Chapel Hill, UNC Charlotte and UNC Greensboro, the United Kingdom is the top study abroad destination. Spain ranks in the top three on eight campuses; China on three campuses; India on two campuses. Brazil and Mexico don't fall in the top three on any campuses

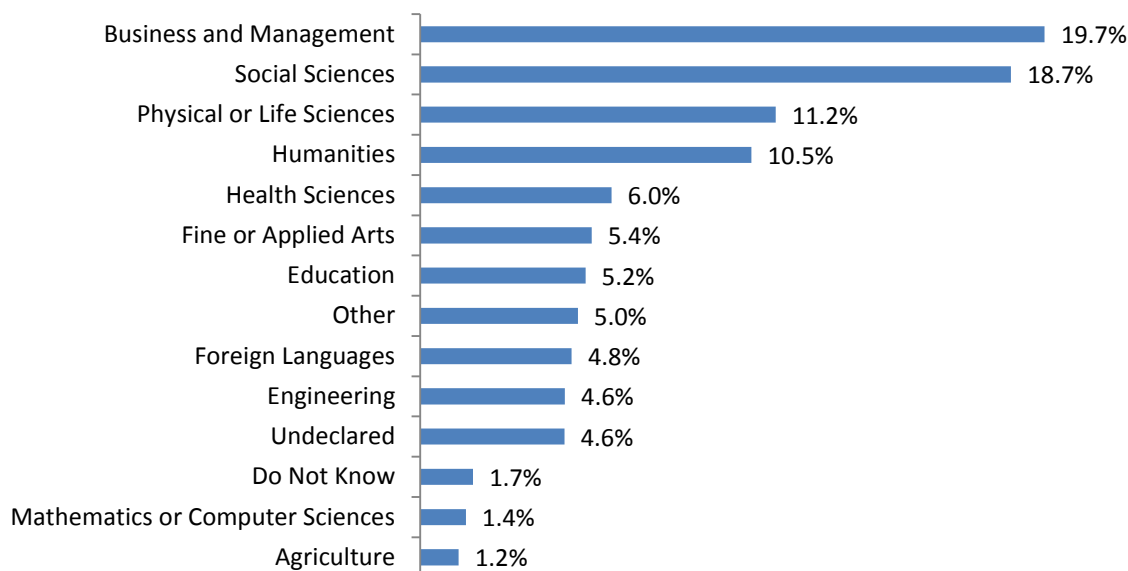
Some campuses send a greater percentage of students to China, India, Brazil, Mexico or Africa than others. Fayetteville State puts particular emphasis on study in India and China, for example, and more than half of their study abroad students go to one of those two countries. Appalachian State has by far the highest numbers of students studying in Mexico and Brazil. NC Central (Liberia), NCA&T and Winston-Salem State (both Ghana) have an African country as their top destination.

UNC Study Abroad in Focus Geographies 2012-2013

| | # Abr. | # in Brazil | % in Brazil | # in India | % in India | # in Mex | % in Mex | # in Chin | % in China | # in Africa | % in Af |
|-------------|--------|----------------|----------------|---------------|---------------|-------------|-------------|--------------|---------------|----------------|------------|
| ASU | 809 | 27 | 3.3% | 3 | 0.4% | 36 | 4.4% | 50 | 6.2% | 23 | 2.8% |
| ECU | 444 | | 0.0% | 17 | 3.8% | 1 | 0.2% | 7 | 1.6% | 6 | 1.4% |
| FSU | 27 | | 0.0% | 10 | 37.0% | | 0.0% | 5 | 18.5% | | 0.0% |
| NC A&T | 82 | 4 | 4.9% | 1 | 1.2% | | 0.0% | 3 | 3.7% | 13 | 15.9 % |
| NCCU | 37 | | 0.0% | | 0.0% | | 0.0% | | 0.0% | 18 | 48.6 % |
| NCS U | 1020 | 15 | 1.5% | 15 | 1.5% | 1 | 0.1% | 111 | 10.9% | 24 | 2.4% |
| UNC A | 164 | 2 | 1.2% | 15 | 9.1% | | 0.0% | 7 | 4.3% | 11 | 6.7% |
| UNC - CH | 1652 | 5 | 0.3% | 39 | 2.4% | 28 | 1.7% | 92 | 5.6% | 36 | 2.2% |
| UNC C | 452 | 9 | 2.0% | 2 | 0.4% | | 0.0% | 51 | 11.3% | 12 | 2.7% |
| UNC G | 454 | | 0.0% | | 0.0% | 6 | 1.3% | 11 | 2.4% | | 0.0% |
| UNC P | 41 | | 0.0% | | 0.0% | | 0.0% | | 0.0% | | 0.0% |
| UNC W | 779 | 2 | 0.3% | | 0.0% | | 0.0% | 16 | 2.1% | 2 | 0.3% |
| WCU | 177 | | 0.0% | 1 | 0.6% | 2 | 1.1% | 1 | 0.6% | 12 | 6.8% |
| WSS U | 35 | 2 | 5.7% | | 0.0% | | 0.0% | | 0.0% | 12 | 34.3 % |
| Total | 6173 | 66 | 1.1% | 103 | 1.7% | 74 | 1.2% | 354 | 5.7% | 169 | 2.7% |

Traditionally study abroad has been primarily done by non-STEM students: students majoring in the social sciences, business and the humanities make up 53.7% of US students studying abroad. On UNC campuses, the numbers are similar, with 48.8% of students in social sciences, business and the humanities, and just 17.2% from STEM disciplines.^{xxxviii}

Majors of Study Abroad



Women have traditionally participated at greater rates in study abroad than men. At UNC, women make up 67% of all study abroad participants at UNC, compared to 59% of the UNC student body.

^{xxxix}

Study Abroad Assistance on a System Level

To assist students in travel, many campuses have offices that coordinate “exchange” of students, where one UNC student studies at a foreign university, while a student from the international university might study at the UNC campus, while both pay tuition to their “home” campus. Since 1997 UNC General Administration and campuses have sponsored a “shared service” called the UNC Exchange Program (UNC-EP), generously housed on the UNC Greensboro campus, that assists schools in arranging exchanges. UNC-EP manages systemwide agreements between UNC and other systems.^{xl}

Since UNC-EP’s founding, 1660 UNC students have taken part in exchange through the organization. Another 1162 students have done exchange under an arrangement with the International Student Exchange Program, or ISEP. Meantime, 2389 international students from partner systems across the world have done exchange at UNC campuses through UNC-EP or ISEP.

| Top 5 countries receiving UNC students | Total |
|--|-------|
| Germany | 562 |
| Mexico | 491 |
| Australia | 266 |
| Denmark/Sweden | 160 |
| Uruguay | 62 |

| Top five countries sending students to UNC | |
|--|-----|
| Mexico | 611 |
| Germany | 408 |
| Australia | 284 |
| Denmark/Sweden | 174 |
| Finland | 61 |

Recent exchange partnerships between UNC-EP and Fudan University in Shanghai are just beginning to attract interest on UNC campuses. This summer 10 UNC students studied at Fudan's Summer School program. UNC is currently reviewing UNC-EP to determine how to increase its effectiveness.

Comments

Language courses:

The dominance of Spanish as UNC students' second language of choice probably reflects the rapid growth of the Spanish population in North Carolina, as well as the historic strength of Western European languages. Adding enrollments in French, German, Italian, Latin and Greek shows the ongoing strength of the languages of Western Europe: about 90% of all enrollments. It should not be surprising that the nations of Western Europe attract the largest portion of UNC students studying abroad.

On the other hand, there is clear interest in a range of other languages, including Japanese, Chinese, Russian, Portuguese, Arabic and others.

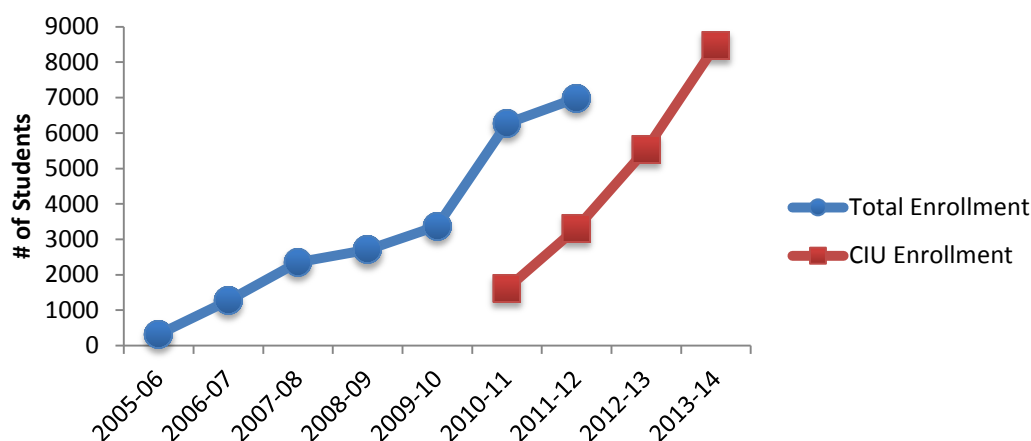
Some of the relatively low enrollment in these languages could change due to changes being made on campus. The growing activities of UNC institutions in China, India and Brazil will likely increase interest in the languages of those countries. But campuses are also working together to determine how to provide low-enrollment languages in a more efficient way. [UNC's World Language Exchange](#), an effort to aggregate demand for low-enrollment courses by offering them online, has helped push forward the efforts of the UNC Language Assembly to make more languages more available on more campuses. This year the Exchange is offering courses in 15 languages, ranging from Portuguese and Hindi-Urdu to Cherokee and Swahili. A total of 70 students are enrolled for the 2014 fall semester in these courses through UNC Exchange. On a national level the US Department of State provides funding for undergraduate and graduate students to further pursue intensive study in certain languages (including Chinese, three Indian languages (Hindi, Urdu, and Punjabi), Arabic, Japanese and others) through intensive summer language institutes through its Critical Language Scholarship (CLS) Program.

Multicampus courses will enable aggregation of demand, so that students on more campuses to take more languages. But some languages are in growing demand. In the case of Chinese, future growth will likely come from students currently in K-12 classrooms. Over the past five years, with the help of the UNC [Center for International Understanding's Confucius Classrooms](#) program, the number of North Carolina K-12 students taking Chinese has exploded. Language teaching growth is fastest in these Confucius Classrooms, which pair native Chinese guest teachers with North Carolina school districts who need Chinese language teaching.

Headline: "NC Secretary of Commerce Courts Japanese Automakers"

Survey says: Japan, the world's third-largest economy, has 3% of all language enrollments at UNC

Chinese Language Enrollment in NC K-12 Classrooms 2005-2014



Note: DPI enrollment numbers for 2012-2013 and 2013-2014 not yet available

Hundreds of other K-12 students are competing annually in the statewide Chinese Language Speaking and Writing Contest sponsored by NC State's Confucius Institute. The wider pipeline means UNC campuses will be experiencing rising demand in the future.

Economics, history and culture courses:

In this year's campus survey we did not specifically ask campuses how many courses they taught focusing on international economics, history, politics or culture. But it is likely that campuses seeking to offer more such courses will face some of the same challenges as those seeking to expand language courses: there is interest, but not at the scale needed to make increasing the offerings cost-effective.

"Students today are waist-high in the waters of globalization. To be the leaders our nation demands, they will need to speak the critical languages and understand the history and culture of nations different from their own...We do not live in silos anymore."
David Wilson, President, Morgan State University

One approach UNC General Administration is piloting is similar in concept to the UNC Exchange for language: creating a multi-campus multi-disciplinary course to enable people on several campuses to get exposure to a particular geography's history and culture. This spring faculty members from three campuses – David Gilmartin at NC State, Cara Cilano at UNC Wilmington and Matt Cook at NC Central -- will work together using a grant from UNC General Administration to teach an interdisciplinary course on India, a course which will be available electronically to students on all three campuses, and, eventually, all UNC campuses. Cilano notes that the course will bring together information on India's "anthropology, history, and literature -- that, by definition, highlights the dynamic nature of this region and that, due to staffing issues, most campuses could not provide on their own."

Another course offered in the spring of 2014 took a different approach. East Carolina and UNC Pembroke developed a Massive Open Online Course focusing on "Emerging Asian Economies," a course open not just to UNC students throughout the system, but to others throughout the world.

The possibilities are great: by bundling demand, campuses can reach critical mass on international courses that might not have enough enrollment on any one campus.

The challenges of online or distance education courses focused on international issues are similar to such courses in any field: ensuring students truly learn. As campuses look for ways to increase availability of such courses, they must continue to ensure quality as well.

Study abroad:

The data on UNC study abroad highlights a number of challenges that must be addressed.

First, very few students are currently studying in the nations targeted in the UNC strategic plan. China, India, Brazil, Mexico and Africa collectively attract only about 12.4% of students studying abroad. By contrast, Western European countries (including Italy) attract 43% of all students studying abroad.^{xli}

This pattern makes sense on several levels: there is a deeper tradition of study in western Europe on many campuses, a perception that those nations are more welcoming to U.S. students, and, given that nearly 90% of UNC language

“Gaining international experience is important for industrial engineering and systems engineering (ISE) students, because many will find themselves working in global environments. There is nothing like first-hand experience in a global environment to build the skills and the confidence necessary to work in a global workplace.” Dr. Anita Vila-Parrish, ISE director of undergraduate programs, NC State

students study the languages of western Europe, there is greater familiarity with the languages spoken.

That said, given the relative population and growing geopolitical importance of UNC’s priority countries, campuses need to look carefully at how to increase study to those areas. Concerns about distance and accommodations are challenges to address in India and Africa; lingering safety issues make it difficult for some students to go to

Mexico; language is a particular concern for many students considering China and Brazil.

A second challenge with study abroad has to do with the perception that students will lose progress toward getting their degree on time if they study abroad for extended periods of time. Early efforts by NC State show that some of these challenges can be overcome in even the most challenging majors, such as engineering (16% of their study abroad students are engineering majors, compared with 5% of students across the system and 3.9% of students nationally),^{xlii} and students can generally resolve those questions well in advance of leaving for a semester or a year. Many students instead are opting for intensive short-term study over semester breaks or during the summer, and campuses are developing innovative ways to ensure these experiences are meaningful.

The UNC Exchange Program (UNC-EP), the shared service that manages systemwide student exchange efforts, is expanding its mission in an effort to make study abroad more attractive. Beginning in spring 2015, UNC-EP will begin working to add formal business internships to student exchange programs, which could make exchange a “twofer,” enabling students to acquire global education and some international business experience.^{xliii}

Internships might be particularly interesting to students majoring in business. Since 53% of undergraduate business majors are male^{xliv} and 67% of study abroad students are

Headline: “India-based HCL to Add 1200 jobs in Cary”

Survey says: Last year out of 6173 people studying abroad from UNC, 103, or 1.7%, went to India

36% of US engineering papers published in 2012 included an international co-author; and 46% of US physics papers

female, a more robust internship program could help address some of the gender disparity in study abroad.

Perhaps the most important challenge of study abroad is addressing cost issues. Cost challenges affect students considering study abroad at every campus, but the numbers are most challenging on UNC's historically black campuses, where fewer than 1% of students study abroad. The numbers follow a national pattern: just 7.9% of all students studying abroad are African-American, compared to 13.2% of the college-going population. Latinos are also underrepresented among students studying abroad, making up 3.9% of the study abroad population compared to 12% of the overall undergraduate population.^{xliv}

Minnie Battle-Mays, retired director of international programs at NCA&T State University, has been working with the American Council of Education and U.S. Department of Education to increase the number of minority students at HBCU's studying abroad and helped with a new report making recommendations for improvement.^{xlvi} She says many students view the world too narrowly when they arrive on campus: "Many times our students are North Carolinians, and coming to Greensboro is coming to the big city. In this 21st century, you've got to be global." Besides leadership from the top, one key strategy to increasing interest, she says, is introducing the idea early^{xlvi} (at UNC Wilmington, for example, "study abroad ambassadors" give freshmen rides across campus in golf carts in exchange for the chance to educate them about the merits of study abroad). Mays makes sure students are aware of all funding sources for scholarship support, including the federally-funded Gillman Scholarship, which provides funding for Pell-eligible students to study abroad; a new partnership with the Chinese Ministry of Education to provide 1000 scholarships for HBCU students to study in China between 2014 and 2017; a new exchange partnership with Brazil;^{xlvi} federal initiatives such as "100,000 Strong", launched in 2010 (which reached its goal this year of 100,000 US students studying in China;^{xlvi} "100,000 Strong in the Americas," launched last year to achieve similar goals in Central and South America;^{li} and others.^{li} To help encourage international study at A&T, the campus also introduced a \$10 annual student fee to support international programs, including study abroad.

12,000 Miles – and New Perspective



When Winston-Salem State sophomore Zeiaira Baxter heard about an opportunity to study in Shanghai for the summer, she jumped. Even though she had only been out of the country once and had never traveled alone.

"China is not a country that many students here go to," she says, "And if you want to learn about business, there is no better place to go and learn." The international business class she took, led by Western Carolina professor Steve Henson, took on new meaning as she discussed assignments with fellow students from across the world. The elementary Chinese class was tough, and fascinating.

