

## UVa's Progress Toward HEOA Objectives, September 2013

*The University of Virginia has made significant progress toward achieving the objectives of the Virginia Higher Education Opportunity Act of 2011 (HEOA), also known as the Top Jobs Act, or TJ21. This is a selective list of University activities that are advancing HEOA objectives. Naturally some of the activities correspond to more than one objective.*

HEOA objectives appear in **bold**

### **A. Plans for providing financial aid to help mitigate the impact of tuition and fee increases on low-income and middle-income students and their families, including the projected mix of grants and loans.**

The University's Board of Visitors authorized AccessUVa in February 2004 to ensure that an undergraduate education at the University would be available to all students regardless of their financial circumstances. The program has been successful in increasing socioeconomic diversity, reducing student loan debt, and meeting 100 percent of need for undergraduate students. In its original form, the program had four main components: offer 100 percent of financial need to all undergraduates; provide all-grant aid and eliminate need-based loans to low-income students; cap need-based loans for all undergraduate students; and include financial literacy education and debt management strategies.

With the dramatic economic downturn of recent years resulting in a significant increase in the numbers of students with need, cuts in state and federal funding, and the increasing cost of attendance, institutional expenditures for the program have risen sharply, from \$11.5 million at the program's inception to \$40.2 million in 2012-13. In 2012, the University engaged an external consultant to review AccessUVa and to suggest changes to moderate future cost increases. After considering the consultant's report, in August 2013 the Board of Visitors voted to reauthorize AccessUVa, with one adjustment designed to maintain the program's effectiveness while placing its institutional costs on a sustainable path. AccessUVa, beginning in the 2014-15 academic year, will offer loans as part of comprehensive aid packages to all students with financial need, regardless of income level. The change will be phased in by class over four academic years beginning in 2014-15 and will not affect any current students receiving financial aid. The Board resolution also set a cap of \$28,000 on the amount of need-based loans that an undergraduate student may accumulate during a four-year period. The maximum amount of loan debt a low-income, in-state undergraduate will accumulate over four years is \$14,000. By fiscal year 2018, this change is projected to moderate the escalation of program costs by \$6 million per year while still meeting 100 percent of student need and capping the indebtedness of students.

### **B. Plans for optimal year-round use of the institution's facilities and instructional resources to improve student completions and cost efficiencies.**

In 2005, the University established a January Term, known as the J-Term, as an opportunity for students to take an intensive two-week course and earn three credits during a typically slow month for facility use between the fall and spring academic semesters. Enrollment in J-Term courses on Grounds and abroad has grown from 267 in 2005 to 1,225 in 2013, a 359% increase.

In J-Term 2013, classes met in 15 different facilities on Grounds. Likewise, during the summer between semesters, hundreds of students advance their academic standing through summer school courses, which use UVa facilities.

We engage in best practices related to academic facility scheduling. UVa has a central classroom system administered by the University Registrar serving the seven schools with undergraduate students. In its most recent public report, using fall 2010 data, SCHEV reported a 70.49% classroom occupancy rate for the University's main campus (VCU had the highest classroom occupancy rate at 76.83%) and a laboratory occupancy rate of 86.94% for the University's main campus (the highest in the state). According to institution-specific data recently provided to UVa by SCHEV, the fall 2012 classroom occupancy rate increased to 73.93%, while the fall 2012 laboratory occupancy rate increased to 94.24%.

UVa units regularly re-examine their operations to identify areas of potential savings or processes that can be streamlined. Examples include reorganizations, consolidations, and shared services. Departments in the School of Medicine have collaborated to share administrative management, and the School of Continuing and Professional Studies (SCPS) has centralized certain administrative services that used to be duplicated in regional centers. The Curry School of Education is engaged in a number of efforts, resulting in the reallocation of approximately \$650,000 over the biennium to advance degree production and achieve more efficient faculty workload.

### **C. Plans for the development of an instructional resource sharing program with other institutions of higher education in the Commonwealth.**

UVa has joined with three other Virginia public institutions—Virginia Tech, James Madison, and George Mason—and CISCO Systems in the 4-VA consortium. The consortium partners deploy CISCO's TelePresence technology to share instructional resources and to expand dual-enrollment offerings around the Commonwealth. To date, the consortium has achieved the following: 1) held virtual, inter-university workshops on research topics such as big data, high-performance computing, data visualization, and managing research data; 2) shared advanced courses in Chinese, Italian, Korean, Persian, Portuguese, graduate ecology, and intelligence analysis. [Additional courses in Population Ecology, Engineering/Physics-Mechatronics, Critical Thinking on Business Issues, International Crisis Simulation, Digital Photography, and Engineering/Biomechanics are planned for this academic year]; 3) collaborated on targeted redesign of introductory biology courses guided by strategies for improving student success developed during a 4-VA conference for biology faculty; and 4) created and shared intensive course redesign workshops designed to guide faculty in creating compelling technology-enhanced courses.

