New Semester Begins
Thousands of NC State students recently returned to campus for the new academic year, including around 4,250 incoming freshmen and transfer students, and 2,800 new graduate students. Wolfpack Welcome Week gave both new and returning students a chance to celebrate NC State, from the yearly convocation pep rally to the 4th annual Packapalooza, which brought out dozens of sponsoring organizations, hundreds of vendor booths, and thousands of current and former students for a Wolfpack extravaganza.

NC State Recognized for Gluten-Free Options
Udi’s Gluten Free, one of the world’s foremost innovators in gluten-free foods, listed NC State’s University Dining as No. 4 on its list of “Top 10 Gluten-Free Accommodating Colleges.” In addition to general offerings, NC State was recognized for its technological accessibility options, including iPad hubs, email reminders, and blog posts that allow students to search what potential allergens might be in their food.

French-American Climate Talks at NC State
NC State recently took part in the French American Climate Talks (FACTS) Symposium, an event held in partnership with the Office for Science & Technology in the Embassy of France. The FACTS symposium focused on climate smart-agriculture, and engaged the NC State community and stakeholders in the Triangle to enhance public awareness of the ways that climate change affect all of our lives. Moderated panels included participants from NC State, the private sector, the United States government, and scientists from France.

NC State Startup Helps Users Quit Smoking
Conceived by four undergraduates through the Engineering Entrepreneurs Program, NC State startup Nicotrax creates smart cigarette cases to help users stop smoking. The case can track the time, the location, and even who is nearby when users reach for a cigarette, and sends that information to a smartphone app that learns to interrupt with a reminder when smoking is likely to take place. This disruption helps smokers break their habit. The NC State grad’s leading the business are fellows in the Entrepreneurship Initiative, and have recently partnered with Raleigh-based DX Labs to help fine-tune the product.

Top Inventors Recognition
Zhen Gu, an assistant professor in NC State and UNC-Chapel Hill’s joint biomedical engineering program, has been named one of MIT Technology Review’s “Innovators Under 35” for his work on developing novel drug-delivery systems for treating cancer and diabetes. The annual list highlights exceptionally talented young innovators from around the world. Gu’s multidisciplinary research has created dozens of technologies and techniques aimed at delivering the right drug to the right place at the right time to maximize the impact of therapeutic medications.
Deconstruction Begins on Harrelson Hall
After more than 50 years as one of NC State’s more unique buildings, Harrelson Hall is being deconstructed. Most of the building will be recycled or reused, with work continuing throughout the next academic year before the building’s complete removal. Equipment that can’t be used by NC State will be donated to Habitat for Humanity. After Harrelson is dismantled, the location will become a greenspace with footpaths, with the Science Commons classroom building as its eventual replacement.

WolfAlert System Recognized
NC State’s Environmental Health and Safety department recently won the Campus Safety, Health and Environmental Management Association’s institutional marketing campaign Award of Excellence for its WolfAlert Emergency Communication Campaign. The campaign was launched in 2010 and uses various communication tools to keep students, staff, and faculty informed of emergency situations. Innovative use of video shorts, bus posters, new employee orientation, text messaging are among the methods used to ensure the system is effective and the Wolfpack remains safe.

Team of Engineering Students Tackle Birth Control Regimens
A team of NC State engineering students has created PurpleSticker, a birth control reminder tool that was recognized as one of the top new ventures at this year’s Lulu eGames and that has already attracted the interest of investors. The team developed an electronic sticker that attaches to the packaging of oral contraceptives and sends reminders to a phone using Near Field Communication. When the package is broken to take out a pill, the disruption to the sticker ends reminders for the day. This way, women can skip a reminder if they are busy or in public without worrying about forgetting to take their medication later in the day.

NC State Vet School Continues Dog Olympics Tradition
Next week NC State’s College of Veterinary Medicine will hold its 24th Annual Dog Olympics, continuing its work to educate pet owners about their canine companions and supporting local shelters. Competitions for dogs of all ages and sizes will be held throughout the day, and demonstrations will provide dog-lovers with information about how to take care of and train their pets. An Olympic Village will highlight 13 shelters and breed rescue groups, and there will be more than 20 vendors offering canine-related goods and services. All proceeds will support the rescue groups in attendance.

NC State Looks to the Future of Ecology
NC State biologist Rob Dunn’s team uses special warming chambers to study how global warming will affect insect populations in local forests, and is always looking for ways to get more people involved. Just last year, they received funding from the National Science Foundation for a partnership with the historically black Shaw University, ensuring African-American students have a chance to understand ecology research firsthand. Historically, minorities are poorly represented in the field, and the project works to change that. Its first year was such a success that it was funded through 2015, and Dunn’s team is now expanding the project to include middle school classrooms across the country. By doing so, they hope to give students from all walks of life early exposure to what scientific research is really like.
Strategic Planning

Goal 1: Student Success

While balancing access with quality, NC State must ensure that our students make timely progress toward an NC State degree, and along the way, must provide educational opportunities that inspire them to lead, to serve, to challenge, to take responsibility, to build problem-solving skills, and to engage with complex problems.

- From an applicant pool of over 20,000 prospective students, NC State admitted 50% with a goal of enrolling 4,250 freshmen. The class boasts a weighted GPA of 4.41 and an SAT score of 1248. More than half of admitted students were in the top 10% of their class. Broad diversity continues to be a key objective in recruitment and enrollment efforts within the University.

- Retention and six-year graduation rates are at an all-time high. The retention rate now stands at 94 percent, and the six-year graduation rate is 76 percent. NC State awarded 5,506 degrees at the 2014 Spring commencement ceremony, including 3,402 bachelor’s degrees, 1,312 master’s degrees, 177 doctoral degrees and 81 Doctorates of Veterinary Medicine. With the 3,652 degrees granted last December 2013, NC State awarded a total of 8,708 degrees in the 2013-2014 academic year, the most in the UNC System.

- The Poole College of Management sent its first students (a total of three) in its International Business Dual Degree program to complete the final two years of their undergraduate studies in Germany and France. These students will receive a Bachelor of Science in business administration from NC State and a Bachelor of Science from the partner institution. This program is offered through collaboration between Poole College and the International Partnership of Business Schools. Poole College’s dean, Ira Weiss, Stephen J. Zelnak Chair, is serving his second term as president of IPBS.

- In-state DVM tuition and fees at NC State are the lowest in the nation. According to the most recent American Veterinary Medicine Association survey, the median debt of a NC State DVM student graduating with debt was $120,000, compared with the national figure of $160,000. Recent gifts to endow scholarships in veterinary
medicine promise to further reduce this debt number in the future.

- Continuing their record of excellence, NC State students won a number of prestigious scholarships and fellowships:

  - NC State has had five Fulbright winners in each of the last two years.
  - 2014 winners were Jason Syphrett, Kathleen Griffin, Rui Brelvi, Brian Gaudio and Gabrielle Schroeder.
  - 215 winners were Erin Adamson, Angle Cruz, Volodymyr Dorosh, Maurtia Harris and Elizabeth Ramsey.

  - Undergraduates Jim Turner, Eric Alexy and Mithi De Los Reyes were named Goldwater Scholars.

  - Brian Gaudio and Abe Dreschler, recent graduates from the College of Design’s Architecture program, were granted the Turan and Linda Duda Travelling Fellowship and launched the project “Within Formal Cities, a project to share stories and designs from informal communities in South America.

  - Undergraduate student Evan Gearino and graduate student Tara DiCassio, both pursuing degrees in International Studies, were named recipients of the Boren Award. Each will receive funding to travel abroad for the purpose of studying a less common language deemed crucial to international relations.

  - Undergraduate student Karli Moore won the Udall Scholar award. Karli, a chemistry major and Park Scholar, is focused on enhancing Native American health care. An NC State student also received Honorable Mention.

  - Caroline Hansley, a previous Udall Scholar and undergraduate pursuing a degree in Interdisciplinary Studies, won a City of Raleigh Youth Award for Outstanding Environmental Stewardship at this year’s City of Raleigh Environmental Awards and State Energy Conference.

  - Natalia von Windheim, an undergraduate studying materials science and engineering, was named a University Innovation Fellow by Epicenter, an NSF-funded program directed by Stanford University and the National Collegiate Inventors and Innovators Alliance. She is one of 110 fellows from across the country working to increase student engagement and entrepreneurship, innovation, creativity, design thinking, and venture
creation.

- Mia De los Reyes, a physics and mathematics major, was one of 22 students nationwide named an Astronaut Scholar by the Astronaut Scholarship Foundation. The $10,000 scholarship is the nation’s largest monetary award given to undergraduate STEM students based solely on merit.

- Callie Pierce, CVM Class of 2016, is the recipient of a national Poultry Scholars Award from the American Association of Avian Pathologists Foundation.

- Patrick Brinson, CVM Class of 2015, is a recipient of the Scholarship for Excellence in Bovine Medicine sponsored by Zoetis and the American Association of Bovine Practitioners Foundation.

- Fourteen students who received their undergraduate degrees at NC State were selected to receive NSF Graduate Research fellowships to fund their continuing education.

- Eric Whitmire, a student in computer science and engineering, received the National Defense Science and Engineering Fellowship.

- Two students were named Benjamin A. Gilman International Scholars. Alexander Hazeltine will be studying in Germany and William Harris will be going to Hong Kong.

- Magreth Mushi and Savera Tanwir, graduate students in the NC State Computer Science Department, received 2014 Google Anita Borg Memorial Scholarships.

- Six NC State nuclear engineering undergraduate students were awarded scholarships and three nuclear engineering graduate students received fellowships from the US Department of Energy.

