



# 2019 VIRGINIA EDUCATION SUMMIT

*Joint Meeting of the Senate Education & Health  
and House Education Committees*

**ISSUE BRIEF**

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## What Does the K-12 Landscape Look Like in Virginia?

### K-12 EDUCATION AT A GLANCE – VIRGINIA

<b>Virginia has</b>	<b>1,860</b> <i>Public Schools</i>	<b>155</b> <i>Local Centers</i>	<b>91</b> <i>Regional Centers<sup>1</sup></i>
<b>34</b> Preschools		<b>66</b> Local Alternative Centers	<b>42</b> Regional Alternative Centers
<b>1,156</b> Elementary Schools		<b>44</b> Local CTE Centers	<b>10</b> Regional CTE Centers
<b>312</b> Middle Schools		<b>21</b> Local governor STEM Academies	<b>18</b> Regional Special Education Centers
<b>308</b> High Schools		<b>10</b> Local governor STEM Health Academies	<b>18</b> Regional Governors Schools
<b>50</b> Combined Schools			
Number of Public School Districts		<b>132</b>	

### K-12 EDUCATION AT A GLANCE – VIRGINIA & UNITED STATES

Category	Virginia	United States
Per-Pupil Expenditures (FY17)	<b>\$11,886<sup>2</sup></b>	<b>\$12,201<sup>3</sup></b>
Student-Teacher Ratio	<b>14.0<sup>4</sup></b>	<b>16.0<sup>5</sup></b>
Public High School On-Time Graduation Rate*	<b>91.6%</b>	-

\*“On-Time” refers to students who graduate high school four years after entering ninth-grade for the first time.

## How are Students Performing in Virginia?

Virginia administers the Virginia Standards of Learning (SOL) to students in grades three through eight in core subjects, with reading and math tested each year. Virginia students were tested on new math standards in 2012 and new reading standards in 2013, making assessment results from prior years incomparable. Between 2017 and 2019, proficiency rates on Virginia's Standards of Learning had small variations, with math rates generally increasing and reading rates slightly declining.

### Standards of Learning Results – 2016-2018 (Pass Rates)<sup>6</sup>

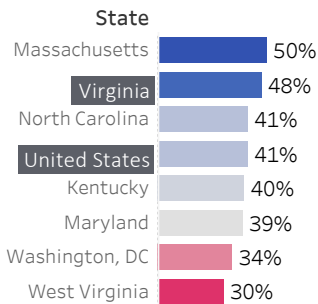
	2017		2018		2019	
	MATH	READING	MATH	READING	MATH	READING
GRADE 3	75%	74%	73%	72%	82%	70%
GRADE 4	81%	79%	79%	76%	83%	75%
GRADE 5	79%	82%	76%	80%	81%	78%
GRADE 6	82%	78%	79%	80%	77%	77%
GRADE 7	71%	82%	79%	81%	78%	79%
GRADE 8	74%	76%	71%	77%	76%	76%

## NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

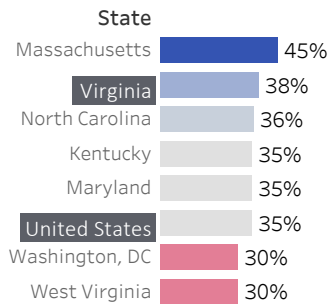
The National Assessment of Educational Progress (NAEP) is administered nationally every two years. The charts below show how Virginia's students compare to neighboring states in meeting the proficient benchmark in each subject.

### 2019 NAEP Proficiency Rates - Virginia vs. Neighboring States<sup>7</sup>

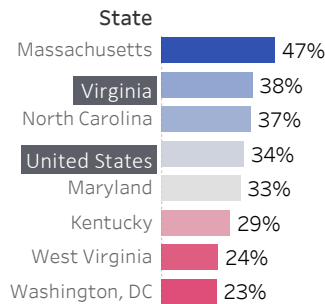
#### GRADE 4 | MATH



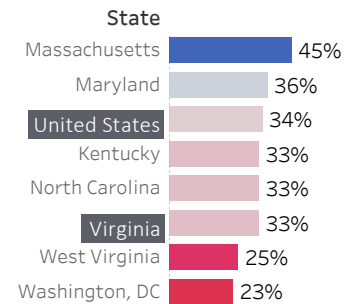
#### GRADE 4 | READING



#### GRADE 8 | MATH

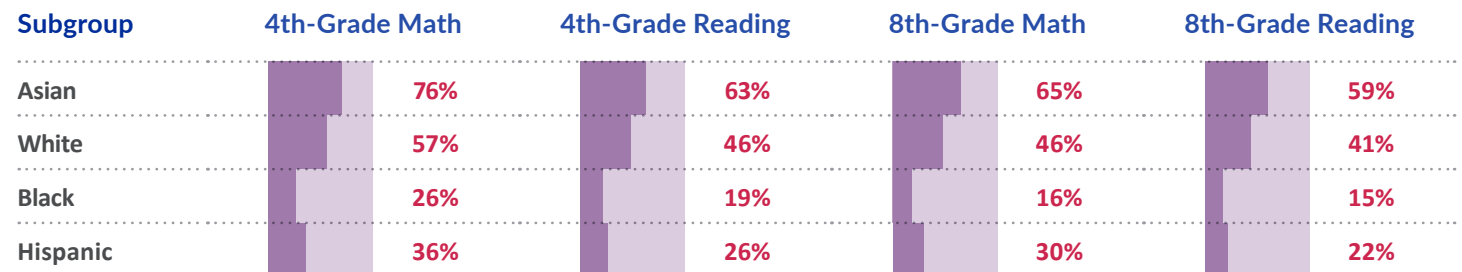


#### GRADE 8 | READING



Average rates can mask variations in performance among subgroups. When proficiency rates are disaggregated by race and economic status, disparities in achievement can be seen. Achievement gaps among races/ethnicities on standardized assessments in Virginia have persisted across years with little sign of narrowing. In Virginia, Black students have consistently had the lowest proficiency rates. Hispanic students have performed better, while Asian and white students have regularly had the highest proficiency rates. Similarly, white and Asian students tend to graduate high school on time at higher rates than their Black and Hispanic peers.

