A. Institutional Mission

The University of Virginia’s mission is reflected in its *Statement of Purpose and Goals*. As part of its ongoing strategic planning process, the University anticipates revising its mission statement. The University anticipates submitting revisions to SCHEV during fall 2013 for review and approval.

*Purpose*

The central purpose of the University of Virginia is to enrich the mind by stimulating and sustaining a spirit of free inquiry directed to understanding the nature of the universe and the role of mankind in it. Activities designed to quicken, discipline, and enlarge the intellectual and creative capacities, as well as the aesthetic and ethical awareness, of the members of the University and to record, preserve, and disseminate the results of intellectual discovery and creative endeavor serve this purpose. In fulfilling it, the University places the highest priority on achieving eminence as a center of higher learning.

*Goals*

The University of Virginia seeks to achieve its central purpose through the pursuit of the following specific goals:

- To offer instruction of the highest quality to undergraduates from all walks of life, not only by transmitting established knowledge and skills, but by fostering in students the habits of mind and character required to develop a generous receptivity to new ideas, from whatever source; a disposition for applying the most rigorous criticism to all ideas and institutions, whether old or new; an ability to test hypotheses and re-interpret human experience; and a desire to engage in a lifetime of learning.
- To sustain liberal education as the central intellectual concern of the University, not only in the curricula of the College of Arts and Sciences, but also as a foundation for the professional undergraduate programs.
- To educate men and women for the professions in certain undergraduate and in graduate programs leading to degrees in the School of Architecture, Business Administration, Commerce, Education, Engineering and Applied Science, Law, Medicine, and Nursing.
- To lead in the advancement and application of knowledge through graduate study and research and to disseminate the results among scholars and the general public.
- To attract and retain eminent faculty in order to provide the highest quality of instruction and leadership in research.
- To seek the ablest and most promising students, within the Commonwealth and without; and, in keeping with the intentions of Thomas Jefferson, to attend to their total development and well-being; and to provide appropriate intellectual, athletic, and social programs.
- To strive for diversity in the student body and in the faculty and to promote international exchange of scholars and students.
- To provide for students and faculty an atmosphere conducive to fellowship and understanding and to their constructive participation in the affairs of the University and the community at large.
• To expand educational opportunities for persons with special challenges such as minority status, physical disability, ethnic heritage, or insufficient financial resources.

• To engage in research in the medical sciences and to provide innovative leadership in health care and medical services in the local community, the Commonwealth, and the nation.

• To offer to the local community, the Commonwealth of Virginia, and the nation the various kinds of public service and intellectual and cultural activities which are consonant with the purposes of the University.

• To provide continuing education programs of the highest quality to the Commonwealth and the nation.

• To cooperate with and assist other colleges, educational institutions, and agencies, especially in the Commonwealth of Virginia, by making available to them the facilities of the University and the experience and counsel of its members so as to contribute to education in the Commonwealth and beyond.

• To establish new programs, schools, and degrees, and to undertake such research as the needs of the Commonwealth of Virginia and the nation may require.
B. Strategies

The University of Virginia is in the midst of a strategic planning process, with a final strategic plan scheduled to be considered by the Board of Visitors, at the same time as the Six-Year Plan, in September-November 2013. As of July-September 1, 2013, the draft strategic plan includes six/five pillars for the University. The six/five pillars and a description of each are included below, followed by descriptions of Six-Year Plan strategies.

While many Six-Year Plan strategies will not be included in the final strategic plan – which, by nature, will encompass a broader view of the University – the strategies include representative initiatives of the University that further the goals of the Higher Education Opportunity Act (HEOA) and the pillars of the draft strategic plan.

DRAFT STRATEGIC PLAN

**Pillar #1 – Enrich, Extend and Strengthen the University’s Distinctive Residential Culture**

Among other initiatives, this plan will target for investment programs that reinforce its cohesive yet increasingly diverse academic community, encourage frequent faculty-student interactions, promote student self-governance, and emphasize leadership, student research, experiential learning, and public service. It also will concentrate on areas such as advising that fall short of student expectations and support a virtual residential experience that includes non-traditional adult students and alumni.

**Pillar #2 – Strengthen the University’s Capacity to Advance Knowledge and Serve the Public through Research, Scholarship, Creative Arts, and Innovation**

The University will identify areas where its strengths intersect with new disciplines and technologies. This is essential in an age where solving the great challenges requires multiple perspectives. An important priority will be to leverage current talent and new faculty hiring opportunities to focus research strategically and build interdisciplinary scholarship and research that will contribute to the important issues facing the Commonwealth, the nation, and the world. The University will create high-potential cross-Grounds initiatives in areas of critical intellectual significance, particularly where they overlap with the needs of the Commonwealth; engage corporate, government, and academic partners in these efforts; and develop a new process for periodic sunset review of all centers, institutes, and other units.

**Pillar #23 – Provide Educational Experiences that Deliver New Levels of Student Engagement**

The University will enhance a broad range of high-impact educational experiences that encourage students to internalize knowledge and make it their own. This may include conducting meaningful research with faculty members, service learning, entrepreneurial experiences, internships, and learning to see the world through a global lens.

**Pillar #34 — Assemble and Support a Distinguishing Faculty**

A high-quality faculty characterizes dynamic institutions and is essential to the missions of teaching, research, patient care, and public service. It is the starting point for a virtuous cycle, fueled by
innovation, that leads to better undergraduate and graduate students, increased research funding, and more engaged and committed alumni. Accordingly, the generational turnover in faculty, while providing a remarkable opportunity to remake the University, must be managed with utmost care. The strategic plan will provide a framework for assembling a distinctive faculty best suited to fulfill the University’s aspirations as a collegiate research university and equipped to use its scale for advantage. This is a faculty that welcomes collaboration and that combines a commitment to innovation in education with intellectual leadership.

**Pillar #4 – Strengthen the University’s Capacity to Advance Knowledge and Serve the Public Through Creativity, Scholarship, and Research**

The University will identify areas where its strengths intersect with new disciplines and technologies. This is essential in an age where solving the great challenges requires multiple perspectives. An important priority will be to leverage current talent and new faculty hiring opportunities to focus research strategically and build interdisciplinary scholarship and research that will contribute to the important issues facing the Commonwealth, the nation, and the world. The University will create high-potential cross-Grounds initiatives in areas of critical intellectual significance, particularly where they overlap with the needs of the Commonwealth; engage corporate, government, and academic partners in these efforts; and develop a new process for periodic sunset review of all centers, institutes, and other units.

**Pillar #5 – Make Ethical Leadership and Leadership Preparation a Common Purpose Uniting the University Community**

The University will elevate its efforts to promote leadership development among students, faculty, and staff. The ability of faculty and staff to create innovative research and educational programs and to guide the University through a difficult period for higher education will be essential not only for its continued preeminence, but also for its ongoing ability to serve the Commonwealth. The University also will share its growing proficiency in leadership preparation.

**Pillar #6 – Steward the University’s Resources to Promote Academic Excellence and Affordable Access**

Academic excellence is possible only if it rests on a solid foundation of continuous improvement and organizational excellence. Organizational excellence in the context of academic excellence, however, is far more than cost-cutting. It entails the most efficient allocation and investment of resources so that the University can continue to offer a distinctive educational experience – residential in nature and global in outlook, uniting the best students and faculty, harnessing emerging technologies, and ensuring accessibility and affordability for all qualified students. To achieve these ends, this strategic plan will call for the University to adopt a multi-year organizational excellence initiative. The focus of this initiative will be to achieve any and all benefits of streamlining, including quality, speed, feedback, accountability, savings, and innovation.

**SIX-YEAR PLAN STRATEGIES**

**Priority 1 – Enrollment Growth**
To increase enrollment of Virginia students, implement BOV-approved plan for enrollment growth with approximately 33 to 40 percent of growth targeted in STEM-H disciplines. Undergraduate enrollment growth targets are 256 in 2014-15 and 280 in 2015-16. The University’s current undergraduate enrollment growth plan extends to 2018-19. For 2014-16, graduate and professional enrollment growth target is 169 students.

Note: The University’s enrollment growth plan is contingent upon receiving the appropriate state share of funding per Virginia student.

TJ21 OBJECTIVES: E1, E6
PILLARS: 1

**Priority 2 – Faculty: Compensation**

To increase quality and enhance recruitment and retention, implement BOV’s four-year plan to address the competitiveness of faculty salaries. The University, along with other institutions of higher learning, faces a dramatic generational turnover in faculty during the coming decade. To approach the generational turnover from a position of strength, the University will improve the average faculty salary at each rank to the 20th position of its Association of American Universities (AAU) peers. Assuming that these peers will raise their average faculty salary by three percent each year, the University projects that it can attain the 20th rank with annual merit-based increases for continuing faculty of 4.75 percent.

Across the University, if the current mix of faculty (assistant vs. associate vs. full professors) remained unchanged, these increases would require new annual resources of $32,150,000 by the second year of the plan. However, the University plans that the generational turnover of faculty will result in a more even distribution of assistant vs. associate vs. full professors, whereas now more than half are full professors. Reprogramming savings from retiring full professors into enhancing the average salaries of associate and assistant professors will result in a reallocation of existing funds of $6,932,000 by the second year. The remaining new cost will be $25,218,000, of which $10,622,000 will be funded from incremental tuition (undergraduate, graduate, and professional) increases and the remaining $14,596,000 will be funded from other sources of faculty salaries such as grants and contracts and private resources.

TJ21 OBJECTIVES: D
PILLARS: 34

**Priority 3 – Staff: Compensation**

To increase quality and enhance recruitment and retention, improve compensation for University and classified staff. The long-term plan is to move to competitive ranges for all University staff. Total incremental costs assumes no state-authorized salary increase for classified staff since instructions direct institutions to assume no incremental general funds. A three percent BOV-authorized merit increase for University staff and administrative/professional faculty is included in the budget for the two-year period.