- An NC State graduate student in industrial design has won the International Bicycle Design Competition (IBDC) award for his innovative bicycle light, ALIGHT. This light is stretchable and emits a green light. However, on stops it emits red and while turning left or right it emits yellow creating better visibility while breaking the communication gap between bicyclists and traffic.
• The NC State Aerial Robotics Club was named World Champion at the 12th annual International Student Unmanned Air Systems competition in Patuxent River, Maryland. The competition featured contests involving flight autonomy, imagery of targets, and in-flight retasking.

• An NC State team of Biomedical Engineering students -- Jennifer Haley, Titus John, David Lee, Jennifer Price, and Ryan Pilgrim -- received an honorable mention in the National Institutes of Health DEBUT (Design by Biomedical Undergraduate Teams) Challenge competition. The team invented the TBeye Tool app, which is an objective, rapid, mobile concussion screening tool designed for in-field use.

• James Dieffenderfer’s VitalFlo Spirometer won the first prize of $150,000 in the 2014 CIMIT-MGH-APF Primary Healthcare national competition. Dieffenderfer’s team is developing a low-cost, compact, handheld spirometer that communicates to a cell phone and server to enable the patient, caregiver, and physician to collaborate in the management of asthma or COPD. The VitalFlo project is the product of an ASSIST sponsored project in the Product Innovation Lab, which brings MBS, Engineering, and Industrial Design students together to work on product ideas. Dieffenderfer is a BME PhD student who does his research in the ECE Department and completed his undergraduate studies at NC State.

• An NC State undergraduate student team, the Vascular Visionaries, won the NCEES Engineering Award for Connecting Professional Practice and Education. The team was one of five selected for awards in a national competition by the National Council of Examiners for Engineering and Surveying.

• A group of Biomedical Engineering students from North Carolina State University has been awarded a $7,500 scholarship by the National Council of Examiners for Engineering and Surveying (NCEES). The team is made up of recent NC State graduates from the Joint Department of Biomedical Engineering of NC State and UNC-Chapel Hill. The team developed a topical ointment that increases visibility of veins suitable for IV therapy, making drug delivery more efficient and beneficial to patient health.

• Ayse Karanci, an NC State Ph.D. candidate in the Department of Civil, Construction, and Environmental Engineering won a Student Educational Award from the American Shore & Beach Preservation Association (ASBPA) at their annual conference on October 16. The ASBPA Student Educational Award is given annually to an undergraduate or graduate student who, through his or her research, is furthering the state of science of coastal or riverine systems as it relates to the goals
and mission of the ASBPA. The award included an invitation to present at the ASBPA conference. Ms. Karanci's presentation titled "Modeling Overwash on a Barrier Island: Land Cover Implementation" focused on numerical modeling of storm induced breaching and overwash along the North Carolina Outer Banks.

- Ten students, freshmen, sophomores and juniors in Textile and Apparel, Technology and Management (TATM), were invited to the White House for First Lady Michele Obama's Reach Higher Initiative. The TATM program from NC State was selected due to the program's and the students' strong base in technology.

- Educational Research and Policy Analysis Ph.D. recipient, Dr. Stephany Dunstan, was awarded a Dissertation of the Year Award by the Association for the Study of Higher Education. Her work, “The Influence of Speaking a Dialect of Appalachian English on the College Experience” was also chosen as a winner of the 2014 Emerald/International Higher Education Teaching and Learning Association Outstanding Doctoral Research Award.


- Tyson Huffman, an undergraduate student studying pulp and paper sciences in the College of Natural Resources, spent almost a year working with citizens in Rwanda to build and streamline a manufacturing facility to produce 1,000 feminine hygiene products a day from local banana tree stem waste. Providing affordable, assessable feminine products allows local women to attend school and work full time.

- “Artist’s Backyard” a project taken on by Landscape Architecture students at NC State, transformed a barren patch of ground between Turlington and Owen residence halls into a beautiful common area, and won the 2014 Sir Walter Raleigh Award for Community Appearance.
• Fashion and Textile Management alumnus, Sharon Bui ’13, cofounded a business while a student using $250 making custom gowns for sororities and weddings. It is now nearing $1 million in revenues and she also appeared on the network television program Shark Tank, on March 6.

• NC State students organized the nationally recognized Krispy Kreme Challenge, which in its 11th year raised $200,000 for the North Carolina Children’s Hospital. Additionally, the 3rd annual student-organized Dance Marathon raised over $67,000 for Duke Children’s Hospital.

• In September, NC State launched the Andy and Jane Albright Entrepreneurs Living and Learning Village. The new community will provide students who have entrepreneurial interests with the opportunity to live, learn, and collaborate with like-minded peers. This marked the opening of the first named Living and Learning community at NC State and the first to be housed on Centennial Campus.

• NC State has launched its new Quality Enhancement Program, TH!NK, which promotes higher-order skills in critical and creative thinking. This is done through the delivery of workshops and creation of a faculty learning community to provide support in delivering classroom experiences for students as well as the use of pedagogical strategies specifically designed to cultivate students’ higher-order thinking skills in first year courses across campus.

• The Sustainability Fund was awarded $30,000 to grant five project proposals this year, including a bike-sharing program, the starting of the NC State chapter of Food Recovery Network, the development of a community garden with a passive solar greenhouse and apiary, a solar energy sculpture, and a solar trash compactor, which is a pilot to test whether such compactors are an effective way to reduce costs and waste on campus. All projects were proposed and enacted by NC State students.

• The innovative Life Sciences First Year Program enrolled its first group of students. Students take a common set of first-year courses that prepare them for any of the life sciences programs across the College of Sciences and the College of Agriculture and Life Sciences. The program includes specialized advisors and a course that develops critical and creative thinking skills.

• NC State researchers have won a $1.2 million grant from the National Science Foundation to improve educational software by enabling it to assess facial expression, body language, speech and other cues to better respond to a student’s emotional state during the learning process. The ultimate goal is to develop a
software tool to support the learning process by assessing a student’s verbal and nonverbal cues and using that information to customize how the program responds to each student.

Goal 2: Scholarship and Research

NC State’s research culture permeates every aspect of our essence as a university. It structures our thought, informs our teaching, and directs our engagement beyond the campus. It is the foundation on which we build an innovative learning environment that engages our faculty, undergraduates, and graduate students alike. NC State’s research quality determines our impact on the work force, on the economy, on the advance of knowledge, and on the human condition.

- Record Breaking Funding
  - New sponsored awards passed $300 million for the first time with a record breaking total of $304.5 million, not counting the $140 million PowerAmerica Manufacturing Institute or the $25 million Consortium for Nonproliferation Enabling Capabilities.

  - NC State surpassed its industry awards with a total of $35.8 million.

  - Faculty-submitted proposals reached a high of $1.32 billion.

- Dr. Craig Yencho, professor of horticulture received a $12.4 million grant from the Gates Foundation to fund his work on increasing sweet potato crop yield in African countries, with a goal of reducing hunger, vitamin A deficiency, and poverty in sub-Saharan Africa. Faculty members from the College of Sciences are also part of the grant.

- Dr. Ruoying He, distinguished professor in the Department of Marine, Earth and Atmospheric Sciences, and Dr. Dave Eggleston, a professor in that department, made several deep-sea dives in a U.S. Navy-owned submersible to the bottom of the Gulf of Mexico to learn more about what lives near the “cold seeps” found in these extreme environments.

- Dr. Terry Gates, a joint postdoctoral researcher with NC State and the North Carolina Museum of Natural Sciences, along with a colleague at Brigham Young University, discovered a new species of dinosaur, Rhinorex condrupus, as they studied some previously unearthed fossil remains. The researchers estimate that the dinosaur was about 30 feet long and weighed more than 8,500 lbs.

- NC State physicist Dr. Harald Ade, along with colleagues at the Hong Kong University of Science and Technology, found that temperature-controlled aggregation in a family of new semi-conducting polymers is the key to creating
highly efficient organic solar cells that can be mass produced more economically. Their findings also open the door to experimentation with different chemical mixtures that comprise the active layers of the cells.

- Amanda Traud, a Ph.D. student in biomathematics, used statistical tools to map social connections in prairie dogs to uncover relationships that escaped traditional observational techniques, shedding light on prairie dog communities that may help limit the spread of bubonic plague and guide future conservation efforts. The work was done with researchers at the National Evolutionary Synthesis Center.

- New findings from the lab of Dr. Gavin Williams, an NC State chemist, may turn an enzyme that acts as a specialized “wrench” in antibiotic assembly into a set of wrenches that will allow for greater customization. By modifying this enzyme, scientists hope to be able to design and synthesize stronger, more adaptable antibiotics from less expensive, natural compounds.

- In a study co-authored by Dr. Fred Wright, a professor of statistics and biological sciences and director of NC State’s Bioinformatics Center, researchers from NC State, UNC-Chapel Hill and other institutions have taken the first steps toward creating a roadmap that may help scientists narrow down the genetic cause of numerous diseases. Their work also sheds new light on how heredity and environment can affect gene expression.

- Several public science projects in NC State’s Your Wild Life laboratory attracted significant attention. They included a tracking project that shed new light on the movement of house cats and the discovery that an Asian camel cricket had spread largely unnoticed throughout the U.S.

- Dr. Stephen Reynolds, Alumni Distinguished Undergraduate Professor of Physics, continued his work with the groundbreaking NuSTAR satellite. Reynolds is one of the few theorists working with the NuSTAR team, and has been instrumental in guiding the interpretation of hard X-ray observations of supernova remnants, gamma-ray bursts, and pulsar wind nebulae with this unique instrument. NuSTAR, which stands for Nuclear Spectroscopic Telescope ARray, is the first X-ray satellite capable of making true images of more energetic, or “harder” X-rays, including those produced by radioactive titanium.

