

A Portal for Progress: Increasing Collaboration Between UNC and India



A report from UNC General Administration
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Cover photo taken from the Hawa Mahal (Wind Palace) in Jaipur, Rajasthan, looking out over the interior of the City Palace.

INTRODUCTION

In January 2013, University of North Carolina President Tom Ross addressed the first-ever [UNC-India Summit](#). Representatives from the Indian government and nonprofit sector, faculty and students from all 17 UNC campuses, and business leaders and others from across North Carolina gathered in Chapel Hill to strengthen ties between the University and India. “If we are going to be successful as a state in the 21st century,” Ross said in his opening remarks, “North Carolinians must better understand the largest democracy in the world.”



Ross was joined by UNC Board of Governors member Hari Nath, who immigrated to the United States from India nearly 50 years ago. Nath challenged those at the summit to recognize opportunities that could emerge from a deeper partnership between UNC and India. “As India prospers economically and its population grows, it needs world-class education,” Nath said. “At the same time, because India is becoming more important economically, people in the U.S. need to learn more about India. The environment today is pregnant for partnership — through student and faculty exchange, research, and collaboration.”

The Summit came about through a year-long effort by an Indian Working Group convened by UNC General Administration. Members learned about the variety of India-related work happening across the University, listened to faculty and community members, shared information about development work in India, identified possible funding sources for additional projects, and brainstormed possibilities to increase engagement. In October 2012, representatives of UNC General Administration met with Nirupama Rao, India’s ambassador to the United States, who challenged UNC to deepen its involvement with Indian counterparts and to look for ways to assist India in developing more faculty for the country’s growing university system. The Summit further advanced these ideas through discussions with Govind Mohan, Economic Minister at the Indian Embassy in Washington, D.C. Members of North Carolina’s fast-growing Indian community helped guide UNC General Administration and campus officials to new resources and ideas.

The Summit brought together some of North Carolina’s top minds in academia, business and government to consider new UNC partnerships with a nation that will become the most populous in the world by 2025. India has a history and culture dating back thousands of years, and all the challenges of a young and growing democracy.

With vast economic growth and a swelling population, India presents a truly unique mix of opportunities and challenges. The country has a population of poor citizens that outnumbers the entire population of the United States, living alongside a fast-growing middle class, which places disparate demands on governing institutions. In the next two decades, India will need to educate more than a half-billion people under the age of 25 in order to continue growing and deliver on the promise of a rising democracy. It must manage all of these tests while maintaining security in a geopolitically unstable region.

India is a fast-growing trade partner for the United States and North Carolina, as well as a source of critical know-how for the state's growing high-tech industries. In that context, it's not surprising that many UNC faculty and students are already forging connections with Indian institutions, and that Indian students are among the most high-performing and entrepreneurial members of the University and North Carolina community. The UNC-India Summit provided an overview of current University efforts, as well as an opportunity to imagine what future relationships with India might look like.

The University already has deep and valuable ties to India. UNC campuses have more than 40 official partnerships with Indian counterparts, and faculty members collaborate with Indian colleagues on scholarly papers and research projects. More than 1,500 Indian students attend UNC institutions, and a number of campuses have study abroad programs available in India. The summit identified opportunities to create more and better collaboration.

Building from the experience UNC campuses have gained in working with Indian partners, and with an appreciation for current demographic and economic trends, summit attendees recommended further exploration of four areas:

- Determining how to increase the number and depth of UNC partnerships with Indian universities, including consideration of a system-level alliance with an institution or entity in India;
- Increasing the number of UNC-system students and faculty learning about, studying in or conducting research with India;
- Bringing more students and scholars from India to UNC campuses, and looking for ways to encourage some of them to remain in North Carolina following graduation;
- Looking for ways to start multi-campus projects of benefit to UNC and India, including ideas to help develop more faculty in India to address the fast-rising demand for higher education and deepen ties between the University and India.

In the months since, teams have been looking into each area more closely, under the leadership of UNC General Administration's Bonnie Derr, who has been managing

UNC's collective efforts in India. This report builds off of that effort, reviews those focus areas and suggests strategies for bridging the distance between North Carolina and India.

The American Council on Education has called India "the next frontier." It's time to take the next steps through the portal and into that frontier.

Leslie Boney
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UNC General Administration September 2013

EXECUTIVE SUMMARY

India is already the largest democracy in the world, and in fifteen years it will be the most populous country in the world. Half of its citizens are under the age of 25, driving a fast-growing economy that some project to be the world's largest within thirty years.

Rapid growth is creating daunting challenges for India, including raising 400 million people out of poverty, finding enough energy, food and water to support its people and its economy, and building 1,000 new universities, all while protecting its borders in an unstable region.

Both India's growth and its challenges represent opportunity for North Carolina businesses, nonprofits, and universities. We have knowledge that can help solve problems, we have products that can address market needs, and we are prepared to join Indian colleagues in developing solutions to shared challenges. Indians, whether trading with or investing in North Carolina, interacting with our students virtually or studying at our universities, starting companies in North Carolina or working here, will be a critical player in the geopolitical, cultural, and economic landscape of the 21st century. UNC students must better understand the country and its people in order to be successful.

In this report, we take a look at where and how our campuses are currently working in India and propose a series of steps to deepen UNC's relationships with India. If we are successful, our work can both lead and complement broader efforts made on the state level.

Recommendations

I. Connect: Strengthen UNC partnerships with India

We believe that partnerships between UNC campuses and Indian institutions form an important platform for deepening engagement in India. Achieving our goals in India will require building off the strongest of these relationships and forming new ones that reflect the strengths of each campus.

Currently, nine UNC institutions have a total of 44 partnerships with institutions in 16 of India's 28 states. With limited resources, campuses must look for high-leverage investments to start new relationships or deepen existing alliances.



Help faculty lead: UNC institutions should look for ways to make available interested faculty for temporary exchange with Indian colleagues at partner institutions. In an exchange relationship, UNC faculty teach at an Indian institution and Indian faculty teach at a UNC institution. UNC students learn from the perspective of an Indian faculty member; UNC faculty members deepen their knowledge of the host Indian institution, make connections with new colleagues, and return as ambassadors to colleagues, students, local businesses and government officials who might be interested in India.

Encourage UNC–India joint courses: UNC General Administration should provide competitive funding for UNC faculty across the system to develop joint virtual courses with colleagues at Indian universities, replicating ECU’s Global Understanding program. Global Understanding courses enrich institutional relationships and deepen faculty and student knowledge about India, opening up dialogue and new possibilities.

Draw on NC’s Indian expertise: Each campus should make special efforts to draw on the advice and insights of Indian alumni as well as Indians serving on their faculty or living in their surrounding community.

Connect to non–UNC efforts: As UNC develops new relationships, faculty and administrators should be aware of and connected to larger state efforts to connect to India, whether led by businesses, research organizations, or government. North Carolina and UNC are still not well-known in India. A collective and cumulative effort provides our best chance to change that.

II. Learn, Send: Increase interest in the study of India

We believe that knowledge of India is increasingly part of a citizen’s “global literacy” and that our campuses should work to ensure that more students graduate with a knowledge of India.

Currently at UNC, few students are studying in India or about India. Out of nearly 5,800 students studying abroad each year, fewer than 100 (1.7%) choose to study in India.

Seven UNC system campuses currently teach at least one course focusing specifically on Indian history or economics. Two campuses offer students the opportunity to learn the dominant Indian language, Hindi.

We need to make it easier for students to graduate with knowledge of India by making these courses and travel opportunities to India more widely available.

More course sharing between campuses: Increasing interest in studying India will require focused efforts by campuses. UNC should build off the efforts of UNC, NC State and Duke to share Hindi–Urdu courses, supporting expansion of a pilot program

designed to make those courses available throughout the UNC system, and looking for ways to make strong existing courses on Indian economics, business, history and culture available to all campuses.

More focus on overcoming barriers: Making it easier to learn about India will increase the number of students interested in studying in India. But there are additional barriers. On most campuses there is very little tradition of India as a study abroad destination, and the visa process can be cumbersome. Many students are further dissuaded by the cost of travel to India and state funding cannot be used to support this travel. UNC's India Working Group should make available a comprehensive set of information on scholarships and other resources, work with the state's Indian community to locate resources to support more study in India, and look for education opportunities that go beyond the traditional classroom, including internships and service learning activities.

III. Welcome: Build North Carolina's Profile as an Education Destination for Indians

We believe that UNC campuses should make focused efforts to increase the number of Indian students on campus.

- India doesn't have enough high-quality universities to educate all of its best and brightest. Indian students are three times more likely to study in the US than any other country.
- Bringing in top Indian students strengthens the academic quality of UNC classrooms.
- Recruiting top Indian students provides important exposure and experience to US-born students in working with Indians.
- Indian students at UNC disproportionately study in the STEM disciplines, graduating with skills North Carolina companies need.
- International graduates in general, and Indian-born graduates in particular, are more likely to create new businesses than native-born students.

India ranks second to China in the number of students it sends to UNC, with more than 1,500 students currently enrolled. But the number of Indians on each campus varies widely. All but five UNC campuses have 40 or fewer Indian students enrolled, a sign that most UNC campuses are not well-known in India.

Raise UNC's collective profile in India: UNC should look for ways to increase visibility for the system and the state of North Carolina in India, perhaps using pooled resources such as Study North Carolina, a multicampus branding effort, to market our campuses. UNC might also leverage the Center for International Understanding's program to

connect Indian and North Carolina K–12 schools to increase awareness of UNC campuses among Indian high school students.

Target marketing of graduate programs: Nearly 90% of Indians currently at UNC are graduate students, and Indian graduate student interest in the US is growing. Given the specificity with which graduate students search for programs, universities should make strategic choices about how many and which graduate programs to market in India.

Emphasize undergraduate cost and quality: Recruitment of undergraduates presents a different challenge. US universities are perceived as high-cost in India, which means many parents and students with limited funds wait until graduate school to apply to international institutions. UNC campuses should market their comparatively low cost and look for other ways to lower the cost to Indian students, including forming partnerships with internationally-minded NC community colleges and increasing student exchange, as a means of boosting word-of-mouth about UNC campuses.

Integrate Indian students into campus, state communities: Once Indian students arrive, campuses should consider a range of efforts to more deeply connect Indian students to the community and the state, including holding events to connect native-born and Indian students, connecting Indian students to Indians living in their communities, and helping them find jobs.

The more connections campuses can help Indian students make while they are at our universities, the more likely we are to retain the best and brightest as long-term North Carolina citizens.

IV. Start: Look for Low-Cost, High-Leverage Ways to Connect UNC and India

Given our limited budgetary resources, UNC should examine high-visibility, high-leverage initiatives that can raise awareness of UNC and the state of North Carolina. We recommend early work on two such initiatives.

Faculty Development: First, we should seek to carry out a multicampus effort to help India develop new faculty members. This effort requires time and planning by UNC, but little in the way of out-of-pocket funds, since it would generate grant revenue. The project builds upon a core strength for UNC, addresses a critical need for India, and introduces UNC and North Carolina to a significant audience in India, opening the door to a range of other collaborative efforts.

Emerging Economies MOOC: Second, we should encourage broad participation in development of a Massively Open Online Course focused on “developing economies,” including India, China, Brazil, and others. For a limited investment, UNC campuses and faculty could create a course that would simultaneously allow UNC students to learn more about India and other countries and raise awareness of UNC in those countries.

Enrollments in this free course in India could lead to increased brand awareness of UNC and could open the door to other collaborative opportunities.

New capacity needed

To carry out this work, UNC will need additional capacity in two primary areas:

Formalize the India working group: First, UNC should increase the formality of the existing “India Working Group,” expanding membership to some non-university entities who are interested in assisting in UNC’s efforts and asking group members to take responsibility for finding student or other support to assist in analyzing research, organizing responses, reviewing successes, and resolving challenges. Since the N.C. General Assembly did not provide requested support for international program development during the 2013 session, this group should also develop strategies for how to support work in India.

Develop international baseline metrics: Second, to accurately assess our efforts, UNC should develop a formal data collection system that builds off existing surveys of international activity by campuses, in India and throughout the world. Annual reports would then assess progress in global engagement at both the campus and the system level, highlight best practices, and identify new strategies to prepare students and campuses for our globally-connected world.

We propose these strategies with full knowledge that resources are limited, and the demands on the public university are expansive. We owe it to our students, our faculty, and our state to find ways to start doing the work anyway and to actively seek to find resources — from state, federal and private sources — to do it. With energy, persistence, resources, and creativity, we can make the University of North Carolina a true and lasting partner for a rising generation of students, faculty, and citizens in India.

