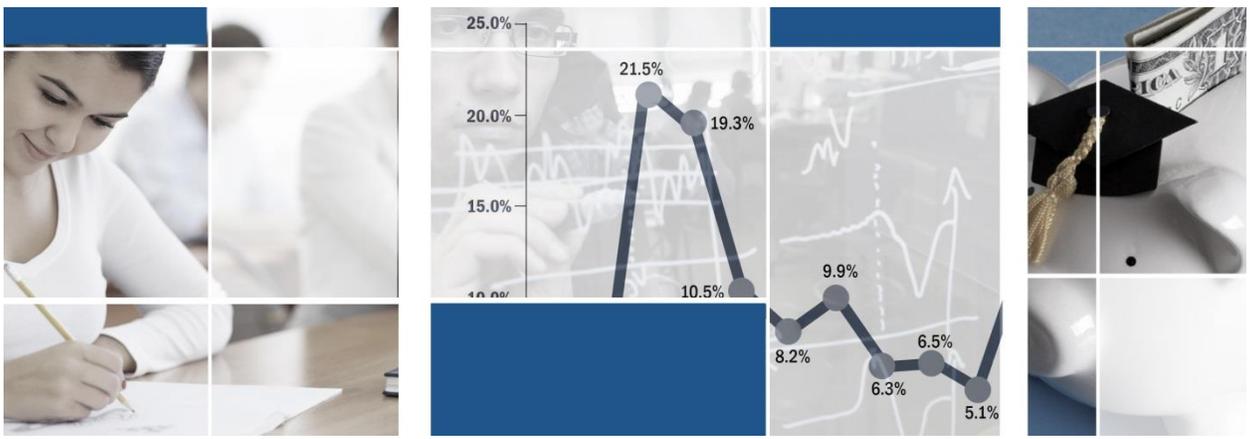


January 2019



The Virginia Plan for Higher Education

Annual Report for 2018

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PURPOSE OF THIS REPORT

Virginia faces a future in which higher education will play an increasingly important role. Virginians will need deeper and broader knowledge and skills to be engaged, productive participants in our evolving Commonwealth and its economy. At the same time, the demographics of the emerging generation are changing, as an increasing share of our youth will come from populations that historically are underrepresented in both higher education and the highly educated sectors of our workforce. These changes transpire at a time when the cost of attending college has increased beyond the capacity of many Virginians.

In 2014, the State Council of Higher Education for Virginia (SCHEV) developed The Virginia Plan for Higher Education with the objective to place the Commonwealth as the best-educated state by 2030. It is designed to identify trends that the Commonwealth must address if it is to prosper and succeed. It serves as a vision for Virginia's future through a common framework. This framework is built on the premise that all partners in higher education must work together to help Virginia, its citizens and its regions.

The General Assembly endorsed the plan by passing [joint resolutions](#) in 2015 and requested an annual report. The following report includes findings, recommendations and updates on initiatives, measures and related indicators from 2018.

SUMMARY OF FINDINGS

Each year, SCHEV staff reviews measures, targets and related indicators for The Virginia Plan. These data are included in Appendix A of this report. In addition, staff assesses trends in higher education to identify strengths (✓) and areas of improvement (✖) for Virginia's system of higher education. The following are the findings related to Virginia's progress toward the best-educated state objective related to educational attainment and the four goal areas of The Virginia Plan for Higher Education related to affordable access, student success, innovation and investment, and economic and cultural prosperity.

Educational Attainment

- ✓ **Virginia continued ranking high (6th) in educational attainment** (those with a workforce credential or degree) in the nation for the working-age population ages 25-64.
- ✓ **Virginia raised its ranking from 11th to 9th** in educational attainment in the nation for the younger population, ages 24-35.
- ✓ **Virginia ranked 1st as the “best state for higher education” (by Smart Asset) and 4th as the “best states for business” (by Forbes and CNBC).** These rankings and many others use educational attainment as a key consideration.
- ✗ **Virginia’s overall ranking for the working aged population (ages 25-64) could decline over time** as its younger population is less competitive compared to other states (9th). Also, according to the [Weldon Cooper Center](#), over the last four years, Virginia has lost more of its population due to out-migration of individuals to other states.
- ✗ **Gaps in educational attainment remain by region and by race/ethnicity.** While Virginia’s attainment rates are high compared to other states, significant gaps (averaging 20 to 30 percentage points) remain in rural versus urban areas and between minority and non-minority individuals.

Access and Affordability

- ✓ **Student borrowing, debt and default rates remain steady.** Student borrowing at public institutions, in terms of the percentage of graduates with debt and the average loan amount upon graduation has not changed significantly over the last several years. In addition, student loan default rates at Virginia public institutions were lower than the national average.
- ✓ **Affordable pathway options continue to grow.** Recent legislation related to transfer, funding support for the use of open educational resources and an ongoing focus on financial aid for low- and middle-income students continue to increase the number of affordable options for students and parents.
- ✗ **The projected number of high school graduates between 2018 and 2030 is expected to remain flat** with minor annual increases and decreases during this period according the [Western Interstate Commission for Higher Education](#) (WICHE). In addition, demographics of high school graduates are expected to increase in the percentage of minority race/ethnicity students.
- ✗ **Affordability remains a concern.** Measures and targets related to affordability through The Virginia Plan based on net tuition compared to the national average

and cost of attendance for low- and middle-income students are consistently below target.

Student Success

- ✓ **Graduation rates increased at public four-year institutions** over the last six years, but community college completion rates have declined in recent years. This is related to the lower enrollment rates at community colleges and is part of a national trend. Low enrollment rates typically occur at community colleges when the economy is strong.
- ✓ **Remediation rates improved.** The percentage of students requiring remedial education has continued to decline over the last eight years. This mainly is a result of community college efforts to improve how students are assessed for remediation and how it is delivered.
- ✓ **Institutions continue to grow programs and graduates in high demand occupations.** Over the last 10 years, the number of STEM-H graduates at public four-year institutions grew from 25,137 in 2008-09 to 28,126 in 2017-18. This represents a 52% increase in STEM-H graduates compared to overall degree graduate increases of 45% in the same timeframe. In addition, more than half of new programs developed in the same timeframe, were in the areas of health and engineering.
- ✗ **Underrepresented students continue to complete at a lower rate than other students.** While completion rates increased at four-year institutions, underrepresented students (those who are low-income, minority race/ethnicity, over age 25 and from regions of the state with low attainment rates) complete at an average rate that is seven percentage points lower than other students at both public four- and two-year institutions.

Innovation and Investment

- ✓ **Recent state investments and institutional efficiencies over the last two to three years have kept tuition and fee growth lower than it would have been otherwise.** Based on analysis in the recent SCHEV tuition and fees report, average education and general related tuition and fee growth has averaged between 4.5% to 5.7% in recent years.
- ✗ **While tuition and fee growth is lower than it would have been, rising costs and high tuition and fees remain a concern.** Despite a decrease in the growth, policymakers, students and parents remain concerned about rising costs and high tuition. Virginia receives some of the lowest state support per full-time

equivalent (FTE) when compared to other states (37th) and has higher average tuition and fee rates.

Economic and Cultural Prosperity

- ✓ **Graduate earnings increased slightly.** The percentage of graduates earning sustainable wages three years after graduation increased slightly. In addition, the median graduate earnings three years after graduation also increased.
- ✓ **Business partnerships with higher education to support research, internships and jobs present an opportunity for students and employers to engage.** An ongoing area of interest expressed by the business community and economic developers to help grow Virginia's economy is in the area of business partnerships with higher education.
- ✗ **Virginia's ranking in annual research expenditures compared to other states remains flat.** Despite recent growth in research expenditures of 9%, Virginia expenditures as a percentage of total U.S. research expenditures has not grown proportionately.

RECOMMENDATIONS FOR 2019

Based on the analysis of strengths and areas of improvement SCHEV staff developed recommendations aligned with the four goals of The Virginia Plan for Higher Education.

To increase Virginia's educational attainment rates in the coming years, efforts should focus on improving enrollment and completion rates for underrepresented populations, including minority race/ethnicity students, those from regions of the state with low educational attainment (primarily rural), low-income students and adult students.

The success of higher education in Virginia requires a shared commitment by all stakeholders, including policy makers, institutions, students and parents, businesses and communities. As a result, SCHEV developed recommendations by stakeholder group.

Policymakers and policy influencers: Policymakers and influencers include executive and legislative branch elected officials and staff, and organizations that support education from a policy perspective. These groups have the ability or influence to make

policies and provide funding to higher education. For these groups, SCHEV recommends:

- **Support funding and initiatives for higher education that make college more affordable and predictable, increase talent in high demand areas and support institutional quality and excellence.** In fall 2018, SCHEV provided [budget recommendations](#) that included support in these areas. The Governor’s budget amendments included the full funding recommendation provided by SCHEV for financial aid. SCHEV continues to support other investments that maintain and improve the quality of education, including faculty recruitment and retention and instruction and support services.
- **Review state financial aid funding to ensure that money is aligned with the Commonwealth’s goals.** In more recent years, several institutions have lost enrollments from low- and middle-income students. The current state financial aid funding model uses prior enrollment data to support aid for recommendations for future years. SCHEV plans to review the model and other uses of financial aid to ensure it supports low- and middle-income students.
- **Adopt strategies that further align funding with the needs of the Commonwealth.** In spring 2018, SCHEV partnered with HCM Strategists, a national higher education consultancy group supported by the Lumina Foundation, to develop a strategic finance plan for the Commonwealth. The objective of the plan is to identify strategies to further align funding to the goals of The Virginia Plan for Higher Education. The initial recommendations are expected later this year and will be incorporated into future SCHEV recommendations.
- **Invest in the technology talent pipeline and other high demand areas in cooperation with institutions and businesses.** With the current and expected growth in information technology jobs, the state will need to support investment in the development of new programs, internships and research to meet the growing workforce demands. In addition, while growth of technology jobs are an important element to Virginia’s economy, ongoing support is needed for other areas with critical shortages, including the fields of teaching and healthcare.
- **Grow affordable pathway programs that are proven to increase educational attainment.** Affordable pathway programs are those that offer lower-cost opportunities to a postsecondary education through a defined program. This can include a clearly defined transfer program from associate to bachelor’s degree or

promise-type programs that offer free, discounted tuition or a commitment to admission for students who qualify and agree to meet program requirements.