In addition to its resource-sharing with other colleges and universities in Virginia, UVa has a new partnership with Duke University that allows students at both schools to learn a rare language, using the TelePresence technology. This fall, Duke students are taking a course in Tibetan language offered here, and UVa students are taking Duke's course in Creole. The technology allows a group of students at one school to join the classroom at the other school in real time *via* video cameras and a large screen.

UVa also partners with Virginia's community colleges to share resources and boost degree completion. In one example, building on the success of the UVa-Piedmont Virginia Community College (PVCC) partnership for an associate's degree in radiography, we have developed an online bachelor of professional studies (BPS) program with an initial focus on allied health fields. SCPS developed the proposed program in collaboration with the Medical Center and several community colleges around the Commonwealth. The BPS in Health Sciences is a proposed degree completion program for graduates of the Virginia Community College System (VCCS). The Board of Visitors approved the degree program in May 2013. A draft program proposal is under review by SCHEV. If the proposal proceeds expeditiously through the SCHEV approval process, the expected start date is fall 2014.

#### **D. New programs or initiatives including quality improvements.**

In August 2013, UVa established a formal, ongoing program of Organizational Excellence. Organizational excellence has emerged as a priority during the strategic planning process currently under way at UVa. This approach will enhance organizational quality and capacity across academic and administrative service areas, thereby enabling excellence in our core missions of education, research, and scholarship.

The program identifies opportunities to enhance UVa's stewardship of all its resources – from financial to facilities to technological to human resources – and align its processes, technology, and people to support institutional priorities. The program is founded on four guiding principles: academic and administrative collaboration; data-driven and results-oriented approaches to change; structure for ongoing, rather than episodic, impact; and a long-term, strategic focus.

The Organizational Excellence structure includes a governing body, the Leadership Council, which is comprised of faculty, administrators, and staff chaired by Dean Bob Pianta of the Curry School of Education. Executive Sponsors are Executive Vice President and Chief Operating Officer, Executive Vice President and Provost, Vice President for Management and Budget, and the Dean the Frank Batten School of Leadership and Public Policy. For each project, faculty and staff are appointed to serve on project teams based on their expertise and/or perspective.

Although the initiative is very new, the Leadership Council is already assessing a variety of short-term and long-term opportunities, such as a more versatile sourcing model, shared services in select areas, improved research administration, and enhanced long-term space planning and management. Anticipated outcomes include enhanced quality and efficiency, improved stakeholder satisfaction, and strategic investment through reallocation.

Organizational Excellence builds on the University's successful continuous improvement program, Process Simplification, which was established in 1994. The Organizational Excellence program has now subsumed the Process Simplification program.

**E. Plans with regard to any other initiatives listed below or any other matters the institution deems appropriate.**

**E1. Increased enrollment of Virginia students.**

The Board of Visitors approved a growth plan that calls for enrolling 1,673 new undergraduates by the 2018-19 academic year, an increase of 11.9% from 2010-11. Of these, 1,171 students (70%) will be Virginians. As of fall 2013, there are an additional (cumulative) 254 more Virginia undergraduates enrolled as 1<sup>st</sup>-year students than there were in fall 2010. (This is not an official census figure yet for 2013.)

The following chart documents 2009-12 enrollment growth at UVa compared with growth at Virginia Tech and William & Mary. While undergraduate student enrollment has increased, graduate enrollment has decreased. Overall enrollment in the Graduate School of Arts & Sciences, which makes up about one-third of the total graduate student headcount, is down a few hundred students from what it was in 2009. This appears to be due to several factors, such as market conditions; tighter management of doctoral enrollment with higher standards; and declining government support for graduate study in biomedical sciences and nursing. Similarly, the Law School has experienced an enrollment decrease in response to market conditions. As hiring by legal employers has declined, the number of applicants to law schools has shrunk by about one-third over the past three years. As a result, the Law School, like many of its top 10 peers, has reduced the size of its student body to maintain student quality and match the demand for new lawyers. The Law School's reduction is about 10% over this period, but school leaders continue to monitor the demand for lawyers and the number and quality of applicants and will make additional adjustments as needed.

**Total on-Grounds Headcount Enrollment**

		Fall 2009	Fall 2010	Fall 2011	Fall 2012	Growth 2012 Over 2009	
						#	%
<b>Undergraduate</b>	<b>UVa</b>	14,297	14,445	14,591	14,641	344	2.4%
	<b>W&amp;M</b>	5,836	5,882	6,065	6,134	298	5.1%
	<b>VT</b>	23,512	23,637	23,647	23,796	284	1.2%
<b>Graduate</b>	<b>UVa</b>	6,598	6,604	6,515	6,454	-144	-2.2%
	<b>W&amp;M</b>	1,871	1,934	1,860	1,849	-22	-1.2%
	<b>VT</b>	4,920	5,050	5,003	5,040	120	2.4%
<b>Total</b>	<b>UVa</b>	20,895	21,049	21,106	21,095	200	1.0%
	<b>W&amp;M</b>	7,707	7,816	7,925	7,983	276	3.6%
	<b>VT</b>	28,432	28,687	28,650	28,836	404	1.4%

The following chart documents the increase in the number of UVa degrees awarded to in-state and out-of-state undergraduate and graduate students, from 2009-10 to 2012-13.