WHY INDIA?

“This is indeed India; the land of dreams and romance, of fabulous wealth and fabulous poverty.... the country of a thousand nations and a hundred tongues, of a thousand religions and two million gods, cradle of the human race, birthplace of human speech, mother of history, grandmother of legend, great-grandmother of tradition, whose yesterdays bear date with the mouldering antiquities of the rest of the nations — the one sole country under the sun that is endowed with an imperishable interest for alien prince and alien peasant, for lettered and ignorant, wise and fool, rich and poor, bond and free, the one land that all men desire to see, and having seen once, by even a glimpse, would not give that glimpse for the shows of all the rest of the globe combined.”

— Mark Twain, *Following the Equator*, 1897

UNC’s new strategic plan, “Our Time Our Future,” challenges the University to build global awareness and to “increase links with regions critical to the state’s economic and strategic future.”¹ There are few countries in the world likely to be of greater long-term interest to North Carolina’s economic future than India, the world’s largest democracy. The case for greater University engagement with India is born of the need to prepare students for life in a global economy; to support scholarship and research, and service that addresses the world’s greatest challenges; and to connect the people, institutions, and businesses of North Carolina to cultures and economies across the world.

Background

India has a long and proud history. It is one of the oldest civilizations on earth, dating to roughly 2500 BCE, and the source of some of the world’s most important scientific insights,² birthplace of four world religions — Buddhism, Hinduism, Jainism and Sikhism — and home to what some regard as the world’s first university, the 5th-century Nalanda University.

Today, India is the second most populous nation in the world, with 1.24 billion citizens — fully 17% of the world’s population. Poised to overtake China as the most populous nation on earth by 2025,³ India is destined to assume an even more critical role in global geopolitics, culture, and economics. It is already the tenth largest economy in the world in terms of nominal GDP⁴ and the third largest in purchasing power parity,⁵ having made staggering economic gains over the past two decades. Among the major emerging markets of Brazil, Russia, India and China, India is second in its rate of economic growth, with the IMF forecasting an annualized GDP growth rate of 5.7

percent in 2013.⁶ According to projections by Price Waterhouse Coopers, Indian GDP is projected to pass that of the United States by 2047 (though not on a per capita basis).⁷

Although India's overall economic outlook is encouraging, the country faces new social challenges. Rising prosperity has not been evenly distributed, and India is home to the largest number of poor people in the world, with an estimated 350 million people living below the internationally defined poverty line of \$1.25 a day.⁸ This uneven growth has created tension between India's largely rural, agrarian poor and the rising middle class that flocks to high-tech, urban centers. The spectacular growth of Indian cities requires improvements to infrastructure on a massive scale, even as rural farmers face difficult conditions and a lack of basic services. All across the economy, intensive improvements in education will be critical for India to fulfill its potential and remain a major economy and world power.⁹

These challenges are daunting. But they also present opportunities for partners with resources, ideas, services, and expertise that can help a rising nation meet the needs and aspiration of its people. In many cases, the solutions India and its partners discover and create will help inform other nations facing similar obstacles. As Cary business leader Swadesh Chatterjee noted at the UNC-India Summit, the U.S. and India are "two nations bound together by the belief that diversity increases strength." Building from this and other shared values, North Carolina and India have the opportunity to work together to solve some of the world's greatest challenges.

Demographic growth

India's favorable demographics are among the most important drivers of the country's long-term economic growth. The median age of India's population is 28, significantly lower than that of regional peers China and Japan, at 37 and 44, respectively.¹⁰ The stable growth of India's population gives the country's economy a steady labor market advantage, as well as the long-term promise of an enormous consumer economy. India's "dependency ratio" — the proportion of children and old people to working-age adults — is one of the lowest in the world and will remain so for a generation, paying a demographic dividend of high growth and consumer spending with correspondingly lower healthcare costs.¹¹ These trends are firmly established; India's birthrate of 22 per 1,000 residents contrasts with 12 for China and 8 for Japan.¹² Even as the rate of population growth in India slows, the country's demography will provide an enduring edge.

Education growth

While demographic growth is an overall strength, in the near-term it means that Indian leaders must wrestle educating a huge influx of students. Manpower alone is not enough to ensure continued economic growth or more widely shared prosperity. To maintain momentum and provide opportunities for a growing urban population, India must develop more citizens with the skills needed in the global economy.

The most competitive and well-funded universities, like the Indian Institutes of Technology and the Indian Institutes of Management, have the capacity to train only a vanishingly small percentage of Indian students. Those graduates are among the most competitive in the world, renowned for starting companies at home and abroad and for landing key positions in multinational companies. But their overall impact in India is limited by their relatively small size — in 2009, seven IIT campuses accepted barely 2% of more than 170,000 applicants¹³— and the tendency of top graduates to find work abroad.

For all but the most elite students, quality higher education in India often remains out of reach. India has exceedingly low enrollment in higher education, even among developing nations. A 2007 World Bank report noted that even with an aggressive expansion plan, it would take India more than a quarter-century to reach the average level of higher education enrollment seen in developed countries.¹⁴ Even with a massive expansion in capacity in the last decade, gross enrollment in higher education in India remains below 20%.

Recognizing the problem, the Government of India (GOI) aims to increase the gross enrollment ratio in higher education to 30 percent by 2020, bringing higher education enrollment from about 14 million students to more than 47 million. Achieving this goal will strain primary and secondary education, which represent an essential pipeline for higher education enrollment. And given India's disproportionately young population and the country's general economic trajectory, an estimated 1,000 universities and 50,000 additional colleges are needed to meet the government's ambitious goal, on top of the large-scale expansion already seen since 2001. Ensuring that these new institutions maintain quality standards will be an enormous challenge,¹⁵ and many believe quality has already declined.¹⁶

Market growth

Between 2006 and 2011, consumer spending in India nearly doubled, from \$549 billion to \$1.06 trillion.¹⁷ An estimated 400 million people, about one third of India's current population, are projected to enter the Indian middle class over the next 20 years.¹⁸ The growing economy has created a demand for foreign goods and global expertise. According to the US Department of Commerce, the most promising areas for exports from the United States to India include defense, aerospace, education, environmental services, and infrastructure.

Trade with North Carolina

Many North Carolina companies recognize the economic opportunities presented by a rising India. Exports from North Carolina to India have increased almost 30% from 2008–2012, nearing \$300 million annually.¹⁹ Total trade between North Carolina and India reached \$1.43 billion in 2012, making India our 14th–largest international trading partner,²⁰ and growth continued in the first six months of 2013.²¹ These mutually

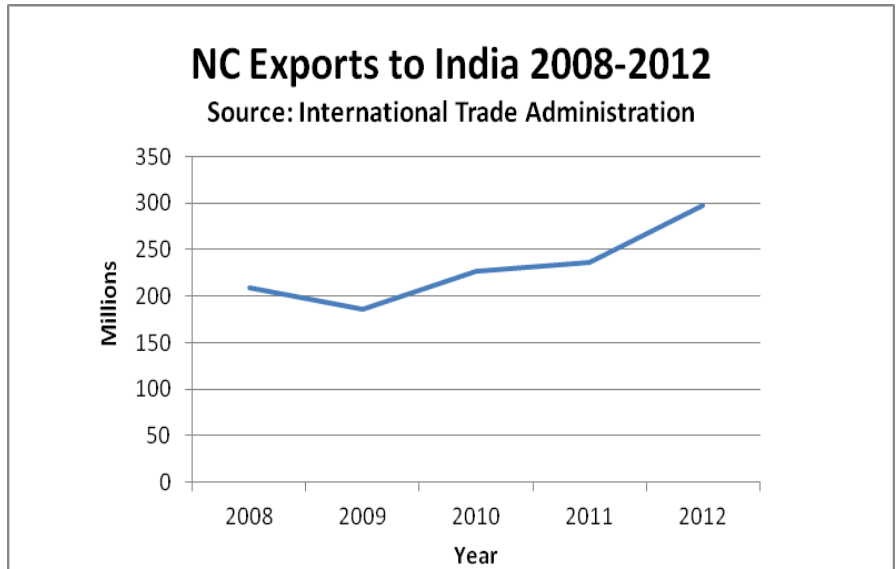
beneficial relationships are likely to grow as the American economy recovers and India's middle class continues to expand. The potential for long-term growth, especially in light of the state's already large population of Indian immigrants, is even more exciting. In 2011, there were 70,246 Indians living in North Carolina, a 168% increase since 2000.²²

Consider that North Carolina exported \$2.54 billion in goods and service to China in 2012, a nation roughly the same distance away and of roughly the same population.²³ North Carolina's exports to India totaled \$297 million in 2012, or 11.7% of the China total, indicating there is enormous room for growth in trade to India. With a more comprehensive engagement

strategy that helps the state's business community establish ties to Indian firms, the University can play a role in expanding trade relations for the benefit of consumers and workers in North Carolina.

Recognizing the potential upside for the state, the McCrory administration is putting renewed emphasis on growing trade and commerce between North Carolina and India. "The growing India market presents incredible opportunities for North Carolina businesses," said Sharon Decker, N.C. Secretary of Commerce. "Heightened demand in India for energy, IT, transportation and healthcare perfectly match with the skills of our talented workforce. India holds remarkable potential for export sales, and over the next five years, North Carolina plans to engage more Indian companies to invest in our state and grow jobs via this collaboration."

A wide variety of firms all across the state export goods and services to India. A review of products shipped by water finds 57 North Carolina firms exporting goods.²⁴ North Carolina's top export to India is chemical products, with nearly \$90 million in sales in 2012. The opportunities for increased exports in defense, civil aviation, and infrastructure are especially attractive for North Carolina. India has replaced China as the world's leading importer of weapons, presenting an opportunity for North Carolina's growing defense manufacturing sector. India's appetite for infrastructure improvement may also offer a key market for North Carolina firms, given the state's machinery sector. Large machinery — farm, mining, and construction equipment, for example — accounted for \$71 million in North Carolina exports in 2012, making it the state's second-largest export category to India, with significant potential for growth.



Despite its global strength in transportation equipment exports, North Carolina exports relatively little to India — just \$3.36 million in 2012. With 52% of its rapidly growing population working in agriculture, India has a keen interest in improvements to agricultural quality and efficiency. The country is the world's fourth-largest consumer of biotech crops.²⁵ The shared concerns of North Carolina and India for development of sustainable energy sources, the strengths of UNC campuses, private North Carolina companies such as Duke Energy, as well as Indian organizations such as TERI (The Energy and Resources Institute) demonstrate potential for trade and collaboration in energy research and development.²⁶ An increasing demand for plane travel in India also offers an opportunity for growth in this sector.²⁷

Thirty-two North Carolina companies have locations in India. These companies include large firms like Bank of America and Wachovia, Lord, PPD, Red Hat, RF Micro, RTI and SAS, but also less well-known organizations such as Renfro Corporation in Mount Airy, Kewaunee Scientific in Statesville, and Static Control Components in Sanford.²⁸

Success in India comes not because companies find it easy to operate in the country, but because they find it essential in bolstering their bottom line. "India should be viewed less as a difficult market where strange things are happening and more as a market that is simply ahead of many other markets in its evolution," writes Nokia CEO Stephen Elop. "If we don't figure out how to win in India, we could end up losing in a lot of other geographies across the world. Conversely, if we can win in India, we can win everywhere."²⁹

Indian investment in North Carolina

The latest data available suggests the North Carolina is not one of the top 15 states attracting Indian investment.³⁰ Nevertheless, Indian firms are beginning to make some investments in North Carolina. Since 2005, 10 Indian-owned firms have set up operations in the state.³¹ In total, 14 companies headquartered in India have offices in North Carolina in industries like software, pharmaceuticals and telecommunications, supporting more than 1,400 high-paying jobs and bolstering some of the state's most competitive and forward-looking industries.³² There is tremendous potential for growth in North Carolina. According to a recent report, Indian companies invested more than \$26 billion and created 55,576 jobs in the U.S. between 2004 and 2009, and North Carolina is poised to capture more of that capital.³³

Indian talent in North Carolina

Indian talent is making a critical contribution to North Carolina. Each year some 2,300 Indian students study at North Carolina institutions of higher education, contributing \$57.5 million annually to the NC economy through their tuition and other spending.³⁴

After graduation, many of these students decide to stay in the United States and in North Carolina. For decades, all across the United States, Indian immigrants have

made outsized contributions to the entrepreneurial economy. They have founded more engineering and technology companies in the US in the past decade than immigrants from Great Britain, China, Taiwan, and Japan combined. Of all immigrant-founded companies, 26% have Indian founders.³⁵ North Carolina has benefited significantly from this trend. In the Research Triangle Park, an estimated 18% of startups have an immigrant as a key founder, with Indians making up the largest immigrant founding group (25% of RTP immigrant founders are Indian).³⁶ This community of energetic business leaders will serve as an important link in developing future opportunities, both for North Carolina firms working in India and for Indian entrepreneurs working to create jobs in North Carolina. They can also be a crucial resource as the University looks to forge new ties with Indian businesses and institutions.