Zeiaira is still trying to decide whether to major in business or marketing, but after taking a course in international marketing and another in elementary Chinese, she knows what she wants to do now: run her own business and connect it to international markets. She got inspired by her time in China. "China is a place where people don't worry that they don't have much money," she says. "If they don't, they just figure out something that needs to be done, come up with a strategy. Then they start doing it. I saw their confidence and it helped me know that if I really want something enough, I can probably do it too."

What would she tell students considering study abroad? Two things. First, if you start early enough, you can find a way to make it affordable – there are some limited school funds, scholarships, travel deals. And second? "It is going to change your life; your way of seeing things; your open-mindedness. I wouldn't trade it for anything."

This summer, she's setting her sights on a four-country trip to Western Europe.

“So many of our students don’t think about studying internationally right now. Maybe their parents didn’t do it. Maybe they don’t think they could afford it. Maybe they think it doesn’t matter to them. If we could just plant that possibility in their heads when they first arrive on our campuses, more of them would find a way to do it. Some would travel internationally; others would seek out courses that help them graduate more ‘globally educated’; those who find a way to do it will be better prepared for the world they will be graduating into.”
UNC President Tom Ross

The cost of study abroad is a challenge to some students on all campuses, and addressing the issue requires significant effort to find resources. UNC-Chapel Hill has specifically reached out to alumni with a known interest in globalization to increase support available to students. The Carolina Asia Center increases interest in study abroad in Asia through the Phillips Ambassador Program, funded by an alumnus. Each year, the program provides up to 20 scholarships of up to \$5000 for undergraduates to study in Asia. An additional award is given to a Ph.D. candidate, and separate enrichment funds are offered for Phillips alumni to continue their engagement in Asia and to broaden awareness of Asia in North Carolina.^{lii}

Exchange programs are one way of ensuring predictable costs. Students must find a way to pay for getting to the destination countries, but they pay tuition to their home campuses. And living expenses in international destinations can often be lower than on their North Carolina campuses.

Whether the challenges are academic or financial, studying in another country is hard to pull off for many students. As President Ross notes: “So many of our students don’t think about studying internationally right now. Maybe their parents didn’t do it. Maybe they don’t think they could afford it. Maybe they think it doesn’t matter to them. If we could just plant that possibility in their heads when they first arrive on our campuses, more of them would find a

way to do it. Some would travel internationally; others would seek out courses that help them graduate more ‘globally educated’; those who find a way to do it will be better prepared for the world they will be graduating into.”

The question of global competence:

A key goal of connecting students through courses and study abroad is to help students gain key knowledge and skills they will need to be successful – in their work and in their life -- following college. Clearly there is a connection between language study, courses educating students about the history, economics, politics and culture of particular countries or regions, and study and other experiences abroad. There is a growing consensus on our campuses on some of the key knowledge and skills students need to be globally competent – nationally the percentage of campuses with some sort of specialized global learning opportunity has increased from 45% to 55% between 2006 and 2011^{liii} – but there is still some disagreement on how to acquire those skills.

Three national groups have weighed in perspectives of “global competence” or “intercultural competence.” The AAC&U has developed a series of tools designed to measure knowledge, perceptions and skills that might indicate a student has learned through experience in

"A Fayetteville State University graduate must be able to engage in critical discourse about global engagement and global outcomes. What, for example, are the moral and ethical considerations that confront our students as they are increasingly exposed to world events? How will their personal belief systems change? How will their career options be affected? What is the most effective Teaching/Learning/Engagement model that will best prepare our students to competitively engage the global realities of the 21st century?"
James Anderson, Chancellor,
Fayetteville State

international settings or with international topics.^{liv} In the context of the ACE “At Home in the World”^{lv} project, which NC State and seven other campuses nationally were selected to participate in, NC State’s working definition of competence “comprises four components: (a) awareness of one’s own cultural worldview, (b) attitude towards cultural differences, (c) knowledge of different cultural practices and worldviews, and (d) cross-cultural skills. Developing cultural competence results in an ability to understand, communicate with, and effectively interact with people across cultures.”^{lvi} Darla Deardorff, executive director of the Association of International Education Administrators (AIEA) has done a summary of points of agreement among colleges and universities nationally about the key elements of global competence and has called for universities to work diligently to determine how to most effectively integrate measures of intercultural competence into their programs.^{lvii}

“Many businesses, graduate schools and organizations give priority to applicants who have significant international and foreign language experience.”
From NC State’s description of its “Global Perspectives Certificate”

Going forward, campuses are considering a range of ways of equipping students with global or intercultural competence, including a [Global Perspectives Certificate](#) at NC State and the [Global Studies Certificate](#) at NC A&T. The UNC group studying how to better internationalize teacher education is working on a shared definition of what a globally competent teacher should know and be able to do and studying strategies to increase the number of teachers entering K-12 who have studied internationally. Other campuses such as UNC Greensboro and Winston-Salem State are using the materials AAC&U has developed to better focus international courses. A challenge for campuses going forward will be completing the move from theory to application, looking for ways to recognize student learning and experience in a way that will provide meaningful value and incent more people to seek out these experiences.

Takeaways:

- Every school can’t afford to offer every language or exposure to courses on every culture. More course sharing offers great promise.
- There is very low participation in study abroad at all of our HBCU’s.
- We need to determine how to raise up more “globally-ready” students.

Chapter 2: Connecting UNC Institutions and Faculty to Global Partners

“It is the task of education, more than of any other instrument of public policy, to help close the dangerous gap between the economic and technological interdependence of the peoples of the world and their psychological, political, and spiritual isolation.” Sen. William Fulbright, 1963

“In today’s complex and rapidly changing global marketplace, our collective and individual prosperity rely increasingly on political, economic, and social cooperation that transcend traditional national and cultural barriers.”
President George W. Bush, 2001

Student interest in deepening knowledge of the world is supported and nurtured by faculty and administrators on their campuses. Those campuses have a wide range of connections to the rest of the world: institutions have long-term relationships with certain geographic regions or campuses; faculty write papers or conduct research with colleagues in their field; international faculty members remain connected to people and organizations in their native country. Building off of these relationships to increase international engagement requires focus and commitment. In this section we will look at the role of formalized institutional relationships, scholarly papers and research, joint courses and international faculty in deepening UNC’s international connections.

Institutional relationships:

As part of our survey, UNC campuses identified the number of individual active partnerships they had with international organizations (most typically other universities). These partnerships are typically “bilateral,” involving a relationship between an individual UNC institution and an international partner. They typically involve exchange of students or faculty, and sometimes include research exchange or virtual courses. Most often they have taken the form of a formal Memorandum of Understanding, or MOU, but some are less formalized.

The survey showed 943 such relationships on the 17 campuses. Among our focus geographies, Chinese institutions were the most frequently mentioned, with 99 active partnerships cited (10.5% of the total); campuses noted another 8 partnerships with Taiwan and 7 partnerships with Hong Kong. Campuses identified 27 partnerships in Brazil, 23 in India, 22 in Mexico and a total of 31 in African countries.

In practice, many of these campus partnerships are limited, with cooperation continuing through a small set of faculty members or student exchange. In other cases, an agreement has not expired, but there is little current activity.

An informal survey of campuses in September 2014 found that a majority of senior international officers are moving toward “fewer, more intense” international relationships. The May 2014 UNC survey asked campuses to identify their “most active” partnerships. This information, which identified 43 partnerships with 21 different countries, may provide a better look at which relationships are working best and where activity is focused (see also Appendix D).

Among individual countries, China was most frequently mentioned, with 10 “most active” partnerships cited, about 23% of the total, followed by Great Britain (5), Brazil (3), Germany (3) and South Africa (3). Notably, just one of these partnerships was in India and none were in Mexico.

Looking at broader geographies, 14 of the most active partnerships were with entities in Western Europe (32.5%), followed by East Asia (13, or 30.2%), Africa (8, or 18.6%) and South America (5, or 11.6%).

A sampling of the most active partnerships provides insight into how and why international relationships develop.

- Fayetteville State's relationship with the East China Institute of Science and Technology (ECUST) in Shanghai and the Inner Mongolia Normal University (IMNU) in Hohhot, China began with personal outreach by a Chinese faculty member to colleagues at INMU and ECUST in 2004. A Chancellor visit followed three months later and led to establishment of a 3+1 dual degree program in Math and Science with ECUST (students go to their home school for three years, then come to FSU for a final year) and a "2+2" program with IMNU (students go for two years to their home school, then come to FSU for the second two years). The relationship with IMNU led to establishment of a third dual degree program with Baotao Teacher's College (BTTC) in 2010. With grant funding from UNC General Administration and technical assistance from ECU, FSU developed joint global understanding classes with both IMNU and BTTC, which enables students at FSU and in China to take classes at the same time, having class discussions over a live connection and working on projects together without having to leave their home country. Four such courses will be offered at FSU this fall. The three Chinese universities also send somewhere between 7-17 full-paying students to FSU each year, and so far, each Chinese student has completed his or her degree on time. In addition, IMNU reserves two full scholarships for FSU students to study there each year. Since 2008, five FSU students have used these scholarships.
- NC State's three-way partnership with universities in England and Brazil grew out of joint faculty research interests at the three schools, with strong support from senior leadership. Since 2006, NCSU, the University of Surrey in the United Kingdom and the University of Sao Paulo in Brazil have exchanged students at an undergraduate and graduate level, have hosted faculty for short term visits to conduct research, have sought funding of joint research projects and have exchanged staff. The partnership with University of Sao Paulo has led to a broader relationship with the Sao Paulo Research Foundation, which has invested at NCSU, UNC Charlotte and UNC-Chapel Hill to support research and study by Brazilian students. A separate partnership with the French business school SKEMA will bring 900 international business schools to NC State to study, part of a rotation that will bring MBA students to study in France, China, and NC State's Centennial Campus. Beginning in 2015, the program will extend further, adding Brazil as a partner.
- Following the China trip by President Ross and the Board of Governors delegation in 2012 and with encouragement from a member of their board of trustees, the NC School of

"At Fayetteville State, Chancellor Anderson's commitment to international education even extends to the creation of dual degree exchange agreements with five universities in China. Fayetteville State students can now take a course in educational psychology and measurement taught concurrently by video to students at Baotao Teacher's College in Inner Mongolia. That's globalization made real!"
US Secretary of Education Arne Duncan,
September 23, 2014

Science and Mathematics developed an innovative virtual course exchange with the Beijing Royal School (BRS), with an NCSSM faculty member teaching AP US History to BRS students via videolink, while NCSSM students took a Chinese History and Culture class taught by a faculty member at BRS. These courses, in turn, informed development (with assistance from ECU) of a separate joint course on Chinese life and culture with the Hangzhou Foreign Languages School, with NCSSM and HFLS students having discussions and doing joint projects using technology (see “Joint Courses” section below). This joint course has led to further student and faculty exchange.

It used to be that papers were published by a scholar at a university; now they are published jointly by multiple authors all across the world.”

Paul Weisenfeld, VP Global Programs, RTI, September 30, 2014

Several campus partnerships have gotten their start or been sustained through the UNC Exchange Program (UNC-EP) or the International Student Exchange Program (ISEP), which has had a long-term relationship with UNC-EP. UNC-EP manages system-level agreements in China, Taiwan, Brazil and Mexico, in addition to alliances in Australia, Finland, Germany, Uruguay and others, which have helped campuses, notably UNC Asheville, UNC Greensboro and Western Carolina form deeper one-to-one relationships with campuses in those countries.

Scholarly papers and research:

Faculty are instinctively collaborative, each year authoring thousands of papers and conducting thousands of experiments and research projects with colleagues in their fields. Increasingly, their collaborative partners are international in all disciplines, but particularly in physics and engineering.^{lviii}

[REACH NC](#), UNC’s database of faculty expertise and collaboration, is able to identify some information about trends in international academic collaboration. For the three countries UNC receives the greatest number of international students from -- China, India and South Korea – the database shows a good deal of activity:

| ReachNC Institutions available through SciVal | Number of authors with academic collaboration with | | |
|--|--|-------|-------------|
| | China | India | South Korea |
| Appalachian State University | 19 | 3 | 7 |
| East Carolina University | 195 | 10 | 49 |
| North Carolina Agricultural and Technical State University | 80 | 13 | 52 |
| North Carolina Central University | 110 | 2 | 18 |
| North Carolina State University | 1098 | 94 | 324 |
| UNC-Chapel Hill | 1455 | 90 | 722 |
| UNC Charlotte | 298 | 18 | 44 |
| UNC Greensboro | 148 | 4 | 19 |
| UNC Wilmington | 22 | 4 | 3 |
| Western Carolina University | 0 | 1 | 2 |

| ReachNC Institutions available through SciVal | Number of publications from academic collaboration with | | |
|--|---|-------|-------------|
| | China | India | South Korea |
| Appalachian State University | 15 | 2 | 11 |
| East Carolina University | 142 | 10 | 25 |
| North Carolina Agricultural and Technical State University | 65 | 11 | 41 |
| North Carolina Central University | 73 | 2 | 16 |
| North Carolina State University | 849 | 75 | 268 |
| UNC-Chapel Hill | 814 | 49 | 323 |
| UNC Charlotte | 316 | 14 | 31 |
| UNC Greensboro | 122 | 3 | 24 |
| UNC Wilmington | 23 | 3 | 6 |
| Western Carolina University | 0 | 1 | 2 |

Among the ten UNC campuses reporting collaborative data to SciVal,^{lix} one of REACH NC's partners, there are 3425 reported academic collaborations with Chinese partners, and there have been 2419 papers published. As would be expected, the majority of the academic collaborations come out of UNC-Chapel Hill (42.5%) and NC State (32.1%). In India, faculty on the ten UNC campuses have 239 academic collaborations and 170 co-authored papers, with 77.0% of the collaborations originating at UNC-Chapel Hill or NC State. In South Korea, there are 1240 collaborations and 746 joint papers, with 84.3% of the collaborations coming from either UNC-Chapel Hill or NC State.

The amount of research a campus does that is funded by international sources can be a result of a deeper institutional connection between that campus and international partners. It can also lead to deeper institutional relationships.^{lx} Research grants come to faculty, and data collected by the UNC Research Office shows an increase in both the number of projects and funding between 2012-2013 and 2013-2014.

In 2012-2013, campuses were involved in a total of 406 internationally-funded research projects totaling \$18.96 million, or about 1.6% of all sponsored research in the UNC system.^{lxi} The top source of international funding was grants from the country of Zambia, mostly for capacity building and infectious disease research at UNC-Chapel Hill, a total of \$3.9 million. Sponsored research funding totaling \$1 million or more also came from the United Kingdom, Switzerland, the People's Republic of China and Belgium. Only about \$154,000 in sponsored research came from India, about \$43,000 from Brazil, and there were no projects with Mexico.^{lxii}

In 2013-2014 the story was similar. Campuses were involved in 491 research projects, totaling \$19.52 million, up about 3% from the previous year, but still about 1.6% of the UNC total. About 90% of total awards and 88% of the total funding went to UNC-Chapel Hill (325 awards for \$11.1 million) and NC

Total internationally-sponsored research grants at UNC in 2013-2014 were about \$19.5 million, about 1.6% of UNC's total sponsored research.

State (118 awards for \$6.1 million. The percent of the total going to UNC-Chapel Hill and NC State indicates that research operations of a certain scale may have an advantage when it comes to seeking and receiving international research grants. The top source of international funding was the United Kingdom, mostly for pharmaceutical research by UNC-Chapel Hill, a total of \$4.1 million.^{lxiii} Sponsored research totaling \$1 million or more also came from Canada, Zambia, France and China. In African countries, besides the funding in Zambia, there was more than \$400,000 in grant activity in both Malawi and South Africa. About \$480,000 in funding came from India, about \$63,000 from Brazil and there was none from Mexico.^{lxiv}

International connections by faculty, whether through collaborations on papers, sponsored research or other connections can both benefit from and strengthen a university's international connections. UNC Wilmington's "TIGR" (Team for Interdisciplinary Global Research) works across disciplines to identify collaborations with international partners. In October 2014, the team won a three-year, \$1 million grant from the US Department of State to form collaborations in Pakistan.^{lxv} UNC-Chapel Hill's Carolina Asia Center (CAC) has taken a variety of approaches to increasing international connections for faculty, drawing off of strong institutional support, federal funding, individual donations and foundation support.

- Each year the CAC provides five awards to College of Arts and Sciences faculty members to travel to Asia to further their research or improve their teaching and an additional four "conference travel" awards for faculty to share research findings with colleagues in Asia.
- With funding by an alumna in 2004, the CAC's Grier/Woods Presbyterian China initiative provided faculty research fellowships and travel awards to China. This year, the CAC is hosting an international conference on the "new Chinese city" that will bring together scholars from UNC, China and Taiwan, with funding from UNC-CH and outside sources.
- With support from the Mellon Foundation, the CAC conducting a joint research project in 2013 with scholars from UNC-CH, China, India, Japan, South Korea and five other nations. Other CAC programs bring in visiting scholars from across Asia. During the fall of 2014, the CAC will host visiting scholars from China, Japan and South Korea.

Winston-Salem State had fewer resources to draw on as it tried to move forward on interest by its business and health sciences schools in strengthening relationships with India. But over time, it has built a series of connections on both an institutional and faculty level.

