

Undergraduate Courses Move Online; Residence Halls Close

On August 20 NC State announced that all undergraduate courses would move to online instruction starting August 24. At the time of the announcement, three clusters of COVID-19 cases had been identified in off-campus housing, and over 500 people were in quarantine. On August 26, NC State announced that on-campus housing would close due to the rapid spread of COVID-19 in on- and off-campus apartments and residences. NC State will continue to monitor COVID-19 cases associated with our campus community, share updates, and make decisions as needed. Information on how these announcements have affected some of our student-facing services at the time of this report's publication on August 27 is outlined below.

Housing

We made the announcement that move-out would occur over a ten-day period and that students would need to schedule a move-out appointment, keeping in line with our efforts from move-in to adhere to COVID-19 precautions. We allowed students to apply for exceptions to remain in on-campus housing if needed. Examples of need includes situations such as our international students who may not be able to go home, graduate students with on-campus courses, and students who lack the access to resources needed to complete online courses. Students who moved out of university housing were able to cancel their housing agreement and meal plans through University Housing with no penalty and receive a pro-rated refund. Classes on August 31 and September 1 were canceled to provide students with additional time to transition to their new living arrangements.

Census Date

In light of the change to undergraduate instruction, university leadership decided to extend the deadline known as Census Date, which was originally scheduled for August 21. Census Date is the last day to add or drop a class without getting permission from the instructor. It is also the last day to withdraw from NC State and get a 90% refund on tuition and fees. NC State extended the Census Date to Friday, August 28, 2020 for the fall semester. This change allowed students and their families to make informed decisions about their class schedules, housing arrangements, and financial matters. It also provided our campus personnel more time to work with those individuals to identify cost-effective solutions that keep students' academic progress intact.

Campus Remains Open

The announcements in late August did not cause us to close campus. Graduate courses may continue to be taught in hybrid and in-person formats. Research efforts are still underway, and a number of faculty and staff continue to work on campus. Although hours and operational information may change as the demands from our on-campus population shift, we plan to keep facilities like NC State Libraries, Talley Student Union, and Dining locations open to support our campus community. Services will continue to be available at Student Health Services and the Counseling Center. Measures such as required face coverings, physical distancing and our community standards will continue everywhere on campus.

DH Hill Jr. Library Renovation

A major renovation of the D. H. Hill Jr. Library has been completed, including the complete renovation of the second and third floors of the bookstacks towers, a new open stairwell connecting these floors with the Ask Us lobby, and new mechanical rooms on the fourth floor. Specific features of the renovation are highlighted below.

Academic Success Center and Office of Undergraduate Research

The new Academic Success Center brings the University Tutorial Center, career counseling, and academic advising services together to provide a one-stop shop for students. The Office of Undergraduate Research also relocated to Hill as part of this renovation to provide students across campus with better access to this resource.

Visualization Studio and Innovation Studio

The Visualization Studio got a significant upgrade during the renovation process. The small Visualization Studio that previously existed on the second floor was relocated to a larger space on the third floor. It now includes a truly circular projection surface and capabilities for immersive, 360-degree projection. The new Innovation Studio is designed to serve as a teaching space as well as a space for interactive exhibits that can highlight student and faculty work. It will display and demonstrate emerging technologies like virtual reality, machine learning, projection mapping and the Internet of Things.

Data Experience Lab

The Data Experience Lab is designed to be a collaborative and community-oriented space perfect for data science, visualization, digital scholarship and analytics. Students and researchers can hone their skills through workshops and walk-in consultations. The space includes workstations with the processing power and software required for data analysis, digital scholarship and visualization that can be reserved for work on projects.

IEI Awards BAND-NC Grants

NC State's Institute for Emerging Issues recently announced its first round of grants related to the Building a New Digital Economy in NC (BAND-NC) initiative, a program intended to increase the number of people with internet access in their homes. The IEI awarded \$5,000 grants to six projects based in 11 counties in North Carolina. They are: Piedmont Triad Regional Council (Alamance, Guilford and Forsyth Counties), Land of Sky Regional Council (Buncombe, Henderson, Madison and Transylvania Counties), Carteret County Economic Development Foundation, Inc. (Carteret County), Peletah Ministries (Craven County), Connect McDowell (McDowell County, and Watauga County Schools (Watauga County). BAND-NC is a partnership with IEI and the NC Broadband Infrastructure Office, the John M. Belk Endowment, Duke Energy Foundation, the Atlantic Telephone Membership Corporation, Roanoke Electric Cooperative, and the North Carolina Electric Cooperatives.

Faculty Member Receives MIRA Grant

Dr. Mary Williard Elting, an assistant professor in the department of physics, received a five-year \$1.8 million grant from the National Institutes of Health through their Maximizing Investigators' Research Award (MIRA) program. This program is designed to provide researchers with greater stability and flexibility in an attempt to enhance scientific productivity and the changes for important breakthroughs. Dr. Elting's research focuses on the mitotic spindle, a cellular structure that segregates chromosomes into two new daughter cells when cells divide. This research could provide insight into conditions caused by the presence of extra or missing chromosomes, such as cancer or miscarriage.

August 27, 2020

Dear Trustees:

I am pleased to submit to you NC State's 2019-2020 Accomplishments Report. The 2019-2020 academic year was a time of outstanding achievement, change and incredible challenge for NC State students, faculty and staff. I think that you will find that NC State continues to **Think and Do the Extraordinary**, which is represented in the impressive successes contained in this Report. You will also find items that highlight the tremendous difficulties faced by our community and ways in which the Wolfpack came together to support each other.

Although the 2019-2020 year brought unprecedented challenges and significant change to higher education in general, NC State remains strong and committed to our core values. I hope you enjoy reading this Report and reflect on all that you helped NC State accomplish last year.

I look forward to working with you this year and continuing the momentum.

Sincerely,



W. Randolph Woodson
Chancellor

Accomplishments Report | July 2019-June 2020

Randy Woodson, Chancellor of
North Carolina State University



ACADEMIC
SCIENCE

Accomplishments Report | July 2019-June 2020
Randy Woodson, Chancellor of North Carolina State University

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.

- NC State awarded 3,585 degrees on December 19, 2019 during the fall commencement exercises. These graduates collectively earned 64 associate's, 2,008 bachelor's, 1,146 master's and 367 doctoral degrees. In May, NC State virtually conferred degrees on 6,192 students and celebrated their achievements on the university's website and social media channels since the Spring Commencement was postponed due to COVID-19. Students were awarded 112 associate's, 4,180 bachelor's, 1,606 master's, 195 doctoral, and 100 doctor of veterinary medicine degrees, bringing the total number of NC State degrees conferred in the 2019-2020 academic year to **9,777**.
- Despite challenges brought on by the COVID-19 pandemic, the desire to attend NC State remained strong among students in the Class of 2024. Freshman applications reached a record high of 31,374 with transfer applications reaching 4,020. We enrolled over 6,000 new students in fall 2020.
 - Admission was offered to 47% of our freshmen applicants. The admitted students represent 34 countries, all 50 states, and 99 of North Carolina's 100 counties. For the second year in a row, the majority of the incoming freshman class (50.4%) is comprised of women.
 - Admitted transfer students represent 78 of North Carolina's 100 counties, 35 states, and 4 countries. They come from 14 UNC System Schools and 50 of the 58 North Carolina community colleges. Approximately 75% of our admitted transfer students come from North Carolina community colleges.
 - NC State remains committed to accessibility and plans to admit an additional 300 freshman students to the university in January 2021 as part of the Spring Connect program. That cohort was very diverse and included students from Tier 1 and Tier 2 designated North Carolina counties. You can learn more about our accessibility efforts under Goal 5: Engagement and Partnerships.
- NC State students continue to be highly competitive and successful when it comes to prestigious scholarships and awards. This year, students were recipients of a Knight-

Hennessy Scholarship, a Payne International Development Fellowship, a Udall Scholarship, 2 Boren Scholarships, 3 Goldwater Scholarships, 6 Fulbright Scholarships, and 18 NSF-Graduate Student Fellowships, among others. Included below are some highlights of these outstanding achievements.