UNC, NC and India

UNC can be an important partner in developing these opportunities and serving as a resource for businesses and individuals hoping to create ties with India. Fifteen UNC campuses are currently educating Indian students, including many in science, technology, and mathematics, making the public University one of the leading draws for Indian talent in North Carolina. In cooperation with employers and state policymakers, UNC encourages foreign students to remain in the state following graduation, contributing to the vibrant economic and cultural life of North Carolina. Foreign-born graduates are disproportionately likely to start businesses or to commercialize products or technologies.³⁷ Foreign-born students, postdoctoral students and other non-faculty researchers generate 54% of all university patents,³⁸ a key reason to attract and retain the best global talent. Indian-born graduates can help forge economic and cultural ties with their home country, and Indian students who return home after graduation can become important contacts for North Carolina businesses looking to establish ties to India. The University's Indian-born alumni base, in other words, can serve as connecting tissue for the state's economic relationship with India.

In addition, a great many UNC faculty and researchers have well-established partnerships with colleagues in India. Working on projects across a range of industries, including security, agriculture, hydrology, computer science, logistics, and energy, these faculty members have forged ties with some of the leading institutions in India. Through joint research projects, intellectual discussions, conferences and other connections, they can continue to deepen cross-border relationships. With the support that comes from high-level visits such as those organized by N.C. State and Winston-Salem State in the summer of 2013, University faculty can serve as advisors and offer introductions to others hoping to work alongside Indian researchers or entrepreneurs. As WSSU faculty member Russ Smith noted in an editorial in the Winston-Salem Journal in August 2013: "We have a golden opportunity to take the best ideas the world has to offer and put them to work here in our communities."³⁹

UNC business schools, in particular, have cultivated expertise in identifying commercial opportunities and engaging the Indian market. Linguists and sociologists have studied India's highly diverse population; students with backgrounds in marketing and business have worked to develop marketing strategies tailored to India; and economists have carefully analyzed trade patterns, regulatory hurdles, and macroeconomic trends to predict where the most promising opportunities might lie.

Finally, UNC's Center for International Understanding (CIU) is playing an important role in introducing North Carolinians to India, helping them to make their own determinations about how and where the state might most effectively make educational, business, or governmental connections. During the summer of 2013, CIU led a delegation of North Carolina K-12 teachers to India to meet with education officials, visit schools, teach classes, and visit cultural sites and technology companies.⁴⁰ In February 2014, the Center will lead a delegation of legislative and business leaders to study India's innovation, entrepreneurship, and technology strategies.

UNC is fully engaged with India, ready to do our part to prepare students to work with this increasingly important world power. Now we need to find ways to do more to get our students and our state ready for all the possibilities that partnership offers.

We look forward to supporting North Carolina's engagement efforts with India and building our capacity to serve the state in this important, long-term endeavor.

ENGAGING MORE PRODUCTIVELY

“Who are destitute of sight? Those who do not perceive the future world.”

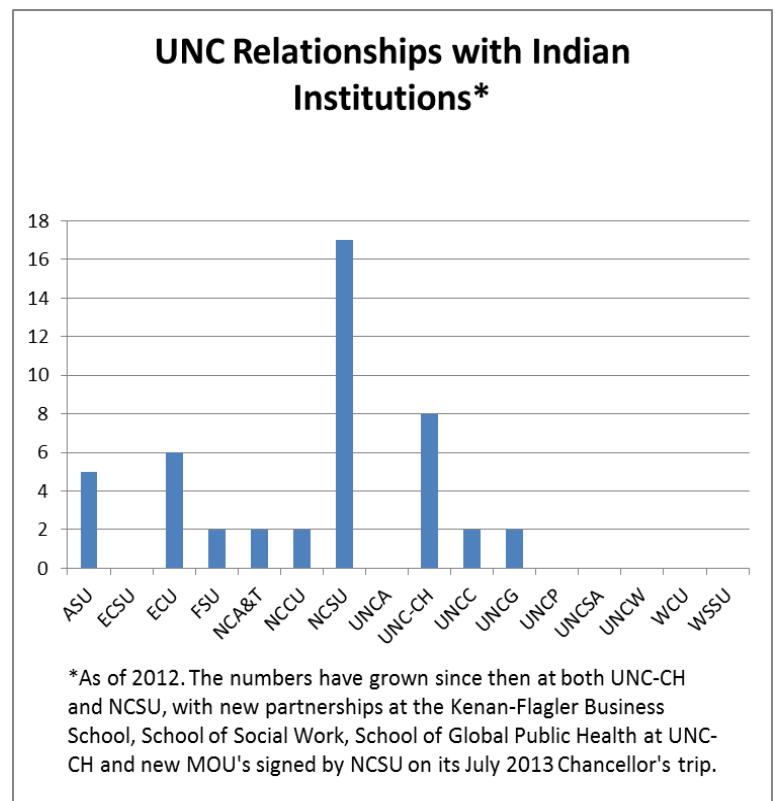
–Ancient Sanskrit saying

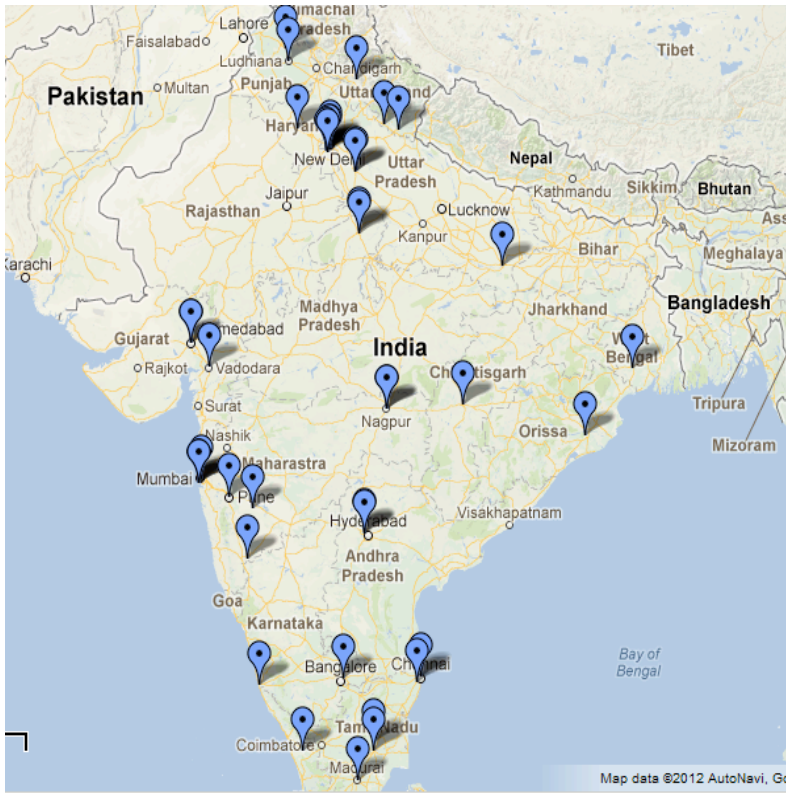
I. Connect: Strengthening Partnerships with India

Several UNC campuses are already engaged in partnerships with Indian institutions. In a 2012 survey, nine UNC campuses reported a total of 44 partnerships with institutions in India. Among campuses, N.C. State, UNC–Chapel Hill, East Carolina and Appalachian State are the most active, each with five or more institutional connections.

The Indian partnerships are rich and varied, encompassing faculty-led summer study abroad programs, graduate and undergraduate exchange programs, collaborative faculty research projects, virtual classroom interactions, service learning programs, and public health program development. Survey results also indicate a clear appetite among other campuses, schools, and departments for developing new ties to India that fit within distinct needs and missions, and take account of widely varying levels of experience interacting with Indian partners.

In creating and maintaining international relationships, campuses must navigate a complex set of obstacles. India presents particular challenges, with degree programs that are rigidly structured and myriad regulations of the education sector that can make it challenging to devise joint programs or student exchanges. UNC campuses have worked around some of these obstacles by developing limited agreements or memoranda of understanding for shared educational resources or faculty collaboration, stopping short of full-scale joint ventures that might trigger more onerous regulation.





The UNC initiatives currently underway in India span the length and breadth of the country, spread out among 16 of India's 28 states, plus New Delhi and the Union Territory of Chandigarh.

Three specific strategic approaches are worth pointing out briefly, as they suggest the importance of India as a future partner, illustrate the different ways UNC institutions can connect to India given their different missions, and emphasize the need for a strong institutional commitment to make international partnerships successful.

UNC Asheville currently has no institutional partnerships with India, but has initiated conversations to

develop one. In September 2013, UNCA will host a campus-wide, single-day conference called "Teaching About India," where faculty from UNCA and several North Carolina higher education institutions will make presentations to encourage faculty and others to incorporate the study of India across the university curriculum. The conference is a logical first step in coordinating campus India efforts and provides another example to UNC of the value of building off of unique campus assets.

Winston-Salem State is a little further along in organizing its efforts in India. For the past three years, the university has been actively building knowledge and relationships with India. The move, according to Joti Sekhon, director of international programs, is based on the belief that "incorporating India into the liberal arts curriculum allows faculty and students... to have in-depth knowledge about the historical and emerging trends in the contemporary world."⁴¹ In 2010, faculty in the Schools of Business and Economics and Health Sciences at Winston-Salem State University (WSSU) put forward a request to participate in the Institute of International Education's International Academic Partnership Program, which helps universities conduct strategic planning for international partnerships. This work in turn prepared WSSU to apply for and receive a 2012 grant from the National Endowment for the Humanities for a faculty development seminar to integrate India into the school's liberal arts curriculum. As part of that grant, a 12-person faculty team traveled to India in July and August of 2013 to visit educational institutions, cultural sites, and businesses and community organizations. Their aim is to help faculty integrate knowledge about India into a broad range of courses. WSSU faculty member Russ Smith, a geographer, returned with new ideas for

financing Winston–Salem’s infrastructure, forming new public–private partnerships, as well as concepts he could infuse into his courses.⁴² Other faculty members are exploring potential research collaborations and looking for ways to draw on their experiences for new course curricula.

Other schools, particularly NC State and UNC–Chapel Hill, have deep, varied and long-standing relationships in India. NC State is taking a comprehensive approach to organizing its efforts. In 2012–2013, the campus organized a series of meetings and seminars to bring together faculty, staff and students working in India. Following a July



2013 visit by Chancellor Woodson and a group of faculty to educational and nonprofit partners in energy and agriculture to discuss increasing collaborative work, the campus hopes to develop a specific country strategy for India as part of its overall international plan.

These efforts offer examples of the variety of partnerships that can be developed between UNC and Indian institutions. Inevitably, building international relationships will require resources — time, expertise, and funding. But there are some activities that can be strengthened and

enhanced with minimal investment, simply by building on existing relationships. Dr. Afroz Taj and Mr. John Caldwell at UNC–Chapel Hill and Dr. Joti Sekhon at WSSU offered a number of ideas during the 2013 UNC–India Summit, many of which are outlined below.

Recommendations to Increase Partnerships Between UNC Campuses and India

1. Help faculty lead: Use Academics as a Gateway to India

Deeper institutional ties between UNC campuses and Indian universities, nonprofits, businesses and governmental agencies in many cases start with faculty connections. According to REACH–NC, across the system, since 2005, more than 40 faculty have co-authored research publications with faculty and researchers from Indian institutions covering topics in agriculture, business, computer science, engineering, medicine and physics⁴³. More than 50 current UNC faculty have travelled or taught in India.

Campuses looking to increase partnerships with India should build off of their particular academic strengths. For example, NC State is emphasizing its strengths in agriculture and biotechnology as it increases its presence in India. Similarly, UNC General Administration should determine where it can usefully add value by identifying shared campus interests and looking for places where economies of scale can assist

campuses in relationship development, student or faculty exchange, or research relationships.

Action Steps for 2013–15

➤ **Step up faculty exchange**

Campuses should create incentives to encourage more faculty activity in India, including short-term faculty exchange with partner universities in India, allowing faculty to travel to universities with whom they have existing or potential partnerships, and building off areas of shared academic strength. Offering research or travel funds earmarked for specific countries of interest such as India could encourage more faculty to develop joint projects.⁴⁴ Returning faculty members can provide critical insight to administrators, colleagues, students, business leaders, and government officials about India and advise on developing partnerships.

