



September 18, 2002

MEMORANDUM

**DUKE
UNIVERSITY**

To: Members of the Duke University Board of Trustees

From: Nannerl O. Keohane

Subject: Summary of Activities

I am pleased to provide this summary of activities since the Trustees' meeting during Commencement weekend. In doing so, I want to extend a special welcome to our four new trustees: Wilton D. Alston, Clarence "C.G." Newsome, Tomalei J. Vess, and Sara E. Elrod. I know I speak for all members of the Board in saying how much we look forward to having their wisdom, insights, and expertise during the Trustees' deliberations.

Edmund T. Pratt, Jr.

I begin my report with a brief tribute to our friend and colleague Ed Pratt, who died of cancer on September 5. No one had a greater impact than Ed on our School of Engineering, which bears his name. His marvelous \$35 million gift three years ago has made it possible for Duke to embark on many of the critical engineering priorities identified in Building on Excellence - strengthening and growing the faculty, providing the necessary facilities and laboratories for state-of-the-art research and teaching, and attracting the best students. Ed's contributions to Duke went far beyond his generous philanthropy. He was a wise and trusted advisor, gracious and humble, who enjoyed nothing more than just visiting with our students. In a great many ways, Ed leaves a rich legacy to his alma mater.

September 11, 2002

I know from our correspondence that many of you have been impressed by the manner in which Duke commemorated the one-year anniversary of September 11. The day was filled with emotion, reflection, and a myriad of activities that demonstrated the intellectual vitality and compassion of Duke.

If you have not spent time looking at the special 9-11 Web site, (<http://www.dukenews.duke.edu/911site/index.html>), that was created under the leadership of Associate Vice President for News and Communications David Jarmul, I urge you to do so. It captures the feeling and mood of the campus and provides a remarkably rich example of the ways a great university can help people remember, pay tribute, and learn. It also has helped many of us at Duke understand the genuine power of the Web in reaching audiences both on campus and across the globe. I have been told that the Web site received nearly 3,000 individual "hits" between September 11-13 alone.

Class of 2006

The fall semester is always filled with promise as we welcome a new class of Dukies in every school. This year's freshman class is the most selective and most academically qualified ever. It also marks the second year in a row in which one-third of the class is made up of students of color, and the third consecutive year in which more than 10 percent of the class is African-American. The class contains a record number of children of alumni, students from all 50 states and the District of Columbia, and a measurable increase in the academic quality of our international students. With the Trustees' endorsement, this is the first year in which we have been able to offer financial aid to international students, through the Ambassador Duke Scholarship Program.

Director of Undergraduate Admissions **Christoph Guttentag** reports that we experienced nearly a 70 percent increase over last year in applications from international students, largely as a result of being able to provide financial aid.

This is yet another example of how our scholarship programs permit Duke to recruit a remarkable group of young scholars who might not otherwise be able to attend. Our A.B. Duke, B.N. Duke, University Scholarships, Reginaldo Howard Scholarships, and other financial aid programs make a huge difference in helping Duke attract the bright, culturally diverse, intellectually curious students who make up the Class of 2006.

As we welcomed a record-setting group of students to East Campus, the changes on West Campus were equally dramatic. With the opening of the new 350-bed West Edens Link residence hall, we have been able, for the first time, to have all sophomores live on West Campus. Working with the academic deans, Vice President for Student Affairs **Larry Moneta** and his staff have put together an inaugural "Sophomore Experience 2002," a series of lectures, weekly dinners, and other events for the Class of 2005. Moneta notes that the enhanced sophomore experience is intended "to continue the sense of community that forms among first-year students, crossing racial and ethnic lines, through their shared living experience." We were especially pleased that Trustee Emeritus John Koskinen returned to the campus to meet with our sophomores to share unique insights from his experience as a leader in both business and government, including his stint as the nation's Y2K "czar."

Journal of Blacks in Higher Education

One of Duke's highest priorities has been attracting outstanding minority students and faculty to our campus, and providing the environment to support them. Under the leadership of Provost **Peter Lange**, and with broad support from the deans and faculty leaders, our Black Faculty Strategic Initiative has enabled us to bring some truly outstanding scholars to Duke at the same time that we were intensifying our efforts to attract outstanding African-American students. These efforts and others were recognized in a study this month by the Journal of Blacks in Higher Education, which reported that of the 26 most selective, highly prestigious universities in the nation, Duke ranked first in attracting, enrolling, and graduating African-American students, as well as attracting African-American faculty.