TJ21 OBJECTIVES: D
PILLARS: 65
Priority 4 – Faculty: Start-Up Packages
To increase degree production in STEM-H disciplines, implement plan to provide sufficient start-up packages and space to accommodate new STEM-H faculty associated with enrollment growth and retirement turnover.

At a research university like U.Va., the costs associated with the recruitment of STEM-H faculty go beyond salary and fringe benefits. Such faculty require start-up packages which support the renovation of laboratories, purchase of equipment, hiring of research staff, and training of graduate students, among others, while the research program is being established. It is the expectation that, within a few years, extramural funding will provide support for ongoing costs. Start-up packages do not include base salary support or signing bonuses for faculty.

TJ21 OBJECTIVES: D, E1, E6, E8
PILLARS: 34

Priority 5 – Affordable Access: Undergraduate Student Financial Aid (AccessUVa)
The BOV 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. This program has brought the University significant notoriety recognition as the premier need-based aid program for a public institution in the United States.

The University engaged an external consultant in 2012 to review the current AccessUVa program and suggest changes that would moderate future cost increases. The results of the report are being discussed with the BOV; modifications will be approved by September 2013 in order to adequately inform prospective students. For 2012-13, In the meantime, the University has made several administrative changes (e.g. require a work component, require a student contribution, etc) and set a March 1 deadline to apply for financial aid), the result of which has been to hold in check the increase in the total cost of the program. In August 2013, after considering several options, t

The BOV re-authorized AccessUVa in August 2013. For entering students in fall 2014, AccessUVa will include the following 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 low-income in-state students at $14,000 and for low-income out-of-state students at $28,000 all undergraduate students; and
- Include financial literacy education and debt management strategies.

Section C includes additional information on the structure of AccessUVa and how aid is distributed to families of different income levels.

The University engaged an external consultant in 2012 to review the current AccessUVa program and suggest changes that would moderate future cost increases. The results of the report are being
discussed with the BOV; modifications will be approved by September 2013 in order to adequately inform prospective students. In the meantime, the University has made a number of administrative changes (e.g. require a work component, require a student contribution, etc.), the result of which has been to hold in check the increase in the total cost of the program.

Note: Incremental costs for in-state students are included in the “Additional In-State Student Financial Aid From Tuition Revenue - UGrad and Grad” line item in the “Academic and Financial Plan.” Incremental costs for out-of-state students are included in the “Additional Out-of-State Student Financial Aid From Tuition Revenue - UGrad and Grad” line item in the “Academic and Financial Plan.”

TJ21 OBJECTIVES: A, E5
PILLARS: 65

Priority 6 – Student Success: Total Advising
To improve retention and graduation rates, the University will pioneer “total advising,” a multidimensional process that combines high-quality academic advising, career advising, and coaching, includes an online portfolio, and capitalizes on relationships with U.Va. alumni.

Supporting initiatives include, but are not limited to:

- Continued growth of the College Advising Fellows and College Advising Seminars (COLAs), concurrent with enrollment growth.
- Expansion of the Center for Undergraduate Excellence to enhance student access to and awareness of academically-related curricular and co-curricular interests.
- Reconsideration of the University’s approach to career advising and career development.
- Enhanced academic advising to facilitate growth of the 3+1 program, in which undergraduates with advanced standing will earn a bachelor’s degree and master’s degree in four years. In addition, continue to evaluate existing graduate degree programs for conversion to accelerated programs.

Note: There are likely to be incremental costs or reallocations associated with these initiatives. However, as part of the ongoing strategic planning process, details are still being formulated.

TJ21 OBJECTIVES: D, E3, E5, E6, E8, E10, E12
PILLARS: 1, 23

Priority 7 – Research & Economic Development: Pan-University Research Priorities
To increase research, including regional and public-private collaboration, continue development of and support for pan-University research priorities: (1) systems bioscience and bioengineering, (2) computational systems science and modeling (i.e. “Big Data”), (3) sustainability, (4) systems energy, and (5) the OpenGrounds multidisciplinary innovation collaborative. Pursue additional pan-University or school-specific research priorities, not included above, when faculty expertise converges with opportunities presented by private enterprise, local and state government, the federal government, and/or other strategic initiatives.

Supporting initiatives include, but are not limited to:
• Increasing research support from large corporations, small businesses, NGOs, foundations, venture capitalists, state government, local government, and non-traditional federal agencies.
  - Continuing and expanding partnership with Rolls-Royce, and other related companies, through Commonwealth Center for Advanced Manufacturing (CCAM).
  - Continuing and expanding partnership with the Defense Intelligence Agency (DIA).
  - Continuing and expanding partnership with the Commonwealth Center for Advanced Logistics Systems (CCALS).
  - Expanding the statewide i6 proof-of-concept innovation program with funds to match U.S. Department of Commerce support.
• Capitalizing on existing expertise within the Center for the Advanced Study of Teaching and Learning-Higher Education (CASTL-HE), Institutional Assessment and Studies (IAS), and the Teaching Resource Center (TRC) to position the University as a leader in evidence-based study of teaching and learning in higher education. The University will apply best practices to produce measurable gains in student learning.
• Increasing library support for collaborative research, particularly with respect to “Big Data.”

TJ21 OBJECTIVES: E8, E10, E11, E13
PILLARS: 2, 3, 4, 5

Priority 8 – Research & Economic Development: Medical Translational Research
To increase research, expand medical translational research, including cancer clinical trials and focused ultrasound surgery, so that laboratory discoveries are converted into new methods to diagnose and treat illness and augment cancer outreach and prevention activities.

TJ21 OBJECTIVES: E8
PILLARS: 2, 4, 5

Priority 9 – Research & Economic Development: Innovation Ecosystem
To increase research and promote economic development, enhance the innovation ecosystem. Supporting initiatives include, but are not limited to:

• Continuing implementation of the U.Va. Economic Development Accelerator (UVEDA), a public-private partnership designed to facilitate knowledge transfer and business development around University research and innovation, including a proof-of-concept fund.
• Continuing implementation of a new relationship between U.Va. and the Licensing and Ventures Group to increase deal flow.
• Increasing the number of successful start-up companies generated from U.Va. research.

TJ21 OBJECTIVES: E8, E12
PILLARS: 2, 4, 5, 6

Priority 10 – Quality Enhancement: Self-Supporting Programs
To maintain and enhance programmatic quality, incremental revenue generated by self-supporting programs (business, graduate commerce, and law) will be used to fund increases in financial aid, utilities and facility maintenance, electronic library resources, and academic programs.

TJ21 OBJECTIVES: E13
PILLARS: 1, 2-3, 4, 5

Priority 11 – Student Success: Student-Faculty Engagement
As part of the University’s strategic plan, continue support for select initiatives of the University’s Quality Enhancement Plan (QEP), submitted to the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) in 2007. “Enhancing Student-Faculty Engagement” was the topic of the QEP. The University submitted a QEP Impact Report to SACSCOC in March 2013, documenting progress-to-date.

Supporting initiatives include, but are not limited to:

- Improving the student-to-faculty ratio in the College of Arts and Sciences, the School of Engineering and Applied Science, and the School of Architecture.
- Increasing the range of high-impact educational experiences for undergraduates, during the academic year and summer session, that includes meaningful research with faculty, service learning, entrepreneurial experiences, and internships.

Note: There are likely to be incremental costs or reallocations associated with these initiatives. However, as part of the ongoing strategic planning process, details are still being formulated.

TJ21 OBJECTIVES: D
PILLARS: 1, 2-3, 5

Priority 12 – Student Success: Technology-Enhanced Instruction
To increase access, continue growth and development of academic programs and coursework using technology-enhanced instruction. At present, the University offers 17 certificate programs and 13 degree programs that meet the distance education definition of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). In 27 of these 30 programs, students may earn more than 50 percent of the program through distance education. In addition, the University is heavily focused on enhancing the use of technology in its residential curriculum.

Supporting initiatives include, but are not limited to:

- Continued graduate program offerings through the Commonwealth Graduate Engineering Program (CGEP).
- Continued undergraduate program offerings through the Engineers PRODUCED in Virginia program. Implement the University’s first ABET-accredited online degree program – the B.S. in Mechanical Engineering.
- Continued partnership with George Mason University, James Madison University, and Virginia Tech through the 4-VA course-sharing initiative using Cisco TelePresence technology.
Continued partnership, initiated in fall 2013, with Duke University through a course-sharing initiative using Cisco TelePresence technology.

Continued institutional support for development of hybrid technology-enhanced courses and the conversion of courses in select degree and certificate programs – such as the Bachelor of Interdisciplinary Studies – to an online format.

Continued development of online methodologies, in the School of Nursing and the School of Medicine, for virtual clinical learning activities.

Continued partnership with Coursera to offer massive open online courses (MOOCs), including expansion into professional development coursework for educators and courses targeted towards University alumni. Two such courses scheduled for fall 2013 include a course on the administration of John F. Kennedy (to be taught by Larry Sabato) and a course on the life of Thomas Jefferson (to be taught by Peter Onuf).

Investing in production facilities and classrooms required to place the University at the forefront of efforts that enrich traditional in-class activities with Web-based or digital technologies.

Assessing the feasibility of a course-sharing initiative, in graduate engineering, with Oak Ridge National Laboratory (ORNL) core universities – Duke University, Florida State University, Georgia Institute of Technology, North Carolina State University, University of Tennessee, Vanderbilt University, and Virginia Tech.

Note: There are likely to be incremental costs or reallocations associated with these initiatives. However, as part of the ongoing strategic planning process, details are still being formulated.

