Office of the Secretary of Education  
Standards of Learning Innovation Committee  
Full Report
The Standards of Learning Innovation Committee is charged with examining a variety of educational issues, including those related to instruction, assessment and accountability. Building on the Committee’s 2014 work and recommendations, the committee took a broader, bolder, longer term look at the issues leading to the seven recommendations presented in this report. Additional recommendations will be forthcoming as the Committee continues to discuss innovative strategies to prepare students for success.

**Background**

Legislation (House Bill 930 and Senate Bill 306) in the 2014 General Assembly amended § 22.1-253.13:3.C of the Code of Virginia to eliminate several Standards of Learning (SOL) tests, including: **Grade 3 History, Grade 3 Science, Grade 5 Writing, United States History to 1865 and United States History: 1865 to the Present.**

The legislation was signed by Governor Terence R. McAuliffe on April 4, 2014 and represented a bipartisan effort to reduce the number of high-stakes SOL exams for elementary and middle school students. The legislation required that each local school board certify that it had administered annual alternative assessments consistent with Virginia Board of Education guidelines to students in grades three through eight in each SOL subject area in which the SOL assessment was eliminated. Finally, the legislation established the Standards of Learning Innovation Committee (the Committee). The Committee is charged to look broadly at reforming Virginia’s current system and to think creatively about the future of SOLs, assessments, and accountability. The legislative mandate is as follows:


The Committee shall also include (i) four members of the Virginia House of Delegates, appointed by the Speaker of the House of Delegates; (ii) two members of the Virginia Senate, appointed by the Senate Committee on Rules on the recommendation of the Chair of the Senate Committee on Education and Health; at least one (iii) parent of a currently enrolled public school student, (iv) public elementary school teacher, (v) public secondary school teacher, (vi) public secondary school guidance counselor, (vii) school board member, (viii) public school principal, (ix) division superintendent, (x) curriculum and instruction specialist, (xi) higher education faculty member, (xii) business representative, and such other stakeholders as the Secretary deems appropriate. Members of the Committee should reflect geographic diversity and rural and urban school systems as far as practicable.

The Superintendent of Public Instruction, the President of the Board of Education or his designee, and the Secretary of Education or his designee shall serve ex officio. All other members shall be appointed for terms of two years. The Committee, under the direction of the Secretary, shall periodically make recommendations to the Board of Education and the General Assembly on (a) the Standards of Learning assessments, (b) authentic individual student growth measures, (c) alignment between the Standards of Learning and assessments and the School Performance Report Card, and (d) ideas on innovative teaching in the classroom.”

(Code of Virginia § 22.1-253.13:10)
Committee Membership

The Committee members are currently serving the second year of their appointed 2-year term. Committee membership includes five teachers, four school board members, four superintendents, three parent representatives, two higher education partners, and a host of other education stakeholders. The Committee also has regional diversity with twelve members from Northern Virginia, nine from Central Virginia, seven from Hampton Roads, four from West Central Virginia, two from the Valley, one from Southside, one from Southwest Virginia, and one from Eastern Virginia. The Committee members include: Grace Chung Becker, Dr. Shawnrell Blackwell, Kelly Booz, Jeffrey Bourne, Terri Breeden, Dabney Carr, Dr. Jared Cotton, Karen Cross, Veronica Donahue, Dr. Jenny Sue Flannagan, Deborah Frazier, Sarah Gross, Meg Gruber, Dr. Roger Hathaway, Lillie Jessie, Dr. Tarannum Lateef, Dr. Susan Magliaro, Dr. Brian Matney, Laurie McCullough, Dr. Stewart Roberson, Dr. Alan Seibert, Karen Thomsen, Dr. Christine Walther-Thomas, Jeion Ward, Dr. William White, Wade Whitehead, Benjamin Williams, Sanford Williams, and Renee Zando.

Additionally, four members of the House of Delegates were appointed by the Speaker of the House: Delegates Thomas A. Greason, Roxann Robinson, Jim LeMunyon, and Rob Krupicka. Two members of the Senate were appointed by the President of the Senate: Senators Steve Martin and Creigh Deeds. Dr. Steven Staples, Virginia Superintendent of Public Instruction; Dr. Billy Cannaday, President of the Board of Education; and the Secretary of Education, Anne Holton serve as ex-officio members. Committee member biographies can be found in Appendix B.

The Committee is chaired by Dr. Stewart Roberson, Chairman and President/CEO of Moseley Architects and former Hanover County Superintendent. In the first year, the Committee divided into two subcommittees – Elementary and Secondary. In the second year, the Committee created two additional subcommittees, Accountability 2.0 and Assessment 2.0. The Accountability 2.0 Subcommittee is chaired by Dr. Laurie McCullough, Executive Director for the Virginia Association for Supervision and Curriculum Development; and the Assessment 2.0 Subcommittee is chaired by Dr. Jared Cotton, Superintendent of Henry County Public Schools.

