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A Status Report on  
*Advancing Virginia Through  
Higher Education:  
The Systemwide Strategic Plan  
For Higher Education in Virginia*



State Council of Higher Education for Virginia

*Advancing Virginia through Higher Education*

## Executive Summary

The State Council of Higher Education for Virginia (SCHEV), pursuant to its statutory responsibilities under §23-9.6:1.1 of the Virginia Code, and in partnership with Virginia's colleges and universities, state policymakers, and other key constituencies, released in December 2002 the current strategic plan for higher education entitled *Advancing Virginia Through Higher Education: The Systemwide Strategic Plan for Higher Education in Virginia*.

As SCHEV begins to develop a new six-year plan as part of its responsibilities under the 2005 Restructured Higher Education Financial and Administrative Operations Act, this report looks at the progress made toward the three goals of the 2002 plan, each of which were to be accomplished by 2010.

### **Goal 1 – Accommodate at least 61,000 additional students.**

As many observers of Virginia higher education trends have noted, enrollment has increased significantly in the last five years. Between Fall 2000 and Fall 2005, the Commonwealth's institutions enrolled over 49,000 additional students. Degree awards have also increased – awards are up 13% over the 2000-01 academic year. Likewise, transfer rates from the Virginia Community College System (VCCS) and Richard Bland College have increased, albeit modestly. However, the number of transfer students completing the VCCS “transfer degree” prior to transfer has increased by 41%.

### **Goal 2 – Increase Virginia's national standing in sponsored research.**

Virginia's six public research institutions have all increased the actual dollar amounts of sponsored research conducted. However, only two of those six made any gains in the national ranking of research expenditures, while the other four actually lost ground in the rankings. Similarly, while total research expenditures at the state level increased by nearly 40%, that was only sufficient to maintain the state's ranking of 37<sup>th</sup> for research expenditures per capita.

### **Goal 3 – Enhance the Commonwealth's commitment to instructional quality.**

Faculty salary averages have begun to rebound since reaching an average low at the 36<sup>th</sup> percentile during the 2002-03 fiscal year. By 2005-06, two four-year institutions were above the 60th percentile of their peers and most institutions were above the 45th percentile by 2005-06. SCHEV and the institutions have completed the first full round of reporting on the six core competencies adopted by the Council (written communication, mathematical reasoning, scientific reasoning, critical thinking, oral communication, and information technology literacy). Results of an evaluation of the competency reports are expected later this year to help define next steps in assessing student learning. Finally, Virginia's institutions have increased degree awards in areas of high-need by 27% since the 2002-03 academic year.

Higher education in Virginia has made progress since the adoption of the strategic plan in late 2002. By and large, the Commonwealth and its institutions have made gains in the desired direction. Given the opportunities presented by the Restructuring Act, specifically the Institutional Performance Standards, we envision that the next version of the

statewide strategic plan will address specific and measurable goals, representing a new generation of higher education policy. The good work of Virginia's public institutions in responding to the measurable goals of the Act, and the knowledge that Virginia has an exceptional private sector of higher education, will afford SCHEV and its constituents a solid base on which to build a new foundation for Virginia's next generations of college students.

## Introduction

The State Council of Higher Education for Virginia (SCHEV), pursuant to its statutory responsibilities under §23-9.6:1.1 of the Virginia Code, and in partnership with Virginia's colleges and universities, state policymakers, and other key constituencies, released in December 2002 the current strategic plan for higher education entitled *Advancing Virginia Through Higher Education: The Systemwide Strategic Plan for Higher Education in Virginia*. While the plan called for its goals to be met by 2010, a new strategic planning cycle was introduced with the passage of the 2005 Restructured Higher Education Financial and Administrative Operations Act. This report will outline progress to date on meeting the goals and their related performance measures outlined in the current plan.

The vision statement developed by the Systemwide Strategic Planning Advisory Committee served as the framework for the plan:

*Virginia's system of higher education is recognized globally as a model of excellence in learning, leadership, and research, and as a catalyst for economic prosperity and an enhanced quality of life.*

In keeping with this vision, the plan emphasizes three areas – enrollment, research, and instruction. Specifically, the plan calls for the Commonwealth of Virginia to accomplish the following goals for higher education by 2010:

- Goal 1 – Accommodate at least 61,000 additional students.
- Goal 2 – Increase Virginia's national standing in sponsored research.
- Goal 3 – Enhance the Commonwealth's commitment to instructional quality.