- In 2010, WSSU was one of two HBCUs selected to participate in the International Academic Partnerships Program funded by the U.S. Department of Education's Fund for the Improvement of Postsecondary Education, a major new initiative of the Institute for International Education to increase international partnerships between the US and India.
- This initial work led to a three-year grant award from the National Endowment for the Humanities (NEH) in 2011 for HBCUs to assist in developing a curriculum on India. Following a series of faculty seminars and presentations, twelve faculty were provided NEH assistance to participate in the WSSU International Faculty Development Seminar in India during summer 2013.
- These activities led WSSU to identify Jamia Millia Islamia University in New Delhi (like WSSU, a minority-serving institution) as a partner and the development of a new virtual course, and to arrange a return visit by a visiting scholar to WSSU.
- In September 2014, WSSU hosted a symposium developed by the twelve NEH-supported faculty members on "Integrating India into the Liberal ArtsCurriculum."

This past year, ECU faculty offered 36 different sections of live, technology-delivered “Global Understanding” classes to more than 1000 ECU students and more than 2500 students at 57 different partner institutions in 30 countries on five continents. Beginning in 2010, UNC General Administration began funding seed efforts to develop similar courses on other campuses.

Joint courses:

Besides academic papers and sponsored research, one low-cost and efficient way of increasing faculty engagement with the world is teaching joint virtual courses with international colleagues at partner campuses. Faculty at each campus stay on campus, but connect via videolink to each other to their faculty colleague and students. Students in the two countries discuss issues and work on projects using Skype and other technologies.

East Carolina is a national pioneer in development of such courses. Noting that roughly 98% of ECU students did not study abroad, beginning in summer 2003, ECU faculty began developing “Global Understanding” courses in a variety of departments designed to bring together students at ECU with students in partner countries for live joint courses. Faculty from the two countries provide short lectures; students break into small groups using technology for live discussion; then students work with their international partners in groups of two to three to produce papers and complete projects together. This past year,

ECU faculty offered 36 different sections of classes to more than 1000 ECU students and more than 2500 students at 57 different partner institutions in 30 countries on five continents (see also Appendix E).

Beginning in 2010, UNC General Administration began funding seed efforts to develop similar courses on other campuses, as a means of reanimating partnerships in China and India. To date, Appalachian State,

Fayetteville State, NC A&T State, UNC-Chapel Hill, UNC Charlotte, UNC Pembroke, Western Carolina and Winston-Salem State have all developed courses with partner institutions using the ECU model. One example shows the potential of these courses not just as an end in themselves but as a gateway to further collaboration: NCA&T’s course development with Mahatma Gandhi University in Kottayam, India has led to additional conversations that could result in joint research in nanoscience in the future.

In 2013-2014, UNC-Chapel Hill MOOC’s enrolled 7467 students from India, Canada, the United Kingdom, Spain and Brazil.

In all, UNC institutions report a total of 61 virtual courses in fields including business, economics, history, agriculture, nursing and childhood development. Besides the value of the courses themselves to faculty and students, at Appalachian State, Fayetteville State and Winston-Salem State, campuses report additional courses and collaborations resulting from the initial virtual courses.

While computer-delivered courses don’t lead directly to enhanced institutional connections, they can raise the visibility and respect of an institution. Seven UNC campuses report computer-delivered courses during 2012-2013. NC State hosted a Massive Open Online Course (MOOC) on computer design and delivered 162 distance education courses that enrolled 186 students from 34 countries. UNC Wilmington had 81 international students in online classes; Western Carolina had 15; UNC Greensboro had 11 international students. In 2013-2014, UNC-Chapel Hill MOOC’s enrolled 7467 students from India, Canada, the United Kingdom, Spain and Brazil; another 409 students enrolled in distance ed courses. East Carolina and UNC Pembroke partnered on a MOOC this spring.

International Faculty:

A final way UNC campuses deepen connections to the rest of the world is through hiring international faculty. As part of the 2014 UNC survey, we did not ask campuses for data on the number or nationality of international faculty teaching on their campuses, but clearly these faculty provide unique opportunities to connect to foreign universities and institutions. These faculty also play a critical role in deepening international understanding and interest among their fellow faculty members and UNC students, bringing a diversity of perspective and new insights into solving problems both in the lab and in the classroom, and can increase interest among students in taking globally-focused courses and in studying internationally.

“It is critical for us to infuse an international perspective into the teaching, research and service missions of our campus. We have a long tradition of successful campus internationalization.” Phil Dubois, Chancellor, UNC Charlotte. UNCC Senior International Officer Joël Gallegos served as chair of NAFSA, the national association of international educators, in 2014.

Comments:

There is no single way that UNC campuses build relationships with international partners. These partnerships may come “top-down,” growing out of an opportunity a chancellor, a provost, a dean, or even a trustee sees. They may grow “bottom-up,” emerging from a faculty or staff member with a scholarly or research interest, passion and persistence. Often they are “middle-out”: a critical mass of faculty or staff come together around an interest; a department head champions their cause; a chancellor sees the opportunity.

“When we study together, we learn together, we work together, and we prosper together.”
President Barack Obama, 2013

Institutional relationships take time; trust and depth come as partners get to know each other. UNC’s system relationship with Fudan University in Shanghai began in 1994 and grew out of an institutional

relationship between Appalachian State and Fudan. The number of partnerships has grown: a partnership between UNC-Chapel Hill’s journalism department and Fudan; an annual Chinese language scholar from Fudan who instructs students at UNCW; and, for the past two years, Fudan has provided scholarship support for 17 students from six campuses during its summer program. In 2014, Steve Henson, a Western Carolina business faculty member, led a UNC in China summer program at Fudan.

Faculty relationships typically grow scholar-to-scholar, but they establish an important baseline of trust that can draw two campuses together. Encouraging faculty to think, teach, write and research internationally can be a relatively low-cost way of jumpstarting an institutional relationship, and there are a number of things campuses can do to encourage, focus, track and facilitate such exchanges.^{lxvi}

The UNC Exchange Program and bilateral exchanges, both described in the previous chapter, illustrate how in some cases student-to-student relationships can provide a starting point for a deeper faculty or institutional relationships, particularly for campuses with fewer resources. The UNC General Administration efforts to encourage virtual course exchange, first between UNC and Chinese partner institutions, and now between UNC and Indian partner institutions, illustrate the relatively low investment required to fuel a partnership. Asking campuses to launch courses with existing partners, “active” or inactive, ensures that there is a baseline of good will and interest on an institutional level, provided a low-risk way of reviving the relationship, and provides UNC students and faculty a low-cost way of interacting with international students and faculty.

Drawing on the insights of international faculty on campus also requires little investment and can provide valuable insights into which partners might be most appropriate, where opportunities are and how to work most effectively with partners in their home country or in their particular field.

But fully developing any international relationship ultimately requires both a deep institutional commitment and an ability to raise money to support it. A challenge on a system level is how to provide the most effective encouragement and support for those relationships.

Takeaways:

- When it comes to forming global partnerships, less can be more.
- Technical obstacles are making it difficult for UNC campuses to do much internationally-funded research.
- Faculty and shared courses are key ways to build global partnerships.
- Collective success in building deeper partnerships will require new investments.

Chapter 3: Connecting to International Students



“There is a flickering spark in us all which, if struck at just the right age...can light the rest of our lives, elevating our ideals, deepening our tolerance and sharpening our appetite for knowledge about the rest of the world. Educational and cultural exchanges...provide a perfect opportunity for this precious spark to grow, making us more sensitive and wiser international citizens throughout our careers.” President Ronald Reagan, 1982

“No one who has lived through the second half of the 20th century could possibly be blind to the enormous impact of exchange programs on the future of countries.” President Bill Clinton, 1993

Every fall at UNC, more than 9,000 students arrive on UNC’s campuses after making a particularly remarkable decision: to leave their native country and pay out-of-state tuition to study on our campuses, most often in a language different than their own.

They are part of a growing number of international students studying outside of their native country, a number that has more than quintupled since 1975, and more than doubled since 2000. There is a global competition on for these students and it is not hard to see why. Their presence provides clear benefits: to them, to the economy of the region they are studying in; to the campuses; and to their fellow students.

What International Students Bring

Since only about 3% of UNC students study abroad each year (see Chapter 1), international students studying at UNC institutions can provide domestic students valuable exposure to different ideas and perspectives, in the classroom and out.

Beyond that, there are several other elements that international students bring to UNC and to the state.

International exposure for NC students: Given the low numbers of study abroad students, one low-cost way to give North Carolina-born students a chance to interact with people from other cultures is to bring international students to UNC.

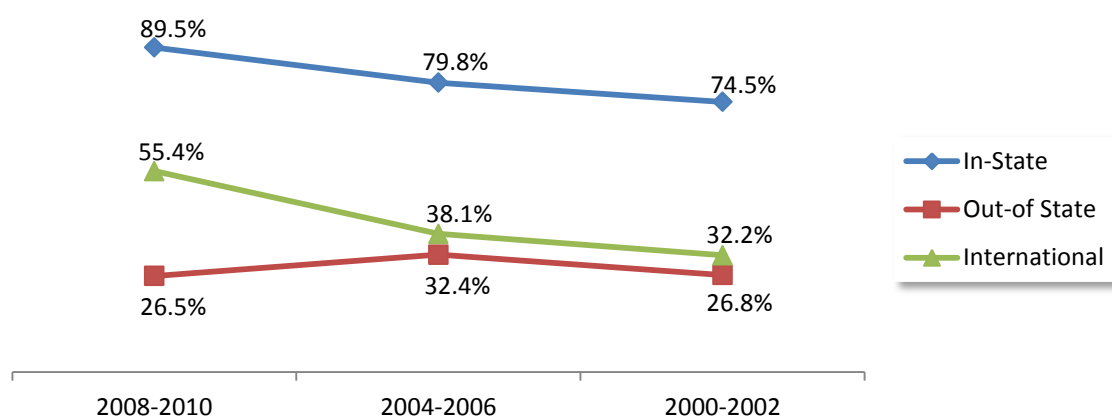
Economic impact: International students at UNC bring a direct economic impact to North Carolina, paying out of state tuition and spending an estimated \$173 million in the state in 2012-2013, a 10.9% increase over the previous year.^{lxvii}

STEM focus: Our campus survey finds that UNC international students are disproportionately likely to take courses in the STEM disciplines (science, technology, engineering and math): 66.9% of all

graduate students and 41% of undergraduates. That means more lab technicians to support university research efforts and a greater number of STEM graduates who may stay in the state.

New talent: Many of the students do stay in North Carolina following graduation. A 2011 study by UNC General Administration examined what percentage of graduates in the STEM disciplines remained in the state following graduation. It found that North Carolina native-born students were most likely to remain in the state, three, five and ten years after graduation. But international students were more actually slightly more likely to remain in North Carolina than out-of-state graduates, whether they received bachelor's, master's or doctoral degrees.

NC residency after graduation - Trend over time by origin



Source: UNC General Administration survey of STEM majors, graduate students, 2011

A recent national study by the Brookings Institute confirms this trend, finding substantial numbers of international students extending their visas following graduation, with nearly half of those who use the Optional Practical Training (OPT) visa extension choosing to stay in the area where they went to school.^{lxviii}

Entrepreneurial bent: Fourth, among students who stay after graduation, another study looking at business formation found immigrants to the United States were twice as likely as their domestic counterparts to start businesses in the U.S. A separate study by Vivek Wadhwa of Duke determined that 18.7% of all businesses started in the Research Triangle Park had at least one immigrant cofounder.^{lxix}

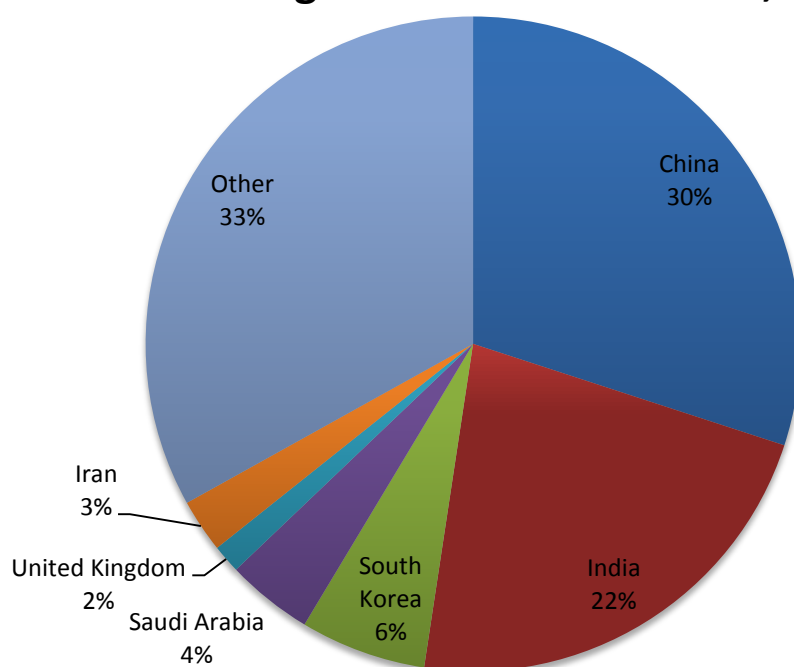
Insights into international markets and cultures: Those students staying in the United States following graduation and working for existing companies can provide critical insights to US companies seeking to strengthen international connections and may increase foreign direct investment,^{lxx} while also adding real value to the economies of their home countries.

Building the brand: Finally, UNC campuses find that even students who return to their native country following graduation are inclined to think favorably about North Carolina, considering doing business with people and networks they learned about while studying here. They become, essentially, “brand ambassadors.”

International students at UNC

Understanding where international students are coming from, which schools they are attending and at what level of study can help focus the efforts of UNC campuses and UNC General Administration. Overall, out of the 9,193 international students at UNC last year, 6,480 came as undergraduate or graduate students, with the remainder involved in nondegree study or Optional Practical Training (OPT). Among the 6,480 international undergraduate and graduate students at UNC last year, about 56% of international students undergraduate or graduate students come from either China (1,945, or 30%) or India (1,450, or 22%). Sixty-seven percent come from just six nations: China and India, plus South Korea (6%), Saudi Arabia (4%), Iran (3%) and the United Kingdom (2%), with the rest of the world sending 33% of international students.

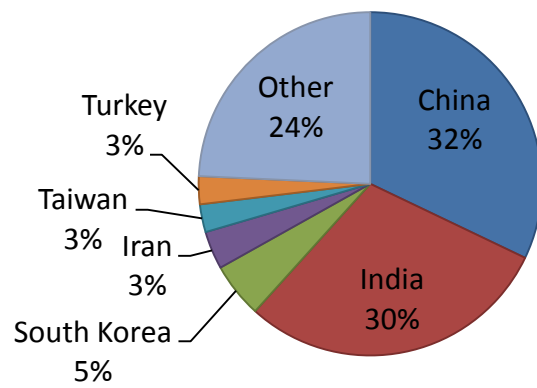
Country of Origin, UNC International Undergrad and Grad Students, 2012-2013



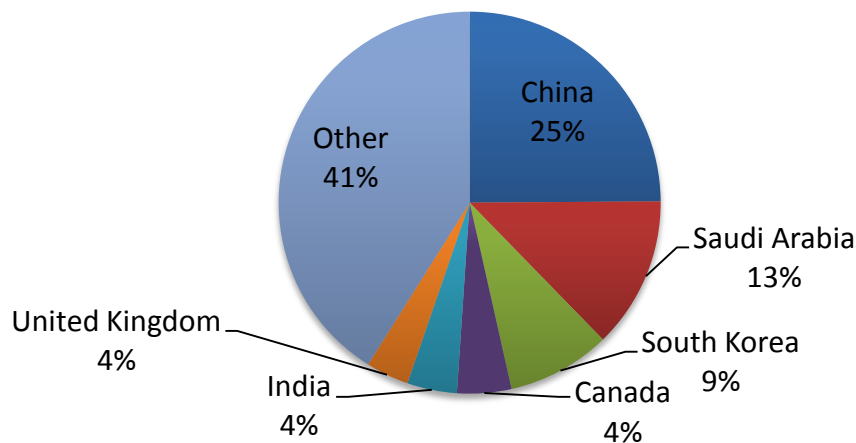
Source: Campus reports, Phillip Black, NCSU (numbers do not add up to 100% due to rounding)

The picture gets a bit more nuanced if we divide international students into undergraduates and graduate students. Saudi Arabian students make up 13% of undergraduate students, but only a fraction of graduate students. South Korean students make up 9% of undergraduate students compared to 5% of graduate students. By contrast, Chinese students (32% of the graduate population, compared to 25% undergraduate) and Indian students (30% of the graduate population, compared to 4% undergraduate) are more likely to come to UNC as graduate students than as undergraduates. That trend could accelerate in the future: the latest surveys of this year's graduate students show initial offers of admission to international students are up 9%, the fourth consecutive year of at least 9% growth nationally.^{lxxi}

Country of Origin, UNC International Graduate Students, 2012-2013



Country of Origin, UNC International Undergraduate Students, 2012-2013



Source: Campus reports; Phillip Black, NCSU; figures may not add up due to rounding.