- **Have agencies and regions set shared goals for educational attainment.** Increasing attainment rates across educational sectors requires a shared commitment by policymakers, education providers and communities. Creating shared commitment can allow these organizations and regions to identify problems, define strategies and set tailored attainment goals that align with the populations they serve.
- **Increase information and resources available for the new college and career graduation and accreditation requirements in secondary education.** Recent changes in pre-K-12 requirements provide greater opportunities to help students and parents plan for postsecondary education. Providing additional resources and tools for college planning to students and parents through the career planning and financial literacy courses in pre-K-12 could help students make better and more informed choices about their education. SCHEV staff plans to work with the Governor's office, the Virginia Department of Education and other partners to support this effort in the coming year.

Institutions operate to deliver instruction and services to students so they can receive a quality education and graduate with the skills to succeed in work and life. SCHEV recommends that they:

- **Review institutional efforts to ensure that all students, including those who are underrepresented, have an opportunity to enroll and succeed.** While many institutions have conducted such reviews, leadership is encouraged to continue identifying opportunities to close the gaps in enrollment and completion for underrepresented students. In addition, institutions should identify strategies for students who drop out to return and obtain a degree either through reverse transfer or through alternative degree completion efforts.
- **Implement strategies to increase rates of transfer and completion of students from associate to bachelor's degree.** SCHEV's partnership with the Aspen Institute to improve transfer affects all institutions in Virginia. The initiative sets goals to increase transfer and completion rates and institutions should engage in this statewide effort.
- **Grow programs and initiatives that support the technology talent pipeline and other high demand areas.** To address the growing need for graduates in high demand fields, institutions should seek ways to support this effort through the development of programs, research, internships and career placement in these areas in partnership with businesses.

- **Continue to identify promising practices and opportunities for efficiencies while maintaining excellence in education.** Institutions should continue to look for ways to save and reallocate resources to keep tuition increases minimal while maintaining quality.
- **Support a study of graduate outcomes.** Understanding the value of a student's education for work and life allows the state, institutions and businesses to know what is working and what areas need improvement in terms of curriculum, skill training and job preparation. SCHEV staff has worked on potential models for administering a survey, and this is expected to be a shared commitment by policy makers and institutions.
- **Align and prioritize strategies to state needs in the six-year plan process.** As institutions develop their six-year plans, priority should be placed on alignment to state needs related to affordability, access, student success, innovation and investment and economic and cultural prosperity.

Business and community organizations. Businesses benefit from higher education through graduates, research and other partnerships. They also serve as the main employer in their community. In addition, many community organizations provide support services to students and parents and communicate with them on regular basis. SCHEV recommends that they:

- **Increase internships and work-based learning opportunities.** Engagement of business in efforts that provide students with early exposure to work can help students learn critical skills prior to seeking a full-time job. Internships and other work-based learning opportunities offer a unique way for businesses, organizations and students to grow.
- **Invest in research and commercialization.** Virginia rates low in private research support. Greater business investment in research and commercialization can support economic growth.
- **Support educational opportunities for employees and communities.** Supporting postsecondary education in the workplace through flexible work schedules and educational assistance programs provides greater opportunities for individuals to grow. In addition, businesses and organizations that communicate and support the value of postsecondary education in their communities can help regions prosper.

Education beyond high school, in all its forms, has transformative powers. It is both a public and a private good. The growing importance of higher education as a requirement for sustainable employment and prosperity imposes an ever-greater responsibility on the

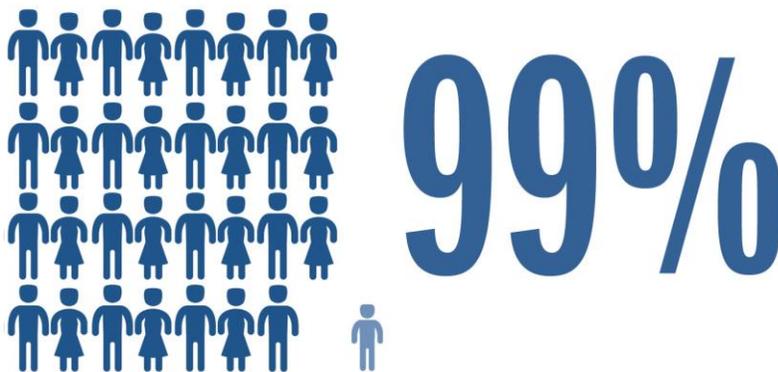
Commonwealth to ensure that Virginia's public higher-education system remains not only viable but vibrant.

APPENDIX A: BACKGROUND ON THE VIRGINIA PLAN FOR HIGHER EDUCATION

The Value of Postsecondary Education

Achieving education beyond high school supports the prosperity of Virginia, its citizens and its regions. An educated population and well-trained workforce increase economic competitiveness, improve the lives of individuals and support community engagement.

Higher levels of education meet the skills needed by employers, as nearly all new jobs require more than a high school degree.



Of the 11.5 million new jobs created since the great recession, 99% require workers with more than a high-school education. Only 80,000 jobs created since the recession required a high-school diploma or less.

Credentials and degrees add value to the Commonwealth. An educated population and well-trained workforce increase economic competitiveness, improve the lives of individuals and support greater community engagement.

Source: Georgetown Center on Education and the Workforce

According to the Georgetown Center on Education and the Workforce, 99% of the jobs (11.5 million) created since the great recession required workers with more than a high school diploma. Only 80,000 jobs required a high school diploma or less.

In addition to needing a postsecondary education to meet current job demands, individuals with an associate degree or greater are 38% more likely to have employer-sponsored health care than those with a high school diploma. Communities and regions also prosper from higher levels of postsecondary education. Individuals with postsecondary education credentials are more likely to vote in elections and volunteer in their communities.

Individuals with higher levels of postsecondary education also provide a greater net benefit to taxpayers through increased tax revenues and reduced government expenditures through social security, Medicaid, Medicare and other services.

Higher levels of education benefit the Commonwealth and its regions through greater tax revenues and lower government expenditures.

Source: “It’s Not Just the Money,” Lumina Foundation

High School Diploma		Associate Degree		Bachelor Degree	
Tax Revenues	\$237,369	Tax Revenues	\$333,373	Tax Revenues	\$510,814
– Government Expenditures	\$211,431	– Government Expenditures	\$161,245	– Government Expenditures	\$129,762
NET BENEFIT	\$25,938	NET BENEFIT	\$172,128	NET BENEFIT	\$381,051

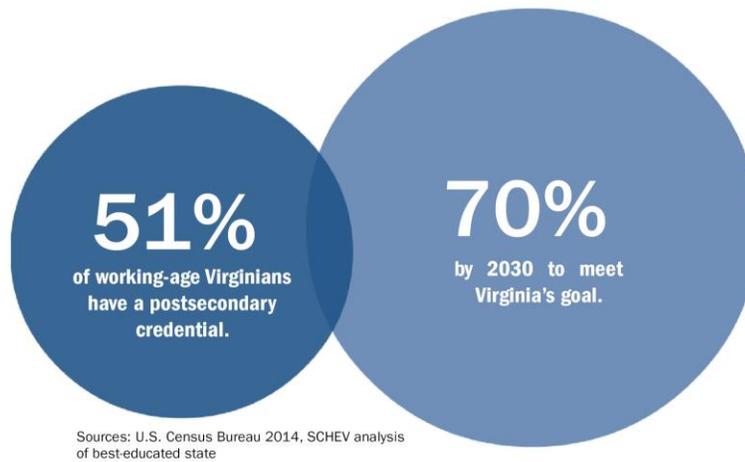
Setting the Objective for Virginia to Be the Best-educated State by 2030

In the development of The Virginia Plan for Higher Education, the Council engaged stakeholders across Virginia to develop a long-term vision that supports the value postsecondary education offers its citizens, its regions and current and future businesses.

The vision focused on supporting higher education at all levels, including workforce credentials, such as industry certifications, state licensures, apprenticeships and certificates as well as traditional degrees. The objective was to ensure that 60% of working-age Virginians (ages 25-64) held a degree (associate or greater) and an additional 10% of the population held a workforce credential (postsecondary certificate, industry certification, state licensure or apprenticeship) based on U.S. Census data. In total, 70% of Virginia’s population would hold some postsecondary credential by 2030; this, based on current trends and estimates, would place the Commonwealth as the top state for educational attainment.

In addition to using the educational attainment rates to track Virginia’s best-educated state status, the rates by state also are used by many state ranking systems, such as those used to rank the best states for business, raising a family and making a living. Virginia scores in the top 10 for many of these other ranking systems. Also, the Commonwealth was ranked as the top state for public higher education in 2018 by Smart Asset based on its high graduation rate, low student-to-faculty ratios and high 20-year return on investment for graduates. (See Appendix E, Related Indicators, of economic prosperity for a full listing and trends.)

Virginia's objective to be the best-educated state requires an increase in the percentage of working-age adults with a postsecondary credential to grow from 52% to 70% by 2030.



While having a well-educated population is beneficial for Virginia, it also is important to ensure that additional credentials align with the talent needs of businesses and that the credentials earned are high quality. In the coming years, through several state and national projects, Virginia will measure quality and assess how well credentials produced by educational institutions are meeting the demands of employers.

Goals, Measures and Initiatives in Support of The Virginia Plan

To meet this vision of becoming the best-educated state by 2030, the Council developed a framework for identifying key areas of focus, areas to measure progress and priorities for the coming years through goals, measures and initiatives. This included the following:

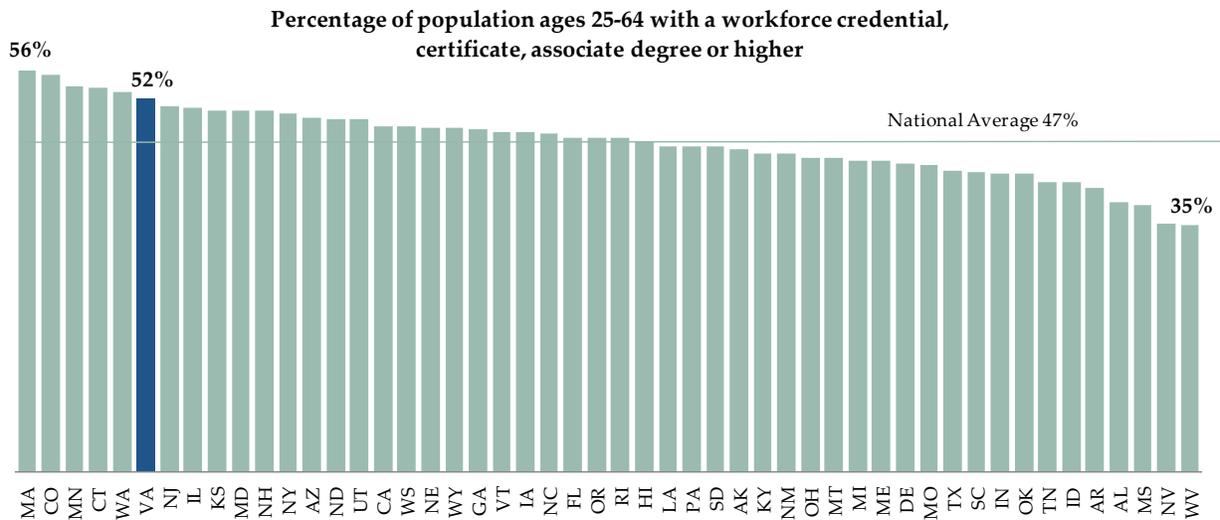
- **Goals (4):** Access and affordability, student success, investment and innovation, economic and cultural prosperity.
- **Measures and targets (6):** Awards, student success, affordability, research, price, economic prosperity.
- **Initiatives (6):** Developing and promoting affordable pathways and pre-K-12 partnerships, seeking legislative changes to support sustainable public funding, recommending initiatives for further restructuring and shared services, measuring quality of undergraduate education, launching a communication strategy and promoting economic development through research.