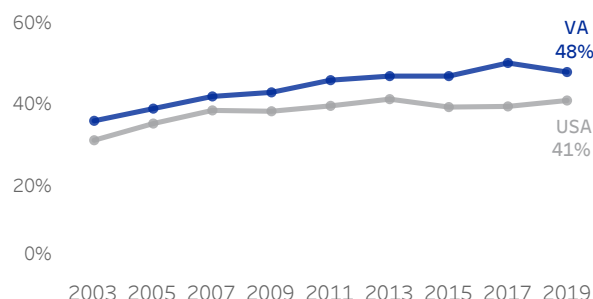
### 2019 NAEP Proficiency Rates by Subgroup - Virginia<sup>8</sup>



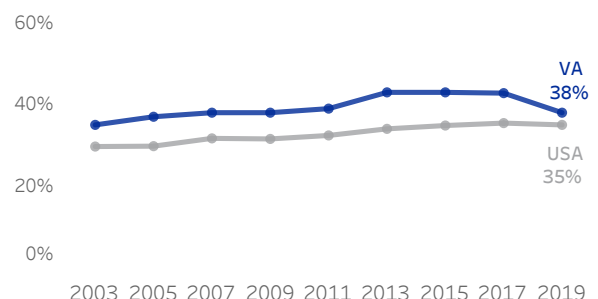
The charts below indicate that Virginia's NAEP proficiency rates have mostly increased in recent years and that Virginia continues to perform above the national average in these assessments, particularly in math in grades four and eight and reading in grade four. The most recent data, however, disrupts this recent increase, as proficiency rates are down in reading and math for fourth- and eighth-grade students, which reflects national trends for most states.

### NAEP Grade 4 Proficiency Ratings Over Time - Virginia, 2003-2019<sup>9</sup>

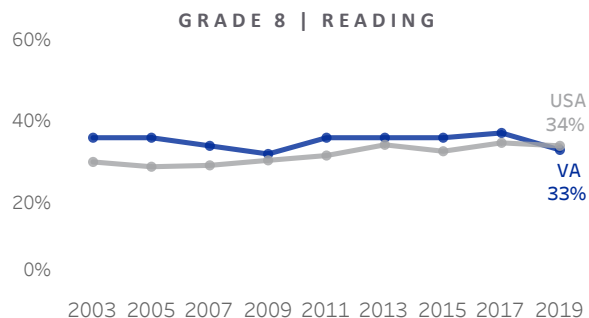
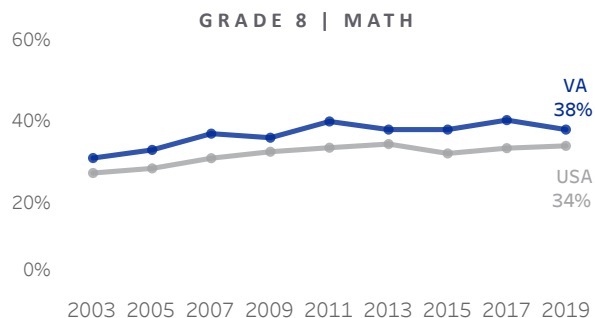
#### GRADE 4 | MATH



#### GRADE 4 | READING



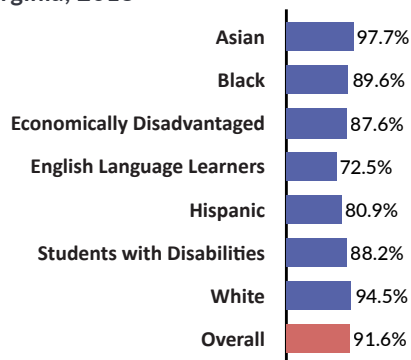
## NAEP Grade 8 Proficiency Ratings Over Time – Virginia, 2003-2019<sup>9</sup>



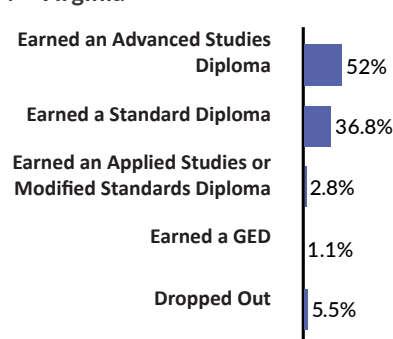
## GRADUATION RATE

Virginia's On-Time Graduation Rate was 91.6 percent for the Class of 2018, a 0.5 percent increase from the previous year. This rate is a measurement of students who graduated in 2018 and entered ninth grade for the first time in 2014.

### Public High School Graduation Rate by Subgroup – Virginia, 2018<sup>10</sup>



### Outcomes for Students who Entered the Ninth Grade in 2014 - Virginia<sup>11</sup>



## What Does the Early Childhood Landscape Look Like in the Commonwealth?<sup>12</sup>

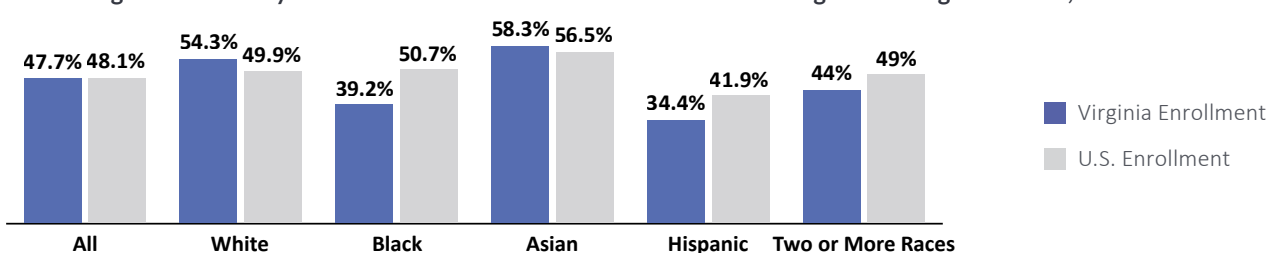
Virginia's prekindergarten enrollment is higher than the national average, yet there are large disparities in enrollment by race. Enrollment of white children and Asian children is higher than the national average, while the enrollment of Black, Hispanic, and children of two or more races is lower than the national average. The greatest difference in enrollment rates between Virginia and the national average can be seen in Black and Hispanic populations, as the national average is more than 10 percentage points higher than the state enrollment rate.