Summary of 2014 Recommendations

2014 marked the first year of the SOL Innovation Committee. The first year’s work concluded with unanimous approval of four general statements of principle, as well as twelve corresponding recommendations. These recommendations were presented to education stakeholders, including the General Assembly and Department of Education, resulting in bipartisan support and changes in the state assessment and accountability system, including: funding for high school innovation planning grants, legislation for expedited retakes, integrated assessments, elimination of the 140 hour seat time requirement, and allowance of multi-year accreditation.
Summary of 2015 Recommendations

The full Committee met five times in 2015 (March 24, June 2, August 26, October 8, and October 29). The Accountability 2.0 subcommittee met on five additional occasions (January 12, February 23, March 3, April 29, and May 19) and the Assessment 2.0 subcommittee met on six additional occasions (April 29, May 19, July 30, August 19, September 22, and October 13). At Committee meetings, members were provided updates from the Office of the Secretary of Education, the Department of Education, the Board of Education and the Committee Chairs. In addition, the Committee sought feedback from a variety of stakeholders with public comment sessions, as well as panels featuring business leaders, higher education leaders, and students from across the state. The Assessment 2.0 Subcommittee researched best assessment practices, including those in other states and countries and discussed design principles in assessment, which led to the development of a proposed framework for assessing student learning. The Accountability 2.0 Subcommittee focused on the criteria and process for accrediting Virginia Schools and developing a meaningful school report card for Virginia.

The statements of principle and recommendations were approved unanimously by the Committee during their October 29, 2015 meeting. The two statements of principle represent the Committee’s broad goals and include seven corresponding recommendations with specific strategies for achieving those goals.

This report includes a possible framework for assessing student learning, referenced in the recommendations, in Appendix A. Appendix B includes brief biographies of the members serving on the committee. For reference, a glossary of terms constructed by the Assessment 2.0 subcommittee has been provided in Appendix C and a summary of existing requirements referenced in several of the recommendations have been provided in Appendix D.

2016 and Beyond

The committee will continue to move forward in their goal of creating an accountability system that is fair, balanced, and ensures student success. This coming year the Accountability 2.0 and Assessment 2.0 Subcommittees will merge to form a joint subcommittee working to design a balanced assessment system that links to a multi-metric accreditation plan and a set of coordinated supports for school improvement.
Committee’s Vision Statement

The Standards of Learning Innovation Committee is guided by a commitment to inspire, engage, and personalize learning for every student in the Commonwealth. The Committee’s focus is to ensure Virginia has an educational system that is fair, balanced, and supportive of this vision as the Commonwealth prepares all of our students to become engaged citizens and to succeed in the New Virginia Economy. Virginia’s educational system should include:

a. expectations for students in pre-school through high school that ensure Virginia’s graduates have mastered the necessary skills and knowledge to be active participants in the economy and the community.

b. an assessment system that supports students in learning the identified knowledge and skills, and

c. an accountability system that acknowledges and values multiple characteristics of successful schools and promotes continuous, quality improvement for all schools in the Commonwealth.

Committee’s Beliefs

- Accountability plays a critical role in promoting educational success.

- The current assessment and accountability systems have supported greater consistency in teaching the core curriculum and have improved student performance over time.

- Students need and deserve an education that inspires and capitalizes on their curiosity and natural desire to learn so that each student is prepared for responsible citizenship and success beyond high school.

- Recruiting and retaining world-class educators is critical to providing students with a high quality education that instills in them a love of learning and prepares them for success after graduation.

- Virginia’s assessment and accountability systems should be redesigned to reduce reliance on traditional standardized tests and instead be guided by an innovative and broad set of learning outcomes that prepare all students for success in college, in careers, and as engaged and enlightened citizens.
The Committee recognizes that creating and implementing a system that will meet these goals is certain to be a multi-year effort, and that it will require both a substantial immediate infusion of resources and a long-term commitment.

In 2014, the Committee set forth twelve interim recommendations after its first four months of work (see Appendix E for the 2014 interim recommendations). These recommendations led to changes in the state assessment and accountability system, including:

- revised the Standards of Accreditation to acknowledge a school’s progress in meeting benchmarks
- increased flexibility in how often a school’s accreditation rating is determined
- increased funding for both expedited test retakes and movement towards a Computer Adaptive Testing (CAT) model for seventh and eighth grade mathematics SOL tests
- Allowed school divisions to apply for high school innovation grants and provided funding
- established alternatives to traditional seat time by doing away with the 140 hour requirement
- allowed for interdisciplinary Standards of Learning (SOL) tests
- provided additional professional development supports at the local level for alternative measures of growth and achievement

These important first steps represent thoughtful moves toward a more dynamic accountability system.

In 2015, the Committee shifted its focus toward a broader, bolder, longer term look at instruction, assessment and accountability. The following statements of principle and recommendations reflect this new focus.

**Statements of Principle and Recommendations**

**Statement of Principle I:** Virginia’s education system should prepare our students for success in post-secondary education, the workforce, and participation as productive citizens. (Additional information on Existing Requirements can be found in Appendix D).

Four recommendations correspond with Principle I.