- Gracie Hornsby, a civil engineering major with a minor in environmental science, was admitted into the 2020 cohort of Knight-Hennessy Scholars. The Knight-Hennessy program is an international, graduate-level scholarship program at Stanford. Scholars receive full funding to pursue any graduate degree at Stanford with additional opportunities for leadership training, mentoring and experiential learning across disciplines.
- NC State had three students selected as Goldwater Scholars for the 2020-2021 academic year, the highest number for any college in North Carolina. The Goldwater is one of the oldest and most prestigious national scholarships in the U.S. for the natural sciences, engineering and mathematics. NC State's recipients were:
 - Daniel Haller, a sophomore majoring in chemical and biomolecular engineering
 - Noah Wolfe, a sophomore majoring in physics and astronomy
 - Jonathan Palmer, a junior majoring in Chemistry
- Sophomore Anna Poston has been admitted into the National Oceanic and Atmospheric Administration (NOAA) Ernest F. Hollings Scholarship program. As a Hollings Scholar, she will receive academic assistance for two years of full-time study and a 10-week, full-time paid internship at a NOAA facility next summer.
- Charles Blum, a senior studying Industrial and Systems Engineering and a member of our Air Force ROTC Program, was selected as Navy Federal Credit Union's All-American Air Force ROTC Student of the Year in December. Navy Federal Credit Union launched the ROTC All-American Award program in 2018 to honor the best and brightest ROTC seniors across the nation. To win, students must demonstrate leadership, military excellence, scholarship, and service.
- Six graduate students received awards through the Fulbright U.S. Student Program. Due to the Coronavirus pandemic, these scholars will delay their study programs until January 2021 at the earliest. The Fulbright Scholars, their degrees and programs, and award information are listed below.
 - Threa Almontaser, master's student in creative and first-year writing, English Teaching Assistantship to Malaysia
 - Peter Andrews, master's student in English, English Teaching Assistantship to Taiwan
 - Adam Barnhardt, master's student in linguistics, research grant to Austria
 - Laura Dalton, Ph.D. student in civil engineering, research grant to Finland
 - Christopher Miller, Ph.D. in computer science, research grant to Belgium

- Tsz Wai “Sammi” Wong, master’s in plant pathology, research grant to Vietnam
- Planetary geology Ph.D. student Rachel Atkins was selected for the Future Investigators in NASA Earth and Space Science and Technology funding program in planetary science. She was one of 29 students nationwide to be chosen for their planetary science research proposals. The award covers tuition and other costs, in addition to funding for research.
- Eleven graduate students in the School of Architecture have been awarded ARCHITECT magazine’s distinguished Studio Prize for their work designing micro house villages for disabled or homeless veterans in North Carolina. Their work was funded by the North Carolina Coalition to End Homelessness and depicts the community-minded approach to education at the School of Architecture. The project was published in the September issue of ARCHITECT magazine, and was also a finalist for the AIA Film Challenge.
- Zach DeVries, a postdoctoral researcher who earned his Ph.D. from NC State, received a National Institutes of Health (NIH) Director’s Early Independence Award, part of the federal agency’s High-Risk, High Reward Research program. This program supports exceptionally creative scientists pursuing highly innovative research with the potential for broad impact in biomedical, behavioral or social sciences within the NIH mission.
- We sought to further support student success by improving student-facing services. This included renovating facilities for a better student experience, implementing sustainability and cost-saving efforts, restructuring programs and offices to better serve students, and many other initiatives. A snapshot of some improvements are included below.
 - Fountain Dining Hall, the university’s largest residential dining facility was renovated to create an open, well-lit and accessible serving area and provide students with increased healthy food options.
 - Witherspoon Theater was outfitted with new LED lighting, new seating and new sound partitions to improve the quality of the teaching environment and caliber of the cinema experience. Witherspoon Theater is the largest classroom on campus and a critical component of the Witherspoon Student Center.
 - The African American Culture Center underwent renovations as part of its expansion this year. The original layout of the reception area, library and administration offices were reconfigured so that the Center’s space would be more usable.
 - Colleges and units across campus are working together to provide new degree audit options for our graduate students. This year, we implemented the first graduate degree audit functionality for graduate certificates, which allows certificate students

to track their progress and graduate administrators to automatically clear the students for graduation. Work has also begun on developing a new graduate committee tracking functionality; it will be implemented along with a full graduate degree audit in 2020-21 upon completion of the new graduate planner. All of these features will streamline the committee approval process and improve tracking of progress towards a degree for graduate students.

- The University Fellowships Office (UFO), formerly Fellowship Advising Office (FAO) underwent a significant transformation in January 2020. A fully integrated and centralized office was established with the mission of serving all students and alumni fellowship needs from one service point. In its new configuration, the office provides integrated fellowship advising to all undergraduate and graduate students. The UFO has two established office spaces, one in Clark Hall on Central Campus and one in the Graduate School on Centennial Campus, allowing the director and the fellowship advisor to easily advise students on fellowship applications wherever is most convenient for them.

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 advancement of knowledge, and on the human condition.

- NC State faculty have been recognized nationally and internationally by receiving prestigious awards such as the Sloan Research Fellowship, the PECASE (Presidential Early Career Award for Scientists and Engineers) Award, and the NSF Early Career award, among others. Our faculty and researchers are also members of impressive scholarship and research organizations, such as the National Academy of Engineering, the American Association for the Advancement of Sciences (AAAS), and the National Academy of Inventors. A sampling of faculty awards and inductions from this year are below.
 - Cynthia Vinzant, an assistant professor of mathematics, received a 2020 Sloan Research Fellowship, making her the sixth NC State faculty member to do so. The two-year award will provide \$75,000 to support her research on problems in combinatorics and optimization.
 - Three NC State faculty members were awarded the Presidential Early Career Award for Scientists and Engineer, an unprecedented number for the university. The PECASE award is the highest honor bestowed by the US government on independent research scientists. The recipients are:
 - Lorena Bociu, an associate professor from the department of mathematics