The following appendices provide an update on progress toward meeting the best-educated state objective, measures and targets and initiatives in 2018.

APPENDIX B: VIRGINIA’S PROGRESS TOWARD BEST-EDUCATED STATE RANKING BY 2030

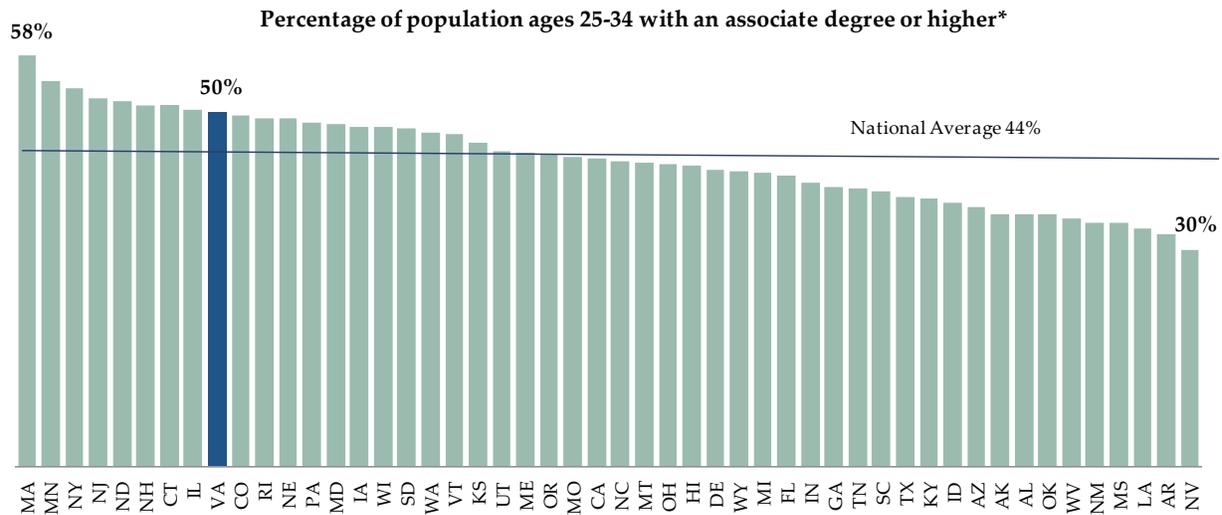
Based on recent data produced by the Lumina Foundation, about 52% of the working-age population ages 25-64 hold a degree or certificate — ranking Virginia sixth-highest among states in the percentage of those with a credential. While this percentage has increased over the last decade, other states also are increasing efforts to improve their education levels as part of state economic-development efforts.

Virginia ranks sixth in the nation for the educational-attainment rate of working-aged adults.



Source: <http://strongernation.luminafoundation.org/report/2018/#nation>.

Virginia is less competitive nationally (9th) for attainment rates of younger generations.



Note: * excludes workforce credentials.
 Source: US Census Bureau, ACS_16_1YR_B15001.

While Virginia ranks high among its working-age population, additional analysis of individuals ages 25-34 with an associate degree or higher provides a potential indicator that Virginia’s ranking could decline as the population ages. Virginia’s ranking slips to 9th when compared to other states for those with an associate degree or higher. Virginia’s educational attainment rate of its 25-34-year-old population is similar to the larger 25-to-64-year-old group with an associate degree or better (50%). However, four states, including New York, New Jersey, North Dakota and Illinois have higher rates of educational attainment for their 25-34-year-old population, despite having a lower ranking than Virginia for the total working-age (25-64 years old) population. As a result, these states may have a better-educated workforce moving forward, and Virginia’s ranking could fall lower as individuals retire.

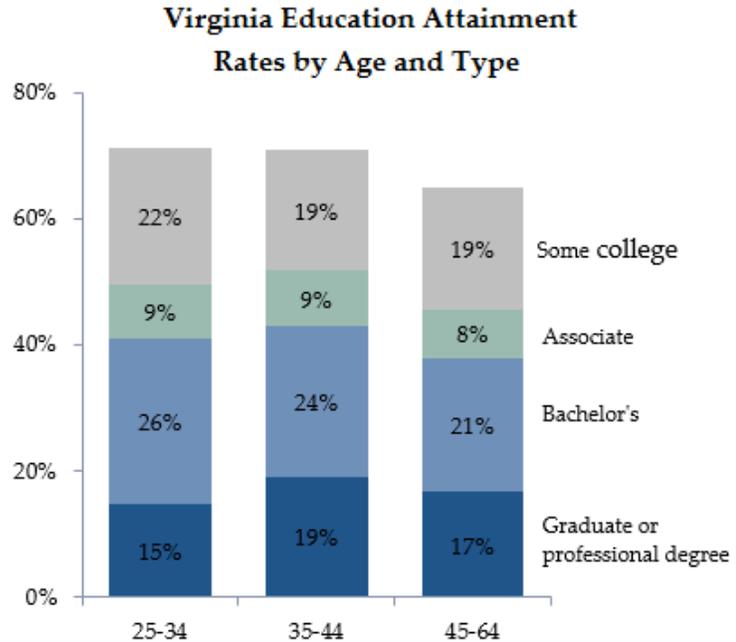
While Virginia has increased its ranking from 11th (based on 2015 Census data) to 9th (based on 2016 Census data) efforts to increase educational attainment for adults and the younger population should remain a focus in the coming year.

The drop in this rate may be a result of recent out-migration. According the [Weldon Cooper Center](#), over the last four years, more individuals have left (out-migration) the state than individuals who have moved to Virginia (in-migration).

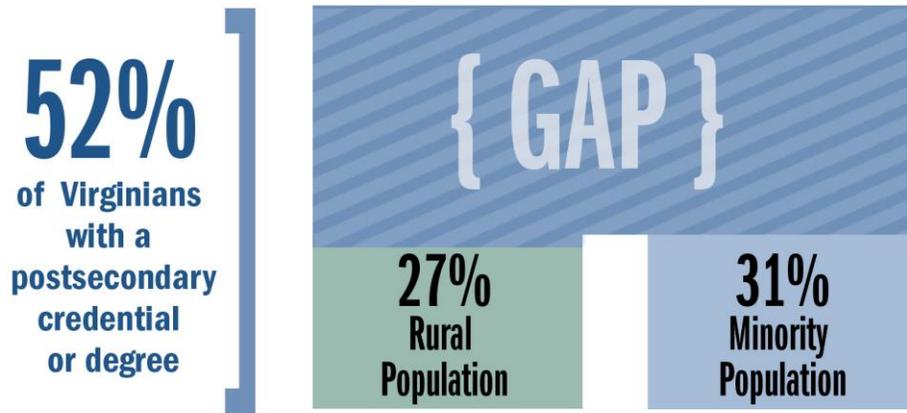
Attainment rates also vary by age in the Commonwealth. While 25-34 year olds have more postsecondary education than any other age group, these individuals also have the highest rate of *some college, no degree*. This could shift in the coming years as older adults earn degrees.

Although Virginia’s ranking in educational attainment rates is high in the nation, gaps in education-attainment rates remain across the state by race and region. In rural areas of the state, only 27% of Virginians have an associate degree or higher. Only 31% of non-Asian minority Virginians hold an associate degree or higher — an estimated 20-percentage-point gap compared with the current total population of 52% with an associate degree or credential.

Gaps remain among rural areas of the state and minority populations when compared to the statewide attainment rate.



Source: U.S. Census Bureau, ACS_16_1YR_B15001.



Sources: Lumina Foundation, Stronger Nation 2018; SCHEV staff analysis.

APPENDIX C: PROGRESS ON MEASURES AND TARGETS

To track progress toward becoming the best-educated state, the Council developed six measures and targets that align with the goals and strategies of the plan. These measures serve as a baseline for future reports as data are available. The following table provides a brief overview of progress on each measure with further details provided for each measure in the sections after. Currently, only two measures are progressing toward their target by 2030; others are not progressing toward the 2030 target or are below their annual commitment.

Measures and Targets	Status
Targets for 2030	
Awards: Degrees and workforce credentials	Progressing toward target, but needs reassessment
Success: Completion rates/gaps	Increasing rates/not closing gaps
Affordability: Cost of attendance as a percentage of family contribution and state and federal grant aid	Not progressing toward target
Research: Research expenditures	Not progressing toward target
Annual Commitments	
Price: Undergraduate net tuition and fees as a percentage of family income	Below commitment
Economic Returns: Wages	Increased but remains below commitment

Awards

Target: Grant 1.5 million awards by 2030, including those that close the gap in unfilled jobs.

Status: Award completion is a primary measure to becoming the best-educated state. Current estimates include awards for associate degrees, bachelor's degrees and certificates. Data are not included for private for-profit institutions as they are not collected by SCHEV.