Faculty across the system can also work together to identify collective areas of interest and strength, whether in the “hard sciences,” social sciences, or other fields, or in multidisciplinary collaborations. For example, during the India Summit in January 2013, faculty began discussing engagement with India on “peace studies,” a field of interest to Indian campuses, nongovernmental organizations, and international businesses. By looking beyond the traditional world of higher education for potential partners, UNC can engage faculty and students in a variety of areas.

➤ **Encourage UNC–India shared courses; create new global understanding courses in India**

For institutions with limited or underdeveloped connections in India, UNC General Administration should provide competitive funding for faculty members to develop joint courses with Indian colleagues, building off of East Carolina’s successful “Global Understanding” model, which already has partnerships with five Indian universities.⁴⁵ Through the program, UNC faculty members would travel to India, develop courses with Indian colleagues, then return and offer those courses to students in both countries.⁴⁶ UNC students taking the courses learn with Indians, listening to lectures, sharing ideas and having discussions over Skype and other online media, then writing papers and working on projects with their Indian colleagues. UNC’s experience launching similar courses with Chinese universities shows that both UNC and international students are willing to attend classes at unusual times to be part of such a unique learning experience.

➤ **Improve data collection**

UNC General Administration should work with the University Council on International Programs to develop an annual survey collecting data on India and other international partners to refine available information and share insights.

➤ **Increase campus sharing of India information and activity**

There is enormous potential for better sharing of India-related resources among and within UNC campuses. Visiting faculty members from India can partner with multiple UNC campuses, or spend time engaging with multiple departments of the same campus. Performances and speakers related to India can be better advertised throughout the UNC community. The cost of visits to UNC campuses by Indian nongovernmental organizations and related entities could be made more affordable by sharing expenses among several campuses, enabling more students to be exposed to the organizations and to develop interest in further study. UNC institutions should explore more jointly organized study abroad programs, or at least draw from the experience and expertise of study abroad initiatives on other campuses before undertaking a new program.

Campuses should develop a platform where they can share activities related to India, including campus partnerships, information related to faculty exchange, student exchange, joint research, cultural events, program offerings, and grant funding. This could be as simple as well-maintained web portals or databases, or could involve a more proactive approach, with a designated faculty member or administrator to help coordinate resources.

2. Draw on NC's Indian assets

Virtually every UNC campus has Indian students, faculty, alumni and community members who know, love and appreciate the work of the campus, as well as non-Indians interested in bolstering trade or cultural connections to India. Campuses should reach out to these key players and draw on their insights.

Action steps for 2013–15

➤ **Identify Indian alumni**

Most UNC campuses have alumni living or working in India, but often cannot easily identify who those alumni are or easily communicate with them. This is a clear challenge. As Suzanne Ortega, Senior Vice President for Academic Affairs at UNC General Administration, noted at the UNC–India Summit, “We must find ways to improve our ability to keep track of our alumni. They are a huge asset for us, no matter where they live, but particularly as we seek to increase our connections in India.”

Developing and connecting with this alumni base could provide critical advice and insight to a campus as it seeks to deepen ties in India. Alumni can serve as facilitators of partnerships, but also as powerful recruiters, sources of internships, brokers of trade relationships, and other invaluable roles. Campuses should bolster their efforts to track alumni by country of residence.

➤ **Convene Indian faculty, students and community members**

Convening interested groups on campus, as some have done recently, can assist in gaining insights from the most motivated and informed students, faculty, and community members on a variety of issues, including partnerships, program development, and community engagement. It can also provide contacts and ideas for gaining public or private support for specific projects.

3. **Get in the game**

No matter what stage of development a campus has reached with India, there is value in having a thoughtful strategy for development of current and future partnerships. On a campus level, the examples from UNC Asheville, Winston-Salem State and NC State offer three different kinds of approaches campuses might consider to examine commitments, assess appetite and build off of widely varying assets. Any campus that is interested can find a way to “get in the game,” drawing on its own energy and strengths. UNC General Administration can assist campuses by focusing on a small number of high-leverage activities.

Action Steps for 2013–15

➤ **Strengthen the India Working Group**

With limited resources, UNC has distinct challenges as it tries to increase its connectivity to India. The India Working Group has provided critical guidance to UNC General Administration in considering how to work more effectively in India, identifying issues, and finding potential funding sources. As UNC seeks to implement the group’s recommendations, the University would be wise to increase the size and membership of this group and the frequency with which it meets. The India Working group can also look for opportunities to assign focused research projects to interested students.

➤ **Get smarter about available resources**

One clear area of emphasis must be identification of funds to support work in India, both on a campus and a system level.

For example, the U.S. Department of Education (DOE) sponsors a Fulbright–Hayes Global Projects Award program for short-term initiatives in training, research and curriculum development. As a result of the UNC–India Summit, Dr. Sandria Freitag of N.C. State led a consortial effort of Fayetteville State, NC A&T State, N.C. Central and Winston–Salem State to submit a grant application for an 18-month project titled “Integrating India: UNC–HBCU Curriculum, Programming and Beyond.”

UNC Chapel Hill is participating in the high-profile “Obama–Singh 21st Century Knowledge Initiative,” sponsored by the U.S. Department of State, which encourages U.S. and Indian institutions to partner in the fields of climate change, education, energy, public health, and sustainable development. As one of eight universities selected for the program, UNC–CH is partnering with the Indian Institute for Management in Bangalore on the project “[Partner for Success: Advancing Sustainability Research and Education in India.](#)”

A preliminary listing of other opportunities is available in Appendix B. Over time, UNC should compile a more comprehensive list and keep it updated.

➤ **Connect to non–UNC efforts**

UNC’s work will be more effective if connected to other efforts the state is making in India, including the activities of private companies or trade associations, initiatives of the NC Department of Agriculture or Commerce, or partnerships with community colleges and private universities. In some cases, UNC will lead; in other cases we will join; in still others UNC should be at the table jointly developing ideas and strategies that deepen our partnerships.

II. Learn, Send: Increasing Interest in Studying India

Given the sheer size of India and its outsized importance to the global economy and American strategic interests, the number of U.S. students studying in India is remarkably limited. Despite an 11.9% increase over 2010–11 and a 479% increase since 2000–2001, the 2011–12 academic year saw only 4,345 Americans studying in India.⁴⁷ That contrasts with more than 100,000 Indian students studying in the U.S. each year. The U.S. State Department hopes to triple the number of Americans going to India for higher education over the next five years, but the imbalance will remain. Indians will know a lot more about the U.S. than Americans will know about the country that is soon be the world's largest.⁴⁸

The pattern at UNC is similar. While more than 1,500 Indian students study at UNC campuses each year, very few UNC students who study abroad go to India. Of the 1,087 who studied abroad from NCSU, for example, only 17 ventured to India. Among all UNC campuses, UNC Chapel Hill, N.C. State, Appalachian State, East Carolina and Fayetteville State were the only campuses with 10 or more students studying in India. Throughout the system, fewer than 2% of students studying abroad go to India. By comparison, nearly 50% studied in Western European countries.⁴⁹

UNC Institutions with 10 or More Study Abroad Students in 2010–11	Total Study Abroad Students	Study Abroad Students in India	% Study Abroad Students in India
Appalachian State University	886	16	2%
East Carolina University	383	16	4%
Fayetteville State University	83	12	14%
North Carolina A&T State University	74	3	4%
North Carolina Central University	73	1	1%
North Carolina State University	1,087	17	2%
University of North Carolina – Asheville	154	1	1%
University of North Carolina – Chapel Hill	1,404	25	2%
University of North Carolina – Charlotte	370	0	0%
University of North Carolina – Greensboro	353	1	0%
University of North Carolina – Pembroke	44	0	0%
University of North Carolina – Wilmington	613	7	1%
Western Carolina University	202	0	0%
Winston–Salem State University	67	0	0%
TOTALS:	5,793	99	1.7%

The low numbers of students studying in India are one part of the challenge. But many campuses also offer very little to on-campus students interested in studying India. Few campuses offer courses in the dominant Indian language of Hindi.⁵⁰ Most campuses offer no courses on Indian or South Asian history, culture, or economics. And only one campus offers students the chance to study virtually with Indian students in India.

Dr. Viney Aneja and Dr. Sandria Freitag from NC State University helped shape and extend ideas initially offered during the 2013 UNC–India Summit, including many of those put forward below.

Recommendations to Increase Indian Study by UNC Students

The result is that most UNC students graduate with little knowledge of India’s fast-growing economy or experience working with Indians. UNC should find new ways to increase the number of students who have this experience as they graduate and enter the workforce.

1. Get more people thinking about Indian study

Getting India on the mind of more students and faculty will require shared effort – on campus and off – to ensure that UNC students both have interest and opportunities to learn more. By taking a series of steps, we can increase the number of students and faculty with knowledge of India.

➤ Increase access to language courses

Teaching of Hindi–Urdu, two prominent Indian languages, is currently limited to two UNC campuses. Enrollment and interest at UNC–Chapel Hill and NC State has grown tremendously since 1995, when UNC–Chapel Hill, NC State and Duke began working together to deliver basic Hindi–Urdu language instruction through live video conferencing. In 1998, advanced language courses were added. During that time, enrollment has increase from 18 students at UNC Chapel Hill to 115 students at all levels at UNC–CH and NC State. Fourth year Hindi–Urdu was added in 2012. Such language courses can play a key role in driving interest in further Indian study activity.

Action Steps for 2013–2015

A new Hindi–Urdu consortium developed by the UNC Language Assembly, has the promise of spreading the language to students at schools throughout the system. The idea is a cost-effective way to make the languages available to students on all campuses, with the idea that greater knowledge of the languages will spur more interest in the history and culture of India, and could feed further interest in study in India.⁵¹ Three campuses have students enrolled in the program for Fall 2013

through UNC Online; campuses should work to ensure that interested students are aware of the availability of these courses.

The availability of courses across institutional lines could extend to immersion programs as well. UNC Chapel Hill's Hindi Language Indian Society and Culture's faculty-led study abroad program represents an important opportunity for students to participate in an intensive program in several locations of northern India.

➤ **Boost availability of courses about India**

Seven UNC system campuses⁵² currently teach India-specific courses on history or economics. At Appalachian State, East Carolina, NC State, UNC Asheville, UNC Charlotte, UNC Wilmington and Winston-Salem State, there are approximately 30 courses with significant information on India or South Asian economics, history, art or religion; another 43 can be found at UNC-Chapel Hill. This rich array of courses enables students on those campuses to learn about India.

At ECU, students have the opportunity to learn about India with students in five Indian universities through their Global Understanding program (see p. 21).

Action steps for 2013–2015

The UNC India Working Group should review courses currently taught at UNC and suggest ways that more existing courses on India could be taught on more UNC campuses, using distance or e-learning technologies.

UNC has had past success making high-quality courses available to multiple campuses. "A Passage Through India: An Introduction to Modern South Asian History and Culture" was taught jointly by faculty at UNC, NCSU and Duke in the departments of Asian Studies, History and Anthropology and focused on key events and issues throughout the subcontinent.⁵³ UNC is exploring development of a broader course focusing on India and other critical world economies that could be available to all UNC students (see Chapter IV). And UNC General Administration should provide competitive funding for faculty members interested in developing ECU-like Global Understanding courses on their campuses.

➤ **Improve word of mouth on campus**

UNC students interested in studying in Western Europe can find large numbers of faculty and fellow students who have done so. They can ask questions, get feedback on different programs. They can often find placement in a language they can easily take on their campus.

With such a small percentage of UNC students studying in India, there are few examples for students to see, few peers to whom they can turn when exploring

international student opportunities in India. Campus traditions and culture make study in India harder.

In addition to increasing the specific courses offered in various disciplines that are focused on India, students will get increased exposure if pre-existing courses expand their coverage of India case studies. Faculty expertise in creating and sharing these modules also requires either direct experience in India, or the development of shared resources (e.g. through the possible new India Group-organized). Small fellowships to faculty throughout the system and across several disciplines could yield model modules to be shared and offered as inspiration for more such offerings.

Action Steps for 2013–2015

Campus leaders should look for ways to increase India activities on campus, building off of the experience of leaders like Dr. Afroz Taj, a professor in UNC–Chapel Hill’s Asian Studies department. Dr. Taj, in addition to teaching courses on India, has started a radio program, hosts cultural events that bring together students and faculty from India with members of the larger India community and serves as an information hub for the region. In part these efforts help students from India make connections with one another, but they also create multiple ways domestic students can learn about India and its culture.