- Dr. Mohammad Pour-Ghaz, a professor in the Department of Civil, Construction, and Environmental Engineering, has developed a new “sensing skin” made of copper to help detect compromises, like cracks, in critical infrastructure such as nuclear facilities, dams and bridges.

- President Barack Obama reappointed Dr. Paul Turinsky, professor of nuclear engineering at NC State, to the U.S. Nuclear Waste Technical Review Board.
Turinsky has held a position on the board since 2012 and has taught at NC State since 1980, serving several stints as head of the Department of Nuclear Engineering. His reappointment was announced on June 12. Turinsky also serves as chief scientist at the U.S. Department of Energy’s Consortium for Advanced Simulation of Light Water Reactors, a position he has held since 2010. From 1973 to 1980, he worked in a variety of positions for Westinghouse Electric and was an assistant professor of nuclear science and engineering at Rensselaer Polytechnic Institute from 1970 to 1973.

- NC State researchers, Dr. Ran Mo, Dr. Zhen Gu and Tianyue Jiang and a team of international researchers from UNC-Chapel Hill, and China Pharmaceutical University, have developed a new anti-cancer drug that is delivered to the cancer cell before triggering its death. It works by using graphene strips as "flying carpets" to deliver two anticancer drugs sequentially to cancer cells. Each drug targets the distinct part of the cell where it will be most effective.

- Dr. Zhen Gu, faculty in the Joint Department of Biomedical Engineering at NC State and UNC-Chapel Hill, received a Pathway to Stop Diabetes Research Award from the American Diabetes Association for his research project titled "Bio-inspired Synthetic Pathway for Closed-Loop Delivery of Insulin and Glucagon." Dr. Gu is hypothesizing that artificial synthetic insulin vesicles will be able to regulate the release of insulin at high blood glucose levels and inhibit its release with normal glucose range. This $1.625 million award supports five years of research relevant to any diabetes type, diabetes-related disease state, or diabetes complication.

- At the Plants for Human Health Institute in Kannapolis, NC, NC State researchers have developed fruit juice-infused peanut flour that could reduce a deadly allergic reaction to peanuts. The results have shown promise and will be tested in human blood samples and in mice.

- NC State Biomedical Engineering faculty member Dr. Fran Ligler was selected to chair a newly formed National Research Council Panel on Review of the Material Measurement Laboratory at the National Institute of Standards and Technology. Dr. Ligler’s duties may include being invited to testify before Congressional subcommittees.

- A multi-disciplinary team led by Department of Civil, Construction, and Environmental Engineering researchers Drs. Sankar Arumugam, Kumar Mahinthakumar, and Joe DeCarolis, along with Dr. Ning Lu received a $1.2M National Science Foundation grant to understand how seasonal to interannual climate forecasts could be utilized to improve water and power systems management. A paradigm shift in water and power systems management is targeted that promotes various proactive strategies to ensure the reliability of both systems.
• Dr. Richard Kim, distinguished professor in the Department of Civil, Construction & Environmental Engineering, is President-Elect of the Korean-American Scientists and Engineers Association (KSEA). KSEA has over 6,000 voting members. Dr. Kim will serve as the 44th President between July 1, 2015, and June 30, 2016. He will chair the 2015 US-Korea Conference on Science, Engineering, and Entrepreneurship in Atlanta, Georgia, between July 29 and August 1, 2015, under the theme of "Pursuing Excellence with a Servant's Heart."

• Dr. James Lester, distinguished professor in the Department of Computer Science and Director of the Center for Educational Informatics and Dr. Roger Azevedo, Professor of Psychology, have been awarded $1,365,603 by the National Science Foundation (NSF) to support their research proposal entitled “The Effectiveness of Intelligent Virtual Humans in Facilitating Self-Regulated Learning in STEM with MetaTutor.”

• The Center for Geospatial Analytics opened a cutting-edge Open Source Geospatial Research and Education Laboratory (OSGeoREL) at NC State, serving as the North American node of the worldwide network of International Cartographic Association - Open Source Geospatial Foundation (ICA-OSGeo) laboratories and the go-to place for open source geospatial solutions in the nation.

• The Carolina Ballet premiered an unprecedented two ballets featuring original scores by Art + Design Professor J. Mark Scearce: “Dracula” and "Masque of the Red Death" played eleven performances throughout the month of October 2014 in downtown Raleigh at the Duke Energy Center for the Performing Arts.


Goal 3: Interdisciplinary Scholarship Addressing Grand Challenges

The history and mission of NC State call for us to address the major challenges that confront the world. Addressing complex problems with many disciplinary aspects requires assembling teams of scholars with varied skills and diverse perspectives. We will maximize the impact of NC State’s research by concentrating our research resources in areas where we have strategic strengths and by creating a culture of collaboration and interdisciplinarity that will enrich not only our research activities, but also our teaching and engagement.

• The Chancellor’s Faculty Excellence Program is promoting research at the intersections of traditional disciplines. The 12 original clusters formed to date
have made 41 of the 44 planned hires. The additions bring leaders in interdisciplinary work to NC State to address society's grand challenges. A call for new proposals went out in October 2014. Forty-nine pre-proposals were received; thirteen clusters were invited to submit full proposals. Eight new clusters, receiving a total of 33 new positions, were announced in April 2015: Carbon Electronics, Emerging Plant Disease and Global Food Security, Global Water, Sanitation and Hygiene, Leadership in Public Science, Microbiomes and Complex Microbial Communities, Modeling the Living Embryo, Sustainable Energy Systems and Policy, and Visual Narrative.

- The Virtual Martin Luther King Project with the help of Marvin Blanks, a noted MLK actor, re-created Dr. King's famous White Rock Speech. This project is a digital humanities research study by communications professors, Dr. Matt May and Dr. Victoria Gallagher, to understand how oral recordings are perceived given alternate viewpoints and settings.

- Dr. Fredrick Semazzi, professor in the Departments of Marine, Earth and Atmospheric Sciences and Mathematics, is leading an international initiative to pair the latest weather and climate research with real economic-development planning, efforts that position him among the most important researchers in the world at the intersection of climate and policy. The initiative brings together hundreds of climate researchers, internet providers, infrastructure developers and other groups of people who live near a large lake in East Africa to provide the underpinning research for gauging the area's changing climate and make that information accessible for policy makers and residents as the region grows.

- Dr. Alyson Wilson, associate professor of statistics, was named principal investigator of the Laboratory for Analytic Sciences at NC State. The laboratory was created in 2013 through a partnership with the National Security Agency (NSA) to bring together some of the brightest minds from government, academia and industry to address the most challenging big-data problems.

- The NSF Engineering Research Center FREEDM Center entered its 7th year under a 10-year $40 million grant. FREEDM, a multi-university center led by NC State's College of Engineering, is meeting the challenges of energy distribution and management in the new paradigm of multiple sources of generated energy flowing into the energy grid—essentially creating the "Internet" for energy. Researchers are developing next-generation solid-state transformers as well as new energy storage devices. FREEDM has also received a five-year, $9 million grant from the US DOE to design solar energy plug-and-play systems that require
little or no customization.

- The NSF Nanoengineering Research Center ASSIST, a $20 million grant with the potential for extension to 10 years and $40 million in support led by NC State’s College of Engineering, is in its third year of operation. Researchers in ASSIST have made excellent progress towards the goal of creating self-powered wearable sensors for monitoring health and environment. These devices would potentially revolutionize health monitoring and health care delivery. ASSIST recently announced the development of a new, wearable sensor that uses silver nanowires to monitor electrophysiological signals, such as electrocardiography (EKG) or electromyography (EMG). The new sensor is as accurate as the “wet electrode” sensors used in hospitals, but can be used for long-term monitoring and is more accurate than existing sensors when a patient is moving. Long-term monitoring of electrophysiological signals can be used to track patient health or assist in medical research, and may also be used in the development of new powered prosthetics that respond to a patient’s muscular signals.

- Engineering researchers at NC State & UNC-Chapel Hill have uncovered a novel approach to creating inhalable vaccines using nanoparticles that shows promise for targeting lung-specific diseases, such as influenza, pneumonia and tuberculosis. The work reveals that a particle’s surface charge plays a key role in eliciting immune responses in the lung. Using the Particle Replication in Nonwetting Templates (PRINT), the researchers were able to specifically modify the surface charge of protein-loaded particles while avoiding disruption of other particle features, demonstrating PRINT’s unique ability to modify particle attributes independently from one another.

- Engineering researchers from NC State have found a way of binding peptides to the surface of gallium nitride (GaN) in a way that keeps the peptides stable even when exposed to water and radiation. The discovery moves researchers one step closer to developing a new range of biosensors for use in medical and biological research applications. The idea is that, when exposed to radiation, the intensity of the light emitted by the GaN would change, depending on the number of analytes bound to the peptides on the surface. This would allow researchers and clinicians to monitor the presence of different molecules in a biological system.

- If you’re passing through the Amsterdam Central train station you may be pleasantly surprised to see a vibrant rainbow projected on the large arch that spans over its platforms. It’s the “Rainbow Station” project by artist Daan Roosegaarde – and it was made possible by technology adapted specifically for
the project through collaboration with NC State researcher Michael Escuti and ImagineOptix Corporation, the company he founded to pioneer patterned liquid crystal optic technologies. What Escuti developed was a “spectral filter,” based on a type of technology called geometric phase holograms. In layman’s terms, it’s a filter that takes in bright white light and turns it into a rainbow, “dispersing” the colors in a precise, controlled way. Spectral dispersing elements are essential to applications in fields such as astronomy, optical telecommunications, chemical and biological sensing, semiconductor fabrication, and nanotechnology.