**Recommendations:**

1. The Board of Education, in collaboration with stakeholders representing K-12 education, institutions of higher education, business and industry, policymakers and community leaders should develop a Profile of a Virginia Graduate. In the development of such a Profile, the Board should consider the “5 Cs” – critical thinking, creative thinking, collaboration, communication, and citizenship – needed for success in the New Virginia Economy.
   a. Upon development of a Profile of a Virginia Graduate, the State Board of Education and Department of Education should identify the knowledge and skills that students should attain during their public school experience in order to achieve the expectations described in the profile.
b. High school graduation requirements should be adjusted as needed to conform to the new expectations identified in this Profile. High schools should be redesigned so that students move from attaining core knowledge and skills in the early years to one of several alternative paths toward college and career readiness. See Appendix A (Proposed Framework for Assessing Student Learning) for a possible model.

c. As we begin to adopt a new set of expectations for Virginia’s students, current Standards of Learning should continue to be regularly revised and should emphasize a smaller number of more meaningful standards. Revised objectives should reflect the adopted Profile of a Virginia Graduate and the learning needs of today’s students and begin the transition process to the new expectations.

d. To support the change in student expectations, the Board should identify the types and timing of assessments that best align with the skills and knowledge outlined in the Profile.

e. The Board of Education and the Department of Education should offer school divisions assistance to support the new student expectations. Model curricula, suggested instructional strategies, and sample lesson plans should be provided.

2. The Board of Education and Department of Education should adopt a framework for assessing student learning that recognizes the importance of classroom assessment in improving instruction, emphasizes growth measures in elementary and middle school and provides options for students in high school to demonstrate readiness for success upon graduation. See Appendix A (Proposed Framework for Assessing Student Learning.pdf) for an illustrative and innovative example.

a. Assessments should include content, formats, and vocabulary that is developmentally appropriate, valid, and fair, require students to construct responses rather than selecting answers, and include one or more interdisciplinary measures of learning that require work at higher cognitive levels.

b. In adopting such a model, the Board of Education and Virginia Department of Education should undertake the redesign of the current high school model, so that students spend the early high school years developing core skill sets, and the later years following one of several alternative paths toward college and career readiness (e.g. internships/apprenticeships, early college, career readiness, certifications, a student portfolio that demonstrates mastery of essential skills). This will require options for relevant college and career readiness assessments that may serve in place of requirements in the current system. As mentioned in recommendation 1.b., this will also require the revision of graduation requirements and replacement and/or elimination of certain end-of-course assessments while still providing options for students. Finally, these changes will also have an impact on the structure of high school and will require flexibility in order to promote innovative course development, effective professional development for high school teachers, additional support and guidance for
students, and ongoing partnerships with the business community and higher education institutions.

c. The assessment system should recognize the unique needs of students with disabilities and English Language Learners. Where possible, the model should include accommodations and alternative assessments to provide these students with an equal opportunity to demonstrate their knowledge and skills.

d. SOL tests should be shortened and the time required to complete each assessment should be appropriate for the age of the student.

e. Additionally, all assessments should be scored fairly and accurately, with partial credit being awarded for assessment items that require multiple responses.

f. The Department of Education and local school divisions should identify ways to reduce the amount of time students spend taking locally administered benchmark tests and in other test preparation activities to developmentally appropriate levels.

g. Students should be given multiple opportunities to show proficiency rather than relying on a single point-in-time assessment.

3. The Governor, General Assembly and Department of Education should identify resources to support this new assessment model.

a. Funding should be allocated to the Department of Education to provide ongoing technical assistance and professional development to disseminate models and support collaboration to help educators implement the new approach.

b. The Department of Education should develop a bank of high quality local alternate assessments to be provided for teachers. Training in using these assessments should be provided as well as a process for teachers to score student work on alternate local assessments.

c. The Department of Education should work collaboratively with teachers, local leaders, and division-level administrators to share and advance best practices in classroom assessment. The Department of Education should collaborate with local school divisions, professional organizations and others to ensure that both practicing and pre-service teachers are trained in the ongoing use of classroom assessment strategies to support instruction.

d. Funding should be allocated to provide for personnel in local school divisions to implement this assessment model. Needs include curriculum and assessment specialists/coaches and counseling services at the middle and high school levels to assist with transitions and students’ selection of career pathways.

e. Funding should be provided to develop fair, valid, and developmentally appropriate measures of student growth. One example could be a computer adaptive format.

4. The Governor should encourage further collaboration among higher education institutions, employers and the Department of Education to ensure coordination in the PK-20 educational system. Representatives of higher education institutions (both 2- and
4-year) and of the business community should be mandated members of the SOL Innovation Committee.

**Statement of Principle II:** Appropriate changes to Virginia’s accountability system can occur by further emphasizing measures of individual student growth while rebalancing the emphasis on students passing standardized tests. (Additional information on Existing Requirements can be found in Appendix D).