- Hsiao-Ying Shadow Huang, an associate professor of mechanical and aerospace engineering
 - James LeBeau, an associate professor of materials science and engineering. This was LeBeau's last award as an NC State researcher; he now works at the Massachusetts Institute of Technology.
- Seven NC State faculty members received NSF CAREER awards this past year. The Faculty Early Career Development Program offers the National Science Foundation's most prestigious awards in support of junior faculty who exemplify the role of teacher-scholars. To win a CAREER award, faculty must produce outstanding research and education, and demonstrate the integration of education and research within their institutions.
- Rupert Nacoste, Alumni Distinguished Undergraduate Professor of Psychology, won the Society for the Psychological Study of Social Issues (SPSSI) Award for Outstanding Teaching and Mentoring.
- RaJade Berry-James, associate professor of public administration, was named a fellow of the National Academy of Public Administration.
- Two North Carolina State University faculty members were elected as fellows of the American Association for the Advancement of Science. They are among 443 scientists to be honored this year by AAAS, the world's largest scientific society and publisher of the journal *Science*.
 - Carol K. Hall, Camille Dreyfus Distinguished University Professor of Chemical and Biomolecular Engineering, was elected for her contributions to the field of thermodynamics.
 - Jacqueline Krim, Distinguished University Professor of Physics, was elected for her contributions to the understanding of atomic-scale friction, wetting and surface roughening and for exemplary efforts in scientific outreach and diversity.
- The National Academy of Inventors named three faculty as fellows this year.
 - Rodolphe Barrangou, Todd R. Klaenhammer Distinguished Professor in Probiotics Research, is a pioneer in the discovery of the adaptive bacterial immune system known as CRISPR.
 - Kenneth R. Swartzel, William Neal Reynolds Distinguished Professor Emeritus in the Department of Food, Bioprocessing and Nutrition Sciences, is widely known for blending basic engineering with chemical and biological kinetics to develop new preservation processes that yield high-quality, nutritious, safe and economical foods.
 - Carlos Pignataro, an adjunct lecturer in the Department of Electrical and Computer Engineering, is a Distinguished Engineer in Technical Services at Cisco.

- Our faculty continue to set the standard for innovative research. Some of their ground-breaking projects from this year are highlighted below.
 - A team led by David Shultz, a professor in the Department of Chemistry and director of the department's graduate programs, earned a \$1.5 million research grant from the U.S. Department of Energy to study next-generation quantum systems that have potential impacts on computing, networking and sensing. Shultz's project, titled "Optical Generation and Manipulation of Spin Qubits," focuses on research related to producing polarized molecular electron spins using visible light.
 - Mehmet Ozturk, an Electrical and Computer Engineering professor, along with his team of researchers, have published a paper on new technology in the field of wearable body heat harvesters. These harvesters can be used to power a variety of health monitors, such as heart rate or blood glucose surveillance. The newest models developed at NC State are the most effective flexible harvesters ever created, and will be highly useful towards creating the self-powered wearable technology of the future.
 - Two NC State professors received grants from the National Endowment for the Humanities (NEH) to fund their research. The NEH is an independent federal agency created in 1965. It is one of the largest funders of humanities programs in the United States.
 - History professor David Ambaras and his colleague Kate McDonald, a history professor at the University of California Santa Barbara, were awarded a \$99,995 Digital Humanities Advancement grant. They plan to build version 2.0 of their project "Bodies and Structures: Deep-mapping Modern East Asian History" and develop a new suite of analytical tools for the open-source publishing platform Scalar.
 - Film studies professor Marsha Gordon was awarded a \$60,000 Public Scholar Program grant to study the life and works of the best-selling author Ursula Parrott. Gordon plans to write a book about how Parrott's unconventional life choices and writing intersected with meaningful changes in American life in the early 20th century.
 - Heike Sederoff, a professor in NC State's Department of Plant and Microbial Biology, along with Amy Grunden, a William Neal Reynolds Distinguished Professor in the department, are working to create more efficient and cost-effective biofuels, as well as developing methods of producing useful enzymes within algae cells. This work with algae has led to further development of a new biofuel target species, *Camelina sativa*. This plant can be grown in nutrient poor soil, with very little water, while still producing biofuel. This ongoing research is being funded by the U.S. Department of Energy.
 - Researchers from the College of Engineering and the Wilson College of Textiles have been working on a new project that would provide immense benefits to the

military. As military deployments require incredible amounts of logistical coordination, the researchers have been developing a model that will help account for unforeseen risk during operational planning. The Military Logistics Network Planning System draws on three sources of information and uses two factors to assess risk and determine how risk might affect military capacities.

- NC State's Department of Social Work received two grants totaling \$2.24 million from the Health Resources and Services Administration of the U.S Department of Health and Human Services. A \$1.34 million grant will train 84 master's level clinical social workers over the next three years to work with those struggling with addiction. A separate grant of \$899,000 will prepare paraprofessionals in community-based settings to provide addiction-related services. These clinical social workers will train in community-based experiential sites alongside paraprofessionals, psychologists, pharmacists, nurses, physicians, psychiatrists and others.
- NC State researchers have developed new tools for genetic engineering that allow modification of large sections of DNA with ease. These new tools are used in genetic recombineering, an especially important technique in the field of plant genetics. The new toolset has been made available to other researchers through the Arabidopsis Biological Research Center and has vast potential uses for genetic modification of plants.

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 maximize the impact of NC State's research by concentrating resources in areas where we have strategic strengths and by creating a culture of collaboration and interdisciplinary work that enriches not only our research activities, but also our teaching and engagement.

- Research and development expenditures reported to NSF for 2019 totaled **\$541 million, a 6% increase over last year**. Fiscal 2020 numbers, although excellent, are 3-5% lower than was expected before the COVID-19 pandemic started, likely as a result of reduction in research activities.
 - In FY20, NC State researchers and research administrators submitted 3,109 projects/proposals valued at over \$1.4 billion dollar (a 3.8% from FY19).
 - NC State was awarded \$398.5 million in new sponsored awards (6.44% above FY19).

- This year, the Proposal Development Unit supported the development and submission of 74 large-scale, interdisciplinary-team proposals. These proposals resulted in \$57 million in awards – over the life of the projects – with another \$122 million in requests still pending.
- Even though it has been a challenging year, there were many notable successes with respect to research partnerships and grants. A select few are highlighted below.
 - The National Institute of Environmental Health Sciences (NIEHS) Superfund Research Program awarded NC State researchers a \$7.4 million grant to establish a Center for Environmental and Human Health Effects of Per- and Polyfluoroalkyl Substances (PFAS). The Center will bring together collaborators from NC State and East Carolina University to study PFAS toxicity, bioaccumulation, mechanism of action and remediation. The Center will also develop new analytical methods for the detection of this class of compounds, train the next generation of environmental health researchers and foster partnerships with government and community stakeholders to educate the public and advance protection of human health.
 - The Research Triangle Nanotechnology Network (RTNN) received \$6 million from the National Science Foundation. The RTNN is an innovation hub for nanotechnology research, discovery, education, commercialization and workforce development with sites at NC State, Duke, and UNC Chapel Hill. The RTNN is home to 100+ principal faculty and 45+ technical staff members across the 3 constituent universities and 9 core shared-user facilities. It is also one of 16 sites in the National Nanotechnology Coordinated Infrastructure.
 - The U.S. Department of Agriculture (USDA) awarded a five-year, \$10 million grant to NC State to lead a nationwide research effort to improve the sustainability of agriculture, while tackling the grand global challenge of how to feed the world's growing population, through the use of cover crops. This research investment taps into creative intellect from 19 universities and scientific experts from USDA's Agricultural Research Service.
 - NC State also received a \$1.5 million three-year UNC System Research Opportunities Initiative (ROI) grant. The UNC System ROI is funded by the North Carolina General Assembly to support some of the most innovative and important research projects within the UNC System. UNC ROI awards target "game-changing research" taking place in six priority areas: advanced manufacturing; data sciences; defense, military, and security; energy; marine and coastal science; and pharmacoengineering.
- Several of the university's centers and institutes were recognized on a national scale as well.