Associated with each of these three goals are various performance measures that illustrate how the Commonwealth will measure success and/or progress toward meeting the respective goal. For Goal 1, the performance measures are:

- Number of additional students served
- Student retention, graduation, and number of credits required for degree completion
- Transfer rates between community colleges and senior institutions

For Goal 2, the following performance measures will illustrate how progress has been made toward increasing Virginia's national standing in sponsored research:

- National research ranking by institution
- Number of graduate programs ranked

- License revenue from commercialization of intellectual property

Lastly, the performance measures associated with improving instructional quality in furtherance of Goal 3 are:

- Faculty salaries relative to peer institutions
- Number of graduates in areas of critical skill shortage
- Biennial Reports of Institutional Effectiveness and Competency Assessments

The three goals outlined in the current strategic plan have been used to inform the goals outlined in the 2005 Restructured Higher Education Financial and Administrative Operations Act. Therefore, considerable consistency exists between the goals of the current strategic plan and the goals of the Restructuring Act.

In the second part of this report, the aforementioned performance measures and their related results are detailed.

## **Assessment of Outcomes**

### ***Goal 1: Accommodate at least 61,000 additional students***

The original enrollment goal of “accommodat[ing] at least 61,000 additional students” was based on 2001 enrollment projections produced by SCHEV, which used Fall 2000 enrollments as the basis of comparison. In 2001, SCHEV projected 38,000 more students would enroll in Virginia higher education institutions by 2010. The 2003 enrollment projections placed that number at 61,000 additional students beyond Fall 2000.

### **Number of additional students served**

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A comparison of the total enrollment of public and private (nonprofit) institutions in Virginia between Fall 2000 and Fall 2005 reveals that 49,276 additional students have already enrolled. From a base of 363,753 enrolled students, an increase of 13.5% yielded a Fall 2005 total of 413,029 students. Early enrollment estimates for the public institutions suggest that the enrollment projections from 2005 are still accurate. The largest overall enrollment increases between Fall 2002 and Fall 2005 at public institutions were at George Mason University (2,928 students) and Virginia Commonwealth University (3,340 students).

As SCHEV strives to provide access to all Virginians, especially those from under-represented populations as required by the Restructuring Act, the agency has found noticeable progress among the public four-year institutions. As part of its duties under the Restructuring Act, SCHEV has been working with the public institutions for nearly 18 months to develop Institutional Performance Standards (IPS), which will serve as the basis of annual certification that institutional goals are, and continue to be, aligned with state goals. A comparable measure exists in the IPS, in which under-represented

populations are defined as racial/ethnic minorities, first-generation college students, low income (Pell grant eligible) students, and students from the Virginia localities in the lowest quintile of participation rates at Virginia public four-year institutions between 2001 and 2005. In the fall of 2000, there were 43,648 such students, and that total had increased steadily to 47,210 students by the Fall of 2004. Because the data analysis relies on the SCHEV financial aid file, Fall 2005 data will not be finalized until December 2006 when the data collections are completed. However, SCHEV expects this increase to continue because public institutions are setting targets to increase this number as part of the IPS process currently underway.

### **Student retention, graduation, and number of credits required for degree completion**

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The Commonwealth has seen an increase of 6,008 degrees awarded by its public colleges and universities, which represents a 13.2% increase in degrees awarded between 2000-01 and 2005-06 (from 45,282 to 51,290 degrees). Likewise, total awards of degrees and certificates increased from 49,742 to 56,229 over the same period, representing a 13.0% increase.

The average time-to-degree for students pursuing a four-year degree has remained consistent at approximately 4.1 years at public institutions for students who graduated in the years 2000-01 through 2005-06 and who completed a degree at the same institution at which they started. Further, the average total credits earned by these students has remained consistent at 131 credits.

While one might expect the average time-to-degree to be somewhat higher given what is known about graduation rates, most of the students who graduate from the same institution at which they started finish in four years or less. A significant number of students finish in three years because of advanced placement (AP) credit, summer enrollment, course overloads, and other accelerating activities. It is also clear that students graduating from the University of Virginia, the College of William & Mary, and James Madison University significantly drive down the average time-to-degree because of these institutions' very high graduation rates. In some cases, however, students have taken as long as nine or ten years to graduate with a four-year degree.

At the community colleges and Richard Bland College, the average time-to-degree has been much more varied, ranging from a low in 2000-01 of 3.5 years to a current high of 3.9 years. However, this variation comes at a time when the number of degrees awarded has increased significantly and a number of long-time students have completed degree programs. In 2005-06 one student completed a degree some 13 years after first enrolling. If outliers are removed, such as those students taking more than eight years to complete a degree, the average time-to-degree drops to a consistent 3.5 years. In both cases, the average credits earned, including remedial credits, range between 82 and 88 credits. Further, such activity represents the long-term efforts of part-time students pursuing their associate degrees.