TJ21 OBJECTIVES: C, E1, E6, E10
PILLARS: 1, 2, 63, 5

Priority 13 – Institutional Collaboration: The Virginia Community College System (VCCS)

To increase degree completion for Virginians with partial credit:

- Expand the Bachelor of Interdisciplinary Studies (BIS) program to Thomas Nelson Community College, effective fall 2014 (current sites include Charlottesville, Tidewater Community College, Northern Virginia Community College, and the Richmond Center).
- Negotiate a guaranteed admission agreement (GAA) with the VCCS for the Bachelor of Interdisciplinary Studies (BIS) program, effective fall 2015.
- Implement the Bachelor of Professional Studies in Health Sciences, an online degree program developed in cooperation with the VCCS, effective fall 2014 (pending SCHEV approval).
- Negotiate a guaranteed admission agreement (GAA) with the VCCS for the Bachelor of Professional Studies in Health Sciences program, effective fall 2015.
- Implement the guaranteed admission agreement (GAA) with the VCCS for the RN to BSN program.
- Implement the RN to BSN distance learning initiative with Germanna Community College (GCC).

TJ21 OBJECTIVES: E1, E2, E3, E4, E6, E7, E10, E13
PILLARS: 1, 2, 63, 5
Priority 14 – Efficiency and Continuous Improvement
Building upon the success of the institution’s formal improvement program established in 1994, the University will launch a more comprehensive effort, Organizational Excellence, to enhance effectiveness and efficiency in academic and administrative areas. Institutional and departmental unit efforts will result in resource optimization, streamlining, reorganizations and partnerships, and improved quality. The goal is to redirect at least one percent of the operating budget annually.

Supplemental information, appended to the end of this section, provides specific examples of the University’s most significant approaches and accounts for a projected savings/reallocation/cost avoidance of $17.6 million over the biennium.

TJ21 OBJECTIVES: B, E9, E12
PILLARS: 6

Priority 15 – Research & Economic Development: Southwest Virginia Economic Development Partnership (Appalachian Prosperity Project)
Continue and enhance the University’s Southwest Virginia Economic Development Partnership, the Appalachian Prosperity Project, with a continued focus on (1) K-12 education support, (2) business support/entrepreneurship, and (3) access to healthcare.

TJ21 OBJECTIVES: E13
PILLARS: 4, 5

Priority 16 – Student Success: Serving Virginia’s Veterans and Military through Collaboration
The University of Virginia, James Madison University, Old Dominion University, and Virginia Tech propose to create and pilot a “veteran and military friendly” consortium for earning certificates in high demand, professional fields and/or completing a bachelor’s degree through cross-institutional collaboration. This consortium will be developed in partnership with the Governor’s office, the State Council of Higher Education for Virginia (SCHEV), the American Council on Education (ACE), employers, and other strategic partners.

The four universities propose a pilot consortium that would include the following key elements:

- Develop an accelerated path to earning high-demand, professional certificates and/or bachelor’s degrees;
- Develop a standardized and transparent policy that translates the prior learning experience of veterans and adults into college credits;
- Develop and/or enhance online and face-to-face courses from each institution that satisfy certificate and degree requirements; and
- Ensure degrees and certificates do not compete with the Virginia Community College System (VCCS).

TJ21 OBJECTIVES: E1, E2, E3, E6, E7, E10, E13
PILLARS: 1, 3, 5
Priority 14: Efficiency and Continuous Improvement

Specific Examples

TJ21 Objectives:
- E9: Other efficiency reforms to reduce total institutional cost.
- E12: Innovation and continuous improvement.

As one of the nation’s premier public universities, the University of Virginia seeks to be a leader in the development of innovative strategies and continuous improvement through the effective stewardship of its public and private resources. Ongoing cost-containment efforts, enhanced efficiencies, and process improvement are foundational. Both the academic departments and administrative offices benchmark best practices in higher education and other industries and regularly monitor performance to ensure continued improvement. Accordingly, the University’s most significant approaches to efficiency and improvement are described below and the associated cost avoidance and savings projections.

These strategies and approaches are differentiated into one of six categories: Consolidation, Realignment, or Redesign of Units; Cost Cutting Initiatives; New Models of Service; Partnerships and Collaborations; Revenue Generation; Energy Conservation and Sustainability.

The estimated savings and reallocation total for the 2014-16 biennium is $17,637,689, or approximately $8,818,845 on an annual basis.

Consolidation/Realignment/Redesign of Units

**Biennial Estimated Savings and Reallocated Dollars: $1,251,955**

Many of our academic programs and administrative offices have developed strategies to consolidate or realign units to promote greater efficiencies and cost effectiveness. Examples include:

- Academic departments seek to optimize the effectiveness and efficiency of administrative functions through the use of employed faculty and less-costly administrators. For example, the Curry School has decided to redistribute operational functions to staff members and focus faculty efforts on quality teaching and research (estimated to save $420,000 over the biennium).
  The Law School is reducing its administrative support in order to reallocate funds to student financial aid, resulting in an estimated $50,000 in annual aid.

- Several efforts to redesign the function of the Student Affairs units will result in substantial savings for the University. New funding models for two Associate Deans and administrative staff will enable better services to the increased student population and University Admissions while reducing the overall cost to Student Affairs. The merger of the fiscal and program coordinator positions will provide cost reductions and resource optimization in light of rising costs regarding summer orientation. Finally, Student Affairs will consolidate housekeeping and maintenance operations, providing a 5% guaranteed annual savings. In total, these strategies are estimated to provide an estimated $504,000 over the biennium.

- Several strategies to retrain existing employees to perform additional duties normally performed by a separate unit or contractor will result in additional savings. Examples include the repurposing of a debt accountant position in the Comptroller’s Office to increase the analysis of business intelligence, developing efficiencies and increasing capabilities of the office. WTJU, the University’s noncommercial educational radio station, will train existing staff members to
perform work installing, repairing, and maintaining equipment: practices normally contracted out. In total, strategies to retrain employees to perform additional duties are estimated to provide $206,000 in savings over the biennium.

- The Intramural and Recreational Sports unit has committed to reduce the number of employees hired and reduce operating hours to reduce total unit cost, resulting in $21,000 in savings annually. In addition, IM-Rec Sports will hold open any full-time staff vacancies that arise in the foreseeable future, resulting in additional savings over-and-beyond that already estimated.

**New Models of Service**

*Biennial Estimated Savings and Reallocated Dollars: $519,000*

In addition to the redesign of units, processes and models of service are being revamped to encourage greater savings and increased efficiencies. While decreased costs are realized, the University is careful to ensure that these new models of service are not only necessary but efficacious. Examples include:

- The Law School is expanding their collection of digital library materials (and access to these materials) while reducing expenditures on the Law Library’s print materials. Reallocation of funds from the print collection to digital content, in light of the lower cost of digital content and reduced maintenance costs of the print collection, will have a substantial effect on student access to information. The reduction of funding for print materials is estimated to be $125,000 annually.

- The Architecture School will establish an in-house printing press, eliminating the need to contract printed materials outside of the school while at the same time expanding the quality and variety of printed promotional materials. The school projects savings totaling $37,000 annually.

- The office of the Comptroller will continue to direct resources from a reduced emphasis on the Agency Risk Management and Internal Controls Standards (ARMICS) to more emphasis on Recon@UVA, a system that provides an electronic solution for the documentation of reconciliations for all organizational units at the University of Virginia. Recon@UVA provides at the same time more accurate information and an easier reporting service than that of ARMICS. The reallocation of these efforts to improve efficiency and effectiveness is estimated to be $180,000 over the biennium.

- Student Affairs will consolidate the Summer Orientation program from 8 to 5 weeks, resulting in significant savings regarding staffing and O&M costs.

- The Virginia Quarterly Review magazine will begin a campaign to increase the percentage of digital subscribers as a percentage of total magazine subscribers from 2% to 15% by 2015, resulting in lowered printing and mailing costs totaling savings of $15,000 over the biennium.

**Cost Cutting Initiatives**

*Biennial Estimated Savings and Reallocated Dollars: $12,395,700*

Important to the ongoing improvement of the University is the reduction of incurred cost on behalf of the student. The University thus seeks ways to cut costs when possible to reduce overhead while providing optimal benefits to its constituencies.

- Implementation of objectives that align with the Affordable Care Act and other health plan changes will realize savings of $4,003,700 over the biennium. Strategies to realize these goals
include improved wellness screenings for employees and spouses, implementation of consumer
driven health plans with health savings accounts, disease management programs, and eligibility
modifications for varying levels of healthcare.

- The office of Risk Management will continue to self-insure the first $100,000 of each property
  and equipment breakdown loss, and self-insure the first $20,000 of vehicle losses. This is
  estimated to save the University $280,000 each biennium.
- Our Space and Real-Estate Management office estimates savings totaling $112,000 over the
  biennium through the negotiation for lower total real estate lease costs at lease
  commencement and at each renewal or extension opportunity.
- The Procurement office estimates 5% savings of total contract spend, nearly $8,000,000 over
  the biennium, to be achieved through negotiations over the time period. Several large
  expenditure contracts to be negotiated include the dining services contracts, office supplies,
  contract facilities repair and maintenance items, and several scientific contracts. The office of
  Procurement will continue to realize savings from projects either recently negotiated or
  currently under contract renegotiation: several projects include the procurement of new fiber
  optic cable with longer shelf-life ($194,055 savings per biennium), consolidation of retirement
  vendors from three to two, reducing faculty and staff costs by $600,000 per year, and the
  renegotiation of the beverage contract which includes a yearly signing bonus of $100,000.