- The North Carolina Institute for Climate Studies was selected as a host for NOAA's Cooperative Institute for Satellite Earth System Studies in a five-year, \$175 million agreement.
- The College of Education's Friday Institute was awarded a four-year, \$6 million U.S. Department of Labor project to lead artificial intelligence (AI) training. The grant will establish an AI Apprenticeship program to strengthen AI literacy and skills of the American industrial workforce.
- The Institute for Transportation, Research and Education was awarded the lead in a \$1 million Center of Excellence from the N.C. Department of Transportation, which focused on the reduction of congestion and improvement in mobility for the state's roadways.
- The IBM Q Hub at NC State has been successful in stimulating research activity in quantum computing and securing its first three members this year: Delta Airlines, Anthem Inc., and the University of New Mexico. The IBM Q Hub has also stimulated significant activity across the university with more than 90 registered users and a steady flow of papers, tutorials, panels, presentations, courses, and proposals. To date, at least \$3.75 million in new proposals related to quantum computing have been awarded since the founding of the Hub, including an NSF Faculty Fellow grant to pay the salary of the first three years for a quantum computing faculty position that will be joint between Electrical and Computer Engineering and Computer Science.
- A portion of new faculty have been hired into clusters under the Chancellor's Faculty Excellence Program (CFEP), a key driver of enhancing interdisciplinary scholarship at NC State. All of the clusters leverage existing strengths and have the potential to establish NC State as a national leader in their respective fields. CFEP's strategic investments have attracted top faculty and graduate students from North Carolina and around the world, generated partnerships with government and industry, and garnered millions of dollars in external research funding. Since the program's inception in 2011, more than 75 new CFEP faculty have been hired for clusters.
- NC State's research commercialization and startups continue to be a hallmark of the university's Think and Do motto. This year, NC State helped launch 17 companies based on NC State intellectual property.
- As a land-grant, Research 1 Institution, NC State's faculty, staff and partners conduct research with ground-breaking potential for the people of North Carolina, the United States, and the world. Below are brief snapshots of some of these outstanding research projects.
 - Edgar Lobaton and Alper Bozkurt, associate professors in the Department of Electrical and Computer Engineering, along with two UNC researchers, received \$1 million from the National Science Foundation for their collaborative research project

entitled “A Data-Driven Approach to Enhancing Wearable Device Performance – An Early Asthma Exacerbation Detection Study,” which seeks to improve wearable health-monitoring devices and could lead to people being able to detect an asthma attack sooner. Over a quarter-billion Americans have asthma, and roughly 10 people die every day in the U.S. due to asthma — most of which could be avoided with proper treatment and care. The ability to identify an asthma attack quickly is crucial to effective treatment.

- NC State University’s Genetic Engineering and Society (GES) Center received a \$500,000 grant from the U.S. Department of Agriculture’s National Institute of Food and Agriculture to study responsible innovation of food nanotechnology. The study will obtain critical information on responsible innovation practices that can help ensure the sustainability of nanomaterials in food and agricultural applications, identify stakeholder concerns, and highlight key lessons applicable to novel technologies in food and agriculture sectors more broadly. The two-year study will be led by GES Center Director Jennifer Kuzma, Goodnight-North Carolina GlaxoSmithKline Foundation Distinguished Professor in the School of Public and International Affairs, and Khara Grieger, senior research scholar.
- A joint collaboration between scientists from NC State and the French National Institute and Medical Research has yielded tremendous implications for future colon cancer treatments. These researchers found that when enteric glial cells are exposed to secretions from colon tumors, the glial cells convert into promoters of tumor growth, demonstrating how important glial cells are in stimulating the tumor’s expansion.
- Researchers on campus are currently working with the U.S. Army Futures Command (AFC) to create artificial intelligence tools that can be used to save lives. The AI programs are attempting to address two aspects of training. These include assessing team-level communication and to identify the most effective way of providing feedback to trainees. This project is being conducted as part of a \$2 million cooperative agreement between AFC’s Combat Capabilities Development Command Soldier Center and NC State’s Center for Educational informatics.

Goal 4: Organizational Excellence

NC State’s standard of excellence applies to all faculty and staff and to all departments, institutes, centers, and units. Achieving excellence requires constant attention, self-assessment, inclusion, and the courage to change and adapt.

- NC State restructured or created a number of new offices and high-level positions this year to streamline processes and further advance NC State’s education and research missions. Some of these new offices and positions are included below.

- NC State hired Alyson Wilson, a professor in the Department of Statistics and PI for the Laboratory of Analytic Sciences, as the associate vice chancellor for national security and special research initiatives. This role is designed to assist the university as we strategically invest in the areas of national defense, security, and data sciences. This position has responsibility for national security initiatives, data science initiatives, national laboratory initiatives, and quantum computing initiatives.
- NC State also created the Office of Assessment and Accreditation. associate vice provost for assessment and accreditation Fashaad Crawford was promoted to Vice provost for assessment and accreditation to lead the new office. As part of this reorganization process, the Provost's Office acquired a filled position from DASA (associate director of the Office of Assessment Stephany Dunstan) that was already working on assessment for the university and welcomed Stephany Dunstan as assistant vice provost for assessment and accreditation. The office will implement best practices for the assessment of academic and administrative units, and begin preparations for NC State's 10-year reaffirmation of SACSCOC accreditation in 2024.
- We created a new position to coordinate the university's compliance and integrity and strategic risk management programs. The position was filled by Kristen Meeks, director of compliance at UNC Greensboro, who will further develop compliance, ethics, and enterprise risk management efforts university-wide.
- The university also invested in new software and platforms designed to facilitate efficiency and support NC State's research, educational, and service missions. Some of these new resources are include below.
 - During FY20, NC State continued implementation of the enterprise-level research administration software system, RED. The first launches have been in the area of regulatory compliance while work has begun on the largest module sponsored programs, which includes proposal and award tracking, financial tracking and proposal development. Animal Care and Use has been in production since April 2019 and continues to be updated. Conflict of Interest (COI) and Notice of Intent (NOI) launched on May 12, 2020. All new employees that must submit COIs or NOIs are using the RED system, with the remainder of employees phased in by October 2020. The third module is expected to launch in 2021.
 - The Office of Finance and Administration developed the Finance Division Knowledge Base, a central, online library with hundreds of curated articles addressing how-to tutorials, FAQs, troubleshooting guides and other finance and business operations topics to assist finance colleagues across the university.
 - NC State also implemented Paymode-X this year. Paymode-X is a payment network that supports transition from paper to electronic vendor payments, maximizes cost-savings, improves efficiency and enhances security by streamlining a variety of payment processes into a single, comprehensive payables program. NC State is the first university in the state to use this automated payment system.