<b>UVa Total Degrees</b>		<b>In-State</b>	<b>Out-of-State</b>	<b>Total</b>
<b>Undergraduate</b>	<b>2009-10</b>	2,391	1,169	3,560
	<b>2010-11</b>	2,583	1,053	3,636
	<b>2011-12</b>	2,638	1,088	3,726
	<b>2012-13</b>	2,657	1,081	3,738
	<b>Cum. Growth</b>	705	-285	420
<b>Graduate</b>	<b>2009-10</b>	1,393	1,289	2,682
	<b>2010-11</b>	1,205	1,378	2,583
	<b>2011-12</b>	1,227	1,454	2,681
	<b>2012-13</b>	1,179	1,424	2,603
	<b>Cum. Growth</b>	-568	389	-179
<b>Total</b>	<b>2009-10</b>	3,784	2,458	6,242
	<b>2010-11</b>	3,788	2,431	6,219
	<b>2011-12</b>	3,865	2,542	6,407
	<b>2012-13</b>	3,836	2,505	6,341
	<b>Cum. Growth</b>	137	104	241

Note: The cumulative growth represents the 3-year total number of degrees awarded over and above the number that would have been awarded had there been no growth beyond the base year of 2009-10.

## **E2. Increased degree completion for Virginia residents who have partial credit completion for a degree.**

Through the bachelor of interdisciplinary studies (BIS) program, a part-time program for working adult students, UVa enrolled 251 students in fall 2010 at locations around Virginia—in Northern Virginia, Charlottesville, and Hampton Roads. By 2012, the program had expanded to Loudoun County and Richmond, and now enrolls 346 students, a 38% increase. SCPS recently opened a new joint education center with VA Tech in Newport News, and we are currently in discussions to bring the BIS program to Thomas Nelson Community College, effective fall 2014.

The new BPS in Health Sciences, mentioned earlier in this report, encourages degree-completion through an online program developed in conjunction with Virginia community colleges and the UVa Health System.

### **E3. Increased degree completion in a timely or expedited manner.**

UVa is working on several fronts to accelerate degree completion for students who are capable of completing their academic work at a faster pace. In 2012-13, 82 students earned a bachelor's degree in three years or fewer (80 students did so in 2011-12). UVa students who complete their degrees in three years or fewer receive a unique orange academic stole to be worn at graduation in recognition of their achievement. In addition, 14 students graduated in 2012-13 with a bachelor's and master's degree in four years—this is known as UVa's 3+1 program. Currently, the following master's programs are available through the 3+1: commerce, Middle Eastern and South Asian studies, public policy, statistics, and teacher education. As we look to expand the 3+1 program, we are exploring the development of professional master's degree programs in chemistry, environmental sciences, French, and religious studies.

As we strive to implement efficiencies in academic programs, we have been reviewing the duration of a number of graduate programs. The McIntire School of Commerce experienced savings of \$70,000 when it condensed the Northern Virginia section of the M.S. in Management of Information Technology from 16 to 12 months. In addition, the Curry School of Education reallocated \$25,000 to shift from a 9-month to a 12-month teaching model in support of more timely degree completion.

### **E4. Enhanced community college transfer programs and grants and other enhanced degree path programs.**

Since 2008, when UVa signed the Guaranteed Admission Agreement with the Virginia Community College System, approximately 2,085 Virginia community college students have transferred to bachelor's degree programs at UVa (including 350 students who entered in fall 2013).

A UVa-Piedmont Virginia Community College (PVCC) partnership allows students to complete an associate's degree in radiography. The new BPS in Health Sciences, mentioned earlier, was developed in conjunction with Virginia community colleges to encourage degree completion in this field.

### **E5. Improved retention and graduation rates.**

UVa has a retention rate of 97% for undergraduate students, and a six-year graduation rate of 93%. In addition, the University has the highest graduation rate for African-American students among all major public universities in the country, at about 86%, a level that we have held for nearly two decades. While we can always strive to improve these rates, we acknowledge that they are already among the best in the nation.

**E6. Increased degree production in the areas of science, technology, engineering, and mathematics and other high-need areas such as the health care-related professions.**

UVa has seen growth of 26% in STEM degrees and growth of 25% in STEM-H (including the health field) degrees over the past decade. We are planning for 33 to 40% of our undergraduate enrollment growth to be in the STEM disciplines, with the largest growth in biology and chemistry. We plan to modernize our labs in chemistry and biology, increase their number, and redesign them to support planned changes in pedagogy. For 2012-13, 33.3% of bachelor's degrees awarded were in STEM-H fields (based on the SCHEV definition of STEM-H for UVa). Among Virginia residents, 35.4% were in STEM-H fields.

UVa's School of Nursing received \$50,000 in HEOA funding to expand undergraduate research opportunities in STEM-H disciplines. Such opportunities include an undergraduate research assistantship program, a summer undergraduate research internship program, an undergraduate research poster competition, and a travel program for undergraduates to present with faculty at research conferences. These efforts align with the HEOA objectives for STEM degree growth as well as the objectives related to improving retention and graduation rates and to optimizing year-round use of instructional facilities.