Partnerships/Collaborations

*Biennial Estimated Savings and Reallocated Dollars: $230,000*

The University of Virginia seeks to create partnerships with local business and corporations in order to
invest in the community while leveraging collaborative efforts. In doing so, the University is able to not
only invest in the community, but also attain real savings.

- Examples include the development of an auxiliary sales-and-services unit to market Curry
  innovations and a contract with local businesses for enhanced surplus property functions.

Revenue Generation

*Biennial Estimated Savings and Reallocated Dollars: $245,000*

Multiple avenues exist for the University to leverage their assets and products to generate revenue. Examples include:

- The Virginia Quarterly Review will create a multi-day writing workshop / conference taught by
  nationally distinguished authors and journalists, realizing $20,000 in revenue over the biennium.
- The Procurement Office seeks to increase their analysis of spending, payment, and cash flow
  strategies. Other strategies include the use of the University Purchasing Card to drive rebates,
  applying the Fee for Service Model to increase revenue from catalog suppliers, and expanding
  the vendor rebate/discount and Publicly Accessible Contract programs. Revenue estimates for
  the biennium total $200,000.

Energy Conservation and Sustainability

*Biennial Estimated Savings and Reallocated Dollars: $2,996,000*
The University seeks to provide leadership toward achievement of the University’s sustainability resolution endorsed by the Board of Visitors in June 2011.

- This includes developing and implementing additional initiatives to contain costs and promote environmental stewardship, such as retro-commissioning of systems in high-energy intensity buildings, and the embedding of green practices through LEED certification, housekeeping initiatives, and landscaping practices. Estimated savings are approximately $3,000,000 over the biennium.
C. Financial Aid

The University of Virginia’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 all of the University’s undergraduate students. This program has brought the University significant recognition as the premier need-based aid program for a public institution in the United States.

The University engaged an external consultant in 2012 to review the current AccessUVa program and suggest changes that would moderate future cost increases. For 2012-13, the University has made several administrative changes (e.g. require a work component, require a student contribution, and set a March 1 deadline to apply for financial aid), the result of which has been to hold in check the increase in the total cost of the program. In August 2013, after considering several options, the BOV re-authorized AccessUVa in August 2013. For entering students in fall 2014, AccessUVa will include the following components:

- Offer 100 percent of financial need to all undergraduates;
- Cap need-based loans for low-income in-state students at $3,500 annually or $14,000 over four years and for low-income out-of-state students at $7,000 annually or $28,000 over four years.
The need-based loan cap for all other students with need will be $7,000 annually or $28,000 over four years; and
- Include financial literacy education and debt management strategies.

There are four main components to the program:

- Offer 100 percent of financial need to all undergraduates;
- Provide all-grant aid; 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;

The following table highlights examples of how aid will be awarded to students beginning in Fall 2014 through the AccessUVa program to students from families of different income levels (low = less than 200 percent of federal poverty guidelines; middle = 200 to 400 percent of federal poverty guidelines; and high = greater than 400 percent of poverty guidelines):
The following table chart shows the various sources of funding that comprise the AccessUVa budget, which reached approximately $95 million in 2012-13. Institutional grants comprise about $40.2 million of the budget and are taken from unrestricted institutional funds. The remainder of the funding comes from state, federal, and private funds as well as athletics grants-in-aid.

<table>
<thead>
<tr>
<th>AccessUVa</th>
<th>Low Income</th>
<th>Middle Income</th>
<th>High Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>AY2013 - 2014</td>
<td>Family Income &lt; $47K</td>
<td>Family Income $47K - $94K</td>
<td>Family Income &gt; $94K</td>
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<tr>
<td>(200% of Poverty or Less)</td>
<td>(200% - 400% of Poverty)</td>
<td>(Greater than 400% of Poverty)</td>
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</tr>
<tr>
<td>(Example Income $50K)</td>
<td>(Example Income $70K)</td>
<td>(Example is $100K)</td>
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</tr>
<tr>
<td><strong>Instate</strong></td>
<td><strong>Current</strong></td>
<td><strong>Current</strong></td>
<td><strong>Current</strong></td>
</tr>
<tr>
<td>Total Cost of Attendance</td>
<td>26,300</td>
<td>26,300</td>
<td>26,300</td>
</tr>
<tr>
<td>Less Expected Family Contribution</td>
<td>1,600</td>
<td>13,600</td>
<td>19,000</td>
</tr>
<tr>
<td>Total Need</td>
<td>24,700</td>
<td>12,700</td>
<td>7,300</td>
</tr>
<tr>
<td><strong>How Need is Met</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Subsidized Loans</td>
<td>3,500</td>
<td>7,000</td>
<td>7,000</td>
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<tr>
<td>Work Expectation</td>
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<td>2,850</td>
<td>0</td>
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<tr>
<td>Grants from State, Federal and Private Sources</td>
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<tr>
<td>Grants from Tuition</td>
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<td>Unmet Need</td>
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<td><strong>Current</strong></td>
<td><strong>Current</strong></td>
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<td>Total Cost of Attendance</td>
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<tr>
<td>Less Expected Family Contribution</td>
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<td>19,000</td>
</tr>
<tr>
<td>Total Need</td>
<td>52,900</td>
<td>40,900</td>
<td>35,500</td>
</tr>
<tr>
<td><strong>How Need is Met</strong></td>
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<tr>
<td>Subsidized Loans</td>
<td>7,000</td>
<td>7,000</td>
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<td>Work Expectation</td>
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<td>Unmet Need</td>
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<td>0</td>
</tr>
</tbody>
</table>

Assumptions: Family of four, no assets, one in college

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D. Evaluation of Previous Six-Year Plan (2012-13)

The University of Virginia received $800,000 in general funds in 2012-13 to address the objectives of the Higher Education Opportunity Act of 2011. In addition to progress on strategies, the narrative below describes how those funds have been used and are noted as “HEOA funding.”

Priority 1 – Enrollment Growth
The University’s on-Grounds undergraduate enrollment projection for fall 2012, approved by SCHEV in June 2011, was 14,620. Actual enrollment totaled 14,641 or 100.1 percent of the projection. For Virginia residents, the University met 98.7 percent of its on-Grounds undergraduate enrollment projection for fall 2012 (10,203). The University’s actual total annual FTE is estimated to meet 97.6 percent of its target of 24,396 and 98.0 percent of its in-state FTE target (13,888). In the School of Medicine, fall 2012 headcount met 100.3 percent of its target of 612. For 2012-13, 33.3 percent of bachelor’s degrees awarded were in STEM-H fields (based on the SCHEV definition of STEM-H for U.Va.). Among Virginia residents, 35.4 percent were in STEM-H fields.

The College of Arts and Sciences received $45,000 in HEOA funding. This funding was utilized to purchase 20 rotary evaporators in organic chemistry classroom laboratories. This investment allowed for adequate fume hood capacity in CHEM 2411 and CHEM 2421 which supports the HEOA objective to increase degree production in STEM-H disciplines.

Priority 2 – Faculty Start-Up Packages
The College of Arts and Sciences (CLAS) and the School of Engineering and Applied Science (SEAS) represent the two undergraduate schools of the University that will absorb the greatest proportion of undergraduate enrollment growth. In addition to hiring new faculty to accommodate enrollment growth, the University is experiencing significant faculty turnover due to retirements. At a research university like U.Va., the costs associated with the recruitment of STEM-H faculty go beyond salary and fringe benefits. Such faculty require start-up packages which support the renovation of laboratories, purchase of equipment, hiring of research staff, and training of graduate students, among others, while the research program is being established. It is the expectation that, within a few years, extramural funding will provide support for any ongoing costs. Start-up packages do not include base salary support or signing bonuses for new faculty.

The University has previously submitted budget amendments for faculty start-up packages that were not funded by the Commonwealth. In 2012-13, the College of Arts and Sciences hired 13 faculty with associated start-packages while the School of Engineering and Applied Science hired five faculty with associated start-up packages. Start-up packages were supported through reallocation of funds during 2012-13. However, funding for faculty start-ups is an ongoing need with insufficient base operational resources to maintain long-term competitiveness.

Priority 3 – Faculty and Staff Bonus
In December 2012, the University implemented the state-authorized three percent bonus for eligible faculty and staff. For state-funded positions, one third of the cost of the bonus was supported by state general funds, one third by tuition, and one third was reallocated by departments and schools.
Priority 4 – Faculty Compensation
In December 2011, the University implemented a BOV-authorized strategic salary adjustment for faculty equivalent to two percent of the faculty salary base. In February 2013, the Board of Visitors approved a four-year plan to address the competitiveness of faculty salaries. The plan calls for an average 4.75 percent salary increase in each of the four years through 2016-17. Modeling assumptions included a peer annual average increase of three percent and a state-authorized increase of two percent annually. The University’s 2013-14 budget includes funding for the 4.75 percent increase using a combination of the three percent salary increase authorized by the state with an additional 1.75 percent reallocated from base budget savings.

Priority 5 – Staff Compensation
The University has an overall goal of reaching the 50th percentile of market-based salaries for its staff employees. Classified staff are bound by the state-authorized salary increase while the Board of Visitors has greater flexibility with regard to University staff salaries. In 2013-14, the operating budget includes the two percent across-the-board salary increase for classified staff who “meet expectations” and the $65 per year of service compression adjustment. The budget includes an average three percent salary increase for University staff which will be awarded based on merit. This increase is roughly equivalent to the average increase awarded to classified staff when both the two percent increase and the compression adjustment are considered.

Priority 6 – Pan-University Research Priorities
The University identified five pan-University research priorities in its Six-Year Plan: (1) systems bioscience and bioengineering, (2) computational systems science and modeling (Big Data), (3) sustainability, (4) systems energy, and (5) the OpenGrounds multidisciplinary innovation collaborative. Each of these initiatives has made great strides forward during 2012-13 with significant private and federal collaborations associated with each effort. Select examples include:

- Systems Bioscience and Bioengineering
  - Supported key recruitment and retention efforts in neuroscience, biomedical engineering, and cardiovascular medicine.
  - Assessed capabilities of all bioscience departments to develop areas where new opportunities exist, such as neuroscience, microbiome, drug discovery, and computational modeling.