On a campus level, NC State has the highest number of undergraduate and graduate international students at UNC, with 2880, and 3906 overall. Other UNC institutions with more than 100 international students include UNC-Chapel Hill (1843), UNC Charlotte (1335), UNC Greensboro (655), East Carolina (458), UNC Wilmington (248), NCA&T State (228), and Western Carolina (106).^{lxxii} No campus has more than 2.4% international undergraduates – the national average is 4%.^{lxxiii} Just three campuses, NC State (28.5%), UNC Charlotte (17.4%) and UNC-Chapel Hill (10.1%) have more than 10% international graduate students.^{lxxiv} According to the Council of Graduate Studies, 15% of graduate students nationally are international.^{lxxv}

| Institution | # of Undergrads ^{lxxvi} | # of International Undergrads | % of Undergrad Student Body |
|-------------------|----------------------------------|-------------------------------|-----------------------------|
| ASU | 15527 | 53 | 0.3% |
| ECU | 20446 | 69 | 0.3% |
| FSU | 5012 | 19 | 0.4% |
| NC A&T | 8262 | 45 | 0.5% |
| NCCU | 6276 | 32 | 0.5% |
| NCSU | 23291 | 442 | 1.9% |
| UNC – CH | 17918 | 438 | 2.4% |
| UNCA | 3259 | 15 | 0.5% |
| UNCC | 21085 | 382 | 1.8% |
| UNCG | 14594 | 177 | 1.2% |
| UNCP | 5310 | 23 | 0.4% |
| UNCW | 12060 | 64 | 0.5% |
| WCU | 7796 | 96 | 1.2% |
| WSSU | 5183 | 17 | 0.3% |
| Total | 166019 | 1872 | 1.1% |

| Institution | # of Grad Students | # of International Graduate | % of Graduate Student Body |
|-------------------|--------------------|-----------------------------|----------------------------|
| ASU | 1,633 | 20 | 1.2% |
| ECU | 5,196 | 90 | 1.7% |
| FSU | 505 | 3 | 0.6% |
| NC A&T | 1,609 | 138 | 8.6% |
| NCCU | 1,827 | 32 | 1.8% |
| NCSU | 8,554 | 2438 | 28.5% |
| UNC – CH | 9,883 | 994 | 10.1% |
| UNCA | 51 | 0 | 0.0% |
| UNCC | 3,826 | 666 | 17.4% |
| UNCG | 2,965 | 188 | 6.3% |
| UNCP | 742 | 2 | 0.3% |
| UNCW | 1,179 | 17 | 1.4% |
| WCU | 1,446 | 10 | 0.7% |
| WSSU | 436 | 10 | 2.3% |
| Total | 39852 | 4608 | 11.6% |

| Institution | Total Int. Students | Share of UNC | |
|-------------|---------------------|----------------------|------------------------|
| | | Total Intl. Students | % of Student Body Int. |
| ASU | 142 | 1.5% | 0.8% |
| ECU | 458 | 5.0% | 1.7% |
| FSU | 27 | 0.3% | 0.4% |
| NC A&T | 228 | 2.5% | 2.1% |
| NCCU | 75 | 0.8% | 0.9% |
| NCSU | 3906 | 42.5% | 11.4% |
| UNC – CH | 1843 | 20.0% | 6.3% |
| UNCA | 40 | 0.4% | 1.1% |
| UNCC | 1335 | 14.5% | 5.1% |
| UNCG | 655 | 7.1% | 3.5% |
| UNCP | 76 | 0.8% | 1.2% |
| UNCW | 248 | 2.7% | 1.8% |
| WCU | 106 | 1.2% | 1.1% |
| WSSU | 54 | 0.6% | 0.9% |
| Total | 9193 | 100% | 4.2% |

Note that three highly STEM-intensive campuses, NC State, UNC-Chapel Hill and UNC Charlotte account for 77% of all international students at UNC. Nine campuses (NC State, UNC-Chapel Hill, UNC Charlotte plus UNC Greensboro, East Carolina, UNC Wilmington, NC A&T State, Appalachian State and Western Carolina) enroll more than 100 international students each year, and those campuses have 97% of all international enrollments.

Different UNC institutions have taken different approaches to recruiting international students, with some putting more emphasis on undergraduate students and others on graduate students. Similarly, some campuses have had more success attracting students from some countries than from others.

The undergraduate/graduate mix varies by campus as well. Seven campuses (Appalachian State, Fayetteville State, UNC Asheville, UNC Pembroke, UNC Wilmington, WSSU and Western Carolina) enroll more international undergraduate than graduate students. Another six (ECU, NCA&T State, NC State, UNC Charlotte, UNC-Chapel Hill and UNC Greensboro) have more international graduate students than undergraduates.

Countries of origin vary by campus as well. China is the most frequent source of undergraduates on five campuses; Saudi Arabia ranks first on four campuses. Among graduate students, China ranks first on six campuses and India on three. In all 23 different countries show up among the “top three” countries of origin among international graduate and undergraduate students at UNC.

| Institution, Undergraduate | 1 st | 2 nd | 3 rd |
|----------------------------|--------------------|-------------------|------------------|
| ASU | China (12) | U.K. (6) | Canada (3) |
| ECU | Saudi Arabia (10) | South Korea (7) | Germany (7) |
| FSU | China (12) | Canada (1) | Venezuela (1) |
| NC A&T | Saudi Arabia (8) | China (7) | Brazil (5) |
| NCCU | Bahamas (4) | Nigeria (3) | U.K. (2) |
| NCSU | China (161) | India (44) | South Korea (25) |
| UNCA | France (2) | South Korea (2) | U.K. (2) |
| UNC - CH | China (168) | South Korea (90) | Canada (29) |
| UNCC | Saudi Arabia (138) | China (59) | Kuwait (33) |
| UNCG | China (36) | Saudi Arabia (31) | South Korea (22) |
| UNCP | Sweden (5) | U.K. (3) | Canada (3) |
| UNCW | U.K. (8) | Canada (6) | Brazil (6) |
| WCU | Saudi Arabia (43) | U.K. (10) | Japan (5) |
| WSSU | Nigeria (3) | Kenya (3) | Brazil (3) |
| Institution, Graduate | 1 st | 2 nd | 3 rd |
| ASU | China (6) | India (2) | Canada (2) |
| ECU | China (29) | India (13) | South Korea (7) |
| FSU | Jordan (1) | Venezuela (1) | Jamaica (1) |
| NC A&T | Ghana (31) | India (18) | Bangladesh (18) |
| NCCU | Nigeria (12) | South Korea (17) | China (3) |
| NCSU | India (878) | China (805) | Iran (107) |
| UNCA | N/A | N/A | N/A |
| UNC – CH | China (346) | India (134) | South Korea (99) |
| UNCC | India (284) | China (222) | Iran (30) |
| UNCG | China (51) | India (29) | South Korea (17) |
| UNCP | Sweden (1) | Philippines (1) | N/A |
| UNCW | China (2) | Mexico (2) | Brazil (2) |
| WCU | China (2) | Sri Lanka (2) | South Korea (1) |
| WSSU | India (4) | Saudi Arabia (4) | Japan (1) |

Among the countries identified in the strategic plan, the greatest number of students come from China and India. A majority of students from both countries come as graduate students and attend a small number of our campuses.

Focus on China:

CHINA Fall 2012 Chinese student enrollment

| Institution | Undergrad | Graduate | N-Degree | OPT | Unknown | China Tot. |
|-------------|-----------|----------|----------|-----|---------|------------|
| ASU | 12 | 6 | 3 | | | 21 |
| ECU | 4 | 29 | | | 39 | 72 |
| FSU | 12 | | 1 | | | 13 |
| NC A&T | 7 | 13 | | 5 | | 25 |
| NCCU | | 3 | | | | 3 |
| NCSU | 161 | 805 | 179 | | | 1145 |
| UNC - CH | 168 | 346 | 21 | 66 | | 601 |
| UNCA | 1 | | | | | 1 |
| UNCC | 59 | 222 | 21 | | | 302 |
| UNCG | 36 | 51 | 38 | 18 | | 143 |
| UNCP | | | | 2 | 33 | 35 |
| UNCW | 3 | 2 | 2 | 2 | | 9 |
| WCU | 3 | 2 | | | | 5 |
| WSSU | | 1 | | 3 | | 4 |
| Total | 466 | 1480 | 265 | 96 | 72 | 2379 |

China sends more students to UNC than any other country, about 26% of the total (nationally Chinese students make up 28.7% of the international student population). One in five Chinese students (19.6%) comes to a UNC institution as an undergraduate student; another 15.2% come are connected through non-degree or optional practical training (OPT) programs. The majority (62.2%) attend our institutions as graduate students.

Seven of every ten Chinese students studying at UNC as *undergraduates* attend either UNC-Chapel Hill (36.1%) or NC State (34.6%). Adding in UNC Charlotte (12.7%) and UNC Greensboro (7.7%) means about 91% of Chinese undergraduate students are in four of our institutions. Chinese students make up more than half of the international undergraduate populations at both UNC-Chapel Hill (168/270) and NC State (161/281).

NC State attracts the majority of Chinese *non-degree* students in the system (67.5%), while UNC-Chapel Hill hosts the greatest share of those involved in Optional Practical Training (68.7%).

Among Chinese *graduate* students, 95% go to either NC State (55.5% of the system's Chinese graduate student total), UNC-Chapel Hill (23.4%) or UNC Charlotte (15.0%).

Focus on India:

| INDIA Fall 2012 | | India Enrollment | | | | |
|-----------------|---------------|------------------|----------|-----|---------|------------|
| Institution | Undergraduate | Graduate | N-Degree | OPT | Unknown | India Tot. |
| ASU | 1 | 2 | 2 | | | 5 |
| ECU | 1 | 13 | | 14 | 37 | 65 |
| FSU | | | | 1 | | 1 |
| NC A&T | | 18 | | 19 | | 37 |
| NCCU | | 1 | | 1 | | 2 |
| NCSU | 44 | 878 | 16 | | | 938 |
| UNC - CH | 20 | 134 | 4 | 30 | | 188 |
| UNCA | | | | | | 0 |
| UNCC | 7 | 284 | | | | 291 |
| UNCG | 4 | 29 | | 44 | | 77 |
| UNCP | 1 | | | | | 1 |
| UNCW | 1 | | | | | 1 |
| WCU | | 1 | | | | 1 |
| WSSU | | 4 | | 3 | 4 | 8 |
| Total | 79 | 1364 | 22 | 112 | 41 | 1615 |

Indian students, who make up 17.6% of all international students at UNC (nationally, Indian students make up 11.8% of all international students), are even more likely than Chinese students to come here as graduate students. In all about 95% of Indian students are here as graduate, OPT or nondegree-seeking students. Moreover, these Indian graduate and postgraduate students overwhelmingly attend three institutions: NC State (61.1%); UNC Charlotte (19.4%) or UNC-Chapel Hill (11.5%). The campus with the highest percentage of Indian graduate students is at UNC Charlotte, where Indians make up 42.6% of all graduate students.

Just 4.9% of all Indian students attending UNC institutions come as undergraduates, with 8 of every 10 attending either NC State (56.4%) or UNC-Chapel Hill (25.6%).

More recent national data suggests Indian interest in graduate education is continuing to rise. Initial offers of admission to Indian graduate students were up 25% in 2013-2014.^{lxxvii}

Brazil, Mexico and Africa:

The other three geographies highlighted in the UNC Strategic Plan have large potential upsides, but so far have limited enrollment. Brazil sends just 94 students to UNC, with 35 going to NC State, 13 to UNC-Chapel Hill and 11 to UNCW. Mexico sends 62 total, with 23 attending UNC-Chapel Hill and 17 NC State.

More recent data suggests a surge in Brazilian graduate students coming in to the United States, in response to support offered by the Brazilian government. Final offers of admission to Brazilians applying to U.S. graduate schools were up 46% in 2012-2013 compared to 2011-2012, and initial offers of admission for Brazilian graduate students were up 98% in 2013-2014 compared with 2012-2013.^{lxxviii}

Taking the countries of Africa as a group, UNC institutions enroll a total of 346 students, with 31.8% enrolled as undergraduates, 49.7% as graduate students and 18.5% in other categories. Nine UNC institutions enroll 10 or more student from African countries. NC State (24.7% of the total) and NC A&T State (19.4%) are followed by UNC-Chapel Hill, UNC Charlotte, NC Central, UNC Greensboro, East Carolina, Appalachian State and Winston-Salem State.

Comments:

International students offer an important way for institutions to bring in high quality students, to selectively target students interested in particular degree programs, to expose native students to different perspectives and to establish relationships with individuals and markets that can strengthen individual, institutional, state and business relationships.

Growth potential:

As the number of high school graduates in the United States plateaus and enrollment on some campuses stagnates, the competition for international students is intensifying, as campuses look for help in stabilizing enrollment. In 2013, 819,644 international students, about 19% of all students studying outside of their country, came to US colleges and universities. That percentage is down from 2000, when US universities captured 23% of the world market,^{lxxxix} but still represents an all-time high number, and the students studying in the US contributed to an estimated \$24 billion to the US economy.

UNC has not analyzed international student data since the 2004-2005 academic year, but there has been growth in both absolute numbers (up from 5188 in 2004 to 9193 in 2012, a 77% increase), as well as a slight increase in UNC's share of total US international enrollments (up from 0.9% in 2004 to 1.1% in 2012). Today just over 4% of UNC's total student body is international, up from about 2.5% in 2004, led by steady growth in Chinese and Indian students.

| Growth in international students at UNC 2004-2012 | 2004 | 2012 | % Increase/Decrease |
|---|---------|---------|---------------------|
| Enrollments | 5188 | 9193 | 77.2% |
| Most International Students | NCSU | NCSU | |
| Graduate Enrollment/Total Enrollment | 72.0% | 71.1% | -1.3% |
| Undergraduate Enrollment/Total Enrollment | 28.0% | 28.8% | 2.9% |
| International Students as a % of UNC Student Body | 2.47% | 4.2% | 70.0% |
| China Enrollments | 900 | 2379 | 164.3% |
| India Enrollments | 891 | 1615 | 81.4% |
| USA International Student Enrollments | 572,509 | 819,644 | 43.2% |
| % USA Captured of Total Int. Enrollments | 23% | 19% | -18.5% |
| % UNC Captured of USA Int. Enrollments | 0.90% | 1.10% | 22.2% |

Still competition is increasing for global students, both across the world and in the US. Some public universities are aggressively pursuing international students, in many cases for budgetary reasons: at the University of Illinois, for example, nearly 10% of this year's entering freshman class is from China.^{lxxx} And countries throughout the world, from Australia and Canada to Germany to New Zealand to Japan, are mounting efforts of their own, both to compete for students, send more students abroad and to raise their global rankings.^{lxxxi}

One obvious place where UNC campuses might recruit new international students is in India, where there are 600 million people under 25 and the government is facing intense pressure to increase



The Slovakia-Carolina-California – India-Lenoir Connection

When Peter Gajdos came from Slovakia to North Carolina, his main contribution was supposed to be on the soccer pitch. He was recruited to UNC-Chapel Hill on a sports scholarship, and nearly had to return home after he left the team. But Carolina stepped in with new funding to help him finish college.

Now, less than a decade after graduating, Gajdos is overseeing a multi-million dollar investment in North Carolina's advanced manufacturing economy. The former soccer star is a portfolio manager at San Francisco-based CMEA Capital, where he oversees a sizable stake in Lenoir-based Exela Pharma Sciences.

"You never know where your investment flows are going to come from," Gajdos said. "I'm a UNC graduate from Slovakia helping invest California money in a North Carolina company run by an Indian-American entrepreneur. The world is globalizing, and you have to be ready to take advantage of that trend."

Exela's facility in Lenoir manufactures both specialty and generic pharmaceuticals, and also houses an advanced research and development center. The company has steadily added well-paying jobs in Caldwell County, helping anchor a local economy that was badly hit by the decline in North Carolina textile manufacturing.

"This kind of global investment is supported by a strong, educated workforce," Gajdos said. "International students are a part of that, giving you the ability to deal with global firms and help build connections with business all over the world."

education levels. With current high school graduation rates increasing from 33% currently to a projected 50% by 2017, that means there will be 20 million high school graduates each year in India by 2017, with a disproportionate interest in science, technology, engineering and math.^{lxxxii} With UNC campuses currently attracting about 1.6% of all Indian students studying in the US, and just 0.8% of all Indian students studying abroad, it is not hard to imagine increasing the number of Indian students studying here.^{lxxxiii} It is also clear that other countries are seeing the same potential; this year both Germany and New Zealand have increased the number of Indians enrolling by more than 30%.^{lxxxiv}

In some cases there is government scholarship money supporting international students study in the US. Saudi Arabia's King Abdullah Scholarship Program sends out scholars across the world each year. In September 2014, Nigeria announced a commitment to send 200 students to US HBCU's each year beginning in 2015.^{lxxxv}

Managing recruiting costs

Part of the problem for campuses hoping to recruit international students is the upfront cost of recruitment. While a few U.S. campuses have budgets that enable them to recruit in multiple countries, most rely on word of mouth or other means.

Most students considering study abroad in most countries simply don't know where North Carolina is, don't know the quality of our institutions and don't have any easy way of finding out. Absent a coherent marketing campaign, strong word of mouth or both many international students will rely exclusively on international university rankings in making their decisions, excluding many of our campuses that could provide them with an excellent education.

UNC campuses are experimenting with ways of increasing visibility. In the past they have shared costs of a booth at international student recruitment fairs, or asked representatives from UNC Exchange Program to distribute brochures. Some campuses leverage the connections and visibility they have through partnerships with international universities to recruit high school students attached to those universities. But student recruitment budgets are small for any individual school to launch a broad recruitment effort.