On July 24, 2019, Governor Ralph Northam signed Executive Directive Four, creating the Governor's Executive Leadership Team on School Readiness (Team).

The core objectives of the Team are to:

- Ensure that all at-risk three-year-olds and four-year-olds in Virginia have access to a publicly-subsidized option; and
- Ensure that all publicly-funded programs that serve children birth to five are measured as quality as part of a uniform quality rating system by 2025.<sup>13</sup>

### Percentage of 3- and 4-year-olds Enrolled in Public & Private Pre-K Programs - Virginia & U.S., 2017<sup>14</sup>



## What Does the Teacher Landscape Look Like in the Commonwealth?<sup>15</sup>

**91,628**  
**TEACHERS**

**NATIONAL TOTAL:**  
**3.1M** (2015-2016)

**14 : 1**  
**STUDENT**  
**PER TEACHER**  
**RATIO**  
(2015-2016)



### TEACHER PREPARATION

The 2018-2020 Biennium Budget calls for the House Appropriations and Senate Finance Committees to appoint members from their respective committees to a Joint Subcommittee. One of the functions of this Subcommittee is to study the effectiveness of current programs in preparing future educators for the K-12 system.<sup>16</sup>

#### Colleges and Universities with Approved Educator Preparation Programs

There are 36 colleges and universities in Virginia with approved educator preparation programs.<sup>17</sup> Traditionally, most colleges and universities would require teaching candidates to first complete a bachelor's degree in subject areas such as math and social studies before entering a teacher preparation program, requiring a fifth year of school.<sup>18</sup>

To streamline the process of earning one's teaching license, state policy boards for elementary, secondary, and postsecondary education approved 53 new teacher preparation programs and 25 new degrees, such as elementary education, middle education, and special education, allowing graduates to become teachers after earning four-year degrees in education.<sup>19</sup>

The State Council of Higher Education for Virginia (SCHEV) approved new degree programs at seven of the Commonwealth's public institutions of higher education. The Board of Education, which sets standards for all teacher preparation programs in the state, followed with its approval of the new public preparation programs on June 20, 2019. The Board also approved new preparation programs at eight private colleges and universities.

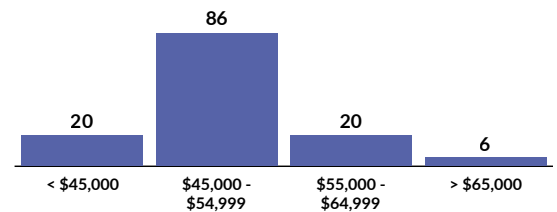
### TEACHER COMPENSATION

Among the significant highlights from the 2019 General Assembly was the legislature's decision to fund a 5 percent statewide teacher pay raise, the largest single pay raise the state has funded in over a decade.<sup>20</sup>

#### Teacher Pay in Virginia

Virginia's average budgeted teacher salary was **\$58,714** in Fiscal Year (FY) 2018.<sup>21</sup> This is a **3** percent increase from the previous fiscal year. The Virginia Department of Education provides yearly data on classroom salaries, both budgeted and actual. Actual salary data is collected from Annual School Report (ASR) expenditure data submitted by each school division and regional program.<sup>22</sup>

Number of Virginia School Districts Based on Average Budgeted Salary - FY19<sup>23</sup>



### Deferred compensation: Teacher Pensions<sup>24</sup>

**5 YRS**

State Vesting  
Requirement

**64**

Percentage of Teacher  
Pension Contributions Going  
Toward Pension Debt

**17**

Percentage of Teachers  
Who Will Break Even On  
Retirement Contributions

**YES**

Does the Commonwealth ensure  
that its teachers have access to  
Social Security?

### Financial status for Virginia Retirement System<sup>25</sup>

**\$46.6B**

Promised Pension  
Benefits

**\$34.9B**

Assets for paying  
promised benefits

**\$11.8B**

Shortfall in assets that should  
already be saved and invested  
to pay future benefits

**25**

Number of years until  
asset shortfall is paid off

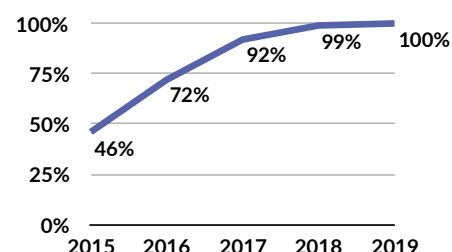
## What Does Broadband Access in the Commonwealth Look Like?

In 2015, the Virginia Department of Education, in conjunction with the Office of the Governor and EducationSuperHighway, launched the K-12 Learning Infrastructure Program (KLIP), which supports “access to affordable, high-speed internet in every classroom in Virginia.”<sup>26</sup> Since the launch of this partnership, the Commonwealth has made significant progress in expanding broadband throughout the K-12 system, as seen on the accompanying graph.

This rapid expansion of broadband throughout the Commonwealth’s schools should be celebrated; 100 percent of students now have broadband in schools, but internet speeds are not always great enough for students and teachers to make good use of digital resources.

