

STATE COUNCIL OF HIGHER EDUCATION FOR VIRGINIA

**SCHEV Offices
101 N. 14th Street, 9th Floor
Richmond, Virginia
June 3, 2015
4:00 p.m. – 5:30 p.m.**

Special Committee on Measures and Targets

1. Call to Order
2. Discussion of Strategic Plan Measures and Targets
3. Other Business

Committee members:

Gil Minor
Marge Connelly *
Heywood Fralin *
Steve Haner
Gene Lockhart
William Murray

* *Note: this will be an electronic communication meeting. Two members will participate by phone:*

- *Marge Connelly will participate from 1525 River Rd., Upper Black Eddy, PA*
- *Heywood Fralin will participate from 2917 Penn Forest Blvd., Roanoke, VA*

Please call (804) 652-7744 if there is an interruption in the connection from either location.

FRAMEWORK OF THE STATEWIDE STRATEGIC PLAN FOR HIGHER EDUCATION

(As Adopted by the State Council of Higher Education for Virginia
on September 16, 2014, and October 28, 2014)

MISSION: Higher education in Virginia will advance postsecondary learning, research and public service that enhance the civic and financial health of the Commonwealth and the well-being of all its people.

VISION: Higher education will transform the lives of Virginians, our communities and our Commonwealth.

GOAL 1: Provide Affordable Access for All

STRATEGIES:

- 1.1 Expand outreach to PK-12 and traditionally underserved populations
- 1.2 Improve the college readiness of all students
- 1.3 Cultivate affordable postsecondary education pathways for traditional, non-traditional and returning students
- 1.4 Align state appropriations, financial aid and tuition and fees such that students have broader access to postsecondary education opportunities regardless of their ability to pay

GOAL 2: Optimize Student Success for Work and Life

STRATEGIES:

- 2.1 Strengthen curricular options to ensure that graduates are prepared with the competencies necessary for employment and civic engagement
- 2.2 Provide effective academic and student services infrastructures focused on persistence and completion
- 2.3 Increase on-time completion of certificates and degrees
- 2.4 Engage adults and veterans in certificate and degree completion and lifelong learning

GOAL 3: Drive Change and Improvement through Innovation and Investment

STRATEGIES:

- 3.1 Identify and implement public funding strategies to sustain long-term planning and responsiveness
- 3.2 Cultivate innovations that enrich quality, promote collaboration and improve efficiency
- 3.3 Foster faculty excellence, scholarship and diversity
- 3.4 Enhance higher education leadership, governance and accountability

GOAL 4: Advance the Economic & Cultural Prosperity of the Commonwealth & its Regions

STRATEGIES:

- 4.1 Build a competitive, future-ready workforce for all regions
- 4.2 Become a catalyst for entrepreneurship and a model for business incubation
- 4.3 Target funding, resources and partnerships to support research and development
- 4.4 Expand participation and engagement in public service & institutional service to the community
- 4.5 Demonstrate the impact of higher education on state and regional economic development

Statewide Strategic Plan for Higher Education in Virginia
PROPOSED MEASURES, TARGETS AND RELATED INDICATORS

By 2030, more Virginians will graduate with high quality credentials without excessive debt. The Commonwealth, through its public and private colleges and universities, will award 1.5 million degrees and certificates, improve student success, and increase by 30 percent Virginia's share of research expenditures.

THE COMMONWEALTH'S TARGETS FOR THE YEAR 2030	
M1 Awards	<p><u>Measure:</u> Degrees and certificates awarded to undergraduate students</p> <p><u>Target:</u> 1.5 million total undergraduate awards</p>
M2 Student Success	<p><u>Measure:</u> Completion rates of students from underrepresented populations (URP)</p> <p><u>Target:</u> Annual improvement in completion rates of URP students that closes the success gap between URP and non-URP students by 2030</p> <p><i>(Note: URP students meet one or more of: non-white, Pell grant recipient, age 25 or older, from a Virginia locality with low undergraduate attainment rates.)</i></p>
M3 Affordability	<p><u>Measure:</u> Percentage of the student's budget for low- and middle-income students met by expected family contribution, state and federal grant aid</p> <p><u>Target:</u> 50 percent</p> <p><i>(Note: The student's budget, or cost of attendance, is the calculated cost of attending the institution, which includes transportation, room/board, tuition/fees, supplies, books and other expenses.)</i></p>
M4 Research Activity	<p><u>Measure:</u> Virginia academic-research expenditures as a percentage (share) of the US total</p> <p><u>Target:</u> A share 30 percent larger than in federal FY2013</p>
THE COMMONWEALTH'S ANNUAL COMMITMENTS	
M5 Price	<p><u>Measure:</u> Tuition and fees of in-state undergraduates as a percentage of family income</p> <p><u>Target:</u> A percentage better (lower) than the national average; less than 10 percent of income for low- and middle-income students</p>
M6 Economic Prosperity	<p><u>Measure:</u> Wages of graduates in the workforce</p> <p><u>Target:</u> 75 percent of graduates earn sustainable wages three years after graduation</p> <p><i>(Note: Sustainable wages are at least 200 percent of poverty, consistent with the lower end of the range for middle income recommended by the Higher Education Advisory Committee and approved by Council in 2011.)</i></p>
Related Indicators	
<ul style="list-style-type: none"> • I1 Overall Enrollment • I2 Enrollment of Students from Underrepresented Populations • I3 Persistence and Retention • I4 Need-based Borrowing • I5 Default Rates • I6 State Funding • I7 Institutions' Internal Reviews of Policies and Processes • I8 Institutional Performance Standards • I9 Accreditation Status • I10 Regional Impact • I11 Cultural Prosperity ("best state" rankings and well-being) • I12 High-demand Degrees 	