While we are pleased with this independent assessment of the success Duke had in providing a welcoming place for African-Americans and other minority students, we remain committed to building on this progress. Former Fuqua School of Business dean Rex Adams is heading a committee that is working on developing the next iteration of the BFSI, which will continue our efforts to attract outstanding African-American faculty and expand that effort to other minority groups.

I know that our commitment to diversity is a high priority for the Trustees, and I hope you will be as pleased as we are by this independent recognition that Duke - in this and so many other areas - is a national leader.

U.S. News Rankings

We also had good news this week from the U.S. News & World Report. Duke tied for fourth with CalTech, MIT, Stanford, and the University of Pennsylvania, trailing only Princeton, Harvard, and Yale in this annual survey. The Pratt School was ranked 24, up two places, and Pratt's undergraduate biomedical engineering program was rated second in the country. The quality of our freshman experience, our writing program, and our study abroad programs also were specifically cited by U.S. News as being among the very best in the country.

New Faces

As we open our doors to new students to campus, we also welcome several newcomers to Duke's administrative

leadership and faculty. Let me mention a few of them.

Stuart Pimm, one of the world's foremost experts on endangered species and habitat destruction, is the first Doris Duke Professor of Conservation Ecology in the Nicholas School of the Environment and Earth Sciences. Pimm's research focuses on the reasons why species become extinct, how fast they do so, the global patterns of habitat loss and species extinction, the role of introduced species in causing extinction and, importantly, the management implications of research in these areas.

Dr. **Haywood Brown**, a maternal-fetal medicine specialist, has been named chair of the department of obstetrics and gynecology in the School of Medicine. He joins us from the Indiana University School of Medicine, where he was a professor in the departments of obstetrics and gynecology and medical and molecular genetics. Brown serves as the director of the national Society for Maternal-Fetal Medicine. He is also the first African-American to chair a department in our medical school.

Zoila E. Airall has been selected as Duke's new assistant vice president for campus life. Airall came to us from Bryn Mawr College, where she was director for institutional diversity. She will oversee student organizations and events, multicultural programming, support services for international students, community service, and student leadership programs. She also will help lead our efforts to foster an environment of collaborative learning across the university.

Gwendolyn W. London, a 20-year veteran of the end-of-life movement, has been appointed interim director of the Duke Institute on Care at the End of Life. Since her involvement in end-of-life care began in 1982, she has been a hospice and hospital chaplain, a hospice bereavement coordinator, and an associate minister at a 1,700-member urban congregation.

New Academic Initiatives

The Fuqua School of Business has created the Center for Advancement of Social Entrepreneurship (CASE), a research and education center dedicated to promoting entrepreneurial leadership in the social sector. Bringing the expertise of our faculty and students to serve the broader society is a priority in Building on Excellence, as is our commitment to multidisciplinary scholarship. This new center combines the best of each, involving Fuqua, the law school, divinity school, the Sanford Institute of Public Policy, and our Office of Community Affairs. CASE is being funded by a \$2.5 million grant over five years from The Atlantic Philanthropies, which will be matched over 10 years by \$2.5 million from Fuqua's budget and money to be raised by the school. CASE's faculty director is **J. Gregory Dees**, adjunct professor of social entrepreneurship and non-profit management, who co-founded Stanford University's Center for Social Innovation.

Duke has partnered with UNC-Chapel Hill, North Carolina State University, and the National Institute for Statistical Sciences (NISS) to create the Statistical and Applied Mathematical Sciences Institute (SAMSI). SAMSI is the first center in the world to focus on statistics and mathematics to confront the hardest and most important scientific challenges in modeling and data analysis - in areas ranging from global climate simulations to modeling the course of HIV infections. SAMSI, launched with \$10 million from the National Science Foundation, celebrated its official grand opening two weeks ago at its new offices in the Research Triangle Park. At the SAMSI dedication ceremony, I was pleased to present Congressman David Price (D-NC) a Champion of Science Award on behalf of The Science Coalition, a consortium of more than 400 organizations committed to strengthening partnerships between the federal government and research universities.

Appointments

Dr. **Edward C. Halperin** has been named vice dean at the School of Medicine and associate vice chancellor for

academic affairs at the Medical Center. Halperin will coordinate clinical faculty recruitment in the School of Medicine, the Private Diagnostic Clinic, and the Duke University Health System. He will also maintain a state-of-the-art medical education curriculum and be a key leader in the administration of the Graduate Medical Education program at Duke, which provides post-graduate medical training for nearly 800 physicians. Halperin has served since 1996 as the L.R. Prosnitz Professor and chair of the department of radiation oncology at Duke.