On-campus activities led by students or faculty from India on campus can provide domestic students with low-risk ways to learn more about India, reinforcing information they may be learning in language or culture courses and allowing informal conversations that can increase the likelihood that they will be interested in study in India. Faculty returning from India research or exchange experiences are more likely to integrate references to India into their teaching and research efforts on campus, and can also serve as important witnesses to students about what can be learned through Indian travel and study.

2. Make study and research in India easier

There are other perceived barriers to study in India: concerns about affordability, quality and logistics all can discourage students. UNC should work to identify and address these concerns.

➤ Improve affordability

The cost of travel to India presents a challenge to many students. Plane travel is expensive, there are typically fewer dedicated funds on campus to encourage study in India and many campuses have less access to good information about additional funding sources. State law precludes using state funds to support students going to India to learn, so that campus support will require specific efforts at fundraising. During the January 2013 UNC–India Summit, NCSU undergraduate Oriana Yost

reported that funding to travel to India is an issue. Yost participated in a faculty-led Wildlife Rehabilitation and Management Program in India, and spoke candidly about the high cost of travel to the subcontinent.



Determination of where a student should go will be easier as campuses gain more experience, but there should be minimal concern about the cost of universities while in India. Through the UNC Exchange Program (UNCEP), a systemwide resource assisting campuses with study abroad, students can participate in the International Student Exchange Program's (ISEP) Study in India program at the University of Hyderabad, which offers summer, semester and academic-year programs.

Other campuses have made individual arrangements with particular Indian partner campuses (see Appendix A). Exchange relationships have obvious advantages: besides ensuring that the student pays no more in tuition or fees at the international university, they also ensure that for each UNC student studying in India, one Indian student is studying at UNC. Further, short-term exchanges by undergraduate students often lead to students returning for graduate degrees.

Action steps for 2013–2015

UNC should continue to explore funding opportunities with [TiE Carolinas](#) (The Indus Entrepreneurs, a predominately South Asian entrepreneurial networking group) and other organizations to develop scholarships/fellowships for faculty and students to travel and study/work in India. In addition, the India Working Group should recommend strategies to share information about other funding sources that could support travel to India, and should ensure that students are aware of existing exchange relationships available either through UNCEP or through their campus-level exchange partnerships.

An example could be the American Institute for Indian Studies, or AIIS. Though member campuses receive services at a slightly reduced fee, AIIS is available to all UNC campuses, regardless of individual membership.⁵⁴ The Institute offers expert assistance in arranging internships and study abroad programs in India, assisting with visas, and providing foreign language instruction. Any UNC campus, even those without preexisting ties with Indian institutions, can work with AIIS to create programs that place students with universities and NGOs vetted by AIIS and selected for their fit with the academic mission and needs of a particular UNC campus.

The resource listing might also include other resources available to encourage students to study in India:

- The Fulbright–Nehru Awards, coordinated by the U.S.–India Educational Foundation, provide opportunities for American higher education administrators to meet with their Indian counterparts and learn more about India’s complex system of higher education.
- The Passport to India Program promotes internships for U.S. high school and college students. This US Department of State program strongly urges campuses to work with local businesses to contribute travel and other support for students to go to India. Once a working relationship is established, the Passport to India program could provide broad publicity to the sponsoring corporation.
- The U.S.–India Science And Technology Endowment Fund
- American Physical Society and Indo–U.S. Science and Technology Forum
- The American Physical Society U.S.–India Travel Grant Awards
- American Society for Microbiology and IUSSTF Professorship in Microbiology.⁵⁵

As the India Working Group develops this information, it should be sure to draw on the expertise of individuals and agencies with deep knowledge and experience in India (including [Education USA](#), [USIEF](#), [AIIS](#) and others) and discuss optimal ways to display the information to ensure maximum access by UNC students.

➤ **Simplify logistics of study**

One key obstacle, even for students with a strong desire to study in India, is an archaic and tightly limited education visa process in India. The U.S. Government has been working with the Indian Government to streamline the application and awarding of education visas, but significant bottlenecks remain.⁵⁶ For students interested in pursuing a semester abroad, timely availability of visas is a critical prerequisite. Few students are willing to stake an entire semester of class credit or research on an uncertain visa approval, and scrambling to fill a stateside course schedule in the aftermath of a visa denial or delay can be difficult and costly.

In addition, teaching and learning practices in India do not necessarily synch up with those in the United States. The kind of classroom dialogue and argument prevalent in the U.S. remains relatively rare in India; student learning outcomes, measured on a class-by-class basis in the U.S. are often determined in India by an examination at the end of the entire curricular program. India’s academic and examination schedule often means that students studying in India during the spring semester may not receive grades until the end of summer. Some Indian

partner campuses are not fully accredited, which leads to challenges in transfer of credit for students studying in India. And Indian universities often lack the administrative infrastructure needed to ensure successful exchange experiences for students.

Action Steps for 2013–2015

The India Working Group should develop a step-by-step guide to the visa process, with realistic timelines and strategies outlined, and campuses should carefully choose exchange partners. UNCEP may be able to provide system-level assistance to students facing challenges and campus level assistance should be available in order to ensure that students don't lose progress toward their degree while they are studying in India.

➤ **Think beyond study abroad**

The rich array of history and culture India offers leads some UNC study abroad program models to include a “tour” element, generally centered around a specific theme within Indian history and culture. Through carefully planned visits to unique and interesting sites in India, these programs create nontraditional opportunities and at their best, offer students a taste of scholarly research and an opportunity to learn from local experts. Casework typically centers on defined themes – investigating different health care initiatives by working at different research sites, learning Indian art history by studying active centers of craft production, etc.

Internships and service learning opportunities with nongovernmental organizations or private companies can help deepen subject matter expertise and help students gain hands-on experience in their chosen field, whether they are political scientists, economists, musicians, or engineers. This broader notion of “education abroad” can increase the probability that students in the science technology, engineering and math (STEM) fields, who have traditionally avoided study abroad, can find meaningful learning opportunities in India and can return without losing progress toward graduation.

Action Steps for 2013–2015

In order to increase interest in travel in India, the India Working Group should collect and share information about “study abroad” experiences that incorporate “education abroad” experiences. This should increase interest and engagement in India study. UNC Exchange Program should approach TIE Carolinas, RTI and other North Carolina organizations with ties to India to explore internship and service learning opportunities for UNC students in India.

III. Welcome: North Carolina as an Education Destination for Indians

In any given year, more Indian students choose to study in the United States than in any other country, nearly three times the number who choose to study in Great Britain, the second most popular destination.⁵⁷ India ranks second only to China in the number of students enrolled in American universities each year, with 13.1% of all international students studying in the US in 2012 hailing from India.⁵⁸ North Carolina, with its world-class public university system and a number of nationally-ranked private institutions, continues to be an attractive destination for this international cohort.

India Students at UNC: 2011-12 and 2003-2004

During the 2011-12 academic year, 1,561 students from India were enrolled at 15 UNC-system campuses, representing about 1.5% of all Indian students studying in the U.S. Eight UNC campuses have seen an increase in Indian students since 2003-2004. Three campuses -- N.C. State, UNC Charlotte and UNC-Chapel Hill -- had 180 or more Indian students; four campuses - UNC Greensboro, East Carolina and NCA&T - had between 23 and 83 Indian students; no other school had more than four Indian students. Since the 2003-2004 school year, Indian enrollment numbers have stayed relatively consistent,

Campus	2011-12 at UNC			2003-2004 at UNC			% Change from India 2003-2011
	Int'l Students	From India	% UNC from India	Int'l Students	From India	% UNC from India	
ASU	140	4	3%	78	6	8%	-2
ECSU	9	0	0%	2	0	0%	0
ECU	340	40	12%	188	30	16%	10
FSU	30	1	3%	14	0	0%	1
NCA&T	188	23	12%	190	53	28%	-30
NCCU	72	1	1%	70	0	0%	1
NCSU	3296	938	28%	1506	352	23%	586
UNCA	45	0	0%	40	0	0%	0
UNC-CH	1745	188	11%	1421	174	12%	14
UNCC	1572	278	18%	865	267	31%	11
UNCG	594	83	14%	495	52	11%	31
UNCP	120	0	0%	54	0	0%	0
UNCW	233	1	0.5%	99	2	2%	-1
WCU	96	1	1%	78	14	18%	-13
WSSU	29	3	10%	14	1	7%	2
TOTAL:	8509	1,561	18.1%	5114	951	18.6%	656

with the exception of NC State, whose 586 student increase accounted for 89% of the total increase during that time. Despite the overall increase in Indian students, as a percentage of the overall international student population across UNC campuses, Indian enrollment has actually declined slightly. This is due in part to the influx of students from other parts of the world, most especially from China.

With half of its population under the age of 25, India's emphasis on increasing the percentage of citizens getting higher education, and its inability to meet educational

quality and quantity needs with just domestic institutions, it is clear there will be a growing number of Indians seeking high-quality higher education outside of the country (see “education growth” discussion, pp. 12, 13).

One question is where those students will go. Other countries are aggressively recruiting Indian students, with the consequence that in the past 10 years the percentage of Indian students studying internationally who choose to come to the U.S. has declined from 69% to close to 50% today.

Another question facing UNC and the state is whether top Indian students will remain in North Carolina following graduation. Other states and countries are looking to recruit top talent, and as the Indian economy develops, there are more attractive jobs to return to.

There are at least four reasons UNC should take aggressive steps to recruit and retain top Indian students:

Exposure: First, UNC has an obligation to prepare all of its students to succeed in a global marketplace. Given that most native born UNC students will not be able to study in India, having greater numbers of Indian students on UNC campuses provides all students with an opportunity to learn with and work with Indians, as they may need to in future jobs.

Quality: Only a tiny percentage of top Indian students find space to study at India’s top quality institutions; many of the others look to U.S. institutions to further their education. Smart Indian students can in many cases improve the academic quality in UNC classrooms while providing valuable perspective and insights.

Good business: In the most recent year, the 1,561 India students at UNC pumped about \$38 million into the state’s economy,⁵⁹ with spending ranging from tuition to clothing to pizza.

Long-term impacts: North Carolina is in a global war for talent. As Lew Ebert noted during UNC’s Strategic planning process in early 2013, “Talent is the coin of the realm.”⁶⁰ Retaining top Indian graduates must be part of any future development strategy for the State and for the University. Research by UNC General Administration shows that following graduation international students with Science, Technology, Engineering and Mathematics (STEM) degrees are more likely to remain in North Carolina than out-of-state domestic STEM students. Following graduation, immigrants are more likely to start new companies than those born in the U.S. And one study showed that among international groups, Indians were the most likely to start new companies in the Research Triangle Park (see discussion, pp. 15–16). Even students who choose to return to India following graduation can play an important role in the state’s future if they choose to do business with state entities.

Triangle area businessman Chacko Verghese summarizes the case this way: “By attracting top Indian students, you not only provide the foreign student with a great education at UNC, you also provide the student body with exposure to an Indian ‘ambassador’ who can foster bi-cultural understanding and learning.”⁶¹

Many of the factors affecting international enrollment are beyond our control — immigration policies, visa backlogs, exchange rates, current events. But there are a number of steps the University can take to become a higher-profile education destination for Indian students. Some of the following ideas result from discussions led by Dr. Jim Gehlhar of East Carolina University and Dr. Jesse Lutabinghwa of Appalachian State University.

Recommendations to build North Carolina’s profile in India

1. Increase Indian awareness of North Carolina as an educational destination

As other nations and states compete to attract the most talented students globally, Indian students looking to study abroad have more and more options. UNC campuses are poised to compete for those top students, but as they face budget challenges, have difficulty finding funds and launching programs that might increase their visibility and attractiveness to Indian students.

➤ Boost multicampus shared branding efforts

[Study North Carolina](#), a nonprofit started in 2012 by UNC to increase awareness of North Carolina as a global education destination, has expanded to include four private four-year colleges and the NC Community College Global Learner Consortium. The web portal provides information about the state, its location, climate and education and business environment; the expansion provides the effort with some increased scale to help brand North Carolina as an education destination.

Action steps for 2013–2015

Three different approaches to improving recruitment efforts are currently developing that UNC should consider as it works to build its collective profile as a destination for Indian students.