## **Transfer rates between community colleges and senior institutions**

The number of students transferring from two-year to four-year institutions in Virginia has increased dramatically in the past five years. The total number of students transferring (with or without an associate degree) from the Virginia Community College System (VCCS) to any Virginia senior institution has increased from 5,750 in Fall 2002 to 5,843 in Fall 2005. These figures represent a 1.6% increase in total transfers moving from the VCCS to four-year institutions. Interestingly the total number of degree-qualified transfer students with the “transfer degree” rose from 1,042 in Fall 2000 to 1,465 in Fall 2005 for a 41% increase. The number of transfer students with associate degrees in applied science (occupational and technical fields) has been more fluid, ranging from 241 in 2000 to 222 in 2005. In 2005, approximately 60% of all the new transfer students (with and without an associate degree) enrolling in public four-year institutions went to three institutions: George Mason University (1,093), Old Dominion University (1,013), and Virginia Commonwealth University (827).

### ***Goal 2: Increase Virginia’s national standing in sponsored research***

The second goal of the 2002 *Systemwide Strategic Plan for Higher Education* called for an increase in Virginia’s national standing in sponsored research. The National Science Foundation compiles and makes available to the public the total dollars expended by institutions of higher education on research. Using this data, the National Center for Higher Education Management Systems calculates the university research dollars expended per capita in each state. In 2002, the most recent data available on research expenditures was from the year 2000. This data indicates that Virginia ranked 37<sup>th</sup> among all states and the District of Columbia in 2000 with \$83 spent in the Commonwealth on university research per capita. This year, the most recent data available on research expenditures is from 2004. In 2004, spending in Virginia reached \$113 per capita, though Virginia remained ranked at 37<sup>th</sup> among all states and the District of Columbia.

The strategic plan specifically called for increases in Virginia institutions’ national research rankings, number of graduate programs ranked, and license revenue from intellectual property.

### **National research ranking by institution**

Using data from the National Science Foundation, institutions are ranked by the total dollars expended. In 2002, the most recent data available on research expenditures was from the year 2000. This year, the most recent data available on research expenditures is from 2004. Rankings for Virginia institutions in the top 200 are listed below in years 2000 and 2004 with the total dollars expended (in thousands of dollars). While each of

the six institutions has increased its total dollars expended, research rankings for four of the six institutions have fallen.

**2000**

**2004**

<b>Institution</b>	<b>Rank</b>	<b>Expenditure</b> (in thousands of dollars)	<b>Rank</b>	<b>Expenditure</b> (in thousands of dollars)
Virginia Tech	51st	\$192,672	55 <sup>th</sup>	\$268,752
University of Virginia	58th	\$174,522	67 <sup>th</sup>	\$228,532
Virginia Commonwealth University	106th	\$88,220	101 <sup>st</sup>	\$132,839
William and Mary	157th	\$34,542	159 <sup>th</sup>	\$49,420
George Mason Univ.	173rd	\$26,793	164 <sup>th</sup>	\$46,210
Old Dominion Univ.	180th	\$25,058	181st	\$34,819

As part of the 2006-08 biennial budget the Governor and General Assembly provided funding support of \$66.2 million in General Fund dollars and \$95.8 million in Non-General Fund dollars to higher education research initiatives in the Commonwealth. Added to this amount was \$33.5 million in equipment allocations in fiscal year 2007 through the Higher Education Equipment Trust Fund. Language found in the sponsored programs area of each institution's section of the budget requires them to report to the General Assembly by October 1, 2007 on their use of this investment. This investment is likely to further stimulate sponsored research further in later years because additional or updated research facilities are a known need within the Commonwealth.

### **Number of graduate programs ranked**

The *US News and World Report* graduate program rankings, while perhaps driven by institutions' perceived reputations more than is preferable, provide a useful benchmark on this measure and are available and updated annually. Virginia has a number of both public and private institutions represented in these rankings. Yet the list below, while not comprehensive, demonstrates that most of the ranked programs in Virginia are found at the University of Virginia and Virginia Tech.

#### *US News and World Report* Rankings 2007 Edition -Top Graduate Schools

(A "T" represents a ranking where the institution is tied with one or more institutions.)