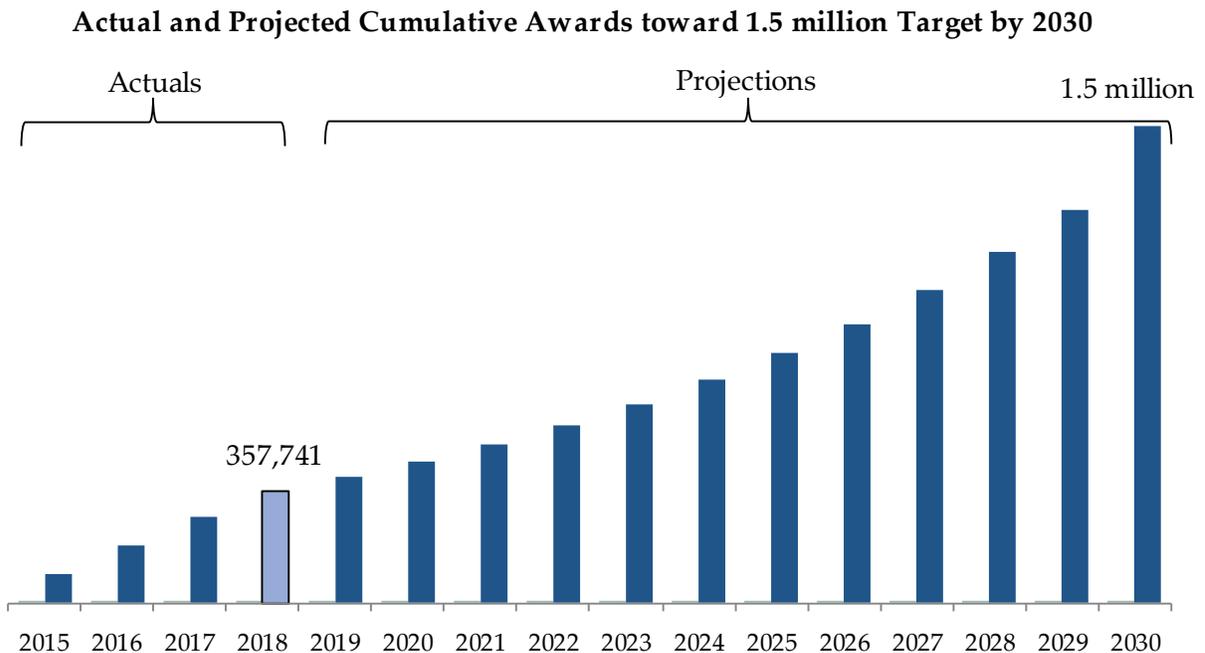
In 2017, data for workforce credentials were added from data reported through the New Economy Workforce Credential Grant. SCHEV also continues to monitor graduate-level degree production and how that impacts the overall Census data.

In 2017-18, Virginia's public and private nonprofit institutions issued a total of 89,529 undergraduate degrees, certificates and workforce credentials. Including graduate

degrees and certificates, the total awards for the same year was 119,980. SCHEV staff estimates Virginia will meet the target of 1.5 million by 2030 based on institution degree estimates. (See following chart.) While the measure and target were developed in 2014, a recent review of the assumptions to project the number of awards to meet the best-educated state goal indicates that this target may need to be adjusted in the coming years. These assumptions include updates on migration patterns, the number of awards earned per individual and the addition of workforce credential data. More information on awards is available through the SCHEV College Completion Scorecard:

http://research.schev.edu/completions/completion_scorecard.asp.

Virginia remains on track to reach the 2030 target.



Success

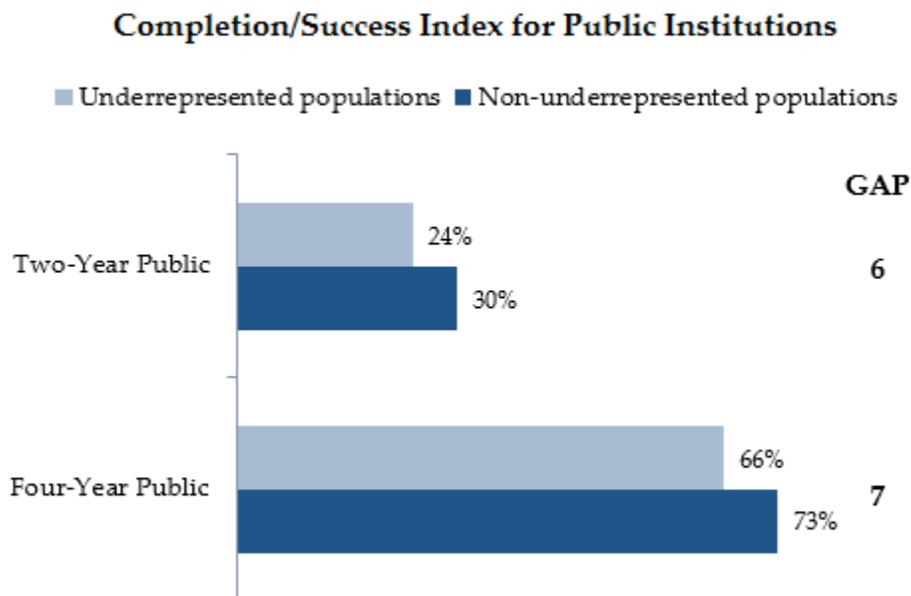
Target: Annually improve completion rates that close the gap between underrepresented populations and traditional students by 2030.

Status: While Virginia ranks higher than average in public college graduation rates when compared to other states (based on the [College Completion report](#) published by The Chronicle of Higher Education), gaps remain in completion rates of underrepresented students and traditional students. Underrepresented students are

those who are of minority race or ethnicity, receive Pell grant funding, are age 25 or older or represent regions of the state with lower education-attainment rates.

For Virginia to continue to produce the awards needed to be the best-educated state, a focus area must be to close the gaps in educational attainment. Currently, the gaps in completion using the SCHEV-calculated student success index among public four-year and two-year institutions are seven percentage points and six percentage points, respectively. The student index is a broader measure than traditional graduation rates as it includes all students, including full-time, part-time, transfer and first-time-in-college students. In addition, success is counted by students who either graduate at their institution or another institution or remain enrolled after the measurement time period.

Gaps in student success remain between underrepresented populations and non-underrepresented populations.



Note: Underrepresented populations include those who are minority race/ethnicity, students ages 25 and older, low-income or from areas of the state in the lowest quintile for postsecondary attainment. Completion is measured by the student success index which includes students who graduate or remain enrolled at any Virginia institution within the measurement timeframe.

Source: http://research.schev.edu/gradrates/success_index.asp. 2012-13 for 4-year/2014-15 for 2-year within 100% timeframe.

Over the past several years, the student success and completion rates of both traditional and underrepresented students have increased at four-year institutions.

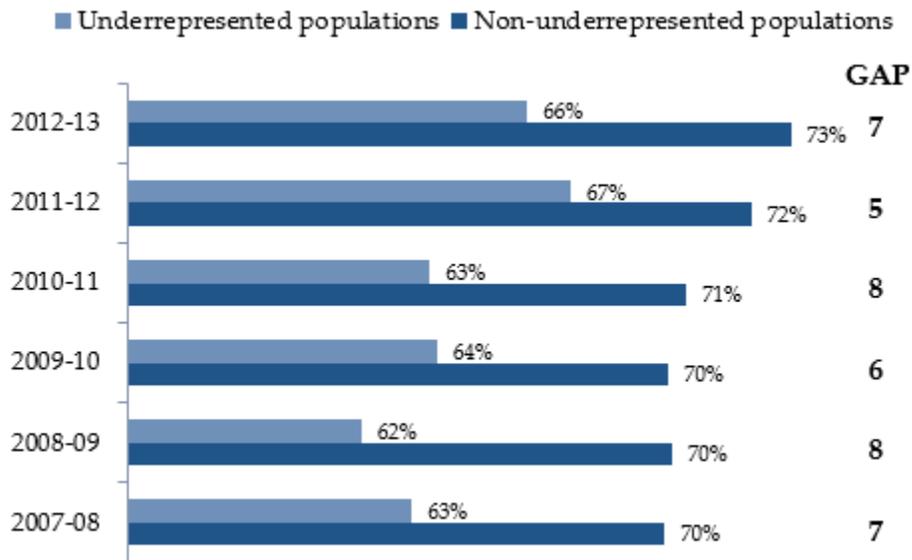
Success rates at public two-year institutions have declined over the past several years. Economic growth and low-unemployment rates likely impacted success with the 2013-14 cohort. Enrollments and completions at two-year colleges are positively correlated with unemployment rates. Completion rates increase when unemployment is high as people seek postsecondary credentials to gain employment. When unemployment rates decline, individuals leave postsecondary education and return to work, often without a credential.

Additional data by specific underrepresented populations (Pell status, age and race) are available on the SCHEV research website:

http://research.schev.edu/enrollment/DistUnder_RepPop.asp

Student success rates have increased at public four-year institutions but gaps remain.

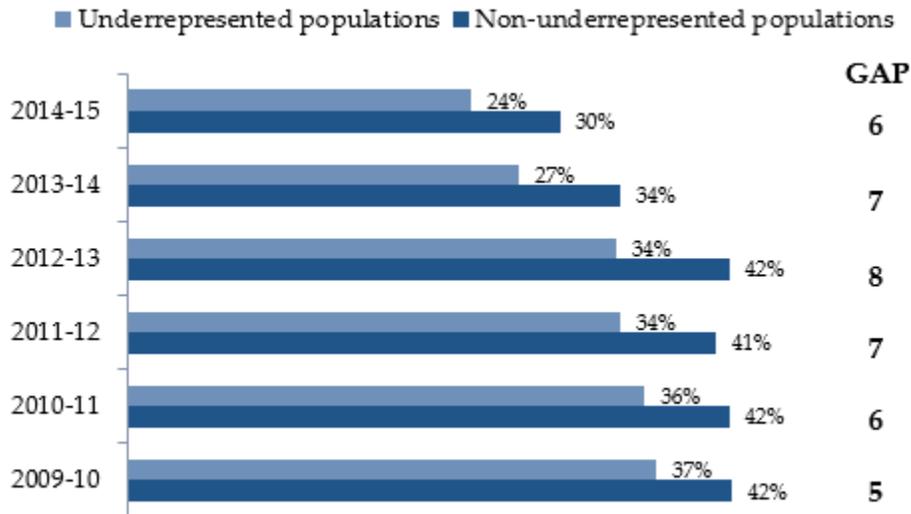
Completion/Success Index at Four-Year Public Institutions



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

Success rates at public two-year institutions have declined in recent years and gaps have grown.

Completion/Success Index at Two-Year Public Institutions



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

Affordability

Target: Meet half of the cost of attendance for low- and middle-income students through expected family contribution and state and federal grant aid by 2030.

Status: In order to maintain affordability and accessibility to higher education, the costs to attend college must be achievable — particularly for low- and middle-income students and families. The cost of attendance includes all related expenses including tuition and fees, room and board, books and supplies, transportation and personal costs.

Affordability is influenced by several interrelated factors including cost of attendance, state and federal financial aid, state support and family financial circumstances. All parties — institutions, state and federal government, and parents and students — contribute to making a college education affordable. The affordability measure attempts to include the many dimensions of affordability.