- The Office of Information Technology inaugurated three new IT service management initiatives (ITSM) as part of efforts to improve efficiencies and offer a better customer experience.
 - The IT Service Portal replaced the NC State Help Desk website. With the portal, users can submit requests to the Help Desk instead of emailing them and will also have enhanced access to Knowledge articles, which provide helpful information about various services. A number of customer requests are now automated, and once a problem or request is submitted, its progress can be tracked by the customer.
 - The OIT Service Catalog is a service-aware inventory that gives improved visibility into the services that OIT offers, including the type of service and service contacts. OIT continues to enter its services into the catalog and classify them according to the Service Catalog taxonomy of the EDUCAUSE Center for Analysis and Research.
 - The Configuration Management Database (CMDB) is the foundation of all other ITSM work. It integrates with and supports many ITSM processes, including change management and incident management. OIT Technology Support Services is using ServiceNow Discovery to locate configuration items and maintain the CMDB.

- NC State SnapGene software was distributed to the NC State community to provide faculty, staff and students to provide them with state-of-the-art research and research training. This platform enables users to analyze and manipulate virtual DNA sequences, facilitating the engineering of genetic constructs using standard molecular biology techniques.

- Wolfpack Outfitters successfully launched shop.gopack.com, an e-commerce site that serves as the official online retailer for NC State Athletics.

- The migration to a new modern data center environment is almost complete. Two years ago, the Office of Information Technology decided to retire the university's aging Data Center 1 (DC1) and lease data facilities in the North Carolina Department of Information Technology Eastern Data Center (EDC). This partnership enables the university to save significantly on costs, while keeping options open for cost-effective cloud technologies. NC State is the first institution of higher education to host data services at EDC, which serves a number of state agencies.

- A new Centennial Campus website was launched this year. The new website markets Centennial as a destination for local neighbors, visitors to Raleigh, the high tech industry and corporate partners.

- After four years of advocacy by NC State's Council on the Status of Women and a Pathways Leadership Development Program team, a new Paid Parental Leave policy was implemented at NC State this year. Furthermore, the Board of Governors approved the plan for all UNC

System Institutions. The program provides up to 8 weeks of paid leave for parents who have welcomed a new child through birth, adoption, foster care or other legal placement.

- Organizational excellence played a key role in NC State's Coronavirus response and was one of the main reasons why the university was able to successfully reduce campus operations and reactivate in phases in compliance with state and federal health guidelines. A few examples where organizational excellence aided the university's response are included below.
 - Emergency Management and Mission Continuity, working with University Communications, led university crisis efforts since March 2020, to organize and ensure safe campus operations within a pandemic environment and transparency with the university community.
 - Led numerous university-wide leadership and operational level working groups to quickly resolve complex operational and administrative concerns, and to ensure alignment among various entities.
 - Ensured students, faculty and staff were informed and kept up-to-date on rapidly changing university operations, timelines and new procedures via two new websites, weekly mass communication updates, and two new web-based manuals.
 - Worked with NC State's Director and Medical Director of Student Health Services, to serve as the trusted resource in articulating and abiding by State of North Carolina Executive Orders, CDC recommendations and various pandemic focused "best practices."
 - Worked with organizations across the university to quickly and cohesively adapt administrative and operational procedures to a COVID-19 safe working environment, including designation of mandatory personnel, travel exception process, shipping exception process, workplace safety standards and related required training, and acquisition of personal protective equipment and sanitation supplies.
 - The Feed the Pack Food Pantry was able to remain open with reduced hours and capable of serving students, faculty and staff in need during a time of unprecedented crisis thanks to staff volunteers from across campus.
 - Facilities, Dining and Transportation continued to support limited on-site campus operations and ensured that students who remained on campus or were affected by COVID-19 were safely housed, fed and able to move about campus without incident.
 - In spring 2020, the Cashier's Office and the Office of Scholarships and Financial Aid, together, processed over 10,000 housing and dining refunds (unduplicated) within a matter of days; distributed CARES funding to over 5,000 students; and issued DASA Emergency fund grants to 1800+ students as quickly as possible.

- Wolfpack Outfitters worked with faculty to expand online course materials for students, capably supporting the university's quick move to remote instruction (spring 2020) and for fall 2020.
- The Office of Research and Innovation developed an incredibly detailed and highly successful plan for research continuity in COVID-19. ORI's plans started with a reduction of in-person activity and then transitioned to the research restart process, which included several measured phases that require approvals, occupancy guidelines, and safety protocols. Less than 10% of the sponsored on-campus research activities and about 30% of the research station and field lab activities were approved for operation between March 20 and May 18. Starting May 18, the research restart Phase I began to increase research activity. At the time of this report's publication, we are now in Phase III of the restart process and have approved a total of 1,416 restart submissions and 33 special research exception requests from May 18 - July 29.
- University Human Resources and Payroll implemented completely new leave policies (Paid Administrative Leave), new processes to capture mandatory on-site pay as necessary for 1.5x compensation, and found an automated solution to processing new 9-month summer salary faculty supplements – alleviating hours of administrative work for Assistant Deans of Finance. They also issued more than a dozen leadership directives and nearly weekly mass communications disseminating the previously mentioned complex HR policy changes.
- Budget and Resource Management immediately set up a data collection process to track COVID-19 related expenses and lost revenue from all university colleges and units, as necessary for UNC-SO, OSBM and FEMA reporting and potential reimbursement for COVID-19 related expenses; and to inform leadership decisions.
- The Office of General Counsel advised units all over campus regarding their contractual obligations and liabilities and the best way to approach their contractual partners as COVID-19 impacted various University contracts. This included providing advice on force majeure clauses and cancellation terms.
- Upon phased reactivation of research and resumption of other on-campus activities:
 - Environmental Health & Safety established workplace safety protocol and standards and worked with ORI to develop standards guiding research reactivation.
 - The Facilities Division recommissioned buildings and lab space that were dormant for several months to support research reactivation and resumption of campus operations. They also installed protective barriers and physical distancing measures in buildings across campus.
 - Campus Enterprises designed and produced signage to promote safe workplace habits within labs, classrooms, office space and high traffic areas

such as student unions and dining establishments.

- University Human Resources, the Office of General Counsel and the Office for Institutional Equity and Diversity worked closely together to ensure university expectations regarding personal protective equipment are appropriate for all students, employees and visitors to campus.

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 has cultivated an extensive network of corporate partners to facilitate research and educational opportunities that will benefit the people of North Carolina and the United States as well as the rest of the world. Some highlights from our work with corporate partners are included below.
 - NC State and BASF, a leading chemical company with the mission to create chemistry for a sustainable future, formally renewed an agreement that makes it easier and faster for the company to collaborate with university faculty members. BASF brought its partnership with NC State to the next level to promote collaboration between researchers so that they can work together to tackle significant challenges and create novel technologies that will ultimately benefit our communities and society overall.
 - Eastman Chemical Company renewed their master research agreement with NC State for another six years. So far, the collaboration has resulted in over 140 conference presentations, thesis chapters and journal articles; 30 invention disclosures; two patents issued; and six patents pending. The research has informed and accelerated developments in products such as films, polyesters, cellulose esters and products like Avra™, a fast-drying microfiber textile line that is worn by the U.S. Ski Team.
 - NC State announced a partnership with New Belgium Brewing Company this year. The partnership includes granting New Belgium the rights to brew Old Tuffy Premium Lager and to distribute it to stores in North Carolina. NC State will receive a portion of the proceeds and use those funds to further develop the fermentation sciences program at the university. The partnership will also open doors for students to pursue internships, co-ops and other opportunities with the company. The partnership will last for five years, with the possibility of renewal.
 - SAS, the Cary-based analytical software company, will advance its longstanding partnership with NC State and embed full-time data scientists within the N.C. Plant Sciences Initiative (N.C. PSI) to collaborate on various research efforts. The N.C.