Wake Forest University has found a creative way to increase recruitment, while getting international parents to bear the cost. In the Jiangsu province in China, the [Wake Forest Advantage](#) program offers Chinese students the chance to learn teamwork, presentation skills, practice English speaking skills and develop a digital portfolio to show their creativity to US universities. Wake Forest doesn't promise admission to participating students, but clearly generates interest in the school among participating students. The North Carolina School of Science and Mathematics may be able to play a similar role. NCSSM's ["Summer Accelerator Program,"](#) a series of STEM-intensive summer courses, is looking to include more international students in the future

“Meeting international students is like visiting the whole world without an airplane.”

Hanin Elathram, UNC Charlotte student

of its classes, students who will become familiar with North Carolina’s universities during their time here.

Morgan State University, an HBCU in Maryland, has very intentionally connected to scholarship programs sponsored by the governments of Brazil and Saudi Arabia, resulting in 180 enrollments from those two countries alone in 20130-

2014.

Two years ago, working with the U.S. Commercial Service^{lxxxvi} UNC General Administration and UNC campuses created a website designed to explain to international students where North Carolina is and tell visitors about its universities. Since then the site, StudyNorthCarolina.us, has expanded to include participating private universities and community colleges in the state (see Appendix F).

The StudyNorthCarolina.us website markets all participating campuses, a joint effort to put North Carolina, and North Carolina college campuses, “on the map.”

The State University of New York system has taken this shared service approach to another level. There, participating campuses agreed to reallocate one semester of tuition to the system office in exchange for a well-financed joint marketing effort. The international student recruitment council has set as a goal nearly doubling international student enrollment over a five year period.^{lxxxvii}

Other campuses outsource international student recruitment, using a variety of companies that will assist with various parts of the process. Among other services, there are companies that will assist with marketing through websearch optimization, social media and other means to targeted countries. Student agents may represent students looking for universities or represent universities looking for students, or in some cases both; another set of companies will screen or qualify agents for universities. Other companies will screen students to make sure their credentials are accurate, or to assess their English skills, or work with students once they have applied to convince them to choose a particular university. Finally, some companies offer to work with students even after they arrive to provide intensive English or cultural training.

UNC Charlotte’s English Language Training Institute (ELTI) shows how some campuses might offer some of these services themselves to increase international student enrollment. ELTI has been a key factor, for example, in helping UNC Charlotte increase the number of Saudi Arabian students it recruits. UNCC has had a long-standing relationship with Saudi Aramco, and is the third largest recipient of students the company sponsors to come to the United States for English training. That relationship has in turn led to other companies sponsoring students to come to UNCC. ELTI makes it possible for students who may have strong academic skills, but weaker English skills, to come to the US, as it provides intensive English training to them prior to starting classes. The collective efforts have paid off: UNC Charlotte currently has 132 Saudi students, more than half of the overall UNC total number of Saudis.

Fields of study:

Growing international student populations with limited budgets means doing a careful institution of an institution’s strengths, as well as a growing amount of available data that enables campuses to target marketing and recruitment efforts more specifically based on degrees, degree level and field of study.

International students in general are more interested in STEM (Science, Technology, Engineering and Mathematics) than are domestic students: currently at UNC about 66.9% of all international graduate students are in the STEM fields and 41% of undergraduate students; only about 28% of all undergraduates are in the STEM fields.^{lxxxviii}

Business is another field of intense interest to international students. The Brookings study finds that roughly one in three (32.4%) of international undergraduate students and 30.4% of master's students major in business, management or marketing.

A burgeoning set of data is available to determine where international students studying in the US are likely to come from within countries as well. Seventy-five percent of all international students come from cities of more than 5 million. Seven of the top twenty sources of international students are Chinese cities (Shanghai sent the most, with 29,145 students to the US last year) and five of the top twenty were in India (Hyderabad ranked highest among Indian cities, with 26,220 students).

Perhaps more importantly, universities can determine which degree programs will be most attractive to students in particular cities. For example, eight of the top ten cities in the world in percentage of STEM majors are in India: 85.6% of students coming to the US from Vijayawada, India majored in STEM subjects. A school looking to recruit international students for its business program might look to Ulaanbaatar, Mongolia, where 65.2% of students studying in the US study business, Ningpo, China (47.7%) or Sao Paulo, Brazil (40.1%).

Finally, campuses can look at growth curves for those subjects over time. UNC Charlotte's ELTI program is built in part off of analysis of the growing need among international students to improve language skills. In the past decade nationally, the number of foreign students taking language courses, for example, has skyrocketed from less than 2,000 students in the year 2001 to nearly 165,000 in 2011.^{lxxxix}

Universities can use a burgeoning set of data to determine which degree programs will be most attractive to students in particular cities. A school looking to recruit international students for its business program might look to Ulaanbaatar, Mongolia, where 65% of students studying in the US study business, Ningpo, China (48%) or Sao Paulo, Brazil (40%).

While there are undeniable benefits to having more international students on campus, for the university and for domestic students, if a campus wants to be successful in international recruitment in the long term, it must be aware that there are also costs that go beyond the cost of recruitment, including student support, English services, programs to integrate students into campus culture. UNC campuses are undertaking a wide range of efforts to make students feel welcome.

Investing in international student services

While there are undeniable benefits to having more international students on campus, for the university and for domestic students, if a campus wants to be successful in international recruitment in the long term, it must be aware that there are also costs that go beyond the cost of recruitment. Data on retention and graduation rates shows that overall, international undergraduates are slightly more likely than domestic students to return after their first and second years and to graduate within four years, but have slightly lower six-year graduation rates. Besides the initial cost of attracting students, campuses that experience success in retaining students also invest in supporting them once they arrive. Besides intensive English services for some students, campuses need to invest in a range of

services, including pickup from airports, assistance with visas, ensuring students understand transit systems and other items. They may need to create specific orientation sessions for international students, to provide consistent check-ins on academic and social progress, particularly early on, and to develop regular structured opportunities for international and domestic students to meet and share ideas and experiences.

Campuses have shown real creativity in connecting international students to their university communities, with events and services ranging from global orientations to mentoring programs to meetings and cultural celebrations connecting students to each other and the community. UNC Pembroke has recently launched a program to pair domestic and international students in conversation programs designed to improve the language skills of domestic and international students. UNC Wilmington takes all international students off campus for a one credit course in which they connect students to the city of Wilmington, visiting K-12 schools, the port, the jail and museums (for more information on UNC international student support programs, see Appendix G).

At a time of flat to declining domestic student enrollment and limited funds for students to travel globally, increasing the presence of international students on campus can represent an elegant solution for campuses seeking to become more globally connected. We should encourage continued creative strategies by campuses to increase their enrollment while exploring the opportunity for shared marketing and recruitment services among interested universities.

Convincing international students to stay in North Carolina:

Following graduation, international students offer North Carolina a potential workforce supplement, one that is more likely to have majored in the STEM disciplines and more likely to start businesses. Some states are taking

“Going to UNCW was the best choice I have ever made.

The biggest worry I had was classes. In my country, classes are more about listening to professors and taking notes. But in the US, it’s more about participation and communication with professors and classmates. Since my English was not perfect and I was simply not used to that kind of classroom environment, I was very worried and nervous on the first day. The most important thing for me was to get accustomed to the new environment, and what helped me a lot was the professors. They were always looking out for me because they knew it would be a little bit harder for me to keep up in class. Their kindness and concern made me feel comfortable and less nervous in my classes and thanks to them I was able to finish my exchange semester with good grades.

“UNCW’s Office of International Programs was really awesome. There were many things that were quite helpful for me, but if I have to choose one it would have to be the class called Seminar for International Students. Visiting a local school, hospital, and downtown was not only interesting but also a great opportunity to get to know about Wilmington and make other international friends.”

Bohyun Kim, South Korean exchange student at UNCW

intentional steps to reach out to these students and convince them to stay.^{xc}

North Carolina has no organized program for doing that, but there have been some preliminary efforts. The Center for International Understanding held an “Immigration Matters” Forum in 2013, bringing together education, high tech and business leaders for a bipartisan discussion of immigration policy and the contribution immigrants could make to the state’s workforce. Former NC Governor Bev Perdue held receptions at the Governor’s Mansion in 2011 and 2012 for all Chinese and Indian graduate students in the state, putting it this way: “We hope you will stay in North Carolina following graduation. But if you go back to your home country, we want you to remember North Carolina when you are deciding where you want to do business.”

Business leaders such as SAS CEO Jim Goodnight have been calling for increased efforts to convince foreign students to stay in the state following graduation: “If we don't capture the best and brightest and we let them go back overseas,” he noted in July 2014, “Then that's where the innovation is going to occur.”^{xc} In kicking off his “1000 in 100” workforce development tour in September 2014, Gov. Pat McCrory suggested the state should look for ways to increase retention. He said: “Too many international students excel at North Carolina’s universities but face challenges to find a job and stay here.”^{xcii}

Besides its suggestions to increase assistance to companies seeking to export, increase efforts to attract foreign direct investment and leverage corporate connections to boost economic recruitment, the NC Economic Development Board is encouraging universities to use their alumni networks and connections to international partners to assist in economic development and calling for the state as a

Too many international students excel at North Carolina’s universities but face challenges to find a job and stay here.” Gov. Pat McCrory, September 25, 2014

whole to look at ways to establish North Carolina as “the destination for creative talent.”

UNC can and must do more, not just to ensure that international students are fully integrated into the life of the campus while they attend our institutions, but that they get to see meaningful opportunities that might await them if

they stay following graduation. Making that case to international students will involve more than UNC, but the University must be ready to do its part.

Takeaways:

- Bringing in international students can help “internationalize” students who can’t study abroad.
- There are good opportunities to increase the number of international students on campuses
- Recruiting and ensuring the success of international students will require some ongoing investment; there may be opportunities for shared services.
- UNC should look for opportunities to convene or join statewide efforts to develop a comprehensive global strategy; this is a key element of the new strategic plan of the Center for International Understanding.

Appendix A: SBTDC's International Business Development Program

The SBTDC's International Business Development (IBD) program focuses on increasing the number of small and medium-sized enterprises (SME's) in North Carolina that are exporting, and assisting existing small business exporters in expanding their foreign market sales. The program operates with three IBD counselors located at UNC-Charlotte, Winston-Salem State University and NC State University. All IBD counselors maintain their Certified Global Business Professional (CGBP) designation. IBD confidential counseling services revolve around advice on export planning and understanding "the business side of exporting" in the following areas:

- Determining export readiness for "new-to-export" clients
- Developing strategies and tactics for existing "new-to-market" clients
- Understanding basic agency and distribution agreements, export licensing, and logistics
- Evaluating costs, pricing, and trade finance options including SBA and the US Export-Import Bank

IBD Student-Faculty Liaison Program

To build overall capacity, the SBTDC's IBD Program fosters an innovative and collaborative statewide export assistance program aimed at significantly increasing exports from SMEs by engaging faculty and students across SBTDC regional centers. The program consists of three phases: (1) establishing faculty liaison partners with host campus MBA programs; (2) recruiting 1-2 MBA students at each campus for student engagement projects; and (3) mentoring MBA students on assisting SMEs with export planning.

IBD OUTCOMES & IMPACT (2013)

- Counseled 343 clients on export-related issues
- Supported \$9.5 million in export sales
- Created or retained 498 jobs
- Capital formation of over \$6.9 million

ImmunoReagents, Inc.

Dr. Ann Black of ImmunoReagents, Inc., a manufacturer of polyclonal antibodies in Raleigh, was named SBA Exporter of the Year for 2013. She began with 17 products and \$20,000 in sales in 2006, and currently offers over 2,000 products to the research and diagnostic marketplace in the US, Canada, and over 20 countries in Europe and Asia. An IBD counselor helped her create an export strategy, evaluate pricing and determine logistics. A law student helped add anticorruption language into distribution agreements, and an MBA student helped ImmunoReagents prepare a marketing plan for a global sales meeting in Germany. The company now has 11 full-time employees and over \$1 million in annual sales.

“ImmunoReagents strategic alliance with the SBTDC ... provides a sounding board when I have to make important decisions” – Ann Black

Vessoclude Medical, LLC

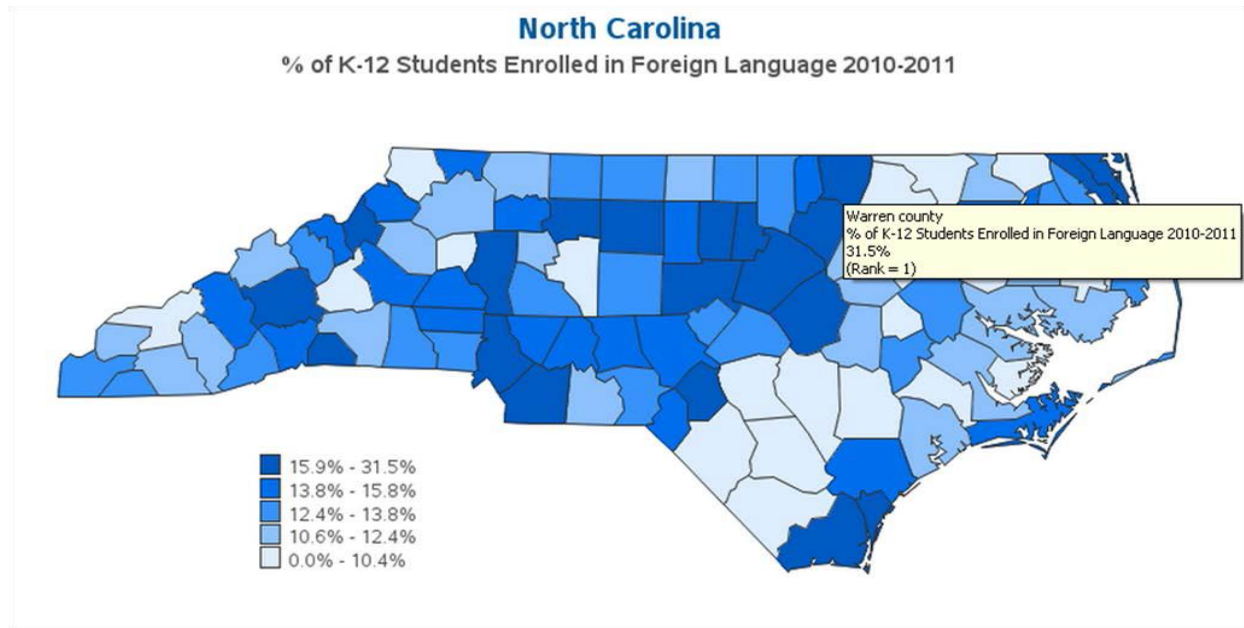
Freddy Cannady founded Vessoclude Medical in 2005 after losing his job to outsourcing. In 2012, this Raleigh-based small medical device manufacturer contacted the SBTDC for assistance with finding export working capital to prepare for increased demand from Europe. The SBTDC worked with Freddy to assess SBA and Ex-im Bank working capital programs, and review distribution agreements and financials. IBD also arranged for an MBA student with a medical supply background to help develop an international marketing plan. With the SBTDC's support, Vessoclude's export reach and sales are growing, including over \$1 million in new sales to Europe, Japan, and Mexico. Based on this success, Freddy Cannady was selected as the SBA's Exporter of the Year for 2014.

“The SBTDC has helped me take risks and compete with larger businesses with more confidence” – Freddy Cannady

The SBTDC is a program of the University of North Carolina, with administrative headquarters at NC State. It is funded in part through a cooperative agreement with the U.S. Small Business Administration.

Appendix B: UNC Center for International Understanding “Heat Map”

In May of 2012, the Center for International Understanding introduced a new tool providing snapshots of “what’s global” in each of North Carolina’s 100 counties, a tool that has become a vital data source, a local conversation starter and a national model. The “heat map” was a first-of-its-kind model, showing, for the first time, county-specific global demographic, education and economic data for all 100 counties, thanks to the SAS-built application.



The Global NC Heat Map was created in response to calls from NC policy leaders for specific, local information showing international connections. The county-by-county breakdown revealed some interesting facts:

- Warren County is ranked #1 in the state in percentage of K-12 students enrolled in foreign language classes (31.5%)
- Foreign-owned companies provide 4,600 jobs in Iredell County
- Hertford County’s foreign-born population increased 149% between 2000 and 2010
- Rockingham County exports totaled \$1.5 billion in 2011
- Craven County has 19 International Sister Cities

Since the launch, CIU has updated the data to include agricultural exports and Latino/Hispanic birth rates and public school enrollment. Uses for the Heat Map, among others, include lesson-planning for K-12 classrooms, sparking regional economic discussions, making the case for expanding global education efforts,

describing demographic shifts, and quantifying the economic impact of international students on North Carolina campuses.

The Heat Map went national in November of 2013 when two organizations focused on global education – Asia Society and the Longview Foundation – worked with SAS to expand the North Carolina county-by-county platform to the entire nation. Mapping the Nation was launched “to prove what parents, businesspeople, and policymakers already know: American students must be globally competent to succeed in the interconnected 21st century.”

U.S. Education Secretary Arne Duncan unveiled the national Heat Map to show international connections for every county in the U.S. – from jobs tied to global trade and immigrants with rich linguistic resources, to billions of dollars contributed to our economy by international students studying in the U.S.

An explicit goal of the national project is to reveal a significant education gap: not enough U.S. students at any level, K-16, are gaining the global knowledge and skills needed for success in the dynamic, new environment.