**Three recommendations correspond with Principle II.**

5. The Board of Education should revise the accountability system to include a variety of school quality indicators.
   a. Students’ academic success should remain the main consideration in school accreditation, while taking other factors into account. Academic success at the school level should be represented by both “point-in-time” achievement and individual student growth measures. A variety of school quality academic indicators, reflecting the above-recommended assessment model, should be included in accreditation.
   b. Additional school quality indicators should be considered including, at minimum: graduation rate (for schools with graduating classes), attendance, and a measure of school climate (environment of the school, shared values and goals, safety, relationships, etc.).
   c. For English Language Learners, a student’s English language proficiency should determine whether the student’s score on the regular test should be used in accreditation, if a differentiated cut score or alternative assessment should be considered, or if the student’s score should be excluded from accreditation.
   d. In the shorter term, the Board of Education should provide accreditation data that is timely, accessible and reported in ways that are actionable, in order to drive school improvement and address gaps in achievement.
   e. In the longer term, the Board of Education should develop multiple pathways to school accreditation leading to a single designation, rather than a ranking system based solely on test results.
   f. Contextual data should also be reported, such as number of students in poverty, local financial support, etc.

6. The Board of Education should continue revising the school performance report card to provide a more comprehensive school quality profile of each Virginia public school. The school quality profiles should include information about accountability and other factors that provide a comprehensive view of the school. The school quality profiles should be presented in a dashboard format and should provide information “at a glance” with easy access to more detailed information to allow users to view data at a variety of levels.
a. The Governor and General Assembly should continue to allocate funding for developing and maintaining school profiles.

b. School profile data should include selected elements that are important to school quality and of interest to parents and the public. These elements should be descriptive of the community in which the school operates as well as indicative of whole child education (e.g. participation in fine arts, extracurricular programs and measures of equity).

c. The school profile should include a link or space where a school may self-report areas of strength and opportunities for improvement.

d. The dashboard should display data in formats that provide context (e.g. peer group comparisons, trends over time, etc.). The dashboard display should be a dynamic, “real-time” document in which information is updated as data becomes available and should allow the public to compare schools, while recognizing the complexity and potential shortcomings of some ranking systems.

7. In refining the accountability system, the Board of Education should maintain and strengthen a threshold of performance below which schools receive ongoing, meaningful support that is prompt and timely. The Department of Education and the local school divisions should collaborate in determining the support that is needed.

a. The Department of Education should consider on-site reviews as one way to offer support for school improvement. However, these reviews should only be implemented if: 1) the review and reporting protocol is based on agreed-upon research-based indicators of school success and provides meaningful feedback; 2) the review process is transparent and clearly understandable to the school and community in advance; 3) resources accompany recommended changes, including incentives for teachers to increase the time spent working with colleagues to strengthen their own skills and to improve the performance of the school as a whole; and 4) the review process leverages technology applications such as video-based observations, distance coaching, online collaboration, and video conferencing as options.

b. Any support strategies or programs should acknowledge that meaningful, lasting improvement will not occur absent engagement of the people who are doing the work with students. Therefore, strategies for improvement should be designed or chosen with significant participation of school staff.

c. The system should encourage and motivate continuous improvement for ALL schools, whether meeting accreditation benchmarks or not.
**Proposed Framework for Assessing Student Learning**

*Revised: October 29, 2015*

**Formative Classroom Assessment Pre-K through 12**

<table>
<thead>
<tr>
<th>Primary</th>
<th>Upper Elementary</th>
<th>Middle School</th>
<th>Early High School</th>
<th>Advanced High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic Assessment Measure for Reading/Language (not used for accountability ratings)</td>
<td>Growth Measure (e.g. CAT) for Mathematics Grades 3-5</td>
<td>Growth Measure (e.g. CAT) for Mathematics Grades 6-8</td>
<td>Achievement Measure for Algebra I, Geometry, and Algebra II (at least 1 required)</td>
<td>Option 1: Earn Industry or Workplace Credential</td>
</tr>
<tr>
<td>Diagnostic Assessment Measure for Math Literacy (not used for accountability ratings)</td>
<td>Growth Measure (e.g. CAT) for Reading Grades 3-5</td>
<td>Growth Measure (e.g. CAT) for Reading Grades 6-8</td>
<td>Achievement Measure for High School Reading by Grade 10</td>
<td>Option 2: Successfully Complete an Apprenticeship and/or Internship</td>
</tr>
<tr>
<td>Locally Administered and Scored Performance Assessment for Virginia Studies (Grade 4 or 5)</td>
<td>High Quality Civics Assessment* with Writing Component (Grade 7 or 8)</td>
<td>High Quality Science Assessment* (Earth Science or Biology) with Writing Component (at least 1 required)</td>
<td>Option 3: Complete a series of Dual Enrollment or AP Courses (Early College)</td>
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<tr>
<td>High Quality Science Assessment* with Writing Component (Grade 5)</td>
<td>High Quality Science Assessment* with Writing Component (Grade 7 or 8)</td>
<td>Option for Substitute tests (e.g. PSAT or VPT) to meet graduation requirements for ELA and Mathematics</td>
<td>Option 4: Complete Traditional High School Program and Successfully Complete a Locally Scored Portfolio Assessment</td>
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</tbody>
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*English Language Learners – Alternative Measure (e.g. WIDA ACCESS for ELLs (K-12))

Students with Significant Disabilities – Alternative Measure (e.g. Virginia Alternate Assessment Program (K-12))

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A “High Quality Assessment” includes performance tasks that measure content and essential skills.