The School of Nursing, in partnership with the School of Medicine, received \$96,500 in HEOA funding for two other initiatives: 1) \$47,000 for the Inter-Professional Education (IPE) Initiative. The IPE program trains the next generation of health care providers in an environment that fosters patient-centered care. This effort aligns with the HEOA objectives to increase degree production in STEM-H disciplines and to develop new programs or initiatives. 2) \$49,500 for the Virtual Clinical Learning Initiative. This initiative is designed to provide online methodologies for virtual clinical learning activities. Such activities provide a richer educational experience, reach a wider student population, and expand the IPE initiative referenced above. This effort aligns with the HEOA objectives to increase degree production in STEM-H disciplines and to increase technology-enhanced instruction, including course redesign and online instruction.

The following chart documents the growth in STEM degrees awarded by UVa to in-state and out-of-state undergraduate and graduate students, from 2009-10 to 2012-13. (It continues on the next page.)

UVa STEM Degrees		In-State	Out-of-State	Total
Undergraduate	2009-10	754	339	1,093
	2010-11	876	306	1,182
	2011-12	913	388	1,301
	2012-13	940	305	1,245
	Cum. Growth	467	-18	449

<b>Graduate</b>	<b>2009-10</b>	197	324	521
	<b>2010-11</b>	174	363	537
	<b>2011-12</b>	178	368	546
	<b>2012-13</b>	182	323	505
	<b>Cum. Growth</b>	-57	82	25
<b>Total</b>	<b>2009-10</b>	951	663	1,614
	<b>2010-11</b>	1,050	669	1,719
	<b>2011-12</b>	1,091	756	1,847
	<b>2012-13</b>	1,122	628	1,750
	<b>Cum. Growth</b>	410	64	474

Note: Based on SCHEV STEM definitions. The cumulative growth represents the 3-year total number of degrees awarded over and above the number that would have been awarded had there been no growth beyond the base year of 2009-10.

The following chart documents the growth in health degrees awarded by UVa to in-state and out-of-state students from 2009-10 to 2012-13. (It continues on the next page.)

<b>UVa Health Degrees</b>		<b>In-State</b>	<b>Out-of-State</b>	<b>Total</b>
<b>Undergraduate</b>	<b>2009-10</b>	108	21	129
	<b>2010-11</b>	97	22	119
	<b>2011-12</b>	108	17	125
	<b>2012-13</b>	104	27	131
	<b>Cum. Growth</b>	-15	3	-12
<b>Graduate</b>	<b>2009-10</b>	194	99	293
	<b>2010-11</b>	186	90	276
	<b>2011-12</b>	279	103	382
	<b>2012-13</b>	219	102	321
	<b>Cum. Growth</b>	102	-2	100

<b>Total</b>	<b>2009-10</b>	302	120	422
	<b>2010-11</b>	283	112	395
	<b>2011-12</b>	387	120	507
	<b>2012-13</b>	323	129	452
	<b>Cum. Growth</b>	87	1	88

Note: Based on SCHEV Health Professions definitions. The cumulative growth represents the 3-year total number of degrees awarded over and above the number that would have been awarded had there been no growth beyond the base year of 2009-10.

The following chart documents the increase in semester credit hours produced at UVa in STEM fields.

<b>UVa STEM Credit Hours</b>		<b>On-Grounds</b>	<b>Off-Grounds</b>	<b>Total</b>
<b>Undergraduate Courses</b>	<b>2009-10</b>	152,048	2,853	154,901
	<b>2010-11</b>	157,095	2,968	160,063
	<b>2011-12</b>	162,847	2,111	164,958
	<b>2012-13</b>	166,069	3,263	169,332
	<b>Growth 2012-13 Over 2009-10</b>	14,021	410	14,431
<b>Graduate Courses</b>	<b>2009-10</b>	47,832	3,511	51,343
	<b>2010-11</b>	47,572	3,079	50,651
	<b>2011-12</b>	46,908	3,301	50,209
	<b>2012-13</b>	44,538	2,638	47,176
	<b>Growth 2012-13 Over 2009-10</b>	-3,294	-873	-4,167
<b>Total</b>	<b>2009-10</b>	199,880	6,364	206,244
	<b>2010-11</b>	204,666	6,047	210,713
	<b>2011-12</b>	209,755	5,412	215,167
	<b>2012-13</b>	210,607	5,901	216,508
	<b>Growth 2012-13 Over 2009-10</b>	10,727	-463	10,264

Note: Based on SCHEV STEM definitions.

The following chart documents the increase in STEM degrees earned by minority students from 2009-10 to 2012-13.