- A team of researchers led by NC State’s College of Engineering has found that stacking materials that are only one atom thick can create semiconductor junctions that transfer charge efficiently, regardless of whether the crystalline structure of the materials is mismatched – lowering the manufacturing cost for a wide variety of semiconductor devices such as solar cells, lasers and LEDs.

- Engineering researchers from NC State have developed a new lithography technique that uses nanoscale spheres to create three-dimensional (3-D) structures with biomedical, electronic and photonic applications. The new technique is significantly less expensive than conventional methods and does not rely on stacking two-dimensional (2-D) patterns to create 3-D structures.

- Powered lower limb prosthetics hold promise for improving the mobility of amputees, but errors in the technology may also cause some users to stumble or fall. New research examines exactly what happens when these technologies fail, with the goal of developing a new generation of more robust powered prostheses. The research is led by Dr. Helen Huang, senior author of a paper on the work and an associate professor in the joint biomedical engineering program at NC State and UNC-Chapel Hill.

- Security technology developed by NC State computer science researchers, called TIMA, has been sub-licensed to Samsung through CellSentry Inc., an NC State start-up with support from the NC State Office of Technology Transfer. The TIMA technology is one of the core components and part of the innermost security layer of the Samsung Knox platform deployed in their mobile phones and tablets.

- Engineering researchers have developed a new way to transfer thin semiconductor films, which are only one atom thick, onto arbitrary substrates, paving the way for flexible computing or photonic devices. The technique is much faster than existing methods and can perfectly transfer the atomic scale
thin films from one substrate to others, without causing any cracks. At issue are molybdenum sulfide (MoS2) thin films that are only one atom thick, first developed by Dr. Linyou Cao, an assistant professor of materials science and engineering at NC State. MoS2 is an inexpensive semiconductor material with electronic and optical properties similar to materials already used in the semiconductor industry.

- Researchers in the College of Engineering have developed technology that allows cyborg cockroaches, or biobots, to pick up sounds with small microphones and seek out the source of the sound. The technology is designed to help emergency personnel find and rescue survivors in the aftermath of a disaster. The researchers have also developed technology that can be used as an “invisible fence” to keep the biobots in the disaster area. The biobots are equipped with electronic backpacks that control the cockroach’s movements. Bozkurt’s research team has created two types of customized backpacks using microphones. One type of biobot has a single microphone that can capture relatively high-resolution sound from any direction to be wirelessly transmitted to first responders. The second type of biobot is equipped with an array of three directional microphones to detect the direction of the sound. The research team has also developed algorithms that analyze the sound from the microphone array to localize the source of the sound and steer the biobot in that direction. The system worked well during laboratory testing.

- College of Engineering researchers have developed a suite of technologies that can be used to enhance communication between dogs and humans, which has applications in everything from search and rescue to service dogs to training our pets. The team has developed a platform for computer-mediated communication between humans and dogs that opens the door to new avenues for interpreting dogs’ behavioral signals and sending them clear and unambiguous cues in return.

- Researchers in the College of Engineering have developed a technique that co-opts an immune system already present in bacteria and archaea to turn off specific genes or sets of genes—creating a powerful tool for future research on genetics and related fields. The technique works by hijacking a microbe’s own CRISPR-Cas system. The system normally protects bacteria from invaders such as viruses by creating small strands of RNA called CRISPR RNAs, which match DNA sequences specific to a given invader. In the most common type of CRISPR-Cas system, called a Type I system, a CRISPR RNA and a set of proteins tightly latch onto a matching sequence of DNA. Once bound, the proteins signal for
another protein called Cas3 that cuts up the DNA.

- "Uncovering Southwest Raleigh" is a collaborative project developed by NC State's College of Design, Poole College of Management and the College of Humanities and Social Sciences along with the City of Raleigh. The group worked closely with the community to understand current and future forces affecting change and develop strategies to enable the residents of Southwest Raleigh and the city to enhance and promote a healthy, creative and economically sustainable future for the district. The project uncovered ways in which Southwest Raleigh's assets play an increasing role in highlighting the district as a desirable place to live, play, learn, work and create in relation to such important issues as transportation, business attraction and retention, cultural engagement and more. A final report was presented to the Raleigh City Council with the hope that the city will work with the University to develop a strategy to support the project on an ongoing basis.

- Professor of Landscape Architecture Andy Fox and Assistant Professor of Architecture, David Hill began an initiative that addresses "recovery planning and design for various levels of natural hazard response" called the Coastal Dynamics Lab, a collaborative series of courses and projects between architecture and landscape architecture, with interdisciplinary views built into the curriculum. They won additional funding from The Clinton Global Initiative, The American Institute of Architects and The Association of Collegiate Schools of Architecture.

- The Textile Protection and Comfort Center (TPACC) received a $1.5 M research award from the DHS/FEMA Assistance to Firefighter Grants Program to develop advanced fire blocking materials for wildland fire shelters. These materials will be designed to increase fire protection in shelters deployed as a last line of defense in wildland firefighting operations. TPACC's new Dynamic Fire Protection Lab will be used to test the new fire blocking materials in full-scale prototype shelters exposed in the laboratory to controlled simulations of wildland fire and heat.

- The Textile Protection and Comfort Center (TPACC) opened the new Dynamic Fire Protection Laboratory featuring a large capacity state-of-the-art fire test chamber for Radman™ and many other advanced full-scale testing systems for firefighter protective materials and gear. The new research facility greatly increases research capabilities, ensuring that NC State will continue to be the most advanced academic center for research on firefighter personal protective equipment far into the future.
• The College of Textiles Nonwovens Institute secured two master agreements, meaning that it now has three masters research agreements – one with a German company, one with an Indian company, and one with a U.S. company.

• Faculty in the colleges of Veterinary Medicine, Agriculture and Life Sciences and Education have three recently funded grants shared with the College of Agriculture and Life Sciences funding interdisciplinary work.
  o Identification of proteins secreted by human lung stem cells; Ke Cheng, Michael Goshe.
  o 3D printing of a highly efficient biofuel-cell for electricity generation powering implantable medical devices Denis Marcellin-Little, Wenqiao Yuan and Ola Harrysson.
  o The developmental nature of gut integrity in swine Anthony Blikslager, Jack Odle

Goal 4: Organizational Excellence

An excellent university is pervasively excellent. The standard of excellence applies to all NC State faculty and staff and to all departments, institutes, centers, and units. But excellence is not a static target. Achieving excellence requires constant attention, self-assessment, inclusion, and the courage to change and adapt.

• The Southern Association of Colleges and Schools re-affirmed NC State’s accreditation. Staff prepared 92 compliance reports documenting NC State’s effectiveness in all areas, from academic programs to administrative procedures. In addition, a Quality Enhancement Plan (QEP) was prepared that focuses on strengthening students’ critical and creative thinking skills.

• Donor Giving boosts university endowment to an all-time high of $885 million.
  • Increase of 76% over 5 years
  • Bond ratings:
    • Moody’s: Aa1, Stable
    • S&P: AA, Stable

• The Chancellor hosts monthly lunches to speak with students, allowing them to ask questions, voice concerns, and speak directly in a personal setting with the Chancellor. These lunches also allow Chancellor Woodson to get more student perspectives in an informal setting.
The Chancellor also began offering students the opportunity to schedule meetings with him in a one-on-one setting to discuss issues they feel are particularly important. Meet with the Chancellor sessions allow students greater opportunity to voice their opinions and concerns about issues that affect them as part of the NC State community.

The Chancellor continued annual visits to each college on campus, meeting with students, faculty, staff, and leadership, allowing the chancellor to get a first-hand look at current work and initiatives, and give the colleges the opportunity to share concerns or issues.

Each month, the Chancellor communicates to the NC State community through a letter on his homepage discussing topics that are important to the university.

At the start of the 2014-2015 academic year, NC State launched a redesign of its central website. The new layout was designed to give users an innovative, purposeful Web experience regardless of whether they are using mobile or desktop devices. It merged the university’s news features for more unified engagement of internal and external audiences and created a more effective navigational structure with centralized topics and a unity bar for easy access to important resources, making it easier for students to find the most frequently used pages from any part of the site.

NC State developed a second three-year implementation plan (FY 2015 to FY 2017) for "The Pathway to the Future: NC State’s 2011-2020 Strategic Plan." Released to the campus in October 2014, this plan has a greater level of detail than the first three-year implementation plan (FY 2012 to FY 2014) and includes an number of actions designed to stabilize and institutionalize several major strategic initiatives, especially those connected to student success and faculty excellence, while also ensuring that we will have the resources available to make additional strategic investments in the coming years.

The College of Veterinary Medicine has been re-accredited by the American Veterinary Medical Association – Council on Education for seven years, the maximum accreditation status achievable.

The College of Veterinary Medicine received an $8 million DVM student scholarship endowment which will more than double endowed scholarship giving. The College also received a $3 million research endowment for supporting faculty grants and a $5 million endowment to create prestigious professorships which will attract new
leaders to the college.