- **Build brand through Study North Carolina:** As UNC campuses and other participants in Study North Carolina continue to explore ways to build “brand awareness” of the state, they should consider targeted efforts in fast-growing countries like India.
- **Share recruitment ideas:** Some campuses are creating dedicated international recruiters – ECU has long had one in place, UNC Charlotte is now in the selection

process, and UNC Asheville is opening up a search – these officers should work closely with one another in targeted geographies like India to help their budgets go further, pooling resources of people, insights on use of social media, observations on the appropriate use of agents, thoughts on how to most effectively work with organizations like Education USA, the U.S. Commercial Service and the U.S. Department of State.

- **Explore shared services in recruitment:** UNC General Administration should work with the University Council on International Programs to determine whether there is value in taking a “shared services” approach to international recruitment, creating a capacity that could serve multiple UNC campuses, as systems in California and New York have done.

In addition to these three efforts, the North Carolina Department of Commerce will be launching a branding effort for the state as a whole. UNC should stay in close contact with this effort and look for strategies to inform or connect to these broader statewide efforts in mutually-beneficial ways.

➤ **Stay strong with Indian graduate students**

The largest portion of Indian students in the United States are studying at a graduate level. Nationally 58.9% of Indian students are pursuing graduate degrees, with an additional 26.7% having completed studies and involved in short term employment through a work category called Optional Practical Training and just 13% enrolled as undergraduates.⁶² In North Carolina those percentages are even higher: 89% of Indians at UNC are graduate students, with 6.7% in Optional Practical Training or non-degree seeking program. Just 4.3% of Indians at UNC are enrolled as undergraduates.⁶³ And the numbers of Indian students interested in graduate study appear to be growing. An August 2013 report from the U.S. Council of Graduate Schools showed an impressive 22% increase in U.S. graduate school applications coming from India, compared to a 3% decline in applications coming from China. While Indian graduate school applications to the U.S. fluctuate year to year, there is clearly a growing supply of potential graduate school applicants from India.⁶⁴

Action steps for 2013–2015

At least two approaches should be considered to promote graduate study in North Carolina by students from India:

- **Market specific programs:** Each campus has individual strengths in graduate studies; international graduate students are more interested in those specific program as opposed to more general information about the university. In a competitive landscape with limited funding, campuses should make tough choices about which graduate programs to market in India, looking for a marriage of high quality programs on their campus and high demand in India.

- **Identify a few systemwide programs to market:** In a few cases there may be opportunities to market the entire system's strength in a particular field. For example, all 15 UNC business schools are AACSB-accredited, an important international credential of quality. International and regional credentials such as this are valuable for Indian students considering graduate work: it is noteworthy that only two universities in India have achieved AACSB accreditation.⁶⁵ Other focus areas to highlight when recruiting top Indian students could include areas highlighted in UNC's [2013 Strategic Directions report](#) for development as multi-campus "consortia of excellence" – for example, data science, advanced manufacturing, and marine studies, as well as UNC's fast-growing [Professional Science Master's](#) (PSM) programs in applied sciences, should be immensely attractive to Indian students.

➤ **Targeted marketing to potential undergraduates**

Jim Gehlhar at East Carolina University notes that one reason Indian students are less likely to come to the U.S. as undergraduates is that they are particularly price sensitive. For many students and their parents the decision to wait till graduate school to attend U.S. universities is financial – with limited resources they can only afford a limited number of years of tuition. Indeed a recent survey by World Education Services of potential international students found that just 27% of Indian students had financial resources to study abroad, compared to 60% of Chinese respondents.⁶⁶ With India's currency trending at near-all-time lows against the U.S. dollar, these challenges are compounded further. Nevertheless, the pipeline of excellent opportunities at both the undergraduate and graduate level in India is not sufficient to meet the exploding demand (see p. 12), making UNC's opportunities much more marketable.

While UNC campuses may struggle to provide additional scholarship funding, system campuses have a comparative advantage over peers in the U.S.: even though out-of-state tuition costs are higher than in-state tuition costs, UNC campuses still typically cost less than their peers, an important message at times when U.S. universities in general are being painted as "high cost."⁶⁷ Describing the UNC cost advantage could be a key to making progress in attracting top Indian students as undergraduates.

Action steps for 2013–2015

The UNC India working group should explore other approaches to recruiting undergraduate students from India:

- **2+2 with CC's:** UNC's work in developing "articulation agreements" with North Carolina community colleges means that students taking approved undergraduate courses at community colleges can transfer that course credit to UNC campuses. By spending two years at a community college prior to enrollment

at UNC, Indian students can reduce their total cost and still graduate with a degree from the UNC institution. Study North Carolina should encourage UNC campuses to work with the NC Community College System's Global Learner Consortium to explore ways to market this "2+2" arrangement.

- **Exchange as gateway to enrollment:** Many UNC campuses with bilateral relationships with Indian universities should consider mounting intentional efforts to ramp up exchange of students and faculty. While exchange programs are revenue neutral, good work in the areas of faculty and student exchange, joint programs and joint research not only deepens relationships between partners, it can also create positive word of mouth that may encourage graduating high school students to consider study at UNC campuses as well.
- **Partnerships with Indian high schools:** The Center for International Understanding, a program of UNC General Administration received a grant in August 2013 from the U.S. Department of State to connect North Carolina K–12 schools to Indian K–12 schools. The grant, which builds off of a July 2013 study trip with North Carolina K–12 teachers led by the Center for International Understanding, will develop partnerships between schools. Indian high school students participating in this partnership may be particularly interested in attending North Carolina universities following graduation. The [International Baccalaureate](#) program offered by numerous North Carolina and Indian high schools offers opportunities for high school students to "exchange" while taking common material.



2. Increase the attractiveness of North Carolina as a place to live or collaborate

Indian students on UNC campuses are among that country's best and brightest. These students' intellect and entrepreneurial spirit make them attractive to both universities and potential employers. North Carolina needs to take intentional steps to connect these students to the North Carolina community, making it easy for them to connect to each other, to U.S.-born students, to Indian-born members of their new communities. Creating a strong support infrastructure for Indian students while they are enrolled at UNC increases the probability that they will graduate. Connecting highly-skilled Indians to work opportunities here while they are students increases the probability that they will contribute to the North Carolina economy following graduation. And Indian students returning home after making connections in North Carolina can draw

on their NC connections upon their return to strengthen trade and collaboration between India and North Carolina.

➤ **Connect with Indian students during their time at UNC**

The distance from Rajasthan to Raleigh is not just 7522 miles and nine time zones; it is a trip between languages, cultures and academic traditions. To be most successful in recruiting and retaining Indian students, our campuses need to continually look for ways to fully integrate them into academic and community life.

Action Steps for 2013–2015

Intentional acculturation: Many of our campuses have developed excellent models for international student integration, including community service projects, outings, exercises, cultural exchange and other activities.⁶⁸ A systemwide video competition in 2013 encouraged students to document such activities; the India Working Group should look for ways to share effective collaborative activities more widely and to encourage more integration of Indian students into mainstream campus life.

Connect to Indian diaspora: At the same time, campuses should look for ways to more closely connect Indian students to Indian faculty members and Indian members of their surrounding community. Afroz Taj and John Caldwell at UNC–Chapel Hill have created a dynamic South Asian community in the Research Triangle region of North Carolina, with a regular radio show, networking events, cultural performances and other activities designed to link the Indian community in the region to one another, to Indian students and to invite in native U.S. citizens interested in learning more about India. Not every campus community has the same assets to draw on, but all UNC campuses seeking to better connect Indian students and North Carolinians should explore similar efforts based off of their Indian population working in business, nonprofits, government or academia.

➤ **Connect top Indian students to North Carolina’s business community**

To maximize their success in North Carolina, Indian students need to be connected to their campus community and other Indians living in their community. To be as successful as they can be following graduation, they need to be connected to the workplace.

Internships provide a critical link between students and businesses, enabling students to test out classroom learning in a real world setting and to learn work skills, and enabling businesses to get useful work done and to get a close look at potential future employees.

Action steps for 2013–2015

“Sticky” internships: As they do for domestic students, UNC campuses should reach out to their surrounding business community to look for meaningful internships and employment opportunities for international students while they are in school. A positive internship experience, in turn, creates “stickiness” for top-performing Indian students. Such positive work experiences, coupled with a sense of connectedness and understanding of the state, will increase the chances that an Indian graduate will choose to stay in North Carolina to work or start a business.

Stay in touch: Many Indian students will choose to return to India following graduation. These graduates are also an important constituency: they have had a positive experience in our state and will want to stay in touch. UNC alumni offices should make special efforts to stay in contact with graduates, not only for development reasons, but because these graduates offer significant opportunities for universities to build deeper relationships in India and help recruit additional Indian students to UNC, and for North Carolina businesses to make connections to the Indian market.

Ideally, such efforts by UNC would be connected to a larger North Carolina “talent attraction and retention” initiative, led by business or government leaders. Such an effort could start relatively inexpensively, with a letter from the Governor to every graduate in selected fields with strong credentials, urging them to stay in North Carolina, or marketing efforts by a group of interested businesses. In 2011 and 2012, then-Governor Bev Perdue hosted separate receptions at the Executive Mansion for graduate students from India and China, at which she urged top students to remain in North Carolina following graduation to work or start companies, or, if they returned to their home countries, to remember North Carolina when they were deciding where to do business or make investments. UNC should stand ready to lead, support or join future efforts to connect and retain top talent in the state.



IV. Start: Looking for High-Profile Opportunities to Connect UNC and India

Most UNC campuses are in an early phase of developing significant relationships with Indian partners. And while they are willing and eager to strengthen these connections, only three of our campuses have more than 100 Indian students enrolled, and most have fewer than 10 students each year studying abroad in India. With limited resources, it will continue to be a challenge to launch or ramp up significant relationships. Much of the work UNC does to increase engagement must be incremental and campus-based.

Given those constraints, we must find ways to leverage limited resources to create visibility and momentum that will build over time. Ideally, these ideas should build from the system's collective strength in strategic areas while addressing the needs and interests of institutions and policymakers in both India and the United States.

➤ **Develop Faculty: Responding to India's 'Education Tsunami'**

With half of its population currently under the age of 25, India has an incredible opportunity to transform itself and its economy -- and a monumental challenge. By 2030, projections show there will be nearly 400 million college-age students in India (see discussion, pp. 12, 13). Expanding capacity to give those students a meaningful opportunity at quality higher education will be an undertaking worthy of the world's largest democracy.



While some of these students will have the means and ability to study internationally, and UNC should be poised as a destination for the most competitive of those students, the reality is that most of the students will stay in India. The Government of India estimates it will need to build 1000 universities and 50,000 colleges over the next decade to meet the swelling demand for higher education.

It will also need to develop thousands of faculty members to provide quality instruction for those students. As Indian Ambassador to the U.S.

Nirupama Rao has noted, Indian colleges and universities must help prepare these young people by developing “well-formed as well as well-filled minds,” creating global citizens who have “shed the chains of narrow thought processes, vulnerability to rumor and prejudice, and are no longer prisoners of the local or hostage to small thinking.” That is an ambitious goal for even the most well-developed institutions.

India's guiding policy document, "The Five-Year Plan (2012–2017)," puts that effort at the center of national politics. The strategy challenge for education outlines the country's focus. "Educational and training facilities have been increasing rapidly," the plan notes. "However, access, affordability, and quality remain serious concerns. Employability is also an issue. How can we improve the quality and the utility of our education, while ensuring equity and affordability?"⁶

Action Steps for 2013–2015

UNC General Administration is proposing to assist in addressing the quality issue in Indian higher education by providing direct training for hundreds of junior faculty members in India, then developing a teacher training system that can be sustained over time. The idea grew out of conversations between Ambassador Rao and UNC General Administration in 2012, and has since been expanded with the assistance of North Carolina business leaders Swadesh Chatterjee and Chacko Verghese. UNC faculty development experts Ray Purdom, recently retired from UNC Greensboro, Scott Simpkins of NC A&T and Todd Zakrasjek of UNC Chapel Hill have worked with General Administration, the Indian Embassy, the Ministry of Human Resources Development, the U.S. India Business Council and the U.S. Department of State to refine the proposal.

UNC is offering to provide intensive training and mentoring for junior faculty members at Indian universities over three years. Indian faculty members would first observe UNC classrooms and work intensively with UNC faculty members in North Carolina, then receive ongoing mentoring and support electronically. Finally, UNC faculty mentors would observe Indian faculty teaching in India and provide feedback and suggestions for improvement. As the program develops, UNC faculty development experts would work with their Indian colleagues to set up a sustainable annual conference on teacher quality to be held in India annually and made widely available through distance learning technologies.