FIND THE CIU HEAT MAP: <http://ciu.northcarolina.edu/global-heatmap/>

FIND THE NATIONAL HEAT MAP HERE: <http://mappingthenation.net/>

The Center for International Understanding is a part of UNC General Administration.

Appendix C: UNC Foreign Language Enrollments by Campus 2012-2013

*May not add to 100% due to rounding

| | Language | % Enrollment | | Language | % Enrollment |
|-------------------|------------|--------------|-------------|------------|--------------|
| ASU | Arabic | 1.6% | ECU | French | 14.7% |
| | Chinese | 4.0% | | German | 8.0% |
| | French | 14.5% | | Greek | 1.0% |
| | German | 7.2% | | Italian | 2.0% |
| | Japanese | 4.9% | | Japanese | 2.5% |
| | Latin | 1.0% | | Latin | 4.9% |
| | Portuguese | 1.7% | | Russian | 1.8% |
| | Russian | 3.5% | | Spanish | 65.2% |
| | Spanish | 61.7% | FSU | Chinese | 12.4% |
| ECSU | Chinese | 0.0% | | French | 15.6% |
| | French | 14.4% | | Spanish | 71.1% |
| | Hindu | 0.0% | | Yoruba | 1.0% |
| | Spanish | 85.6% | NCCU | French | 5.2% |
| NC A&T | Japanese | 2.5% | | German | 3.5% |
| | Portuguese | 0.0% | | Spanish | 91.3% |
| | French | 26.3% | UNCA | Greek | 11.7% |
| | German | 0.0% | | French | 24.1% |
| | Spanish | 71.2% | | German | 7.5% |
| NCSU | Arabic | 3.4% | | Portuguese | 1.5% |
| | Chinese | 4.2% | | Spanish | 55.2% |
| | French | 10.6% | UNCC | Arabic | 1.1% |
| | German | 6.7% | | Chinese | 2.1% |
| | Italian | 3.8% | | French | 7.9% |
| | Japanese | 5.0% | | German | 5.4% |
| | Hindu | 0.8% | | Greek | 0.1% |
| | Portuguese | 0.9% | | Italian | 3.8% |
| | Russian | 1.0% | | Japanese | 8.6% |
| | Spanish | 59.2% | | Latin | 0.4% |
| | Greek | 2.7% | | Portuguese | 1.4% |
| | Latin | 1.3% | | Russian | 1.9% |
| | Persian | 0.3% | | Spanish | 67.3% |
| UNCG | French | 15.0% | UNCP | Chinese | 4.8% |
| | German | 10.3% | | French | 6.8% |
| | Greek | 0.6% | | German | 0.0% |
| | Italian | 2.0% | | Latin | 2.1% |
| | Latin | 3.7% | | Russian | 0.0% |
| | Russian | 3.2% | | Spanish | 86.2% |
| | Spanish | 65.2% | | | |

| | | | | | |
|---------------|-------------------------|-------|--------------|------------|-------|
| UNC-CH | Czech | 0.2% | UNCSA | French | 37.6% |
| | Dutch | 0.1% | | German | 15.4% |
| | French | 11.5% | | Italian | 15.8% |
| | German | 6.0% | | Spanish | 31.2% |
| | Greek | 1.1% | WCU | Cherokee | 4.1% |
| | Hungary | 0.1% | | Chinese | 0.0% |
| | Italian | 6.1% | | French | 3.6% |
| | Latin | 2.8% | | German | 10.2% |
| | Yucatec Mayan | 0.1% | | Japanese | 11.6% |
| | Polish | 0.1% | | Spanish | 36.4% |
| | Portuguese | 4.7% | | French | 2.9% |
| | Russian | 2.0% | | Portuguese | 2.2% |
| | Serbian and Croatian | 0.1% | | Spanish | 29.1% |
| | Spanish | 52.2% | UNCW | Chinese | 1.9% |
| | Turkish | 0.1% | | French | 17.3% |
| | Arabic | 2.7% | | German | 7.8% |
| | Chinese | 4.0% | | Japanese | 2.2% |
| | Hindi-Urdu | 1.6% | | Latin | 3.8% |
| | Japanese | 2.6% | | Portuguese | 2.2% |
| | Korean | 1.2% | | Russian | 2.0% |
| | Persian | 0.3% | | Spanish | 62.8% |
| | Modern Hebrew | 0.4% | | | |

Appendix D: UNC Campus Strongest International Partnerships

ASU:

1. **University of the Free State (UFS), Bloemfontein, South Africa.** Several programmatic activities taking place that are multidimensional: faculty and student exchanges in the nursing field; pre-health honors' International Clinical Education Opportunity Program where Appalachian honors students spend four weeks at UFS for clinical observations; Student Teaching Practicum where Appalachian students are housed at UFS while doing their student teaching practicum at St. Mary's School in Bloemfontein; faculty exchanges in history; and visits by high-ranking university officials on both sides involving several staff and faculty members.
2. **Beijing International Studies University (BISU), Beijing, China.** Programmatic activities in several areas: Summer training program focused on student-focused teaching methodologies for English faculty members at BISU; student exchanges; faculty exchanges, mainly from China to Appalachian; a new 1+1+1 MBA Degree Program where BISU students directly enroll in Appalachian's MBA Program and receive an Appalachian degree and return home to complete another degree with Appalachian credits counting toward a second degree at BISU; implementing a joint Global Understanding Course taught through video conferencing facilities and other technologies; and visits by high-ranking university officials on both directions involving faculty and staff.
3. **Burapha University (BUU), Bangsaen, Thailand.** Programmatic activities in several areas: student exchanges; an Appalachian faculty-led program based at BUU for two weeks; a 2+2 Degree Program where Thai undergraduate students study for two years and then transfer to Appalachian for their last two years and earn a degree from both Appalachian and BUU; faculty exchanges, mainly from Appalachian to BUU; a new 1+1 MBA Degree Program where BUU students directly enroll in Appalachian's MBA Program and receive an Appalachian degree and return home to complete another degree with Appalachian credits counting toward a second degree at BUU; implementing a joint Global Understanding Course taught through video conferencing facilities and other technologies; a new program at Appalachian to train BUU's assistant/associate deans in the roles and responsibilities of an assistant/associate dean; and visits by high-ranking university officials on both directions involving faculty and staff.

ECU:

1. **Universidad San Francisco de Quito (USFQ), Quito, Ecuador.** A solid ECU partner for more than two decades, annually swapping enrolling students on a one-for-one basis. In 2009 the relationship was extended to enrolling USFQ students in ECU's now-annual Disney Hospitality Leadership Program. USFQ has twice hosted ECU professors participating in our two-year Faculty Language Development Program, leading to academic relationships in a number of fields and providing them with further classes in Spanish as well as activities designed to acquaint ECU faculty with Ecuadorean cultures and history.
2. **Shandong University, Shandong, China.** A partner since the Fall of 2008. They have participated in this past semester's Global Leadership course and, previously, in the Global Climate Change Course. In addition, they typically participate in two Global Understanding classes each semester. They have also participated in additional GAI activities including a summer class on design, individual links about recreation and leisure, and lecture exchanges.
3. **Krosno State College (KSC), Krosno, Poland.** Very active in the Global Understanding courses and last semester participated in the Global Leadership course. In the summer of 2012, two ECU

students and one ECU faculty member were invited to KSC to participate in a summer course on Narration and Migration, while representatives from KSC have visited ECU on multiple occasions, developing a relationship with the School of Communication and hosting a summer 2013 study program through that school. KSC hosted the 6th Annual Global Partners in Education conference in 2013.

FSU:

1. **Baotou Teachers' College (BTTC) located in Baotou City, Inner Mongolia, China.** The partnership was established in June 2010. We established 2+2 dual degree program in English and Education. BTTC sends 2 to 4 fee paying students to FSU every year since 2010. All BTTC students successfully complete the program in two years, and they received BA degree from FSU. Since 2011 academic year, we offer videoconference courses (Global Understanding courses) with BTTC every year. In 2013-14 academic year, two courses (World Religions and International Business) were offered with BTTC. FSU faculty and students interact with BTTC faculty and students in these courses.
2. **Inner Mongolia Normal University (IMNU) located in Hohhot City, Inner Mongolia, China.** The partnership was first established in May 2004. We established 2+2 dual degree program in English. IMNU sends 1 to 3 fee paying students to FSU every year since 2012. All IMNU students successfully complete the program in two years, and they received BA degree from FSU. Since 2013 academic year, we offer videoconference courses (Global Understanding courses) with IMNU. In 2013-14 academic year, two courses (World Religions and International Business) were offered with IMNU. FSU faculty and students interact with IMNU faculty and students. IMNU reserves two full scholarships (including the Chinese Government Scholarship) for FSU students and graduates. This scholarship covers tuition and fees, room and board, and small stipend. Since 2008, five FSU students used this scholarships to study at IMNU.
3. **East China University of Science and Technology (ECUST) located in Shanghai, China.** The partnership was first established in May 2004. We established 3+1 dual degree program in Mathematics and Computer Science. ECUST sends 4 to 10 fee paying students to FSU every year since 2008. All ECUST students successfully complete the program in one years, and they received BS degree from FSU.

NCA&T:

1. **Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana.** Established, 1996. Partnership initially started as an exchange program for under-graduates. Eventually, a model was developed where A&T undergrads exchanged w/KNUST grad students and junior faculty. Over 20 NC A&T students have spent a semester at KNUST (with over 100 participants in short-term visits). Other engagement has included: 1) Short term visits for KNUST senior project students, 2) A "sandwich program" – KNUST degree w/research done at NC A&T, 3) 17 KNUST faculty earned PhD's at NC A&T.
2. **Henan Polytechnic University, Henan China.** Established 2009. Multi-faceted relationship, beginning with an NCAT delegation to China in Fall 2009, activities have included:
 - 1) Opportunities for NC A&T faculty and students to teach at HPU, 2) Opportunities for HPU faculty to complete research at NC A&T, 3) Virtual classrooms with NC A&T's GSCP 200 courses, 4) 2+2 program in Mechanical and Chemical Engineering, established in Fall 2012. NC

A&T will receive its first group of HPU students in Fall 2014.

3. **CAPES-FIPSE Brazil Engineering Program (Federal University-Rio de Janeiro, Federal University-Juiz de Fora, and Pontifica Catholic University of Parana-Rio de Janeiro, Juiz de Fora and Curitiba).** Established 2003. Since 2004, NC A&T has sent approximately 19 engineering students on this program (which includes an intensive month of Portuguese language study and engineering courses taught in Portuguese). NC A&T has received approximately 17 exchange students from Brazil via the CAPES-FIPSE program. 3 Brazilian exchange students have returned to NC A&T to complete either an MA or Ph.D.

NCCU:

1. **The Civil Service Agency in Monrovia, Liberia.** Established in 2007, the partnership is considered strong because it has been active since its inception. It has provided invaluable experiences for our Executive Masters in Public Administration and our Masters in Public Administration students who have engaged in internships in Liberia during the summer.
2. **The Royal School of Library and Information Science in Copenhagen, Denmark.** Established in 2008, this partnership has given an opportunity to more than 40 students to study and experience Danish educational, social, healthcare and library systems.
3. **The Ghana Institute of Public Administration (GIMPA) in Accra, Ghana.** Established in 2008, it has been productive and active and has continued to provide an internship and study experience for the Executive Masters in Public Administration at GIMPA. This partnership has provided reciprocal short-term study opportunity for students at NCCU and GIMPA with 10 students from GIMPA attending a weeklong symposium on Comparative Public Administration at NCCU during the 2010-2011 academic year.

NCSU:

1. **Nanjing Normal University (NNU), Nanjing (Jiangsu Province), China.** Established 2006. The partnership is strong because of the support by senior leadership as well as engaged faculty and staff from both universities respectively. With the establishment of the Confucius Institute at NC State in 2007 (first in Southeast), there has been ongoing exchanges of visiting professors as well as cross-cultural education, summer study abroad programs, and other academic initiatives such as one launched in 2013 for graduate studies in Financial Mathematics. Through this partnership to promote greater understanding of Chinese language and culture through courses, educational seminars and outreach activities, NNU instructors come to NC State and bring resources to fulfill the mission of the Confucius Institute (CI). The CI contributes to language instruction and cross-cultural understanding at NC State, in the public school system, and wider business community in the Triangle.
2. **University of Surrey, Guilford, Surrey, United Kingdom.** Established 2006. Similarly to other strong partnerships, the one with the University of Surrey can be characterized as being supported by senior leadership as well as faculty involved in research collaboration. Both universities also established a student exchange program as well as a dual degree program in 2008. The University of Surrey along with the University of Sao Paulo, Brazil constitutes the small academic network known as the University Global Partnership Network. The UGPN has facilitated opportunities for student mobility at undergraduate and graduate levels, short-term visits by faculty to conduct research, seed funding of joint research projects as well as a few staff exchanges.
3. **Universidade de Sao Paulo, Sao Paulo, Brazil.** Established 2009. As the third member of the

University Global Partnership Network (UGPN) with NC State and the University of Surrey, elements of the mini-consortium are noted above. Additionally, the partnership with the University of Sao Paulo led to a broader engagement in Sao Paulo with FAPESP (Sao Paulo Research Foundation) to further support development of research collaboration.

UNCA:

1. **University of Chester, Chester England.** Established as an exchange partner in the mid '90s. It is strong because of the close parallel of the curriculum and strong interest among students.
2. **Catholic University of the West, Angers, France.** Established as an exchange partner in early 2000s. Its strength is that it has both a language institute as well as regular classes for our students. It also offers summer programs as well.
3. **Hannam University, Daejeon, Korea.** Established as an exchange partner in 2009. Its strength is that we have both a semester/year exchange agreement but Hannam offers a summer program. Our education department is working on more collaboration and has plans to send more Education students to the summer program to increase our efforts in internationalizing teacher education. Hannam University sends a yearly delegation to UNCA to continue relationship-building.

UNC-CH:

Note: UNC-Chapel Hill has six declared strategic partnerships: King's College London, National University of Singapore, Peking University, Tsinghua University, Universidad San Francisco de Quito/Galapagos Initiative, and Malawi Ministry of Health/UNC Project-Malawi. Of these, the four described below are the strongest and most developed.

1. **Kings College, London, England (Great Britain).** Established 2005 (formal agreement signed). The partnership was initiated between UNC's College of Arts and Sciences and King's School of Arts and Humanities and School of Social Science and Public Policy, it continues to grow across campus and now includes disciplines such as classics, dentistry, digital humanities, history, English, medical humanities, law, medicine, music, nursing, philosophy, political economy, political science, public health, religious studies, and war studies. Undergraduate and graduate students participate in exchanges and research at the partner institution. Graduate students also benefit from short-term research visits, student-organized workshops, and joint PhD committees. The partnership has expanded beyond student exchange to incorporate faculty and departmental/school collaborations, including conferences, colloquia, joint research projects, and publications - based on a shared institutional research vision and excellence. Additionally, King's has funded staff development visits for one-week professional development opportunities at UNC.
2. **National University of Singapore.** Established 2003 (formal agreement signed). Since 2005, UNC has received more than 200 students from the National University of Singapore and sent more than 400 UNC students to NUS, including more than 200 students through the Carolina Southeast Asia Summer Program. Summer programs and semester exchanges currently exist for UNC students with NUS' Faculty of Arts and Social Sciences, Faculty of Science, University Scholars Program, School of Computing, and Faculty of Business. In 2007, the universities established the UNC-NUS undergraduate joint degree program in which students complete common curricular requirements and spend one to two years at the partner institution. Currently, students majoring in

biology, economics, English, geography, history, and political science can participate, with additional subjects being discussed. Joint research and other collaborations are taking place with NUS and UNC's College of Arts and Sciences and Schools of Dentistry, Medicine, Pharmacy, Public Health, and Dentistry.

3. **Malawi Ministry of Health/UNC Project- Malawi, Lilongwe, Malawi.** Project-Malawi founded in 1997. More than twenty years ago, UNC faculty received a U.S. AID grant to help Malawi develop sexually transmitted infection treatment protocols. In 1997, in partnership with the Malawi Ministry of Health, UNC Project-Malawi was established to identify innovative, culturally acceptable, and relatively inexpensive methods to improve health care in Malawi, through research, health systems strengthening, prevention, training, and care. From the original focus on HIV and STIs, UNC Project-Malawi has expanded research to include infectious diseases such as malaria and tuberculosis, nutrition, water, cancer, family planning, maternal health, surgery and injury prevention. In addition, health practitioners learn from and work with experts providing clinical care in adult medicine, antenatal care, HIV counseling/testing, HIV/AIDS treatment, internal medicine, pediatrics, surgery, and management of sexually transmitted infections. The project also provides training in lab science, medical geography, nursing, nutrition, adult medicine, pediatrics, obstetrics, gynecology and reproductive health, pathology, and surgery.
4. **Universidad San Francisco de Quito (USFQ) Galapagos Initiative, Quito and The Galapagos Islands, Ecuador.** Formal agreement signed 2007. In May 2011 UNC and USFQ dedicated the Galapagos Science Center (GSC) in Ecuador. The center serves as a focal point for the cooperative venture between the two institutions whose faculty, staff, and students are researching the impacts and interactions among the social, terrestrial, and marine sub-systems of the island's fragile ecosystems. The center has hosted study abroad programs for UNC science students since summer 2011 and also has agreements with other universities around the world to use the facilities. The center provides education and outreach to the community on population, health and environment. UNC's Center for Galapagos Studies, which oversees the GSC and the Galapagos Initiative, began as a research partnership between individual UNC faculty, USFQ, the Ecuadorian government, and NGOs such as the World Wildlife Fund, Conservation International, and the Galapagos National Park.