Between 2015-2018, median bandwidth speeds in the Commonwealth’s schools increased almost five-fold, from **94kbps** to **455kbps**.<sup>27</sup>

Percentage of VA Schools With Broadband by Year<sup>28</sup>



### BANDWIDTH SPEED & CAPABILITIES

**100** kbps /student

- Browsing
- Online Testing

**800** kbps /student

- Browsing
- Online Testing
- Light Video Collaboration
- Light Streaming Video

**1+** Mbps /student

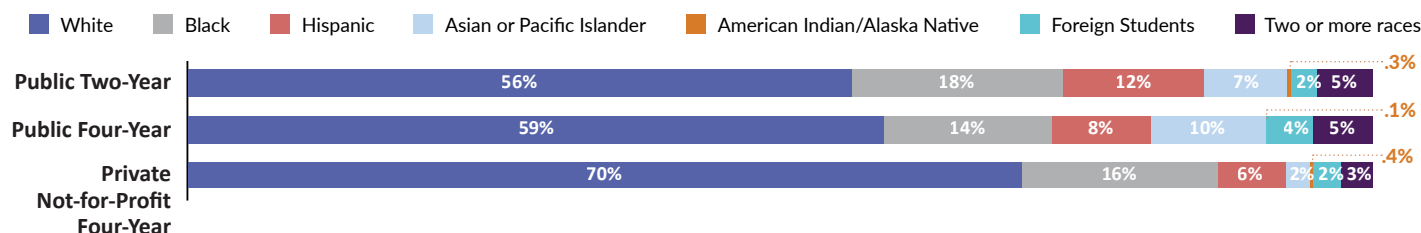
- Browsing
- Online Testing
- Heavy Video Collaboration
- Heavy Streaming Video
- Online Educational Gaming
- Remote Instruction

## What Does the Higher Education Landscape Look Like in the Commonwealth?<sup>29</sup>

The Commonwealth of Virginia has 67 institutions of higher education that are public two-year, public four-year, or private not-for-profit four-year schools. Virginia’s four-year public colleges are coordinated by the State Council of Higher Education for Virginia (SCHEV).

Institution Type	Number of Institutions	Enrollment (2017)	Degrees Awarded (2017-18)	Overall Graduation Rate
Public Two-Year	24	163,945	17,934	24.8%
Public Four-Year	15	220,255	53,551	72%
Private Not-for-Profit Four-Year	28	137,271	31,220	53%

### What Types of Students Enroll at Each Type of Institution of Higher Education?<sup>30</sup>



## How is the Commonwealth Addressing Higher Education Access and Affordability?

College affordability is a topic that legislators, business, and education leaders grapple with in the Commonwealth, working with one another in coalition-style efforts to ensure current and incoming students can have easier access to higher education. College affordability is also a significant equity issue for low-income students, first-generation students, and students of color, as rising prices serve as an obstacle to enrolling and completing a postsecondary degree. The case for completing higher education is greater than ever, given the rise of “middle skill” jobs in the Commonwealth and nation.

The Commonwealth is addressing these trends through buy-in from leaders in different sectors. An important example of these efforts is the **Growth4VA** coalition, a grassroots effort of business, education, and community leaders. Growth4VA is led by the Virginia Business Higher Education Council in partnership with the Governor’s Office and General Assembly to advance major strategies for economic growth and opportunity.<sup>31</sup>

During the 2019 General Assembly, the Virginia legislature included \$57.5 million in the budget for all four-year public college to freeze their tuition rates for the coming academic year.<sup>32</sup> Additional investments made in higher education by the General Assembly are highlighted by the Growth4VA Coalition’s 2019 General Assembly Recap.<sup>33</sup>

Other higher education-related fees saw modest increases from the 2018-2019 academic year. Room and board charges will average **\$11,000** at baccalaureate institutions, a **\$367** increase from the previous year.<sup>34</sup>

### Tuition Snapshot of the Commonwealth’s Two- and Four-Year Institutions<sup>35</sup>

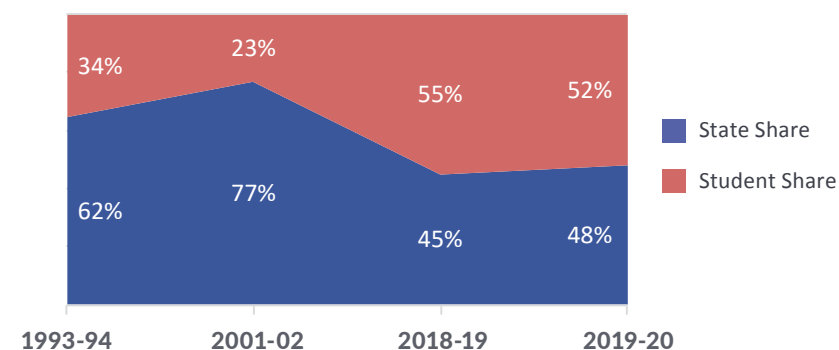
Institution Type	Average Tuition and Mandatory E&G Fees, 2019-2020	Amount Increase from 2018-2019	Percentage Increase from 2018-2019
Public Two-Year	\$4,620	\$0	0.0%
Public Four-Year	\$9,274	\$0	0.0%

Completing an associate degree at a community college and transferring to a baccalaureate institution proves to be a cost-efficient pathway to earning a bachelor’s degree. Students taking this route can save an average of **\$18,612** on the cost of a bachelor’s degree.<sup>36</sup>

Though the advertised price of attending a public four-year institution is the same for all students, the net price that students actually pay varies significantly based on family income. On average, families in the lowest income bracket pay about **43 percent less** than those in the highest income bracket.

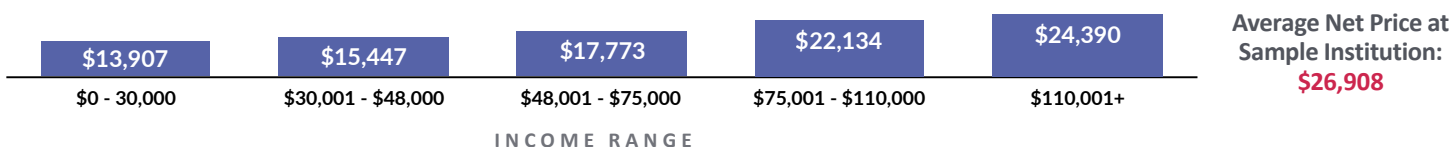
In the 2019-20 school year, 23,000 Virginia residents attending an eligible private college or university will receive the Virginia Tuition Assistance Grant to contribute to tuition.<sup>37</sup>

### State Investment In Public Institutions Over Time<sup>38</sup>



Note: these figures do not include investments in capital construction.