Sandy Williams, dean of the School of Medicine, also has named Dr. **Ross McKinney, Jr.** director of the Duke Pediatric Clinical Research Program, vice dean for research at the School of Medicine. Professor McKinney will be responsible for leading efforts to improve the infrastructure and programs that support faculty research at the medical center. He also will supervise the medical center's Institutional Review Board and lead new initiatives in information technology.

Dr. **James A. Nunley**, an orthopedic surgeon on the Duke faculty for 22 years, has been named chief of the division of orthopedic surgery. Dr. Nunley specializes in surgery of the hand and foot, as well as total joint replacements and the use of microsurgical techniques.

And in his newly created post as executive vice provost for finance and administration, **Jim Roberts** will be responsible for many space-management issues, including the renovation of academic facilities, construction planning, and space allocation. In announcing his promotion, Provost Lange said he was also asking Roberts to oversee student administrative systems and services, including the PeopleSoft student administrative system.

Academic and Research News

Kristina Johnson, dean of the Pratt School of Engineering, testified before the Senate's subcommittee on Science, Technology and Space that America needs to improve the science and math education of its children, particularly girls and minorities, so the nation will have the intellectual wherewithal to deal with terrorism and other complex issues. She noted that women constitute less than 20 percent of the graduates of the nation's engineering schools and minorities account for fewer than 15 percent of graduates in technical fields. Johnson told the senators that "what was once a moral obligation to promote diversity by providing equal opportunity for interesting, high-paying careers for all citizens is now a national imperative."

Ken Dodge, director of Duke's Center for Child and Family Policy in the Sanford Institute of Public Policy, gave a presentation at the White House Conference on Character and Community about the vexing problem of chronically violent and delinquent adolescents in America. "It should not come as a surprise that we have so few solutions for this problem, given how little our nation has invested in research and development on education and children," he noted, adding that a 12-year system of training and education to prevent violence needs to be instituted in our public schools.

A new study by Public Policy Studies Professor **Charles Clotfelter** shows that private schools have clearly played a role in the racial segregation of students in grades K-12 during the past 40 years, especially in the South. A second study indicates an increase in segregation in all levels of North Carolina public schools since 1994, and raises concerns about between-school and within-school segregation - segregation that occurs in different classrooms of the same school. The studies were presented at a conference at UNC-Chapel Hill.

Medical center researchers have identified the first gene known to be highly correlated to testicular cancer. The gene, called hiwi, belongs to the piwi family of genes discovered in 1997 in the laboratory of **Haifan Lin**, an associate professor of cell biology and senior author of the new study. His new research shows that 63 percent of men who inherit the overactive form of the hiwi gene could develop seminoma, a testicular cancer that originates from reproductive cells. Dr. Lin also published a new study involving mice that offers another possible genetic explanation for infertility in men: a gene called miwi. The study, funded by the National

Institute of Health and the Lucile Packard Foundation, could eventually lead to genetic testing for the human form of the miwi gene.

Another new cancer study, funded by the National Cancer Institute, shows that doctors are seeing dramatic results from a unique breast cancer treatment. At the Duke Comprehensive Cancer Center, patients of Dr. **Kimberly Blackwell** are given a directed heat treatment which leads the chemotherapy they have just received to settle inside the tumor. The body's normal tissues remain unheated, so the drug is not immediately delivered there. In several cases, the treatment has destroyed all visible signs of the tumor; in every case, it has halted the tumor from growing.

Duke chemists are producing increased quantities of single-walled carbon nanotubes, sometimes called "buckytubes," in forms suitable for use in futuristic molecular scale electronic devices. Led by assistant professor of chemistry **Jie Liu**, the team is producing nanotubes in larger numbers by altering their recipes for making the molecules. They also are growing the molecules on silicon surfaces to guarantee their purity and favorable electronic properties. They presented their work at the American Chemical Society's national meeting in Boston.

It's difficult for researchers in different parts of the world to compare notes on marine mammals, sea turtles, and seabirds because they traverse vast portions of Earth's oceans. So researchers in the Nicholas School of the Environment and Earth Sciences, including geologist **Lincoln Pratson**, will develop a digital archive of marine mammal, sea turtle, and seabird distribution and abundance, with a \$1.8 million grant from the National Oceanographic Partnership Program and the Alfred P. Sloan Foundation. The archive will be part of the Ocean Biogeographic Information System, giving scientists instant access to locations and numbers of given species worldwide.