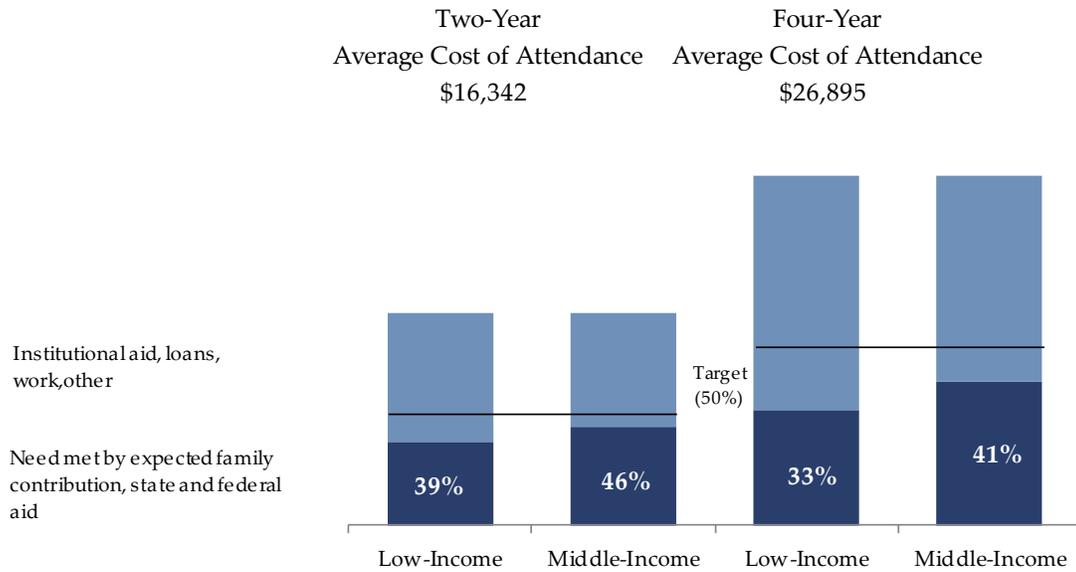
The Virginia Plan’s target is for that share to reach 50% by 2030. Over the last 15 years, the share has declined at both public two- and four-year institutions.

This decline is impacted by several factors, including:

- A decline in state funding to support the costs of higher education. In 2004, the state set a goal to meet 67% of the cost of education. This rate has continued to decline and currently state support is about 20 percentage points less at 45% of the cost of education. This has led to increases in tuition and fees for institutions to make up the difference in cost. In the last two budget cycles, when the state provided increases to higher education, tuition increases were at their lowest in the last 15 years.
- Increases in non-education-related fees. In addition to declining state funding, institution fees for non-education-related activities, including athletics, student services and transportation, also increased and led to higher costs to students. The growth rate of these increases has slowed in recent years. At the SCHEV recommendation, the General Assembly reduced the cap in growth rate from 5% to 3%, starting in 2019-2020.
- Growth in the amount of financial need for students. The rising costs also impact the amount of financial need for low- and middle-income families. The state recently made one of the largest increases in state aid to support the growing gap in unmet need for students, which may help mitigate the decline in the most recent year.

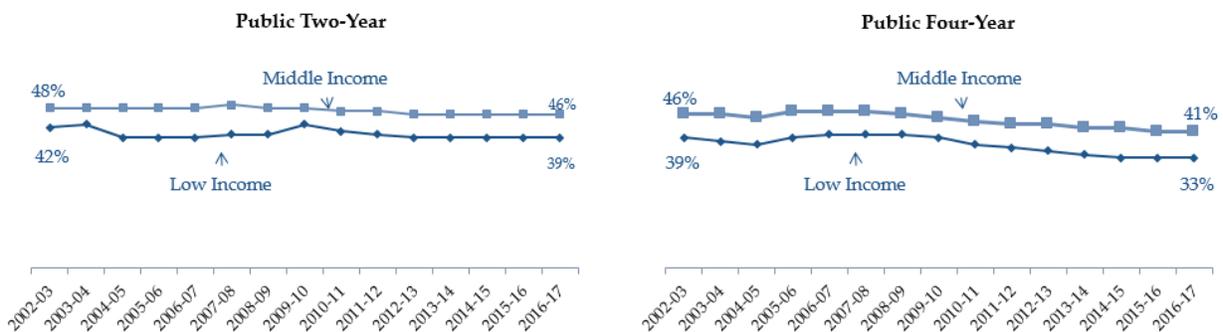
The charts on the following page include data for 2016-17 and also include trends in the percentage of need met over the past 15 years.

Low- and middle-income families are below the 50% target of the percent of cost of attendance met through expected family contribution and state/federal grant aid in 2016-17.



Sources: Percent of need met, <http://research.schev.edu/fair/strategicplan3.asp>
 Cost of attendance: http://research.schev.edu/fair/FA26_report.asp

The percent of cost of attendance met through expected family contribution and state/federal grant aid has declined over the past 15 years.



Source: <http://research.schev.edu/fair/strategicplan3.asp>

Research

Target: Increase Virginia’s research expenditures as a percentage of national totals by 30% by 2030.

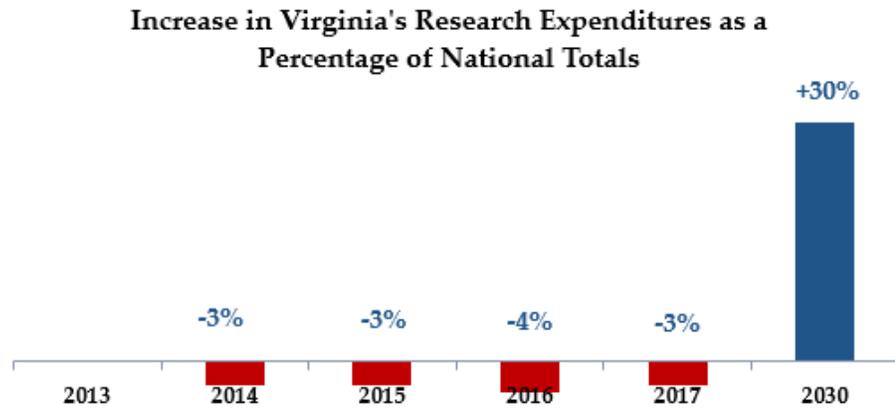
Status: Increases in academic research and development have meaningful consequences for the health and well-being of citizens and for the economy. Public investment in research at colleges and universities spurs development of scientific and medical discoveries, new medicines and treatments, and myriad innovations and inventions, which lead to patents, licenses and the commercialization of results.

While federal funding for research has remained relatively flat in recent years, this goal focuses on increasing the total share of research funding compared to other states. In federal fiscal year 2017, Virginia ranked 14th nationally in annual expenditures on research and development in higher education; this position has remained relatively unchanged since the mid-2000s even as the total dollar amount has doubled. The Commonwealth's total share of expenditures compared to the national total was 2.06%. This marks a four-year decline in the Commonwealth's share of total expenditures since 2013. The target of this measure is to increase this share to 2.75% by 2030.

Recent efforts to establish the Virginia Research Investment Fund and Committee to strategically grow the Commonwealth's research investments combined with institution strategies to increase their research may help this reach this target in the coming years.

The National Science Foundation annually updates data reported by institutions on all research expenditures (federal, state, private, institution, etc.). This information is available at <http://www.nsf.gov/statistics/herd/>.

Virginia’s share of national research expenditures has declined the past four years despite growth in total research dollars.



Virginia research expenditures	\$1.42 Billion	\$1.38 Billion	\$1.41 Billion	\$1.46 Billion	\$1.55 Billion	
% Share national expenditures	2.12%	2.06%	2.06%	2.04%	2.06%	2.75%
Increase in % Share (from baseline 2013)	Baseline	-3%	-3%	-4%	-3%	30% (Target)

Source: National Science Foundation report on expenditures on research as report by institutions for all funding sources (federal, state, private). https://ncesdata.nsf.gov/herd/2017/html/herd2017_dst_06.html

Price

Target: Keep undergraduate net tuition and fees as a percentage of family income lower than the national average and less than 10% of low- and middle-income students.

Status: Keeping undergraduate tuition and fees affordable for all families provides greater access to higher education. Measuring how Virginia compares as a percentage of the national average and based on low- and middle-income students allows the Commonwealth to track how tuition and fees may impact potential students and families. It also recognizes that Virginia families, on average, have higher incomes and can afford higher-than-average tuition and fees.

In 2017-18, Virginia’s percentage of family income for in-state undergraduate tuition and fees was 11.2% compared to the national average of 10.1%. The impact of tuition and fees is greater for individuals who are low-income. The percentage of family income needed for in-state tuition and fees, net of Pell grants, was 13.7% for low-income

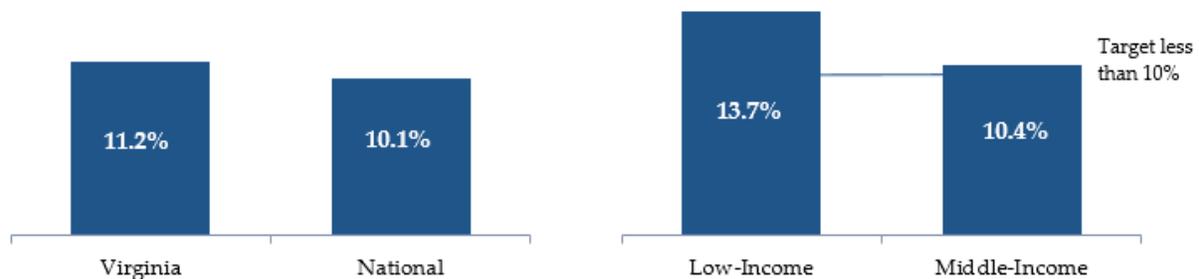
students and 10.4% for middle-income students — above the target of staying below 10%.

Virginia has continued to remain above the national average for the past five years. In addition, the tuition growth has had a greater impact on low- and middle-income students and families. From 2013-14 to 2017-18, the percentage grew from 10.1% to 13.7% for low-income students and 8.7% to 10.4% for middle-income families.

As mentioned in the affordability target, this growth is impacted by declining state investment in public higher education (currently at 45% of the cost compared to the state’s goal of 67%) and rising costs in non-education-related fees at institutions, which result in higher tuition and fees for students and parents. In addition, Virginia continually ranked low compared to other states in state investment in higher education per student (37th at \$5,799 per student), more than \$1,800 below the national average of \$7,642 in 2017. States with low state support frequently have higher tuition and fees. As a result, Virginia ranks 13th in the nation in average tuition and fees per student.

Tuition and fees at Virginia four-year public institutions as a percentage of family income are higher than the national average and above the 10% target for low- and middle-income students.