The junior faculty development strategy would address a key challenge in Indian higher education and would build from UNC's well-honed strength in faculty development, creating both a valuable contribution to Indian higher education while increasing awareness of UNC in the subcontinent. It would also provide invaluable international experience for UNC faculty members, creating long-term links between faculty colleagues in the U.S. and India.

➤ Emerging economies MOOC: Helping put India's economic growth opportunities into context

Explosive growth also poses a distinct set of economic challenges. Indeed, aside from education, two other leading priorities in India's five-year plan focus on sustainable growth and economic sector issues. UNC has expertise that may be useful in navigating these issues. Engaging with Indian business leaders and

policymakers could help both Indian and North Carolina students better understand these challenges, while meeting important UNC strategic priorities.

UNC's 2013–2018 Strategic Directions report recommended that UNC prioritize development of enhanced international efforts in India, China, Brazil, Mexico and selected countries in Africa to “help prepare students to succeed in the global economy and connect our institutions to key colleagues and resources important to future discovery and development.”⁷⁰ On our campuses, we have faculty with significant expertise and deep scholarly connections to these priority countries. But we don't currently have a strategy for sharing that collective expertise among all of our campuses so that all students have an opportunity to learn about their language, culture and expertise. Nor do we have a means of sharing that valuable faculty knowledge with those interested in learning about these economies around the world.

The UNC Language Assembly has been systematically reviewing languages we believe to be important to offer on more campuses, seeking both economies of scale and more widely shared opportunities for students to learn languages like Hindi and Urdu. In this report we are encouraging the development of more availability of shared courses on India like the “Passage Through India” course (see p. 27) that provides a comprehensive overview of India's history, culture, and current affairs and more partnerships with Indian partner universities, perhaps using ECU's “Global Understanding” model as a strategy to develop joint courses (see p. 21).

Action Steps for 2013–2015

We believe there is a further opportunity to utilize UNC faculty expertise to put India's development potential into context by creating a Massively Open Online Course (MOOC) focused on “emerging economies.” A course systematically examining the differing development needs and opportunities in India, China, and Brazil — as well as selected smaller economies such as Mexico, leading African countries and others — would help UNC students and interested stakeholders across the world get important grounding in the developing economies that will shape the future.

UNC is inviting faculty members to submit proposals to create such a course this fall, with the idea of offering it for the first time in January 2014 to UNC students, as well as to students and policymakers in India and throughout the world. It would offer a high-profile, substantive means of highlighting the depth of UNC's expertise in this field, and our willingness to engage fully and openly with students and colleagues across the globe.

CONCLUSIONS

“Knowledge overcomes ignorance as sunlight darkness.”

— Atmabodha Praksika

President Obama has called the US–India relationship “one of the defining partnerships of the 21st century.” The UNC Board of Governors has suggested that the UNC–India relationship should be one of our defining international partnerships, as well. And the University’s faculty and students are excited for deeper ties with one of the world’s great societies.

The value is clear. “The student of today needs to be prepared to successfully collaborate with foreign customers, employees and investors,” said Chacko Verghese. Greater knowledge of India — of its people, language, culture, history, economy, challenges, and potential — should be a key part of a UNC student’s preparation to succeed in the global economy. UNC faculty should find additional ways to connect to, work with, teach, and learn from Indian colleagues.

UNC institutions should join with the state in looking for ways to recruit and retain top Indian students, to reach out to UNC alumni and friends living in India, to strengthen trade and investment, and to find new ways to collaborate with Indian business leaders and policymakers in solving some of our time’s biggest challenges — theirs, ours and the world’s.

Context for the work

The University has always looked to the wider world as part of its overarching mission. “We must begin by lifting our vision beyond the artificial boundaries which separate mankind,” said UNC Chapel Hill Chancellor William Aycock in a 1958 speech. “We desperately need more leaders on the world stage, but more so we must look to thousands — indeed millions — of boys and girls and men and women everywhere who will strive for a better and more secure world.”

UNC’s long-term strategy calls for collective engagement by campuses in China, India, Brazil, Mexico, and African countries. This report follows last year’s [“The Dragon and the Dogwood,”](#) outlining opportunities for engagement in China. Making these connections will require near-term investment of time, talent, and dollars. But success in these efforts will pay off in the form of:

- Students who are better prepared to succeed in the global economy due to the courses they've taken and the personal connections they have made;
- Faculty and staff who are more closely linked to global colleagues working to address the biggest challenges in the world;
- Research offices that are more closely linked to global sources of research support;
- Institutions with revenue from the world's expanding base of top-notch university students;
- A state well-positioned to attract and retain top talent from across the world.

Now is the time to start building new connections to the world's largest democracy.



APPENDIX A:

SELECT UNC CAMPUS STUDY ABROAD OFFERINGS IN INDIA

Appalachian State University

- Faculty-led summer program: Community Social Work Practice and the culture of India
- Madras Christian Council of Social Services: Service Learning Program
- Bilateral exchange full year or spring semester program with The American College of India
- Bilateral exchange full year or spring semester program with Kristu Jayanti College of Management and Technology
- Bilateral exchange full year or spring semester program with Bishop Herber College
- Bilateral exchange full year or spring semester with Madras Christian College

East Carolina University

- Faculty-led summer program: “Summer Study Abroad in India 2013,” explores relations “between religion and culture in a living context.”
- ISEP Direct Semester, Academic Year, or Summer with University of Hyderabad

Elizabeth City State University

- ISEP Direct Semester, Academic Year, or Summer with University of Hyderabad

Fayetteville State University

- Short-Term Study Abroad at Lovely professional University
- ISEP Direct Semester, Academic Year, or Summer with University of Hyderabad

North Carolina A&T State University

- Third-party provider programs available through GLS, CIEE, SIT, and AIFS
- ISEP Direct Summer, Academic Year, or Summer with University of Hyderabad



North Carolina Central University

- ISEP Direct Summer, Academic Year, or Summer with University of Hyderabad

North Carolina State University

- Faculty-led Winter Break “India Technology and Industrial Organizational Psychology and International Development (Chandigarh and Delhi)”
- Faculty-led Summer Program “Working with Non-Profits: NGOs as Case Study”
- Faculty-led Winter Break “India Wildlife Management and Conservation
- Third-party Provider programs through ISA and ISEP Direct at University of Hyderabad
- Several department-based faculty-led short-term programs

UNC Asheville

- Winter break, Faculty-led “India: Citizenship and Religious Diversity in a Global Age”
- ISEP Direct Semester, Academic Year or Summer with University of Hyderabad

University of North Carolina at Chapel Hill

- Kenan-Flagler Business School Faculty-Led Global Immersion Electives
- Faculty-led Summer Program in India
- Third party provider programs for semester and academic year available through The Alliance for Global Education, Antioch Buddhist Studies, IES Abroad- India Delhi, SIT, Minnesota Studies in International Development- India, University of Wisconsin in India, and a summer intensive Hindi program through AIIS
- Other programs through Gillings School of Global Public Health, the School of Law, and the School of Social Work

UNC Charlotte

- Faculty-led Spring Break Program: Doing Business in India
- Third-party provider programs for semester and academic year as well as some internships available through a variety of providers including AIFS, GLS, IES Abroad India-Delhi, University Studies Abroad Consortium, CIEE, The Alliance for Global Education , University of Minnesota, SIT, to mention a few listed on the website.

UNC Greensboro

- ISEP Summer, University of Hyderabad
- MOU and Bi-lateral Exchange Fall and Spring program, University of Hyderabad

UNC Pembroke

- ISEP Direct Semester, Academic Year or Summer with University of Hyderabad

UNC Wilmington

- Third-party provider Semester, Academic Year or Summer programs to University of Hyderabad through AIFS, CIEE, ISA, and ISEP

Western Carolina University

- ISEP Direct Semester, Academic Year or Summer Program with University of Hyderabad
- Third-party provider summer program through ISA “Indian Culture and Society” at University of Hyderabad

Winston-Salem State University

- Third-party Provider Semester programs available through AIFS, ISA, CIEE, and SIT
- ISEP Direct Semester, Academic Year or Summer with University of Hyderabad

Third-Party Provider Key:

- AIFS – American Institute for Foreign Study
- AIIS – American Institute of Indian Studies
- CIEE – Council on International Exchange
- GLS – Global Learning Semesters
- ISA – International Studies Abroad
- SIT – School of International Training

APPENDIX B:

EXAMPLES OF SCHOLARSHIP AND FELLOWSHIP ACTIVITIES
FOR STUDENTS AND FACULTY IN INDIA

As the U.S. and Indian Governments have recognized the need to be more intentional about educational cooperation, several other initiatives have grown or been started. What follows is a partial listing:

Fulbright Fellowship Program

The United States – India Educational Foundation (USIEF) coordinates all Fulbright program initiatives in India, including the advising and selection of its award candidates. Fulbright – Nehru Awards enable the most outstanding students, academics and professionals in India and the US to study, research and engage in work experiences with greater potential benefit for both countries. India has one of the largest Fulbright Programs worldwide, awarding more than 17,000 Fulbright fellowships and other grants to Indians and Americans since it began. Each year Fulbright–Nehru funds about 80 fellowships in several categories for study in India, including students, doctoral students, post-docs, as well as faculty and administrators. Over the past two years, three UNC faculty have used these scholarships to study in India.⁷¹

Passport to India Program

Education and people-to-people engagement are important priorities of U.S. foreign policy. Yet, the pool of Americans ready to manage the growing political, economic and cultural ties between the U.S. and India is small. This is in part due to limited opportunities for American students in India. Passport to India seeks to dramatically increase the number of American students with first-hand experience in India by expanding the menu of study abroad options to include internships. The initiative will promote business internships linked to student's academic interest areas, summer scientific research internships and service learning internships in India. Promoting specific opportunities and funding sources for underrepresented students to participate in internships in India is a key focus. Passport to India interns will not only work on joint projects, they will also develop important connections that can result in future collaborations and benefits for both countries.

United States–India Science and Technology Opportunities

The [United States–India Science and Technology Endowment Fund](#) focuses on promoting joint activities that would lead to innovation and technopreneurship.

Specifically they attempt to support and foster joint applied R&D to generate public good through commercialization of technology through sustained partnerships between US and Indian researchers and entrepreneurs. Funding can be up to \$450,000 per award.

American Physical Society and Indo–U.S. Science and Technology Forum

The U.S.– India Travel Grant program funds Professorship Awards (permit professors from India and the U.S. to deliver short courses or a lecture series in the other country. Up to six awardees selected each year funded up to \$4000 for travel, materials, and expenses associated with course delivery. No portion can be used for remuneration/ salary of the participating scientist. U.S. Professors are encouraged to bring graduate students to attend short course/lecture series, conduct research with a professor at the host institution, and/or undertake another opportunity during the professor's visit.

[The Physics Student Visitation Program](#) is intended for graduate students who wish to pursue opportunities in physics, such as to attending a summer institute or working temporarily in a laboratory. Up to ten awardees are selected each year with a preferred ratio of 7 U.S. students to 3 Indian students. Funds up to \$3000 for travel, materials, and expenses associated with the visitation.

American Society for Microbiology and IUSSTF Professorship in Microbiology

A \$5000 grant enables Microbiologists in India and the United States to visit institutions in the other country to teach an interactive short course on a topic in any of the microbiological disciplines (Teaching Professor) and enables microbiologists in India to participate in an interactive short course on a topic in any of the microbiological disciplines, or conduct a research project in partnership with a colleague in a research facility in the United States (Research Professor). The program is open to ASM members and non-members, the program seeks to broaden collaboration between India and the U.S. on issues of global concern. Up to eight professorships are offered per program year.

APPENDIX C:

THE INDIAN UNIVERSITY SYSTEM

The education system in India is unusual. While cultural differences are always a challenge, in India more significant challenges are present in the structure of government and education, which features divided responsibilities between the central government and state governments. Universities are designated to be “Central,” “State,” “Deemed,” “Private,” or “Institutes of Importance.”⁷²

Central Universities

Central universities, of which there are currently 41 in operation, are established by a parliamentary act and under the purview of the Government of India’s Department of Higher Education in the Human Resource Development Ministry, and recognized by the University Grants Commission (UGC).⁷³

State Universities

State Universities, of which there are 285, are established by acts of the Legislatures of different states and are run by the state government and recognized by the UGC. Most state universities are “affiliating universities” which administer a reported 34,000 colleges of varying quality. The legacy of an affiliating college system where the university controls curriculum and examinations has resulted in a complex government structure which hinders curricular innovation and development of effective teaching methods and student learning.⁷⁴

Deemed Universities

A “Deemed” university, of which there are approximately 130, is recognition granted by the Indian Department of Higher Education on the recommendation of the University Grants Commission. “Deemed” universities are typically high-performing institutes or departments of universities that have achieved a degree of excellence that permits them autonomy and excellence. The list includes universities in a wide variety of disciplines, including agriculture, engineering, law, medical institutes and other fields.⁷⁵

Private Universities

There are 158 UGC recognized “private” universities in 22 states approved to award degrees. They may not affiliate with colleges however.⁷⁶

Institutes of Importance

Indian Institutes of Technology (IIT's) are a group of autonomous public engineering and management institutes of India. They are governed by a parliamentary act which declared them "Institutes of National Importance." Each IIT is an autonomous institution, linked to the others through a common IIT Council, which oversees their administration. The IIT's award degrees starting from bachelor of technology to Ph.D with other graduate degrees including MBA and the masters of science in engineering, math, physics and chemistry. There are approximately 30 active IIT's throughout the country, which are generally recognized to be top quality, providing important options for learning to Indian students, but with limited capacity to enroll large numbers of students.