College of William & Mary

Law - #27T

Eastern Virginia Medical School

Medical School: Primary Care - #52T



George Mason University  
Law - #37T

University of Virginia  
Education - #19T  
Medical School: Research - #25  
Medical School: Primary Care - #31T  
Engineering - #30  
Law - #8  
Biomedical/Bioengineering – #12T  
Chemical Engineering - #32T  
Civil Engineering - #39T  
Computer Engineering - #27T  
Materials Engineering - #28T  
Mechanical Engineering - #36T  
Education: Administration/Supervision - #25  
Education: Curriculum/Instruction - #10  
Education: Elementary Education - #8T  
Education: Higher Education Administration - #20  
Education: Secondary Education - #7T  
Education: Special Education - #4  
Business: Accounting - #29T  
Business: Management - #7  
Business: Marketing - #17T  
Business: Nonprofit - #6T

University of Richmond  
Law - #80

Virginia Tech  
Engineering #30T  
Aerospace/Aeronautical Engineers – #17T  
Civil Engineering - #10T  
Computer Engineering - #30T  
Environmental/Environmental Health Engineering - #11T  
Industrial/Manufacturing Engineering - #10T  
Materials Engineering - #28T  
Mechanical Engineering - #16T  
Education: Vocational/Technical - #6

Washington & Lee  
Law - #22

Many of these program rankings were first calculated in the 2006 rankings publication.

## **License revenue from commercialization of intellectual property**

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An annual survey conducted by the Association of University Technology Managers (AUTM) collects information from universities on the number of new U.S. patent applications filed, the number of licenses and options executed and the adjusted gross license income received by institution. The results for Virginia's public institutions participating in the AUTM survey are listed below for fiscal year 2004, the most recent year for which data are available.

<b>Institution</b>	<b>New Patent Applications</b>	<b>Licenses Executed</b>	<b>Gross License Income</b>
UVA Patent Foundation	179	55	\$5,288,938
VT Intellectual Properties	93	24	\$2,693,990
VCU	51	17	\$670,007
GMU	26	5	\$52,309
ODU	8	2	\$25,000

## ***Goal 3: Enhance the Commonwealth's commitment to instructional quality***

### **Faculty salaries relative to peer institutions**

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For the last 20 years, Virginia has employed a peer group process to benchmark faculty salaries. The last full revision to institutional peer groups was completed in 1997 for use in the 1998-2000 biennium budget cycle. Peer groups for three institutions were revised in 2002 along with an adjustment to the method used to determine peers for the VCCS.

Overall faculty salary averages reached the 61st percentile in 1999-2000 – exceeding the Commonwealth's goal of reaching the 60th percentile of peers. Virginia's faculty salaries did not, however, keep pace with peers between 2000 and 2003. The percentile rankings reached a low for all institutions in 2002-03 when the four-year average dropped to the 36th percentile and the two-year average declined to the 40th percentile.

Faculty salary averages have begun to rebound since the 2002-03 fiscal year. Two four-year institutions were above the 60th percentile of their peers and most institutions were above the 45th percentile by 2005-06.

The 2006 General Assembly directed the Council to “review, and if necessary, update institutional peer groups” and to report its findings by July 1, 2007. The peer groups will be updated in spring 2007, which will result in a re-evaluation of the 60th percentile targets for each institution.

## **Number of graduates in areas of critical skill shortage**

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When the 2002 Strategic Plan was developed, no definition existed for critical skill shortage areas. For the 2006 IPS process, SCHEV has defined high-need areas as engineering, medicine, nursing, and teaching. Over the next year, the Council will develop a quadrennial process for determining future areas of critical skills shortage in order to provide an adequate window for institutional response. However, using the current definition demonstrates that institutions have been responsive to need in these areas in that degree awards have increased 27% since 2002-03. Institutions awarded a total of 2,811 more degrees in high-need areas, increasing from 10,408 annual awards in 2002-03 to 13,219 in 2005-06.

## **Biennial Reports of Institutional Effectiveness and Competency Assessments**

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Public institutions are required to regularly assess and report the results of student learning in six areas of core competency — areas of knowledge and skill that supersede majors, disciplines, and institutional missions. The six areas of core competency include written communication, mathematical reasoning, scientific reasoning, critical thinking, oral communication, and information technology literacy. In accordance with SCHEV guidelines for assessment, institutions are permitted to define the competency and standards for performance in each of the six areas in the context of their own missions, goals, and objectives. In addition, the guidelines permit institutions to define the methodology for conducting the assessment and the instruments used to evaluate student performance.

Since 2002, institutions have submitted plans to assess student competency and results of the assessment in each of the six areas. In 2006, the Academic Affairs Committee of the State Council charged a task force with evaluating the first cycle of the core competency assessment process. Results of the evaluation are expected later this year.

## **Reflections and Next Steps**

The measures used in this document are a good-faith effort at describing the intent of the three goals in the 2002 plan. They represent movements in the desired direction and progress toward achieving each of the goals. Given the opportunities presented by the Restructuring Act, specifically the Institutional Performance Standards, we envision that the next version of the statewide strategic plan will address specific and measurable goals, representing a new generation of higher education policy. The good work of Virginia's public institutions in responding to the measurable goals of the Act, and the knowledge that Virginia has an exceptional private sector of higher education, will afford SCHEV and its constituents a solid base on which to build a new foundation for Virginia's next generations of college students.