<b>UVa Minority STEM Degrees</b>		
<b>Undergraduate</b>	<b>2009-10</b>	275
	<b>2010-11</b>	324
	<b>2011-12</b>	369
	<b>2012-13</b>	379
	<b>Cum. Growth</b>	247
<b>Graduate</b>	<b>2009-10</b>	67
	<b>2010-11</b>	59
	<b>2011-12</b>	81
	<b>2012-13</b>	56
	<b>Cum. Growth</b>	-5
<b>Total</b>	<b>2009-10</b>	342
	<b>2010-11</b>	383
	<b>2011-12</b>	450
	<b>2012-13</b>	435
	<b>Cum. Growth</b>	242

Note: Based on SCHEV STEM definitions. The cumulative growth represents the 3-year total number of degrees awarded over and above the number that would have been awarded had there been no growth beyond the base year of 2009-10.

**E7. New programs the institution might consider to further the Commonwealth’s objectives.**

As part of the University’s in-progress strategic planning effort, we plan to launch a set of evolving pan-University research institutes that focus on cutting-edge, cross-disciplinary opportunities. These institutes will generate new curricula, certificates, minors, and degree programs for Virginia students, while attracting superior faculty. These new research centers will bring national recognition, new peer-reviewed funding, and new partnerships with corporations in the Commonwealth and beyond.

The first institute will focus on Big Data, bringing faculty, staff, and students across academic disciplines and administrative units together to develop services, curricula, and new research activities related to complex data. Because of advances in computing, almost every discipline is becoming data intensive—not only the traditional data-heavy fields of engineering, physics, and bioscience, but also an array of non-science-related fields that includes the humanities, education, and architecture. UVa’s Big Data Institute will take a leadership role in the Commonwealth in addressing these issues.

### **E8. Increased research, including regional and public-private collaboration.**

Faculty research, through direct and indirect grant support from federal and state agencies, corporations, and private foundations, provided \$284 million, or 10.9%, of the University’s budget in 2012-13. Every \$1 million of research funding is estimated to support 17 jobs (13 at the University and four jobs in the community through purchases from suppliers). Thus, UVa’s research funding alone supports about 4,800 jobs in Central Virginia and around the country. Increasing our research enterprise has an obvious beneficial effect on the University and on the Commonwealth, as the following examples illustrate.

The Commonwealth Center for Advanced Manufacturing (CCAM), a new 62,000 square foot research facility, held its grand opening event in March 2013. CCAM is a public-private collaborative center for research related to surface technology and advanced manufacturing industries. CCAM has 15 industrial partners and three university members. The facility is owned by the University of Virginia Foundation. Construction was financed with a \$2.5 million grant from the Virginia Tobacco Indemnification and Community Revitalization Commission, a \$4 million grant from the federal Economic Development Administration, and a portion of \$15 million in state Recovery Act bonds. Over the past three years, UVa has received nearly \$10.5 million in sponsored research funding in support of the Rolls-Royce initiative awarded to 13 different principal investigators.

UVa also helped launch the Commonwealth Center for Advanced Logistics Systems (CCALS), an applied research consortium modeled after CCAM that will provide transformational improvements in the design and analysis of logistics systems for use by the military, commercial, consumer, manufacturing, and emergency-response sectors. UVa is partnering with VCU, VSU, and Longwood University to focus on integrating solutions in these diverse areas to develop logistics systems that are dependable and cost effective. In 2012-13, UVa invested \$240,000 in HEOA funding in CCALS, with \$150,000 of that amount continuing as base budget support in 2013-14 and beyond.

UVa faculty in architecture and engineering, in partnership with industry in Southside and Southwest Virginia, received a \$2.4 million project grant from the Virginia Tobacco Commission Indemnification and Community Revitalization Commission. The project involves the design and manufacture of highly energy-efficient housing systems for disaster recovery (the “Breathe House,” designed for healthful living in off-the-grid, disaster-affected regions), and for highly energy-efficient, affordable housing (ecoMOD, designed as a passive-energy, affordable home), in South Boston and in Abingdon. The Breathe House disaster recovery prototype was successfully manufactured, shipped, and assembled in Haiti in summer of 2012, and has since

demonstrated its strength during two hurricanes. The market for this novel, low-cost housing product is estimated at \$6 billion in the U.S. alone. Japan has approached the group for a cold-weather design, which would expand the market internationally.

UVa, in partnership with the College of William & Mary and Old Dominion University, launched the Virginia Nanoelectronics Center, or ViNC, to advance research aimed at developing next-generation electronics. Research funding of \$6 million over three years conducted at the center will help produce faster, smaller, and more affordable computer applications in everything from mobile devices and computers to automobiles and energy-efficient homes.

In April 2011, UVa executed a Collaborative Research and Development Agreement (CRADA) with the Department of Defense to secure funding for research projects in the sciences, engineering, and medicine, as well as in other areas such as the arts, business, and humanities.

Dominion Virginia Power has made a two-year \$150,000 award to UVa engineering faculty to partner in developing an off-shore wind turbine system with the potential to meet future large-scale energy-generation and -storage requirements (20 megawatts) at significantly lower manufacturing and maintenance costs than the current generation of off-shore wind systems. The worldwide market for these systems is estimated at more than \$5 billion.