**Statewide Strategic Plan for Higher Education in Virginia
PROPOSED MEASURES AND TARGETS – ADDITIONAL INFORMATION**

THE COMMONWEALTH’S TARGETS FOR THE YEAR 2030		
Measure	Baseline	If This Target Is Achieved...
M1 Awards	0 for 2013-14 (2013-14 award production totaled 77,547: 12,315 certificates, 18,475 associate; 46,757 bachelor’s)	This measure and target address awards from public and private (non-profit) institutions for in- and out-of state students, as well as other workforce credentials not currently counted, pending development of data collection methodology. Virginia will be the top state in educational attainment and reach the 60.5%/10% benchmarks of working adults having a degree/certificate. (In 2013, Virginia had 46.1% of working adults with a degree.) Research shows that adults with higher levels of education are more active citizens than others, are more likely to have health and retirement benefits with their jobs, are far less likely to be unemployed, have healthier habits, live longer and contribute in other positive ways to their communities. While other states may also pursue “top state” status, Virginia’s dedicated focus, exemplary collaboration, and shared ownership in implementing the statewide strategic plan will result in its attainment of this target.
M2 Student Success	<p><u>All Institutions (2006-07):</u> Normal Time SSI for URP Students: 55%, 51% for Extended Time Normal Time SSI for non-URP Students: 67%, 67% for Extended Time</p> <p><u>Public Four-years (2006-07):</u> Normal Time SSI for URP Students: 70%, 71% for Extended Time Normal Time SSI for non-URP Students: 77%, 82% for Extended Time</p> <p><u>Private Four Years (2006-07):</u> Normal Time SSI for URP Students: 55%, 52% for Extended Time Normal Time SSI for non-URP Students: 68%, 63% for Extended Time</p> <p><u>Public Two-Years (2008-09):</u> Normal Time SSI for URP Students: 34%, 32% for Extended Time Normal Time SSI for non-URP Students: 43%, 42% for Extended Time</p>	<p>This measure and target use SCHEV’s Student Success Index (SSI), which is based on students entering as first-time in college with full-time enrollment at entry and includes part-time and transfer students. The SSI provides varying amounts of time to complete a degree or continue enrollment to be counted as success. Bringing the completion rate of URP students up to that of non-URP students will support achievement of additional awards and eliminate achievement differences for URP students.</p> <p>For purposes of this measure, URP students are defined as follows:</p> <ul style="list-style-type: none"> • Non-white US citizens and permanent residents. • Degree-recipients receiving Pell grants at any time during the five years prior to degree award. • Non-traditional students: age 25 or older at entry. • Students from Virginia localities with low associate and baccalaureate attainment rates.

Measure	Baseline	If This Target Is Achieved...
M3 Affordability	38% of the student's budget (cost of attendance) for low- and middle-income students was met by expected family contribution, state and federal grant aid in 2013-14.	The measure and target address cost of attendance at public institutions. Institutional aid and loans contribute to the remaining 50% of the cost of attendance. Shared responsibility is implied, among families (expected family contribution, institutions (cost containment), state aid, and federal aid (Pell). In addition, in order to meet this target, institutions are expected to demonstrate administrative and academic efficiencies in their operations. Meeting at least half the need of low- and middle-income students through expected family contribution and state and federal grant aid will make college affordable for populations for whom affordability is an obstacle. Achieving this target will require a significant contribution, over time, by the state.
M4 Research Activity	2.12% of total US academic R&D expenditures in Federal FY 2013 (which was second highest rate for Virginia in past 10 years)	A modest annual increase of 2% per year in Virginia's share of the national total will yield a proportional increase of at least 30% over the next 15 years. In 2030, Virginia's share of the national total will have increased from 2.12% to 2.75%, which will likely represent an additional \$1B+ in economic impact. Funding of academic research, especially federal funding, is increasingly unpredictable and unlikely to grow appreciably, at least in the near term. Therefore, a target that seeks to increase Virginia's share of the total guarantees the target's ongoing meaningfulness regardless of the size of future national totals; so doing also accounts for inflation (or deflation).

THE COMMONWEALTH'S ANNUAL COMMITMENTS		
Measure	Baseline	If This Target Is Achieved...
M5 Cost	<p>In-state undergraduate tuition and fees as a percentage of family income is 0.1 percentage points above the national average - 2013</p> <p>(a) in-state undergraduate tuition and fees represented 10.1% of the low family income for students from 31.6% of the Virginia families - 2013</p> <p>(b) in-state undergraduate tuition and fees represented 8.7% of the middle family income for students from 31.8% of the Virginia families - 2013</p>	<p>The target assumes that low-income students will receive the maximum Pell award (\$5,645 in 2013-14) and that middle income students will receive a Pell award equal to the average Pell of all students (\$2,207 in 2013-14). Factoring in differentiated Pell award amounts for low- and middle-income students adjusts for net tuition and fees. Reducing in-state undergraduate tuition and fees as a percentage of family income will serve as a significant affordability strategy. The current trend shows tuition and fees as a percentage of family income is increasing. Reversing this trend and keeping the percent low will improve affordable access to Virginia's colleges and universities.</p>
Measure	Baseline	If This Target Is Achieved...
M6 Economic Prosperity	<p>65% for graduates of 2009-10 (baseline) current year: 45% for one year post-completion of the graduates of 2012-13</p>	<p>The target of 75% of graduates earning sustainable wages three years after graduation exceeds the historic highs of 74% in 2001 and 73% in 2006. While many graduates may choose employment within the first three years after graduation, some graduates will pursue full-time service opportunities upon graduation. Others, while employed, will not have realized their full earning power yet. More individuals earning sustainable wages will improve the economy and the life of the individual. Research shows that "Federal, state, and local governments enjoy increased tax revenues from college graduates and spend less on income support programs for them, providing a direct financial return on investments in postsecondary education."</p>

**Statewide Strategic Plan for Higher Education in Virginia
MEASURES, TARGETS AND RELATED INDICATORS
TECHNICAL DEFINITIONS DOCUMENT**

This document provides technical information regarding the measures, targets, and related indicators that accompany the [Statewide Strategic Plan for Higher Education](#) approved by the State Council of Higher Education for Virginia on September 16, 2014, and October 28, 2014, and endorsed by the General Assembly on February 20, 2015.

This document addresses the Commonwealth's targets and commitments as follows:

- four targets for the year 2030 (pages 2-8)
- two annual commitments (pages 9-14)
- related indicators (pages 15-26).

Technical definitions for each of the statewide measures and indicators are included in this document. Technical definitions consist of the following components: measure, target, target year, expected outcome if target is achieved, definitions, baseline, baseline year, description of the calculation, current year value, annual trend, URL of existing reports, and other clarifying information as appropriate.

Related documents include:

- *Framework of the Statewide Strategic Plan for Higher Education* (one page, available at <http://www.schev.edu/StrategicPlan/SCHEVStatewideStrategicPlanFramework20141028.pdf>)
- *Proposed Measures, Targets, and Related Indicators* (one page, available xxx)
- *Proposed Measures and Targets – Additional Information* (three pages, available xxx)

SUMMARY

By 2030, more Virginians will graduate with high quality credentials without excessive debt. The Commonwealth, through its public and private colleges and universities, will award 1.5 million degrees and certificates, improve student success, and increase by 30% Virginia's share of research expenditures.

THE COMMONWEALTH’S TARGETS FOR THE YEAR 2030

MEASURE M1: Awards

Measure: Degrees and certificates awarded to undergraduate students

Target: 1.5 million total undergraduate awards

(Note: this is 250,000 cumulative additional undergraduate awards (rounded up from 246,185: 46,909 certificates; 48,825 associate; 150,451 bachelor’s))

Target Year: 2030 (2029-2030 academic year)

Expected Outcome: Virginia will be the top state in educational attainment and reach the 60.5%/10% benchmarks of working adults having a degree/certificate. In addition, research (*sources below*) shows that adults with higher levels of education are more active citizens than others, are more likely to have health and retirement benefits with their jobs, are far less likely to be unemployed, have healthier habits live longer and contribute in other positive ways to their communities.