- It will be necessary to refer to the work of the Accountability 2.0 Subcommittee to determine how these assessments factor into accreditation ratings for schools.
- In order to fully implement these recommendations, significant changes must be made to the state assessment and accountability system.
- The high school options will require the development of a strong partnership with community colleges and post-secondary institutions across the state.

The proposed model incorporates SOLs existing at any time as its foundation.
Appendix B
Committee Members Bios

*designates ex officio members

Grace Chung Becker
Grace Chung Becker of Fairfax is a parent of students attending Fairfax County Public Schools. Today, she is president of the Thomas Jefferson High School for Science and Technology’s Parent Teacher Association.

Dr. Shawnrell Blackwell
Dr. Shawnrell Blackwell of Chester is the Director of Federal Programs and School Improvement for the Petersburg City Public School system.

Kelly Booz
Kelly Booz was elected to the Alexandria City School Board in 2012, and presently works as the Partner Development Lead for Share my Lesson and the American Federation of Teachers.

Jeff Bourne
Jeff Bourne is a member of the Richmond City School Board. He works as Deputy Attorney General for transportation, real estate, and land use and construction litigation.
Susanna Burgos
Susanna Burgos is a Spanish teacher in Newport News Public Schools.

Dr. Terri Breeden
Dr. Terri Breeden previously served as assistant superintendent of instruction for Loudoun County Public Schools, prior to which she worked for 8 years in Fairfax County.

Dr. Billy Cannaday, Jr.*
Dr. Billy Cannaday, Jr. was elected to serve as the president of the Virginia Board of Education in July 2015. Dr. Cannaday is also the dean of the School of Continuing and Professional Studies at the University of Virginia.

Dabney Carr
Dabney Carr has worked for Troutman Sanders LLP since 1989, and is currently a partner in their litigation section.
Dr. Jared Cotton
Dr. Jared Cotton was appointed superintendent of Henry County Public Schools in 2011.

Karen Cross
Karen Cross is a twenty-five year veteran teacher currently teaching World History and Civics in Bristol, Virginia Public Schools at Virginia Middle School.

Senator Creigh Deeds
Senator Creigh Deeds represents the 25th Senate District, from the city of Charlottesville stretching to the border of West Virginia. Senator Deeds was first elected to the House of Delegates in 1991.

Dr. Kim Paddison Dockery
Dr. Kim Dockery recently retired from Fairfax County Public Schools, most recently serving as the Chief Academic Officer. Prior to that she served as a teacher, assistant principal, principal and assistant superintendent for special services. Dr. Dockery is also an adjunct professor for UVA and continues to work with national leaders in the area of executive functioning.
Veronica Donahue
Veronica Donahue is an Adjunct Professor in Rappahannock Community College.

Dr. Jenny Sue Flannagan
Dr. Jenny Sue Flannagan has worked as the Director of the Martinson Center for Mathematics and Science for Regent University since 2007. Prior to working at Regent, she was the elementary and middle school science coordinator for Virginia Beach City Public Schools.

Deborah Frazier
Deborah Frazier serves as principal of Harrison Road Elementary in Spotsylvania County Public Schools. She serves as the co-chairperson of the National Association of Elementary School Principals for the state of Virginia. In addition, she supports public education by serving on a variety of local and state committees.

Delegate Tag Greason
Delegate Tag Greason has been a member of the Virginia House of Delegates representing the 32nd District since January 2010, and serves on the Education Committee, where he helped pass House Bill 930 for SOL Reform.
Sarah Gross
Sarah Gross is a parent of two children in Richmond City Public Schools. She is president of the Albert H. Hill Middle School Parent Teacher Association, and is the chair of the Legislation/Education Committee for the Virginia Parent Teacher Association.

Meg Gruber
Meg Gruber is an Earth Science teacher in Prince William, Virginia. She also works as president of the Virginia Education Association.

Dr. Roger Hathaway
Dr. Roger Hathaway is the STEM Programs Manager of the NASA Langley Office of Education.

Secretary Anne Holton*
In 2008 Anne Holton worked with the Virginia Foundation for Community College Education to establish the Great Expectations program. She later served as the Program's Director in 2013. She now serves as Governor McAuliffe’s Secretary of Education.
**Lillie Jessie**  
Lillie Jessie was elected to the Prince William County School Board in 2012. She has worked as a teacher, Title I supervisor, and principal in Prince William County Schools.

**Delegate Rob Krupicka**  
Delegate Rob Krupicka was elected to the House of Delegates from the 45th District in September 2012. In his time in the General Assembly, Delegate Krupicka helped pass House Bill 930 for SOL reform.