Tuition and fees as a percentage of family income, 2017-18

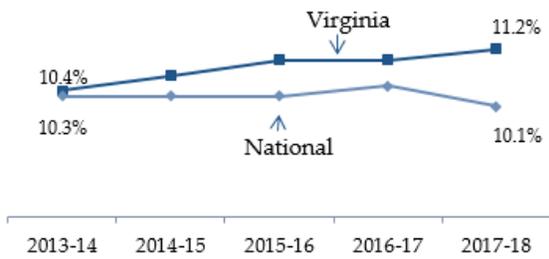


Source: SCHEV staff analysis.

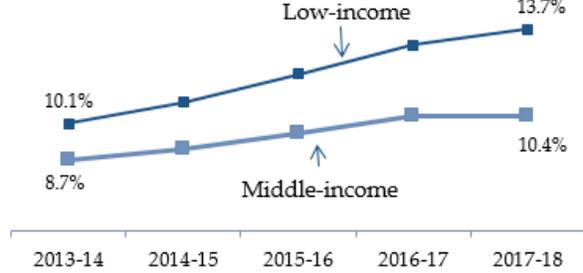
Over the past five years, Virginia’s growth in tuition and fees has remained above the national average and had a greater impact on both low- and middle-income students and families. From 2013-14, the increase in tuition and fees as percentage of family income grew by 3.6 percentage points for low-income students and by 7.7 percentage points for middle-income students.

Tuition and fees as a percentage of family income have remained above the national average and increased for low- and middle-income students.

Undergraduate tuition and fees as a percentage of family income compared to nation



Undergraduate tuition and fees as a percentage of low- and middle-income students in Virginia



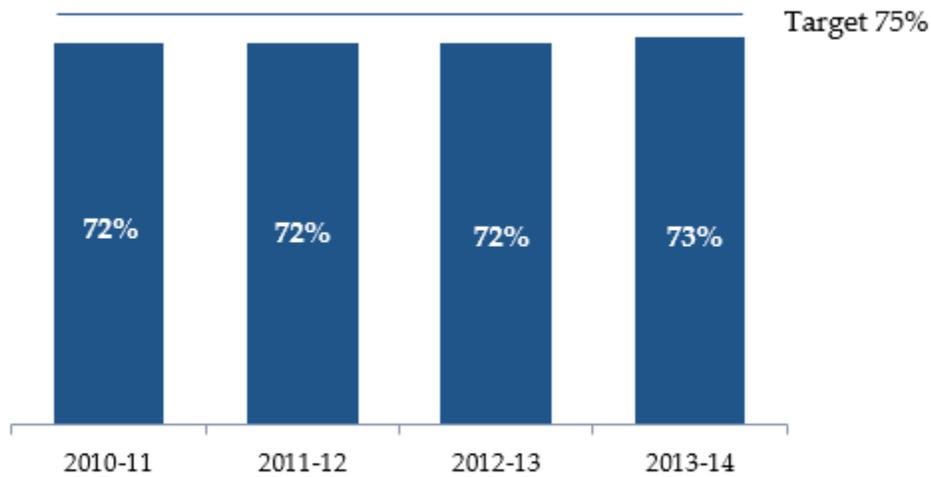
Source: SCHEV staff analysis.

Economic Returns

Target: Ensure that 75% of graduates earn sustainable wages three years after graduation.

Status: While attaining a credential has been shown to improve an individual’s earning over his/her lifetime, an important aspect of higher education is to ensure that graduates earn sustainable wages. This amount currently is based on earnings at or above 200% of the federal poverty level. For a single-member household this is estimated to be \$25,100 per year. Approximately 73% of graduates in 2012-13 earned sustainable wages in 2016 (three years after graduation). This estimate includes all graduates of associate and bachelor’s degree programs.

Virginia is below its annual commitment of ensuring 75% of graduates earn sustainable wages after three years.

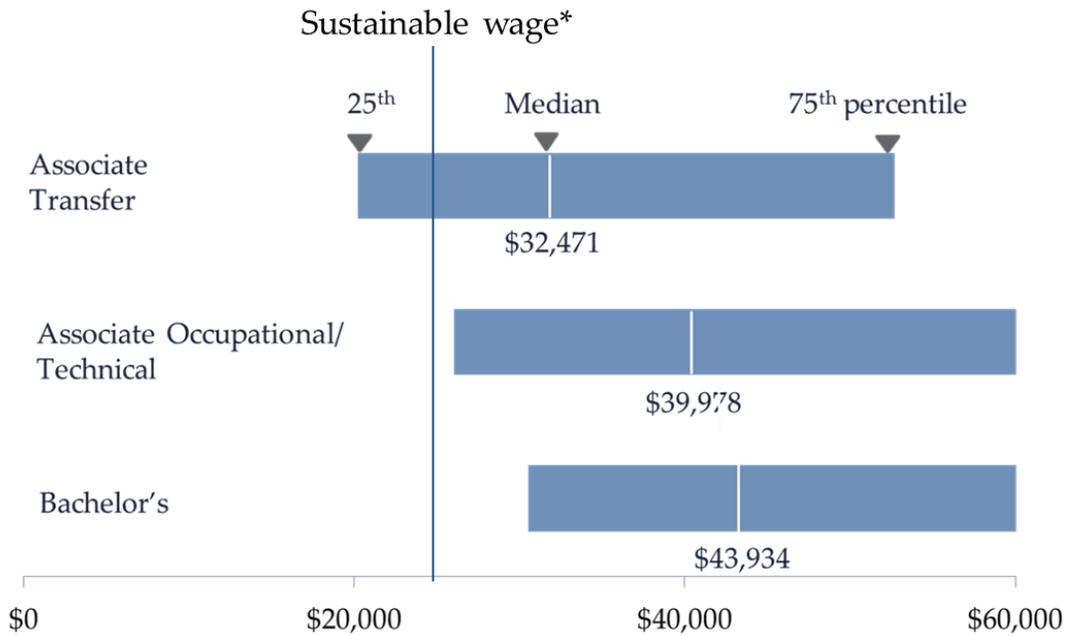


Source: <http://research.schev.edu/eom/strategicplan5.asp>

While graduates from all degrees are impacted by the sustainable wages, the largest group falling below the 75% goal is those with an associate-transfer degree. Associate-transfer degrees tend to have low wages in the first five years upon completion; however, at 10 years post-completion, their earnings are equivalent to associate occupational/technical degrees and nearly equivalent to earnings of bachelor's-degree holders 20 years post-graduation. Earnings also are impacted by major and not just degree; some degree majors have a larger earnings premium than others.

More than 75% of graduates with associate technical and bachelor's degrees have earnings greater than the sustainable-wage target within three years.

Graduate Wages After Three Years by Degree Type



Source: http://research.schev.edu/EOM/EOM18_Report.asp

*Sustainable wages are based on earnings above 200% of the federal poverty level or 24,280 for an individual in 2018.

APPENDIX D: UPDATES ON INITIATIVES AND ACTIVITIES FROM 2018

In an effort to prioritize approaches to improve educational attainment across the Commonwealth, the Council identified six priority initiatives for SCHEV staff to lead or coordinate in 2018. These areas focused on (1) pathway programs, (2) alignment and sustainability, (3) student success, (4) quality, (5) communications and (6) economic development. The following is a summary of select activities related to the initiatives in 2018 as identified at the March 2018 Council meeting.

Pathways

Coordinate the development and implementation of programs that align resources from pre-K-12, colleges, universities and other public sources to ensure affordable, efficient and effective pathways for students in all parts of the state.

Improved transfer pathways for students by:

- Working with legislative staff and members on the [transfer legislation](#) during the 2018 General Assembly session.
- Hosting a transfer forum with institutions to raise awareness and provide a framework for improving transfer opportunities for students.
- Partnering with Aspen Institute and three other states to improve transfer.
- Supporting shared staff between SCHEV and the community colleges to coordinate efforts to improve transfer.

Provided ongoing direct services to more than 18,000 underrepresented high school students. SCHEV staff continued efforts to support underrepresented students at high schools across the state. This included serving over 4,000 high school freshmen through the federally funded [GEAR UP](#) program and 14,000 high school juniors and seniors through the [1-2-3 Go!](#) Initiative — Virginia’s three-steps-to-college program. This included coordination with high schools to help students (1) prepare for college through [College Night](#) activities in partnership with the non-profit Educational Credit Management Corporation, (2) apply to college through [College Application Week](#) in November, (3) pay for college by applying for financial aid through the [Super FAFSA project](#) and celebrate college acceptance (Go!) through [College Decision Day](#) activities.

Strengthened partnerships with pre-K-12 education by visiting all superintendent regions across the state to discuss opportunities to improve secondary to postsecondary

partnerships, partnering with the Virginia Association of School Superintendents to administer a joint survey to identify priority postsecondary opportunities in pre-k-12 and providing presentations at the following conferences: the Virginia Association of School Superintendents, the Virginia School Counselor's Association and the Virginia Department of Education's Equity Conference.

Alignment and Sustainability

Seek legislative and policy changes that support stable and sustainable funding, advance restructuring and improve quality and efficiency.

Supported the passage of five of the seven policy considerations recommended by the Council during the 2018 General Assembly session. In fall 2017, SCHEV recommended several policies to provide greater alignment of funding. These included the development of a reserve fund, the flexibility for institutions to enroll more out-of-state students while maintaining agreed upon levels of in-state student enrollments and several other areas. Five of the policy considerations were approved.

Partnered with HCM Strategists and with lead staff in the Governor's office and money committees to develop a resource map/strategic finance plan. Efforts began in March 2018 and included a review of demographics to identify gaps in attainment, estimated costs to produce a degree and potential strategies to increase attainment. Staff presented initial analysis to the Joint Subcommittee on the Future Competitiveness of Higher Education in October 2018. Work is expected to continue through May 2019 and will include a final report with recommendations.

Supported the funding and implementation of the use of open education resources (OER) to reduce textbook costs at institutions. SCHEV supported budget recommendations to provide greater support to institutions to convert curricula to OER through the open education advisory committee and Virtual Library of Virginia (VIVA).

Student Success

Support policies and practices that improve student success and close equity gaps.

Passed policy and guidance on the use of uniform financial aid award letters to improve student decision making, persistence and completion. In October 2018, SCHEV passed the policy and guidance. Institutions will submit their letters for review in spring 2019.

Established the Office of the Qualified Loan Ombudsman to help students understand their rights and responsibilities when taking out an education loan.

Established during the 2018 General Assembly session, SCHEV hired Scott Kemp as a student loan advocate to staff the Office in October 2018. A public announcement is planned for January 2019.