### Average Net Price of Tuition Paid by Student or Family by Income Range<sup>39</sup>





Virginia continues to expand state financial aid funding for public institutions of higher education. Since FY 2004, total general fund financial aid has increased by 211 percent at four-year institutions and 341 percent at two-year institutions.<sup>40</sup>

Despite these increases, tuition has grown more quickly than the average student financial aid awards at both two-year and four-year institutions.<sup>41</sup>

When it comes to a nationwide ranking of states with the highest percentage of high school seniors who complete the Free Application for Federal Student Aid (FAFSA) form, which is required in order to receive any type of federal student aid funding, Virginia has been in the middle of the pack for the last two years.

For the current FAFSA completion cycle (2020-21), 23.2 percent of Virginia high school seniors have completed the FAFSA – this is the 24th highest rate in the nation. For last year’s cycle (2019-20), a total of 61.7 percent of high school seniors completed the FAFSA – which also put Virginia in the 24th ranked spot.<sup>42</sup>

#### FAFSA Completion Rates, Class of 2019, Regional States<sup>43</sup>

State	National Rank	Completion Rate
Tennessee	2	80.0%
District of Columbia	7	69.9%
Kentucky	13	66.3%
Maryland	16	64.4%
West Virginia	17	63.9%
North Carolina	19	63.8%
Virginia	24	61.7%

## Are Virginia's Students College and Career Ready?

Given labor market trends in the past decade, the case for getting a postsecondary education is greater than ever. Too few students in the Commonwealth are graduating college or career ready. Two-thirds of high school graduates will enroll in some form of postsecondary education, but 15 percent of those enrollees will need remediation in math, and 8 percent in English.<sup>44</sup>

Value	Significance
4 out of 5	The number of CEOs who say that skills gaps in creativity and problem-solving make hiring difficult. <sup>45</sup>
11.6 million	The number of jobs added to the U.S. economy between January 2010 and January 2016. Workers with a high school diploma or less gained only 80,000 of the jobs in this time frame, a fraction of the 5.6 million jobs that were lost by these workers in the recession. <sup>46</sup>
72%	The percentage of Americans who say that education should be a top priority for leaders. <sup>47</sup>
1 in 8	The number of students who will not graduate with their high school class in Virginia. <sup>48</sup>

### SAT TESTING

Almost every high school student in Virginia takes a college entrance exam to prepare for their higher education future. In 2019, 68 percent of students in Virginia took the SAT assessment.<sup>49</sup> Many institutions of higher education require students to include college entrance exam results as a part of their application. The SAT requires students to pay fees associated with the test, although there are fee waiver applications available for students from low-income families.

The College Board, which administers the SAT has established official “college readiness benchmark” scores – if a student’s score is at or above the benchmark, they are less likely to require remedial courses in college. For both exams, the average scores of students in Virginia exceed both the college readiness benchmarks and the average national scores.

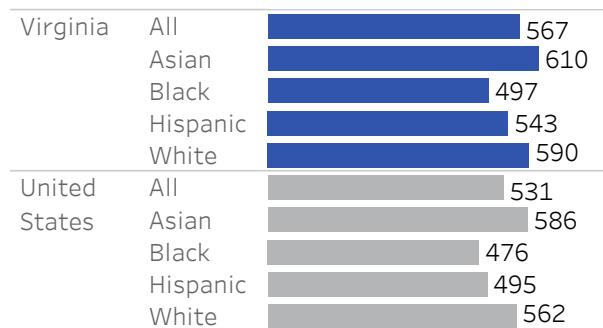
## SAT BENCHMARKS

The chart below provides a detailed breakdown of SAT performance by subgroup for the Class of 2019.

The data below reveal significant disparities in college readiness benchmarks among subgroups. This benchmark, as mentioned above, indicates one's likelihood of needing remedial coursework in college, which can increase the time and costs required to obtain a postsecondary degree.