A team of investigators from the medical center and Artec Science Inc., led by Duke pediatric surgeon **Henry Rice**, have transformed adult stem cells taken from fat into cells that appear to be nerve cells. Scientists don't know whether the new cells will function like native nerve cells, but they are optimistic the new cells may someday treat central nervous system diseases and disorders. Rice was senior author of the paper published in the journal *Biochemical and Biophysical Research Communications*. The research was supported by the American College of Surgeons and by Artec Science.

An international team led by medical center researchers found a possible new approach to anti-atherosclerosis drugs. Duke's Dr. **David Schwartz**, principal investigator for the study published in the *New England Journal of Medicine*, found that a genetic variant of an immune system receptor appears to simultaneously dampen the body's immune response to bacteria and other microbial toxins and to provide some protection against atherosclerosis, or clogging of the arteries. The research was supported by the National Institute of Health, the Department of Veterans Affairs, and several international organizations.

A potential new drug discovery has been made by investigators from Duke's Neonatal-Perinatal Research Institute and the Howard Hughes Medical Institute. The researchers, led by principal investigator Dr. **Jonathan Stamler**, have developed a new drug that appears in preliminary testing to be successful in treating newborns whose lungs are unable to properly oxygenate their blood. The researchers believe the drug - called O-nitrosoethanol - will also prove effective in improving oxygenation in patients with such disorders as asthma, chronic obstructive pulmonary disease, cystic fibrosis, and sickle cell disease. Their results were published in the journal *Lancet*.

Duke researchers reported recently that emotions such as fear or horror travel along separate paths through the brain and are more likely than simple distractions to interfere with a person's efforts to focus on a task such as driving. **Kevin S. LaBar**, assistant professor at the Center for Cognitive Neuroscience, and others published

their findings in *The Proceedings of the National Academy of Sciences*. The study helps explain why a person who suddenly feels a pang of emotion is especially likely to lose focus. It also may lead to new avenues of research for treating depression, attention-deficit disorder, post-traumatic stress syndrome, and other disorders. A number of federal agencies, including the National Institute on Mental Health, supported this research.

It's never too late. That's the message that Duke and American Cancer Society researchers have for smokers who think they have nothing to gain by kicking the habit. Even 65-year-old lifelong cigarette smokers can add a few years to their lives by quitting, according to the new study by **Donald H. Taylor, Jr.**, assistant research professor of public policy with the Center for Health Policy, Law and Management. The study, published in the *American Journal of Public Health*, analyzed 15 years of data from the Cancer Prevention Study II. Men who stopped smoking by age 35 added 6.9 to 8.5 years to their lives, and women added 6.1 to 7.7 years compared to those who continued to smoke. The research team included **Frank A. Sloan** and **Vic Hasselblad** of Duke.

Finally, Duke ecologist **Robert Jackson** and USDA researchers published a report in *Nature* that warns we can no longer rely on the "free ride" of plants that absorb harmful carbon dioxide emissions. Their study, supported by the National Science Foundation and the Andrew W. Mellon Foundation, showed how nitrogen in the soil of a Texas prairie might have limited the ability of plants to absorb carbon dioxide emissions. The study is unique in enabling scientists to study the effects of carbon dioxide concentrations ranging from those before the Industrial Revolution to those projected for the next century.

The Campaign for Duke

Thanks to the strong leadership of co-chairs Pete and Ginny Nicholas, and the hard work of our development staff led by Senior Vice President **John Piva** and Vice President **Bob Shepard**, Duke raised some \$264.6 million in the year ending June 30, \$155,000 more than last year's total. Considering the events of last fall and the nation's economy, that total represents a major accomplishment. It is a tribute to the generosity of Duke alumni, parents, and other friends, as well as the corporations and foundations that have supported Duke this year.

As I write this report, the Campaign for Duke stands at nearly \$1.9 billion. While it is clear that we will reach \$2 billion, it is just as clear, as John Piva reminds us at every opportunity, that several of our most crucial "buckets" are far from full, and we have a great deal of work ahead of us to achieve our ambitious goals. We will have an update from Pete Nicholas and John Piva at our meeting, which will follow shortly after the Campaign for Duke Steering Committee meets.

Duke and the Community

Also at our fall meeting, Senior Vice President for Public Affairs and Government Relations **John Burness** will present a report on the Duke-Durham Neighborhood Partnership. The partnership had much good news over the summer. Let me mention two highlights.