**Dr. Tarannum Lateef**  
Dr. Tarannum Lateef is an assistant professor of the Neurology and Pediatrics Departments at the Children’s National Medical Center and George Washington School of Medicine in Washington. She also works as a research collaborator in the Division of Genetic Epidemiology at the National Institutes of Health.

**Delegate Jim LeMunyon**  
Delegate Jim LeMunyon was first elected to the Virginia House of Delegates in November 2009, representing the 67th district. He serves on the Education committee, and is a Deputy Whip.
Dr. Susan Magliaro
Dr. Susan Magliaro is the Director of VT-STEM at Virginia Tech, she also works as a Professor of Educational Psychology.

Senator Steve Martin
Senator Steve Martin represents the 11th Senate District, which includes Amelia County, Colonial Heights City, and part of Chesterfield County. Senator Steve Martin was first elected to the Senate in 1994.

Dr. Brian Matney
Dr. Brian Matney, the principal of Landstown High School: Governor’s STEM & Technology Academy in Virginia Beach, is the immediate past president of the Virginia Association of Secondary School Principals and currently serves as the chair of the State Board of Education’s advisory board on teacher education and licensure.

Dr. Laurie McCullough
Dr. McCullough has held a variety of positions in Virginia Public Schools. She currently serves as the Executive Director for the Virginia Association for Supervision and Curriculum Development.
Dr. Stewart Roberson
Dr. Stewart Roberson is the Chairman and President/CEO of Moseley Architects in Richmond, VA. He was previously the Superintendent for Hanover County Public Schools.

Delegate Roxann Robinson
Delegate Roxanne Robinson serves the 27th District in Virginia. She has owned her own successful small business in optometry for over 25 years.

Dr. Alan Seibert
Dr. Alan Seibert was appointed to serve as Division Superintendent in Salem City Schools in 2006, where he has also served as a principal, assistant principal, and teacher beginning in 1991.

Dr. Steve Staples*
Dr. Steven R. Staples was appointed Virginia’s 24th Superintendent of Public Instruction by Governor Terry McAuliffe in 2014. Prior to this appointment, Dr. Staples served as the executive director of the Virginia Association of School Superintendents, and was a faculty member at the College of William & Mary from 2008-2012.
Karen Thomsen
Karen Thomsen has over 36 years of experience in the field of education. She began her career as a special education teacher working with emotionally disturbed adolescents. In addition to teaching special education, she has been a reading specialist, 2nd grade, and 3rd grade teacher. She spent 4 years as an assistant principal and has spent the last 12 years as a principal at two different elementary schools.

Dr. Christine Walther-Thomas
Dr. Christine Walther-Thomas is a professor and special assistant to the Provost and Academic Vice President at Virginia Commonwealth University. Dr. Walther-Thomas has worked at the University of Kansas, the University of Utah, and the College of William & Mary.

Delegate Jeion Ward
Delegate Jeion Ward is a retired teacher from Hampton, Virginia, and currently serves as the president of the Hampton Federation of Teachers as well as serving as a member representing the 92nd District in the Virginia General Assembly.

Dr. William White
Dr. Bill White began his service in education with Colonial Williamsburg. In 2011, White was named the Vice President for Productions, Publications, and Learning Ventures for the Colonial Williamsburg Foundation.
Wade Whitehead
Wade is a fourth-generation Virginia public school teacher who teaches fifth graders at Crystal Spring Elementary School in Roanoke, Virginia. Wade is also the Founder and President of The Teachers of Promise Foundation, which identifies and recognizes the best prospective teachers in America. He is Executive Director of the Teachers of Promise Institute, which has recognized more than 2,000 preservice Virginia educators since 2004.

Benjamin Williams
Benjamin Williams is the Director of Testing and Remediation for Roanoke County Public Schools, and serves as Chairman of the Region VI Directors of Testing Group.

Sanford Williams
Sanford Williams is a member of Manassas City School Board, and also serves as an Assistant Division Chief at the Federal Communications Commission.

Renee Zando
Renee Zando is a school counseling director in Henrico County Public Schools, and has served as a board member for the Virginia School Counselor Association since July 2010.
Appendix C

A Glossary of Assessment Terms

**Accountability systems** – The mechanisms used (generally by states) to evaluate the performance of their education systems. In recent years, accountability systems have increasingly used the school as the unit for monitoring and intervention, based largely on the scores of each school’s students on a set of standardized tests.

**Alternative (or alternate) assessment** – Alternative assessments are used primarily to determine what students can and cannot do, in contrast to what they do or do not know. In other words, an alternative assessment measures applied proficiency more than it measures knowledge. There are multiple types of alternative assessments, of which performance assessment is one.

**Assessment** – Any systematic basis for making inferences about characteristics of people, usually based on various sources of evidence; the global process of synthesizing information about individuals in order to understand and describe them better (J. McTighe and J. Arter).