PSI is bringing together experts from academia, government and industry to drive interdisciplinary research that will increase crop yields, create new varieties, extend growing seasons, enhance sustainability and produce new and improved technologies.

- NC State's partnerships with international universities, institutions, and organizations continue to make a difference in our local and global communities. Some examples of new partnerships from this year are included below.
 - The NovoNordisk Foundation awarded NC State two new grants totaling more than \$50 million over five years. The grants fund projects related to biotechnology and agriculture.
 - NC State and the Biomanufacturing Training and Education Center, in conjunction with the Technical University of Denmark in Copenhagen, will carry out a new five-year project focused on an international collaborative research and training program in biomanufacturing science and technology. The Accelerated Innovation in Manufacturing Biologics (AIM-Bio) project will establish a world-class program in bioprocess research and development and workforce training that focuses on products and technologies for the future of biopharmaceutical manufacturing.
 - The Collaborative Crop Resilience Program brings together NC State and three Danish universities: the University of Copenhagen, Aarhus University and the Technical University of Denmark. Researchers working on the project will examine the roles of plant-associated microbes and their interactions with plants. The goal is to help make crops more resilient against environmental stresses while reducing the need for chemical treatments and irrigation.
 - The Bill and Melinda Gates foundation awarded NC State \$15 million to fund the Genomic Tools for Sweetpotato Project, which aims to develop modern genomic, genetic, and bioinformatics tools to facilitate crop improvement and improve genetic gains in sweetpotato. Sweetpotato is an important food security and cash crop with highly recognized potential to alleviate hunger, vitamin A deficiency, and poverty in Sub-Saharan Africa. Partners on the project include The International Potato Center; The Boyce Thomson Institute at Cornell University; Michigan State University; the University of Queensland-Brisbane, Australia; the Uganda National Agricultural Research Organization, National Crops Resources Research Institute; and the Ghana Council for Scientific and Industrial Research, Crops Research Institute.
 - NC State and the School of Knowledge Economy & Management (SKEMA) Business School – a private, nonprofit venture that has seven campuses across five continents – are partnering to give our students the opportunity to earn a dual degree of international business and another specialized degree from NC State while spending their third year abroad at one of SKEMA's seven campuses. The program also requires students to spend six to ten months interning with a company to apply their

new skills. This partnership is key to preparing students in the Poole College of Management for the rise in global sales.

- We signed 20 Memoranda of Understanding and agreements this year. New partnerships accounted for 13 of these items, while seven were renewals of existing MOUs and agreements.
- NC State is committed to promoting accessibility to and interest in higher education, and we are proud to work with North Carolina community colleges to achieve those goals. NC State announced two major partnerships related to strengthening the community college experience and pipeline this year.
 - The Belk Center for Community College Leadership and Research was established to develop and sustain community college leadership. Thanks to the Belk Foundation's \$10+ million award, the Belk Center opened its physical location in fall 2019. In its first year of operation, the Belk Center engaged North Carolina's 58 community colleges approximately 285 times over the course of the year.
 - Thanks to a \$1,064,000 investment from the North Carolina GlaxoSmithKline Foundation, NC State is able to expand our Community College Collaboration (C3) program. The grant allows us to increase the number of new students per year from 120 to 150 and increase the number of eligible community college partners from eight to ten. C3 currently enrolls 180 students in 10 partner community colleges within geographic proximity to NC State. Twenty-two students have completed their associate degree and have now enrolled at NC State.
- Three-time NC State graduate and NASA astronaut Christina Koch answered questions about space exploration during a live video downlink from the space station to Talley Student Union's State Ballroom in August of 2019 as part of an initiative to support students interested in pursuing degrees and careers in STEM. We had 1,100 attendees from NC State, the North Carolina School of Science and Math, and local K-12 schools present in Talley for the event and were able to reach an additional 4,000 K-12 students through downlink viewing events on their campuses.
- NC State received a \$24 million grant from the National Science Foundation in order to develop an advanced wireless research platform. The five-year project has been dubbed the Aerial Experimental Research Platform for Advanced Wireless, or AERPAW. NC State is working alongside other research institutions in order to integrate 5G technology with drones. This technology could provide temporary cell service to areas struck by natural disasters, as well as improve autonomous driving technology by allowing vehicle to vehicle communication.
- NC State University's Graduate School was awarded the university's first-ever Innovations in Graduate Education grant from the National Science Foundation. The \$400,000 grant will

allow the Graduate School to extend the Accelerate to Industry (A2i) program to other universities. A2i is a program offered by the Graduate School's professional development team that helps graduate students, postdoctoral scholars and graduate alumni explore careers in industry. Through the grant, the Graduate School will share the A2i model with 30 other institutions over the next three years. A2i leaders also will share data and publish results on how the model is working at other institutions.

- NC State finalized a partnership between the College of Veterinary Medicine and UNC-Chapel Hill's Lineberger Cancer Center to establish a new Comparative Pathology Training Program. This post-DVM training program is unique in the U.S. and will fill a national gap in pathologists trained in "One Medicine." This training program will also strengthen pathology support for new and ongoing research projects at NC State.
- The Center for Human Health and the Environment (CHHE), led by Rob Smart in the Department of Biological Sciences, received a five-year, \$7.6 million grant from the National Institute of Environmental Health Sciences. This award will allow the CHHE team to continue working to better understand environmental effects on human health. CHHE brings together investigators from 13 departments and six colleges across NC State, as well as investigators from other universities and government agencies, to study how the environment affects health in communities.

Advancement

- NC State surpassed the initial **Think and Do the Extraordinary** \$1.6 billion goal in fall 2019, more than two years ahead of schedule. Highlights of outcomes from Campaign donations are included below.
 - Established 101 new scholarships and fellowships to support students in FY 2019-20. This brings the total to 779 new scholarships and fellowships throughout the Campaign, helping thousands of students succeed at NC State.
 - Nine new distinguished professorships. Of the 241 endowed faculty positions at NC State, 95 have been created during the Campaign.
 - In total, NC State has enjoyed the support of more than 93,000 Campaign donors.
- NC State experienced the best fundraising year in the university's history, raising more than \$235 million during the 2019-20 academic year. This is the fourth consecutive \$200 million-plus year and 7.5% above our impressive three-year average.
- Planned gift commitments to NC State increased from \$53.7 million in FY19-20 to \$78.6 million in FY 20-21. This is a 46% increase.
- Because of the COVID-19 pandemic, many students found themselves facing unprecedented challenges – such as lost jobs and financial crisis, food and housing

insecurity, and lack of resources to participate in online instruction. University Advancement provided extraordinary support to these students through the Student Emergency Fund.