### SAT Performance by Subgroup - Class of 2019<sup>50</sup>

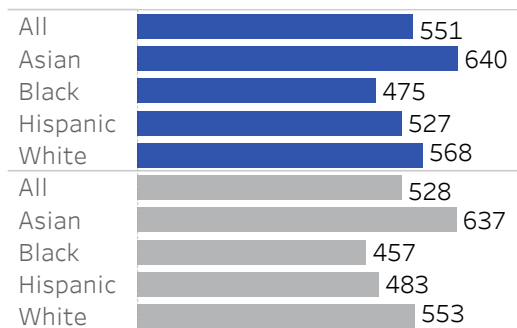
#### SAT SCORE | ERW\*



⋮  
**480**

College Readiness Benchmark

#### SAT SCORE | MATH



⋮  
**530**

College Readiness Benchmark

\*Evidence-Based Reading & Writing

## POSTSECONDARY PATHWAYS – VIRGINIA AND U.S.

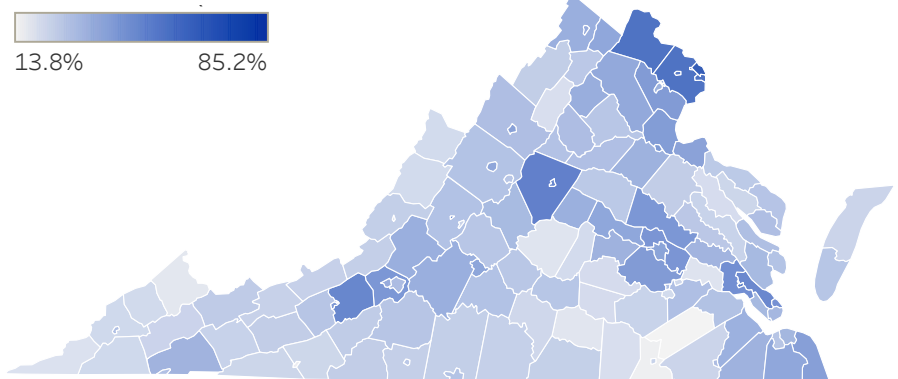
<b>Advanced Placement Courses</b>	<p>Advanced Placement (AP) allows high school students to take rigorous coursework and, with a successful score on the final exam, students can earn college credit, saving the students time and money in college as they skip introductory courses.</p> <p>In the 2018-2019 academic year, 79,554 Virginia students were enrolled in AP Courses; 159,084 AP exams were distributed among those students. Virginia students' AP exam scores, on average, exceeded the national average.<sup>51</sup></p>
<b>Dual Enrollment</b>	<p>Dual Enrollment provides high school students with the opportunity to enroll in college courses and earn college credit while still in high school. In some cases, high school students can even graduate with an associate degree. This helps students by reducing the amount of time it takes to earn a degree and by reducing the associated costs. Dual Enrollment in the Commonwealth's program also contains a CTE component.<sup>52</sup></p>
<b>Career and Technical Education (CTE)</b>	<p>CTE courses provide students with the knowledge, skills, and training to be successful in the workforce. In the 2016-17 school year, 642,165 Virginia middle and high school students participated in CTE coursework.<sup>53</sup></p>
<b>STEM Education</b>	<p>In July, Governor Ralph Northam established the Virginia Science, Technology, Engineering, and Math (STEM) Education Commission. Since its establishment, the Commission has been tasked with developing a unified statewide vision and set of goals to inform how the Commonwealth prepares its students for STEM jobs of the future.<sup>54</sup></p>
<b>Work-Based Learning</b>	<p>Work-Based Learning opportunities give students access to real workplace experiences through programs such as apprenticeships, internships, experiential learning, and school-based enterprises.</p>

## CURRENT ATTAINMENT RATES BY COUNTY

This map shows the percentage of residents in each Virginia county who have attained at least an associate degree. The five counties with the highest percentages of postsecondary attainment are all concentrated in the populous Northern Virginia suburbs: Falls Church, Arlington, Loudoun, Alexandria, and Fairfax. Other high-attainment counties that are more geographically disbursed across the Commonwealth include Lexington, Williamsburg, and Albemarle.

There are 50 counties in Virginia where less than 30 percent of the population has attained a postsecondary degree, including seven counties with attainment rates of less than 20 percent.

2017 Attainment Rate (Associate Degree or Higher) by County<sup>55</sup>

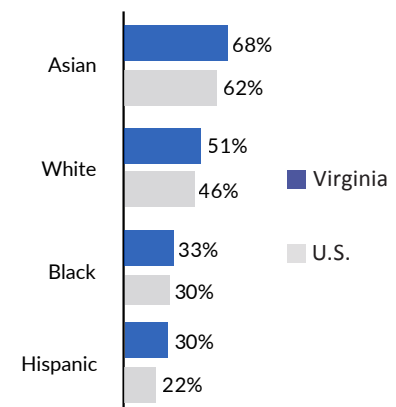


## CURRENT ATTAINMENT RATES BY SUBGROUP: VIRGINIA AND U.S.

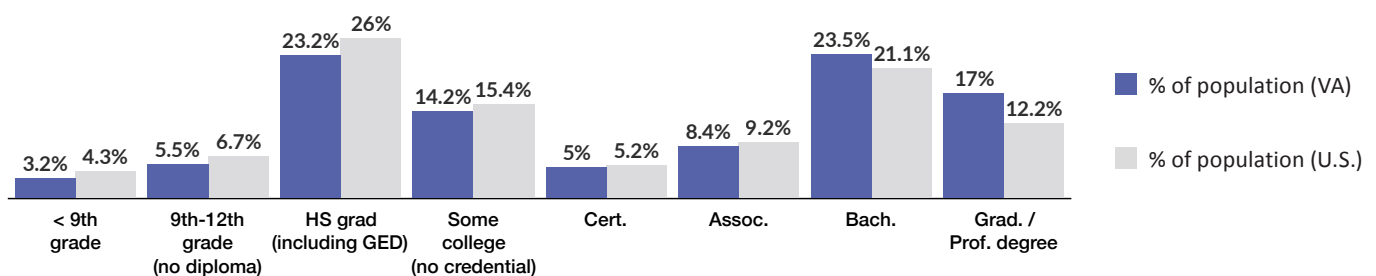
There are significant gaps in the attainment rates of different subgroup populations in Virginia. The Asian population has the highest attainment rate (62.7 percent), which is closest of all subgroups to the state goal of 70 percent by 2030. Notably, a higher share of Virginia adults hold a postsecondary degree than the national average among every subgroup.

The proportion of Virginia's population holding less than a high school degree is less than the national average, while the proportion of those holding a bachelor's degree or higher is greater than the national average. Research finds that the type of postsecondary credential one holds can play a large role in short and long-term employment outcomes.<sup>56</sup>