Sources:

- “Education may not only improve a person’s finances, it is also linked to better health habits and a longer life.” **Higher education linked to longer life, CDC report shows**, by Nanci Hellmich, USA TODAY, Updated 5/16/2012 1:03 PM, <http://usatoday30.usatoday.com/news/health/story/2012-05-16/health-of-USA-nation/54984404/1>
- “College-educated people not only tend to have higher earnings than people without degrees, they are also more likely to have health and retirement benefits with their jobs, and they are far less likely to be unemployed. And having a degree is not just about economic advantages. People with college degrees are more likely to be satisfied with their jobs. They are more likely to read to their children, which helps their kids be better prepared for school than other children. People with degrees are also healthier.” **The Value of a College Degree**, by Emily Hanford, August 2011, <http://americanradioworks.publicradio.org/features/tomorrows-college/dropouts/value-of-college-degree.html>
- From *Education Pays 2013: The Benefits of Higher Education for Individuals and Society*, by Sandy Baum, Jennifer Ma, Kathleen Payea, The College Board, 2013, <http://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report-022714.pdf>
 - “College-educated adults are more likely than others to receive health insurance and pension benefits from their employers.”
 - In 2011, employers provided pension plans to 52% of full- time workers with high school diplomas, 65% of those with bachelor’s degrees, and 73% of those with advanced degrees (Figure 1.12A).
 - In 2011, employers provided health insurance to 55% of full- time workers with high school diplomas, 69% of those with bachelor’s degrees, and 73% of those with advanced degrees (Figure 1.13A).
 - “Adults with higher levels of education are more active citizens than others.”
 - In 2012, 42% of four-year college graduates, 29% of adults with some college or an

associate degree, and 17% of high school graduates volunteered for organizations (Figure 1.20B).

- Among adults ages 45 to 64, 59% of high school graduates and 80% of bachelor's degree recipients voted in the 2012 election (Figure 1.21A).
- "College education leads to healthier lifestyles, reducing health care costs."
 - The gap between the smoking rates of four-year college graduates and high school graduates increased from 2 percentage points in 1962 to 13 points in 1982, and to 17 points in 2012 (Figure 1.16A). –
 - Within each age group, college-educated adults are less likely than others to be obese. In addition, children living in households with more educated parents are less likely than other children to be obese (Figures 1.18A and 1.18B.)

Definitions: Annual undergraduate degrees and certificates awarded by all institutions (public/private, 2- and 4-year, in-state and out-of-state – “all-all”)

Baseline and baseline year: 0 for 2013-14 (2013-14 award production totaled 77,547: 12,315 certificates; 18,475 associate; 46,757 bachelor's)

Data are available when and how often: Annually around October 15

Description of calculation: The average annual percent change overall is 1.93%, though the percent varies from year to year across institutional types (public or private) and award type (certificates, associate, or bachelor's).

Current year value: Total 77,547: 12,315 certificates; 18,475 associate; 46,757 bachelor's

Annual trend (arrow): From 2015-16 through 2029-30, the annual percent change varies from 1.51% to 1.98% (see page 4)

URL of existing reports: Degrees awarded reports <http://research.schev.edu/apps/info/Reports.Guide-to-the-Degrees-Awarded-Reports.ashx>

Other data sources:

Degree and Certificate Estimates Through 2030

Baseline	2013-2014		
	Public	Private	Total
Certificates	12,054	261	12,315
Associates	17,456	1,019	18,475
Bachelor's	34,424	12,333	46,757
Total	63,934	13,613	77,547

2030 Target			
	Public	Private	Total
Certificates	239,294	4,655	243,949
Associates	325,504	18,921	344,425
Bachelor's	635,658	262,905	898,563
Total	1,200,457	286,480	1,486,937

Average annual change			
	Public	Private	Total
Certificates	2.16%	1.89%	2.15%
Associates	1.75%	1.73%	1.74%
Bachelors	1.68%	2.65%	1.94%
Total	1.79%	2.55%	1.93%

Year-by-year

Certificates	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Public	13,143	13,336	13,559	13,784	14,051	14,362	14,517	14,766	15,030	15,302	15,571	15,826	16,088	16,368	16,653	16,939	239,294
Private	195	240	279	299	295	269	287	298	301	301	303	309	314	318	321	325	4,655
Total	13,338	13,576	13,838	14,083	14,346	14,631	14,805	15,064	15,331	15,603	15,873	16,135	16,402	16,686	16,974	17,264	243,949
Avg change	8.3%	1.79%	1.93%	1.77%	1.87%	1.99%	1.19%	1.75%	1.77%	1.78%	1.73%	1.65%	1.65%	1.73%	1.73%	1.71%	2.15%

Associates																	
Public	17,942	18,216	18,477	18,740	19,071	19,488	19,762	20,091	20,436	20,799	21,163	21,516	21,878	22,256	22,640	23,028	325,504
Private	957	1,028	1,096	1,131	1,139	1,122	1,155	1,182	1,200	1,214	1,230	1,253	1,274	1,293	1,312	1,333	18,921
Total	18,899	19,244	19,573	19,871	20,210	20,610	20,917	21,273	21,637	22,013	22,394	22,769	23,152	23,549	23,952	24,361	344,425
Avg change	2.3%	1.83%	1.71%	1.52%	1.71%	1.98%	1.49%	1.70%	1.71%	1.74%	1.73%	1.68%	1.68%	1.72%	1.71%	1.71%	1.74%

Bachelors																	
Public	35,125	35,615	36,096	36,574	37,219	38,028	38,604	39,234	39,900	40,603	41,317	42,007	42,719	43,454	44,203	44,961	635,658
Private	14,322	14,651	14,976	15,242	15,468	15,699	15,986	16,263	16,533	16,807	17,087	17,381	17,673	17,969	18,271	18,579	262,905
Total	49,446	50,267	51,072	51,816	52,686	53,728	54,590	55,497	56,432	57,410	58,404	59,388	60,392	61,422	62,474	63,539	898,563
Avg change	5.8%	1.66%	1.60%	1.46%	1.68%	1.98%	1.60%	1.66%	1.69%	1.73%	1.73%	1.68%	1.69%	1.71%	1.71%	1.71%	1.94%

Total awards	81,683	83,087	84,483	85,769	87,243	88,969	90,312	91,834	93,399	95,026	96,671	98,292	99,946	101,657	103,400	105,164	1,486,937
Avg change	5.3%	1.72%	1.68%	1.52%	1.72%	1.98%	1.51%	1.69%	1.70%	1.74%	1.73%	1.68%	1.68%	1.71%	1.71%	1.71%	1.93%

Public total	66,209	67,167	68,132	69,097	70,341	71,878	72,883	74,092	75,366	76,703	78,051	79,349	80,685	82,078	83,496	84,928	1,200,457
Private total	15,474	15,920	16,351	16,672	16,902	17,091	17,428	17,742	18,034	18,323	18,620	18,943	19,260	19,579	19,904	20,236	286,480

MEASURE M2: Student Success

Measure: Completion rates of students from underrepresented populations (URP)

Target: Annual improvement in completion rates of URP students that closes the success gap between URP and non-URP students by 2030.

Target Year: 2030

Expected Outcome: Bringing the completion rate of URP students up to that of non-URP students will support achievement of additional awards and eliminate achievement differences for URP students.