- The newly created College of Sciences finishes its inaugural year with 3,700 students, 400 active research projects, nearly 25,000 total living alumni, 610 faculty, staff, and postdoctoral researchers, 9 elected Fellows of the American Association for the Advancement of Science, 2 elected members of the National Academy of Sciences, 57,000 K-12 students served annually at The Science House, and $50 million in annual research expenditures. Fundraising totals for the College of Sciences in 2013-14 surpassed $5.6 million, up 124 percent from 2012-13 when the College’s development staff was part of the College of Physical and Mathematical Sciences. The College of Sciences held its official launch event, the “State of the Sciences” at Hunt Library. The event involved individuals from the university, Raleigh, and beyond, and featured a special presentation by Dr. Neil deGrasse Tyson.

- The North Carolina Cooperative Extension service developed a strategic plan for restructuring the organization by targeting its strengths, improving access to services across the state, and refocusing resources to support core areas of attention.

- The Office of International Affairs announced their intention to grow the study abroad program by 50 percent. To meet this goal, $1 million will be raised in new endowment funds for scholarships and more effort will be made to help students integrate global experiences into their degree programs. The Office will also work to increase the number of minority students studying abroad by 50 percent. NC State has more than 1,000 students each year study abroad.

- Steve and Judy Zelnak give $4 million to endow the Stephen P. Zelnak Jr. Dean’s Chair in the Poole College of Management. The endowment, the first endowed Dean’s Chair at NC State, provides the dean with discretionary funds for use in growing the college.

- NC State has been named a National Center of Academic Excellence in Information Assurance/Cyber Defense Research for the academic years 2014-2019 by the National Security Administration (NSA). NC State was first designated in 2008 for a five-year period. This is a continuation of that designation. The NSA Centers of Academic Excellence (CAE) Information Assurance/Cyber Defense (IA/CD) program is designed to promote security education and research in higher education. NC State’s CAE IA/CD designation identifies the university as a top institution for cyber security research. The designation benefits NC State by attracting students to enroll in the university, attracting industry to hire NC State graduates, and helping to form
collaborations between NC State and industry and government. NC State is one of three universities in the state to be designated as a National Center of Academic Excellence, and one of two in the state to be designated as a National Center of Academic Excellence in Research.

- NC State joined Partnership for a Healthier America to improve campus health. It was one of 20 universities selected.

- NC State and UNC-Chapel Hill formed an agreement to waive overhead fees associated with using shared research facilities, allowing researchers from each university to take advantage of specialized instruments and technologies at the lowest possible rates. The agreement will allow for more effective and efficient research and innovation.

- In October 2014, the Alumni Association held its annual Evening of the Stars Gala. Winners of the College Distinguished Alumni Awards, the Wolfpack Club’s Ronnie Shavlik Award and the Alumni Association Awards were honored for their exceptional service and dedication.

- Every year, the Alumni Association honors faculty who excel in the classroom, laboratory and in the field. In May 2014, 26 faculty members received recognition and $84,000 in monetary rewards during an awards ceremony designed to celebrate faculty dedication to NC State’s core values—teaching, research and extension.

- Each May, the Alumni Association presents four students with The Mathews Medal, given to seniors who have made significant contributions based on leadership and service to NC State University. The 2014 recipients were Lauren Caddick, Caroline Hansley, Russel Mau and Alycia McLamb. The 2015 recipients were Molly Basdeo, Austin Bath, Alex Parker, and Laura Sandtner.

- The University’s transit system, Wolfline, carried 2.9 million passengers during the fiscal year beginning July 1, 2013 through June 30, 2014. It expects to reach the 3 million passenger mark for July 1, 2014 - June 30, 2015. The system is comparable to ridership levels of a mid-sized metropolitan system.

- Shared Services
  - Centralized Onboarding Center for new staff hires: enhanced new hire experience and increased compliance.
• Space
  • University Space Principles updated for better utilization of classrooms
  • Transitioned data for 1,400 buildings and 40,000 rooms to new software system to better evaluate space usage

Goal 5: Engagement and Partnerships

As the world has changed, NC State’s reach has expanded beyond our borders and across the globe, challenging us to be locally responsive to the needs of our community and our state while globally engaged in solving the grand challenges facing our global community.

• NC State received a $24 million grant to establish a Consortium for Nonproliferation Enabling Capabilities (CNEC). Working with 9 other universities and research institutions, NC State will lead an effort to better identify and analyze tools for dealing with potentially dangerous nuclear material, and develop replacements for currently used radiological sources.

• The College of Agriculture and Life Sciences was one of nine universities to win one of President Obama’s “100,000 Strong in the Americas” grants of $25,000. The grant is meant to encourage U.S. Students to gain exposure to Western Hemisphere cultures through study abroad, and the NC State grant will fund the development of a study abroad program in Costa Rica for agriculture and crop science students.

• A new partnership between SAS and NC State was announced that supports academic opportunities for NC State professors and students and bolsters the university’s reputation as a top research institution. The partnership builds on existing relations between SAS and NC State, two of the State’s largest employers, and follows SAS CEO Jim Goodnight’s gift to expand the Goodnight Scholar Program.

• Dr. Moise and Vera Khayrallah endowed the Moise A. Khayralla Center for Lebanese Diaspora studies in the College of Humanities and Social Sciences at NC State with $8.1 million. It marks the largest single gift in the college’s history, it is also the first privately endowed center at NC State and the world’s first center on Lebanese culture and history outside of Lebanon.

• The Randall B. Terry Charitable Foundation gifted $16 million to the NC State College of Veterinary Medicine to fund scholarships, research, and endowed professorships.
• Duke Energy gave $1.5 million to the university to support the FREEDM Center and an additional $1 million to support programs and scholarships that will help attract and retain underrepresented groups to STEM fields through partnerships with the College of the Engineering and K-12 outreach programs.

• The Northeast Leadership Academy at NC State received a 3-year, $2 million grant from the U.S. Department of Education and an award for effectiveness from the University Council for Educational Administration and a 2014 Exemplary Educational Leadership Preparation Program Award.

• The state of North Carolina awarded $2 million to the Friday Institute for Educational Innovation to develop a Digital Learning Transition Plan to convert North Carolina K-12 education systems from textbook-based learning approaches to digital learning approaches by 2017.

• Eastman Chemical donated a library of dyes that was created by Max Weaver (of Eastman Chemical). This makes the College of Textiles Max A. Weaver Dye Library the largest collection of dyes in the world.

• The College of Design's Natural Learning initiative has partnered with Blue Cross and Blue Shield of North Carolina to provide around $100,000 in grants to improve outdoor play and learning areas and to train future teachers in outdoor learning. Each space will be designed to increase and sustain young children’s active play and learning and set the stage for in-depth engagement and lifelong healthy behaviors.

• The Poole College of Management launched the NC State Entrepreneurship Clinic in downtown Raleigh, where faculty and students work with the public to provide consulting services to area startups and fuel newly applied research in entrepreneurship and commercialization. The clinic gives students hands on experiences, faculty opportunities for research, and Raleigh citizens free access to some of the innovative minds coming out of NC State.

• NC State hosted the 2014 North Carolina Literary Festival at Hunt Library. The free public event is put on by the Duke University Libraries, the University of North Carolina at Chapel Hill Libraries, and the NC State Libraries. The event features scholars and authors addressing various aspects of literature and literacy, and this year’s theme was “The Future of Reading.” The College of Education hosted the festival’s children and families’ literacy activities staffed with 100 volunteers made up of students, faculty and staff.
• Agile Sciences, an NC State spinoff company located on Centennial Campus, landed two new patents and a $1.5 million grant from the National Institutes of Health (NIH) to further its work. The company, founded by Dr. Christian Melander, Howard J. Schaeffer distinguished professor of chemistry, and Dr. John Cavanagh, the William Neal Reynolds distinguished professor of molecular and structural biochemistry, develops compounds that fight antibiotic-resistant bacteria.

• Dr. Holly Menninger was named the first director of public science for the College of Sciences, overseeing a series of initiatives designed to build science literacy beyond the NC State campus. Dr. Menninger will coordinate all aspects of the College’s public science efforts, including citizen science, or scientific research conducted by the public; K-12 and informal science education; science communication; and innovation in public science.

• Hundreds of middle-school students will receive substantially reduced tuition to an NC State science education program, thanks to a generous donation from the Biogen Idec Foundation. The foundation’s $300,000 gift will support Imhotep Academy (part of The Science House K-12 outreach program) by covering 87 percent of the program’s tuition for about 600 of the academy’s middle-school students over the next three years. Students who receive the tuition award are known as Biogen Idec Foundation Scholars.

• NC State’s College of Humanities and Social Sciences hosted Ambassador Karl Eikenberry, Congressman David Price, Duke University President Richard Brodhead, and UNC System President Tom Ross to discuss The Heart of the Matter, a report from the American Academy of Arts & Sciences on the importance of the humanities and social sciences for a prosperous, safe and vibrant nation. The college then partnered with the North Carolina Humanities Council to host a follow-up event to bring organizations from around the state to Research Triangle Park to guide North Carolina’s response to the national report.

• The Institute for Nonprofits worked with the City of Raleigh and HQ Raleigh to organize “A New Economy of Purpose,” a session to highlight social entrepreneurship in the region. The event included a panel discussion with Chancellor Woodson, Raleigh Mayor Nancy McFarlane, David Gergen (co-director of the Center of Public Leadership and professor of public service at Harvard Kennedy School) and John Replogle, president and CEO of Seventh Generation.

• Several parking spaces along Salisbury Street in downtown Raleigh represent a first for the city – they are home to Raleigh’s first parklet – a miniature park designed to
fit within the actual parking spots. Raleigh City Council approved the idea in 2013, allowing sponsors to pay to convert parking spaces into miniature parks. The NC State College of Design raised more than $17,000 through a Kickstarter campaign to build the park.