Current Attainment Rates by Subgroup - Virginia and U.S.<sup>57</sup>



Current Attainment Rates by Level of Education - Virginia & U.S.<sup>58</sup>



## Citations

01. Virginia Department of Education. (n.d.). Enrollment & Demographics. Retrieved from [http://www.doe.virginia.gov/statistics\\_reports/enrollment/index.shtml](http://www.doe.virginia.gov/statistics_reports/enrollment/index.shtml).
02. US Census Bureau. (2019, April 19). 2017 Public Elementary-Secondary Education Finance Data. Retrieved from <https://www.census.gov/data/tables/2017/econ/school-finances/secondary-education-finance.html>.
03. Ibid.
04. National Center for Education Statistics (n.d.). State Enrollment/Teacher Counts, 2016-2017. Retrieved from <https://nces.ed.gov/ccd/elsi/expressTables.aspx>.
05. Ibid.
06. Virginia Department of Education (n.d.). Test Results Build-A-Table. Retrieved from <https://p1pe.doe.virginia.gov/apex/f?p=152:1:2695734779552:::>.
07. NAEP State Profiles. (n.d.). Retrieved from [https://www.nationsreportcard.gov/profiles/stateprofile/overview/VA?cti=PgTab\\_OT&chort=1&sub=MAT&sj=VA&fs=Grade&st=MN&year=2017R3&sg=Gender:+Male+vs.+Female&sgv=Difference&ts=Single+Year&tss=2015R3-2017R3&sfj=NP](https://www.nationsreportcard.gov/profiles/stateprofile/overview/VA?cti=PgTab_OT&chort=1&sub=MAT&sj=VA&fs=Grade&st=MN&year=2017R3&sg=Gender:+Male+vs.+Female&sgv=Difference&ts=Single+Year&tss=2015R3-2017R3&sfj=NP).
08. Ibid.
09. Nation's Report Card (n.d.). How Did Students Perform on the Most Recent Assessments? Retrieved from <https://www.nationsreportcard.gov/>.
10. Virginia Department of Education (2018, October 1). Virginia On-Time Graduation Rises to 91.6 Percent. Retrieved from [http://www.doe.virginia.gov/news/news\\_releases/2018/10-oct01.shtml](http://www.doe.virginia.gov/news/news_releases/2018/10-oct01.shtml).
11. Ibid.
12. National Center for Education Statistics (n.d.). Percentage of 3- and 4-year-old children enrolled in school, by race/ethnicity and state: 2017. Retrieved from [https://nces.ed.gov/programs/digest/d18/tables/dt18\\_202.25.asp?current=yes](https://nces.ed.gov/programs/digest/d18/tables/dt18_202.25.asp?current=yes).
13. Commonwealth of Virginia Executive Department (2019, July 24). Executive Directive Four: Establishing the Governor's Executive Leadership Team on School Readiness. Retrieved from <https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/ED-4-Establishing-The-Governors-Executive-Leadership-Team-on-School-Readiness.pdf>.
14. National Center for Education Statistics (n.d.). Percentage of 3- and 4-year-old children enrolled in school, by race/ethnicity and state: 2017. Retrieved from [https://nces.ed.gov/programs/digest/d18/tables/dt18\\_202.25.asp?current=yes](https://nces.ed.gov/programs/digest/d18/tables/dt18_202.25.asp?current=yes).
15. National Center for Education Statistics (n.d.). Public elementary and secondary teachers, by level and state or jurisdiction: Selected years, fall 2000 through fall 2016. Retrieved from [https://nces.ed.gov/programs/digest/d18/tables/dt18\\_208.30.asp?current=yes](https://nces.ed.gov/programs/digest/d18/tables/dt18_208.30.asp?current=yes).
16. 2019 Virginia General Assembly (2019, June 13). 2019 Virginia Acts of Assembly: Chapter 854. Retrieved from <https://budget.lis.virginia.gov/get/budget/3929/>.
17. Virginia Department of Education (n.d.). Virginia Colleges and Universities with Approved Educator Preparation Programs. Retrieved from [http://www.doe.virginia.gov/teaching/educator\\_preparation/college\\_programs/colleges.shtml](http://www.doe.virginia.gov/teaching/educator_preparation/college_programs/colleges.shtml).
18. Truong, D. (2019, July 20). Amid teacher shortages, Virginia takes steps to lure students into the profession. The Washington Post. Retrieved from [https://www.washingtonpost.com/local/education/amid-teacher-shortages-virginia-takes-steps-to-lure-students-into-the-profession/2019/07/20/b9bf2b2a-a997-11e9-a3a6-ab670962db05\\_story.html](https://www.washingtonpost.com/local/education/amid-teacher-shortages-virginia-takes-steps-to-lure-students-into-the-profession/2019/07/20/b9bf2b2a-a997-11e9-a3a6-ab670962db05_story.html).
19. Governor Northam Announces Approval of New Teacher Education Degrees and Programs (2019, June 24). Virginia Governor Ralph S. Northam. Retrieved from <https://www.governor.virginia.gov/newsroom/all-releases/2019/june/headline-841231-en.html>.
20. Burnette II, D. and Will, M. (2019, June 18). See Where Teachers Got Pay Raises This Year. Education Week. Retrieved from <https://www.edweek.org/ew/section/multimedia/see-where-teachers-got-pay-raises-this.html>.
21. Virginia Department of Education. (2019, January 9). RD43 – 2018-2019 Teacher Salary Survey Results. Reports to the General Assembly. Retrieved from <https://rga.lis.virginia.gov/Published/2019/RD43>.
22. Ibid.
23. Virginia Department of Education. (2019, January 9). RD43 – 2018-2019 Teacher Salary Survey Results. Reports to the General Assembly. Retrieved from <https://rga.lis.virginia.gov/Published/2019/RD43>.
24. TeacherPensions.Org. (n.d.). Virginia. Retrieved from <https://www.teacherpensions.org/state/virginia>.
25. Randazzo, A. and Moody, J, Ph.D. (2018, June 30). Virginia Retirement System at a Glance. Equable Institute. Retrieved from [http://www.hunt-institute.org/wp-content/uploads/2019/06/Equable\\_Infographic\\_VRS.pdf](http://www.hunt-institute.org/wp-content/uploads/2019/06/Equable_Infographic_VRS.pdf).
26. Virginia Department of Education. (n.d.). Virginia K-12 Leadership Infrastructure Program. Retrieved from [http://www.doe.virginia.gov/support/technology/edtech\\_plan/infrastructure\\_program/index.shtml](http://www.doe.virginia.gov/support/technology/edtech_plan/infrastructure_program/index.shtml).
27. EducationSuperHighway. Virginia | 2019 Connectivity Snapshot. Retrieved from [https://s3-us-west-1.amazonaws.com/esh-sots-pdfs/Virginia\\_Snapshot\\_2019.pdf](https://s3-us-west-1.amazonaws.com/esh-sots-pdfs/Virginia_Snapshot_2019.pdf).
28. Ibid.
29. State Council of Higher Education for Virginia (n.d.). Fall Headcount: Trends in Race Ethnicity. Retrieved from [https://research.schev.edu/enrollment/E22\\_report.asp](https://research.schev.edu/enrollment/E22_report.asp).