Definitions: Total number of First-time in College and New Transfers, full-time students and part-time, who have graduated (with an undergraduate degree) within a defined number of years based on the entry status, or have continued to enroll in the last year of the definition divided by the total number of entering students. (Note: this looks at first credential and thus focuses on degrees. Certificates are often not a first credential.)

URP students are those students meeting one or more of the following criteria:

- a. Non-white US citizen and permanent residents
- b. Degree-recipients receiving Pell grants at any time during the five years prior to degree award
- c. Non-traditional students: age 25 or older at entry
- d. Students from Virginia localities in the lowest quintile of associate and baccalaureate attainment rates

(see <http://research.schev.edu/apps/info/Glossary.Under-represented%20populations.ashx?NoRedirect=1&NS=Glossary>)

Baseline and baseline year:

Public Four-years: (2006-07)

Normal Time SSI for URP Students: 70%, 71% For Extended Time

Normal Time SSI for non-URP Students: 77%, 81% For Extended Time

Private Four Years: (2006-07)

Normal Time SSI for URP Students: 55%, 52% For Extended Time

Normal Time SSI for non-URP Students: 68%, 63% For Extended Time

Public Two-Years: (2008-09)

Normal Time SSI for URP Students: 34%, 32% For Extended Time
Normal Time SSI for non-URP Students: 43%, 42% For Extended Time
Data are available when and how: Annually, typically early January

Description of calculation: Student Success Index

Data table: Warehaus.dbo.Cohort_Lifecycle_AllOptions

Current year value: (Normal Time, 2008-09)

Public Four: 70%, 77%

Private Four: 55%, 68%

Public Two (Normal Time, 2010-11): 36%, 46%

Annual trend (arrow):

Current: Barely upward

Desired: Upward

URL of existing reports:

<http://research.schev.edu/apps/info/Reports.Guide-to-the-Retention-and-Graduation-Reports.ashx>

http://research.schev.edu/gradrates/success_index.asp

Other data sources:

Forthcoming:

http://research.schev.edu/strategicplan/ss_completiongap.asp

MEASURE M3: Aid

Measure: Financial need of low- and middle-income students met by expected family contribution, state and federal grant aid (excludes institutional aid)

Target: 50% of need for low- and middle-income students

Target Year: 2030

Expected Outcome: Meeting at least half the need of low- and middle-income students through expected family contribution and state and federal grant aid will make college affordable for populations for whom affordability is an obstacle. Achieving this target will require a significant contribution, over time, by the state.

(Note: Institutional aid and loans make up the other 50%)

Definitions: Undergraduate students receiving financial aid, or having applied for financial aid; considers “remaining need” to be the student’s budget, which includes tuition and fees, and estimated costs for living expenses, books, and travel, minus the estimated family contribution, and any state and federal gift aid (grants).

See page 11 of this document for definitions of low- and middle-income students.

Baseline and baseline year:

13% (low-income), 48% (middle income), 2013-14 for public and private institutions
(13% (low-income), 48% (middle income), 2013-14 for public institutions;
1% (low-income), 14% (middle income), 2013-14 for private institutions)

Data are available when and how often: early February

Description of calculation: [Student budget (as provided by the institution) – Expected Family Contribution – Federal Grants – State Grants] / [Student Budget] to calculate percent of “remaining need” and count each student by family income for which this calculation is less than 50% divided by total number of students in the income category.

Data Table: Warehaus.dbo.SCHEV_NetPriceByIncomeGroups

Current year value: 13% (lower income), 48% (middle income)

Annual trend (arrow):

Recent: Downward

Desired: Upward

URL of existing reports:

<http://research.schev.edu/apps/info/Reports.Guide-to-the-Financial-Aid-Reports.ashx>

Other data sources:

Forthcoming:

<http://research.schev.edu/strategicplan/affordability.asp>

MEASURE M4: Research Activity

Measure: Share (percentage) of total US academic-research expenditures

Target: Increase Virginia's share by 30%

Target Year: 2030

Expected Outcome: A modest annual increase of 2% per year in Virginia's share of the national total will yield a proportional increase of at least 30% over the next 15 years. In 2030, Virginia's share of the national total will have increased from 2.12% to 2.75%, which will likely represent an additional \$1B+ in economic impact. Funding of academic research, especially federal funding, is increasingly unpredictable and unlikely to grow appreciably, at least in the near term. Therefore, a target that seeks to increase Virginia's share of the total guarantees the target's ongoing meaningfulness regardless of the size of future national totals; so doing also accounts for inflation (or deflation).

Definitions: Academic-research expenditures include reporting institutions' research expenditures from all sources (i.e., federal, state/local, business, nonprofits, institution/internal, and other). These data are available at the institutional, state and national levels.

Baseline and baseline year: 2.12% of total US academic R&D expenditures in Federal FY 2013 (which was second highest rate for Virginia in past 10 years)

Data are available when and how often: Late fall (November or December); annually.

Description of calculation: Total of Virginia institutions' reports of expenditures for sponsored research in all fields and from all sources divided by the national total, using data from the National Center for Science and Engineering Statistics (NCSES) annual National Science Foundation (NSF) *Higher Education R&D Survey*.

Current year value: Unknown; most recent data is baseline year (federal FY13).

Annual trend (arrow): Increase (↑)

URL of existing reports: <https://ncesdata.nsf.gov/webcaspar/>

Other data sources: None

THE COMMONWEALTH'S ANNUAL COMMITMENTS

MEASURE M5: Cost

Measure: Tuition and fees of in-state undergraduates as a percentage of family income

(The following descriptions are for measuring four-year institutions. Data for two-year institutions is available if needed.)

Targets:

- (1) Better than (below) the national average (see attachment 1)
- (2) (a) less than 10% of family income for low-income students (which represent 32% of Virginian families), and
(b) less than 10% of family income for middle family income students (which represent 32% of Virginian families)
(see attachment 2)

Target Year: Annually

Expected Outcome: The target assumes that low-income students will receive the maximum Pell award (\$5,645 in 2013-14) and that middle income students will receive a Pell award equal to the average Pell of all students (\$2,207 in 2013-14). Factoring in differentiated Pell award amounts for low- and middle-income students adjusts for net tuition and fees. Reducing in-state undergraduate tuition and fees as a percentage of family income will serve as a significant affordability strategy. The current trend shows tuition and fees as a percentage of family income is increasing. Reversing this trend and keep the percent low will improve affordable access to Virginia's colleges and universities.

Definitions:

- (1) Tuition and fees include Virginia undergraduate tuition and all mandatory fees.
- (2) Pell grant is a federal need-based grant to undergraduate students for college education.
- (3) Low-and-middle incomes are based on the Council-approved (Higher Education Advisory Committee's recommendation) criteria for student financial assistance. Low income would fall below 200% of the federal poverty line (FPL) and middle income would fall between 200% and 400% of FPL.
- (4) Federal poverty line is based on a family of four people.