UNCC

1. **Kingston University, London, England (United Kingdom).** Established 1981. High level of activity and commitment among various UNC Charlotte academic and administrative departments. This resulted in approximately 75 students, faculty and staff members engaged in mobility activity between our two institutions this year. In addition, UNC Charlotte supports a faculty resident director each academic year at Kingston University and we are currently discussing a joint research symposium. This is our most active exchange partner.
2. **Pädagogische Hochschule Ludwigsburg, Ludwigsburg, Germany.** Established 1983. The long term exchange relationship has evolved to include a robust model initiative within UNC Charlotte's College of Education. Each year, over 25 faculty members (from both institutions) are involved in a symposium where teams present joint papers on various research topics of mutual interest. In addition, UNC Charlotte sends language students to spend semester or year abroad on

exchange and German students participate in student teaching appointment in Charlotte high school.

3. **Stellenbosch University, Stellenbosch, South Africa.** Established 2009. This relatively new partnership began as a semester long student exchange but has quickly evolved to include staff exchange and short term faculty led programming. In 2014-2015, the campus anticipates three short-term faculty-led programs to Stellenbosch, inbound/outbound faculty and staff exchange as well as the development of a joint research symposium on energy to take place during next academic year.

UNCG:

University of Oulu (Finland) - Established in 1993, UNCG has maintained a strong relationship with this university and we celebrated our 20 year anniversary during the spring of 2014. Over the years, we have nurtured a fruitful student exchange program swapping over 400 students over the years. We have also successfully leveraged our relationship to support research, faculty, and staff exchanges as well.

1. Shanghai University of Sport (China) - Our original MOU was signed in 2008 and was based on collaborative research. Since 2009, we have had the following activity between UNCG and SUS.
 - At least five faculty taught in short seminars at SUS (Kathleen Williams, Cathy Ennis, Ang Chen, Diane Gill and Joe Starnes) At least five faculty taught in short seminars at SUS (Kathleen Williams, Cathy Ennis, Ang Chen, Diane Gill and Joe Starnes)
 - We have had 15 Chinese visiting scholars in Kinesiology here on campus.
 - Have had 3 fully sponsored UNCG alumni receiving master's degrees at SUS (Cook, Johnson, Swelson).
 - Have hosted two summer institutes for visiting SUS students on campus - SUS students attend lecture courses and participate in American sport classes (football, lacrosse, and baseball) with UNCG students to experience American sport culture. Additionally, participants visit cultural sites and tour local sport sites (e.g., ACC Basketball Hall of Fame) during the program.
2. Universität Mannheim (Germany) - Our agreement began in 1993 and has remained highly active throughout the years. We have exchanged over 280 students since 1993 and have hosted several delegations.

UNCP:

1. **Bangor University, Gwynedd County, Wales (United Kingdom).** One of our strongest international partnerships is our bilateral with Bangor University in Wales. They have a lot of courses in English (obviously) that our students can fit into their major and graduation requirements. Their students are great! And our students have developed meaningful relationships with their students such that visits to Wales are planned and students are automatically recruited for the program.
2. **Linnaeus University, Kalmar, Sweden.** One of our strongest international partnerships is our bilateral with Linnaeus Uni. in Sweden. They have a lot of courses in English that our students can fit into their major and graduation requirements. Their students are great! And our students have developed meaningful relationships with their students such that visits to Sweden are planned and students are automatically recruited for the program.

UNCW:

1. **National University of Ireland Maynooth, Maynooth, Ireland.** Established 2011. In addition to robust student mobility numbers, Maynooth is our chosen site for a fall semester study abroad program for our first-year spring admit program. This is a perfect site for this cohort of students who require additional pastoral care. We are hoping that this will help with the retention of the cohort.
2. **Nelson Mandela Metropolitan University (NMMU), Port Elizabeth, South Africa.** Established mid 1990's. There has been significant collaboration among faculty and non-teaching staff in the areas of art and art history, education field experience, conflict resolution in political science, and institutional assessment. This has taken the form of guest lectures, site visits, and co-teaching courses.
3. **Kedge Business School, Marseille, France.** Established late 1990's. In addition to student mobility, Kedge is one of our partner institutions for the dual degree in business administration, part of the TransAtlantic Business School Alliance (TABSA). Moreover, each summer, our Cameron School of Business (CSB) creates a study abroad program housed at Kedge. Kedge also hires one of our CSB professors every summer to teach a business class. This is an enriching teaching opportunity for our faculty.

WCU:

1. **UNC EP.** Established 1997. This has been WCU's most active exchange with 120 incoming student semesters and 118 outgoing student semesters. It has also brought to WCU a number of students who would not have otherwise come to our campus and has made available affordable many destinations to our outgoing students that they would not have otherwise been able to consider.
2. **University of South Wales, Treforest and Cardiff, Wales (United Kingdom).** Established 1997. This is WCU's first bi-lateral exchange with 71 incoming and 76 outgoing semesters. This has enabled students from many majors to affordably study abroad in the U.K., and has been of particular interest to those in the Performing Arts to attend U. South Wales's Centre for Creative Industries.
3. **ISEP.** Established 2000. Not only is ISEP WCU's third most active exchange with 67 incoming semesters vs. 64.5 outgoing semesters, it has also brought to WCU a number of students who would not have otherwise come to our campus and has made available affordable many destinations to our outgoing students that they would not have otherwise been able to consider.

WSSU:

1. **Jamia Millia Islamia University (JMI), New Delhi, India.** After a preliminary visit to JMI in August 2013, a joint video conference course is now being developed to teach in Spring 2015. A visiting scholar from JMI came to WSSU as a colloquium speaker etc. in September 2014. Discussions have also been held in other areas to further develop a more comprehensive relationship and the signing of an MOU.

2. **Kenyatta University, Nairobi, Kenya.** This partnership has strengthened in the last two years with the development of a faculty-led study abroad experience in Kiswahili Studies, and an MOU has been signed.^{xciiii} The Dean of the College of Arts and Sciences as well as other WSSU faculty members have expressed an interest in collaborating with KU also in other areas.
3. **Federal University of Minas Gerais (UFMG), Belo Horizonte, Brazil.** This partnership was established as part of the FIPSE exchange program with 3 Brazilian Universities in 2009. As that partnership is in its last year, the relationship with UFMG emerged the strongest one with potential for a bilateral partnership. There have been discussions on programs for student exchange and an interdisciplinary faculty-led study abroad on identity, race and culture in Salvador (Bahai) is being developed.

NCSSM:

1. **Hangzhou Foreign Language School, Hangzhou, China.** Established 2012. Weekly interactive video link with two intermediate Chinese language classes here at NCSSM and two English language classes at HFLS. Brief (10 day) student exchanges, with groups of students and instructors from HFLS visiting NCSSM and NCSSM students and instructors visiting there. Two month residency (Fall 2014) of HFLS Physics instructor interacting with faculty and students at NCSSM.
2. **Beijing Royal School, Beijing China.** Established 2012. Interactive video course exchange with AP US History being taught to BRS students by a NCSSM instructor and a Chinese History and Culture seminar being taught to NCSSM students by a BRS instructor during 2012-13 academic year. An internationally focused online AP Economics course, incorporating a weekly interactive video component, is currently being developed to pilot with BRS.
3. **Winfried Schule Fulda, Fulda, Germany.** Established 2004. Repeated brief (10 day) student exchanges, with groups of students and instructors from Fulda visiting NCSSM and NCSSM students and instructors visiting there. Developed long-term professional relationships.

UNC EP:

1. **Ministry of Science, Research and the Arts, Germany, multiple cities hosted in Mannheim.** Established 1996. Long standing partnership with vigorous exchange; a free language immersion course is offered to UNC students; internship programming under development
2. **New South Wales, Vice Chancellor Committee, Australia, multiple cities, hosted in Sydney.** Established 2000. Very active exchange partnership; exploring possibilities for internship "add on" for UNC students.
3. **Fudan University, Shanghai, China.** Established 2011. While there are some challenges balancing incoming demand with outgoing UNC students, the Fudan University Summer Program has proven popular with UNC students and is supported with scholarships from the Municipality of Shanghai. In Summer 2014 ten UNC students participated with five students receiving Shanghai Municipal Scholarships; a WCU faculty member is teaching in the Fudan Summer Program.

Appendix E: ECU Global Understanding Courses

Program Overview:

To connect ECU more effectively to the world, Global Academic Initiatives uses innovative technology-based learning strategies to provide all ECU students access to first hand, real-time international experiences, including the 98% of ECU students who do not study abroad. The activities provide students at ECU and at 57 partner institutions in 30 countries on five continents the opportunity to develop essential skills necessary to succeed in a global, multicultural society.

History and Growth:

In AY2013/2014 more than 1000 ECU students and more than 2500 additional students around the world participated in our programming.

- A pilot Global Understanding course was first offered Summer 2003 with one partner institution in China.
- As of Fall 2014, 20 sections of the Global Understanding course is being offered at ECU across 9 departments in 3 colleges.
- ECU also offers discipline specific courses in Global Climate Change, Global Leadership and Global English. More are in development.
- Multiple short term course modules, single class day student interactions, guest lectures and special events are offered each semester.

Global Partners in Education:

All partner institutions are members of Global Partners in Education (GPE), an association led by ECU. Through GPE, ECU publishes an online, peer-reviewed journal focusing on Global Education (<http://www.gpejournal.org>) and partners come together for an annual conference hosted by a partner institution where we explore ways to improve and expand collaborations.

"In this partnership, I believe we enjoy not only all the research and education activities but also a strong friendship between members of the project we come from various cultural backgrounds yet we feel as if there were no boundaries limiting us from being a group that shares a vision to contribute to the advancement of research and education. This is our common ground." Faculty, Vladivostok State University of Economics and Service, Russia.

UNC Involvement:

In 2010 UNC-GA began funding seed efforts for other UNC institutions to adopt/adapt Global Understanding activities on their own campuses. Since that time, Global Academic Initiatives has served as a consultant as other UNC system schools developed partners in China and, most recently India. From this initiative WCU, WSSU, NCAT, App State, UNCC, UNC-P, UNC-CH, and FSU have developed a variety of global activities that have been implemented on their campuses.

For more information: http://www.ecu.edu/gai_leibowitzj@ecu.edu



Impact on Students:

Formal and anecdotal assessments indicate the success of these initiatives. Students show a significant increase in perspective taking and a decrease in intercultural communication anxiety:

Student Quotes

"The Global course has been both refreshing in its approach to education and immeasurable in terms of the value I have received in becoming a "global citizen." I thoroughly enjoyed the privileged experience and feel that a course such as this one is a necessity in an increasingly globalized world." Student, University of American College Skopje, Macedonia.

"Talking to students from around the world about America helps me understand America too. I think it is a great class for both Americans and students from other countries." Student, East Carolina University, USA.

"If more people had an opportunity like this class, international stereotypes and conflict will be resolved." Student, University of Shimane, Japan.

Appendix F: Study North Carolina website



The Study North Carolina website (<http://studynorthcarolina.us/>) was launched in November 2011 as a strategy to increase awareness of North Carolina and “establish North Carolina as a top choice for international students.” destination for international students. The website, developed with the encouragement and support of the U.S. Commercial Service and partner campuses, is designed to introduce the state of North Carolina--where it is and what it is known for—and particularly to showcase our great educational institutions. A particular challenge is that the state does not enjoy the same name recognition in international circles as other states such as New York and California. Only eight North Carolina colleges show up in the top 200 U.S. News & World Report college rankings, and only two show up in the Shanghai global university ranking report.

Proposed by the UNC University Council on International Programs Economic Development Task Force, the site was originally a cooperative venture between the campuses of the UNC system and the U.S. Department of Commerce. UNC-GA managed the site which was built by Raleigh-based O3Strategies. The vision to expand and include independent and community colleges across the state is in process. In January 2013 Study North Carolina incorporated, and at its first organizational meeting elected a Board of Directors that includes representation from across UNC, the independents, and community colleges, and is awaiting approval of 501 (c) 3 status, so development can proceed.

Consortia of colleges and universities in the states of Alabama, California, Georgia, Hawaii, Illinois, Iowa, Kentucky, Western Massachusetts, Mississippi, Missouri, New Jersey, New York, Oregon, Philadelphia, Rhode Island, Texas, Washington, West Virginia, and Wisconsin preceded the formation of Study North Carolina to increase name recognition of their destinations. In all there are currently 25 state consortia.

The primary objective is for potential students to view North Carolina as the best place to study in the U.S., attracted by the state’s diversity of geography, entrepreneurial spirit, eagerness to engage with the work, friendly culture, as well as academic excellence, and to apply to attend.

Appendix G: Connecting international students at UNC

UNC campuses use a variety of strategies to bring together international students on campus with domestic students. One example from each campus follows:

ASU: Established in 2002, the Diversity Celebration at Appalachian is an annual multicultural community festival in the Watauga, Ashe, and Avery counties that features performing arts, craft workshops, educational exhibits and ethnic foods by local and regional presenters and artisans. This event seeks to provide participants with an environment for learning about others, while encouraging deeper exploration of differences. International students participate in this festival as they represent their countries.

ECU: The “First Friends” Program is ECU’s premier program mixing US and international students. First Friends is widely publicized at the outset of each semester bringing applications from a wide variety of students and leading to friendships. Throughout the semester hosted opportunities to meet over pizza, etc., are offered to participants.

ECSU: American and International Education Week, November 18-22, 2013: Student Forum entitled “Live Outside Your Origin”; Dancing Presentation “Dancing Around the Globe”; Global Social Event in Commuter Center; Movie Night and Discussion “Sometime in April.” This event was student-led, under supervision of a faculty advisor, organized by eager students.

NCA&T: During the Fall 2014 semester, the Global Aggies Club (a group of study abroad returnees) organized a tailgating party for exchange students for NCA&T’s first home football game. One of the student officers identified a student whose family regularly tailgates during the football games—the student’s family extended an invitation for our 20+ exchange students to join. The international office subsidized the cost of food for the exchange students. From the reports of both the domestic and international students, everyone enjoyed eating and learning “American” line-dancing before the game.

NCCU: International Education Week in November has always provided the opportunity to celebrate diversity and cultures on our campus. An event that has always drawn American-born students and international students has been organized by the professors who teach foreign languages. They have been supported by other areas on campus. At the celebration, there is usually food sampling from different countries, music, skits, poetry recitation, and performances both by external artists and NCCU students.

NCSSM: Although there are no international students at NCSSM, as all must be residents of our state, there is a great diversity in the cultures represented here, with many students from first, second, or third generation immigrant families. Thus, the student-initiated and implemented cultural fests--Asia Fest, Africa Fest, etc.--highlighting food, music, dance, and fashion from around the world, have become an eagerly anticipated part of the campus learning environment and social life.

NCSU: The International Cultural Leadership Project (ICLP) connects NC State students to international students from the SKEMA French Business School as well as students from partner schools in Brazil, China, and Taiwan. NC State student volunteers help new and visiting international students integrate into the campus community. Together domestic and international students in the ICLP participate in a variety of events throughout the year, including seminars, workshops, volunteer activities and cultural programs.

UNCA: UNCA has an International Student Mentor Program which matches incoming international students with degree-seeking students. Usually these mentors have recently returned from studying abroad and have had first-hand experience of feeling a bit lost and in need of some guidance and help. These students make a choice to apply to be a mentor and help a new student at their home campus. It is a benefit to the international student for obvious reasons and also a benefit to the returnees who are experiencing their own re-entry culture shock in their home country.

UNC-CH: UNC Global has hosted an International Welcome Social the past three years. International students and scholars meet and network with returning study abroad students and UNC faculty, staff, and other students.

UNCC: In 2014 UNC Charlotte will host the 39th Annual International Festival, a celebration of people, places, and culture vibrantly displayed through market-style booths hosted by international students and community members, representing the culture of more than 50 countries. Arts, crafts, costumes, food, music, and dance combine to engage domestic students and internationals in an exploration of culture.

UNCG: The 32nd Annual International Festival, held in April 2014, attracted thousands of campus and community members to the largest cultural event at UNCG. Visitors interacted with several of UNCG's international students and domestic study abroad returnees that hosted country and organizational booths to share arts and crafts, food, games and other activities.

UNCP: English Learning Institute has recently launched a "conversation partners" program to pair its ESL students with US students.

UNCW: International students and their American "student mentors" visited the home of a host family for an evening of American fun. Internationals and Americans toasted hotdogs and s'mores over an open fire while they played games, chatted, and learned about each other's cultures.

WCU: For 35 years WCU has hosted an annual International Festival. This event not only brings together domestic and international students; it brings grade school children from the community to campus.

WSSU: The Student International Association is an organization that includes international students and WSSU students with interest in International issues. They organize a variety of events and activities throughout the year. One significant event is a panel presentation during international Education Week that brings together international students and WSSU study abroad students to share stories about their respective international experiences and discover how much they have in common.

UNC-EP: UNC-EP participated in the Baden-Wuerttemberg North Carolina Orientation Seminar in which Baden-Wuerttemberg students planning to study in North Carolina in 2014-2015 were introduced to UNC students studying in Baden-Wuerttemberg during Spring 2014. The B-W Education Ministry paid the expenses of the UNC students participating in the Seminar, which was held in at a retreat in the Black Forest.