- Through the combined efforts – which included social media pushes, videos, alumni engagement, many direct donor asks, a new web presence and more – of all Advancement units, more than \$1 million was raised for the Student Emergency Fund before the end of April 2020. That total has grown to more than \$1.25 million and has helped hundreds of NC State students stay in school and stay on track academically in the face of unexpected financial emergencies.
- The newly launched Office of Strategic Brand Management worked with Wolfpack Outfitters to produce officially-licensed NC State face masks to advance the NC State brand and support our community. A portion of money from all orders is going to the Student Emergency Fund. Approximately 10,000 masks were ordered, equating to a \$50,000 contribution.
- University Advancement launched the public rollout of the Women in Philanthropy initiative by announcing the formal name, leadership council, mission and vision. *Wolfpack Women In Philanthropy* is a women-led council with a vision to inspire and engage women to transform the culture of philanthropy at NC State through influential leadership and impactful giving.
- NC State's second Day of Giving was originally scheduled for late March but was postponed until the fall due to the Coronavirus pandemic. We currently plan to host NC State Day of Giving: Stronger as a Pack on September 16, 2020. For this special fall Day of Giving, fundraising efforts will be focused on student support through these challenging times.

Facilities

- NC State implemented the first-ever beer concessions operation at Carter-Finley Stadium, Reynolds Coliseum, Doak Field and other venues. This initiative was highly successful, and allowed us to expand revenue opportunities for the university.
- The College of Engineering's newest building on Centennial Campus, Fitts-Woolard Hall, will be ready for the arrival of students back to campus for the fall 2020 semester. The building will be the new home of the Department of Civil, Construction, and Environmental Engineering; the Edward P. Fitts Department of Industrial and Systems Engineering; and the dean's administrative offices. It will house 400 faculty, staff and graduate students and is expected to serve 1,500 students on Centennial campus.
- The official groundbreaking for the new Plant Sciences Building on Centennial Campus took place in September 2019. DPR Construction broke ground on the five-story 185,000-square-foot building in April 2019, with plans to complete the building by winter 2022. This high-end, plant research building will bring together leaders in academia, industry and government and

provide them with flexible lab space and bio-safety level 2 and 3 growth chambers and green houses.

- Work is nearing completion on the D.H. Hill Jr. Library renovation, which features the new Academic Success Center. Construction began in May 2019, and the new spaces will open in early August. The project includes the complete renovation of the second and third floors of the bookstacks towers, a new open stairwell connecting these floors with the Ask Us lobby, and new mechanical rooms on the fourth floor. In addition to the Academic Success Center spaces on the second floor of the north tower, new Libraries spaces include an Innovation Studio, an enlarged and upgraded Visualization Studio, and a Data Experience Lab.
- The Carmichael Gym addition and renovation project is also nearing completion. This project will add 60,000 GSF to the existing wellness and recreation complex.
- We have made significant progress on our efforts to upgrade the electrical distribution system for our campuses, thanks in part to restructuring the strategic initiative for this project. The goal is to complete the \$65 million, multi-phase project with a sole designer and single construction manager to unify design and construction effort, and substantially reduce cost and time to complete this mission critical project. Phase 1 is complete and Phase 2 is currently underway.

Legislative, Policy and Advocacy

- During the 2019 Long Session of the North Carolina General Assembly, NC State was successful in accomplishing a number of different legislative initiatives. The university led the efforts to secure passage of House Bill 389, ABC/University Athletic Facility, which allows for the sale of beer and wine in athletic venues on college campuses along with Senate Bill 572, University System Risk Management Provisions, which authorizes public universities to obtain liability insurance for alcohol sales.
- Although there was no final resolution on the budget, the following NC State specific items were included in House Bill 966, 2019 Appropriations Act, which was passed by the General Assembly and subsequently vetoed by the Governor:
 - \$80 million authorization from the State Capital and Infrastructure Fund for a \$160 million Integrative Sciences Building;
 - \$2 million for a new Apiculture facility;
 - Over \$13 million for Repairs and Renovation funding (from the \$130 million total appropriated to the UNC System);
 - \$2 million for NC State's participation in the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL) grant; and

- Targeted funding for Agricultural Education and Extension initiatives.
- During the 2020 Short Session, NC State fared significantly well despite challenges related to the global COVID-19 pandemic. Below are some highlights:
 - \$14 million for a new Integrative Sciences Building on our main campus;
 - \$160 million total authorization for the aforementioned building project with an \$80 million investment from the state which the university will match with non-state funding;
 - \$4,802,945 in operation and maintenance funds for Fitts-Woolard Hall, which opened in the summer of 2020;
 - \$585,615 for utility infrastructure needs for Fitts-Woolard Hall and Plant Sciences, NC State's projects authorized by the Connect NC Bond referendum;
 - \$2 million to fund the collaborative Innovation in Manufacturing Biopharmaceuticals effort (also referred to as NIIMBL); and
 - Funding for Repairs and Renovations and enrollment growth.
- The university also successfully advocated during the Short Session for a number of priority policy initiatives resulting in reduction of administrative burdens. Additionally, the university was granted limited immunity from liability for claims based on transmission of COVID-19 as well as for claims related to tuition and fees paid for the spring 2020 semester that arise from alleged acts or omissions taken by the institution in response to COVID-19.
- Between the Long and Short Session, the General Assembly met to provide relief related to COVID-19. The university worked with members to procure \$44.4 million in funding for the UNC System to cover the costs of moving coursework online as well as facility sanitation and other expenses necessary to support ongoing campus operations. Additionally, a number of policy related items were signed into law including waiver of interest charges on UNC student debt, extension of report dates, changes to Educator Preparation Programs, and revisions to retirement policies allowing return to work for previous retirees if in response to COVID-19.

Rankings and Recognition

- *Money* Magazine ranked NC State 40 out of 744 colleges in the U.S. on its "Best Colleges for Your Money 2019" list. We are the highest ranked University of North Carolina System school on the list, and one of only two universities in North Carolina in the top 50.
- NC State was ranked favorably by the *US News & World Report* in a number of categories this year, including a tie for #84 nationally and a tie for #34 among public universities.

- #31 (tie) in most innovative schools
- #61 for undergraduate teaching
- #52 (tie) for best colleges for veterans
- #69 for best value schools, and #7 among public universities
- Our online program rankings also improved:
 - #7 overall for master's programs in engineering
 - #2 for civil engineering
 - #5 for electrical engineering
 - #6 for mechanical engineering
 - #7 for industrial engineering
 - #15 for the Jenkins Online MBA program
 - #15 for the master's program in computer information technology
 - #31 overall for online master's programs in education
 - #10 for instructional media programs
 - #15 for curriculum and instruction programs

- NC State's Jenkins MBA program performed well in various metrics according to *The Economist's* ranking of full-time MBA programs worldwide, including an overall ranking of #93. This places the program in the top 50 in the United States and among the top 25 for public institutions. The program also ranked well in the following categories:
 - #30 in salary increase for alumni
 - #38 in alumni rating of career services
 - #54 for percentage of graduates with job placement within three months of graduation
 - #58 for faculty quality

- In 2019, *Diverse: Issues in Higher Education* magazine recognized programs in the College of Sciences on its list of "Top Producers of Minority Degrees." NC State ranked sixth nationally for doctoral degrees conferred to minority students in mathematics and statistics. The university ranked 11th and 15th in graduating African American students with master's degrees in mathematics and statistics and in biological and biomedical science, respectively.

- According to the 2018 NSF HERD Survey, NC State is currently ranked #1 when it comes to USDA funding.