- A $600,000 grant from the WalMart U.S. Manufacturing Innovation Fund as part of its “Made in America” program as awarded to NC State. The goal is to increase manufacturing jobs in the U.S. by supporting research and development of a U.S. manufacturing system that integrates digital printing and cut & sew assembly.

- The Zeis Textile Extension center provided $61 million in direct economic development savings to North Carolina and other companies. It professionally trained 1,200 students in 6 Sigma across the state and throughout the U.S., with 100 U.S. companies serving for professional training and product development.

Facilities

- This year marked the 30th anniversary of Centennial Campus, providing a time to reflect on how the campus has redefined what it means to integrate academia, industry and government by providing a place where people can come together to live, learn, and work in a collaborative space.

- The opening of Phase II, LEED Silver-certified, Wolf Ridge Apartments brought the total capacity of NC State housing on Centennial Campus to nearly 1,200 students. Allowing students to live, learn, and work on Centennial helps create a unique environment for students to integrate NC State innovation into their daily experience.

- Construction was completed on the new Close-King Indoor Practice Facility. It is a well-appointed, state-of-the-art facility that will benefit the football program, track and field, cross country, men’s and women’s soccer and baseball, among others. The $14 million facility, supported entirely with funds raised by the Wolfpack Club, will provide student-athletes with a place to train regardless of the weather and will demonstrate NC State’s commitment to top-tier athletics.

- The 1920-era Yarbrough Steam Plant renovation was completed, upgrading efficiency by replacing boilers and mechanical systems and improving the building’s insulation and ventilation. The building is now LEED certified at the silver level, marking the sixth LEED certification on campus.

- A new Visualization Studio has opened at D.H. Hill Library on the second-floor stacks. This studio offers the only environment with a 360-degree view. The view is
serviced by three LCD projects and offers seating for up to 24 people. The room was
designed and built by Renaissance Computing Institute of Chapel Hill. This studio
offers a larger view as the one in Hunt Library only offers a 270-degree view.

- A $28 million hotel with 7,500 square feet of meeting space on Centennial Campus
  next to Lake Raleigh was announced. The hotel will operate under the Marriott
  Autograph Collection and is expected to open in 2016. The hope is for the new hotel
to draw regional, national and international conferences specifically related to
  education, science and technology to NC State.

- A $35 million renovation of Reynolds Coliseum commenced in Spring of 2015.
  Renovation includes interior renovations, accessibility upgrades, HVAC upgrades
  including air conditioning, life safety upgrades, and new code-compliant restrooms.
  North end interior renovation will house Athletics Walk of Fame, and office space
  for several Athletic programs.

- The new Gregg Museum, a $9.5 million renovation/addition to the former
  chancellor’s residence, broke ground in the Spring of 2015. Renovation of the
  existing 7,000 GSF structure and the construction of a 16,700 GSF addition will
  provide galleries, administrative offices, meeting spaces, and collections storage and
  processing for the new museum.

- Textiles Innovation Center: This 103,265 square foot facility will break ground in
  the fall of 2015. It will provide space for the Nonwovens Institute, Product
  Innovation Pilot Facility, plus rentable office space.

**Legislative and Budget Efforts**

**2014 Legislative Session**

- **Budget**
  - **Total budget (projected 2014-2015):** $1.415 billion
  - **Budget Reductions:** Over the past 10 years, reductions in state
    appropriations have cut more than $274 million from NC State's annual
    budgets. $163 million of those reductions are recurring.
    - Clean fiscal audit

- **Legislative**
  - **Students:** In-state tuition for military-affiliated students
  - **Employees**
- Allow UNC faculty and staff to take 3 classes per year
- Health insurance program to contain Affordable Care Act costs
- SPA Salary Increase ($1,000) and approved EPA Salary Increase
- 40 Hours Special Leave (Will not expire)

**Rankings and Recognition**

- *U.S. News & World Report*
  - NC State was listed among the top 100 national universities, up six spots from last year to #95.
  - NC State also advanced among Public Institutions, moving to #43.
  - Once again, NC State was listed among the top 50 best value schools, coming in at #46.
  - Graduate Program in Statistics ranked 15th nationally.
  - Listed at #18 on the list of best colleges for veterans.
  - The College of Veterinary Medicine was ranked as third in the nation, yet again.
  - NC State’s Agricultural Engineering program ranked #9 among all in the nation. NC State’s graduate Engineering Programs ranked #29 overall.
  - The Poole College of Management ranked in the top 50 for Graduate Economics, the top 75 for Undergraduate studies, the top 10 for Online MBA programs and the Top 65 for Full-Time MBA Programs.
  - NC State’s Online Graduate Computer Information Technology program was ranked at #7 in the Nation, and its Online Graduate Engineering programs came in at #11.
  - NC State was listed in the top 50 Plant and Animal Science Universities Globally, coming in at #31.
• **Princeton Review**
  
  o NC State was ranked #4 Best in Overall Public University Value.
  
  o For the fourth consecutive year, NC State has been recognized as one of the “Top 25 Undergraduate Schools to Study Game Design for 2014,” with NC State’s Video Game Design Program ranking 23rd.
  
  o NC State is listed as a Top 25 Impact School.
  
  o Student Health was ranked #16 in the Nation.
  

• **Bloomberg BusinessWeek**
  
  o NC State’s Poole College of Management advanced nine places to #86 in a ranking of best undergraduate Business Schools, with especially strong marks on student and employer ratings.
  
  o The professional MBA program was ranked in the Top 20 among all part-time face-to-face programs in the nation.

• **Diverse Issues in Higher Education**
  
  o No. 4 for graduating African American students with master’s degrees in mathematics and statistics

  o No. 5 for graduating Hispanic students with doctoral degrees in the physical sciences

  o No. 13 for graduating Native American students with bachelor’s degrees in the biological and biomedical sciences

  o No. 15 for graduating African American students with bachelor's degrees in the biological and biomedical sciences
• Fiske Guide to Colleges 2015 ranked NC State as #13 in its list of Best Buy Public Colleges in the US, Canada, and the UK.

• *Money* magazine ranks NC State 79th out of 665 public and private colleges in the nation's best values in higher education. The ranking is based on educational quality, affordability and alumni earnings. Duke ranked 32nd and UNC-Chapel Hill ranked 40th.

• INSIGHT Magazine awards NC State its Higher Education Excellence in Diversity Award, recognizing universities whose diversity and inclusion efforts show a broad understanding of diversity, including gender, race, ethnicity, military service, disability, and membership in the LGBT Community.

• The Chronicle of Philanthropy awarded NC State its highest ranking to date - #171 among all groups giving. NC State also ranked #48 among all colleges and universities, and #25 among public universities.

• NC State was named to the 2014 President’s Higher Education Honor Roll.

• NC State was classified as a community engaged institution by the Carnegie Foundation for the Advancement of Teaching. The classification was based in part upon institutionalized practices of community engagement that foster a spirit of giving back at NC State.

• The James B. Hunt Jr. Library was awarded the 2014 Stanford Prize for Innovation in Research Libraries, the library profession’s most prestigious award, for its role as an innovative model for the academic library as high-technology research platform.

• University Police received accreditation from the International Association of Campus Law Enforcement Administrators (IACLEA) and The Commission on Accreditation for Law Enforcement Agencies (CALEA).

• City of Raleigh Environmental Awards and State Energy Conference
  
  o Award of Excellence from the North Carolina Department of Environmental and Natural Resources, recognizing NC State’s progress and leadership in campus energy efficiency.
- Excellence in Promoting the Utilities Savings Initiative Principles Award at NC Sustainable Energy Conference.

- City of Raleigh Regional Award recognized the NC Solar Center at NC State’s Renewable Energy Technologies Diploma Series for excellence in environmental stewardship and design.

- The John Cotton Dana Award recognized on a national stage NC State’s campaign to promote the opening of Hunt Library. The Award is sponsored by the H.W. Wilson Foundation, EBSCO, and the Library Leadership and Management Association, and recognized the campaign for its playful voice and public engagement.

- The Council for Advancement and Support of Education honored NC State with a gold award for the use of social media to promote the Hunt Library, a silver award for the Hunt Library website, and a silver award for the popular research blog, the Abstract.

- NC State received the 2014 APPA Sustainability award in recognition of sustainability excellence in campus educational facilities. APPA, a national educational facilities organization, selected NC State for its sustainable practices, processes and leadership in facilities management, including maintenance and operations, energy and utility use, and planning and construction.

- The Department of Physics was named one of the four recipients of the 2015 Award for Improving Undergraduate Physics Education. The award, handed out by the American Physical Society's Committee on Education, recognizes physics departments that are committed to inclusive, high-quality physics education for all undergraduate students.

- NC State was one of nine North Carolina universities or colleges that made the National Board of Professional Teaching Standards’ Top 50 public and private universities and colleges with the highest number of alumni who are newly certified National Board teachers.

- NC State ranks third in the Top Masters in Education Best Value Rankings. The rankings highlight the lowest priced, highest quality, regionally accredited online education degree programs. Top Masters in Education, a leading resource for educators looking to enhance their own educational foundation, has published its first annual ranking of the best value schools for Online Masters in Educational and Instructional Technology degree programs.
• The Association of Public Land Grant Universities (APLU) named NC State an Innovation & Economic Prosperity University, acknowledging the university’s work with public and private sector partners in North Carolina to support economic development through entrepreneurship, technology transfer, community development, and talent and workforce development. 13 other universities hold this title – none are in North Carolina.

• Foodservice Director Magazine named NC State to its Healthy 15 list of dining operations that create healthy food service environments for employees and guests. The dining service was recognized for its accurate recipe testing, reporting of nutritional data, and menu management. Several other innovative NC State dining programs were also recognized.