In July, North Carolina Central University and Duke jointly announced that the W.K. Kellogg Foundation had made \$2.25 million grants to each institution to support an innovative set of after-school programs designed to enhance the educational and personal growth of at-risk youngsters in Durham.

With Kellogg's support, the Duke Holistic Opportunity Plan for Enrichment (HOPE) program will be offered in several community centers with which Duke has been partnering. HOPE will utilize a case-based management approach by which a team of service-providers will conduct extensive evaluations of each child's needs and develop an individualized plan to help that child succeed. Those involved in this ambitious effort include the Durham County departments of mental health and social services, the Durham Public Schools, Durham City

Parks and Recreation, and several Duke departments, including the Program in Education, Office of Community Affairs, Center for Child and Family Policy, Department of Community and Family Medicine, and the School of Nursing. **Barbara Jentleson**, an experienced educator and administrator who has specialized in programs for at-risk children, has been named director of Duke's HOPE program and assistant professor of the practice in Duke's Program in Education.

Under the leadership of Central Carolina Bank president Richard Furr, the annual Duke-Durham Campaign fundraising effort that supports the Neighborhood Partnership, raised a record \$223,000 this year from area businesses and people. Boosting that number were the pro bono services provided by area contractors who donated supplies and services for projects at several of our Duke-Durham partners, including a completely new drainage system at George Watts Elementary School, outdoor learning projects at E.K. Powe and Morehead Montessori elementary schools, and extensive landscaping at a new community center at Lyon Park in Durham's West End neighborhood. **Jerry Black** and his team at the Facilities Management Department have worked closely with many of Duke's contractors who have expressed support for the work Duke is doing under the Neighborhood Partnership.

Construction Update

Four major construction projects have been completed since our last meeting. All were essentially on schedule and within budget: Yoh Football Center, West Edens Link residence halls, Kilgo comprehensive renovations, and Cameron Indoor Stadium air conditioning.

Several significant projects are underway, including the Center for Human Genetics, scheduled for completion in March 2003; Fuqua School of Business-Keller Expansion 2C Student Center (partially occupied now), scheduled for completion in March 2003; Center for Interdisciplinary Engineering, Medicine and Applied Science, scheduled for full completion in September 2004; university parking deck, scheduled for completion in August 2003; and Undergraduate Admissions meeting room, scheduled for completion in February 2003.

Awards and Honors

I am pleased to report that James B. Duke Professor of History Emeritus **John Hope Franklin** has received two significant new prizes. He was awarded the Gold Medal in History by the American Academy of Arts and Letters for his long and distinguished career as a scholar, intellectual leader, and civil rights advocate. Historian Arthur Schlesinger, Jr. presented Dr. Franklin with the award in New York City. The Gold Medal is the academy's highest honor, and only two medals are awarded every six years to recognize lifetime achievement. Professor Franklin also received the Clark Kerr Award, the highest honor bestowed by the Academic Senate of the University of California-Berkeley, for his exemplary career as a scholar and academic leader.

Four Duke faculty were among 60 in the nation to visit the White House this summer to be honored with 2001 Presidential Early Career Awards for Scientists and Engineers, a special recognition for young federally-funded investigators. **Steven Cummer**, assistant professor of electrical and computer engineering at the Pratt School of Engineering, was honored for his ionosphere study proposal that received \$414,000 in support from the National Science Foundation. **Michael Fitzgerald**, assistant professor of chemistry, received a PECASE for developing and applying a quicker and more sensitive method for measuring the thermodynamic stability of proteins in their "folded" forms. **John Klingensmith**, assistant professor of cell biology, was cited for his basic research in developmental biology that is contributing to the understanding of birth defects, primarily those involving the head and face. His work could lead to gene testing and therapy to prevent birth defects or possibly to new treatments for birth defects. And Dr. **James Tulsky**, a general internist at the Durham Veterans Affairs (VA) Medical Center with a joint appointment as associate professor of medicine at the medical center, earned recognition for his research that explores the quality of life at the end of life.

Dr. **Augustus Grant** has been named president-elect of the American Heart Association. He is the first Duke cardiologist to head the nation's largest organization fighting cardiovascular disease. Dr. Grant said high on his agenda is to advance the association's goal to reduce by 25 percent the incidence of heart attack and stroke by 2010 through patient education.