Baseline and baseline year:

Baseline:

- (1) in-state undergraduate tuition and fees as a percentage of family income is 0.1% above the national average
- (2) (a) in-state undergraduate tuition and fees net of Pell represented 10.1% of the low family income for students from 31.6% of the Virginia families
(b) in-state undergraduate tuition and fees net of Pell represented 8.7% of the middle family income for students from 31.8% of the Virginia families

Baseline year: 2013

Data are available when and how often: Annual data on a year lag basis. See the data publication time below:

- Population and Family Income: US Census Bureau: American FactFinder, “DP03 - Selected Economic Characteristics, ACS 1-year estimates”: September
- Federal Poverty Line (family of four people): January
- National tuition and fees: late fall, October-December
- National Pell awards: late fall, October-December

Description of calculation:

- (1) Use the US Census Bureau American Community Survey to get the data of families and family incomes,
- (2) Use SCHEV annual tuition and fee report to get the average in-state undergraduate tuition and all mandatory fees.
- (3) Use SCHEV annual student financial aid data to calculate the average in-state undergraduate Pell award.
- (4) Use the “Trend of College Pricing” by the College Board to get the national tuition and fees.
- (5) Use the “Trend in Student Aid” by the College Board to get the national Pell awards.

Current year value: See values in “Baseline”

Annual trend (arrow): A three-year data analysis showed that the current trend is the tuition and fees as a percentage of family income is increasing.

URL of existing reports:

- Population and Family Income: US Census Bureau: American FactFinder, “DP03 - Selected Economic Characteristics, ACS 1-year estimates”
<http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

- Federal Poverty Line: (family of four people) <https://www.census.gov/hhes/www/poverty/data/threshld/index.html>
- National tuition and fees: <http://trends.collegeboard.org/college-pricing>
- National Pell awards, <https://secure-media.collegeboard.org/digitalServices/misc/trends/2014-trends-student-aid-report-final.pdf>

Other data sources:

Attachment 1

Family Income and In-State Undergraduate Tuition and Fees at Four-Year Institutions in 2013-14

	Average Family Income ¹	Average ISUG Tuition and Fees ^{2,3}	% T&F to Family Income
Virginia	\$100,149	\$10,387	10.4%
National	\$86,046	\$8,885	10.3%

Notes:

(1) Families refer to the term used to calculate the family income that treats the incomes of all members 15 years old and over residing in a single household in the past 12 months as a single amount. Data came from the US Census Bureau.

(2) Virginia data came from SCHEV 2013-14 Tuition and Fee Report.

(3) National data came from the Trends of College Pricing, 2014 by the College Board.

Attachment 2

Percent of In-State Undergraduate Tuition and Fees Net of the Federal Aid to Family Income at Four-Year Institutions in 2013-14

2013 Virginia Total Families ¹					2,049,184
2013-14 ISUG tuition & fees at 4-year institutions ²					\$10,387
Family Income Category ³	Family Income over FPL	Virginia Families by Family Income	% Share of Virginia Total Families	2013-14 Pell Grant ⁴	% of T&F Net of Pell Grant to Family Income
Low Income <200% of FPL	\$47,100	647,181	31.6%	\$5,645	10.1%
Middle Income 200%-400% of FPL	\$94,200	651,771	31.8%	\$2,207	8.7%

Notes:

(1) Families refer to the term used to calculate the family income that treats the incomes of all members 15 years old and over residing in a single household in the past 12 months as a single amount. Data came from the US Census Bureau.

(2) Data came from SCHEV 2013-14 Tuition and Fee Report.

(3) FPL=federal poverty line at \$23,550 for family of four people in 2013. Data came from the US Dept of Health and Human Services.

(4) \$5,645 was the maximum award and \$2,207 was the average award in 2013-14 for Virginia in-state students' family incomes in these categories.

MEASURE M6: Economic Prosperity

Measure: Wages of graduates in the workforce

Target: 75% of graduates earn sustainable wages three years after graduation (graduates with a reported wage in Virginia who did not attend higher education following their degree completion)

Target Year: Annually

Expected Outcome: The target of 75% of graduates in the workforce earning sustainable wages three years after graduation exceeds the historic highs of 74% in 2001 and 73% in 2006. While many graduates may choose employment within the first three years after graduation, some graduates will pursue full-time service opportunities upon graduation. Others, while employed, will not have realized their full earning power yet. More individuals earning sustainable wages will improve the economy and the life of the individual. Research shows that “Federal, state, and local governments enjoy increased tax revenues from college graduates and spend less on income support programs for them, providing a direct financial return on investments in postsecondary education.” (Source: *Education Pays 2013: The Benefits of Higher Education for Individuals and Society*, By Sandy Baum, Jennifer Ma, Kathleen Payea, The College Board, 2013. <http://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report-022714.pdf>)

Definitions: Matched wages from VEC of graduates compared to 200% of the poverty level. Graduates pursuing additional education in the five years following completion are excluded.

Sustainable wages are at least 200% of poverty, consistent with the lower end of the range for middle income recommended by the Higher Education Advisory Committee and approved by Council in 2011. Per the approved minutes from the November 14, 2011, Council meeting,

The Council supports the recommendation of the Higher Education Advisory Committee for criteria for determining which families qualify as “low-income” and “middle-income” for the provision of student financial assistance. The recommendation is that low income would fall below 200% of poverty and middle income would fall between 200% and 400% of poverty. The income limits associated with these amounts vary according to family size. (page 12, <http://www.schev.edu/schev/AgendaBooks/2011Nov/1111MinutesFINAL.pdf>)

Baseline and baseline year: 65% for graduates of 2009-10

Data are available when and how often: Data are typically available to SCHEV in June, ready for publication in August/September

Description of calculation: Denominator is count of non-excluded records of wages greater than or equal to the 200% of the federal poverty level, divided by total number of non-excluded graduates with Virginia wages and earnings covered by Unemployment

Insurance. Graduates of 2009-10, all associate and baccalaureate degrees, i.e. PLEVONE IN (20, 25, 40, 41), for all institutions

Results table: Warehaus.dbo.StrategicPlan_SustainableWage

Current year value: 45% for one year post-completion of the graduates of 2012-13

Annual trend (arrow):

Desired: Upward

Recent: Downward

URL of existing reports:

Forthcoming:

<http://research.schev.edu/strategicplan/sustainablewage.asp>

Other data sources:

Living Wage Calculator

Available statewide <http://livingwage.mit.edu/states/51> and by locality

<http://livingwage.mit.edu/states/51/locations>

RELATED INDICATORS

INDICATOR I1: Overall Enrollment (Goal 1)

INDICATOR I2: Enrollment of Students from Underrepresented Populations (Goal 1)

Indicator I1: Overall enrollment

Indicator I2: Enrollment of students from underrepresented populations

Targets: 980,000 additional annual enrollments by 2030, including 294,050 enrollments of underrepresented students (URP)

Target Year: 2030

Definitions: Based on fall headcount enrollments for all institutions (in/out-state, public/private, and 2/4-year institutions undergraduates. Underrepresented includes students indicating minority race/ethnicity on their application, receiving Pell funding, or having a domicile from a locality determined to be in the lowest quintile of degree attainment rates (SCHEV definition <http://schev.edu/ips/review/definitions.asp>).