- Computational Systems Science and Modeling (Big Data)
  - The new "Big Data" initiative brought together the computational, analytic, and big data research communities at U.Va. More than 170 faculty and the University’s executive leadership have been involved in the planning stages for this emerging effort.
  - Plans are proceeding to develop a master's degree, a graduate certificate, and an undergraduate minor with associated curriculum development. The University is formulating a strategy for cluster hires of new faculty across the institution and to pursue opportunities for new funding with corporate partners, including IBM, SAP, Microsoft, and Micron.

- Sustainability
  - The U.Va. Bay Game, a model of the Chesapeake Bay watershed, the nation’s largest estuary, involves eight different schools at the University. In May 2013, it received the
Leveraging Excellence Award from the National Consortium for Continuous Improvement in Higher Education. A general template has been developed, the Global Water Game.

- The U.Va. Bay Game has been described by federal and state agencies, NGOs, and corporate and education leaders as "the first of its kind" and "simply the best watershed management tool that exists."
- U.Va. has the potential to become the global leader in shallow water coastal ecosystem research. Many universities are now just beginning to name "water" and related studies as essential strategic themes. U.Va. has been a leader.

- **Systems Energy**
  - Designed and built the first two affordable homes in the United States meeting "Passive Energy" standards.
  - Seeded revolutionary concept for intensive cooling of computer chips for data centers which extracts extreme levels of waste heat, which can then be utilized as energy source.

- **OpenGrounds**
  - Since opening in 2012, the OpenGrounds Studio has hosted 241 events. The space has created a place in the University culture among students and faculty that serves an essential role in building networks outside the boundaries of existing units.
  - OpenGrounds launched its first “challenge program” in partnership with Vonage, supporting University student and faculty research (funding level at $120,000).
  - The second student challenge will be offered in fall 2013, with sponsorship from Hearst Business Media (funding level at $50,000+).

**Priority 7 – Undergraduate Financial Aid: AccessUVa**

The University continues to support its signature financial aid program, AccessUVa. In 2012-13, the total cost increase was $2.9 million, which included $156,040 additional funding from the state, $1.8 million from tuition, and the remainder from private, federal, and external sources. The University has implemented several administrative modifications to the program, effective in 2013-14, in order to hold down the cost of the program. A study by an external consultant is being analyzed and will be discussed by the Board of Visitors to determine the future direction of the program.

**Priority 8 – Medical Translational Research**

In 2012-13, the University received a general fund allocation of $1,500,000 to support cancer research and $750,000 to support focused ultrasound research. Select examples of progress on these activities and other medical translational research efforts include:

- Overall, School of Medicine extramural funding for clinical research in 2012-13 increased more than 16 percent over the previous year; the research portfolio has increased the translational and clinical focus in neuroscience and cancer.
- Cancer Center subjects on trials increased 27 percent over the past year. Faculty searches are underway for outcomes researchers, including in the area of cancer prevention and control. Successful searches have been completed for a new director of the Cancer Center and for the inaugural director of the Virginia Center for Translational and Regulatory Studies.
• Funded projects include a focused ultrasound trial for Parkinson’s disease and a genomics trial for relapsed pediatric cancers. A successful trial for treatment of essential tremor with focused ultrasound has been completed.
• Launched a strategic clinical plan that includes funds for clinical research grants and infrastructure funding for genomics and imaging and clinical effectiveness/outcomes research.
• Launched the “Cancer Center Without Walls,” the goal of which is to increase access for the citizens of the Tobacco Region to the revolutionary advances in cancer care, including clinical research, that are available only at NCI-designated cancer centers.
  o The “Cancer Center Without Walls” helps build a healthy citizenry by enhancing access to the full spectrum of cutting-edge cancer prevention, risk management, and treatment. It also helps build a healthy economy by expanding the health and IT workforce, investing in local healthcare delivery, and retaining clinical expenditures in the Tobacco Region.
  o The $1 million grant began January 1, 2013 and lasts 18 months. To date, U.Va. has launched efforts in mobile mammography and telemedicine video colposcopy and a prostate cancer trial has opened at two sites in Southwest Virginia. The University is now launching the Health Heritage project, which will examine cancer risk and prevention among this population.

Priority 9 – Self-Supporting Programs
The University utilized incremental tuition revenue from self-supporting programs (business, graduate commerce, and law) to maintain and enhance programmatic quality. Incremental tuition revenue was allocated to financial aid, utility and facilities maintenance, electronic library resources, and academic programs. In addition, the Darden School of Business reallocated $200,000 to invest in curriculum innovations related to the assessment of student learning, as well as investing in behavioral research.

Priority 10 – Economic Development
In partnership with the Commonwealth, the University established the U.Va. 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 U.Va. 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. The University expects a 7:1 return on investment, which will generate new research and proof-of-concept funding, business development and product development, and associated jobs.

The new relationship with the Licensing and Ventures Group is progressing with new staff hired and a revised incentive-based licensing revenue distribution formula in place. In addition, the University initiated the first "Entrepreneur-in-Residence" initiative, bringing in a seasoned executive with experience in launching and securing funding for startup companies, to work with high-potential U.Va. projects and innovators to accelerate the development and launch of new companies to commercialize discoveries.
Priority 11 – Student-Faculty Ratio
The University maintains an aspirational goal of a 15:1 student-faculty ratio. In fall 2012, using the methodology of the Common Data Set, the student-faculty ratio, was 15.8:1. This represents a deterioration from 15.6:1 in fall 2011 and 15.3:1 in fall 2010. In the University’s largest school, the College of Arts and Sciences, the student-faculty ratio was 17.4:1 in fall 2012. This represents an improvement from 17.7:1 in fall 2011, but a deterioration from 17.2:1 in fall 2010. Despite not meeting its aspirational goal, the University maintains a competitive position with respect to AAU institutions. As of fall 2011, the University ranked fourth – tied with five other institutions – among AAU public institutions on this measure.

Priority 12 – Graduate Student Financial Aid
The School of Engineering and Applied Science reallocated $122,000 to increase support for graduate teaching assistants (GTAs). GTAs are a critical instructional means by which to accommodate undergraduate enrollment growth in STEM-H disciplines.

Priority 13 – Library
The University Library received $178,500 in HEOA funding and reallocated $105,602. These funds were utilized to expand collaborative efforts enabling data-intensive research across disciplines. In addition to existing efforts in this arena, the University Library has reallocated 2.0 FTE to focus on data support services. Incremental and reallocated revenue has provided the resources to complement discipline-specific research agendas, help faculty obtain grants, and build a community of diverse scholars interested in similar research issues. In addition, funding is being utilized to expand training initiatives to prepare students for data-intensive career opportunities. This funding meets the HEOA objectives to increase research and increase technology-enhanced instruction.

Priority 14 – Technology Enhancement
The University made a number of enhancements with respect to information technology (IT) operations and infrastructure, which are clustered around “major themes,” including:

Major Theme: Improving central IT’s operational efficiency.
- Implemented components of IT service management best practices (ITIL), improving both customer service and operational efficiency;
- Published a service catalog of 113 services with promised service levels;
- Implemented a robust incident management process leading to significant decrease in mean time to resolution of system outages;
- Continued to negotiate and publish service level agreements with a variety of customers; and
- Undertook a comprehensive storage inventory and analysis and procured a new storage solution from a single vendor. Implementation of this solution will allow more streamlined provisioning of services to the University and more efficient – and less costly – management and operation.

Major Theme: Continue to modernize our enterprise IT architecture and policy.
- Procured dark fiber of up to 40Gb capacity, with 10Gb operationalized. This provides the University with a significant increase in its ability to support bandwidth-intense research activity.
Major Theme: Continue to invest in strategic initiatives.

- Digital preservation – Developed active national partner communities for APTrust and the Digital Preservation Network (DPN), preservation initiatives aimed at medium-term and long-term scholarly preservation. Both initiatives are in early system design and development stages, with APTrust expected to deliver Phase 1 in December 2013; and
- Created and equipped the new VizLab in Rice Hall and collaborated with the University Library on the new Viz Wall in Clemons Library.

Priority 15 – Increase Research Support from Non-Traditional Sources
The University made great strides in diversifying its research portfolio over the past year by creating partnerships with multiple sponsors. Select examples include:

- U.Va. 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 U.Va., 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.
- 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, U.Va. 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.

Priority 16 – Bachelor of Interdisciplinary Studies
The Bachelor of Interdisciplinary Studies (BIS), a part-time undergraduate degree program for adults, was expanded to the University’s Richmond Center in fall 2012. The University is in discussions with Thomas Nelson Community College (TNCC) to expand the program to TNCC, effective fall 2014. The expansion of the BIS program to the Richmond Center was partially supported through a reallocation of funds from administrative to instructional areas, as well as a restructuring of BIS administrative functions.

Priority 17 – Technology-Enhanced Instruction
The University offers 17 certificate programs and 13 degree programs that meet the distance education definition of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). In 27 of these 30 programs, students may earn more than 50 percent of the program through distance education. In addition, the University is heavily focused on enhancing the use of technology in its residential curriculum. Items of note during 2012-13 include:

- Course-sharing initiative with 4-VA – The University continued its partnership with George Mason University, James Madison University, and Virginia Tech to utilize Cisco TelePresence
technology in a course-sharing initiative. Since inception, the University has participated in three courses through 4-VA.