Credits:

Special thanks to the members of the University Council on International Programs, UCIP, who lead our campus international efforts. They provide insight and inspiration to students, faculty and staff every day.

This report would not have been possible without the leadership of Denise Dipuccio at UNC Wilmington, Assistant Provost for International Programs, who led development of the survey instrument we used to gather data from our campuses and coordinated communications with UCIP.

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-Leslie Boney
Vice President, International, Community
and Economic Engagement
UNC General Administration
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Endnotes

- ⁱ The number of foreign-born people living in North Carolina is up 34 times over the number we had in 1960. <https://www.ncbankers.org/wp/wp-content/uploads/2014/04/2014ImmigrantEconomicImpactStudy.pdf>
- ⁱⁱ Remarks, GO! Summit, September 30, 2014.
- ⁱⁱⁱ <http://ciu.northcarolina.edu/global-heatmap/>
- ^{iv} <http://www.census.gov/foreign-trade/statistics/state/data/imports/nc.html>
- ^v Other states have adopted strategic partnership strategies. In Florida, 11 “Florida Linkage Institutes connect the state to Brazil, Costa Rica, the Caribbean, Canada, China, Japan, France, Israel, West Africa, Eastern Europe and Mexico, charging specific campuses with leading collaboration in those geographies, and providing up to 25 students a year from each geography with in-state tuition. The state’s Latin America and Caribbean Scholarship program essentially provides all scholarship recipients from those geographies in-state tuition status.
- ^{vi} A 2009 report by the Education Advisory Board emphasized the importance of educational institutions focusing on fewer, rather than more geographies, See “Making the Global Vision Real,” Education Advisory Board, 2009, pp. 117-119.
- ^{vii} http://www.rockinst.org/pdf/education/2014-05-28-States_Go_Global.pdf. See p. 20.
- ^{viii} According to a study by the Rockefeller Institute, North Carolina’s is one of 25 such sites carried out in collaboration with the US Commercial Service. See http://www.rockinst.org/pdf/education/2014-05-28-States_Go_Global.pdf, pp. 15, 16.
- ^{ix} As one example, during an 18-month period between January 2013-June 2014, the SBTDC worked with 618 different NC companies interested in exporting. The companies report that this assistance has resulted in 574 jobs created or retained and \$16 million in capital formation. Seven campuses (ASU, ECU, UNCG, UNCW, WCU and WSSU, as well as Campbell) have joined SBTDC’s MBA International Trade Liaison program, designed to engage a faculty lead at each campus and recruit students to be engaged with potential exporting businesses.
- ^x http://www.rockinst.org/pdf/education/2014-05-28-States_Go_Global.pdf. See p. 15
- ^{xi} http://www.bizjournals.com/triangle/news/2014/09/18/hcl-technologies-adding-1-237-jobs-in-cary.html?ana=e_trig_bn_breakingnews&u=nxmEpZCaGInAkL41BWLbWO/+CEq&t=1411047586
- ^{xii} https://www.ncsc1.com/pmi/rates/PressReleases/County/NR_July2014_CountyRates_M.pdf As of July, 2014, 12.7% of Scotland County’s 12,414 workers were unemployed, the highest percentage in North Carolina. In the August 2014 figures, Scotland County ranked second in the state.
- ^{xiii} http://www.nccommerce.com/Portals/0/Documents/AboutOurDepartment/BoardsCommissions/NC%20Jobs%20Plan%20Report_Final.pdf
- ^{xiv} http://www.nccommerce.com/Portals/0/Documents/AboutOurDepartment/BoardsCommissions/NC%20Jobs%20Plan%20Report_Final.pdf, p. 11.
- ^{xv} The top 5 NC ag exports in 2012 were, in order, pork, tobacco, chicken, soybeans and cotton.
- ^{xvi} Quote supplied August 11, 2014.
- ^{xvii} <http://www.ncagr.gov/markets/international/NCaAgExportStatistics.htm>
- ^{xviii} <http://www.smokymountainnews.com/archives/item/1981-brazilian-energy-company-to-set-up-shop-on-wcu-campus>
- ^{xix} Remarks to 4th North Carolina-China Summit, September 4, 2014, Raleigh.
- ^{xx} Personal correspondence, August 13, 2014.
- ^{xxi} <http://www.dpi.state.nc.us/docs/curriculum/globaled/final-report.pdf>
- ^{xxii} https://www.youtube.com/watch?feature=player_embedded&v=RDmfE0noOJ8
- ^{xxiii} The final vote on this policy is scheduled for October 2014.
- ^{xxiv} http://www.northcarolina.edu/sites/default/files/documents/strategic_directions_2013-2018.pdf. See page 65.
- ^{xxv} Remarks to UNC-India Summit, January 2013.
- ^{xxvi} “Mapping Internationalization of US Campuses: 2012 edition” published June 27, 2012. See report at <http://www.acenet.edu/go/mapping/>
- ^{xxvii} <http://www.economist.com/blogs/prospero/2013/10/multilingualism-0>
- ^{xxviii} Saiz’s research can be found here: <http://www.phil.frb.org/research-and-data/publications/working-papers/2002/wp02-16.pdf>. In a post analyzing the findings, *The Economist* computes the lifetime earnings increment by language, and determine that languages vary in their impact based on how frequent the foreign language is spoken and the amount of trade done with that country. Thus while the average lifetime earnings increment for a second language is about \$67,000, a German-speaking native English speaker can expect, on average, to make 3.8% more per

year, or \$128,000 over the course of a lifetime, whereas a Spanish-speaking native English speaker can expect a 1.5% increment, or about a \$51,000 increment over a lifetime.

^{xxxix} <http://www.acenet.edu/news-room/Documents/Mapping-Internationalizationon-US-Campuses-2012-full.pdf>

^{xxx} http://www.northcarolina.edu/sites/default/files/unc_india_report_9-13-13_final.pdf, note p. 27.

^{xxxix} http://www.northcarolina.edu/sites/default/files/final_unc-china_strategic_plan_september_2012.pdf, note p. 12.

^{xxxii} <http://www.ed.gov/news/press-releases/more-633-million-awarded-colleges-and-universities-strengthen-global-competitive>

^{xxxiii} “Making the Global Vision Real,” Education Advisory Board, 2009. See p. 44. See also

<http://www.nxtbook.com/naylor/IEEB/IEEB0214/index.php>, p. 22.

^{xxxiv} American Council on Education, Art and Science Group, and the College Board, *College-Bound Students’ Interest in Study*

Abroad and Other International Learning Activities, 2008, <http://tinyurl.com/158ew66>.

^{xxxv} The most commonly cited measure to compute study abroad percentages, used by the Institute for International Education, or IIE, divides total students abroad by the size of that year’s total graduating class. This is justified by the fact that the majority of students study abroad during a single year, their junior year, and thereby better approximates the number of students who will study abroad at some point during their college career. By dividing total study abroad by total student body, we believe we have a more accurate percentage, but this approach also has its flaws. Among them, it “penalizes” campuses such as ECU that have a large number of online only enrollments who could not be expected to study abroad. For purposes of comparison nationally in the future, we may need to consider reverting to the IIE methodology.

^{xxxvi} *Open Doors*, “2013 Fast Facts.”

^{xxxvii} Countries include: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Lichtenstein, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

^{xxxviii} Note this figure does not capture students with undeclared majors, some of whom might later declare in these majors. It also does not include health sciences, which is sometimes included among STEM majors. We used this source for definition of STEM disciplines: <http://www.ice.gov/sevis/stemlist.htm>

^{xxxix} Figures from 2011-2012 here: https://www.northcarolina.edu/sites/default/files/documents/12-13_whole_doc.pdf, see Table 37.

^{xl} UNCEP has exchanges with universities in Australia, Brazil, China (Fudan University), Finland, Germany, Mexico/ITESM, Taiwan/Fichet, and Uruguay.

^{xli} The populations of China (1.35 billion), India (1.25 billion), Africa (1.1 billion) Brazil (200 million), Mexico (122 million) total a little more than 4 billion; populations of western Europe (including Italy) total about 460 million.

^{xlii} Obviously the portion of NC State’s student body studying engineering is higher than the system average, accounting for some of the difference. For additional thoughts on the value of increased international exposure for engineering graduates, see <http://www.nxtbook.com/naylor/IEEB/IEEB0214/index.php>, p. 25.

^{xliii} An additional benefit of the UNC-EP internship effort is its connection to the UNC strategic plan, “Our Time, Our Future.” The plan notes the importance of students getting internship experience while at UNC. See http://www.northcarolina.edu/sites/default/files/strategic_directions_2013-2018_0.pdf, p. 69.

^{xliv} Figures for 2011-2012. Derived from https://www.northcarolina.edu/sites/default/files/documents/12-13_whole_doc.pdf. See Table 37.

^{xlv} Nationally 63% of college-going students are white, but they make up 81% of the study abroad population. See http://www.huffingtonpost.com/2011/02/21/minorities-study-abroad_n_826114.html

^{xlvi} <http://www.acenet.edu/about-ace/special-initiatives/Pages/Creating-Global-Citizens-Exploring-Internationalization-at-HBCUs.aspx>

^{xlvi} Additional insights on this issue can be found at <http://www.nxtbook.com/naylor/IEEB/IEEB0214/index.php>, pp. 44, 45.

^{xlvi} <http://www.ed.gov/news/speeches/hbcu-value-proposition>

^{xlvi} http://www.huffingtonpost.com/carola-mcgiffert/us-reaches-major-mileston_b_5571793.html

^l <http://www.100kstrongamericas.org/>

^{li} Others include the Confucius China Studies Program for Ph.D. students to do doctoral research in China, the Fulbright Scholarship for individually designed study or research projects, the Boren Awards for International Study for study of critical languages. IIE has a search engine set up to help students learn about study abroad funding resources. See <http://www.nxtbook.com/naylor/IEEB/IEEB0214/index.php>, p. 8.

^{lii} For an example of the value of the scholarships, see link here: <http://global.unc.edu/news/global-heel-bryan-davis/>

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- liii <http://www.acenet.edu/news-room/Documents/Mapping-Internationalizationon-US-Campuses-2012-full.pdf>
- liv See <http://www.aacu.org/resources/global-learning>
- lv <http://www.acenet.edu/about-ace/special-initiatives/Pages/At-Home-in-the-World.aspx>
- lvi Mercedes Martin & Billy Vaughn (2007). "Strategic Diversity & Inclusion Management" magazine, pp. 31-36. DTUI Publications Division: San Francisco, CA.
- lvii http://www.nafsa.org/file/theory_connections_intercultural_competence.pdf
- lviii According to a report by the National Science Board, the percentage of US papers published in 2012 with international co-authorship was 35.9%; in physics it was 45.8%. Quoted in <http://www.nextbook.com/naylor/IEEB/IEEB0214/index.php>, see p. 25.
- lix Appalachian State, East Carolina, NC A&T State, NC Central, NCSU, NC State, UNC-CH, UNC Charlotte, UNC Greensboro and Western Carolina all participate in SciVal.
- lx There are regularly targeted initiatives designed to increase collaboration between particular countries. One promising recent initiative sponsored by the US and Indian governments, the "Global Initiative on Academic Networks," or GIAN, announced in October 2014, will provide support for up to 1000 US faculty to teach in centrally-recognized Indian universities. See this overview: http://timesofindia.indiatimes.com/home/education/news/1000-US-academics-to-teach-in-Indian-universities/articleshow/44155773.cms?intenttarget=no&utm_source=TOI_AShow_OBWidget&utm_medium=Int_Re_f&utm_campaign=TOI_AShow
- lxi This figure in no way represents all international research activity undertaken by UNC campuses. Campuses throughout the system receive substantial funding from the federal government to do research in international settings, and there are occasionally privately funded efforts such as the Gates Foundation's "Grand Challenge: Ebola" effort announced October 2014 that provide substantial funding for international work. These figures simply capture international research financed by entities outside of the US.
- lxii
- lxiii Note this does not capture data received after the start of fiscal 2014-2015; see for example this grant to UNC-Chapel Hill for alternative fuel research: http://www.bizjournals.com/triangle/news/2014/10/08/unc-researcher-gets-israeli-prize-netanyahu.html?ed=2014-10-08&s=article_du
- Special thanks to Sweta Bhakta in the UNC General Administration Office of Research and Graduate Education for these data.
- lxiv <http://www.uncw.edu/articles/2014/10/statedepartmentgrant.aspx>
- lxvi See "Making the Global Vision Real," Education Advisory Board, 2009. Note especially pp. 8, 35, 48, and 88.
- lxvii Source: Open Doors report 2013, Institute for International Educators.
- lxviii <http://www.brookings.edu/research/interactives/2014/geography-of-foreign-students#/M10420>
- lxix "Immigrant Entrepreneurs and Small Business Owners," by Robert Fairley, May 2012. See <http://www.sba.gov/sites/default/files/rs396tot.pdf>. The study, based on US Census Current Population Survey 2010, also finds that immigrant entrepreneurs begin with higher levels of startup capital than their native-born counterparts. Further, since 1996 the rates of immigrant-founded startups has increased by 50% since 1996, while the startup rate of native-born businesses has declined by 10%. Vivek Wadhwa, in his 2007 paper, "America's New Immigrant Entrepreneurs," (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=990152), found that 52% of tech startup companies founded between 1995 and 2005 had at least one immigrant founder, with the largest number of those companies started by Indians or Chinese. The percentage of tech companies started by immigrants is lower in RTP, he found, but still significantly higher than the region's immigrant population. Finally, a study by the Partnership for a New American New Economy released in August 2012 (<http://www.renewoureconomy.org/index.php?q=open-for-business>) finds that while immigrants account for 12.9% of the American population, they start 28% of new companies, including 25% or more of the companies in seven of the eight sectors predicted by the US government to be "fastest-growing" over the next decade.
- lxx <http://www.sciencedirect.com/science/article/pii/S0304387810000222>
- lxxi <https://www.insidehighered.com/news/2014/08/21/new-report-international-admissions-us-graduate-schools-shows-continued-growth-and>
- lxxii Institute of International Education. (2013). "International Students by Institutional Type, 2012/13." Open Doors Report on International Educational Exchange. Retrieved from <http://www.iese.org/opendoors>
- lxxiii Open Doors 2013 Report on International Education Exchange
- lxxiv Computations by UNC General Administration Institutional Research show that nationally, about 19% of students at "very high research activity" universities (such as NC State and UNC-Chapel Hill) are international students, with higher numbers at institutions with engineering schools.

^{lxxv} *Graduate Enrollment and Degrees: 2002 to 2012*, Council of Graduate Schools, 2013, <http://tinyurl.com/152cccs>.

^{lxxvi} Based on 2012 Fall Enrollments from UNC-GA data.

^{lxxvii} <https://www.insidehighered.com/news/2014/08/21/new-report-international-admissions-us-graduate-schools-shows-continued-growth-and>

^{lxxviii} Ibid.

^{lxxix} This is because of intense efforts organized on a national level, particularly in Australia, New Zealand, and more recently Canada. In British Columbia, government leaders are looking to increase international student enrollment by 50% by 2016. See <https://www.insidehighered.com/news/2014/09/23/canada-push-international-students-and-immigrants>

^{lxxx} http://www.huffingtonpost.com/2014/09/18/international-student-enrollment_n_5836872.html?utm_hp_ref=email_share

^{lxxxi} See, for example, this article on Japan's plan to increase the number of international students it enrolls to 300,000 by the year 2020: <http://monitor.icef.com/2012/04/japans-globalisation-efforts-blossoming/>

^{lxxxii}^{lxxxiii} <http://www.usnews.com/education/blogs/high-school-notes/2012/08/27/high-school-grads-in-china-india-are-better-prepared-for-college>

^{lxxxiii} Computation based on figures here: <http://wenr.wes.org/2013/12/indian-study-abroad-trends-past-present-and-future/>.

^{lxxxiv} http://timesofindia.indiatimes.com/home/education/Study-abroad-More-Indian-students-in-Germany-and-NZ/articleshow/43773459.cms?intenttarget=no&utm_source=TOI_AShow_OBWidget&utm_medium=Int_Ref&utm_campaign=TOI_AShow

^{lxxxv} <http://hbcudigest.com/nigeria-to-send-200-students-to-hbcus-in-2015/>

^{lxxxvi} The U.S. Commercial Service has as one of its missions increasing exports from the U.S. to foreign countries. Because international students transfer money from one country to the U.S. in exchange for a good or service, the money they spend counts as an "export."

^{lxxxvii} http://www.aiceworld.org/assets/docs/Additional_Resource_PDFs/newyorkupstheanteonforeignstudents.pdf

^{lxxxviii} <http://nces.ed.gov/pubs2014/2014001rev.pdf>

^{lxxxix} All figures in this section, with the exception of UNC specific data, are from <http://www.brookings.edu/research/interactives/2014/geography-of-foreign-students#/M10420>.

^{xc} <https://www.insidehighered.com/news/2014/09/26/initiatives-focus-retaining-international-students-local-economy>

^{xci} <http://www.bizjournals.com/triangle/print-edition/2014/07/18/goodnight-we-need-immigrants.html>

^{xcii} <http://www.newsobserver.com/2014/09/25/4180745/mccrory-kicks-of-business-tour.html>

^{xciii} <http://www.camelcitydispatch.com/wssu-to-develop-a-relationship-with-university-in-kenya-9087/>