Baseline and baseline year: 0 for 2014-2015 fall enrollments and 0 URP

Description of calculation: Calculation is aligned to degree targets for 2030 to reach Virginia Business Higher Education Council goal of reaching 128,000 additional undergraduate degrees by 2030. Underrepresented students are based maintaining current enrollment proportions of 30%.

Current year value: 0 2014-15 (442,289 fall enrollment, 132,687 (URP))

Annual trend (arrow): Average annual increase of 1.7%

URL of existing reports: SCHEV fall enrollment reports <http://research.schev.edu/apps/info/Reports.Guide-to-the-Fall-Headcount-Enrollment-Reports.ashx>

Other data sources:

INDICATOR I3: Persistence (Goal 2)

Indicator I3a: Annual retention rate for two-year colleges

Target: 70% (the target of 70% brings the system average up to best-performance of Northern Virginia Community College in recent years)

Target Year: 2029-30

Definitions: Program-placed, First-time in College, associate-degree-seeking or transfer-seeking students, who were enrolled full-time at entry, enrolled at original institution or four-year institution one year later (third regular session term).

Baseline and baseline year: 59% in 2012-13, fall and spring entrants

Description of calculation: Calculated in table, using rule #231 FTIC, FT at Entry, Student Level In (21, 22, 26, 27) and calculation T03/COH_N

Data table: Warehaus.dbo.Cohort_Lifecycle_AllOptions

Current year value: 59%

Annual trend (arrow):

Recent: Slightly Upward

Desired: Upward

URL of existing reports:

<http://research.schev.edu/apps/info/Reports.Guide-to-the-Retention-and-Graduation-Reports.ashx>

Other data sources:

Forthcoming:

http://research.schev.edu/strategicplan/ss_retention_pub2.asp

Indicator I3b: Annual retention rate for four-year colleges

Target and target year: 90% in 2029-30 (the target of 90% is the lowest rate of the four institutions currently with rates above system-wide rate of 86% and it will take considerable improvement among the remaining institutions to achieve an overall increase of four percentage points across all institutions)

Target Year: 2029-30

Definitions: Program-placed, First-time in College, bachelor’s-degree-seeking students, who were enrolled full-time at entry, enrolled at original institution one year later

Baseline and baseline year: 86% for the cohort of fall and spring entrants in 2012-13

Description of calculation: Calculated in Cohort_Lifecycle_AllOptions table, using rule #104 FTIC, FT at Entry and calculation T03/COH_N
Data table: Warehaus.dbo.Cohort_Lifecycle_AllOptions

Current year value: 86%

Annual trend (arrow):
Recent: Slightly Upward
Desired: Upward

URL of existing reports:
<http://research.schev.edu/apps/info/Reports.Guide-to-the-Retention-and-Graduation-Reports.ashx>

Other data sources:
Forthcoming:
http://research.schev.edu/strategicplan/ss_retention_pub4.asp

INDICATOR 4: Need-based Borrowing (Goal 1)

Indicator I4: the number of undergraduate students with need-based borrowing; the total amount of need-based borrowing for undergraduate students

Target and target year: \$0 Subsidized Stafford Loan borrowing by 2030

Definitions: Total Stafford Loan (STALOA) reported in the annual FA = 0

Baseline and baseline year: In 2013-14, 157,224 undergraduate students borrowed an average of \$3,815 for a total \$599,752,465

Description of calculation: Basic sum of value of STALOA and count of students where that value is greater than zero

Current year value: Same as baseline

Annual trend (arrow): Downward

URL of existing reports: http://research.schev.edu/fair/fa19b_report.asp

Other data sources:

INDICATOR 5: Default Rates

Indicator I5: Overall Cohort Default Rate on federal student loans as compared with other states and countries

Target: At or below the 30 percentile

Target Year: Annually

Definitions:

Baseline and baseline year:

Description of calculation:

Current year value: 2011 Ranking: 30 percentile

Annual trend (arrow):

URL of existing reports:

Other data sources:

Student Loan Cohort Default Rates by Year of Completion				
STATE DESCR	2009	2010	2011	2011 Ranking
AMERICAN SAMOA	0.0%	0.0%	0.0%	0%
FRANCE	2.3%	0.0%	0.0%	0%
MARIANAS ISLANDS	0.0%	0.0%	0.0%	0%
MARSHALL ISLANDS	0.0%	0.0%	0.0%	0%
MICRONESIA	0.0%	0.0%	0.0%	0%
REPUBLIC OF PALAU	0.0%	0.0%	0.0%	0%
DISTRICT OF COLUMBIA	5.0%	4.9%	3.9%	11%
NORTH DAKOTA	5.9%	5.6%	4.8%	13%
UTAH	7.6%	7.5%	5.3%	15%
VERMONT	8.3%	6.8%	5.5%	16%
CONNECTICUT	5.4%	6.0%	5.6%	18%
MONTANA	10.5%	9.5%	5.8%	20%
MASSACHUSETTS	7.0%	7.2%	5.9%	21%
NEW HAMPSHIRE	7.0%	7.7%	6.6%	23%
PENNSYLVANIA	8.2%	8.3%	7.0%	25%
WISCONSIN	9.0%	8.8%	7.2%	26%
CALIFORNIA	8.0%	8.6%	7.5%	28%
VIRGINIA	7.9%	8.3%	7.6%	30%
SOUTH DAKOTA	8.6%	9.6%	7.6%	31%
MARYLAND	9.1%	10.2%	7.8%	33%
RHODE ISLAND	6.8%	8.8%	8.0%	34%
VIRGIN ISLANDS	16.5%	12.2%	8.2%	36%
NORTH CAROLINA	11.8%	10.3%	8.3%	38%
HAWAII	9.8%	8.6%	8.4%	39%
NEBRASKA	7.5%	8.5%	8.5%	41%
ILLINOIS	8.5%	9.1%	8.5%	43%
NEW JERSEY	7.4%	8.8%	8.6%	44%
IDAHO	13.8%	11.8%	8.6%	46%
NEW YORK	8.5%	9.8%	8.7%	48%
MINNESOTA	11.1%	11.0%	8.8%	49%
WASHINGTON	10.4%	10.6%	8.8%	51%
DELAWARE	9.9%	10.6%	9.2%	52%
KANSAS	10.7%	10.7%	9.6%	54%
IOWA	14.7%	13.2%	9.7%	56%
INDIANA	13.5%	12.2%	9.8%	57%
MISSOURI	11.0%	11.3%	9.9%	59%
SOUTH CAROLINA	13.6%	12.6%	9.9%	61%
United States	11.3%	11.6%	10.0%	62%
ALASKA	12.1%	12.0%	10.0%	64%
NEVADA	12.0%	12.6%	10.1%	66%
WYOMING	12.1%	11.1%	10.6%	67%
MAINE	11.4%	11.5%	10.6%	69%
COLORADO	11.9%	11.3%	10.7%	70%
MICHIGAN	13.9%	13.6%	10.8%	72%
OHIO	15.7%	14.6%	11.1%	74%
GEORGIA	11.3%	12.5%	11.2%	75%
FLORIDA	11.9%	12.7%	11.9%	77%
GUAM	3.8%	12.4%	12.1%	79%
OREGON	14.2%	15.1%	12.2%	80%
NEW MEXICO	20.9%	16.5%	12.4%	82%
LOUISIANA	12.0%	12.2%	12.7%	84%
TENNESSEE	12.0%	13.4%	12.7%	85%
WEST VIRGINIA	18.3%	16.0%	12.7%	87%
ALABAMA	12.7%	13.5%	12.9%	89%
TEXAS	12.5%	14.3%	13.0%	90%
ARIZONA	14.9%	14.5%	13.1%	92%
KENTUCKY	16.7%	16.2%	13.4%	93%
MISSISSIPPI	16.4%	17.5%	15.2%	95%
PUERTO RICO	13.8%	17.0%	16.0%	97%
OKLAHOMA	15.4%	17.7%	16.0%	98%
ARKANSAS	15.8%	18.7%	17.4%	100%