Emmanuel Azenberg, adjunct professor of Theater Studies, accepted a 2002 Tony award for best revival of a play for his production of "Private Lives," a romantic comedy by Noel Coward. Azenberg led a group of producers who originated the show in London last season before moving it to Broadway this season.

Miguel Nicolelis, professor of neurobiology, received the 2002 Defense Advanced Research Projects Agency (DARPA) Award for Sustained Excellence by a researcher. Nicolelis and a colleague shared the award for work they did to extract neural codes from the brain to understand and exploit sensory motor work. During tests of their research, a monkey was able to control a robotic arm in another room by generating the command in its brain.

The Society of American Archivists selected Duke as the 2002 recipient of its Distinguished Service Award. The award acknowledges Duke's "strong reputation as a generous contributor to the archival profession" and its longtime leadership in the field. The society noted that Duke was an early implementer of encoded archival description which helped to refine the standard, and praised Duke's Digital Scriptorium, part of the Rare Book, Manuscript, and Special Collections Library, for its leadership over the past decade in developing best practices for online digital collections.

And Graduate School Dean **Lew Siegel** has been elected chairman of the board of the Council of Graduate Schools, his term to begin in the summer of 2003. The Council of Graduate Schools is the umbrella organization that coordinates activities and provides representation in Washington for more than 450 doctoral and masters degree-granting universities in the U.S. and Canada.

Conferences, Symposia

For the second consecutive year, Duke hosted the Ralph Bunche Summer Institute, which seeks to interest bright minority undergraduates to pursue academic careers and to enroll in graduate school. The five-week summer program was designed to simulate the academically intensive graduate school experience and to provide mentoring for African-American, Hispanic, and American Indian students.

Another recent Duke symposium - which included scholarly presentations, rabbinical storytelling, and the singing of Hebrew folk songs - carried a clear central message: for Jews, the only proper response to death is to embrace life. "Magnified and Sanctified: Jewish Perspectives on Care at the End of Life," the third annual symposium of the Duke Institute on Care at the End of Life, attracted more than 300 people.

Finally, basketball coach **Mike Krzyzewski** joined Fuqua School of Business Dean **Douglas T. Breeden**, Trustee Rick Wagoner, and top executives, including Stephen F. Cooper, the interim chief executive officer of Enron, at the inaugural Coach K & Fuqua School of Business Conference on Leadership. The conference attracted an impressive set of corporate CEOs from across the nation to Duke, including Martin Luther King III, the president of the Southern Christian Leadership Conference.

Athletics

The Duke women's golf team, led by sophomore **Virada Nirapathpongorn**, won its second national title in May at the 2002 NCAA Division I Women's Golf Championship. Ms. Nirapathpongorn, a native of Thailand, equaled the NCAA's all-time championship scoring record with her final score of 9-under.

The new \$20 million Yoh Football Center opened this month at the north end of the stadium. The ribbon was cut on August 30, and within 24 hours, we all understood its impact as Coach **Carl Franks'** Blue Devils upset East Carolina and ended a 23-game losing streak. It was a great victory and, we believe, a harbinger of good things to come. We are grateful to Spike and Mary and the Yoh family for their generosity and commitment to our players and coaching staff. This is a tremendous training and recruiting site for Duke football. It houses meeting rooms, coaches' offices, a weight room, a players' lounge, a recruitment area, an alumni lounge, a trophy room, and a viewing deck. I encourage you to stop in and take a look around.

The Drought

And finally, a word about water, or more precisely, the lack thereof. Due to a record lack of rain this summer, mandatory water conservation measures remain in effect across the university. The City of Durham enacted Stage III Moderate Mandatory Conservation measures on June 26 for all its water users. A special license issued has allowed some flexibility in usage restrictions, but the university has had to commit to cutting daily water usage by 30 percent or more, which we've been able to do. Much of those savings have come through reducing outdoor water usage on the grounds and Duke Gardens. If drought conditions worsen this fall and further restrictions are required, we may need to restrict water use in residence halls and other buildings.

Our conservation efforts to date have been made easier by a plan implemented in the mid-1990s by the Facilities Management Department. The plan aims to offset increases in energy and water consumption created by new buildings and added uses in existing facilities, and has included such steps as installing low-flow flush valves, low-flow shower heads, and aerators. The undertaking has helped reduce water consumption on the academic and medical sides of campus every fiscal year since 1995. The effort is clearly paying off. Overall, water consumption has dropped nearly 20 percent since the mid-90s, despite the addition of several major buildings.

As always, if you have any questions or want additional information about any item in this report, I hope you will let me know.