**Authentic assessment** – An alternative assessment in which students perform a real-world task. The student will typically have to employ critical thinking and problem-solving skills to successfully address the challenge presented. The more authentic an assessment task is, the more closely it approximates the way a similar task would be done in a setting outside the classroom (a workplace or community, for example). Student performance on a task is typically scored on the basis of a list of desired outcomes (known as a rubric).

**Balanced assessment system** – An assessment system that employs multiple types of assessments so that:
- (1) Achievement and growth are taken into account;
- (2) Assessments are matched to learning goals (both core content mastery and skills for success in the modern world); and
- (3) The need for accountability measures is met, but not at the expense of meaningful information that informs classroom instruction.

**Computer-Adaptive Testing (CAT)** – A test in which a computer program customizes the test for each student based on how the student responds to the test questions.

**Common Diagnostic Items** – A collection of assessment items that can be utilized to pre-assess students on specific content and skills.

**Criterion-Referenced Assessment** – A test or assessment that is designed to measure students against a fixed set of predetermined criteria or learning standards. In K-12 education, these are typically aligned to the curriculum taught in a particular course, academic program, or specific content area.

**Developmentally Appropriate Assessment** – An assessment that respects the age and individual needs of the student who is being assess. This may include areas such as the intellectual, social, emotional, and physical needs of the particular age group being assessed.
Formative Assessment – The overall goal for formative assessment is to collect detailed information in an informal manner that can be used to improve instruction and student learning during the learning process. It is used to “inform” the learning process so that the teacher can make in-process adjustments and learning modifications based on the data collected from students. Formative assessments are generally referred to as assessments “for” learning.

Higher-Order Thinking – A category of thinking skills that increases the cognitive load, requiring students to go beyond understanding content and replicating skills. Students employing higher-order thinking may make connections, solve problems different from those given in classroom examples, and use content to reach and justify conclusions. Examples of activities that require higher-order thinking are (1) analyzing the usefulness of information, (2) providing evidence to support conclusions, (3) creative thinking and design, and (4) determining implications and consequences.

Integrated or Interdisciplinary Assessment – An assessment that measures student performance on content and/or skills across content areas.

Inter-rater Reliability – The degree of agreement among raters who are tasked with scoring a performance task or product.

Norm-Referenced Assessment – A standardized test that is designed to compare and rank students (test takers) in relation to other students who participated in the assessment. Norm-referenced tests report how a particular test taker performed in comparison to the hypothetical average student, which is determined by comparing scores against the performance results of a statistically selected group of test takers, typically from the same age group and grade level, who have already taken the assessment.

"On Demand” Testing – This type of testing allows flexibility to assess students when they are ready to be tested on required content rather than testing students according to an established testing window that does not account for student readiness.

Performance assessment – A type of alternative assessment in which students demonstrate the use of their acquired knowledge and skill. A performance assessment may include a written component, but generally focuses primarily on the student’s demonstration of a specified task. Performance assessments are typically scored using rubrics (see Rubrics), which explicitly describe levels of performance and designate which levels meet standards.

Personalized learning – An approach in which students’ individualized learning needs are the primary consideration in making instructional decisions.

Portfolio Assessments – A type of assessment that is a systematic collection of student work and artifacts that demonstrate mastery of course and/or subject knowledge and skills.
**Project-Based Learning/Assessments** – Project-based learning or PBL is a teaching approach that engages students in sustained, collaborative real-world investigations. Projects are organized around a driving question, and students participate in a variety of hands-on tasks that seek to meaningfully address this question (Buck Institute).

**Reliability** – The consistency or stability of test performance. Tests must be constructed and administered so that measurement error (for example, from ambiguous scoring, unclear questions/directions, or environmental factors) is minimized.

**Rubric** – A description of the criteria for success and levels of achievement for a task. Rubrics are used during instruction to help students maximize and improve the quality of their work, and as scoring tools for multiple types of alternative assessments (see Performance Assessment).

**Student Achievement** – Student demonstrated mastery of certain knowledge and/or skills as measured by a particular assessment.

**Student Growth** – The change in student achievement for an individual student between two or more points in time.

**Student Portfolios** – A type of assessment that is a collection of student work and artifacts that demonstrate mastery of course and/or subject knowledge and skills. The collection should include evidence of student reflection and self-evaluation, guidelines for selecting the portfolio contents, and criteria for judging the quality of the work included in the portfolio (Venn, 2000, pp. 530-531).

**Summative Assessment** – Assessments that are used to evaluate student learning, skill acquisition, and academic achievement at the conclusion of a defined instructional period. Summative assessments typically are administered at the end of a unit, project, course, semester, program, or school year. These are frequently described as assessments “of” learning.

**Test Equating** – The statistical process used to determine comparable scores for different forms of a particular test or assessment. It is intended to ensure that scores from different forms of the test are interchangeable. The equating process adjusts for different levels of difficulty across test forms.