- **Course-sharing initiative with Duke University** – The University signed an MOU with Duke University to utilize Cisco TelePresence technology in a course-sharing initiative. Initial course offerings will focus on less commonly taught languages (LCTLs), including Creole and Tibetan.

- **Coursera** – To date, the University has offered six massively open online courses (MOOCs) with a combined enrollment of 411,000 and 25,000 participants receiving “Statements of Accomplishment.” In addition, it joined a team of Coursera partner institutions to begin offering professional development coursework for K-12 educators.

- **Commonwealth Graduate Engineering Program (CGEP)** – CGEP successfully completed the transition from site-based distance education to desktop delivery of graduate engineering courses.

- **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 an ABET-accredited program, is offered through PRODUCED. The development of distance learning laboratory activities, that meet ABET accreditation requirements, will allow the University to expand the engineering programs offered through PRODUCED. This funding supports the HEOA objectives to increase enrollment of Virginia students, increase degree completion for Virginia residents, enhance community college transfer programs, increase degree production in STEM-H disciplines, and increase technology-enhanced instruction, including course redesign and online instruction.

- **Bachelor of Interdisciplinary Studies (BIS)** – The BIS program received $45,000 in HEOA funding to convert five existing courses to an online format. These courses may be taken by students in both the BIS and BPS part-time degree programs (cross-reference priority 16). This funding supports the HEOA objectives to enhance community college transfer programs and increase technology-enhanced instruction, including course redesign and online instruction.

- **Bachelor of Professional Studies (BPS) in Health Sciences** – The BPS program received $70,000 in HEOA funding to create two new online courses for the BPS and to initiate marketing and outreach to feeder institutions within the VCCS (cross-reference priority 23). This funding supports the HEOA objectives to increase enrollment of Virginia students, increase degree completion for Virginia residents, enhance community college transfer programs, increase degree production in STEM-H disciplines, and increase technology-enhanced instruction, including course redesign and online instruction.

- **Hybrid Technology-Enhanced Courses** – During 2012-13, the Office of the President and the Teaching Resource Center 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 being 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.

**Priority 18 – 3+1**

In 2012-13, 82 students earned a bachelor’s degree in three years or less, representing 2.6 percent of the Class of 2013 (80 students did so in 2011-12). In addition, 14 students graduated with a bachelor’s
and master’s degree in four years. Currently, the following University master’s programs are amenable to the 3+1 program: commerce, Middle Eastern and South Asian studies, public policy, statistics, and teacher education. As the University looks to expand the 3+1 program, it is exploring the development of professional master’s degree programs in chemistry, environmental sciences, French, and religious studies. 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.

Priority 19 – Deferred Maintenance
Despite the investment included in the Six-Year Plan, the University is behind on funding the deferred maintenance plan presented to the Board of Visitors, extending the time it will take to commit the required funding included in the plan. The operating budget for 2013-14 includes an additional $1.5 million for operating budget maintenance in accordance with the Board approved multi-year plan. The goal is to reach a reinvestment rate of two percent of plant value and a Facilities Condition Index (FCI) of five percent.

Priority 20 – Internships and Research Experiences
The School of Nursing received $50,000 in HEOA funding to expand undergraduate research opportunities in STEM-H disciplines. Such opportunities include the establishment of an academic-year 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. This funding supports the HEOA objectives to improve retention and graduation rates and optimize year-round use of institutional and instructional facilities.

Priority 21 – Summer Session and January Term
In 2005, the University established a January Term, or J-Term, as an opportunity for students to take an intensive two-week course and earn three credits. Enrollment in J-Term courses has grown from 267 in 2005 to 1,225 in 2013, a 359 percent increase. In J-Term 2013, classes met in 15 different facilities on Grounds, resulting in better utilization of facilities. Likewise, hundreds of students advance their academic standing through summer school courses, which use U.Va. facilities during the summer months.

Priority 22 – Medical and Nursing Curriculum
The School of Medicine continued implementation of its redesigned curriculum, which includes extensive use of instructional technology through the “Learning Studio,” the Medical Simulation Center, and the Clinical Skills Center.

The School of Nursing received $96,500 in HEOA funding for two initiatives:

- $47,000 for the Inter-Professional Education (IPE) Initiative – In partnership with the School of Medicine, the IPE initiative is designed to train the next generation of health care providers in an environment that fosters collaboration to provide patient-centered care. This funding supports the HEOA objectives to increase degree production in STEM-H disciplines and develop new programs or initiatives, including quality enhancements.
• $49,500 for the Virtual Clinical Learning Initiative – In partnership with the School of Medicine, 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 funding supports the HEOA objectives to increase degree production in STEM-H disciplines and increase technology-enhanced instruction, including course redesign and online instruction.

Priority 23 – Bachelor of Professional Studies
The Bachelor of Professional Studies (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 on May 21, 2013. A draft program proposal is under review by the State Council of Higher Education for Virginia. If the proposal proceeds expeditiously through the SCHEV program approval process, the expected initiation date is fall 2014.

In 2012-13, the BPS program received $70,000 in HEOA funding to create two new online courses for the BPS and to initiate marketing and outreach to feeder institutions within the VCCS. In addition, the School of Continuing and Professional Studies (SCPS) and the U.Va. Medical Center reallocated $32,000 to assist with developmental costs related to the BPS program. This funding supports the HEOA objectives to increase enrollment of Virginia students, increase degree completion for Virginia residents, enhance community college transfer programs, increase degree production in STEM-H disciplines, and increase technology-enhanced instruction, including course redesign and online instruction.

Priority 24 – Comprehensive Wellness Plan
The comprehensive wellness program, known as Hoo’s Well, is designed to help employees get healthy and stay healthy by improving their general fitness and reducing their risk for heart disease, cancer, diabetes, and other chronic conditions. The program includes education, wellness activities, goal setting, outreach programs and referrals, and monetary incentives. As a result of preventing illness and improving the health of University employees, healthcare claim expenses and personal healthcare expenses should decrease. The program was launched in September 2011 and now includes:

• Individual employee biometric screenings (blood pressure, blood glucose, cholesterol, waist circumference) and online health assessment (health history, lifestyle and habits, and health screenings) to understand level of wellness.
• An employee action plan for improvement, including a customized to-do list.
• A variety of wellness programs for employees:
  o On-Grounds examples include Hoo’s Well Eats Well, Steps@UVa, Lunch and Learn, Igniting Positive Change, Nutritional Consultants, Fitness Consultations, Walking Program, and Weight Watchers.
  o Aetna online offerings include healthy eating, relaxation, overcoming depression, and overcoming insomnia.
• Incentives for taking recommended actions to stay healthy.

The savings related to the comprehensive wellness program are incorporated in Priority 38 – Academic and Administrative Efficiencies.
**Priority 25 – Preservation of Historically Significant Buildings**
During the summer of 2012 the University undertook a project to repair the fireplaces and replace the flues in 105 chimneys in the Lawn and Range student rooms after cracks and deterioration were found during an inspection which resulted in a prohibition of fires in the fireplaces until the repairs could be executed. The work went a step further by including a fire suppression system in all of the rooms. The total cost of the project was $3.7 million.

The University also completed the first phase of renovation and repair to the Rotunda by replacing the roof, repairing the windows, and repointing the brick. The state has provided $24 million for the balance of the renovation project and the University will match this amount with private fundraising.

**Priority 26 – University Community Partnership for Next Generation Innovation**
Phase II of the University Community Partnership for Next Generation Innovation (Gig-U) is nearing completion, and planning is under way for a possible Phase III. As a result of the work done by this partnership, the critical importance of advanced broadband connectivity for national competitiveness on the global economic field has become a regular part of the national conversation. (For example, see the recent White House announcement at [www.whitehouse.gov/the-press-office/2013/06/06/president-obama-unveils-connected-initiative-bring-america-s-students-di.](http://www.whitehouse.gov/the-press-office/2013/06/06/president-obama-unveils-connected-initiative-bring-america-s-students-di.) A number of Gig-U research university communities have launched Gig-U-catalyzed initiatives.

**Priority 27 – Increase in Virginia Retirement System (VRS) Contribution**
The legislature passed a bill to put the VRS system back on sound financial footing by increasing the percentage of the VRS board recommended contribution rate that is funded each biennium. The first step increase occurred in FY13 and was funded from incremental general funds and tuition for those employees paid from state funds. All other costs were borne by the fund source that pays the employee’s salary.

**Priority 28 – Academic Facility Scheduling**
The University routinely engages in best practices related to academic facility scheduling. The University 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 percent classroom occupancy rate for the University’s main campus (VCU had the highest classroom occupancy rate at 76.83 percent) and a laboratory occupancy rate of 86.94 percent for the University’s main campus (the highest in the state). According to institution-specific data recently provided to the University by SCHEV, the fall 2012 classroom occupancy rate increased to 73.93 percent while the fall 2012 laboratory occupancy rate increased to 94.24 percent.

By 2018, the University has committed to the Commonwealth to increase enrollment by 1,673 students. The University is planning for 33 to 40 percent of undergraduate enrollment growth to be in the STEM disciplines, with the largest growth in biology and chemistry. U.Va. is planning to modernize its labs in chemistry and biology, increase their number, and redesign them to support planned changes in pedagogy. Over the past year, significant effort has been expended surrounding space utilization and planning for STEM-H facilities. Section E includes a more detailed discussion of efforts to maximize space utilization in upcoming capital projects, particularly for STEM-H facilities.
Priority 29 – College Advising Fellows and College Advising Seminars
As part of its Quality Enhancement Plan (QEP) for the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), the University has continued to invest in College Advising Seminars (COLAs), including through reallocation. COLAs are one-credit, graded seminars open to new first-year students and new second-year transfer students in which approximately 20 percent of course content is devoted to advising issues. Between 2007-08 and 2012-13, both enrollment and course sections offered increased by more than 450 percent.