- The Association of University Technology Managers (AUTM) ranks NC State fifth for licenses and options executed and third for startups launched among all US universities without medical schools.

- In the 2020 Innovation Impact of U.S. Universities report from the George W. Bush Institute and Opus Faveo, NC State ranked #20 overall nationally and #12 for entrepreneurship.

- In The Princeton Review's "Top Schools for Entrepreneurship 2020," NC State ranked 10th in the country for undergraduate entrepreneurship and 21st in the country for graduate entrepreneurship programs.
- NC State ranked #84 in the world in the 2020 *Times Higher Education* World University Rankings' list of best colleges for education degrees—a jump of eight spots from the previous year.
- NC State was ranked a Top 10 Military Friendly school. Schools are judged based on the categories of Academic Policies & Compliance, Admissions & Orientation, Culture & Commitment, Financial Aid & Assistance, Graduation & Career, and Military Student Support & Retention. NC State scored above standard in every category.
- NC State was awarded the 2019 Innovation & Economic Prosperity Economic Engagement Connections Award from the Association of Public and Land Grant Universities (APLU) at their annual meeting in San Diego. It is one of the top three awards given by the APLU and recognizes overall excellence in economic engagement. NC State's nomination packet highlighted the work of three programs at the university: the Entrepreneurship Clinic, the Northeast Leadership Academy, and the Biomanufacturing Training and Education Center.
- Zero Waste Wolfpack earned the Innovator of the Year Award from the Green Sports Alliance, an international association with more than 600 member organizations. The Zero Waste Wolfpack program integrates fan experience, academic research, student leadership and community engagement to actively work towards zero waste at NC State athletics events. Zero Waste Wolfpack is the cornerstone of sustainability efforts at Carter- Finley Stadium, doubling waste diversion rates within a few years.

Athletic Excellence

- With the cancellation of the NCAA winter/spring championships, the National Association of Collegiate Directors of Athletics Board of Directors voted to cancel the 2019-20 Learfield IMG College Directors' Cup. NC State's final Fall Ranking was 15th place.
- NC State athletes achieved an all-time high Graduation Success Rate score of 87%. In addition, student athletes have earned the following academic recognitions:
 - 17 teams recorded their highest cumulative GPAs ever, while the student-athlete overall cumulative GPA reached an all-time high of 3.18
 - 71 Academic All-Conference Student Athletes
 - 332 ACC Honor Roll, 454 NC State Honor Roll
 - 249 NC State Dean's List

- Three Conference Scholar-Athletes of the Year: Hayden Hidlay (Wrestling), Elly Henes (Women's Cross Country), and Tziarra King (Women's Soccer)
- Three ACC Postgraduate Scholarship Recipients: Elijah Moskowitz (Men's Cross Country/Track), Krissi Schuster (Women's Soccer), Andreas Vazaios (Men's Swimming & Diving)
- NCAA Postgraduate Scholarship Recipient: Andreas Vazaios (Men's Swimming & Diving)
- National Football Foundation University Scholar-Athlete: Trenton Gill
- Key competitive achievements from this year included:
 - Eleven teams finishing in the Top 25 rankings of their respective sports. This included seven teams in the Top 10. It should be noted that these rankings are based on the last available ranking for each sport's season.
 - Five team conference championships: Women's Cross Country (ACC), Men's Swimming & Diving (ACC), Women's Basketball (ACC), Wrestling (ACC), and Gymnastics (EAGL).
 - Claimed 18 individual conference titles associated with 17 student athletes (1 women's cross country title, 1 men's indoor track & field title, 5 men's swimming & diving individual event titles 2 men's swimming & diving relay titles, 5 women's swimming & diving individual titles, 1 women's swimming & diving relay title, and 2 wrestling title).
 - Four Head Coach of the Year awards:
 - Laurie Henes – Women's Cross Country (4th consecutive season)
 - Braden Holloway – Men's Swimming & Diving (6th consecutive season)
 - Kim Landrus – Gymnastics (2nd consecutive season)
 - Pat Popolizio – Wrestling
 - Team-specific highlights include:
 - Women's Cross Country won their fourth consecutive ACC Championship (25th overall) and finished 5th at the NCAA Championship for their third top five finish in the last five seasons.
 - Men's Soccer advanced to their third consecutive NCAA Championship appearance (for the first time since the 1985-87 seasons).

- Women's Swimming & Diving notched a second-place finish at the ACC Championship, marking the fifth straight team podium finish and second consecutive top two finish. The team ranked 6th prior to the NCAA Championships.
- Men's Swimming & Diving won its sixth consecutive ACC championship and the program's 30th overall conference title. The team was ranked 5th prior to the NCAA Championships and were honored with Men's Swimmer of the Year and Men's Diver of the Year.
- Women's Basketball earned their first ACC Tournament title win since 1991 and set the single-season program record for ACC wins with 14. The team also achieved a second-straight final top 10 national ranking and third-straight 25+ win season.
- Wrestling won back-to-back ACC Championships and its third straight ACC Regular-Season Championship. The team finished with the first-ever undefeated dual season in school history (15-0).
- Baseball had a 12-0 start for the second consecutive season, and head coach Elliott Avent earned his 1,100th career win on opening day.
- Softball recorded the best 15-game start in program history (11-4).

Leadership Changes

- Mike Mullen stepped down from his position as Vice Chancellor and Dean of the Division of Academic and Student Affairs in August 16, 2019. Lisa Zapata was named interim Vice Chancellor and Bret Smith was named interim Dean. The national search for this position was postponed in early 2020 due to the Coronavirus pandemic and resumes in September 2020.
- Charles A. Maimone was appointed as vice chancellor for the Office of Finance and Administration in September 2019.
- Sheri Schwab was selected as vice provost for the Office of Institutional Equity and Diversity in October 2019.
- Peter Harries was named dean of the Graduate School in September 2019. He had been serving as interim dean since 2017.
- Mary Watzin stepped down from her role as dean of the College of Natural Resources this fall. Myron Floyd was named interim dean in August 2019 and dean in March 2020.

- Chris McGahan was originally appointed dean of the College of Sciences in November 2017, with the intent to hold a national search for McGahan's successor in two to three years. In August 2019, McGahan's appointment as dean was extended.

Professional Service

Chancellor Woodson was engaged with the following organizations in FY 2019-20, further elevating NC State's reputation:

- Business Higher Education Forum, Chair
- Council on Competitiveness
- Atlantic Coast Conference Council of Presidents
- NCAA Division 1 Board of Directors
- NCAA Division 1 Board of Governors

Thought Leadership

Chancellor Woodson also represented NC State in numerous events as a keynote speaker, panelist, and host. These include:

- The 8th International Conference on World-Class Universities (WCUs) panel titled *How should WCUs tackle Global Challenges & Seize Opportunities*
- NC Chamber's *Education: The Road to Recovery and Resiliency*
- DRIVE Summit: Developing a Representative and Inclusive Vision for Education
- Food Systems Leadership Institute
- National Academy of Engineering Regional Meeting
- LAS Annual Research Symposium
- On campus receptions and events featuring U.S. Representative Donna Shalala, Sir Charles Godfrey and Margaret Atwood
- Numerous alumni events – locally, nationally and globally – since the Think and Do the Extraordinary campaign launched to drive engagement with the university and build a greater network of advocacy