The University made great strides in diversifying its research portfolio over the past year by creating partnerships with multiple sponsors. Select examples include:

UVa and AstraZeneca are working together to develop innovative treatments for cardiovascular disease. Over \$8 million in funding has been committed to the University, supporting preclinical research projects that identify disease mechanisms and biological targets for commercially viable treatments.

The Virginia Innovation Partnership, led by UVa, is one of only seven multi-institution initiatives nationwide to receive federal funding as part of the U.S. Department of Commerce's 2012 "i6 Challenge." With more than \$1 million in matching funds, the program brings together universities, community colleges, corporations, investment capital, and other resources to drive promising research discoveries forward. In early September, as part of the i6 partnership, UVa participated in the Virginia Ventures Forum in Alexandria, Virginia.

As part of a strategic partnership with Nike, the University designed a participatory simulation game based on the sustainable manufacture of t-shirts. (Funding level at more than \$400,000.) Through the Commonwealth Research Commercialization Fund, UVa faculty were awarded more than \$530,000 in support for the life sciences, cybersecurity, and energy research efforts. An additional \$150,000 was awarded to faculty-led local start-up companies.

Vonage, a leading communications services provider, formed a partnership with UVa last September. The partnership challenged UVa students to invent the next generation of social messaging through the Vonage-OpenGrounds Future of Social Messaging Concept Competition. The company awarded \$28,000 in prizes to four student groups for their innovative ideas.

Vonage will also sponsor a second, \$75,000 research-related award to UVa faculty researchers to help study what makes things “go viral” in social media. This research will continue through 2013.

In partnership with the Commonwealth, we established the UVa Economic Development Accelerator (UVEDA), a public-private partnership designed to facilitate knowledge transfer and business development around University research and innovation. The new \$2 million program (\$1 million from the state in 2013-14, plus a UVa match) will enhance proof-of-concept research, promote economic development, and accelerate university innovations toward new products, services and companies. These funds will leverage external dollars. We expect a 7:1 return on investment, which will generate new research and proof-of-concept funding, business development and product development, and associated jobs.

As part of Governor Robert F. McDonnell’s Year of the Entrepreneur initiative, President Sullivan joined the governor and a group of about 60 business leaders, entrepreneurs, investors, scholars, educators, policy makers, and elected officials in the fall of 2012 for the Jefferson Innovation Summit for the Commonwealth, a summit hosted by the Batten Institute at the Darden School of Business in partnership with the Office of the Governor, to discuss how best to create and sustain a society of entrepreneurs and innovators in the Commonwealth.

#### **E9. Other efficiency reforms designed to reduce total institutional cost.**

For more than 20 years, *U.S. News & World Report* has ranked UVa among the top 25 institutions, public and private, in the country. The extent to which an institution with a low expenditure ranking can attain a high reputational ranking is a proxy for efficiency and effectiveness. During the past 15 years, UVa has performed well above its peers when comparing its expenditure ranking with its reputational ranking. In 2012, UVa’s expenditure ranking was 53rd while its reputational ranking was 18th.

We regularly examine our facilities across Grounds for cost-savings opportunities. For example, Delta Force, a Facilities Management initiative, targets the retro-commissioning of inefficient, high-energy consuming buildings. In 2012, strategies implemented in 15 buildings helped us avoid costs of approximately \$3.6 million.

Individual University units also re-examine their operations to identify areas of potential savings or processes that can be streamlined. Examples include reorganizations, consolidations, and shared services. Departments in the School of Medicine have collaborated to share administrative management, and the School of Continuing and Professional Studies has centralized certain administrative services that used to be duplicated in regional centers. The Curry School of Education is engaged in a number of efforts, resulting in the reallocation of approximately \$650,000 over the biennium to advance degree production and achieve more efficient faculty workload.

**E10. Technology-enhanced instruction, including course redesign, online instruction, and resource sharing among institutions.**

The University use technology to enhance its residential curriculum and to reach more students beyond Charlottesville. Items of note that were mentioned earlier in this report include:

Course-sharing initiative with 4-VA – The University continues its partnership with George Mason University, James Madison University, and Virginia Tech to utilize Cisco TelePresence technology in this course-sharing initiative.

Course-sharing initiative with Duke University – The University signed an MOU with Duke University to use Cisco TelePresence technology in a course-sharing initiative.

UVa has several additional initiatives that make use of technology-enhanced learning, including:

Coursera – In 2012-13, UVa offered six massive open online courses (MOOCs) with a combined enrollment of 411,000 and 25,000 participants receiving “Statements of Accomplishment.” Eleven MOOCs are scheduled to be taught this academic year by UVa faculty. The online courses range from Darden School of Business offerings on business strategy and business innovation to a Curry School of Education course on “Effective Classroom Interactions,” politics professor Larry Sabato’s John F. Kennedy-themed course, “The Kennedy Half Century,” and a course on Thomas Jefferson taught by Peter Onuf.