• Poets & Quants, a news web site devoted to the coverage of business schools, ranked the Jenkins MBA online program among the top 20, nationwide, an elite group that includes some of the most selective schools in the country.

• The JC Raulston Arboretum ranks 8th on the list of the 50 Most Stunning University Gardens and Arboretaums by the website Best Masters Programs. The Sarah P. Duke Gardens at Duke University ranked 4th.

• WKNC 88.1, NC State’s student radio station, ranked 8th among the top 20 college radio stations by Best College Review.

• Lonnie Poole Golf Course was named to the Top 30 college courses in America by Golfweek Magazine. The course was also an NCAA Golf Championship Regional Site in May 2014.

• The University was awarded the Best Workplace for Commuters, Triangle Region, Longevity Award - 10 years in recognition of our 10 years of ranking as a Best Workplace for Commuters.

• **Individual Recognitions**
  
  o Three members of the faculty in the College of Engineering at North Carolina State University have been awarded the distinction of Fellow by the American Association for the Advancement of Science (AAAS). Dr. Justin Schwartz is the head of the Department of Materials Science and Engineering (MSE) and Kobe Steel Distinguished Professor; Dr. Nancy Allbritton is professor and chair of the Joint NC State-UNC-Chapel Hill Department of Biomedical Engineering; and Dr. Mohammed Zikry is Zan Prevost Smith
Distinguished Professor in the Department of Mechanical and Aerospace Engineering.

- David Dorman, professor of toxicology, has been elected as a Fellow of the American Association for the Advancement of Science (AAAS).

- Dr. Joseph DeSimone, William R. Kenan, Jr. Distinguished Professor of Chemical and Biomolecular Engineering at NC State and Chancellor’s Eminent Professor of Chemistry at the UNC-Chapel Hill, has been elected to the Institute of Medicine, one of the highest honors in the fields of health and medicine a U. S. scientist can receive.

- Dr. Laura Bottomley, director of the Women in Engineering program and The Engineering Place in the College of Engineering at NC State, was named to the American Society for Engineering Education (ASEE) Academy of Fellows. She was honored at the ASEE Annual Conference and Exposition Awards Ceremony June 16 in Indianapolis, Ind.

- Eighteen faculty were named as the 2014-15 University Faculty Scholars, top NC State early- and mid-career faculty who will receive $10,000 in donated funds for each of the next five years to support their academic endeavors. The recognition and reward program is part of the university’s strategic initiative to invest in and retain top faculty. A total of sixty scholars have been named since the program was established in 2012.

- Dr. Rob Dunn, associate professor of biological sciences, was named as an Atlantic Coast Conference Distinguished Lecturer. Each year, five faculty from ACC institutions are chosen for this honor, which includes a $5,000 award and invitations to speak at ACC schools over the following year. Dr. Dunn was selected for this distinction based on his scholarly achievements, his prospective impact upon students and faculty at the institutions hosting his lecture and the potential he offers for stimulating cross-university collaborations.

- Dr. Bradley Kirkman, Gen. (Ret.) H. Hugh Shelton Distinguished Professor of Leadership, was elected a Fellow of the Society of Organizational and Industrial Psychology and a Fellow of the American Psychological Association.

- The National Academy of Inventors (NAI) has named Dr. Jagdish Narayan, John C. C. Fan Distinguished Chair in Materials Science and Engineering’, and
Dr. Nancy Allbritton, professor and chair of the Joint NC State - UNC Department of Biomedical Engineering, as 2014 NAI Fellows. Election to NAI Fellow status is a high professional distinction accorded to academic inventors who have demonstrated a highly prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development, and the welfare of society. Selected by their peers, nominees must be a named inventor on at least one patent issued by the United States Patent and Trademark Office and must be affiliated with a university, non-profit research institute or other academic entity.

- Dr. Jerome Cuomo, co-inventor of the rewritable magneto-optic disk, was elected to the National Academy of Inventors (NAI). Dr. Cuomo is Distinguished Research Professor of Materials Science and Engineering at North Carolina State University

- Dr. Robert Evans, head of the Department of Biological and Agricultural Engineering, was named to the International Drainage Hall of Fame in honor of his internationally recognized contributions to drainage, drainage water management, stream and wetland restoration, riparian buffers, and nonpoint source pollution control.

- Dr. David Muddiman, distinguished professor of chemistry, was elected as president of the United States Human Proteome Organization. The group engages in scientific and educational activities to encourage the use of technologies for proteomics and spread proteome knowledge. Dr. Muddiman also received the Award in Chemical Instrumentation from the American Chemical Society.

- Dr. Richard Spontak, Alumni Distinguished Professor of Chemical and Biomolecular Engineering and Materials Science and Engineering at NC State, has been inducted as a Fellow of the Royal Society of Chemistry, which consists of the most eminent scientists, engineers and technologists from the UK and the Commonwealth.

- Robin Abrams, head of the School of Architecture, has been selected as one of the 2015 Jury of Fellows from the American Institute of Architects (AIA). With a total membership of more than 85,000, less than four percent are chosen for this honor. The 2015 Fellows will be honored at an investiture ceremony at the AIA Convention 2015 in Atlanta.
o Dr. Xiangwu Zhang professor and inaugural University Faculty Scholar in the College of Textiles, was named Yanguang Chaired Professor at the Wuhan Textile University.

o Dr. Jay Narayan, professor of materials science and engineering, received the 2014 O. Max Gardner Award, the most significant honor given to faculty by the University Of North Carolina Board Of Governors.

o Dr. George Hess, an Alumni Distinguished Undergraduate Professor of Conservation and Ecology in the Department of Forestry and Environmental Resources received 2014 Board of Governors Award for Excellence in Teaching.

o Dr. Roger Narayan, professor of biomedical engineering, and Dr. David Buchwalter, associate professor of biological sciences, were both designated as Core Fulbright U.S. Scholars. They will travel to the University of Otago in New Zealand and to the University of Sao Paulo in Brazil, respectively, for their research.

o Dr. Warren J. Jasper, professor and program director in textile engineering, was awarded a Fulbright Specialist Grant in Engineering Education at the Shenkar College of Engineering, Design and Art in Israel. He will give lectures on Six Sigma Quality and communicating color between disciplines, as well as setting up a semester abroad program between Shenkar and NC State (which does not currently have a semester study abroad program in the Middle East).

o Dr. Arnab Maity, assistant professor of statistics, received the Noether Young Scholar Award from the American Statistical Association. The award honors accomplished young researchers in nonparametric statistics.

o Dr. James LeBeau, assistant professor in the Department of Materials Science and Engineering and Dr. Michael Kudenov, assistant professor in the Department of Electrical and Computer Engineering at NC State, received U.S. Air Force Office of Scientific Research Young Investigator Program awards,

o Dr. Linyou Cao, an assistant professor in the Department of Materials Science and Engineering at NC State, has been awarded the Young Investigator Program (YIP) Award from the Army Research Office. The three-year award $150,000 grant will support Cao’s research on the electron-phonon coupling
in two-dimensional materials.

- Dr. Reade Roberts, assistant professor in the Department of Biological Sciences, was named one of seven recipients of the prestigious Beckman Young Investigators grant, which provides research funding to promising young faculty in the life sciences. Roberts will use the four-year, $750,000 grant to study the genetics of African cichlid fish, one of the most rapidly evolving vertebrates on the planet.

- Dr. Cheryl Cass, director of undergraduate programs and teaching assistant professor in the Department of Materials Science and Engineering at NC State, was recently named the winner of the National Academic Advising Association’s (NACADA) Outstanding New Advisor Award – Faculty Academic Advising.

- Susan D’Amico, coordinator of engineering K-12 outreach extension for The Engineering Place (EP) at North Carolina State University, and Cynthia Carpenter, Rocky Mount Middle School science teacher, have received the Middle School K-12/University Partnership Best Practices award from the American Society for Engineering Education (ASEE). The two were recognized for establishing STEM education in Nash-Rocky Mount Public Schools.

- Dr. Justin Schwartz, Kobe Steel Distinguished Professor and department head of the Department of Materials Science and Engineering at North Carolina State University, has been awarded the Institute of Electrical and Electronics Engineers Council (IEEE) on Superconductivity Award for Significant and Sustained Contributions to Applied Superconductivity. The award recognizes researchers who have made “contributions in the field of applied superconductivity over a period of time of more than 20 years.”

- Dr. Carol Hall, the Camille Dreyfus Distinguished University Professor of Chemical and Biomolecular Engineering at North Carolina State University, has been selected to receive the 2015 Foundations of Molecular Modeling and Simulation (FOMMS) Medal. FOMMS is an international conference showcasing the applications and theory of computational quantum chemistry, molecular science, and engineering simulation.

- Dr. Bob Patterson, professor of crop science, was recognized with the City of Raleigh Environmental Awareness Award for leadership in teaching about the environment.

- Dr. Paul Zia was selected as a Titan of the Industry by the Precast/Prestressed Concrete Institute (PCI). According to PCI, Titans of the Industry are individuals "who have had a profound effect on the
precast/prestressed concrete industry."

- Dr. Hugh Devine was awarded the 2014 Cooperative Ecosystem Studies Units (CESU) National Network Award. This prestigious award is presented biannually to recognize individuals who have contributed substantially to better management of the National Park system. Dr. Devine is an Alumni Distinguished Graduate Professor in the Department of Parks, Recreation & Tourism Management and the associate director of the Center for Geospatial Analytics in the College of Natural Resources.