Priority 30 – Operations and Maintenance (O&M) for New Facilities
New O&M support was funded based on expected occupancy rates. For 2012-13, this included Lacy Hall (School of Engineering and Applied Science/Facilities Management), Jordan Hall, ITC Data Center, UPS maintenance contract, Newcomb Hall’s dining expansion, and the Caplin Theatre. For 2013-14, projects incurring either new or incremental O&M include New Cabell Hall (HVAC system), Lawn and Range Room sprinkler systems, and the North Grounds Recreation Center expansion.

Priority 31 – General Fund Share of 2005-10 Undergraduate Enrollment Growth

Per §23-38.87:14.B. of the Virginia Higher Education Opportunity Act of 2011, “The Governor shall consider and recommend as he deems appropriate and the General Assembly shall consider and provide as it deems appropriate additional general fund appropriations to address the unfunded enrollment growth that occurred between the 2005-2006 fiscal year and the enactment of this chapter.”

U.Va. requested $3,480,000 (417 in-state students * $8,346 state support per in-state student based on the 2010 base budget adequacy formula) in general funds in each year of the 2012-14 biennium and going forward to support enrollment growth that occurred between 2005 and 2010. To date, this request has not been funded by the General Assembly.

Priority 32 – Restructuring of Graduate Programs
The Graduate School of Arts and Sciences (GSAS) continued to implement the restructuring of its graduate programs with the goal of improving quality, enhancing recruitment, and increasing the competitiveness of individual programs. 2012-13 represented the second year of restructuring with a focus on STEM disciplines. Restructuring has focused on reducing cohort sizes, enhancing financial support, and more active use of metrics to monitor success (e.g. admission strength and demand, completion rates, placement rates, etc.)

Priority 33 – Center for the Advanced Study of Teaching and Learning (CASTL)
The Center for the Advanced Study of Teaching and Learning (CASTL), as well as its postsecondary counterpart (CASTL-HE), was identified as an institutional priority during the last strategic planning process. CASTL-HE has also emerged as an institutional priority in the current strategic planning process.
to enhance the University’s leadership with respect to the assessment of student learning. Select initiatives of CASTL and CASTL-HE, which included a reallocation of funding, include:

- Continuing development of the Center on Education Policy and Workforce Competitiveness;
- Building a multi-school STEM education center;
- Developing a data services initiative with the University Library and the College of Arts and Sciences to support research in the social sciences; and
- Enhancing CASTL-HE partnerships throughout the University to increase assessment of student learning within University programs.

**Priority 34 – Rolls-Royce Partnership**
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 research center that undertakes research critical to the surface technology and advanced manufacturing industries. CCAM currently has 15 industrial partners and three university members. The physical 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. U.Va. has hired seven of eight faculty identified in the original recruitment plan into multiple departments and is in the final stages of recruiting the eighth faculty member. Over the past three years, U.Va. has received nearly $10.5 million in sponsored research funding in support of the Rolls-Royce initiative awarded to 13 different principal investigators.

**Priority 35 – Partnership with the Defense Intelligence Agency (DIA)**
U.Va. secured a facility clearance from the federal government to expand its research capabilities. In addition, a director was hired to lead the University’s Applied Research Institute (ARI) and pursue additional funding, internship, and training opportunities.

**Priority 36 – Accelerated Graduate Programs**
As the University looks to expand the 3+1 program, as well as implement efficiencies in academic programs, it has 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. 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. In addition, the Graduate School of Arts and Sciences is exploring the development of one-year professional master’s degree programs in chemistry, environmental sciences, French, and religious studies.

**Priority 37 – Veterans Services**
In 2011-12, the University hired a veterans’ affairs coordinator to serve the needs of students who are members/veterans of the uniformed services. This individual, housed in the Office of the University Registrar, assists military-related students and ensures compliance with guidelines, rules, and regulations set forth by the U.S. Department of Veterans Affairs and other regulatory agencies.
In addition, an associate dean in the Office of the Dean of Students has been charged with serving as the primary student services resource for student veterans. This position assists veterans by serving as a triage point for a broad range of issues and concerns with which they may present. The Office of the Dean of Students also is collaborating with a researcher in the Curry School of Education (whose research interest pertains to veterans and their families) to develop content for a comprehensive veteran’s information Web site. This Web site, when complete, will house student services, compliance and benefits, and regional and national resources for student veterans and their families.

The University is an active participant in SCHEV’s Military Education Advisory Committee (MEAC). In May 2013, the Board of Visitor’s passed Guidelines on Priority Course Enrollment for Military-Related Students. Each year, the University provides, to the Department of Veterans Services, an overview of its activities that support the goals of Executive Order 29 (Serving Virginia’s Veterans).

**Priority 38 – Academic and Administrative Efficiencies**

The University continued its efforts to achieve academic and administrative efficiencies. The following represent select examples of savings achieved – and generally reallocated to other school/unit priorities – or costs avoided:

- **Health Plan Modifications** – $1.4 million.
  - Comprehensive wellness program to improve employee health through education, wellness activities, goal setting, outreach programs and referrals, and monetary incentives.
  - Implemented tobacco cessation and chronic disease management programs.
  - Completed pilot dependent eligibility verification audit and in the process of conducting a full audit to ensure only eligible dependents are covered by the U.Va. Health Plan.

- **Reorganization**
  - The Curry School of Education redirected resources from low-productivity programs to higher demand programs – $342,000.
  - Vacant positions – $1.1 million.
  - Merger of positions – $128,000.
  - Activities previously outsourced retained internally, such as external mailing, HVAC maintenance, and biosafety equipment certification – $163,000.
  - Sunset an institute – $290,000.
  - Reduced services, such as discontinuing Saturday morning clinics at Student Health and discontinuing clinics between Christmas and New Year’s Day – $65,000.
  - Optimize occupancy of University-owned space and reduce dependency on commercially leased space – $391,000.

- **Conservation**
  - Recycling efforts result in the sale of recyclable material and avoidance of trash collection – $530,000.
  - Energy conservation and retro commissioning of inefficient, high-energy buildings – $4.8 million.

- **Procurement**
  - Recoveries from procurement transactions, including rebates, catalog and logo sales, and sales volume discounts – $1.6 million.
  - Negotiated contract savings. For example:
    - Voice infrastructure trunking service – $490,000.
- Benefit vendor contracts – $500,000.
- Life insurance premium reductions – $1.3 million.
- Beverage contract – $130,000.
- Consolidation of retirement vendors – $600,000.
- Videographer for online courses – $175,000.
- Outsourcing surplus property operations – $109,000.
- Conversion of 103 non-catalog vendors to electronic purchase order delivery, thereby eliminating the manual delivery of 5,400 orders to these vendors, which will save staff time and expedite orders.

**Priority 39 – Southwestern Virginia Economic Development Partnership**

This partnership, commonly known as the Appalachian Prosperity Project (APP), continued during 2012-13. The partnership uses a systems approach to simultaneously advance the inextricably linked fields of education (Appalachians Building Capacity), health (Healthy Appalachia Institute), and prosperity (Appalachian Ventures). Select examples of successes during 2012-13 include:

- Helped to secure $1 million in new funding to bring programs and services to the residents of Southwest Virginia. Over the past four years the total is $10.9 million. This includes funding to create the University’s “Cancer Center Without Walls” to extend U.Va. Health System resources into the region, for downtown revitalization efforts in the Town of Appalachia, and advancing the Clinch River Valley Initiative to bring new economies to the region.
- Created a research center that provides evidence-based research to Planning Districts 1 and 2 to guide community economic development strategy, inform priorities, assess impact, and create a compelling asset-based narrative that helps attract new jobs to the region.
- Continued the specialty clinical services and health education of the U.Va. Office of Telemedicine throughout Southwest Virginia using an extensive network of telemedicine sites. There are now more than 25 active telemedicine sites in the region, with a substantial growth in providing child and family psychiatric resources. With support from the Tobacco Commission, U.Va. updated the aging technology at three sites to establish what is emerging as a state-of-the-art high definition network. In addition, two new clinics were offered in Southwest Virginia – one for cystic fibrosis and one for ostomy patients.
- U.Va., the College at Wise, and the Southwest Virginia Public Education Consortium (SVPEC, comprised of 16 school systems) continued to work together to improve knowledge of traditional American history on the part of the region’s teachers and children. This year saw the completion of one federal “Teaching American History” grant, continuing work under the auspices of another, and a joint $2.4 million proposal by U.Va. and SVPEC to extend such work in the region in other subject areas.
- Created a regional blueprint for a vibrant entrepreneurial community in Southwest Virginia using input from over 50 people representing 37 organizations during a series of workshops. The blueprint identifies strategies that will accelerate growth for both new ventures and established companies and to lay the groundwork for future investments by external agencies. Recognized by the following:
  o The National Association of Development Organizations (NADO) awarded APP with the NADO 2012 Innovation Award.
  o The APP-authored "Blueprint for Entrepreneurial Growth and Economic Prosperity in Southwest Virginia" was cited by the Governor’s Rural Jobs Council as a model for rural entrepreneurship that should be replicated across the Commonwealth.
The Center for Telehealth at U.Va. was selected as the first member of Cisco’s new Healthcare Center of Excellence program, in part for their innovative work and extensive health coverage in Southwest Virginia.

Each September, the University provides, to the Commonwealth, an annual report detailing the partnership’s scope of activities over the previous year.

**Priority 40 – Increased Utility Costs**
FY13 E&G utility expenses are six percent lower than FY12, a reduction of $2.1 million. The savings are attributable to four major factors: (1) the FY13 average utility rate did not increase over FY12; (2) FY13 natural gas prices were nine percent lower than originally projected, resulting in lower heating costs; (3) FY13 cooling degree days were five percent lower than FY12, resulting in lower cooling costs; and (4) extensive energy conservation efforts.