PRODUCED in Virginia – The PRODUCED program received \$75,000 in HEOA funding to design laboratory activities that can be completed through distance education. At present, only the B.S. in Engineering Science, which is not accredited by the Accreditation Board for Engineering and Technology, is offered through PRODUCED. The development of distance learning laboratory activities that meet ABET requirements will allow UVa to expand the engineering programs offered through PRODUCED. This effort aligns with the HEOA objective to increase technology-enhanced instruction, including course redesign and online instruction, as well as other objectives to increase enrollment of Virginia students, increase degree completion for Virginia residents, enhance community college transfer programs, and increase degree production in STEM-H disciplines.

Hybrid Technology-Enhanced Courses – During 2012-13, we awarded 10 grants for faculty to develop hybrid courses that incorporate the use of digital technology. A second round of proposals was solicited in April 2013 for courses that will be offered in 2013-14.

Distance Education Initiative with Germanna Community College (GCC) –The University signed an MOU with GCC to develop a distance education initiative for students admitted to the RN to BSN program. Students residing in the vicinity of GCC may complete the first year of coursework, via synchronous distance education, on the campus of GCC rather than travelling to Charlottesville.

### **E11. Economic opportunity initiatives.**

Many of the initiatives listed earlier in this report under objective E8 (Increased research, including regional and public-private collaboration) also represent significant economic opportunities. In addition to those various initiatives, the University has partnered with UVa's College at Wise, the Virginia Coalfield Coalition, the private sector, and the Commonwealth in the Appalachian Prosperity Project, to advance education, health, and economic prosperity in an economically challenged part of Virginia. In the past four years, these programs have drawn to the area \$9.8 million in funding for a nurse-managed health clinic, an extensive professional development program for history teachers, strategic planning sessions for place-based economic development, and an in-region engineering degree program for both traditional students and working adults.

### **E12. Innovation and continuous improvement.**

The University is currently engaged in a strategic planning effort to set priorities for the coming years. As we determine our strategic priorities, we much have innovative strategies to develop resources for investment in these priorities. This year, we have generated revenue in the following creative ways:

- *Refinanced two series of bonds* with a projected savings on a present value basis of \$13 million. \$6 million of the savings were realized upon refunding, and the remainder will be realized over the life of the new bonds, approximately 30 years.
- *Established Organizational Excellence, a comprehensive quality and improvement program* to advance exceptional performance (efficiency and effectiveness) and promote a culture of continuous improvement. Institutional and departmental efforts will result in resource optimization, streamlining, reorganizations, partnerships, and improved quality. Collectively, the initiatives are projected to yield annual cost-savings of at least 1% of operating expenses for reallocation to core mission activities and strategic priorities, or a minimum of \$44 million in productivity savings by 2016-17. The 2013-14 spending plan includes \$9.7 million for specific strategic needs based on Board consideration of the Strategic plan priorities.
- *Implemented differential tuition for SEAS.* Reflecting the resource-intensive nature of engineering education, the Board-approved tuition rate included a component where tuition for students in the School of Engineering and Applied Science (SEAS), including the PRODUCED in Virginia program, is \$2,000 per year more than the base undergraduate tuition rate, beginning with the class entering in fall 2013. This tuition differential will be phased in over four years with each new entering class until all SEAS undergraduate students pay the same rate. In 2013-2014, first-year Virginians in the SEAS will pay \$14,458 in tuition and fees. First-year non-Virginians in the SEAS will pay \$41,844. The existing undergraduate Engineering course fee of \$32 per credit hour for Virginian and non-Virginian students will be phased out over four years as the higher tuition rate phases in.
- In recognition of their shared missions of education and patient care the *Medical Center will transfer at least \$7 million to the School of Medicine* on an annual basis. This support will be used for education activities, specifically the education of students in the School of

Medicine, and will replace base operating support currently provided from the Academic Division general revenues to the School of Medicine.

- *Pouring rights.* In August, we finalized negotiations on a ten-year pouring rights contract with Pepsi. We negotiated \$1,312,500 in additional cash, including a one-time signing bonus of \$200,000, \$5,000 annually towards the University's Supplier Diversity department, and \$10,000 annually towards a University Scholarship fund supporting University dining services student interns.

We are currently researching several other ideas, including:

- *Optimizing the value of the University's cash management relationships.* Treasury recently rebid the University's and Medical Center's commercial banking contract. The effort resulted in us retaining our current provider, while realizing savings of \$4 million over the 5-year life of the new contract, with \$1 million of this to be paid within 90 days of contract signing. We expect to execute the contract on or before July 15, 2013. For FY14, Treasury plans to review the revenue potential and process improvements regarding on-Grounds ATM placement, courier service, and electronic check depositing.
- *The possibility of outsourcing additional activities that are not directly related to the University's mission.* Currently, in both the Medical Center and the Academic Division, we outsource our dining operations, mail services, and child care. In the Academic Division, we outsource arena management; in the Medical Center, we outsource environmental services.
- *Monetizing assets.* Treasury is in the process of carefully evaluating monetization opportunities of capital facilities, in particular our parking system. This strategy requires particularly careful scrutiny and structuring and is in the exploratory stages only.
- *The University's Internal Bank* serves to centralize the management of financial assets and liabilities and streamline transaction among departments. The bank's activities are grouped into two pools, an operating pool and a capital pool. The Operating Pool is designed to manage external and internal investment and cash management activities. The Capital Pool, or Capital Renewal Pool ("CRP"), is designed to manage internal and external debt management. In both the Operating and Capital Pools we hoped to amass enough reserves to extract a portion for University priorities. (In 2010, we made the first transaction of this kind from the Capital Pool, contributing \$41 million toward the cost of constructing the Rice Hall computer science building and the Arts & Sciences research building.)