- Dr. Blair D Sullivan has been selected by the Gordon and Betty Moore Foundation for a $1.5 million Moore Investigator Award – one of only 14 nationally – as part of its Data-Driven Discovery Initiative. Dr. Sullivan’s work focuses on transforming theoretical algorithms into practical tools that could be used in fields ranging from biomedical science and social media research to business analytics and online retailing.

- Dr. Natasha Olby, professor of neurology, is the recipient of the 2014 Faculty Achievement Award from the American Association of Veterinary Clinicians.

- Dr. Eleanor Hawkins, professor of internal medicine, is the recipient of the 2014 American College of Veterinary Internal Medicine (ACVIM) Distinguished Service Award.

- Jonathan Fogle, assistant professor of immunology, is one of 10 scientists to receive a grant from the Creative and Novel Ideas in HIV Research (CNIHR) program to investigate questions related to long-term survival with HIV infection, and the prevention of HIV transmission. The CNIHR program is a joint initiative of the National Institutes of Health, the Centers for AIDS Research, and the International AIDS Society.

- Gigi Davidson, director of Clinical Pharmacy Services at NC State’s Veterinary Hospital, has been named the recipient of the U.S. Pharmacopeial (USP) Convention’s 2015 Beal Award for Distinguished Volunteer Service—the organization’s highest award. Davidson also represents the USP as a member of the 14-member U.S. Food and Drug Administration Pharmacy Compounding Advisory Committee, a group charged with implementing the compounding provisions of the Drug Quality and Security Act of 2013.

- Elizabeth Lennon is the recipient of the 2014 Young Investigator Award presented by the American Veterinary Medical Association and the American Veterinary Medical Foundation. This marks the third time in the last four years that a College of Veterinary Medicine doctoral student received the national AVMA/AVMF honor that recognizes the scientific advancements of a veterinary graduate student who is pursuing advanced research training through doctoral or post-doctoral programs or is in the early stages after training.
- Dr. Seiche Genger is a recipient of the 2015 Reed Rumsey Clinical Research Award for the Advancement of Avian Medicine presented by the American Association of Avian Pathologists. This is the fourth time in five years a College of Veterinary Medicine researcher received the national honor.

- Dr. Page Wages, CVM Class of 2005, is a finalist in "America's Favorite Veterinarian" poll sponsored by the American Veterinary Medical Foundation.

- Dr. Gail Jones, Alumni Distinguished Graduate Professor of science education, received the top award for the Association for Science Teacher Education, the Outstanding Science Teacher Educator of the Year. The organization considers excellence in teaching, development of teacher education programs, science curricular development, leadership in science education, leadership outside science education, and research.

- The North Carolina School Counselor Association selected NC State education professor Dr. Stanley Baker as 2014 Counselor Educator of the Year.

- Dr. Sasha Newell, assistant professor of anthropology, won the Amaury Talbot Prize for African Anthropology. The award from the Royal Anthropological Institute recognizes the most valuable work of African Anthropology submitted each year.

- Sociolinguists Dr. Walt Wolfram and Dr. Jeffrey Reaser, both professors of English, new book is released compiling all of their linguistics and dialect research that they have conducted in North Carolina. The book is also the first linguistics book ever published with QR codes. The codes provide links to websites showcasing the different dialects in North Carolina.

- Assistant professor of Art + Design and Art2Wear co-director, Justin LeBlanc, was one of the top 3 finalists on the hit fashion reality show, Project Runway. As a result, LeBlanc was selected as one of the Project Runway All-Stars, a selection of the best of all contestants in the show to date. LeBlanc has become a fashion icon and superstar. He featured two new lines at the Raleigh Contemporary Art Museum in 2015.

- The College of Sciences awarded named professorships to three of its faculty: Dr. H. Thomas Banks in the Department of Mathematics; Dr. Montserrat Fuentes in the Department of Statistics; and Dr. David Muddiman in the
Department of Chemistry. The professorships were made possible by gifts from generous donors.

- Five faculty members in the College of Sciences were honored by the university with professorships of distinction that recognize outstanding scholarly work. Dr. Jacqueline Krim, and Dr. Harald Ade in the Department of Physics; Dr. Ruoying He, in the Department of Marine, Earth, and Atmospheric Sciences; Soumendra Lahiri in the Department of Statistics; and Ralph C. Smith in the Department of Mathematics.

- Two members of NC State’s Institute for Advanced Analytics were honored with named positions; Dr. Michael Rappa was named the Goodnight Director of the Institute for Advanced Analytics and Dr. Christopher Healey, professor of computer science, was named the Goodnight Distinguished Professor of Advanced Analytics.

- Dr. Joshua Pierce, assistant professor of chemistry, and Dr. Ana-Maria Staicu, assistant professor of statistics received the National Science Foundation Faculty Early Career award for contributions in their respective fields. The CAREER Award is one of the highest honors given to young faculty in science and engineering.

- Dr. David Ambaras, associate professor of history with a specialty in modern Japan, received a fellowship with the National Humanities Center, where he will spend the 2014-2015 academic year and a fellowship from the American Council of Learned Societies, where he was one of only 20 associate professors chosen nationally.

- Dr. Brent Sirota, associate professor of history with a specialty in early modern England, received a National Endowment for the Humanities Fellowship at the Huntington Library in Pasadena, CA, where he will spend the 2014-2015 academic year.

- Dr. Steven Vincent, professor of history, will spend the fall as a fellow at Princeton’s School of Historical Studies, Institute of Advanced study – one of the world’s leading centers for theoretical research and intellectual inquiry. He will spend the spring semester as a fellow at the Collegium de Lyon Institute for Advanced Studies.

**Athletic Excellence**

- NC State had its highest finish to date in this year’s Learfield Sports Directors Cup, finishing 27th in the final standings released in 2015. The newest ranking builds upon our upward trajectory. In 2014, NC State ranked 34th which was up 55 spots since 2009-2010.
• Nine teams finished their seasons ranked in the top 25 of their sport’s final rankings.

• Ten new members were inducted into the NC State Athletic Hall of Fame. The 2014 Athletic Hall of Fame class brings the total number of individuals honored to 30, representing 10 varsity sports. This year’s class includes 4-sport Athlete Jack McDowall, Baseball Coach Sam Esposito and other Wolfpack Legends.

• The NCAA’s Graduation success rate showed NC State student-athletes performing exceptionally well, posting the second highest mark in program history at 81 percent, continuing an upward trend over the last five years. Additionally, NC State student-athletes posted its highest Federal Graduation Rate, 71 percent.

• The NC State football program made a remarkable turnaround in 2014. The Wolfpack improved their win total by five games, tied for the second-biggest improvement among Power 5 schools. NC State won four of its final five games, including a victory in the Bitcoin St. Petersburg Bowl.

• NC State baseball player Carlos Rodon set the school record for highest ever MLB draftee. Rodon went to the Chicago White Sox as the third overall pick.

• Former NC State basketball player T.J. Warren was drafted #14 in the NBA draft. He became the 15th first round NBA Draft pick in NC State Basketball history.

• NC State’s Women’s Golf Team tied for 10th at the NCAA Women’s Golf final, marking the best finish in school history. Golfer Augusta James led the pack shooting just four over for the tournament.

• The NC State Men’s Swimming and Diving team won the ACC Championship, breaking school and conference records to take home its 25th ACC title.

• NC State Wrestler, Nick Gwiazdowski, won the NCAA Wrestling Championships in the 285-pound division, becoming the sixth NCAA wrestling champion in university history.

• Alum and basketball star Eddie Biedenbach was inducted into the NC Sports Hall of Fame for being an outstanding player and coach.

Leadership Changes

• Dr. Alan Rebar, senior associate vice president for research at Purdue University, has been named Vice Chancellor of Research, Innovation, and Economic
Development. He will be taking over from Dr. Mladen Voulk, who served as interim Vice Chancellor following the departure of Terri Lomax.

- Dr. Dan Solomon, dean of the College of Sciences, announced in September that he would stepping down after 34 years in various leadership positions at the university, including 15 years as a dean. Dr. William Ditto, dean of the College of Natural Sciences at the University of Hawaii at Manoa, will step into his position.

- Dr. Maureen Grasso joined NC State as dean of the Graduate School in July 2014.

**Selected Presentations**

- Chancellor Woodson typically has dozens of speaking engagements every month with a wide variety of constituencies. Below are selected presentations to external audiences.

- Sampson County Friends of Agriculture keynote – Value of Agriculture in Sampson Co. and NC. (2014)


- National Engineering Forum dinner remarks (2014)

- INPREE Social Entrepreneurship Launch panel discussion – (2014)

- Appalachian Energy Summit panel discussion (2014)

- Board of Governors Campus Security Initiative, Initiative Co-chair, Committee charge and policy discussion (2014)

- Southern Governors Association Annual Meeting, panel discussion, Creating Communities of Innovation. (2014)

- Greater Raleigh Chamber Summer Leadership Conference, keynote PowerAmerica (2014)


- Council on Competitiveness, Pillars of Competitiveness discussion (2014)

• Food Systems Leadership Institute Annual Meeting, dinner remarks (2014)
• Wells Fargo Raleigh Board of Directors, guest speaker (2014)
• University-Industry Consortium Annual Fall Meeting, remarks (2014)
• Simon Award panel discussion, Internationalization (2014)
• Ag-biotech Summit, remarks (2014)
• Council on Scientific Society, panel, Future of the Research University (2014)
• Accelerate Energy Productivity 2030, remarks and panel discussion (2014)
• Danville Regional Foundation Institute for Advanced Learning and Research, panel discussion. (2015)
• Engineering Deans Institute, panel discussion (2015)

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