INDICATOR 6: State Funding

Indicator I6: Percent of cost provided by the state

Target: At least 48% (For over a decade, the following language has appeared in each Appropriation Act, “In determining the appropriate state share of educational costs for resident students, the General Assembly shall seek to cover at least 67 percent of educational costs associated with providing full funding of the base adequacy guidelines...” Also each year, the SCHEV Tuition and Fee Report includes a chart that shows the cost share relationship between the state and in-state undergraduate students. As an indicator of the state’s commitment to higher education, an increasing share of state support is expected.

Target Year: 2015-16, with continuing increases annually toward 67%

Definitions:

Baseline and baseline year:

Description of calculation:

Current year value: For 2014-15, the state share is 47% while the student share is 53%.

Annual trend (arrow):

URL of existing reports:

Other data sources:

INDICATOR 7: Institutions’ Internal Reviews of Policies and Processes (Goal 3)

Indicator I7: Number of institutions conducting reviews of their academic, administrative, or organizational policies and processes

Target: All institutions

Target Year: Biennially in odd-numbered years

Definitions: This process will occur as part of the biennial review of institutional six-year plans.

Baseline and baseline year:

Description of calculation:

Current year value:

Annual trend (arrow):

URL of existing reports:

Other data sources:

INDICATOR 8: Institutional Performance Standards (Goal 3)

Indicator I8: Number of public institutions meeting institutional performance standards

Target: 100%

Target Year: Annually

Definitions: Biennial certification of institutions assessed as fundamentally meeting Institutional Performance Standards

Baseline and baseline year: Baseline: 100%, baseline year: 2014

Description of calculation: Number of institutions certified divided by 17, based on action by Council

Current year value: 100%

Annual trend (arrow):

Recent: Flat

Desired: Flat

URL of existing reports:

<http://www.schev.edu/council/AgendaBookIndex.asp>

Other data sources:

INDICATOR 9: Accreditation Status (Goal 3)

Indicator I9: Number of institutions meeting accreditation requirements

Target: All public and private non-profit institutions remain in compliance with all requirements of regional accreditation

Target Year: Annually

Definitions: To maintain accreditation by the Commission on Colleges (COC) of the Southern Association of Colleges and Schools (SACS) an institution must be in compliance with the COC principle of integrity; 12 core requirements; 14 comprehensive standards; and relevant federal requirements. One or more findings of non-compliance can result in be placed on Warning or Probation, or being removed from accreditation.

Baseline and baseline year: B: All institutions are accredited; one is on Probation. Y: 2014

Description of calculation: Annual count of number of institutions accredited by and sanctioned by SACSCOC.

Current year value: Accredited = 72; Warning = 0; Probation = 1; Removed = 0

Annual trend (arrow): Maintain # accredited (↔); Reduce # sanctioned (↓)

URL of existing reports:

- Accredited Institution List (Va total, p.2): <http://sacscoc.org/pdf/webmemlist.pdf>
- Dec 2014
Actions: <http://sacscoc.org/December2014ActionsandDisclosureStatements.asp>
- June 2014
Actions: <http://sacscoc.org/june2014actionsanddisclosurestatements.asp>

Other data sources: None

INDICATOR 10: Regional Impact (Institutional Contributions to Their Communities) (Goal 4)

Indicator I10: Regional performance on various economic development and PK-12 school success measures established by Virginia Performs

Target: Maintain or improve education and economy goals established by Virginia Performs and reported through their eight regions of the Commonwealth.

Target Year: Annually

Definitions: Education and economy goals are defined by Virginia Performs and include several metrics.

Baseline and baseline year: 2014 is the base year. All measures will be benchmarked for improving or maintaining based on prior year performance. For example, education includes 3rd grade reading, high school graduation, and high school drop outs. For the Central region, these areas were improving or maintaining in 2014. In 2015, these areas will be reviewed again to determine if they changed their improving or maintaining status.

Description of calculation: The Virginia Performs Scorecard uses a variety of measurement sources for the scorecard. Data definitions are provided for each measurement area on the VA Performs website.

Current year value: In a review of the regions, all areas are maintaining or improving for education measures. For the economy measures, several are worsening are poverty for the Eastern, Hampton, Southwest, Valley, West Central regions. Employment growth is worsening for Southside and Southwest and business startups are worsening for Southside. (Note: We may wish to discuss if we want to benchmark on all economy measures as some overlap in the research area.)

Annual trend (arrow): This is hard to do since there are so many metrics. Perhaps, we reference the regional trends report in the URL below.

URL of existing reports: <http://vaperforms.virginia.gov/Regions/regionalScorecards.php>
<http://vaperforms.virginia.gov/Regions/regionalTrends.php>

Other data sources:

INDICATOR 11: Cultural Prosperity (“best state” rankings and well-being) (Goal 4)

Indicator I11 (“best state” rankings): Virginia’s rankings on various state rankings/lists

Target: Identification as ‘top’, ‘best’ or ‘#1’ in state rankings/lists on indicators of quality of life/prosperity (i.e., best in which to live; to do business; to raise children)

Target Year: Annually

Definitions: See definitions at web links below.

Baseline and baseline year:

- Top States to Live In (CNBC): #22 2014
- Best State to Make a Living In (Forbes) #7 2014
- Best State for Business (Forbes) #4 2014
- Top States for Business (CNBC): #8 2014
- Best State to Raise a Child
 - Child Well-being (Kids Count, AECF) #9 2014
 - Chance for Success Index (EdWeek) #9 2014

Description of calculation: Differs by ranking/list. See description at each link below.

Current year value: TBD in Summer 2015

Annual trend (arrow): Increase (↑) to top/best/#1, then maintain (↔)

URL of existing reports: <http://www.cnbc.com/id/101758236>
<http://www.forbes.com/pictures/fjle45gefq/best-states-to-make-a-living/>
<http://www.forbes.com/best-states-for-business/>
<http://www.aecf.org/resources/the-2014-kids-count-data-book/#state-rankings>
<http://www.edweek.org/media/ew/qc/2014/shr/16shr.us.h33.pdf>

Other data sources: None

Indicator I11 (well-being): To be determined

An action plan will be developed to address the Well-Being Indicator. A group of institutional representatives will be convened to develop a plan to consider various

institutional initiatives underway that measure well-being and explore what a statewide measure might look like.