Quality

Collaborate with institutions to measure the quality of undergraduate education, including civic engagement of graduates and relevance to demand occupations across regions of the state.

Created a taskforce on post-graduate outcomes to identify strategies to implement a statewide assessment. SCHEV provided budget recommendations to support this effort and will seek additional support during the 2019 General Assembly session. In addition, SCHEV staff refined wage and debt reports to release to the general public in 2019.

Continued to support institution efforts to assess the quality of undergraduate education as outlined in the SCHEV policy by:

- Hosting a [“Developing Core Competencies: A Day of Dialogue”](#) with faculty, staff and community partners from a variety of institutions, departments and professional roles to discuss experiences and strategies related to teaching and assessing core competencies (particularly those required in the SCHEV assessment policy -- critical thinking, written communication, quantitative reasoning and civic engagement).
- Hosting [assignment design workshops](#) to over 100 faculty members

Communication

Launch a communications strategy to address public knowledge and benefits of higher education, through Council reports, traditional media, social media and other means.

Increased media outreach of SCHEV initiatives and reports: Professional (or “earned”) media reports include over 1,656 articles mentioning SCHEV across various media. SCHEV’s Twitter followers now number more than 1,300 and the weekly Commonwealth of Education newsletter has over 1,100 subscribers.

Developed a proposal and funding recommendations to increase awareness of the value of higher education to students and parents. In fall 2018, SCHEV recommended

\$1.5 million in resources to increase awareness and improve college completion for students. While this recommendation was not supported by the Governor in his budget amendment, SCHEV will continue to seek low-cost strategies to support greater outreach to students.

Identified key data and policy questions through the ad hoc committee on data and policy to serve as a guide for staff work. Through input of the ad hoc committee members, SCHEV staff developed questions to help support efforts to improve data and information transparency. The committee is expected to continue its work in 2019.

Economic Development

Promote economic development and employment outcomes by pursuing policies that enhance academic research, degree and workforce credential programs, and commercialization of new products and discoveries.

Hired a senior associate to support the work of developing the Commonwealth Research and Technology Strategic Roadmap. In October 2018, SCHEV hired Emily Salmon to support this responsibility.

Collaborated with the Governor's office and the Virginia Economic Development Partnership to identify high demand occupations and assess the alignment of programs to these fields. This work is expected to continue through summer of 2019.

Issued a request for proposals to support internship programs. Supported by funding provided in the 2018 General Assembly session, SCHEV awarded one grant to Northern Virginia Community College to increase internship opportunities in partnership with Micron. SCHEV plans to continue to work with institutions and key stakeholders to identify additional opportunities to support increased internships and work-based learning opportunities in the coming year.

APPENDIX E: RELATED INDICATORS

In addition to the main measures and targets provided in the preceding section, SCHEV developed related leading indicators to further identify trends that may impact measures and targets and Virginia's objective to be the best-educated state.

These indicators include:

1. Enrollments
2. Remediation
3. Persistence and retention
4. Average-time-to-degree
5. Student debt
6. Loan default rates
7. Other indicators of economic and cultural prosperity
8. Wages (long-term)

Enrollments

Changes in enrollment can identify potential barriers to access and impact award outcomes if other factors such as retention and completion remain constant. Since 2009 (the start of the great recession), the rate of growth slowed for all institutions and declined in more recent years for community colleges.

These data partly correlate to the low growth in the number of high school graduates in a similar time period. This growth is expected to remain relatively flat over the next eight to 10 years.

Enrollments								
10-year Change in Undergraduate Enrollment by Institution Type								
	Total		Public 4-year		Public 2-year		Private 4-year	
Fall Term	Enroll-ment	Annual Change	Enroll-ment	Annual Change	Enroll-ment	Annual Change	Enroll-ment	Annual Change
2008	392,663	4.20%	155,177	2.80%	177,121	5.10%	60,365	5.20%
2009	417,851	6.40%	158,833	2.40%	190,852	7.80%	68,166	12.90%
2010	432,793	3.60%	161,417	1.60%	197,004	3.20%	74,372	9.10%
2011	444,723	2.80%	164,460	1.90%	198,850	0.90%	81,413	9.50%
2012	447,242	0.60%	166,722	1.40%	194,435	-2.20%	86,085	5.70%
2013	445,111	-0.50%	168,239	0.90%	190,528	-2.00%	86,344	0.30%
2014	442,293	-0.60%	169,119	0.50%	184,971	-2.90%	88,203	2.20%
2015	438,190	-0.90%	170,590	0.90%	179,064	-3.20%	88,536	0.40%
2016	430,787	-1.69%	170,999	0.24%	173,072	-3.35%	86,716	-2.06%
2017	429,286	-0.35%	174,032	1.77%	169,034	-2.33%	86,220	-0.57%

Source: http://research.schev.edu/enrollment/E2_Report.asp

High School Graduates in Virginia
Actual and Estimated (2005-06 to 2029-30)

Year	Grand Total	Private Schools	Public Schools	Annual Change
2005-06	76,992	7,395	69,597	
2006-07	80,910	6,913	73,997	5.09%
2007-08	84,625	7,256	77,369	4.59%
2008-09	86,162	6,511	79,651	1.82%
2009-10	88,003	6,492	81,511	2.14%
2010-11	89,297	6,402	82,895	1.47%
2011-12	89,956	6,620	83,336	0.74%
2012-13	89,890	6,611	83,279	-0.07%
2013-14*	88,589	6,099	82,490	-1.45%
2014-15*	87,856	5,935	81,921	-0.83%
2015-16*	88,707	5,848	82,859	0.97%
2016-17*	87,930	5,570	82,360	-0.88%
2017-18*	90,456	5,494	84,962	2.87%
2018-19*	90,213	5,203	85,010	-0.27%
2019-20*	89,790	4,935	84,855	-0.47%
2020-21*	89,657	4,772	84,885	-0.15%
2021-22*	91,059	4,595	86,465	1.56%
2022-23*	91,009	4,334	86,676	-0.05%
2023-24*	93,342	4,931	88,411	2.56%
2024-25*	95,632	4,974	90,659	2.45%
2025-26*	93,457	4,806	88,651	-2.27%
2026-27*	91,822	4,684	87,138	-1.75%
2027-28*	89,939	4,586	85,353	-2.05%
2028-29*	89,654	4,616	85,038	-0.32%
2029-30*	90,093	4,632	85,461	0.49%

*Estimated

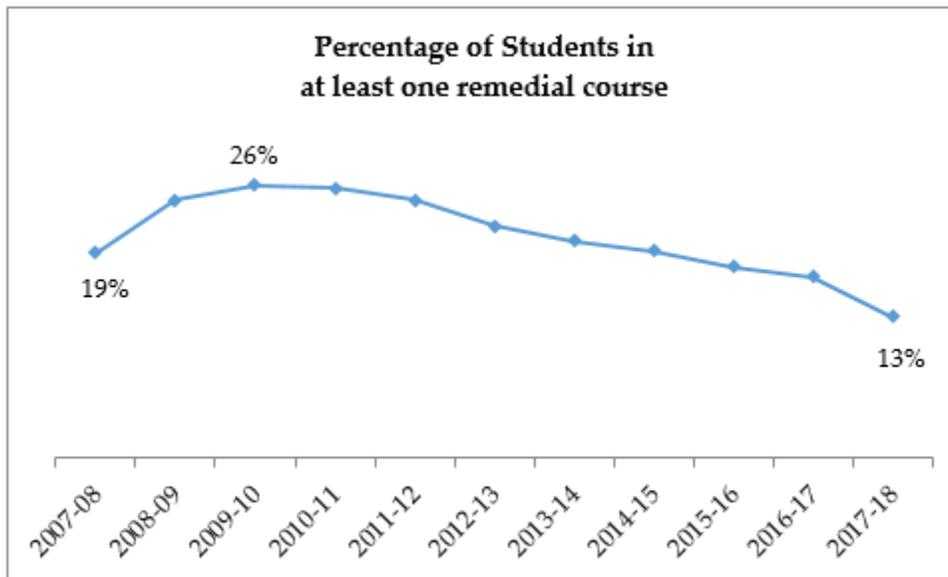
Notes: School Year refers to the K-12 calendar running fall to spring and may include graduates from any point in that school year, including the summer after the year end. Private Schools Total includes schools not supported primarily by public funds, religious and nonsectarian, but not including homeschool students.

See Appendix C Technical Information and Methodology at www.wiche.edu/knocking.

Source: Western Interstate Commission for Higher Education, Knocking at the College Door: Projections of High School Graduates, 2016.

Remediation

In Virginia, enrollment in remediation courses is primarily at the community college level. Since 2009-10 the percentage of first-time-in-college, in-state students enrolling directly from high school has decreased. Over a similar time period, Virginia’s community colleges have worked to reduce remediation rates through improved methods of testing and greater engagement with the high school population through programs such as high school coaches. In addition, high schools have worked to improve the college readiness of individuals through adjustments in curriculum requirements, including changes to graduation requirements.

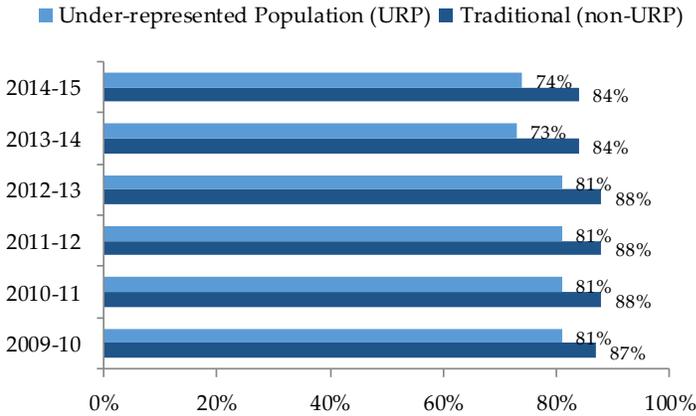


Source: http://research.schev.edu/enrollment/r1_details.asp

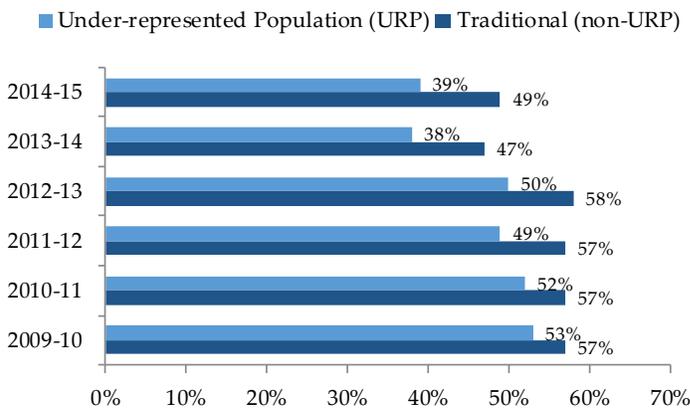
Persistence and Retention

A leading indicator of completion and success rates is student persistence, primarily in the first to second year. Over the past six years, retention rates have decreased and the gaps between the underrepresented student and traditional students (non-URP) widened.