**Validity** – The degree to which an assessment actually measures the learning it is intended to measure. Assessment designers use tools – both design and statistical tools - to maximize and collect evidence of assessment validity.
Appendix D

Existing Requirements

Recommendation 1:
Beginning with first-time nine graders in 2011-2012, the Virginia Department of Education requires at least 22 standard units of credit through courses and at least six verified credits by passing tests approved by the Board of Education in order to meet the graduation requirements for a standard diploma as listed in 8 VAC 20-131-50B. Standard credit requirements include: four credits for English; three credits for Mathematics; three credits for Laboratory Science; three credits for History & Social Sciences; two credits for Health & Physical Education; two credits for Foreign Language, Fine Arts or Career & Technical Education; one credit for Economics and Personal Finance; and four credits from Electives. The six verified credit requirement includes: two credits for English; one credit for Mathematics, one credit for Laboratory Science, one credit for History & Social Sciences; and one credit from a student selected test.

Recommendation 1.c.:
The Standards of Learning are reviewed, and potentially revised, every seven years. The Standards of Learning review schedule may be found at http://www.doe.virginia.gov/testing/assessment_committees/review_schedule.pdf

Tests that measure the revised SOL in the content areas that are part of the state assessment program are typically administered three years later. For example, revised history Standards of Learning will be adopted by the Board of Education in early 2015. New tests measuring the revised history standards will be administered for the first time in the 2017-2018 school year.

Recommendation 3.e.:
Computer Adaptive Testing customizes the test for each individual student based on the accuracy of the student’s responses to the test questions as the test is administered. This is different from the traditional assessment format in which all students taking a particular test are administered one of several versions of that test. Computer adaptive testing may allow for more “on demand” testing since the need to wait for the development of new versions of the tests each year is eliminated. In addition, with CAT it may be possible to allow students to test early in the school year and again later in the year to measure the amount of growth the student has made during the year. During the 2015-2016 academic year, computer adaptive tests were implemented for students in grades 7 and 8 for mathematics. More information about Computer Adaptive Testing may be found at http://www.doe.virginia.gov/testing/index.shtml

Statement of Principle II:
Beginning in 2015-2016, the revised the Standards of Accreditation to allow for differentiation between schools with the creation of partially accredited ratings. These ratings now include: 1.) Fully Accredited; 2.) Conditionally Accredited: New School; 3.) Partially Accredited (according to criteria in one or more of the following categories: Approaching Benchmark- within specified margins; Improving School- meets criteria for improvement over previous year or for student growth; Warned School; Reconstituted School); 4) Accreditation Denied. Schools are currently
accredited based on whether the school’s pass rates on the state assessments meet the accreditation benchmarks: 75% for English (pass rate includes both reading and writing tests) and 70% for mathematics, history, and science. High schools must also meet benchmarks (85 points) on the Graduation and Completion Index. As described in the Standards of Accreditation (SOA) (8VAC20-131-300 C.1., Accreditation ratings defined), effective no later than 2016-2017, a school will be fully accredited if it meets the following criteria:

a. A school will be rated Fully Accredited when its eligible students meet the pass rate of 75% in English and the pass rate of 70% in mathematics, science, and history and social science. Additionally, each school with a graduating class shall achieve a minimum of 85 percentage points on the Board of Education’s graduation and completion index, as described in 8VAC20-131-280 B 2, to be rated Fully Accredited.

b. For accreditation purposes, the pass rate will be calculated as single rates for each of the four core academic areas by combining all scores of all tests administered in each subject area.

Recommendation 5.c.:
Cut scores are the minimum scores needed to be considered proficient. For English Language Learners, the Elementary Secondary Education Action allows one exemption from testing for students. The Standards of Accreditation recognize includes provisions for these students who have limited English proficiency (LEP). In accordance with SOA expectations for school accountability listed in 8VAC20-131-280-D, when calculating passing rates for school accreditation:

1. The scores of LEP students enrolled in Virginia public schools fewer than 11 semesters may be removed from the calculation used for the purpose of school accreditation required by 8VAC20-131-280 B and 8VAC20-131-300 C. Completion of a semester shall be based on school membership days. Membership days are defined as the days the student is officially enrolled in a Virginia public school, regardless of days absent of present. For a semester to count as a completed semester, a student must have been in membership for a majority of the membership days of the semester. These semesters need not be consecutive.

Recommendation 7:
In the current accreditation system, schools receiving a rating of Accreditation Denied are subject to actions indicated in SOA 8VAC20-131-315 B, which include:

B. Any school rated Accreditation Denied in accordance with 8VAC20-131-300 shall be subject to actions prescribed by the Board of Education and affirmed through a memorandum of understanding between the Board of Education and the local school board. The local school board shall submit a corrective action plan to the Board of Education for its consideration in prescribing actions in the memorandum of understanding within 45 days of the notification of the rating. The memorandum of understanding shall be entered into no later than November 1 of the academic year in which the rating is awarded. The local board shall submit status reports detailing implementation of actions prescribed by the memorandum of understanding to the Board of Education. The status reports shall be signed by the school principal, division superintendent, and the chair of the local school board. The school principal, division
superintendent, and the chair of the local school board may be required to appear before the Board of Education to present status reports.