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Following the UNC–India Summit in January 2013, several campus leaders stepped forward to organize further discussions and suggestions that form much of the substance of the report. They are Viney Aneja, John Caldwell, Sandria Freitag, Jim Gehlhar, Jesse Lutabingwa, Joti Sekhon and Afroz Taj. In addition, Ray Purdom of UNC Greensboro (retired), Scott Simpkins of NC A&T State and Todd Zakrajsek of UNC Chapel Hill stepped up to develop a faculty proposal for submission to the Government of India. Final report edits from Sandria Freitag, Jim Gehlhar and Joti Sekhon were particularly helpful. Alisa Chapman and Maggie O'Hara of UNC General Administration helped develop the Request for Proposals for the MOOC on “developing economies.”

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Swadesh Chatterjee, a Cary business leader, an NC State alumnus, member of the Board of Directors of the Center for International Understanding and a member of the Advisory Board for International and Area Studies at UNC–Chapel Hill, is a respected leader nationally in India–U.S. He has assisted us in connecting to Indian leadership in Washington and Delhi.

Zak Smith did important research and number–crunching that informed much of the report.

Eric Johnson organized materials, found valuable studies and prepared an early draft of the report, then repaired a later draft with insight and care.

Bonnie Derr quietly, effectively led the initiative, providing energy, leadership, organization, and deep knowledge of India.

CITATIONS

- ¹ Our Time, Our Future, The UNC Compact with North Carolina, Strategic Directions 2013–2018, p. 11, p. 65
- ² See for example http://www.hinduwisdom.info/Advanced_Concepts.htm
- ³ The World Bank.
- ⁴ The International Monetary Fund.
- ⁵ See <http://www.worldbank.org/en/country/india/overview>
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- ⁷ See <http://www.guardian.co.uk/news/datablog/2011/jan/07/gdp-projections-china-us-uk-brazil>
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- ¹⁹ <http://tse.export.gov/stateimports/MapDisplay.aspx>
- ²⁰ <http://tse.export.gov/TSE/MapDisplay.aspx>
- ²¹ http://www.bizjournals.com/triangle/news/2013/08/09/nc-exports-rise-6-in-first-half-of.html?ana=e_du_pap&s=article_du&ed=2013-08-09&u=i1mEnp/IQ4nAkL55bav+.
- ²² Data accessed through “factfinder” function at census.gov.
- ²³ <http://www.census.gov/foreign-trade/statistics/state/data/nc.html>
- ²⁴ Source: Piers Prospects, Labor and Economic Analysis Division, NC Department of Commerce, July 18, 2013. This list excludes transportation companies, banks and government agencies and does not include services.

²⁵ India is the only country in the world with an independent Department of Biotechnology within the Ministry of Science and Technology. See <http://dbtindia.nic.in/index.asp>.

²⁶ See <http://www.teriin.org/index.php>

²⁷ Figures derived from <http://tse.export.gov/TSE/TSEReports.aspx?DATA=SED>

²⁸ Uniworld Firm Database, Labor and Economic Analysis Division, NC Department of Commerce, July 2013. As these are survey data from a third party provider, they may not reflect all NC firms with locations in India.

²⁹ Quoted in *Conquering the Chaos: Win In India, Win Everywhere*, by Ravi Venkatesan, Harvard Business Review Press, 2013.

³⁰ fDi Intelligence, Financial Times Ltd., U.K. Figures are from 2004–2009.

³¹ NC Department of Commerce data.

³² NC Department of Commerce Foreign-Owned Firms Directory, 2012. This figure adds an additional 700 jobs to reflect employment at HCL American in Cary. Recent significant investments by Indian companies in North Carolina include HCL Group, WIPRO and Evalueserve.

³³ “How America Benefits from Economic Engagement with India,” India–US World Affairs Institute, 2010.

³⁴ Note this includes both public and private universities in North Carolina. Using the same methodology for Indian students at UNC, we can calculate that the 1561 Indian students enrolled at UNC in 2011–2012 made an economic contribution to the North Carolina economy of approximately \$38 million. https://www.nafsa.org/Explore_International_Education/Impact/Data_And_Statistics/International_Education_Data__Statistics/

³⁵ “America's New Immigrant Entrepreneurs: Part I” (January 4, 2007). Duke Science, Technology & Innovation Paper No. 23, by Vivek Wadhwa, Anna Lee Saxenian, Ben Rissing and Gary Gereffi. Available at SSRN: <http://ssrn.com/abstract=990152> or <http://dx.doi.org/10.2139/ssrn.990152>.

³⁶ Ibid.

³⁷ “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 rate of immigrant-founded startups has increased by 50% since 1996, while the startup rate of native-born businesses has declined by 10%. Separately, Vivek Wadhwa, in “America’s New Immigrant Entrepreneurs” (cited above), 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 in seven of the eight sectors predicted by the U.S. government to be the “fastest-growing” in the US over the next decade.

³⁸ See “Patent Pending” at: <http://www.renewoureconomy.org/research/patent-pending-how-immigrants-are-reinventing-the-american-economy-2/>, p. 6.

³⁹ “What the Triad Can Learn From Urban India,” by Dr. Russ Smith, August 25, 2013, http://www.journalnow.com/opinion/columnists/article_5099c8b2-0c09-11e3-95ea-001a4bcf6878.html

⁴⁰ For one summary of the trip, see: <http://www.indianexpress.com/news/40-us-teachers-in-city-to-get-insight-into-indian-education-system/1141508/>. As teacher Mindy King notes: “I believe every education system has its pros and cons and that America can learn something from the Indian education system and vice-versa.”

⁴¹ Personal correspondence, July 29, 2013.

⁴² http://www.journalnow.com/opinion/columnists/article_5099c8b2-0c09-11e3-95ea-001a4bcf6878.html

⁴³ Note that in contrast to the United States, in India research is typically done in research institutes and laboratories disconnected from universities. See “Creative Solutions to India’s Higher Education Challenges,” by Pawan Agarwal, ACE/CIGE Briefing #3, 2013.

⁴⁴ Winston-Salem State was able to jumpstart faculty relationships through its participation in the Institute for International Education’s International Academic Partnership Program and grants from the National Endowment for the Humanities, which provided funding for faculty travel to India.

⁴⁵ In all ECU’s “Global Understanding” program offers 50 courses with 24 country partners. In 2012–13, 451 ECU students took courses with foreign partners.

⁴⁶ UNC has piloted a similar program to assist campuses in developing partnerships in China. Between 2011–2013, faculty at Appalachian State, Fayetteville State, NCA&T State University, UNC–Chapel Hill, UNC Pembroke and Western Carolina all developed joint courses with Chinese campuses, deepening student understanding of their Chinese counterparts, enhancing faculty connections and bringing institutions closer.

⁴⁷ India has challenges attracting international students from other parts of the world as well. It ranks 110th among nations in the number of international degree candidates studying there. See report at <http://www.theaustralian.com.au/higher-education/international-students/student-migration-map>.

⁴⁸ Comments by Tara Sonenshine, Under Secretary of State for Public Diplomacy and Public Affairs to visiting India Human Resources and Development Minister in a round-table discussion on May 14.

⁴⁹ From the Institute for International Education’s “Open Doors” Report 2010–2011, from list of institutions reporting 10 or more students on Study Abroad programs.

⁵⁰ While English is the official “second language” of India, it is considered the native language of fewer than one million Indians. Hindi is the native tongue of 422 million Indians, or 41% of the population. Twenty-nine total languages are “native” to at least 1 million Indians. Urdu, the other Indian language taught in the UNC system, is related to Hindi, and is the native language of about 5% of Indians. See http://en.wikipedia.org/wiki/List_of_languages_by_number_of_native_speakers_in_India

⁵¹ Data compiled by UNC General Administration Institutional Research, July 2013.

⁵² Campuses teaching these courses on India and South Asia, with topics ranging from politics to economics to religion to art, include Appalachian State, NC State, UNC Asheville, UNC Charlotte, UNC–Chapel Hill, UNC Wilmington and Winston–Salem State.

⁵³ See Professor David Gilmartin’s presentation at the UNC–India Summit, “A Train Trip Around India” at <http://www.northcarolina.edu/academics/international/powerpoints.htm>

⁵⁴ <http://www.indiastudies.org/>

⁵⁵ This is by no means an exhaustive list. Further details on each of these resources can be found in Appendix B.

⁵⁶ Robert Blake, Assistant Secretary of State for South and Central Asia, reported in The Hindu, May 21, 2013.

⁵⁷ <http://www.theaustralian.com.au/higher-education/international-students/student-migration-map>

⁵⁸ <http://www.iie.org/Research-and-Publications/Open-Doors/Data/International-Students/Leading-Places-of-Origin/2010-12>. Over the past five years, Indian enrollment in the U.S. has stayed relatively stable, while China has shown tremendous increases. In 2009–2010, Chinese enrollment in U.S. universities passed India, and by 2011–2012, China accounted for 25.4% of international student enrollment.

⁵⁹ Estimate based on methodology used in the Institute for International Education's Open Doors report. See <http://www.iie.org/Research-and-Publications/Open-Doors/Data/Fact-Sheets-by-US-State/2012>.

⁶⁰ UNC Advisory Committee on Strategic Directions meeting, January 9, 2013.

⁶¹ Personal correspondence, July 31, 2013.

⁶² The "Optional Practical Training" program permits undergraduates or graduate students who have been in the U.S. for a minimum of nine months to work under an "F1" visa for up to one year in a field complementing their studies.

⁶³ Source: Correspondence with the Institute for International Education, August 14, 2013.

⁶⁴ http://www.cgsnet.org/ckfinder/userfiles/files/Intl_I_2013_report_final.pdf. See p. 6. Other countries showing steep declines included South Korea (down 15%) and Taiwan (down 13%), and Mexico (down 8%). Brazil showed the greatest percentage increase, up 24% between 2010 and 2013, and African applicants increased by 6%. Additional data from: <http://www.insidehighered.com/news/2013/08/22/despite-slowdown-applications-growth-admission-offers-international-grad-students>.

⁶⁵ See listing by country of AACSB-accredited institutions at <https://www.aacsb.net/eweb/DynamicPage.aspx?Site=AACSB&WebKey=00E50DA9-8BB0-4A32-B7F7-0A92E98DF5C6>.

⁶⁶ <http://www.wes.org/ewenr/12aug/feature.htm>

⁶⁷ See for example this: <http://timesofindia.indiatimes.com/articleshow/21814278.cms?intenttarget=no>

⁶⁸ See for example <http://www.youtube.com/watch?v=ZPMZowW-L4g>)

⁶⁹ http://12thplan.gov.in/displayforum_list.php

⁷⁰ "Our Time Our Future, Strategic Directions 2013–2018," p.65. Available at http://www.northcarolina.edu/strategic_direction/STRATEGIC_DIRECTIONS_2013-2018.pdf.

⁷¹ See full list at http://www.cies.org/schlr_directories

⁷² In addition to the sources cited below, information from "India: The Dilemmas of Reform," by Philip Altbach, ACE/CIGE Briefing #3, 2013.

⁷³ One India News, April 19, 2013; <http://education.oneindia.in/news/2013/04/19/list-of-central-universities-in-india-ranking-2013-004691.html>.

⁷⁴ See "India–The Next Frontier," ACE/CIGE, No. 3, 2013, "Creative Solutions to India's Higher Education Challenges," by Pawan Agarwal, p. 6.

⁷⁵ One India News, April 23, 2013. Accessed at <http://education.oneindia.in/news/2013/04/01/list-of-top-10-deemed-universities-across-india-004496.html>.

⁷⁶ See <http://www.ugc.ac.in/privatuniversity.aspx>.