Target:

Target Year:

Definitions:

Baseline and baseline year:

Description of calculation:

Current year value:

Annual trend (arrow):

URL of existing reports:

Other data sources:

INDICATOR 12: High-Need Degrees

Indicator I12: To be determined

Target:

Target Year:

Definitions:

Baseline and baseline year:

Description of calculation:

Current year value:

Annual trend (arrow):

DRAFT – 04.21.2015

URL of existing reports:

Other data sources:

MEASURE M6: Economic Prosperity

Measure: Close the gap of unfilled job in in-demand occupations and sectors

Target: In in-demand occupations and sectors, unfilled job openings will be reduced by 20% by placement of students from Virginia universities

Target Year: 2020, using annual measurements

Expected Outcome: Virginia will identify and track the unfilled openings in high-demand occupations that are of most importance to companies in defined target sectors of advanced manufacturing, cybersecurity, health IT, logistics, and information technology. While many factors impact a company's hiring policies, the placement of graduates from Virginia universities into the companies in Virginia's strategic sectors will raise the confidence of business leaders to continue growth in the Commonwealth, thus creating additional revenue from payroll taxes of the employees. Research shows that "Federal, state, and local governments enjoy increased tax revenues from college graduates and spend less on income support programs for them, providing a direct financial return on investments in postsecondary education." (Source: *Education Pays 2013: The Benefits of Higher Education for Individuals and Society*, By Sandy Baum, Jennifer Ma, Kathleen Payea, The College Board, 2013. <http://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report-022714.pdf>)

Definitions: In-demand occupations and strategic sectors to be determined by the Virginia Economic Development Partnership and the Virginia Board of Workforce Development.

Baseline and baseline year: Analysis of baseline 2016 TBD by Virginia Board of Workforce Development.

Data are available when and how often: For job openings, real-time data may be available from private-sector vendors such as Wanted Analytics and Burning Glass. Quarterly data available through Virginia Employment Commission.

Description of calculation: Beginning with baseline year in strategic sectors and in in-demand occupations, use 2016 numbers as base, measuring annually to determine percentage changes in job openings in these occupations and sectors.

Current year value: Unknown

Annual trend (arrow):

Desired: Downward

Recent: Unknown

URL of existing reports:

Virginia's Workforce System Report

Card <http://vaperforms.virginia.gov/PriorityAssessment/Workforce/WorkforceReportCard2015.pdf>

Other data sources:

JobsEQ/Chmura <http://www.chmuraecon.com/products/jobseq/>

Wanted Analytics <https://www.wantedanalytics.com/>

Burning Glass <http://www.burning-glass.com/>

EMSI <http://www.economicmodeling.com/>

MEASURE M6: Economic Prosperity

Measure: Increase the connection and exposure of students to businesses, non-profits, and public sector employers in Virginia through internships, paid or non-paid.

Target: 100% of students in Virginia's public institutions of higher education who want an internship will have served on in business, non-profit, or government organization.

Target Year: 2025, using annual measurements

Expected Outcome: Virginia will identify and track students in institutions of higher education who are interested in serving in internships. Outcomes expected include a higher percentage of Virginia students become employed by Virginia businesses. Under the Higher Ed Marketing Partnership MOU, Virginia may choose to create a system of connectivity between public institutions of higher education and the business community, using the University-Based Economic Development Team as a portal for business/intern connectivity. Bloomberg Business reports that in some high-value industries (technology, finance) candidates with internship experience will have twice the success in being hired as candidates without such experience. <http://www.bloomberg.com/bw/articles/2014-08-15/skipped-your-college-internship-youre-far-less-likely-to-get-a-job-in-business> Internships also provide companies with a way of keeping their eyes on a fresh stream of talent, as noted in the Worcester Business Journal <http://www.wbjournal.com/article/20120220/PRINTEDITION/302209986/internships-provide-benefits-for-students-and-employers>

Definitions: Internships will be defined by a consensus of the higher education institutions and may include length of internship, financial benefits, business sector, occupational sector, and ultimate job placement.

Baseline and baseline year: Analysis of baseline 2016 TBD by Virginia's universities and community colleges through an analysis of their individual institutions, reported back through SCHEV.

Data are available when and how often: TBD, likely annually.

Description of calculation: Beginning with baseline year, using 2016 numbers as base, measuring annually to determine percentage changes numbers of students in Virginia's universities who are placed in internships in Virginia businesses, non-profits, or government. Measure annually and determine percentage change.

Current year value: Unknown

Annual trend (arrow):

Desired: Upward

Recent: Unknown

URL of existing reports:

Unknown

Other data sources:

www.Internships.com

Virginia's higher education institutions

MEASURE M6: Economic Prosperity

Measure: For in-demand occupations identified by Virginia businesses, increase the number of certifications and credentials awarded.

Target: increase percentage of business-approved credential and certifications awarded by Virginia's institutions of higher education, by 50,000 on the way to achieving a business-credentialed workforce of 500,000

Target Year: 2018, using annual measurements for reaching an additional 50,000; and by 2030, using annual measurements for reaching 500,000.

Expected Outcome: Virginia will take active steps to achieve the Administration's goal of 50,000 STEM-H business-validated credentials to be awarded to students and adults, within the next three years <https://commerce.virginia.gov/credentials-to-compete/> Such credentials should create more viable candidates for jobs in Virginia's companies. Creating a strong cadre of business-credentialed citizens will solidify Virginia's commitment to support its business community with a talent pipeline into the future, thus giving Virginia a competitive advantage for business growth that directly impacts the Virginia economy. Higher education institutions have capacity to facilitate steps to achieve these goals by more impactful deployment of continuing education efforts; in addition, the Virginia Community College System stands ready to amplify their capabilities by identifying those "credentials that count" and creating certification and credentialing curriculums to meet employer needs.

Definitions: VCCS is currently assessing the impact of business-led credentials across the target sectors as well as in-demand occupations. Over 400 individual credentials are currently offered by VCCS; determining which of those are in occupations leading to increased employability and career pathways will result in clearer definitions of the appropriate credentials on which to focus.

Baseline and baseline year: Analysis of baseline 2016 TBD by Virginia's universities and community colleges through an analysis of their individual institutions, reported back through SCHEV.

Data are available when and how often: TBD, likely annually.

Description of calculation: Beginning with baseline year, using 2016 numbers as base, measuring annually to determine percentage changes numbers of students in Virginia's

universities and community colleges who receive a business-endorsed credential in a high-demand occupation or strategic sector.

Current year value: Unknown

Annual trend (arrow):

Desired: Upward

Recent: Unknown

URL of existing reports:

Unknown

Other data sources:

Virginia's higher education institutions & Community College System

Council on Virginia's Future