## Citations (Cont.)

30. Growth4VA (n.d.). About the Growth4VA Coalition. Retrieved from <http://growth4va.com/our-coalition/>.
31. 2019 Virginia General Assembly (2019, June 13). 2019 Virginia Acts of Assembly: Chapter 854. Retrieved from <https://budget.lis.virginia.gov/get/budget/3929/>.
32. Growth4VA (n.d.). 2019 Post-Session Update. Retrieved from <http://growth4va.com/2019-post-session-update/>.
33. State Council of Higher Education for Virginia (n.d.). 2019-20 Tuition and Fee Report. Retrieved from <https://schev.edu/docs/default-source/Reports-and-Studies/Tuition-and-Fees/201920tuitionandfeereportacc.pdf>.
34. Ibid.
35. Ibid.
36. Ibid.
37. Virginia Private Colleges (n.d.). Virginia Tuition Assistance Grant. Retrieved from <http://www.cicv.org/Affordability/Tuition-Assistance-Grant.aspx>.
38. State Council of Higher Education for Virginia (n.d.). 2019-20 Tuition and Fee Report. Retrieved from <https://schev.edu/docs/default-source/Reports-and-Studies/Tuition-and-Fees/201920tuitionandfeereportacc.pdf>.
39. Ibid.
40. Tableau Public (22 November, 2019). #FormYourFuture FAFSA Tracker: Through November 15, what percent of your state's seniors had completed a FAFSA? What is your state's change year-over-year? Retrieved from <https://public.tableau.com/profile/bill.debaun.national.college.access.network#!/vizhome/FormYourFutureFAFSATracker/CurrentWeekRanking>.
41. Maggio, T. (19 November, 2019). Update on Higher Education Affordability. Virginia House Appropriations Committee. Retrieved from <http://hac.virginia.gov/Committee/files/2019/11-19-19%20Retreat/VI%20-%20Update%20on%20Higher%20Education%20Affordability%20PRINT%20and%20WEB%20over.pdf>.
42. Ibid.
43. Tableau Public (22 November, 2019). #FormYourFuture FAFSA Tracker: Through November 15, what percent of your state's seniors had completed a FAFSA? What is your state's change year-over-year? Retrieved from <https://public.tableau.com/profile/bill.debaun.national.college.access.network#!/vizhome/FormYourFutureFAFSATracker/CurrentWeekRanking>.
44. The College Board (2019). SAT Suite of Assessments Annual Report: Virginia. Retrieved from <https://reports.collegeboard.org/pdf/2019-virginia-sat-suite-assessments-annual-report.pdf>.
45. XQ: The Super School Project (n.d.). High School and the Future of Work. XQ Institute. Retrieved from [https://downloads.ctfassets.net/35eubtuv0bcm/2NVjaiBHTCsMSkiyalG2mi/e88147fa4636e736f462c7635e068625/XQ\\_High\\_School\\_The\\_Future\\_of\\_Work\\_Guide.pdf](https://downloads.ctfassets.net/35eubtuv0bcm/2NVjaiBHTCsMSkiyalG2mi/e88147fa4636e736f462c7635e068625/XQ_High_School_The_Future_of_Work_Guide.pdf).
46. Carnevale, A., Jayasundera, T., & Gulish, A. (2016). America's Divided Recovery: College Haves and Have-Nots, 2016. Georgetown Center for Education and the Workforce. Retrieved from <https://1gyhoq479ufd3yna29x7ubin-wpengine.netdna-ssl.com/wp-content/uploads/Americas-Divided-Recovery-web.pdf>.
47. XQ: The Super School Project (n.d.). High School and the Future of Work. XQ Institute. Retrieved from [https://downloads.ctfassets.net/35eubtuv0bcm/2NVjaiBHTCsMSkiyalG2mi/e88147fa4636e736f462c7635e068625/XQ\\_High\\_School\\_The\\_Future\\_of\\_Work\\_Guide.pdf](https://downloads.ctfassets.net/35eubtuv0bcm/2NVjaiBHTCsMSkiyalG2mi/e88147fa4636e736f462c7635e068625/XQ_High_School_The_Future_of_Work_Guide.pdf).
48. The College Board (2019). SAT Suite of Assessments Annual Report: Virginia. Retrieved from <https://reports.collegeboard.org/pdf/2019-virginia-sat-suite-assessments-annual-report.pdf>.
49. Ibid.
50. Ibid.
51. The College Board (2019). AP Program Participation and Performance Data 2019. Retrieved from <https://research.collegeboard.org/programs/ap/data/participation/ap-2019>.
52. Education Commission of the States (2019, April). Dual/Concurrent Enrollment: State Profile – Virginia. Individual State Profile. Retrieved from <http://ecs.force.com/mbdata/mbstcprofnc?Rep=DC19P&st=Virginia>.
53. CTE Program Enrollment Report (2016-17). Virginia Department of Education. Retrieved from [http://www.doe.virginia.gov/instruction/career\\_technical/statistics\\_reports/enrollment.shtml](http://www.doe.virginia.gov/instruction/career_technical/statistics_reports/enrollment.shtml).
54. Governor Northam Signs Executive Order Establishing Virginia STEM Education Commission (2019, July 17). Virginia Governor Ralph S. Northam. Retrieved from <https://www.governor.virginia.gov/newsroom/all-releases/2019/july/headline-841681-en.html>.
55. A Stronger Nation (2017). Virginia's progress toward the goal. Lumina Foundation. Retrieved from <http://strongernation.luminafoundation.org/report/2019/#state/VA&s-ecmpe=b-w-h-a>.
56. Hanushek, Eric, Guido Schwert, Ludger Woessmann, & Lei Zhang. "General Education, Vocational Education, and Labor-Market Outcomes over the Lifecycle." The Journal of Human Resources 52.1. October 2015.
57. A Stronger Nation (2017). Tracking America's progress toward 2025. Lumina Foundation. Retrieved from <http://strongernation.luminafoundation.org/report/2019/#nation>.
58. Ibid.

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