Public 4-Year Retention



Public 2-year Retention



Note: Full-time, first-time-in-college and new transfer students

Source:

http://research.schev.edu/enrollment/DistUnder_RepPop.asp

Average Time-to-Degree

Affordability for students can be impacted by how long it takes a student to receive a credential. Complete College America and institutions like VCU have calculated it can cost up to \$50,000 for each additional year for an individual to attend college (beyond two years for an associate degree and beyond four years for a bachelor’s degree). This calculation is based on the added cost of attendance plus lost wages. Currently, the average time-to-degree for public institutions is greater than the expected years to complete, and there was no change in rates between 2016-17 and 2017-18 graduates for all types of students. Many institutions are working to reduce this average time and the

average number of credits to complete a degree with strategies to help better guide students in course choices and majors to avoid needing to take additional courses to meet degree requirements.

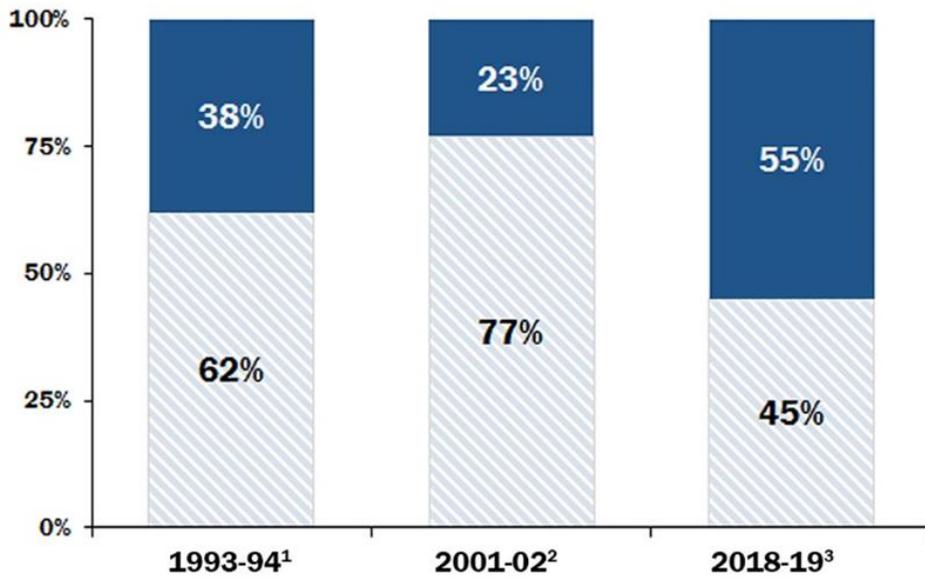
Average Time-to-Degree, Public Institution Graduates 2016-17 and 2017-18

	2016-17 Ave. Time-to-Degree (Elapsed Years)	2017-18 Ave. Time-to-Degree (Elapsed Years)	2016-17 Ave. Credits-to-Degree	2017-18 Ave. Credits-to-Degree
Public two-year colleges				
FTIC, Full-Time at Entry	3.6	3.6	78	78
FTIC, Part-Time at Entry	6.2	6.2	82	82
Public four-year colleges				
FTIC, Full-Time at Entry	4.5	4.5	128	128
FTIC, Part-Time at Entry	6.4	6.4	120	120
New Transfer, Full-Time at Entry	3.5	3.5	85	85
New Transfer, Part-Time at Entry	4.3	4.3	68	68

Source: http://research.schev.edu/completions/completion_scorecard.asp

State Funding

State funding for higher education has an important role in helping to reduce the cost of education for students in the form of tuition and fees. Over the last two decades, state support for higher education has decreased from a low of 77% of the share of education provided by the state in 2001-02 to 45% of the share provided by the state in 2017-18 based on SCHEV staff analysis of tuition and fees (<http://schev.edu/index/reports/schev-reports/2017-18-tuition-and-fees-report>).



Notes:

(1) The tuition policy required out-of-state students to pay 100% of cost, but had no cost-share requirement for in-state undergraduate students. Calculation based on the average appropriated cost of education.

(2) The goal of the tuition policy was for in-state undergraduate students to pay 25% of the cost. Calculation based on the average appropriated cost of education.

(3) The goal of the tuition policy is for students to pay 33% of the cost. Calculation based on average guideline calculated cost of education.

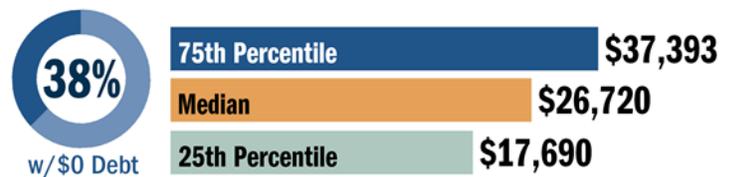
Student Debt

Similar to national trends, total debt and the number of borrowers in Virginia has increased steadily over the past 20 years. However, many students graduate with no debt at all — 60% of associate degree and 38% of bachelor’s degree students had no debt upon graduation. The amount of debt one borrows and the borrower’s ability to pay back the debt is dependent on wage earnings after college. Earnings can vary by program area.

Virginia Student Debt, Associate Degree



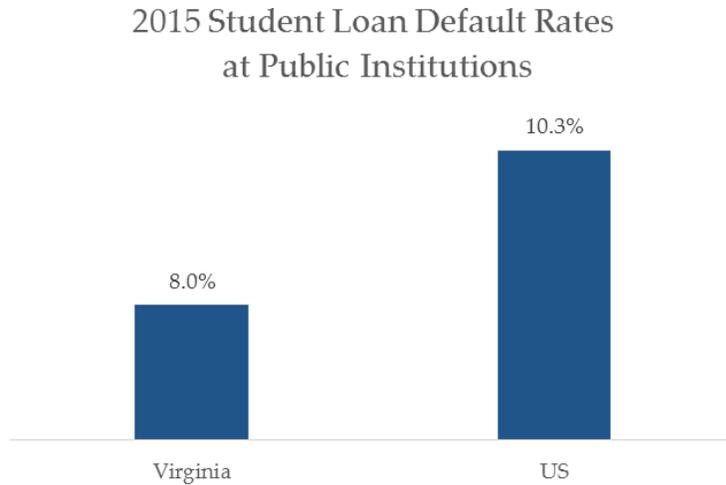
Virginia Student Debt, Bachelor’s Degree



Source: SCHEV staff analysis of debt, 2016-17

Student Loan Default Rates

In addition to student debt, monitoring default rates helps ensure that students are able to repay their loans upon completion — or in some cases without completing. The latest data showed Virginia’s loan default rates at public institutions are lower than the national average. In 2015, 8.0% of students were in default of their loans three years after entering repayment.



Source: <https://www2.ed.gov/offices/OSFAP/defaultmanagement/cdr.html>

Other Indicators of Economic and Cultural Prosperity

As mentioned, becoming the best-educated state will make the Commonwealth successful only if the economy and its citizens continue to grow and prosper. As a result, the Council also identified additional “best” indicators to monitor and serve as potential outcome indicators if Virginia continues to improve its educational attainment rate.

Other Indicators of Economic and Cultural Prosperity

Ranking	Source	2014	2015	2016	2017	2018
Best State for Higher Education	Smart Asset	--	---	#2	#1	#1
Top States to Live in (Quality of Life Score)	CNBC	#22	#25	#16	#17	#19
Top States for Business	CNBC	#8	#12	#13	#7	#4
Best States to Make a Living	Money-rates.com	#7	#4	#3	#7	#10
Best States for Business	Forbes	#4	#7	--	#5	#4
Best States to Raise a Child	Kids Count, AECF	#9	#14	#11	#10	#10
Chance for Success	Education Week	#9	#9	#8	#9	#7
Quality Counts	Education Week	--	#12	#12	#14	#10

Sources:

<https://smartasset.com/student-loans/top-states-for-higher-education-2018-edition>

<https://www.cnbc.com/2018/06/22/americas-best-states-to-live-in-2018.html>

<https://www.cnbc.com/2018/07/10/americas-top-states-for-business-2018.html>

<https://www.money-rates.com/research-center/best-states-to-make-a-living/>

<https://www.forbes.com/best-states-for-business/list/>

https://www.aecf.org/m/databook/2018KC_databook_rankings.pdf

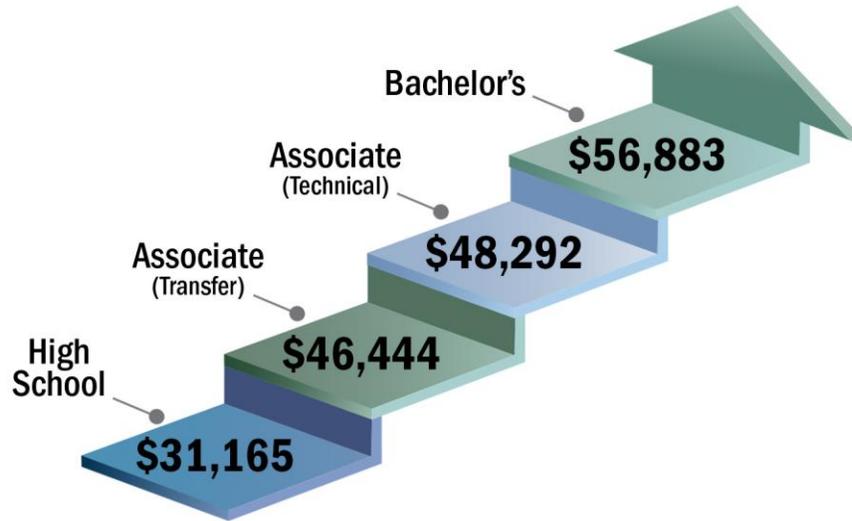
<https://www.edweek.org/ew/collections/quality-counts-2018-state-achievement-success/state-grades-on-chance-for-success-map.html>

<https://www.edweek.org/ew/collections/quality-counts-2018-state-grades/report-card-map-rankings.html>

Wages

After graduation, individuals with degrees experience better wage outcomes over time than those with high school diplomas alone.

Median Wages, 10-Years Post-Graduation



Sources: http://research.schev.edu/EOM/EOM18_Report.asp for degree wages, U.S. Census Personal Income tables.