**Priority 41 – Unavoidable Contractual Cost Increases**
As reflected in the 2012-13 Six-Year Plan, the University experienced unavoidable contractual increases in rent, E-911, fire services, and other high-priority needs.

**Priority 42 – Incremental Tuition Revenue, Endowment Income, and AccessUVA**
In 2010-11, the University used non-recurring endowment income to fund an unusually large increase in financial aid from 2009 to 2011 due to the growing number of University undergraduates demonstrating need. The University met its commitment to these students, but with one-time balances. Over a three-year period, the University will need to transfer the ongoing obligation for this undergraduate need-based aid to a sustainable funding source, most likely tuition. The first transfer of $1.85 million occurred in 2012-13. The 2013-14 operating budget includes an additional $1.5 million funded from tuition even though the total investment from institutional funds remains the same as in 2012-13.

**Priority 43 – Strategic Institutional Priorities**
Funds generated from lower than anticipated fringe benefit and utility rates were set aside to provide funding for the University’s highest priority of addressing faculty compensation in FY14.

**Commonwealth Center for Advanced Logistics Systems (formerly the Virginia Logistics Research Center)**
SCHEV has asked that the Commonwealth Center for Advanced Logistics Systems (CCALS) be submitted as a separate report because it involves multiple institutions. Longwood University has taken responsibility for drafting the report. In 2012-13 the University invested $240,000 in HEOA funding, with $150,000 of that amount continuing as base budget support in 2013-14 and beyond. The separate report describes the progress made in the Center’s first year of operation.
E. Capital Outlay

Capital projects proposed in the Six-Year Plan, with significant strategic impact, include those helping to address 1) enrollment growth and STEM-H learning, and 2) investment in the maintenance of facilities.

Enrollment Growth and STEM-H

A number of projects in the six-year capital outlay program are planned as part of a strategic response to increases in the University’s undergraduate enrollment and changes in its academic and research enterprise and its business practices. Projects in this group include: Gilmer Hall and Chemistry Building renovations (2012-14 and 2014-16), Science and Engineering Teaching and Research Facility (2016-18), Physics Building renewal (2018-20), Thornton Hall D-Wing and B-Wing renovation (2018-20), and in a contributing manner Alderman Library renewal (2014-16). The Alderman Library renewal project will strengthen the University Library’s support of education and research by increasing the amount of study space and by providing enhanced technology. While Alderman Library provides approximately 14 percent of the building for individual and group study space, 25 percent is the standard for a research library. Growing enrollments and the expanding STEM-H offerings will hinder further the Library’s efforts to respond to the increasing demands. The library houses a robust technology center that supports research in both the humanities and STEM-H disciplines, but the building’s current infrastructure has been stretched to the limit, and is hard pressed to meet the high energy and cooling demands of these spaces.

The University has undertaken an integrated planning effort to develop a strategy for these projects under the rubric of “Planning for Science, Technology, Engineering, Mathematics, and Healthcare (STEM-H) Facilities.” The purpose of the STEM-H planning effort is to define and articulate a common understanding of STEM-H learning and research goals for U.Va., and to identify, through facilitated conversations, collaborative and interdisciplinary program development strategies. The proposed planning process will insure that adequate consultation with constituent groups and/or stakeholders takes place and that appropriate standards for the use of University resources are developed and applied.

The STEM-H planning study will address and develop facility responses to the following significant challenges:

- Increased enrollment. The University has committed to undergraduate enrollment growth of 1,673 students between fall of 2010 and 2018, of which 390 will go to the School of Engineering and Applied Science and roughly 817 to the College of Arts and Sciences. In addition the College will provide STEM-H course hours to non-art and sciences students equivalent to an additional enrollment of 200. Forecasts indicate the added enrollment cannot be accommodated by continuing to teach in the same way in the present facilities.
- Increased undergraduate demand for STEM-H courses. The share of enrollment growth going to majors in the STEM-H disciplines has increased significantly over the last five years and the trend is expected to accelerate as the 1,673 growth commitment is realized. Increasing demand for STEM-H will exacerbate pressure to increase the capacity of teaching facilities and develop alternate pedagogies.
- STEM-H faculty retirements, replacements, and new hires. The College of Arts and Sciences anticipates more than 50 replacement hires and roughly 25 new hires by 2018, while the School of Engineering and Applied Science anticipates 60 replacement hires and 28 new hires. New
faculty will need sufficient, quality lab space for aggressive research programs, making it urgent that the research space has adequate infrastructure and be configured to allow efficient allocation.

- Pedagogy, technology, and curriculum. Some STEM-H faculty are already testing and adopting pedagogies, many of them technology-enabled, which facilitate more effective learning or greater class size, or both. Project-based labs, lectures punctuated with group learning breakouts, virtual lab experiments, and synchronous distance participation in class are all in use at small scale by individual faculty. At the dean and department chair level, planning efforts have begun to adapt curriculum to larger enrollments in the STEM-H fields and to test and scale-up adoption of emerging pedagogies and technologies where the evidence supports it. These advances will change the kind and quantity of spaces needed for instruction, class laboratory sections, team learning, and individual class work; and facilities need to be planned accordingly.

- Facility condition and configuration. Thornton Hall, the Physics Building, Gilmer Hall, and the Chemistry Building, date from the 1930s, 50s, and 60s. Together, they constitute roughly 800,000 GSF of space, and house electrical engineering, civil/environmental engineering, and materials science and engineering, physics, biology, psychology, and chemistry departments, as well as a variety of core facilities, classroom laboratories, and instructional classrooms.
  - Infrastructure: Much of the mechanical, electrical, and plumbing systems in the buildings is original or at the end of its useful life. These older systems are energy intensive (Gilmer and Chemistry consume $4 million in combined energy use each year), are stretched past their designed limits, lack flexibility and capacity for increased demand and are at risk of failure. Most importantly, key systems: electricity, steam, air and exhaust, lack capacity or reliability to support research. The buildings have become a major limiting constraint on the research of the departments they house.
  - Configuration: Much of the research and teaching space in these buildings is in its original configuration and poorly suited for present uses. Labs tend to be separate rooms offering little opportunity for collaborative work or flexible space assignment. Many teaching labs are sized wrong for present section numbers and have no provisions for technology, team learning, or multiple instruction methods.
  - Supply: The 390 additional students in the School of Engineering and Applied Science represent a roughly 17 percent increase over their 2010 enrollment, with an anticipated increase of 28 faculty. In the College of Arts and Sciences, the new enrollment creates an anticipated 40 percent increase in STEM-H students between 2011 and 2019 and faculty hires will increase STEM-H faculty by 20 to 25. The space needs will be significant, and the University is challenged to maximize efficiency and flexibility in its use of the space in these existing STEM buildings.

The STEM-H study has been formulated around a goal of integrated planning, and some key themes have emerged as having primary importance:

- Academics drive planning. Although the deliverable of this study will be a roadmap of facility projects, and the facility issues are complex and important; the academic needs of enrollment growth, hiring, pedagogy, and technology will be the drivers of what spaces are needed and how they will be used. Facility planning and academic planning must advance in tandem.
- Engage multiple schools of the University. Issues of undergraduate STEM-H instruction and faculty research extend over multiple schools: The College of Arts and Sciences and the School of Engineering and Applied Science are the dominant providers of instruction. Students in engineering, education, nursing, architecture, and medicine also use the basic science courses
provided by the College of Arts and Sciences. Opportunities for collaborative research exist between all the schools of the University. The planning process will center on the College of Arts and Sciences and the School of Engineering and Applied Science, but will engage the other schools too.

- Engage with the schools’ planning for enrollment growth, pedagogy, and technology. Planning is at different stages in the various schools and ranges from well-organized initiatives of the dean’s office to individual faculty practice and research. The STEM-H study should engage widely and facilitate advancing plans for academic as well as facility issues.

- Emphasize collaboration. It is a distinguishing aspect of the undergraduate experience and a key strategy for how U.Va. will compete as a research university, despite its relatively small size. Designing for collaboration is a guiding principle.

- Develop robust data to inform planning decisions. The relevant data for this study are unusually complex. It involves multiple schools, multiple buildings, measures of both the instruction and research enterprise, and many areas of change. The University launched the STEM-H study in May 2013 and expects to complete it by calendar year end.

**Investment in Maintenance of Facilities**

Recent capital initiatives funded by a combination of state funding and/or gift funds include the Ruffner Hall renovation, New Cabell Hall renovation, Rotunda restoration, and maintenance reserve. Continued investment in maintenance of aging facilities is reflected in the 2014-20 six-year capital outlay plan.

The University’s board-approved capital plan includes a $125 million multi-year Jeffersonian Grounds Initiative to address building, site, and infrastructure needs of the Academical Village. The Academical Village is the “heart” of the University. It is listed on the Virginia Landmarks Register, is a National Historic Landmark, and is listed by UNESCO, with Monticello, as a World Heritage Site. The project continues and accelerates the renovation, restoration, and repair program initially begun in the late 1980s. The current Rotunda renovation project is the most recent in this program. While the University has made significant progress with its stewardship of the Academical Village, it has become clear that an accelerated program is a significant component of the strategic response to strengthen a distinctive residential culture and attract the highest quality faculty. A major private fundraising effort is planned to support the work that needs to be done in the Academical Village. Recognition by the state of the special needs to preserve the historic assets in the original Jeffersonian-designed university would boost the ability to attract private support and to accomplish the work on a reasonable schedule. A suggested avenue might be a supplemental state maintenance reserve appropriation designated for the Academical Village renovation.