**E13. Other initiatives the institution might consider to further the Commonwealth's objectives. Include here any strategies that address maintenance of effort/institutional uniqueness.**

The UVa strategic plan currently in development includes many initiatives that have the potential to advance the Commonwealth. Over-arching strategies include strengthening UVa's distinctive residential culture, which provides a unique learning environment for so many Virginia students, and providing educational experiences that deliver higher levels of student engagement; strengthening the University's capacity to advance knowledge and serve the public in the Commonwealth and beyond through research, scholarship, creative arts and innovation; and stewarding the University's resources to promote academic excellence and affordable access, both of which will benefit Virginia students.

## **Other UVa Initiatives that Advance the Commonwealth**

The Curry School of Education engages in a number of outreach efforts in the local community and beyond to improve K-12 education and education generally. Target audiences are preschoolers through adults. The projects described below reflect the range of services provided in partnership with a variety of organizations.

**The Commonwealth Engineering Design Academies** is a partnership between the Curry School, the School of Engineering and Applied Sciences, Charlottesville City Schools, and Albemarle County Public Schools to plan and establish lab schools in both school divisions. A primary goal is to teach engineering and design principles to middle and high school students to improve their math and science skills and prepare them for programs and careers in engineering, design, or manufacturing.

**Mathematics, Men, Mission (M3)** is a program designed to enhance the math skills of adolescents, as access to advanced mathematics courses in middle school often determines both the curriculum trajectory in high school and the selection of college majors in fields of science, mathematics and engineering. During a two-week summer camp, fifth-, sixth-, and seventh-grade boys receive instruction in advanced mathematics. During the academic year, mentors provide tutoring from 100 Black Men of Central Virginia. Project partners include Albemarle County Schools and State Farm.

**Phonological Awareness Literacy Screening (PALS)** is a key component of Virginia's Early Intervention Reading Initiative (EIR). The assessment tool is used to assess the emerging reading abilities of preK-3 students. Approximately a quarter million preK-3 students are screened for literacy development annually. Assessments provide teachers with specific information that enable them to provide targeted instruction that might prevent later reading difficulties. Partners include the Curry School (Reading), the Virginia Department of Education (VDOE), and superintendents of Central Virginia's 132 school divisions.

**Safe Schools / Healthy Students** is a federal Safe Schools/Healthy Students Initiative. Project members partner with school divisions to examine school climate, particularly disciplinary structures and student support systems. Among project outcomes are expanded bullying prevention programs, additional mental health services for students, and the use of student feedback to create positive learning environments in schools. Partners include the Curry School, Albemarle County Schools, and Charlottesville City Schools

**My History Partner (MHP)** provides ongoing feedback to middle- and high-school history teachers in 16 districts in Southwest Virginia. UVa faculty members teach professional development courses in the summer, fall, and spring at the Virginia Higher Education Center. The SW Virginia Consortium identified the need for high-quality professional development in order to improve students' critical thinking skills and history SOL scores. Partners include the Curry School, CASTL, Center for Liberal Arts, and the Corcoran Department of History.

**Teaching Associateships** are a semester-long (16 weeks) full-time student teaching experience supervised by university faculty. Teaching associates work closely with clinical instructors to help students meet local and state objectives. Collaboration results in greater differentiation of

instruction and the infusion of technology to support student learning. Partners include the Curry School (Placement Director), Albemarle County Schools, Charlottesville City Schools, Louisa County Schools, Fluvanna County Schools, Nelson County Schools, and Greene County Schools. Other partners include KIPP Schools and DC Charter schools and Yes Prep School in Houston, TX.

### **Personal Efforts of President Sullivan**

- Chairs 4-VA, a partnership with George Mason University, James Madison University, and Virginia Tech to use Cisco TelePresence technology in course-sharing initiatives.
- Serves as a member of the Higher Education Advisory Committee that provides guidance for implementation of the Virginia Higher Education Opportunity Act of 2011.
- Serves as a member of the Virginia Business Higher Education Council, a nonprofit, nonpartisan partnership between Virginia's business community and higher education leaders.
- Serves as a member of the Business Higher Education Forum, an organization of Fortune 500 CEOs and university presidents dedicated to advancing innovative education and workforce solutions and improving U.S. competitiveness.
- Appointed by the Governor to serve on the Virginia Innovation and Entrepreneurship Investment Authority.
- Serves as an Advisory Board member of the Northern Virginia Technology Council.
- Serves as a member of the Competitiveness Council in Washington, DC.
- Assists personally in recruiting new STEM faculty.